INDUSTRIAL PLANTS

cables

2013

ELETTROTEK KABEL®

ELETTROTEK KABEL GROUP

Elettrotek Kabel Group was established in 2001 in Bagnolo. Italy, born from the desire to supply specific cables to the local market, with the aim to expand worldwide.

Expansion which was made possible by the opening of offices in Poland, Czech Republic, India, Switzerland, USA and Germany. Permitting Elettrotek Kabel Group to touch all sides of the world.

From this advantage point we are able to better provide our cables and technical services which are of the highest standards and focused in different sectors being automation, port, steel, mining, oil & gas and wind & solar energy industries worldwide.

With a high level of knowledge gained by over ten years of experience in providing the best cable solutions to our customers in each of these sectors. Elettrotek Kabel has now become a point of reference to the biggest players in the these specific fields of industry.

Worldwide presence:

ELETTROTEK KABEL® GROUP

The business units:

Our stock in Italy

ELETTROTEK KABEL business unit!

Certifications & Normatives:

ELETTROTEK KABEL GROUP®

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GAALFLEX® CONTROL N07V-K and H07V-K

RoHS CE <HAR>

Construction:

Conductor:	flexible red copper conductor Cl.5,acc.to IEC 60228
Outer Sheat:	PVC,type TI1, for the coloration,see technical data (PAG.207)

Features:

- UNEL TABLE 35752

Technical data:

Nominal voltage:	450/750 V			
Test voltage:	2,5 kV			
Temperature range:	-10°C / + 70°C			
Max. short circuit temperature:	160°C			
Min. bending radius:	D≤8	8<D≤12	12<D≤20	D>20
fixed laying:	3D	3D	4D	4D
flexible applications:	5D	5D	6D	6D
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part.265-2-1, EN 50265-2-1, IEC 60332-1			

N07V-K

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
31380E01010M10	*1x1*	*2,9*	*9,6*	*15*	*18*
31380E01010M15	*1x1,5*	*3,1*	*14,4*	*21*	*16*
31380E01010M25	*1x2,5*	*3,8*	*24,0*	*32*	*14*
31380E01010M40	*1x4*	*4,4*	*38,4*	*47*	*12*
31380E01010M60	*1x6*	*4,9*	*57,6*	*65*	*10*
31380E01010M61	*1x10*	*6,4*	*96,0*	*110*	*8*
31380E01010M62	*1x16*	*7,4*	*153,6*	*170*	*6*
31380E01010M63	*1x25*	*9,1*	*240,0*	*255*	*4*
31380E01010M64	*1x35*	*10,4*	*336,0*	*345*	*2*
31380E01010M65	*1x50*	*12,4*	*480*	*495*	*0*
31380E01010M66	*1x70*	*13,6*	*672*	*680*	*2/0*
31380E01010M67	*1x95*	*15,8*	*912*	*900*	*3/0*
31380E01010M68	*1x120*	*17,4*	*1152*	*1135*	*4/0*
31380E01010M69	*1x150*	*19,8*	*1440*	*1410*	*250 MCM*
31380E01010M70	*1x185*	*21,6*	*1776*	*1920*	*350 MCM*
31380E01010M71	*1x240*	*24,6*	*2304*	*2260*	*450 MCM*

H07V-K <HAR>

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
31320E01010M10	*1x1*	*2,9*	*9,6*	*15*	*18*
31320E01010M15	*1x1,5*	*3,1*	*14,4*	*21*	*16*
31320E01010M25	*1x2,5*	*3,8*	*24,0*	*32*	*14*
31320E01010M40	*1x4*	*4,4*	*38,4*	*47*	*12*
31320E01010M60	*1x6*	*4,9*	*57,6*	*65*	*10*
31320E01010M61	*1x10*	*6,4*	*96,0*	*110*	*8*
31320E01010M62	*1x16*	*7,4*	*153,6*	*170*	*6*
31320E01010M63	*1x25*	*9,1*	*240,0*	*255*	*4*
31320E01010M64	*1x35*	*10,4*	*336,0*	*345*	*2*
31320E01010M65	*1x50*	*12,4*	*480*	*495*	*0*
31320E01010M66	*1x70*	*13,6*	*672*	*680*	*2/0*
31320E01010M67	*1x95*	*15,8*	*912*	*900*	*3/0*
31320E01010M68	*1x120*	*17,4*	*1152*	*1135*	*4/0*
31320E01010M69	*1x150*	*19,8*	*1440*	*1410*	*250 MCM*
31320E01010M70	*1x185*	*21,6*	*1776*	*1920*	*350 MCM*
31320E01010M71	*1x240*	*24,6*	*2304*	*2260*	*450 MCM*

Other dimensions and colours available on request.

GAALFLEX® CONTROL H05V-U/H07V-U H07V-R

RoHS CE <HAR>

Construction:

Conductor:	solid or stranded red copper conductor Cl. 1 or 2, acc. to IEC 60228, DIN VDE 0295 0,5-1 mm² - H05V-U Cl.1 1,5-6 mm² - H07V-U Cl.1 6-400 mm² -H07V-R Cl.2
Outer Sheat:	PVC,type TI1,for the coloration,see the technical data (PAG.207)

Features:

- UNEL TABLE 35752

Technical data:

Nominal voltage: *H05V-U:* *H07V-U/R:*	300/500 V 450/750 V			
Test voltage *H05V-U:* *H07V-U/R:*	2 kV acc.to DIN VDE 0281 part 2 + HD 21.2 2,5 kV acc.to DIN VDE 0281 part 2 + HD 21.2			
Temperature range:	-10°C / + 70°C			
Max. short circuit temperature:	160°C			
Min. bending radius:	D≤8	8<D≤12	12<D≤20	D>20
fixed laying:	3D	3D	4D	4D
flexible applications:	5D	5D	6D	6D
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part.265-2-1, EN 50265-2-1, IEC 60332-1			

H05V-U

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
31370D01010M05	*1x0,5*	*2,1*	*4,8*	*9*	*20*
31370D01010M07	*1x0,75*	*2,3*	*7,2*	*12*	*18*
31370D01010M10	*1x1*	*2,5*	*9,6*	*15*	*17*

H07V-U/R

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
31370E01010M15	*1x1,5*	*2,9*	*14,4*	*19*	*16*
31370E01010M25	*1x2,5*	*3,5*	*24,0*	*32*	*14*
31370E01010M40	*1x4*	*4*	*38,4*	*47*	*12*
31371E01010M60	*1x6*	*4,7*	*57,6*	*65*	*10*
31370E01010M61	*1x10*	*6,1*	*96,0*	*112*	*8*
31370E01010M62	*1x16*	*7,1*	*153,6*	*168*	*6*
31370E01010M63	*1x25*	*8,9*	*240,0*	*265*	*4*
31370E01010M64	*1x35*	*9,9*	*336,0*	*355*	*2*
31370E01010M65	*1x50*	*11,7*	*480*	*485*	*0*
31370E01010M66	*1x70*	*13,3*	*672*	*675*	*2/0*
31370E01010M67	*1x95*	*15,8*	*912*	*940*	*3/0*
31370E01010M68	*1x120*	*17,2*	*1152*	*1170*	*4/0*
31370E01010M69	*1x150*	*19,1*	*1440*	*1440*	*250 MCM*
31370E01010M70	*1x185*	*21,3*	*1776*	*1820*	*350 MCM*
31370E01010M71	*1x240*	*24,3*	*2304*	*2340*	*450 MCM*
31370E01010M72	*1x300*	*27*	*2880*	*2940*	*600 MCM*
31370E01010M73	*1x400*	*30,3*	*3840*	*3740*	*900 MCM*

Other dimensions and colours available on request.

GAALSHIP® N07G9-K

Single core, halogen-free flexible control cable, 450/750 V

Construction:

Conductor:	flexible red copper conductor Cl.5,acc.to IEC 60228
Outer Sheat:	rubber,type G9,for the coloration,see the technical data (PAG.207)

Features:

- **Registro Italiano Navale (RINA)**

Technical data:

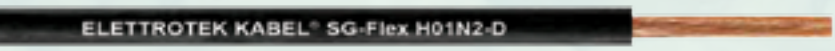
Nominal voltage:	450/750 V
Test voltage:	2,5 kV
Min. Bending radius:	4 x d
Temperature range:	-15°C to + 90
Short circuit temperature:	+ 250°C
Resistance:	**- Flame retardant and self-extinguishing acc. to:** IEC 60332-1-2 + DIN EN 60332-1-2 **- Halogen free acc. to:** EN 50267-2-1 + IEC 60754-1, DIN VDE 0482 part.267-2 **- Corrosiveness of conflagration gases acc. to:** IEC 60754-2 + DIN EN 50267-2-2, **- Smoke density acc. to:** IEC 61034 + EN 61034, CEI 20-38 **- Acc. to CEI UNEL 35368**

Part.no	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
12030E01010M15	*1x1,5*	*3,2*	*14,4*	*25*	*16*
12030E01010M25	*1x2,5*	*4*	*24*	*35*	*14*
12030E01010M40	*1x4*	*4,3*	*38,4*	*50*	*12*
12030E01010M60	*1x6*	*5,1*	*57,6*	*70*	*10*
12030E01010M61	*1x10*	*6,4*	*96*	*115*	*8*
12030E01010M62	*1x16*	*7,5*	*153,6*	*170*	*6*
12030E01010M63	*1x25*	*9,3*	*240*	*260*	*4*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
12030E01010M64	*1x35*	*10,4*	*336*	*360*	*2*
12030E01010M65	*1x50*	*12,2*	*480*	*510*	*1*
12030E01010M66	*1x70*	*13,7*	*672*	*720*	*2/0*
12030E01010M67	*1x95*	*15,5*	*912*	*930*	*3/0*
12030E01010M68	*1x120*	*17,8*	*1152*	*1220*	*4/0*
12030E01010M69	*1x150*	*20,0*	*1440*	*1510*	*250 MCM*
12030E01010M70	*1x185*	*22,3*	*1776*	*1820*	*350 MCM*
12030E01010M71	*1x240*	*25,4*	*2304*	*2350*	*450 MCM*

Other dimensions and colors available on request.

SG-Flex (H01N2-D)



Construction:

Conductor:	flexible red copper conductor Cl.5,acc.to IEC 60228
Outer Sheat:	black (RAL 9005),neoprene outer jacket,chlorinated for the coloration,see the technical data (PAG.207)

Application:

- wires for arc welding, electrode holders for use with portable 100 V

Technical data:

Nominal voltage:	100/100 V
Test voltage:	1 kV
Temperature range	
Fixed installation:	- 40°C to +85°C
Flexible installation:	- 25°C to +85°C
Short circuit temperature:	+ 250°C
Min. bending radius:	8 x d
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part.265-2-1, EN 50265-2-1, IEC 60332-1 **Oil resistant:** IEC 60811-2-1,DIN VDE 0473 part,811-2-1

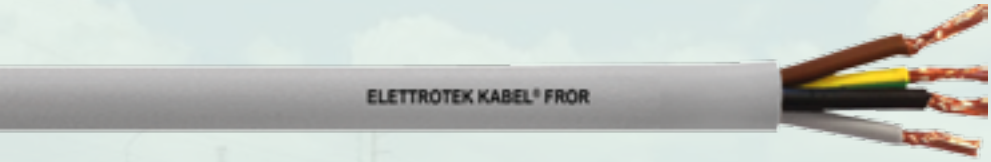
H01N2-D

Part no.	*No.of cores x cross section n x mm²*	*Single wire Ø max.value mm.*	*Sheat wall-thickness nom.value mm.*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
31390B01010M61	*1x10*	*0,21*	*2,0*	*8,7*	*96*	*135*	*8*
31390B01010M62	*1x16*	*0,21*	*2,0*	*9,9*	*154*	*198*	*6*
31390B01010M63	*1x25*	*0,21*	*2,0*	*11,4*	*240*	*285*	*4*
31390B01010M64	*1x35*	*0,21*	*2,0*	*12,8*	*336*	*385*	*2*
31390B01010M65	*1x50*	*0,21*	*2,2*	*14,85*	*480*	*550*	*0*
31390B01010M66	*1x70*	*0,21*	*2,4*	*17,25*	*672*	*750*	*2/0*
31390B01010M67	*1x95*	*0,21*	*2,6*	*19,25*	*912*	*1015*	*3/0*
31390B01010M68	*1x120*	*0,51*	*2,8*	*21,6*	*1152*	*1250*	*4/0*
31390B01010M69	*1x150*	*0,51*	*3,0*	*23,75*	*1440*	*1540*	*250 MCM*
31390B01010M70	*1x185*	*0,51*	*3,2*	*26*	*1776*	*1800*	*350 MCM*

Other dimensions and colors available on request.

FROR 300/500V and 450/750V

RoHS CE



Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	PVC,type TI2
Colour core:	DIN VDE 0293,HD 308 S2 until 6 conductor. from 7 conductors, black with progressively numbered and Y/G
Outer Sheath:	grey (RAL 7035),PVC,type TM2

Features:

- according to IEC 60502-1

Technical data:

Nominal voltage:	300/500 V 450/750 V
Test voltage:	1,2 kV / 2,5 kV
Temperature range: *fixed laying:* *flexible application:*	 - 15°C / + 70°C 0°C / + 70°C
Min. bending radius: Fixed installation: Flexible installation:	 4 x d 10 x d
Max. tensile stress: Fixed installation: Flexible installation:	 1,5 kg x mm² 5 kg x mm²
Max. short circuit temperature:	160°C
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 265-2-1, EN 50265-2-1, IEC 60332-1-2

FROR 300/500 V

Part.no	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46010D80071M10	*7G1*	*11,1*	*67,2*	*165*	*18*
46010D80101M10	*10G1*	*14,3*	*96*	*240*	*18*
46010D80121M10	*12G1*	*14,8*	*115,2*	*270*	*18*
46010D80161M10	*16G1*	*16,5*	*153,6*	*350*	*18*
46010D80191M10	*19G1*	*17,7*	*182,4*	*400*	*18*
46010D80241M10	*24G1*	*20,7*	*230,4*	*510*	*18*
46010D80271M10	*27G1*	*21,4*	*259,2*	*610*	*18*
46010D80071M15	*7G1,5*	*13,1*	*100,8*	*230*	*16*
46010D80101M15	*10G1,5*	*16,7*	*144*	*340*	*16*
46010D80121M15	*12G1,5*	*17,5*	*172,8*	*380*	*16*
46010D80161M15	*16G1,5*	*19,4*	*230,4*	*480*	*16*
46010D80191M15	*19G1,5*	*20,5*	*273,6*	*560*	*16*
46010D80241M15	*24G1,5*	*24,3*	*345,6*	*700*	*16*
46010D80271M15	*27G1,5*	*25,0*	*388,8*	*770*	*16*

FROR 450/750 V

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46010E83020M10	*2x1*	*8,7*	*19,2*	*85*	*18*
46010E83020M15	*2x1,5*	*9,2*	*28,8*	*100*	*16*
46010E83020M25	*2x2,5*	*11,2*	*48*	*150*	*14*
46010E83020M40	*2x4*	*12,5*	*76,8*	*195*	*12*
46010E83020M60	*2x6*	*13,9*	*115,2*	*260*	*10*
46010E82031M10	*3G1*	*9,1*	*28,8*	*100*	*18*
46010E82031M15	*3G1,5*	*9,8*	*43,2*	*120*	*16*
46010E82031M25	*3G2,5*	*11,9*	*72*	*180*	*14*
46010E82031M40	*3G4*	*13,5*	*115,2*	*245*	*12*
46010E82031M60	*3G6*	*14,9*	*172,8*	*330*	*10*
46010E82041M10	*4G1*	*9,9*	*38,4*	*115*	*18*
46010E82041M15	*4G1,5*	*10,9*	*57,6*	*150*	*16*
46010E82041M25	*4G2,5*	*12,9*	*96*	*220*	*14*
46010E82041M40	*4G4*	*14,7*	*153,6*	*300*	*12*
46010E82041M60	*4G6*	*16,3*	*230,4*	*405*	*10*
46010E82051M10	*5G1*	*11,1*	*48*	*150*	*18*
46010E82051M15	*5G1,5*	*12,0*	*72*	*180*	*16*
46010E82051M25	*5G2,5*	*14,3*	*120*	*265*	*14*
46010E82051M40	*5G4*	*16,5*	*192*	*375*	*12*
46010E82051M60	*5G6*	*18,0*	*288*	*495*	*10*

Other dimensions and colours available on request.

FROH2R

RoHS CE

Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	PVC,type TI2
Colour core:	DIN VDE 0293,HD 308 S2
Screen:	red copper braid
Outer Sheat:	grey (RAL 7035),PVC,type TM2

Features:

- according to IEC 60502-1

Technical data:

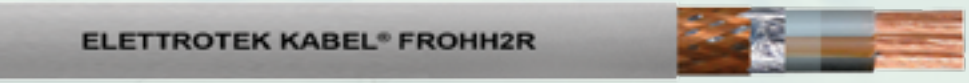
Nominal voltage:	450/750 V
Test voltage:	2,5 kV
Max. short circuit temperature: *fixed installation:* *lexible application:*	 160°C 150°C
Temperature range: *fixed installation:* *flexible application:*	 -15°C / + 70°C 0°C / + 70°C
Min. bending radius:	12 X D
Max. tensile stress: *fixed installation:* *flexible application:*	 50 N/mm² 20 N/mm²
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 2656-2-1, EN 50265-2-1, IEC 60332-1 **Oil resistant acc. to:** IEC 60811-2-1, DIN VDE 0473 part.811-2-1

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46020E83020M10	*2x1*	*8,6*	*-*	*106,7*	*18*
46020E83020M15	*2x1,5*	*9*	*80,5*	*118,4*	*16*
46020E83020M25	*2x2,5*	*10,7*	*-*	*169,6*	*14*
46020E83020M40	*2x4*	*12,1*	*-*	*218,9*	*12*
46020E83020M60	*2x6*	*13,4*	*-*	*287*	*10*
46020E82031M10	*3x1*	*9*	*58,2*	*123,5*	*18*
46020E82031M15	*3G1,5*	*9,45*	*80,5*	*142,2*	*16*
46020E82031M25	*3G2,5*	*11,2*	*113*	*203,8*	*14*
46020E82031M40	*3G4*	*13*	*-*	*277*	*12*
46020E82031M60	*3G6*	*14,4*	*-*	*364,8*	*10*
46020E82041M10	*4G1*	*9,7*	*75,7*	*144,8*	*18*
46020E82041M15	*4G1,5*	*10,5*	*95,6*	*173,5*	*16*
46020E82041M25	*4G2,5*	*12,2*	*146,2*	*242,5*	*14*
46020E82041M40	*4G4*	*14,3*	*210,7*	*345,6*	*12*
46020E82041M60	*4G6*	*15,6*	*298,4*	*441,3*	*10*
46020E82051M10	*5G1*	*10,7*	*86,1*	*175,4*	*18*
46020E82051M15	*5G1,5*	*11,4*	*113,2*	*209*	*16*
46020E82051M25	*5G2,5*	*13,6*	*175*	*308*	*14*
46020E82051M40	*5G4*	*16*	*260*	*430,7*	*12*
46020E82051M60	*5G6*	*17,2*	*358,7*	*536,7*	*10*

Other dimensions and colours available on request.

FR2OHH2R

RoHS CE



Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	PVC,type R2
Colour core:	DIN VDE 0293,HD 308 S2
Screen:	aluminium tape and red copper braid
Outer sheath:	grey (RAL 7001),PVC,type TM2

Features:

- **acc. to IEC 60502-1**

Technical data:

Nominal voltage:	450/750 V
Test voltage:	1,2 kV
Temperature range:	
Fixed installation:	- 15°C / + 70°C
Flexible installation:	- 0°C / + 70°C
Max. short circuit temperature:	
Fixed installation:	+ 160°C
Flexible installation:	+ 150°C
Min. bending radius:	12 x d
Max. tensile stress:	
Fixed installation:	50 N/mm²
Flexible installation:	20 N/mm²
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1 **Oil resistant acc. to:** IEC 60811-2-1, DIN VDE 0473 part.811-2-1

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46030E83020M10	*2x1*	*9,9*	*19,2*	*94*	*18*
46030E83020M15	*2x1,5*	*10,5*	*43,2*	*110*	*16*
46030E83020M25	*2x2,5*	*12,8*	*48,0*	*157*	*14*
46030E83020M40	*2x4*	*14,5*	*76,8*	*210*	*12*
46030E83020M60	*2x6*	*16,1*	*115,2*	*302*	*10*
46030E82031M10	*3G1*	*10,4*	*28,8*	*107*	*18*
46030E82031M15	*3G1,5*	*11,3*	*43,2*	*132*	*16*
46030E82031M25	*3G2,5*	*13,7*	*72,0*	*195*	*14*
46030E82031M40	*3G4*	*15,4*	*115,2*	*298*	*12*
46030E82031M60	*3G6*	*17,0*	*172,8*	*372*	*10*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46030E82041M10	*4G1*	*11,5*	*38,4*	*135*	*18*
46030E82041M15	*4G1,5*	*12,6*	*57,6*	*166*	*16*
46030E82041M25	*4G2,5*	*14,9*	*96,0*	*234*	*14*
46030E82041M40	*4G4*	*16,7*	*153,6*	*343*	*12*
46030E82041M60	*4G6*	*18,7*	*230,4*	*425*	*10*
46030E82051M10	*5G1*	*12,0*	*48,0*	*180*	*18*
46030E82051M15	*5G1,5*	*12,5*	*72,0*	*221*	*16*
46030E82051M25	*5G2,5*	*14,5*	*120,0*	*310*	*14*
46030E82051M40	*5G4*	*16,1*	*192,0*	*418*	*12*
46030E82051M60	*5G6*	*18,5*	*288,0*	*555*	*10*

Other dimension and colours available on request.

FRORAR 450/750V

RoHS CE

Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	PVC,type R2
Colour core:	black with numbered and Y/G earth-core
Inner Sheath:	thermoplastic compound
Armour:	braid of galvanized steel wires
Outer Sheath:	transparent, PVC,typeTM2

Features:

- according to IEC 60502-1

Technical data:

Nominal voltage:	450/750 V
Test voltage:	2,5 kV
Temperature range:	
fixed laying:	- 15°C / + 70°C
flexible application:	0°C / + 70°C
Max. short circuit temperature:	160 C
Min. bending radius:	8 x d
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 2656-2-1, EN 50265-2-1, IEC 60332-1 **Oil resistant acc. to:** IEC 60811-2-1, DIN VDE 0473 part.811-2-1

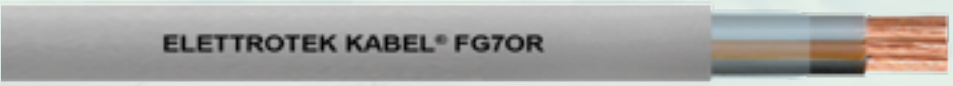
Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46040ET1020M05	*2x0,5*	*7,1*	*9,6*	*52*	*20*
46040ET0031M05	*3G0,5*	*7,3*	*14,4*	*64*	*20*
46040ET0041M05	*4G0,5*	*8,0*	*19,2*	*81*	*20*
46040ET0051M05	*5G0,5*	*8,4*	*24*	*96*	*20*
46040ET0071M05	*7G0,5*	*8,9*	*33,6*	*118*	*20*
46040ET0101M05	*10G0,5*	*10,9*	*48*	*210*	*20*
46040ET0121M05	*12G0,5*	*11,3*	*57,6*	*230*	*20*
46040ET0161M05	*16G0,5*	*12,6*	*76,8*	*260*	*20*
46040ET0241M05	*24G0,5*	*15,2*	*115,2*	*425*	*20*
46040ET1020M07	*2x0,75*	*7,7*	*14,4*	*70*	*19*
46040ET0031M07	*3G0,75*	*8,0*	*21,6*	*88*	*19*
46040ET0041M07	*4G0,75*	*8,7*	*28,8*	*108*	*19*
46040ET0051M07	*5G0,75*	*9,2*	*36*	*128*	*19*
46040ET0071M07	*7G0,75*	*10,2*	*50,4*	*190*	*19*
46040ET0101M07	*10G0,75*	*12,5*	*72*	*255*	*19*
46040ET0121M07	*12G0,75*	*13,0*	*86,4*	*290*	*19*
46040ET0161M07	*16G0,75*	*14,0*	*115,2*	*350*	*19*
46040ET0241M07	*24G0,75*	*16,9*	*345,6*	*497*	*19*
46040ET1020M10	*2x1*	*8,1*	*19,2*	*105*	*18*
46040ET0031M10	*3G1*	*8,4*	*28,8*	*120*	*18*
46040ET0041M10	*4G1*	*9,0*	*38,4*	*137*	*18*
46040ET0051M10	*5G1*	*10,2*	*48*	*198*	*18*
46040ET0071M10	*7G1*	*10,8*	*67,2*	*220*	*18*
46040ET0101M10	*10G1*	*13,3*	*96*	*340*	*18*
46040ET0121M10	*12G1*	*14,0*	*115,2*	*400*	*18*
46040ET0161M10	*16G1*	*15,8*	*153,6*	*490*	*18*
46040ET0241M10	*24G1*	*18,1*	*230,4*	*510*	*18*
46040ET1020M15	*2x1,5*	*9,1*	*28,8*	*135*	*16*
46040ET0031M15	*3G1,5*	*9,9*	*43,2*	*170*	*16*
46040ET0041M15	*4G1,5*	*10,6*	*57,6*	*200*	*16*
46040ET0051M15	*5G1,5*	*11,3*	*72*	*235*	*16*
46040ET0071M15	*7G1,5*	*12,5*	*100,8*	*275*	*16*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46040ET0101M15	*10G1,5*	*15,6*	*144*	*465*	*16*
46040ET0121M15	*12G1,5*	*16,3*	*172,8*	*495*	*16*
46040ET0161M15	*16G1,5*	*17,7*	*230,4*	*550*	*16*
46040ET0241M15	*24G1,5*	*21,4*	*345,6*	*750*	*16*
46040ET1020M25	*2x2,5*	*10,7*	*43,2*	*210*	*14*
46040ET0031M25	*3G2,5*	*11,2*	*72*	*240*	*14*
46040ET0041M25	*4G2,5*	*12,4*	*96*	*270*	*14*
46040ET0051M25	*5G2,5*	*13,3*	*120*	*340*	*14*
46040ET0071M25	*7G2,5*	*15,1*	*168*	*450*	*14*
46040ET0101M25	*10G2,5*	*18,2*	*240*	*590*	*14*
46040ET0121M25	*12G2,5*	*19,0*	*288*	*630*	*14*
46040ET0161M25	*16G2,5*	*21,3*	*384*	*750*	*14*
46040ET0241M25	*24G2,5*	*24,9*	*576*	*1190*	*14*
46040ET1020M40	*2x4*	*12,7*	*76,8*	*270*	*12*
46040ET0031M40	*3G4*	*13,3*	*115,2*	*310*	*12*
46040ET0041M40	*4G4*	*15,1*	*153,6*	*400*	*12*
46040ET0051M40	*5G4*	*16,3*	*192*	*480*	*12*
46040ET1020M60	*2x6*	*14,1*	*115,2*	*390*	*10*
46040ET0031M60	*3G6*	*15,4*	*172,8*	*445*	*10*
46040ET0041M60	*4G6*	*16,6*	*230,4*	*580*	*10*
46040ET0051M60	*5G6*	*17,9*	*288*	*700*	*10*
46040ET1020M61	*2x10*	*17,5*	*192*	*640*	*8*
46040ET0031M61	*3G10*	*18,6*	*288*	*700*	*8*
46040ET0041M61	*4G10*	*20,4*	*384*	*860*	*8*
46040ET0051M61	*5G10*	*22,5*	*480*	*1080*	*8*
46040ET1020M62	*2x16*	*19,9*	*307,2*	*950*	*6*
46040ET0031M62	*3G16*	*21,6*	*460,8*	*1130*	*6*
46040ET0041M62	*4G16*	*23,4*	*614,4*	*1360*	*6*
46040ET1020M63	*2x25*	*23,9*	*480*	*1450*	*4*
46040ET0031M63	*3G25*	*25,2*	*720*	*1675*	*4*
46040ET0041M63	*4G25*	*27,5*	*960*	*1910*	*4*

Other dimensions and colours available on request.

FG7(O)R 0,6/1 kV

RoHS CE



Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228	
Insulation:	rubber,type G7	
Colour core:	**1 core:**	black
	2 cores:	blue, brown
	3 cores:	brown, black, grey (or blue, brown, Y/G)
	4 cores:	blue, brown, black, gray, (or Y/G instead blue)
	5 cores:	Y/G, blue, brown, black, gray, (or black instead Y/G)
	Multi cores:	black with numbers
Outer sheath:	grey (RAL 7035) ,PVC,type RZ	

Features:

- **acc. to IEC 60502-1**

Technical data:

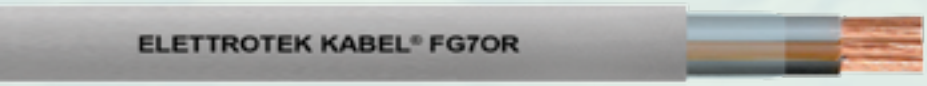
Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range:	
fixed laying:	-25°C / + 90°C
flexible application:	0°C / + 90°C
Max tensile stress:	5 KG X mm²
Min. Bending Radius:	4 x d
Temperature at conductor:	
in service:	+ 90°C
in short circuit:	+ 250°C
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 2656-2-1, EN 50265-2-1, IEC 60332-1

POWER

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46050G8L010M40	*1x4*	*7,5*	*38,4*	*80*	*12*
46050G8L010M60	*1x6*	*8*	*57,6*	*105*	*10*
46050G8L010M61	*1x10*	*8,5*	*96*	*150*	*8*
46050G8L010M62	*1x16*	*10*	*153,6*	*200*	*6*
46050G8L010M63	*1x25*	*11*	*240*	*300*	*4*
46050G8L010M64	*1x35*	*12,5*	*336*	*390*	*2*
46050G8L010M65	*1x50*	*15*	*480*	*540*	*1*
46050G8L010M66	*1x70*	*17*	*672*	*740*	*2/0*
46050G8L010M67	*1x95*	*18,8*	*912*	*940*	*3/0*
46050G8L010M68	*1x120*	*21*	*1152*	*1200*	*4/0*
46050G8L010M69	*1x150*	*23,5*	*1440*	*1480*	*250 MCM*
46050G8L010M70	*1x185*	*26*	*1776*	*1830*	*350 MCM*
46050G8L010M71	*1x240*	*28,5*	*2304*	*2340*	*450 MCM*
46050G8L010M72	*1x300*	*32*	*2880*	*2950*	*550 MCM*
46050G8L010M73	*1x400*	*36,5*	*3840*	*3930*	*750 MCM*
46050G8L010M74	*1x500*	*-*	*-*	*-*	*1000 MCM*
46050G8L010M75	*1x630*	*-*	*-*	*-*	*1250 MCM*
46050G83020M15	*2x1.5*	*10*	*28,8*	*150*	*16*
46050G83020M25	*2x2.5*	*11*	*48*	*190*	*14*
46050G83020M40	*2x4*	*12,5*	*76,8*	*240*	*12*
46050G83020M60	*2x6*	*13,5*	*115*	*310*	*10*
46050G83020M61	*2x10*	*15*	*192*	*440*	*8*
46050G83020M62	*2x16*	*17*	*307*	*600*	*6*
46050G83020M63	*2x25*	*20*	*480*	*850*	*4*
46050G83020M64	*2x35*	*23*	*672*	*1130*	*2*
46050G83020M65	*2x50*	*27*	*960*	*1580*	*1*
46050G83020M66	*2x70*	*33*	*1344*	*2050*	*2/0*

FG7(O)R 0,6/1 kV

RoHS CE



Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46050G82031M15	3G1.5	12,5	43,2	170	16
46050G82031M25	3G2.5	13,5	72	220	14
46050G82031M40	3G4	15	115,2	280	12
46050G82031M60	3G6	16	172	370	10
46050G82031M61	3G10	18	288	530	8
46050G82031M62	3G16	20,5	461	740	6
46050G82031M63	3G25	24,5	720	1060	4
46050G82031M64	3G35	27,5	1008	1420	2
46050G82031M65	3G50	31	1440	1960	1
46050G82031M66	3G70	35,5	2016	2700	2/0
46050G82031M67	3G95	40	2736	3430	3/0
46050G82040M15	4x1.5	12	57,5	200	16
46050G82040M25	4x2.5	13	96	260	14
46050G82040M40	4x4	14,5	153,5	330	12
46050G82040M60	4x6	16	230	430	10
46050G82040M61	4x10	18	384	640	8
46050G82040M62	4x16	22	614,5	900	6
46050G82040M63	4x25	25,5	960	1300	4
46050G83035M64	3x35+1x25	28,5	1248	1650	4
46050G82035M64	3x35+1G25	28,5	1248	1650	4
46050G83035M65	3x50+1x25	32,5	1680	2200	4
46050G82035M65	3x50+1G25	32,5	1680	2200	4
46050G83035M66	3x70+1x35	37	2352	3000	2
46050G82035M66	3x70+1G35	37	2352	3000	2
46050G83035M67	3x95+1x50	42	3216	3900	1
46050G82035M67	3x95+1G50	42	3216	3900	1
46050G83035M68	3x120+1x70	47	4128	4700	2/0
46050G82035M68	3x120+1G70	47	4128	4700	2/0
46050G83035M69	3x150+1x95	52,5	5232	6300	3/0
46050G82035M69	3x150+1G95	52,5	5232	6300	3/0
46050G83035M70	3x185+1x95	57,5	6240	7600	3/0
46050G82035M70	3x185+1G95	57,5	6240	7600	3/0
46050G83035M71	3x240+1x150	65,5	8352	10000	250
46050G82035M71	3x240+1G150	65,5	8352	10000	250
46050G82041M15	4G1.5	12	57,6	200	16
46050G82041M25	4G2.5	13	96	260	14
46050G82041M40	4G4	14,5	153,6	330	12
46050G82041M60	4G6	16	230,4	430	10
46050G82041M61	4G10	18	384	640	8
46050G82041M62	4G16	22	614,4	900	6
46050G82041M63	4G25	25,5	960	1300	4
46050G82051M15	5G1,5	13	72	230	16
46050G82051M25	5G2,5	14	120	310	14
46050G82051M40	5G4	16	192	400	12
46050G82051M60	5G6	17,5	288	520	10
46050G82051M61	5G10	21	480	780	8
46050G82051M62	5G16	24,5	768	1120	6
46050G82051M63	5G25	29	1200	1680	4

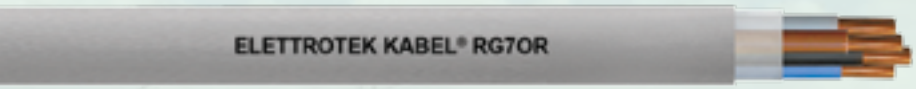
CONTROL

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46050G83050M15	5G1,5	14,5	72	230	16
46050G81070M15	7G1,5	15,5	101	275	16
46050G81100M15	10G1,5	19	144	365	16
46050G81120M15	12G1,5	19,5	172,8	410	16
46050G81160M15	16G1,5	21	230,4	510	16
46050G81190M15	19G1,5	22	273,6	580	16
46050G81240M15	24G1,5	25,5	345,6	700	16

Other dimensions and colours available on request.

RG7(O)R 0,6/1 kV

RoHS CE



Construction:

Conductor:	solid or stranded red copper conductor Cl. 1 or 2, acc. to IEC 60228
Insulation:	Rubber type G7
Colour code:	**1 core:** black **2 cores:** blue-brown **3 cores:** brown or blue, brown, Y/G **4 cores:** blue, brown, black, gray **5 cores:** Y/G, blue, brown, black, gray **Multi cores:** black with numbers
Wrapping:	not fibrous and not hygroscopic filler
Outer sheath:	light grey (RAL 7035),PVC,type RZ

Features:

► **UNEL TABLES 35357 - 35376 - 35377**

Applications:

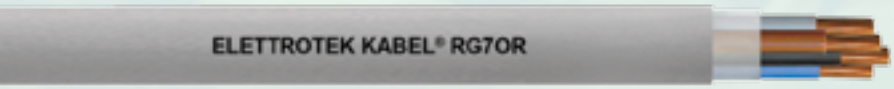
Power and control use outdoor and indoor applications, even wet. Suitable for fixed installation at open air, in tube or canals, masonry, metals structures, overhead wire and for direct and indirect undergrround wiring.

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	3,5 kV
Temperature range:	0°C up to + 90°C
Max. short circuit temperature: *for sections up to 240 mm²:* *for sections over 240 mm²:*	 + 250°C + 220°C
Min. bending radius: *rigid cables, class 1 and 2*	 *6 x D*
Max. pulling installation: *during installation:* *static stress:*	 50 N/mm² 15 N/mm²
Resistance:	**Flame retardant acc. to:** PVC sel-extinguishing and flame retardant acc.to DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1 **On request:** DIN VDE 0482 part.266-2-5, EN 50266-2-5, IEC 60332-3C

RG7(O)R 0,6/1 kV

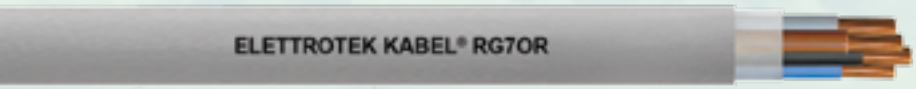
RoHS CE



Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx, kg/km	AWG no.*)
46060G8L010M15	1x1,5	6,4	14,4	50	16
46060G8L010M25	1x2,5	6,9	24,0	60	14
46060G8L010M40	1x4	7,5	38,4	80	12
46060G8L010M60	1x6	8,1	57,6	100	10
46060G8L010M61	1x10	9,0	96,0	150	8
46060G8L010M62	1x16	10,0	153,6	210	6
46060G8L010M63	1x25	11,7	240,0	320	4
46060G8L010M64	1x35	13,0	336,0	410	2
46060G8L010M65	1x50	14,7	480,0	530	1
46060G8L010M66	1x70	16,6	672,0	750	2/0
46060G8L010M67	1x95	18,6	912,0	1050	3/0
46060G8L010M68	1x120	20,5	1152,0	1300	4/0
46060G8L010M69	1x150	22,8	1440,0	1600	250 MCM
46060G8L010M70	1x185	25,0	1776,0	2000	350 MCM
46060G8L010M71	1x240	27,9	2304,0	2500	450 MCM
46060G8L010M72	1x300	30,7	2880,0	3100	550 MCM
46060G8L010M73	1x400	35,0	3840,0	3900	750 MCM
46060G8L010M74	1x500	38,6	4800,0	5000	950 MCM
46060G83020M15	2x1,5	11,5	28,8	140	16
46060G83020M25	2x2,5	12,4	48,0	180	14
46060G83020M40	2x4	13,6	76,8	220	12
46060G83020M60	2x6	14,7	115,2	280	10
46060G83020M61	2x10	16,6	192,0	430	8
46060G83020M62	2x16	18,6	307,2	600	6
46060G83020M63	2x25	22,1	480,0	930	4
46060G83020M64	2x35	24,6	672,0	1200	2
46060G83020M65	2x50	28,1	960,0	1600	1
46060G83020M66	2x70	31,7	1344,0	2200	2/0
46060G83020M67	2x95	35,9	1824,0	2900	3/0
46060G83020M68	2x120	39,8	2304,0	3500	4/0
46060G82031M15	3G1,5	12,0	43,2	170	16
46060G82031M25	3G2,5	13,0	72,0	210	14
46060G82031M40	3G4	14,3	115,2	270	12
46060G82031M60	3G6	15,5	172,8	360	10
46060G82031M61	3G10	17,5	288,0	540	8
46060G82031M62	3G16	19,7	460,8	770	6
46060G82031M63	3G25	23,4	720,0	1200	4

RG7(O)R 0,6/1 kV

RoHS CE



Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
46060G82031M64	3G35	26,2	1008,0	1500	2
46060G82031M65	3G50	29,9	1440,0	2000	1
46060G82031M66	3G70	34,1	2016,0	2800	2/0
46060G82031M67	3G95	38,3	2736,0	3700	3/0
46060G82031M68	3G120	44,7	3456,0	4500	4/0
46060G82031M69	3G150	42,5	4320,0	5600	250 MCM
46060G82031M70	3G185	52,9	5328,0	6900	350 MCM
46060G82031M71	3G240	59,3	6912,0	8900	450 MCM
46060G83040M15	4x1,5	12,9	57,6	210	16
46060G83040M25	4x2,5	14,0	96,0	260	14
46060G83040M40	4x4	15,4	153,6	350	12
46060G83040M60	4G6	16,7	230,4	460	10
46060G83040M61	4x10	19,0	384,0	700	8
46060G83040M62	4x16	21,5	614,4	1000	6
46060G83040M63	4x25	25,7	960,0	1500	4
46060G83035M64	3x35+1x25	28,0	1248,0	1800	2
46060G83035M65	3x50+1x25	31,1	1680,0	2200	1
46060G83035M66	3x70+1x35	35,4	2352,0	3100	2/0
46060G83035M67	3x95+1x50	40,3	3216,0	4100	3/0
46060G83035M68	3x120+1x70	44,9	4128,0	5200	4/0
46060G83035M69	3x150+1x95	50,3	5232,0	6400	250 MCM
46060G83035M70	3x185+1x95	54,9	6240,0	7800	350 MCM
46060G83035M71	3x240+1x150	62,8	8352,0	10300	450 MCM
46060G83035M72	3x300+1x150	67,8	10080,0	12300	550 MCM
46060G83035M73	3x400+1x240	78,8	13823,0	16200	750 MCM
46060G82035M64	3x35+1G25	28,0	1248,0	1800	2
46060G82035M65	3x50+1G25	31,1	1680,0	2200	1
46060G82035M66	3x70+1G35	35,4	2352,0	3100	2/0
46060G82035M67	3x95+1G50	40,3	3216,0	4100	3/0
46060G82035M68	3x120+1G70	44,9	4128,0	5200	4/0
46060G82035M69	3x150+1G95	50,3	5232,0	6400	250 MCM
46060G82035M70	3x185+1G95	54,9	6240,0	7800	350 MCM
46060G82035M71	3x240+1G150	62,8	8352,0	10300	450 MCM
46060G82035M72	3x300+1G150	67,8	10080,0	12300	550 MCM
46060G82035M73	3x400+1G240	78,8	13823,0	16200	750 MCM
46060G82051M15	5G1,5	13,8	260,0	260	16
46060G82051M25	5G2,5	15,0	330,0	330	14
46060G82051M40	5G4	16,5	460,0	460	12
46060G82051M60	5G6	18,1	288,0	570	10
46060G82051M61	5G10	20,6	480,0	860	8
46060G82051M62	5G16	23,4	768,0	1200	6
46060G82051M63	5G25	28,0	1200,0	1800	4
46060G82051M64	5G35	31,5	1680,0	2300	2
46060G82051M65	5G50	36,5	2400,0	3100	1

Other dimension and colours available on request.

N1VV-K

RoHS CE

Construction:

Conductor:	flexible red copper conductor Cl. 5, acc to IEC 60228
Insulation:	PVC, type R2
Colour core:	**2 cores:** blue-brown, **3 cores:** brown-black-gray (or blue-brown-Y/G), **4 cores:** blue-brown-black-gray (or Y/G instead blue). **5 cores:** Y/G-blue-brown-black-gray (or black instead Y/G), **Multicores**: black with numbers.
Outer sheath:	light blue (RAL 5012), PVC, type R2

Features:

- **Indoor and outdoor use**
- **acc. to CEI 20-14, 20-11, 20-29, 20-67**

Technical data:

Nominal voltage:	600/1000 kV
Test voltage:	4 kV
Temperature range:	0°C / + 70°C
Max. short circuit temperature:	160°C
Min. bending radius:	
Power cores: *Control cores:*	4 x D 6 x D
Tensile stress:	5 kg/mm²
Current carrying capacity:	acc. to CEI UNEL 35024-35026
Resistance:	**Flame retardant acc. to:** IEC 60332-3-C, DIN VDE 0482 part.266-2-5 EN 50266-2-5

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46070GB3020M15	*2x1,5*	*12,5*	*38,4*	*160*	*16*
46070GB3020M25	*2x2,5*	*13,4*	*48,0*	*200*	*14*
46070GB3020M40	*2x4*	*15,6*	*76,8*	*270*	*12*
46070GB3020M60	*2x6*	*16,8*	*115,2*	*350*	*10*
46070GB3020M61	*2x10*	*18,7*	*192,0*	*470*	*8*
46070GB3020M62	*2x16*	*20,9*	*307,2*	*670*	*6*
46070GB3020M63	*2x25*	*24,5*	*480,0*	*970*	*4*
46070GB3020M64	*2x35*	*27,1*	*672,0*	*1260*	*2*
46070GB3020M65	*2x50*	*31,2*	*960,0*	*1700*	*1*
46070GB3020M66	*2x70*	*34,8*	*1344,0*	*2300*	*2/0*
46070GB2031M15	*3G1,5*	*13,1*	*43,2*	*180*	*16*
46070GB2031M25	*3G2,5*	*14,1*	*72,0*	*240*	*14*
46070GB2031M40	*3G4*	*16,4*	*115,2*	*320*	*12*
46070GB2031M60	*3G6*	*17,7*	*172,8*	*400*	*10*
46070GB2031M61	*3G10*	*19,8*	*288,0*	*580*	*8*
46070GB2031M62	*3G16*	*22,1*	*460,8*	*820*	*6*
46070GB2031M63	*3G25*	*26,0*	*720,0*	*1200*	*4*
46070GB2031M64	*3G35*	*28,9*	*1008,0*	*1600*	*2*
46070GB2031M65	*3G50*	*33,3*	*1440,0*	*2150*	*1*
46070GB2031M66	*3G70*	*37,4*	*2016,0*	*2950*	*2/0*
46070GB2031M67	*3G95*	*42,8*	*2736,0*	*3800*	*3/0*
46070GB2041M15	*4G1,5*	*14,0*	*57,6*	*200*	*16*
46070GB2041M25	*4G2,5*	*15,2*	*96,0*	*270*	*14*
46070GB2041M40	*4G4*	*17,8*	*153,6*	*380*	*12*
46070GB2041M60	*4G6*	*19,2*	*230,4*	*480*	*10*
46070GB2041M61	*4G10*	*21,5*	*384,0*	*740*	*8*
46070GB2041M62	*4G16*	*24,2*	*614,4*	*1050*	*6*
46070GB2041M63	*4G25*	*28,5*	*960,0*	*4300*	*4*

N1VV-K

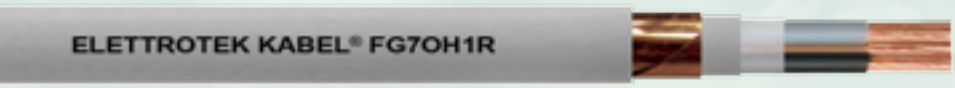
RoHS CE

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46070GB2051M15	5G1,5	15,0	72,0	250	16
46070GB2051M25	5G2,5	16,3	120,0	320	14
46070GB2051M40	5G4	19,2	192,0	450	12
46070GB2051M60	5G6	20,8	288,0	600	10
46070GB2051M61	5G10	23,4	480,0	880	8
46070GB2051M62	5G16	26,3	768,0	1220	6
46070GB2051M63	5G25	31,2	1200	1820	4
46070GB2035M64	3x35+1G25	30,9	1248	1850	2/4
46070GB2035M65	3x50+1G25	34,9	1680	2400	1/4
46070GB2035M66	3x70+1G35	38,9	2352	3300	2/0-2
46070GB2035M67	3x95+1G50	45,0	3216	4300	3/0-1

Other dimensions and colours available on request.

FG7(O)H1R 0,6/1 kV

RoHS CE



Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	rubber,type G7
Colour code:	**1 core:** black **2 cores:** blue, brown **3 cores:** brown, black, grey (or blue, brown, Y/G) **4 cores:** blue, brown, black, gray, (or Y/G instead blue) **5 cores:** Y/G, blue, brown, black, gray, (or black instead Y/G) **Multi cores:** black with numbers
Screen:	two alternated copper tapes
Inner sheath:	filler compound
Outer sheath:	grey (RAL 7035),PVC,type RZ.

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	3,5 kV
Temperature range:	0°C /+ 90°C
Max. short circuit temperature:	+ 250°C
Min. bending radius:	
power flexible cables,class. 5:	4 x D
control flexible cables, class. 5:	6 x D
Max. pulling installation:	
during installation:	50 N/mm²
static stress:	15 N/mm²
Resistance:	**Flame retardant acc. to:** PVC sel-extinguishing and flame retardant acc.to DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

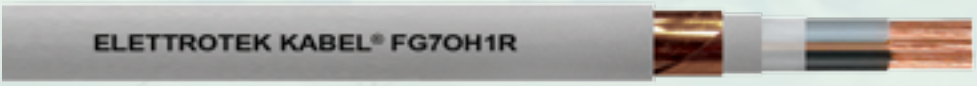
Applications:

Power and control use outdoor and indoor applications, even wet. Suitable for fixed installation at open air, in tube or canals, masonry, metals structures, overhead wire and for direct and indirect undergrround wiring.
The most important property of this kind of cable is its protection against smokes, toxic and corrosive gases in case of fire.

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Cable weight kg/km*	*AWG no.*)*
46080G83020M15	*2 x 1,5*	*12,5*	*241*	*16*
46080G83020M25	*2 x 2,5*	*13,5*	*280*	*14*
46080G83020M40	*2 x 4*	*14,5*	*336*	*12*
46080G83020M60	*2 x 6*	*15,5*	*395*	*10*
46080G83020M61	*2 x 10*	*18,5*	*567*	*8*
46080G83020M62	*2 x 16*	*20,5*	*738*	*6*
46080G83020M63	*2 x 25*	*25,2*	*1107*	*4*
46080G83020M64	*2 x 35*	*27,7*	*1403*	*2*
46080G83020M65	*2 x 50*	*30,5*	*1830*	*1*
46080G83020M66	*2 x 70*	*36,3*	*2571*	*2/0*
46080G83020M67	*2 x 95*	*39*	*3143*	*3/0*
46080G83020M68	*2 x 120*	*46,3*	*4316*	*4/0*
46080G83020M69	*2 x 150*	*52,7*	*5547*	*250*
46080G82031M15	*3 G 1,5*	*13*	*262*	*16*
46080G82031M25	*3 G 2,5*	*14*	*316*	*14*
46080G82031M40	*3 G 4*	*15*	*380*	*12*
46080G82031M60	*3 G 6*	*16*	*456*	*10*
46080G82031M61	*3 G 10*	*19,3*	*675*	*8*
46080G82031M62	*3 G 16*	*33,2*	*939*	*6*
46080G82031M63	*3 G 25*	*26,5*	*1346*	*4*
46080G82031M64	*3 G 35*	*29,2*	*1744*	*2*
46080G82031M65	*3 G 50*	*32,3*	*2262*	*1*
46080G82031M66	*3 G 70*	*38,4*	*3188*	*2/0*
46080G82031M67	*3 G 95*	*44*	*4309*	*3/0*
46080G82031M68	*3 G 120*	*51,5*	*5635*	*4/0*
46080G82031M69	*3 G 150*	*56,6*	*6921*	*250*
46080G82031M70	*3 G 185*	*60*	*8079*	*350*
46080G82031M71	*3 G 240*	*69,7*	*10639*	*450*

FG7(O)H1R 0,6/1 kV

RoHS CE

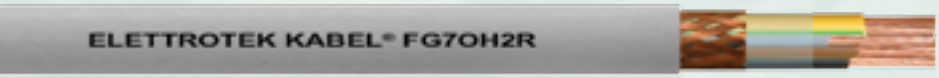


Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Cable weight kg/km	AWG no.*)
46080G82041M15	4 G 1,5	13,7	298	16
46080G82041M25	4 G 2,5	14,8	357	14
46080G82041M40	4 G 4	16	438	12
46080G82041M60	4 G 6	17,3	535	10
46080G82041M61	4 G 10	20,8	802	8
46080G82041M62	4 G 16	24,6	1164	6
46080G82041M63	4 G 25	28,3	1664	4
46080G83035M64	3 x 35 + 1 x 25	31	2038	2
46080G83035M65	3 x 50 + 1 x 25	34,6	2606	1
46080G83035M66	3 x 70 + 1 x 35	40	3540	2/0
46080G83035M67	3 x 95 + 1 x 50	45,8	4818	3/0
46080G83035M68	3 x 120 + 1 x 70	53,8	6358	4/0
46080G83035M69	3 x 150 + 1 x 95	59	7852	250
46080G83035M70	3 x 185 + 1 x 95	62,8	9066	350
46080G83035M71	3 x 240 + 1 x 150	72,8	12078	450
46080G82051M15	5 G 1,5	15	351	16
46080G82051M25	5 G 2,5	16	424	14
46080G82051M40	5 G 4	17,5	527	12
46080G82051M60	5 G 6	18,9	653	10
46080G82051M61	5 G 10	23,5	1027	8
46080G82051M62	5 G 16	27	1415	6
46080G82051M63	5 G 25	31,6	2022	4
46080G80071M15	7 G 1,5	15,7	399	16
46080G80071M25	7 G 2,5	17	496	14
46080G80101M15	10 G 1,5	17,8	503	16
46080G80101M25	10 G 2,5	19,5	644	14
46080G80121M15	12 G 1,5	19,2	574	16
46080G80121M25	12 G 2,5	21	732	14
46080G80161M15	16 G 1,5	21	690	16
46080G80161M25	16 G 2,5	24	950	14
46080G80191M15	19 G 1,5	24,5	813	16
46080G80191M25	19 G 2,5	28,2	1056	14

Other dimensions and colours available on request.

FG7OH2R 0,6/1 KV

RoHS CE



Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	Rubber,type G7
Colour core:	DIN VDE 0293,HD 308 S2
Inner sheat:	thermoplastic compound
Screen:	red copper braid
Outer sheath:	grey RAL (7035), PVC,type Rz

Features:

- according to IEC 60502-1

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	2,5 kV
Temperature range: *fixed laying:* *flexible application:*	 - 25°C / + 90°C 0°C / + 90°C
Temperature at conductor: *in service:* *in short circuit:*	 + 90°C + 250°C
Min. bending radius:	8 X D
Max. tensile stress:	5 KG X mm²
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 2656-2-1, EN 50265-2-1, IEC 60332-1 **Oil resistant acc. to:** IEC 60811-2-1, DIN VDE 0473 part.811-2-1

POWER

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46090G8L010M40	*1X4*	-	-	*90*	*12*
46090G8L010M60	*1X6*	*7,5*	*72*	*140*	*10*
46090G8L010M61	*1X10*	*9,5*	*130*	*230*	*8*
46090G8L010M62	*1X16*	*10,5*	*190*	*300*	*6*
46090G8L010M63	*1X25*	*12*	*260*	*420*	*4*
46090G8L010M64	*1X35*	*14,5*	*405*	*615*	*2*
46090G8L010M65	*1X50*	*16,5*	*560*	*825*	*1*
46090G8L010M66	*1X70*	*17,5*	*780*	*1090*	*2/0*
46090G8L010M67	*1X95*	*20*	*1030*	*1395*	*3/0*
46090G8L010M68	*1X120*	*23*	*1285*	*1770*	*4/0*
46090G8L010M69	*1X150*	*26*	*1430*	*1930*	*250 MCM*
46090G8L010M70	*1X185*	*29,5*	*1940*	*2635*	*350 MCM*
46090G8L010M71	*1X240*	*32*	*2530*	*3380*	*450 MCM*
46090G8L010M72	*1X300*	-	-	-	*550 MCM*
46090G8L010M73	*1X400*	-	-	-	*750 MCM*
46090G8L010M74	*1X500*	-	-	-	*1000 MCM*
46090G8L010M75	*1X630*	-	-	-	*1250 MCM*
46090G83020M15	*2X1,5*	*12,5*	*28,8*	*190*	*16*
46090G83020M25	*2X2,5*	*13,5*	*47,5*	*240*	*14*
46090G83020M40	*2X4*	*15*	*76,8*	*290*	*12*
46090G83020M60	*2X6*	*16*	*115,2*	*360*	*10*
46090G83020M61	*2X10*	*18*	*192*	*500*	*8*
46090G83020M62	*2X16*	*20,5*	*307,2*	*680*	*6*
46090G83020M63	*2X25*	*24*	*480*	*940*	*4*
46090G83020M64	*2X35*	*26,5*	*672*	*1230*	*2*
46090G83020M65	*2X50*	*30,5*	*960*	*1700*	*1*
46090G82031M15	*3G1,5*	*13,5*	*43,2*	*210*	*16*
46090G82031M25	*3G2,5*	*14,5*	*72*	*270*	*14*
46090G82031M40	*3G4*	*15,5*	*115,2*	*330*	*12*
46090G82031M60	*3G6*	*17*	*172,8*	*420*	*10*
46090G82031M61	*3G10*	*19*	*288*	*600*	*8*

FG7OH2R 0,6/1 KV

RoHS CE

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46090G82031M62	3G16	21,5	461	820	6
46090G82031M63	3G25	25,5	720	1150	4
46090G82031M64	3G35	28,5	1008	1520	2
46090G82031M65	3G50	32,5	1440	2100	1
46090G82031M66	3G70	37	2016	2900	2/0
46090G82031M67	3G95	41	2736	3650	3/0
46090G82031M68	3G120	46	3456	4700	4/0
46090G82031M69	3G150	51	4320	5800	250 MCM
46090G82041M15	4G1.5	14	57,6	250	16
46090G82041M25	4G2.5	15,5	96	330	14
46090G82041M40	4G4	16,5	153,6	400	12
46090G82041M60	4G6	18,5	230,5	500	10
46090G82041M61	4G10	21	384	720	8
46090G82041M62	4G16	23,5	614,4	1000	6
46090G82041M63	4G25	28	960	1420	4
46090G82035M64	3X35+25	30,4	1248	1780	2
46090G82035M65	3X50+25	33,6	1680	2400	1
46090G82035M66	3X70+35	38,2	2352	3300	2/0
46090G82035M67	3X95+50	43,4	3216	4200	3/0
46090G82035M68	3X120+70	48,3	4128	5200	4/0
46090G82035M69	3X150+95	53,9	5232	6700	250 MCM
46090G82051M15	5G1.5	15,1	72	280	16
46090G82051M25	5G2.5	16,4	120	380	14
46090G82051M40	5G4	18,2	192	480	12
46090G82051M60	5G6	19,8	288	610	10
46090G82051M61	5G10	22,4	480	900	8
46090G82051M62	5G16	25,4	768	1240	6
46090G82051M63	5G25	30,5	1200	1820	4
46090G82051M64	5G35	34,0	1680	2300	2
46090G82051M65	5G50	39,4	2400	3300	1

Other dimensions and colours available on request.

CONTROL

Part no.	No,of cores x cross section n x mm²	Outer Ø ca,mm ±10%	Copper weight kg/km	Cable weight approx, kg/km	AWG no,*)
46090G80071M15	7G1,5	16,1	100,8	325	16
46090G80101M15	10G1,5	19,7	144	415	16
46090G80121M15	12G1,5	20,2	172,8	460	16
46090G80161M15	16G1,5	22,0	230,4	560	16
46090G80191M15	19G1,5	23,0	273,6	635	16
46090G80241M15	24G1,5	26,4	345,6	715	16

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46090G80071M25	7G2,5	17,8	168	355	14
46090G80101M25	10G2,5	21,6	240	455	14
46090G80121M25	12G2,5	22,2	288	500	14
46090G80161M25	16G2,5	24,3	384	605	14
46090G80191M25	19G2,5	25,4	456	685	14
46090G80241M25	24G2,5	29,3	576	820	14

Other dimensions and colours available on request.

N1VC7V-K

RoHS CE

Construction:

Conductor:	flexible red copper, Cl.5, acc. to IEC 60228
Insulation:	PVC, type R2
Colour core:	**2 cores:** blue-brown, **3 cores:** brown-black-gray (or blue-brown-Y/G), **4 cores:** blue-brown-black-gray (or Y/G instead blue). **5 cores:** Y/G-blue-brown-black-gray (or black instead Y/G), **Multicores**: black with numbers.
Filler:	not fibrous and hygroscopic materials
Screen:	Two alternated copper tapes
Outer sheath:	light blue (RAL 5012), PVC, type R2

Features:

- **Indoor and outdoor use**
- **acc. to CEI 20-14**
- **UNEL TABLE 35755-35756**

Technical data:

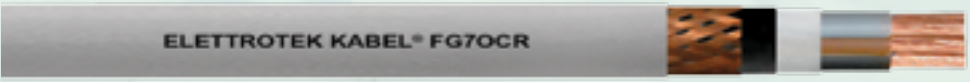
Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range:	0°C / + 70°C
Max. short circuit temperature:	160°C
Min. bending radius:	8 x D
Tensile stress:	
Installation:	50 n/mm²
Static stress:	15 n/mm²
Resistance:	**Flame retardant acc. to:** IEC 60332-3-C, DIN VDE 0482 part.266-2-5 EN 50266-2-5

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46100GB3020M15	*2x1,5*	*13,4*	*28,8*	*250*	*16*
46100GB3020M25	*2x2,5*	*14,7*	*48*	*310*	*14*
46100GB3020M40	*2x4*	*16,3*	*28,8*	*410*	*12*
46100GB3020M60	*2x6*	*17,3*	*48*	*460*	*10*
46100GB3020M61	*2x10*	*19,3*	*76,8*	*580*	*8*
46100GB3020M62	*2x16*	*22,8*	*115,2*	*820*	*6*
46100GB3020M63	*2x25*	*27,2*	*192*	*1180*	*4*
46100GB2031M15	*3G1,5*	*13,8*	*13.7*	*270*	*16*
46100GB2031M25	*3G2,5*	*15,2*	*14.6*	*360*	*14*
46100GB2031M40	*3G4*	*16,8*	*15.7*	*420*	*12*
46100GB2031M60	*3G6*	*18,0*	*16.9*	*500*	*10*
46100GB2031M61	*3G10*	*20,3*	*19.3*	*700*	*8*
46100GB2031M62	*3G16*	*24,3*	*21.3*	*1020*	*6*
46100GB2031M63	*3G25*	*28,0*	*25.6*	*1450*	*4*
46100GB2041M15	*4G1,5*	*14,6*	*57,6*	*310*	*16*
46100GB2041M25	*4G2,5*	*16,2*	*69*	*390*	*14*
46100GB2041M40	*4G4*	*18,0*	*153,6*	*480*	*12*
46100GB2041M60	*4G6*	*19,3*	*230,4*	*600*	*10*

GAALFLEX® VFD FG7(O)CR

inverter, connection to frequency converters

RoHS CE



Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	rubber,type G7
Cores colour:	brown - grey - black
Stranding:	cores laying to concentric crowns to ensure roundness to the cable.
Inner sheath:	PVC,type R2
Screen:	red copper braid of the same section as the phase conductor (for sections up to 16 mm²) or equal to half phase conductor, with a minimum of 16 mm² (for section greater than 25 mm²)
Outer sheath:	grey (RAL 7001),PVC,type Rz

Features:

- **according to IEC 60502-1 and CEI 20-13, CEI-UNEL 35375**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range:	
fixed laying:	- 50°C / + 80°C
flexible application:	-35°C / + 80°C
Temperaure at conductor:	
in service:	+ 90°C
in short circuit:	+ 250°C
Min. bending radius:	8 x d
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 266-2-5/EN 50266-2-5/ IEC 60332-3-22

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Current capacity at 30°C*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
33190G83030M25	*3x2,5+SH*	*14,6*	*26*	*96*	*340*	*14*
33190G83030M40	*3x4+SH*	*15,8*	*34*	*134*	*400*	*12*
33190G83030M60	*3x6+SH*	*18,7*	*44*	*231*	*490*	*10*
33190G83030M61	*3x10+SH*	*21,7*	*61*	*336*	*720*	*8*
33190G83030M62	*3x16+SH*	*25,3*	*82*	*615*	*1040*	*6*
33190G83030M63	*3x25+SH*	*28,8*	*108*	*873*	*1410*	*4*
33190G83030M64	*3x35+SH*	*32,2*	*135*	*1162*	*1870*	*2*
33190G83030M65	*3x50+SH*	*36,0*	*168*	*1680*	*2400*	*1*
33190G83030M66	*3x70+SH*	*40,7*	*207*	*2352*	*3360*	*2/0*
33190G83030M67	*3x95+SH*	*47,6*	*250*	*3192*	*4350*	*3/0*
33190G83030M68	*3x120+SH*	*52,2*	*292*	*4032*	*5540*	*4/0*
33190G83030M69	*3x150+SH*	*56,4*	*335*	*5040*	*6880*	*250 MCM*
33190G83030M70	*3x185+SH*	*64,8*	*382*	*6216*	*8350*	*350 MCM*
33190G83030M71	*3x240+SH*	*74,5*	*453*	*8604*	*11540*	*450 MCM*
33190G83030M72	*3x300+SH*	*85,5*	*523*	*10080*	*13480*	*550 MCM*

Other dimension and colours available on request.

Temperature °C:	15	20	25	35	40	45	50	55	60
K Factor:	1,17	1,12	1,06	0,94	0,87	0,79	0,71	0,61	0,50

GAALFLEX® VFD FG7OHH2R

0,6/1 KV inverter,connection to frequency converters

RoHS CE

Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	rubber,type G7
Colour core:	brown - grey - black
Screen:	aluminium stripe (100% covering), red copper braid of the same section as the phase conductor (for sections up to 16 mm^2) or equal to half phase conductor, with a minimum of 16 mm^2 (for section greater than 25 $mm^{2)}$)
Outer sheath:	grey (RAL 7001),PVC,type Rz

Features:

- **according to IEC 60502-1 and CEI 20-13, CEI-UNEL 35375**

Technical data:

Nominal voltage:	600/1000 kV
Test voltage:	4 kV
Temperature range:	
Fixed installation:	-50°C / + 80°C
Flexible installation:	-35°C / + 80°C
Temperaure at conductor:	
in service:	+ 90°C
in short circuit:	+ 250°C
Min. bending radius:	8 x d
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 266-5-2, EN 50267-2-1, IEC 60332-3-22, CEI 20-22/II

Part no.	*No,of cores x cross section n x mm^2*	*Outer Ø ca,mm ±10%*	*Current capacity at 30°C*	*Cable weight approx, kg/km*	*AWG no,*)*
33170G83030M25	*3x2,5+SH*	*14,6*	*26*	*340*	*14*
33170G83030M40	*3x4+SH*	*15,8*	*34*	*400*	*12*
33170G83030M60	*3x6+SH*	*18,5*	*44*	*490*	*10*
33170G83030M61	*3x10+SH*	*21*	*61*	*720*	*8*
33170G83030M62	*3x16+SH*	*23,5*	*82*	*1040*	*6*
33170G83030M63	*3x25+SH*	*27*	*108*	*1410*	*4*
33170G83030M64	*3x35+SH*	*30,5*	*135*	*1870*	*2*
33170G83030M65	*3x50+SH*	*35*	*168*	*2400*	*1*
33170G83030M66	*3x70+SH*	*40*	*207*	*3360*	*2/0*
33170G83030M67	*3x95+SH*	*45*	*250*	*4350*	*3/0*
33170G83030M68	*3x120+SH*	*50*	*292*	*5540*	*4/0*
33170G83030M69	*3x150+SH*	*55,4*	*335*	*6880*	*250 MCM*
33170G83030M70	*3x185+SH*	*61,5*	*382*	*8350*	*350 MCM*
33170G83030M71	*3x240+SH*	*68*	*453*	*11540*	*450 MCM*
33170G83030M72	*3x300+SH*	*85,5*	*523*	*13480*	*550 MCM*

Other dimensions and colors available on request.

Temperature °C:	15	20	25	35	40	45	50	55	60
K Factor:	1,17	1,12	1,06	0,94	0,87	0,79	0,71	0,61	0,50

Possible on request: FG7OHH2M1-0,6/1 kV, Halogen free Version
Sheath: green M1 LSOH thermoplastic

FG7(O)NR 0.6/1 kV

RoHS CE

Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	rubber,type G7
Cores colour:	**1 core:** black **2 cores:** blue-brown, **3 cores:** brown-black-gray (or blue-brown-Y/G), **4 cores:** blue-brown-black-gray (or Y/G without blue). **5 cores:** Y/G-blue-brown-black-gray (or black without Y/G), **Multicores:** black with numbers
Inner sheat:	PVC,type RZ
Armour:	steel tapes
Outer sheath:	light grey (RAL 7035),PVC,type RZ

Features:

- according to IEC 60502-1

Technical data:

Nominal voltage:	600/1000 kV
Test voltage:	4 kV
Temperature range:	0°C to + 70°C
Temperature at conductor: *in service:* *in short circuit:*	 + 90°C + 250°C
Min. bendiung radius:	14 x D
Resistance:	**Flame retardant and self-extinguishing:** DIN VDE 0482 part.265-2-1, EN 50265-2-1, IEC 60332-1 **Low smoke emission acc. to:** IEC 61034-2, EN 50268-2 DIN VDE 0482 part 268-2

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46110G83020M15	*2x1,5*	*13,5*	*28,8*	*265*	*23*
46110G83020M25	*2x2,5*	*14,4*	*48*	*310*	*30*
46110G83020M40	*2x4*	*15,6*	*76,8*	*370*	*39*
46110G83020M60	*2x6*	*16,6*	*115,2*	*430*	*49*
46110G83020M61	*2x10*	*19,4*	*192*	*610*	*66*
46110G83020M62	*2x16*	*21,5*	*307,2*	*790*	*86*
46110G83020M63	*2x25*	*26,3*	*480*	*1180*	*111*
46110G83020M64	*2x35*	*28,8*	*672*	*1460*	*136*
46110G83020M65	*2x50*	*31,6*	*960*	*1910*	*168*
46110G83020M66	*2x70*	*37,8*	*1344*	*2750*	*207*
46110G83020M67	*2x95*	*40,4*	*1824*	*3330*	*215*
46110G83020M68	*2x120*	*47,8*	*2304*	*4540*	*284*
46110G83020M69	*2x150*	*54,3*	*2880*	*5800*	*324*
46110G82031M15	*3G1,5*	*14*	*43,2*	*300*	*19*
46110G82031M25	*3G2,5*	*15*	*72*	*350*	*25*
46110G82031M40	*3G4*	*16*	*115,2*	*420*	*32*
46110G82031M60	*3G6*	*17,2*	*172,8*	*500*	*41*
46110G82031M61	*3G10*	*20,4*	*288*	*730*	*55*
46110G82031M62	*3G16*	*23,4*	*460,8*	*1000*	*72*
46110G82031M63	*3G25*	*27,7*	*720*	*1420*	*93*
46110G82031M64	*3G35*	*30,3*	*1008*	*1830*	*114*
46110G82031M65	*3G50*	*33,4*	*1440*	*2360*	*141*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46110G82031M66	*3G70*	*39,9*	*2016*	*3380*	*176*
46110G82031M67	*3G95*	*45,7*	*2736*	*4530*	*206*
46110G82031M68	*3G120*	*53,1*	*3456*	*5890*	*238*
46110G82031M69	*3G150*	*58*	*4320*	*7200*	*272*
46110G82031M70	*3G185*	*61,7*	*5328*	*8390*	*306*
46110G82031M71	*3G240*	*71,2*	*6912*	*11000*	*360*
46110G83035M64	*3x35+1x25*	*32,2*	*1248*	*2107*	*114*
46110G83035M65	*3x50+1x25*	*35,7*	*1680*	*2694*	*141*
46110G83035M66	*3x70+1x35*	*41,3*	*2352*	*3714*	*174*
46110G83035M67	*3x95+1x70*	*47,3*	*3408*	*5014*	*206*
46110G83035M68	*3x120+1x70*	*55,4*	*4128*	*6594*	*238*
46110G83035M69	*3x150+1x95*	*60,5*	*5232*	*8109*	*272*
46110G83035M70	*3x185+1x95*	*64,3*	*6240*	*9340*	*306*
46110G83035M71	*3x240+1x150*	*74,2*	*8352*	*12395*	*360*
46110G82041M15	*4G1,5*	*14,8*	*57,6*	*315*	*19*
46110G82041M25	*4G2,5*	*15,8*	*96*	*380*	*25*
46110G82041M40	*4G4*	*17,2*	*153,6*	*469*	*32*
46110G82041M60	*4G6*	*18,5*	*230,4*	*572*	*41*
46110G82041M61	*4G10*	*22*	*384*	*846*	*55*
46110G82041M62	*4G16*	*25,8*	*614,4*	*1216*	*72*
46110G82041M63	*4G25*	*29,8*	*960*	*1729*	*93*

FG7(O)NR 0.6/1 kV

RoHS CE

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46110G82051M15	5G1,5	16	72	390	19
46110G82051M25	5G2,5	17	120	470	25
46110G82051M40	5G4	18,6	192	580	32
46110G82051M60	5G6	20	288	700	41
46110G82051M61	5G10	24,7	480	1090	55
46110G82051M62	5G16	27,9	768	1490	72
46110G82051M63	5G25	32,7	1200	2110	93

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46110G80071M15	7G1,5	16,7	100,8	440	19
46110G80071M25	7G2,5	18,3	168	550	25
46110G80101M15	10G1,5	18,8	144	490	19
46110G80101M25	10G2,5	20,6	240	700	25
46110G80121M15	12G1,5	20,4	172,8	630	19
46110G80121M25	12G2,5	22,3	288	800	25
46110G80161M15	16G1,5	22	230,4	750	19
46110G80161M25	16G2,5	25	384	1020	25
46110G80191M15	19G1,5	23,7	273,6	880	19
46110G80191M25	19G2,5	26	456	1130	25
46110G80241M15	24G1,5	26,6	345,6	1050	19
46110G80241M25	24G2,5	29,4	576	1370	25

Other dimensions and colours available on request.

FG7(O)RAR 0.6/1 kV

RoHS CE

Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	rubber,type G7
Colour core:	**1 core:** black **2 cores:** light blue-black **3 cores**: light blue-brown-black, (or Y/G-black-light blue) **4 cores:** light blue-brown-black-black, (or Y/G-black-light blue-brown) **5 cores:** Y/G-black-light blue-brown-black
Armour:	braid of galvanized steel wires
Outer sheath:	light grey (RAL 7035),PVC,type RZ

Features:

- **according to IEC 60502-1**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range: *fixed laying:* *flexible application:*	 - 25°C / + 90°C 0°C / + 90°C
Min. Bending Radius:	8 x d
Temperature at conductor: *in service:* *in short circuit:*	 + 90°C + 250°C
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 2656-2-1, EN 50265-2-1, IEC 60332-1

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46120G83020M15	*2x1,5*	*10,3*	*28,8*	*162*	*16*
46120G82031M15	*3G1,5*	*10,8*	*48*	*188*	*16*
46120G82041M15	*4G1,5*	*11,6*	*57,6*	*212*	*16*
46120G82051M15	*5G1,5*	*12,5*	*72*	*237*	*16*
46120G80071M15	*7G1,5*	*13,4*	*100,8*	*273*	*16*
46120G80101M15	*10G1,5*	*16,4*	*144*	*399*	*16*
46120G80121M15	*12G1,5*	*17,2*	*172,8*	*481*	*16*
46120G80161M15	*16G1,5*	*19,1*	*230,4*	*596*	*16*
46120G80191M15	*19G1,5*	*20,2*	*273,6*	*666*	*16*
46120G80241M15	*24G1,5*	*22,8*	*345,6*	*861*	*16*
46120G80301M15	*30G1,5*	*24,6*	*432*	*1029*	*16*
46120G80361M15	*36G1,5*	*26,7*	*518,4*	*1197*	*16*
46120G80481M15	*48G1,5*	*30,3*	*691,2*	*1470*	*16*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46120G83020M25	*2x2,5*	*11,4*	*48*	*190*	*14*
46120G82031M25	*3G2,5*	*12,0*	*72*	*230*	*14*
46120G82041M25	*4G2,5*	*12,9*	*96*	*268*	*14*
46120G82051M25	*5G2,5*	*14,0*	*120*	*328*	*14*
46120G80071M25	*7G2,5*	*15,3*	*168*	*407*	*14*
46120G80101M25	*10G2,5*	*18,7*	*240*	*579*	*14*
46120G80121M25	*12G2,5*	*19,7*	*288*	*671*	*14*
46120G80161M25	*16G2,5*	*21,9*	*384*	*824*	*14*
46120G80191M25	*19G2,5*	*23,0*	*456*	*947*	*14*
46120G80241M25	*24G2,5*	*26,1*	*576*	*1187*	*14*
46120G80301M25	*30G2,5*	*28,3*	*720*	*1520*	*14*
46120G80361M25	*36G2,5*	*30,5*	*864*	*1640*	*14*
46120G83020M40	*2x4*	*12,7*	*76,8*	*242*	*12*
46120G82031M40	*3G4*	*13,3*	*115,2*	*299*	*12*
46120G82041M40	*4G4*	*14,7*	*153,6*	*360*	*12*
46120G82051M40	*5G4*	*15,9*	*192*	*410*	*12*
46120G80071M40	*7G4*	*17,4*	*268,8*	*530*	*12*
46120G80101M40	*10G4*	*21,5*	*384*	*851*	*12*
46120G80121M40	*12G4*	*22,5*	*460,8*	*989*	*12*
46120G80161M40	*16G4*	*25,1*	*614,4*	*1344*	*12*
46120G80191M40	*19G4*	*26,4*	*729,6*	*1560*	*12*

Other dimensions and colours available on request.

FG7(O)RAR 0.6/1 kV

RoHS CE

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46120G83020M60	2x6	14,2	115,2	327	10
46120G82031M60	3G6	14,9	172,8	394	10
46120G82041M60	4G6	16,2	230,4	497	10
46120G82051M60	5G6	17,9	288	641	10
46120G80071M60	7G6	19,3	403,2	814	10
46120G80101M60	10G6	24,0	576	1282	10
46120G80121M60	12G6	25,4	691,2	1502	10
46120G80161M60	16G6	28,1	921,6	1964	10
46120G83020M61	2x10	16,3	192	578	8
46120G82031M61	3G10	17,4	288	637	8
46120G82041M61	4G10	19,2	384	777	8
46120G82051M61	5G10	21,0	480	1040	8
46120G83020M62	2x16	18,9	307,2	746	6

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46120G82031M62	3G16	20,0	460,8	987	6
46120G82041M62	4G16	21,8	614,4	1082	6
46120G83020M63	2x25	22,8	480	1260	4
46120G82031M63	3G25	24,1	720	1460	4
46120G82041M63	4G25	26,7	960	1659	4

Other dimensions and colours available on request.

FG7(O)H2RAR 0.6/1 kV

RoHS CE

Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	rubber,type G7
Colour core:	**1 core:** black **2 cores:** light blue-black **3 cores:** light blue-brown-black, (or Y/G-black-light blue) **4 cores:** light blue-brown-black-black, (or Y/G-black-light blue-brown) **5 cores:** Y/G-black-light blue-brown-black
Screen:	red copper braid
Inner sheath:	PVC compound
Armour:	braid of galvanized steel wires
Outer sheath:	light grey (RAL 7035),PVC,type RZ

Features:

- according to IEC 60502-1

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range: *fixed laying:* *flexible application:*	 - 25°C / + 90°C 0°C / + 90°C
Temperature at conductor: *in service:* *in short circuit:*	 + 90°C + 250°C
Min. Bending Radius:	8 x d
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 265-2-1, EN 50265-2-1, IEC 60332-1-2

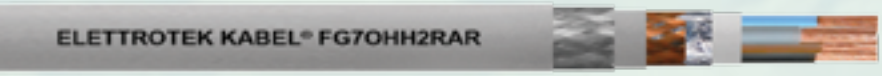
Part no.	*No,of cores x cross section n x mm²*	*Outer Ø ca,mm ±10%*	*Copper weight kg/km*	*Cable weight approx, kg/km*	*AWG no,*)*
46130G83020M15	*2x1,5*	*16,1*	*28,8*	*239*	*16*
46130G82031M15	*3G1,5*	*17,1*	*30,24*	*260*	*16*
46130G82041M15	*4G1,5*	*17,6*	*57,6*	*306*	*16*
46130G82051M15	*5G1,5*	*18,7*	*72*	*338*	*16*
46130G80071M15	*7G1,5*	*19,7*	*100,8*	*388*	*16*
46130G80101M15	*10G1,5*	*23,3*	*144*	*552*	*16*
46130G80121M15	*12G1,5*	*23,8*	*172,8*	*573*	*16*
46130G80161M15	*16G1,5*	*25,6*	*230,4*	*722*	*16*
46130G80191M15	*19G1,5*	*26,6*	*273,6*	*779*	*16*
46130G80241M15	*24G1,5*	*30*	*345,6*	*948*	*16*
46130G80301M15	*30G1,5*	*-*	*432*	*-*	*16*
46130G80361M15	*36G1,5*	*-*	*518,4*	*-*	*16*
46130G80481M15	*48G1,5*	*-*	*691,2*	*-*	*16*
46130G83020M25	*2x2,5*	*16,1*	*48*	*299*	*14*
46130G82031M25	*3G2,5*	*17,1*	*72*	*329*	*14*
46130G82041M25	*4G2,5*	*19,1*	*96*	*387*	*14*
46130G82051M25	*5G2,5*	*20*	*120*	*440*	*14*
46130G80071M25	*7G2,5*	*21,4*	*168*	*-*	*14*
46130G80101M25	*10G2,5*	*25,2*	*240*	*-*	*14*
46130G80121M25	*12G2,5*	*25,8*	*288*	*-*	*14*
46130G80161M25	*16G2,5*	*27,9*	*384*	*-*	*14*
46130G80191M25	*19G2,5*	*29*	*456*	*-*	*14*
46130G80241M25	*24G2,5*	*32,9*	*576*	*-*	*14*
46130G80301M25	*30G2,5*	*-*	*720*	*-*	*14*
46130G80361M25	*36G2,5*	*-*	*864*	*-*	*14*
46130G83020M40	*2x4*	*18,6*	*76,8*	*361*	*12*
46130G82031M40	*3G4*	*19,1*	*115,2*	*414*	*12*
46130G82041M40	*4G4*	*19,5*	*153,6*	*493*	*12*
46130G82051M40	*5G4*	*21,8*	*192*	*573*	*12*
46130G80071M40	*7G4*	*-*	*268,8*	*-*	*12*
46130G80101M40	*10G4*	*-*	*384*	*-*	*12*
46130G80121M40	*12G4*	*-*	*-*	*-*	*12*
46130G80161M40	*16G4*	*-*	*-*	*-*	*12*
46130G80191M40	*19G4*	*-*	*-*	*-*	*12*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46130G83020M60	*2x6*	*19,6*	*115,2*	*429*	*10*
46130G82031M60	*3G6*	*20,6*	*172,8*	*488*	*10*
46130G82041M60	*4G6*	*22,1*	*216*	*599*	*10*
46130G82051M60	*5G6*	*23,4*	*288*	*703*	*10*
46130G80071M60	*7G6*	*-*	*403,2*	*-*	*10*
46130G80101M60	*10G6*	*-*	*576*	*-*	*10*
46130G80121M60	*12G6*	*-*	*691,2*	*-*	*10*
46130G80161M60	*16G6*	*-*	*921,6*	*-*	*10*
46130G83020M61	*2x10*	*64,8*	*192*	*567*	*8*
46130G82031M61	*3G10*	*68,4*	*288*	*673*	*8*
46130G82041M61	*4G10*	*24,6*	*384*	*818*	*8*
46130G82051M61	*5G10*	*34,1*	*480*	*997*	*8*
46130G83020M62	*2x16*	*24,1*	*307,2*	*767*	*6*
46130G82031M62	*3G16*	*25,1*	*460,8*	*915*	*6*
46130G82041M62	*4G16*	*27,1*	*614,4*	*1000*	*6*
46130G83020M63	*2x25*	*17,1*	*480*	*1084*	*4*
46130G82031M63	*3G25*	*18,1*	*720*	*1318*	*4*
46130G82041M63	*4G25*	*31,6*	*960*	*1677*	*4*
46130G82041M64	*4G35*	*-*	*1344*	*-*	*2*
46130G82041M65	*4G50*	*-*	*1920*	*-*	*1*
46130G82041M66	*4G70*	*-*	*2688*	*-*	*2/0*
46130G82041M67	*4G95*	*-*	*3648*	*-*	*3/0*
46130G82041M68	*4G120*	*-*	*4608*	*-*	*4/0*
46130G82041M69	*4G150*	*-*	*5760*	*-*	*250 MCM*

Other dimensions and colours available on request.

FG7(O)HH2RAR 0.6/1 kV

RoHS CE



Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	rubber HEPR
Colour core:	**1 core:** black **2 cores:** light blue-black **3 cores**: light blue-brown-black, (or Y/G-black-light blue) **4 cores:** light blue-brown-black-black, **5 cores:** Y/G-black-light blue-brown-black
Screen:	aluminium tape and red copper braid
Inner sheat:	PVC compound
Armour	braid of galvanized steel wires
Outer sheat:	light grey (RAL 7035),PVC,type RZ

Features:

- according to IEC 60502-1

Technical data:

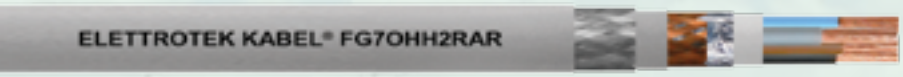
Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range: *fixed laying:* *flexible application:*	 - 25°C / + 90°C 0°C / + 90°C
Temperature at conductor: *in service:* *in short circuit:*	 + 90°C + 250°C
Min. Bending Radius:	8 x d
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 2656-2-1, EN 50265-2-1, IEC 60332-1

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46140G83020M15	*2x1,5*	*16,1*	*28,8*	*239*	*16*
46140G82031M15	*3G1,5*	*17,1*	*30,24*	*260*	*16*
46140G82041M15	*4G1,5*	*17,6*	*57,6*	*306*	*16*
46140G82051M15	*5G1,5*	*18,7*	*72*	*338*	*16*
46140G80071M15	*7G1,5*	*19,7*	*100,8*	*388*	*16*
46140G80101M15	*10G1,5*	*23,3*	*144*	*552*	*16*
46140G80121M15	*12G1,5*	*23,8*	*172,8*	*573*	*16*
46140G80161M15	*16G1,5*	*25,6*	*230,4*	*722*	*16*
46140G80191M15	*19G1,5*	*26,6*	*273,6*	*779*	*16*
46140G80241M15	*24G1,5*	*30*	*345,6*	*948*	*16*
46140G80301M15	*30G1,5*	*-*	*432*	*-*	*16*
46140G80361M15	*36G1,5*	*-*	*518,4*	*-*	*16*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46140G80481M15	*48G1,5*	*-*	*691,2*	*-*	*16*
46140G83020M25	*2x2,5*	*16,1*	*48*	*299*	*14*
46140G82031M25	*3G2,5*	*17,1*	*30,24*	*260*	*14*
46140G82041M25	*4G2,5*	*19,1*	*96*	*387*	*14*
46140G82051M25	*5G2,5*	*20*	*120*	*440*	*14*
46140G80071M25	*7G2,5*	*21,4*	*168*	*-*	*14*
46140G80101M25	*10G2,5*	*25,2*	*240*	*-*	*14*
46140G80121M25	*12G2,5*	*25,8*	*288*	*-*	*14*
46140G80161M25	*16G2,5*	*27,9*	*384*	*-*	*14*
46140G80191M25	*19G2,5*	*29*	*456*	*-*	*14*
46140G80241M25	*24G2,5*	*32,9*	*576*	*-*	*14*
46140G80301M25	*30G2,5*	*-*	*720*	*-*	*14*
46140G80361M25	*36G2,5*	*-*	*864*	*-*	*14*
46140G83020M40	*2x4*	*18,6*	*76,8*	*361*	*12*
46140G82031M40	*3G4*	*19,1*	*115,2*	*414*	*12*
46140G82041M40	*4G4*	*19,5*	*153,6*	*493*	*12*
46140G82051M40	*5G4*	*21,8*	*192*	*573*	*12*
46140G80071M40	*7G4*	*-*	*268,8*	*-*	*12*
46140G80101M40	*10G4*	*-*	*384*	*-*	*12*
46140G80121M40	*12G4*	*-*	*460,8*	*-*	*12*
46140G80161M40	*16G4*	*-*	*614,4*	*-*	*12*
46140G80191M40	*19G4*	*-*	*729,6*	*-*	*12*

FG7(O)HH2RAR 0.6/1 kV

RoHS CE



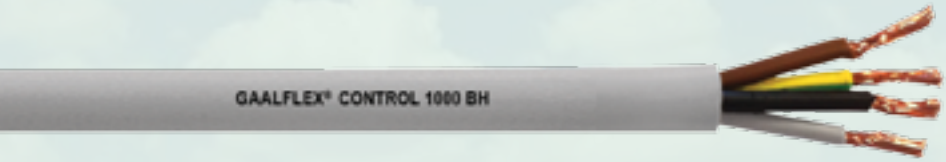
Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46140G83020M60	2x6	19,6	115,2	429	10
46140G82031M60	3G6	20,6	172,8	488	10
46140G82041M60	4G6	22,1	216	599	10
46140G82051M60	5G6	23,4	288	703	10
46140G80071M60	7G6	-	403,2	-	10
46140G80101M60	10G6	-	576	-	10
46140G80121M60	12G6	-	691,2	-	10
46140G80161M60	16G6	-	921,6	-	10
46140G83020M61	2x10	64,8	192	567	8
46140G82031M61	3G10	68,4	288	673	8
46140G82041M61	4G10	24,6	384	818	8
46140G82051M61	5G10	34,1	480	997	8

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46140G83020M62	2x16	24,1	307,2	767	6
46140G82031M62	3G16	25,1	460,8	915	6
46140G82041M62	4G16	27,1	614,4	1000	6
46140G83020M63	2x25	17,1	480	1084	4
46140G82031M63	3G25	18,1	720	1318	4
46140G82041M63	4G25	31,6	960	1677	4
46140G82041M64	4G35	-	1344	-	2
46140G82041M65	4G50	-	1920	-	1
46140G82041M66	4G70	-	2688	-	2/0
46140G82041M67	4G95	-	3648	-	3/0
46140G82041M68	4G120	-	4608	-	4/0
46140G82041M69	4G150	-	5760	-	250

Other dimensions and colours available on request.

GAALFLEX® CONTROL 1000 BH

halogen-free, control cable with coloured cores 0,6/1 kV



Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	halogen-free compound
Colour core:	1 core: black 2 cores: blue, brown 3 cores: brown, black, gray (or blue brown. Y/G) 4 cores: blue, brown, black, gray, (or Y/G instead blue) 5 cores: blue. brown. black. gray. Y/G Multi cores: black with numbers
Wrapping:	filler compound
Outer sheath:	gray (RAL 7001), halogen-free compound

Features:

- **CEI 20-13 / 20-22 III (EN 50266) / 20-35 (EN 60332-1) 20-37 (EN 50267) / UNEL TABLES 35382 - 35384**
- **small bending radius**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range:	
Fixed installation:	-40°C up to 90°C
Flexible application:	-15°C up to 90°C
Short circuit:	+ 250°C
Min. bending radius:	
Fixed laying:	4 x d
Flexible installation:	6 x d
Max. pulling installation:	
During installation:	50 N/mm²
Static stress:	15 N/mm²
Resistance:	**Self-extinguishing and flame retardant:** acc. to DIN VDE 0482 part 265-2-1 / EN 50265-2-1 / IEC 60332-1-2 (equivalent DIN VDE 0472 part 804 test method B) **Halogen-free:** acc. to DIN VDE 0482 part 267, EN 50267-2-1 / IEC 60754-1 (equivalent DIN VDE 0472 part 815) **Low smoke density:** acc. to IEC 61034-1-2, DIN VDE 0482 part. 268-1-2, EN 50268-1-2 **Corrosivenes of conflagration gases:** acc. to DIN VDE 0482 part 267/ EN 50267-2-2 / IEC 60754-2 (equivalent DIN VDE 0472 part 813)

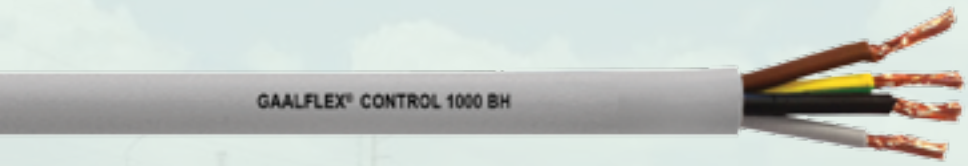
POWER

Part no	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Copper weight kg/km*	*Cable weig ht approx. kg/km*	*AWG no.*)*
31260G53020M15	*2 x 1,5*	*10*	*28,8*	*127*	*16*
31260G53020M25	*2 x 2,5*	*10,9*	*48*	*158*	*14*
31260G53020M40	*2 x 4*	*11,9*	*76,8*	*208*	*12*
31260G53020M60	*2 x 6*	*13,1*	*115,2*	*258*	*10*
31260G53020M61	*2 x 10*	*15,3*	*192,0*	*385*	*8*
31260G53020M62	*2 x 16*	*17,5*	*307,2*	*565*	*6*
31260G53020M63	*2 x 25*	*20,3*	*480*	*793*	*4*
31260G53020M64	*2 x 35*	*22,4*	*672*	*1037*	*2*
31260G53020M65	*2 x 50*	*26,2*	*960*	*1447*	*1*
31260G53020M66	*2 x 70*	*30,9*	*1344*	*2224*	*2/0*
31260G53020M67	*2 x 95*	*34,2*	*1824*	*2848*	*3/0*
31260G53020M68	*2 x 120*	*38,4*	*2304*	*3599*	*4/0*
31260G53020M69	*2 x 150*	*42,5*	*2880*	*3939*	*250 MCM*
31260G52031M15	*3 G 1,5*	*10,4*	*43,2*	*143*	*16*
31260G52031M25	*3 G 2,5*	*11,4*	*72*	*183*	*14*
31260G52031M40	*3 G 4*	*12,8*	*115,2*	*244*	*12*
31260G52031M60	*3 G 6*	*13,8*	*172,8*	*314*	*10*
31260G52031M61	*3 G 10*	*16,9*	*288*	*493*	*8*
31260G52031M62	*3 G 16*	*18,2*	*460,8*	*678*	*6*
31260G52031M63	*3 G 25*	*21,2*	*720*	*977*	*4*
31260G52031M64	*3 G 35*	*23,5*	*1008*	*1354*	*2*
31260G52031M65	*3 G 50*	*29,5*	*1440*	*1918*	*1*
31260G52031M66	*3 G 70*	*30*	*2016*	*2624*	*2/0*
31260G52031M67	*3 G 95*	*34*	*2736*	*3418*	*3/0*

GAALFLEX® CONTROL 1000 BH

halogen-free, control cable with coloured cores 0,6/1 kV

RoHS Halogen Free CE



Part no.	No, of cores x cross section n x mm²	Outer Ø Ca. mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
31260G52031M68	3 G 120	37,9	3456	4326	4/0
31260G52031M69	3 G 150	42,6	4320	5348	250 MCM
31260G52031M70	3 G 185	47,2	5328	6611	350 MCM
31260G52031M71	3 G 240	53,4	6912,0	8613	450 MCM
31260G52031M72	3 G 300	60,7	8640,0	10700	550 MCM
31260G52041M15	4 G 1,5	10,9	57,6	167	16
31260G52041M25	4 G 2,5	12,3	96,0	217	14
31260G52041M40	4 G 4	13,7	153,6	293	12
31260G52041M60	4 G 6	15	230,5	376	10
31260G52041M61	4 G 10	18	384,0	599	8
31260G52041M62	4 G 16	20,3	614,4	871	6
31260G52041M63	4 G 25	23,5	960,0	1239	4
31260G52035M64	3 x 35 +1 G 25	26,3	1248,0	1589	2
31260G52035M65	3 x 50 + 1 G 25	30,3	1680,0	2116	1
31260G52035M66	3 x 70+1 G 35	35,7	2352,0	2975	2/0
31260G52035M67	3 x 95 + 1 G 50	41,2	3216,0	3971	3/0
31260G52035M68	3 x 120 + 1 G 70	45	4128,0	5219	4/0
31260G52035M69	3 x 150 + 1 G 95	52	5232,0	6511	250 MCM
31260G52035M70	3 x 185 + 1 G 95	56,7	6240,0	7669	350 MCM
31260G52035M71	3 x 240 + 1 G 150	65,6	8352,0	10279	450 MCM
31260G52035M72	3 x 300 +1 G 150	68	10080,0	10700	550 MCM
31260G52051M15	5 G 1,5	12,1	72,0	197	16
31260G52051M25	5 G 2,5	13,5	120,0	266	14
31260G52051M40	5 G 4	15,2	196,0	361	12
31260G52051M60	5 G 6	16,7	288,0	471	10
31260G52051M61	5 G 10	19,7	480,0	756	8
31260G52051M62	5 G 16	22,5	768,0	1119	6
31260G52051M63	5 G 25	26,5	1200,0	1597	4
31260G52051M64	5 G 35	32,9	1680,0	2160	2
31260G52051M65	5 G 50	38,3	2400,0	3000	1

CONTROL

Part no.	No. of cores x cross section n x mm²	Outer Ø Ca. mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
31260G50071M15	7 G1,5	13,6	100,8	261	16
31260G50071M25	7 G 2,5	15	168,0	347	14
31260G50071M25	10 G 1,5	15,2	144,0	344	16
31260G50071M25	10 G 2,5	15,0	240,0	463	14
31260G50121M15	12 G 1,5	17,2	172,8	397	16
31260G50121M25	12 G 2,5	17,6	288,0	537	14
31260G50121M25	16 G 1,5	18,5	230,4	535	16
31260G50121M25	16 G 2,5	21,5	384,0	738	14
31260G50191M25	19 G 1,5	18,8	273,6	598	16
31260G50191M25	19 G 2,5	21,6	456,0	831	14
31260G50241M25	24 G 1,5	21,7	324,0	718	16
31260G50241M25	24 G 2,5	24,7	576,0	1029	14
31260G50271M25	27 G 1,5	24	-	-	16
31260G50271M25	27 G 2,5	26,8	-	-	14
31260G50301M25	30 G 1,5	24,8	-	-	16
31260G50301M25	30 G 2,5	27,6	-	-	14

Other dimension and colours available on request.

FG7(O)M1 0,6/1 kV

RoHS Halogen Free CE

Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	rubber,type G7
Colour core:	**1 core:** black **2 cores:** light blue-black **3 cores:** light blue-brown-black, (or Y/G-black-light blue) **4 cores:** light blue-brown-black-black, (or Y/G-black-light blue-brown) **5 cores:** Y/G-black-light blue-brown-black
Inner sheath:	Thermoplastic,halogen free compound
Outer Sheath:	green (RAL 6018),thermoplastic,halogen-free,type M1

Features:

- according to IEC 60502-1

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	3,5 kV
Temperature range: *fixed laying:* *flexible application:*	 -40°C up to 90°C -15°C up to 90°C
Temperature at conductor: *in service:* *in short circuit:*	 + 90°C + 250°C
Min. bending radius: **POWER:** **CONTROL:**	 4 x d 6 x d
Max. tensile stress:	5 kg x mm²
Resistance:	**Flame retardant and self-extinguishin acc. to:** DIN VDE 0482 part 265-2-1, EN 50265-2-1, IEC 60332-1 **Halogen free acc. to:** EN 50267-2-1,IEC 60754-2 DIN VDE 0482 part.267-2-1

POWER

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46150GEL010M61	*1x10*	*9,4*	*96*	*150*	*8*
46150GEL010M62	*1x16*	*10,4*	*153,6*	*205*	*6*
46150GEL010M63	*1x25*	*12,2*	*240*	*295*	*4*
46150GEL010M64	*1x35*	*13,6*	*336*	*390*	*2*
46150GEL010M65	*1x50*	*15,4*	*480*	*550*	*1*
46150GEL010M66	*1x70*	*17,3*	*672*	*740*	*2/0*
46150GEL010M67	*1x95*	*19,4*	*912*	*940*	*3/0*
46150GEL010M68	*1x120*	*21,4*	*1152*	*1210*	*4/0*
46150GEL010M69	*1x150*	*23,8*	*1440*	*1490*	*250 MCM*
46150GEL010M70	*1x185*	*26,0*	*1776*	*1850*	*350 MCM*
46150GEL010M71	*1x240*	*29,2*	*2304*	*2350*	*450 MCM*
46150GEL010M72	*1x300*	*32,0*	*2880*	*2950*	*550 MCM*

FG7(O)M1 0,6/1 kV

RoHS Halogen Free CE

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46150GE3020M15	2x1,5	12,0	28,8	150	16
46150GE3020M25	2x2,5	13,0	48	190	14
46150GE3020M40	2x4	14,2	76,8	240	12
46150GE3020M60	2x6	15,4	115,2	310	10
46150GE3020M61	2x10	17,3	192	430	8
46150GE3020M62	2x16	19,4	307,2	580	6
46150GE3020M63	2x25	23,0	480	820	4
46150GE3020M64	2x35	25,7	672	1100	2
46150GE3020M65	2x50	29,3	960	1550	1
46150GE3020M66	2x70	33,1	1344	2050	2/0
46150GE3020M67	2x95	37,4	1824	2700	3/0
46150GE3020M68	2x120	41,5	2304	3350	4/0
46150GE3020M69	2x150	46,1	2880	4100	250 MCM
46150GE2031M15	3G1,5	12,5	43,2	170	16
46150GE2031M25	3G2,5	13,6	72	220	14
46150GE2031M40	3G4	14,9	115,2	280	12
46150GE2031M60	3G6	16,2	172,8	360	10
46150GE2031M61	3G10	18,2	288	520	8
46150GE2031M62	3G16	20,6	460,8	730	6
46150GE2031M63	3G25	24,5	720	1050	4
46150GE2031M64	3G35	27,3	1008	1400	2
46150GE2031M65	3G50	31,2	1440	1950	1
46150GE2031M66	3G70	35,6	2016	2700	2/0
46150GE2031M67	3G95	40,0	2736	3500	3/0
46150GE2031M68	3G120	44,4	3456	4400	4/0
46150GE2031M69	3G150	49,5	4320	5400	250 MCM
46150GE2031M70	3G185	55,2	5328	6700	350 MCM
46150GE2031M71	3G240	61,9	6912	8700	450 MCM

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46150GE2031M72	3G300	68,0	8640	10700	550 MCM
46150GE2041M15	4G1,5	13,4	57,6	200	16
46150GE2041M25	4G2,5	14,6	96	260	14
46150GE2041M40	4G4	16,0	153,6	330	12
46150GE2041M60	4G6	17,5	230,4	440	10
46150GE2041M61	4G10	19,8	384	640	8
46150GE2041M62	4G16	22,4	614,4	900	6
46150GE2041M63	4G25	26,8	960	1300	4
46150GE2035M64	3x35+25	29,2	1248	1600	2
46150GE2035M65	3x50+25	32,4	1680	2200	1
46150GE2035M66	3x70+35	37,0	2352	3000	2/0
46150GE2035M67	3x95+50	42,0	3216	3900	3/0
46150GE2035M68	3x120+70	46,9	4128	4700	4/0
46150GE2035M69	3x150+95	52,5	5232	6300	250 MCM
46150GE2035M70	3x185+95	57,3	6240	7650	350 MCM
46150GE2035M71	3x240+150	65,5	8352	10000	450 MCM
46150GE2035M72	3x300+150	70,8	10080	12150	550 MCM
46150GE2051M15	5G1,5	14,4	72	230	16
46150GE2051M25	5G2,5	15,6	120	310	14
46150GE2051M40	5G4	17,3	192	395	12
46150GE2051M60	5G6	18,9	288	535	10
46150GE2051M61	5G10	21,5	480	760	8
46150GE2051M62	5G16	24,4	768	1100	6
46150GE2051M63	5G25	29,3	1200	1650	4
46150GE2051M64	5G35	32,8	1680	2160	2
46150GE2051M65	5G50	38,2	2400	3000	1

Other dimensions and colours available on request.

CONTROL

Part no,	No,of cores x cross section n x mm²	Outer Ø ca,mm ±10%	Copper weight kg/km	Cable weight approx, kg/km	AWG no,*)
46150GE0071M15	7G1,5	15,4	100,8	275	16
46150GE0101M15	10G1,5	18,7	144	365	16
46150GE0121M15	12G1,5	19,3	172,8	410	16
46150GE0161M15	16G1,5	21,1	230,4	510	16
46150GE0191M15	19G1,5	22,1	273,6	580	16
46150GE0241M15	24G1,5	25,4	345,6	700	16

Part no,	No,of cores x cross section n x mm²	Outer Ø ca,mm ±10%	Copper weight kg/km	Cable weight approx, kg/km	AWG no,*)
46150GE0071M25	7G2,5	16,8	168	310	14
46150GE0101M25	10G2,5	20,6	240	395	14
46150GE0121M25	12G2,5	21,3	288	445	14
46150GE0161M25	16G2,5	23,3	384	545	14
46150GE0191M25	19G2,5	24,5	456	615	14
46150GE0241M25	24G2,5	28,3	576	750	14

Other dimensions and colours available on request.

FG7(O)H2M1 0,6/1kV

RoHS Halogen Free CE

Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	rubber,type G7
Colour core:	**2 cores:** light blue-black **3 cores:** light blue-brown-black, (or Y/G-black-light blue) **4 cores:** light blue-brown-black-black, (or Y/G-black-light blue-brown) **5 cores:** Y/G-black-light blue-brown-black
Inner sheath:	Thermoplastic,halogen free compound
Screen:	red copper braid
Outer sheat:	green (RAL 6018),thermoplastic,halogen-free,type M1

Features:

- According to IEC 60502-1

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	3,5 kV
Min. bending radius:	8 x d
Temperature range:	
fixed laying:	- 40°C / +90°C
flexible application:	- 15°C / +90°C
Temperature range:	
Fixed installation	+ 90°C
Flexible installation:	+ 250°C
Max. tensile stress:	5 kg x mm²
Resistance:	**Flame retardant and self-extinguishin acc. to:** DIN VDE 0482 part 265-2-1, EN 50265-2-1, IEC 60332-1 **Halogen free acc. to:** EN 50267-2-1,IEC 60754-2 DIN VDE 0482 part.267-2-1

POWER

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46160GE3020M15	*2x1,5*	*12,7*	*28,8*	*190*	*16*
46160GE3020M25	*2x2,5*	*13,7*	*47,5*	*235*	*14*
46160GE3020M40	*2x4*	*14,9*	*76,8*	*290*	*12*
46160GE3020M60	*2x6*	*16,1*	*115,2*	*355*	*10*
46160GE3020M61	*2x10*	*18,2*	*192*	*500*	*8*
46160GE3020M62	*2x16*	*20,4*	*307,2*	*670*	*6*
46160GE3020M63	*2x25*	*24,0*	*480*	*930*	*4*
46160GE3020M64	*2x35*	*26,6*	*672*	*1220*	*2*
46160GE3020M65	*2x50*	*30,5*	*960*	*1650*	*1*
46160GE3020M66	*2x70*	*34,3*	*43,2*	*2250*	*2/0*
46160GE3020M67	*2x95*	*38,6*	*72*	*2900*	*3/0*
46160GE3020M68	*2x120*	*43,0*	*115,2*	*3650*	*4/0*
46160GE3020M69	*2x150*	*47,5*	*172,8*	*4400*	*250 MCM*
46160GE2031M15	*3G1,5*	*13,3*	*288*	*215*	*16*
46160GE2031M25	*3G2,5*	*14,3*	*43,2*	*270*	*14*
46160GE2031M40	*3G4*	*15,6*	*72*	*325*	*12*
46160GE2031M60	*3G6*	*16,9*	*115,2*	*420*	*10*
46160GE2031M61	*3G10*	*19,2*	*172,8*	*590*	*8*
46160GE2031M62	*3G16*	*21,5*	*288*	*810*	*6*
46160GE2031M63	*3G25*	*25,4*	*720*	*1150*	*4*
46160GE2031M64	*3G35*	*28,3*	*1008*	*1510*	*2*
46160GE2031M65	*3G50*	*32,4*	*1440*	*2050*	*1*
46160GE2031M66	*3G70*	*36,8*	*2016*	*2900*	*2/0*
46160GE2031M67	*3G95*	*41,2*	*2736*	*3650*	*3/0*
46160GE2031M68	*3G120*	*45,8*	*3456*	*4600*	*4/0*
46160GE2031M69	*3G150*	*50,9*	*4320*	*5700*	*250 MCM*
46160GE2031M70	*3G185*	*56,6*	*-*	*7000*	*350 MCM*

FG7(O)H2M1 0,6/1kV

RoHS Halogen Free CE

Part no.	No,of cores x cross section n x mm²	Outer Ø ca,mm ±10%	Copper weight kg/km	Cable weight approx, kg/km	AWG no,*)
46160GE2031M71	3G240	63,3	-	9000	450 MCM
46160GE2031M72	3G300	69,5	-	10000	550 MCM
46160GE2041M15	4G1,5	14,1	57,6	255	16
46160GE2041M25	4G2,5	15,3	96	330	14
46160GE2041M40	4G4	16,7	153,6	395	12
46160GE2041M60	4G6	18,4	230,5	500	10
46160GE2041M61	4G10	20,8	384	710	8
46160GE2041M62	4G16	23,4	614,4	1000	6
46160GE2041M63	4G25	27,7	960	1410	4
46160GE2035M64	3x35+25	30,4	1248	1770	2
46160GE2035M65	3x50+25	33,6	1680	2400	1
46160GE2035M66	3x70+35	38,2	2352	3350	2/0
46160GE2035M67	3x95+50	43,4	3216	4200	3/0
46160GE2035M68	3x120+70	48,4	4128	5100	4/0
46160GE2035M69	3x150+95	53,9	5232	6750	250 MCM
46160GE2035M70	3x185+95	58,8	-	8000	350 MCM
46160GE2035M71	3x240+150	66,9	-	10100	450 MCM
46160GE2035M72	3x300+150	72,2	-	12600	550 MCM
46160GE2051M15	5G1,5	15,1	72	270	16
46160GE2051M25	5G2,5	16,4	120	370	14
46160GE2051M40	5G4	18,2	192	485	12
46160GE2051M60	5G6	19,8	288	620	10
46160GE2051M61	5G10	22,4	480	910	8
46160GE2051M62	5G16	25,4	768	1250	6
46160GE2051M63	5G25	30,5	1200	1830	4
46160GE2051M64	5G35	34,0	1680	2300	2
46160GE2051M65	5G50	39,4	2400	3350	1

Other dimensions and colours available on request.

CONTROL

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46160GE0071M15	7G1,5	16,1	100,8	330	16
46160GE0101M15	10G1,5	19,7	144	420	16
46160GE0121M15	12G1,5	20,2	172,8	465	16
46160GE0161M15	16G1,5	22,0	230,4	560	16
46160GE0191M15	19G1,5	23,0	273,6	640	16
46160GE0241M15	24G1,5	26,4	345,6	720	16

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46160GE0071M25	7G2,5	17,8	168	360	14
46160GE0101M25	10G2,5	21,6	240	460	14
46160GE0121M25	12G2,5	22,2	288	510	14
46160GE0161M25	16G2,5	24,3	384	610	14
46160GE0191M25	19G2,5	25,4	456	690	14
46160GE0241M25	24G2,5	29,3	576	820	14

Other dimensions and colours available on request.

FG7(O)AM1 0,6/1kV

RoHS Halogen Free CE

Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	rubber,type G7
Inner sheath:	Thermoplastic,halogen free compound
Armour:	braid of galvanized steel wires
Outer sheat:	green (RAL 6018),thermoplastic,halogen-free,type M1

Features:

- according to IEC 60502-1

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	3,5 kV
Min. bending radius:	8 x d
Temperature range:	
fixed laying:	- 40°C / +90°C
flexible application:	- 15°C / +90°C
Temperature at conductor:	
in service:	+ 90°C
in short circuit:	+ 250°C
Max. tensile stress:	5 kg x mm²
Resistance:	**Flame retardant and self-extinguishin acc. to:** DIN VDE 0482 part 265-2-1, EN 50265-2-1, IEC 60332-1 **Halogen free acc. to:** EN 50267-2-1,IEC 60754-2 DIN VDE 0482 part.267-2-1

POWER

Part no,	*No,of cores x cross section n x mm²*	*Outer Ø ca,mm ±10%*	*Copper weight kg/km*	*Cable weight approx, kg/km*	*AWG no,*)*
46170GE3020M15	*2x1,5*	*12,7*	*28,8*	*190*	*16*
46170GE3020M25	*2x2,5*	*13,7*	*48*	*235*	*14*
46170GE3020M40	*2x4*	*14,9*	*76,8*	*290*	*12*
46170GE3020M60	*2x6*	*16,1*	*115,2*	*355*	*10*
46170GE3020M61	*2x10*	*18,2*	*192*	*500*	*8*
46170GE3020M62	*2x16*	*20,4*	*307,2*	*670*	*6*
46170GE3020M63	*2x25*	*24,0*	*480*	*930*	*4*
46170GE3020M64	*2x35*	*26,6*	*672*	*1220*	*2*
46170GE3020M65	*2x50*	*30,5*	*960*	*1650*	*1*
46170GE3020M66	*2x70*	*34,3*	*1344*	*2250*	*2/0*
46170GE3020M67	*2x95*	*38,6*	*1824*	*2900*	*3/0*
46170GE3020M68	*2x120*	*43,0*	*2304*	*3650*	*4/0*
46170GE3020M69	*2x150*	*47,5*	*2880*	*4400*	*250 MCM*
46170GE2031M15	*3G1,5*	*13,3*	*43,2*	*215*	*16*
46170GE2031M25	*3G2,5*	*14,3*	*72*	*270*	*14*
46170GE2031M40	*3G4*	*15,6*	*115,2*	*325*	*12*
46170GE2031M60	*3G6*	*16,9*	*172,8*	*420*	*10*
46170GE2031M61	*3G10*	*19,2*	*288*	*590*	*8*
46170GE2031M62	*3G16*	*21,5*	*460,8*	*810*	*6*
46170GE2031M63	*3G25*	*25,4*	*720*	*1150*	*4*
46170GE2031M64	*3G35*	*28,3*	*1008*	*1510*	*2*
46170GE2031M65	*3G50*	*32,4*	*1440*	*2050*	*1*
46170GE2031M66	*3G70*	*36,8*	*2016*	*2900*	*2/0*
46170GE2031M67	*3G95*	*41,2*	*2736*	*3650*	*3/0*
46170GE2031M68	*3G120*	*45,8*	*3456*	*4600*	*4/0*
46170GE2031M69	*3G150*	*50,9*	*4320*	*5700*	*250 MCM*
46170GE2031M70	*3G185*	*56,6*	*5328*	*7000*	*350 MCM*

FG7(O)AM1 0,6/1kV

RoHS Halogen Free CE

Part no,	No,of cores x cross section n x mm²	Outer Ø ca,mm ±10%	Copper weight kg/km	Cable weight approx, kg/km	AWG no,*)
46170GE2031M71	3G240	63,3	6912	9000	450 MCM
46170GE2031M72	3G300	69,5	8640	10000	550 MCM
46170GE2041M15	4G1,5	14,1	57,6	255	16
46170GE2041M25	4G2,5	15,3	57,6	330	14
46170GE2041M40	4G4	16,7	153,6	395	12
46170GE2041M60	4G6	18,4	2304	500	10
46170GE2041M61	4G10	20,8	384	710	8
46170GE2041M62	4G16	23,4	614,4	1000	6
46170GE2041M63	4G25	27,7	960	1410	4
46170GE2035M64	3x35+25	30,4	3264	1770	2
46170GE2035M65	3x50+25	33,6	1680	2400	1
46170GE2035M66	3x70+35	38,2	2352	3350	2/0
46170GE2035M67	3x95+50	43,4	3216	4200	3/0
46170GE2035M68	3x120+70	48,4	4128	5100	4/0
46170GE2035M69	3x150+95	53,9	5232	6750	250 MCM
46170GE2035M70	3x185+95	58,8	6240	8000	350 MCM
46170GE2035M71	3x240+150	66,9	8352	10100	450 MCM
46170GE2035M72	3x300+150	72,2	10080	12600	550 MCM
46170GE2051M15	5G1,5	15,1	72	270	16
46170GE2051M25	5G2,5	16,4	120	370	14
46170GE2051M40	5G4	18,2	192	485	12
46170GE2051M60	5G6	19,8	288	620	10
46170GE2051M61	5G10	22,4	480	910	8
46170GE2051M62	5G16	25,4	768	1250	6
46170GE2051M63	5G25	30,5	1200	1830	4
46170GE2051M64	5G35	34,0	1680	2300	2
46170GE2051M65	5G50	39,4	2400	3350	1

Other dimensions and colours available on request.

CONTROL

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46170GE0071M15	7G1,5	16,1	100,8	330	16
46170GE0101M15	10G1,5	19,7	144	420	16
46170GE0121M15	12G1,5	20,2	172,8	465	16
46170GE0161M15	16G1,5	22,0	230,4	560	16
46170GE0191M15	19G1,5	23,0	273,6	640	16
46170GE0241M15	24G1,5	26,4	345,6	720	16

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46170GE0071M25	7G2,5	17,8	168	360	14
46170GE0101M25	10G2,5	21,6	240	460	14
46170GE0121M25	12G2,5	22,2	288	510	14
46170GE0161M25	16G2,5	24,3	384	610	14
46170GE0191M25	19G2,5	25,4	456	690	14
46170GE0241M25	24G2,5	29,3	576	820	14

Other dimensions and colours available on request.

NYY-J/O
power cable 0,6/1 kV

RoHS CE

Construction:

Conductor:	solid or stranded red copper conductor Cl.1 or 2,acc. to IEC 60228 DIN VDE 0295
Insulation:	PVC,type DIV4
Colour core:	acc. to DIN VDE 0293 part. 308
Stranding:	cores stranded concentrically
Outer sheath:	black (RAL 9005),PVC,type DMV5

Features:

- **Ozone resistance**
- **UV resistance**
- **acc to IEC 60502**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range:	
fixed laying:	-40°C / +70°C
flexible application:	-5°C / +50°C
Max permessible:	50 N/mm²
Min.Bending Radius:	
Single core:	12 x d
Multi core:	15 x d
Higtest permessible voltage:	- Direct current system 1,8 Kv - Alternating current system single-phase system 1,4 Kv - Both conductor insulated, sigle-phase system 0,7 Kv - One conductor earthed, three phase system 1,2 Kv - With concentric conductor and a cross-section of 240 mm² and above 3,6 Kv
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 265-2-1, EN 50265-2-1, IEC 60332-1-2

j -type Part no.	*O-type Part no.*	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46180G7P011M40	46180G7L010M40	1 x 4 re	9,2	38	120	12
46180G7P011M60	46180G7L010M60	1 x 6 re	9,7	58	140	10
46180G7P011M61	46180G7L010M61	1 x 10 re	10,3	96	190	8
46180G7P011M62	46180G7L010M62	1 x 16 re	11,2	154	260	6
46180G7P011M63	46180G7L010M63	1 x 25 rm	12,4	240	370	4
46180G7P011M64	46180G7L010M64	1 x 35 rm	13,4	336	480	2
46180G7P011M65	46180G7L010M65	1 x 50 rm	15,3	480	630	1
46180G7P011M66	46180G7L010M66	1 x 70 rm	16,7	672	820	2/0
46180G7P011M67	46180G7L010M67	1 x 95 rm	19,3	912	1120	3/0
46180G7P011M68	46180G7L010M68	1 x 120 rm	20,8	1152	1375	4/0
46180G7P011M69	46180G7L010M69	1 x 150 rm	22,8	1440	1690	250 MCM
46180G7P011M70	46180G7L010M70	1 x 185 rm	25,4	1776	2070	350 MCM
46180G7P011M71	46180G7L010M71	1 x 240 rm	28,4	2304	2650	450 MCM
46180G7P011M72	46180G7L010M72	1 x 300 rm	30,5	2880	3210	550 MCM
46180G7P011M73	46180G7L010M73	1 x 400 rm	34,4	3840	4160	750 MCM
46180G7P011M74	46180G7L010M74	1 x 500 rm	38,2	4800	5210	1000 MCM
46180G7P011M75	46180G7L010M75	1 x 630 rm	43,5	6048	6670	1250 MCM
-	46180G73020M15	2 x 1,5 re	11,4	29	190	16
-	46180G73020M25	2 x 2,5 re	12,3	48	230	14
-	46180G73020M40	2 x 4 re	14,5	77	310	12

j -type Part no.	*O-type Part no.*	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
-	46180G73020M60	2 x 6 re	15,3	115	390	10
-	46180G73020M61	2 x 10 re	16,8	192	520	8
-	46180G73020M62	2 x 16 re	18,7	307	680	6
-	46180G73020M63	2 x 25 rm	23,5	480	970	4
46180G72031M15	46180G73030M15	3 x 1,5 re	11,8	43	210	16
46180G72031M25	46180G73030M25	3 x 2,5 re	12,7	72	260	14
46180G72031M40	46180G73030M40	3 x 4 re	14,3	115	350	12
46180G72031M60	46180G73030M60	3 x 6 re	15,2	173	440	10
46180G72031M61	46180G73030M61	3 x 10 re	17,3	288	600	8
46180G72031M62	46180G73030M62	3 x 16 re	19,2	461	830	6
46180G72031M63	46180G73030M63	3 x 25 rm	24,5	720	1340	4
46180G72031M64	46180G73030M64	3 x 35 sm	25,3	1008	1460	2
46180G72031M65	46180G73030M65	3 x 50 sm	26,8	1440	1860	1
46180G72031M66	46180G73030M66	3 x 70 sm	30,8	2016	2460	2/0
46180G72031M67	46180G73030M67	3x95 sm	34,9	2763	3320	3/0
46180G72031M68	46180G73030M68	3x120 sm	37,4	3456	4120	4/0
46180G72031M69	46180G73030M69	3x150 sm	40,3	4320	4910	250 MCM
46180G72031M70	46180G73030M70	3x185 sm	46,4	5328	6520	350 MCM
46180G72031M71	46180G73030M71	3x240 sm	51,4	6912	8315	450 MCM

NYY-J/O
power cable 0,6/1 kV

RoHS CE

j -type Part no,	*O-type Part no,*	*No,of cores x cross section n x mm²*	*Outer Ø ca,mm ±10%*	*Alu weight kg/km*	*Cable weight approx, kg/km*	*AWG no,*)*
46180G72035M63	*46180G73035M63*	*3X25/16 rm/re*	*24,5*	*874*	*1530*	*4*
46180G72035M64	*46180G73035M64*	*3x35/16 sm/re*	*26,0*	*1162*	*1750*	*2*
46180G72035M65	*46180G73035M65*	*3x50/25 sm/rm*	*29,0*	*1680*	*2350*	*1*
46180G72035M66	*46180G73035M66*	*3x70/35 sm/rm*	*32,0*	*2352*	*2850*	*2/0*
46180G72035M67	*46180G73035M67*	*3x95/50 sm*	*38,0*	*3216*	*3850*	*3/0*
46180G72035M68	*46180G73035M68*	*3x120/70 sm*	*41,0*	*4128*	*4780*	*4/0*
46180G72035M69	*46180G73035M69*	*3x150/70 sm*	*46,0*	*4992*	*5800*	*250 MCM*
46180G72035M70	*46180G73035M70*	*3x185/95 sm*	*51,0*	*6240*	*7600*	*350 MCM*
46180G72035M71	*46180G73035M71*	*3x240/120 sm*	*58,0*	*8064*	*9800*	*450 MCM*
46180G72035M72	*46180G73035M72*	*3x300/150 sm*	*64,0*	*10080*	*11500*	*550 MCM*
46180G72041M15	*46180G73040M15*	*4x1,5 re*	*12,0*	*58*	*230*	*16*
46180G72041M25	*46180G73040M25*	*4x2,5 re*	*13,5*	*96*	*300*	*14*
46180G72041M40	*46180G73040M40*	*4x4 re*	*15,0*	*154*	*410*	*12*
46180G72041M60	*46180G73040M60*	*4x6 re*	*16,5*	*230*	*520*	*10*
46180G72041M61	*46180G73040M61*	*4x10 re*	*18,5*	*384*	*730*	*8*
46180G72041M62	*46180G73040M62*	*4x16 re*	*21,5*	*614*	*1045*	*6*
46180G72041M63	*46180G73040M63*	*4x25 rm*	*26,0*	*960*	*1640*	*4*
46180G72041M64	*46180G73040M64*	*4x35 sm*	*27,5*	*1344*	*1760*	*2*
46180G72041M65	*46180G73040M65*	*4x50 sm*	*30,0*	*1920*	*2350*	*1*
46180G72041M66	*46180G73040M66*	*4x70 sm*	*34,0*	*2688*	*3100*	*2/0*
46180G72041M67	*46180G73040M67*	*4x95 sm*	*39,0*	*3648*	*4250*	*3/0*
46180G72041M68	*46180G73040M68*	*4x120 sm*	*42,5*	*4608*	*5300*	*4/0*
46180G72041M69	*46180G73040M69*	*4x150 sm*	*47,5*	*5760*	*6400*	*250 MCM*
46180G72041M70	*46180G73040M70*	*4x185 sm*	*52,0*	*7104*	*8500*	*350 MCM*
46180G72041M71	*46180G73040M71*	*4x240 sm*	*58,0*	*9216*	*11000*	*450 MCM*
46180G72051M15	*46180G73050M15*	*5x1,5 re*	*13,0*	*72*	*270*	*16*
46180G72051M25	*46180G73050M25*	*5x2,5 re*	*14,5*	*120*	*360*	*14*
46180G72051M40	*46180G73050M40*	*5x4 re*	*16,5*	*192*	*490*	*12*
46180G72051M60	*46180G73050M60*	*5x6 re*	*18,0*	*288*	*600*	*10*
46180G72051M61	*46180G73050M61*	*5x10 re*	*20,0*	*480*	*890*	*8*

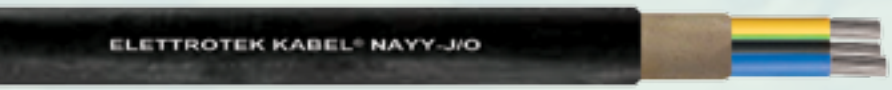
re: round conductor, single-wire
rm: round conductor, multi-wire
sm: stranded, sectional wire

Other dimensions and colours available on request.

(N)AYY-J/O

Aluminium power cable 0,6/1 kV

RoHS CE



Construction:

Conductor:	solid or stranded plain aluminium conductor Cl. 1 or 2, acc. to IEC 60228, DIN VDE 0295
Insulation:	PVC,type DIV4
Colour core:	acc. to DIN VDE 0293 part. 308
Stranding:	cores stranded concentrically
Outer sheath:	black (RAL 9005),PVC,type DMV5

Applications:

Power cables for energy supply are installed in open air, in underground, in water, indoors and in cable ducts, power station, for industry and distribution boards as well as in subscriber networks, where mechanical damages are not to be expected.

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range:	
fixed laying:	-30 /+70°C
flexible application:	-5 /+70°C
Max. permessible:	50 N/mm²
Min. bending radius:	12 x d
Highest permessible voltage:	- Direct current system 1,8 kV - Alternating current systems single-phase system 1,4 kV - Both conductor insulated, single-phase system 0,7 kV - One conductor earthed, three phase systems 1,2 kV - With concentric conductor and a cross-section of 240 mm² and above 3,6 kV
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 265-2-1, EN 50265-2-1, IEC 60332-1-2

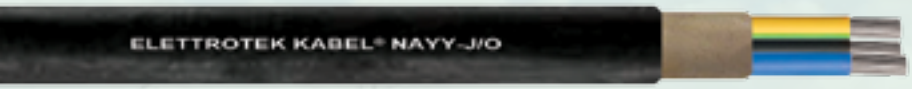
j -type Part no.	*O-type Part no.*	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46190G7P011M40	46190G7L010M40	1x4 Re	9,0	-	-	12
46190G7P011M60	46190G7L010M60	1x6 Re	9,5	-	-	10
46190G7P011M61	46190G7L010M61	1x10 Re	10,0	-	-	8
46190G7P011M62	46190G7L010M62	1x16 Re	11,0	46,5	145	6
46190G7P011M63	46190G7L010M63	1x25 Rm	12,0	72,5	195	4
46190G7P011M64	46190G7L010M64	1x35 Rm	13,0	101,5	255	2
46190G7P011M65	46190G7L010M65	1x50 Rm	15,0	145	298	1
46190G7P011M66	46190G7L010M66	1x70 Rm	16,5	205	383	2/0
46190G7P011M67	46190G7L010M67	1x95 Rm	19,0	275	490	3/0
46190G7P011M68	46190G7L010M68	1x120 Rm	20,5	348	575	4/0
46190G7P011M69	46190G7L010M69	1x150 Rm	22,5	435	695	250 MCM
46190G7P011M70	46190G7L010M70	1x185 Rm	25,0	536	845	350 MCM
46190G7P011M71	46190G7L010M71	1x240 Rm	28,0	969	1100	450 MCM
46190G7P011M72	46190G7L010M72	1x300 Rm	30,0	870	1379	550 MCM
46190G7P011M73	46190G7L010M73	1x400 Rm	34,0	1160	1615	750 MCM
46190G7P011M74	46190G7L010M74	1x500 Rm	38,0	1450	2015	950 MCM
46190G7P011M75	46190G7L010M75	1x630 Rm	43,0	1827	2472	1200 MCM
-	46190G73020M15	2x1,5 Re	11,0	-	-	16
-	46190G73020M25	2x2,5 Re	12,0	-	-	14
-	46190G73020M40	2x4 Re	14,0	-	-	12
-	46190G73020M60	2x6 Re	15,0	-	-	10
-	46190G73020M61	2x10 Re	16,5	-	-	8

j -type Part no.	*O-type Part no.*	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
-	46190G73020M62	2x16 Re	18,5	93	470	6
-	46190G73020M63	2x25 Rm	23,5	-	-	4
46190G72031M15	46190G73030M15	3x1,5 Re	11,5	-	-	16
46190G72031M25	46190G73030M25	3x2,5 Re	12,5	-	-	14
46190G72031M40	46190G73030M40	3x4 Re	14,0	-	-	12
46190G72031M60	46190G73030M60	3x6 Re	15,0	-	-	10
46190G72031M61	46190G73030M61	3x10 Re	17,0	-	-	8
46190G72031M62	46190G73030M62	3x16 Re	19,0	-	-	6
46190G72031M64	46190G73030M64	3x35 Sm	25,0	-	-	2
46190G72031M65	46190G73030M65	3x50 Sm	26,5	-	-	1
46190G72031M66	46190G73030M66	3x70 Sm	30,0	-	-	2/0
46190G72031M67	46190G73030M67	3x95 Sm	34,5	-	-	3/0
46190G72031M68	46190G73030M68	3x120 Sm	37,0	-	-	4/0
46190G72031M69	46190G73030M69	3x150 Sm	40,0	-	-	250 MCM
46190G72031M70	46190G73030M70	3x185 Sm	46,0	-	-	350 MCM
46190G72031M71	46190G73030M71	3x240 Sm	51,0	-	-	450 MCM
46190G72035M63	46190G73035M63	3x25/16 Rm/Re	24,5	-	-	4
46190G72035M64	46190G73035M64	3x35/16 Rm/Re	26,0	-	-	2
46190G72035M65	46190G73035M65	3x50/25 Rm/Re	29,0	-	-	1

(N)AYY-J/O

Aluminium power cable 0,6/1 kV

RoHS CE



j -type Part no.	O-type Part no.	No.of cores x cross section n x mm²	Outer ca.mm ±10%	Alu weight kg/km	Cable weight approx. kg/km	AWG no.*)
46190G72035M66	46190G73035M66	3x70/35 Sm/Rm	32,0	-	-	2/0
46190G72035M67	46190G73035M67	3x95/50 Sm	38,0	-	-	3/0
46190G72035M68	46190G73035M68	3x120/70 Sm	41,0	-	-	4/0
46190G72035M69	46190G73035M69	3x150/70 Sm	46,0	-	-	250 MCM
46190G72035M70	46190G73035M70	3x185/95 Sm	51,0	-	-	350 MCM
46190G72035M71	46190G73035M71	3x240/120 Sm	58,0	-	-	450 MCM
46190G72035M72	46190G73035M72	3x300/150 Sm	64,0	-	-	550 MCM
46190G72041M15	46190G73040M15	4x1.5 Re	12,0	-	-	16
46190G72041M25	46190G73040M25	4x2,5 Re	13,5	-	-	14
46190G72041M40	46190G73040M40	4x4 Re	15,0	-	-	12
46190G72041M60	46190G73040M60	4x6 Re	16,5	-	-	10
46190G72041M61	46190G73040M61	4x10 Re	18,5	-	-	8
46190G72041M62	46190G73040M62	4x16 Rm	21,5	186	750	6
46190G72041M63	46190G73040M63	4x25 Sm	26,5	290	950	4
46190G72041M64	46190G73040M64	4x35 Sm	27,5	406	1120	2
46190G72041M65	46190G73040M65	4x50 Sm	30,0	580	1151	1
46190G72041M66	46190G73040M66	4x70 Sm	34,0	812	1549	2/0
46190G72041M67	46190G73040M67	4x95 Sm	39,0	1102	2030	3/0
46190G72041M68	46190G73040M68	4x120 Sm	42,5	1392	2400	4/0
46190G72041M69	46190G73040M69	4x150 Sm	47,5	1740	3030	250 MCM
46190G72041M70	46190G73040M70	4x185 Sm	52,0	2146	3650	350 MCM
46190G72041M71	46190G73040M71	4x240 Re	58,0	2784	4800	450 MCM

j -type Part no.	O-type Part no.	No.of cores x cross section n x mm²	Outer ca.mm ±10%	Alu weight kg/km	Cable weight approx. kg/km	AWG no.*)
46190G72051M15	46190G73050M15	5x1,5 RE	13,0	-	-	16
46190G72051M25	46190G73050M25	5x2,5 RE	14,5	-	-	14
46190G72051M40	46190G73050M40	5x4 RE	16,5	-	-	12
46190G72051M60	46190G73050M60	5x6 RE	18,0	-	-	10
46190G72051M61	46190G73050M61	5x10 RE	20,0	-	-	8
46190G72051M62	46190G73050M62	5x16 RE	22,5	-	-	6
46190G72051M63	46190G73050M63	5x25 RM	28,0	-	-	4
46190G72051M64	46190G73050M64	5x35 RM	34,0	-	-	2
46190G72051M65	46190G73050M65	5x50 RM	40,0	-	-	1
46190G70071M15	46190G71070M15	7x1,5 RE	15,5	-	-	16
46190G70071M25	46190G71070M25	7x2,5 RE	16,5	-	-	14
46190G70071M40	46190G71070M40	7x4 RE	18,5	-	-	12
46190G70071M60	46190G71070M60	7x6 RE	20,0	-	-	10
46190G70071M61	46190G71070M61	7x10 RE	23,5	-	-	8
46190G70101M15	46190G71100M15	10x1,5 RE	18,0	-	-	16
46190G70101M25	46190G71100M25	10x2,5 RE	19,5	-	-	14
46190G70121M15	46190G71120M15	12x1,5 RE	19,0	-	-	16
46190G70121M25	46190G71120M25	12x2,5 RE	20,5	-	-	14
46190G70141M15	46190G71140M15	14x1,5 RE	20,0	-	-	16
46190G70141M25	46190G71140M25	14x2,5 RE	21,0	-	-	14
46190G70161M15	46190G71160M15	16x1,5 RE	21,0	-	-	16
46190G70161M25	46190G71160M25	16x2,5 RE	22,0	-	-	14
46190G70191M15	46190G71190M15	19x1,5 RE	22,0	-	-	16
46190G70191M25	46190G71190M25	19x2,5 RE	23,0	-	-	14
46190G70211M15	46190G71210M15	21x1,5 RE	23,0	-	-	16
46190G70211M25	46190G71210M25	21x2,5 RE	24,5	-	-	14
46190G70241M15	46190G71240M15	24x1,5 RE	25,0	-	-	16
46190G70241M25	46190G71240M25	24x2,5 RE	27,0	-	-	14
46190G70301M15	46190G71300M15	30x1,5 RE	26,0	-	-	16
46190G70301M25	46190G71300M25	30x2,5 RE	28,0	-	-	14
46190G70401M15	46190G71400M15	40x1,5 RE	29,5	-	-	16
46190G70401M25	46190G71400M25	40x2,5 RE	31,5	-	-	14
46190G70521M25	46190G71520M25	52x2,5 RE	35,0	-	-	14
46190G70611M25	46190G71610M25	61x1,5 RE	34,0	-	-	16

Other dimensions and colours available on request.

SOLID VERSION

j-type Part no.	O-type Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Alu weight kg/km	Cable weight approx. kg/km	AWG no.*)
46191G72035M71	46191G73035M71	3x240/120 SE	-	-	-	450 MCM
46191G72041M62	46191G73040M62	4x16 SE	23,0	186,0	750,0	6
46191G72041M63	46191G73040M63	4x25 SE	26,0GYU	290,0	950,0	4
46191G72041M64	46191G73040M64	4x35 SE	28,5	406,0	1120,0	2
46191G72041M65	46191G73040M65	4x50 SE	30,0	580,0	1151,0	1
46191G72041M66	46191G73040M66	4x70 SE	35,0	812,0	1549,0	2/0
46191G72041M67	46191G73040M67	4x95 SE	39,5	1102,0	2030,0	3/0
46191G72041M68	46191G73040M68	4x120 SE	44,0	1392,0	2400,0	4/0
46191G72041M69	46191G73040M69	4x150 SE	46,0	1740,0	3030,0	250 MCM
46191G72041M70	46191G73040M70	4x185 SE	51,0	2146,0	3650,0	350 MCM
46191G72041M71	46191G73040M71	4x240 SE	56,0	2784,0	4800,0	450 MCM

Other dimensions and colours available on request.

GAALFLEX® NYCY

Power cable with concentric copper conductor, 0.6/1 kV

RoHS CE

Construction:

Conductor:	solid red copper conductor Cl. 1 acc. to IEC 60228, DIN VDE 0295
Insulation:	PVC,type DIV4
Colour core:	acc. to DIN VDE 0293 part. 308
Stranding:	cores stranded concentrically
Inner sheath:	filler compound
Screen:	red copper braid + red copper tape
Outer sheath:	black (RAL 9005),PVC,type DMV5

Features:

- **Acc. to DIN VDE 0276 part 603.1, HD 603 S1 and IEC 60502**
  7 cores and above cc. to DIN VDE 0276 part 627, HD 627 S1and IEC 60502

Applications:

Suitable for industry and distribution boards, power station, house connecting boxes and street lighting also as control cable for trasmission of control impulses and test datas

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Hightest voltage:	
Direct current system:	1800 V
Alternating current systems, single-phase system:	1400 V
Both conductor insulated. single-phase system:	700 V
One conductor earthed three phase systems	1200 V
With concentric conductor and a cross-section of 240 mm² and above:	3600 V
Min. Bending Radius:	
Single core:	15 x d
Multi cores:	12 x d
Max tensile stress:	50 N/mm²
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 265-2-1, EN 50265-2-1, IEC 60332-1-2

Part no.	*No, of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46200G7L010M61	*1 x 10 / 10*	*11*	*216*	*280*	*8*
46200G7L010M62	*1 x 16 / 16*	*12*	*336*	*440*	*6*
46200G73020M15	*2 x 1,5 / 1,5*	*13*	*52*	*205*	*16*
46200G73020M25	*2 x 2,5 / 2,5*	*13,5*	*80*	*270*	*14*
46200G73020M40	*2 x 4 / 4*	*15,5*	*123*	*360*	*12*
46200G73020M60	*2 x 6 / 6*	*17*	*182*	*435*	*10*
46200G73020M61	*2 x 10 / 10*	*19,5*	*312*	*590*	*8*
46200G73020M16	*2 x 16 /16*	*20,5*	*489*	*820*	*6*
46200G72031M15	*3 G 1,5 /1,5*	*13,5*	*66*	*225*	*16*
46200G72031M25	*3 G 2,5 /2,5*	*14,5*	*104*	*290*	*14*
46200G72031M40	*3 G 4 / 4*	*16,5*	*161*	*400*	*12*
46200G72031M60	*3 G 6 / 6*	*17,5*	*240*	*510*	*10*
46200G72031M61	*3 G 10 / 10*	*20*	*408*	*850*	*8*
46200G72031M62	*3 G 16 /16*	*23*	*643*	*1080*	*6*
46200G72041M15	*4 G 1,5 /1,5*	*14,5*	*81*	*260*	*16*
46200G72041M25	*4 G 2,5 / 2,5*	*15,5*	*128*	*350*	*14*
46200G72041M40	*4 G 4 / 4*	*17*	*200*	*470*	*12*
46200G72041M60	*4 G 6 / 6*	*18,5*	*297*	*590*	*10*
46200G72041M61	*4 G 10 / 10*	*21*	*504*	*900*	*8*
46200G72041M62	*4 G 16 / 16*	*23*	*796*	*1250*	*6*
46200G72051M15	*5 G 1,5 / 1,5*	*15*	*95*	*330*	*16*
46200G72051M25	*5 G 2,5 / 2,5*	*16*	*152*	*400*	*14*
46200G72051M40	*5 G 4 / 4*	*19*	*238*	*560*	*12*
46200G72051M60	*5 G 6 / 6*	*21*	*355*	*710*	*10*
46200G72051M61	*5 G 10 / 10*	*23*	*600*	*1000*	*8*
46200G70071M15	*7 G 1,5 / 1,5*	*15,0*	*124*	*320*	*16*
46200G70071M40	*7 G 4 / 4*	*21*	*315*	*670*	*12*
46200G70071M60	*7 G 6 / 6*	*24*	*470*	*790*	*10*

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46201G70071M15	*7 G 1,5 / 2,5*	*16*	*133*	*350*	*16*
46200G70081M15	*8 G 1,5 / 1,5*	*17*	*138*	*380*	*16*
46201G70081M15	*8 G 1,5 /2,5*	*17*	*147*	*400*	*16*
46200G70101M15	*10 G 1,5 / 2,5*	*19*	*176*	*440*	*16*
46200G70121M15	*12 G 1,5 / 2,5*	*20*	*205*	*500*	*16*
46200G70141M15	*14 G 1,5 / 2,5*	*20,5*	*234*	*540*	*16*
46200G70161M15	*16 G 1,5 / 4*	*22*	*276*	*600*	*16*
46200G70191M15	*19 G 1,5 / 4*	*23*	*320*	*690*	*16*
46200G70211M15	*21 G 1,5 / 6*	*24*	*369*	*810*	*16*
46200G70241M15	*24 G 1,5 / 6*	*26*	*413*	*860*	*16*
46200G70301M15	*30 G 1,5 / 6*	*27*	*499*	*1230*	*16*
46200G70401M15	*40 G 1,5 / 10*	*30*	*696*	*1590*	*16*
46200G70521M15	*52 G 1,5 / 10*	*32*	*869*	*1820*	*16*
46200G70611M15	*61 G 1,5 / 10*	*33*	*998*	*2000*	*16*
46200G70071M25	*7 G 2,5 / 2,5*	*17,5*	*200*	*450*	*14*
46200G70081M25	*8 G 2,5 / 2,5*	*18*	*224*	*510*	*14*
46200G70101M25	*10 G 2,5 / 4*	*20,5*	*286*	*600*	*14*
46200G70121M25	*12 G 2,5 / 4*	*21*	*334*	*660*	*14*
46200G70141M25	*14 G 2,5 / 4*	*22*	*382*	*760*	*14*
46201G70141M25	*14 G 2,5 / 6*	*22,5*	*403*	*800*	*14*
46200G70161M25	*16 G 2,5 / 6*	*23*	*451*	*910*	*14*
46200G70191M25	*19 G 2,5 / 6*	*23,5*	*523*	*950*	*14*
46200G70211M25	*21 G 2,5 / 10*	*26*	*571*	*1100*	*14*
46200G70241M25	*24 G 2,5 / 10*	*28*	*696*	*1300*	*14*
46200G70301M25	*30 G 2,5 / 10*	*30*	*840*	*1610*	*14*
46200G70401M25	*40 G 2,5 / 10*	*35*	*1080*	*2100*	*14*
46200G70521M25	*52 G 2,5 / 10*	*38*	*1368*	*2500*	*14*
46200G70611M25	*61 G 2,5 / 10*	*40*	*1584*	*2850*	*14*

Other dimensions and colours available on request.

GAALFLEX® VFD NYCWY

Power cable with concentric copper conductor, connection to frequency converters, 0,6/1 kV

RoHS CE

Construction:

Conductor:	solid or stranded red copper conductor Cl. 1 or 2, acc. to IEC 60228, DIN VDE 0295 10-16 mm2 - round solid cores 25-240 mm2 - stranded conductor
Insulation:	PVC,type DIV4
Colour core:	acc. to DIN VDE 0293 part. 308
Stranding:	cores stranded concentrically
Inner sheath:	filler compound
Screen:	concentric conductor of corrugated copper wires + copper tape
Outer sheath:	black (RAL 9005),PVC,type DMV5

Features:

- **Acc. to DIN VDE 0276 part 603, HD 603 S1 and IEC 60502**

Applications:

Suitable especially for underground laying, for example in subscriber networks, power stations also as control cable for trasmission of control impulses and test datas

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Hightest voltage:	
Direct current system:	1800 V
Alternating current systems, single-phase system:	1400 V
Both conductor insulated. single-phase system:	700 V
One conductor earthed three phase systems	1200 V
With concentric conductor and a cross-section of 240 mm² and above:	3600 V
Temperature range:	
Fixed installation:	- 30°C up to + 70°C
Flexible application:	- 5°C up to + 50°C
Min. Bending Radius:	
Single core:	15 x d
Multi cores:	12 x d
Max tensile stress:	50 N/mm²
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 265-2-1, EN 50265-2-1, IEC 60332-1-2

Part no.	*No, of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
33250G73020M61	*2 x 10 / 10*	*19*	*312*	*650*	*8*
33250G73020M62	*2 x 16 / 16*	*21*	*489*	*850*	*6*
33250G73020M63	*2 x 25 / 25*	*24*	*763*	*1210*	*4*
33250G73030M61	*3 x 10 / 10*	*19,5*	*408*	*730*	*8*
33250G73030M62	*3 x 16 / 16*	*22*	*643*	*1000*	*6*
33250G73030M63	*3 x 25 / 16*	*26*	*902*	*1550*	*4*
33250G73030M64	*3 x 35 /16*	*27*	*1190*	*1750*	*2*
33250G73030M65	*3 x 50 / 25*	*29*	*1723*	*2250*	*1*
33250G73030M66	*3 x 70 / 35*	*33*	*2410*	*2950*	*2/0*
33250G73030M67	*3 x 95 / 50*	*38*	*3296*	*4100*	*3/0*
33250G73030M68	*3 x 120 / 70*	*41*	*4236*	*5050*	*4/0*
33250G73030M69	*3 x 150 / 70*	*45*	*5100*	*6000*	*250 MCM*
33250G73030M70	*3 x 185 / 95*	*50*	*6383*	*7550*	*350 MCM*
33250G73030M71	*3 x 240 / 120*	*57*	*8242*	*9950*	*450 MCM*
33251G73030M63	*3 x 25 / 25*	*26*	*1003*	*1600*	*4*
33251G73030M64	*3 x 35 / 35*	*27,5*	*1402*	*1850*	*2*

Part no.	*No, of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
33251G73030M65	*3 x 50 / 50*	*29,5*	*2000*	*2450*	*1*
33251G73030M66	*3 x 70 / 70*	*34*	*2796*	*3350*	*2/0*
33251G73030M67	*3 x 95 / 95*	*38,5*	*3791*	*4550*	*3/0*
33251G73030M68	*3 x 120 / 120*	*42*	*4786*	*5550*	*4/0*
33251G73030M69	*3 x 150 / 150*	*46*	*5970*	*6900*	*250 MCM*
33251G73030M70	*3 x 185 / 185*	*51*	*7363*	*8500*	*350 MCM*
33250G73040M61	*4 x 10 / 10*	*20,5*	*504*	*890*	*8*
33250G73040M62	*4 x 16 / 16*	*23,5*	*796*	*1250*	*6*
33250G73040M63	*4 x 25 / 16*	*28*	*1142*	*1800*	*4*
33250G73040M64	*4 x 35 / 16*	*29*	*1526*	*2050*	*2*
33250G73040M65	*4 x 50 / 25*	*33*	*2203*	*2700*	*1*
33250G73040M66	*4 x 70 / 35*	*37*	*3082*	*3750*	*2/0*
33250G73040M67	*4 x 95 / 50*	*43,5*	*4208*	*5000*	*3/0*
33250G73040M68	*4x120 / 70*	*47,2*	*5388*	*6350*	*4/0*
33250G73040M69	*4 x 150 / 70*	*51*	*6540*	*7650*	*250 MCM*
33250G73040M70	*4 x 185 / 95*	*56*	*8159*	*9350*	*350 MCM*
33250G73040M71	*4 x 240 / 120*	*62,5*	*10546*	*11600*	*450 MCM*

Other dimensions and colours available on request.

(N)AYCWY

Power cable 0,6/1 kV with concentric aluminium conductor, connection to frequency converters

RoHS CE

Construction:

Conductor:	solid or stranded plain aluminium conductor Cl. 1 or 2, acc. to IEC 60228, DIN VDE 0295. 10-16 mm2 - round solid cores 25-240 mm2 - stranded conductor
Insulation:	PVC,type DIV4
Colour core:	acc. to DIN VDE 0293 part. 308
Stranding:	cores stranded concentriacally
Screen:	concentric conductor of corrugated copper wires + copper tape
Outer sheath:	black (RAL 9005),PVC,type DMV5

Applications:

Power cables for energy supply, preferibly used for underground laying, especially in subscriber networks, power station as well as control impulses and test datas. Overall, where increased electrical and also mechanical protection are required.
Thosecables are installed in open air, in underground, in water, indoors and in cable ducts.

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range:	
fixed laying:	-30 / +70°C
flexible application:	- 5 / +50°C
Min. bending radius:	12 x d
Max. permessible:	50 N/mm²
Current carrying capacity:	as for DIN VDE 0276 part. 603
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 265-2-1, EN 50265-2-1,IEC 60332-1-2

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Alu weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
46210G73020M61	*2x10 re/10*	*19*	-	-	-	*8*
46210G73020M62	*2x16 re/16*	*21*	-	-	-	*6*
46210G73020M63	*2x25 rm/25*	*24*	-	-	-	*4*
46210G73030M61	*3x10 re/10*	*19,5*	-	-	-	*8*
46210G73030M62	*3x16 re/16*	*22*	-	-	-	*6*
46210G73030M63	*3x25 rm/16*	*26*	-	-	-	*4*
46210G73030M64	*3x35 sm/16*	*27*	-	-	-	*2*
46210G73030M65	*3x50 sm/25*	*29*	-	-	-	*1*
46210G73030M66	*3x70 sm/35*	*33*	-	-	-	*2/0*
46210G73030M67	*3x95 sm/50*	*38*	-	-	-	*3/0*
46210G73030M68	*3x120 sm/70*	*41*	-	-	-	*4/0*
46210G73030M69	*3x150 sm/70*	*45*	-	-	-	*250 MCM*
46210G73030M70	*3x185 sm/95*	*50*	-	-	-	*350 MCM*
46210G73030M71	*3x240 sm/120*	*57*	-	-	-	*450 MCM*
46210G73030M72	*3x300 sm/150*	-	-	-	-	*550 MCM*
46210G73030M73	*3x400 sm/185*	-	-	-	-	*750 MCM*
46211G73030M63	*3x25 rm/25*	*26*	-	-	-	*4*
46211G73030M64	*3x35 sm/35*	*27,5*	*240*	*305*	*1300*	*2*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Alu weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
46211G73030M65	*3x50 sm/50*	*29,5*	*340*	*435*	*1400*	*1*
46211G73030M66	*3x70 sm/70*	*34*	*475*	*609*	*1950*	*2/0*
46211G73030M67	*3x95 sm/95*	*38,5*	*640*	*827*	*2500*	*3/0*
46211G73030M68	*3x120 sm/120*	*42*	*1330*	*1044*	*2950*	*4/0*
46211G73030M69	*3x150 sm/150*	*46*	*1550*	*1305*	*3500*	*250 MCM*
46211G73030M70	*3x185 sm/185*	*51*	-	-	-	*350 MCM*
46210G73040M61	*4x10 re/10*	*20,5*	-	-	-	*8*
46210G73040M62	*4x16 re/16*	*23,5*	*182*	*186*	*950*	*6*
46210G73040M63	*4x25 rm/16*	*28*	*182*	*290*	*1150*	*4*
46210G73040M64	*4x35 sm/16*	*29*	*182*	*406*	*1200*	*2*
46210G73040M65	*4x50 sm/25*	*33*	*283*	*580*	*1600*	*1*
46210G73040M66	*4x70 sm/35*	*37*	*394*	*812*	*2250*	*2/0*
46210G73040M67	*4x95 sm/50*	*43,5*	*560*	*1102*	*2900*	*3/0*
46210G73040M68	*4x120 sm/70*	*47*	*780*	*1392*	*3500*	*4/0*
46210G73040M69	*4x150 sm/70*	*51*	*780*	*1740*	*4200*	*250 MCM*
46210G73040M70	*4x185 sm/95*	*56*	*1055*	*2146*	*4950*	*350 MCM*
46210G73040M71	*4x240 sm/120*	*62,5*	*1330*	*2784*	*5600*	*450 MCM*

Other dimensions and colours available on request.

(N)2XY-J/O

Power Cable 0,6/1 kV acc. to VDE 0276-603

RoHS CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228, DIN VDE 0295
Insulation:	XLPE compound
Colour core:	**1 core:** Y/G **3 cores:** blue-brown-Y/G **4 cores:** Y/G, brown,black, grey **5 cores:** Y/G-blue-brown-black-gray
Outer sheath:	black(RAL 9005),PVC,type ST2

Features:

- **sunlight resistant**
- **UV resistant**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range:	- 5°C / + 70°C
Max. operating temp. on conductor:	+ 90°C
Max. permitted operating voltage in 3 phase system:	1,2 kV
Resistance:	**Flame retardant acc. to:** PVC sel-extinguishing and flame retardant acc.to DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1 **Halogen free acc. to:** IEC 60754-1 EN 50267-1-2 DIN VDE 0482 part.275-2-1 **Oil resistant acc. to** IEC 60811-2-1, DIN VDE 0473 part.811-2-1

(N)2XY-J

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
46220G72031M15	3G1.5 SW RE	12,5	43,0	190	16
46220G72031M25	3G2.5 SW RE	13,0	72,0	240	14
46220G72031M40	3G4 SW RE	15,0	115,0	330	12
46220G72031M60	3G6 SW RE	16,0	173,0	420	10
46220G72031M61	3G10 SW RE	18,0	288,0	580	8
46220G72031M62	3G16 SW RE	22,0	461,0	810	6
46220G72031M63	3G25 SW RM	25,0	720,0	1300	4
46220G72031M64	3G35 SW SM	25,0	1008,0	1400	2
46220G72031M65	3G50 SW SM	26,3	1440,0	1800	1
46220G72031M66	3G70 SW SM	30,7	2016,0	2400	2/0
46220G72031M67	3G95 SW SM	34,3	2736,0	3300	3/0
46220G72035M63	3G25/16 SW SM	26,0	874,0	1500	4
46220G72035M64	3G35/16 SW SM	26,3	1162,0	1700	2
46220G72035M65	3G50/25 SW SM	30,3	1680,0	2300	1
46220G72035M66	3G70/35 SW SM	33,3	2352,0	2800	2/0
46220G72035M67	3G95/50 SW SM	39,3	3216,0	3800	3/0
46220G72035M68	3G120/70 SW SM	42,7	4128,0	4700	4/0
46220G72035M69	3G150/70 SW SM	46,7	4992,0	5600	250 MCM
46220G72035M70	3G185/95 SW SM	51,7	6240,0	7400	350 MCM
46220G72035M71	3G240/120 SW SM	58,7	8064,0	9600	450 MCM
46220G72035M72	3G300/150 SW SM	66,0	10080,0	11200	550 MCM
46220G72041M15	4G1.5 SW RE	13,3	58,0	220	16
46220G72041M25	4G2.5 SW RE	14,3	96,0	285	14
46220G72041M40	4G4 SW RE	16,3	154,0	360	12

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
46220G72041M60	4G6 SW RE	16,3	230,0	510	10
46220G72041M61	4G10 SW RE	21,0	384,0	685	8
46220G72041M62	4G16 SW RE	22,3	614,0	970	6
46220G72041M63	4G25 SW RM	27,3	960,0	1600	4
46220G72041M64	4G35 SW RM	29,3	1344,0	1750	2
46220G72041M65	4G50 SW SM	31,3	1920,0	2300	1
46220G72041M66	4G70 SW SM	35,3	2688,0	3100	2/0
46220G72041M67	4G95 SW SM	40,3	3648,0	4200	3/0
46220G72041M68	4G120 SW SM	43,7	4608,0	5200	4/0
46220G72041M69	4G150 SW SM	48,7	5760,0	6400	250 MCM
46220G72041M70	4G185 SW SM	53,7	7104,0	8050	350 MCM
46220G72051M15	5G1.5 SW RE	14,0	72,0	270	16
46220G72051M25	5G2.5 SW RE	15,0	120,0	350	14
46220G72051M40	5G4 SW RE	17,0	192,0	480	12
46220G72051M60	5G6 SW RE	19,0	288,0	610	10
46220G72051M61	5G10 SW RE	21,0	480,0	880	8
46220G72051M62	5G16 SW RE	23,0	768,0	1250	6
46220G72051M63	5G25 SW RM	29,0	1200,0	1950	4
46220G72051M65	5G50 SW RM	43,0	2400,0	3500	1
46220G72051M69	5G150 SW RM	49,0	7200,0	8490	250 MCM
46220G70071M15	7G1.5 SW RE	15,0	101,0	300	16
46220G70071M25	7G2.5 SW RE	17,0	168,0	420	14
46220G70071M40	7G4 SW RE	18,0	269,0	630	12
46220G70121M15	12G1.5 SW RE	20,0	173,0	400	16
46220G70121M25	12G2.5 SW RE	23,0	288,0	560	14
46220G70241M15	24G1.5 SW RE	23,5	346,0	1050	16
46220G70241M25	24G2.5 SW RE	31,0	576,0	1050	14

(N)2XY-J/O

Power Cable 0,6/1 kV acc. to VDE 0276-603

RoHS CE

(N)2XY-O

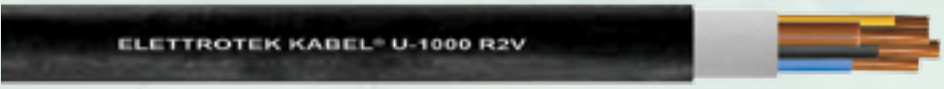
Part no,	*No,of cores x cross section n x mm²*	*Outer Ø ca,mm ±10%*	*Copper weight kg/km*	*Cable weight approx, kg/km*	*AWG no,*)*
46220G7L010M62	*1x16 SW RE*	*11,7*	*154,0*	*240*	*6*
46220G7L010M63	*1x25 SW RM*	*13,0*	*240,0*	*350*	*4*
46220G7L010M64	*1x35 SW RM*	*14,0*	*336,0*	*460*	*2*
46220G7L010M65	*1x50 SW RM*	*15,5*	*480,0*	*600*	
46220G7L010M66	*1x70 SW RM*	*17,0*	*672,0*	*800*	*2/0*
46220G7L010M67	*1x95 SW RM*	*19,0*	*912,0*	*1100*	*3/0*
46220G7L010M68	*1x120 SW RM*	*21,0*	*1152,0*	*1350*	*4/0*
46220G7L010M69	*1x150 SW RM*	*23,3*	*1440,0*	*1650*	*250 MCM*
46220G7L010M70	*1x185 SW RM*	*25,3*	*1776,0*	*2000*	*350 MCM*
46220G7L010M71	*1x240 SW RM*	*28,3*	*2304,0*	*2600*	*450 MCM*

Part no,	*No,of cores x cross section n x mm²*	*Outer Ø ca,mm ±10%*	*Copper weight kg/km*	*Cable weight approx, kg/km*	*AWG no,*)*
46220G7L010M72	*1x300 SW RM*	*30,3*	*2880,0*	*3200*	*550 MCM*
46220G7L010M73	*1x400 SW RM*	*34,7*	*3840,0*	*4100*	*750 MCM*
46220G7L010M74	*1x500 SW RM*	*38,0*	*4800,0*	*4942*	*950 MCM*
46220G73020M15	*2x1,5 SW RE*	*11,5*	*29,0*	*170*	*16*
46220G73020M40	*2x4 SW RE*	*13,5*	*77,0*	*290*	*12*
46220G73020M60	*2x6 SW RE*	*15,5*	*115,0*	*360*	*10*
46220G73020M61	*2x10 SW RE*	*17,0*	*192,0*	*490*	*8*
46220G73020M62	*2x16 SW RE*	*17,5*	*307,0*	*660*	*6*
46220G73020M63	*2x25 SW RM*	*22,0*	*480,0*	*940*	*4*
46220G73020M64	*2x35 SW RM*	*-*	*672,0*	*1277*	*2*
46220G73020M65	*2x50 SW RM*	*-*	*960,0*	*1824*	*1*
46220G73020M66	*2x70 SW RM*	*30,7*	*1344,0*	*2554*	*2/0*

Other dimensions and colours available on request.

U-1000 R2V

RoHS CE



Construction:

Conductor:	solid or stranded red copper conductor Cl. 1 or 2, acc. to IEC 60228
Insulation:	XLPE compound
Colour core:	**2 cores:** blue-brown **3 cores:** brown-black-blue(1,2/2,5 mm²) **3G cores:** brown,black, grey (4 mm²) **4 cores:** blue-brown-black-gray **4G cores:** brown-black-gray-Y/G **5 cores:** brown-blue-grey-black **5 G cores:** blue-brown-black-gray-Y/G
Wrapping:	non fibrous and not hygroscopic filler
Outer sheath:	black(RAL 9005),PVC compound

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	3,5 V
Temperature range:	-10°C / +90°C
Max. short circuit temp. on conductor:	+ 250°C
Min. bending radius:	6 x d
Max. pulling stress:	5 kg/mm²
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1 **Oil resistant acc. to:** IEC 60811-2-1, DIN VDE 0473 part.811-2-1

Features:

- **Acc. to NFC 32-321 C32-321/A1**
- **acc. to IEC 60502-1**

Applications:

For use in industrial sites and the upright columns of buildings. particulary suited in cases of high resistance to solar radiation and athmospheric agents is required good resistance to low temperatures and chemical agents. Can be used without additional mechanical protection in the open air, fixed to walls or in raceways, inside walkways, and in empty in constructions in general. can be laid underground with mechanical protection constucted from slab, tiles, or bricks. It is no racomended to lay this cable in ground flooded for more than two months for year. With appropriate mechanical protection it can be use in areas subject to risk of explosion, but in this case the permitted current load is reduced by 15% It can be used in ambient temperatures down to - 25°.

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
46230G7L010M15	*1x1.5*	*6,6*	*14,4*	*45*	*16*
46230G7L010M25	*1x2.5*	*7,0*	*24,0*	*55*	*14*
46230G7L010M40	*1x4*	*7,6*	*38,4*	*75*	*12*
46230G7L010M60	*1x6*	*8,2*	*37,6*	*100*	*10*
46230G7L010M61	*1x10*	*9,2*	*96,0*	*140*	*8*
46230G7L010M62	*1x16*	*10,5*	*153,6*	*205*	*6*
46230G7L010M63	*1x25*	*12,5*	*240,0*	*315*	*4*
46230G7L010M64	*1x35*	*13,5*	*336,0*	*400*	*2*
46230G7L010M65	*1x50*	*15,0*	*480,0*	*530*	*1*
46230G7L010M66	*1x70*	*17,0*	*672,0*	*725*	*2/0*
46230G7L010M67	*1x95*	*19,0*	*912,0*	*985*	*3/0*
46230G7L010M68	*1x120*	*21,0*	*1152,0*	*1260*	*4/0*
46230G7L010M69	*1x150*	*23,0*	*1440,0*	*1520*	*250 MCM*
46230G7L010M70	*1x185*	*25,5*	*1776,0*	*1940*	*350 MCM*
46230G7L010M71	*1x240*	*28,5*	*2304,0*	*2310*	*450 MCM*
46230G7L010M72	*1x300*	*31,0*	*2880,0*	*3200*	*550 MCM*
46230G73020M15	*2x1.5*	*10,5*	*28,8*	*115*	*16*
46230G73020M25	*2x2.5*	*11,5*	*48,0*	*145*	*14*

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RoHS CE

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
46230G73020M40	2x4	13,0	76,8	195	12
46230G73020M60	2x6	14,0	115,2	265	10
46230G73020M61	2x10	16,0	192,0	390	8
46230G73020M62	2x16	18,5	307,2	560	6
46230G73020M63	2x25	22,0	480,0	850	4
46230G73020M64	2x35	24,5	672,0	1080	2
46230G73030M15	3x1,5	11,0	43,2	130	16
46230G73030M25	3x2,5	12,5	72,0	170	14
46230G73030M40	3x4	13,5	115,2	230	12
46230G73030M60	3x6	15,0	172,8	325	10
46230G73030M61	3x10	17,0	288,0	485	8
46230G73030M62	3x16	19,5	460,8	705	6
46230G73030M63	3x25	23,5	720,0	1080	4
46230G73030M64	3x35	26,0	1008,0	1390	2
46230G73030M65	3x50	29,0	1440,0	1840	1
46230G73030M66	3x70	34,0	2016,0	2540	2/0
46230G73030M67	3x95	38,5	2736,0	3430	3/0
46230G73030M68	3x120	42,5	3456,0	4440	4/0
46230G73030M69	3x150	47,5	4320,0	5380	250 MCM
46230G73030M70	3x185	53,0	5328,0	6920	350 MCM
46230G73030M71	3x240	59,5	6912,0	8420	450 MCM
46230G73030M72	3x300	66,0	8640,0	11300	550 MCM
46230G72041M15	4G1,5	12,0	59,4	150	16
46230G72041M25	4G2,5	13,0	96,0	205	14
46230G72041M40	4G4	14,5	153,6	280	12
46230G72041M60	4G6	16,0	230,4	390	10
46230G72041M61	4G10	18,5	384,0	590	8
46230G72041M62	4G16	21,0	614,4	870	6
46230G72041M63	4G25	25,5	960,0	1365	4
46230G72041M64	4G35	28,5	1344,0	1760	2
46230G73035M65	3x50+1x35	31,1	1776,0	2160	1
46230G73035M66	3x70+1x50	36,2	2496,0	3010	2/0
46230G73035M67	3x95+1x50	40,6	3216,0	3960	3/0
46230G73035M68	3x120+1x70	45,4	4128,0	5160	4/0
46230G73035M69	3x150+1x70	49,5	4992,0	6150	250 MCM
46230G73035M70	3x185+1x70	54,4	6000,0	7780	350 MCM
46230G73035M71	3x240+1x95	61,5	7824,0	9550	450 MCM
46230G73050M15	5x1,5	13,0	72,0	180	16
46230G73050M25	5x2,5	14,5	120,0	240	14
46230G73050M40	5x4	16,0	192,0	335	12
46230G73050M60	5x6	17,5	288,0	475	10
46230G73050M61	5x10	20,0	480,0	720	8
46230G73050M62	5x16	23,0	768,0	1060	6
46230G73050M63	5x25	28,0	1200,0	1645	4
46230G70071M15	7x1,5	13,5	100,8	220	16
46230G70071M25	7x2,5	15,0	168,0	310	14
46230G70101M15	10x2,5	19,0	240,0	440	14
46230G70101M25	10x1,5	16,5	144,0	310	16
46230G70121M15	12x1,5	17,0	172,8	370	16
46230G70121M25	12x2,5	19,5	240,0	525	14
46230G70141M15	14x1,5	18,0	201,6	430	16
46230G70141M25	14x2,5	20,5	336,0	610	14
46230G70191M15	19x1,5	19,5	273,6	560	16
46230G70191M25	19x2,5	22,5	456,0	745	14
46230G70241M15	24x1,5	22,5	345,6	710	16
46230G70241M25	24x2,5	25,5	576,0	1000	14

Other dimensions and colours available on request.

U-1000 RV FV

RoHS CE

Construction:

Conductor:	solid or stranded red copper conductor Cl. 1 or 2, acc. to IEC 60228
Insulation:	XLPE compound
Cores colour:	**2 cores:** blue-brown **3 cores:** brown-black-blue(1,2/2,5 mm²) **3G cores:** brown,black, grey (4 mm²) **4 cores:** blue-brown-black-gray **4G cores:** brown-black-gray-Y/G **5 cores:** brown-blue-grey-black **5 G cores:** blue-brown-black-gray-Y/G
Wrapping:	non fibrous and not hygroscopic filler
Armouring:	two steel tape
Outer sheath:	black(RAL 9005),PVC compound

Features:

- **Acc. to NFC 32-321 C32-321/A1**
- **acc. to IEC 60502-1**

Applications:

For use in industrial sites and the upright columns of buildings. particulary suited in cases of high resistance to solar radiation and athmospheric agents is required good resistance to low temperatures and chemical agents.
Can be used without additional mechanical protection in the open air, fixed to walls or in raceways,
inside walkways, and in empty in constructions in general. can be laid underground with mechanical protection constucted from slab, tiles, or bricks.
It is no racomended to lay this cable in ground flooded for more than two months for year.
With appropriate mechanical protection it can be use in areas subject to risk of explosion, but in this case the permitted current load is reduced by 15% It can be used in ambient temperatures down to - 25°.

Technical data:

Nominal voltage:	300/500 V
Test voltage:	1,2 V
Min. bending radius:	6 x d
Temperature range:	- 10°C / + 90°C
Max. short circuit temp. on conductor:	+ 250°C
Nominal voltage:	0,6/1 kV
Max. pulling stress:	5 kg/mm²
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1 **No flame propagation acc. to:** CEI EN 50265-2-1 EN 60332-1-2 acc. to 20-37 part 2 EN 50267 and 20-52

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
46240G7L010M15	*1x1,5*	*6,6*	*14,4*	*-*	*16*
46240G7L010M25	*1x2,5*	*7,0*	*24,0*	*-*	*14*
46240G7L010M40	*1x4*	*7,6*	*38,4*	*-*	*12*
46240G7L010M60	*1x6*	*8,2*	*37,6*	*-*	*10*
46240G7L010M61	*1x10*	*9,2*	*96,0*	*-*	*8*
46240G7L010M62	*1x16*	*10,5*	*153,6*	*370*	*6*
46240G7L010M63	*1x25*	*12,5*	*240,0*	*485*	*4*
46240G7L010M64	*1x35*	*13,5*	*336,0*	*593*	*2*
46240G7L010M65	*1x50*	*15,0*	*480,0*	*727*	*1*
46240G7L010M66	*1x70*	*17,0*	*672,0*	*958*	*2/0*
46240G7L010M67	*1x95*	*19,0*	*912,0*	*1251*	*3/0*
46240G7L010M68	*1x120*	*21,0*	*1152,0*	*1509*	*4/0*
46240G7L010M69	*1x150*	*23,0*	*1440,0*	*1807*	*250 MCM*
46240G7L010M70	*1x185*	*25,5*	*1776,0*	*2215*	*350 MCM*
46240G7L010M71	*1x240*	*28,5*	*2304,0*	*2803*	*450 MCM*
46240G7L010M72	*1x300*	*31,0*	*2880,0*	*-*	*550 MCM*
46240G73020M15	*2x1,5*	*10,5*	*28,8*	*210*	*16*

U-1000 RV FV

RoHS CE

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
46240G73020M25	2x2,5	11,5	48,0	253	14
46240G73020M40	2x4	13,0	76,8	311	12
46240G73020M60	2x6	14,0	115,2	409	10
46240G73020M61	2x10	16,0	192,0	548	8
46240G73020M62	2x16	18,5	307,2	720	6
46240G73020M63	2x25	22,0	480,0	1110	4
46240G73020M64	2x35	24,5	672,0	1400	2
46240G73030M15	3x1,5	11,0	43,2	240	16
46240G73030M25	3x2,5	12,5	72,0	295	14
46240G72031M40	3G4	13,5	115,2	365	12
46240G72031M60	3x6	15,0	172,8	491	10
46240G72031M61	3G10	17,0	288,0	665	
46240G72031M62	3G16	19,5	460,8	898	6
46240G72031M63	3G25	23,5	720,0	1320	4
46240G72031M64	3G35	26,0	1008,0	1700	2
46240G72031M65	3G50	29,0	1440,0	2195	1
46240G72031M66	3G70	34,0	2016,0	3015	2/0
46240G72031M67	3G95	38,5	2736,0	4300	3/0
46240G72031M68	3G120	42,5	3456,0	5250	4/0
46240G72031M69	3G150	47,5	4320,0	6480	250 MCM
46240G72031M70	3G185	53,0	5328,0	8020	350 MCM
46240G72031M71	3G240	59,5	6912,0	10170	450 MCM
46240G72031M72	3G300	66,0	8640,0	12170	550 MCM
46240G72041M15	4G1,5	12,0	59,4	-	16
46240G72041M25	4G2,5	13,0	96,0	-	14
46240G72041M40	4G4	14,5	153,6	-	12
46240G72041M60	4G6	16,0	230,4	-	10
46240G72041M61	4G10	18,5	384,0	-	8
46240G72041M62	4G16	21,0	614,4	-	6
46240G72041M63	4G25	25,5	960,0	-	4
46240G72041M64	4G35	28,5	1344,0	-	2
46240G72035M64	3x35+1x25	28,5	-	2000	2
46240G72035M65	3x50+1x35	31,1	1776,0	2575	1
46240G72035M66	3x70+1x50	36,2	2496,0	3560	2/0
46240G72035M67	3x95+1x50	40,6	3216,0	4810	3/0
46240G72035M68	3x120+1x70	45,4	4128,0	6100	4/0
46240G72035M69	3x150+1x70	49,5	4992,0	7225	250 MCM
46240G72035M70	3x185+1x70	54,4	6000,0	8650	350 MCM
46240G72035M71	3x240+1x95	61,5	7824,0	11020	450 MCM
46240G72051M15	5G1,5	13,0	72,0	310	16
46240G72051M25	5G2,5	14,5	120,0	390	14
46240G72051M40	5G4	16,0	192,0	495	12
46240G72051M60	5G6	17,5	288,0	645	10
46240G72051M61	5G10	20,0	480,0	910	8
46240G72051M62	5G16	23,0	768,0	1290	6
46240G72051M63	5G25	28,0	1200,0	1900	4
46240G70071M15	7x1,5	13,5	100,8	245	16
46240G70071M25	7x2,5	15,0	168,0	335	14
46240G70101M15	10x1,5	16,5	144,0	-	16
46240G70121M15	12x1,5	17,0	172,8	370	16
46240G70101M25	10x2,5	19,0	240,0	-	14
46240G70121M25	12x2,5	19,5	240,0	520	14
46240G70141M15	14x1,5	18,0	201,6	-	16
46240G70141M25	14x2,5	20,5	336,0	-	14
46240G70191M15	19x1,5	19,5	273,6	530	16
46240G70191M25	19x2,5	22,5	456,0	750	14
46240G70241M15	24x1,5	22,5	345,6	650	16
46240G70241M25	24x2,5	25,5	576,0	930	14

Other dimensions and colours available on request.

RV-K

RoHS CE

Construction:

Conductor:	ffexible red copper conductor Cl. 5, acc to IEC 60228
Insulation:	XLPE compound
Cores colour:	**1 cores:** black **2 cores:** blue-brown, **3 cores:** brown-black-gray **4 cores:** blue-brown-black-gray
Outer sheath:	black(RAL 9005),PVC compound

Application:

This cable for energy distribution is suitable for all types of low voltage industrial-type connections. Its high flexibility makes the installation process substantially easier and as a result is particularly suitable for use in difficult layouts. It can be buried or installed in a tube as well as outdoors without requiring additional protection. Lastly, RV-K cable can withstand damp conditions.

Features:

- **acc.to HD603-1**

Technical data:

Nominal voltage:	600/1000 kV
Test voltage:	4 kV
Temperature range:	
Fixed installation:	-50°C / +80°C
Flexible installation:	-35°C / +80°C
Temperaure at conductor:	
in service:	+ 90°C
in short circuit:	+ 250°C
Min. bending radius:	5 x d

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46250G7L010M40	*1x4 re*	*9,0*	*38*	*115*	*12*
46250G7L010M60	*1x6 re*	*9,5*	*58*	*135*	*10*
46250G7L010M61	*1x10 re*	*10,0*	*96*	*179*	*8*
46250G7L010M62	*1x16 re*	*11,0*	*154*	*245*	*6*
46250G7L010M63	*1x25 rm*	*12,0*	*240*	*360*	*4*
46250G7L010M64	*1x35 rm*	*13,0*	*336*	*470*	*2*
46250G7L010M65	*1x50 rm*	*15,0*	*480*	*620*	*1*
46250G7L010M66	*1x70 rm*	*16,5*	*672*	*810*	*2/0*
46250G7L010M67	*1x95 rm*	*19,0*	*912*	*1110*	*3/0*
46250G7L010M68	*1x120 rm*	*20,5*	*1152*	*1360*	*4/0*
46250G7L010M69	*1x150 rm*	*22,5*	*1440*	*1670*	*250 MCM*
46250G7L010M70	*1x185 rm*	*25,0*	*1776*	*2050*	*350 MCM*
46250G7L010M71	*1x240 rm*	*28,0*	*2304*	*2630*	*450 MCM*
46250G7L010M72	*1x300 rm*	*30,0*	*2880*	*3200*	*550 MCM*
46250G7L010M73	*1x400 rm*	*34,0*	*3840*	*4150*	*750 MCM*
46250G7L010M74	*1x500 rm*	*38,0*	*4800*	*5200*	*1000 MCM*
46250G7L010M75	*1x630 rm*	*43,0*	*6048*	*6650*	*1250 MCM*
46250G73020M15	*2x1,5 re*	*11,0*	*29*	*175*	*16*
46250G73020M25	*2x2,5 re*	*12,0*	*48*	*215*	*14*
46250G73020M40	*2x4 re*	*14,0*	*77*	*295*	*12*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46250G73020M60	*2x6 re*	*5,0*	*15*	*370*	*10*
46250G73020M61	*2x10 re*	*16,5*	*192*	*495*	*8*
46250G73020M62	*2x16 re*	*18,5*	*307*	*670*	*6*
46250G73020M63	*2x25 rm*	*23,5*	*480*	*960*	*4*
46250G73030M15	*3x1.5 re*	*11,5*	*43*	*195*	*16*
46250G73030M25	*3x2.5 re*	*12,5*	*72*	*250*	*14*
46250G73030M40	*3x4 re*	*14,0*	*115*	*340*	*12*
46250G73030M60	*3x6 re*	*15,0*	*173*	*430*	*10*
46250G73030M61	*3x10 re*	*17,0*	*288*	*590*	*8*
46250G73030M62	*3x16 re*	*19,0*	*461*	*820*	*6*
46250G73030M63	*3x25 rm*	*24,0*	*720*	*1320*	*4*
46250G73030M64	*3x35 sm*	*25,0*	*1008*	*1450*	*2*
46250G73030M65	*3x50 sm*	*26,5*	*1440*	*1850*	*1*
46250G73030M66	*3x70 sm*	*30,0*	*2016*	*2450*	*2/0*
46250G73030M67	*3x95 sm*	*34,5*	*2763*	*3300*	*3/0*
46250G73030M68	*3x120 sm*	*37,0*	*3456*	*4100*	*4/0*
46250G73030M69	*3x150 sm*	*40,0*	*4320*	*4900*	*250 MCM*
46250G73030M70	*3x185 sm*	*46,0*	*5328*	*6500*	*350 MCM*
46250G73030M71	*3x240 sm*	*51,0*	*6912*	*8300*	*450 MCM*
46250G73040M15	*4x1.5 re*	*9,7*	*57,6*	*129*	*16*
46250G73040M25	*4x2.5 rm*	*10,7*	*96,0*	*175*	*14*
46250G73040M40	*4x4 re*	*12,0*	*153,6*	*243*	*12*
46250G73040M60	*4x6 re*	*13,4*	*230,4*	*328*	*10*
46250G73040M61	*4x10 re*	*15,7*	*384*	*505*	*8*
46250G73040M62	*4x16 re*	*18,2*	*614,4*	*749*	*6*
46250G73040M63	*4x25 rm*	*24,1*	*960*	*1245*	*4*
46250G73040M64	*4x35 sm*	*26,3*	*1344*	*1671*	*2*
46250G73040M65	*4x50 sm*	*31,3*	*1920*	*2313*	*1*
46250G73040M66	*4x70 sm*	*36,1*	*2688*	*3204*	*2/0*
46250G73040M67	*4x95 sm*	*40,2*	*3648*	*4126*	*3/0*

Other dimensions and colours available on request.

RE4(O)R (XLPE/PVC)

RoHS CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	XLPE compound
Cores colour:	**1 core:** black **2 cores:** light blue-black **3 cores:** light blue-brown-black, (or Y/G-black-light-blue) **4 cores:** light blue-brown-black-black, (or Y/G-black-light blue-brown) **5 cores:** Y/G-black-light blue-brown-black
Outer sheath :	black(RAL 9005),PVC compound

Features:

- Construction according to IEC 60502-1

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range: *fixed laying:* *flexible application:*	 - 25°C / + 90°C 0°C / + 90°C
Temperature at conductor: *in service:* *in short circuit:*	 + 90°C + 250°C
Min. Bending Radius:	12 x d
Max tensile stress:	5 kg x mm²
Resistance:	**Flame retardant acc. to:** PVC sel-extinguishing and flame retardant acc.to DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1 **On request:** DIN VDE 0482 part.266-2-5, EN 50266-2-5 IEC 60332-3C

POWER

Part no,	*No,of cores x cross section n x mm²*	*Outer Ø ca,mm ±10%*	*Copper weight kg/km*	*Cable weight approx, kg/km*	*AWG no,*)*
46260G7L010M15	*1x1,5*	*5,5*	*4,8*	*45*	*16*
46260G7L010M25	*1x2,5*	*6*	*24*	*60*	*14*
46260G7L010M40	*1x4*	*6,5*	*38,4*	*75*	*12*
46260G7L010M60	*1x6*	*7*	*57,6*	*95*	*10*
46260G7L010M61	*1x10*	*8*	*96*	*140*	*8*
46260G7L010M62	*1x16*	*9*	*153*	*195*	*6*
46260G7L010M63	*1x25*	*11*	*240*	*285*	*4*
46260G7L010M64	*1x35*	*12*	*336*	*380*	*2*
46260G7L010M65	*1x50*	*13,5*	*480*	*520*	*1*
46260G7L010M66	*1x70*	*15,5*	*672*	*720*	*2/0*
46260G7L010M67	*1x95*	*17,5*	*912*	*930*	*3/0*
46260G7L010M68	*1x120*	*19,5*	*1152*	*1170*	*4/0*
46260G7L010M69	*1x150*	*21,5*	*1440*	*1450*	*250 MCM*
46260G7L010M70	*1x185*	*23*	*1776*	*1740*	*350 MCM*
46260G7L010M71	*1x240*	*26,5*	*2304*	*2310*	*450 MCM*
46260G7L010M72	*1x300*	*30*	*2880*	*2890*	*550 MCM*
46260G7L010M73	*1x400*	*35*	*3840*	*3920*	*750 MCM*
46260G7L010M74	*1x500*	*39*	*4800*	*5015*	*1000 MCM*
46260G7L010M75	*1x630*	*43,5*	*6048*	*6585*	*1250 MCM*

RE4(O)R (XLPE/PVC)

RoHS CE

Part no,	No,of cores x cross section n x mm²	Outer Ø ca,mm ±10%	Copper weight kg/km	Cable weight approx, kg/km	AWG no,*)
46260G73020M15	2x1,5	8,5	28,8	100	16
46260G73020M25	2x2,5	9,5	48	130	14
46260G73020M40	2x4	10,5	76,8	170	12
46260G73020M60	2x6	11,5	115,2	220	10
46260G73020M61	2x10	13,5	192	330	8
46260G73020M62	2x16	15,5	307,2	470	6
46260G73020M63	2x25	19	480	705	4
46260G73020M64	2x35	21	672	945	2
46260G73020M65	2x50	-	960	-	1
46260G73020M66	2x70	-	1344	-	2/0
46260G73020M67	2x95	-	1824	-	3/0
46260G73020M68	2x120	-	2304	-	4/0
46260G73020M69	2x150	-	2880	-	150 MCM
46260G73020M70	2x185	-	3330	-	250 MCM
46260G72031M15	3G1,5	9	43,2	115	16
46260G72031M25	3G2,5	10	72	155	14
46260G72031M40	3G4	11	115,2	205	12
46260G72031M60	3G6	12	172,8	275	10
46260G72031M61	3G10	14	288	420	8
46260G72031M62	3G16	16,5	460	605	6
46260G72031M63	3G25	20	720	910	4
46260G72031M64	3G35	22,5	1008	1235	2
46260G72031M65	3G50	-	1440	-	1
46260G72031M66	3G70	-	2016	-	2/0
46260G72031M67	3G95	-	2736	-	3/0
46260G72031M68	3G120	-	3456	-	4/0
46260G72031M69	3G150	-	4320	-	150 MCM
46260G72031M70	3G185	-	5328	-	250 MCM

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46260G72041M15	4G1,5	10	57,6	140	16
46260G72041M25	4G2,5	11	96	185	14
46260G72041M40	4G4	12	153,6	255	12
46260G72041M60	4G6	13,5	230,4	340	10
46260G72041M61	4G10	16	384	530	8
46260G72041M62	4G16	18,5	614,4	770	6
46260G72041M63	4G25	22,5	960	1165	4
46260G72041M64	4G35	25	1344	1570	2
46260G72041M65	4G50	-	1920	-	1
46260G72041M66	4G70	-	2688	-	2/0
46260G72041M67	4G95	-	3648	-	3/0
46260G72041M68	4G120	-	4608	-	4/0
46260G72041M69	4G150	-	5760	-	150 MCM
46260G72041M70	4G185	-	7104	-	250 MCM
46260G72035M64	3x35+1x16	-	-	-	4
46260G72035M65	3x50+1x25	-	-	-	4
46260G72035M66	3x70+1x35	-	-	-	2
46260G72035M67	3x95+1x50	-	-	-	1
46260G72035M68	3x120+1x70	-	-	-	1
46260G72035M69	3x150+1x70	-	-	-	2/0
46260G72035M70	3x185+1x95	-	-	-	2/0
46260G72035M71	3x240+1x120	-	-	-	3/0
46260G72035M72	3x300+1x150	-	-	-	3/0

CONTROL

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46260G73050M15	5x1,5	12,7	72	225	16
46260G71070M15	7x1,5	13,1	100,8	260	16
46260G71100M15	10x1,5	13,8	144	-	16
46260G71120M15	12x1,5	15,2	172,8	385	16
46260G71160M15	16x1,5	-	230,4	-	16
46260G71190M15	19x1,5	17,3	273,6	-	16
46260G71240M15	24x1,5	20,2	345,6	880	16
46260G71070M25	7x2,5	13,5	168	365	14
46260G71100M25	10x2,5	15,9	240	-	14
46260G71120M25	12x2,5	17,3	288	542,5	14
46260G71160M25	16x2,5	-	384	-	14
46260G71190M25	19x2,5	21,3	456	-	14
46260G71240M25	24x2,5	24,6	576	1025	14

Other dimensions and colours available on request.

FE4(O)CR

inverter, connection to frequency converters

RoHS CE

Construction:

Conductor:	flexible red copper conductor Cl.5, acc.to IEC 60228
Insulation:	XLPE compound
Cores colour:	brown - grey - black
Stranding:	cores laying to concentric crowns to ensure roundness to the cable.
Inner sheath:	PVC,type R2
Screen:	red copper braid of the same section as the phase conductor (for sections up to 16 mm²) or equal to half phase conductor, with a minimum of 16 mm² (for section greater than 25 mm²)
Outer sheath:	grey (RAL 7001),PVC,type Rz

Features:

- **according to IEC 60502-1 and CEI 20-13, CEI-UNEL 35375**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range:	
Fixed installation:	-50°C / + 80°C
Flexible installation:	-35°C /+ 80°C
Temperaure at conductor:	
in service:	+ 90°C
in short circuit:	+ 250°C
Min. bending radius:	8 x d
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Current capacity at 30°C*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
33200G83030M25	*3x2,5+SH*	*14,6*	*26*	*96*	*340*	*14*
33200G83030M40	*3x4+SH*	*15,8*	*34*	*134*	*400*	*12*
33200G83030M60	*3x6 +SH*	*18,7*	*44*	*231*	*490*	*10*
33200G83030M61	*3x10+SH*	*21,7*	*61*	*336*	*720*	*8*
33200G83030M62	*3x16+SH*	*25,3*	*82*	*615*	*1040*	*6*
33200G83030M63	*3x25+SH*	*28,8*	*108*	*873*	*1410*	*4*
33200G83030M64	*3x35+SH*	*32,2*	*135*	*1162*	*1870*	*2*
33200G83030M65	*3x50+SH*	*36,0*	*168*	*1680*	*2400*	*1*
33200G83030M66	*3x70+SH*	*40,7*	*207*	*2352*	*3360*	*2/0*
33200G83030M67	*3x95+SH*	*47,6*	*250*	*3192*	*4350*	*3/0*
33200G83030M68	*3x120+SH*	*52,2*	*292*	*4032*	*5540*	*4/0*
33200G83030M69	*3x150+SH*	*56,4*	*335*	*5040*	*6880*	*250 MCM*
33200G83030M70	*3x185+SH*	*64,8*	*382*	*6216*	*8350*	*350 MCM*
33200G83030M71	*3x240+SH*	*74,5*	*453*	*8604*	*11540*	*450 MCM*
33200G83030M72	*3x300+SH*	*85,5*	*523*	*10080*	*13480*	*550 MCM*

Other dimension and colours available on request.

Temperature °C:	15	20	25	35	40	45	50	55	60
K Factor:	1,17	1,12	1,06	0,94	0,87	0,79	0,71	0,61	0,50

RE4(O)FR (XLPE/PVC/SWA/PVC)

Construction acc. to IEC 60502-1

RoHS CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	XLPE compound
Colour core:	**2 cores:** brown-blue **3 cores:** brown-black-gray (or brown-blue-Y/G) **4 cores:** brown-black-gray-blue (or brown-blue-grey-Y/G) **5 cores:** numbered cores (or brown-blue-grey-blue-Y/G) **6 cores** and above: numbered cores (or numbered cores +Y/G)
Inner sheath:	PVC compound
Armour:	Steel wires
Outer sheath:	black(RAL 9005),PVC compound

Features:

- according to IEC 60502-1
- on request 300/500 V

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range:	- 0°C / + 90°C
Temperature at conductor: *in service:* *in short circuit:*	 + 90°C + 250°C
Min. Bending Radius:	1,5 up to 16 mm²: 8 x d 25 mm² and above: 8 x d
Max tensile stress:	5 kg x mm²
Resistance:	**Flame retardant and self extinguishing:** acc. to IEC 60332-1-2, DIN VDE 0482 part 265-2-1, EN 50265-2-1 acc. to IEC 60332-3-24, EN 50266-2-5, DIN VDE 0482 part. 266-2-5

POWER

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46270G73020M15	*2 x 1,5*	*12,3*	*28,8*	*300*	*16*
46270G73020M25	*2 x 2,5*	*13,6*	*48*	*360*	*14*
46270G73020M40	*2 x 4*	*14,7*	*76,8*	*420*	*12*
46270G73020M60	*2 x 6*	*15,9*	*115,2*	*500*	*10*
46270G73020M61	*2 x 10*	*18*	*192*	*650*	*8*
46270G73020M62	*2 x 16*	*20*	*307,2*	*910*	*6*
46270G73020M63	*2 x 25*	*24,1*	*480*	*1060*	*4*
46270G73020M64	*2 x 35*	*27,9*	*672*	*1480*	*2*
46270G73020M65	*2 x 50*	*25,8*	*960*	*1800*	*1*
46270G73020M66	*2 x 70*	*29*	*1344*	*2300*	*2/0*
46270G73020M67	*2 x 95*	*33,1*	*1824*	*3170*	*3/0*
46270G73020M68	*2 x 120*	*36,1*	*2304*	*3800*	*4/0*
46270G73020M69	*2 x 150*	*39,3*	*2880*	*4500*	*300 MCM*
46270G73020M70	*2 x 185*	*44,7*	*3552*	*5800*	*350 MCM*
46270G73020M71	*2 x 240*	*59*	*4608*	*7280*	*500 MCM*
46270G73020M72	*2 x 300*	*53,5*	*5760*	*8750*	*600 MCM*
46270G73020M73	*2 x 400*	*59*	*7680*	*10700*	*750 MCM*
46270G72031M15	*3 G 1,5*	*12,8*	*43,2*	*341*	*16*
46270G72031M25	*3 G 2,5*	*14,1*	*72*	*405*	*14*
46270G72031M40	*3 G 4*	*15,3*	*115,2*	*495*	*12*
46270G72031M60	*3 G 6*	*16,6*	*172,8*	*600*	*10*
46270G72031M61	*3 G 10*	*19,5*	*288*	*900*	*8*
46270G72031M62	*3 G 16*	*21,2*	*460,8*	*1080*	*6*
46270G72031M63	*3 G 25*	*26,7*	*720*	*1750*	*4*
46270G72031M64	*3 G 35*	*29,6*	*1008*	*2100*	*2*
46270G72031M65	*3 G 50*	*28,5*	*1440*	*2350*	*1*
46270G72031M66	*3 G 70*	*32,2*	*2016*	*3150*	*2/0*
46270G72031M67	*3 G 95*	*37*	*2736*	*4300*	*3/0*
46270G72031M68	*3 G 120*	*40,4*	*3456*	*5250*	*4/0*
46270G72031M69	*3G 150*	*45,5*	*4320*	*6720*	*300 MCM*
46270G72031M70	*3 G 185*	*49,8*	*5328*	*8040*	*350 MCM*
46270G72031M71	*3 G 240*	*55,1*	*6912*	*10150*	*500 MCM*
46270G72031M72	*3 G 300*	*60,2*	*8640*	*12320*	*600 MCM*
46270G72031M73	*3 G 400*	*66,6*	*11520*	*15090*	*750 MCM*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46270G72041M15	*4 G 1,5*	*13,5*	*57,6*	*390*	*16*
46270G72041M25	*4 G 2,5*	*15*	*96*	*465*	*14*
46270G72041M40	*4 G 4*	*16,4*	*153,6*	*579*	*12*
46270G72041M60	*4 G 6*	*18,7*	*230,4*	*820*	*10*
46270G72041M61	*4 G 10*	*21,1*	*384*	*1090*	*8*
46270G72041M62	*4 G 16*	*22,9*	*614,4*	*1400*	*6*
46270G72041M63	*4 G 25*	*28,9*	*960*	*2100*	*4*
46270G72041M64	*4 G 35*	*32,1*	*1344*	*2580*	*2*
46270G72041M65	*4 G 50*	*32*	*1920*	*3000*	*1*
46270G72041M66	*4 G 70*	*37,7*	*2688*	*4300*	*2/0*
46270G72041M67	*4 G 95*	*41,7*	*3648*	*5510*	*3/0*
46270G72041M68	*4 G 120*	*47,1*	*4608*	*7150*	*4/0*
46270G72041M69	*4 G 150*	*51,4*	*5760*	*8500*	*300 MCM*
46270G72041M70	*4 G 185*	*56,6*	*7104*	*10300*	*350 MCM*
46270G72041M71	*4 G 240*	*63*	*9216*	*13000*	*500 MCM*
46270G72041M72	*4 G 300*	*68,8*	*11520*	*15750*	*600 MCM*
46270G72041M73	*4 G 400*	*78,1*	*15360*	*20450*	*750 MCM*

RE4(O)FR (XLPE/PVC/SWA/PVC)

Construction acc. to IEC 60502-1

RoHS CE

CONTROL

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46270G73050M15	5 x 1,5	14,2	72	433	16
46270G73050M25	5 x 2,5	16	120	530	14
46270G73050M40	5 x 4	18,4	192	775	12
46270G73050M60	5 x 6	19,7	288	929	10
46270G73050M61	5 x 10	23,2	480	1300	8
46270G73050M62	5 x 16	26,6	768	1880	6
46270G73050M63	5 x 25	31,7	1200	2670	4
46270G73050M64	5 x 35	33	1680	2800	2
46270G73050M65	5 x 50	-	2400	-	1
46270G73050M66	5 x 70	-	3360	-	2/0
46270G73050M67	5 x 95	-	4560	-	3/0
46270G71060M15	6 x 1,5	15,2	86,4	497	16
46270G71060M25	6 x 2,5	17,1	144	609	14
46270G71060M40	6 x 4	19,7	230,4	886	12
46270G71060M60	6 x 6	21,3	345,6	1070	10
46270G71060M61	6 x 10	25,6	576	1650	8
46270G71060M62	6 x 16	28,8	921,6	2190	6
46270G71060M63	6 x 25	34,1	1440	3090	4
46270G71070M15	7 x 1,5	15,2	100,8	506	16
46270G71070M25	7 x 2,5	17,1	168	618	14
46270G71070M40	7 x 4	19,7	268,8	907	12
46270G71070M60	7 x 6	21,3	403,2	1110	10
46270G71070M61	7 x 10	25,6	672	1720	8
46270G71070M62	7 x 16	28,8	1075,2	2300	6
46270G71070M63	7 x 25	38,6	1680	3900	4
46270G71080M15	8 x 1,5	17,6	115,2	663	16
46270G71080M25	8 x 2,5	18,8	192	793	14
46270G71080M40	8 x 4	21,2	396,8	1030	12
46270G71080M60	8 x 6	24,1	460,8	1440	10
46270G71080M61	8 x 10	27,7	768	1960	8

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46270G71100M15	10 x 1,5	19,8	144	812	16
46270G71100M25	10 x 2,5	21,4	240	989	14
46270G71100M40	10 x 4	25,1	384	1410	12
46270G71100M60	10 x 6	27,3	576	1680	10
46270G71100M61	10 x 10	31,5	960	2320	8
46270G71120M15	12 x 1,5	19,4	172,8	854	16
46270G71120M25	12 x 2,5	22,4	288	1080	14
46270G71120M40	12 x 4	27,7	460,8	1550	12
46270G71120M60	12 x 6	28	691,2	1920	10
46270G71120M61	12 x 10	32,3	1152	2660	8
46270G71160M15	16 x 1,5	21,9	230,4	1020	16
46270G71160M25	16 x 2,5	25	384	1430	14
46270G71160M40	16 x 4	29,1	614,4	1950	12
46270G71160M60	16 x 6	30,4	921,6	2300	10
46270G71190M15	19 x 1,5	23,2	273,6	1120	16
46270G71190M25	19 x 2,5	26,1	456	1570	14
46270G71190M40	19 x 4	29,3	729,6	2050	12
46270G71220M15	22 x 1,5	27,3	316,8	1560	16
46270G71220M25	22 x 2,5	29,7	528	1930	14
46270G71220M40	22 x 4	33,5	844,8	2530	12
46270G71270M15	27 x 1,5	27,9	388,8	1630	16
46270G71270M25	27 x 2,5	30,2	648	2050	14
46270G71270M40	27 x 4	34,2	1036,8	2740	12
46270G71300M15	30 x 1,5	28,5	432	1730	16
46270G71300M25	30 x 2,5	31,3	720	2200	14
46270G71370M15	37 x 1,5	30,6	532,8	1970	16
46270G71370M25	37 x 2,5	33,8	888	2540	14
46270G71370M40	37 x 4	39,6	1420,8	-	12
46270G71400M15	40 x 1,5	31,5	576	2080	16
46270G71400M25	40 x 2,5	35,9	960	2970	14
46270G71480M15	48 x 1,5	33,9	691,2	2390	16
46270G71480M25	48 x 2,5	38,8	1152	3430	14
46270G71480M40	48 x 4	44,6	1843,2	-	12

Other dimensions and colours available on request.

RE4(O)FR (XLPE/PVC/SWA/PVC)

BS 5467

RoHS CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	XLPE compound
Colour core:	**2 cores:** brown-blue **3 cores:** brown-black-gray (or brown-blue-Y/G) **4 cores:** brown-black-gray-blue (or brown-blue-grey-Y/G) **5 cores:** numbered cores (or brown-blue-grey-blue-Y/G) **6 cores** and above: numbered cores (or numbered cores +Y/G)
Inner sheath:	PVC compound
Armour:	steel wires
Outer sheath:	black(RAL 9005),PVC compound

Features:

- acc. to IEC BS 5467
- on request 300/500 V

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range:	- 0°C / + 90°C
Temperature at conductor: *in service:* *in short circuit:*	 + 90°C + 250°C
Min. Bending Radius:	1,5 up to 16 mm²: 8 x d 25 mm² and above: 8 x d
Max tensile stress:	5 kg x mm²
Resistance:	**Flame retardant and self extinguishing:** acc. to IEC 60332-1-2, DIN VDE 0482 part 265-2-1, EN 50265-2-1 acc. to IEC 60332-3-24, EN 50266-2-5, DIN VDE 0482 part. 266-2-5

POWER

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46280G73020M15	*2 x 1,5*	*12,3*	*28,8*	*300*	*16*
46280G73020M25	*2 x 2,5*	*13,6*	*48*	*360*	*14*
46280G73020M40	*2 x 4*	*14,7*	*76,8*	*420*	*12*
46280G73020M60	*2 x 6*	*15,9*	*115,2*	*500*	*10*
46280G73020M61	*2 x 10*	*18*	*192*	*650*	*8*
46280G73020M62	*2 x 16*	*20*	*307,2*	*910*	*6*
46280G73020M63	*2 x 25*	*24,1*	*480*	*1060*	*4*
46280G73020M64	*2 x 35*	*27,9*	*672*	*1480*	*2*
46280G73020M65	*2 x 50*	*25,8*	*960*	*1800*	*1*
46280G73020M66	*2 x 70*	*29*	*1344*	*2300*	*2/0*
46280G73020M67	*2 x 95*	*33,1*	*1824*	*3170*	*3/0*
46280G73020M68	*2 x 120*	*36,1*	*2304*	*3800*	*4/0*
46280G73020M69	*2 x 150*	*39,3*	*2880*	*4500*	*300 MCM*
46280G73020M70	*2 x 185*	*44,7*	*3552*	*5800*	*350 MCM*
46280G73020M71	*2 x 240*	*59*	*4608*	*7280*	*500 MCM*
46280G73020M72	*2 x 300*	*53,5*	*5760*	*8750*	*600 MCM*
46280G73020M73	*2 x 400*	*59*	*7680*	*10700*	*750 MCM*
46280G72031M15	*3 G 1,5*	*12,8*	*43,2*	*341*	*16*
46280G72031M25	*3 G 2,5*	*14,1*	*72*	*405*	*14*
46280G72031M40	*3 G 4*	*15,3*	*115,2*	*495*	*12*
46280G72031M60	*3 G 6*	*16,6*	*172,8*	*600*	*10*
46280G72031M61	*3 G 10*	*19,5*	*288*	*900*	*8*
46280G72031M62	*3 G 16*	*21,2*	*460,8*	*1080*	*6*
46280G72031M63	*3 G 25*	*26,7*	*720*	*1750*	*4*
46280G72031M64	*3 G 35*	*29,6*	*1008*	*2100*	*2*
46280G72031M65	*3 G 50*	*28,5*	*1440*	*2350*	*1*
46280G72031M66	*3 G 70*	*32,2*	*2016*	*3150*	*2/0*
46280G72031M67	*3 G 95*	*37*	*2736*	*4300*	*3/0*
46280G72031M68	*3 G 120*	*40,4*	*3456*	*5250*	*4/0*
46280G72031M69	*3G 150*	*45,5*	*4320*	*6720*	*300 MCM*
46280G72031M70	*3 G 185*	*49,8*	*5328*	*8040*	*350 MCM*
46280G72031M71	*3 G 240*	*55,1*	*6912*	*10150*	*500 MCM*
46280G72031M72	*3 G 300*	*60,2*	*8640*	*12320*	*600 MCM*
46280G72031M73	*3 G 400*	*66,6*	*11520*	*15090*	*750 MCM*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46280G72041M15	*4 G 1,5*	*13,5*	*57,6*	*390*	*16*
46280G72041M25	*4 G 2,5*	*15*	*96*	*465*	*14*
46280G72041M40	*4 G 4*	*16,4*	*153,6*	*579*	*12*
46280G72041M60	*4 G 6*	*18,7*	*230,4*	*820*	*10*
46280G72041M61	*4 G 10*	*21,1*	*384*	*1090*	*8*
46280G72041M62	*4 G 16*	*22,9*	*614,4*	*1400*	*6*
46280G72041M63	*4 G 25*	*28,9*	*960*	*2100*	*4*
46280G72041M64	*4 G 35*	*32,1*	*1344*	*2580*	*2*
46280G72041M65	*4 G 50*	*32*	*1920*	*3000*	*1*
46280G72041M66	*4 G 70*	*37,7*	*2688*	*4300*	*2/0*
46280G72041M67	*4 G 95*	*41,7*	*3648*	*5510*	*3/0*
46280G72041M68	*4 G 120*	*47,1*	*4608*	*7150*	*4/0*
46280G72041M69	*4 G 150*	*51,4*	*5760*	*8500*	*300 MCM*
46280G72041M70	*4 G 185*	*56,6*	*7104*	*10300*	*350 MCM*
46280G72041M71	*4 G 240*	*63*	*9216*	*13000*	*500 MCM*
46280G72041M72	*4 G 300*	*68,8*	*11520*	*15750*	*600 MCM*
46280G72041M73	*4 G 400*	*78,1*	*15360*	*20450*	*750 MCM*

RE4(O)FR (XLPE/PVC/SWA/PVC)

0,6/1 kV according to BS 5467

RoHS CE

CONTROL

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46280G73050M15	5 x 1,5	14,2	72	433	16
46280G73050M25	5 x 2,5	16	120	530	14
46280G73050M40	5 x 4	18,4	192	775	12
46280G73050M60	5 x 6	19,7	288	929	10
46280G73050M61	5 x 10	23,2	480	1300	8
46280G73050M62	5 x 16	26,6	768	1880	6
46280G73050M63	5 x 25	31,7	1200	2670	4
46280G73050M64	5 x 35	33	1680	2800	2
46280G73050M65	5 x 50	-	2400	-	1
46280G73050M66	5 x 70	-	3360	-	2/0
46280G73050M67	5 x 95	-	4560	-	3/0
46280G71060M15	6 x 1,5	15,2	86,4	497	16
46280G71060M25	6 x 2,5	17,1	144	609	14
46280G71060M40	6 x 4	19,7	230,4	886	12
46280G71060M60	6 x 6	21,3	345,6	1070	10
46280G71060M61	6 x 10	25,6	576	1650	8
46280G71060M62	6 x 16	28,8	921,6	2190	6
46280G71060M63	6 x 25	34,1	1440	3090	4
46280G71070M15	7 x 1,5	15,2	100,8	506	16
46280G71070M25	7 x 2,5	17,1	168	618	14
46280G71070M40	7 x 4	19,7	268,8	907	12
46280G71070M60	7 x 6	21,3	403,2	1110	10
46280G71070M61	7 x 10	25,6	672	1720	8
46280G71070M62	7 x 16	28,8	1075,2	2300	6
46280G71070M63	7 x 25	38,6	1680	3900	4
46280G71080M15	8 x 1,5	17,6	115,2	663	16
46280G71080M25	8 x 2,5	18,8	192	793	14
46280G71080M40	8 x 4	21,2	396,8	1030	12
46280G71080M60	8 x 6	24,1	460,8	1440	10
46280G71080M61	8 x 10	27,7	768	1960	8

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46280G71100M15	10 x 1,5	19,8	144	812	16
46280G71100M25	10 x 2,5	21,4	240	989	14
46280G71100M40	10 x 4	25,1	384	1410	12
46280G71100M60	10 x 6	27,3	576	1680	10
46280G71100M61	10 x 10	31,5	960	2320	8
46280G71120M15	12 x 1,5	19,4	172,8	854	16
46280G71120M25	12 x 2,5	22,4	288	1080	14
46280G71120M40	12 x 4	27,7	460,8	1550	12
46280G71120M60	12 x 6	28	691,2	1920	10
46280G71120M61	12 x 10	32,3	1152	2660	8
46280G71160M15	16 x 1,5	21,9	230,4	1020	16
46280G71160M25	16 x 2,5	25	384	1430	14
46280G71160M40	16 x 4	29,1	614,4	1950	12
46280G71160M60	16 x 6	30,4	921,6	2300	10
46280G71190M15	19 x 1,5	23,2	273,6	1120	16
46280G71190M25	19 x 2,5	26,1	456	1570	14
46280G71190M40	19 x 4	29,3	729,6	2050	12
46280G71220M15	22 x 1,5	27,3	316,8	1560	16
46280G71220M25	22 x 2,5	29,7	528	1930	14
46280G71220M40	22 x 4	33,5	844,8	2530	12
46280G71270M15	27 x 1,5	27,9	388,8	1630	16
46280G71270M25	27 x 2,5	30,2	648	2050	14
46280G71270M40	27 x 4	34,2	1036,8	2740	12
46280G71300M15	30 x 1,5	28,5	432	1730	16
46280G71300M25	30 x 2,5	31,3	720	2200	14
46280G71370M15	37 x 1,5	30,6	532,8	1970	16
46280G71370M25	37 x 2,5	33,8	888	2540	14
46280G71370M40	37 x 4	39,6	1420,8	-	12
46280G71400M15	40 x 1,5	31,5	576	2080	16
46280G71400M25	40 x 2,5	35,9	960	2970	14
46280G71480M15	48 x 1,5	33,9	691,2	2390	16
46280G71480M25	48 x 2,5	38,8	1152	3430	14
46280G71480M40	48 x 4	44,6	1843,2	-	12

Other dimensions and colours available on request.

RE4(O)M1 (XLPE/LS0H)(RE4(O)H)

RoHS Halogen Free CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	XLPE compound
Cores colour :	**1 core:** black **2 cores:** light blue-black **3 cores:** light blue-brown-black, (or Y/G-black-light-blue) **4 cores:** light blue-brown-black-black, (or Y/G-black-light blue-brown) **5 cores:**Y/G-black-light blue-brown-black
Outer sheath:	black (RAL 9005), halogen-free compound

Features:

- according to IEC 60502-1

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range: *fixed laying:* *flexible application:*	 - 25°C / + 90°C - 5°C / + 90°C
Temperature at conductor: *in service:* *in short circuit:*	 + 90°C + 250°C
Min. Bending Radius:	12 x d
Max tensile stress:	5 kg x mm²
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part.265-2-1, EN 50265-2-1, IEC 60332-1 **Halogen free acc. to:** EN 50267-1, IEC 60754-1, DIN VDE 0482 part. 267-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2

POWER

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46290G7L010M15	*1x1,5*	*9,6*	*4,4*	*30*	*16*
46290G7L010M25	*1x2,5*	*10,4*	*24*	*160*	*14*
46290G7L010M40	*1x4*	*11,5*	*38,4*	*210*	*12*
46290G7L010M60	*1x6*	*12,6*	*57,6*	*270*	*10*
46290G7L010M61	*1x10*	*15,1*	*96*	*420*	*8*
46290G7L010M62	*1x16*	*17,0*	*153,6*	*580*	*6*
46290G7L010M63	*1x25*	*20,2*	*240*	*860*	*4*
46290G7L010M64	*1x35*	*22,4*	*336*	*1110*	*2*
46290G7L010M65	*1x50*	*24,8*	*480*	*1440*	*1*
46290G7L010M66	*1x70*	*28,6*	*672*	*1970*	*2/0*
46290G7L010M67	*1x95*	*32,2*	*912*	*2640*	*3/0*
46290G7L010M68	*1x120*	*36,6*	*1152*	*3370*	*4/0*
46290G7L010M69	*1x150*	*40,4*	*1440*	*4120*	*250 MCM*
46290G7L010M70	*1x185*	*44,3*	*1776*	*5060*	*350 MCM*
46290G7L010M71	*1x240*	*10,1*	*2304*	*2750*	*450 MCM*
46290G7L010M72	*1x300*	*10,9*	*2880*	*3300*	*550 MCM*
46290G7L010M73	*1x400*	*12,1*	*3840*	*4420*	*750 MCM*
46290G7L010M74	*1x500*	*13,3*	*4800*	*5460*	*1000 MCM*
46290G7L010M75	*1x630*	*15,9*	*6048*	*6780*	*1250 MCM*
46290G73020M15	*2x1,5*	*17,9*	*28,8*	*720*	*16*
46290G73020M25	*2x2,5*	*21,5*	*48*	*1080*	*14*
46290G73020M40	*2x4*	*23,7*	*76,8*	*1400*	*12*
46290G73020M60	*2x6*	*26,4*	*115,2*	*1830*	*10*

RE4(O)M1 (XLPE/LS0H)(RE4(O)H)

RoHS Halogen Free CE

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46290G73020M61	2x10	30,7	192	2550	8
46290G73020M62	2x16	34,3	307,2	3430	6
46290G73020M63	2x25	39,0	480	4360	4
46290G73020M64	2x35	43,3	672	5350	2
46290G73020M65	2x50	47,5	960	6600	1
46290G73020M66	2x70	10,9	1344	180	2/0
46290G73020M67	2x95	11,8	1824	220	3/0
46290G73020M68	2x120	13,1	2304	300	4/0
46290G73020M69	2x150	14,4	2880	400	150 MCM
46290G73020M70	2x185	17,2	3552	630	250 MCM
46290G72031M15	3G1,5	19,5	43,2	890	16
46290G72031M25	3G2,5	23,5	72	1340	14
46290G72031M40	3G4	26,0	115,2	1760	12
46290G72031M60	3G6	29,2	172,8	2330	10
46290G72031M61	3G10	34,0	288	3250	8
46290G72031M62	3G16	38,7	460,8	4430	6
46290G72031M63	3G25	43,4	720	5580	4
46290G72031M64	3G35	47,9	1008	6820	2
46290G72031M65	3G50	53,0	1440	8480	1
46290G72031M66	3G70	25,4	2016	1650	2/0
46290G72031M67	3G95	27,8	2736	2060	3/0
46290G72031M68	3G120	32,2	3456	2860	4/0
46290G72031M69	3G150	36,9	4320	3920	150 MCM
46290G72031M70	3G185	41,4	5328	4980	250 MCM

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46290G72041M15	4G1,5	46,1	57,6	-	16
46290G72041M25	4G2,5	49,8	96	-	14
46290G72041M40	4G4	58,2	153,6	-	12
46290G72041M60	4G6	62,9	230,4	-	10
46290G72041M61	4G10	5,8	384	-	8
46290G72041M62	4G16	6,2	614,4	-	6
46290G72041M63	4G25	6,8	960	-	4
46290G72041M64	4G35	7,3	1344	-	2
46290G72041M65	4G50	8,1	1920	-	1
46290G72041M66	4G70	9,1	2688	-	2/0
46290G72041M67	4G95	10,7	3648	-	3/0
46290G72041M68	4G120	11,8	4608	-	4/0
46290G72041M69	4G150	13,0	5760	-	150 MCM
46290G72041M70	4G185	14,9	7104	-	250 MCM
46290G72035M64	3x35+1x25	16,7	1248	-	4
46290G72035M65	3x50+1x25	18,5	1680	-	4
46290G72035M66	3x70+1x35	20,5	2016	-	2
46290G72035M67	3x95+1x70	22,3	3408	-	1
46290G72035M68	3x120+1x70	25,5	4128	-	1
46290G72035M69	3x150+1x95	27,9	5232	-	2/0
46290G72035M70	3x185+1x95	31,0	6240	-	2/0
46290G72035M71	3x240+1x150	34,8	8352	-	3/0
46290G72035M72	3x300+1x150	39,4	10080	-	3/0

Other dimensions and colours available on request.

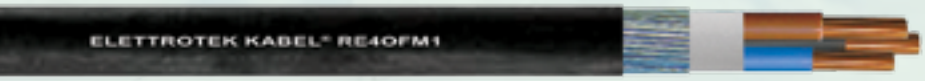
CONTROL

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46290G73050M15	5x1,5	12,7	72	206	16
46290G71070M15	7x1,5	13,1	100,8	243	16
46290G71100M15	10x1,5	13,8	144	287	16
46290G71120M15	12x1,5	15,2	172,8	328	16
46290G71160M15	16x1,5	-	230,4	-	16
46290G71190M15	19x1,5	17,3	273,6	484	16
46290G71240M15	24x1,5	20,2	345,6	603	16
46290G71070M25	7x2,5	13,5	168	310	14
46290G71100M25	10x2,5	15,9	240	472	14
46290G71120M25	12x2,5	17,3	288	540	14
46290G71160M25	16x2,5	-	384	-	14
46290G71190M25	19x2,5	21,3	456	840	14
46290G71240M25	24x2,5	24,6	576	1050	14

Other dimensions and colours available on request.

RE4(O)FM1 (XLPE/LS0H/SWA/LS0H)

RoHS Halogen Free CE



Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	XLPE compound
Cores colour:	**1 core:** black **2 cores:** light blue-black **3 cores:** light blue-brown-black, (or Y/G-black-light-blue) **4 cores:** light blue-brown-black-black, (or Y/G-black-light blue-brown) **5 cores:** Y/G-black-light blue-brown-black
Inner sheath:	Thermoplastic,halogen free compound
Armour:	steel wires
Outer sheath:	black (RAL 9005), halogen-free compound

Features:

- according to IEC 60502-1

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range: *fixed laying:* *flexible application:*	 - 25°C / + 90°C 0°C / + 90°C
Temperature at conductor: *in service:* *in short circuit:*	 + 90°C + 250°C
Min. Bending Radius:	14 x d
Max tensile stress:	5 kg x mm²
Resistance:	**Flame retardant acc. to:** IEC 60332-3-22, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** IEC 61034-1, EN 50268-1, DIN VDE 0482 part.268-1

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
46300G7L010M15	*1x1,5*	-	*14,4*	-	*16*
46300G7L010M25	*1x2,5*	-	*24*	-	*14*
46300G7L010M40	*1x4*	-	*38,4*	-	*12*
46300G7L010M60	*1x6*	-	*57,6*	-	*10*
46300G7L010M61	*1x10*	-	*96*	-	*8*
46300G7L010M62	*1x16*	-	*153,6*	-	*6*
46300G7L010M63	*1x25*	-	*240*	-	*4*
46300G7L010M64	*1x35*	-	*336*	-	*2*
46300G7L010M65	*1x50*	*19,7*	*480*	*850*	*1*
46300G7L010M66	*1x70*	*21,6*	*672*	*1080*	*2/0*
46300G7L010M67	*1x95*	*23,2*	*912*	*1360*	*3/0*
46300G7L010M68	*1x120*	*25,0*	*1152*	*1630*	*4/0*
46300G7L010M69	*1x150*	*26,8*	*1440*	*1940*	*250 MCM*
46300G7L010M70	*1x185*	*28,6*	*1776*	*2320*	*350 MCM*
46300G7L010M71	*1x240*	*31,7*	*2304*	*2920*	*450 MCM*
46300G7L010M72	*1x300*	*34,2*	*2880*	*3580*	*550 MCM*
46300G7L010M73	*1x400*	*37,6*	*3840*	*4490*	*750 MCM*
46300G7L010M74	*1x500*	*41,5*	*4800*	*5630*	*1000 MCM*
46300G7L010M75	*1x630*	*45,8*	*6048*	*7140*	*1250 MCM*

RE4(O)FM1 (XLPE/LS0H/SWA/LS0H)

RoHS Halogen Free CE

POWER

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46300G73020M15	2x1,5	13,3	28,8	330	16
46300G73020M25	2x2,5	14,0	48	370	14
46300G73020M40	2x4	15,1	76,8	440	12
46300G73020M60	2x6	16,2	115,2	530	10
46300G73020M61	2x10	18,5	192	800	8
46300G73020M62	2x16	20,4	307,2	1010	6
46300G73020M63	2x25	24,3	480	1510	4
46300G73020M64	2x35	26,4	672	1820	2
46300G73020M65	2x50	28,9	960	2230	1
46300G73020M66	2x70	33,1	1344	2930	2/0
46300G73020M67	2x95	37,7	1824	3990	3/0
46300G73020M68	2x120	41,5	2304	4810	4/0
46300G73020M69	2x150	45,3	2880	5690	150 MCM
46300G73020M70	2x185	50,8	3552	7300	250 MCM
46300G72031M15	3G1,5	13,7	43,2	360	16
46300G72031M25	3G2,5	14,6	72	410	14
46300G72031M40	3G4	15,7	115,2	500	12
46300G72031M60	3G6	16,9	172,8	600	10
46300G72031M61	3G10	19,3	288	910	8
46300G72031M62	3G16	21,3	460,8	1170	6
46300G72031M63	3G25	25,6	720	1760	4
46300G72031M64	3G35	27,8	1008	2160	2
46300G72031M65	3G50	30,7	1440	2700	1
46300G72031M66	3G70	36,2	2016	3850	2/0
46300G72031M67	3G95	40,0	2736	4880	3/0
46300G72031M68	3G120	44,1	3456	5900	4/0
46300G72031M69	3G150	49,8	4320	7550	150 MCM
46300G72031M70	3G185	54,0	5328	9010	250 MCM

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46300G72041M15	4G1.5	14,5	57,6	400	16
46300G72041M25	4G2.5	15,4	96	460	14
46300G72041M40	4G4	16,8	153,6	570	12
46300G72041M60	4G6	19,0	230,4	830	10
46300G72041M61	4G10	20,6	384	1060	8
46300G72041M62	4G16	23,6	614,4	1510	6
46300G72041M63	4G25	27,6	960	2080	4
46300G72041M64	4G35	30,3	1344	2610	2
46300G72041M65	4G50	33,5	1920	3270	1
46300G72041M66	4G70	39,7	2688	4680	2/0
46300G72041M67	4G95	43,8	3648	5970	3/0
46300G72041M68	4G120	49,9	4608	7770	4/0
46300G72041M69	4G150	54,4	5760	9240	150 MCM
46300G72041M70	4G185	59,3	7104	11090	250 MCM
46300G72035M64	3x35+1x25	29,5	1248	2460	4
46300G72035M65	3x50+1x25	32,1	1680	2960	4
46300G72035M66	3x70+1x35	37,9	2352	4220	2
46300G72035M67	3x95+1x70	41,8	3408	5350	1
46300G72035M68	3x120+1x70	46,5	4128	6610	1
46300G72035M69	3x150+1x95	52,4	5232	8510	2/0
46300G72035M70	3x185+1x95	56,3	6240	9920	2/0
46300G72035M71	3x240+1x150	64,5	8352	12840	3/0
46300G72035M72	3x300+1x150	69,0	10080	15110	3/0

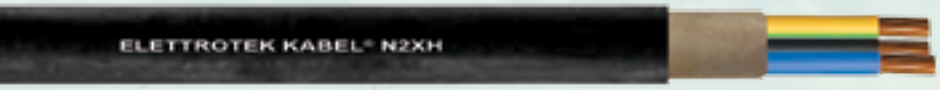
CONTROL

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
46300G73050M15	5x1,5	12,7	72	206	16
46300G71070M15	7x1,5	13,1	100,8	243	16
46300G71100M15	10x1,5	13,8	144	287	16
46300G71120M15	12x1,5	15,2	172,8	328	16
46300G71160M15	16x1,5	-	230,4	-	16
46300G71190M15	19x1,5	17,3	273,6	484	16
46300G71240M15	24x1,5	20,2	345,6	603	16
46300G71070M25	7x2,5	13,5	168	310	14
46300G71100M25	10x2,5	15,9	240	472	14
46300G71120M25	12x2,5	17,3	288	540	14
46300G71160M25	16x2,5	-	384	-	14
46300G71190M25	19x2,5	21,3	456	840	14
46300G71240M25	24x2,5	24,6	576	1050	14

Other dimensions and colours available on request.

N2XH

RoHS Halogen Free FRNC CE



Construction:

Conductor:	plain Cu wire conductor,single or multiple-wire, according to DIN VDE 0295 cl.1 and IEC 60228 cl. 1 or 2, HD 383
Insulation:	Halogen-free core insulation,cross-linked polyethylene compound 2XI1,to HD 604 S1
Colour code:	colour coding of cores according to DIN VDE 0293-308 and HD 186
Stranding:	cores stranded in layers.
Wrapping:	filling compound or wrapped tape.
Outer sheath:	black,thermoplastic polyolefine compound HM4 to HD 604 S1

Features:

- **Power cable 0,6/1 kV**

Technical data:

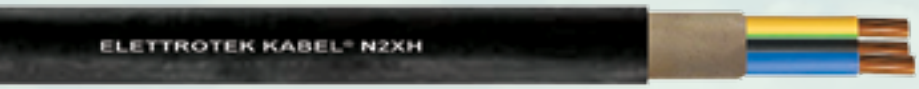
Nominal voltage:	600/1000 V
Test voltage:	4 kV
Min.bending radius:	15 x d 12 x d
Radiation resistance:	up to 100x10^6 cJ/kg
Temperature range *fixed laying:* *flexible application:*	 - 30°C to + 90°C - 5°C to + 50°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2, DIN VDE 0482 part.267-2

rm=round conductor multiple wire, re= round conductor single wire

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
46310G7L010M40	*1x4 re*	*8*	*39*	*68*	*12*
46310G7L010M60	*1x6 re*	*9*	*58*	*90*	*10*
46310G7L010M61	*1x10 re*	*9*	*96*	*140*	*8*
46310G7L010M62	*1x16 rm*	*10*	*154*	*190*	*6*
46310G7L010M63	*1x25 rm*	*11*	*240*	*290*	*4*
46310G7L010M64	*1x35 rm*	*12*	*336*	*390*	*2*
46310G7L010M65	*1x50 rm*	*15*	*480*	*510*	*1*
46310G7L010M66	*1x70 rm*	*17*	*672*	*710*	*2/0*
46310G7L010M67	*1x95 rm*	*19*	*912*	*960*	*3/0*
46310G7L010M68	*1x120 rm*	*21*	*1152*	*1200*	*4/0*
46310G7L010M69	*1x150 rm*	*23*	*1440*	*1480*	*250 MCM*
46310G7L010M70	*1x185 rm*	*25*	*1776*	*1910*	*350 MCM*
46310G7L010M71	*1x240 rm*	*28*	*2304*	*2370*	*450 MCM*
46310G7L010M72	*1x300 rm*	*30*	*2880*	*2970*	*550 MCM*
46310G73020M15	*2x1,5 re*	*12*	*29*	*185*	*16*
46310G73020M25	*2x2,5 re*	*12,2*	*48*	*220*	*14*
46310G73020M40	*2x4 re*	*13,2*	*77*	*275*	*12*
46310G73020M60	*2x6 re*	*14,1*	*115*	*335*	*10*
46310G73020M61	*2x10 re*	*16,2*	*192*	*450*	*8*
46310G73020M62	*2x16 re*	*17,8*	*307*	*620*	*6*
46310G73020M63	*2x25 rm*	*21*	*480*	*930*	*4*
46310G72031M15	*3G1,5 re*	*13*	*43*	*220*	*16*
46310G72031M25	*3G2,5 re*	*14*	*72*	*280*	*14*
46310G72031M40	*3G4 re*	*15*	*115*	*350*	*12*
46310G72031M60	*3G6 re*	*16*	*173*	*420*	*10*
46310G72031M61	*3G10 re*	*18*	*288*	*600*	*8*
46310G72031M62	*3G16 re*	*20*	*461*	*770*	*6*
46310G72031M63	*3G25 rm*	*21,8*	*720*	*1120*	*4*
46310G72031M64	*3G35 rm*	*24,9*	*1008*	*1550*	*2*
46310G72031M65	*3G50 rm*	*25,2*	*1440*	*1750*	*1*
46310G72031M66	*3G70 rm*	*29,2*	*2016*	*2450*	*2/0*
46310G72031M67	*3G95 rm*	*32*	*2736*	*3250*	*3/0*
46310G72031M68	*3G120 rm*	*34,9*	*3456*	*4000*	*4/0*
46310G72031M69	*3G150 rm*	*39,2*	*4320*	*5000*	*250 MCM*
46310G72031M70	*3G185 rm*	*44,1*	*5328*	*6150*	*350 MCM*
46310G72031M71	*3G240 rm*	*49,2*	*6912*	*8000*	*450 MCM*

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
46310G72041M15	*4G1,5 re*	*13*	*58*	*235*	*16*
46310G72041M25	*4G2,5 re*	*14*	*96*	*290*	*14*
46310G72041M40	*4G4 re*	*15*	*154*	*370*	*12*
46310G72041M60	*4G6 re*	*16*	*253*	*470*	*10*
46310G72041M61	*4G10 re*	*18*	*384*	*670*	*8*
46310G72041M62	*4G16 re*	*20*	*614*	*930*	*6*
46310G72041M63	*4G25 rm*	*25*	*960*	*1440*	*4*
46310G72041M64	*4G35 rm*	*27*	*1344*	*1890*	*2*
46310G72041M65	*4G50 rm*	*28*	*1920*	*2300*	*1*
46310G72041M66	*4G70 rm*	*32*	*2668*	*3200*	*2/0*
46310G72041M67	*4G95 rm*	*36*	*3648*	*4250*	*3/0*
46310G72041M68	*4G120 rm*	*40,2*	*4608*	*5350*	*4/0*
46310G72041M69	*4G150 rm*	*45,8*	*5760*	*6550*	*250 MCM*
46310G72041M70	*4G185 rm*	*49,5*	*7104*	*8100*	*350 MCM*
46310G72041M71	*4G240 rm*	*56*	*9216*	*10550*	*450 MCM*
46310G72051M15	*5G1,5 re*	*14,5*	*72*	*280*	*16*
46310G72051M25	*5G2,5 re*	*16*	*120*	*350*	*14*
46310G72051M40	*5G4 re*	*17*	*192*	*450*	*12*
46310G72051M60	*5G6 re*	*18,5*	*288*	*600*	*10*
46310G72051M61	*5G10 re*	*21*	*480*	*850*	*8*
46310G72051M62	*5G16 re*	*24*	*768*	*1200*	*6*
46310G70071M15	*7G1,5 re*	*15,5*	*101*	*350*	*16*
46310G70071M25	*7G2,5 re*	*17*	*168*	*370*	*14*
46310G70071M40	*7G4 re*	*17,2*	*269*	*530*	*12*
46310G70101M15	*10G1,5 re*	*18,5*	*144*	*480*	*16*
46310G70101M25	*10G2,5 re*	*20*	*240*	*500*	*14*
46310G70121M15	*12G1,5 re*	*19*	*173*	*520*	*16*
46310G70121M25	*12G2,5 re*	*21*	*288*	*560*	*14*
46310G70121M40	*12G4 re*	*21,2*	*461*	*800*	*12*
46310G70141M15	*14G1,5 re*	*20*	*202*	*550*	*16*
46310G70141M25	*14G2,5 re*	*22*	*336*	*630*	*14*
46310G70191M15	*19G1,5 re*	*22*	*274*	*700*	*16*
46310G70191M25	*19G2,5 re*	*24*	*456*	*800*	*14*
46310G70241M15	*24G1,5 re*	*25*	*346*	*850*	*16*
46310G70241M25	*24G2,5 re*	*27*	*576*	*990*	*14*
46310G70301M15	*30G1,5 re*	*26*	*432*	*950*	*16*
46310G70301M25	*30G2,5 re*	*28*	*720*	*1180*	*14*

N2XH



3+1/2 conductors

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
46310G72035M65	*3X50/25 rm*	*28,5*	*1680*	*2300*	*1*
46310G72035M66	*3X70/35 rm*	*31,4*	*2352*	*2800*	*2/0*
46310G72035M67	*3X59/50 rm*	*34,9*	*3216*	*3800*	*3/0*
46310G72035M68	*3X120/70 rm*	*38*	*4128*	*4700*	*4/0*
46310G72035M69	*3X150/70*	*43,3*	*4992*	*5600*	*250 MCM*
46310G72035M70	*3X185/95*	*47,2*	*6240*	*7400*	*350 MCM*
46310G72035M71	*3X240/120*	*53,4*	*8064*	*9600*	*450 MCM*

Other dimensions and colours available on request.

N2XCH

RoHS Halogen Free FRNC CE

Construction:

Conductor:	plain Cu wire conductor,single or multiple-wire, according to DIN VDE 0295 cl.1 and IEC 60228 cl. 1 or 2, HD 383
Insulation:	Halogen-free core insulation,cross-linked polyethylene compound 2XI1,to HD 604 S1
Colour code:	colour coding of cores according to DIN VDE 0293-308 and HD 186
Stranding:	cores stranded in layers.
Wrapping:	filling compound or wrapped tape.
Screen:	concentric conductor of plain Cu wires.
Outer sheath:	black,thermoplastic polyolefine compound HM4 to HD 604 S1

Features:

- **Power cable 0,6/1 kV**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Min.bending radius:	
fixed laying:	15 x d
flexible application:	12 x d
Radiation resistance:	up to 100x10^6 cJ/kg
Temperature range	
fixed laying:	- 30°C to + 90°C
flexible application:	- 5°C to + 50°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2, DIN VDE 0482 part.267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
46320G73020M15	*2x1,5/1,5 re*	*14*	*53*	*250*	*16*
46320G73020M25	*2x2,5/2,5 re*	*15*	*81,1*	*280*	*14*
46320G73020M40	*2x4/4 re*	*14*	*122*	*320*	*12*
46320G73020M60	*2x6/6 re*	*15*	*183*	*400*	*10*
46320G73020M61	*2x10/10 re*	*16*	*311*	*560*	*8*
46320G73020M62	*2x16/16 re*	*19,1*	*490*	*780*	*6*
46320G73030M15	*3x1,5/1,5 re*	*14,5*	*67*	*250*	*16*
46320G73030M25	*3x2,5/2,5 re*	*15,5*	*104*	*320*	*14*
46320G73030M40	*3x4/4 re*	*16,5*	*161*	*400*	*12*
46320G73030M60	*3x6/6 re*	*18*	*242*	*500*	*10*
46320G73030M61	*3x10/10 re*	*20*	*408*	*750*	*8*
46320G73030M62	*3x16/16 re*	*22,5*	*643*	*1000*	*6*
46320G73030M63	*3x25/16 re*	*27*	*1001*	*1600*	*4*
46320G73030M64	*3x35/16 re*	*27,5*	*1190*	*1900*	*2*
46320G73030M65	*3x50/25 re*	*32,3*	*2003*	*2400*	*1*
46320G73030M66	*3x70/35 re*	*35,6*	*2794*	*3060*	*2/0*
46320G73030M67	*3x95/50 re*	*39*	*3790*	*4200*	*3/0*
46320G73030M68	*3x120/70 re*	*42*	*4785*	*5207*	*4/0*
46320G73030M69	*3x150/70 re*	*43,5*	*5100*	*5700*	*250 MCM*
46320G73030M70	*3x185/95 re*	*47,4*	*6381*	*7150*	*350 MCM*
46320G73030M71	*3x240/120 re*	*53,5*	*8240*	*9250*	*450 MCM*
46320G73040M15	*4x1,5/1,5 re*	*15,5*	*81*	*300*	*16*
46320G73040M25	*4x2,5/2,5 re*	*16,5*	*129*	*380*	*14*
46320G73040M40	*4x4/4 re*	*17,5*	*202*	*480*	*12*

Other dimensions and colours available on request.

N2XCH

RoHS Halogen Free FRNC CE

Part no.	No.of cores x cross section n x mm²	Outer-Ø ca.mm± 10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
46320G73040M60	4X6/6 re	19	297	600	10
46320G73040M61	4X10/10 re	21,5	504	850	8
46320G73040M62	4X16/16 re	24,5	797	1200	6
46320G73040M63	4X25/16 rm	29	1142	1800	4
46320G73040M64	4X35/16 rm	29,5	1528	2100	2
46320G73040M65	4X50/25 rm	32,5	2203	2800	1
46320G73040M66	4X70/35 rm	38	3082	3800	2/0
46320G73040M67	4X95/50 rm	43,5	4208	5100	3/0
46320G73040M68	4X120/70 rm	50,5	5382	6556	4/0
46320G73040M69	4X150/70 rm	52,1	6540	7600	250 MCM
46320G73040M70	4X185/95 rm	57,2	8159	9370	350 MCM
46320G73040M71	4X240/120 re	62,6	10546	11611	450 MCM
46320G70070M15	7X1,5/2,5 re	14,5	132	320	16
46320G70070M25	7X2,5/2,5 re	15,1	200	400	14
46320G70070M40	7X4/4 re	18,1	316	580	12
46320G70100M15	10X1,5/2,5 re	17,2	177	420	16
46320G70100M25	10X2,5/4 re	18,9	287	550	14
46320G70120M15	12X1,5/2,5 re	18,4	204	460	16
46320G70120M25	12X2,5/4 re	19,2	335	610	14
46320G70120M40	12X4/6 re	22,6	528	910	12
46320G70160M15	16X1,5/4 re	20	275	686	16
46320G70160M25	16X2,5/6 re	20,9	450	805	14
46320G70210M15	21X1,5/6 re	22,6	370	766	16
46320G70210M25	21X2,5/6 re	25,2	572	1015	14
46320G70240M15	24X1,5/6 re	23,2	412	800	16
46320G70240M25	24X2,5/10 re	26,1	695	1100	14
46320G70300M15	30X1,5/6 re	24,3	500	930	16
46320G70300M25	30X2,5/10 re	28	842	1290	14

Other dimensions and colours available on request.

GAALFLEX® CONTROL 07BQ-F

PUR power cable. single core, 450/750 V

RoHS CE

Construction:

Conductor:	flexible red copper conductor Cl. 5, acc to IEC 60228, DIN VDE 0295
Insulation:	rubber compound
Core colour:	acc. to DIN VDE 0293 + CENELEC HD 308 S2*
Stranding:	in layer
Outer sheath:	orange (RAL 2003),PUR

Features:

- **Chemical resistant**
- **Uv resistant**
- **Abrasion resistant**

Applications:

Connecting cable used in hand-held electric tools, for flexible and fixed installation.
Suitable in dry, humid or wet rooms.
Outdoor use within temperature range, no laying underground

Technical data:

Nominal voltage:	450/750 V
Test voltage:	2,5 kV
Temperature range:	
Fixed laying:	-40 up to +90°C
Flexible installation:	-40 up to +90°C
Min. bending radius:	10 x d
Insulation resistance:	min. 20 MΩ x km
Current carrying capacity:	acc. to DIN VDE

07BQ-F single core

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
31310EGL010M62	*1x16*	*10,8*	*153,6*	*230*	*6*
31310EGL010M63	*1x25*	*12,8*	*240,0*	*350*	*4*
31310EGL010M64	*1x35*	*15,3*	*336,0*	*484*	*2*
31310EGL010M65	*1x50*	*16,8*	*480,0*	*620*	*1*
31310EGL010M66	*1x70*	*19,0*	*672,0*	*830*	*2/0*
31310EGL010M67	*1x95*	*21,8*	*912,0*	*1130*	*3/0*
31310EGL010M68	*1x120*	*24,3*	*1152,0*	*1390*	*4/0*
31310EGL010M69	*1x150*	*26,6*	*1440,0*	*1710*	*250 MCM*
31310EGL010M70	*1x185*	*29,2*	*1776,0*	*2130*	*350 MCM*
31310EGL010M71	*1x240*	*33,0*	*2304,0*	*2720*	*450 MCM*
31310EGL010M72	*1x300*	*35,0*	*2880,0*	*3140*	*550 MCM*

Other dimensions and colours available on request.

Other dimensions and colours available on request.

* Black or green/yellow insulation

L: black
PE: green/yellow.

GAALFLEX® CONTROL (H)07BQ-F

PUR power cable, multi core, 450/750 V

RoHS HAR CE

Construction:

Conductor:	flexible red copper conductor Cl. 5, acc to IEC 60228, DIN VDE 0295
Insulation:	rubber compound
Core colours:	up to 5 cores coloured. Y/G from 3 cores acc. to DIN VDE 0293 + CENELEC HD 308*
Stranding:	in layer
Outer sheath:	orange (RAL 2003),PUR

Features:

- **Chemical resistant**
- **Uv resistant**
- **Abrasion resistant**
- **acc. to standard HD 22.10.S1 and DIN VDE 0282 T10**
- **acc. to HAR HD 22.10.S1 (H07BQ-F)**

Applications:

Connecting cable used in hand-held electric tools.
for flexible and fixed installation.
Suitable in dry. humid or wet rooms.
Outdoor use within temperature range.
no laying underground

Technical data:

Nominal voltage:	450/750 V
Test voltage:	2,5 kV
Temperature range: *Fixed laying:* *Flexible installation:*	 -40 up to +90°C -40 up to +90°C
Min. bending radius:	4 x d
Insulation resistance:	min. 20 MΩ x km
Current carrying capacity:	acc. to DIN VDE

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
31310EG3020M15	*2 x 1,5*	*8.8*	*28,8*	*115*	*16*
31310EG2031M15	*3 G 1,5*	*9,3*	*43,2*	*135*	*16*
31310EG2041M15	*4 G 1,5*	*10,5*	*57,6*	*165*	*16*
31310EG2051M15	*5 G 1,5*	*11,5*	*72*	*200*	*16*
31310EG2031M25	*3 G 2,5*	*11,2*	*72*	*190*	*14*
31310EG2041M25	*4 G 2,5*	*12,5*	*96*	*230*	*14*
31310EG2051M25	*5 G 2,5*	*13,8*	*120*	*290*	*14*
31310EG2041M40	*4 G 4*	*14,7*	*153,6*	*325*	*12*
31310EG2051M40	*5 G 4*	*16,2*	*192*	*400*	*12*
31310EG2041M60	*4 G 6*	*16,4*	*230,4*	*350*	*10*
31310EG2051M60	*5 G 6*	*18,1*	*288*	*520*	*10*
31310EG2041M61	*4 G 10*	*21,3*	*384*	*730*	*8*
31310EG2051M61	*5 G 10*	*23,4*	*480*	*900*	*8*
31310EG2041M62	*4 G16*	*24,4*	*614,4*	*1020*	*6*
31310EG2051M62	*5 G16*	*27,2*	*768*	*1260*	*6*
31310EG2041M63	*4G25*	*29,5*	*960*	*1229*	*4*
31310EG2051M63	*5G25*	*35*	*1200*	*1535*	*4*
31310EG2041M64	*4G35*	*33,5*	*1344*	*1665*	*2*
31310EG2051M64	*5G35*	*39*	*1680*	*2103*	*2*
31310EG2041M65	*4G50*	*39,4*	*1920*	*2341*	*1*
31310EG2051M65	*5G50*	*47*	*2400*	*2955*	*1*
31310EG2041M66	*4G70*	*49*	*2688*	*3259*	*2/0*
31310EG2051M66	*5G70*	*53*	*3360*	*4001*	*2/0*
31310EG2051M67	*5G95*	*60*	*4560*	*5369*	*3/0*

Other dimensions and colours available on request.

RG7H1R

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	rubber type G7
Screen:	red copper tape
Outer sheath:	red(RAL 3000),PVC,type RZ

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 3,6/6 kV = 11 kV 6/10 kV = 17 kV 8,7/15 kV = 24 kV 12/20 kV= 29 kV 18/30 kV = 45 kV
Temperature during installation:	0°C to + 90°C
Temperature at conductor: in service: in short circuit:	 + 90 C + 250 C
Min. bending radius:	12 x d
Max. tensile stress:	6 kg x mm²
Resistance:	**Flame retardant and sel-extinguishing:** acc.to DIN VDE 0482 part 265-2-1/EN 50265-2-1/ IEC 60332-1-2

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48010KRL010M61	1x10	14,5	96	290	8
48010KRL010M62	1x16	15,2	153,6	350	6
48010KRL010M63	1x25	16,5	240	450	4
48010KRL010M64	1x35	17,5	336	550	2
48010KRL010M65	1x50	18,5	480	670	1
48010KRL010M66	1x70	20	672	880	2/0
48010KRL010M67	1x95	22	912	1100	3/0
48010KRL010M68	1x120	23,3	1152	1400	4/0
48010KRL010M69	1x150	24,7	1440	1650	250 MCM
48010KRL010M70	1x185	26,5	1776	2000	350 MCM
48010KRL010M71	1x240	29	2304	2550	450 MCM
48010KRL010M72	1x300	31,6	2880	3150	550 MCM
48010KRL010M73	1x400	34,6	3840	3950	750 MCM
48010KRL010M74	1x500	38,3	4800	5050	900 MCM
48010KRL010M75	1x630	43,1	6048	6300	1150 MCM

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48010QRL010M61	1x10	19,9	96	420	8
48010QRL010M62	1x16	20,4	153,6	530	6
48010QRL010M63	1x25	21,8	240	650	4
48010QRL010M64	1x35	23,3	336	760	2
48010QRL010M65	1x50	24,8	480	880	1
48010QRL010M66	1x70	26,3	672	1100	2/0
48010QRL010M67	1x95	27,8	912	1400	3/0
48010QRL010M68	1x120	29,3	1152	1630	4/0
48010QRL010M69	1x150	30,8	1440	1900	250 MCM
48010QRL010M70	1x185	32,8	1776	2350	350 MCM
48010QRL010M71	1x240	35,3	2304	2900	450 MCM
48010QRL010M72	1x300	37,8	2880	3500	550 MCM
48010QRL010M73	1x400	40,8	3840	4300	750 MCM
48010QRL010M74	1x500	44,3	4800	5420	900 MCM
48010QRL010M75	1x630	54,8	6048	6850	1150 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48010MRL010M61	1x10	17	96	330	8
48010MRL010M62	1x16	17,5	153,6	410	6
48010MRL010M63	1x25	18,8	240	510	4
48010MRL010M64	1x35	19,8	336	630	2
48010MRL010M65	1x50	21,4	480	750	1
48010MRL010M66	1x70	23,3	672	1010	2/0
48010MRL010M67	1x95	24,8	912	1250	3/0
48010MRL010M68	1x120	26,3	1152	1500	4/0
48010MRL010M69	1x150	27,8	1440	1800	250 MCM
48010MRL010M70	1x185	29,5	1776	2100	350 MCM
48010MRL010M71	1x240	32,1	2304	2650	450 MCM
48010MRL010M72	1x300	34,8	2880	3200	550 MCM
48010MRL010M73	1x400	37,8	3840	4000	750 MCM
48010MRL010M74	1x500	41,8	4800	5100	900 MCM
48010MRL010M75	1x630	45,8	6048	6500	1150 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48010SRL010M61	1x16	23	153,6	650	6
48010SRL010M62	1x25	24,3	240	750	4
48010SRL010M63	1x35	25,3	336	850	2
48010SRL010M64	1x50	26,3	480	1000	1
48010SRL010M65	1x70	28,3	672	1220	2/0
48010SRL010M66	1x95	30,3	912	1500	3/0
48010SRL010M67	1x120	31,9	1152	1900	4/0
48010SRL010M68	1x150	33,3	1440	2100	250 MCM
48010SRL010M69	1x185	35,3	1776	2500	350 MCM
48010SRL010M70	1x240	38,3	2304	3030	450 MCM
48010SRL010M71	1x300	40,3	2880	3800	550 MCM
48010SRL010M72	1x400	43,3	3840	4600	750 MCM
48010SRL010M73	1x500	47,3	4800	5700	900 MCM
48010SRL010M74	1x630	52,3	6048	7100	1150 MCM

RG7H1R

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48010URL010M64	1x35	27,3	336	960	2
48010URL010M65	1x50	28,5	480	1100	1
48010URL010M66	1x70	30,4	672	1350	2/0
48010URL010M67	1x95	32,4	912	1650	3/0
48010URL010M68	1x120	33,9	1152	1950	4/0
48010URL010M69	1x150	35,2	1440	2300	250 MCM
48010URL010M70	1x185	37	1776	2600	350 MCM
48010URL010M71	1x240	39,5	2304	3200	450 MCM
48010URL010M72	1x300	42	2880	3900	550 MCM
48010URL010M73	1x400	45,3	3840	4800	750 MCM
48010URL010M74	1x500	49	4800	5900	900 MCM
48010URL010M75	1x630	53,7	6048	7300	1150 MCM

26/45 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48010ZRL010M66	1x70	43	672	2150	2/0
48010ZRL010M67	1x95	44	912	2490	3/0
48010ZRL010M68	1x120	45,6	1152	2735	4/0
48010ZRL010M69	1x150	46	1440	3020	250 MCM
48010ZRL010M70	1x185	47	1776	3395	350 MCM
48010ZRL010M71	1x240	49,5	2304	4025	450 MCM
48010ZRL010M72	1x300	53	2880	4725	550 MCM
48010ZRL010M73	1x400	56	3840	5635	750 MCM
48010ZRL010M74	1x500	59	4800	6825	900 MCM
48010ZRL010M75	1x630	64	6048	8260	1150 MCM

Other dimensions and colours available on request.

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48010XRL010M65	1x50	35,9	480	1400	1
48010XRL010M66	1x70	36,1	672	1700	2/0
48010XRL010M67	1x95	37,8	912	1950	3/0
48010XRL010M68	1x120	39,1	1152	2230	4/0
48010XRL010M69	1x150	40,7	1440	2550	250 MCM
48010XRL010M70	1x185	42,6	1776	3000	350 MCM
48010XRL010M71	1x240	45,3	2304	3600	450 MCM
48010XRL010M72	1x300	47,8	2880	4300	550 MCM
48010XRL010M73	1x400	51,2	3840	5200	750 MCM
48010XRL010M74	1x500	55	4800	6300	900 MCM
48010XRL010M75	1x630	61,9	6048	7800	1150 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

RG7H1(O)R

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	rubber type G7
Screen:	red copper tape
Outer sheath:	red(RAL 3000),PVC,type RZ

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 3,6/6 kV = 11 kV 6/10 kV = 17 kV 8,7/15 kV = 24 kV 12/20 kV= 29 kV 18/30 kV = 45 kV 26/45 kV = 63 kV
Temperature range:	
in service:	+ 90 ℃
in short circuit:	+ 250 ℃
Min. bending radius:	12 x d
Resistance:	**Flame retardant and sel-extinguishing:** acc.to DIN VDE 0482 part 265-2-1/ EN 50265-2-1/IEC 60332-1-2

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48010KR1030M61	3x10	27,2	288	1050	8
48010KR1030M62	3x16	29,5	460,8	1200	6
48010KR1030M63	3x25	32,5	720	1600	4
48010KR1030M64	3x35	34,5	1008	2000	2
48010KR1030M65	3x50	37,2	1440	2250	1
48010KR1030M66	3x70	41,4	2016	3200	2/0
48010KR1030M67	3x95	45	2736	4100	3/0
48010KR1030M68	3x120	48,7	3456	5000	4/0
48010KR1030M69	3x150	52,2	4320	5960	250 MCM
48010KR1030M70	3x185	56,5	5328	7100	350 MCM
48010KR1030M71	3x240	62	6912	9300	450 MCM
48010KR1030M72	3x300	67,3	8640	13000	550 MCM
48010KR1030M73	3x400	74,2	11520	14000	750 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48010MR1030M61	3x10	31,8	288	1220	8
48010MR1030M62	3x16	34,4	460,8	1500	6
48010MR1030M63	3x25	37,4	720	1850	4
48010MR1030M64	3x35	39,7	1008	2300	2
48010MR1030M65	3x50	42,8	1440	2800	1
48010MR1030M66	3x70	46,3	2016	3560	2/0
48010MR1030M67	3x95	50	2736	4510	3/0
48010MR1030M68	3x120	54,2	3456	5500	4/0
48010MR1030M69	3x150	57,3	4320	6350	250 MCM
48010MR1030M70	3x185	61,5	5328	7700	350 MCM
48010MR1030M71	3x240	66,8	6912	9700	450 MCM
48010MR1030M72	3x300	72,9	8640	11800	550 MCM
48010MR1030M73	3x400	78,2	11520	15000	750 MCM

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48010QR1030M61	3x10	36,9	288	1650	8
48010QR1030M62	3x16	39	460,8	2100	6
48010QR1030M63	3x25	42	720	2550	4
48010QR1030M64	3x35	44	1008	2850	2
48010QR1030M65	3x50	47	1440	3600	1
48010QR1030M66	3x70	51	2016	4200	2/0
48010QR1030M67	3x95	55	2736	5400	3/0
48010QR1030M68	3x120	57,1	3456	6300	4/0
48010QR1030M69	3x150	62	4320	7400	250 MCM
48010QR1030M70	3x185	66	5328	8600	350 MCM
48010QR1030M71	3x240	72,1	6912	11000	450 MCM
48010QR1030M72	3x300	77,8	8640	13000	550 MCM
48010QR1030M73	3x400	85	11520	16000	750 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48010SR1030M62	3x16	45,5	460,8	2500	6
48010SR1030M63	3x25	48	720	2900	4
48010SR1030M64	3x35	51,2	1008	3500	2
48010SR1030M65	3x50	53,5	1440	4000	1
48010SR1030M66	3x70	58	2016	4800	2/0
48010SR1030M67	3x95	61,5	2736	5900	3/0
48010SR1030M68	3x120	65	3456	6950	4/0
48010SR1030M69	3x150	68,2	4320	8000	250 MCM
48010SR1030M70	3x185	72,5	5328	9500	350 MCM
48010SR1030M71	3x240	78,2	6912	11800	450 MCM
48010SR1030M72	3x300	78,6	8640	14200	550 MCM

RG7H1(O)R

RoHS

12/20 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48010UR1030M64	*3x35*	*57,6*	*1008*	*3950*	*2*
48010UR1030M65	*3x50*	*60,1*	*1440*	*4500*	*1*
48010UR1030M66	*3x70*	*64,5*	*2016*	*5500*	*2/0*
48010UR1030M67	*3x95*	*69,5*	*2736*	*6600*	*3/0*
48010UR1030M68	*3x120*	*74,8*	*3456*	*7600*	*4/0*
48010UR1030M69	*3x150*	*75*	*4320*	*8600*	*250 MCM*
48010UR1030M70	*3x185*	*80,3*	*5328*	*11000*	*350 MCM*
48010UR1030M71	*3x240*	*84*	*6912*	*12500*	*450 MCM*
48010UR1030M72	*3x300*	*91,5*	*8640*	*15000*	*550 MCM*

* For cables laying in earth a screen-cross section of 16 mm is permitted.

18/30 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48010XR1030M65	*3x50*	*72*	*1440*	*5980*	*1*
48010XR1030M66	*3x70*	*75,9*	*2016*	*6800*	*2/0*
48010XR1030M67	*3x95*	*80,1*	*2736*	*8400*	*3/0*
48010XR1030M68	*3x120*	*83,2*	*3456*	*9400*	*4/0*
48010XR1030M69	*3x150*	*86,9*	*4320*	*11000*	*250 MCM*
48010XR1030M70	*3x185*	*91*	*5328*	*13000*	*350 MCM*
48010XR1030M71	*3x240*	*96,3*	*6912*	*15000*	*450 MCM*

Other dimensions and colours available on request.

RG7H1NR

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	rubber type G7
Screen:	red copper wires and one or two copper tape(s) applied helically.
Armouring:	aluminium tape
Outer sheat:	red (RAL 3000),thermoplastic polyolefine, halogen-free,type M1

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV	
Test voltage:	1,8/3 kV = 6 kV 3,6/6 kV = 11 kV 6/10 kV = 17 kV	8,7/15 kV = 24 kV 12/20 kV= 29 kV 18/30 kV = 45 kV
Temperature range:		
in service:	+ 90 ℃	
in short circuit:	+ 250 ℃	
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1	

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48020KRL010M61	1x10	-	-	-	8
48020KRL010M62	1x16	-	-	-	6
48020KRL010M63	1x25	-	-	-	4
48020KRL010M64	1x35	-	-	-	2
48020KRL010M65	1x50	-	-	-	1
48020KRL010M66	1x70	-	-	-	2/0
48020KRL010M67	1x95	-	-	-	3/0
48020KRL010M68	1x120	-	-	-	4/0
48020KRL010M69	1x150	-	-	-	250 MCM
48020KRL010M70	1x185	-	-	-	350 MCM
48020KRL010M71	1x240	-	-	-	450 MCM
48020KRL010M72	1x300	-	-	-	550 MCM
48020KRL010M73	1x400	-	-	-	750 MCM

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48020QRL010M61	1x10	-	-	-	8
48020QRL010M62	1x16	-	-	-	6
48020QRL010M63	1x25	-	-	-	4
48020QRL010M64	1x35	-	-	-	2
48020QRL010M65	1x50	-	-	-	1
48020QRL010M66	1x70	-	-	-	2/0
48020QRL010M67	1x95	-	-	-	3/0
48020QRL010M68	1x120	-	-	-	4/0
48020QRL010M69	1x150	-	-	-	250 MCM
48020QRL010M70	1x185	-	-	-	350 MCM
48020QRL010M71	1x240	-	-	-	450 MCM
48020QRL010M72	1x300	-	-	-	550 MCM
48020QRL010M73	1x400	-	-	-	750 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48020MRL010M61	1x10	-	-	-	8
48020MRL010M62	1x16	-	-	-	6
48020MRL010M63	1x25	-	-	-	4
48020MRL010M64	1x35	-	-	-	2
48020MRL010M65	1x50	-	-	-	1
48020MRL010M66	1x70	-	-	-	2/0
48020MRL010M67	1x95	-	-	-	3/0
48020MRL010M68	1x120	-	-	-	4/0
48020MRL010M69	1x150	-	-	-	250 MCM
48020MRL010M70	1x185	-	-	-	350 MCM
48020MRL010M71	1x240	-	-	-	450 MCM
48020MRL010M72	1x300	-	-	-	550 MCM
48020MRL010M73	1x400	-	-	-	750 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48020SRL010M62	1x16	-	-	-	6
48020SRL010M63	1x25	-	-	-	4
48020SRL010M64	1x35	-	-	-	2
48020SRL010M65	1x50	-	-	-	1
48020SRL010M66	1x70	-	-	-	2/0
48020SRL010M67	1x95	-	-	-	3/0
48020SRL010M68	1x120	-	-	-	4/0
48020SRL010M69	1x150	-	-	-	250 MCM
48020SRL010M70	1x185	-	-	-	350 MCM
48020SRL010M71	1x240	-	-	-	450 MCM
48020SRL010M72	1x300	-	-	-	550 MCM

RG7H1NR

RoHS

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48020URL010M64	1x35	-	-	-	2
48020URL010M65	1x50	-	-	-	1
48020URL010M66	1x70	-	-	-	2/0
48020URL010M67	1x95	-	-	-	3/0
48020URL010M68	1x120	-	-	-	4/0
48020URL010M69	1x150	-	-	-	250 MCM
48020URL010M70	1x185	-	-	-	350 MCM
48020URL010M71	1x240	-	-	-	450 MCM
48020URL010M72	1x300	-	-	-	550 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48020XRL010M65	1x50	-	-	-	1
48020XRL010M66	1x70	-	-	-	2/0
48020XRL010M67	1x95	-	-	-	3/0
48020XRL010M68	1x120	-	-	-	4/0
48020XRL010M69	1x150	-	-	-	250 MCM
48020XRL010M70	1x185	-	-	-	350 MCM
48020XRL010M71	1x240	-	-	-	450 MCM

Other dimensions and colours available on request.

RG7H1(O)NR

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	rubber type G7
Screen:	red copper tape
Armouring:	steel tape
Outer sheat:	red (RAL 3000),thermoplastic polyolefine, halogen-free,type M1

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 8,7/15 kV = 24 kV 3,6/6 kV = 11000 V 12/20 kV= 29 kV 6/10 kV = 17000 V 18/30 kV = 45 kV
Temperature range: *in service:* *in short circuit:*	 + 90 ℃ + 250 ℃
Min. bending radius:	12 x d
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48020KR1030M61	3x10	29,0	-	1370	8
48020KR1030M62	3x16	31,0	-	1690	6
48020KR1030M63	3x25	34,0	-	2100	4
48020KR1030M64	3x35	36,5	-	2500	2
48020KR1030M65	3x50	39,5	-	3035	1
48020KR1030M66	3x70	43,0	-	3880	2/0
48020KR1030M67	3x95	47,5	-	4900	3/0
48020KR1030M68	3x120	51,5	-	5900	4/0
48020KR1030M69	3x150	54,5	-	6850	250 MCM
48020KR1030M70	3x185	58,5	-	8180	350 MCM
48020KR1030M71	3x240	64,5	-	10300	450 MCM
48020KR1030M72	3x300	77,0	-	12500	550 MCM
48020KR1030M73	3x400	78,5	-	15500	750 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48020MR1030M61	3x10	33,5	-	1700	8
48020MR1030M62	3x16	36,5	-	2050	6
48020MR1030M63	3x25	39,0	-	2530	4
48020MR1030M64	3x35	41,5	-	2950	2
48020MR1030M65	3x50	44,0	-	3500	1
48020MR1030M66	3x70	48,5	-	4400	2/0
48020MR1030M67	3x95	52,5	-	5500	3/0
48020MR1030M68	3x120	56,5	-	6430	4/0
48020MR1030M69	3x150	59,5	-	7450	250 MCM
48020MR1030M70	3x185	64,5	-	8900	350 MCM
48020MR1030M71	3x240	69,5	-	11000	450 MCM
48020MR1030M72	3x300	76,5	-	13250	550 MCM
48020MR1030M73	3x400	83,5	-	16200	750 MCM

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48020QR1030M61	3x10	41,5	-	2430	8
48020QR1030M62	3x16	44,0	-	2800	6
48020QR1030M63	3x25	47,3	-	3330	4
48020QR1030M64	3x35	50,0	-	3850	2
48020QR1030M65	3x50	53,0	-	4500	1
48020QR1030M66	3x70	57,4	-	5500	2/0
48020QR1030M67	3x95	60,3	-	6480	3/0
48020QR1030M68	3x120	65,3	-	7700	4/0
48020QR1030M69	3x150	68,5	-	8700	250 MCM
48020QR1030M70	3x185	72,5	-	10120	350 MCM
48020QR1030M71	3x240	78,6	-	12400	450 MCM
48020QR1030M72	3x300	84,6	-	14850	550 MCM
48020QR1030M73	3x400	90,6	-	17850	750 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48020SR1030M62	3x16	49,5	-	3420	6
48020SR1030M63	3x25	52,5	-	3980	4
48020SR1030M64	3x35	55,0	-	4420	2
48020SR1030M65	3x50	57,3	-	5100	1
48020SR1030M66	3x70	61,5	-	6135	2/0
48020SR1030M67	3x95	65,5	-	7285	3/0
48020SR1030M68	3x120	69,5	-	8400	4/0
48020SR1030M69	3x150	72,5	-	9500	250 MCM
48020SR1030M70	3x185	76,5	-	11050	350 MCM
48020SR1030M71	3x240	82,5	-	13300	450 MCM
48020SR1030M72	3x300	88,6	-	15850	550 MCM

RG7H1(O)NR

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48020UR1030M64	3x35	59.5	-	5070	2
48020UR1030M65	3x50	62.5	-	5800	1
48020UR1030M66	3x70	67.0	-	6830	2/0
48020UR1030M67	3x95	70.5	-	7970	3/0
48020UR1030M68	3x120	75.0	-	9200	4/0
48020UR1030M69	3x150	78.0	-	10300	250 MCM
48020UR1030M70	3x185	81.5	-	11900	350 MCM
48020UR1030M71	3x240	88.0	-	14300	450 MCM
48020UR1030M72	3x300	94.0	-	17000	550 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48020XR1030M65	3x50	76.0	-	7700	1
48020XR1030M66	3x70	79.5	-	8800	2/0
48020XR1030M67	3x95	83.5	-	10100	3/0
48020XR1030M68	3x120	88.0	-	11400	4/0
48020XR1030M69	3x150	90.0	-	12500	250 MCM
48020XR1030M70	3x185	95.0	-	14200	350 MCM
48020XR1030M71	3x240	100.0	-	16700	450 MCM

Other dimensions and colours available on request.

RG7H1ZR

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	rubber, type G7
Screen:	red copper wires and one or two copper tape(s) applied helically
Armouring:	steel tape
Outer sheat:	red(RAL 3000),PVC,type RZ

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 3,6/6 kV = 11000 V 6/10 kV = 17000 V
Temperature range: *in service:* *in short circuit:*	 + 90 ℃ + 250 ℃
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

1,8/3 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48030KRL010M61	*1x10*	-	-	-	*8*
48030KRL010M62	*1x16*	-	-	-	*6*
48030KRL010M63	*1x25*	-	-	-	*4*
48030KRL010M64	*1x35*	-	-	-	*2*
48030KRL010M65	*1x50*	-	-	-	*1*
48030KRL010M66	*1x70*	-	-	-	*2/0*
48030KRL010M67	*1x95*	-	-	-	*3/0*
48030KRL010M68	*1x120*	-	-	-	*4/0*
48030KRL010M69	*1x150*	-	-	-	*250 MCM*
48030KRL010M70	*1x185*	-	-	-	*350 MCM*
48030KRL010M71	*1x240*	-	-	-	*450 MCM*
48030KRL010M72	*1x300*	-	-	-	*550 MCM*
48030KRL010M73	*1x400*	-	-	-	*750 MCM*

6/10 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48030QRL010M61	*1x10*	-	-	-	*8*
48030QRL010M62	*1x16*	-	-	-	*6*
48030QRL010M63	*1x25*	-	-	-	*4*
48030QRL010M64	*1x35*	-	-	-	*2*
48030QRL010M65	*1x50*	-	-	-	*1*
48030QRL010M66	*1x70*	-	-	-	*2/0*
48030QRL010M67	*1x95*	-	-	-	*3/0*
48030QRL010M68	*1x120*	-	-	-	*4/0*
48030QRL010M69	*1x150*	-	-	-	*250 MCM*
48030QRL010M70	*1x185*	-	-	-	*350 MCM*
48030QRL010M71	*1x240*	-	-	-	*450 MCM*
48030QRL010M72	*1x300*	-	-	-	*550 MCM*
48030QRL010M73	*1x400*	-	-	-	*750 MCM*

3,6/6 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48030MRL010M61	*1x10*	-	-	-	*8*
48030MRL010M62	*1x16*	-	-	-	*6*
48030MRL010M63	*1x25*	-	-	-	*4*
48030MRL010M64	*1x35*	-	-	-	*2*
48030MRL010M65	*1x50*	-	-	-	*1*
48030MRL010M66	*1x70*	-	-	-	*2/0*
48030MRL010M67	*1x95*	-	-	-	*3/0*
48030MRL010M68	*1x120*	-	-	-	*4/0*
48030MRL010M69	*1x150*	-	-	-	*250 MCM*
48030MRL010M70	*1x185*	-	-	-	*350 MCM*
48030MRL010M71	*1x240*	-	-	-	*450 MCM*
48030MRL010M72	*1x300*	-	-	-	*550 MCM*
48030MRL010M73	*1x400*	-	-	-	*750 MCM*

8,7/15 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48030SRL010M62	*1x16*	-	-	-	*6*
48030SRL010M63	*1x25*	-	-	-	*4*
48030SRL010M64	*1x35*	-	-	-	*2*
48030SRL010M65	*1x50*	-	-	-	*1*
48030SRL010M66	*1x70*	-	-	-	*2/0*
48030SRL010M67	*1x95*	-	-	-	*3/0*
48030SRL010M68	*1x120*	-	-	-	*4/0*
48030SRL010M69	*1x150*	-	-	-	*250 MCM*
48030SRL010M70	*1x185*	-	-	-	*350 MCM*
48030SRL010M71	*1x240*	-	-	-	*450 MCM*
48030SRL010M72	*1x300*	-	-	-	*550 MCM*

RG7H1ZR

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48030URL010M64	1x35	-	-	-	2
48030URL010M65	1x50	-	-	-	1
48030URL010M66	1x70	-	-	-	2/0
48030URL010M67	1x95	-	-	-	3/0
48030URL010M68	1x120	-	-	-	4/0
48030URL010M69	1x150	-	-	-	250 MCM
48030URL010M70	1x185	-	-	-	350 MCM
48030URL010M71	1x240	-	-	-	450 MCM
48030URL010M72	1x300	-	-	-	550 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48030XRL010M65	1x50	-	-	-	1
48030XRL010M66	1x70	-	-	-	2/0
48030XRL010M67	1x95	-	-	-	3/0
48030XRL010M68	1x120	-	-	-	4/0
48030XRL010M69	1x150	-	-	-	250 MCM
48030XRL010M70	1x185	-	-	-	350 MCM
48030XRL010M71	1x240	-	-	-	450 MCM

Other dimensions and colours available on request.

RG7H1(O)ZR

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	rubber type G7
Screen:	red copper tape
Armouring:	steel tape
Outer sheat:	red(RAL 3000),PVC,type RZ

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 8,7/15 kV = 24 kV 3,6/6 kV = 11 kV 12/20 kV= 29 kV 6/10 kV = 17 kV 18/30 kV = 45 kV
Temperature range: *in service:* *in short circuit:*	 + 90 ℃ + 250 ℃
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48030KR1030M61	3x10	-	-	-	8
48030KR1030M62	3x16	-	-	-	6
48030KR1030M63	3x25	-	-	-	4
48030KR1030M64	3x35	-	-	-	2
48030KR1030M65	3x50	-	-	-	1
48030KR1030M66	3x70	-	-	-	2/0
48030KR1030M67	3x95	-	-	-	3/0
48030KR1030M68	3x120	-	-	-	4/0
48030KR1030M69	3x150	-	-	-	250 MCM
48030KR1030M70	3x185	-	-	-	350 MCM
48030KR1030M71	3x240	-	-	-	450 MCM
48030KR1030M72	3x300	-	-	-	550 MCM
48030KR1030M73	3x400	-	-	-	750 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48030QR1030M61	3x16	-	-	-	6
48030QR1030M62	3x25	-	-	-	4
48030QR1030M63	3x35	-	-	-	2
48030QR1030M64	3x50	-	-	-	1
48030QR1030M65	3x70	-	-	-	2/0
48030QR1030M66	3x95	-	-	-	3/0
48030QR1030M67	3x120	-	-	-	4/0
48030QR1030M68	3x150	-	-	-	250 MCM
48030QR1030M69	3x185	-	-	-	350 MCM
48030QR1030M70	3x240	-	-	-	450 MCM
48030QR1030M71	3x300	-	-	-	550 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48030MR1030M61	3x10	-	-	-	8
48030MR1030M62	3x16	-	-	-	6
48030MR1030M63	3x25	-	-	-	4
48030MR1030M64	3x35	-	-	-	2
48030MR1030M65	3x50	-	-	-	1
48030MR1030M66	3x70	-	-	-	2/0
48030MR1030M67	3x95	-	-	-	3/0
48030MR1030M68	3x120	-	-	-	4/0
48030MR1030M69	3x150	-	-	-	250 MCM
48030MR1030M70	3x185	-	-	-	350 MCM
48030MR1030M71	3x240	-	-	-	450 MCM
48030MR1030M72	3x300	-	-	-	550 MCM
48030MR1030M73	3x400	-	-	-	750 MCM

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48030SR1030M63	3x35	-	-	-	2
48030SR1030M64	3x50	-	-	-	1
48030SR1030M65	3x70	-	-	-	2/0
48030SR1030M66	3x95	-	-	-	3/0
48030SR1030M67	3x120	-	-	-	4/0
48030SR1030M68	3x150	-	-	-	250 MCM
48030SR1030M69	3x185	-	-	-	350 MCM
48030SR1030M70	3x240	-	-	-	450 MCM
48030SR1030M71	3x300	-	-	-	550 MCM

RG7H1(O)ZR

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48030UR1030M61	3x10	-	-	-	8
48030UR1030M62	3x36	-	-	-	6
48030UR1030M63	3x25	-	-	-	4
48030UR1030M64	3x35	-	-	-	2
48030UR1030M65	3x50	-	-	-	1
48030UR1030M66	3x70	-	-	-	2/0
48030UR1030M67	3x95	-	-	-	3/0
48030UR1030M68	3x120	-	-	-	4/0
48030UR1030M69	3x150	-	-	-	250 MCM
48030UR1030M70	3x185	-	-	-	350 MCM
48030UR1030M71	3x240	-	-	-	450 MCM
48030UR1030M72	3x300	-	-	-	550 MCM
48030UR1030M73	3x400	-	-	-	750 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48030XR1030M65	3x50	-	-	-	1
48030XR1030M66	3x70	-	-	-	2/0
48030XR1030M67	3x95	-	-	-	3/0
48030XR1030M68	3x120	-	-	-	4/0
48030XR1030M69	3x150	-	-	-	250 MCM
48030XR1030M70	3x185	-	-	-	350 MCM
48030XR1030M71	3x240	-	-	-	450 MCM

Other dimensions and colours available on request.

ARG7H1E

Single-core, overall copper wires + tape screen 12/20 kV up to 18/30 kV

RoHS

Construction:

Conductor:	stranded plain aluminium conductor Cl.2, acc. to IEC 60228
Inner semi-conductive layer:	extruded compound
Insulation:	special EPR type DIH2
Outer semi-conductive layer:	strippable cold extruded compound
Screen:	red copper wires and one or two copper tape(s) applied helically.
Outer sheath:	red(RAL 3000),PE type DMZ1

Technical data:

Nominal voltage:	12/20 kV up to 18/30 kV
Test voltage:	12/20 kV = 29 kV 18/30 kV = 43 kV
Temperature range:	-25°C up to +105°C
Max. short circuit temp:	+ 300°C
Min. bending radius:	13 x d
Resistance:	**Self-extinguishing and flame retardant:** acc. to DIN VDE 0482 part 265-2-1 / EN 50265-2-1 / IEC 60332-1-2

Features:

- **According to IEC 60502-1**

12/20 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air trefoil Amps*	*Current capacity underground trefoil P=1 °C m/W - P=2 °C m/W Amps*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48040URL010M63	*1 x 35*	*26,1*	*166*	*155 - 121*	*-*	*570*	*2*
48040URL010M64	*1 x 50*	*26,9*	*199*	*184 - 144*	*-*	*620*	*1*
48040URL010M65	*1 x 70*	*28,1*	*248*	*226 - 178*	*-*	*700*	*2/0*
48040URL010M66	*1 x 95*	*29,6*	*302*	*270 - 205*	*-*	*800*	*3/0*
48040URL010M67	*1 x 120*	*31,2*	*350*	*308 - 235*	*-*	*910*	*4/0*
48040URL010M68	*1 x 150*	*32,7*	*396*	*344 - 261*	*-*	*1030*	*250 MCM*
48040URL010M69	*1 x 185*	*35*	*458*	*390 - 288*	*-*	*1210*	*350 MCM*
48040URL010M70	*1 x 240*	*37,5*	*543*	*453 - 335*	*-*	*1430*	*450 MCM*
48040URL010M71	*1 x 300*	*41,4*	*629*	*513 - 380*	*-*	*1730*	*550 MCM*
48040URL010M72	*1 x 400*	*44,6*	*738*	*588 - 435*	*-*	*2090*	*750 MCM*
48040URL010M73	*1 x 500*	*47,1*	*860*	*670 - 495*	*-*	*2520*	*1000 MCM*
48040URL010M75	*1 x 630*	*51,8*	*1000*	*760 - 560*	*-*	*3080*	*1250 MCM*

18/30 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air trefoil Amps*	*Current capacity underground trefoil P=1 °C m/W - P=2 °C m/W Amps*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48040XRL010M64	*1 x 50*	*34,5*	*169*	*182 - 141*	*-*	*990*	*1*
48040XRL010M65	*1 x 70*	*34,8*	*250*	*223 - 174*	*-*	*1040*	*2/0*
48040XRL010M66	*1 x 95*	*35,8*	*304*	*269 - 210*	*-*	*1120*	*3/0*
48040XRL010M67	*1x 120*	*36,7*	*352*	*305 - 231*	*-*	*1220*	*4/0*
48040XRL010M68	*1 x 150*	*37,6*	*397*	*341 - 259*	*-*	*1310*	*250 MCM*
48040XRL010M69	*1 x 185*	*39,1*	*458*	*388 - 287*	*-*	*1450*	*350 MCM*
48040XRL010M70	*1 x 240*	*41,8*	*543*	*450 - 333*	*-*	*1710*	*450 MCM*
48040XRL010M71	*1 x 300*	*45,3*	*627*	*506 - 375*	*-*	*2030*	*550 MCM*
48040XRL010M72	*1 x 400*	*48,9*	*734*	*580 - 429*	*-*	*2420*	*750 MCM*
48040XRL010M73	*1 x 500*	*53,4*	*854*	*660 - 492*	*-*	*2960*	*1000 MCM*
48040XRL010M75	*1 x 630*	*58,2*	*990*	*752 - 588*	*-*	*3560*	*1250 MCM*

Other dimension and colors available on request.

ARG7H1EX

Three-cores, overall copper wires + tape screen 12/20 kV up to 18/30 kV

RoHS

Construction:

Conductor:	stranded plain aluminium conductor Cl.2, acc. to IEC 60228
Inner semi-conductive layer:	extruded compound
Insulation:	special EPR type DIH2
Outer semi-conductive layer:	strippable cold extruded compound
Screen:	red copper wires and one or two copper tape(s) applied helically.
Outer sheath:	red(RAL 3000),PE type DMZ1

Technical data:

Nominal voltage:	12/20 kV up to 18/30 kV
Test voltage:	12/20 kV = 29 kV 18/30 kV = 43 kV
Temperature range:	-25°C up to +105°C
Max. short circuit temp:	+ 300°C
Min. bending radius:	13 x d
Resistance:	**Self-extinguishing and flame retardant:** acc. to DIN VDE 0482 part 265-2-1 / EN 50265-2-1 / IEC 60332-1-2

Features:

- **According to IEC 60502-1**

12/20 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air Amps*	*Current capacity underground P=1 °C m/W - P=2 °C m/W Amps*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48050URL030M63	*3 x 1 x 35*	*26,1*	*166*	*155 - 121*	*-*	*1700*	*2*
48050URL030M64	*3 x 1 x 50*	*26,9*	*199*	*184 - 144*	*-*	*1860*	*1*
48050URL030M65	*3 x 1 x 70*	*28,1*	*248*	*226 - 178*	*-*	*2100*	*2/0*
48050URL030M66	*3 x 1x 95*	*29,6*	*302*	*270 - 205*	*-*	*2420*	*3/0*
48050URL030M67	*3 x 1x 120*	*31,2*	*350*	*308 - 235*	*-*	*2750*	*4/0*
48050URL030M68	*3 x 1 x 150*	*32,7*	*396*	*344 - 261*	*-*	*3110*	*250 MCM*
48050URL030M69	*3 x 1 x 185*	*35*	*458*	*390 - 288*	*-*	*3640*	*350 MCM*
48050URL030M70	*3 x 1 x 240*	*37,5*	*543*	*453 - 335*	*-*	*4310*	*450 MCM*
48050URL030M71	*3 x 1 x 300*	*41,4*	*629*	*513 - 380*	*-*	*5200*	*550 MCM*
48050URL030M72	*3 x 1 x 400*	*44,6*	*738*	*588 - 435*	*-*	*6300*	*750 MCM*

18/30 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air Amps*	*Current capacity underground P=1 °C m/W - P=2 °C m/W Amps*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48050XRL030M64	*3 x 1 x 50*	*34,5*	*169*	*182 - 141*	*-*	*2980*	*1*
48050XRL030M65	*3 x 1 x 70*	*34,8*	*250*	*223 - 174*	*-*	*3120*	*2/0*
48050XRL030M66	*3 x 1 x 95*	*35,8*	*304*	*269 - 210*	*-*	*3380*	*3/0*
48050XRL030M67	*3 x 1x 120*	*36,7*	*352*	*305 - 231*	*-*	*3660*	*4/0*
48050XRL030M68	*3 x 1 x 150*	*37,6*	*397*	*341 - 259*	*-*	*3940*	*250 MCM*
48050XRL030M69	*3 x 1 x 185*	*39,1*	*458*	*388 - 287*	*-*	*4370*	*350 MCM*
48050XRL030M70	*3 x 1 x 240*	*41,8*	*543*	*450 - 333*	*-*	*5130*	*450 MCM*
48050XRL030M71	*3 x 1 x 300*	*45,3*	*627*	*506 - 375*	*-*	*6100*	*550 MCM*
48050XRL030M72	*3 x 1 x 400*	*48,9*	*734*	*580 - 429*	*-*	*7280*	*550 MCM*

Other dimension and colors available on request.

RG7H1M1

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	rubber type G7
Screen:	red copper tape
Outer sheath:	red (RAL 3000),thermoplastic polyolefine, halogen-free,type M1

Features:

- Acc. to normatives DIN VDE and IEC standards.

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 8,7/15 kV = 24 kV 3,6/6 kV = 11 kV 12/20 kV= 29 kV 6/10 kV = 17 kV 18/30 kV = 45 kV
Temperature range:	
in service:	+ 90 ℃
in short circuit:	+ 250 ℃
Min. bending radius:	12 x d
Resistance:	**Flame retardant:** acc.to IEC 60332-3 DIN VDE 0482 part.266-2-1 **Halogen free:** CEI EN 50267-1, IEC 60754-1 DIN VDE 0482 part.267-1

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48060KRL010M61	1x10	14,0	96	290	8
48060KRL010M62	1x16	15,0	153,6	350	6
48060KRL010M63	1x25	16,0	240	450	4
48060KRL010M64	1x35	17,0	336	550	2
48060KRL010M65	1x50	18,5	480	670	1
48060KRL010M66	1x70	20,5	672	880	2/0
48060KRL010M67	1x95	22,0	912	1100	3/0
48060KRL010M68	1x120	24,5	1152	1400	4/0
48060KRL010M69	1x150	26,0	1440	1650	250 MCM
48060KRL010M70	1x185	27,5	1776	2000	350 MCM
48060KRL010M71	1x240	30,0	2304	2550	450 MCM
48060KRL010M72	1x300	32,5	2880	3150	550 MCM
48060KRL010M73	1x400	35,5	3840	3950	750 MCM
48060KRL010M74	1x500	40,0	4800	5050	900 MCM
48060KRL010M75	1x630	44,0	6048	6300	1150 MCM

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48060QRL010M61	1x10	19,5	96	420	8
48060QRL010M62	1x16	21,0	153,6	530	6
48060QRL010M63	1x25	22,2	240	650	4
48060QRL010M64	1x35	23,0	336	760	2
48060QRL010M65	1x50	24,5	480	880	1
48060QRL010M66	1x70	26,5	672	1100	2/0
48060QRL010M67	1x95	28,0	912	1400	3/0
48060QRL010M68	1x120	29,3	1152	1630	4/0
48060QRL010M69	1x150	31,0	1440	1900	250 MCM
48060QRL010M70	1x185	33,3	1776	2350	350 MCM
48060QRL010M71	1x240	35,6	2304	2900	450 MCM
48060QRL010M72	1x300	38,5	2880	3500	550 MCM
48060QRL010M73	1x400	41,0	3840	4300	750 MCM
48060QRL010M74	1x500	45,0	4800	5420	900 MCM
48060QRL0107M5	1x630	48,0	6048	6850	1150 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48060MRL010M61	1x10	16,0	96	330	8
48060MRL010M62	1x16	17,0	153,6	410	6
48060MRL010M63	1x25	18,5	240	510	4
48060MRL010M64	1x35	20,0	336	630	2
48060MRL010M65	1x50	21,5	480	750	1
48060MRL010M66	1x70	23,5	672	1010	2/0
48060MRL010M67	1x95	25,0	912	1250	3/0
48060MRL010M68	1x120	26,5	1152	1500	4/0
48060MRL010M69	1x150	28,0	1440	1800	250 MCM
48060MRL010M70	1x185	30,0	1776	2100	350 MCM
48060MRL010M71	1x240	32,5	2304	2650	450 MCM
48060MRL010M72	1x300	35,3	2880	3200	550 MCM
48060MRL010M73	1x400	37,5	3840	4000	750 MCM
48060MRL010M74	1x500	41,6	4800	5100	900 MCM
48060MRL010M75	1x630	46,0	6048	6500	1150 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48060SRL010M62	1x16	23,3	153,6	650	6
48060SRL010M63	1x25	24,5	240	750	4
48060SRL010M64	1x35	25,8	336	850	2
48060SRL010M65	1x50	27,0	480	1000	1
48060SRL010M66	1x70	28,5	672	1220	2/0
48060SRL010M67	1x95	30,1	912	1500	3/0
48060SRL010M68	1x120	32,5	1152	1900	4/0
48060SRL010M69	1x150	33,5	1440	2100	250 MCM
48060SRL010M70	1x185	35,5	1776	2500	350 MCM
48060SRL010M71	1x240	38,0	2304	3030	450 MCM
48060SRL010M72	1x300	41,5	2880	3800	550 MCM
48060SRL010M73	1x400	43,3	3840	4600	750 MCM
48060SRL010M74	1x500	47,4	4800	5700	900 MCM
48060SRL010M75	1x630	52,6	6048	7100	1150 MCM

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12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48060URL010M64	1x35	27,7	336	960	2
48060URL010M65	1x50	29,0	480	1100	1
48060URL010M66	1x70	30,5	672	1350	2/0
48060URL010M67	1x95	33,0	912	1650	3/0
48060URL010M68	1x120	34,8	1152	1950	4/0
48060URL010M69	1x150	36,2	1440	2300	250 MCM
48060URL010M70	1x185	37,6	1776	2600	350 MCM
48060URL010M71	1x240	40,2	2304	3200	450 MCM
48060URL010M72	1x300	43,0	2880	3900	550 MCM
48060URL010M73	1x400	45,8	3840	4800	750 MCM
48060URL010M74	1x500	50,0	4800	5900	900 MCM
48060URL010M75	1x630	54,0	6048	7300	1150 MCM

26/45 kV

part no,	No,of cores x cross section n x mm²	Outer Ø ca,mm ±10%	Copper weight kg/km	Cable weight approx, kg/km	AWG no,*)
48060ZRL010M66	1x70	41,9	672	2150	2/0
48060ZRL010M67	1x95	43,8	912	2490	3/0
48060ZRL010M68	1x120	44,8	1152	2735	4/0
48060ZRL010M69	1x150	45,1	1440	3020	250 MCM
48060ZRL010M70	1x185	47,1	1776	3395	350 MCM
48060ZRL010M71	1x240	49,2	2304	4025	450 MCM
48060ZRL010M72	1x300	52,2	2880	4725	550 MCM
48060ZRL010M73	1x400	54,8	3840	5635	750 MCM
48060ZRL010M74	1x500	58,6	4800	6825	900 MCM
48060ZRL010M75	1x630	62,7	6048	8260	1150 MCM

Other dimensions and colours available on request.

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48060XRL010M65	1x50	34,1	-	1400	1
48060XRL010M66	1x70	36,2	-	1700	2/0
48060XRL010M67	1x95	38,2	-	1950	3/0
48060XRL010M68	1x120	40,0	-	2230	4/0
48060XRL010M69	1x150	41,0	-	2550	250 MCM
48060XRL010M70	1x185	43,0	-	3000	350 MCM
48060XRL010M71	1x240	45,0	-	3600	450 MCM
48060XRL010M72	1x300	47,0	-	4300	550 MCM
48060XRL010M73	1x400	51,1	-	5200	750 MCM
48060XRL010M74	1x500	53,0	-	6300	900 MCM
48060XRL010M75	1x630	60,2	-	7800	1150 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

RG7H1(O)M1

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	rubber type G7
Screen:	red copper tape
Outer sheath:	red (RAL 3000),thermoplastic polyolefine, halogen-free,type M1

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 8,7/15 kV = 24 kV 3,6/6 kV = 11 kV 12/20 kV= 29 kV 6/10 kV = 17 kV 18/30 kV = 45 kV
Temperature range: *in service:* *in short circuit:*	 + 90 ℃ + 250 ℃
Resistence:	**Flame retardant acc.to:** IEC 60332-3 DIN VDE 0482 part.266-2-5 **MEDIUM corrosiveness combustion gases:** EN 50267-2, IEC 60754-2,DIN VDE 0482 part.267-2 **Halogen free:** CEI EN 50267-1, IEC 60754-1 DIN VDE 0482 part.267-1

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48060KR1030M61	3x10	23,0	288	1050	8
48060KR1030M62	3x16	28,0	460,8	1200	6
48060KR1030M63	3x25	30,2	720	1600	4
48060KR1030M64	3x35	34,0	1008	2000	2
48060KR1030M65	3x50	36,0	1440	2250	1
48060KR1030M66	3x70	40,0	2016	3200	2/0
48060KR1030M67	3x95	43,4	2736	4100	3/0
48060KR1030M68	3x120	48,0	3456	5000	4/0
48060KR1030M69	3x150	52,0	4320	5960	250 MCM
48060KR1030M70	3x185	55,0	5328	7100	350 MCM
48060KR1030M71	3x240	62,0	6912	9300	450 MCM
48060KR1030M72	3x300	68,0	8640	13000	550 MCM
48060KR1030M73	3x400	75,0	11520	14000	750 MCM

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48060QR1030M61	3x10	37,0	288	1650	8
48060QR1030M62	3x16	40,0	460,8	2100	6
48060QR1030M63	3x25	42,5	720	2550	4
48060QR1030M64	3x35	45,0	1008	2850	2
48060QR1030M65	3x50	48,0	1440	3600	1
48060QR1030M66	3x70	52,0	2016	4200	2/0
48060QR1030M67	3x95	56,0	2736	5400	3/0
48060QR1030M68	3x120	60,0	3456	6300	4/0
48060QR1030M69	3x150	63,0	4320	7400	250 MCM
48060QR1030M70	3x185	68,0	5328	8600	350 MCM
48060QR1030M71	3x240	74,0	6912	11000	450 MCM
48060QR1030M72	3x300	79,0	8640	13000	550 MCM
48060QR1030M73	3x400	85,0	11520	16000	750 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48060MR1030M61	3x10	30,5	288	1220	8
48060MR1030M62	3x16	32,5	460,8	1500	6
48060MR1030M63	3x25	35,5	720	1850	4
48060MR1030M64	3x35	37,5	1008	2300	2
48060MR1030M65	3x50	40,5	1440	2800	1
48060MR1030M66	3x70	44,5	2016	3560	2/0
48060MR1030M67	3x95	48,5	2736	4510	3/0
48060MR1030M68	3x120	52,0	3456	5500	4/0
48060MR1030M69	3x150	55,0	4320	6350	250 MCM
48060MR1030M70	3x185	59,5	5328	7700	350 MCM
48060MR1030M71	3x240	65,5	6912	9700	450 MCM
48060MR1030M72	3x300	70,5	8640	11800	550 MCM
48060MR1030M73	3x400	77,0	11520	15000	750 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48060SR1030M62	3x16	46,0	460,8	2500	6
48060SR1030M63	3x25	50,0	720	2900	4
48060SR1030M64	3x35	52,0	1008	3500	2
48060SR1030M65	3x50	54,0	1440	4000	1
48060SR1030M66	3x70	58,0	2016	4800	2/0
48060SR1030M67	3x95	62,0	2736	5900	3/0
48060SR1030M68	3x120	66,0	3456	6950	4/0
48060SR1030M69	3x150	70,0	4320	8000	250 MCM
48060SR1030M70	3x185	74,0	5328	9500	350 MCM
48060SR1030M71	3x240	78,0	6912	11800	450 MCM
48060SR1030M72	3x300	85,0	8640	14200	550 MCM

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12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48060UR1030M64	3x35	56,3	1008	3950	2
48060UR1030M65	3x50	58,0	1440	4500	1
48060UR1030M66	3x70	64,0	2016	5500	2/0
48060UR1030M67	3x95	67,0	2736	6600	3/0
48060UR1030M68	3x120	70,5	3456	7600	4/0
48060UR1030M69	3x150	73,6	4320	8600	250 MCM
48060UR1030M70	3x185	78,0	5328	11000	350 MCM
48060UR1030M71	3x240	84,0	6912	12500	450 MCM
48060UR1030M72	3x300	90,0	8640	15000	550 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48060XR1030M65	3x50	73,0	1440	5980	1
48060XR1030M66	3x70	76,0	2016	6800	2/0
48060XR1030M67	3x95	81,0	2736	8400	3/0
48060XR1030M68	3x120	84,0	3456	9400	4/0
48060XR1030M69	3x150	86,0	4320	11000	250 MCM
48060XR1030M70	3x185	90,0	5328	13000	350 MCM
48060XR1030M71	3x240	96,0	6912	15000	450 MCM

Other dimensions and colours available on request.

RG7H1NM1

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	rubber type G7
Screen:	red copper wires and one or two copper tape(s) applied helically
Armouring:	aluminium tape
Outer sheat:	red (RAL 3000),thermoplastic polyolefine, halogen-free,type M1

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 3,6/6 kV = 11 kV 6/10 kV = 17 kV 8,7/15 kV = 24 kV 12/20 kV= 29 kV 18/30 kV = 45 kV
Temperature range:	
in service:	+ 90 ℃
in short circuit:	+ 250 ℃
Resistence:	**Flame retardant acc.to:** IEC 60332-3 DIN VDE 0482 part.266-2-5 **MEDIUM corrosiveness combustion gases:** EN 50267-2, IEC 60754-2,DIN VDE 0482 part.267-2 **Halogen free:** CEI EN 50267-1, IEC 60754-1 DIN VDE 0482 part.267-1

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48070KRL010M61	1x10	-	-	-	8
48070KRL010M62	1x16	-	-	-	6
48070KRL010M63	1x25	-	-	-	4
48070KRL010M64	1x35	-	-	-	2
48070KRL010M65	1x50	-	-	-	1
48070KRL010M66	1x70	-	-	-	2/0
48070KRL010M67	1x95	-	-	-	3/0
48070KRL010M68	1x120	-	-	-	4/0
48070KRL010M69	1x150	-	-	-	250 MCM
48070KRL010M70	1x185	-	-	-	350 MCM
48070KRL010M71	1x240	-	-	-	450 MCM
48070KRL010M72	1x300	-	-	-	550 MCM
48070KRL010M73	1x400	-	-	-	750 MCM

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48070QRL010M61	1x10	-	-	-	8
48070QRL010M62	1x16	-	-	-	6
48070QRL010M63	1x25	-	-	-	4
48070QRL010M64	1x35	-	-	-	2
48070QRL010M65	1x50	-	-	-	1
48070QRL010M66	1x70	-	-	-	2/0
48070QRL010M67	1x95	-	-	-	3/0
48070QRL010M68	1x120	-	-	-	4/0
48070QRL010M69	1x150	-	-	-	250 MCM
48070QRL010M70	1x185	-	-	-	350 MCM
48070QRL010M71	1x240	-	-	-	450 MCM
48070QRL010M72	1x300	-	-	-	550 MCM
48070QRL010M73	1x400	-	-	-	750 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48070MRL010M61	1x10	-	-	-	8
48070MRL010M62	1x16	-	-	-	6
48070MRL010M63	1x25	-	-	-	4
48070MRL010M64	1x35	-	-	-	2
48070MRL010M65	1x50	-	-	-	1
48070MRL010M66	1x70	-	-	-	2/0
48070MRL010M67	1x95	-	-	-	3/0
48070MRL010M68	1x120	-	-	-	4/0
48070MRL010M69	1x150	-	-	-	250 MCM
48070MRL010M70	1x185	-	-	-	350 MCM
48070MRL010M71	1x240	-	-	-	450 MCM
48070MRL010M72	1x300	-	-	-	550 MCM
48070MRL010M73	1x400	-	-	-	750 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48070SRL010M62	1x16	-	-	-	6
48070SRL010M63	1x25	-	-	-	4
48070SRL010M64	1x35	-	-	-	2
48070SRL010M65	1x50	-	-	-	1
48070SRL010M66	1x70	-	-	-	2/0
48070SRL010M67	1x95	-	-	-	3/0
48070SRL010M68	1x120	-	-	-	4/0
48070SRL010M69	1x150	-	-	-	250 MCM
48070SRL010M70	1x185	-	-	-	350 MCM
48070SRL010M71	1x240	-	-	-	450 MCM
48070SRL010M72	1x300	-	-	-	550 MCM

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12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48070URL010M64	1x35	-	-	-	2
48070URL010M65	1x50	-	-	-	1
48070URL010M66	1x70	-	-	-	2/0
48070URL010M67	1x95	-	-	-	3/0
48070URL010M68	1x120	-	-	-	4/0
48070URL010M69	1x150	-	-	-	250 MCM
48070URL010M70	1x185	-	-	-	350 MCM
48070URL010M71	1x240	-	-	-	450 MCM
48070URL010M72	1x300	-	-	-	550 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48070XRL010M65	1x50	-	-	-	1
48070XRL010M66	1x70	-	-	-	2/0
48070XRL010M67	1x95	-	-	-	3/0
48070XRL010M68	1x120	-	-	-	4/0
48070XRL010M69	1x150	-	-	-	250 MCM
48070XRL010M70	1x185	-	-	-	350 MCM
48070XRL010M71	1x240	-	-	-	450 MCM

Other dimensions and colours available on request.

RG7H1(O)NM1

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	rubber type G7
Screen:	red copper tape
Armouring:	steel tape
Outer sheat:	red (RAL 3000),thermoplastic polyolefine, halogen-free,type M1

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 8,7/15 kV = 24 kV 3,6/6 kV = 11 kV 12/20 kV= 29 kV 6/10 kV = 17 kV 18/30 kV = 45 kV
Temperature range: *in service:* *in short circuit:*	 + 90 ℃ + 250 ℃
Resistence:	**Flame retardant acc.to:** IEC 60332-3 DIN VDE 0482 part.266-2-5 **MEDIUM corrosiveness combustion gases:** EN 50267-2, IEC 60754-2,DIN VDE 0482 part.267-2 **Halogen free:** CEI EN 50267-1, IEC 60754-1 DIN VDE 0482 part.267-1

1,8/3 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48070KR1030M61	*3x10*	*29,0*	*288*	*1370*	*8*
48070KR1030M62	*3x16*	*31,0*	*460,8*	*1690*	*6*
48070KR1030M63	*3x25*	*34,0*	*720*	*2100*	*4*
48070KR1030M64	*3x35*	*36,5*	*1008*	*2500*	*2*
48070KR1030M65	*3x50*	*39,5*	*1440*	*3035*	*1*
48070KR1030M66	*3x70*	*43,0*	*2016*	*3880*	*2/0*
48070KR1030M67	*3x95*	*47,5*	*2736*	*4900*	*3/0*
48070KR1030M68	*3x120*	*51,5*	*3456*	*5900*	*4/0*
48070KR1030M69	*3x150*	*54,5*	*4320*	*6850*	*250 MCM*
48070KR1030M70	*3x185*	*58,5*	*5328*	*8180*	*350 MCM*
48070KR1030M71	*3x240*	*64,5*	*6912*	*10300*	*450 MCM*
48070KR1030M72	*3x300*	*77,0*	*8640*	*12500*	*550 MCM*
48070KR1030M73	*3x400*	*78,5*	*11520*	*15500*	*750 MCM*

8,7/15 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48070QR1030M62	*3x16*	*49,5*	*460,8*	*3420*	*6*
48070QR1030M63	*3x25*	*52,5*	*720*	*3980*	*4*
48070QR1030M64	*3x35*	*55,0*	*1008*	*4420*	*2*
48070QR1030M65	*3x50*	*57,3*	*1440*	*5100*	*1*
48070QR1030M66	*3x70*	*61,5*	*2016*	*6135*	*2/0*
48070QR1030M67	*3x95*	*65,5*	*2736*	*7285*	*3/0*
48070QR1030M68	*3x120*	*69,5*	*3456*	*8400*	*4/0*
48070QR1030M69	*3x150*	*72,5*	*4320*	*9500*	*250 MCM*
48070QR1030M70	*3x185*	*76,5*	*5328*	*11050*	*350 MCM*
48070QR1030M71	*3x240*	*82,5*	*6912*	*13300*	*450 MCM*
48070QR1030M72	*3x300*	*88,6*	*8640*	*15850*	*550 MCM*

3,6/6 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48070MR1030M61	*3x10*	*33,5*	*288*	*1700*	*8*
48070MR1030M62	*3x16*	*36,5*	*460,8*	*2050*	*6*
48070MR1030M63	*3x25*	*39,0*	*720*	*2530*	*4*
48070MR1030M64	*3x35*	*41,5*	*1008*	*2950*	*2*
48070MR1030M65	*3x50*	*44,0*	*1440*	*3500*	*1*
48070MR1030M66	*3x70*	*48,5*	*2016*	*4400*	*2/0*
48070MR1030M67	*3x95*	*52,5*	*2736*	*5500*	*3/0*
48070MR1030M68	*3x120*	*56,5*	*3456*	*6430*	*4/0*
48070MR1030M69	*3x150*	*59,5*	*4320*	*7450*	*250 MCM*
48070MR1030M70	*3x185*	*64,5*	*5328*	*8900*	*350 MCM*
48070MR1030M71	*3x240*	*69,5*	*6912*	*11000*	*450 MCM*
48070MR1030M72	*3x300*	*76,5*	*8640*	*13250*	*550 MCM*
48070MR1030M73	*3x400*	*83,5*	*11520*	*16200*	*750 MCM*

12/20 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48070SR1030M64	*3x35*	*59,5*	*1008*	*5070*	*2*
48070SR1030M65	*3x50*	*62,5*	*1440*	*5800*	*1*
48070SR1030M66	*3x70*	*67,0*	*2016*	*6830*	*2/0*
48070SR1030M67	*3x95*	*70,5*	*2736*	*7970*	*3/0*
48070SR1030M68	*3x120*	*75,0*	*3456*	*9200*	*4/0*
48070SR1030M69	*3x150*	*78,0*	*4320*	*10300*	*250 MCM*
48070SR1030M70	*3x185*	*81,5*	*5328*	*11900*	*350 MCM*
48070SR1030M71	*3x240*	*88,0*	*6912*	*14300*	*450 MCM*
48070SR1030M72	*3x300*	*94,0*	*8640*	*17000*	*550 MCM*

RG7H1(O)NM1

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48070UR1030M61	3x10	41,5	288	2430	8
48070UR1030M62	3x16	44,0	460,8	2800	6
48070UR1030M63	3x25	47,3	720	3330	4
48070UR1030M64	3x35	50,0	1008	3850	2
48070UR1030M65	3x50	53,0	1440	4500	1
48070UR1030M66	3x70	57,4	2016	5500	2/0
48070UR1030M67	3x95	60,3	2736	6480	3/0
48070UR1030M68	3x120	65,3	3456	7700	4/0
48070UR1030M69	3x150	68,5	4320	8700	250 MCM
48070UR1030M70	3x185	72,5	5328	10120	350 MCM
48070UR1030M71	3x240	78,6	6912	12400	450 MCM
48070UR1030M72	3x300	84,6	8640	14850	550 MCM
48070UR1030M73	3x400	90,6	11520	17850	750 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

18/30 kV

part no,	No,of cores x cross section n x mm²	Outer Ø ca,mm ±10%	Copper weight kg/km	Cable weight approx, kg/km	AWG no,*)
48070XR1030M65	3x50	76,0	1440	7700	1
48070XR1030M66	3x70	79,5	2016	8800	2/0
48070XR1030M67	3x95	83,5	2736	10100	3/0
48070XR1030M68	3x120	88,0	3456	11400	4/0
48070XR1030M69	3x150	90,0	4320	12500	250 MCM
48070XR1030M70	3x185	95,0	5328	14200	350 MCM
48070XR1030M71	3x240	100,0	6912	16700	450 MCM

Other dimensions and colours available on request.

RG7H1ZM1

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	rubber type G7
Screen:	red copper wires and one or two copper tape(s) applied helically.
Armouring:	steel tape
Outer sheat:	red (RAL 3000),thermoplastic polyolefine, halogen-free,type M1

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 8,7/15 kV = 24 kV 3,6/6 kV = 11 kV 12/20 kV= 29 kV 6/10 kV = 17 kV 18/30 kV = 45 kV
Temperature range: *in service:* *in short circuit:*	 + 90 ℃ + 250 ℃
Resistance:	**Flame retardant:** acc.to IEC 60332-3 DIN VDE 0482 part.266-2-1 **Halogen free:** CEI EN 50267-1, IEC 60754-1 DIN VDE 0482 part.267-1

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48080KRL010M61	1x10	-	-	-	8
48080KRL010M62	1x16	-	-	-	6
48080KRL010M63	1x25	-	-	-	4
48080KRL010M64	1x35	-	-	-	2
48080KRL010M65	1x50	-	-	-	1
48080KRL010M66	1x70	-	-	-	2/0
48080KRL010M67	1x95	-	-	-	3/0
48080KRL010M68	1x120	-	-	-	4/0
48080KRL010M69	1x150	-	-	-	250 MCM
48080KRL010M70	1x185	-	-	-	350 MCM
48080KRL010M71	1x240	-	-	-	450 MCM
48080KRL010M72	1x300	-	-	-	550 MCM
48080KRL010M73	1x400	-	-	-	750 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48080QRL010M62	1x16	-	-	-	6
48080QRL010M63	1x25	-	-	-	4
48080QRL010M64	1x35	-	-	-	2
48080QRL010M65	1x50	-	-	-	1
48080QRL010M66	1x70	-	-	-	2/0
48080QRL010M67	1x95	-	-	-	3/0
48080QRL010M68	1x120	-	-	-	4/0
48080QRL010M69	1x150	-	-	-	250 MCM
48080QRL010M70	1x185	-	-	-	350 MCM
48080QRL010M71	1x240	-	-	-	450 MCM
48080QRL010M72	1x300	-	-	-	550 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48080MRL010M61	1x10	-	-	-	8
48080MRL010M62	1x16	-	-	-	6
48080MRL010M63	1x25	-	-	-	4
48080MRL010M64	1x35	-	-	-	2
48080MRL010M65	1x50	-	-	-	1
48080MRL010M66	1x70	-	-	-	2/0
48080MRL010M67	1x95	-	-	-	3/0
48080MRL010M68	1x120	-	-	-	4/0
48080MRL010M69	1x150	-	-	-	250 MCM
48080MRL010M70	1x185	-	-	-	350 MCM
48080MRL010M71	1x240	-	-	-	450 MCM
48080MRL010M72	1x300	-	-	-	550 MCM
48080MRL010M73	1x400	-	-	-	750 MCM

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48080SRL010M64	1x35	-	-	-	2
48080SRL010M65	1x50	-	-	-	1
48080SRL010M66	1x70	-	-	-	2/0
48080SRL010M67	1x95	-	-	-	3/0
48080SRL010M68	1x120	-	-	-	4/0
48080SRL010M69	1x150	-	-	-	250 MCM
48080SRL010M70	1x185	-	-	-	350 MCM
48080SRL010M71	1x240	-	-	-	450 MCM
48080SRL010M72	1x300	-	-	-	550 MCM

RG7H1ZM1

6/10 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48080URL010M61	*1x10*	-	-	-	*8*
48080URL010M62	*1x16*	-	-	-	*6*
48080URL010M63	*1x25*	-	-	-	*4*
48080URL010M64	*1x35*	-	-	-	*2*
48080URL010M65	*1x50*	-	-	-	*1*
48080URL010M66	*1x70*	-	-	-	*2/0*
48080URL010M67	*1x95*	-	-	-	*3/0*
48080URL010M68	*1x120*	-	-	-	*4/0*
48080URL010M69	*1x150*	-	-	-	*250 MCM*
48080URL010M70	*1x185*	-	-	-	*350 MCM*
48080URL010M71	*1x240*	-	-	-	*450 MCM*
48080URL010M72	*1x300*	-	-	-	*550 MCM*
48080URL010M73	*1x400*	-	-	-	*750 MCM*

* For cables laying in earth a screen-cross section of 16 mm is permitted.

18/30 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48080XRL010M65	*1x50*	-	-	-	*1*
48080XRL010M66	*1x70*	-	-	-	*2/0*
48080XRL010M67	*1x95*	-	-	-	*3/0*
48080XRL010M68	*1x120*	-	-	-	*4/0*
48080XRL010M69	*1x150*	-	-	-	*250 MCM*
48080XRL010M70	*1x185*	-	-	-	*350 MCM*
48080XRL010M71	*1x240*	-	-	-	*450 MCM*

Other dimensions and colours available on request.

RG7H1(O)ZM1

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	rubber type G7
Screen:	red copper tape
Armouring:	steel tape
Outer sheat:	red (RAL 3000),thermoplastic polyolefine, halogen-free,type M1

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV	
Test voltage:	1,8/3 kV = 6 kV 3,6/6 kV = 11 kV 6/10 kV = 17 kV	8,7/15 kV = 24 kV 12/20 kV= 29 kV 18/30 kV = 45 kV
Temperature range:		
in service:	+ 90 ℃	
in short circuit:	+ 250 ℃	
Resistance:	**Flame retardant:** acc.to IEC 60332-3 DIN VDE 0482 part.266-2-1 **Halogen free:** CEI EN 50267-1, IEC 60754-1 DIN VDE 0482 part.267-1	

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48080KR1030M61	3x10	-	-	-	8
48080KR1030M62	3x16	-	-	-	6
48080KR1030M63	3x25	-	-	-	4
48080KR1030M64	3x35	-	-	-	2
48080KR1030M65	3x50	-	-	-	1
48080KR1030M66	3x70	-	-	-	2/0
48080KR1030M67	3x95	-	-	-	3/0
48080KR1030M68	3x120	-	-	-	4/0
48080KR1030M69	3x150	-	-	-	250 MCM
48080KR1030M70	3x185	-	-	-	350 MCM
48080KR1030M71	3x240	-	-	-	450 MCM
48080KR1030M72	3x300	-	-	-	550 MCM
48080KR1030M73	3x400	-	-	-	750 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48080QR1030M62	3x16	-	-	-	6
48080QR1030M63	3x25	-	-	-	4
48080QR1030M64	3x35	-	-	-	2
48080QR1030M65	3x50	-	-	-	1
48080QR1030M66	3x70	-	-	-	2/0
48080QR1030M67	3x95	-	-	-	3/0
48080QR1030M68	3x120	-	-	-	4/0
48080QR1030M69	3x150	-	-	-	250 MCM
48080QR1030M70	3x185	-	-	-	350 MCM
48080QR1030M71	3x240	-	-	-	450 MCM
48080QR1030M72	3x300	-	-	-	550 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48080MR1030M61	3x10	-	-	-	8
48080MR1030M62	3x16	-	-	-	6
48080MR1030M63	3x25	-	-	-	4
48080MR1030M64	3x35	-	-	-	2
48080MR1030M65	3x50	-	-	-	1
48080MR1030M66	3x70	-	-	-	2/0
48080MR1030M67	3x95	-	-	-	3/0
48080MR1030M68	3x120	-	-	-	4/0
48080MR1030M69	3x150	-	-	-	250 MCM
48080MR1030M70	3x185	-	-	-	350 MCM
48080MR1030M71	3x240	-	-	-	450 MCM
48080MR1030M72	3x300	-	-	-	550 MCM
48080MR1030M73	3x400	-	-	-	750 MCM

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48080SR1030M64	3x35	-	-	-	2
48080SR1030M65	3x50	-	-	-	1
48080SR1030M66	3x70	-	-	-	2/0
48080SR1030M67	3x95	-	-	-	3/0
48080SR1030M68	3x120	-	-	-	4/0
48080SR1030M69	3x150	-	-	-	250 MCM
48080SR1030M70	3x185	-	-	-	350 MCM
48080SR1030M71	3x240	-	-	-	450 MCM
48080SR1030M72	3x300	-	-	-	550 MCM

RG7H1(O)ZM1

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48080UR1030M61	3x10	-	-	-	8
48080UR1030M62	3x16	-	-	-	6
48080UR1030M63	3x25	-	-	-	4
48080UR1030M64	3x35	-	-	-	2
48080UR1030M65	3x50	-	-	-	1
48080UR1030M66	3x70	-	-	-	2/0
48080UR1030M67	3x95	-	-	-	3/0
48080UR1030M68	3x120	-	-	-	4/0
48080UR1030M69	3x150	-	-	-	250 MCM
48080UR1030M70	3x185	-	-	-	350 MCM
48080UR1030M71	3x240	-	-	-	450 MCM
48080UR1030M72	3x300	-	-	-	550 MCM
48080UR1030M73	3x400	-	-	-	750 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48080XR1030M65	3x50	-	-	-	1
48080XR1030M66	3x70	-	-	-	2/0
48080XR1030M67	3x95	-	-	-	3/0
48080XR1030M68	3x120	-	-	-	4/0
48080XR1030M69	3x150	-	-	-	250 MCM
48080XR1030M70	3x185	-	-	-	350 MCM
48080XR1030M71	3x240	-	-	-	450 MCM

Other dimensions and colours available on request.

RG7H1O(GS)M1

Three-cores, copper tape screen,GAALSHOCK inner sheath,12/20 kV up to 18/30 kV

Special GAALSHOCK protection

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Inner semi-conductive layer:	extruded compound
Insulation:	rubber type G7
Outer semi-conductive layer:	strippable cold extruded compound
Screen:	red copper tape
Armour:	GAALTHERM® 600 (GAALSHOCK technology)
Outer sheath:	red (RAL 3000),thermoplastic polyolefine, halogen-free,type M1

Features:

- **According to IEC 60502-2**

Technical data:

Nominal voltage:	12/20 kV up to 18/30 kV
Test voltage:	29 kV 43 kV
Temperature range:	-25°C up to 90°C
Max. short circuit temp:	+ 250°C
Min. Bending Radius:	12 x d
Resistance:	**Self-extinguishing and flame retardant:** acc. to DIN VDE 0482 part 265-2-1 / EN 50265-2-1 / IEC 60332-1-2 acc. to DIN VDE 0482 part 266-2-4 / EN 50266-2-4 / IEC 60332-3C **Halogen-free:** acc. to DIN VDE 0482 part 267, EN 50267-2-1 / IEC 60754-1 **Low smoke density:** acc. to IEC 61034-1-2, DIN VDE 0482 part. 268-1-2, EN 50268-1-2

12/20 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air trefoil Amps*	*Current capacity underground trefoil P=1 °C m/W - P=2 °C m/W Amps*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48090UR1030M64	3 x 35	58,6	171	169 - 135	-	4160	2
48090UR1030M65	3 x 50	61,2	203	199 - 159	-	4750	1
48090UR1030M66	3 x 70	63,1	249	242 - 193	-	5600	2/0
48090UR1030M67	3 x 95	70,1	301	289 - 230	-	6880	3/0
48090UR1030M68	3 x 120	73,6	346	329 - 260	-	7940	4/0
48090UR1030M69	3 x 150	76,8	391	369 - 391	-	9050	250 MCM
48090UR1030M70	3 x 185	80,8	446	416 - 328	-	10520	350 MCM
48090UR1030M71	3 x 240	86,4	524	483 - 379	-	12760	450 MCM

18/30 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air trefoil Amps*	*Current capacity underground trefoil P=1 °C m/W - P=2 °C m/W Amps*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48090XR1030M65	3 x 50	74,2	204	198 - 159	-	6450	1
48090XR1030M66	3 x 70	78,3	252	242 - 194	-	7520	2/0
48090XR1030M67	3 x 95	82	305	289 - 231	-	8740	3/0
48090XR1030M68	3 x 120	85,7	350	329 - 262	-	9890	4/0
48090XR1030M69	3 x 150	88,9	395	369 - 293	-	11080	250 MCM
48090XR1030M70	3 x 185	92,6	450	416 - 331	-	12600	350 MCM
48090XR1030M71	3 x 240	98,4	528	483 - 382	-	15020	450 MCM

Other dimension and colors available on request.

*For GAALSHOCK quality see technical info pag.216

GAALSHOCK PROTECTION!

1 Excellent mechanical protection than steel

2 Reduced weight

3 Installation, storage, and transport reduced costs

RE4H1R (XLPE/CTS/PVC)

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	XLPE compound
Screen:	red copper wires and one or two copper tape(s) applied helically
Outer sheath:	red (RAL 3000),PVC type Rz

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 8,7/15 kV = 24 kV 3,6/6 kV = 11 kV 12/20 kV= 29 kV 6/10 kV = 17 kV 18/30 kV = 45 kV
Temperature range:	
in service:	+ 90 C
in short circuit:	+ 250 C
Min. bending radius:	12 x d
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48100KRL010M61	1x10	14,0	96	290	8
48100KRL010M62	1x16	15,0	153,6	350	6
48100KRL010M63	1x25	16,0	240	450	4
48100KRL010M64	1x35	17,0	336	550	2
48100KRL010M65	1x50	18,5	480	670	1
48100KRL010M66	1x70	20,5	672	880	2/0
48100KRL010M67	1x95	22,0	912	1100	3/0
48100KRL010M68	1x120	24,5	1152	1400	4/0
48100KRL010M69	1x150	26,0	1440	1650	250 MCM
48100KRL010M70	1x185	27,5	1776	2000	350 MCM
48100KRL010M71	1x240	30,0	2304	2550	450 MCM
48100KRL010M72	1x300	32,5	2880	3150	550 MCM
48100KRL010M73	1x400	35,5	3840	3950	750 MCM
48100KRL010M74	1x500	40,0	4800	5050	900 MCM
48100KRL010M75	1x630	44,0	6048	6300	1150 MCM

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48100QRL010M61	1x10	19,5	96	420	8
48100QRL010M62	1x16	21,0	153,6	530	6
48100QRL010M63	1x25	22,2	240	650	4
48100QRL010M64	1x35	23,0	336	760	2
48100QRL010M65	1x50	24,5	480	880	1
48100QRL010M66	1x70	26,5	672	1100	2/0
48100QRL010M67	1x95	28,0	912	1400	3/0
48100QRL010M68	1x120	29,3	1152	1630	4/0
48100QRL010M69	1x150	31,0	1440	1900	250 MCM
48100QRL010M70	1x185	33,3	1776	2350	350 MCM
48100QRL010M71	1x240	35,6	2304	2900	450 MCM
48100QRL010M72	1x300	38,5	2880	3500	550 MCM
48100QRL010M73	1x400	41,0	3840	4300	750 MCM
48100QRL010M74	1x500	45,0	4800	5420	900 MCM
48100QRL010M75	1x630	48,0	6048	6850	1150 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48100MRL010M61	1x10	16,0	96	330	8
48100MRL010M62	1x16	17,0	153,6	410	6
48100MRL010M63	1x25	18,5	240	510	4
48100MRL010M64	1x35	20,0	336	630	2
48100MRL010M65	1x50	21,5	480	750	1
48100MRL010M66	1x70	23,5	672	1010	2/0
48100MRL010M67	1x95	25,0	912	1250	3/0
48100MRL010M68	1x120	26,5	1152	1500	4/0
48100MRL010M69	1x150	28,0	1440	1800	250 MCM
48100MRL010M70	1x185	30,0	1776	2100	350 MCM
48100MRL010M71	1x240	32,5	2304	2650	450 MCM
48100MRL010M72	1x300	35,3	2880	3200	550 MCM
48100MRL010M73	1x400	37,5	3840	4000	750 MCM
48100MRL010M74	1x500	41,6	4800	5100	900 MCM
48100MRL010M75	1x630	46,0	6048	6500	1150 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48100SRL010M62	1x16	23,3	153,6	650	6
48100SRL010M63	1x25	24,5	240	750	4
48100SRL010M64	1x35	25,8	336	850	2
48100SRL010M65	1x50	27,0	480	1000	1
48100SRL010M66	1x70	28,5	672	1220	2/0
48100SRL010M67	1x95	30,1	912	1500	3/0
48100SRL010M68	1x120	32,5	1152	1900	4/0
48100SRL010M69	1x150	33,5	1440	2100	250 MCM
48100SRL010M70	1x185	35,5	1776	2500	350 MCM
48100SRL010M71	1x240	38,0	2304	3030	450 MCM
48100SRL010M72	1x300	41,5	2880	3800	550 MCM
48100SRL010M73	1x400	43,3	3840	4600	750 MCM
48100SRL010M74	1x500	47,4	4800	5700	900 MCM
48100SRL010M75	1x630	52,6	6048	7100	1150 MCM

RE4H1R (XLPE/CTS/PVC)

RoHS

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48100URL010M64	1x35	27,7	336	960	2
48100URL010M65	1x50	29,0	480	1100	1
48100URL010M66	1x70	30,5	672	1350	2/0
48100URL010M67	1x95	33,0	912	1650	3/0
48100URL010M68	1x120	34,8	1152	1950	4/0
48100URL010M69	1x150	36,2	1440	2300	250 MCM
48100URL010M70	1x185	37,6	1776	2600	350 MCM
48100URL010M71	1x240	40,2	2304	3200	450 MCM
48100URL010M72	1x300	43,0	2880	3900	550 MCM
48100URL010M73	1x400	45,8	3840	4800	750 MCM
48100URL010M74	1x500	50,0	4800	5900	900 MCM
48100URL010M75	1x630	54,0	6048	7300	1150 MCM

26/45 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48100ZRL010M66	1x70	41,9	672	2150	2/0
48100ZRL010M67	1x95	43,8	912	2490	3/0
48100ZRL010M68	1x120	44,8	1152	2735	4/0
48100ZRL010M69	1x150	45,1	1440	3020	250 MCM
48100ZRL010M70	1x185	47,1	1776	3395	350 MCM
48100ZRL010M71	1x240	49,2	2304	4025	450 MCM
48100ZRL010M72	1x300	52,2	2880	4725	550 MCM
48100ZRL010M73	1x400	54,8	3840	5635	750 MCM
48100ZRL010M74	1x500	58,6	4800	6825	900 MCM
48100ZRL010M75	1x630	62,7	6048	8260	1150 MCM

Other dimensions and colours available on request.

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48100XRL010M65	1x50	34,1	480	1400	1
48100XRL010M66	1x70	36,2	672	1700	2/0
48100XRL010M67	1x95	38,2	912	1950	3/0
48100XRL010M68	1x120	40,0	1152	2230	4/0
48100XRL010M69	1x150	41,0	1440	2550	250 MCM
48100XRL010M70	1x185	43,1	1776	3000	350 MCM
48100XRL010M71	1x240	45,0	2304	3600	450 MCM
48100XRL010M72	1x300	47,0	2880	4300	550 MCM
48100XRL010M73	1x400	51,1	3840	5200	750 MCM
48100XRL010M74	1x500	53,0	4800	6300	900 MCM
48100XRL010M75	1x630	60,2	6048	7800	1150 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

RE4H1(O)R (XLPE/CTS/PVC)

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	XLPE compound
Screen:	red copper tape
Outer sheath:	red (RAL 3000),PVC type Rz

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 8,7/15 kV = 24 kV 3,6/6 kV = 11 kV 12/20 kV= 29 kV 6/10 kV = 17 kV 18/30 kV = 45 kV
Temperature range: *in service:* *in short circuit:*	 + 90 ℃ + 250 ℃
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48100KR1030M61	3x10	23,0	288	1050	8
48100KR1030M62	3x16	28,0	460,8	1200	6
48100KR1030M63	3x25	30,2	720	1600	4
48100KR1030M64	3x35	34,0	1008	2000	2
48100KR1030M65	3x50	36,0	1440	2250	1
48100KR1030M66	3x70	40,0	2016	3200	2/0
48100KR1030M67	3x95	43,4	2736	4100	3/0
48100KR1030M68	3x120	48,0	3456	5000	4/0
48100KR1030M69	3x150	52,0	4320	5960	250 MCM
48100KR1030M70	3x185	55,0	5328	7100	350 MCM
48100KR1030M71	3x240	62,0	6912	9300	450 MCM
48100KR1030M72	3x300	68,0	8640	13000	550 MCM
48100KR1030M73	3x400	75,0	11520	14000	750 MCM

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48100QR1030M61	3x10	37,0	288	1650	8
48100QR1030M62	3x16	40,0	460,8	2100	6
48100QR1030M63	3x25	42,5	720	2550	4
48100QR1030M64	3x35	45,0	1008	2850	2
48100QR1030M65	3x50	48,0	1440	3600	1
48100QR1030M66	3x70	52,0	2016	4200	2/0
48100QR1030M67	3x95	56,0	2736	5400	3/0
48100QR1030M68	3x120	60,0	3456	6300	4/0
48100QR1030M69	3x150	63,0	4320	7400	250 MCM
48100QR1030M70	3x185	68,0	5328	8600	350 MCM
48100QR1030M71	3x240	74,0	6912	11000	450 MCM
48100QR1030M72	3x300	79,0	8640	13000	550 MCM
48100QR1030M73	3x400	85,0	11520	16000	750 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48100MR1030M61	3x10	30,5	288	1220	8
48100MR1030M62	3x16	32,5	460,8	1500	6
48100MR1030M63	3x25	35,5	720	1850	4
48100MR1030M64	3x35	37,5	1008	2300	2
48100MR1030M65	3x50	40,5	1440	2800	1
48100MR1030M66	3x70	44,5	2016	3560	2/0
48100MR1030M67	3x95	48,5	2736	4510	3/0
48100MR1030M68	3x120	52,0	3456	5500	4/0
48100MR1030M69	3x150	55,0	4320	6350	250 MCM
48100MR1030M70	3x185	59,5	5328	7700	350 MCM
48100MR1030M71	3x240	65,5	6912	9700	450 MCM
48100MR1030M72	3x300	70,5	8640	11800	550 MCM
48100MR1030M73	3x400	77,0	11520	15000	750 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48100SR1030M62	3x16	46,0	460,8	2500	6
48100SR1030M63	3x25	50,0	720	2900	4
48100SR1030M64	3x35	52,0	1008	3500	2
48100SR1030M65	3x50	54,0	1440	4000	1
48100SR1030M66	3x70	58,0	2016	4800	2/0
48100SR1030M67	3x95	62,0	2736	5900	3/0
48100SR1030M68	3x120	66,0	3456	6950	4/0
48100SR1030M69	3x150	70,0	4320	8000	250 MCM
48100SR1030M70	3x185	74,0	5328	9500	350 MCM
48100SR1030M71	3x240	78,0	6912	11800	450 MCM
48100SR1030M72	3x300	85,0	8640	14200	550 MCM

RE4H1(O)R (XLPE/CTS/PVC)

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48100UR1030M64	3x35	56,3	1008	3950	2
48100UR1030M65	3x50	58,0	1440	4500	1
48100UR1030M66	3x70	64,0	2016	5500	2/0
48100UR1030M67	3x95	67,0	2736	6600	3/0
48100UR1030M68	3x120	70,5	3456	7600	4/0
48100UR1030M69	3x150	73,6	4320	8600	250 MCM
48100UR1030M70	3x185	78,0	5328	11000	350 MCM
48100UR1030M71	3x240	84,0	6912	12500	450 MCM
48100UR1030M72	3x300	90,0	8640	15000	550 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48100XR1030M65	3x50	73,0	1440	5980	1
48100XR1030M66	3x70	76,0	2016	6800	2/0
48100XR1030M67	3x95	81,0	2736	8400	3/0
48100XR1030M68	3x120	84,0	3456	9400	4/0
48100XR1030M69	3x150	86,0	4320	11000	250 MCM
48100XR1030M70	3x185	90,0	5328	13000	350 MCM
48100XR1030M71	3x240	96,0	6912	15000	450 MCM

Other dimensions and colours available on request.

RE4H1RFR (XLPE/CTS/PVC/AWA/PVC)

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	XLPE compound
Screen:	red copper tape
Inner sheath:	PVC compound
Armouring:	aluminium wires
Outer sheath:	red(RAL 3000),PVC,type RZ

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 8,7/15 kV = 24 kV 3,6/6 kV = 11 kV 12/20 kV= 29 kV 6/10 kV = 17 kV 18/30 kV = 45 kV
Temperature range: *in service:* *in short circuit:*	 + 90 ℃ + 250 ℃
Min. bending radius:	12 x d
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48110KRL010M61	1x10	-	-	-	8
48110KRL010M62	1x16	-	-	-	6
48110KRL010M63	1x25	-	-	-	4
48110KRL010M64	1x35	-	-	-	2
48110KRL010M65	1x50	-	425	-	1
48110KRL010M66	1x70	-	615	-	2/0
48110KRL010M67	1x95	-	855	-	3/0
48110KRL010M68	1x120	-	1080	-	4/0
48110KRL010M69	1x150	-	1330	-	250 MCM
48110KRL010M70	1x185	-	1665	-	350 MCM
48110KRL010M71	1x240	-	2190	-	450 MCM
48110KRL010M72	1x300	-	2715	-	550 MCM
48110KRL010M73	1x400	-	3475	-	750 MCM
48110KRL010M74	1x500	-	4445	-	900 MCM
48110KRL010M75	1x630	-	-	-	1150 MCM

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48110QRL010M61	1x10	-	-	-	8
48110QRL010M62	1x16	-	-	-	6
48110QRL010M63	1x25	-	-	-	4
48110QRL010M64	1x35	-	-	-	2
48110QRL010M65	1x50	28,5	425	1200	1
48110QRL010M66	1x70	30	615	1500	2/0
48110QRL010M67	1x95	31,7	855	1600	3/0
48110QRL010M68	1x120	33,9	1080	2100	4/0
48110QRL010M69	1x150	35,7	1330	2500	250 MCM
48110QRL010M70	1x185	37,5	1665	2900	350 MCM
48110QRL010M71	1x240	40	2190	3600	450 MCM
48110QRL010M72	1x300	43	2715	4300	550 MCM
48110QRL010M73	1x400	45,8	3475	5200	750 MCM
48110QRL010M74	1x500	50,5	4445	6500	900 MCM
48110QRL010M75	1x630	54,8	-	8000	1150 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48110MRL010M61	1x10	-	-	-	8
48110MRL010M62	1x16	-	-	-	6
48110MRL010M63	1x25	-	-	-	4
48110MRL010M64	1x35	-	-	-	2
48110MRL010M65	1x50	-	425	-	1
48110MRL010M66	1x70	-	615	-	2/0
48110MRL010M67	1x95	-	855	-	3/0
48110MRL010M68	1x120	-	1080	-	4/0
48110MRL010M69	1x150	-	1330	-	250 MCM
48110MRL010M70	1x185	35	1665	1,7	350 MCM
48110MRL010M71	1x240	37,6	2190	2	450 MCM
48110MRL010M72	1x300	40,8	2715	2,4	550 MCM
48110MRL010M73	1x400	44,1	3475	2,8	750 MCM
48110MRL010M74	1x500	49	4445	3,4	900 MCM
48110MRL010M75	1x630	53,3	-	4,1	1150 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48110SRL010M62	1x16	-	-	-	6
48110SRL010M63	1x25	-	-	-	4
48110SRL010M64	1x35	-	-	-	2
48110SRL010M65	1x50	29,8	425	1405	1
48110SRL010M66	1x70	32,2	615	1750	2/0
48110SRL010M67	1x95	34,1	855	2100	3/0
48110SRL010M68	1x120	35,7	1080	2415	4/0
48110SRL010M69	1x150	37,8	1330	2700	250 MCM
48110SRL010M70	1x185	-	1665	-	350 MCM
48110SRL010M71	1x240	42,4	2190	3800	450 MCM
48110SRL010M72	1x300	44,7	2715	4500	550 MCM
48110SRL010M73	1x400	49	3475	5600	750 MCM
48110SRL010M74	1x500	52,1	4445	6700	900 MCM
48110SRL010M75	1x630	55,9	-	8200	1150 MCM

RE4H1RFR (XLPE/CTS/PVC/AWA/PVC)

RoHS

12/20 kV

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48110URL010M64	1x35	-	-	-	2
48110URL010M65	1x50	32	425	1545	1
48110URL010M66	1x70	34,5	615	1900	2/0
48110URL010M67	1x95	36,3	855	2255	3/0
48110URL010M68	1x120	37,7	1080	2555	4/0
48110URL010M69	1x150	39,3	1330	2905	250 MCM
48110URL010M70	1x185	41	1665	3340	350 MCM
48110URL010M71	1x240	43,6	2190	4045	450 MCM
48110URL010M72	1x300	47,2	2715	4880	550 MCM
48110URL010M73	1x400	50,2	3475	5450	750 MCM
48110URL010M74	1x500	53,8	4445	7065	900 MCM
48110URL010M75	1x630	-	-	-	1150 MCM

26/45 kV

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48110ZRL010M66	1x70	-	615	-	2/0
48110ZRL010M67	1x95	-	855	-	3/0
48110ZRL010M68	1x120	-	1080	-	4/0
48110ZRL010M69	1x150	-	1330	-	250 MCM
48110ZRL010M70	1x185	-	1665	-	350 MCM
48110ZRL010M71	1x240	-	2190	-	450 MCM
48110ZRL010M72	1x300	-	2715	-	550 MCM
48110ZRL010M73	1x400	-	3475	-	750 MCM
48110ZRL010M74	1x500	-	4445	-	900 MCM
48110ZRL010M75	1x630	-	-	-	1150 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

18/30 kV

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48110XRL010M65	1x50	38,2	425	2060	1
48110XRL010M66	1x70	39,8	615	2350	2/0
48110XRL010M67	1x95	41,7	855	2720	3/0
48110XRL010M68	1x120	43,2	1080	3035	4/0
48110XRL010M69	1x150	46	1330	3565	250 MCM
48110XRL010M70	1x185	47,9	1665	4045	350 MCM
48110XRL010M71	1x240	50,3	2190	4755	450 MCM
48110XRL010M72	1x300	52,9	2715	5480	550 MCM
48110XRL010M73	1x400	56,5	3475	6605	750 MCM
48110XRL010M74	1x500	60,1	4445	7715	900 MCM
48110XRL010M75	1x630	-	-	-	1150 MCM

Other dimensions and colours available on request.

RE4H1(O)RFR (XLPE/CTS/PVC/SWA/PVC)

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	XLPE compound
Screen:	red copper tape
Inner sheath:	PVC compound
Armouring:	aluminium wires
Outer sheath:	red(RAL 3000),PVC,type RZ

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 8,7/15 kV = 24 kV 3,6/6 kV = 11 kV 12/20 kV= 29 kV 6/10 kV = 17 kV 18/30 kV = 45 kV
Temperature range: *in service:* *in short circuit:*	 + 90 ℃ + 250 ℃
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

1,8/3 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48110KR1030M61	*3x10*	*23,0*	*-*	*1050*	*8*
48110KR1030M62	*3x16*	*28,0*	*-*	*1200*	*6*
48110KR1030M63	*3x25*	*30,2*	*-*	*1600*	*4*
48110KR1030M64	*3x35*	*34,0*	*-*	*2000*	*2*
48110KR1030M65	*3x50*	*36,0*	*-*	*2250*	*1*
48110KR1030M66	*3x70*	*40,0*	*-*	*3200*	*2/0*
48110KR1030M67	*3x95*	*43,4*	*-*	*4100*	*3/0*
48110KR1030M68	*3x120*	*48,0*	*-*	*5000*	*4/0*
48110KR1030M69	*3x150*	*52,0*	*-*	*5960*	*250 MCM*
48110KR1030M70	*3x185*	*55,0*	*-*	*7100*	*350 MCM*
48110KR1030M71	*3x240*	*62,0*	*-*	*9300*	*450 MCM*
48110KR1030M72	*3x300*	*68,0*	*-*	*13000*	*550 MCM*
48110KR1030M73	*3x400*	*75,0*	*-*	*14000*	*750 MCM*

6/10 kV

part no,	*No,of cores x cross section n x mm²*	*Outer Ø ca,mm ±10%*	*Copper weight kg/km*	*Cable weight approx, kg/km*	*AWG no,*)*
48110QR1030M61	*3x10*	*37,0*	*-*	*1650*	*8*
48110QR1030M62	*3x16*	*40,0*	*-*	*2100*	*6*
48110QR1030M63	*3x25*	*42,5*	*-*	*2550*	*4*
48110QR1030M64	*3x35*	*45,0*	*-*	*2850*	*2*
48110QR1030M65	*3x50*	*48,0*	*-*	*3600*	*1*
48110QR1030M66	*3x70*	*52,0*	*-*	*4200*	*2/0*
48110QR1030M67	*3x95*	*56,0*	*-*	*5400*	*3/0*
48110QR1030M68	*3x120*	*60,0*	*-*	*6300*	*4/0*
48110QR1030M69	*3x150*	*63,0*	*-*	*7400*	*250 MCM*
48110QR1030M70	*3x185*	*68,0*	*-*	*8600*	*350 MCM*
48110QR1030M71	*3x240*	*74,0*	*-*	*11000*	*450 MCM*
48110QR1030M72	*3x300*	*79,0*	*-*	*13000*	*550 MCM*
48110QR1030M73	*3x400*	*85,0*	*-*	*16000*	*750 MCM*

3,6/6 kV

part no,	*No,of cores x cross section n x mm²*	*Outer Ø ca,mm ±10%*	*Copper weight kg/km*	*Cable weight approx, kg/km*	*AWG no,*)*
48110MR1030M61	*3x10*	*30,5*	*-*	*1220*	*8*
48110MR1030M62	*3x16*	*32,5*	*-*	*1500*	*6*
48110MR1030M63	*3x25*	*35,5*	*-*	*1850*	*4*
48110MR1030M64	*3x35*	*37,5*	*-*	*2300*	*2*
48110MR1030M65	*3x50*	*40,5*	*-*	*2800*	*1*
48110MR1030M66	*3x70*	*44,5*	*-*	*3560*	*2/0*
48110MR1030M67	*3x95*	*48,5*	*-*	*4510*	*3/0*
48110MR1030M68	*3x120*	*52,0*	*-*	*5500*	*4/0*
48110MR1030M69	*3x150*	*55,0*	*-*	*6350*	*250 MCM*
48110MR1030M70	*3x185*	*59,5*	*-*	*7700*	*350 MCM*
48110MR1030M71	*3x240*	*65,5*	*-*	*9700*	*450 MCM*
48110MR1030M72	*3x300*	*70,5*	*-*	*11800*	*550 MCM*
48110MR1030M73	*3x400*	*77,0*	*-*	*15000*	*750 MCM*

8,7/15 kV

part no,	*No,of cores x cross section n x mm²*	*Outer Ø ca,mm ±10%*	*Copper weight kg/km*	*Cable weight approx, kg/km*	*AWG no,*)*
48110SR1030M62	*3x16*	*46,0*	*-*	*2500*	*6*
48110SR1030M63	*3x25*	*50,0*	*-*	*2900*	*4*
48110SR1030M64	*3x35*	*52,0*	*-*	*3500*	*2*
48110SR1030M65	*3x50*	*54,0*	*-*	*4000*	*1*
48110SR1030M66	*3x70*	*58,0*	*-*	*4800*	*2/0*
48110SR1030M67	*3x95*	*62,0*	*-*	*5900*	*3/0*
48110SR1030M68	*3x120*	*66,0*	*-*	*6950*	*4/0*
48110SR1030M69	*3x150*	*70,0*	*-*	*8000*	*250 MCM*
48110SR1030M70	*3x185*	*74,0*	*-*	*9500*	*350 MCM*
48110SR1030M71	*3x240*	*78,0*	*-*	*11800*	*450 MCM*
48110SR1030M72	*3x300*	*85,0*	*-*	*14200*	*550 MCM*

RE4H1(O)RFR (XLPE/CTS/PVC/SWA/PVC)

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48110UR1030M64	3x35	56,3	-	3950	2
48110UR1030M65	3x50	58,0	-	4500	1
48110UR1030M66	3x70	64,0	-	5500	2/0
48110UR1030M67	3x95	67,0	-	6600	3/0
48110UR1030M68	3x120	70,5	-	7600	4/0
48110UR1030M69	3x150	73,6	-	8600	250 MCM
48110UR1030M70	3x185	78,0	-	11000	350 MCM
48110UR1030M71	3x240	84,0	-	12500	450 MCM
48110UR1030M72	3x300	90,0	-	15000	550 MCM

Other dimensions and colours available on request.

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48110XR1030M65	3x50	73,0	-	5980	1
48110XR1030M66	3x70	76,0	-	6800	2/0
48110XR1030M67	3x95	81,0	-	8400	3/0
48110XR1030M68	3x120	84,0	-	9400	4/0
48110XR1030M69	3x150	86,0	-	11000	250 MCM
48110XR1030M70	3x185	90,0	-	13000	350 MCM
48110XR1030M71	3x240	96,0	-	15000	450 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

ARE4H1R

Single-core, overall copper wires + tape screen 12/20 kV up to 18/30 kV

RoHS

Construction:

Conductor:	stranded plain aluminium conductor Cl.2, acc. to IEC 60228
Inner semi-conductive layer:	extruded compound
Insulation:	XLPE compound
Outer semi-conductive layer:	extruded compound
Screen:	red copper wires and one or two copper tape(s) applied helically.
Outer sheath:	red(RAL 3000),PVC,type RZ

Technical data:

Nominal voltage:	12/20 kV up to 18/30 kV
Test voltage:	12/20 kV = 29 kV 18/30 kV = 43 kV
Temperature range:	-25°C up to 90°C
Max. short circuit temp:	+ 250°C
Min. bending radius:	13 x d
Resistance:	**Self-extinguishing and flame retardant:** acc. to DIN VDE 0482 part 265-2-1 / EN 50265-2-1 / IEC 60332-1-2

Features:

- **According to IEC 60502-2**

12/20 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air Amps*	*Current capacity underground trefoil P=1 °C m/W - P=2 °C m/W Amps*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48120URL010M64	*1 x 35*	*26,5*	*154*	*147 - 112*	*-*	*640*	*2*
48120URL010M65	*1 x 50*	*27,7*	*185*	*174 - 131*	*-*	*710*	*1*
48120URL010M66	*1 x 70*	*29,5*	*230*	*212 - 160*	*-*	*820*	*2/0*
48120URL010M67	*1 x 95*	*31,6*	*280*	*253 - 190*	*-*	*940*	*3/0*
48120URL010M68	*1 x 120*	*33*	*323*	*288 - 216*	*-*	*1080*	*4/0*
48120URL010M69	*1 x 150*	*34,2*	*365*	*322 - 241*	*-*	*1180*	*250 MCM*
48120URL010M70	*1 x 185*	*36,3*	*421*	*365 - 272*	*-*	*1360*	*350 MCM*
48120URL010M71	*1 x 240*	*38,8*	*498*	*423 - 314*	*-*	*1600*	*450 MCM*
48120URL010M72	*1 x 300*	*42,1*	*576*	*478 - 354*	*-*	*1890*	*550 MCM*
48120URL010M73	*1 x 400*	*45,4*	*673*	*545 - 403*	*-*	*2270*	*750 MCM*
48120URL010M74	*1 x 500*	*48,6*	*781*	*620 - 458*	*-*	*2685*	*1000 MCM*
48120URL010M75	*1 x 630*	*53,4*	*909*	*704 - 519*	*-*	*3280*	*1250 MCM*

18/30 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air Amps*	*Current capacity underground trefoil P=1 °C m/W - P=2 °C m/W Amps*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48120XRL010M65	*1 x 50*	*33*	*189*	*173 - 139*	*-*	*960*	*1*
48120XRL010M66	*1 x 70*	*34,6*	*234*	*212 - 161*	*-*	*1070*	*2/0*
48120XRL010M67	*1 x 95*	*36,6*	*284*	*252 - 191*	*-*	*1220*	*3/0*
48120XRL010M68	*1x 120*	*38,1*	*328*	*288 - 217*	*-*	*1350*	*4/0*
48120XRL010M69	*1 x 150*	*39,5*	*370*	*321 - 242*	*-*	*1480*	*250 MCM*
48120XRL010M70	*1 x 185*	*41,4*	*425*	*364 - 273*	*-*	*1660*	*350 MCM*
48120XRL010M71	*1 x 240*	*44,1*	*503*	*422 - 316*	*-*	*1930*	*450 MCM*
48120XRL010M72	*1 x 300*	*47,4*	*579*	*475 - 355*	*-*	*2250*	*550 MCM*
48120XRL010M73	*1 x 400*	*50,7*	*676*	*543 - 405*	*-*	*2650*	*750 MCM*
48120XRL010M74	*1 x 500*	*53,9*	*784*	*618 - 460*	*-*	*3100*	*1000 MCM*
48120XRL010M75	*1 x 630*	*58,7*	*910*	*703 - 522*	*-*	*3730*	*1250 MCM*

Other dimension and colors available on request.

ARE4H1RX

Three-cores, overall copper wires + tape screen 12/20 kV up to 18/30 kV

RoHS

Construction:

Conductor:	stranded plain aluminium conductor Cl.2, acc. to IEC 60228
Inner semi-conductive layer:	extruded compound
Insulation:	XLPE compound
Outer semi-conductive layer:	extruded compound
Screen:	red copper wires and one or two copper tape(s) applied helically.
Outer sheath:	red(RAL 3000),PVC,type RZ

Technical data:

Nominal voltage:	12/20 kV up to 18/30 kV
Test voltage:	12/20 kV = 29 kV 18/30 kV = 43 kV
Temperature range:	-25°C up to 90°C
Max. short circuit temp:	+ 250°C
Min. bending radius:	20 x d
Resistance:	**Self-extinguishing and flame retardant:** acc. to DIN VDE 0482 part 265-2-1 / EN 50265-2-1 / IEC 60332-1-2

Features:

- **According to IEC 60502-2**

12/20 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air Amps*	*Current capacity underground P=1 °C m/W - P=2 °C m/W Amps*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48130URL030M64	*3 x 1 x 35*	*56,1*	*154*	*147 - 112*	-	*1930*	*2*
48130URL030M65	*3 x 1 x 50*	*58,8*	*185*	*174 - 131*	-	*2140*	*1*
48130URL030M66	*3 x 1 x 70*	*62,6*	*230*	*212 - 160*	-	*2490*	*2/0*
48130URL030M67	*3 x 1x 95*	*66,3*	*280*	*253 - 190*	-	*2860*	*3/0*
48130URL030M68	*3 x 1x 120*	*70,2*	*323*	*288 - 216*	-	*3260*	*4/0*
48130URL030M69	*3 x 1 x 150*	*72,7*	*365*	*322 - 241*	-	*3560*	*250 MCM*
48130URL030M70	*3 x 1 x 185*	*77,7*	*421*	*365 - 272*	-	*4100*	*350 MCM*
48130URL030M71	*3 x 1 x 240*	*82,6*	*498*	*423 - 314*	-	*4830*	*450 MCM*
48130URL030M72	*3 x 1 x 300*	*89,9*	*576*	*478 - 354*	-	*5720*	*550 MCM*

18/30 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air Amps*	*Current capacity underground P=1 °C m/W - P=2 °C m/W Amps*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48130XRL030M65	*3 x 1 x 50*	*70,3*	*189*	*173 - 139*	-	*2900*	*1*
48130XRL030M66	*3 x 1 x 70*	*73,6*	*234*	*212 - 161*	-	*3250*	*2/0*
48130XRL030M67	*3 x 1 x 95*	*77,8*	*284*	*252 - 191*	-	*3700*	*3/0*
48130XRL030M68	*3 x 1x 120*	*81,3*	*328*	*288 - 217*	-	*4090*	*4/0*
48130XRL030M69	*3 x 1 x 150*	*84,3*	*370*	*321 - 242*	-	*4490*	*250 MCM*
48130XRL030M70	*3 x 1 x 185*	*88,3*	*425*	*364 - 273*	-	*5020*	*350 MCM*
48130XRL030M71	*3 x 1 x 240*	*94,1*	*503*	*422 - 316*	-	*5840*	*450 MCM*
48130XRL030M72	*3 x 1 x 300*	*101,3*	*579*	*475 - 355*	-	*6830*	*550 MCM*

Other dimension and colors available on request.

ARE4H5(GS)E

Single-core, overall aluminium screen, GAALSHOCK inner sheath 12/20 kV up to 18/30 kV

RoHS

Special GAALSHOCK protection

Construction:

Conductor:	stranded plain aluminium conductor Cl.2, acc. to IEC 60228
Inner semi-conductive layer:	extruded compound
Insulation:	XLPE type DIX8
Outer semi-conductive layer:	extruded compound
Wrapping:	semi-conductive watertight tape
Screen:	aluminium tape
Armour:	GAALTHERM® 600 (GAALSHOCK technology)
Outer sheath:	red(RAL 3000),PE type DMP 2

Technical data:

Nominal voltage:	12/20 kV up to 18/30 kV
Test voltage:	12/20 kV = 29 kV 18/30 kV = 43 kV
Temperature range:	-25°C up to +90°C
Max. short circuit temp:	+ 300°C
Min. bending radius:	13 x d
Resistance:	**Self-extinguishing and flame retardant:** acc. to DIN VDE 0482 part 265-2-1 / EN 50265-2-1 / IEC 60332-1-2

Features:

- **According to IEC 60502-1 and HD 620**

12/20 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air trefoil Amps*	*Current capacity underground trefoil P=1 °C m/W - P=2 °C m/W Amps*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48140URL010M65	1 x 50	34,5	184	166 - 129	123	810	1
48140URL010M66	1 x 70	35,5	227	203 - 157	177	890	2/0
48140URL010M67	1 x 95	37	275	243 - 187	245	1000	3/0
48140URL010M68	1x 120	38,2	317	276 - 212	312	1100	4/0
48140URL010M69	1 x 150	39,5	358	309 - 236	380	1210	250 MCM
48140URL010M70	1 x 185	41,3	411	350 - 267	484	1370	350 MCM
48140URL010M71	1 x 240	44	486	407 - 309	631	1620	450 MCM
48140URL010M72	1 x 300	47,6	561	461 - 349	782	1900	550 MCM
48140URL010M73	1 x 400	51,3	655	526 - 398	1038	2300	750 MCM
48140URL010M74	1 x 500	54,5	759	599 - 452	1337	2710	1000 MCM
48140URL010M75	1 x 630	59,5	881	682 - 513	1712	3310	1250 MCM

18/30 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air trefoil Amps*	*Current capacity underground trefoil P=1 °C m/W - P=2 °C m/W Amps*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48140XRL010M65	1 x 50	40,7	187	167 - 131	123	1110	1
48140XRL010M66	1 x 70	40,8	231	204 - 159	177	1150	2/0
48140XRL010M67	1 x 95	41,8	279	244 - 189	245	1240	3/0
48140XRL010M68	1x 120	42,9	321	277 - 214	312	1350	4/0
48140XRL010M69	1 x 150	43,6	361	310 - 238	380	1440	250 MCM
48140XRL010M70	1 x 185	45,1	415	351 - 269	484	1580	350 MCM
48140XRL010M71	1 x 240	47,4	489	408 - 311	631	1810	450 MCM
48140XRL010M72	1 x 300	50,9	563	459 - 350	782	2120	550 MCM
48140XRL010M73	1 x 400	54,6	657	526 - 399	1038	2520	750 MCM
48140XRL010M74	1 x 500	58,1	761	650 - 453	1337	2970	1000 MCM
48140XRL010M75	1 x 630	63	883	682 - 515	1712	3590	1250 MCM

Other dimension and colors available on request.

GAALSHOCK PROTECTION!
1 Excellent mechanical protection than steel
2 Reduced weight
3 Installation, storage, and transport reduced costs

ARE4H5(GS)EX

Three-cores, overall aluminium screen, GAALSHOCK inner sheath 12/20 kV up to 18/30 kV

RoHS

Special GAALSHOCK protection

Construction:

Conductor:	stranded plain aluminium conductor Cl. 2, acc. to IEC 60228
Inner semi-conductive layer:	extruded compound
Insulation:	XLPE type DIX8
Outer semi-conductive layer:	extruded compound
Wrapping:	semi-conductive watertight tape
Screen:	aluminium tape
Inner sheath:	GAALTHERM®600 (GAALSHOCK technology)
Outer sheath:	red(RAL 3000),PE type DMP 2

Technical data:

Nominal voltage:	12/20 kV up to 18/30 kV
Test voltage:	12/20 kV = 29 kV 18/30 kV = 43 kV
Temperature range:	-25°C up to 90°C
Max. short circuit temp:	+ 250°C
Min. bending radius:	20 x d
Resistance:	**Self-extinguishing and flame retardant:** acc. to DIN VDE 0482 part 265-2-1 / EN 50265-2-1 / IEC 60332-1-2

Features:

- **According to IEC 60502-1 and HD 620**

12/20 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air Amps*	*Current capacity underground P=1 °C m/W - P=2 °C m/W Amps*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48150UR1030M65	*3 x 1 x 50*	*34,5*	*184*	*166 - 129*	*370*	*2430*	*1*
48150UR1030M66	*3 x 1 x 70*	*35,5*	*227*	*203 - 157*	*532*	*2660*	*2/0*
48150UR1030M67	*3 x 1 x 95*	*37*	*275*	*243 - 187*	*740*	*3010*	*3/0*
48150UR1030M68	*3 x 1x 120*	*38,2*	*317*	*276 - 212*	*938*	*3300*	*4/0*
48150UR1030M69	*3 x 1 x 150*	*39,5*	*358*	*309 - 236*	*1146*	*3640*	*250 MCM*
48150UR1030M70	*3 x 1 x 185*	*41,3*	*411*	*350 - 267*	*1458*	*4120*	*350 MCM*
48150UR1030M71	*3 x 1 x 240*	*44*	*486*	*407 - 309*	*1902*	*4770*	*450 MCM*
48150UR1030M72	*3 x 1 x 300*	*47,6*	*561*	*461 - 349*	*2357*	*5730*	*550 MCM*

18/30 kV

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in air trefoil Amps*	*Current capacity underground P=1 °C m/W - P=2 °C m/W Amps*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48150XR1030M65	*3 x 1 x 50*	*40,7*	*187*	*167 - 131*	*370*	*3330*	*1*
48150XR1030M66	*3 x 1 x 70*	*40,8*	*231*	*204 - 159*	*532*	*3450*	*2/0*
48150XR1030M67	*3 x 1 x 95*	*41,8*	*279*	*244 - 189*	*740*	*3730*	*3/0*
48150XR1030M68	*3 x 1x 120*	*42,9*	*321*	*277 - 214*	*938*	*4050*	*4/0*
48150XR1030M69	*3 x 1 x 150*	*43,6*	*361*	*310 - 238*	*1146*	*4310*	*250 MCM*
48150XR1030M70	*3 x 1 x 185*	*45,1*	*415*	*351 - 269*	*1458*	*4740*	*350 MCM*
48150XR1030M71	*3 x 1 x 240*	*47,4*	*489*	*408 - 311*	*1902*	*5440*	*450 MCM*
48150XR1030M72	*3 x 1 x 300*	*50,9*	*563*	*459 - 350*	*2357*	*6360*	*550 MCM*

Other dimension and colors available on request.

GAALSHOCK PROTECTION!
1 Excellent mechanical protection than steel
2 Reduced weight
3 Installation, storage, and transport reduced costs

RE4H1M1 (XLPE/CTS/LS0H)

RoHS Halogen Free

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	XLPE compound
Screen:	red copper wires and one or two copper tape(s) applied helically.
Outer sheath:	red (RAL 3000),PVC type Rz

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 3,6/6 kV = 11 kV 6/10 kV = 17 kV 8,7/15 kV = 24 kV 12/20 kV= 29 kV 18/30 kV = 45 kV
Temperature range: *in service:* *in short circuit:*	 + 90 ℃ + 250 ℃
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1 **corrosiveness combustion gases:** EN 50267-2, IEC 60754-2,DIN VDE 0482 part.267-2 **Halogen free:** CEI EN 50267-1, IEC 60754-1 DIN VDE 0482 part.267-1

1,8/3 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48160KRL010M61	1x10	14,0	96	290	8
48160KRL010M62	1x16	15,0	153,6	350	6
48160KRL010M63	1x25	16,0	240	450	4
48160KRL010M64	1x35	17,0	336	550	2
48160KRL010M65	1x50	18,5	480	670	1
48160KRL010M66	1x70	20,5	672	880	2/0
48160KRL010M67	1x95	22,0	912	1100	3/0
48160KRL010M68	1x120	24,5	1152	1400	4/0
48160KRL010M69	1x150	26,0	1440	1650	250 MCM
48160KRL010M70	1x185	27,5	1776	2000	350 MCM
48160KRL010M71	1x240	30,0	2304	2550	450 MCM
48160KRL010M72	1x300	32,5	2880	3150	550 MCM
48160KRL010M73	1x400	35,5	3840	3950	750 MCM
48160KRL010M74	1x500	40,0	4800	5050	900 MCM
48160KRL010M75	1x630	44,0	6048	6300	1150 MCM

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48160QRL010M61	1x10	19,5	96	420	8
48160QRL010M62	1x16	21,0	153,6	530	6
48160QRL010M63	1x25	22,2	240	650	4
48160QRL010M64	1x35	23,0	336	760	2
48160QRL010M65	1x50	24,5	480	880	1
48160QRL010M66	1x70	26,5	672	1100	2/0
48160QRL010M67	1x95	28,0	912	1400	3/0
48160QRL010M68	1x120	29,3	1152	1630	4/0
48160QRL010M69	1x150	31,0	1440	1900	250 MCM
48160QRL010M70	1x185	33,3	1776	2350	350 MCM
48160QRL010M71	1x240	35,6	2304	2900	450 MCM
48160QRL010M72	1x300	38,5	2880	3500	550 MCM
48160QRL010M73	1x400	41,0	3840	4300	750 MCM
48160QRL010M74	1x500	45,0	4800	5420	900 MCM
48160QRL010M75	1x630	48,0	6048	6850	1150 MCM

3,6/6 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48160MRL010M61	1x10	16,0	96	330	8
48160MRL010M62	1x16	17,0	153,6	410	6
48160MRL010M63	1x25	18,5	240	510	4
48160MRL010M64	1x35	20,0	336	630	2
48160MRL010M65	1x50	21,5	480	750	1
48160MRL010M66	1x70	23,5	672	1010	2/0
48160MRL010M67	1x95	25,0	912	1250	3/0
48160MRL010M68	1x120	26,5	1152	1500	4/0
48160MRL010M69	1x150	28,0	1440	1800	250 MCM
48160MRL010M70	1x185	30,0	1776	2100	350 MCM
48160MRL010M71	1x240	32,5	2304	2650	450 MCM
48160MRL010M72	1x300	35,3	2880	3200	550 MCM
48160MRL010M73	1x400	37,5	3840	4000	750 MCM
48160MRL010M74	1x500	41,6	4800	5100	900 MCM
48160MRL010M75	1x630	46,0	6048	6500	1150 MCM

8,7/15 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48160SRL010M62	1x16	23,3	153,6	650	6
48160SRL010M63	1x25	24,5	240	750	4
48160SRL010M64	1x35	25,8	336	850	2
48160SRL010M65	1x50	27,0	480	1000	1
48160SRL010M66	1x70	28,5	672	1220	2/0
48160SRL010M67	1x95	30,1	912	1500	3/0
48160SRL010M68	1x120	32,5	1152	1900	4/0
48160SRL010M69	1x150	33,5	1440	2100	250 MCM
48160SRL010M70	1x185	35,5	1776	2500	350 MCM
48160SRL010M71	1x240	38,0	2304	3030	450 MCM
48160SRL010M72	1x300	41,5	2880	3800	550 MCM
48160SRL010M73	1x400	43,3	3840	4600	750 MCM
48160SRL010M74	1x500	47,4	4800	5700	900 MCM
48160SRL010M75	1x630	52,6	6048	7100	1150 MCM

RE4H1M1 (XLPE/CTS/LS0H)

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48160URL010M64	1x35	27,7	336	960	2
48160URL010M65	1x50	29,0	480	1100	1
48160URL010M66	1x70	30,5	672	1350	2/0
48160URL010M67	1x95	33,0	912	1650	3/0
48160URL010M68	1x120	34,8	1152	1950	4/0
48160URL010M69	1x150	36,2	1440	2300	250 MCM
48160URL010M70	1x185	37,6	1776	2600	350 MCM
48160URL010M71	1x240	40,2	2304	3200	450 MCM
48160URL010M72	1x300	43,0	2880	3900	550 MCM
48160URL010M73	1x400	45,8	3840	4800	750 MCM
48160URL010M74	1x500	50,0	4800	5900	900 MCM
48160URL010M75	1x630	54,0	6048	7300	1150 MCM

26/45 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48160ZRL010M66	1x70	41,9	672	2150	2/0
48160ZRL010M67	1x95	43,8	912	2490	3/0
48160ZRL010M68	1x120	44,8	1152	2735	4/0
48160ZRL010M69	1x150	45,1	1440	3020	250 MCM
48160ZRL010M70	1x185	47,1	1776	3395	350 MCM
48160ZRL010M71	1x240	49,2	2304	4025	450 MCM
48160ZRL010M72	1x300	52,2	2880	4725	550 MCM
48160ZRL010M73	1x400	54,8	3840	5635	750 MCM
48160ZRL010M74	1x500	58,6	4800	6825	900 MCM
48160ZRL010M75	1x630	62,7	6048	8260	1150 MCM

Other dimensions and colours available on request.

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48160XRL010M65	1x50	34,1	480	1400	1
48160XRL010M66	1x70	36,2	672	1700	2/0
48160XRL010M67	1x95	38,2	912	1950	3/0
48160XRL010M68	1x120	40,0	1152	2230	4/0
48160XRL010M69	1x150	41,0	1440	2550	250 MCM
48160XRL010M70	1x185	43,1	1776	3000	350 MCM
48160XRL010M71	1x240	45,0	2304	3600	450 MCM
48160XRL010M72	1x300	47,0	2880	4300	550 MCM
48160XRL010M73	1x400	51,1	3840	5200	750 MCM
48160XRL010M74	1x500	53,0	4800	6300	900 MCM
48160XRL010M75	1x630	60,2	6048	7800	1150 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

RE4H1(O)M1 (XLPE/CTS/LS0H)

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	XLPE compound
Screen:	red copper tape
Outer sheath:	red (RAL 3000),thermoplastic polyolefine, halogen-free,type M1

Features:

- according to IEC 60502-2

Technical data:

Nominal voltage:	1,8/3 kV, 3,6/6 kV, 6/10 kV 8,7/15 kV, 12/20 kV 18/30 kV, 26/45 kV
Test voltage:	1,8/3 kV = 6 kV 3,6/6 kV = 11 kV 6/10 kV = 17 kV 8,7/15 kV = 24 kV 12/20 kV= 29 kV 18/30 kV = 45 kV
Temperature range: *in service:* *in short circuit:*	 + 90 ℃ + 250 ℃
Resistance:	**Flame retardant:** acc.to IEC 60332-3 DIN VDE 0482 part.266-2-1 **Halogen free:** CEI EN 50267-1, IEC 60754-1 DIN VDE 0482 part.267-1

1,8/3 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48160KR1030M61	*3x10*	*23,0*	*288*	*1050*	*8*
48160KR1030M62	*3x16*	*28,0*	*460,8*	*1200*	*6*
48160KR1030M63	*3x25*	*30,2*	*720*	*1600*	*4*
48160KR1030M64	*3x35*	*34,0*	*1008*	*2000*	*2*
48160KR1030M65	*3x50*	*36,0*	*1440*	*2250*	*1*
48160KR1030M66	*3x70*	*40,0*	*2016*	*3200*	*2/0*
48160KR1030M67	*3x95*	*43,4*	*2736*	*4100*	*3/0*
48160KR1030M68	*3x120*	*48,0*	*3456*	*5000*	*4/0*
48160KR1030M69	*3x150*	*52,0*	*4320*	*5960*	*250 MCM*
48160KR1030M70	*3x185*	*55,0*	*5328*	*7100*	*350 MCM*
48160KR1030M71	*3x240*	*62,0*	*6912*	*9300*	*450 MCM*
48160KR1030M72	*3x300*	*68,0*	*8640*	*13000*	*550 MCM*
48160KR1030M73	*3x400*	*75,0*	*11520*	*14000*	*750 MCM*

6/10 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48160QR1030M61	*3x10*	*37,0*	*288*	*1650*	*8*
48160QR1030M62	*3x16*	*40,0*	*460,8*	*2100*	*6*
48160QR1030M63	*3x25*	*42,5*	*720*	*2550*	*4*
48160QR1030M64	*3x35*	*45,0*	*1008*	*2850*	*2*
48160QR1030M65	*3x50*	*48,0*	*1440*	*3600*	*1*
48160QR1030M66	*3x70*	*52,0*	*2016*	*4200*	*2/0*
48160QR1030M67	*3x95*	*56,0*	*2736*	*5400*	*3/0*
48160QR1030M68	*3x120*	*60,0*	*3456*	*6300*	*4/0*
48160QR1030M69	*3x150*	*63,0*	*4320*	*7400*	*250 MCM*
48160QR1030M70	*3x185*	*68,0*	*5328*	*8600*	*350 MCM*
48160QR1030M71	*3x240*	*74,0*	*6912*	*11000*	*450 MCM*
48160QR1030M72	*3x300*	*79,0*	*8640*	*13000*	*550 MCM*
48160QR1030M73	*3x400*	*85,0*	*11520*	*16000*	*750 MCM*

3,6/6 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48160MR1030M61	*3x10*	*30,5*	*288*	*1220*	*8*
48160MR1030M62	*3x16*	*32,5*	*460,8*	*1500*	*6*
48160MR1030M63	*3x25*	*35,5*	*720*	*1850*	*4*
48160MR1030M64	*3x35*	*37,5*	*1008*	*2300*	*2*
48160MR1030M65	*3x50*	*40,5*	*1440*	*2800*	*1*
48160MR1030M66	*3x70*	*44,5*	*2016*	*3560*	*2/0*
48160MR1030M67	*3x95*	*48,5*	*2736*	*4510*	*3/0*
48160MR1030M68	*3x120*	*52,0*	*3456*	*5500*	*4/0*
48160MR1030M69	*3x150*	*55,0*	*4320*	*6350*	*250 MCM*
48160MR1030M70	*3x185*	*59,5*	*5328*	*7700*	*350 MCM*
48160MR1030M71	*3x240*	*65,5*	*6912*	*9700*	*450 MCM*
48160MR1030M72	*3x300*	*70,5*	*8640*	*11800*	*550 MCM*
48160MR1030M73	*3x400*	*77,0*	*11520*	*15000*	*750 MCM*

8,7/15 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48160SR1030M62	*3x16*	*46,0*	*460,8*	*2500*	*6*
48160SR1030M63	*3x25*	*50,0*	*720*	*2900*	*4*
48160SR1030M64	*3x35*	*52,0*	*1008*	*3500*	*2*
48160SR1030M65	*3x50*	*54,0*	*1440*	*4000*	*1*
48160SR1030M66	*3x70*	*58,0*	*2016*	*4800*	*2/0*
48160SR1030M67	*3x95*	*62,0*	*2736*	*5900*	*3/0*
48160SR1030M68	*3x120*	*66,0*	*3456*	*6950*	*4/0*
48160SR1030M69	*3x150*	*70,0*	*4320*	*8000*	*250 MCM*
48160SR1030M70	*3x185*	*74,0*	*5328*	*9500*	*350 MCM*
48160SR1030M71	*3x240*	*78,0*	*6912*	*11800*	*450 MCM*
48160SR1030M72	*3x300*	*85,0*	*8640*	*14200*	*550 MCM*

RE4H1(O)M1 (XLPE/CTS/LS0H)

12/20 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48160UR1030M64	*3x35*	*56,3*	*1008*	*3950*	*2*
48160UR1030M65	*3x50*	*58,0*	*1440*	*4500*	*1*
48160UR1030M66	*3x70*	*64,0*	*2016*	*5500*	*2/0*
48160UR1030M67	*3x95*	*67,0*	*2736*	*6600*	*3/0*
48160UR1030M68	*3x120*	*70,5*	*3456*	*7600*	*4/0*
48160UR1030M69	*3x150*	*73,6*	*4320*	*8600*	*250 MCM*
48160UR1030M70	*3x185*	*78,0*	*5328*	*11000*	*350 MCM*
48160UR1030M71	*3x240*	*84,0*	*6912*	*12500*	*450 MCM*
48160UR1030M72	*3x300*	*90,0*	*8640*	*15000*	*550 MCM*

* For cables laying in earth a screen-cross section of 16 mm is permitted.

18/30 kV

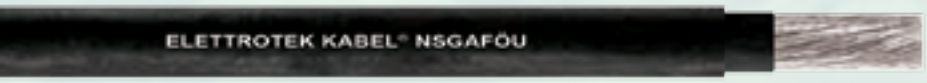
part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48160XR1030M65	*3x50*	*73,0*	*1440*	*5980*	*1*
48160XR1030M66	*3x70*	*76,0*	*2016*	*6800*	*2/0*
48160XR1030M67	*3x95*	*81,0*	*2736*	*8400*	*3/0*
48160XR1030M68	*3x120*	*84,0*	*3456*	*9400*	*4/0*
48160XR1030M69	*3x150*	*86,0*	*4320*	*11000*	*250 MCM*
48160XR1030M70	*3x185*	*90,0*	*5328*	*13000*	*350 MCM*
48160XR1030M71	*3x240*	*96,0*	*6912*	*15000*	*450 MCM*

Other dimensions and colours available on request.

NSGAFÖU 3 kV

Special rubber insulated cable

RoHS CE



Construction:

Conductor:	flexible tinned copper conductor Cl. 5, acc to IEC 60228, DIN VDE 0295
Insulation:	rubber type 3GI3, halogen free
Outer sheath:	black(RAL 9005),rubber type,5GM3

Features:

- **Ozone resistance**
- **UV resistance**

Applications:

This insulated wire is designed for application busses and railborn veichles.
if used in distribution or switching appliances the wire is considered to be short circuit proof .
the cable is halogen-free, flame retardant and resistant against moist oils and grease.

Technical data:

Nominal voltage:	1,8/3,6 kV
Test voltage:	6 kV
Temperature range:	
fixed laying:	-40 / +90°C
flexible application:	-25 / +90°C
max. temp on conductor :	+90°C
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 265-2-1, EN 50265-2-1,IEC 60332-1-2

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48170K7L010M15	*1x1,5 SW*	*5,5*	*14,4*	*60*	*16*
48170K7L010M25	*1x2,5 SW*	*5,9*	*24,0*	*70*	*14*
48170K7L010M40	*1x4*	*SW*	*6,4*	*38,0*	*12*
48170K7L010M60	*1x6*	*SW*	*7,0*	*58,0*	*10*
48170K7L010M61	*1x10*	*SW*	*8,4*	*96,0*	*8*
48170K7L010M62	*1x16*	*SW*	*9,2*	*154,0*	*6*
48170K7L010M63	*1x25*	*SW*	*11,5*	*240,0*	*4*
48170K7L010M64	*1x35*	*SW*	*12,8*	*336,0*	*2*
48170K7L010M65	*1x50*	*SW*	*14,3*	*480,0*	*1*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48170K7L010M66	*1x70 SW*	*16,0*	*672,0*	*880*	*2/0*
48170K7L010M67	*1x95 SW*	*18,2*	*912,0*	*1190*	*3/0*
48170K7L010M68	*1x120 SW*	*19,9*	*1152,0*	*1430*	*4/0*
48170K7L010M69	*1x150 SW*	*21,8*	*1440,0*	*1750*	*250 MCM*
48170K7L010M70	*1x185 SW*	*23,8*	*1776,0*	*2160*	*350 MCM*
48170K7L010M71	*1x240 SW*	*26,7*	*2304,0*	*2640*	*450 MCM*
48170K7L010M72	*1x300 SW*	*38,0*	*2880,0*	*3178*	*550 MCM*
48170K7L010M73	*1x400 SW*	*40,5*	*3840,0*	*4200*	*750 MCM*
48170K7L010M74	*1x500 SW*	*42,0*	*4800,0*	*5500*	*950 MCM*

Other dimensions and colours available on request.

NSHXAFÖ 3 kV

Special rubber insulated cable

Construction:

Conductor:	flexible tinned copper conductor Cl. 5, acc to IEC 60228, DIN VDE 0295
Insulation:	rubber type 3GI3, halogen free
Outer sheath:	black(RAL 9005),rubber type,5GM3

Applications:

This insulated wire is designed for application busses and railborn veichles.
if used in distribution or switching appliances up to 1000 V, it is considered to be short circuit proof .
the cable is halogen-free, flame retardant and resistant against moist oils and grease.

Technical data:

Nominal voltage:	1,8/3,6 kV
Test voltage:	6 kV
Temperature range:	
fixed laying:	-40 / -70°C
flexible application:	-25 / -70°C
Resistance:	**Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part 265-2-1, EN 50265-2-1, IEC 60332-1-2 **Halogen free acc. to:** IEC 60754-1, EN 50267-1 DIN VDE 0482 part.267-1 **Oil resistant acc. to:** IEC 60811-2-1, DIN VDE 0473 part.811-2-1

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48180K7L010M15	*1x1.5*	*7,0*	*14,4*	*60*	*16*
48180K7L010M25	*1x2.5*	*7,5*	*24,0*	*70*	*14*
48180K7L010M40	*1x4*	*9,0*	*38,0*	*85*	*12*
48180K7L010M60	*1x6*	*9,5*	*58,0*	*110*	*10*
48180K7L010M61	*1x10*	*11,0*	*96,0*	*160*	*8*
48180K7L010M62	*1x16*	*13,0*	*154,0*	*240*	*6*
48180K7L010M63	*1x25*	*15,0*	*240,0*	*365*	*4*
48180K7L010M64	*1x35*	*16,5*	*336,0*	*494*	*2*
48180K7L010M65	*1x50*	*18,0*	*480,0*	*656*	*1*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Alu weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48180K7L010M66	*1x70*	*20,5*	*672,0*	*880*	*2/0*
48180K7L010M67	*1x95*	*24,0*	*912,0*	*1090*	*3/0*
48180K7L010M68	*1x120*	*25,1*	*1152,0*	*1340*	*4/0*
48180K7L010M69	*1x150*	*28,0*	*1440,0*	*1640*	*250 MCM*
48180K7L010M70	*1x185*	*31,0*	*1776,0*	*2160*	*350 MCM*
48180K7L010M71	*1x240*	*34,5*	*2304,0*	*2570*	*450 MCM*
48180K7L010M72	*1x300*	*38,0*	*2880,0*	*3470*	*550 MCM*
48180K7L010M73	*1x400*	*40,1*	*3840,0*	*4180*	*750 MCM*
48180K7L010M74	*1x500*	*42,1*	*4800,0*	*5860*	*950 MCM*

Other dimensions and colours available on request.

N2XSY 6/10 kV, 12/20 kV, 18/30 kV PVC- jacket

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228 DIN VDE 0295
Insulation:	XLPE compound
Screen:	red copper wires and one or two copper tape(s) applied helically
Outer sheath:	red(RAL 3000),PVC compound

Applications:

Suitable for installation mostly for power supply stations, in indoors and in cable ducts, outdoors, underground, and in water as well as for installation on cable trays for industries, switch-boards and power stations. Due to the good laying characteristics, this can also be laid easily in difficult line guideways. See DIN VDE 0298 part 1 .

Technical data:

Nominal voltage:	6/10 kV, 12/20 kV, 18/30 kV
Test voltage:	6/10 kV = 15 kV 12/20 kV = 30 kV 18/30 kV = 45 kV
Temperature range:	- 5°C +70°C
Resistance:	**Flame retardant:** **and sel-extinguishing acc.to:** DIN VDE 0482 part 265-2-1/EN 50265-2-1/IEC 60332-1

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48190QRL010M64	1x35 rm/16	25,5	518	905	2
48190QRL010M65	1x50 rm/16	26,5	662	1080	1
48190QRL010M66	1x70 rm/16	28,5	860	1310	2/0
48190QRL010M67	1x95 rm/16	29,5	1098	1580	3/0
48190QRL010M68	1x120 rm/16	31,5	1340	1860	4/0
48191QRL010M69	1x150 rm/16*	32,5	1622	2040	250 MCM
48190QRL010M69	1x150 rm/25	32,5	1725	2210	250 MCM
48191QRL011M70	1x185 rm/16*	36,5	1958	2450	350 MCM
48190QRL010M70	1x185 rm/25	36,5	2059	2580	350 MCM
48191QRL011M71	1x240 rm/16*	38,5	2486	3000	450 MCM
48190QRL010M71	1x240 rm/25	38,5	2587	3130	450 MCM
48190QRL010M72	1x300 rm/25	38,5	3163	3780	550 MCM
48190QRL010M73	1x400 rm/35	42,5	4234	4670	750 MCM
48190QRL010M74	1x500 rm/35	45.5	5194	5750	1000 MCM

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48190XRL010M65	1x50 rm/16	35,5	662	1480	1
48190XRL010M66	1x70 rm/16	37,5	854	1730	2/0
48190XRL010M67	1x95 rm/16	38,5	1094	2060	3/0
48190XRL010M68	1x120 rm/16	40,5	1334	2330	4/0
48190XRL010M69	1x150 rm/25	41,5	1723	2720	300 MCM
48190XRL010M70	1x185 rm/25	43,5	2059	3100	350 MCM
48190XRL010M71	1x240 rm/25	45,5	2587	3730	500 MCM
48190XRL010M72	1x300 rm/25	48,5	3163	4000	600 MCM
48190XRL010M73	1x400 rm/35	51,5	4234	5330	750 MCM
48190XRL010M74	1x500 rm/35	54,5	5194	6480	1000 MCM

Other dimensions and colours available on request.

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48190URL010M64	1x35 rm/16	29,5	518	1110	2
48190URL010M65	1x50 rm/16	20,5	662	1250	1
48190URL010M66	1x70 rm/16	32,5	860	1510	2/0
48190URL010M67	1x95 rm/16	33,5	1098	1780	3/0
48190URL010M68	1x120 rm/16	35,5	1340	2070	4/0
48191URL011M69	1x150 rm/16*	36,5	1622	2310	250 MCM
48190URL010M69	1x150 rm/25	36,5	1725	2420	250 MCM
48191URL011M70	1x185 rm/16*	38,5	1958	2650	350 MCM
48190URL010M70	1x185 rm/25	38,5	2059	2810	350 MCM
48191URL011M71	1x240 rm/16*	41,5	2486	3260	450 MCM
48190URL010M71	1x240 rm/25	41,5	2587	3360	450 MCM
48190URL010M72	1x300 rm/25	43,5	3163	4020	550 MCM
48190URL010M73	1x400 rm/35	46,5	4234	4930	750 MCM
48190URL010M74	1x500 rm/35	49,5	5194	6050	1000 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

N2XS2Y 6/10 kV, 12/20 kV, 18/30 kV

PE- jacket

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228 DIN VDE 0295
Conductor screen:	semi-conductive compound
Insulation:	XLPE,type DIX 8
Core screen:	semi-conductive compound
Screen:	red copper wires and one or two copper tape(s) applied helically
Outher sheath:	black (RAL 9005),PE

Technical data:

Nominal voltage:	6/10 kV, 12/20 kV, 18/30 kV
Test voltage:	6/10 kV = 15 kV 12/20 kV = 30 kV 18/30 kV = 45 kV
Temperature range:	- 20°C +70°C
Min. bending radius:	15 x d
Resistance:	**Flame retardant:** acc.to IEC 60332-3 DIN VDE 0482 part.266-2-1

Applications:

Suitable for indoor installation and in cable ducts, outdoors, underground and in water as well as for installations in cable trays for industries, switchboards and power station. The PE outer jacket is resistant to high mechanical stress for laying the cables. This PE jacket is not flame-resistant (does not conform the test method B, as per VDE 0472 part 804).

6/10 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48200Q7L010M64	*1x35 rm/16*	*25,5*	*518*	*910*	*2*
48200Q7L010M65	*1x50 rm/16*	*26,5*	*662*	*990*	*1*
48200Q7L010M66	*1x70 rm/16*	*28,5*	*860*	*1205*	*2/0*
48200Q7L010M67	*1x95 rm/16*	*29,5*	*1098*	*1520*	*3/0*
48200Q7L010M68	*1x120 rm/16*	*31,5*	*1340*	*1760*	*4/0*
48201Q7L010M69	*1x150 rm/16**	*32,5*	*1622*	*2020*	*250 MCM*
48200Q7L010M69	*1x150 rm/25*	*32,5*	*1725*	*2130*	*250 MCM*
48201Q7L011M70	*1x185 rm/16**	*34,5*	*1958*	*2360*	*350 MCM*
48200Q7L010M70	*1x185 rm/25*	*34,5*	*2059*	*2470*	*350 MCM*
48201Q7L011M71	*1x240 rm/16**	*36,5*	*2486*	*2960*	*450 MCM*
48200Q7L010M71	*1x240 rm/25*	*36,5*	*2587*	*3020*	*450 MCM*
48200Q7L010M72	*1x300 rm/25*	*38,5*	*3163*	*3630*	*550 MCM*
48200Q7L010M73	*1x400 rm/35*	*42,5*	*4234*	*4560*	*750 MCM*
48200Q7L010M74	*1x500 rm/35*	*45,5*	*5194*	*5580*	*1000 MCM*

12/20 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48200U7L010M64	*1x35 rm/16*	*29,5*	*518*	*960*	*2*
48200U7L010M65	*1x50 rm/16*	*30,5*	*662*	*1160*	*1*
48200U7L010M66	*1x70 rm/16*	*32,5*	*854*	*1410*	*2/0*
48200U7L010M67	*1x95 rm/16*	*33,5*	*1094*	*1670*	*3/0*
48200U7L010M68	*1x120 rm/16*	*35,5*	*1334*	*1860*	*4/0*
48201U7L011M69	*1x150 rm/16**	*36,5*	*1622*	*2220*	*250 MCM*
48200U7L010M69	*1x150 rm/25*	*36,5*	*1723*	*2310*	*250 MCM*
48201U7L011M70	*1x185 rm/16**	*38,5*	*1958*	*2620*	*350 MCM*
48200U7L010M70	*1x185 rm/25*	*38,5*	*2059*	*2670*	*350 MCM*
48201U7L011M71	*1x240 rm/16**	*41,5*	*2486*	*3160*	*450 MCM*
48200U7L010M71	*1x240 rm/25*	*41,5*	*2587*	*3270*	*450 MCM*
48200U7L010M72	*1x300 rm/25*	*43,5*	*3163*	*3880*	*550 MCM*
48200U7L010M73	*1x400 rm/35*	*46,5*	*4234*	*4820*	*750 MCM*
48200U7L010M74	*1x500 rm/35*	*49,5*	*5194*	*5860*	*1000 MCM*

N2XS2Y 6/10 kV, 12/20 kV, 18/30 kV

PE- jacket

18/30 kV

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48200X7L010M65	*1x50 rm/16*	*35,5*	*662*	*1410*	*1*
48200X7L010M66	*1x70 rm/16*	*37,5*	*1410*	*1660*	*2/0*
48200X7L010M67	*1x95 rm/16*	*38,5*	*1660*	*1970*	*3/0*
48200X7L010M68	*1x120 rm/16*	*40,5*	*1970*	*2220*	*4/0*
48200X7L010M69	*1x150 rm/25*	*41,5*	*2220*	*2650*	*300 MCM*
48200X7L010M70	*1x185 rm/25*	*43,5*	*2650*	*2980*	*350 MCM*
48200X7L010M71	*1x240 rm/25*	*45,5*	*2980*	*3570*	*500 MCM*
48200X7L010M72	*1x300 rm/25*	*48,5*	*3570*	*4220*	*600 MCM*
48200X7L010M73	*1x400 rm/35*	*51,5*	*4220*	*5170*	*750 MCM*
48200X7L010M74	*1x500 rm/35*	*54,5*	*5170*	*6260*	*1000 MCM*

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

N2XS(F)2Y 6/10 kV, 12/20 kV, 18/30 kV

PE- jacket and WATER TIGHT

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228 DIN VDE 0295
Insulation:	XLPE compound
Screen:	red copper wires and one or two copper tape(s) applied helically.
Wrapping:	semi-conductive watertight tape
Outer sheath:	black (RAL 9005),PE type DMP2

Applications:

Suitable for indoor installation and in cable ducts, outdoors, underground and in water as well as for installations in cable trays for industries, switchboards and power station.

Technical data:

Nominal voltage:	6/10 kV, 12/20 kV, 18/30 kV
Test voltage:	6/10 kV = 15 kV 12/20 kV = 30 kV 18/30 kV = 45 kV
Temperature range:	- 20°C/+70°C
Max. operating temp. on conductor:	+90°C
Resistance:	**Flame retardant:** acc.to IEC 60332-3 DIN VDE 0482 part.266-2-1

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48210Q7L010M64	1x35 rm/16	26	518	1050	2
48210Q7L010M65	1x50 rm/16	28	662	1150	1
48210Q7L010M66	1x70 rm/16	30	854	1460	2/0
48210Q7L010M67	1x95 rm/16	31	1094	1700	3/0
48210Q7L010M68	1x120 rm/16	32	1334	2030	4/0
48210Q7L010M69	1x150 rm/25	34	1723	2350	250 MCM
48210Q7L010M70	1x185 rm/25	36	2059	2700	350 MCM
48210Q7L010M71	1x240 rm/25	38	2587	3300	450 MCM
48210Q7L010M72	1x300 rm/25	40	3163	3900	550 MCM
48210Q7L010M73	1x400 rm/35	44	4234	4850	750 MCM
48210Q7L010M74	1x500 rm/35	47	5194	6000	1000 MCM

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cab1e weight approx. kg/km	AWG no.*)
48210X7L010M64	1x35 rm/16	31	518	1210	2
48210X7L010M65	1x50 rm/16	33	662	1400	1
48210X7L010M66	1x70 rm/16	34	854	1550	2/0
48210X7L010M67	1x95 rm/16	36	1094	1800	3/0
48210X7L010M68	1x120 rm/16	37	1334	2150	4/0
48210X7L010M69	1x150 rm/25	39	1723	2400	250 MCM
48210X7L010M70	1x185 rm/25	41	2059	2850	350 MCM
48210X7L010M71	1x240 rm/25	43	2587	3250	450 MCM
48210X7L010M72	1x300 rm/25	45	3163	3850	550 MCM
48210X7L010M73	1x400 rm/35	48	4234	4900	750 MCM
48210X7L010M74	1x500 rm/35	52	5194	6100	1000 MCM

Other dimensions and colours available on request.

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48210U7L010M64	1x35 rm/16	31	518	1210	2
48210U7L010M65	1x50 rm/16	33	662	1400	1
48210U7L010M66	1x70 rm/16	34	854	1550	2/0
48210U7L010M67	1x95 rm/16	36	1094	1800	3/0
48210U7L010M68	1x120 rm/16	37	1334	2150	4/0
48210U7L010M69	1x150 rm/25	39	1723	2400	250 MCM
48210U7L010M70	1x185 rm/25	41	2059	2850	350 MCM
48210U7L010M71	1x240 rm/25	43	2587	3250	450 MCM
48210U7L010M72	1x300 rm/25	45	3163	3850	550 MCM
48210U7L010M73	1x400 rm/35	48	4234	4900	750 MCM
48210U7L010M74	1x500 rm/35	52	5194	6100	1000 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

N2XSEY 6/10, 12/20 and 18/30 kV

XLPE-Insulated,PVC Jacket

RoHS

Construction:

Conductor :	stranded red copper conductor Cl. 2, acc to IEC 60228 DIN VDE 0295
Insulation:	XLPE compound
screen:	red copper wires and one or two copper tape(s) applied helically.
Outer sheath:	red(RAL 3000),PVC,type YM5

Applications:

High operational reliability is assured by the combination of both conducting layers in combination with the insulation.
Suitable for installation in indoors and in cable ducts,outdoor as well as for laying on racks for industry and switching systems and power plants.

Technical data:

Nominal voltage:	6/10 kV
Test voltage:	15 kV
Temperature range:	during installation up to - 5°C
Resistance:	**Flame retardant:** acc.to IEC 60332-3 DIN VDE 0482 part.266-2-1

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48220QR1030M61	3x10 rm/10	36,9	-	1898	8
48220QR1030M62	3x16 rm 16	39,1	-	2244	6
48220QR1030M63	3x25 rm/16	43,0	1046	2850	4
48220QR1030M64	3x35 rm/16	48,0	1210	3300	2
48220QR1030M65	3x50 rm/16	50,0	1670	3750	1
48220QR1030M66	3x70 rm/16	54,0	2250	4650	2/0
48220QR1030M67	3x95 rm/16	58,0	2995	5700	3/0
48220QR1030M68	3x120 rm/16	61,0	3715	6700	4/0
48220QR1030M69	3x150 rm/25	65,0	4635	7900	250 MCM
48220QR1030M70	3x185 rm/25	68,0	5645	9200	350 MCM
48220QR1030M71	3x240 rm/25	74,0	7274	11450	450 MCM
48220QR1030M72	3x300 rm/25	79,0	9160	14450	550 MCM
48220QR1030M73	3x400 rm/35	83,1	-	17151	750 MCM
48220QR1030M74	3x500 rm/35	91,5	-	20962	1000 MCM

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48220XR1030M64	3x35 rm/16	65,8	-	5472	2
48220XR1030M65	3x50 rm/16	69,0	-	6414	1
48220XR1030M66	3x70 rm/16	72,7	-	7423	2/0
48220XR1030M67	3x95 rm/16	76,5	-	8601	3/0
48220XR1030M68	3x120 rm/16	79,9	-	9737	4/0
48220XR1030M69	3x150 rm/25	82,7	-	10953	250 MCM
48220XR1030M70	3x185 rm/25	87,4	-	12549	350 MCM
48220XR1030M71	3x240 rm/25	91,4	-	14721	450 MCM
48220XR1030M72	3x300 rm/25	98,1	-	17131	550 MCM

Other dimensions and colours available on request.

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48220UR1030M63	3x25 rm/16	51,5	-	3483	4
48220UR1030M64	3x35 rm/16	54,5	-	4100	2
48220UR1030M65	3x50 rm/16	57,4	-	4801	1
48220UR1030M66	3x70 rm/16	61,1	-	5719	2/0
48220UR1030M67	3x95 rm/16	64,9	-	6675	3/0
48220UR1030M68	3x120 rm/16	68,0	-	7880	4/0
48220UR1030M69	3x150 rm/25	71,1	-	8975	250 MCM
48220UR1030M70	3x185 rm/25	75,8	-	10444	350 MCM
48220UR1030M71	3x240 rm/25	80,5	-	12573	450 MCM
48220UR1030M72	3x300 rm/25	87,4	-	14967	550 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

NF2XSE(GS)Y

Three-cores, copper wires screen, GAALSHOCK inner sheath, 3,6/6 kV up to 18/30 kV

RoHS

Special GAALSHOCK protection

Construction:

Conductor:	copper or aluminium strands conductor Cl. 2, acc. to IEC 60228 on request water blocked conductor
Inner semi-conductive layer:	extruded compound
Insulation:	XLPE compound or HEPR compound
Outer semi-conductive layer:	extruded compound
Screen:	copper wires, on request water blocking screen
Inner sheath:	GAALTHERM® 600 (GAALSHOCK technology)
Outer sheath:	red(RAL 3000),PVC compound

Technical data:

Nominal voltage:	3,6/6 kV (7200)V up to 1,8/3 kV (3600)V
Test voltage:	3,6/6 (7200)V = 6000 V 6/10 (12000)V =11000 V 8,7/15(1750)V = 24000 V 12/20 (24000)V = 29000 V 18/30 (36000)V = 43000 V
Temperature range:	-25°C up to 90°C
Max. short circuit temp:	+ 250°C
Min. Bending Radius:	
during installation: *in operation:*	20 x d 15 x d
Resistance:	**Self-extinguishing and flame retardant:** acc. to DIN VDE 0482 part 265-2-1 / EN 50265-2-1 / IEC 60332-1-2 acc. to DIN VDE 0482 part 266-2-5 / EN 50266-2-5 / IEC 60332-3C

Features:

- **According to IEC 60502-2**
- **UV, weather, chemical and water resistance**
- **on request acc. to SPLN, ICEA/NEMA**
- **on request PVC-FR compound (flame retardant), LS0H or PE compound, other colors on request**

3,6/6 (7,2) kV

COPPER CONDUCTOR, XLPE INSULATION, COPPER WIRES SCREEN, GAALSHOCK INNER SHEATH, PVC OUTER SHEATH

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in ground Amps*	*Current capacity in ducts Amps*	*Current capacity in air Amps*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48230MR1030M65	3 x 1 x 50	59	190	200	236	-	2803	1
48230MR1030M66	3 x 1 x 70	63	231	240	291	-	3460	2/0
48230MR1030M67	3 x 1 x 95	67	277	285	354	-	4240	3/0
48230MR1030M68	3 x 1 x 120	70	309	320	393	-	5039	4/0
48230MR1030M69	3 x 1 x 150	73	349	360	456	-	6080	250 MCM
48230MR1030M70	3 x 1 x 185	77	393	396	523	-	7198	350 MCM
48230MR1030M71	3 x1 x 240	83	452	463	613	-	8879	450 MCM
48230MR1030M72	3 x 1 x 300	89	510	507	703	-	10750	550 MCM
48230MR1030M73	3 x 1 x 400	97	570	561	803	-	13289	750 MCM

6/10 (12) kV

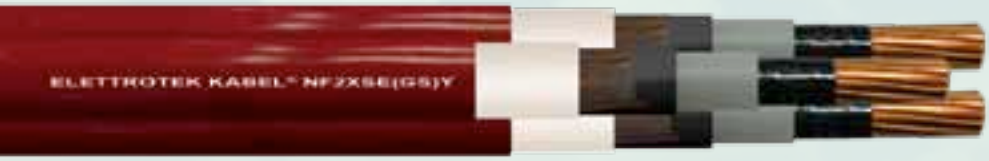
COPPER CONDUCTOR, XLPE INSULATION, COPPER WIRES SCREEN, GAALSHOCK INNER SHEATH, PVC OUTER SHEATH

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in ground Amps*	*Current capacity in ducts Amps*	*Current capacity in air Amps*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48230QR1030M65	3 x 1 x 50	64	190	200	236	-	3003	1
48230QR1030M66	3 x 1 x 70	67	231	240	291	-	3650	2/0
48230QR1030M67	3 x 1 x 95	71	277	285	354	-	4470	3/0
48230QR1030M68	3 x 1 x 120	74	309	320	393	-	5254	4/0
48230QR1030M69	3 x 1 x 150	78	349	360	456	-	6335	250 MCM
48230QR1030M70	3 x 1 x 185	81	393	396	523	-	7438	350 MCM
48230QR1030M71	3 x1 x 240	87	452	463	613	-	9138	450 MCM
48230QR1030M72	3 x 1 x 300	92	510	507	703	-	10975	550 MCM
48230QR1030M73	3 x 1 x 400	99	570	561	803	-	13414	750 MCM

NF2XSE(GS)Y

Three-cores, copper wires screen, GAALSHOCK inner sheath, 3,6/6 kV up to 18/30 kV

RoHS



Special GAALSHOCK protection

8,7/15 (17,5) kV

COPPER CONDUCTOR, XLPE INSULATION, COPPER WIRES SCREEN, GAALSHOCK INNER SHEATH, PVC OUTER SHEATH

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in ground Amps*	*Current capacity in ducts Amps*	*Current capacity in air Amps*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48230SR1030M65	*3 x 1 x 50*	*69*	*190*	*200*	*236*	*-*	*3253*	*1*
48230SR1030M66	*3 x 1 x 70*	*72*	*231*	*240*	*291*	*-*	*3945*	*2/0*
48230SR1030M67	*3 x 1 x 95*	*76*	*277*	*285*	*354*	*-*	*4755*	*3/0*
48230SR1030M68	*3 x 1 x 120*	*80*	*309*	*320*	*393*	*-*	*5584*	*4/0*
48230SR1030M69	*3 x 1 x 150*	*82*	*349*	*360*	*456*	*-*	*6645*	*250 MCM*
48230SR1030M70	*3 x 1 x 185*	*87*	*393*	*396*	*523*	*-*	*7808*	*350 MCM*
48230SR1030M71	*3 x1 x 240*	*92*	*452*	*463*	*613*	*-*	*9529*	*450 MCM*
48230SR1030M72	*3 x 1 x 300*	*97*	*510*	*507*	*703*	*-*	*11395*	*550 MCM*
48230SR1030M73	*3 x 1 x 400*	*104*	*570*	*561*	*803*	*-*	*13869*	*750 MCM*

12/20 (24) kV

COPPER CONDUCTOR, XLPE INSULATION, COPPER WIRES SCREEN, GAALSHOCK INNER SHEATH, PVC OUTER SHEATH

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in ground Amps*	*Current capacity in ducts Amps*	*Current capacity in air Amps*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48230UR1030M65	*3 x 1 x 50*	*73*	*190*	*200*	*236*	*-*	*3533*	*1*
48230UR1030M66	*3 x 1 x 70*	*77*	*231*	*240*	*291*	*-*	*4240*	*2/0*
48230UR1030M67	*3 x 1 x 95*	*81*	*277*	*285*	*354*	*-*	*5065*	*3/0*
48230UR1030M68	*3 x 1 x 120*	*84*	*309*	*320*	*393*	*-*	*5914*	*4/0*
48230UR1030M69	*3 x 1 x 150*	*87*	*349*	*360*	*456*	*-*	*6985*	*250 MCM*
48230UR1030M70	*3 x 1 x 185*	*92*	*393*	*396*	*523*	*-*	*8163*	*350 MCM*
48230UR1030M71	*3 x1 x 240*	*97*	*452*	*463*	*613*	*-*	*9914*	*450 MCM*
48230UR1030M72	*3 x 1 x 300*	*101*	*510*	*507*	*703*	*-*	*11765*	*550 MCM*
48230UR1030M73	*3 x 1 x 400*	*108*	*570*	*561*	*803*	*-*	*14549*	*750 MCM*

18/30 (36) kV

COPPER CONDUCTOR, XLPE INSULATION, COPPER WIRES SCREEN, GAALSHOCK INNER SHEATH, PVC OUTER SHEATH

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in ground Amps*	*Current capacity in ducts Amps*	*Current capacity in air Amps*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48230XR1030M65	*3 x 1 x 50*	*85*	*190*	*200*	*236*	*-*	*4298*	*1*
48230XR1030M66	*3 x 1 x 70*	*89*	*231*	*240*	*291*	*-*	*5070*	*2/0*
48230XR1030M67	*3 x 1 x 95*	*93*	*277*	*285*	*354*	*-*	*5915*	*3/0*
48230XR1030M68	*3 x 1 x 120*	*96*	*309*	*320*	*393*	*-*	*6804*	*4/0*
48230XR1030M69	*3 x 1 x 150*	*99*	*349*	*360*	*456*	*-*	*7660*	*250 MCM*
48230XR1030M70	*3 x 1 x 185*	*103*	*393*	*396*	*523*	*-*	*8893*	*350 MCM*
48230XR1030M71	*3 x1 x 240*	*108*	*452*	*463*	*613*	*-*	*10654*	*450 MCM*
48230XR1030M72	*3 x 1 x 300*	*113*	*510*	*507*	*703*	*-*	*12615*	*550 MCM*
48230XR1030M73	*3 x 1 x 400*	*120*	*570*	*561*	*803*	*-*	*15179*	*750 MCM*

NF2XSE(GS)Y

Three-cores, copper wires screen, GAALSHOCK inner sheath, 3,6/6 kV up to 18/30 kV

RoHS

Special GAALSHOCK protection

3,6/6 (7,2) kV

ALUMINIUM CONDUCTOR, XLPE INSULATION, COPPER WIRES SCREEN, GAALSHOCK INNER SHEATH, PVC OUTER SHEATH

Part no.	No. of cores x cross section n x mm²	Outer Ø Ca. mm ±10%	Current capacity in ground Amps	Current capacity in ducts Amps	Current capacity in air Amps	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48231MR1030M65	3 x 1 x 50	59	147	156	183	-	1945	1
48231MR1030M66	3 x 1 x 70	63	179	187	227	-	2235	2/0
48231MR1030M67	3 x 1 x 95	67	214	223	275	-	2545	3/0
48231MR1030M68	3 x 1 x 120	70	240	249	307	-	2880	4/0
48231MR1030M69	3 x 1 x 150	73	271	285	356	-	3410	250 MCM
48231MR1030M70	3 x 1 x 185	77	308	312	410	-	3865	350 MCM
48231MR1030M71	3 x1 x 240	83	356	369	482	-	4475	450 MCM
48231MR1030M72	3 x 1 x 300	89	403	409	554	-	5295	550 MCM
48231MR1030M73	3 x 1 x 400	97	457	463	642	-	6350	750 MCM

6/10 (12) kV

ALUMINIUM CONDUCTOR, XLPE INSULATION, COPPER WIRES SCREEN, GAALSHOCK INNER SHEATH, PVC OUTER SHEATH

Part no.	No. of cores x cross section n x mm²	Outer Ø Ca. mm ±10%	Current capacity in ground Amps	Current capacity in ducts Amps	Current capacity in air Amps	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48231QR1030M65	3 x 1 x 50	64	147	156	183	-	2145	1
48231QR1030M66	3 x 1 x 70	67	179	187	227	-	2425	2/0
48231QR1030M67	3 x 1 x 95	71	214	223	275	-	2775	3/0
48231QR1030M68	3 x 1 x 120	74	240	249	307	-	3095	4/0
48231QR1030M69	3 x 1 x 150	78	271	285	356	-	3665	250 MCM
48231QR1030M70	3 x 1 x 185	81	308	312	410	-	4105	350 MCM
48231QR1030M71	3 x1 x 240	87	356	369	482	-	4735	450 MCM
48231QR1030M72	3 x 1 x 300	92	403	409	554	-	5520	550 MCM
48231QR1030M73	3 x 1 x 400	99	457	463	642	-	6475	750 MCM

8,7/15 (17,5) kV

ALUMINIUM CONDUCTOR, XLPE INSULATION, COPPER WIRES SCREEN, GAALSHOCK INNER SHEATH, PVC OUTER SHEATH

Part no.	No. of cores x cross section n x mm²	Outer Ø Ca. mm ±10%	Current capacity in ground Amps	Current capacity in ducts Amps	Current capacity in air Amps	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48231SR1030M65	3 x 1 x 50	69	147	156	183	-	2395	1
48231SR1030M66	3 x 1 x 70	72	179	187	227	-	2720	2/0
48231SR1030M67	3 x 1 x 95	76	214	223	275	-	3060	3/0
48231SR1030M68	3 x 1 x 120	80	240	249	307	-	3425	4/0
48231SR1030M69	3 x 1 x 150	82	271	285	356	-	3975	250 MCM
48231SR1030M70	3 x 1 x 185	87	308	312	410	-	4475	350 MCM
48231SR1030M71	3 x1 x 240	92	356	369	482	-	5125	450 MCM
48231SR1030M72	3 x 1 x 300	97	403	409	554	-	5940	550 MCM
48231SR1030M73	3 x 1 x 400	104	457	463	642	-	6930	750 MCM

12/20 (24) kV

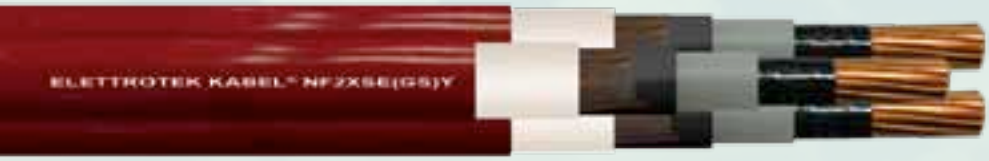
ALUMINIUM CONDUCTOR, XLPE INSULATION, COPPER WIRES SCREEN, GAALSHOCK INNER SHEATH, PVC OUTER SHEATH

Part no.	No. of cores x cross section n x mm²	Outer Ø Ca. mm ±10%	Current capacity in ground Amps	Current capacity in ducts Amps	Current capacity in air Amps	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48231UR1030M65	3 x 1 x 50	73	147	156	183	-	2675	1
48231UR1030M66	3 x 1 x 70	77	179	187	227	-	3015	2/0
48231UR1030M67	3 x 1 x 95	81	214	223	275	-	3370	3/0
48231UR1030M68	3 x 1 x 120	84	240	249	307	-	3755	4/0
48231UR1030M69	3 x 1 x 150	87	271	285	356	-	4315	250 MCM
48231UR1030M70	3 x 1 x 185	92	308	312	410	-	4830	350 MCM
48231UR1030M71	3 x1 x 240	97	356	369	482	-	5510	450 MCM
48231UR1030M72	3 x 1 x 300	101	403	409	554	-	6310	550 MCM
48231UR1030M73	3 x 1 x 400	108	457	463	642	-	7610	750 MCM

NF2XSE(GS)Y

Three-cores, copper wires screen, GAALSHOCK inner sheath, 3,6/6 kV up to 18/30 kV

RoHS



Special GAALSHOCK protection

18/30 (36) kV

ALUMINIUM CONDUCTOR, XLPE INSULATION, COPPER WIRES SCREEN, GAALSHOCK INNER SHEATH, PVC OUTER SHEATH

Part no.	*No. of cores x cross section n x mm²*	*Outer Ø Ca. mm ±10%*	*Current capacity in ground Amps*	*Current capacity in ducts Amps*	*Current capacity in air Amps*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48231XR1030M65	*3 x 1 x 50*	*85*	*147*	*156*	*183*	*-*	*3440*	*1*
48231XR1030M66	*3 x 1 x 70*	*89*	*179*	*187*	*227*	*-*	*3845*	*2/0*
48231XR1030M67	*3 x 1 x 95*	*93*	*214*	*223*	*275*	*-*	*4220*	*3/0*
48231XR1030M68	*3 x 1 x 120*	*96*	*240*	*249*	*307*	*-*	*4645*	*4/0*
48231XR1030M69	*3 x 1 x 150*	*99*	*271*	*285*	*356*	*-*	*4990*	*250 MCM*
48231XR1030M70	*3 x 1 x 185*	*103*	*308*	*312*	*410*	*-*	*5560*	*350 MCM*
48231XR1030M71	*3 x1 x 240*	*108*	*356*	*369*	*482*	*-*	*6250*	*450 MCM*
48231XR1030M72	*3 x 1 x 300*	*113*	*403*	*409*	*554*	*-*	*7160*	*550 MCM*
48231XR1030M73	*3 x 1 x 400*	*120*	*457*	*463*	*642*	*-*	*8240*	*750 MCM*

Other dimension and colors available on request.

GAALSHOCK PROTECTION!

1 Excellent mechanical protection than steel

2 Reduced weight

3 Installation, storage, and transport reduced costs

NA2XSY 6/10 kV, 12/20 kV, 18/30 kV

PVC power cable, Alu conductor

RoHS

Construction:

Conductor:	stranded plain aluminium conductor Cl.2, acc. to IEC 60228, DIN VDE 0295
Insulation:	XLPE compound
Screen:	red copper wires and one or two copper tape(s) applied helically.
Outer sheath:	red (RAL 3000),PVC compound

Applications:

Suitable for installation mostly for power supply stations, in indoors and in cable ducts, outdoors, underground, and in water as well as for installation on cable trays for industries, switch-boards and power stations. Due to the good laying characteristics, thiscan also be laid easily in difficult line guideways.
See DIN VDE 0298 part 1 .

Technical data:

Nominal voltage:	6/10 kV,12/20 kV,18/30 kV
Test voltage:	6/10 kV = 15000 V 12/20 kV = 30000 V 18/30 kV = 45000 V
Temperature range:	- 5°C +70°C
Max. operating temp. on conductor:	+90°C
Resistance:	**Flame retardant:** acc.to IEC 60332-3 DIN VDE 0482 part.266-2-1

6/10 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48240QRL010M64	1x35 rm/16	25,5	-	-	2
48240QRL010M65	1x50 rm/16	26,5	145	182	1
48240QRL010M66	1x70 rm/16	28,5	203	182	2/0
48240QRL010M67	1x95 rm/16	29,5	276	182	3/0
48240QRL010M68	1x120 rm/16	31,5	348	182	4/0
48241QRL010M69	1x150 rm/16*	32,5	435	182	250 MCM
48240QRL010M69	1x150 rm/25	32,5	435	283	250 MCM
48241QRL011M70	1x185 rm/16*	34,5	537	283	350 MCM
48240QRL010M70	1x185 rm/25	34,5	537	182	350 MCM
48241QRL011M71	1x240 rm/16*	36,5	696	283	450 MCM
48240QRL010M71	1x240 rm/25	36,5	696	182	450 MCM
48240QRL010M72	1x300 rm/25	38,5	870	283	550 MCM
48240QRL010M73	1x400 rm/35	42,5	1160	394	750 MCM
48240QRL010M74	1x500 rm/35	45,5	1450	394	1000 MCM

18/30 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48240XRL010M65	1x50 rm/16	35,5	145	1260	1
48240XRL010M66	1x70 rm/16	37,5	203	1360	2/0
48240XRL010M67	1x95 rm/16	38,5	276	1510	3/0
48240XRL010M68	1x120 rm/16	40,5	348	1610	4/0
48240XRL010M69	1x150 rm/25	41,5	435	1810	250 MCM
48240XRL010M70	1x185 rm/25	43,5	537	2020	350 MCM
48240XRL010M71	1x240 rm/25	45,5	696	2260	450 MCM
48240XRL010M72	1x300 rm/25	48,5	870	2560	550 MCM
48240XRL010M73	1x400 rm/35	51,5	1160	2960	750 MCM
48240XRL010M74	1x500 rm/35	54,5	1450	3460	1000 MCM

Other dimensions and colours available on request.

12/20 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48240URL010M64	1x35 rm/16	29,5	-	-	2
48240URL010M65	1x50 rm/16	30,5	182	950	1
48240URL010M66	1x70 rm/16	32,5	182	1110	2/0
48240URL010M67	1x95 rm/16	33,5	182	1220	3/0
48240URL010M68	1x120 rm/16	35,5	182	1310	4/0
48241URL010M69	1x150 rm/16*	36,5	182	1460	250 MCM
48240URL010M69	1x150 rm/25	36,5	283	1520	250 MCM
48241URL011M70	1x185 rm/16*	38,5	182	1660	350 MCM
48240URL010M70	1x185 rm/25	38,5	283	1720	350 MCM
48241URL011M71	1x240 rm/16*	41,5	283	1910	450 MCM
48240URL010M71	1x240 rm/25	41,5	182	1860	450 MCM
48240URL010M72	1x300 rm/25	43,5	283	2220	550 MCM
48240URL010M73	1x400 rm/35	46,5	394	2620	750 MCM
48240URL010M74	1x500 rm/35	49,5	394	3030	1000 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

NA2XS(F)2Y 6/10 kV, 12/20 kV, 18/30 kV

Pe-jacket and WATER TIGHT, Alu conductor

RoHS

Construction:

Conductor:	stranded plain aluminium conductor Cl.2, acc. to IEC 60228, DIN VDE 0295
Insulation:	XLPE,type DIX 8
Screen:	red copper wires and one or two copper tape(s) applied helically.
Wrapping:	semi-conductive watertight tape
Outer sheath:	black (RAL 9005),PE,type DMP 2

Applications:

Suitable for indoor installation and in cable ducts,outdoors, underground and in water as well as for installations in cable trays for industries, switchboard sand power station.
The PE outer jacket is resistant to high mechanical stress for laying the cables.

Technical data:

Nominal voltage:	6/10 kV,12/20 kV,18/30 kV
Test voltage:	6/10 kV = 15000 V 12/20 kV = 30000 V 18/30 kV = 45000 V
Temperature range:	- 20°C/+70
Max. operating temp. on conductor:	+90°C
Resistance:	**Flame retardant:** acc.to IEC 60332-3 DIN VDE 0482 part.266-2-1

6/10 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48250Q7L010M64	1x35 rm/16	26	182	780	2
48250Q7L010M65	1x50 rm/16	28	182	850	1
48250Q7L010M66	1x70 rm/16	30	182	980	2/0
48250Q7L010M67	1x95 rm/16	31	182	1080	3/0
48250Q7L010M68	1x120 rm/16	32	182	1150	4/0
48250Q7L010M69	1x150 rm/25	34	283	1280	250 MCM
48250Q7L010M70	1x185 rm/25	36	283	1420	350 MCM
48250Q7L010M71	1x240 rm/25	38	283	1630	450 MCM
48250Q7L010M72	1x300 rm/25	40	283	1950	550 MCM
48250Q7L010M73	1x400 rm/35	44	394	2350	750 MCM
48250Q7L010M74	1x500 rm/35	47	394	2780	1000MCM

18/30 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48250X7L010M65	1x50 rm/16	37	182	1250	1
48250X7L010M66	1x70 rm/16	38	182	1500	2/0
48250X7L010M67	1x95 rm/16	40	182	1700	3/0
48250X7L010M68	1x120 rm/16	42	182	1800	4/0
48250X7L010M69	1x150 rm/25	43	283	2050	250 MCM
48250X7L010M70	1x185 rm/25	45	283	2150	350 MCM
48250X7L010M71	1x240 rm/25	47	283	2400	450 MCM
48250X7L010M72	1x300 rm/25	50	283	2700	550 MCM
48250X7L010M73	1x400 rm/35	53	394	3200	750 MCM
48250X7L010M74	1x500 rm/35	56	394	3550	1000 MCM

Other dimensions and colours available on request.

12/20 kV

part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
48250U7L010M64	1x35 rm/16	31	182	-	2
48250U7L010M65	1x50 rm/16	33	182	920	1
48250U7L010M66	1x70 rm/16	34	182	1030	2/0
48250U7L010M67	1x95 rm/16	36	182	1140	3/0
48250U7L010M68	1x120 rm/16	37	182	1250	4/0
48250U7L010M69	1x150 rm/25	39	283	1320	250 MCM
48250U7L010M70	1x185 rm/25	41	283	1570	350 MCM
48250U7L010M71	1x240 rm/25	43	283	1780	450 MCM
48250U7L010M72	1x300 rm/25	45	283	2100	550 MCM
48250U7L010M73	1x400 rm/35	48	394	2480	750 MCM
48250U7L010M74	1x500 rm/35	52	394	2900	1000 MCM

* For cables laying in earth a screen-cross section of 16 mm is permitted.

NA2XS(FL)2Y 6/10 kV, 12/20 kV, 18/30 kV

Pe-jacket and WATER TIGHT, Alu conductor

RoHS

Construction:

Conductor:	stranded plain aluminium conductor Cl.2, acc. to IEC 60228, DIN VDE 0295
Insulation:	XLPE,type DIX 8
Screen:	red copper wires and one or two copper tape(s) applied helically.
Wrapping:	semi-conductive watertight tape
Armour:	aluminium tape
Outer sheath:	black (RAL 9005),PE,type DMP 2

Applications:

Heavy duty rubber cable are suited as a connecting cable for very high mechanical stress in underground mining and tools for use in industries and outdoor use. They are also

Technical data:

Nominal voltage:	6/10 kV,12/20 kV,18/30 kV
Test voltage:	6/10 kV = 15000 V 12/20 kV = 30000 V 18/30 kV = 45000 V
Temperature range:	- 20°C/+70
Max. operating temp. on conductor:	+90°C
Resistance:	**Flame retardant:** acc.to IEC 60332-3 DIN VDE 0482 part.266-2-1

6/10 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48260Q7L010M64	*1 X 35 rm / 16*	*27,0*	*182,0*	*780,0*	*6*
48260Q7L010M65	*1 X 50 rm / 16*	*29,0*	*182,0*	*850,0*	*6*
48260Q7L010M66	*1 X 70 rm / 16*	*31,0*	*182,0*	*980,0*	*6*
48260Q7L010M67	*1 X 95 rm / 16*	*32,0*	*182,0*	*1080,0*	*6*
48260Q7L010M68	*1 X 120 rm / 16*	*33,0*	*182,0*	*1150,0*	*6*
48260Q7L010M69	*1 x 150 rm / 25*	*35,0*	*283,0*	*1280,0*	*4*
48260Q7L010M70	*1 x 185 rm / 25*	*35,0*	*283,0*	*1420,0*	*4*
48260Q7L010M71	*1 x 240 rm / 25*	*40,0*	*283,0*	*1630,0*	*4*
48260Q7L010M72	*1 x 300 rm / 25*	*41,0*	*283,0*	*1950,0*	*4*
48260Q7L010M73	*1 x 400 rm / 35*	*45,0*	*394,0*	*2350,0*	*2/0*
48260Q7L010M74	*1 x 500 rm / 35*	*50,0*	*394,0*	*2780,0*	*2/0*

18/30 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48260X7L010M65	*1 X 50 rm / 16*	*38,0*	*182,0*	*1251,0*	*6*
48260X7L010M66	*1 X 70 rm / 16*	*39,0*	*182,0*	*1505,0*	*6*
48260X7L010M67	*1 X 95 rm / 16*	*41,0*	*182,0*	*1705,0*	*6*
48260X7L010M68	*1 X 120 rm / 16*	*43,0*	*182,0*	*1800,0*	*6*
48260X7L010M69	*1 x 150 rm / 25*	*44,0*	*283,0*	*1285,0*	*4*
48260X7L010M70	*1 x 185 rm / 25*	*45,0*	*283,0*	*1425,0*	*4*
48260X7L010M71	*1 x 240 rm / 25*	*47,0*	*283,0*	*1635,0*	*4*
48260X7L010M72	*1 x 300 rm / 25*	*48,0*	*283,0*	*1955,0*	*4*
48260X7L010M73	*1 x 400 rm / 35*	*49,0*	*394,0*	*2352,0*	*2/0*
48260X7L010M74	*1 x 500 rm / 35*	*50,0*	*394,0*	*2782,0*	*2/0*

Other dimensions and colours available on request.

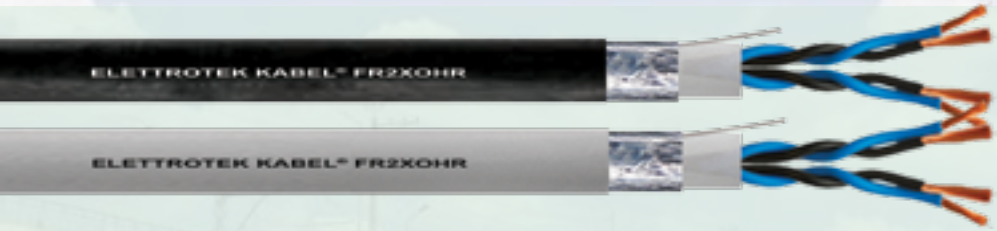
12/20 kV

part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
48260U7L010M65	*1 X 50 rm / 16*	*34,0*	*182,0*	*920,0*	*6*
48260U7L010M66	*1 X 70 rm / 16*	*35,0*	*182,0*	*1030,0*	*6*
48260U7L010M67	*1 X 95 rm / 16*	*35,0*	*182,0*	*1140,0*	*6*
48260U7L010M68	*1 X 120 rm / 16*	*36,0*	*182,0*	*1250,0*	*6*
48260U7L010M69	*1 x 150 rm / 25*	*40,0*	*283,0*	*1320,0*	*4*
48260U7L010M70	*1 x 185 rm / 25*	*40,0*	*283,0*	*1570,0*	*4*
48260U7L010M71	*1 x 240 rm / 25*	*45,0*	*283,0*	*1780,0*	*4*
48260U7L010M72	*1 x 300 rm / 25*	*45,0*	*283,0*	*2100,0*	*4*
48260U7L010M73	*1 x 400 rm / 35*	*49,0*	*394,0*	*2480,0*	*2/0*
48260U7L010M74	*1 x 500 rm / 35*	*50,0*	*394,0*	*2900,0*	*2/0*

* For cables laying in earth a screen-cross section of 16 mm is permitted.

FR2XOHR 300/500 and 450/750 V

RoHS CE



Construction:

Conductor:	flexible red or tinned copper conductor Cl. 5, acc to IEC 60228
Insulation:	PVC,type R2
Colour core:	blue-black, with black progressively numbered
Stranding:	cores twisted in pairs in concentric layers
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	black(RAL 9005),blue(RAL 5015) or grey (RAL 7001),PVC,type RZ

Technical data:

Nominal voltage:	up to 0,75 mm²: Uo/U 300/500 V from 1 mm²: Uo/U 450/750 V
Test voltage:	2/2,5 kV
Temperature range:	-10°C / + 70°C
Min. bending radius:	10 x d
Resistence:	**Flame retardant acc. to:** CEI 20-35,IEC 60332.1 **low smoke emission:** CEI 20-37,IEC 60754

300/500 V

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*Cap. max C_C C_S (pF/m)*	*Inductance L (µH/m)*
47010D.X022M05	2x2x0,50	7	24	85	125 225	0,90
47010D.X032M05	3x2x0,50	7,5	33,6	72	125 225	0,90
47010D.X042M05	4x2x0,50	8	43,2	91	125 225	0,90
4701D0.X052M05	5x2x0,50	9	52,8	113	125 225	0,90
4701D0.X062M05	6x2x0,50	10	62,4	128	125 225	0,90
4701D0.X082M05	8x2x0,50	11	81,6	166	125 225	0,90
4701D0.X102M05	10x2x0,50	12,5	100,8	204	125 225	0,90
4701D0.X122M05	12x2x0,50	13	120	235	125 225	0,90
4701D0.X162M05	16x2x0,50	14,5	158,4	302	125 225	0,90
4701D0.X202M05	20x2x0,50	16,5	196,8	378	125 225	0,90
4701D0.X242M05	24x2x0,50	17,5	234,8	438	125 225	0,90
4701D0.X022M07	2x2x0,75	8	33,6	76	130 235	0,85
4701D0.X032M07	3x2x0,75	8,5	48	98	130 235	0,85
4701D0.X042M07	4x2x0,75	9,6	62,4	125	130 235	0,85
4701D0.X052M07	5x2x0,75	10,5	76,8	154	130 235	0,85
4701D0.X062M07	6x2x0,75	11,5	91,2	175	130 235	0,85
4701D0.X082M07	8x2x0,75	12,5	120	226	130 235	0,85
4701D0.X102M07	10x2x0,75	14,5	148,8	280	130 235	0,85
4701D0.X122M07	12x2x0,75	15	177,6	331	130 235	0,85
4701D0.X162M07	16x2x0,75	17	235,2	425	130 235	0,85
4701D0.X202M07	20x2x0,75	19	292,8	514	130 235	0,85
4701D0.X242M07	24x2x0,75	20,5	350,4	607	130 235	0,85

450/750 V

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*Cap. max C_C C_S (pF/m)*	*Inductance L (µH/m)*
47010E.X022M10	2x2x1	9	43,2	91	135 245	0,85
47010E.X032M10	3x2x1	9,5	62,4	121	135 245	0,85
47010E.X042M10	4x2x1	10,5	81,6	156	135 245	0,85
47010E.X052M10	5x2x1	11,5	100,8	186	135 245	0,85
47010E.X062M10	6x2x1	13	120	221	135 245	0,85
47010E.X082M10	8x2x1	14	158,4	281	135 245	0,85
47010E.X102M10	10x2x1	15,5	196,8	345	135 245	0,85
47010E.X122M10	12x2x1	16,5	235,2	405	135 245	0,85
47010E.X162M10	16x2x1	18,5	312	511	135 245	0,85
47010E.X202M10	20x2x1	20,5	388,8	618	135 245	0,85
47010E.X242M10	24x2x1	22,5	464,8	733	135 245	0,85
47010E.X022M15	2x2x1,50	11	62,4	134	135 245	0,85
47010E.X032M15	3x2x1,50	11,5	91,2	173	135 245	0,85
47010E.X042M15	4x2x1,50	12,5	120	221	135 245	0,85
47010E.X052M15	5x2x1,50	14	148,8	270	135 245	0,85
47010E.X062M15	6x2x1,50	15,5	177,6	321	135 245	0,85
47010E.X082M15	8x2x1,50	16,5	235,2	406	135 245	0,85
47010E.X102M15	10x2x1,50	19	292,8	497	135 245	0,85
47010E.X122M15	12x2x1,50	20	350,4	575	135 245	0,85
47010E.X162M15	16x2x1,50	22,5	464,8	744	135 245	0,85
47010E.X202M15	20x2x1,50	25	580,8	905	135 245	0,85
47010E.X242M15	24x2x1,50	27	696	1067	135 245	0,85

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

C_C: Capacitance core / core maximum, measured at a frequency of 800 kHz, between two conductors

C_S:Conductor / shield capacitance maximum, measured at a frequency of 800 kHz, between conductor and screen

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

FR2XHOHR 300/500 and 450/750 V

RoHS CE

Construction:

Conductor:	flexible red or tinned copper conductor Cl. 5, acc to IEC 60228
Insulation:	PVC, type R2
Colour core:	**PAIR:** blue-black, with black progressively numbered. **TRIAD:** blue-brown-black, with black progressively numbered
Stranding:	cores twisted in pairs-triads. pairs-triads twisted in concentric layers
Screen:	
Individual:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Overall:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	black(RAL 9005),blue(RAL 5015) or grey (RAL 7001),PVC,type RZ

Technical data:

Nominal voltage:	up to 0,75 mm²: Uo/U 300/500 V from 1 mm²: Uo/U 450/750 V
Test voltage:	2/2,5 kV
Temperature range:	-10°C / + 70°C
Min. bending radius:	10 x d
Resistence:	**Flame retardant acc. to:** CEI 20-35,IEC 60332.1 **low smoke emission:** CEI 20-37,IEC 60754

300/500 V

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	Cap. max C_C C_S (pF/m)	Inductance L (µH/m)
47020D.X022M05	2x2x0,50	7,5	33,6	68	125 225	0,90
47020D.X032M05	3x2x0,50	8	48	90	125 225	0,90
47020D.X042M05	4x2x0,50	8,5	62,4	110	125 225	0,90
47020D.X052M05	5x2x0,50	9,5	76,8	136	125 225	0,90
47020D.X062M05	6x2x0,50	10,5	91,2	162	125 225	0,90
47020D.X082M05	8x2x0,50	11,5	120	202	125 225	0,90
47020D.X102M05	10x2x0,50	13	148,8	253	125 225	0,90
47020D.X122M05	12x2x0,50	14	177,6	295	125 225	0,90
47020D.X162M05	16x2x0,50	15,5	235,2	383	125 225	0,90
47020D.X202M05	20x2x0,50	17,5	292,8	470	125 225	0,90
47020D.X242M05	24x2x0,50	18,5	350	547	125 225	0,90
47020D.X022M07	2x2x0,75	8,5	43,2	88	130 235	0,85
47020D.X032M07	3x2x0,75	9,3	62,4	117	130 235	0,85
47020D.X042M07	4x2x0,75	10	81,6	143	130 235	0,85
47020D.X052M07	5x2x0,75	11,5	96	178	130 235	0,85
47020D.X062M07	6x2x0,75	12,5	120	211	130 235	0,85
47020D.X082M07	8x2x0,75	13,5	158,4	272	130 235	0,85
47020D.X102M07	10x2x0,75	15,5	196,8	337	130 235	0,85
47020D.X122M07	12x2x0,75	16	235,2	387	130 235	0,85
47020D.X162M07	16x2x0,75	18,5	312	507	130 235	0,85
47020D.X202M07	20x2x0,75	20	388,8	614	130 235	0,85
47020D.X242M07	24x2x0,75	22	465,6	719	130 235	0,85

450/750 V

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	Cap. max C_C C_S (pF/m)	Inductance L (µH/m)
47020E.X022M10	2x2x1	9,5	52,8	106	135 245	0,85
47020E.X032M10	3x2x1	10	76,8	136	135 245	0,85
47020E.X042M10	4x2x1	11	100,8	176	135 245	0,85
47020E.X052M10	5x2x1	12,5	124,8	217	135 245	0,85
47020E.X062M10	6x2x1	13,7	148,8	256	135 245	0,85
47020E.X082M10	8x2x1	14,5	196,8	319	135 245	0,85
47020E.X102M10	10x2x1	16,9	244,8	404	135 245	0,85
47020E.X122M10	12x2x1	17,6	292,8	463	135 245	0,85
47020E.X162M10	16x2x1	20	388,8	599	135 245	0,85
47020E.X202M10	20x2x1	22	448,8	727	135 245	0,85
47020E.X242M10	24x2x1	24	580,8	844	135 245	0,85
47020E.X022M15	2x2x1,50	11,5	72	146	135 245	0,85
47020E.X032M15	3x2x1,50	12,5	105,6	196	135 245	0,85
47020E.X042M15	4x2x1,50	13,5	139,2	247	135 245	0,85
47020E.X052M15	5x2x1,50	15	172,8	303	135 245	0,85
47020E.X062M15	6x2x1,50	16,5	206,4	360	135 245	0,85
47020E.X082M15	8x2x1,50	18	273,6	455	135 245	0,85
47020E.X102M15	10x2x1,50	20,5	340,8	555	135 245	0,85
47020E.X122M15	12x2x1,50	21	408	639	135 245	0,85
47020E.X162M15	16x2x1,50	24	542,4	821	135 245	0,85
47020E.X202M15	20x2x1,50	26,5	676,8	1010	135 245	0,85
47020E.X242M15	24x2x1,50	29	811,2	1193	135 245	0,85

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

C_C: Capacitance core / core maximum, measured at a frequency of 800 kHz, between two conductors

C_S:Conductor / shield capacitance maximum, measured at a frequency of 800 kHz, between conductor and screen

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

FR2XOHRAR 450/750 V

RoHS CE

Construction:

Conductor:	flexible red or tinned copper conductor Cl. 5, acc to IEC 60228
Insulation:	PVC,type R2
Colour core:	blue-black, with black progressively numbered
Stranding:	cores twisted in pairs in concentric layers
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	black(RAL 9005),blue(RAL 5015) or grey (RAL 7001),PVC,type RZ

Technical data:

Nominal voltage:	up to 0,75 mm²: Uo/U 300/500 V from 1 mm²: Uo/U 450/750 V
Test voltage:	2/2,5 kV
Temperature range:	-10°C / + 70°C
Min. bending radius:	10 x d
Resistence:	**Flame retardant acc. to:** CEI 20-35,IEC 60332.1 **low smoke emission:** CEI 20-37,IEC 60754

300/500 V

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	Cap. max C_C C_S (pF/m)	Inductance L (µH/m)
47030D.X022M05	2x2x0,50	9,5	24	129	125 225	0,90
47030D.X032M05	3x2x0,50	10	33,6	151	125 225	0,90
47030D.X042M05	4x2x0,50	11	43,2	175	125 225	0,90
47030D.X052M05	5x2x0,50	11,5	52,8	194	125 225	0,90
47030D.X062M05	6x2x0,50	12,5	62,4	229	125 225	0,90
47030D.X082M05	8x2x0,50	13,5	81,6	278	125 225	0,90
47030D.X102M05	10x2x0,50	15	100,8	332	125 225	0,90
47030D.X122M05	12x2x0,50	15,5	120	362	125 225	0,90
47030D.X162M05	16x2x0,50	18	158,4	467	125 225	0,90
47030D.X202M05	20x2x0,50	19,5	196,8	545	125 225	0,90
47030D.X242M05	24x2x0,50	21	234,8	653	125 225	0,90
47030D.X022M07	2x2x0,75	10,5	33,6	160	130 235	0,85
47030D.X032M07	3x2x0,75	11	48	181	130 235	0,85
47030D.X042M07	4x2x0,75	12,5	62,4	227	130 235	0,85
47030D.X052M07	5x2x0,75	13,5	76,8	262	130 235	0,85
47030D.X062M07	6x2x0,75	14,5	91,2	293	130 235	0,85
47030D.X082M07	8x2x0,75	15,5	120	355	130 235	0,85
47030D.X102M07	10x2x0,75	17,5	148,8	431	130 235	0,85
47030D.X122M07	12x2x0,75	18	177,6	488	130 235	0,85
47030D.X162M07	16x2x0,75	20,5	235,2	615	130 235	0,85
47030D.X202M07	20x2x0,75	21	292,8	748	130 235	0,85
47030D.X242M07	24x2x0,75	24	350,4	853	130 235	0,85

450/750 V

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	Cap. max C_C C_S (pF/m)	Inductance L (µH/m)
47030E.X022M10	2x2x1	11	43,2	176	135 245	0,85
47030E.X032M10	3x2x1	12	62,4	210	135 245	0,85
47030E.X042M10	4x2x1	13,5	81,6	266	135 245	0,85
47030E.X052M10	5x2x1	14,5	100,8	304	135 245	0,85
47030E.X062M10	6x2x1	15,5	120	348	135 245	0,85
47030E.X082M10	8x2x1	16,5	158,4	415	135 245	0,85
47030E.X102M10	10x2x1	18,5	196,8	510	135 245	0,85
47030E.X122M10	12x2x1	19,5	235,2	597	135 245	0,85
47030E.X162M10	16x2x1	22	312	743	135 245	0,85
47030E.X202M10	20x2x1	22,5	388,8	886	135 245	0,85
47030E.X242M10	24x2x1	26	464,8	1011	135 245	0,85
47030E.X022M15	2x2x1,50	13,5	62,4	246	135 245	0,85
47030E.X032M15	3x2x1,50	14	91,2	290	135 245	0,85
47030E.X042M15	4x2x1,50	15,5	120	347	135 245	0,85
47030E.X052M15	5x2x1,50	17	148,8	412	135 245	0,85
47030E.X062M15	6x2x1,50	18,5	177,6	485	135 245	0,85
47030E.X082M15	8x2x1,50	20	235,2	604	135 245	0,85
47030E.X102M15	10x2x1,50	22,5	292,8	732	135 245	0,85
47030E.X122M15	12x2x1,50	23	350,4	812	135 245	0,85
47030E.X162M15	16x2x1,50	26	464,8	1023	135 245	0,85
47030E.X202M15	20x2x1,50	26,5	580,8	1235	135 245	0,85
47030E.X242M15	24x2x1,50	30,5	696	1417	135 245	0,85

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

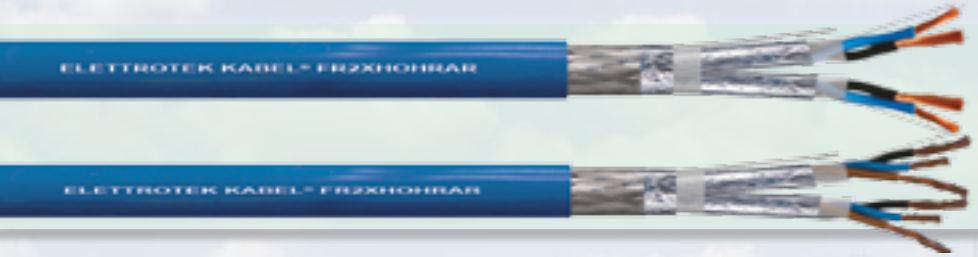
C_C: Capacitance core / core maximum, measured at a frequency of 800 kHz, between two conductors

C_S:Conductor / shield capacitance maximum, measured at a frequency of 800 kHz, between conductor and screen

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

FR2XHOHRAR 300/500 V

RoHS CE



Construction:

Conductor:	flexible red or tinned copper conductor Cl. 5, acc to IEC 60228
Insulation:	PVC, type R2
Colour core:	**PAIR:** blue-black, with black progressively numbered. **TRIAD:** blue-brown-black, with black progressively numbered
Stranding:	cores twisted in pairs-triads. pairs-triads twisted in concentric layers
Screen:	
Individual:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Overall:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Armour:	braid of galvanized steel wires
Outer sheath:	black(RAL 9005),blue(RAL 5015) or grey (RAL 7001),PVC,type RZ

Technical data:

Nominal voltage:	up to 0,75 mm²: Uo/U 300/500 V from 1 mm²: Uo/U 450/750 V
Test voltage:	2/2,5 kV
Temperature range:	-10°C / + 70°C
Min. bending radius:	10 x d
Resistence:	**Flame retardant acc. to:** CEI 20-35,IEC 60332.1 **low smoke emission:** CEI 20-37,IEC 60754

300/500 V

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*Cap. max C_C C_S (pF/m)*	*Inductance L (µH/m)*
47040D.X022M05	2x2x0,50	7,5	33,6	68	125 225	0,90
47040D.X032M05	3x2x0,50	8	48	90	125 225	0,90
47040D.X042M05	4x2x0,50	8,5	62,4	110	125 225	0,90
47040D.X052M05	5x2x0,50	9,5	76,8	136	125 225	0,90
47040D.X062M05	6x2x0,50	10,5	91,2	162	125 225	0,90
47040D.X082M05	8x2x0,50	11,5	120	202	125 225	0,90
47040D.X102M05	10x2x0,50	13	148,8	253	125 225	0,90
47040D.X122M05	12x2x0,50	14	177,6	295	125 225	0,90
47040D.X162M05	16x2x0,50	15,5	235,2	383	125 225	0,90
47040D.X202M05	20x2x0,50	17,5	292,8	470	125 225	0,90
47040D.X242M05	24x2x0,50	18,5	350	547	125 225	0,90
47040D.X022M07	2x2x0,75	8,5	43,2	88	130 235	0,85
47040D.X032M07	3x2x0,75	9,5	62,4	117	130 235	0,85
47040D.X042M07	4x2x0,75	10	81,6	143	130 235	0,85
47040D.X052M07	5x2x0,75	11,3	96	178	130 235	0,85
47040D.X062M07	6x2x0,75	12,5	120	211	130 235	0,85
47040D.X082M07	8x2x0,75	13,5	158,4	272	130 235	0,85
47040D.X102M07	10x2x0,75	15,5	196,8	337	130 235	0,85
47040D.X122M07	12x2x0,75	16	235,2	387	130 235	0,85
47040D.X162M07	16x2x0,75	18,5	312	507	130 235	0,85
47040D.X202M07	20x2x0,75	20	388,8	614	130 235	0,85
47040D.X242M07	24x2x0,75	22	465,6	719	130 235	0,85

450/750 V

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*Cap. max C_C C_S (pF/m)*	*Inductance L (µH/m)*
47040E.X022M10	2x2x1	9,5	52,8	106	135 245	0,85
47040E.X032M10	3x2x1	10	76,8	136	135 245	0,85
47040E.X042M10	4x2x1	11	100,8	176	135 245	0,85
47040E.X052M10	5x2x1	12,5	124,8	217	135 245	0,85
47040E.X062M10	6x2x1	13,5	148,8	256	135 245	0,85
47040E.X082M10	8x2x1	14,5	196,8	319	135 245	0,85
47040E.X102M10	10x2x1	17	244,8	404	135 245	0,85
47040E.X122M10	12x2x1	17,5	292,8	463	135 245	0,85
47040E.X162M10	16x2x1	20	388,8	599	135 245	0,85
47040E.X202M10	20x2x1	22	448,8	727	135 245	0,85
47040E.X242M10	24x2x1	24	580,8	844	135 245	0,85
47040E.X022M15	2x2x1,50	11,5	72	146	135 245	0,85
47040E.X032M15	3x2x1,50	12,5	105,6	196	135 245	0,85
47040E.X042M15	4x2x1,50	13,5	139,2	247	135 245	0,85
47040E.X052M15	5x2x1,50	15	172,8	303	135 245	0,85
47040E.X062M15	6x2x1,50	16,5	206,4	360	135 245	0,85
47040E.X082M15	8x2x1,50	18	273,6	455	135 245	0,85
47040E.X102M15	10x2x1,50	20,5	340,8	555	135 245	0,85
47040E.X122M15	12x2x1,50	21	408	639	135 245	0,85
47040E.X162M15	16x2x1,50	24	542,4	821	135 245	0,85
47040E.X202M15	20x2x1,50	26,5	676,8	1010	135 245	0,85
47040E.X242M15	24x2x1,50	29	811,2	1193	135 245	0,85

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

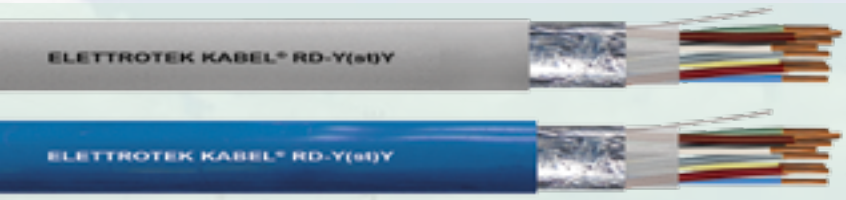
C_C: Capacitance core / core maximum, measured at a frequency of 800 kHz, between two conductors

C_S:Conductor / shield capacitance maximum, measured at a frequency of 800 kHz, between conductor and screen

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

RD-Y(st)Y

RoHS



Construction:

Conductor:	stranded tinned copper conductor Cl. 2, acc to IEC 60228, DIN VDE 0295
Insulation:	PVC compound
Colour core:	PAIR 1: blue, red PAIR 2: grey, yellow PAIR 3: green, brown PAIR 4: white, black
Stranding:	cores twisted in pairs, 4 pairs stranded to a unit, unit stranded in concentric layers
Screen:	Electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	grey (RAL 7000) or blue (RAL5015) PVC

Features:

- Suitable for-Maxi-Term-point-connection
- the pairs are twisted with short pitches and different lay-lenghts wich lead to good cross talk attenuation values in a unit
- the static screen protects the transmission circuits against outer electrical
- the material used in manifacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

Conductor resistence:	max. 73,6 Ohm/km
Insulation resistence:	core/core min. 100 MOhm x km core/screen min. 100 MOhm x km
Mutual capacitance:	at 800 Hz max.100 nF/km (this value may be exceeded by 20% with a make-up to 4 pairs)
Cross-talk attenuation:	at 10 kHz and cable lenght of 500 m min. 60 dB

Technical data:

Nominal voltage:	300 V
Test voltage:	2/2,5 kV
Temperature range:	
Fixed installation:	-30 °C / 70 °C
Flexible application:	- 5 °C / 50 °C
Max short circuit temperature:	+110°C
Resistence:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/ IEC 60332-1 EN 60332-1-2 EC 60332-3-C **low corrosive combustion gas:** IEC 60754-2 DIN VDE 0482 part. 267-2 EN 50267-2

Applications:

The data transmission cable RD-Y(St) Y are used in measurament and control technology such as in control rooms of industrial plants and power stations. The cables serves for transmission of analog and digital signals up to frequencies of approx. 10 kHmz. These cables offer considerable advantages by using the quick and economial connecting possibilities in Maxi-Termi-point technique. This solderless connecting tecnique is defined by a compression termination that employs a spring-clip for the connection of the cable to a square rigid post without pre-stripping. For this technique it is necessary to have an exact 7 - core stranded conductor and semi-rigid-PVC.
Suitable for fixed installation only inside of buildings. Cable with a blue outer sheath is used for intrinsic safe installation.

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47050C.X022M05	*2x2x0,5*	*7,0*	*29,8*	*65*	*20*
47050C.X042M05	*4x2x0,5*	*9,0*	*49,8*	*110*	*20*
47050C.X082M05	*8x2x0,5*	*12,0*	*89,8*	*180*	*20*
47050C.X122M05	*12x2x0,5*	*12,5*	*129,8*	*250*	*20*
47050C.X162M05	*16x2x0,5*	*14,0*	*169,8*	*310*	*20*
47050C.X242M05	*24x2x0,5*	*17,5*	*249,8*	*450*	*20*
47050C.X322M05	*32x2x0,5*	*21,5*	*329,8*	*560*	*20*
47050C.X482M05	*48x2x0,5*	*24,0*	*489,8*	*810*	*20*

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

REXOHR (PE/PVC)

RoHS CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228 BS 6360
Insulation:	PE compound acc.to BS 6234
Colour core:	blue-black, with black progressively numbered.
Stranding:	cores twisted in pairs-triads. pairs-triads twisted in layers
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	blue (RAL 5015) or black (RAL 9005),PVC type TM1 acc. to BS 7655

Features:

- according to BS 5308-1

Technical data:

Nominal voltage:	300/500 V
Test voltage:	2 kV
Temperature range: *Fixed installation:* *Flexible application:*	 - 30 °C / + 70 °C - 0 °C / + 70 °C
Max short circuit temperature:	+110 °C
Resistence:	**Flame retardant acc. to:** BS 4066 IEC 60332-3

PAIRS:

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47060D.X012M05	*1x2x0,50*	*7*	*14,4*	*61*	*20*
47060D.X022M05	*2x2x0,50*	*8*	*24*	*82*	*20*
47060D.X052M05	*5x2x0,50*	*13*	*52,8*	*206*	*20*
47060D.X102M05	*10x2x0,50*	*17*	*100,8*	*340*	*20*
47060D.X202M05	*20x2x0,50*	*22,3*	*196,8*	*569*	*20*
47060D.X012M07	*1x2x0,75*	*7,5*	*19,2*	*75*	*19*
47060D.X022M07	*2x2x0,75*	*8,3*	*33,6*	*97*	*19*
47060D.X052M07	*5x2x0,75*	*14,3*	*76,8*	*253*	*19*
47060D.X102M07	*10x2x0,75*	*18,7*	*148,8*	*447*	*19*
47060D.X202M07	*20x2x0,75*	*24,5*	*292*	*918*	*19*
47060D.X012M10	*1x2x1*	*7,5*	*24*	*85*	*18*
47060D.X022M10	*2x2x1*	*8,5*	*43,2*	*115*	*18*
47060D.X052M10	*5x2x1*	*14*	*100,8*	*291*	*18*
47060D.X102M10	*10x2x1*	*18,5*	*196,8*	*495*	*18*
47060D.X202M10	*20x2x1*	*24,5*	*388,8*	*950*	*18*
47060E.X012M15	*1x2x1,5*	*8,3*	*33,6*	*98*	*16*
47060E.X022M15	*2x2x1,5*	*10*	*62,4*	*156*	*16*
47060E.X052M15	*5x2x1,5*	*16,5*	*148,8*	*359*	*16*
47060E.X102M15	*10x2x1,5*	*21,5*	*292,8*	*670*	*16*
47060E.X202M15	*20x2x1,5*	*28,5*	*580,8*	*1231*	*16*

* For cables laying in earth a screen-cross section of 16 mm is permitted.

TRIADS:

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47060D.X013M05	*1x3x0,50*	*7,3*	*19,2*	*68*	*20*
47060D.X013M07	*1x3x0,75*	*7,7*	*26,4*	*80*	*19*
47060D.X013M10	*1x3x1*	*7,7*	*33,6*	*104*	*18*
47060D.X013M15	*1x3x1,5*	*8,9*	*48*	*120*	*16*

Other dimensions and colours available on request.

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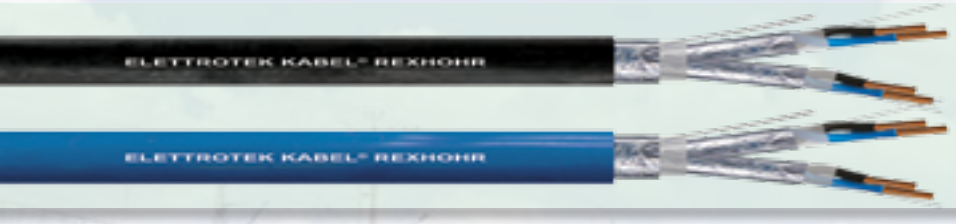
REXHOHR (PE/PVC)

RoHS CE



Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228 BS 6360
Insulation:	PE compound acc.to BS 6234
Colour core:	blue-black, with black progressively numbered.
Stranding:	cores twisted in pairs-triads. pairs-triads twisted in concentric layers
Screen *Individual:* *Overall:*	electrostatic screen of plastic and aluminium tape + tinned drain-wire electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	blue (RAL 5015) or black (RAL 9005),PVC type TM1 acc. to BS 7655

Technical data:

Nominal voltage:	300/500 V
Test voltage:	2 kV
Temperature range: *Fixed installation:* *Flexible application:*	 - 30 °C / + 70 °C - 0 °C / + 70 °C
Max short circuit temperature:	160 °C
Resistence:	**Flame retardant acc. to:** BS 4066 IEC 60332-3

Features:

- according to BS 5308-1

Possible variation/alternative performance:
- PE insulation or elastomeric compound G10 - G7 insulation
- Hydrocarbons resistant (ENI 0181) or halogen free thermoplastic compound HF M1 outher sheath
- U /U 300/500 0,6/1 kV (with loading of outside diameter)

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47070D.X022M05	*2x2x0,50*	*9,8*	*-*	*33*	*20*
47070D.X042M05	*4x2x0,50*	*11,2*	*-*	*62*	*20*
47070D.X062M05	*6x2x0,50*	*13,2*	*-*	*90*	*20*
47070D.X082M05	*8x2x0,50*	*14,4*	*-*	*119*	*20*
47070D.X102M05	*10x2x0,50*	*17,2*	*-*	*147*	*20*
47070D.X122M05	*12x2x0,50*	*17,7*	*-*	*176*	*20*
47070D.X162M05	*16x2x0,50*	*20,2*	*-*	*233*	*20*
47070D.X202M05	*20x2x0,50*	*22,2*	*-*	*290*	*20*
47070D.X242M05	*24x2x0,50*	*25,2*	*-*	*348*	*19*
47070D.X022M07	*2x2x0,75*	*10,4*	*43,2*	*115*	*19*
47070D.X042M07	*4x2x0,75*	*12*	*81,6*	*175*	*19*
47070D.X062M07	*6x2x0,50*	*14*	*120*	*250*	*19*
47070D.X082M07	*8x2x0,50*	*15,5*	*158,4*	*295*	*19*
47070D.X102M07	*10x2x0,75*	*19*	*196,8*	*420*	*19*
47070D.X122M07	*12x2x0,75*	*16,5*	*235,2*	*475*	*19*
47070D.X162M07	*16x2x0,75*	*21,6*	*312*	*600*	*19*
47070D.X202M07	*20x2x0,75*	*24,5*	*388,8*	*750*	*19*
47070D.X242M07	*24x2x0,75*	*27*	*465,6*	*875*	*19*
47070D.X022M10	*2x2x1*	*11,2*	*52,8*	*135*	*18*
47070D.X042M10	*4x2x1*	*13*	*100,8*	*205*	*18*
47070D.X062M10	*6x2x1*	*15,3*	*148,8*	*294*	*18*
47070D.X082M10	*8x2x1*	*17,3*	*196,8*	*380*	*18*
47070D.X102M10	*10x2x1*	*20,6*	*244,8*	*495*	*18*
47070D.X202M10	*20x2x1*	*26,5*	*448,8*	*895*	*18*
47070D.X022M15	*2x2x1,5*	*13*	*72*	*170*	*16*
47070D.X042M15	*4x2x1,5*	*15*	*139,2*	*275*	*16*
47070D.X062M15	*6x2x1,5*	*19,2*	*206,4*	*455*	*16*
47070D.X082M15	*8x2x1,5*	*21*	*273,6*	*540*	*16*
47070D.X102M15	*10x2x1,5*	*24,8*	*340,8*	*700*	*16*
47070D.X202M15	*20x2x1,5*	*32*	*811,2*	*1255*	*16*

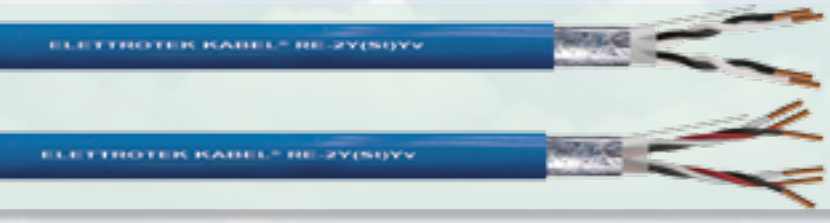
* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

RE-2Y(St)Yv

RoHS CE



Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228, DIN VDE 0295
Insulation:	PE compound
Colour core:	**PAIR:** black, white **TRIAD:** black, white, red
Stranding:	cores twisted in pairs-triads. pairs-triads twisted in layers with a communication core
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	blue (RAL 5015) or black (RAL 9005) PVC type YM1,outer sheath reinforced

Features:

- **Reinforced outer sheath**
- **the electrostatic screen protect the screened pairs against outer electrostatic interference fields**
- **low level of fine attenuation and low mutual capacitance enable long transmission distances and fast pulse acceleration**

Conductor resistance:	0,5 mm²: max. 39,0 0hm/km 0,75 mm²: max. 24,6 0hm/km 1,3 mm²: max. 14,2 0hm/km
Insulation resistance:	min. 5 G0hm x km
Mutual capacitance:	at 800 Hz core/core 0,5 mm²: max. 60 nf/km for 1 and 2 pairs: 75 nF/km core/core 0,75 mm²: 65 nF/km for 1 and 2 pairs: 110 nF/km core/core 1,3 mm²: 75 nF/km for 1 and 2 pairs: 100 nF/km
Inductance:	max. 0,75 mH/km

Technical data:

Nominal voltage:	300/500 V
Test voltage:	core/core 2 kV core/screen 2 kV
Temperature range:	- 30°C / + 70°C
Max. short circuit temperature:	+ 160°C
cross-talk attenuation:	min. 0,88 dB/km at 60 kHz
Resistance:	**Flame retardant and sel-extinguishing acc.to:** PVC DIN VDE 0482 part 266-2-4/EN 50266-2-4/ IEC 60332-3-24

Applications:

Instrumentation cables are used in data processing and process control and are suitable for fixed instalations in damp locations, in open locations, in open spaces and for underground laying.

BLACK:

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47080D7X012M05	*1x2x0,5*	*7,5*	*15,0*	*74*	*20*
47080D7X022M05	*2x2x0,5*	*10,2*	*30,0*	*117*	*20*
47080D7X042M05	*4x2x0,5*	*11,0*	*50,0*	*140*	*20*
47080D7X062M05	*6x2x0,5*	*12,6*	*70,0*	*190*	*20*
47080D7X082M05	*8x2x0,5*	*13,8*	*90,0*	*215*	*20*
47080D7X102M05	*10x2x0,5*	*14,6*	*110,0*	*220*	*20*
47080D7X122M05	*12x2x0,5*	*15,7*	*130,0*	*280*	*20*
47080D7X162M05	*16x2x0,5*	*17,5*	*170,0*	*352*	*20*
47080D7X202M05	*20x2x0,5*	*18,5*	*210,0*	*385*	*20*
47080D7X242M05	*24x2x0,5*	*20,2*	*270,0*	*468*	*20*
47080D7X362M05	*36x2x0,5*	*24,0*	*370,0*	*656*	*20*
47080D7X482M05	*48x2x0,5*	*27,4*	*490,0*	*854*	*20*
47080D7X012M07	*1x2x0,75*	*7,9*	*20,0*	*74*	*19*
47080D7X022M07	*2x2x0,75*	*10,6*	*35,0*	*123*	*19*
47080D7X042M07	*4x2x0,75*	*11,7*	*65,0*	*164*	*19*
47080D7X082M07	*8x2x0,75*	*14,6*	*125,0*	*258*	*19*
47080D7X102M07	*10x2x0,75*	*15,8*	*154,0*	*305*	*19*

BLUE:

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47080DBX012M05	*1x2x0,5*	*7,5*	*15,0*	*74*	*20*
47080DBX022M05	*2x2x0,5*	*10,2*	*30,0*	*117*	*20*
47080DBX042M05	*4x2x0,5*	*11,0*	*50,0*	*140*	*20*
47080DBX062M05	*6x2x0,5*	*12,6*	*70,0*	*190*	*20*
47080DBX082M05	*8x2x0,5*	*13,8*	*90,0*	*215*	*20*
47080DBX102M05	*10x2x0,5*	*14,6*	*110,0*	*220*	*20*
47080DBX122M05	*12x2x0,5*	*15,7*	*130,0*	*280*	*20*
47080DBX162M05	*16x2x0,5*	*17,5*	*170,0*	*352*	*20*
47080DBX202M05	*20x2x0,5*	*18,5*	*210,0*	*385*	*20*
47080DBX242M05	*24x2x0,5*	*20,2*	*270,0*	*468*	*20*
47080DBX362M05	*36x2x0,5*	*24,0*	*370,0*	*656*	*20*
47080DBX482M05	*48x2x0,5*	*27,4*	*490,0*	*854*	*20*
47080DBX012M07	*1x2x0,75*	*7,9*	*20,0*	*74*	*19*
47080DBX022M07	*2x2x0,75*	*10,6*	*35,0*	*123*	*19*
47080DBX042M07	*4x2x0,75*	*11,7*	*65,0*	*164*	*19*
47080DBX082M07	*8x2x0,75*	*14,6*	*125,0*	*258*	*19*
47080DBX102M07	*10x2x0,75*	*15,8*	*154,0*	*305*	*19*

RE-2Y(St)Yv

RoHS CE

BLACK:

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
47080D7X162M07	16x2x0,75	19,0	245,0	445	19
47080D7X202M07	20x2x0,75	21,5	298,0	520	19
47080D7X242M07	24x2x0,75	23,2	365,0	620	19
47080D7X362M07	36x2x0,75	28,2	532,0	940	19
47080D7X482M07	48x2x0,75	32,0	708,0	1250	19
47080D7X012M13	1x2x1,3	8,8	31,0	102	16
47080D7X022M13	2x2x1,3	11,7	62,0	161	16
47080D7X042M13	4x2x1,3	13,5	114,0	230	16
47080D7X062M13	6x2x1,3	16,0	168,0	310	16
47080D7X08M13	8x2x1,3	16,8	218,0	377	16
47080D7X122M13	12x2x1,3	19,3	322,0	515	16
47080D7X162M13	16x2x1,3	22,0	426,0	656	16
47080D7X242M13	24x2x1,3	26,5	684,0	952	16

* For cables laying in earth a screen-cross section of 16 mm is permitted.

BLUE:

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
47080DBX122M07	12x2x0,75	17,0	185,0	350	19
47080DBX162M07	16x2x0,75	19,0	245,0	445	19
47080DBX202M07	20x2x0,75	21,5	298,0	520	19
47080DBX242M07	24x2x0,75	23,2	365,0	620	19
47080DBX362M07	36x2x0,75	28,2	532,0	940	19
47080DBX482M07	48x2x0,75	32,0	708,0	1250	19
47080DBX012M13	1x2x1,3	8,8	31,0	102	16
47080DBX022M13	2x2x1,3	11,7	62,0	161	16
47080DBX042M13	4x2x1,3	13,5	114,0	230	16
47080DBX062M13	6x2x1,3	16,0	168,0	310	16
47080DBX08M13	8x2x1,3	16,8	218,0	377	16
47080DBX122M13	12x2x1,3	19,3	322,0	515	16
47080DBX162M13	16x2x1,3	22,0	426,0	656	16
47080DBX242M13	24x2x1,3	26,5	684,0	952	16

Other dimensions and colours available on request.

RE-2Y(St)Yv-fl

RoHS CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 6360, DIN VDE 0295
Insulation:	PE compound
Colour core:	**PAIR:** black, white **TRIAD:** black, white, red
Stranding:	cores twisted in pairs-triads. pairs-triads twisted in layers with a communication core
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	blue (RAL 5015) or black (RAL 9005) PVC type YM1,low smoke,low halogen compound

Features:

- **the electrostatic screen protect the screened pairs against outer electrostatic interference fields**
- **low level of fine attenuation and low mutual capacitance enable long transmission distances and fast pulse acceleration**
- **Conductor resistance:** 0,5 mm²: max. 39,0 0hm/km
0,75 mm²: max. 24,6 0hm/km
1,3 mm²: max. 14,2 0hm/km
- **Insulation resistance:** min. 5 G0hm x km
- **Mutual capacitance:** at 800 Hz
core/core 0,5 mm²: max. 60 nf/km
for 1 and 2 pairs: 75 nF/km
core/core 0,75 mm²: 65 nF/km
for 1 and 2 pairs: 110 nF/km
core/core 1,3 mm²: 75 nF/km
for 1 and 2 pairs: 100 nF/km
- **Inductance:** max. 0,75 mH/km
- **cross-talk attenuation:** min. 0,88 dB/km at 60 kHz

Technical data:

Nominal voltage:	300/500 V
Test voltage:	core/core 2 kV core/screen 2 kV
Temperature range:	- 30°C / + 70°C
Max. short circuit temperature:	+ 160°C
Resistance:	**Flame retardant and sel-extinguishing acc.to:** PVC DIN VDE 0482 part 266-2-4/EN 50266-2-4/ IEC 60332-3-24

Applications:

Instrumentation cables are used in data processing and process control and are suitable for fixed instalations in damp locations, in open locations, in open spaces and for underground laying.

RE-2Y(St)Yv-fl

RoHS CE

BLUE:

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
47090DBX022M05	2x2x0,5	10,2	30	117	20
47090DBX042M05	4x2x0,5	11,0	50	140	20
47090DBX062M05	6x2x0,5	12,6	70	190	20
47090DBX082M05	8x2x0,5	13,8	90	215	20
47090DBX102M05	10x2x0,5	14,6	110	220	20
47090DBX122M05	12x2x0,5	15,7	130	280	20
47090DBX162M05	16x2x0,5	17,5	170	352	20
47090DBX202M05	20x2x0,5	18,5	210	385	20
47090DBX242M05	24x2x0,5	20,2	270	468	20
47090DBX362M05	36x2x0,5	24,0	370	656	20
47090DBX482M05	48x2x0,5	27,4	490	854	20
47090DBX012M07	1x2x0,75	7,9	20	74	19
47090DBX022M07	2x2x0,75	10,6	35	123	19
47090DBX042M07	4x2x0,75	11,7	65	164	19
47090DBX082M07	8x2x0,75	14,6	125	258	19
47090DBX102M07	10x2x0,75	15,8	154	305	19
47090DBX122M07	12x2x0,75	17,0	185	350	19
47090DBX162M07	16x2x0,75	19,0	245	445	19
47090DBX202M07	20x2x0,75	21,5	298	520	19
47090DBX242M07	24x2x0,75	23,2	365	620	19
47090DBX362M07	36x2x0,75	28,2	532	940	19
47090DBX482M07	48x2x0,75	32,0	709	1250	19
47090DBX012M13	1x2x1,3	8,8	31	102	16
47090DBX022M13	2x2x1,3	11,7	62	161	16
47090DBX042M13	4x2x1,3	13,5	114	230	16
47090DBX062M13	6x2x1,3	16,0	168	310	16
47090DBX08M13	8x2x1,3	16,8	218	377	16
47090DBX122M13	12x2x1,3	19,3	322	515	16
47090DBX162M13	16x2x1,3	22,0	426	656	16
47090DBX242M13	24x2x1,3	26,5	684	952	16

Other dimensions and colours available on request.

BLACK:

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
47090D7X012M05	1x2x0,5	7,5	15	74	20
47090D7X022M05	2x2x0,5	10,2	30	117	20
47090D7X042M05	4x2x0,5	11,0	50	140	20
47090D7X062M05	6x2x0,5	12,6	70	190	20
47090D7X082M05	8x2x0,5	13,8	90	215	20
47090D7X102M05	10x2x0,5	14,6	110	220	20
47090D7X122M05	12x2x0,5	15,7	130	280	20
47090D7X162M05	16x2x0,5	17,5	170	352	20
47090D7X202M05	20x2x0,5	18,5	210	385	20
47090D7X242M05	24x2x0,5	20,2	270	468	20
47090D7X362M05	36x2x0,5	24,0	370	656	20
47090D7X482M05	48x2x0,5	27,4	490	854	20
47090D7X012M07	1x2x0,75	7,9	20	74	19
47090D7X022M07	2x2x0,75	10,6	35	123	19
47090D7X042M07	4x2x0,75	11,7	65	164	19
47090D7X082M07	8x2x0,75	14,6	125	258	19
47090D7X102M07	10x2x0,75	15,8	154	305	19
47090D7X122M07	12x2x0,75	17,0	185	350	19
47090D7X162M07	16x2x0,75	19,0	245	445	19
47090D7X202M07	20x2x0,75	21,5	298	520	19
47090D7X242M07	24x2x0,75	23,2	365	620	19
47090D7X362M07	36x2x0,75	28,2	532	940	19
47090D7X482M07	48x2x0,75	32,0	708	1250	19
47090D7X012M13	1x2x1,3	8,8	31	102	16
47090D7X022M13	2x2x1,3	11,7	62	161	16
47090D7X042M13	4x2x1,3	13,5	114	230	16
47090D7X062M13	6x2x1,3	16,0	168	310	16
47090D7X08M13	8x2x1,3	16,8	218	377	16
47090D7X122M13	12x2x1,3	19,3	322	515	16
47090D7X162M13	16x2x1,3	22,0	426	656	16

* For cables laying in earth a screen-cross section of 16 mm is permitted.

RE-2Y(St)Y PiMF

Screened multi pair, PE insulated, PVC sheath

RoHS CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228, DIN VDE 0295
Insulation:	PE type 2YI1
Colour core:	white-black, with black progressively numbered.
Stranding:	cores twisted in pairs-triads. pairs-triads twisted in concentric layers
Screen *Individual:*	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Overall:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	blue (RAL 5015) or black (RAL 9005),PVC type TM1

Features:

- **standard TS/DIN EN 50288-7**
- **Insulation thickness:**

mm²	0,50	0,75	1.0	1,3	1,5
mm	0,40	0,40	0,40	0,45	0,45

- **Conductor resistance:**

mm²	0,50	0,75	1.0	1,3	1,5
Ω/km	36,7	25,0	18,5	14,2	12,3

- **Insulation resistance:** min. 5000 MΩ.km
- **Mutual capacitance:**

	≤ 4 pairs	all other pairs
0,50 mm²:	max. 115 pF/m	max. 90 pF/m
0,75 mm²:	max. 115 pF/m	max. 90 pF/m
1,0 mm²:	max. 115 pF/m	max. 90 pF/m
1,3 mm²:	max. 120 pF/m	max. 105 pF/m
1,5 mm²:	max. 120 pF/m	max. 105 pF/m

- **Capacitance unbalance:** (1 kHz): max. 500 pF/500 m
- **L/R (oran-ratio) (max.):**

mm²	0,50	0,75	1.0	1,3	1,5
µH/Ω	25	25	25	40	40

Technical data:

Nominal voltage:	300/500 V
Test voltage:	2 kV
Temperature range:	
Fixed installation:	- 30 °C / + 70 °C
Flexible application:	0 °C / + 70 °C
Max short circuit temperature:	160 °C
Resistence:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/ IEC 60332-3

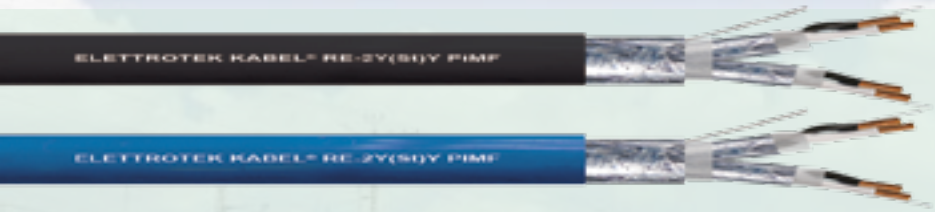
Applications:

These cables are used for transmission of analoge and digital signals in instrument and control systems at chemistry and petro-chemistry industry plants, natural gas and petroleum plants. With blue sheath it is suitable for intrinsically safe systems.
these cables are for indoor/outdoor installation,in dry and wet locations,on rack trays, in conduits.

RE-2Y(St)Y PiMF

Screened multi pair, PE insulated, PVC sheath

RoHS CE



Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
47100D.X022M05	2x2x0,50	9,8	-	33	20
47100D.X042M05	4x2x0,50	11,2	-	62	20
47100D.X062M05	6x2x0,50	13,2	-	90	20
47100D.X082M05	8x2x0,50	14,4	-	119	20
47100D.X102M05	10x2x0,50	17,2	-	147	20
47100D.X122M05	12x2x0,50	17,7	-	176	20
47100D.X162M05	16x2x0,50	20,2	-	233	20
47100D.X202M05	20x2x0,50	22,2	-	290	20
47100D.X242M05	24x2x0,50	25,2	-	348	19
47100D.X022M07	2x2x0,75	10,4	43,2	115	19
47100D.X042M07	4x2x0,75	12	81,6	175	19
47100D.X062M07	6x2x0,50	14	120	250	19
47100D.X082M07	8x2x0,50	15,5	158,4	295	19
47100D.X102M07	10x2x0,75	19	196,8	420	19
47100D.X122M07	12x2x0,75	16,5	235,2	475	19
47100D.X162M07	16x2x0,75	21,6	312	600	19
47100D.X202M07	20x2x0,75	24,5	388,8	750	19
47100D.X242M07	24x2x0,75	27	465,6	875	19
47100D.X022M10	2x2x1	11,2	52,8	135	18
47100D.X042M10	4x2x1	13	100,8	205	18
47100D.X062M10	6x2x1	15,3	148,8	294	18
47100D.X082M10	8x2x1	17,3	196,8	380	18
47100D.X102M10	10x2x1	20,6	244,8	495	18
47100D.X202M10	20x2x1	26,5	448,8	895	18
47100D.X022M15	2x2x1,5	13	72	170	16
47100D.X042M15	4x2x1,5	15	139,2	275	16
47100D.X062M15	6x2x1,5	19,2	206,4	455	16
47100D.X082M15	8x2x1,5	21	273,6	540	16
47100D.X102M15	10x2x1,5	24,8	340,8	700	16
47100D.X202M15	20x2x1,5	32	811,2	1255	16

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

RE-2Y(St)Yv PiMF

RoHS CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228, DIN VDE 0295
Insulation:	PE compound
Colour core:	core cores with numbering 1st core : black 2nd core : white with number print 1/1, 2/2 etc.
Stranding:	cores twisted in pairs, PiMF (pair in metal foil), foil taping, drain-wire, Cu-bare 0,6 mm,plastic coated alu-foil and plastic foil, PiMF stranded in layer, 1 communication core PE-insulation orange
Screen: *Individual:* *Overall:*	 electrostatic screen of plastic and aluminium tape + tinned drain-wire electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	blue (RAL 5015) or black (RAL 9005) PVC compound,low smoke and low halogen compound

Features:

Conductor resistence:	0,5 mm : max. 0,39 0hm/km 1,3 mm : max. 14,2 0hm/km
Insulation resistence:	min. 5 G0hm x km
Mutual capacitance:	at 800 Hz core/core 0,5 mm : 75 nF/km core/core 1,3 mm : 100 nF/km
Inductance:	max. 0,75 mH/km
Cross-talk:	min 1,02 dB/kmat 60 kHz

Technical data:

Nominal voltage:	300 V
Test voltage: *core/core:* *core /screen:*	 2 kV 2 kV
Temperature range: *Fixed installation:* *Flexible application:*	 - 40 °C / + 70 °C - 5 °C / + 70 °C
Max short circuit temperature:	+160°C
Resistance:	**Flame retardant and sel-extinguishing acc.to:** PVC DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

Applications:

Instrumentation cables are used in data processing and process control. in damp locations, in open space and in under-ground laying.

BLACK:

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47110C7X022M05	*2x2x0,5*	*12,0*	*35*	*128*	*20*
47110C7X042M05	*4x2x0,5*	*12,7*	*60*	*170*	*20*
47110C7X062M05	*6x2x0,5*	*14,0*	*82*	*215*	*20*
47110C7X082M05	*8x2x0,5*	*14,9*	*121*	*246*	*20*
47110C7X102M05	*10x2x0,5*	*16,4*	*136*	*261*	*20*
47110C7X122M05	*12x2x0,5*	*17,6*	*161*	*351*	*20*
47110C7X162M05	*16x2x0,5*	*19,8*	*212*	*430*	*20*
47110C7X202M05	*20x2x0,5*	*21,2*	*262*	*496*	*20*
47110C7X242M05	*24x2x0,5*	*23,6*	*313*	*604*	*20*
47110C7X362M05	*36x2x0,5*	*26,9*	*465*	*850*	*20*
47110C7X482M05	*48x2x0,5*	*32,2*	*616*	*1115*	*20*
47110C7X022M13	*2x2x1,3*	*12,7*	*68*	*184*	*16*
47110C7X042M13	*4x2x1,3*	*15,2*	*124*	*269*	*16*
47110C7X062M13	*6x2x1,3*	*16,7*	*178*	*370*	*16*
47110C7X082M13	*8x2x1,3*	*18,8*	*239*	*442*	*16*
47110C7X122M13	*12x2x1,3*	*21,4*	*353*	*593*	*16*
47110C7X162M13	*16x2x1,3*	*24,7*	*468*	*789*	*16*
47110C7X242M13	*24x2x1,3*	*29,4*	*697*	*1104*	*16*

BLUE:

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47110CBX022M05	*2x2x0,5*	*12,0*	*35*	*128*	*20*
47110CBX042M05	*4x2x0,5*	*12,7*	*60*	*170*	*20*
47110CBX062M05	*6x2x0,5*	*14,0*	*82*	*215*	*20*
47110CBX082M05	*8x2x0,5*	*14,9*	*121*	*246*	*20*
47110CBX102M05	*10x2x0,5*	*16,4*	*136*	*261*	*20*
47110CBX122M05	*12x2x0,5*	*17,6*	*161*	*351*	*20*
47110CBX162M05	*16x2x0,5*	*19,8*	*212*	*430*	*20*
47110CBX202M05	*20x2x0,5*	*21,2*	*262*	*496*	*20*
47110CBX242M05	*24x2x0,5*	*23,6*	*313*	*604*	*20*
47110CBX362M05	*36x2x0,5*	*26,9*	*465*	*850*	*20*
47110CBX482M05	*48x2x0,5*	*32,2*	*616*	*1115*	*20*
47110CBX022M13	*2x2x1,3*	*12,7*	*68*	*184*	*16*
47110CBX042M13	*4x2x1,3*	*15,2*	*124*	*269*	*16*
47110CBX062M13	*6x2x1,3*	*16,7*	*178*	*370*	*16*
47110CBX082M13	*8x2x1,3*	*18,8*	*239*	*442*	*16*
47110CBX122M13	*12x2x1,3*	*21,4*	*353*	*593*	*16*
47110CBX162M13	*16x2x1,3*	*24,7*	*468*	*789*	*16*
47110CBX242M13	*24x2x1,3*	*29,4*	*697*	*1104*	*16*

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

RE-2Y(St)YRY

Screened/armouring single and multi pair, PE insulated, PVC sheath

RoHS CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228, DIN VDE 0295
Insulation:	PE type 2YI1
Colour core:	black/white, cores numbered
Stranding:	two conductors twisted to pair
Wrapping:	Polyester tape
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Armour:	braid of galvanized steel wires
Inner sheath:	PVC type YM1,
Outer sheath:	black (RAL 9005), or blue (RAL 5015) PVC type YM1

Features:

► **standard TS/DIN EN 50288-7**

Min. bending radius: 10 x d

Insulation thickness:	mm²	0,50	0,75	1.0	1,3	1,5
	mm	0,40	0,40	0,40	0,45	0,45
Conductor resistance:	mm²	0,50	0,75	1.0	1,3	1,5
	Ω/km	36,7	25,0	18,5	14,2	12,3

Insulation resistance: min. 5000 MΩ.km

Mutual capacitance:	≤ 4 pairs	all other pairs
	0,50 mm²: max. 115 pF/m	max. 90 pF/m
	0,75 mm²: max. 115 pF/m	max. 90 pF/m
	1,0 mm²: max. 115 pF/m	max. 90 pF/m
	1,3 mm²: max. 120 pF/m	max. 105 pF/m
	1,5 mm²: max. 120 pF/m	max. 105 pF/m

Capacitance unbalance: (1 kHz): max. 500 pF/500 m

L/R (oran-ratio) (max.):	mm²	0,50	0,75	1.0	1,3	1,5
	µH/Ω	25	25	25	40	40

Technical data:

Nominal voltage:	300/500 V
Test voltage:	1,5 kV
Temperature range:	
Fixed installation:	- 30°C / + 70°C
Flexible application:	- 5°C / + 50°C
Min. bending radius:	7,5 x d
Resistance:	**Flame retardant and sel-extinguishing acc.to:** PVC DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

Applications:

These cables are used for transmission of analoge and digital signals in instrument and control systems at chemistry and petrochemistry industry plants, natural gas and petroleum plants. With blue sheath it is suitable for intrinsically safe systems.
these cables are for indoor/outdoor installation, in dry and wet locations, on rack trays, in conduits.

RE-2Y(St)YRY

Screened/armouring single and multi pair, PE insulated, PVC sheath

RoHS CE

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
47120D.X022M05	2x2x0,50	12,5	30	300	20
47120D.X042M05	4x2x0,50	13,5	50	360	20
47120D.X082M05	8x2x0,50	18	90	590	20
47120D.X122M05	12x2x0,50	20,5	130	790	20
47120D.X162M05	16x2x0,50	23	170	1030	20
47120D.X242M05	24x2x0,50	27,5	270	1370	19
47120D.X022M07	2x2x0,75	13	35	330	19
47120D.X042M07	4x2x0,75	14,5	65	400	19
47120D.X082M07	8x2x0,75	19,5	125	700	19
47120D.X122M07	12x2x0,75	23	185	1020	19
47120D.X162M07	16x2x0,75	25,5	245	1240	19
47120D.X242M07	24x2x0,75	30,5	365	1620	19
47120D.X022M10	2x2x1	13,5	43,2	375	18
47120D.X042M10	4x2x1	16,5	81,6	535	18
47120D.X082M10	8x2x1	21	158,4	795	18
47120D.X122M10	12x2x1	25,5	235,2	1230	18
47120D.X162M10	16x2x1	27,5	312	1420	18
47120D.X242M10	24x2x1	33	464,8	1900	18
47120D.X022M15	2x2x1,5	16,5	62,4	525	16
47120D.X042M15	4x2x1,5	19,5	120	960	16
47120D.X082M15	8x2x1,5	21,5	235,2	1230	16
47120D.X122M15	12x2x1,5	28,7	350,4	1530	16
47120D.X162M15	16x2x1,5	32,1	464,8	1885	16
47120D.X242M15	24x2x1,5	41,5	696	3270	16

* For cables laying in earth a screen-cross section of 16 mm is permitted.

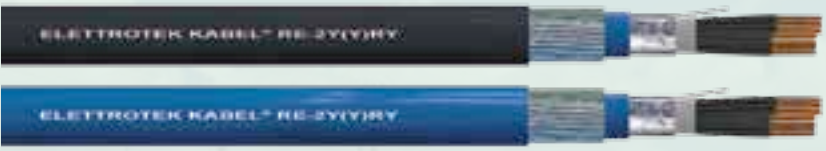
Other dimensions and colours available on request.

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

RE-2Y(St)YRY

Screened/armouring multi core, PE insulated, PVC sheath

RoHS



Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228, DIN VDE 0295
Insulation:	PE type 2YI1
Colour core:	black cores numbered
Stranding:	PiMF laid up in layers of optimum pitch
Wrapping:	Polyester tape over solid tinned copper drain wire, 0,60 mm
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Armour:	braid of galvanized steel wires
Inner sheath:	PVC type YM1
Outer sheath:	black (RAL 9005), or blue (RAL 5015) PVC type YM1

Features:

► **standard TS/DIN EN 50288-7**

Mutual capacitance: max. 120 pF/m

Conductor resistance:	mm²	0,50	0,75	1,0	1,3	1,5	2,5
	Ω/km	36,7	24,5	18,1	13,9	12,1	7,4

Insulation resistance: min. 5000 MΩ.km

L/R (oran-ratio) (max.):	mm²	0,50	0,75	1.0	1,3	1,5	2,5
	µH/Ω	25	25	25	40	40	60

Technical data:

Nominal voltage:	300/500 V
Test voltage:	1,5 kV
Temperature range:	
Fixed installation:	- 30°C / + 70°C
Flexible application:	- 5°C / + 50°C
Min. bending radius:	7,5 x d
Resistance:	**Flame retardant and sel-extinguishing acc.to:** PVC DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

Applications:

These cables are used for control purposes, (controlling of pumps valves or engines) at chemistry and petrochemistry industry plants, power plants, natural gas and petroleum plants. With blue sheath it is suitable for intrinsically safe systems.
These cables are for indoor/outdoor installation, in dry and wet locations, on rack, trays, in conduits.

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47120D.1020M05	*2x0,50*	*10,8*	*14,0*	*225*	*20*
47120D.1030M05	*3x0,50*	*11,3*	*19,0*	*250*	*20*
47120D.1040M05	*4x0,50*	*11,8*	*24,0*	*280*	*20*
47120D.1050M05	*5x0,50*	*12,4*	*29,0*	*315*	*20*
47120D.1060M05	*6x0,50*	*13,0*	*34,0*	*345*	*20*
47120D.1080M05	*8x0,50*	*13,9*	*43,0*	*400*	*20*
47120D.1100M05	*10x0,50*	*15,2*	*53,0*	*470*	*20*
47120D.1120M05	*12x0,50*	*15,5*	*62,0*	*505*	*20*
47120D.1140M05	*14x0,50*	*16,0*	*72,0*	*550*	*20*
47120D.1160M05	*16x0,50*	*16,6*	*82,0*	*600*	*20*
47120D.1200M05	*20x0,50*	*17,9*	*101,0*	*695*	*20*
47120D.1240M05	*24x0,50*	*19,4*	*120,0*	*800*	*20*
47120D.1270M05	*27x0,50*	*19,7*	*134,0*	*855*	*20*
47120D.1300M05	*30x0,50*	*20,9*	*149,0*	*1015*	*20*
47120D.1370M05	*37x0,50*	*22,1*	*182,0*	*1160*	*20*
47120D.1400M05	*40x0,50*	*23,0*	*197,0*	*1240*	*20*
47120D.1020M07	*2x0,75*	*11,4*	*19,0*	*250*	*19*
47120D.1030M07	*3x0,75*	*11,8*	*26,0*	*280*	*19*
47120D.1040M07	*4x0,75*	*12,3*	*34,0*	*320*	*19*
47120D.1050M07	*5x0,75*	*12,9*	*41,0*	*355*	*19*

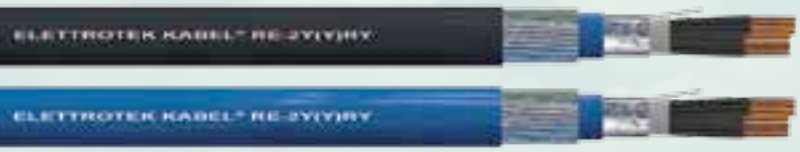
Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47120D.1020M13	*2x1,3*	*12,3*	*30,0*	*300*	*17*
47120D.1030M13	*3x1,3*	*12,7*	*42,0*	*350*	*17*
47120D.1030M13	*4x1,3*	*13,4*	*55,0*	*400*	*17*
47120D.1050M13	*5x1,3*	*14,2*	*67,0*	*455*	*17*
47120D.1060M13	*6x1,3*	*15,2*	*80,0*	*515*	*17*
47120D.1080M13	*8x1,3*	*16,3*	*105,0*	*615*	*17*
47120D.1100M13	*10x1,3*	*17,8*	*130,0*	*725*	*17*
47120D.1120M13	*12x1,3*	*18,2*	*155,0*	*805*	*17*
47120D.1140M13	*14x1,3*	*19,1*	*180,0*	*895*	*17*
47120D.1160M13	*16x1,3*	*20,6*	*204,0*	*1090*	*17*
47120D.1200M13	*20x1,3*	*22,2*	*254,0*	*1280*	*17*
47120D.1240M13	*24x1,3*	*24,2*	*304,0*	*1490*	*17*
47120D.1270M13	*27x1,3*	*24,6*	*342,0*	*1600*	*17*
47120D.1300M13	*30x1,3*	*25,3*	*379,0*	*1725*	*17*
47120D.1370M13	*37x1,3*	*27,1*	*467,0*	*2025*	*17*
47120D.1400M13	*40x1,3*	*27,9*	*504,0*	*2160*	*17*
47120D.1020M15	*2x1,5*	*12,6*	*34,0*	*320*	*16*
47120D.1030M15	*3x1,5*	*13,0*	*48,0*	*370*	*16*
47120D.1030M15	*4x1,5*	*13,8*	*62,0*	*430*	*16*
47120D.1050M15	*5x1,5*	*14,6*	*77,0*	*490*	*16*

Other dimensions and colours available on request.

RE-2Y(St)YRY

Screened/armouring multi core, PE insulated, PVC sheath

RoHS



Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
47120D.1060M07	6x0,75	13,4	48,0	390	19
47120D.1080M07	8x0,75	14,8	62,0	470	19
47120D.1100M07	10x0,75	16,0	77,0	545	19
47120D.1120M07	12x0,75	16,4	91,0	595	19
47120D.1140M07	14x0,75	16,9	106,0	655	19
47120D.1160M07	16x0,75	17,5	120,0	710	19
47120D.1060M07	20x0,75	19,1	149,0	840	19
47120D.1240M07	24x0,75	21,3	178,0	1075	19
47120D.1270M07	27x0,75	21,6	199,0	1145	19
47120D.1300M07	30x0,75	22,2	221,0	1230	19
47120D.1370M07	37x0,75	23,7	271,0	1430	19
47120D.1400M07	40x0,75	24,4	293,0	1515	19
47120D.1020M10	2x1	11,8	24,0	275	18
47120D.1030M10	3x1	12,2	34,0	310	18
47120D.1040M10	4x1	12,8	43,0	355	18
47120D.1050M10	5x1	13,5	53,0	400	18
47120D.1060M10	6x1	14,2	62,0	445	18
47120D.1080M10	8x1	15,5	82,0	535	18
47120D.1100M10	10x1	16,8	101,0	625	18
47120D.1120M10	12x1	17,2	120,0	690	18
47120D.1140M10	14x1	17,8	139,0	760	18
47120D.1160M10	16x1	18,5	158,0	830	18
47120D.1200M10	20x1	20,9	197,0	1090	18
47120D.1240M10	24x1	22,7	235,0	1260	18
47120D.1270M10	27x1	23,1	264,0	1355	18
47120D.1300M10	30x1	23,7	293,0	1455	18
47120D.1370M10	37x1	25,1	360,0	1690	18
47120D.1400M10	40x1	26,1	388,0	1805	18

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
47120D.1060M15	6x1,5	15,6	91,0	555	16
47120D.1080M15	8x1,5	16,9	120,0	670	16
47120D.1100M15	10x1,5	18,4	149,0	790	16
47120D.1120M15	12x1,5	19,0	178,0	885	16
47120D.1130M15	14x1,5	19,7	206,0	980	16
47120D.1160M15	16x1,5	21,3	235,0	1185	16
47120D.1200M15	20x1,5	23,2	293,0	1410	16
47120D.1240M15	24x1,5	25,1	350,0	1630	16
47120D.1270M15	27x1,5	25,5	394,0	1760	16
47120D.1300M15	30x1,5	26,4	437,0	1910	16
47120D.1370M15	37x1,5	28,1	538,0	2235	16
47120D.1400M15	40x1,5	29,0	581,0	2385	16
47120D.1020M25	2x2,5	13,8	34,0	360	14
47120D.1030M25	3x2,5	14,3	48,0	420	14
47120D.1040M25	4x2,5	15,4	62,0	490	14
47120D.1050M25	5x2,5	16,4	77,0	560	14
47120D.1060M25	6x2,5	17,4	91,0	630	14
47120D.1080M25	8x2,5	19,1	120,0	765	14
47120D.1100M25	10x2,5	21,7	149,0	1010	14
47120D.1120M25	12x2,5	22,2	178,0	1115	14
47120D.1140M25	14x2,5	23,3	206,0	1237	14
47120D.1160M25	16x2,5	24,3	235,0	1355	14
47120D.1200M25	20x2,5	26,4	293,0	1600	14
47120D.1240M25	24x2,5	28,9	350,0	1860	14
47120D.1270M25	27x2,5	29,4	394,0	2000	14
47120D.1300M25	30x2,5	30,5	437,0	2170	14
47120D.1370M25	37x2,5	33,2	538,0	2715	14
47120D.1400M25	40x2,5	34,9	581,0	2945	14

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

RE-2Y(St)YRY PiMF

Screened/armouring multi pair, PE insulated, PVC sheath

RoHS CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228, DIN VDE 0295
Insulation:	PE type 2YI1
Colour core:	black/white, cores numbered
Stranding:	two conductors twisted to pair, PiMF laid up in layers of optimum pitch
Wrapping:	(PiMF) Polyester tape above the pair, AL-PES tape over solid tinned copper drain wire, 0,60 mm
Screen: *Individual:* *Overall:*	 electrostatic, made up of an aluminium tape/polymer + drain-wire tinned electrostatic, made up of an aluminium tape/polymer + drain-wire tinned
Armour:	braid of galvanized steel wires
Inner sheath:	PVC compound
Outer sheath:	black (RAL 9005), or blue (RAL 5015) PVC type YM1

Features:

➤ **standard TS/DIN EN 50288-7**

Mutual capacitance:	max. 120 pF/m					
Insulation thickness:	mm²	0,50	0,75	1.0	1,3	1,5
	mm	0,40	0,40	0,40	0,45	0,45
Conductor resistance:	mm²	0,50	0,75	1.0	1,3	1,5
	Ω/km	36,7	25,0	18,5	14,2	12,3
Insulation resistance:	min. 5000 MΩ.km					
Capacitance unbalance:	(1 kHz): max. 500 pF/500 m					
L/R (oran-ratio) (max.):	mm²	0,50	0,75	1.0	1,3	1,5
	µH/Ω	25	25	25	40	40

Technical data:

Nominal voltage:	300/500 V
Test voltage:	2 kV
Temperature range:	
Fixed installation:	- 30°C / + 90°C
Flexible application:	- 5°C / + 50°C
Min. bending radius:	10 x d
Resistance:	**Flame retardant and sel-extinguishing acc.to:** PVC DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

Applications:

These cables are used for transmission of analoge and digital signals in instrument and control systems at chemistry and petro-chemistry industry plants, natural gas and petroleum plants. With blue sheath it is suitable for intrinsically safe systems.
these cables are for indoor/outdoor installation, in dry and wet locations, on rack trays, in conduits..

RE-2Y(St)YRY PiMF

Screened/armouring multi pair, PE insulated, PVC sheath

RoHS CE

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
47130D.X022M05	2x2x0,50	13,1	33,6	340	20
47130D.X042M05	4x2x0,50	15,3	57,6	475	20
47130D.X082M05	8x2x0,50	20,1	120	735	20
47130D.X122M05	12x2x0,50	23,5	161	1075	20
47130D.X162M05	16x2x0,50	26,4	212	1300	20
47130D.X242M05	24x2x0,50	31,8	313	1730	20
47130D.X022M07	2x2x0,75	13,8	43,2	370	19
47130D.X042M07	4x2x0,75	16,6	81,6	545	19
47130D.X082M07	8x2x0,75	21,1	158,4	820	19
47130D.X122M07	12x2x0,75	25,8	230,4	1260	19
47130D.X162M07	16x2x0,75	27,8	312	1460	19
47130D.X242M07	24x2x0,75	36,0	465,6	2600	19
47130D.X022M10	2x2x1	15,3	52,8	455	18
47130D.X042M10	4x2x1	18	100,8	630	18
47130D.X082M10	8x2x1	23	196,8	1065	18
47130D.X122M10	12x2x1	27,4	292,8	1405	18
47130D.X162M10	16x2x1	30,3	388,8	1680	18
47130D.X242M10	24x2x1	38,8	580,8	2950	18
47130D.X022M15	2x2x1,5	18	72	525	18
47130D.X042M15	4x2x1,5	20,8	134,4	780	16
47130D.X082M15	8x2x1,5	27,2	273,6	1385	16
47130D.X122M15	12x2x1,5	32,2	408	1815	16
47130D.X162M15	16x2x1,5	37,3	527,2	2790	16
47130D.X242M15	24x2x1,5	45,5	763,2	3270	16

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

RE-2Y(St)YSWAY

Screened/armouring single and multi pair,PE insulated, PVC sheath

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228,DIN VDE 0295
Insulation:	PE compound
Colour core:	black/white,cores numbered
Stranding:	two conductors twisted to pair
Wrapping:	Polyester tape
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Inner sheath:	PVC compound
Armour:	braid of galvanized steel wires
Outer sheath:	black (RAL 9005), or blue (RAL 5015) PVC compound

Features:

➤ **standard TS/DIN EN 50288-7**

Insulation thickness:

mm²	0,50	0,75	1.0	1,3	1,5
mm	0,40	0,40	0,40	0,45	0,45

Conductor resistance:

mm²	0,50	0,75	1.0	1,3	1,5
Ω/km	36,7	25,0	18,5	14,2	12,3

Insulation resistance: min. 5000 MΩ.km

Mutual capacitance: ≤ 4 pairs all other pairs

0,50 mm²:	max. 115 pF/m	max. 90 pF/m
0,75 mm²:	max. 115 pF/m	max. 90 pF/m
1,0 mm²:	max. 115 pF/m	max. 90 pF/m
1,3 mm²:	max. 120 pF/m	max. 105 pF/m
1,5 mm²:	max. 120 pF/m	max. 105 pF/m

Capacitance unbalance: (1 kHz): max. 500 pF/500 m

L/R (ratio) (max.):

mm²	0,50	0,75	1.0	1,3	1,5
µH/Ω	25	25	25	40	40

Technical data:

Nominal voltage:	300 V
Test voltage:	1,5 kV
Temperature range:	
Fixed installation:	- 30°C / 70°C
Flexible application:	- 5°C /+ 50°C
Min. bending radius:	10 x d
Resistance:	**Flame retardant and sel-extinguishing acc.to:** PVC DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-3C

Applications:

These cables are used for transmission of analoge and digital signals in instrument and control systems at chemistry and petro-chemistry industry plants, natural gas and petroleum plants. With blue sheath it is suitable for intrinsically safe systems.
these cables are for indoor/outdoor installation, in dry and wet locations, on rack trays, in conduits.

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47140C.X012M05	1x2x0,50	10,2	14,0	185	20
47140C.X022M05	2x2x0,50	12,7	24,0	265	20
47140C.X042M05	4x2x0,50	14,0	43,0	325	20
47140C.X052M05	5x2x0,50	14,5	53,0	350	20
47140C.X062M05	6x2x0,50	15,4	62,0	390	20
47140C.X082M05	8x2x0,50	16,6	82,0	450	20
47140C.X102M05	10x2x0,50	17,7	101,0	505	20
47140C.X122M05	12x2x0,50	18,7	120,0	560	20
47140C.X162M05	16x2x0,50	21,4	158,0	775	20
47140C.X202M05	20x2x0,50	23,2	197,0	890	20
47140C.X242M05	24x2x0,50	24,6	235,0	990	19
47140C.X012M07	1x2x0,75	10,6	19,0	200	19
47140C.X022M07	2x2x0,75	13,4	34,0	295	19
47140C.X042M07	4x2x0,75	14,8	62,0	370	19
47140C.X072M07	5x2x0,75	15,5	77,0	405	19
47140C.X062M07	6x2x0,75	16,3	91,0	445	19
47140C.X082M07	8x2x0,75	17,7	120,0	520	19

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47140C.X042M10	4x2x1	15,9	82,0	420	18
47140C.X052M10	5x2x1	16,4	101,0	455	18
47140C.X062M10	6x2x1	17,3	120,0	505	18
47140C.X082M10	8x2x1	18,8	158,0	595	18
47140C.X102M10	10x2x1	21,1	197,0	795	18
47140C.X122M10	12x2x1	22,4	235,0	880	18
47140C.X162M10	16x2x1	24,8	312,0	1060	18
47140C.X202M10	20x2x1	26,9	389,0	1235	18
47140C.X242M10	24x2x1	28,7	466,0	1390	18
47140C.X012M13	1x2x1.3	11,8	30,0	245	17
47140C.X022M13	2x2x1.3	15,1	55,0	365	17
47140C.X042M13	4x2x1.3	17,1	105,0	480	17
47140C.X052M13	5x2x1.3	17,7	130,0	530	17
47140C.X062M13	6x2x1.3	18,7	155,0	585	17
47140C.X082M13	8x2x1.3	21,4	204,0	810	17
47140C.X102M13	10x2x1.3	23,0	254,0	925	17
47140C.X122M13	12x2x1.3	24,6	304,0	1045	17

RE-2Y(St)YSWAY

Screened/armouring single and multi pair,PE insulated, PVC sheath

RoHS

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
47140C.X102M07	10x2x0,75	19,0	149,0	595	19
47140C.X122M07	12x2x0,75	21,0	178,0	770	19
47140C.X162M07	16x2x0,75	23,2	235,0	920	19
47140C.X202M07	20x2x0,75	25,0	293,0	1055	19
47140C.X242M07	24x2x0,75	26,7	350,0	1195	19
47140C.X012M10	1x2x1	11,0	24,0	215	18
47140C.X022M10	2x2x1	14,1	43,0	325	18
47140C.X082M10	8x2x1	16,7	197,0	325	18

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
47140C.X162M13	16x2x1,3	27,3	404,0	1270	17
47140C.X202M13	20x2x1,3	29,5	504,0	1470	17
47140C.X242M13	24x2x1,3	32,8	604,0	1885	17
47140C.X012M15	1x2x1,5	12,0	34,0	255	16
47140C.X022M15	2x2x1,5	15,6	62,0	390	16
47140C.X042M15	4x2x1,5	17,5	120,0	510	16
47140C.X052M15	5x2x1,5	18,2	149,0	560	16
47140C.X062M15	6x2x1,5	20,1	178,0	730	16
47140C.X082M15	8x2x1,5	22,0	235,0	865	16
47140C.X102M15	10x2x1,5	23,8	293,0	1000	16
47140C.X122M15	12x2x1,5	25,3	350,0	1120	16
47140C.X162M15	16x2x1,5	28,1	466,0	1365	16
47140C.X202M15	20x2x1,5	30,6	581,0	1595	16
47140C.X242M15	24x2x1,5	33,8	696,0	2020	16

Other dimensions and colours available on request.

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

RE-2X(St)Y FI

Screened single and multi pair, XLPE insulated, PVC sheath

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228,DIN VDE 0295
Insulation:	XLPE compound
Colour core:	black/white,cores numbered
Stranding:	two conductors twisted to pair
Wrapping:	Polyester tape
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	black (RAL 9005), or blue (RAL 5015) PVC compound

Features:

Insulation thickness:	mm²	0,50	0,75	1.0	1,3	1,5
	mm	0,40	0,40	0,40	0,45	0,45
Conductor resistance:	mm²	0,50	0,75	1.0	1,3	1,5
	Ω/km	36,7	25,0	18,5	14,2	12,3
Insulation resistance:	min. 5000 MΩ.km					
Mutual capacitance:	max. 120 pF/m					
Capacitance unbalance:	(1 kHz): max. 500 pF/500 m					
L/R (oran-ratio) (max.):	mm²	0,50	0,75	1.0	1,3	1,5
	µH/Ω	25	25	25	40	40

Technical data:

Nominal voltage:	300 V
Test voltage:	1,5 kV
Temperature range:	
Fixed installation:	- 30°C / + 70°C
Flexible application:	- 5°C / + 50°C
Min. bending radius:	7,5 x d
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/ IEC 60332-1

Applications:

These cables are used for transmission of analoge and digital signals in instrument and control systems at chemistry and petrochemistry industry plants, natural gas and petroleum plants. With blue sheath it is suitable for intrinsically safe systems.
these cables are for indoor/outdoor installation, in dry and wet locations, on rack trays, in conduits.

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47150C.X012M05	*1x2x0,50*	*6,3*	*15*	*38*	*20*
47150C.X022M05	*2x2x0,50*	*8,3*	*24*	*63*	*20*
47150C.X042M05	*4x2x0,50*	*9*	*44*	*98*	*20*
47150C.X082M05	*8x2x0,50*	*11,5*	*84*	*160*	*20*
47150C.X122M05	*12x2x0,50*	*13,7*	*123*	*235*	*20*
47150C.X162M05	*16x2x0,50*	*15,4*	*163*	*291*	*20*
47150C.X242M05	*24x2x0,50*	*18,5*	*242*	*414*	*20*
47150C.X012M07	*1x2x0,75*	*6,7*	*17*	*49*	*19*
47150C.X022M07	*2x2x0,75*	*9,2*	*34*	*87*	*19*
47150C.X042M07	*4x2x0,75*	*10*	*64*	*123*	*19*
47150C.X082M07	*8x2x0,75*	*12,8*	*124*	*215*	*19*
47150C.X122M07	*12x2x0,75*	*15,3*	*184*	*299*	*19*
47150C.X162M07	*16x2x0,75*	*17,5*	*244*	*401*	*19*
47150C.X242M07	*24x2x0,75*	*21*	*364*	*563*	*19*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47150C.X012M10	*1x2x1*	*7,2*	*23*	*54*	*18*
47150C.X022M10	*2x2x1*	*10*	*45*	*98*	*18*
47150C.X042M10	*4x2x1*	*11*	*86*	*151*	*18*
47150C.X082M10	*8x2x1*	*14,2*	*167*	*266*	*18*
47150C.X122M10	*12x2x1*	*17*	*248*	*385*	*18*
47150C.X162M10	*16x2x1*	*19,5*	*330*	*503*	*18*
47150C.X242M10	*24x2x1*	*23,3*	*493*	*740*	*18*
47150C.X012M13	*1x2x1,3*	*7,7*	*34*	*65*	*17*
47150C.X022M13	*2x2x1,3*	*11*	*60*	*119*	*17*
47150C.X042M13	*4x2x1,3*	*12,2*	*114*	*185*	*17*
47150C.X082M13	*8x2x1,3*	*15,7*	*218*	*331*	*17*
47150C.X122M13	*12x2x1,3*	*19,1*	*322*	*489*	*17*
47150C.X162M13	*16x2x1,3*	*21,8*	*426*	*641*	*17*
47150C.X242M13	*24x2x1,3*	*26,2*	*684*	*920*	*17*

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

RE-2X(St)Yv PiMF

RoHS CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228,DIN VDE 0295
Insulation:	XLPE compound
Colour core:	blue,black with progressively numbered
Stranding:	pairs stranded to layers, multi-pair versions with communication core (XLPE-orange)
Screen:	
Individual:	electrostatic, made up of an aluminium tape/polymer + drain-wire tinned
Overall:	electrostatic, made up of an aluminium tape/polymer + drain-wire tinned
Outer sheath:	black (RAL 9005), or blue (RAL 5015) PVC compound

Features:

- Reinforced outer sheath
- more steady at higher frequences and temperature by XLPE core insulation (cross-linked PE)
- three-coat shield
- high cross-talk and low cable attenuation
- largely resistant to acids, bases and usual oils
- robust version (generally with strengthened black or blue outer sheath)
- IEC 189and IEC 502, HD 34, KEMA k102 and draft CENELEC specifications for computer cables

Conductor resistence:
0,5 : MAX. 39,2 OHM/KM
0,75 : MAX. 24,6 OHM/KM
1,3 : 14,2 OHM/KM
Insulation resistence:
MIN. 5 G0HM X KM

Technical data:

Nominal voltage:	300 V
Test voltage:	1,5 kV
Temperature range:	
Fixed installation:	- 30 °C / + 70 °C
Flexible application:	- 5 °C / + 50 °C
Max short circuit temperature:	+160 °C
Inductance:	MAX. 0,65 MH/KM
Resistance:	**Flame retardant and sel-extinguishing acc.to:** PVC DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

Applications:

computer cable for optimal data transmission at medium data
transfer rates up to 200 kbits/s in process control and IT-systems
for lossless data and signal transmission.
Suitable for dry and humid rooms, outdoor use and laying
underground.

BLACK:

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47160C7X022M05	*2x2x0,5*	*10,7*	*35*	*120*	*20*
47160C7X042M05	*4x2x0,5*	*12,1*	*62*	*160*	*20*
47160C7X122M05	*12x2x0,5*	*17,4*	*176*	*340*	*20*
47160C7X242M05	*24x2x0,5*	*23*	*348*	*580*	*20*
47160C7X022M07	*2x2x0,75*	*11,4*	*47*	*140*	*19*
47160C7X042M07	*4x2x0,75*	*13*	*82*	*190*	*19*
47160C7X062M07	*6x2x0,75*	*15,2*	*124*	*260*	*19*
47160C7X082M07	*8x2x0,75*	*16,1*	*160*	*310*	*19*
47160C7X122M07	*12x2x0,75*	*18,8*	*237*	*410*	*19*
47160C7X242M07	*24x2x0,75*	*25,5*	*470*	*760*	*19*
47160C7X022M07	*2x2x1,3*	*12,6*	*68*	*135*	*16*
47160C7X042M07	*4x2x1,3*	*14,4*	*124*	*220*	*16*
47160C7X062M07	*6x2x1,3*	*17*	*181*	*301*	*16*
47160C7X082M07	*8x2x1,3*	*18*	*239*	*389*	*16*
47160C7X122M07	*12x2x1,3*	*21,3*	*353*	*580*	*16*
47160C7X242M07	*24x2x1,3*	*29*	*697*	*1090*	*16*

* For cables laying in earth a screen-cross section of 16 mm is permitted.

BLUE:

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47160CBX022M05	*2x2x0,5*	*10,7*	*35*	*120*	*20*
47160CBX042M05	*4x2x0,5*	*12,1*	*62*	*160*	*20*
47160CBX062M05	*6x2x0,5*	*14,1*	*90*	*210*	*20*
47160CBX122M05	*12x2x0,5*	*17,4*	*176*	*340*	*20*
47160CBX242M05	*24x2x0,5*	*23*	*348*	*580*	*20*
47160CBX022M07	*2x2x0,75*	*11,4*	*47*	*140*	*19*
47160CBX042M07	*4x2x0,75*	*13*	*82*	*190*	*19*
47160CBX062M07	*6x2x0,75*	*15,2*	*124*	*260*	*19*
47160CBX082M07	*8x2x0,75*	*16,1*	*160*	*310*	*19*
47160CBX122M07	*12x2x0,75*	*18,8*	*237*	*410*	*19*
47160CBX242M07	*24x2x0,75*	*25,5*	*470*	*760*	*19*
47160CBX022M13	*2x2x1,3*	*12,6*	*68*	*135*	*16*
47160CBX042M13	*4x2x1,3*	*14,4*	*124*	*220*	*16*
47160CBX062M13	*6x2x1,3*	*17*	*181*	*301*	*16*
47160CBX082M13	*8x2x1,3*	*18*	*239*	*389*	*16*
47160CBX122M13	*12x2x1,3*	*21,3*	*353*	*580*	*16*
47160CBX242M13	*24x2x1,3*	*29*	*697*	*1090*	*16*

Other dimensions and colours available on request.

RE-2X(St)YSWAY

Screened/armouring single and multi pair, XLPE insulated, PVC sheath

RoHS

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228,DIN VDE 0295
Insulation:	XLPE compound
Colour core:	blue,black with progressively numbered
Stranding:	two conductors twisted to pair, pair laid up in layers with optimum pitch
Wrapping:	Polyester tape
Screen:	electrostatic, made up of an aluminium tape/polymer + drain-wire tinned
Inner sheath:	PVC compound
Armour:	braid of galvanized steel wires
Outer sheath:	black (RAL 9005), or blue (RAL 5015) PVC compound

Features:

► **standard TS/DIN EN 50288-7**

Insulation thickness:	mm²	0,50	0,75	1.0	1,3	1,5
	mm	0,40	0,40	0,40	0,45	0,45
Conductor resistance:	mm²	0,50	0,75	1.0	1,3	1,5
	Ω/km	36,7	25,0	18,5	14,2	12,3

Insulation resistance: min. 5000 MΩ.km

Mutual capacitance: ≤ 4 pairs all other pairs

0,50 mm²:	max. 115 pF/m	max. 90 pF/m
0,75 mm²:	max. 115 pF/m	max. 90 pF/m
1,0 mm²:	max. 115 pF/m	max. 90 pF/m
1,3 mm²:	max. 120 pF/m	max. 105 pF/m
1,5 mm²:	max. 120 pF/m	max. 105 pF/m

Capacitance unbalance: (1 kHz): max. 500 pF/500 m

L/R (ratio) (max.):	mm²	0,50	0,75	1.0	1,3	1,5
	µH/Ω	25	25	25	40	40

Technical data:

Nominal voltage:	Uo/U 300/500 V
Test voltage:	2 kV
Temperature range:	
Fixed installation:	- 30°C / 90°C
Flexible application:	- 5°C /+ 50°C
Min. bending radius:	10 x d
Resistance:	**Flame retardant acc. to:** DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1

Applications:

These cables are used for transmission of analoge and digital signals in instrument and control systems at chemistry and petro-chemistry industry plants, natural gas and petroleum plants. With blue sheath it is suitable for intrinsically safe systems.
these cables are for indoor/outdoor installation, in dry and wet locations, on rack trays, in conduits.

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47170D.X012M05	*1x2x0,50*	*10,2*	*14,0*	*185*	*20*
47170D.X022M05	*2x2x0,50*	*12,7*	*24,0*	*265*	*20*
47170D.X042M05	*4x2x0,50*	*14,0*	*43,0*	*325*	*20*
47170D.X052M05	*5x2x0,50*	*14,5*	*53,0*	*350*	*20*
47170D.X062M05	*6x2x0,50*	*15,4*	*62,0*	*390*	*20*
47170D.X082M05	*8x2x0,50*	*16,6*	*82,0*	*450*	*20*
47170D.X102M05	*10x2x0,50*	*17,7*	*101,0*	*505*	*20*
47170D.X122M05	*12x2x0,50*	*18,7*	*120,0*	*560*	*20*
47170D.X162M05	*16x2x0,50*	*21,4*	*158,0*	*775*	*20*
47170D.X202M05	*20x2x0,50*	*23,2*	*197,0*	*890*	*20*
47170D.X242M05	*24x2x0,50*	*24,6*	*235,0*	*990*	*19*
47170DBX012M07	*1x2x0,75*	*10,6*	*19,0*	*200*	*19*
47170D.X022M07	*2x2x0,75*	*13,4*	*34,0*	*295*	*19*
47170D.X042M07	*4x2x0,75*	*14,8*	*62,0*	*370*	*19*
47170D.X052M07	*5x2x0,75*	*15,5*	*77,0*	*405*	*19*
47170D.X062M07	*6x2x0,75*	*16,3*	*91,0*	*445*	*19*
47170D.X082M07	*8x2x0,75*	*17,7*	*120,0*	*520*	*19*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47170D.X042M10	*4x2x1*	*15,9*	*82,0*	*420*	*18*
47170D.X102M10	*5x2x1*	*16,4*	*101,0*	*455*	*18*
47170D.X062M10	*6x2x1*	*17,3*	*120,0*	*505*	*18*
47170D.X082M10	*8x2x1*	*18,8*	*158,0*	*595*	*18*
47170D.X102M10	*10x2x1*	*21,1*	*197,0*	*795*	*18*
47170D.X122M10	*12x2x1*	*22,4*	*235,0*	*880*	*18*
47170D.X162M10	*16x2x1*	*24,8*	*312,0*	*1060*	*18*
47170D.X202M10	*20x2x1*	*26,9*	*389,0*	*1235*	*18*
47170D.X242M10	*24x2x1*	*28,7*	*466,0*	*1390*	*18*
47170D.X012M13	*1x2x1.3*	*11,8*	*30,0*	*245*	*17*
47170D.X022M13	*2x2x1.3*	*15,1*	*55,0*	*365*	*17*
47170D.X042M13	*4x2x1.3*	*17,1*	*105,0*	*480*	*17*
47170D.X052M13	*5x2x1.3*	*17,7*	*130,0*	*530*	*17*
47170D.X062M13	*6x2x1.3*	*18,7*	*155,0*	*585*	*17*
47170D.X082M13	*8x2x1.3*	*21,4*	*204,0*	*810*	*17*
47170D.X102M13	*10x2x1.3*	*23,0*	*254,0*	*925*	*17*
47170D.X122M13	*12x2x1.3*	*24,6*	*304,0*	*1045*	*17*

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

RE-2X(St)YSWAY

Screened/armouring single and multi pair, XLPE insulated, PVC sheath

RoHS

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
47170D.X102M07	10x2x0,75	19,0	149,0	595	19
47170D.X122M07	12x2x0,75	21,0	178,0	770	19
47170D.X162M07	16x2x0,75	23,2	235,0	920	19
47170D.X202M07	20x2x0,75	25,0	293,0	1055	19
47170D.X242M07	24x2x0,75	26,7	350,0	1195	19
47170D.X012M10	1x2x1	11,0	24,0	215	18
47170D.X022M10	2x2x1	14,1	43,0	325	18

* For cables laying in earth a screen-cross section of 16 mm is permitted.

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

Part no.	No.of cores x cross section n x mm²	Outer Ø ca.mm ±10%	Copper weight kg/km	Cable weight approx. kg/km	AWG no.*)
47170D.X162M13	16x2x1,3	27,3	404,0	1270	17
47170D.X202M13	20x2x1,3	29,5	504,0	1470	17
47170D.X242M13	24x2x1,3	32,8	604,0	1885	17
47170D.X012M15	1x2x1,5	12,0	34,0	255	16
47170D.X022M15	2x2x1,5	15,6	62,0	390	16
47170D.X042M15	4x2x1,5	17,5	120,0	510	16
47170D.X052M15	5x2x1,5	18,2	149,0	560	16
47170D.X062M15	6x2x1,5	20,1	178,0	730	16
47170D.X082M15	8x2x1,5	22,0	235,0	865	16
47170D.X102M15	10x2x1,5	23,8	293,0	1000	16
47170D.X12M15	12x2x1,5	25,3	350,0	1120	16
47170D.X162M15	16x2x1,5	28,1	466,0	1365	16
47170D.X202M15	20x2x1,5	30,6	581,0	1595	16
47170D.X242M15	24x2x1,5	33,8	696,0	2020	16

Other dimensions and colours available on request.

RE4XOHM1 (XLPE/LS0H)

RoHS Halogen Free CE

Construction:

Conductor:	Flexible red copper conductor Cl. 5, acc to IEC 60228
Insulation:	XLPE compound
Colour core:	blue,black with progressively numbered
Stranding:	cores twisted in pairs-triads. pairs-triads twisted in concentric layers
Screen	electrostatic, made up of an aluminium tape/polymer + tinned copper drain wire
Outer sheath:	black (RAL 9005),or blue (RAL 5015) PVC, Halogen free compound

Features:

- according to BS 5308-1

Technical data:

Nominal voltage:	300/500 V
Test voltage:	2 kV
Temperature range:	
Fixed installation:	- 20 °C / + 90 °C
Flexible application:	- 5 °C / + 70 °C
Max short circuit temperature:	+160 °C
Resistence:	**Flame retardant acc. to:** part 2656-2-1/EN 50265-2-1 IEC 60332-1 **low smoke emission:** EN 50268-2 IEC 61034 **Halogen free:** acc.to IEC 60754-1 EN 50267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47180D.X022M05	*2x2x0,50*	*10,0*	*-*	*64*	*20*
47180D.X032M05	*3x2x0,50*	*10,6*	*-*	*-*	*20*
47180D.X042M05	*4x2x0,50*	*11,7*	*-*	*-*	*20*
47180D.X062M05	*6x2x0,50*	*14,3*	*-*	*-*	*20*
47180D.X122M05	*12x2x0,50*	*15,2*	*-*	*-*	*20*
47180D.X242M05	*24x2x0,50*	*26,3*	*-*	*-*	*20*
47180D.X022M07	*2x2x0,75*	*10,6*	*-*	*86*	*19*
47180D.X032M07	*3x2x0,75*	*11,2*	*-*	*-*	*19*
47180D.X042M07	*4x2x0,75*	*12,5*	*-*	*-*	*19*
47180D.X062M07	*6x2x0,75*	*15,4*	*-*	*-*	*19*
47180D.X122M07	*12x2x0,75*	*20,5*	*-*	*-*	*19*
47180D.X242M07	*24x2x0,75*	*28,4*	*-*	*-*	*19*
47180D.X022M10	*2x2x1*	*11,3*	*-*	*110*	*18*
47180D.X032M10	*3x2x1*	*12,2*	*-*	*-*	*18*
47180D.X042M10	*4x2x1*	*13,4*	*-*	*-*	*18*
47180D.X062M10	*6x2x1*	*16,6*	*-*	*-*	*18*
47180D.X122M10	*12x2x1*	*22,0*	*-*	*-*	*18*
47180D.X242M10	*24x2x1*	*30,6*	*-*	*-*	*18*
47180D.X022M15	*2x2x1,5*	*13,3*	*-*	*130*	*16*
47180D.X032M15	*3x2x1,5*	*15,4*	*-*	*-*	*16*
47180D.X042M15	*4x2x1,5*	*15,8*	*-*	*-*	*16*
47180D.X062M15	*6x2x1,5*	*19,5*	*-*	*-*	*16*
47180D.X122M15	*12x2x1,5*	*25,8*	*-*	*-*	*16*
47180D.X242M15	*24x2x1.5*	*36.8*	*-*	*-*	*16*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47180D.X023M05	*2x3x0,50*	*10,5*	*-*	*-*	*20*
47180D.X033M05	*3x3x0,50*	*11,0*	*-*	*-*	*20*
47180D.X043M05	*4x3x0,50*	*12,4*	*-*	*-*	*20*
47180D.X063M05	*6x3x0,50*	*15,0*	*-*	*-*	*20*
47180D.X123M05	*12x3x0,50*	*20,3*	*-*	*-*	*20*
47180D.X243M05	*24x3x0,50*	*28,0*	*-*	*-*	*20*
47180D.X023M07	*2x3x0,75*	*11,2*	*-*	*-*	*19*
47180D.X033M07	*3x3x0,75*	*12,1*	*-*	*-*	*19*
47180D.X043M07	*4x3x0,75*	*13,2*	*-*	*-*	*19*
47180D.X063M07	*6x3x0,75*	*16,4*	*-*	*-*	*19*
47180D.X123M07	*12x3x0,75*	*21,8*	*-*	*-*	*19*
47180D.X243M07	*24x3x0,75*	*30,3*	*-*	*-*	*19*
47180D.X023M10	*2x3x1*	*12,2*	*-*	*-*	*18*
47180D.X033M10	*3x3x1*	*13,0*	*-*	*-*	*18*
47180D.X043M10	*4x3x1*	*14,5*	*-*	*-*	*18*
47180D.X063M10	*6x3x1*	*17,5*	*-*	*-*	*18*
47180D.X123M10	*12x3x1*	*23,6*	*-*	*-*	*18*
47180D.X243M10	*24x3x1*	*32,7*	*-*	*-*	*18*
47180D.X023M15	*2x3x1,5*	*14,4*	*-*	*-*	*16*
47180D.X033M15	*3x3x1,5*	*15,3*	*-*	*-*	*16*
47180D.X043M15	*4x3x1,5*	*18,0*	*-*	*-*	*16*
47180D.X063M15	*6x3x1,5*	*20,7*	*-*	*-*	*16*
47180D.X123M15	*12x3x1,5*	*27,4*	*-*	*-*	*16*
47180D.X243M15	*24x3x1,5*	*38,6*	*-*	*-*	*16*

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

RE4XHOHM1 (XLPE/LS0H)

RoHS Halogen Free CE

Construction:

Conductor:	Flexible red copper conductor Cl. 5, acc to IEC 60228
Insulation:	XLPE compound
Colour core::	blue,black with progressively numbered
Stranding:	cores twisted in pairs-triads. pairs-triads twisted in concentric layers
Screen	
Individual:	electrostatic, made up of an aluminium tape/ polymer + tinned copper drain wire
Overall:	electrostatic, made up of an aluminium tape/ polymer+ tinned copper drain wire
Outer sheath:	black (RAL 9005),or blue (RAL 5015) PVC, Halogen free compound

Features:

- according to BS 5308-1

Technical data:

Nominal voltage:	300/500 V
Test voltage:	2 kV
Temperature range:	
Fixed installation:	- 30 °C / + 70 °C
Flexible application:	- 5 °C / + 70 °C
Max short circuit temperature:	+160 °C
Resistence:	**Flame retardant acc. to:** EN 50265-2-1 IEC 60332-1 **low smoke emission:** EN 50268-2 IEC 61034-1 **Halogen free:** acc.to IEC 60754-1 EN 50267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47190D.X022M05	*2x2x0,50*	*10,0*	-	*86*	*20*
47190D.X032M05	*3x2x0,50*	*10,6*	-	-	*20*
47190D.X042M05	*4x2x0,50*	*11,7*	-	-	*20*
47190D.X062M05	*6x2x0,50*	*14,3*	-	-	*20*
47190D.X122M05	*12x2x0,50*	*15,2*	-	-	*20*
47190D.X242M05	*24x2x0,50*	*26,3*	-	-	*20*
47190D.X022M07	*2x2x0,75*	*10,6*	-	*130*	*19*
47190D.X032M07	*3x2x0,75*	*11,2*	-	-	*19*
47190D.X042M07	*4x2x0,75*	*12,5*	-	-	*19*
47190D.X062M07	*6x2x0,75*	*15,4*	-	-	*19*
47190D.X122M07	*12x2x0,75*	*20,5*	-	-	*19*
47190D.X242M07	*24x2x0,75*	*28,4*	-	-	*19*
47190D.X022M10	*2x2x1*	*11,3*	-	*190*	*18*
47190D.X032M10	*3x2x1*	*12,2*	-	-	*18*
47190D.X042M10	*4x2x1*	*13,4*	-	-	*18*
47190D.X062M10	*6x2x1*	*16,6*	-	-	*18*
47190D.X122M10	*12x2x1*	*22,0*	-	-	*18*
47190D.X242M10	*24x2x1*	*30,6*	-	-	*18*
47190D.X022M15	*2x2x1,5*	*13,3*	-	*190*	*16*
47190D.X032M15	*3x2x1,5*	*15,4*	-	-	*16*
47190D.X042M15	*4x2x1,5*	*15,8*	-	-	*16*
47190D.X062M15	*6x2x1,5*	*19,5*	-	-	*16*
47190D.X122M15	*12x2x1,5*	*25,8*	-	-	*16*
47190D.X242M15	*24x2x1,5*	*36,8*	-	-	*16*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47190D.X023M05	*2x3x0,50*	*10,5*	-	-	*20*
47190D.X033M05	*3x3x0,50*	*11,0*	-	-	*20*
47190D.X043M05	*4x3x0,50*	*12,4*	-	-	*20*
47190D.X063M05	*6x3x0,50*	*15,0*	-	-	*20*
47190D.X123M05	*12x3x0,50*	*20,3*	-	-	*20*
47190D.X243M05	*24x3x0,50*	*28,0*	-	-	*20*
47190D.X023M07	*2x3x0,75*	*11,2*	-	-	*19*
47190D.X033M07	*3x3x0,75*	*12,1*	-	-	*19*
47190D.X043M07	*4x3x0,75*	*13,2*	-	-	*19*
47190D.X063M07	*6x3x0,75*	*16,4*	-	-	*19*
47190D.X123M07	*12x3x0,75*	*21,8*	-	-	*19*
47190D.X243M07	*24x3x0,75*	*30,3*	-	-	*19*
47190D.X023M10	*2x3x1*	*12,2*	-	-	*18*
47190D.X033M10	*3x3x1*	*13,0*	-	-	*18*
47190D.X043M10	*4x3x1*	*14,5*	-	-	*18*
47190D.X063M10	*6x3x1*	*17,5*	-	-	*18*
47190D.X123M10	*12x3x1*	*23,6*	-	-	*18*
47190D.X243M10	*24x3x1*	*32,7*	-	-	*18*
47190D.X023M15	*2x3x1,5*	*14,4*	-	-	*16*
47190D.X033M15	*3x3x1,5*	*15,3*	-	-	*16*
47190D.X043M15	*4x3x1,5*	*18,0*	-	-	*16*
47190D.X063M15	*6x3x1,5*	*20,7*	-	-	*16*
47190D.X123M15	*12x3x1,5*	*27,4*	-	-	*16*
47190D.X243M15	*24x3x1,5*	*38,6*	-	-	*16*

* For cables laying in earth a screen-cross section of 16 mm is permitted.

Other dimensions and colours available on request.

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

RE4XOHEFR (XLPE/CAM/PE/SWA/PVC)

RoHS CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	XLPE compound
Colour core:	black/ gray
Stranding:	cores twisted in pairs-triads. pairs-triads twisted in concentric layers
Screen	electrostatic, made up of an aluminium tape/ polymer + tinned copper drain wire
Inner sheath:	PE compound
Armouring:	braid of galvanized steel wires
Outer sheath:	black (RAL 9005), or blue (RAL 5015) PVC compound

Features:

- according to BS 5308-1

Technical data:

Nominal voltage:	300/500 V
Test voltage:	2 kV
Temperature range: *Fixed installation:* *Flexible application:*	- 30°C / + 70°C 0°C / + 70°C
Max short circuit temperature:	+160°C
Min. bending radius:	6 x d
Resistance:	**Flame retardant acc. to:** EN 50265-2-1 IEC 60332-1

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47200D.X022M05	*2x2x0,50*	*12,3*	*290*	*-*	*20*
47200D.X032M05	*3x2x0,50*	*-*	*-*	*-*	*20*
47200D.X042M05	*4x2x0,50*	*-*	*-*	*-*	*20*
47200D.X062M05	*6x2x0,50*	*-*	*-*	*-*	*20*
47200D.X122M05	*12x2x0,50*	*-*	*-*	*-*	*20*
47200D.X242M05	*24x2x0,50*	*-*	*-*	*-*	*20*
47200D.X022M07	*2x2x0,75*	*12,9*	*310*	*-*	*19*
47200D.X032M07	*3x2x0,75*	*-*	*-*	*-*	*19*
47200D.X042M07	*4x2x0,75*	*-*	*-*	*-*	*19*
47200D.X062M07	*6x2x0,75*	*-*	*-*	*-*	*19*
47200D.X122M07	*12x2x0,75*	*-*	*-*	*-*	*19*
47200D.X242M07	*24x2x0,75*	*-*	*-*	*-*	*19*
47200D.X022M10	*2x2x1*	*-*	*-*	*-*	*18*
47200D.X032M10	*3x2x1*	*-*	*-*	*-*	*18*
47200D.X042M10	*4x2x1*	*-*	*-*	*-*	*18*
47200D.X062M10	*6x2x1*	*-*	*-*	*-*	*18*
47200D.X122M10	*12x2x1*	*-*	*-*	*-*	*18*
47200D.X242M10	*24x2x1*	*-*	*-*	*-*	*18*
47200D.X022M15	*2x2x1,5*	*14,3*	*390*	*-*	*16*
47200D.X032M15	*3x2x1,5*	*-*	*-*	*-*	*16*
47200D.X042M15	*4x2x1,5*	*-*	*-*	*-*	*16*
47200D.X062M15	*6x2x1,5*	*-*	*-*	*-*	*16*
47200D.X122M15	*12x2x1,5*	*-*	*-*	*-*	*16*
47200D.X242M15	*24x2x1,5*	*-*	*-*	*-*	*16*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47200D.X023M05	*2x3x0,50*	*-*	*-*	*-*	*20*
47200D.X033M05	*3x3x0,50*	*-*	*-*	*-*	*20*
47200D.X043M05	*4x3x0,50*	*-*	*-*	*-*	*20*
47200D.X063M05	*6x3x0,50*	*-*	*-*	*-*	*20*
47200D.X123M05	*12x3x0,50*	*-*	*-*	*-*	*20*
47200D.X243M05	*24x3x0,50*	*-*	*-*	*-*	*20*
47200D.X023M07	*2x3x0,75*	*-*	*-*	*-*	*19*
47200D.X033M07	*3x3x0,75*	*-*	*-*	*-*	*19*
47200D.X043M07	*4x3x0,75*	*-*	*-*	*-*	*19*
47200D.X063M07	*6x3x0,75*	*-*	*-*	*-*	*19*
47200D.X123M07	*12x3x0,75*	*-*	*-*	*-*	*19*
47200D.X243M07	*24x3x0,75*	*-*	*-*	*-*	*19*
47200D.X023M10	*2x3x1*	*-*	*-*	*-*	*18*
47200D.X033M10	*3x3x1*	*-*	*-*	*-*	*18*
47200D.X043M10	*4x3x1*	*-*	*-*	*-*	*18*
47200D.X063M10	*6x3x1*	*-*	*-*	*-*	*18*
47200D.X123M10	*12x3x1*	*-*	*-*	*-*	*18*
47200D.X243M10	*24x3x1*	*-*	*-*	*-*	*18*
47200D.X023M15	*2x3x1,5*	*-*	*-*	*-*	*16*
47200D.X033M15	*3x3x1,5*	*-*	*-*	*-*	*16*
47200D.X043M15	*4x3x1,5*	*-*	*-*	*-*	*16*
47200D.X063M15	*6x3x1,5*	*-*	*-*	*-*	*16*
47200D.X123M15	*12x3x1,5*	*-*	*-*	*-*	*16*
47200D.X243M15	*24x3x1,5*	*-*	*-*	*-*	*16*

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

Other dimensions and colours available on request.

RE4XHOHM1FM1
(XLPE/IAM/CAM/LS0H/SWA/LS0H)

RoHS Halogen Free CE

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	XLPE compound
Colour core:	/black/white
Stranding:	cores twisted in pairs-triads. pairs-triads twisted in concentric layers
Screen:	
Individual:	electrostatic, made up of an aluminium tape/polymer + tinned copper drain wire
Overall:	electrostatic, made up of an aluminium tape/polymer + tinned copper drain wire
Inner sheath:	halogen free compound
Armouring:	braid of galvanized steel wires
Outer sheath:	black (RAL 9005),or blue (RAL 5015), Halogen free compound

Technical data:

Nominal voltage:	300/500 V
Test voltage:	2 kV
Temperature range: *Fixed installation:* *Flexible application:*	 - 20°C / + 90°C 0°C / + 70°C
Max short circuit temperature:	160°C
Resistance:	**Flame retardant acc. to:** EN 50265-2-1/ IEC 60332-3 **low smoke emission:** EN 50268-2 IEC 61034-1 **Halogen free:** acc.to IEC 60754-1 EN 50267-2

Features:

- according to BS 5308-1

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47210D.X022M05	*2x2x0,50*	*16,7*	-	*450*	*20*
47210D.X032M05	*3x2x0,50*	-	-	-	*20*
47210D.X042M05	*4x2x0,50*	-	-	-	*20*
47210D.X062M05	*6x2x0,50*	-	-	-	*20*
47210D.X122M05	*12x2x0,50*	-	-	-	*20*
47210D.X242M05	*24x2x0,50*	-	-	-	*20*
47210D.X022M07	*2x2x0,75*	*17,6*	-	*500*	*19*
47210D.X032M07	*3x2x0,75*	-	-	-	*19*
47210D.X042M07	*4x2x0,75*	-	-	-	*19*
47210D.X062M07	*6x2x0,75*	-	-	-	*19*
47210D.X122M07	*12x2x0,75*	-	-	-	*19*
47210D.X242M07	*24x2x0,75*	-	-	-	*19*
47210D.X022M10	*2x2x1*	*17,6*	-	*520*	*18*
47210D.X032M10	*3x2x1*	-	-	-	*18*
47210D.X042M10	*4x2x1*	-	-	-	*18*
47210D.X062M10	*6x2x1*	-	-	-	*18*
47210D.X122M10	*12x2x1*	-	-	-	*18*
47210D.X242M10	*24x2x1*	-	-	-	*18*
47210D.X022M15	*2x2x1,5*	*20,4*	-	*750*	*16*
47210D.X032M15	*3x2x1,5*	-	-	-	*16*
47210D.X042M15	*4x2x1,5*	-	-	-	*16*
47210D.X062M15	*6x2x1,5*	-	-	-	*16*
47210D.X122M15	*12x2x1,5*	-	-	-	*16*
47210D.X242M15	*24x2x1,5*	-	-	-	*16*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
47210D.X023M05	*2x3x0,50*	-	-	-	*20*
47210D.X033M05	*3x3x0,50*	*17,1*	-	*530*	*20*
47210D.X043M05	*4x3x0,50*	-	-	-	*20*
47210D.X063M05	*6x3x0,50*	-	-	-	*20*
47210D.X123M05	*12x3x0,50*	-	-	-	*20*
47210D.X243M05	*24x3x0,50*	-	-	-	*20*
47210D.X023M07	*2x3x0,75*	-	-	-	*19*
47210D.X033M07	*3x3x0,75*	*17,6*	-	*560*	*19*
47210D.X043M07	*4x3x0,75*	-	-	-	*19*
47210D.X063M07	*6x3x0,75*	-	-	-	*19*
47210D.X123M07	*12x3x0,75*	-	-	-	*19*
47210D.X243M07	*24x3x0,75*	-	-	-	*19*
47210D.X023M10	*2x3x1*	-	-	-	*18*
47210D.X033M10	*3x3x1*	*17,7*	-	*600*	*18*
47210D.X043M10	*4x3x1*	-	-	-	*18*
47210D.X063M10	*6x3x1*	-	-	-	*18*
47210D.X123M10	*12x3x1*	-	-	-	*18*
47210D.X243M10	*24x3x1*	-	-	-	*18*
47210D.X023M15	*2x3x1,5*	-	-	-	*16*
47210D.X033M15	*3x3x1,5*	*20*	-	*740*	*16*
47210D.X043M15	*4x3x1,5*	-	-	-	*16*
47210D.X063M15	*6x3x1,5*	-	-	-	*16*
47210D.X123M15	*12x3x1,5*	-	-	-	*16*
47210D.X243M15	*24x3x1,5*	-	-	-	*16*

Other dimensions and colours available on request.

*the point of the code in the location of the coloring of the outer sheath gives tells us that this can be of different colors

J-Y(St)Y Lg

fire warning installation cable

RoHS CE

Construction:

Conductor:	solid red copper conductor 0,8 mmØ Cl. 1, acc to IEC 60228
Insulation:	PVC type YI1
Colour core:	DIN VDE 0815
Stranding:	cores twisted in pairs,pairs stranded in layers
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	red (RAL3000) with imprint "BRANDMELDE KABLE",PVC type YM1

Features:

- **Fire warning installation cable**

Technical data:

Nominal voltage:	max.300 V
Testing voltage:	core/core U eff. 800 V core/screen 800 V
Radiation resistance:	up to 80x10^6 cJ/kg (up to 80 Mrad)
Temperature range:	
fixed laying:	-30°C +70°C
flexible application:	- 5°C to +50°C
Loop resistance at 20°C:	0,6 mm-max. 73,2 Ohm/km
Min. bending radius:	
to DIN VDE 0891 part 5 during delivery:	7,5 xd
single bending without tension:	2,5 xd
repeated bending without tension:	7,5 xd
Insulation resistance:	min.100 MOhmx/km
Mutual capacitance at 800 Hz:	max. 100 nF/km
Capacitance unbalances at 800 Hz:	k_1 max.300 pF/100 m
Line attenuation: at 800 Hz:	1,48 dB/KM
Resistance:	**Flame retardant and self-extinguishing acc. to:**DIN VDE 0482 part.266-2-5, EN 50266-2-5 IEC 60332-2-23

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49010CRW012M08	*1x2x0,8*	*4,5*	*11*	*38*	*19*
49010CRW022M08	*2x2x0,8*	*7*	*21*	*60*	*19*
49010CRW032M08	*3x2x0,8*	*8,5*	*31*	*80*	*19*
49010CRW042M08	*4x2x0,8*	*9*	*41*	*100*	*19*
49010CRW052M08	*5x2x0,8*	*9,5*	*52*	*120*	*19*
49010CRW062M08	*6x2x0,8*	*11*	*62*	*140*	*19*
49010CRW082M08	*8x2x0,8*	*11,5*	*82*	*170*	*19*
49010CRW102M08	*10x2x0,8*	*13,2*	*102*	*220*	*19*
49010CRW122M08	*12x2x0,8*	*14,2*	*123*	*250*	*19*
49010CRW142M08	*14x2x0,8*	*14,6*	*145*	*280*	*19*
49010CRW162M08	*16x2x0,8*	*16*	*164*	*320*	*19*
49010CRW202M08	*20x2x0,8*	*17*	*204*	*380*	*19*
49010CRW242M08	*24x2x0,8*	*19*	*244*	*460*	*19*
49010CRW302M08	*30x2x0,8*	*20,8*	*304*	*560*	*19*
49010CRW402M08	*40x2x0,8*	*23*	*405*	*710*	*19*
49010CRW502M08	*50x2x0,8*	*26*	*505*	*900*	*19*
49010CRW602M08	*60x2x0,8*	*28*	*606*	*1050*	*19*
49010CRW802M08	*80x2x0,8*	*31,5*	*807*	*1400*	*19*
49010CRWAA2M08	*100x2x0,8*	*33*	*1008*	*1750*	*19*

Other dimensions and colours available on request.

J-H(St)H

fire warning installation cable

Construction:

Conductor:	solid red copper conductor 0,8 mmØ Cl. 1, acc to IEC 60228
Insulation:	Halogen-free compound type HI2
Colour core:	DIN VDE 0815
Stranding:	cores twisted in quads,quads stranded to units
Wrapping:	plastic tape
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	red (RAL3000) with imprint “BRANDMELDE KABLE”, Halogen-free compound type HM2

Features:

- **Bd fire warning installaion cable**

Technical data:

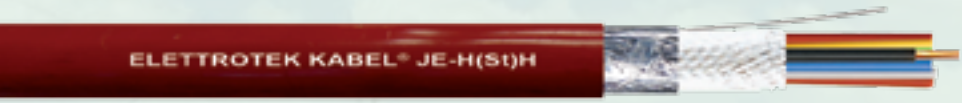
Nominal voltage:	300 V
Test voltage:	800 V
Min.Bending radius:	
fixed laying:	2,5 x d
flexible application:	7,5 x d
Radiation resistance:	up to 100x10^6 cJ/kg
Temperature range:	- 30°C / + 70°C - 5°C / + 70°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2,DIN VDE 0482 part.267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49020CRW022M08	*2x2x0,8*	*6,8*	*25*	*70*	*19*
49020CRW042M08	*4x2x0,8*	*10,5*	*45*	*135*	*19*
49020CRW062M08	*6x2x0,8*	*10,9*	*65*	*151*	*19*
49020CRW102M08	*10x2x0,8*	*13,1*	*106*	*230*	*19*
49020CRW202M08	*20x2x0,8*	*20,4*	*206*	*507*	*19*
49020CRW302M08	*30x2x0,8*	*21,5*	*307*	*600*	*19*
49020CRW402M08	*40x2x0,8*	*24,5*	*407*	*788*	*19*
49020CRW502M08	*50x2x0,8*	*27,1*	*508*	*972*	*19*
49020CRW602M08	*60x2x0,8*	*29,4*	*608*	*1120*	*19*
49020CRW802M08	*80x2x0,8*	*33,2*	*809*	*1475*	*19*
49020CRWAA2M08	*100x2x0,8*	*37,2*	*1010*	*1804*	*19*

Other dimensions and colours available on request.

JE-H(St)H

Bd fire warning cable,FE 180/E 30 to E 90 (red),Halogen-free



Construction:

Conductor:	solid red copper conductor 0,8 mmØ Cl. 1, acc to IEC 60228
Insulation:	Halogen-free compound type HI2
Colour core:	DIN VDE 0815
Stranding:	cores twisted in quads,quads stranded to units
Wrapping:	plastic tape
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	red (RAL3000) with imprint “BRANDMELDE KABLE”, Halogen-free compound type HM2

Features:

- **Bd fire warning installaion cable**

Technical data:

Nominal voltage:	300 V
Test voltage:	800 V
Min.Bending radius:	
fixed laying:	2,5 x d
flexible application:	7,5 x d
Radiation resistance:	up to 100x10^6 cJ/kg
Temperature range:	- 30°C / + 70°C - 5°C / + 70°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2,DIN VDE 0482 part.267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49030CRW022M08	*2x2x0,8*	*7,4*	*25*	*70*	*19*
49030CRW042M08	*4x2x0,8*	*10,8*	*45*	*135*	*19*
49030CRW082M08	*8x2x0,8*	*16,9*	*65*	*151*	*19*
49030CRW122M08	*12x2x0,8*	*18,5*	*106*	*230*	*19*
49030CRW162M08	*16x2x0,8*	*20*	*206*	*507*	*19*
49030CRW202M08	*20x2x0,8*	*22,2*	*307*	*600*	*19*
49030CRW322M08	*32x2x0,8*	*29*	*407*	*788*	*19*
49030CRW402M08	*40x2x0,8*	*34,2*	*508*	*972*	*19*
49030CRW522M08	*52x2x0,8*	*37,3*	*608*	*1120*	*19*

Other dimensions and colours available on request.

JE-H(St)HRH

Bd fire warning cable,FE 180/E 30 to E 90,Halogen-free

Construction:

Conductor:	solid red copper conductor 0,8 mmØ Cl. 1, acc to IEC 60228
Insulation:	Halogen-free compound type HI1 to DIN VDE 0207 part 23 flame retardant (E90 with special foil wrapping over conductor)
Colour core:	DIN VDE 0815
Stranding:	2 cores twisted to pair and each 4 pairs layed up in bunches,the bunches stranded in layers
Wrapping:	glass fibre tape
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Inner sheath:	flame retardant polyolefin compound to DIN VDE 0207 type HM3
Armouring:	Braid of galvanized steel wires
Outer sheath:	red (RAL3000) with imprint “BRANDMELDE KABLE”, Halogen-free compound type HM2

Features:

- **FE 180: insulation integrity for 180 min. Test to DIN VDE 0472 part.814 IEC 60331**
- **E 30: functionall for 30 min.Test to DIN 4102 part.12**
- **E 90: functionally for 90 min. Test to DIN 4102 part.12**

Technical data:

Nominal voltage:	300 V
Test voltage:	800 V
Min.bending radius:	6 x d
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2, DIN VDE 0482 part.267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49040CRW022M08	*2x2x0,8*	*10,5*	*25*	*150*	*19*
49040CRW042M08	*4x2x0,8*	*14,8*	*45*	*275*	*19*
49040CRW082M08	*8x2x0,8*	*21,1*	*85*	*545*	*19*
49040CRW122M08	*12x2x0,8*	*22,7*	*126*	*602*	*19*
49040CRW162M08	*16x2x0,8*	*25*	*166*	*734*	*19*
49040CRW202M08	*20x2x0,8*	*26,9*	*206*	*870*	*19*
49040CRW322M08	*32x2x0,8*	*35*	*326*	*1360*	*19*
49040CRW402M08	*40x2x0,8*	*41*	*407*	*1800*	*19*
49040CRW522M08	*52x2x0,8*	*44*	*529*	*2038*	*19*

Other dimensions and colours available on request.

JE-H(St)H Orange

Bd FE 180/E 30 to E 90 (orange),Halogen-free

Construction:

Conductor:	solid red copper conductor 0,8 mmØ Cl. 1, acc to IEC 60228
Insulation:	Halogen-free compound type HI1 to DIN VDE 0207 part.23 flame retardant (E90 with special foil wrapping over conductor)
Colour core:	DIN VDE 0815, (with ring colours and ring groups)
Stranding:	cores twisted in pair, 4 pairs to a unit and several units stranded to layers.
Wrapping:	special polyester tape
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	orange (RAL2003),flame retardant to DIN VDE 0207 part 24,Halogen free type HM2

Features:

- **FE 180: insulation integrity for 180 min. Test to DIN VDE 0472 part.814 IEC 60331**
- **E 30: functionall for 30 min.Test to DIN 4102 part.12**
- **E 90: functionally for 90 min. Test to DIN 4102 part.12**

Technical data:

Nominal voltage:	300 V
Test voltage:	800 V
Min.bending radius:	6 x d
Radiation resistance:	up to 100x10^6 cJ/kg
Temperature range	
fixed laying:	- 30 C to + 70 C
flexible application:	- 5 C to + 50 C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2,DIN VDE 0482 part.267-2

Functionally E 30 to E 90

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49050CGW012M08	*1x2x0,8*	*6*	*17*	*57*	*19*
49050CGW022M08	*2x2x0,8*	*7,4*	*25*	*74*	*19*
49050CGW042M08	*4x2x0,8*	*10,8*	*45*	*127*	*19*
49050CGW082M08	*8x2x0,8*	*16,9*	*85*	*300*	*19*
49050CGW122M08	*12x2x0,8*	*18,5*	*126*	*336*	*19*
49050CGW162M08	*16x2x0,8*	*20,1*	*166*	*426*	*19*
49050CGW202M08	*20x2x0,8*	*22,2*	*206*	*529*	*19*
49050CGW322M08	*32x2x0,8*	*29,1*	*326*	*859*	*19*
49050CGW402M08	*40x2x0,8*	*34,2*	*407*	*1094*	*19*
49050CGW522M08	*52x2x0,8*	*37,3*	*529*	*1280*	*19*

Functionally E 30

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49051CGW012M08	*1x2x0,8*	*6*	*17*	*57*	*19*
49051CGW022M08	*2x2x0,8*	*7,5*	*25*	*74*	*19*
49051CGW042M08	*4x2x0,8*	*9,3*	*45*	*127*	*19*
49051CGW082M08	*8x2x0,8*	*11,4*	*85*	*300*	*19*
49051CGW122M08	*12x2x0,8*	*13*	*126*	*336*	*19*
49051CGW162M08	*16x2x0,8*	*15,7*	*166*	*426*	*19*
49051CGW202M08	*20x2x0,8*	*16,5*	*206*	*529*	*19*
49051CGW322M08	*32x2x0,8*	*20,3*	*326*	*859*	*19*
49051CGW402M08	*40x2x0,8*	*23,4*	*407*	*1094*	*19*
49051CGW522M08	*52x2x0,8*	*25,2*	*529*	*1280*	*19*

Other dimensions and colours available on request.

FTG10(O)M1 0,6/1 kV

RoHS Halogen Free CE

Construction:

Conductor:	flexible red copper conductor Cl. 5, acc to IEC 60228
Wrapping:	glass/mica tape, wrapped to helix
Insulation:	rubber type G10
Outer sheat:	blue (RAL 5012), halogen-free compound type M1

Features:

- **Halogen-free**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	1,2 kV
Min. bending radius:	12 x d
Temperature range: *fixed laying:* *flexible application:*	 - 25°C / +90°C - 5°C / +90°C
Temperature at conductor: *in service:* *in short circuit:*	 + 90°C + 250°C
Resistance:	**Fire resistaint acc. to:** IEC 60331, EN 50200 **Flame retardant and self-extinguishing acc. to:** DIN VDE 0482 part.266-2-5, EN 50266-2-5 IEC 60332-2-23 **Halogen free acc. to:** IEC 60754-1, EN 50267-1 DIN VDE 0482 part.267-1-1

POWER

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
49060GBL010M15	*1x1,5*	*7,2*	*14,4*	*65*	*16*
49060GBL010M25	*1x2,5*	*7,8*	*24*	*80*	*14*
49060GBL010M40	*1x4*	*8,2*	*38,4*	*100*	*12*
49060GBL010M60	*1x6*	*9*	*57,6*	*125*	*10*
49060GBL010M61	*1x10*	*10,6*	*96*	*175*	*8*
49060GBL010M62	*1x16*	*11,8*	*153,6*	*230*	*6*
49060GBL010M63	*1x25*	*12,9*	*240*	*340*	*4*
49060GBL010M64	*1x35*	*15,7*	*336*	*460*	*2*
49060GBL010M65	*1x50*	*16,5*	*480*	*620*	*1*
49060GBL010M66	*1x70*	*19,5*	*672*	*845*	*2/0*
49060GBL010M67	*1x95*	*21*	*912*	*1110*	*3/0*
49060GBL010M68	*1x120*	*23*	*1152*	*1380*	*4/0*
49060GBL010M69	*1x150*	*25,1*	*1440*	*1680*	*250 MCM*
49060GBL010M70	*1x185*	*27,1*	*1776*	*2000*	*350 MCM*
49060GBL010M71	*1x240*	*32,1*	*2304*	*2580*	*450 MCM*
49060GBL010M72	*1x300*	*34,6*	*2880*	*3000*	*550 MCM*
49060GB3020M15	*2x1,5*	*12,7*	*28,8*	*170*	*16*
49060GB3020M25	*2x2,5*	*14,1*	*48*	*205*	*14*
49060GB3020M40	*2x4*	*14,9*	*76,8*	*255*	*12*
49060GB3020M60	*2x6*	*16,1*	*115,2*	*330*	*10*
49060GB3020M61	*2x10*	*18,4*	*192*	*470*	*8*
49060GB3020M62	*2x16*	*20*	*307,2*	*645*	*6*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
49060GB3020M63	*2x25*	*23*	*480*	*955*	*4*
49060GB3020M64	*2x35*	*25*	*672*	*1240*	*2*
49060GB3030M15	*3x1,5*	*13,4*	*43,2*	*190*	*16*
49060GB3030M25	*3x2,5*	*14,3*	*72*	*235*	*14*
49060GB3030M40	*3x4*	*15,6*	*115,2*	*310*	*12*
49060GB3030M60	*3x6*	*17*	*172,8*	*395*	*10*
49060GB3030M61	*3x10*	*20*	*288*	*575*	*8*
49060GB3030M62	*3x16*	*21,8*	*460,8*	*800*	*6*
49060GB3030M63	*3x25*	*25,2*	*720*	*1180*	*4*
49060GB3030M64	*3x35*	*28,1*	*1008*	*1690*	*2*
49060GB3040M15	*4x1,5*	*14*	*57,6*	*225*	*16*
49060GB3040M25	*4x2,5*	*16,2*	*96*	*290*	*14*
49060GB3040M40	*4x4*	*17,1*	*153,6*	*375*	*12*
49060GB3040M60	*4x6*	*18,1*	*230,4*	*490*	*10*
49060GB3040M61	*4x10*	*21,4*	*384*	*715*	*8*
49060GB3040M62	*4x16*	*25,2*	*614,4*	*975*	*6*
49060GB3040M63	*4x25*	*29,1*	*960*	*1450*	*4*
49060GB3035M64	*3x35+25*	*30,2*	*1248*	*1910*	*2*
49060GB3050M15	*5x1,5*	*16,1*	*72*	*270*	*16*
49060GB3050M25	*5x2,5*	*17,4*	*120*	*335*	*14*
49060GB3050M40	*5x4*	*18,2*	*192*	*455*	*12*
49060GB3050M60	*5x6*	*19,9*	*288*	*580*	*10*
49060GB3050M61	*5x10*	*24,1*	*480*	*850*	*8*
49060GB3050M62	*5x16*	*28,3*	*768*	*1180*	*6*
49060GB3050M63	*5x25*	*32,2*	*1200*	*1735*	*4*
49060GB3050M64	*5x35*	*36,4*	*1680*	*2320*	*2*

Other dimensions and colours available on request.

FTG10(O)M1 0,6/1 kV

RoHS Halogen Free CE

CONTROL

Part no,	No,of cores x cross section n x mm²	Outer Ø ca,mm ±10%	Copper weight kg/km	Cable weight approx, kg/km	AWG no,*)
49060GB1071M15	7G1,5	17,5	100,8	365	16
49060GB1101M15	10G1,5	19,8	144	470	16
49060GB1121M15	12G1,5	21,9	172,8	560	16
49060GB1161M15	16G1,5	24,3	230,4	660	16
49060GB1191M15	19G1,5	27,5	273,6	790	16
49060GB1241M15	24G1,5	29,8	345,6	1020	16

Part no,	No,of cores x cross section n x mm²	Outer Ø ca,mm ±10%	Copper weight kg/km	Cable weight approx, kg/km	AWG no,*)
49060GB1071M25	7G2,5	18,3	168	425	14
49060GB1101M25	10G2,5	21,5	240	590	14
49060GB1121M25	12G2,5	23,8	288	700	14
49060GB1161M25	16G2,5	27,5	384	850	14
49060GB1191M25	19G2,5	28,9	456	990	14
49060GB1241M25	24G2,5	33,2	576	1300	14

Other dimensions and colours available on request.

FTG10(O)HM1 06/1 kV

Construction:

Conductor:	flexible red copper conductor Cl. 5, acc to IEC 60228
Wrapping:	glass/mica tape, wrapped to helix
Insulation:	rubber,type G10
Stranding:	wires twisted together in concentric layers, wrapping overlapped polyester tape
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	red (RAL 3000),thermoplastic polyolefine, halogen-free compound,type M1

Features:

- **Acc. to CEI UNEL 00722-00725**
- **conductor acc. to CEI 20-29, IEC 60228**
- **insulation and sheath acc. to CEI 20-11**
- **compound lead-free acc. to CEI 20-52**
- **insulated cables fire resistant with elastometric compound with nominal voltage ≤ Uo/U 0,6/1 kV acc. to CEI 20-45**

Applications:

screened cable for power, signaling and control elastometric isolated compound fire retardant, LS0H, with flexible wires protected by fire resistant barrier suitable for the 'power users' emergency areas with danger of explosion or fire (exits and emergency lighting , Alarm signals, warning of smoke or gases, escalators, pumps, fire protection, fire curtains, etc.).

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Temperature range:	-40/+90°C
Min. bending radius:	10 x d
Max. pulling installation:	50 N/mm²
Resistance:	**Flame retardant and sel-extinguishing acc.to:** PVC DIN VDE 0482 part 2656-2-1/EN 50265-2-1/IEC 60332-1 **low corrisivenes gases and smoke opacity emissions during combustion acc. to:** CEI 20-37, IEC 60754, IEC 61034, CEI 20-38
Note:	NoBurn cables with IMQ are marked: - CEI 20-45 PH 90 (outer diameter up to 20 mm) they are fire-resistant complying with CEI 20-36/4-0 (EN50200) regulation, wich requires a minimum working time of the cables during the test, that is the cable has to be exposed to direct fire and mechanic shock for 120 minutes at 842 C. NoBurn are also "no flame propagation on the single vertical element" cables, compliyng with CEI 20-35 (EN and IEC 60332-1) test. Moreover, the cables are made with special "without halogen" blends complying with CEI and CENELEC regulation, in order to prevent any risk coming from any toxic substance issued during the combustion. That characteristic is verifed by many laboratory tests at IMQ and it limits the issue of corrosive, acid and toxic gas and the formation of murky smoke in the surrounding ambient in case of fire. NoBurn cables are made complying with CEI 20-45 regulation and they are not included in CEI 20-38 1. However, they have equivalent prescriptions about the test regarding the formation of toxic and corrosive smoke and gas

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
49070GR3020M10	*2x1*	*7,9*	*-*	*67*	*18*
49070GR3030M10	*3x1*	*8,2*	*-*	*85*	*18*
49070GR3040M10	*4x1*	*9,4*	*-*	*110*	*18*
49070GR3020M15	*2x1,5*	*8,9*	*-*	*86*	*16*
49070GR3030M15	*3x1,5*	*9,4*	*-*	*113*	*16*
49070GR3040M15	*4x1,5*	*10,5*	*-*	*141*	*16*
49070GR3020M25	*2x2,5*	*10,4*	*-*	*120*	*14*
49070GR3030M25	*3x2,5*	*10,9*	*-*	*158*	*14*
49070GR3040M25	*4x2,5*	*12,4*	*-*	*205*	*14*

Part no.	*No.of cores x cross section n x mm²*	*Outer Ø ca.mm ±10%*	*Copper weight kg/km*	*Cable weight approx. kg/km*	*AWG no.*)*
49070GR1071M10	*7G1*	*11,5*	*-*	*175*	*18*
49070GR1071M15	*7G1,5*	*12,9*	*-*	*228*	*16*

Other dimension and colours available on request.

N2XH-FE 180/E 30

RoHS Halogen Free FRNC CE

Construction:

Conductor:	Solid or stranded red copper conductor Cl. 1 or 2,acc. to IEC 60228 DIN VDE 0259
Insulation:	core with double insulation: Flame retardant MICA-tape over conductor Core insulation with cross-linked polyethylene compound type 2XI1 to DIN VDE 0276 PART 604
Colour core:	DIN VDE 0293-308 and 0276 part 604
Stranding:	cores stranded in layers.
Wrapping:	halogen-free fillng compound,pressed
Outer sheath:	orange (RAL 2003),thermoplastic halogen-free polyolefine, flame retardant, type HM4 to DIN VDE 0276 part 604

Features:

- **Security cable,0.6/1 kV,with improved fire characteristics**
- **Halogen-free acc.to DIN VDE 0482 part 267/EN 50267-2-1/IEC 60754-1 (equivalent DIN VDE 0472 part 815)**
- **Insulation integrity under flame propagation to VDE 0472 part 814 IEC 60331**
- **Burning behavior in fire(funtionality) of the complete cable system to DIN 4102 part 12 (30 min.)**
- **FE 180: insulation integrity for 180 min. Test to DIN VDE 0472 part.814 IEC 60331**
- **E 30:functionally for 30 min.Test to DIN 4102 part.12**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Min.bending radius:	15 x d
Radiation resistance:	up to 200x10^6 cJ/kg
Temperature range:	- 30°C to + 70°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2,DIN VDE 0482 part.267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49080GGL010M40	*1x4 re*	*8*	*38*	*155*	*12*
49080GGL010M60	*1x6 re*	*9*	*58*	*190*	*10*
49080GGL010M61	*1x10 re*	*10*	*96*	*215*	*8*
49080GGL010M62	*1x16 re*	*10,5*	*154*	*240*	*6*
49080GGL010M63	*1x25 rm*	*13*	*240*	*380*	*4*
49080GGL010M64	*1x35 rm*	*14*	*336*	*460*	*2*
49080GGL010M65	*1x50 rm*	*15,5*	*480*	*590*	*1*
49080GGL010M66	*1x70 rm*	*17,5*	*672*	*820*	*2/0*
49080GGL010M67	*1x95 rm*	*19,5*	*912*	*1090*	*3/0*
49080GGL010M68	*1x120 rm*	*21*	*1152*	*1350*	*4/0*
49080GGL010M69	*1x150 rm*	*23*	*1440*	*1650*	*250 MCM*
49080GGL010M70	*1x185 rm*	*25*	*1776*	*2030*	*350 MCM*
49080GGL010M71	*1x240 rm*	*29*	*2304*	*2590*	*450 MCM*
49080GG3020M15	*2x1,5 re*	*11,5*	*29*	*170*	*16*
49080GG3020M25	*2x2,5 re*	*12*	*48*	*190*	*14*
49080GG3020M40	*2x4 re*	*13*	*77*	*260*	*12*
49080GG3020M60	*2x6 re*	*14*	*115*	*310*	*10*
49080GG3020M61	*2x10 re*	*15,5*	*192*	*430*	*8*
49080GG3020M62	*2x16 re*	*17,5*	*307*	*600*	*6*
49080GG3020M63	*2x25 rm*	*22*	*480*	*930*	*4*
49080GG3031M15	*3G1,5 re*	*12*	*43*	*170*	*16*
49080GG3031M25	*3G2,5 re*	*12,5*	*72*	*220*	*14*
49080GG3031M40	*3G4 re*	*13,5*	*115*	*290*	*12*
49080GG3031M60	*3G6 re*	*14,5*	*173*	*370*	*10*
49080GG3031M61	*3G10 re*	*16,5*	*288*	*530*	*8*
49080GG3031M62	*3G16 re*	*18,5*	*461*	*760*	*6*
49080GG3031M63	*3G25 rm*	*23,5*	*720*	*1160*	*4*
49080GG3035M63	*3G25/16 rm*	*22,5*	*874*	*1430*	*4*
49080GG3031M64	*3G35 rm*	*26*	*1080*	*1560*	*2*
49080GG3035M64	*3G35/16 rm*	*28*	*1162*	*1810*	*2*

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Part no.	No.of cores x cross section n x mm²	Outer-Ø ca.mm± 10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
49080GG3031M65	3G50 rm	29	1440	2030	1
49080GG3035M65	3G50/25 rm	32	1680	2340	1
49080GG3031M66	3G70 rm	34	2016	2890	2/0
49080GG3035M66	3G70/35 rm	35	2352	3190	2/0
49080GG3035M67	3G95/50 rm	40	3216	4350	3/0
49080GG3035M68	3G120/70 rm	45	4128	5550	4/0
49080GG3035M69	3G150/70 rm	48,5	4992	6560	250 MCM
49080GG3035M70	3G185/95 rm	54	6240	8240	350 MCM
49080GG3041M15	4G1,5 re	12,5	58	210	16
49080GG3041M25	4G2,5 re	13	96	260	14
49080GG3041M40	4G4 re	13	154	310	12
49080GG3041M60	4G6 re	14,5	230	410	10
49080GG3041M61	4G10 re	16	384	620	8
49080GG3041M62	4G16 re	18	614	900	6
49080GG3040M63	4X25 re	23,6	960	1600	4
49080GG3040M64	4X35 re	26,4	1344	2050	2
49080GG3040M65	4X50 re	29,5	1920	2761	1
49080GG3040M66	4X70 re	34,6	2688	3785	2/0
49080GG3040M67	4X95 re	39	3648	5010	3/0
49080GG3040M68	4X120 re	43,5	4608	6135	4/0
49080GG3051M15	5G1,5 re	12	72	210	16
49080GG3051M25	5G2,5 re	13	120	280	14
49080GG3051M40	5G4 re	14,5	192	380	12
49080GG3051M60	5G6 re	15,5	288	510	10
49080GG3051M61	5G10 re	18	480	760	8
49080GG3051M62	5G16 re	20	768	1120	6
49080GG3050M63	5x25 re	24,5	1200	1840	4
49080GG3050M64	5x35 re	33,5	1680	2510	2
49080GG1071M15	7G1,5 re	13	101	250	16
49080GG1121M15	12G1,5 re	16,5	173	390	16

Other dimensions and colours available on request.

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Construction:

Conductor:	Solid or stranded red copper conductor Cl. 1 or 2,acc. to IEC 60228 DIN VDE 0259
Insulation:	core with double insulation: Flame retardant MICA-tape over conductor Core insulation with cross-linked polyethylene compound type 2XI1 to DIN VDE 0276 PART 604
Colour core:	DIN VDE 0293-308 and 0276 part 604
Stranding:	cores stranded in layers.
Wrapping:	halogen-free fillng compound,pressed
Screen:	concentric conductor of corrugated copper wires + copper tape
Outer sheath:	orange(RAL 2003),thermoplastic halogen-free polyolefine, flame retardant, type HM4 to DIN VDE 0276 part 604

Features:

- **Security cable,0.6/1 kV,with improved fire characteristics**
- **Halogen-free acc.to DIN VDE 0482 part 267/EN 50267-2-1/IEC 60754-1 (equivalent DIN VDE 0472 part 815)**
- **Insulation integrity under flame propagation to VDE 0472 part 814 IEC 60331**
- **Burning behavior in fire(funtionality) of the complete cable system to DIN 4102 part 12 (30 min.)**
- **FE 180: insulation integrity for 180 min. Test to DIN VDE 0472 part.814 IEC 60331**
- **E 30:functionally for 30 min.Test to DIN 4102 part.12**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Min.bending radius:	15 x d
Radiation resistance:	up to 200x10^6 cJ/kg
Temperature range:	- 30°C to + 70°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2, DIN VDE 0482 part.267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49090GG3020M15	2x1,5/1,5 re	13	52	200	16
49090GG3020M25	2x2,5/2,5 re	14	80	250	14
49090GG3020M40	2x4/4 re	15	123	310	12
49090GG3020M60	2x6/6 re	16	182	400	10
49090GG3020M61	2x10/10 re	17,5	312	570	8
49090GG3030M15	3x1,5/1,5 re	13	66	220	16
49090GG3030M25	3x2,5/2,5 re	14	104	270	14
49090GG3030M40	3x4/4 re	15,5	161	360	12
49090GG3030M60	3x6/6 re	16,5	240	470	10
49090GG3030M61	3x10/10 rm	18,5	408	680	8
49090GG3030M62	3x16/16 rm	21	643	960	6
49090GG3030M63	3x25/16 rm	25,5	902	1390	4
49090GG3030M64	3x35/16 rm	29	1190	1720	2
49090GG3030M65	3x50/25 rm	31,5	1723	2320	1
49090GG3030M66	3x70/35 rm	36,5	2410	3260	2/0
49090GG3030M67	3x95/50 rm	40	3296	4310	3/0
49090GG3030M68	3x120/70 rm	46	4236	5520	4/0
49090GG3030M69	3x150/70 rm	55	5100	6620	250

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Part no.	No.of cores x cross section n x mm²	Outer-Ø ca.mm± 10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
49090GG3030M70	3x185/95 rm	55	6383	8180	350
49090GG3030M71	3x240/120 rm	61,5	8242	10620	450 MCM
49090GG3040M15	4x1,5/1,5 re	15	81	260	16
49090GG3040M25	4x2,5/2,5 re	16	128	310	14
49090GG3040M40	4x4/4 re	17	200	420	12
49090GG3040M60	4x6/6 re	18	297	540	10
49090GG3040M61	4x10/10 re	20	504	800	8
49090GG3040M62	4x16/16 re	22,5	796	1150	6
49090GG3040M63	4x25/16 rm	28	1142	1670	4
49090GG3040M64	4x35/16 rm	30,5	1526	2160	2
49090GG3040M65	4x50/25 rm	32	2203	2860	1
49090GG3040M66	4x70/35 rm	39,5	3082	3980	2/0
49090GG3040M67	4x95/50 rm	43,5	4208	5300	3/0
49090GG3040M68	4x120/70 rm	49,5	5388	6740	4/0
49090GG3040M69	4x150/70 rm	55,5	6558	8210	250 MCM
49090GG3040M70	4x185/95 rm	60	8159	10200	350 MCM
49090GG3040M71	4x240/120 rm	68	10546	12900	450 MCM
49090GG1070M15	7x1,5/2,5 re	16,5	133	360	16
49090GG1300M15	30x1,5/6 re	29	499	1070	16

Other dimensions and colours available on request.

NHXH-FE 180/E 30

RoHS Halogen Free FRNC CE

Construction:

Conductor:	Solid or stranded red copper conductor Cl. 1 or 2,acc. to IEC 60228 DIN VDE 0259
Insulation:	double core insulation of mica tape and cross-linked polymer type HI1,to DIN VDE 0207 part 23
Colour core:	DIN VDE 0293-308 and 0276 part 604
Stranding:	cores stranded in layers
Wrapping:	glass-fibre.
Outer sheath:	orange (RAL 2003),polymer compound DIN VDE 0207 part 24, flame retardant

Features:

- **Security cable,0.6/1 kV,with improved fire characteristics**
- **Insulation integrity under flame propagation to VDE 0472 part 814 IEC 60331**
- **Burning behavior in fire(funtionality) of the complete cable system to DIN 4102 part 12 (30 min.)**
- **FE 180: insulation integrity for 180 min. Test to DIN VDE 0472 part.814 IEC 60331**
- **E 30:functionally for 30 min.Test to DIN 4102 part.12**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Min.bending radius:	15 x d
Radiation resistance:	up to 200x10^6 cJ/kg
Temperature range:	- 30°C to + 70°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2, DIN VDE 0482 part.267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49100GGL010M40	*1x4 re*	*7*	*38*	*98*	*12*
49100GGL010M60	*1x6 re*	*7,5*	*58*	*125*	*10*
49100GGL010M61	*1x10*	*8*	*96*	*165*	*8*
49100GGL010M62	*1x16*	*9*	*154*	*230*	*6*
49100GGL010M63	*1x25*	*10,5*	*240*	*345*	*4*
49100GGL010M64	*1x35*	*11,5*	*336*	*450*	*2*
49100GGL010M65	*1x50*	*12*	*480*	*590*	*1*
49100GGL010M66	*1x70*	*15*	*672*	*800*	*2/0*
49100GGL010M67	*1x95*	*16,5*	*912*	*1100*	*3/0*
49100GGL010M68	*1x120*	*18,5*	*1152*	*1350*	*4/0*
49100GGL010M69	*1x150*	*20,5*	*1440*	*1650*	*250 MCM*
49100GGL010M70	*1x185*	*23*	*1776*	*2000*	*350 MCM*
49100GGL010M71	*1x240*	*25,5*	*2304*	*2650*	*450 MCM*
49100GGL010M72	*1x300*	*31,8*	*2880*	*3200*	*550 MCM*
49090GG3020M25	*2x2,5*	*12,5*	*48*	*290*	*14*
49090GG3020M40	*2x4*	*13,5*	*77*	*345*	*12*
49090GG3020M60	*2x6*	*14,5*	*115*	*410*	*10*
49090GG3020M61	*2x10*	*16*	*192*	*540*	*8*
49090GG3020M62	*2x16*	*18*	*307*	*720*	*6*
49090GG3020M63	*2x25*	*21*	*480*	*1100*	*4*
49090GG3020M64	*2x35*	*24*	*672*	*1120*	*2*
49100GG3030M15	*3G1,5*	*12,5*	*43*	*280*	*16*
49100GG3030M25	*3G2,5*	*13,5*	*72*	*330*	*14*
49100GG3030M40	*3G4*	*14,5*	*115*	*400*	*12*
49100GG3030M60	*3G6*	*15,5*	*173*	*480*	*10*
49100GG3030M61	*3G10*	*17*	*288*	*650*	*8*
49100GG3030M62	*3G16*	*19*	*461*	*850*	*6*
49100GG3030M63	*3G25*	*22,5*	*720*	*1300*	*4*
49100GG3030M64	*3G35*	*24,5*	*1080*	*1700*	*2*
49100GG3030M65	*3G50*	*27,5*	*1440*	*2200*	*1*

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RoHS Halogen Free FRNC CE

Part no.	No.of cores x cross section n x mm²	Outer-Ø ca.mm± 10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
49100GG3030M66	3G70 rm	32	2016	3000	2/0
49100GG3030M67	3G95 rm	35,5	2736	4000	3/0
49100GG3030M68	3G120 rm	39,5	3456	4850	4/0
49100GG3030M69	3G150 rm	44	4320	5950	250 MCM
49100GG3030M67	3G185 rm	49,5	5328	7450	350 MCM
49100GG3030M71	3G240 rm	60	6910	8600	450 MCM
49100GG3040M15	4G1,5 re	13,5	58	325	16
49100GG3040M25	4G2,5 re	14	96	385	14
49100GG3040M40	4G4 re	15,5	154	470	12
49100GG3040M60	4G6 re	16,5	230	580	10
49100GG3040M61	4G10 re	18,5	384	790	8
49100GG3040M62	4G16 rm	20,5	614	1100	6
49100GG3040M63	4G25 rm	24,5	960	1650	4
49100GG3040M64	4G35 rm	27	1344	2150	2
49100GG3040M65	4G50 rm	30	1920	2800	1
49100GG3040M66	4G70 rm	35	2688	3800	2/0
49100GG3040M67	4G95 rm	39,5	3648	5050	3/0
49100GG3040M68	4G120 rm	43,5	4608	6150	4/0
49100GG3040M69	4G150 rm	49	5760	7650	250 MCM
49100GG3050M15	5G1,5 re	14	72	375	16
49100GG3050M25	5G2,5 re	15	120	445	14
49100GG3050M40	5G4 re	16,5	192	560	12
49100GG3050M60	5G6 re	18	288	690	10
49100GG3050M61	5G10 re	20	480	950	8
49100GG3050M62	5G16 rm	22,5	768	1300	6
49100GG3050M63	5G25 rm	26,5	1200	1980	4
49100GG3050M64	5G35 rm	36	1680	2600	2
49100GG1070M15	7G1,5 re	15	101	365	16
49100GG1070M25	7G2,5 re	16,5	168	540	14
49100GG1100M15	10G1,5 re	18	144	580	16
49100GG1100M25	10G2,5 re	20	240	710	14
49100GG1120M15	12G1,5 re	19	173	640	16
49100GG1120M25	12G2,5 re	20,5	288	790	14
49100GG1140M15	14G1,5 re	20	202	740	16
49100GG1140M25	14G2,5 re	21,5	336	880	14
49100GG1190M15	19G1,5 re	21,5	274	880	16
49100GG1190M25	19G2,5 re	23,5	456	1150	14
49100GG1240M15	24G1,5 re	25	346	1100	16
49100GG1240M25	24G2,5 re	27	576	1400	14
49100GG1300M25	30G1,5 re	26	432	1300	16
49100GG1300M25	30G2,5 re	28,5	720	1650	14

Other dimensions and colours available on request.

NHXCH-FE 180/E 30

RoHS Halogen Free FRNC CE

Construction:

Conductor:	solid or stranded red copper conductor Cl. 1 or 2,acc. to IEC 60228 DIN VDE 0259
Insulation:	special core insulation of mica tape and cross-linked polymer type HI1,acc.to DIN VDE 0207 part 23
Colour core:	DIN VDE 0293-308
Stranding:	cores stranded in layers
Wrapping:	glass-fibre
Screen:	red copper wires and one or two copper tape(s) applied helically
Outer sheath:	orange (RAL 2003),polymer compound DIN VDE 0207 part 24, flame retardant

Features:

- **Security cable,0.6/1 kV,with improved fire characteristics**
- **Insulation integrity under flame propagation to VDE 0472 part 814 IEC 60331**
- **Burning behavior in fire(funtionality) of the complete cable system to DIN 4102 part 12 (30 min.)**
- **FE 180: insulation integrity for 180 min. Test to DIN VDE 0472 part.814 IEC 60331**
- **E 30:functionally for 30 min.Test to DIN 4102 part.12**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Min.bending radius:	15 x d
Radiation resistance:	up to 200x10^6 cJ/kg
Temperature range:	- 30°C to + 70°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2, DIN VDE 0482 part.267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49110GG3020M15	*2x1,5/1,5 re*	*15*	*52*	*220*	*16*
49110GG3020M25	*2x2,5/2,5 re*	*13,5*	*80*	*385*	*14*
49110GG3020M40	*2x4/4 re*	*14,5*	*123*	*470*	*12*
49110GG3020M60	*2x6/6 re*	*16*	*182*	*550*	*10*
49110GG3020M61	*2x10/10 re*	*18*	*312*	*730*	*8*
49110GG3030M15	*3x1,5/1,5 re*	*13,5*	*66*	*380*	*16*
49110GG3030M25	*3x2,5/2,5 re*	*14,5*	*104*	*430*	*14*
49110GG3030M40	*3x4/4 re*	*15,5*	*161*	*530*	*12*
49110GG3030M60	*3x6/6 re*	*16,5*	*240*	*630*	*10*
49110GG3030M61	*3x10/10 re*	*18,5*	*408*	*850*	*8*
49110GG3030M62	*3x16/16 rm*	*20,5*	*643*	*1150*	*6*
49110GG3030M63	*3x25/16 rm*	*24*	*902*	*1700*	*4*
49110GG3030M64	*3x35/16 rm*	*26,5*	*1190*	*2150*	*2*
49110GG3030M65	*3x50/25 rm*	*29,5*	*1723*	*2800*	*1*
49110GG3030M66	*3x70/35 rm*	*33*	*2410*	*3800*	*2/0*
49110GG3030M67	*3x95/50 rm*	*37,5*	*3296*	*5100*	*3/0*
49110GG3030M68	*3x120/70 rm*	*42,5*	*4236*	*6250*	*4/0*
49110GG3030M69	*3x150/70 rm*	*47*	*5100*	*6900*	*250*
49110GG3030M70	*3x185/95 rm*	*52,5*	*6383*	*8550*	*350*
49110GG3030M71	*3x240/120 rm*	*58,5*	*8242*	*11150*	*450 MCM*
49110GG3040M15	*4x1,5/1,5 re*	*14,5*	*81*	*435*	*16*
49110GG3040M25	*4x2,5/2,5 re*	*15,5*	*128*	*500*	*14*
49110GG3040M40	*4x4/4 re*	*16,5*	*200*	*610*	*12*
49110GG3040M60	*4x6/6 re*	*17,5*	*297*	*740*	*10*

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Part no.	No.of cores x cross section n x mm²	Outer-Ø ca.mm± 10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
49110GG3040M61	4x10/10 re	20	504	1050	8
49110GG3040M62	4x16/16 re	22	796	1350	6
49110GG3040M63	4x25/16 rm	26	1142	1950	4
49110GG3040M64	4x35/16 rm	28,5	1526	2400	2
49110GG3040M65	4x50/25 rm	32	2203	3200	1
49110GG3040M66	4x70/35 rm	37	3082	4300	2/0
49110GG3040M67	4x95/50 rm	41,5	4208	5750	3/0
49110GG3040M68	4x120/70 rm	47	5388	7100	4/0
49110GG3040M69	4x150/70 rm	52	6558	8550	250 MCM
49110GG3040M70	4x185/95 rm	58	8159	10700	350 MCM
49110GG3040M71	4x240/120 rm	64	10546	13930	450 MCM
49110GG1070M15	7x1,5/2,5 re	16,5	133	635	16
49110GG1070M25	7x2,5/2,5 re	17,5	200	680	14
49110GG1100M15	10x1,5/2,5 re	19,5	176	870	16
49110GG1100M25	10x2,5/4 re	21	286	980	14
49110GG1120M15	12x1,5/2,5 re	20	205	1050	16
49110GG1120M25	12x2,5/4 re	21,5	334	1050	14
49110GG1240M15	24x1,5/6 re	26	413	1900	16
49110GG1240M25	24x2,5/6 re	28,5	696	1900	14
49110GG1300M15	30x1,5/6 re	27	499	2200	16
49110GG1300M25	30x2,5/10 re	30	840	2200	14

Other dimensions and colours available on request.

N2XH-FE 180/E 90

RoHS Halogen Free FRNC CE

Construction:

Conductor:	Solid or stranded red copper conductor Cl. 1 or 2,acc. to IEC 60228 DIN VDE 0259
Insulation:	core insulation with cross-linked polyethylene. type 2XI1 to DIN VDE 0276 PART 604. core with double insulation.flame retardant MICA-tapeover conductor.
Colour core:	DIN VDE 0293-308 and 0276 part 604
Stranding:	cores stranded in layers.
Wrapping:	halogen-free fillng compound,pressed.
Outer sheath:	orange (RAL 2003),thermoplastic halogen-free polyolefine compound,type HM4 to DIN VDE 0276 part 604, flame retardant.

Features:

- **Security cable,0.6/1 kV,with improved fire characteristics**
- **Insulation integrity under flame propagation to VDE 0472 part 814 IEC 60331**
- **Burning behavior in fire(funtionality) of the complete cable system to DIN 4102 part 12 (30 min.)**
- **FE 180: insulation integrity for 180 min. Test to DIN VDE 0472 part.814 IEC 60331**
- **E 90:functionally for 90 min.Test to DIN 4102 part.12**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Min.bending radius:	12 x d
Radiation resistance:	up to 200x10^6 cJ/kg
Temperature range:	- 30°C to + 70°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2, DIN VDE 0482 part.267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49120GGL010M62	*1x16 rm*	*11,5*	*154*	*250*	*6*
49120GGL010M63	*1x25 rm*	*13*	*240*	*360*	*4*
49120GGL010M64	*1x35 rm*	*14*	*336*	*460*	*2*
49120GGL010M65	*1x50 rm*	*15,5*	*480*	*610*	*1*
49120GGL010M66	*1x70 rm*	*17,5*	*672*	*840*	*2/0*
49120GGL010M67	*1x95 rm*	*19,5*	*912*	*1120*	*3/0*
49120GGL010M68	*1x120 rm*	*21,5*	*1152*	*1390*	*4/0*
49120GGL010M69	*1x150 rm*	*23,5*	*1440*	*1690*	*250 MCM*
49120GGL010M70	*1x185 rm*	*25,5*	*1776*	*2090*	*350 MCM*
49120GGL010M71	*1x240 rm*	*28,5*	*2304*	*2660*	*450 MCM*
49120GGL010M72	*1x300 rm*	*31*	*2880*	*3350*	*550 MCM*
49120GGL010M73	*1x400 rm*	*34,5*	*3840*	*4230*	*650 MCM*
49120GG3020M15	*2x1,5 re*	*14,5*	*29*	*270*	*16*
49120GG3020M25	*2x2,5 re*	*15,5*	*48*	*310*	*14*
49120GG3020M40	*2x4 re*	*16,5*	*77*	*370*	*12*
49120GG3020M60	*2x6 re*	*17,5*	*115*	*440*	*10*
49120GG3020M61	*2x10 rm*	*19,5*	*192*	*600*	*8*
49120GG3020M62	*2x16 rm*	*21*	*307*	*780*	*6*
49120GG3020M63	*2x25 rm*	*23,5*	*480*	*1100*	*4*
49120GG3020M64	*2x35 rm*	*26,5*	*672*	*1400*	*2*
49120GG3020M65	*2x50 rm*	*30*	*960*	*1830*	*1*
49120GG3020M66	*2x70 rm*	*33*	*1344*	*2420*	*2/0*
49120GG3020M67	*2x95 rm*	*37,5*	*1824*	*3240*	*3/0*
49120GG3020M68	*2x120 rm*	*41,0*	*2304*	*3940*	*4/0*
49120GG3030M15	*3x1,5 re*	*15*	*43*	*260*	*16*
49120GG3030M25	*3x2,5 re*	*16*	*72*	*350*	*14*
49120GG3030M40	*3x4 re*	*17*	*115*	*420*	*12*
49120GG3030M60	*3x6 re*	*18*	*173*	*520*	*10*

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Part no.	No.of cores x cross section n x mm²	Outer-Ø ca.mm± 10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
49120GG3030M61	3x10 rm	20,5	288	710	8
49120GG3030M62	3x16 rm	22,5	461	950	6
49120GG3030M63	3x25 rm	26	720	1370	4
49120GG3035M64	3x35/16 rm	29,5	1162	1950	2
49120GG3030M64	3x35 rm	28	1008	1750	2
49120GG3035M65	3x50/25 rm	33,5	1680	2640	1
49120GG3030M65	3x50 rm	32	1440	2310	1
49120GG3030M66	3x70 rm	35,5	2016	3100	2/0
49120GG3035M66	3x70/35 rm	37	2352	3520	2/0
49120GG3035M67	3x95/50 rm	42	3216	4710	3/0
49120GG3030M67	3x95 rm	40,5	2736	4180	3/0
49120GG3035M68	3x120/70 rm	46,5	4128	5910	4/0
49120GG3030M68	3x120 rm	44	3456	5130	4/0
49120GG3030M69	3x150 rm	48,5	4320	6260	250 MCM
49120GG3035M69	3x150/70 rm	50	4992	6970	250 MCM
49120GG3035M70	3x185/95 rm	55,5	6240	8750	350 MCM
49120GG3030M70	3x185 rm	53	5328	7720	350 MCM
49120GG3035M71	3x240/120 rm	61,5	8064	1180	450 MCM
49120GG3030M71	3x240 rm	59,5	6912	9990	450 MCM
49120GG3040M15	4x1,5 re	16,5	58	350	16
49120GG3040M25	4x2,5 re	17,5	96	420	14
49120GG3040M40	4x4 re	18,5	154	510	12
49120GG3040M60	4x6 re	19,5	230	630	10
49120GG3040M61	4x10 rm	22,5	384	880	8
49120GG3040M62	4x16 rm	24,5	614	180	6
49120GG3040M63	4x25 rm	28,5	960	1730	4
49120GG3040M64	4x35 rm	31	1344	2220	2
49120GG3040M65	4x50 rm	35	1920	2940	1
49120GG3040M66	4x70 rm	39	2688	3960	2/0
49120GG3040M67	4x95 rm	45	3648	5360	3/0
49120GG3040M68	4x120 rm	48,5	4608	6550	4/0
49120GG3040M69	4x150 rm	54	5760	8070	250 MCM
49120GG3040M70	4x185 rm	59	7104	9970	350 MCM
49120GG3040M71	4x240 rm	66	9216	12830	450 MCM
49120GG3050M15	5x1,5 re	18	72	420	16
49120GG3050M25	5x2,5 re	19	120	500	14
49120GG3050M40	5x4 re	20	192	610	12
49120GG3050M60	5x6 re	21,5	288	760	10
49120GG3050M61	5x10 rm	24,5	480	1070	8
49120GG3050M62	5x16 rm	27	768	1450	6
49120GG3050M63	5x25 rm	31	1200	2120	4
49120GG3050M64	5x35 rm	34	1680	2730	2
49120GG3050M65	5x50 rm	38,5	2400	3620	1
49120GG3050M66	5x70 rm	43,5	3360	4940	2/0
49120GG1070M15	7x1,5 re	19,5	101	480	16
49120GG1070M25	7x2,5 re	20,5	168	580	14
49120GG1070M40	7x4 re	22	269	730	12
49120GG1100M15	10x1,5 re	24	144	650	16
49120GG1100M25	10x2,5 re	25,5	240	790	14
49120GG1120M15	12x1,5 re	24,5	173	720	16
49120GG1120M25	12x2,5 re	26	288	890	14
49120GG1240M15	24x1,5 re	33	346	1270	16

Other dimensions and colours available on request.

N2XCH-FE 180/E 90

RoHS Halogen Free FRNC CE

Construction:

Conductor:	Solid or stranded red copper conductor Cl. 1 or 2,acc. to IEC 60228 DIN VDE 0259
Insulation:	core insulation with cross-linked polyethylene. type 2XI1 to DIN VDE 0276 PART 604. core with double insulation.flame retardant MICA-tapeover conductor.
Colour core:	DIN VDE 0293-308 and 0276 part 604
Stranding:	cores stranded in layers.
Wrapping:	halogen-free fillng compound,pressed.
Screen:	concentric conductor of corrugated copper wires + copper tape
Outer sheath:	orange (RAL 2003),thermoplastic halogen-free polyolefine compound,type HM4 to DIN VDE 0276 part 604, flame retardant.

Features:

- **Security cable,0.6/1 kV,with improved fire characteristics**
- **Insulation integrity under flame propagation to VDE 0472 part 814 IEC 60331**
- **Burning behavior in fire(funtionality) of the complete cable system to DIN 4102 part 12 (30 min.)**
- **FE 180: insulation integrity for 180 min. Test to DIN VDE 0472 part.814 IEC 60331**
- **E 90:functionally for 90 min.Test to DIN 4102 part.12**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Min.bending radius:	12 x d
Radiation resistance:	up to 200x10^6 cJ/kg
Temperature range:	- 30°C to + 70°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2, DIN VDE 0482 part.267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49130GG3030M15	*3x1,5/1,5 re*	*16,5*	*66*	*330*	*16*
49130GG3030M25	*3x2,5/2,5 re*	*17,5*	*104*	*400*	*14*
49130GG3030M40	*3x4/4 re*	*18,5*	*161*	*480*	*12*
49130GG3030M60	*3x6/6 re*	*20*	*240*	*600*	*10*
49130GG3030M61	*3x10/10 re*	*22*	*408*	*840*	*8*
49130GG3030M62	*3x16/16 rm*	*24,5*	*643*	*1130*	*6*
49130GG3030M63	*3x25/16 rm*	*28*	*902*	*1560*	*4*
49130GG3030M64	*3x35/16 rm*	*30,5*	*1190*	*1960*	*2*
49130GG3030M65	*3x50/25 rm*	*34*	*1723*	*2610*	*1*
49130GG3030M66	*3x70/35 rm*	*37,5*	*2410*	*3500*	*2/0*
49130GG3030M67	*3x95/50 rm*	*43*	*3296*	*4700*	*3/0*
49130GG3030M68	*3x120/70 rm*	*48*	*4236*	*5880*	*4/0*
49130GG3030M69	*3x150/70 rm*	*52*	*4992*	*7300*	*250 MCM*
49130GG3030M70	*3x185/95 rm*	*57,5*	*6383*	*8760*	*350 MCM*
49130GG3030M71	*3x240/120 rm*	*63,5*	*8242*	*11280*	*450 MCM*
49130GG3040M15	*4x1,5/1,5 re*	*17,5*	*81*	*390*	*16*
49130GG3040M25	*4x2,5/2,5 re*	*19*	*128*	*470*	*14*
49130GG3040M40	*4x4/4 re*	*20*	*200*	*570*	*12*

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Part no.	No.of cores x cross section n x mm²	Outer-Ø ca.mm± 10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
49130GG3040M60	4x6/6 re	21,5	297	720	10
49130GG3040M61	4x10/10 rm	24	504	1010	8
49130GG3040M62	4x16/16 rm	26,5	796	1370	6
49130GG3040M63	4x25/16 rm	30,5	1142	1940	4
49130GG3040M64	4x35/16 rm	33	1526	2420	2
49130GG3040M65	4x50/25 rm	37,5	2203	3240	1
49130GG3040M66	4x70/35 rm	41,5	3082	4360	2/0
49130GG3040M67	4x95/50 rm	47,5	4208	5900	3/0
49130GG3040M68	4x120/70 rm	52,5	5388	7340	4/0
49130GG3040M69	4x150/70 rm	57,5	6540	8840	250 MCM
49130GG3040M70	4x185/95 rm	63,5	8159	11020	350 MCM
49130GG3040M71	4x240/120 rm	70	10546	14140	450 MCM
49130GG1070M15	7x1,5/2,5 re	20,5	133	520	16
49130GG1070M25	7x2,5/2,5 re	22	200	630	14
49130GG1120M15	12x1,5/2,5 re	26	205	770	16
49130GG1120M25	12x2,5/2,5 re	285	334	950	14
49130GG1240M15	24x1,5/6 re	35	413	1380	16
49130GG1240M25	24x2,5/10 re	37,5	696	1750	14
49130GG1300M15	30x1,5/6 re	37	499	1630	16
49130GG1300M25	30x2,5/10 re	39,5	840	2080	14

Other dimensions and colours available on request.

NHXH-FE 180/E 90

Construction:

Conductor:	Solid or stranded red copper conductor Cl. 1 or 2,acc. to IEC 60228 DIN VDE 0259
Insulation:	double core insulation of mica tape and cross-linked polymer type HI1,to DIN VDE 0207 part 23
Colour core:	DIN VDE 0293-308 and 0276 part 604
Stranding:	cores stranded in layers.
Wrapping:	halogen-free fillng compound,pressed.
Outer sheath:	orange (RAL 2003),thermoplastic,polyolefine compound, type HM4 to DIN VDE 0276 part 604,flame retardant.

Features:

- **Security cable,0.6/1 kV,with improved fire characteristics**
- **Insulation integrity under flame propagation to VDE 0472 part 814 IEC 60331**
- **Burning behavior in fire(funtionality) of the complete cable system to DIN 4102 part 12 (30 min.)**
- **FE 180: insulation integrity for 180 min. Test to DIN VDE 0472 part.814 IEC 60331**
- **E 90:functionally for 90 min.Test to DIN 4102 part.12**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Min.bending radius:	12 x d
Radiation resistance:	up to 200x10^6 cJ/kg
Temperature range:	- 30°C to + 70°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2, DIN VDE 0482 part.267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49140GG3030M15	*3x1,5 re*	*14*	*43*	*280*	*16*
49140GG3030M25	*3x2,5 re*	*15*	*72*	*330*	*14*
49140GG3030M40	*3x4 re*	*16*	*115*	*400*	*12*
49140GG3030M60	*3x6 re*	*17*	*173*	*480*	*10*
49140GG3030M61	*3x10 re*	*19*	*288*	*650*	*8*
49140GG3030M62	*3x16 re*	*21*	*461*	*850*	*6*
49140GG3030M63	*3x25 re*	*25*	*720*	*1300*	*4*
49140GG3030M64	*3x35 re*	*28*	*1008*	*1700*	*2*
49140GG3035M64	*3x35/16 re*	*28*	*1162*	*1850*	*2*
49140GG3035M65	*3x50/25 rm*	*32*	*1680*	*2500*	*1*
49140GG3035M66	*3x70/35 rm*	*36*	*2352*	*3350*	*2/0*
49140GG3035M67	*3x95/50 rm*	*42*	*3216*	*4500*	*3/0*
49140GG3035M68	*3x120/70 rm*	*45*	*4128*	*5600*	*4/0*
49140GG3035M69	*3x150/70 rm*	*49*	*4992*	*6700*	*250 MCM*
49140GG3035M70	*3x185/95 rm*	*55*	*6240*	*8350*	*350 MCM*
49140GG3035M71	*3x240/120 rm*	*63*	*8064*	*10000*	*450 MCM*
49140GG3040M15	*4x1,5 re*	*15*	*58*	*325*	*16*
49140GG3040M25	*4x2,5 re*	*16*	*96*	*385*	*14*
49140GG3040M40	*4x4 re*	*17*	*154*	*470*	*12*
49140GG3040M60	*4x6 re*	*18*	*230*	*580*	*10*
49140GG3040M61	*4x10 re*	*20*	*384*	*790*	*8*
49140GG3040M62	*4x16 re*	*22*	*614*	*1100*	*6*
49140GG3040M63	*4x25 re*	*27*	*960*	*1650*	*4*
49140GG3040M64	*4x35 re*	*30*	*1344*	*2150*	*2*

NHXH-FE 180/E 90

RoHS Halogen Free FRNC CE

Part no.	No.of cores x cross section n x mm²	Outer-Ø ca.mm± 10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
49140GG3040M65	4x50	34	1920	2800	1
49140GG3040M66	4x70	39	2688	3800	2/0
49140GG3040M67	4x95	44	3648	5050	3/0
49140GG3040M68	4x120	47	4608	6150	4/0
49140GG3050M15	5x1,5	16	72	375	16
49140GG3050M25	5x2,5	17	120	445	14
49140GG3050M40	5x4	18	192	560	12
49140GG3050M60	5x6	20	288	690	10
49140GG3050M61	5x10	22	480	950	8
49140GG3050M62	5x16	24	768	1300	6
49140GG3050M63	5x25	29	1200	1980	4
49140GG3050M64	5x35	33	1680	2350	2
49140GG3050M65	5x50	38	2500	3100	1
49140GG1070M15	7x1,5	19	101	560	16
49140GG1070M25	7x2,5	21	168	650	14
49140GG1100M15	10x1,5	23	144	750	16
49140GG1100M25	10x2,5	25	240	910	14
49140GG1120M15	12x1,5	25	173	850	16
49140GG1120M25	12x2,5	26	288	1000	14

Other dimensions and colours available on request.

NHXCH-FE 180/E 90

RoHS Halogen Free FRNC CE

Construction:

Conductor:	Solid or stranded red copper conductor Cl. 1 or 2,acc. to IEC 60228 DIN VDE 0259
Insulation:	double core insulation of mica tape and cross-linked polymer type HI1,to DIN VDE 0207 part 23
Colour core:	DIN VDE 0293-308 and 0276 part 604
Stranding:	cores stranded in layers.
Wrapping:	glass-fibre. (also for each single core).
Screen:	red copper wires and one or two copper tape(s) applied helically
Outer sheath:	orange (RAL 2003),polyolefin compound type HM4 DIN VDE 0207 part 24

Features:

- **Security cable,0.6/1 kV,with improved fire characteristics**
- **Insulation integrity under flame propagation to VDE 0472 part 814 IEC 60331**
- **Burning behavior in fire(funtionality) of the complete cable system to DIN 4102 part 12 (30 min.)**
- **FE 180: insulation integrity for 180 min. Test to DIN VDE 0472 part.814 IEC 60331**
- **E 90:functionally for 90 min.Test to DIN 4102 part.12**

Technical data:

Nominal voltage:	600/1000 V
Test voltage:	4 kV
Min.bending radius:	12 x d
Radiation resistance:	up to 200x10^6 cJ/kg
Temperature range:	- 30°C to + 70°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2, DIN VDE 0482 part.267-2

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49150GG3030M15	*3x1,5/1,5 re*	*16,9*	*66,0*	*380,0*	*16*
49150GG3030M25	*3x2,5/2,5 re*	*18,0*	*104,0*	*430,0*	*14*
49150GG3030M40	*3x4/4 re*	*19,0*	*161,0*	*530,0*	*12*
49150GG3030M60	*3x6/6 re*	*20,1*	*240,0*	*640,0*	*10*
49150GG3030M61	*3/10/10 re*	*22,0*	*408,0*	*850,0*	*8*
49150GG3030M62	*3x16/16 rm*	*24,0*	*643,0*	*1150,0*	*6*
49150GG3030M63	*3x25/16 rm*	*28,0*	*902,0*	*1700,0*	*4*
49150GG3030M64	*3x35/16 rm*	*30,0*	*1190,0*	*2150,0*	*2*
49150GG3030M65	*3x50/25 rm*	*34,0*	*1723,0*	*2800,0*	*1*
49150GG3030M66	*3x70/35 rm*	*38,0*	*2410,0*	*3800,0*	*2/0*
49150GG3030M67	*3x95/50 rm*	*44,0*	*3296,0*	*5100,0*	*3/0*
49150GG3030M68	*3x120/70 rm*	*47,0*	*4236,0*	*6250,0*	*4/0*
49150GG3030M69	*3x150/70 rm*	*51,0*	*4992,0*	*6900,0*	*250 MCM*
49150GG3030M70	*3x185/95 rm*	*56,0*	*6383,0*	*8550,0*	*350 MCM*
49150GG3030M71	*3x240/120 rm*	*65,0*	*8242,0*	*11150,0*	*450 MCM*
49150GG3040M15	*4x1,5/1,5 re*	*18,0*	*81,0*	*435,0*	*16*
49150GG3040M25	*4x2,5/2,5 re*	*18,9*	*128,0*	*500,0*	*14*
49150GG3040M40	*4x4/4 re*	*20,0*	*200,0*	*610,0*	*12*
49150GG3040M60	*4x6/6 re*	*21,0*	*297,0*	*740,0*	*10*
49150GG3040M61	*4x10/10 re*	*23,0*	*504,0*	*1050,0*	*8*
49150GG3040M62	*4x16/16 re*	*25,0*	*796,0*	*1350,0*	*6*
49150GG3040M63	*4x25/16 re*	*30,0*	*1142,0*	*1950,0*	*4*
49150GG3040M64	*4x35/16 re*	*33,0*	*1526,0*	*2400,0*	*2*

Other dimensions and colours available on request.

NHXCH-FE 180/E 90

RoHS Halogen Free FRNC CE

Part no.	No.of cores x cross section n x mm²	Outer-Ø ca.mm± 10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
49150GG3040M65	4X50/25 rm	37,0	2203,0	3200,0	1
49150GG3040M66	4X70/35 rm	42,0	3082,0	4300,0	2/0
49150GG3040M67	4X95/50 rm	47,0	4208,0	5750,0	3/0
49150GG3040M68	4X120/70 rm	51,0	5388,0	7100,0	4/0
49150GG3040M69	4X150/70 rm	56,0	6540,0	8550,0	250 MCM
49150GG3040M70	4X185/95 rm	68,0	8159,0	11020,0	350 MCM
49150GG3040M71	4X240/120 rm	70,0	10546,0	14140,0	450 MCM
49150GG3050M25	5X2,5/2,5 re	-	152,0	480,0	14
49150GG1070M15	7X1,5/2,5 re	21,0	133,0	520,0	16
49150GG1070M25	7X2,5/2,5 re	21,0	200,0	630,0	14
49150GG1120M15	12X1,5/2,5 re	27,0	205,0	770,0	16
49150GG1120M25	12X2,5/4 re	28,0	334,0	950,0	14
49150GG1240M15	24X1,5/6 re	37,0	413,0	1380,0	16
49150GG1240M25	24X2,5/10 re	37,5	696,0	1750,0	14
49150GG1300M15	30X1,5/6 re	39,0	499,0	1360,0	16
49150GG1300M25	30X2,5/10 re	39,5	840,0	2080,0	14

Other dimensions and colours available on request.

FG4OHM1 PH 30 100/100 V

Construction:

Conductor:	flexible red copper conductor Cl. 5, acc to IEC 60228
Insulation:	silicon,type EI2
Colour core:	red/black
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	red (RAL 3000),thermoplastic polyolefine, halogen-free compound,type M1

Features:

- **Fire warning installation cable**
- **PH30: at 830 °C flame and shock for 30 minutes**

Technical data:

Nominal voltage:	100/100 V
Test voltage:	2 kV
Temperature at conductor:	
in service:	+ 90°C
in short circuit:	+ 250°C
Min. bending radius:	14 x d
Resistance:	**Fire resistant acc. to:** IEC 60331-21, CEI EN 50200 **Halogen free acc. to:** IEC 60754-1,CEI EN 50267-2-1/2

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49160BRM020M05	*2X0,5*	*6,1*	*14,4*	*39*	*20*
49160BRM020M07	*2X0,75*	*6,4*	*19,2*	*49*	*18*
49160BRM020M10	*2X1*	*7,1*	*24*	*61*	*17*
49160BRM020M15	*2X1,5*	*8,1*	*33,6*	*83*	*16*
49160BRM020M25	*2X2,5*	*9,3*	*52,8*	*107*	*14*

Other dimensions and colours available on request.

FG4OHM1 PH 90 450/750 V

Construction:

Conductor:	stranded red copper conductor Cl. 2, acc to IEC 60228
Insulation:	high performance silicon
Colour core:	HD 308
Outer sheath:	red (RAL 3000),thermoplastic halogen-free compound

Technical data:

Nominal voltage:	450/750 V
Temperature range:	- 40°C to + 90°C
Min. bending radius:	10 x d
Resistance:	**Fire resistant acc. to:** IEC 60331-21, CEI EN 50200 **Halogen free acc. to:** IEC 60754-1,CEI EN 50267-2-1/2

Features:

- **Fire warning installation cable**
- **PH90: at 830 °C flame and shock for 90 minutes**

Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49170ER3020M15	*2x1,5*	*7,8*	*48*	*96*	*16*
49170ER3030M15	*3x1,5*	*8,3*	*43,2*	*116*	*16*
49170ER3040M15	*4x1,5*	*9,3*	*57,6*	*147*	*16*
49170ER3050M15	*5x1,5*	*10,5*	*72*	*180*	*16*
49170ER3020M25	*2x2,5*	*9,2*	*52,8*	*138*	*14*
49170ER3030M25	*3x2,5*	*9,8*	*72*	*169*	*14*
49170ER3040M25	*4x2,5*	*11,3*	*96*	*222*	*14*
49170ER3050M25	*5x2,5*	*12,3*	*120*	*259*	*14*
49170ER3020M40	*2x4*	*10,5*	*76,8*	*189*	*12*
49170ER3030M40	*3x4*	*11,6*	*115,2*	*146*	*12*
49170ER3040M40	*4x4*	*12,5*	*153,6*	*299*	*12*
49170ER3050M40	*5x4*	*14*	*192*	*359*	*12*

Other dimensions and colours available on request.

FG4OHM1 PH 120 450/750 V

RoHS Halogen Free NO BURN CE

Construction:

Conductor:	stranded red copper conductor Cl. 5, acc to IEC 60228
Insulation:	high performance silicon
Colour core:	HD 308
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	red (RAL 3000),thermoplastic halogen-free compound

Features:

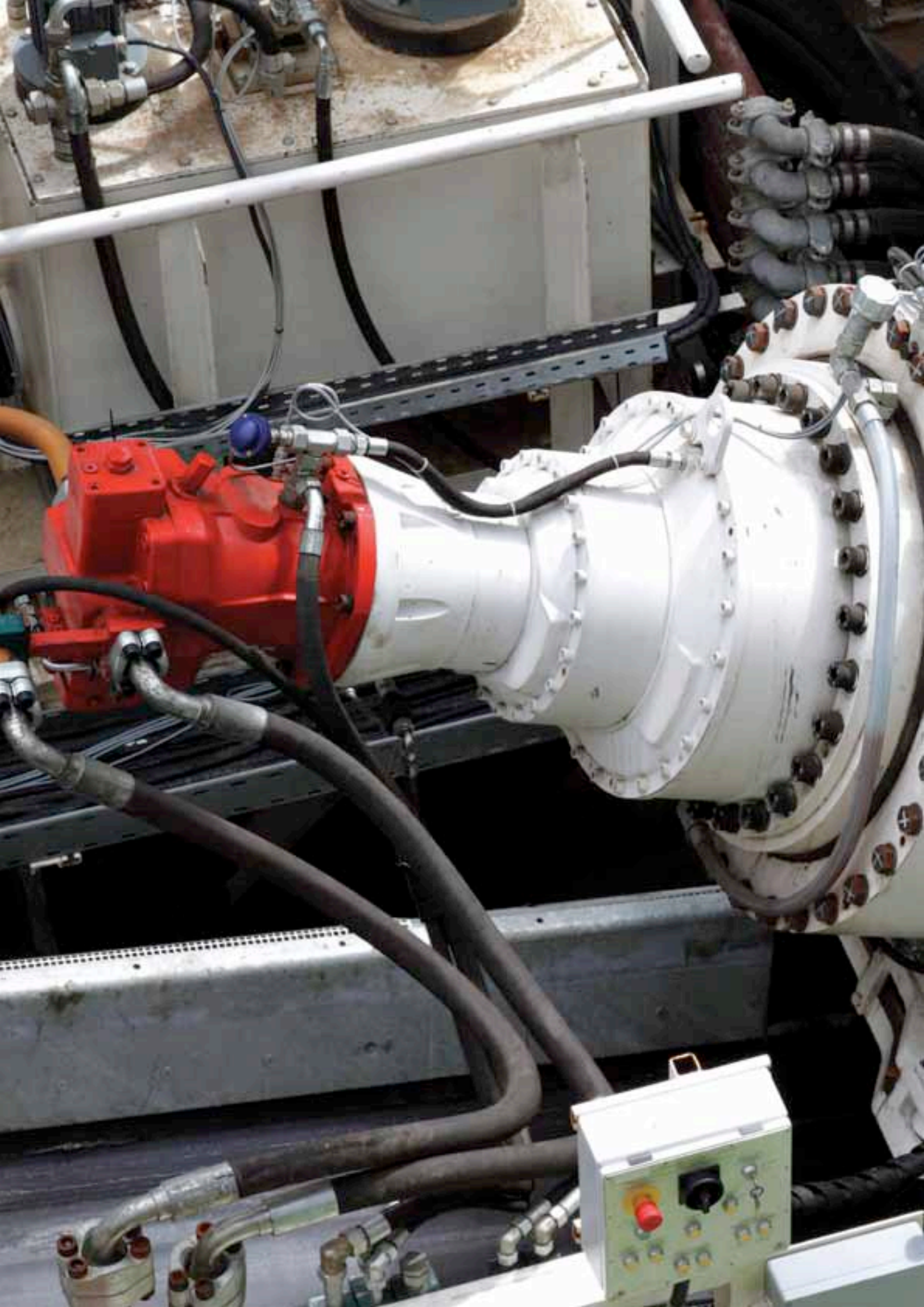
- **Fire warning installation cable**
- **PH120: at 830 °C flame and shock for 120 minutes**

Technical data:

Nominal voltage:	450/750 V
Temperature range:	- 40°C to + 90°C
Min. bending radius:	8 x d
Resistance:	**Fire resistant acc. to:** IEC 60331-21, CEI EN 50200 **Halogen free acc. to:** IEC 60754-1,CEI EN 50267-2-1/2

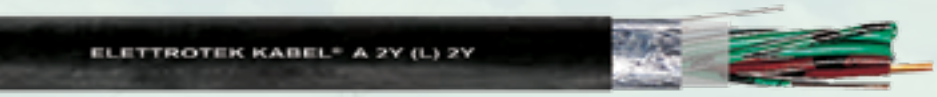
Part no.	*No.of cores x cross section n x mm²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
49180ER3020M07	*2X0,75*	*7,6*	*19,2*	*69*	*18*
49180ER3030M07	*3X0,75*	*8*	*26,4*	*84*	*18*
49180ER3040M07	*4X0,75*	*8,7*	*33,6*	*103*	*18*
49180ER3020M10	*2X1*	*8*	*24*	*78*	*17*
49180ER3030M10	*3X1*	*8,2*	*33,6*	*86*	*17*
49180ER3040M10	*4X1*	*8,9*	*43,2*	*110*	*17*
49180ER3070M10	*7X1*	*70,8*	*72*	*176*	*17*
49180ER3120M10	*12X1*	*13,9*	*120*	*275*	*17*
49180ER3190M10	*19X1*	*16,4*	*187,2*	*408*	*17*
49180ER3020M15	*2X1,5*	*8,3*	*33,6*	*88*	*16*
49180ER3030M15	*3X1,5*	*8,8*	*48*	*112*	*16*
49180ER3040M15	*4X1,5*	*9,8*	*62,4*	*141*	*16*
49180ER3070M15	*7X1,5*	*11,7*	*105,6*	*218*	*16*
49180ER3120M15	*12X1,5*	*15,3*	*177,6*	*352*	*16*
49180ER3190M15	*19X1,5*	*18,2*	*278,4*	*535*	*16*
49180ER3020M25	*2X2,5*	*9,8*	*52,8*	*123*	*14*
49180ER3030M25	*3X2,5*	*10,4*	*76,8*	*159*	*14*
49180ER3040M25	*4X2,5*	*11,4*	*100,8*	*196*	*14*
49180ER3070M25	*7X2,5*	*13,4*	*172,8*	*305*	*14*
49180ER3120M25	*12X2,5*	*17,9*	*292,8*	*505*	*14*
49180ER3190M25	*19X2,5*	*21,1*	*460,8*	*750*	*14*

Other dimensions and colours available on request.



A-2Y(L)2Y

RoHS CE



Construction:

Conductor:	solid red copper conductor 0,6 and 0,8 mmØ Cl. 1, acc to IEC 60228
Insulation:	PE,type 2YI1
Stranding:	4 cores twisted to a star quad,5 star quads stranded to sub-units,each 5 or 10 sub units stranded to main units stranded to cable core.
Colour core:	DIN VDE 0816
Wrapping:	plastic foil
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	black(RAL 9005),PE type 2Y

Features:

- **Bd telephone-outdoor cable**
- **according to VDE 0816**
- **Laminated sheath**
- **Unfilled**

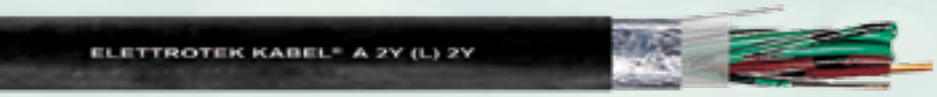
Technical data:

Nominal voltage:	max 300 V
Testing voltage:	core/core U eff. 500 V core/screen U eff. 2000 V
Temperature range: *fixed laying:* *flexible application:*	 max +70°C - 20°C to +50°C
Loop resistance at 20°C:	 0,6 mm=130 Ohm/km 0,6 mm=1,04 Ohm/km
Min. bending radius:	10 x d
Radiation resistance:	up to 80x10^6 cJ/kg (up to 80 Mrad)
Insulation resistance:	min.5 GOhmx/km
Line attenuation: of side circuites at 800 Hz:	 0,6 mm=1,04 dB/KM 0,8 mm=0,78 dB/KM
Impedance of side circuites:	 0,6 mm=720 Ohm 0,8 mm=520 Ohm

Vart no.	*No.of Vairs x Ø*	*Outer-Ø ca.mm± 10%*	*CoVVer weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
50010C7V022M06	*2x2x0,6*	*8*	*11*	*82*	*20*
50010C7V042M06	*4x2x0,6*	*10*	*23*	*127*	*20*
50010C7V062M06	*6x2x0,6*	*11,5*	*34*	*132*	*20*
50010C7V102M06	*10x2x0,6*	*12,5*	*57*	*171*	*20*
50010C7V202M06	*20x2x0,6*	*15,5*	*113*	*268*	*20*
50010C7V302M06	*30x2x0,6*	*17,5*	*170*	*358*	*20*
50010C7V402M06	*40x2x0,6*	*19,5*	*226*	*438*	*20*
50010C7V502M06	*50x2x0,6*	*21*	*283*	*531*	*20*
50010C7V702M06	*70x2x0,6*	*24,5*	*396*	*712*	*20*
50010C7VAA2M06	*100x2x0,6*	*28*	*565*	*950*	*20*
50010C7VAB2M06	*150x2x0,6*	*33*	*848*	*1348*	*20*
50010C7VAC2M06	*200x2x0,6*	*37*	*1131*	*1758*	*20*
50010C7VAD2M06	*250x2x0,6*	*40,5*	*1414*	*2137*	*20*
50010C7VAE2M06	*300x2x0,6*	*44*	*1696*	*2533*	*20*
50010C7VAF2M06	*350x2x0,6*	*47,5*	*1979*	*2954*	*20*
50010C7VAG2M06	*400x2x0,6*	*50*	*2262*	*3342*	*20*

A-2Y(L)2Y

RoHS CE



Part no.	No.of pairs x Ø	Outer-Ø ca.mm± 10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
50010C7V022M08	2x2x0,8	11	20	102	19
50010C7V042M08	4x2x0,8	12	40	158	19
50010C7V062M08	6x2x0,8	13	60	179	19
50010C7V102M08	10x2x0,8	14,5	101	241	19
50010C7V202M08	20x2x0,8	18	201	393	19
50010C7V302M08	30x2x0,8	21	302	540	19
50010C7V402M08	40x2x0,8	23	402	675	19
50010C7V502M08	50x2x0,8	25,5	503	842	19
50010C7V702M08	70x2x0,8	29	704	1105	19
50010C7VAA2M08	100x2x0,8	34	1005	1524	19
50010C7VAB2M08	150x2x0,8	40	1508	2208	19
50010C7VAC2M08	200x2x0,8	46,5	2011	2915	19
50010C7VAD2M08	250x2x0,8	51	2514	3575	19
50010C7VAE2M08	300x2x0,8	53	3016	4232	19
50010C7VAF2M08	350x2x0,8	56,5	3519	4940	19
50010C7VAG2M08	400x2x0,8	60	4022	5565	19
50010C7VAH2M08	500x2x0,8	68	5027	6955	19
50010C7VAI2M08	600x2x0,8	73	6032	8240	19

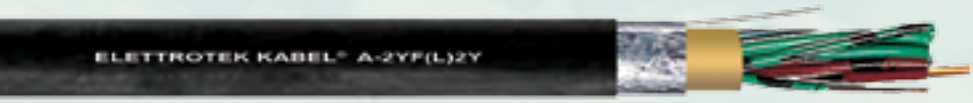
Other dimensions and colours available on request.

Mutual capacitance: at 800 Hz
of all values 100%
0.6 mm-max.52 nF/km
0.8 mm-max.55 nF/km
of all values 95%
0.6 mm-max.50 nF/km
0.8 mm-max.53 nF/km
of all values 80%
0.6 mm-max.48 nF/km
0.8 mm-max.50 nF/km

Capacitance unbalances at 800 Hz
of all values k_1 100%-max.800 pF/300 m
of all values k_1 98%-max.400 pF/300 m
of all values $k_{9\text{-}12}$ 100%-max.300 pF/300 m
of all values $k_{9\text{-}12}$ 98%-max.100 pF/300 m

A-2YF(L)2Y

RoHS CE



Construction:

Conductor:	solid red copper conductor 0,6 and 0,8 mmØ Cl. 1, acc to IEC 60228
Insulation:	PE,type 2Y
Stranding:	4 cores twisted to a star quad,5 star quads stranded to sub-units,each 5 or 10 sub units stranded to main units stranded to cable core.
Colour core:	DIN VDE 0816
Wrapping:	paper tape
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	black(RAL 9005),PE type 2Y

Features:

- **Bd telephone-outdoor cable**
- **according to VDE 0816**
- **Laminated sheath**
- **Filled cable core**
- **longitudinally water proof**

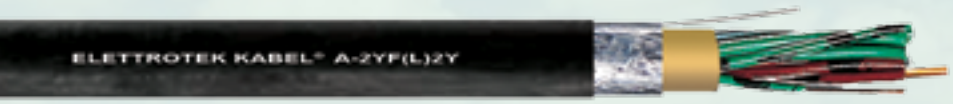
Technical data:

Nominal voltage:	max 300 V
Testing voltage:	core/core U eff. 500 V core/screen U eff. 2000 V
Radiation resistance:	up to 80x10^6 cJ/kg (up to 80 Mrad)
Temperature range:	
fixed laying:	max +70°C
flexible application:	- 20°C to +50°C
Loop resistance at 20°C:	0,6 mm=130 Ohm/km 0,6 mm=1,04 Ohm/km
Min. bending radius:	10 x d
Insulation resistance:	min.1,5 GOhmx/km
Line attenuation: of side circuites at 800 Hz:	0,6 mm=1,04 dB/KM 0,8 mm=0,78 dB/KM
Impedance of side circuites:	0,6 mm=720 Ohm 0,8 mm=520 Ohm

Vart no.	*No.of Vairs x Ø*	*Outer-Ø ca.mm± 10%*	*CoVVer weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
50020C7V022M06	*2x2x0,6*	*7,5*	*11*	*80*	*20*
50020C7V042M06	*4x2x0,6*	*9*	*23*	*140*	*20*
50020C7V062M06	*6x2x0,6*	*12*	*34*	*150*	*20*
50020C7V102M06	*10x2x0,6*	*13,5*	*57*	*190*	*20*
50020C7V202M06	*20x2x0,6*	*16*	*113*	*310*	*20*
50020C7V302M06	*30x2x0,6*	*19*	*170*	*430*	*20*
50020C7V402M06	*40x2x0,6*	*20,5*	*226*	*545*	*20*
50020C7V502M06	*50x2x0,6*	*23*	*283*	*660*	*20*
50020C7V702M06	*70x2x0,6*	*26*	*396*	*895*	*20*
50020C7VAA2M06	*100x2x0,6*	*31,5*	*565*	*1230*	*20*
50020C7VAB2M06	*150x2x0,6*	*37,5*	*848*	*1780*	*20*
50020C7VAC2M06	*200x2x0,6*	*42,5*	*1131*	*2320*	*20*
50020C7VAD2M06	*250x2x0,6*	*47,5*	*1414*	*2910*	*20*
50020C7VAE2M06	*300x2x0,6*	*51,5*	*1696*	*3490*	*20*
50020C7VAF2M06	*350x2x0,6*	*55*	*1979*	*3970*	*20*
50020C7VAG2M06	*400x2x0,6*	*60,5*	*2262*	*4480*	*20*
50020C7VAH2M06	*500x2x0,6*	*60,5*	*2262*	*5460*	*20*

A-2YF(L)2Y

RoHS CE



Vart no.	No.of Vairs x Ø	Outer-Ø ca.mm± 10%	CoVVer weight kg/km	Cable weight kg/km	AWG no.*)
50020C7V022M08	2x2x0,8	8,5	20,0	100	19
50020C7V042M08	4x2x0,8	10	40,0	180	19
50020C7V062M08	6x2x0,8	12,5	60,0	190	19
50020C7V102M08	10x2x0,8	15	101,0	280	19
50020C7V202M08	20x2x0,8	19	201,0	480	19
50020C7V302M08	30x2x0,8	23	302,0	670	19
50020C7V402M08	40x2x0,8	26	402,0	860	19
50020C7V502M08	50x2x0,8	29	503,0	1060	19
50020C7V702M08	70x2x0,8	33	704,0	1420	19
50020C7VAA2M08	100x2x0,8	39	1005,0	1980	19
50020C7VAB2M08	150x2x0,8	47	1508,0	2940	19
50020C7VAC2M08	200x2x0,8	51	2011,0	3780	19
50020C7VAD2M08	250x2x0,8	58	2514,0	4660	19
50020C7VAE2M08	300x2x0,8	62,5	3016,0	5570	19
50020C7VAF2M08	350x2x0,8	68	3519,0	6750	19
50020C7VAG2M08	400x2x0,8	73	4022,0	7630	19
50020C7VAH2M08	500x2x0,8	81,5	5027,0	9540	19

Other dimensions and colours available on request.

Mutual capacitance: at 800 Hz
of all values 100%
0.6 mm-max.52 nF/km
0.8 mm-max.55 nF/km
of all values 95%
0.6 mm-max.50 nF/km
0.8 mm-max.53 nF/km
of all values 80%
0.6 mm-max.48 nF/km
0.8 mm-max.50 nF/km

Capacitance unbalances at 800 Hz
of all values k_1 100%-max.800 pF/300 m
of all values k_1 98%-max.400 pF/300 m
of all values $k_{9\text{-}12}$ 100%-max.300 pF/300 m
of all values $k_{9\text{-}12}$ 98%-max.100 pF/300 m

A-Y(St)YSYv

RoHS CE

Construction:

Conductor:	Solid red copper conductor Cl. 1, acc to IEC 60228
Insulation:	PVC,type YI1
Stranding:	cores twisted into pairs, 4 pairs layed up into sub-units (2-pairs cable stranded as one star quad), sub-units layed up in layers.
Cores colour:	blue, red, grey, yellow,green, brown, white, black (in sequence) DIN VDE 0816
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Wrapping:	plastic foil
Inner sheath:	PVC,type YM1
Armouring:	braid of galvanized steel wires
Outer sheath:	black (RAL 9005),PVC type YM1

Features:

- **Acc. to VDE 0815**
- **UV resistant**
- **underground use**
- **rodent protection**

Applications:

For fixed installation, indoors, outdoors. in ground, as well as in concrete.

Technical data:

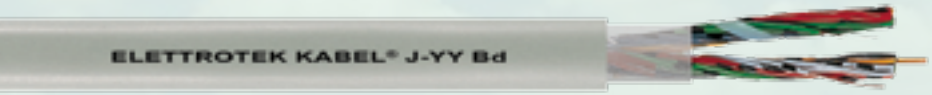
Nominal voltage:	300 V
Testing voltage:	500 V
Temperature range:	
fixed laying:	-30/+70°C
flexible application:	- 5/+50°C
Min. bending radius:	10 x Ø
Operating capacity:	120 nF/km
Insulation resistance:	100 MOhmx/km
Loop resistance:	73,2 Ohm/km

Vart no.	*No.of Vairs x Ø*	*Outer-Ø ca.mm± 10%*	*CoVVer weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
50030C7V022M08	*2x2x0,8 SW*	*11,0*	*25*	*180*	*19*
50030C7V042M08	*4x2x0,8 SW*	*12,5*	*45*	*235*	*19*
50030C7V082M08	*8x2x0,8 SW*	*15,5*	*85*	*340*	*19*
50030C7V122M08	*12x2x0,8 SW*	*16,0*	*126*	*410*	*19*
50030C7V202M08	*20x2x0,8 SW*	*19,0*	*206*	*560*	*19*
50030C7V402M08	*40x2x0,8 SW*	*26,0*	*407*	*960*	*19*

Other dimensions and colours available on request.

J-YY Bd

RoHS CE



Construction:

Conductor:	Solid red copper conductor Cl. 1, acc to IEC 60228
Insulation:	PVC core insulation,compound type YI1 to DIN VDE 0207,insulation wall-thickness 0,2 mm to table 7
Colour core:	DIN VDE 0815
Stranding:	the cores to a quad each 5 quads to a unit and several units are stranded in layer
Wrapping:	plastic tape
Outer sheath:	grey (RAL 7032),PVC,type YM1

Features:

- **Telephone installation cable**
- **According to VDE 0815**

Technical data:

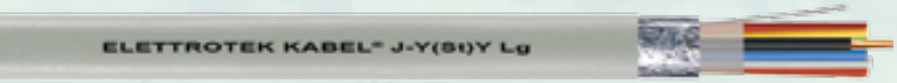
Nominal voltage:	max 300 V
Testing voltage: (50 Hz)	core/core U eff. 800 V
Radiation resistance:	up to 80x10^6 cJ/kg (up to 80 Mrad)
Temperature range:	
fixed laying:	-30°C +70°C
flexible application:	- 5°C to +50°C
Loop resistance at 20°C:	max. 130 Ohm/km
Min. bending radius:	
to DIN VDE 0891 part 5 during delivery:	7,5 xd
single bending without tension:	2,5 xd
repeated bending without tension:	7,5 xd
Insulation resistance:	min.100 MOhmx/km
Mutual capacitance at 800 Hz:	max. 100 nF/km
Capacitance unbalances at 800 Hz:	k_1 max.300 pF/100 m k_9 k_{12} 100 pF/100 m
Line attenuation: at 800 Hz:	1,48 dB/KM
Resistance:	**Flame retardant and self-extinguishing acc. to:**DIN VDE 0482 part.266-2-5, EN 50266-2-5 IEC 60332-2-23

Part no.	*No.of pairs x Ø*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
50040C6W022M06	*2x2x0,6*	*4,5*	*11*	*34*	*20*
50040C6W042M06	*4x2x0,6*	*6,5*	*23*	*59*	*20*
50040C6W062M06	*6x2x0,6*	*7*	*34*	*74*	*20*
50040C6W102M06	*10x2x0,6*	*8,5*	*57*	*111*	*20*
50040C6W162M06	*16x2x0,6*	*10*	*90*	*160*	*20*
50040C6W202M06	*20x2x0,6*	*11*	*113*	*200*	*20*
50040C6W242M06	*24x2x0,6*	*11,5*	*136*	*224*	*20*
50040C6W302M06	*30x2x0,6*	*13*	*170*	*284*	*20*
50040C6W402M06	*40x2x0,6*	*15*	*226*	*364*	*20*
50040C6W502M06	*50x2x0,6*	*16,5*	*283*	*451*	*20*
50040C6W602M06	*60x2x0,6*	*17,5*	*339*	*529*	*20*
50040C6W802M06	*80x2x0,6*	*20,3*	*452*	*700*	*20*
50040C6WAA2M06	*100x2x0,6*	*22,3*	*565*	*850*	*20*

Other dimensions and colours available on request.

J-Y(St)Y Lg

RoHS CE



Construction:

Conductor:	Solid red copper conductor Cl. 1, acc to IEC 60228
Insulation:	PVC core insulation,compound type YI1 to DIN VDE 0207,insulation wall-thickness 0,2 mm to table 7
Colour core:	DIN VDE 0816
Stranding:	the cores to a quad each 5 quads to a unit and several units are stranded in layer
Wrapping:	tinned copper drain wire,plastic coated
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	grey (RAL 7032),PVC type YM1

Features:

- **Telephone installation cable**
- **According to VDE 0815**

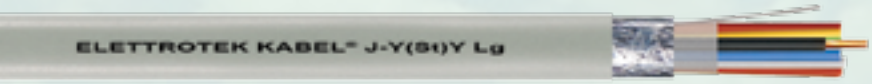
Technical data:

Nominal voltage:	0,6 mm-300 V 0,8 mm-300 V
Testing voltage:	core/core U eff. 800 V core/screen 800 V
Radiation resistance:	up to 80x10^6 cJ/kg (up to 80 Mrad)
Temperature range:	
fixed laying:	-30°C +70°C
flexible application:	- 5°C to +50°C
Loop resistance at 20°C:	0,6 mm-max. 130 Ohm/km 0,6 mm-max. 73,2 Ohm/km
Min. bending radius:	
to DIN VDE 0891 part 5 during delivery:	7,5 xd
single bending without tension:	2,5 xd
repeated bending without tension:	7,5 xd
Insulation resistance:	min.100 MOhmx/km
Mutual capacitance at 800 Hz:	max. 100 nF/km
Capacitance unbalances at 800 Hz:	k_1 max.300 pF/100 m k_9 k_{12} 100 pF/100 m
Line attenuation: at 800 Hz:	1,48 dB/KM
Resistance:	**Flame retardant and self-extinguishing acc. to:**DIN VDE 0482 part.266-2-5, EN 50266-2-5 IEC 60332-2-23

Part no.	*No.of pairs x Ø*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
50050C6W022M06	*2x2x0,6*	*5*	*13*	*40*	*20*
50050C6W032M06	*3x2x0,6*	*6,3*	*18*	*50*	*20*
50050C6W042M06	*4x2x0,6*	*6,5*	*24*	*60*	*20*
50050C6W052M06	*5x2x0,6*	*7,2*	*30*	*70*	*20*
50050C6W062M06	*6x2x0,6*	*7,5*	*35*	*80*	*20*
50050C6W082M06	*8x2x0,6*	*8*	*46*	*90*	*20*
50050C6W102M06	*10x2x0,6*	*10*	*58*	*110*	*20*
50050C6W122M06	*12x2x0,6*	*10,2*	*71*	*130*	*20*
50050C6W162M06	*16x2x0,6*	*11*	*93*	*160*	*20*
50050C6W202M06	*20x2x0,6*	*12*	*116*	*190*	*20*
50050C6W242M06	*24x2x0,6*	*13*	*139*	*220*	*20*
50050C6W302M06	*30x2x0,6*	*14*	*172*	*280*	*20*
50050C6W402M06	*40x2x0,6*	*15*	*220*	*350*	*20*
50050C6W502M06	*50x2x0,6*	*17*	*286*	*430*	*20*
50050C6W602M06	*60x2x0,6*	*19*	*342*	*500*	*20*
50050C6W802M06	*80x2x0,6*	*21*	*455*	*640*	*20*
50050C6WAA2M06	*100x2x0,6*	*24*	*568*	*850*	*20*

J-Y(St)Y Lg

RoHS CE

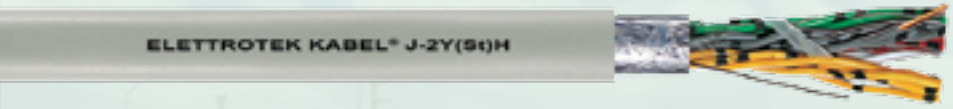


Part no.	No.of pairs x Ø	Outer-Ø ca.mm± 10%	Copper weight kg/km	Cable weight kg/km	AWG no.*)
50050C6W022M08	2x2x0,8	7	21	60	19
50050C6W032M08	3x2x0,8	8,5	31	80	19
50050C6W042M08	4x2x0,8	9	41	100	19
50050C6W052M08	5x2x0,8	9,5	52	120	19
50050C6W062M08	6x2x0,8	11	62	140	19
50050C6W082M08	8x2x0,8	11,5	82	170	19
50050C6W102M08	10x2x0,8	13,2	102	220	19
50050C6W122M08	12x2x0,8	14,2	123	250	19
50050C6W162M08	16x2x0,8	16	164	320	19
50050C6W202M08	20x2x0,8	17	204	380	19
50050C6W242M08	24x2x0,8	19	244	460	19
50050C6W302M08	30x2x0,8	20,8	304	560	19
50050C6W402M08	40x2x0,8	23	405	710	19
50050C6W502M08	50x2x0,8	26	505	900	19
50050C6W602M08	60x2x0,8	28	606	1050	19
50050C6W802M08	80x2x0,8	31,5	807	1400	19
50050C6WAA2M08	100x2x0,8	33	1008	1750	19

Other dimensions and colours available on request.

J-2Y(St)H

RoHS Halogen Free CE



Construction:

Conductor:	Solid red copper conductor Cl. 1, acc to IEC 60228
Insulation:	PE,type2Y
Colour code:	DIN VDE 0815
Stranding:	conductors twisted to 5 quads,twisted to units
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	grey (RAL...), polymer compound flame retardant,halogen free,

Features:

- **St III Bd 16 Mbits/s (Kat.3) ISDN/EDV (Z = 100 Ohm)**

Technical data:

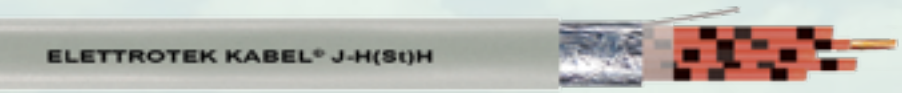
Nominal voltage:	300 V
Test voltage:	800 V
Min.Bending radius: *fixed laying:*	10 x d
Temperature range:	- 30°C / + 70°C - 5°C / + 70°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1

Part no.	*No.of pairs x Ø*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
50060C6W022M06	*2x2x0,6*	*5,8*	*13*	*44*	*20*
50060C6W042M06	*4x2x0,6*	*9,2*	*24*	*80*	*20*
50060C6W062M06	*6x2x0,6*	*9,3*	*35*	*86*	*20*
50060C6W082M06	*8x2x0,6*	*9,5*	*46*	*105*	*20*
50060C6W102M06	*10x2x0,6*	*9,8*	*58*	*112*	*20*
50060C6W202M06	*20x2x0,6*	*12,7*	*116*	*218*	*20*
50060C6W302M06	*30x2x0,6*	*15*	*172*	*302*	*20*
50060C6W402M06	*40x2x0,6*	*16,8*	*229*	*376*	*20*
50060C6W502M06	*50x2x0,6*	*18,5*	*266*	*480*	*20*
50060C6W602M06	*60x2x0,6*	*20,2*	*342*	*560*	*20*
50060C6W802M06	*80x2x0,6*	*23*	*455*	*748*	*20*
50060C6WAA2M06	*100x2x0,6*	*25,2*	*588*	*940*	*20*

Other dimensions and colours available on request.

J-H(St)H
installation cable

RoHS Halogen Free CE



Construction:

Conductor:	Solid red copper conductor Cl. 1, acc to IEC 60228
Insulation:	halogen-free compound type HI2,to DIN VDE part 23
Colour code:	DIN VDE 0815
Stranding:	cores twisted in quads, quads stranded to units.
Wrapping:	plastic tape
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	grey (RAL...),halogen free,type HM2

Features:

- **Bd installation cable**

Technical data:

Nominal voltage:	300 V
Test voltage:	800 V
Min.Bending radius:	
fixed laying:	2,5 x d
flexible application:	7,5 x d
Radiation resistance:	up to 100x10^6 cJ/kg
Temperature range:	- 30°C / + 70°C - 5°C / + 70°C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2,DIN VDE 0482 part.267-2

Part no.	*No.of pairs x Ø*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
50070C6W022M06	*2x2x0,6*	*5,8*	*14*	*50*	*20*
50070C6W042M06	*4x2x0,6*	*8,6*	*25*	*91*	*20*
50070C6W062M06	*6x2x0,6*	*9*	*37*	*100*	*20*
50070C6W102M06	*10x2x0,6*	*10,3*	*59*	*147*	*20*
50070C6W202M06	*20x2x0,6*	*15,5*	*116*	*308*	*20*
50070C6W302M06	*30x2x0,6*	*16,5*	*172*	*350*	*20*
50070C6W402M06	*40x2x0,6*	*18,6*	*229*	*465*	*20*
50070C6W502M06	*50x2x0,6*	*20,7*	*286*	*571*	*20*
50070C6W602M06	*60x2x0,6*	*22,8*	*342*	*662*	*20*
50070C6W802M06	*80x2x0,6*	*26,6*	*455*	*877*	*20*
50070C6WAA2M06	*100x2x0,6*	*28,2*	*568*	*1055*	*20*
50070C6W022M08	*2x2x0,8*	*6,8*	*25*	*70*	*19*
50070C6W042M08	*4x2x0,8*	*10,5*	*45*	*135*	*19*
50070C6W062M08	*6x2x0,8*	*10,9*	*65*	*151*	*19*
50070C6W102M08	*10x2x0,8*	*13,1*	*106*	*230*	*19*
50070C6W202M08	*20x2x0,8*	*20,4*	*206*	*507*	*19*
50070C6W302M08	*30x2x0,8*	*21,5*	*307*	*600*	*19*
50070C6W402M08	*40x2x0,8*	*24,5*	*407*	*788*	*19*
50070C6W502M08	*50x2x0,8*	*27,1*	*508*	*972*	*19*
50070C6W602M08	*60x2x0,8*	*29,4*	*608*	*1120*	*19*
50070C6W802M08	*80x2x0,8*	*33,2*	*809*	*1475*	*19*
50070C6WAA2M08	*100x2x0,8*	*37,2*	*1010*	*1804*	*19*

Other dimensions and colours available on request.

JE-Y(St)Y

Bd Si industry-electronic cable acc.to DIN VDE 0815

RoHS CE

Construction:

Conductor:	Solid red copper conductor Cl. 1, acc to IEC 60228
Insulation:	Special PVC,type YI3, to DIN VDE 0207 part.4
Colour code:	DIN VDE 0815,(with ring colours and ring groups)
Stranding:	2 core twisted in pair,4 pairs to a unit and several units stranded in layers (for 2 pairs cable,4 cores stranded to a quad)
Wrapping:	plastic tape
Screen:	electrostatic screen of plastic and aluminium tape + tinned drain-wire
Outer sheath:	grey (RAL 7032) or blue (RAL 5015) special PVC type YM1

Features:

- **Bd industry-electronic cable**

Technical data:

Nominal voltage:	300 V
Test voltage:	2000 V
Min.bending radius:	5 x d *(fixed installation)*
Radiation resistance:	up to 80x10^6 cJ/kg
Temperature range	
fixed laying:	- 30°C to + 70°C
flexible application:	- 5°C to + 50°C

GREY:

Part no.	*No.of pairs x Ø*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
50080C6W012M08	*1x2x0,8*	*5*	*15*	*40*	*20*
50080C6W022M08	*2x2x0,8*	*7*	*25*	*60*	*20*
50080C6W042M08	*4x2x0,8*	*9*	*45*	*95*	*20*
50080C6W082M08	*8x2x0,8*	*11*	*85*	*160*	*20*
50080C6W122M08	*12x2x0,8*	*14*	*125*	*235*	*20*
50080C6W162M08	*16x2x0,8*	*15*	*165*	*295*	*20*
50080C6W202M08	*20x2x0,8*	*16*	*205*	*355*	*20*
50080C6W322M08	*32x2x0,8*	*20*	*325*	*555*	*20*
50080C6W402M08	*40x2x0,8*	*22*	*405*	*670*	*20*

BLUE:

Part no.	*No.of pairs x Ø*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
50080CBW012M08	*1x2x0,8*	*5*	*15*	*40*	*20*
50080CBW022M08	*2x2x0,8*	*7*	*25*	*60*	*20*
50080CBW042M08	*4x2x0,8*	*9*	*45*	*95*	*20*
50080CBW082M08	*8x2x0,8*	*11*	*85*	*160*	*20*
50080CBW122M08	*12x2x0,8*	*14*	*125*	*235*	*20*
50080CBW162M08	*16x2x0,8*	*15*	*165*	*295*	*20*
50080CBW202M08	*20x2x0,8*	*16*	*205*	*355*	*20*
50080CBW322M08	*32x2x0,8*	*20*	*325*	*555*	*20*
50080CBW402M08	*40x2x0,8*	*22*	*405*	*670*	*20*

Other dimensions and colours available on request.

JE-LiYCY

Bd Si industry-electronic cable acc.to DIN VDE 0815

RoHS CE

Construction:

Conductor:	Solid red copper conductor Cl. 1, acc to IEC 60228
Insulation:	PVC,type YI3
Colour code:	DIN VDE 0815,(with ring colours and ring groups)
Stranding:	2 core twisted in pair,4 pairs to a unit and several units stranded in layers (for 2 pairs cable,4 cores stranded to a quad)
Wrapping:	plastic tape
Screen:	tinned copper braid coverage approx. 85%
Outer sheath:	grey (RAL 7032) or blue (RAL 5015) special PVC type YM1

Features:

- **Bd industry-electronic cable**

Technical data:

Nominal voltage:	300 V
Test voltage:	2000 V
Min.bending radius:	5 x d *(fixed installlation)*
Radiation resistance:	up to 80x10^6 cJ/kg
Temperature range	
fixed laying:	- 30°C to + 70°C
flexible application:	- 5°C to + 50°C

BLUE:

Part no.	*No.of pairs x Ø*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
50090CBW022M05	*2x2x0,5*	*9*	*44*	*102*	*20*
50090CBW042M05	*4x2x0,5*	*12*	*80*	*168*	*20*
50090CBW082M05	*8x2x0,5*	*17*	*152*	*297*	*20*
50090CBW122M05	*12x2x0,5*	*18*	*192*	*357*	*20*
50090CBW202M05	*20x2x0,5*	*22*	*288*	*555*	*20*
50090CBW322M05	*32x2x0,5*	*26*	*439*	*852*	*20*
50090CBW402M05	*40x2x0,5*	*29*	*531*	*1005*	*20*

GREY:

Part no.	*No.of pairs x Ø*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
50090C6W022M05	*2x2x0,5*	*9*	*44*	*102*	*20*
50090C6W042M05	*4x2x0,5*	*12*	*80*	*168*	*20*
50090C6W082M05	*8x2x0,5*	*17*	*152*	*297*	*20*
50090C6W122M05	*12x2x0,5*	*18*	*192*	*357*	*20*
50090C6W202M05	*20x2x0,5*	*22*	*288*	*555*	*20*
50090C6W322M05	*32x2x0,5*	*26*	*439*	*852*	*20*
50090C6W402M05	*40x2x0,5*	*29*	*531*	*1005*	*20*

Other dimensions and colours available on request.

JE-LiHCH

RoHS Halogen Free CE

Construction:

Conductor:	Solid red copper conductor Cl. 1, acc to IEC 60228
Insulation:	Halogen-free core insulation,type HI1 or HI2 to DIN VDE part 23, insulation wall thickness 0,3 mm.
Colour code:	DIN VDE 0815, (with ring colours and ring groups)
Stranding:	2 core twisted in pair, 4 pairs to a unit and several units stranded in layers (for 2 pairs cable, 4 cores stranded to a quad).
Wrapping:	plastic tape.
Screen:	tinned copper braid coverage approx. 85%
Outer sheath:	grey (RAL 7032) halogen-free, compound type HM1 or HM2

Features:

- **Bd industry electronic cable**

Technical data:

Nominal voltage:	300 V
Test voltage:	2000 V
Min.bending radius:	7,5 x d
Radiation resistance:	up to 100x10 cJ/kg
Temperature range	
fixed laying:	- 30 C to + 70 C
flexible application:	- 5 C to + 50 C
Resistance:	**Flame retardant acc. to:** IEC 60332-3-2, EN 50266-2-5, DIN VDE 0482 part.266-2-5 **Halogen free acc. to:** EN 50267-1,IEC 60754-1, DIN VDE 0482 part 267-2-1 **Low smoke emission acc. to:** EN 50268-2 IEC 61034-2, DIN VDE 0482 part. 268-2 **Low corrosiveness combustion gases:** EN 50267-2, IEC 60754-2,DIN VDE 0482 part.267-2

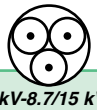
Part no.	*No.of pairs x Ø²*	*Outer-Ø ca.mm± 10%*	*Copper weight kg/km*	*Cable weight kg/km*	*AWG no.*)*
50100C6W022M05	*2x2x0,5*	*9*	*44*	*102*	*20*
50100C6W042M05	*4x2x0,5*	*12*	*80*	*168*	*20*
50100C6W082M05	*8x2x0,5*	*17*	*152*	*297*	*20*
50100C6W122M05	*12x2x0,5*	*18*	*192*	*357*	*20*
50100C6W202M05	*20x2x0,5*	*22*	*288*	*555*	*20*
50100C6W322M05	*32x2x0,5*	*26*	*439*	*852*	*20*
50100C6W402M05	*40x2x0,5*	*29*	*531*	*1005*	*20*

Other dimensions and colours available on request.

ELECTRIC RESISTANCE

SINGLE-CORE

THREE-CORES



nominal conductor mm²	1.8/3 kV-3.6/6 kV	6/10 kV-8.7/15 kV	12/20 kV-15/20 kV-18/30 kV	26/45 kV	1.8/3 kV-6/10 kV-8.7/15 kV 12/20 kV-15/20 kV-18/30 kV 26/45 kV	nominal conductor mm²	1.8/3 kV-6/10 kV-8.7/15 kV 12/20 kV-15/20 kV-18/30 kV 26/45 kV
10	2.35	2.35	-	-	2.35	10	2.35
16	1.49	1.48	-	-	1.48	16	1.48
25	0.937	0.936	0.936	-	0.936	25	0.937
35	0.674	0.676	0.676	-	0.675	35	0.675
50	0.500	0.499	0.499	-	0.499	50	0.499
70	0.354	0.345	0.345	0.345	0.345	70	0.344
95	0.249	0.248	0.248	0.248	0.250	95	0.250
120	0.198	0.197	0.197	0.197	0.197	120	0.198
150	0.161	0.161	0.161	0.161	0.162	150	0.163
185	0.127	0.127	0.127	0.127	0.130	185	0.130
240	0.0984	0.0983	0.0983	0.0983	0.0995	240	0.100
300	0.0784	0.0787	0.0787	0.0787	0.0805	300	0.0815
400	0.0624	0.0624	0.0624	0.0624	0.0644	400	0.0658
500	0.0496	0.0495	0.0495	0.0495	0.0521	500	0.0536
630	0.0395	0.0394	0.0394	0.0394	0.0429	-	-

CAPACITY VALUES AT 50 Hz

nominal conductor mm²	screened	armoured	6/10 kV	8.7/15 kV	12/20 kV	15/20 kV	15/20 kV	15/20 kV
10	0.19	0.16	0.16	-	-	-	-	-
16	0.24	0.19	0.18	0.15	-	-	-	-
25	0.27	0.21	0.21	0.18	0.17	-	-	-
35	0.30	0.23	0.23	0.19	0.17	0.15	0.14	-
50	0.33	0.24	0.25	0.21	0.18	0.17	0.15	-
70	0.40	0.28	0.29	0.23	0.21	0.19	0.19	0.14
95	0.45	0.30	0.32	0.26	0.23	0.20	0.18	0.16
120	0.50	0.32	0.36	0.29	0.25	0.21	0.19	0.17
150	0.54	0.34	0.37	0.31	0.27	0.24	0.20	0.19
185	0.60	0.36	0.42	0.33	0.29	0.26	0.21	0.21
240	0.68	0.38	0.47	0.37	0.32	0.27	0.24	0.23
300	0.75	0.41	0.52	0.43	0.35	0.31	0.27	0.25
400	0.82	0.44	0.56	0.45	0.39	0.34	0.29	0.28
500	0.88	0.45	0.64	0.51	0.43	0.38	0.32	0.30
630	0.92	-	0.73	0.57	0.49	0.43	0.36	0.33

PHASE REACTANCE VALUES AT 50 Hz

SINGLE-CORE

nominal conductor mm²	1.8/3 kV	3.6/6 kV	6/10 kV	8.7/15 kV	12/20 kV	15/20 kV	18/30 kV	26/45 kV
10	0.13	0.14	0.16	-	-	-	-	-
16	0.12	0.14	0.15	0.15	-	-	-	-
25	0.12	0.13	0.14	0.14	0.15	-	-	-
35	0.11	0.12	0.13	0.14	0.14	0.15	0.16	-
50	0.11	0.11	0.12	0.13	0.13	0.14	0.15	-
70	0.10	0.11	0.12	0.12	0.13	0.13	0.14	0.15
95	0.098	0.10	0.11	0.12	0.12	0.13	0.13	0.14
120	0.095	0.10	0.11	0.11	0.12	0.12	0.13	0.13
150	0.091	0.098	0.10	0.11	0.11	0.12	0.12	0.13
185	0.089	0.094	0.10	0.11	0.11	0.11	0.12	0.12
240	0.086	0.091	0.097	0.10	0.11	0.11	0.11	0.12
300	0.084	0.089	0.095	0.098	0.10	0.11	0.11	0.11
400	0.082	0.087	0.091	0.096	0.098	0.10	0.11	0.11
500	0.081	0.083	0.089	0.092	0.096	0.098	0.10	0.11
630	0.079	0.082	0.087	0.090	0.093	0.096	0.098	0.10

PHASE REACTANCE VALUES AT 50 Hz

SINGLE-CORE

nominal conductor mm²	1.8/3 kV	3.6/6 kV	6/10 kV	8.7/15 kV	12/20 kV	15/20 kV	18/30 kV	26/45 kV
10	0.19	0.20	0.21	-	-	-	-	-
16	0.18	0.19	0.20	0.21	-	-	-	-
25	0.18	0.18	0.19	0.20	0.21	-	-	-
35	0.17	0.18	0.19	0.19	0.20	0.20	0.21	-
50	0.16	0.17	0.18	0.19	0.19	0.20	0.20	0.21
70	0.16	0.16	0.17	0.18	0.19	0.19	0.20	0.20
95	0.16	0.16	0.17	0.18	0.18	0.18	0.19	0.20
120	0.15	0.16	0.16	0.17	0.18	0.18	0.18	0.19
150	0.15	0.15	0.16	0.17	0.17	0.18	0.18	0.18
185	0.15	0.16	0.16	0.16	0.17	0.17	0.18	0.18
240	0.14	0.15	0.16	0.16	0.16	0.17	0.17	0.18
300	0.14	0.15	0.15	0.16	0.16	0.16	0.17	0.17
400	0.14	0.15	0.15	0.15	0.16	0.16	0.16	0.17
500	0.14	0.14	0.15	0.15	0.15	0.16	0.16	0.16
630	0.14	0.14	0.15	0.15	0.15	0.15	0.16	0.16

PHASE REACTANCE VALUES AT 50 Hz

THREE-CORES

nominal conductor mm²	1.8/3 kV	3.6/6 kV	6/10 kV	8,7/15 kV	12/20 kV	15/20 kV	18/30 kV	26/45 kV
10	0.11	0.12	0.14	-	-	-	-	-
16	0.10	0.12	0.13	0.14	-	-	-	-
25	0.097	0.11	0.12	0.13	0.14	-	-	-
35	0.093	0.10	0.11	0.12	0.13	0.13	0.14	-
50	0.087	0.096	0.11	0.11	0.12	0.13	0.13	-
70	0.084	0.092	0.10	0.11	0.11	0.12	0.13	0.14
95	0.081	0.088	0.097	0.10	0.10	0.11	0.12	0.13
120	0.079	0.086	0.094	0.10	0.10	0.11	0.12	0.13
150	0.077	0.084	0.091	0.097	0.10	0.11	0.11	0.12
185	0.075	0.082	0.087	0.094	0.097	0.10	0.11	0.11
240	0.074	0.079	0.085	0.090	0.094	0.098	0.10	-
300	0.072	0.077	0.084	0.088	0.092	0.096	0.10	-
400	0.071	0.075	0.082	0.086	-	-	-	-
500	0.070	0.074	0.078	-	-	-	-	-

GROUP RATING FACTORS

AMBIENT TEMPERATURE DIFFERENT FROM STANDARD CONDITIONS

Ambient temperature°C	15	20	25	30	35	40	45	50	55	60	65
Ground laying cables	1.04	1.00	0.96	0.92	0.88	0.84	0.80	-	-	-	-
Air cables	-	1.09	1.05	1.00	0.95	0.90	0.85	0.79	0.74	0.67	0.60

THREE-CORE CABLES GROUNDED LAYING or single-core cables enclosed in trefoil

Number of cables or trefoil-set (horizontally)		2	3	4	6
Space between cables or trefoil-set	7 cm	0.84	0.74	0.67	0.60
	25 cm	0.86	0.78	0.74	0.69

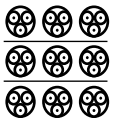
THREE-CORE CABLES GROUNDED PIPE LAYING

Number of cables (horizontally)	1	2	3
	0.82	0.69	0.61

THREE-CORE CABLES GROUNDED PIPE

Number of cables (horizontally)	1	2	3	6	9
	0.95	0.90	0.88	0.85	0.84

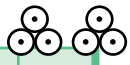
Number of cables (vertically)	1	2	3	6	9
	1.00	0.93	0.90	0.87	0.86



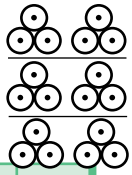
Number of cables (horizontally)		1	2	3	6	9
number of layer (vertically)	1	1	0.98	0.96	0.93	0.92
	2	1	0.95	0.93	0.90	0.89
	3	1	0.94	0.92	0.89	0.88
	6	1	0.93	0.90	0.87	0.86

Number of cables (vertically)	1	2	3	6	9
	0.95	0.78	0.73	0.68	0.66

SINGLE-CORE CABLE TREFOIL AIR LAYING



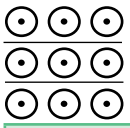
Number of trefoil sets (horizontally)	1	2	3	6	9
	0.95	0.90	0.88	0.85	0.84



Number of cables (horizontally)		1	2	3	6	9
number of layer (vertically)	1	1	0.98	0.96	0.93	0.92
	2	1	0.95	0.93	0.90	0.89
	3	1	0.94	0.92	0.89	0.88
	6	1	0.93	0.90	0.87	0.86

SINGLE-CORE CABLE TREFOIL AIR LAYING HORIZONTALLY AND VERTICALLY SPACED OUT

Number of trefoil sets (horizontally)	1	2	3
	0.92	0.69	0.61



Number of trefoil sets (horizontally)		1	2
number of layer (vertically)	1	1	0.98
	2	1	0.95
	3	1	0.94

PHASE LAY-OUT FOR SINGLE-CORE CABLES CONNECTED IN PARALLEL TO PROVIDE CORRECT CURRENT SPLITTING

Trefoil laying cables

Number of trefoil sets in the same layer	2	3	4
	T T RS SR	T T T RS SR SR	T T T T RS SR RS SR

Number of trefoil sets (vertically)	1	2
	0.94	0.91

Horizontally or vertically spaced out cables

Number of trefoil sets in the same layer*	2	4
	RST TSR	RST TSR RST TSR

Number of trefoil sets (vertically)	1	2
	0.89	0.86

When cables are installed on several layers their lay-out must be repeated for each year.

SHORT CIRCUIT RATING

The maximum short circuit current allowed for short period of time(few seconds) for copper or aluminium conductors can be calculated by the following formula:

$$Icc = \frac{K \cdot S}{\sqrt{t}} \ (A)$$

Where:

Icc=short circuit current (A)
K=factor of the conducting material which obtained from the difference between starting and final temperatur of short circuit;
K copper= 143
K aluminium=92
S=area conductor (mm²)
t=duration of short circuit (sec)

Material Conductor	Starting material		
	50	70	90
copper	165	154	143
aluminium	107	100	92

To calculate the current allowed in the screen you can use the same formula indicated above for the conductor with the factor K = 180 °C

The following table reports the values in KA of the current calculated for the starting temperature of 90°C and for the duration of 1 second

Area conductor mm²	copper
10	1.4
16	2.3
25	3.6
35	5.0
50	7.1
70	10
95	14
120	17
150	21
185	26
240	34
300	43
400	57
500	72
630	90

SHORT CIRCUIT RATING

The voltage drop can be calculated by the following formula for connections in alternating current:

$$\triangle V = K \cdot L \cdot I \, (R \cdot \cos\phi + X \cdot \text{sen}\phi)$$

Where:

$\triangle V$ = voltage drop (V)
K = 1,73 for three-phase system
K = 2 for single phase system
L = connecting lenght (km)
I = current rating (A)
R = conductor resistance at using temperature (Ohm/km)
X = phase reactance (Ohm/km)
$\cos$ = power factor

For direct in current cos =1

Comparsion between rated voltages and insulation rate

Insulation rate	Nominal voltage kV Uo/U	Maximum voltage kV Um
8	1.8/3	3.6
11	3.6/6	7.2
17	6/10	12
24	8.7/15	17.5
32	12/20	24
40	15/20	24
47	18/30	36
67	26/45	52

Uo = relates to the nominal tension between a conductor on earth
U = relates to the nominal tension between the conductors of the cable
Um = maximum tension for which the cable is suitable

FINAL TEST

The final test to wich the Medium Voltage cables are subjected in compliance with CEI 20-13 standards.

Electrical test on:

- *high-voltage test*
- *power factor measurement*
- *electrical resistance of conductor and screen*
- *insulation resistance measurement*
- *partial decharge test (for tension Uo≥ 6kV)*

Test on cable samples:

- *check of dimension*
- *bending test*
- *life test*
- *impulsive withstand test*
- *moisture resistance test*

Test on material samples:

- *tests for determining the mechanical properties of insulation before and after ageing*
- *test for determining the mechanical the mechanical properties of sheaths before and after ageing*
- *sheaths thermoplastic characteristics*
- *charachteristics of wires, tapes, and steal flat wires of armouring (if possible)*

Electrical test after installations:

before the final connection of equipments we recommende to carry out an high-voltage test to verify if the cables have benn damaged during the installation, in compliance with

Insulation rated voltage Uo kV	Electrical test after installations in c.c. for 15' kV
3.6	10.8
6	18
8.7	26.6
12	36
18	54

INSTALLATION

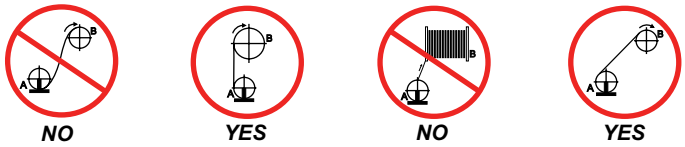
Surveys show that all types of cables are damaged during installation because of carelessness, inexperience and lack of simple precautions. for the benefit of the many new workers, involved in electrical work and in the interesting of eliminating such preventable causes of electrical shutdown and loss of production, we suggest the following norms which govern the installation CEI 11-17" Generation, transmission and distribuition systems of electric power cable installation".
We summarize some rules to be observed during the installation of cables for fixed laying.

Installation minimum temperature: 0 °C referred to the cables so it's necessary to begin and finish the installation in suitable environmental conditions so that the cable temperature does not go below 0 .

ending radius: please see the values listed in "range and dimension" calculated according to CEI 11-17 standards.

Installation: it's advisable to apply the pool force, which is necessary to the installation, only to the conductors being careful not to exceeded ***kg/mm²*** *of total area conductor for copper cables and* ***5 kg/mm²*** *for aluminium cables.*

WOODEN DRUMS HANDLING



Max. DC resistance at 20°C acc. to IEC 60228

Tinned conductors

Cross-section x mm²	Cl. 2 Ohm/km	Cl. 5 Ohm/km	Cross section mm²	Cl. 2 Ohm/km	Cl. 5 Ohm/km
1	18,2	20,0	70	0,270	0,277
1,5	12,2	13,7	95	0,195	0,210
2,5	7,56	8,21	120	0,154	0,164
4	4,70	5,09	150	0,126	0,132
6	3,11	3,39	185	0,100	0,108
10	1,84	1,95	240	0,0762	0,0817
16	1,16	1,24	300	0,0607	0,0654
25	0,734	0,795	400	0,0475	0,0495
35	0,529	0,565	500	0,0396	0,0391
50	0,391	0,393	630	0,0286	0,0292

Plain conductor

Cross-section x mm²	Cl. 2 Ohm/km	Cl. 5 Ohm/km	Cross section mm²	Cl. 2 Ohm/km	Cl. 5 Ohm/km
1	18,1	19,5	70	0,268	0,272
1,5	12,1	13,3	95	0,193	0,206
2,5	7,41	7,98	120	0,153	0,161
4	4,61	4,95	150	0,124	0,129
6	3,08	3,30	185	0,0991	0,106
10	1,83	1,91	240	0,0754	0,0801
16	1,15	1,21	300	0,0601	0,0641
25	0,727	0,780	400	0,0470	0,0486
35	0,524	0,554	500	0,0366	0,0384
50	0,387	0,387	630	0,0283	0,0287

Derating factors *for various ambient air temperature acc. to IEC 60092-352*

Temp.	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°
cf.	1,10	1,05	1,00	0,94	0,88	0,82	0,74	0,67	0,58	0,47

Short circuit current *starting temperature 90°C, final temperature 250°C*

Cross-section x mm²	1 sec. A	0,5 sec. A	0,2 sec. A	Cross-section x mm²	1 sec. A	0,5 sec. A	0,2 sec. A
1	143	202	320	70	10010	14156	22383
1,5	215	303	480	95	13585	19212	30377
2,5	358	506	799	120	17160	24268	38371
4	572	809	1279	150	21450	30335	47964
6	858	1213	1919	185	26455	37413	59155
10	1430	2022	3198	240	34320	48536	76742
16	2288	3236	5116	300	42900	60670	95927
25	3575	5056	7994	400	57200	80893	127903
35	5005	7078	11192	500	71500	101116	159879
50	7150	10112	15988	600	90090	127406	201447

Voltage drop *(Cables up to 1 kV)*

	3x1 cores (trefoil formation)		2 cores		3-4 cores	
cross-section x mm²	C.d.T. c.a. Cosfi 1 mV/Am	C.d.T. c.a. Codfi 0,8 mV/Am	C.d.T. c.a. Cosfi 1 mV/Am	C.d.T. c.a. Codfi 0,8 mV/Am	C.d.T. c.a. Cosfi 1 mV/A m	C.d.T. c.a. Codfi 0,8 mV/Am
1			46,4	37,3	40,1	32,3
1,5			31,1	25,0	26,9	21,7
2,5			19,3	15,6	16,7	13,5
4			12,0	9,73	10,4	8,41
6			7,93	6,48	6,86	5,6
10	3,51	2,90	4,69	2,9	4,69	3,88
16	2,21	1,86	2,96	1,86	2,96	2,48
25	1,40	1,21	1,87	1,21	1,87	1,61
35	1,01	0,891	1,35	0,891	1,35	1,19
50	0,747	0,681	0,998	0,681	0,998	0,91
70	0,517	0,494	0,690	0,494	0,69	0,66
95	0,374	0,379	0,500	0,379	0,5	0,507
120	0,296	0,316	0,396	0,316	0,396	0,422
150	0,244			0,273	0,282	0,316
185	0,195			0,234	0,225	0,271
240	0,151			0,198	0,174	0,229
300	0,122			0,175	0,142	0,203

Instrumentation cables

Max DC resistance 20°C acc. To IEC 60092-376

	Tinned conductor		Plain conductor	
cross-section x mm²	cl. 2 Ohm/km	cl. 5 Ohm/km	cl. 2 Ohm/km	cl. 5 Ohm/km
0,75	26,3	28,3	26	27,6
1	19,3	21,2	19,2	20,7
1,5	12,9	14,5	12,8	14,1
2,5	8,02	8,71	7,56	8,47

DIN 47100

NUMBER	COLOR	NUMBER	COLOR
1	WHITE	32	YELLOW - blue
2	BROWN	33	GREEN - red
3	GREEN	34	YELLOW - red
4	YELLOW	35	GREEN - black
5	GRAY	36	YELLOW - black
6	PINK	37	GRAY - blue
7	BLUE	38	PINK - blue
8	RED	39	GRAY - red
9	BLACK	40	PINK - red
10	VIOLET	41	GRAY - black
11	GRAY - red	42	PINK - black
12	RED - blue	43	BLUE - black
13	WHITE - green	44	RED - black
14	BROWN - green	45	WHITE - brown - black
15	WHITE - yellow	46	YELLOW - green - black
16	YELLOW - brown	47	GRAY - pink - black
17	WHITE - gray	48	RED - blue - black
18	GRAY - brown	49	WHITE - green - black
19	WHITE - pink	50	BROWN - green- black
20	PINK - brown	51	WHITE - yellow - black
21	WHITE - blue	52	YELLOW - brown - black
22	BROWN - blue	53	WHITE - gray - black
23	WHITE - red	54	GRAY - brown - black
24	BROWN - red	55	WHITE - pink - black
25	WHITE - black	56	PINK - brown - black
26	BROWN - black	57	WHITE - blue - black
27	GRAY - green	58	BROWN - blue - black
28	YELLOW - gray	59	WHITE - red - black
29	PINK - green	60	BROWN- red - black
30	YELLOW - pink	61	BLACK - white
31	GREEN - blue		

DIN VDE 0293-308

Multicore flexible cables

Number of cores	Cores with green-yellow protective conductor (-J)	Cores without green-yellow protective conductor (-O)
2	-	blue-brown
3	green/yellow-blue-brown	brown-black-grey
4	green/yellow-brown-black-grey	blue-brown-black-grey
5	green/yellow-blue-brown-black-grey	blue-brown-black-grey-black
6	green-yellow/black + white printed numbers	black + white printed numbers

Core identification with numbers acc. to EN 50334

Marking inscription for identification of cores of electric cables (number printing).
Other core colours are allowed exept green and yellow.

SINGLE WIRES COLOR IDENTIFICATION

Core. no	Basic color	RAL
01	BLACK / NERO	9005
02	DARK BLUE / BLU SCURO (RAL 5010)	5010
03	BROWN / MARRONE	8003
04	GREY / GRIGIO	7000
05	YELLOW / GIALLO	1021
06	GREEN / VERDE	6018
07	VIOLET/ VIOLA	4005
08	WHITE / BIANCO	9003
09	ORANGE / ARANCIONE	2003
10	RED / ROSSO	3000
11	LIGHT BLUE / BLU CHIARO (RAL 5015)	5015
12	LIGHT BLUE / BLU CHIARO (RAL 5012)	5012
13	PINK / ROSA	3015
14	SKY BLUE/BLU SKY	5024
15	YELLOW-GREEN / GIALLO-VERDE	1021/6018
16	WHITE-DARK BLUE / BIANCO-BLU SCURO	9003/5010
17	DARK BLUE-WHITE / BLU-BIANCO	5010/9003
18	WHITE-GREY / BIANCO-GRIGIO	9003/7000
19	BLACK-GREEN / NERO-VERDE	9005/6018
20	BLACK-DARK BLUE / NERO-BLU SCURO	9005/5010
21	BLACK-WHITE / NERO-BIANCO	9005/9003
22	BLACK-VIOLET / NERO-VIOLA	9005/4005
23	BLACK-RED / NERO-ROSSO	9005/3000
24	WHITE-RED / BIANCO-ROSSO	9003/3000
25	WHITE-BROWN / BIANCO- MARRONE	9003/8003
26	DARK BLUE-RED / BLU SCURO-ROSSO	5010/3000
27	WHITE-VIOLET / BIANCO-VIOLA	9003/4005
28	WHITE-YELLOW / BIANCO-GIALLO	9003/1021
29	WHITE-GREEN / BIANCO-VERDE	9003/6018
30	WHITE-ORANGE / BIANCO-ARANCIONE	9003/2003
31	OFF WHITE GREY	9002
32	REDDISH BROWN	3016
33	BEIGE	1001
34		
35		
36		
37		
38		
39		

STRAND MAKE-UP ACCORDING TO DIN VDE 0295 and IEC 60228

Cross section mm²	Stranded wires	Multi-stranded wires	Fine wires	Extra-fine wires			
	Class 2 DIN VDE 0295		Class 5 DIN VDE 0295	Class 6 DIN VDE 0295			
	1	2	3	4	5	6	7
	Number of single wires x wire Ø mm	Number of single wires x wire Ø mm	Number of single wires x wire Ø mm	Number of single wires x wire Ø mm	Number of single wires x wire Ø mm	Number of single wires x wire Ø mm	Number of single wires x wire Ø mm
0,05						~14x0,07	~26x0,05
0,08							~40x0,05
0,09						~24x0,07	
0,14			~18x0,1	~18x0,1	~18x0,1	~36x0,07	~72x0,05
0,25			~14x0,15	~32x0,1	~32x0,1	~65x0,07	~128x0,05
0,34		7x0,25	~19x0,15	~42x0,1	~42x0,1	~88x0,07	~174x0,05
0,38		7x0,27	~12x0,2	~21x0,15	~48x0,1	~100x0,07	~194x0,05
0,5	7x0,30	7x0,30	~16x0,2	~28x0,15	~64x0,1	~131x0,07	~256x0,05
0,75	7x0,37	7x0,37	~24x0,2	~42x0,15	~96x0,1	~195x0,07	~384x0,05
1,0	7x0,43	7x0,43	~32x0,2	~56x0,15	~128x0,1	~260x0,07	~512x0,05
1,5	7x0,52	7x0,52	~30x0,25	~84x0,15	~192x0,1	~392x0,07	~768x0,05
2,5	7x0,67	19x0,41	~50x0,25	~140x0,15	~320x0,1	~651x0,07	~1280x0,05
4	7x0,85	19x0,52	~56x0,3	~224x0,15	~512x0,1	~1040x0,07	
6	7x1,05	19x0,64	~84x0,3	~192x0,2	~768x0,1	~1560x0,07	
10	7x1,35	49x0,51	~80x0,4	~320x0,2	~1280x0,1	~2600x0,07	
16	7x1,70	49x0,65	~128X0,4	~512x0,2	~2048x0,1		
25	7x2,13	84x0,62	~200x0,4	~800x0,2	~3200x0,1		
35	7x2,52	133x0,58	~280x0,4	~1120x0,2			
50	19x1,83	133x0,69	~400x0,4	~705x0,3			
70	19x2,17	189x0,69	~356x0,5	~990x0,3			
95	19x2,52	259x0,69	~485x0,5	~1340x0,3			
120	37x2,03	336x0,67	~614x0,5	~1690x0,3			
150	37x2,27	392x0,69	~765x0,5	~2123x0,3			
185	37x2,52	494x0,69	~944x0,5	1470x0,4			
240	61x2,24	627x0,70	~1225x0,5	~1905x0,4			
300	61x2,50	790x0,70	~1530x0,5	~2385x0,4			
400	61x2,89		~2035x0,5				
500	61x3,23		~1768x0,6				
630	91x2,97		~2228x0,6				

Permissible maximal diameter of single vires	
Nominal value	Maximal value
mm	mm
0,2	0,21
0,25	0,26
0,3	0,31
0,4	0,41
0,5	0,51
0,6	0,61

Conversion AWG to mm²

AWG	mm²	AWG	mm²	AWG	mm²	AWG	mm²
30	0,05	19	0,075	6	16	300 kcmil	150
28	0,08	18	1	4	25	350 kcmil	185
26	0,14	16	1,5	2	35	500 kcmil	240
24	0,25	14	2,5	1	50	600 kcmil	300
22	0,34	12	4	2/0	70	750 kcmil	400
21	0,38	10	6	3/0	95	1000 kcmil	500
20	0,5	8	10	4/0	120		

Units of Measurement

Equivalence between metric size and AWG-kcmil The US American standardization extracts several standardized section from 0,324 to 253 mm².
Sections are designed by a gauge-number AWG or a section in MCM (Mil Circular Mil).
AWG numbers are identical with the British Brown and Sharpe (B&S) numbers.

1 Mil = 0,0254 mm = 1/100 inch
1 MCM = 0,5067 mmq

AWG	mm²	AWG	mm²	AWG	mm²
18	0,8237	7	10,55	250	127
17	1,04	6	13,3	300	152
16	1,31	5	16,77	350	177
15	1,65	4	21,15	400	203
14	2,08	3	26,67	450	228
13	2,63	2	33,62	500	253
12	3,31	1	42,41	550	279
11	4,17	1/0	53,49	600	304
10	5261	2/0	67,43		
9	6631	3/0	85,01		
8	8361	4/0	107,2		

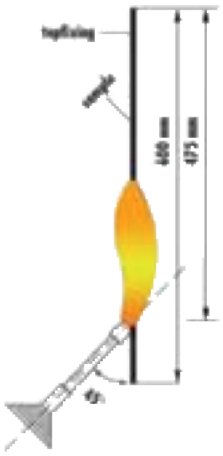
Conversion from non-metric system - Measures of length

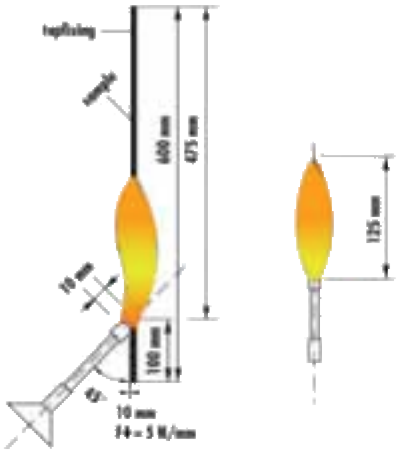
Unit	mils	inch	foot	yard	cm	m
1 mils	1	0,001	0,0000833	0,0000278	0,0025	0,0000254
1 inch	1000	1	0,0833	0,02278	152	0,0254
1 foot	12000	2	1	0,3333	177	0,03038
1 yard	36000	36	3	1	203	0,9144
1 cm	393,7	0,3937	0,0328	0,01094	228	0,01
1 m	39,37	39,37	3,281	1,094	107,2	1

FLAMABILITY TESTS FOR ELECTRICAL CABLES

Examination of the vertical flame lenght, test method 1 kV - flame with gas/air mixture

Description	*VDE 0482 part. 265-2-1, EN 50265-2-1 and IEC 60332-1*	*VDE 0482 part. 265-2-2, EN 50265-2-2 and IEC 60332-2*
Length of speciment	600 mm	600 mm
Burner	Acc. to EN 60695-2-4-1	Acc. to VDE 0482 part. 265-1 and EN 50265-1
Test temperature	1 kW flame	Defined by the stipulated setting of the Flame length
Position of specimen	Vertical	Vertical
Position of flame	45° to vertical specimen	45° to vertical specimen
Duration of flame	See table 1	20 seconds
Conditions	Cable must be self-extinguishing. Thedamage or carbonization may only reach max. 50 mm under the upper fixing clamp.	Cable must be self-extinguishing. The damage or carbonization may only reach max. 10 mm under the upper fixing clamp.



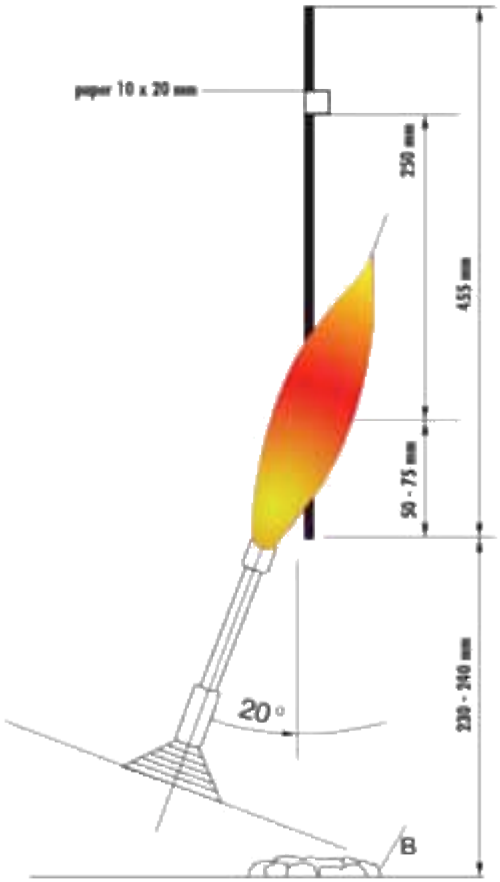


*outer diameter *) of specimen in mm*	
Nominal value	**outer diameter *) of specimen in mm**
D ≤ 25	60
25 < D ≤ 50	120
50 < D ≤	240
D > 75	480

**) If cables or insulated cables are tested that are not round (e.g. flat twin cables) their dimensions are to be measured and an equivalent diameter must be calculated from this.*

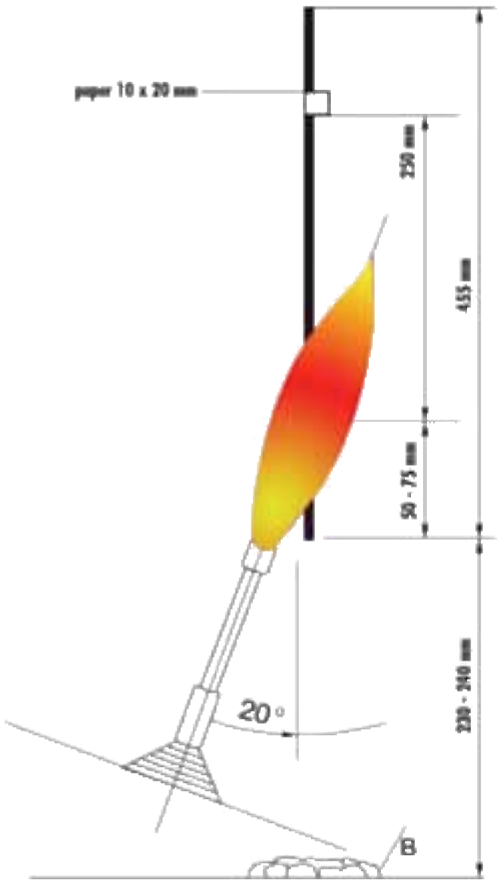
FLAMABILITY TESTS FOR ELECTRICAL CABLES

Description	UL 1581 section 1080 (VW-1 Flame test)
Length of specimen	455 mm
Burner	Bunsen burner with additional air supply (Tirril-Gasburner) Ø 9,5 mm
Test temperature	500 W flame
Position of specimen	Vertical
Position of flame	20° to vertical specimen
Duration of flame	5 x 15 seconds with 15 seconds between each flaming
Conditions	Paper max. 25% carbonized. The specimen may keep on burning for max. 1 minute after any application. Material dropping must not ignite the cotton (B) lying under the specimen.



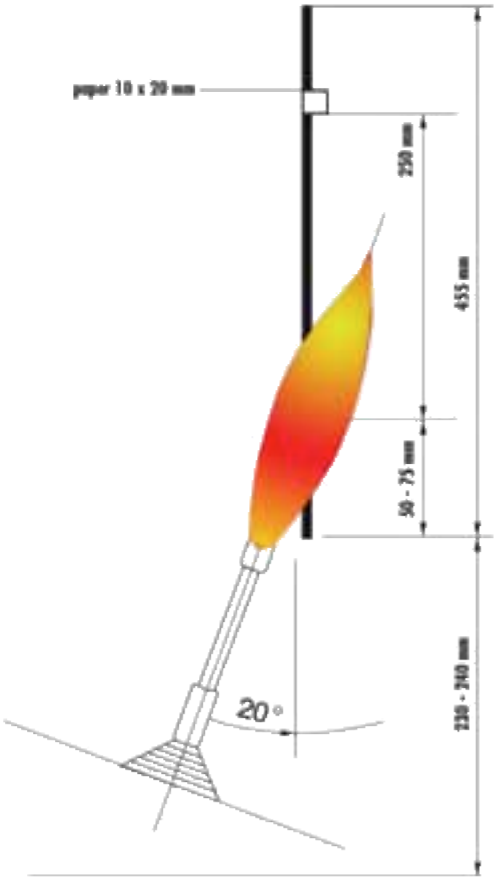
FLAMABILITY TESTS FOR ELECTRICAL CABLES

Description	*UL 1581 section 1061 (Cable flame test)*
Length of specimen	455 mm
Burner	Bunsen burner with additional air supply (Tirril-Gasburner) Ø 9,5 mm
Test temperature	500 W flame
Position of specimen	Vertical
Position of flame	20° to vertical specimen
Duration of flame	3 x 60 seconds with 30 seconds between each flaming
Conditions	Paper max. 25% carbonized. The specimen may keep on burning for max. 1 minute after any application. Material dropping must not ignite the cotton (B) lying under the specimen.



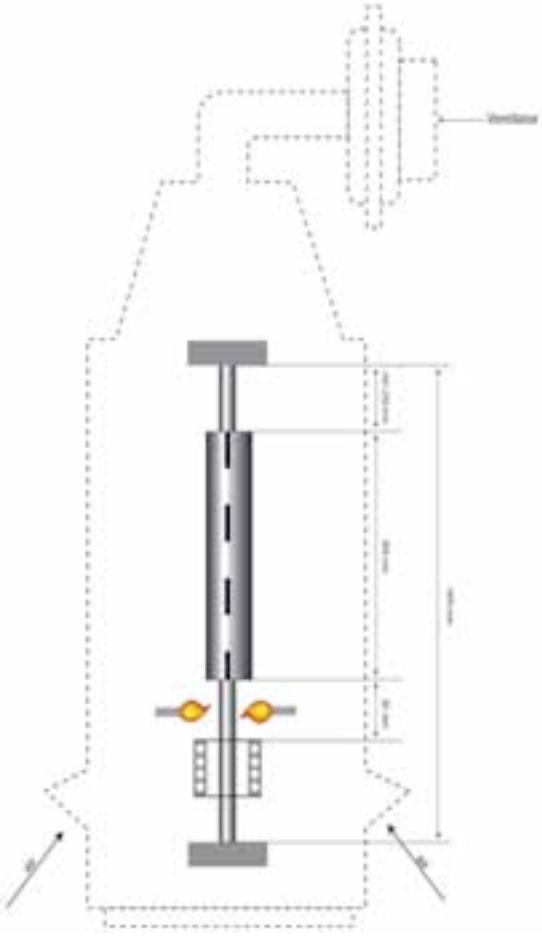
FLAMABILITY TESTS FOR ELECTRICAL CABLES

Description	*UL 1581 section 1060 (Vertical Flame and FT1 Test)*
Length of specimen	455 mm
Burner	Bunsen burner with additional air supply (Tirril-Gasburner) Ø 9,5 mm
Test temperature	500 W flame
Position of specimen	Vertical
Position of flame	20° to vertical specimen
Duration of flame	5 x 15 seconds with 15 seconds between each flaming
Conditions	Paper max. 25% carbonized. The specimen may keep on burning for max. 1 minute after any application.



FLAMABILITY TESTS FOR ELECTRICAL CABLES

Description	NF C 32-070 "C1"
Length of specimen	455 mm
Test temperature	500 W flame
Position of specimen	Vertical
Duration of test	20° to vertical specimen
Conditions	3 x 60 seconds with 30 seconds between each flaming

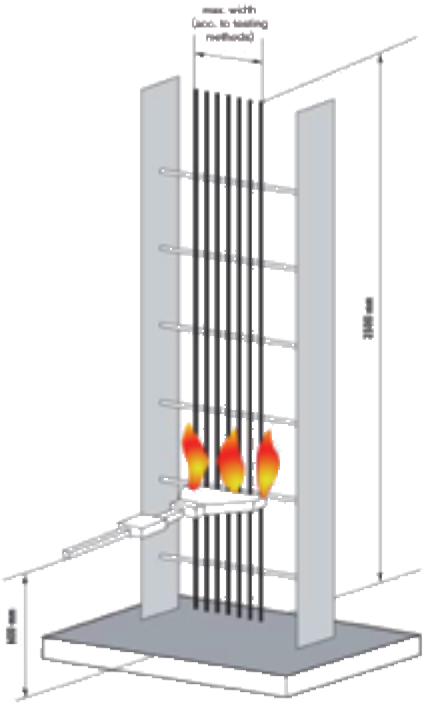


Examination of the vertical flame length of vertical extended bundle of wires and insulated cables

Description	IEC 60332-3, EN 50226, DIN VDE 0482 part. 266
Length of specimen	3500 mm
Burner	Flat burner (Ribbon gus burner of American Gas Furnace Co.)
Test temperature	Defined by stipulated flow of gas and air
Position of specimen	Vertical
Position of flame	Horizontal
Duration of flame	Category A, B: 40 minutes Category C, D: 20 minutes
Conditions	The burned portion of the sample must not be longer than 2,5 m measured from the bottom edge of the burner, as far as not otherwise specified in the relevant standards.

	EN 60332-	IEC 60332-
Category A-7 l/m	3/22	3/22
Category B-3,5 l/m	3/23	3/23
Category C-1,5 l/m > 12 mm cable-ø	3/24	3/24
Category D-0,5 l/m ≤ 12 mm cable-ø	3/25	3/25

Volume percent of non metallic material per meter



GAALSHOCK Technology
(GAALTHERM® 600)
CABLE SYSTEM

GAALSHOCK Technology *provides better mechanical protection than traditional metal armoured cable but almost the same weight of non-armoured one.*
It is a complete new design with a layer of extruded plastic material, placed under the outer sheath, which absorbs the kinetic energy of an impact through plastic deformation.
So the residual energy does not damage the "sensitives" parts of the cable, as insulation and screens.
In fact metal armouring does not behave in the most efficient way, because part of the energy of a shock is transmitted to the inner layers of the cable, compromising the integrity of the insulation.
In this way the level of protection achieved and the reliability are meaningful.
In addition, the cable is lighter, more flexible and easier to be installed than of a traditional armoured cable.
GAALSHOCK Technology *can be applied to any type of cable, giving same advantages in terms of reliability and reduction of weight.*

PROTECTION AGAINST MECHANICAL DAMAGE
The cables can be damaged in many different circumstances and in all operating environments.

- *In civil works.*
- *During installation and excavation.*
- *In industrial sector*

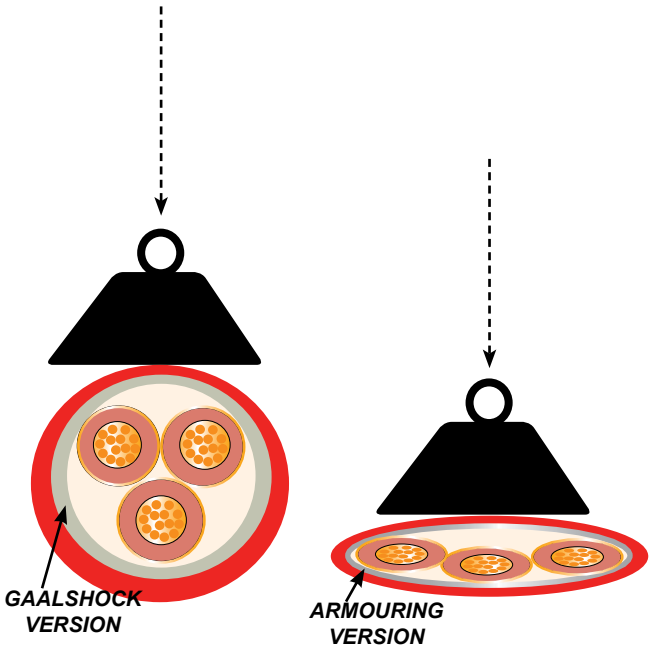
Often mechanical abuse can damage the insulation and protective shields of the cable leading to a premature and unexpected failure and, in any case, to a dramatic decrease in long-term reliability.
The Economic Consequences are inevitable, as well as the interruption in the continuity of Service.
Normally the solution offered is to protect cables with a reinforced metal (applied in strips, wires, etc.) or to install cable in a "protect" environment, such as trays, tubes, etc.
Both solutions involve significant cost and more time spent for the Installation.
In detail, the classical metal armour offers a good protection, but, however, shows a significant disadvantage in terms of weight, flexibility and difficulties in junction compared to a standard not armoured cable.

WORKING PRINCIPLE:

GAALSHOCK Technology *acts as a shock absorber.*
The plastic deformation of ***GAALTHERM® 600*** *allows the dissipation of the impact energy through a greater deformation (i.e. more time), so with a specific low Strength (mv = Ft); in this way the potential damage to the inner layers of the cable is greatly reduced.*
In fact the metal armoured has a higher modulus, so the impact energy is dissipated with a low deformation and a high specific strength, and this is dangerous for the inner layers of the cable.

ACCESSORIES

GAALSHOCK Technology *is totally compatible with traditional junctions termination.*
The installation procedures are the same as for the traditional accessories.



ADVANTAGES

IN COMPARISON WHIT AN ARMOURED CABLE

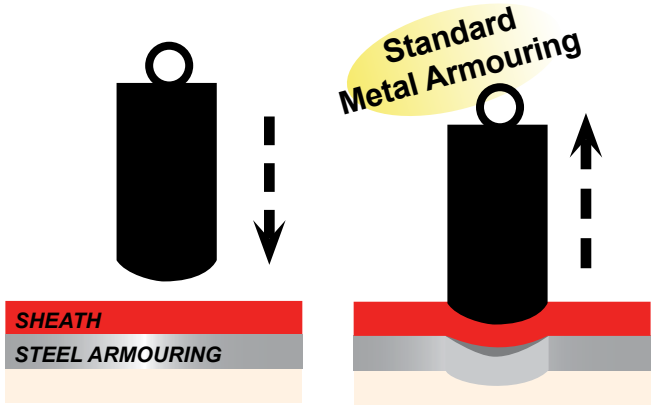
Better impact performance: ***+10%***
Lower diameter: ***-5%***
Lower weight: ***-30%***
Cable length longer than the standard drums, more flexibility
Same resistance to oils and chemicals
Same resistance to the effects of water
Installation and connection easier
Low sensitivity to stray ground currents

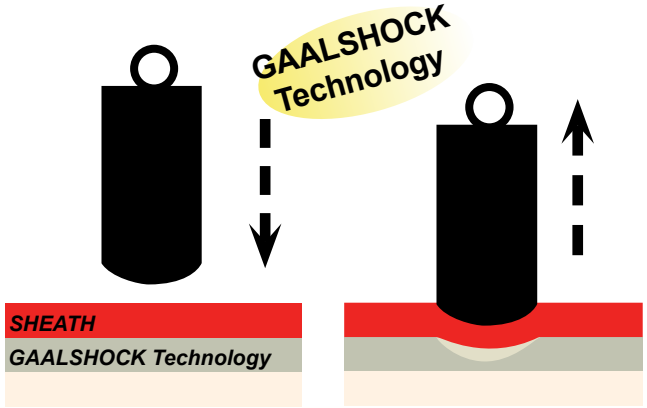
Replaces the traditional metal armour, with better performance on impact, weight and ease of installation.

IN COMPARISON WHIT AN UNARMOURED CABLE

Better impact performance: ***+100%***
Slightly larger diameter: ***+5%***
Slightly higher weight: ***+5%***
same flexibility
Same fire performance
Same resistance to oils and chemicals
Same resistance to the effects of water
same installation

Provides a considerable improvement in the mechanical strength, with a slight increase in weight and rigidity.





ADVANTAGES OF LAYING

1. *Possibility to lay cables at about 90 cm depth (instead of 110 cm) in ground directly without using mechanical protection (as standards for armoured cables required), consequently saving work, saving of purchase and installation concerning the absence of external protection.*

2. *Possibility to fill the trench with the excavation material instead of sand, as normally prescribed. Sparing in this way transport, material and work costs.*

3. *Protection and preservation of integrity of the cable in the case of mechanical stress by absorbing the kinetic energy produced by the impact.*

4. *Save 15% on total average cost (Installation + cable) compared to standard cable.*

COMPARISON BETWEEN TWO SYSTEM INSTALLATION

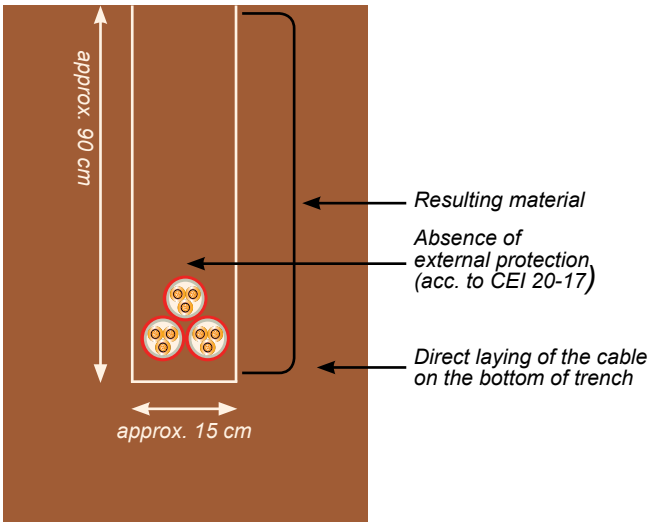
GAALSHOCK Technology system:

1 excavator
3 workers

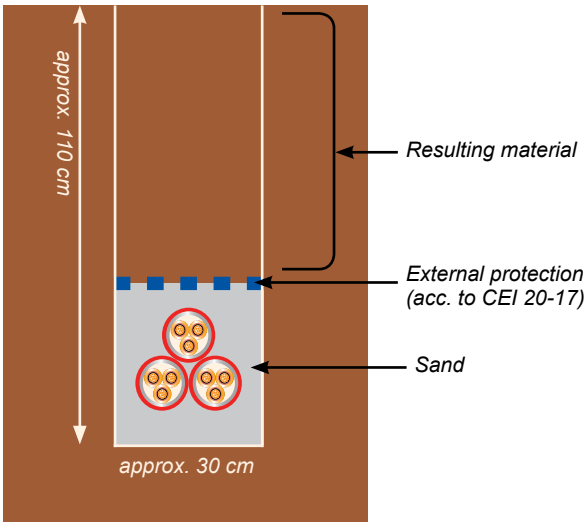
Standard method:

sand
resulting material
1 truck for laying the sand
2 excavators
1 truck
7 workers

Trench with GAALSHOCK Technology:



Standard Trench:



Core identification for outdoor telephone cables according to VDE 0815

Type of stranding

F star quad
St star quad with phantom circuit
St I star quad
St III star quad
TF star quad for carrier frequency
PiMF pair in metal foil
DIMF triple in metal foil
VIMF quad in metal foil

Stranding layout

Lg stranding in layer
Bd stranding in unit star quad

1)Colour coding for installation cables: J-Y(St)Y...Lg

2 pair cable:
pair 1: a-red,b-black
pair 2: a-white,b-yellow

cables with more than 2 pairs
Colour of the a-core in the first pair of each layer is red,in all other pairs it is white.

The colour of the b-core is blue,yellow,green,brown, black in repeating order as follow:

colour of b-core	Number of pair									
blue	1	6	11	16	21	26	31	36	41	46
yellow	2	7	12	17	22	27	32	37	42	47
green	3	8	13	18	23	28	33	38	43	48
brown	4	9	14	19	24	29	34	39	44	49
black	5	10	15	20	25	30	35	40	45	50

colour of b-core	Number of pair									
blue	51	56	61	66	71	76	81	86	91	96
yellow	52	57	62	67	72	77	82	87	92	97
green	53	58	63	68	73	78	83	88	93	98
brown	54	59	64	69	74	79	84	89	94	99
black	55	60	65	70	75	80	85	90	95	100

2)Colour coding for installation cables: JE-Y(St)Y...Bd,JE-LiYCY...Bd JE-H(St)H...Bd,JE-LIHCH...Bd,RD-Y(St)Y,AJ-Y(St)YDY Bd Si

2 pair cable:

pair 1: a-blue,b-red

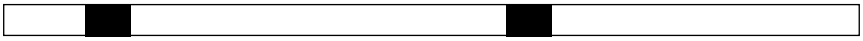
pair 2: a-grey,b-yellow

cables with more than 2 pairs

Colour of basic insulation of pairs in one bunch:

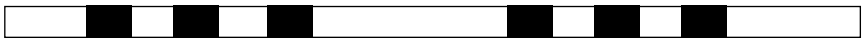
pair	***1***		***2***		***3***		***4***	
core	a	b	a	b	a	b	a	b
colour	blue	red	grey	yellow	green	brown	white	black

For identification of bunches,cores are marked with black rings and bunches are wrapped by a colored tape.



ring group 1

ring group 2



ring group 3

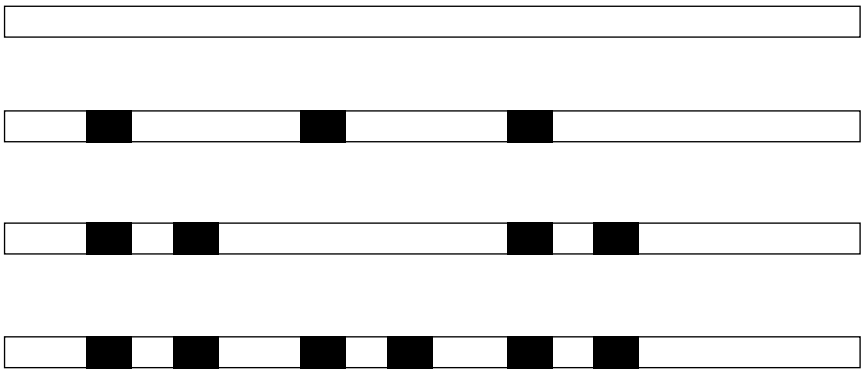
ring group 4

Core identification for outdoor telephone cables according to VDE 0816

Five star-quads of each basic unit identification:

Quad 1: basic insulation of all cores red
Quad 2: basic insulation of all cores green
Quad 3: basic insulation of all cores grey
Quad 4: basic insulation of all cores yellow
Quad 5: basic insulation of all cores white

Single core are marked by rings:

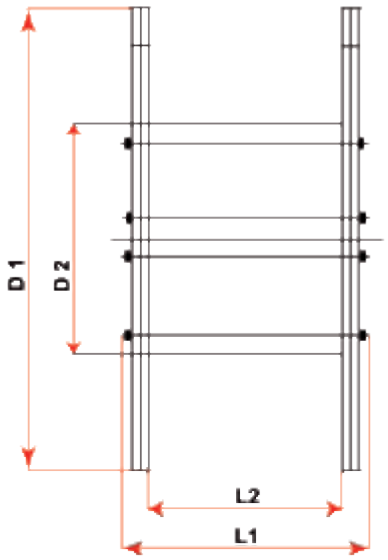


Identification of bunches:

Bunch-N°	Colour	rings for bunches of		tape
		4 cores	8 cores resp 4 pairs	
1 2 3 4	pink	I I II II	I II III IV	- - - -
5 6 7 8	orange		I II III IV	- - - -
9 10 11 12	violet		I II III IV	- - - -
13 14 15 16	pink		I II III IV	blue
17 18 19 20	orange		I II III IV	red

KTG Standard wooden/Steel tyred wooden drums

Drum Type	Flange diameter D1 (mm)	Barrel diameter D2 (mm)	Overall width L1 (mm)	Winding width L2 (mm)	Maximum carrying capacity (kg)	Standard wooden drum weight (kg)	Steel-tyred wooden drum weight (kg)
071	710	355	520	400	250	25	28
081	800	400	520	400	400	31	35
091	900	450	690	560	750	47	51
101	1000	500	710	560	900	71	78
121	1250	630	890	670	1700	144	165
141	1400	710	890	670	2000	175	199
161	1600	800	1100	850	3000	280	309
181	1800	1000	1100	840	4000	380	413
201	2000	1250	1350	1045	5000	550	600
221	2240	1400	1450	1140	6000	710	753
250	2500	1400	1450	1140	7500	875	923
251	2500	1600	1450	1130	7500	900	925
281	2800	1800	1635	1280	10000	1175	1240



Drum size and Drum type

Cable diameter mm	051	061	071	081	091	101	121	141	161	181	201	221	250	251	281	Cable diameter mm
6	1130	1110	2024	2755												6
7	815	840	1480	2340												7
8	630	640	1064	1463	2730											8
9	460	470	890	1152	2202	2866										9
10	390	388	680	980	1768	2349										10
11	320	315	564	760	1404	1910										11
12	260	254	470	643	1206	1540										12
13	220	238	385	542	1032	1339	2727									13
14	190	190	360	454	880	1159	2265	2967								14
15	170	180	300	430	749	1000	1990	2480								15
16	150	140	239	358	632	860	1756	2205								16
17	130	134	228	294	603	736	1545	1960								17
18	110	102	218	280	505	705	1355	1737								18
19	105	96	172	228	485	599	1184	1535	2722							19
20	100	92	165	220	402	576	1139	1352	2435	2830						20
21	80	90	159	210	387	485	990	1304	2172	2527						21
22		65	122	167	315	468	856	1145	1930	2248						22
23		62	117	160	304	389	827	999	1870	2172	2954					23
24		60	113	156	294	377	709	967	1657	1927	2608					24
25		58	110	150	285	365	688	839	1608	1867	2522					25
26		56	80	116	226	299	668	814	1420	1650	2218					26
27			78	113	220	290	567	700	1244	1450	2150	2860				27
28			76	109	215	282	550	680	1210	1410	1880	2777				28
29			73	106	209	226	462	663	1180	1370	1826	2450		2976		29
30			70	103	165	220	450	564	1028	1200	1583	2383		2893		30
31				76	157	214	438	550	1003	1166	1540	2089		2558		31
32				74	153	209	428	537	866	1009	1500	2035	2978	2490		32
33				72	150	204	352	450	846	985	1289	1984	2908	2428		33
34					146	158	344	440	828	962	1257	1726	2605	2134		34
35					108	154	336	430	710	824	1227	1685	2547	2083	2890	35
36					105	150	329	422	692	806	1040	1646	2270	2035	2820	36
37					103	148	265	348	678	788	1017	1418	2223	1774	2760	37
38						144	259	340	664	772	994	1386	1969	1735	2432	38
39						110	254	334	560	653	972	1356	1930	1697	2380	39
40						105	249	327	549	640	812	1328	1892	1486	2330	40
41						102	244	264	539	627	795	1130	1664	1435	2036	41
42						100	190	259	529	615	779	1107	1633	1406	1995	42
43							187	254	437	510	763	1085	1603	1199	1956	43
44							183	249	430	502	750	1065	1574	1175	1692	44
45							180	245	422	492	610	890	1373	1153	1660	45
46							177	240	415	484	600	874	1349	1130	1630	46
47							174	187	408	475	589	858	1326	1110	1600	47
48							130	184	330	386	578	878	1144	930	1366	48
49							127	180	325	380	568	848	1125	914	1362	49
50							125	178	319	373	558	828	1107	898	1320	50
51							123	175	314	367	442	666	1089	883	1298	51
52							120	172	310	360	435	655	1072	869	1276	52
53								170	305	356	428	644	912	715	1072	53
54								126	235	280	420	634	898	700	1056	54
55								124	232	276	414	624	885	690	1040	55
56								122	230	270	408	614	872	680	1022	56
57								121	228	267	400	488	860	668	1006	57
58								119	225	263	304	480	720	658	990	58
59								117	222	260	300	473	710	649	815	59
60									220	256	295	466	700	640	803	60
61									216	252	290	460	690	610	790	61
62									160	190	287	453	680	500	780	62
63									158	187	282	448	670	494	770	63
64									156	184	280	440	662	487	760	64
65									154	182	275	335	640	480	748	65
66									152	180	270	330	534	474	738	66
67									150	178	266	326	528	468	558	67
68										174	264	320	520	462	580	68
69										172	186	317	515	456	574	69
70										170	184	313	510	450	566	70
71										168	182	310	502	342	558	71
72										166	180	305	498	338	552	72
73										164	177	300	490	334	545	73
74										162	175	297	486	330	540	74
75										160	173	294	480	326	532	75
76										112	170	291	380	322	526	76
77										110	168	287	375	318	520	77
78										109	166	284	370	314	514	78
79										108	164	281	367	310	508	79
80										107	163	278	363	306	502	80

approx. drum barrel Ø ≤ 40 x D
approx. drum barrel Ø ≤ 25 x D
approx. drum barrel Ø ≤ 15 x D
approx. drum barrel Ø ≤ 15 x D
approx. drum barrel Ø ≤ 50 x D

Note:

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