



Application and function

- Providing motor overload protection and short-circuit protection.

Instruction of type code

M18	2	M	0.16
			Max. setting current range
			0.1-0.16 0.16-0.25
			0.25-0.4 0.4-0.63
			0.63-1 1-1.6
			1.6-2.5 2.5-4
			4-6 6-10
			9-14 13-18
			17-23 20-25
			26-32 25-40
			40-63 56-80
			Pushbutton type
			Frame code
			2: 0.16-32A
			3: 40-80A
			Series code



Motor Protection Circuit Breakers

Series 3SM18



Technical specifications

Type	3SM18-25~32																3SM18-63~80			
Standards	IEC60947-2, IEC60947-4-1																			
Approval	CE																			
Utilization category according to 60947-2	A																			
Utilization category according to IEC60947-4-1	AC-3																			
Rated insulation voltage U_i (V)	690																			
Rated operational voltage U_e (V)	230/240, 400/415, 440, 500, 660/690																			
Rated impulse withstand voltage U_{imp} (kA)	8																			
Rated range of setting current (A)	0.1-0.16	0.16-0.25	0.25-0.4	0.4-0.63	0.63-1	1-1.6	1.6-2.5	2.5-4	4-6	6-10	9-14	13-18	17-23	20-25	24-32	25-40	40-63	56-80		
Rated current of release (A)	0.16	0.25	0.4	0.63	1	1.6	2.5	4	6	10	14	18	23	25	32	40	63	80		
Rated frequency (Hz)	50/60																			
Rated ultimate short-circuit breaking capacity I_{cu} (kA)	230/240V	100	100	100	100	100	100	100	100	100	100	100	50	50	100	100	100	100		
	400/415V	100	100	100	100	100	100	100	100	100	100	100	15	15	15	15	35	35	35	35
Rated service short-circuit breaking capacity I_{cs} (kA)	230/240V	100	100	100	100	100	100	100	100	100	100	100	6	6	4	4	-	8	8	8
	400/415V	100	100	100	100	100	100	100	100	100	100	100	7.5	7.5	6	6	17.5	17.5	17.5	17.5
Arcing distance (mm)	230/240V	-	-	-	-	-	-	0.37	0.75	1.1	2.2	3	4	5.5	5.5	5.5	11	15	22	
	400V	-	-	-	-	-	-	0.75	1.5	2.2	4	5.5	9	11	11	11	22	33	45	
Standard rated power of three-phase (kW)	440V	-	-	-	-	0.37	0.55	1.1	1.5	3	4	7.5	9	11	11	-	22	33	45	
	500V	-	-	-	-	0.37	0.75	1.1	2.2	3.7	5.5	7.5	9	11	11	-	25	40	55	
Current setting value of instantaneous electromagnetic release I_r (A)	230/240V	1.5	2.4	5	8	13	22.5	33.5	51	78	138	170	223	327	327	327	480	756	960	
	400/415V																			
Current rating of fuse-link of back-up fuse, which is only needed in case of $I_{cc} > I_{cu}$	230/240V	aMA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	400/415V	gI/gGA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
(lcc: prospective short-circuit breaking current)	440V	aMA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	500V	gI/gGA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
• Fuse is not required	500V	aMA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
		gI/gGA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Add-on auxiliary contact blocks	Front	NO+NC																		-
	Side	NO+NC																		-
	Shunt release	NO+NC																		-
	Under voltage release	■																		-
Auxiliary alarm	■																		-	
Enclosure	■																		-	
Electrical life in AC-3 (times)	10000																			
Mechanical life (times)	20000																			
Tightening torque (N·m)	1.7																			
Degree of protection	IP20; IP65 with enclosure																			
Ambient air temperature (°C)	-5 to +40, max. 95% humidity																			
Storage temperature (°C)	-40~+75																			
Maximum operating altitude (meters)	2000																			

Motor Protection Circuit Breakers

Series 3SM18



Selection and ordering data

3SM18



Setting range of thermal trips (A)	Rated current of release (A)	Type code	Order code
0.1-0.16	0.16	M18 2M0.16	12730
0.16-0.25	0.25	M18 2M0.25	12731
0.25-0.4	0.4	M18 2M0.4	12732
0.4-0.63	0.63	M18 2M0.63	12733
0.63-1	1	M18 2M1.0	12734
1-1.6	1.6	M18 2M1.6	12735
1.6-2.5	2.5	M18 2M2.5	12736
2.5-4	4	M18 2M4.0	12737
4-6.3	6.3	M18 2M6.3	12738
6-10	10	M18 2M10	12739
9-14	14	M18 2M14	12740
13-18	18	M18 2M18	12741
17-23	23	M18 2M23	12742
20-25	25	M18 2M25	12743
24-32	32	M18 2M32	12744
25-40	40	M18 3/40	12767
40-63	63	M18 3/63	12768
56-80	80	M18 3/80	12769

3SM18 with Enclosure



Setting range of thermal trips (A)	Rated current of release (A)	Type code	Order code
0.1-0.16	0.16	M18 4M0.16	12770
0.16-0.25	0.25	M18 4M0.25	12771
0.25-0.4	0.4	M18 4M0.4	12772
0.4-0.63	0.63	M18 4M0.63	12773
0.63-1	1	M18 4M1.0	12774
1-1.6	1.6	M18 4M1.6	12775
1.6-2.5	2.5	M18 4M2.5	12776
2.5-4	4	M18 4M4.0	12777
4-6.3	6.3	M18 4M6.3	12778
6-10	10	M18 4M10	12779
9-14	14	M18 4M14	12780
13-18	18	M18 4M18	12781
17-23	23	M18 4M23	12782
20-25	25	M18 4M25	12783
24-32	32	M18 4M32	12784

3SM18-2-AV Under-voltage release



Rated operational voltage U_e (V)	Voltage range of operation	Frequency (Hz)	Type code	Order code
110-127	35%-70% U_e	50/60	AU115	12790
220-240	35%-70% U_e	50/60	AU225	12791
380-415	35%-70% U_e	50/60	AU385	12792

3SM18-2-AS Shunt release



Rated operational voltage U_e (V)	Voltage range of operation	Frequency (Hz)	Type code	Order code
110-127	35%-70% U_e	50/60	AS115	12793
220-240	35%-70% U_e	50/60	AS225	12794
380-615	35%-70% U_e	50/60	AS385	12795

3SM18-2-AN11 Auxiliary contact



Mounting type	Contact position	Conventional thermal current I _{th} (A)	Type code	Order code
Top	1NO+1NC	2.5	AE11	12786
Top	2NO	2.5	AE20	12787
Side	1NO+1NC	6	AN11	12788
Side	2NO	6	AN20	12789

3SM18-2-AD1010 Auxiliary Alarm



Contact position	Conventional thermal current I _{th} (A)	Type code	Order code
1NO+1NO	6	AD1010	12796
1NO+1NC	6	AD1001	12797
1NC+1NO	6	AD0110	12798
1NC+1NC	6	AD0101	12799

Enclosure

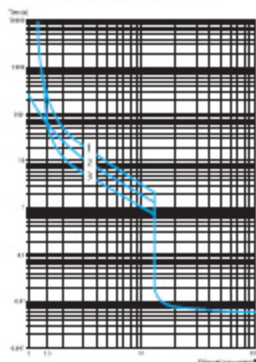


Type	Type code	Order code
3SM18-2-3	M18 2B	12785

Tripping Curve

Average operating times at 20 °C related to multiples of the setting current

- 1.3 poles from cold state
- 2.2 poles from cold state
- 3.3 poles from hot state



Outline and installation dimensions

