

ESDMO[®]

Generating sets



7,5 ———> 30kVA
50Hz

Formule 2000

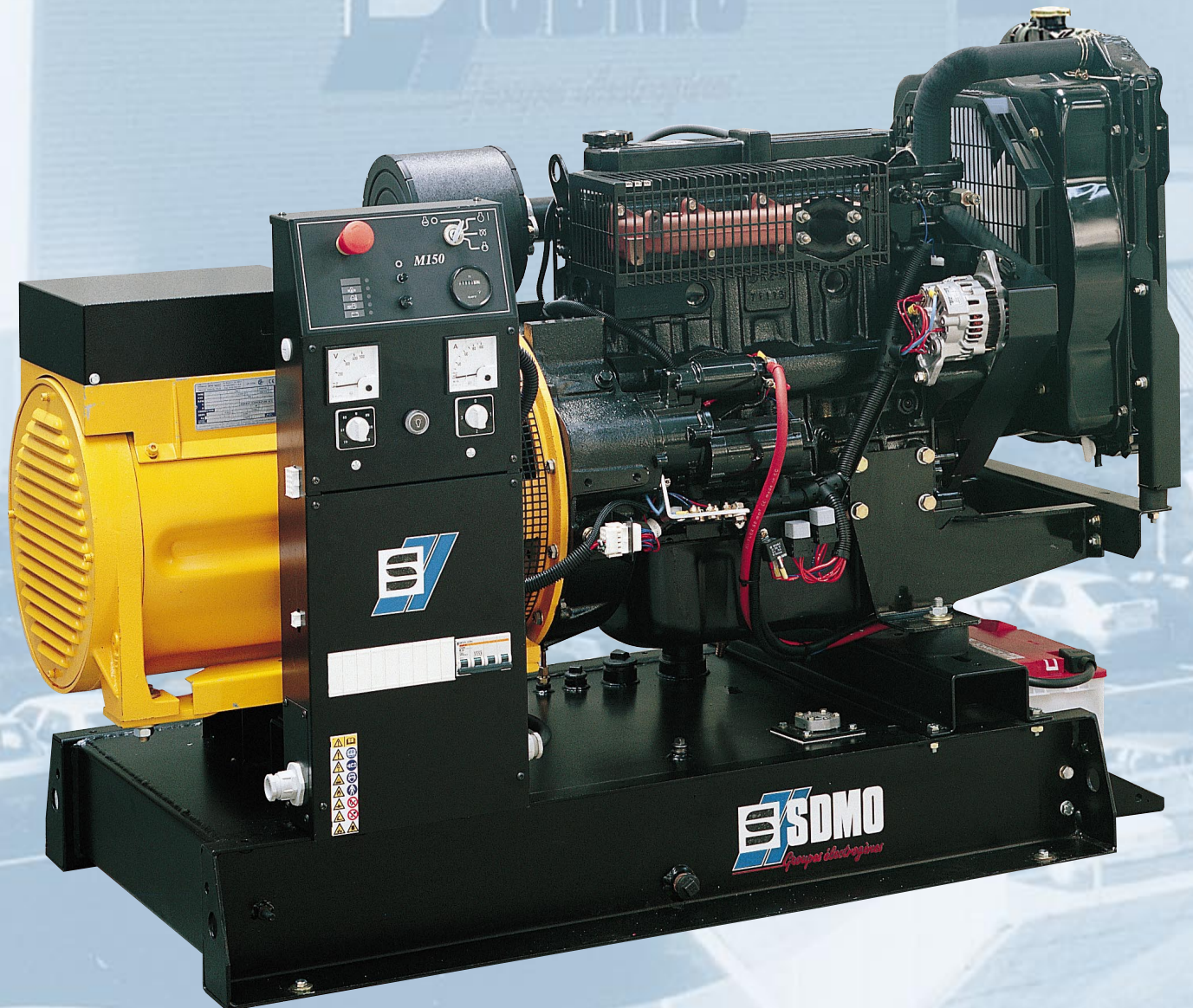
ISO 9001



9 ———> 33kVA
60Hz

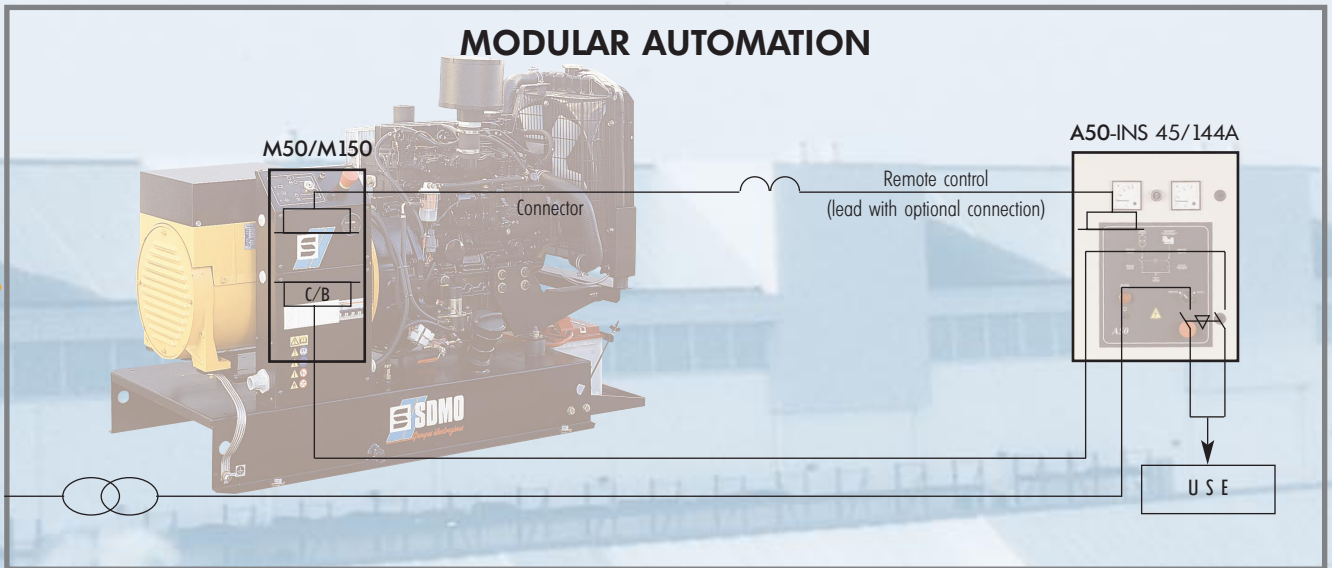
Formule 2000

P O W E R F O R T H E F U T U R E



The FORMULE 2000 Range represents yet another step towards increased modularity. Using a basic generating set (compact-manually operated) and various standard option packs that can be added on to every set in the range, customers can produce soundproofed or automatic generators without any need for modification. A carefully-designed policy of stock management has greatly improved the availability and competitiveness of all these versions. The options have been specially adapted to target outputs of 20 kVA or less. Of course all the advantages of GENERATOR 2000 have been retained, in particular the dual frequency and multivoltage functions.

MODULAR AUTOMATION



MODULAR SOUNDPROOFING

Two canopies (106 and 107) have been designed to equip all models in accordance with output. This greatly reduces the cost. It can also be adapted as an add-on to a basic set (by authorised SDMO personnel only).

106 : TN 15K, TN 20K, TM 7,5K,
TN 15KM, TN 20KM, TM 7,5KM.

107 : TM 11,5K, TM 16K, TM 20K, TM 30K,
TM 11,5KM, TM 16KM, TM 20KM, TM 30KM.

MODULAR OPTION

Mechanical components
(ref. to page 5).

Electricity
(ref. to page 6).

Compact

3-PHASE GENSETS

kVA 50Hz	PACIFIC 2 poles	PACIFIC 4 poles	kVA 60Hz
7,5	-	TM 7,5 K	9
11,5	-	TM 11,5 K	13,5
15	TN 15 K	-	-
16	-	TM16 K	19
20	TN 20 K	-	-
20	-	TM 20 K	22
30	-	TM 30 K	33

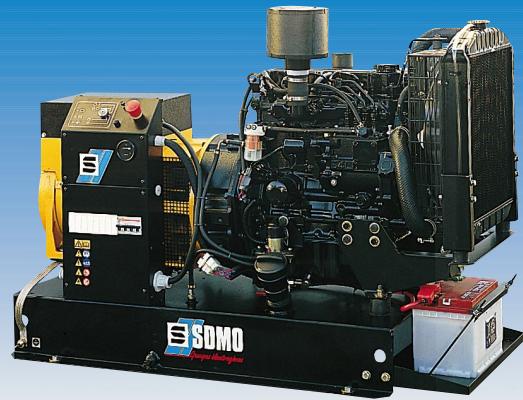
1-PHASE GENSETS

kVA 50Hz	PACIFIC 2 poles	PACIFIC 4 poles	kVA 60Hz
5,5	-	TM 7,5 KM	6
8,3	-	TM 11,5 KM	10
11	TN 15 KM	-	-
13	-	TM16 KM	15
		TM 20 KM	
		TM 30 KM	

TN 20



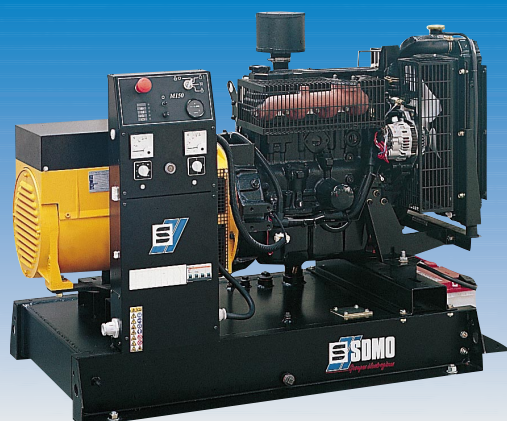
TM 16



TM 7,5



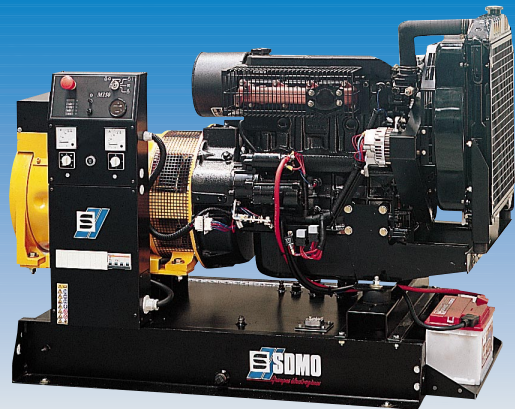
TM 20



TM 11,5



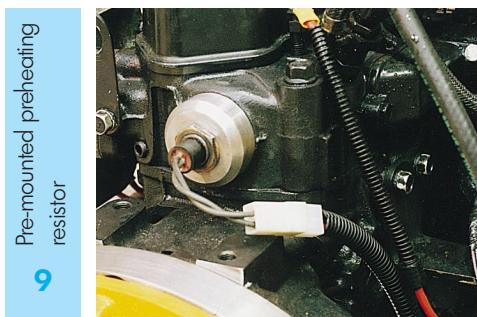
TM 30



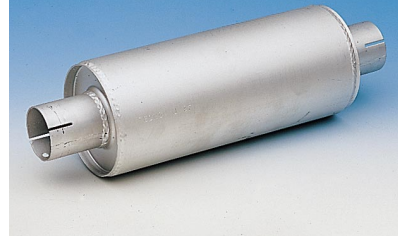
PACIFIC EQUIPMENT STANDARD & OPTIONAL		2 POLES		4 POLES				
		TN 15	TN 20	TM 7,5	TM 11,5	TM 16	TM 20	TM 30
4-stroke liquid-cooled diesel engine		●	●	●	●	●	●	●
50°C engine driven radiator with drain		●	●	●	●	●	●	●
Starter and charge alternator		12v	12v	12v	12v	12v	12v	12v
Mechanical governor		●	●	●	●	●	●	●
Donaldson disposable air filter		●	●	●	●	●	●	●
IP 21 single-bearing alternator, class H insulation		●	●	●	●	●	●	●
IP 23		AL 04	AL 04	AL 04	AL 04	AL 04	AL 04	AL 04
12 wire, regulator, 2/3 pitch		●	●	●	●	●	●	●
Heavy duty insulation		●	●	●	●	●	●	●
Manual electric panel		M 50	M 50	M 50	M 50	M 150	M 150	M 150
Output breaker (direct power supply connection)		●	●	●	●	●	●	●
Fabricated all welded baseplate with anti-vibration mountings		●	●	●	●	●	●	●
EN 17 Standard colour RAL 9005 (black), RAL 1028 alternator (yellow)		●	●	●	●	●	●	●
Users manual type A (3) - 1 copy		●	●	●	●	●	●	●
AD 11 Available in multilinguals (French-English-Spanish-Portuguese)		●	●	●	●	●	●	●
AD 11 Available in German		●	●	●	●	●	●	●
Delivered in shrinkwrap		●	●	●	●	●	●	●
Oil	Supplied with oil and coolant (-30°C)	●	●	●	●	●	●	●
Oil	Oil and coolant drain	FD 10	FD 10	FD 10	FD 10	FD 10	FD 10	FD 10
Oil	EN 03 Sump drain tap on edge of chassis 4	●	●	●	●	●	●	●
Oil	Sump drain pump (2)	×	×	×	×	EN 04	EN 04	EN 04
Exhaust	EN 12 9 dB(A) silencer supplied loose 1	●	●	●	●	●	●	●
Exhaust	29 dB(A) silencer supplied loose 2	●	●	●	●	●	●	●
Exhaust	Non-supply of silencer	EN 07	EN 07	EN 07	EN 07	EN 07	EN 07	EN 07
Exhaust	Exhaust flexible 3	EN 10	EN 10	EN 10	EN 10	EN 10	EN 10	EN 10
Exhaust	Protection mesh for hot parts (mandatory in the EU)	CEL 02	CEL 02	CEL 02	CEL 02	CEL 02	CEL 02	CEL 02
Exhaust	Exhaust extension (40cm)	EN 13	EN 13	EN 13	EN 13	EN 13	EN 13	EN 13
Radiator	Protection mesh for fan and revolving parts 5	●	●	●	●	●	●	●
Radiator	Stone guard radiator outlet	EN 14	EN 14	EN 14	EN 14	EN 14	EN 14	EN 14
Battery	Batteries with cables and batteries tray	●	●	●	●	●	●	●
Battery	Non-supply of batteries and tray (cables still supplied)	EN 15	EN 15	EN 15	EN 15	EN 15	EN 15	EN 15
Battery	Battery isolator	EN 16	EN 16	EN 16	EN 16	EN 16	EN 16	EN 16
Fuel	Direct-reading fuel gauge	×	×	×	×	●	●	●
Fuel	Inbuilt large fuel tank	●	●	●	●	●	●	●
Fuel	Fuel inlet/return connections	FD 01	FD 01	FD 01	FD 01	FD 01	FD 01	FD 01
Fuel	Non-supply of fuel tank	×	×	×	×	×	×	×
Fuel	Retention tank	FD 04	FD 04	FD 04	FD 04	FD 04	FD 04	FD 04
Fuel	Disposable fuel filter 6	●	●	●	●	●	●	●
Fuel	Replaceable fuel/water separator	FD 05	FD 05	FD 05	FD 05	FD 05	FD 05	FD 05
Fuel	500L optional tank	FD 06	FD 06	FD 06	FD 06	FD 06	FD 06	FD 06
Fuel	Electric fuel refilling kit, supplied loose	FD 08	FD 08	FD 08	FD 08	FD 08	FD 08	FD 08
Fuel	Manual fuel refilling pump for body, supplied loose	FD 09	FD 09	FD 09	FD 09	FD 09	FD 09	FD 09
Miscellaneous	Users manual type A (3) - supplementary	●	●	●	●	●	●	●
Miscellaneous	Available in multilinguals (French-English-Spanish-Portuguese)	AD 21	AD 21	AD 21	AD 21	AD 21	AD 21	AD 21
Miscellaneous	Available in German	AD 22	AD 22	AD 22	AD 22	AD 22	AD 22	AD 22
Miscellaneous	Users manual type B (4)	●	●	●	●	●	●	●
Miscellaneous	Available in English only	AD 23	AD 23	AD 23	AD 23	AD 23	AD 23	AD 23
Miscellaneous	Users manual type C (5)	●	●	●	●	●	●	●
Miscellaneous	Available in English only	AD 23	AD 23	AD 23	AD 23	AD 23	AD 23	AD 23
Miscellaneous	Consumables pack (engine) 7	AD 06	AD 06	AD 06	AD 06	AD 06	AD 06	AD 06
Miscellaneous	Security pack (engine) 7	AD 07	AD 07	AD 07	AD 07	AD 07	AD 07	AD 07
Miscellaneous	Security pack (alternator) 7	AD 08	AD 08	AD 08	AD 08	AD 08	AD 08	AD 08
Miscellaneous	Tools kit 8	AD 05	AD 05	AD 05	AD 05	AD 05	AD 05	AD 05
Auto	Special paintwork, other than standard	×	×	×	×	×	×	×
Auto	Pre-mounted preheating resistor 9	EO 1M	EO 1M	EO 1M	EO 1M	EO 1M	EO 1M	EO 1M
Auto	Preheating resistor kit supplied loose (1)	EO 1K	EO 1K	EO 1K	EO 1K	EO 1K	EO 1K	EO 1K

● Standard ○ Option (options price code) × Not available

(1) Available only for registered SDMO agents (2) Please consult us for lead times (3) Level A users manual including : maintenance manual and diagrams, generating set user manual and description of the switchboard, generating set installation manual (4) Level B users manual including : level A + list of engine and alternator parts (5) Level C users manual including : level B + workshop manual



1 9 db(A) silencer, supplied loose



2 29 db(A) silencer, supplied loose



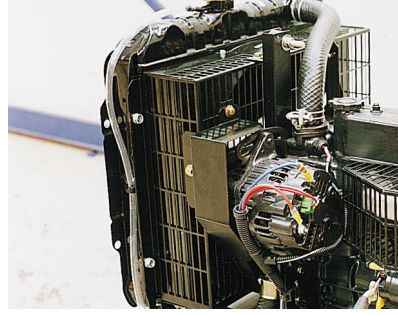
3 Exhaust flexible



4 Sump drain tap on edge of chassis



5 Protection mesh for fan and revolving parts



6 Disposable fuel filter



F2000 Panels



M50



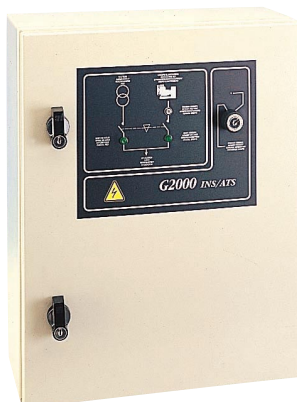
M150

PANEL TYPE		M50 (CM1)	M150 (CM2)	A50 (CA11)	X200 (CD1)
Panels	TN 15 / TN 20 / TM 75 and single-phase models	●	×	○	×
	TM 11,5 / TM 16 and single-phase models	●	○	●	○
	TM 20 / TM 30 and single-phase models	×	●	×	○
Instruments	Instruments pack (voltmeter/ammeter) DIN 72-72	CE 22 (2)	●	●	×
	Frequency meter DIN 72-72	×	CM 22	×	×
	Hours counter	●	●	×	×
Operation	4-position key switch (Stop/Run/Preheat/Crank)	●	●	×	×
	Switch (Stop/Auto)	×	×	●	●
	Fault cancel function (1)	●	●	●	×
	Lamp test	●	●	●	●
	Emergency stop	●	●	●	●
	Remote control box with key and light	CE 21	CE 21	×	×
	Lights	Load alternator fault (alarm)	●	●	×
Oil pressure failure (safety)		●	●	×	×
Coolant temperature failure (safety)		●	●	×	×
Panel lamp, 28 dia.		×	●	●	×
Genset on		×	×	●	×
Genset output		×	×	●	×
Mains supply present		×	×	●	×
Mains supply voltage		×	×	●	×
General fault (alarm)		×	×	●	×
Automation	Mains sensing 1 ph	×	×	●	CD 13
	Mains sensing 3 ph	×	×	×	CD 13
	Remote start	×	×	●	●
	Starting attempts	×	×	3	3
	Timer preheat	×	×	5 to 20s	5 to 20s
	Timer engine shutdown after mains return	×	×	120s	120s
	Timer genset voltage and speed stability	×	×	0 or 5s	0 or 5s
	Starter lockout	●	●	●	●
	Overspeed	×	CM 23	×	×
	Automatic system for A50 panel	●	●	×	×
Miscellaneous	Output circuit breaker	●	●	×	×
	Automatic Transfer Switch (ATS)	×	×	●	×
	Coolant heater switch	×	×	●	CD 12
	Genset instrument voltage protection	×	×	●	●
	12V dc static battery charger	×	×	●	CD 11
	(3) Differential protection (monitoring block)	○	○	○	×
	Remote control connection terminal	●	●	●	●
	CEL 01 EU Standard	●	●	●	●
	VDE option	VDE	VDE	VDE	VDE
Remote control lead M50/A50 (10 metres plus connections)	×	CA 02	CA 02	×	

● Standard × Not available ○ Option (options price code)
 (1) Manual reset by key or function switch (stop position). (2) On canopied version only
 (3) CE 56 : <32A, CE 57 : <63A, CE 58 : <100A

	INS 45 A	INS 63 A	INS 72 A	INS 90 A	INS 100 A	INS 140 A	INS 144 A
2 poles	×	×	●	×	●	×	●
3 poles	●	●	×	●	×	●	×
4 poles	●	●	×	●	×	●	×
Voltage	208-440V (3-phase)	●	●	×	×	×	×
	208-240V 1-phase	×	×	●	×	×	●
Changeover by contactor	●	●	●	●	●	●	●
Protection of auxiliaries (1)	Fuse	Fuse	Fuse	Fuse	Fuse	Fuse	Fuse
Terminals	●	●	●	●	●	●	●
Dimensions	Height	500	400	400	400	400	400
	Width	400	500	500	600	500	600
	Depth	200	200	200	200	200	200
Wall panel IP 55	●	●	●	●	●	●	●
Free-standing panel IP 55	×	×	×	×	×	×	×

(1) Protection of auxiliaries : mains power detection, panel relay, water heater, battery charger.



INS 45A



A50

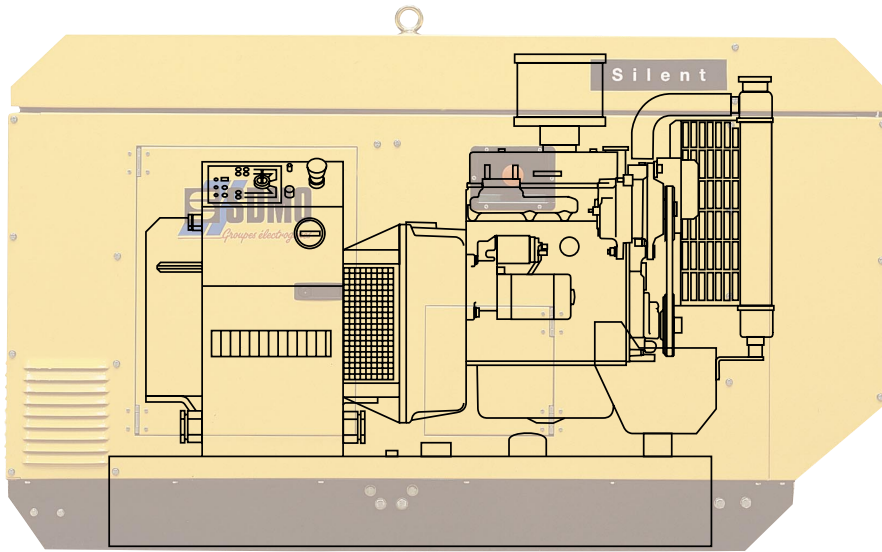


X 200 (12V)

Silent

Euro Silent

Complies with EU standards, LWA 100 max. Complies with EU standards, LWA 92 max.



Two types of canopies available for the entire range depending on models (106 and 107). Each generating set can be delivered ready-for-use. A kit is also available for ex-works assembly (1) (delocalised stock) or to convert existing equipment (1)(2).



Module 106



Module 107

RANGE AVAILABLE	Canopy	SILENT		EURO SILENT				
		TN 15 106	TN 20 106	TM 7,5 106	TM 11,5 107	TM 16 107	TM 20 107	TM 30 107
Acoustic power	LWA	98	100	89	92	88	90	92
Soundproofed canopy mounted		SiM	SiM	SiM	SiM	SiM	SiM	SiM
Soundproofed canopy kit (2)		SiK	SiK	SiK	SiK	SiK	SiK	SiK
S.S. bolts and rivets, anodised aluminium hinges		●	●	●	●	●	●	●
Modular sheet steel structure		●	●	●	●	●	●	●
Phosphate priming followed by anti-corrosion polyester powder coat		●	●	●	●	●	●	●
Excellent access by hinged roof with hydraulic support strut		Hinged lid mounted on hydraulic jacks+side doors			2 wide side doors			
Central lifting eye		●	●	●	●	●	●	●
CN 06 Baseplate with retention tank		●	●	●	●	●	●	●
Exterior emergency stop button		●	●	●	●	●	●	●
Lockable control panel		×	×	×	×	●	●	●
Silencer inside canopy		●	●	●	●	●	●	●
CN 07 Colour : black/yellow (RAL 9005/RAL1028)		●	●	●	●	●	●	●
CN 08 Special paintwork (RAL 1028 replaced by customised colour for orders > 20 units)		8 wks	8 wks	8 wks	8 wks	8 wks	8 wks	8 wks
Road trailer with fixed towbar		TR 11	TR 11	TR 11	TR 11	TR 11	TR 11	TR 11
AO 68F French towing eye		●	●	●	●	●	●	●
Optional DIN, Italian, Universal, NATO or ball coupling		○	○	○	○	○	○	○
Single-/Three-phase socket pack with circuit-breaker		CN 04	CN 04	CN 04	CN 04	CN 04	CN 04	CN 04

DIMENSIONS AND WEIGHT		CANOPY	
		106	107
Overall dimensions (l x w x h)	cm	169 x 77 x 105	201 x 93 x 133
Weight (to add to Version II)	kg	198	330

(1) Assembly by authorised SDMO personnel only.
(2) Sets in this range only.

GENERAL SPECIFICATIONS (3-PHASE GENSETS)

Range	Genset type	50 Hz - 400/230 V							Engine specifications					Compact II+			60 Hz - 440/254 V				
		kVA Cosφ 0,8	kWe Cosφ 1	Amp.	Engine			Dimensions & Weight (empty)						Tank L	kVA Cosφ 0,8	kWe Cosφ 1	Amp.	Engine			
					kWm net	Consumption			l x w x h m	kg	kWm net	75% Load									
						75% Load L/h	50% Load L/h					75% Load L/h	Cons								
2 poles	TN 15 K	15	12	22	14,7	3,8	2,9	S3L2 SDH	L3	76	70	0,952	1,28x0,67x0,89	259	43	-	-	-	-	-	
	TN 20 K	20	16	29	19	5,0	4,1	S3L2 SDH	L3	78	92	1,318	1,28x0,67x0,95	333	43	-	-	-	-	-	
4 poles	TM 7,5 K	7,5	6	11	7,4	1,6	1,2	L3E SD	L3	76	70	0,952	1,28x0,67x0,86	259	43	9	7	12	9,1	2,0	
	TM 11,5 K	11,5	9	17	10,8	2,3	1,9	S3L2 SD	L3	78	92	1,318	1,28x0,67x0,95	336	43	13,5	11	18	13,2	2,9	
	TM 16 K	16	13	23	15	3,1	2,4	S4L2 SD	L4	78	92	1,758	1,40x0,78x0,99	480	100	19	15	25	18,4	3,8	
	TM 20 K	20	16	29	21,7	4,7	3,4	S4Q2 SD	L4	88	103	2,510	1,40x0,78x0,99	530	100	23	18	30	26,1	5,6	
	TM 30 K	30	24	43	27,6	6	8,2	S4S SD	L4	94	120	3,330	1,52x0,78x1,12	660	100	36	29	47	36,4	8,2	

TN : Standby duty, operation under variable load 500 hours/year maximum without any overload.

TM 7,5/11,5/16 : Continuous duty, operation under variable load 500 hours/year maximum without any overload. For continuous duty 24 hours/day with overload derate by 10%

TM 20/30 : Continuous duty 24/24, variable load with a 10% overload permissible (ISO 8528 PRP)

AVAILABLE VOLTAGES

Range	Genset type	Meccalte alternator	50 Hz								60 Hz							
			λ			Δ			λλ		λ			Δ			λλ	
			415/240V T51 A1	400/230V T51 A2	380/220V T51 A3	240V T51 C1	230V T51 C2	220V T51 C3	220/127V T52 B4	200/115V T51 B2	480/277V T61 A1	440/254V T61 A3	380/220V T61 A5	240V T61 C2	230V T61 C3	220V T61 B2	220/127V T61 B3	208/120V
2 poles	TN 15 K	EC3-LA/2*16	15	15	15	15	15	15	15	14,5	-	-	-	-	-	-	-	
	TN 20 K	EC3-LB/2*19	20	20	20	20	20	20	17	20	-	-	-	-	-	-	-	
4 poles	TM 7,5 K	EC3-SB/4*8	7,5	7,5	7,5	7,5	7,5	7,5	7	7,5	9	9	8	9	9	9	9	
	TM 11,5 K	EC3-LA/4*11	11,5	11,5	11,5	11,5	11,5	11,5	9,5	11,5	13,5	13,5	11	13	12	12	13,5	
	TM 16 K	ECN28-S/4*16	16	16	16	16	16	16	13,5	16	19	19	17	17,5	16,5	16	19	
	TM 20 K	ECN28-2L/4*20	20	20	20	20	20	20	18	20	23	23	21	22	20	20	23	
	TM 30 K	ECO32-1S/4*31	30	30	30	30	30	30	27,9	30	37	37	33	34	31	31	36	

1-PHASE GENSETS

Range	Genset type	Engine type	Alternator type	50 Hz									60 Hz								
				240V 1-phase T51 M1			230V 1-phase T51 M2			220V 1-phase T51 M3			240V 1-phase T61 M1			230V 1-phase T61 M2			220V 1-phase T61 M3		
				kVA	kWe	A	kVA	kWe	A	kVA	kWe	A	kVA	kWe	A	kVA	kWe	A	kVA	kWe	A
2 poles	TN 15 KM	L3E SDH	EC3-LB/2*19	11,5	11,5	48	11,5	11,5	50	11,5	11,5	52	-	-	-	-	-	-	-	-	
4 poles	TM 7,5 KM	L3E SD	EC3-SB/4*8	5,5	5,5	23	5,5	5,5	24	5,5	5,5	25	6,6	6,6	28	6,3	6,3	27	6	6	
	TM 11,5 KM	S3L2 SD	ECN28-S/4*16	10	8,6	42	9,6	8,6	42	9,2	8,6	42	10,6	10,6	44	10,2	10,2	44	9,7	9,7	
	TM 16 KM	S4L2 SD	ECN28-2L/4*20	14	12,1	58	14	12,1	61	14	12,1	64	15,8	14,8	66	15,1	14,8	66	14,5	14,5	
	TM 20 KM	S4Q2 SD	ECO32-1S/4*31	18,5	15,6	77	18,5	15,6	80	18,5	15,6	84	21,3	21,1	89	20,4	20,4	89	19,5	21	
	TM 30 KM	S4S SD	432-S2*40	27	23,7	113	27	23,7	117	26,2	23,7	119	28,5	28,5	119	27,3	27,3	119	26,1	26,1	

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