




SMART RANGE

1 MAIN FEATURES

T Triphasic	 Diesel fuel	 Baudouin / 4M06G33/5	 Grupel / 184GB31	 Deep Sea / DSE 4520
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Hz 50Hz	 1500 r.p.m.	V 400V	cos φ 0,8
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Standby power (STP)	35 kVA	28 kW
Prime Power (PRP)	31 kVA	25 kW

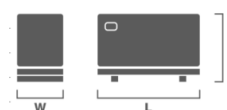
OPEN SKID

Length (L)	1700 mm
Height (H)	1110 mm
Width(W)	850 mm
Weight	565 kg
Daily tank	150 L



SOUNDPROOF

Length (L)	1950 mm
Height (H)	1110 mm
Width (W)	800 mm
Weight	765 kg
Daily tank	40 L



	50Hz
Acoustic pressure level @1m	-
Acoustic pressure level @7m	-
Autonomy at 75% of load (h)	27,8

	50Hz
Acoustic pressure level @1m	74 dB(A)
Acoustic pressure level @7m	61 dB(A)
Autonomy at 75% of load (h)	7,4

AVAILABLE VOLTAGES - 50Hz

FP (cos Ø)	Phase	Voltage	PRP (kVA/kW)	STP (kVA/kW)	Circuit breaker (A)
0,8	Three-phase	440	31 / 25	35 / 28	50
0,8	Three-phase	415	31 / 25	35 / 28	50
0,8	Three-phase	400	31 / 25	35 / 28	50
0,8	Three-phase	380	31 / 25	35 / 28	50
0,8	Three-phase	240	31 / 25	35 / 28	80
0,8	Three-phase	230	31 / 25	35 / 28	80
0,8	Three-phase	220	31 / 25	35 / 28	100
0,8	Single phase	240	19 / 15	20 / 16	80
1	Single phase	240	14 / 14	15 / 15	63
0,8	Single phase	230	19 / 15	20 / 16	80
1	Single phase	230	14 / 14	15 / 15	63
0,8	Single phase	220	19 / 15	20 / 16	100
1	Single phase	220	14 / 14	15 / 15	63

2 ROOM INSTALLATION

EXHAUST SYSTEM	50 Hz	
	PRP	STP
Exhaust gas temperature (°C)	-	650
Exhaust gas flow (m³/min)	6	6,48
Evacuated Heat (kW)	19,1	20,3
Maximum back pressure (kPa)	8	
Exhaust silencer attenuation (dB)	30	
Output Diameter (mm)	65	

VENTILATION SYSTEMS	50 Hz	
	PRP	STP
Combustion air flow (m³/min)	1,92	1,98
Cooling airflow (m³/min)	48	
Maximum load losses (Pa)	120	
RADIATION	50 Hz	
	PRP	STP
Engine (kW)	-	-
Alternator (kW)	3,4	3,8

3 ENGINE SPECIFICATIONS

GENERAL SPECIFICATIONS	50 Hz
Model	4M06G33/5
Emissions	Not satisfy 97/68/EC
Performance grade	G2
Operating method	Four stroke
Fuel type	Diesel fuel
Refrigeration system	Water/antifreeze Closed Circuit
Aspiration system	Turbocharged
Injection system	Direct
No. and Cylinder arrangement	4 In-Line
Displacement (L)	2,3
Cylinder bore (mm)	89
Cylinder stroke (mm)	92
Compression Ratio	17,5:1
Regulation	Electronic
Rotation speed	1500
Piston Speed (m/s)	4,6
Gross power PRP (kWm)	30
Gross power STP (kWm)	33
Fan power (kWm)	0,5
Net Power PRP (kWm)	29,5
Net Power STP (kWm)	32,5
BMEP PRP (kPa)	1043
BMEP STP (kPa)	1148



CONSUMPTION			
		50 Hz	
Fuel consumption	LOAD	lt/h	g/kWh
STP	100%	8,5	212,9
	100%	7,6	211,7
	75%	5,4	212,2
PRP	50%	4,1	221,9
	Oil consumption < 0,4% of fuel consumption		

REFERENCE CONDITIONS	
Temperature (°C)	25
Atmospheric pressure (kPa)	100

CAPACITY	
Coolant (L)	16
Oil (L)	11,5

STARTING SYSTEM	
Voltage (V)	12
Power (kW)	3
Battery (Ah)	60

4 ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	184GB31
Phases No.	Triphasic
Protection	IP23
Insulation	H
Temperature Rise	H
50Hz R.F.I. telephone interference	THF<2%
60Hz R.F.I. telephone interference	TIF<50
R.F.I. Suppression	BS EN 61000-6-2 /6-4,VDE 0875G, VDE 0875N.
Coupling	Semi-Flexible
Support	Single bearing



Wave form distortion with no load	< 1,5%
Wave form distortion with balanced linear load	< 5%
Winding Leads	12
Excitation (standard / option)	Self-excited / -
AVR Model (standard / option)	SX460/ -
Voltage Regulation (standard / option)	± 1,0%/ -
Icc (standard / option)	-/ -

RATED POWER - 50Hz

FP (cos Ø)	Phase	Voltage (V)	Power		Efficiency		
			PRP/STP (kVA)	PRP/STP (%)	Xd	X'd	X''d
0,8	Three-phase	440	31 / 35	87,2 / 87,2	1,560	0,150	0,110
0,8	Three-phase	415	31 / 35	86,7 / 86,7	1,560	0,150	0,110
0,8	Three-phase	400	31 / 35	86,4 / 86,4	1,560	0,150	0,110
0,8	Three-phase	380	31 / 35	85,8 / 85,8	1,560	0,150	0,110
0,8	Three-phase	240	31 / 35	86,7 / 86,7	1,560	0,150	0,110
0,8	Three-phase	230	31 / 35	86,4 / 86,4	1,560	0,150	0,110
0,8	Three-phase	220	31 / 35	87,2 / 87,2	1,560	0,150	0,110
0,8	Single phase	240	19 / 20	85,3 / 85,3	1,560	0,150	0,110
1	Single phase	240	18 / 19	85,3 / 85,3	1,560	0,150	0,110
0,8	Single phase	230	19 / 20	85,3 / 85,3	1,560	0,150	0,110
1	Single phase	230	18 / 19	85,3 / 85,3	1,560	0,150	0,110
0,8	Single phase	220	19 / 20	85,3 / 85,3	1,560	0,150	0,110
1	Single phase	220	18 / 19	85,3 / 85,3	1,560	0,150	0,110

5 CONTROL PANEL



GENSET	DSE 4520	OPTIONAL
Voltage (Ph-Ph /Ph-N)	• / •	• / •
Current intensity	•	•
Frequency	•	•
RMS values	•	•
Generator phase sequence	-	o
Generator earth current [a]	-	o
No. of registers events	15	250
Real time clock	•	•
PIN protection	•	•
kWh, kVAh, kVAh, kVAh, cos Ø	•	•
Synchroscope (m)	-	o
Nº of available outputs [b]	2	6
Engine run hours	•	•
Indication of alarms on LCD	•	•
Total no. of LED indicators	3	12
No. of LED alarms	-	4
Sound signalling alarms	•	•
Scheduler	•	•
Fuel Level	•	•

Electrical network	DSE 4520	OPTIONAL
Voltage (F-F / F-N)	• / •	• / •
Current intensity [a]	-	o
Frequency	•	•
kVA, kW, cos Ø (a)	-	o
Inversion control between main-group	-	o
Protections and Alarms	DSE 4520	OPTIONAL
High / low battery voltage	A	o
Failure in Battery Charge Alternator	A	o
Failure to stop	A/S	A/S
Failure to start	A/S	A/S
Low fuel level	A/S	A/S
Overload	A/S	A/S
Earth leakage	-	o
Asymmetry between phases	-	o
Maintenance	A/S	A/S
High / Low generator frequency	A/S	A/S
Engine overspeed	A/S	A/S
Engine underspeed	A/S	A/S
Generator overvoltage	A/S	A/S
Generator undervoltage	A/S	A/S
ECU Alert (if applicable)	A/S	A/S
Low oil pressure	A/S	A/S
Low level of radiator water [f]	A/S	A/S
Engine high temperature	A/S	A/S
Fuel leakage/ theft	-	o

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CONTROL PANEL

Engine	DSE 4520	OPTIONAL
Engine Speed	•	•
Low oil pressure protection	•	•
Oil pressure reading [c]	o	o
High temperature engine protection	•	•
Engine temperature reading [c]	o	o
Engine battery voltage	•	•
Intensity of the engine battery [d]	o	o
Fuel Consumption [e]	•	•
Low level of radiator water [f]	o	o
Engine maintenance scheduled	•	•
Communication	DSE 4520	OPTIONAL
USB female type B plug (Max. 6m) [g]	•	•
USB female type A plug (n)	-	o
RS232 port (Max. 15m) (n)	-	o
RS485 port (Max. 1,2Km) [h]	-	o
Ethernet port RJ45 [i]	o	o
GSM and/or GPS [j]	o	o
ModBus RTU protocol [h]	-	o
ModBus TCP protocol [i]	-	o
SNMP protocol [l]	o	o
CAN port (Max. 40m)	•	•
MSC port (Max. 240m) (m)	-	o
PLC functionality	-	o

Applications	DSE 4520	OPTIONAL
Automatic or manual starting	•	•
Remote start by NO dry contact	•	•
Automatic by mains failure	•	•
Alternating with timesharing	-	o
Multi-generators synchronization and load sharing (Max. 32 generators) (m)	-	o
Generator-Main in synchronism and load sharing (1 generator and 1 main) (m)	-	o
Optional expansions	DSE 4520	OPTIONAL
DSE2130 (8 inputs dig.) IG-IOM (8 in/outputs dig. + 4 inputs anal.) G-08 (8 inputs dig.)	-	o
DSE2157 I-RB8 G-06 (8 relay outputs)	-	o
DSE890 IL-NT-GPRS G-GSM (GSM and/or GPS)	•	•
DSE891 IB-LITE G-ETH (ethernet module)	•	•
DSE892 IB-LITE - (ethernet module according SNMP protocol)	•	•
DSE2548 IGL-RA15 - (expansion with 8 additional LEDs)	-	o
DSE2510 / 20 (mirror controller, maximum distance 1km)	-	o
Standards		
Working temperature		-30 -> 70°C
Protection index (when assembled with sealing gasket)		IP65
Degree of humidity (during 48hr)		93% / 40°C

Legend

•	Available
o	Optional
-	Not available
A	Warning Alarm
S	Stop alarm
[a]	Need additional CT
[b]	No. of outputs available for standard configuration. The outputs do not include relays and additional terminal connections.
[c]	If the information is not provided by the engine-ECU, you need an additional sensor
[d]	Needs additional ammeter

[e]	If information provided by the engine ECU
[f]	Required additional sensor
[g]	ComAp: Requires IL-NT-S-USB
[h]	ComAp: Requires IL-NT-RS232-485
[i]	DSE: Requires DSE891 ComAp: Requires IB-LITE GR: Requires G-ETH
[j]	DSE: Requires DSE890 ComAp: Requires IL-NT-GPRS GR: Requires G-GSM
[l]	DSE: Requires DSE892 ComAp: Requires IB-LITE
[m]	GRUPEL: Requires G-Sync
[n]	GRUPEL: Requires G-ETH

Indicative weights and dimensions. Reference ambient conditions: 100kPa, 25°C, 30% relative humidity and fuel temperature below 40°C. Power in accordance with ISO 8528: Continuous power (PRP): Maximum available power to feed a variable electrical load for an unlimited period. The average of load factor in 24h of operation, shall not exceed 70% of the PRP. Admits 10% of overload during the maximum period of 1h every 12h of operation. The operation under overload shall not exceed 25h/year. Emergency Power (STP): Maximum available power to feed variable electrical load for a maximum period of 200h/year. The average of load factor in 24h of operation shall not exceed 70% of the STP. No overload. These specifications are subject to change without notice.

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