



SMART RANGE

GENSET KW BAUDOUIN / GRUPEL

1. MAIN FEATURES

 Single-Phase	 Oil	
 Baudouin / 4M06G20/5	 Grupel / 184GB31	
 Grupel / G545	 50 Hz	
 1500 r.p.m.	 230 V	
 0.8		
Standby Power(STP)	20 kVA	16 kW
Prime Power (PRP)	18 kVA	14 kW

SOUNDPROOF

Length (L)	1970 mm	
Height (H)	1120 mm	
Width (W)	825 mm	
Weight	761 kg	
Daily tank	55 L	
Acoustic pressure level @ 1m	66 ± 3 dB(A)	
Acoustic pressure level @ 7m	53 ± 3 dB(A)	

2. ROOM INSTALLATION

EXHAUST SYSTEM	50 Hz		
	COP	PRP	STP
Exhaust gas temperature (°C)	-	-	-
Exhaust gas flow (m³/min)	-	4.3	4.5
Evacuated heat (kW)	-	-	40.2
Maximum back pressure (kPa)	8		
Exhaust silencer attenuation (dB)	18-25		
Output diameter (mm)	65		

VENTILATION SYSTEMS	50 Hz		
	COP	PRP	STP
Combustion air flow (m³/min)	-	-	-
Cooling airflow (m³/min)	1.38		
Maximum load losses (Pa)	120		
Alternator cooling air flow (m³/min)	5.76		

RADIATION	50 Hz		
	COP	PRP	STP
Engine (kW)	-	-	-
Alternator (kW)	2.21	2.21	2.35





3. ENGINE SPECIFICATIONS

GENERAL SPECIFICATIONS		50Hz
Model		4M06G20/5
Emissions (UE/USEPA)		Not applicable / Not applicable
Performance grade		G3*
Operating method		4 stroke
Fuel type		Oil
Refrigeration system		Closed water circuit / antifreeze
Aspiration system		Natural
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		Mechanical
Rotation speed (r.p.m.)		1500
Piston speed (m/s)		4.6
Gross power COP (kWm)		-
Gross power PRP (kWm)		18
Gross power STP (kWm)		20
Fan Power (kWm)		- / 0 / 0
Net Power COP (kWm)		-
Net Power PRP (kWm)		17.5
Net Power STP (kWm)		19.5
BMEP COP (kPa)		-
BMEP PRP (kPa)		625
BMEP STP (kPa)		695



CONSUMPTION		50 Hz
Fuel consumption	l/h	g/kWh
STP	5.4	219
PRP	4.8	218.3
COP	-	-
75%	3.7	224.1
50%	2.6	244.4
Oil consumption	< 0.4% of fuel consumption	

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

CAPACITY (°C)	
Coolant (L)	5
Oil (L)	11.5

STARTING SYSTEM	
Voltage (V)	12
Power (kW)	3
Battery (Ah)	62

4. ALTERNATOR SPECIFICATIONS

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



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

PF (cos Ø)	Phase	Voltage (V)	Power PRP/STP (kVA)	Efficiency PRP/STP (%)	Xd	X'd	X''d
0.8	Single-Phase	230	18.75 / 20	85.3 / 85.3	1.56	0.15	0.11





5. CONTROL PANEL



GENSET	Grupel G545
Voltage (F-F / F-N)	● / ●
Current intensity	●
Frequency	●
RMS Values	●
Generator phase sequence	●
Generator earth current [a]	●
No. of registers events	400
Real time clock	●
PIN Protection	●
kWh, kVAR, kVAh, kVAh, cos Ø	●
Synchroscope [i]	○
Nº of available outputs [b]	4
Indication of alarms on LCD	●
Engine run hours	●
Total no. of LED indicators	15
No. of LED alarms	4
Sound signalling alarms	-
Scheduler	●
Fuel level	●

ELECTRICAL NETWORK	Grupel G545
Voltage (F-F / F-N)	● / ●
Current [a]	○
Frequency	●
kVA, kW, cos Ø [a]	○
Inversion control between main-group	●

PROTECTIONS AND ALARMS	Grupel G545
High / low battery voltage	A
Failure in battery charge alternator	A
Failure to stop	A/S
Failure to start	A/S
Low fuel level	A/S
Overload	A/S
Earth leakage	A/S
Asymmetry between phases	A/S
Maintenance	A/S
High / Low generator frequency	A/S
Engine overspeed	A/S
Engine underspeed	A/S
Generator overvoltage	A/S
Generator undervoltage	A/S
ECU Alert (if applicable)	A/S
Low oil pressure	A/S
Low level of radiator water [f]	A/S
Engine high temperature	A/S
Fuel leakage/ theft	A



ENGINE	Grupel G545
Engine speed	●
Low oil pressure protection	●
Oil pressure reading [c]	○
High temperature engine protection	●
Engine temperature reading [c]	○
Engine battery voltage	●
Intensity of the engine battery [d]	○
Fuel Consumption [e]	●
Low level of radiator water [f]	○
Engine maintenance scheduled	●
COMMUNICATION	Grupel G545
USB female type B (max. 6m)	●
USB female type A [g]	○
RS232 port (max. 15m)	-
RS485 port (max. 1,2Km)	●
Ethernet port RJ45 [g]	○
GSM + location via MLAT [h]	○
ModBus RTU protocol	●
ModBus TCP protocol [g]	○
SNMP protocol [g]	○
CAN port (max. 40m)	●
MSC port (max. 240m) [i]	○
PLC functionality	●

APPLICATIONS	Grupel G545
Automatic or manual starting	●
Remote start by NO dry contact	●
Automatic by mains failure	●
Alternating with timesharing	●
Multi-generators synchronization and load sharing (max. 48 generators) [i]	○
Generator-Main in synchronism and load sharing (1 generator and 1 main) [i]	○
OPTIONAL EXPANSIONS	Grupel G545
G-08 (8 dig. inputs)	○
G-06 (8 relay outputs)	○
G-GSM (GSM and/or GPS by MLAT)	○
G-ETH (ethernet module)	○
G-ETH (ethernet module according SNMP protocol)	○
G545 (mirror controller, maximum distance 1km)	○
G175 (convert QTC into QTA)	○
G545 (convert QTC into QTA)	○
STANDARDS	
Working temperature	-30 ≤ °C ≤ 70
Protection index (when assembled with sealing gasket)	IP65 - Quando montado com junta de vedação
Degree of humidity (during 48hr)	93%, 40°C durante 48h

●	Available
○	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]	Requires G-ETH
[h]	Requires G-GSM
[i]	Requires G-Sync

DISTRIBUTOR