









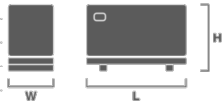
## INDUSTRIAL RANGE

## GENSET kVA GRUPEL / GRUPEL

## 1. MAIN FEATURES

<b>T</b>	Three-phase		Diesel
	Grupel / 6GD88TIDS2		Grupel / 274GB250
	Grupel / G545	<b>Hz</b>	50 Hz
	1500 r.p.m.	<b>V</b>	400 V
<b>cos φ</b>	0.8		400 A
Standby Power(ESP)		275 kVA	220 kW
Prime Power (PRP)		250 kVA	200 kW
Continuous Power(COP)		-	-

## SOUNDPROOF

Length (L)	3200 mm	
Height (H)	2000 mm	
Width (W)	1185 mm	
Weight	2497.5 kg	
Fuel tank daily capacity	400 L	
Acoustic pressure level @ 1m		80 ± 2 dB(A)
Acoustic pressure level @ 7m		72 ± 2 dB(A)

## 2. ROOM INSTALLATION

EXHAUST SYSTEM	50 Hz		
	COP	PRP	ESP
Exhaust gas temperature (°C)	-	-	550
Exhaust gas flow (m³/min)	-	-	31.6
Evacuated heat (kW)	-	-	225.4
Maximum back pressure (kPa)			10
Exhaust silencer attenuation (dB)			18-25
Output diameter (mm)			114

VENTILATION SYSTEMS	50 Hz		
	COP	PRP	ESP
Combustion air flow (m³/min)	-	-	18.7
Cooling airflow (m³/min)			354
Maximum load losses (Pa)			-
Alternator cooling air flow (m³/min)			31.44

RADIATION	50 Hz		
	COP	PRP	ESP
Engine (kW)	-	-	11.5
Alternator (kW)	9.8	9.8	11.66



### 3. ENGINE SPECIFICATIONS

GENERAL SPECIFICATIONS	50Hz
Model	6GD88TIDS2
Emissions (UE/USEPA)	Stage II / Tier 2
Performance grade	G2
Operating method	4 stroke
Fuel type	Diesel
Refrigeration system	Closed water circuit / antifreeze
Aspiration system	Turbo-aftercooled
Injection system	Direct
No. and Cylinder arrangement	6 In-line
Displacement (L)	6.5
Cylinder bore (mm)	114
Cylinder stroke (mm)	144
Compression ratio	16,5:1
Regulation	Electronic
Rotation speed (r.p.m.)	1500
Piston speed (m/s)	6.2
Gross power COP (kWm)	-
Gross power PRP (kWm)	230
Gross power ESP (kWm)	253
Fan Power (kWm)	- / 9 / 9
Net Power COP (kWm)	-
Net Power PRP (kWm)	221
Net Power ESP (kWm)	244
BMEP COP (kPa)	-
BMEP PRP (kPa)	2831
BMEP ESP (kPa)	3114



CONSUMPTION	50 Hz	
Fuel consumption	l/h	g/kWh
ESP	61.3	203.5
PRP	55.1	201.2
COP	-	-
75%	40.7	198.2
50%	27.7	202.3
Oil consumption	< 0.1% of fuel consumption	

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

CAPACITY (°C)	
Coolant (L)	35
Oil (L)	17.5

STARTING SYSTEM	
Voltage (V)	24
Power (kW)	7.5
Battery (Ah)	140

### 4. ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	274GB250
Phases No.	Three-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 / PMG
AVR Model (standard/optional)	SX460 / MX341
Voltage Regulation (standard/optional)	± 1 % / ± 0,5 %
Icc (standard/optional)	- / 3In:10s

PF (cos Ø)	Phase	Voltage (V)	Power PRP/ESP (kVA)	Efficiency PRP/ESP (%)	Xd	X'd	X''d
0.8	Three-phase	400	250 / 275	95.1 / 94.7	2.55	0.119	0.078



## 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 registered events	400
Real time clock	●
PIN Protection	●
kWh, kVAR, kVAh, kVARh, cos Ø	●
Synchroscope [i]	○
No. of available outputs [b]	4
Indication of alarms on LCD	●
Hours of engine operation	●
Total no. of LED indicators	15
No. of LED alarms	4
Sound signalling alarms	-
Schedule	●
Fuel level	●

ELECTRICAL GRID	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



## 6. CONTROL PANEL

ENGINE	Grupel G545	APPLICATIONS	Grupel G545
Engine speed	●	Automatic or manual start-up	●
Low oil pressure protection	●	Remote start by dry contact	●
Oil pressure reading [c]	○	Automatic by mains failure	●
High temperature engine protection	●	Alternating with timesharing	-
Engine temperature reading [c]	○	Multi-generators synchronization and load sharing (max. 48 generators) [i]	○
Engine battery voltage	●	Generator-Mains in synchronism and load sharing (1 generator and 1 mains) [i]	○
Intensity of the engine battery [d]	○		
Fuel Consumption [e]	●		
Low level of radiator water [f]	○		
Scheduled engine maintenance	●		
COMMUNICATION	Grupel G545	OPTIONAL EXPANSIONS	Grupel G545
USB female type B (max. 6m)	●	G-08 (8 dig. inputs)	○
USB female type A [g]	○	G-06 (8 relay outputs)	○
RS232 port (max. 15m)	-	G-GSM (GSM and/or GPS by MLAT)	○
RS485 port (max. 1,2Km)	●	G-ETH (ethernet module)	○
Ethernet port RJ45 [g]	○	G-ETH (ethernet module according to SNMP protocol)	○
GSM + location via MLAT [h]	○	G545 (mirror controller, maximum distance 1km)	○
ModBus RTU protocol	●	G175 (convert QTC into QTA)	○
ModBus TCP protocol [g]	○	G545 (convert QTC into QTA)	○
SNMP protocol [g]	○		
CAN port (max. 40m)	●	STANDARDS	
MSC port (max. 240m) [i]	○	Working temperature	-30 ≤ °C ≤ 70
PLC functionality	●	Protection degree (front panel)	IP65
		Degree of humidity (during 48hr)	93%, 40°C

### Legenda

● 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

Dimensions and weights guidelines. Environmental reference conditions: 100kPa, 25 °C, 30% relative humidity and fuel temperature below 40 °C. Power ratings according to ISO 8528-1:2018.

Emergency power (ESP): Maximum power available to supply variable loads for a maximum period of 200h/year. The average load factor in 24h of operation must not exceed 70% of the ESP regime. It does not allow overload.

Prime power (PRP): Maximum power available to supply variable loads for an unlimited number of hours. The average load factor in 24 hours of operation must not exceed 70% of the PRP rating. Allows an overload of 10% for a maximum period of 1 hour every 12 hours of operation. Overloading may not exceed 25 hours/year.

Continuous power (COP): Maximum power available to supply constant loads for an unlimited number of hours per year, between the maintenance intervals and environmental conditions advertised by the manufacturer.

*These specifications are subject to change without notice.*

### DISTRIBUTOR



Parque Empresarial de Soza, Parcela A, Lote 5 - 3840-342 - Vagos - Portugal  
T: +351 234 790 070 F: (+351) 234 920 670 - geral@grupel.eu - www.grupel.eu