









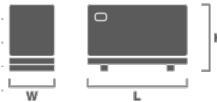
## INDUSTRIAL RANGE

## GENSET kVA GRUPEL / GRUPEL

### 1. MAIN FEATURES

<b>T</b> Three-phase	 Diesel	
 Grupel / 6GD128TIDS2	 Grupel / 314GB400	
 Grupel / G545	<b>Hz</b> 50 Hz	
 1500 r.p.m.	<b>V</b> 400 V	
<b>cos φ</b> 0.8	 630 A	
Standby Power(ESP)	440 kVA	352 kW
Prime Power (PRP)	400 kVA	320 kW
Continuous Power(COP)	-	-

#### SOUNDPROOF

Length (L)	4520 mm	
Height (H)	2155 mm	
Width (W)	1430 mm	
Weight	3581 kg	
Fuel tank daily capacity	1000 L	
Acoustic pressure level @ 1m		85 ± 2 dB(A)
Acoustic pressure level @ 7m		77 ± 2 dB(A)

### 2. ROOM INSTALLATION

EXHAUST SYSTEM	50 Hz		
	COP	PRP	ESP
Exhaust gas temperature (°C)	-	-	550
Exhaust gas flow (m³/min)	-	-	81.6
Evacuated heat (kW)	-	-	332.2
Maximum back pressure (kPa)			10
Exhaust silencer attenuation (dB)			18-25
Output diameter (mm)			168

VENTILATION SYSTEMS	50 Hz		
	COP	PRP	ESP
Combustion air flow (m³/min)	-	-	39.9
Cooling airflow (m³/min)			534
Maximum load losses (Pa)			-
Alternator cooling air flow (m³/min)			29.76

RADIATION	50 Hz		
	COP	PRP	ESP
Engine (kW)	-	-	17
Alternator (kW)	22.4	22.4	24.64



### 3. ENGINE SPECIFICATIONS

GENERAL SPECIFICATIONS	50Hz
Model	6GD128TIDS2
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-intercooled
Injection system	Direct
No. and Cylinder arrangement	6 In-line
Displacement (L)	12.8
Cylinder bore (mm)	130
Cylinder stroke (mm)	161
Compression ratio	17:1
Regulation	Electronic
Rotation speed (r.p.m.)	1500
Piston speed (m/s)	8.05
Gross power COP (kWm)	-
Gross power PRP (kWm)	354.8
Gross power ESP (kWm)	389.2
Fan Power (kWm)	- / 11 / 11
Net Power COP (kWm)	-
Net Power PRP (kWm)	343.8
Net Power ESP (kWm)	378.2
BMEP COP (kPa)	-
BMEP PRP (kPa)	2298
BMEP ESP (kPa)	2529



CONSUMPTION	50 Hz	
Fuel consumption	l/h	g/kWh
ESP	93.9	202.7
PRP	92	217.8
COP	-	-
75%	62.1	195.9
50%	42.8	202.7
Oil consumption	< 0.2% of fuel consumption	

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

CAPACITY (°C)	
Coolant (L)	72
Oil (L)	36

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

### 4. ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	314GB400
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)	SX440 / 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	400 / 440	93 / 93	2.16	0.13	0.1



## 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

