









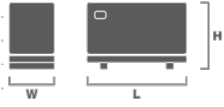
HEAVY RANGE

GENSET 1000 KVA PERKINS / LEROY SOMER

1. MAIN FEATURES

T Three-phase	 Diesel	
 Perkins / 4008TAG2A	 Leroy Somer / TAL049E	
 Grupel / G545	Hz 50 Hz	
 1500 r.p.m.	V 400 V	
cos φ 0.8	 1600 A	
Standby Power(ESP)	1100 kVA	880 kW
Prime Power (PRP)	1000 kVA	800 kW
Continuous Power(COP)	-	-

SOUNDPROOF

Length (L)	5820 mm	
Height (H)	2890 mm	
Width (W)	2170 mm	
Weight	10455 kg	
Fuel tank daily capacity	1000 L	
Acoustic pressure level @ 1m		91 ± 2 dB(A)
Acoustic pressure level @ 7m		83 ± 2 dB(A)

2. ROOM INSTALLATION

EXHAUST SYSTEM	50 Hz		
	COP	PRP	ESP
Exhaust gas temperature (°C)	-	438	465
Exhaust gas flow (m³/min)	-	200	200
Evacuated heat (kW)	-	698	807
Maximum back pressure (kPa)		8.16	
Exhaust silencer attenuation (dB)		18-25	
Output diameter (mm)		-	

VENTILATION SYSTEMS	50 Hz		
	COP	PRP	ESP
Combustion air flow (m³/min)	-	75	80.5
Cooling airflow (m³/min)		1350	
Maximum load losses (Pa)		130	
Alternator cooling air flow (m³/min)		60	

RADIATION	50 Hz		
	COP	PRP	ESP
Engine (kW)	-	80	100
Alternator (kW)	38.12	38.12	43.77



3. ENGINE SPECIFICATIONS

GENERAL SPECIFICATIONS	50Hz
Model	4008TAG2A
Emissions (UE/USEPA)	Not applicable / Not applicable
Performance grade	G2
Operating method	4 stroke
Fuel type	Diesel
Refrigeration system	Closed water circuit / antifreeze
Aspiration system	Turbocharged
Injection system	Direct
No. and Cylinder arrangement	8 In-line
Displacement (L)	30.561
Cylinder bore (mm)	160
Cylinder stroke (mm)	190
Compression ratio	13,6:1
Regulation	Electronic
Rotation speed (r.p.m.)	1500
Piston speed (m/s)	9.5
Gross power COP (kWm)	-
Gross power PRP (kWm)	899
Gross power ESP (kWm)	985
Fan Power (kWm)	- / 38 / 38
Net Power COP (kWm)	-
Net Power PRP (kWm)	861
Net Power ESP (kWm)	947
BMEP COP (kPa)	-
BMEP PRP (kPa)	2320
BMEP ESP (kPa)	2540



CONSUMPTION	50 Hz	
Fuel consumption	l/h	g/kWh
ESP	240	209
PRP	215	206
COP	-	-
75%	162	207
50%	111	213
Oil consumption	< 0.1% of fuel consumption	

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

CAPACITY (°C)	
Coolant (L)	149
Oil (L)	153

STARTING SYSTEM	
Voltage (V)	24
Power (kW)	8.2
Battery (Ah)	220

4. ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	TAL049E
Phases No.	Three-phase
Protection	IP23
Insulation	H
Temperature rise	H
R.F.I. telephone interference	THF < 2%
R.F.I. Suppression	IEC 61000-6-2/3/4, VDE 0875G/N, EN 55011
Coupling	Flexible disks
Support	Single bearing



Wave form distortion with no load	< 3,5%
Wave form distortion with balanced linear load	< 5%
Winding Leads	6
Excitation (standard/optional)	SHUNT / AREP+ / PMG
AVR Model (standard/optional)	R150 / R180 / R180
Voltage Regulation (standard/optional)	± 0,8 % / ± 0,5 % / ± 0,5 %
Icc (standard/optional)	- / 2,7In:5s

PF (cos Ø)	Phase	Voltage (V)	Power PRP/ESP (kVA)	Efficiency PRP/ESP (%)	Xd	X'd	X''d
0.8	Three-phase	400	1000 / 1100	95.24 / 95.03	3.48	0.161	0.129



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)	●		
MSC port (max. 240m) [i]	○		
PLC functionality	●		
Legenda		STANDARDS	
● Available		Working temperature	-30 ≤ °C ≤ 70
○ Optional		Protection index (when assembled with sealing gasket)	IP65 - Quando montado com junta de vedação
- Not available		Degree of humidity (during 48hr)	93%, 40°C durante 48h
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