









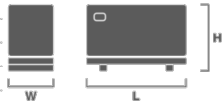
INDUSTRIAL RANGE

GENSET 250 kVA PERKINS / LEROY SOMER

1. MAIN FEATURES

T Three-phase	 Diesel	
 Perkins / 1206A-E70TTAG3	 Leroy Somer / TAL046D	
 DeepSea / 4520	Hz 50 Hz	
 1500 r.p.m.	V 400 V	
cos φ 0.8	 400 A	
Standby Power(ESP)	275 kVA	220 kW
Prime Power (PRP)	250 kVA	200 kW
Continuous Power(COP)	-	-

SOUNDPROOF

Length (L)	3110 mm	
Height (H)	2000 mm	
Width (W)	1185 mm	
Weight	2264 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)	-	515.8	511
Exhaust gas flow (m³/min)	-	30.9	33.66
Evacuated heat (kW)	-	240.8	281.6
Maximum back pressure (kPa)	25		
Exhaust silencer attenuation (dB)	18-25		
Output diameter (mm)	114		

VENTILATION SYSTEMS	50 Hz		
	COP	PRP	ESP
Combustion air flow (m³/min)	-	13.5	15.7
Cooling airflow (m³/min)	265.2		
Maximum load losses (Pa)	0		
Alternator cooling air flow (m³/min)	28.8		

RADIATION	50 Hz		
	COP	PRP	ESP
Engine (kW)	-	116.7	126.6
Alternator (kW)	14.6	14.6	17.16



3. ENGINE SPECIFICATIONS

GENERAL SPECIFICATIONS	50Hz
Model	1206A-E70TTAG3
Emissions (UE/USEPA)	Not applicable / Not applicable
Performance grade	G3*, ISO 8528:5 2018
Operating method	4 stroke
Fuel type	Diesel
Refrigeration system	Closed water circuit / antifreeze
Aspiration system	Turbocharged
Injection system	Direct
No. and Cylinder arrangement	6 In-line
Displacement (L)	7.01
Cylinder bore (mm)	105
Cylinder stroke (mm)	135
Compression ratio	15,8:1
Regulation	Electronic
Rotation speed (r.p.m.)	1500
Piston speed (m/s)	6.35
Gross power COP (kWm)	-
Gross power PRP (kWm)	226.2
Gross power ESP (kWm)	248.6
Fan Power (kWm)	- / 9 / 10
Net Power COP (kWm)	-
Net Power PRP (kWm)	217.2
Net Power ESP (kWm)	238.3
BMEP COP (kPa)	-
BMEP PRP (kPa)	2582.3
BMEP ESP (kPa)	2822.9



CONSUMPTION	50 Hz	
Fuel consumption	l/h	g/kWh
ESP	64.5	219.6
PRP	56.9	212.3
COP	-	-
75%	41.5	206.1
50%	28.1	209.6
Oil consumption	< -% of fuel consumption	

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

CAPACITY (°C)	
Coolant (L)	25
Oil (L)	16

STARTING SYSTEM	
Voltage (V)	12
Power (kW)	5
Battery (Ah)	140

4. ALTERNATOR SPECIFICATIONS

GENERAL SPECIFICATIONS	
Model	TAL046D
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	< 2,5%
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	250 / 275	92.7 / 92.2	3.7	0.186	0.149



5. CONTROL PANEL



GENSET	DeepSea 4520
Voltage (F-F / F-N)	● / ●
Current intensity	●
Frequency	●
RMS Values	●
Generator phase sequence	-
Generator earth current [a]	-
No. of registered events	15
Real time clock	●
PIN Protection	●
kWh, kVAr, kVAh, kVArh, cos Ø	●
Synchroscope [i]	-
No. of available outputs [b]	2
Indication of alarms on LCD	●
Hours of engine operation	●
Total no. of LED indicators	3
No. of LED alarms	-
Sound signalling alarms	●
Schedule	●
Fuel level	●

ELECTRICAL GRID	DeepSea 4520
Voltage (F-F / F-N)	● / ●
Current [a]	-
Frequency	●
kVA,kW, cos Ø [a]	-
Inversion control between main-group	●

PROTECTIONS AND ALARMS	DeepSea 4520
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	-
Asymmetry between phases	-
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	-



6. CONTROL PANEL

ENGINE	DeepSea 4520	APPLICATIONS	DeepSea 4520
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. 32 generators)	-
Engine battery voltage	●	Generator-Mains in synchronism and load sharing (1 generator and 1 mains)	-
Intensity of the engine battery [d]	○		
Fuel Consumption [e]	●		
Low level of radiator water [f]	○		
Scheduled engine maintenance	●		
COMMUNICATION	DeepSea 4520	OPTIONAL EXPANSIONS	DeepSea 4520
USB female type B plug (max. 6m)	●	DSE2130 (8 dig. inputs)	-
USB female type A plug	-	DSE2157 (8 relay outputs)	-
RS232 port (max. 15m)	-	DSE890 (4G LTE and GPS)	○
RS485 port (max. 1,2Km)	-	DSE891 (ethernet module)	○
Ethernet port RJ45 [g/h/i]	○	DSE892 (ethernet module according SNMP protocol)	○
4G LTE + GPS [g]	○	DSE2548 (expansion with 8 additional LEDs)	-
ModBus RTU protocol	-	DSE7320 (mirror controller, maximum distance 1km)	-
ModBus TCP protocol [g/h/i]	-	DSE331 (convert QTC into QTA)	○
SNMP protocol [i]	○	DSE335 (convert QTC into QTA)	○
CAN port (max. 40m)	●		
MSC port (max. 240m)	-		
PLC functionality	-		
STANDARDS			
Working temperature			-30 ≤ °C ≤ 70
Protection degree (front panel)			IP65
Degree of humidity (during 48hr)			93%, 40°C
<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p><i>These specifications are subject to change without notice.</i></p>			

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 DSE890
[h]	Requires DSE891
[i]	Requires DSE892

DISTRIBUTOR