

Main Features

T

Three-phase



60 Hz



Diesel



1800 r.p.m.



Cummins / 4BT3.9-G2



127V-220V



Leroy somer / TAL A42 F



0,8



DSE6110/20



ABB 4x160A

Standby Power (STP) 50 kVA 40 kW Continuous Power (PRP) 45 kVA 36 kW Continuous Power (COP) - kVA - kW

Soundproof

Length (L)	2370 mm	
Height (H)	1020 mm	
Width (W)	1560 mm	
Weight	1100 kg	
Daily deposit	80 Lts	W
		60 Hz
Sound pressure level @1m		68 dB(A)

Installation in room

Exhaust System		60 Hz	
	COP	PRP	STP
Maximum backpressure (kPa)		10	
Intake air alarm temperature (°C)	13,5		
Maximum intake air restriction with heavy-duty air filter: Dirty Element (kPa) Clean Element (kPa)	-		
Max. exhaust pipe diameter (mm)		75	

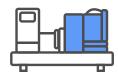
Fuel System	60 Hz		
	COP	PRP	STP
Maximum restriction at lift pump (KBar)	-	-	102
Maximum fuel inlet temperature (°C)	508		
Total drain flow (L/hr)	30		30

Electrical system	60Hz		
	СОР	PRP	STP
Starter motor (Vdc)	24V		
Battery charging system, negative ground (A)	40		
Maximum allowable starting circuit resistance (Ω)	0,002		
Minimum recommended battery capacity — Cold soak @ 0 to 32°F (-18 to 0°C)	312		



Engine specifications

General specifications	60 Hz
Model	4BT3.9-G2
Emissions	Not applicable
Operating method	Four-stroke
Fuel type	Diesel
Cooling system	Liquid (water + 50% antifreeze)
Aspiration system	Turbocharged
Injection system	Direct
Number and arrangement of cylinders	4 in-line
Displacement (L)	3,90
Cylinder bore (mm)	102
Cylinder stroke (mm)	120
Compression ratio	18.0:1
Regulation	Electronic
Rotational speed	1800
Coolant capacity (L)	7,2
Gross power COP (kWm)	-
Gross power PRP (kWm)	40
Gross power STP (kWm)	36
Oil capacity (L)	10,9
Net power COP (kWm)	-
Net power PRP (kWm)	-
Net power STP (kWm)	-



Consumptions		60 Hz		
Fuel consumption	Burden	lt/h	g/kWh	
STP	100%	11,7	220	
	100%	10,7	221	
PRP	75%	8,4	230	
PKP	50%	6,2	255	
	25%	4,2	346	
Min. allowable fuel flow to fuel pump (L/h)		11,7		
Reference conditions				
Temperature (°C)		25		
Atmospheric temperature (kPa)		100		
Starting system				
Voltage (V)		24		
Standard thermostat range (°C)		82-95		

Alternator specifications

The finate of Specifications		
General specifications		
Model	TAL A42 F	
Number of phases	Three-phase	
Protection	IP23	
Isolation	Н	
Heating	н	
IEC Waveform = THF	<2,0%	
NEMA Waveform = TIF	<50	
Excitation system	SHUNT	
AVR Model	R120	



Overspeed: rpm	2250
Voltage regulation: (steady state)	+/- 1.0%
Air flow rate 60 Hz (m3/s)	0,1
Radio interference: Deletion in accordance with the stand European EN61000-6	
AREP+ Short circuit current	2.7 ln: 5 seg.

Starter Battery



Battery voltage	
Battery Capacity	
Amount	
Battery type	Maintenance-free, sealed lead-acid type

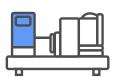
Certifications







Control Panel





Generator	DSE6110/20
Tension (F-F / F-N)	*/*
Intensity	*
Frequency	*
RMS values	*
Generator phase sequence	*
Generator ground current [1]	•
Number of events registered	250
Integrated clock	*
PIN protection	*
kWh, kVAr, kVAh, kVArh, cos Ø	*
Synchronoscope (m)	X
Number of available departures [2]	6
Engine running hours	*
Alarm i ndication on LCD	*
Total number of LED indicators	8
No. of LED alarms	X
Acoustic alarm signaling	•
Programmer	*
Fuel level	*
Engine	DSE6110/20
Engine speed	*
Low oil pressure protection	*
Oil pressure reading [3]	•
High engine temperature protection	*
Engine temperature reading[3]	•
Battery voltage	*
Battery Intensification [4]	•
Fuel consumption [5]	*
Low water level in radiator [6]	•
Scheduled maintenance for engine	*
Communication	DSE6110/20
USB Type B Female Port (Max. 6m)	*
[7] USB Type A Female Port (n)	X
CAN port (Max. 40m)	*
PLC function	*

Grid	DSE6110/20
Tension (F-F / F-N)	*
Intensity [1]	X
Frequency	*
kVA,kW, cos Ø (a)	X
Network-group switching control	*
Protections and alarms	DSE6110/20
High/low battery voltage	Ф
Battery charging alternator failure	Ф
Stop failure	₽/⊗
Boot failure	₽/⊗
Low fuel level	₽/⊗
Overload	₽/⊗
Ground fault	₽/⊗
Asymmetry between phases	₽/⊗
Maintenance	₽/⊗
High/Low Generator Frequency	₽/⊗
Engine overspeed	₽/⊗
Low engine speed	₽ /⊗
Surge	₽/⊗
Low voltage in generator	₽/⊗
ECU Alert (if applicable)	₽/⊗
Low oil pressure	₽ /⊗
Low water I evel in radiator [f]	₽ /⊗
High engine temperature	₽ /⊗
Fuel leak/theft	Ф
Aplications	DSE6110/20
Automatic or manual start	*
Remote start by dry contact NA	*
Automatic due to network failure	*
Alternation with distributed time	X
Multi-generators in synchronism with load (Max 32 generators) (m)	X
Generator-grid i n synchronism and with load sharing (1 generator and 1 grid) (m)	X
Optional Expansions	DSE6110/20
DSE2130 (8 digital inputs) I G-IOM (8 digital inputs/outputs + 4 analog inputs) G-08 (8 ent. dig.)	*
DSE2157 I -RB8 G-06 (8 relay outputs)	*
DSE2548 IGL-RA15 - (expansion with 8 Additional LEDs	*
DSE2510/20 (mirror controller, max distance 1km)	*
Rules	
Working temperature	-30 -> 70°C
Protection index (when mounted with sealing gasket)	IP65
33,	IP65

Legend

*	Available
-	Optional
X	Not available
Ф	Warning alarm
⊗	Stop alarm
[1]	Need an additional IT
[2]	Number of outputs available for standard configuration. Outputs do not include relays or additional wiring to terminals.
[3]	If the information is not provided by the engine ECU, an additional sensor needs to be included.

[4]	Needs an additional ammeter
[5]	If the information is provided by the engine ECU
[6]	Requires an additional sensor
[7]	Need to include an additional IL-NT-S-USB module
[8]	Need to include an additional IL-NT-RS232-485 module
[9]	DeepSea: Needs to include an additional DSE891 module/ComAp: Needs to include an additional IB-LITE module
[10]	DeepSea: Needs to include an additional DSE890 module/ComAp: Needs to include an additional IL-NT-GPRS module
[11]	DeepSea: Needs to include an additional DSE892 module/ComAp: Needs to include an additional IB-LITE module

Emergency Standby Power (ESP)

Emergency standby power is the maximum power available to a variable load during a main power grid failure. The average load factor over 24 hours of operation must not exceed 70% of the motor's ESP rated power. Typical motor operating hours are 200 hours per year, with a maximum usage of 500 hours per year.

This includes an annual maximum of 25 hours per year at the ESP power rating. Overload capability is not permitted. The motor must not be used for sustained utility parallel applications.

Main Power (PRP)

Prime Power is the maximum power available for unlimited hours of use in a variable load application. The average load factor must not exceed 70% of the motor's PRP rating during any 24-hour period. A 10% overload capability is available; however, it is limited to 1 hour within each 12-hour period.

- 1. All ratings are based on operating conditions according to ISO 8528-1, ISO 3046, DIN6271. Performance tolerance $\pm 5\%$.
- Test conditions: 100 kPa, 25°C air inlet temperature, 30% relative humidity, with fuel density of 0.84 kg/L. Derating may be required for conditions outside these, contact factory for details.
- Power output curves are based on engine operation with fuel system, water pump and lubricating oil pump; battery charging alternator, fan and optional equipment are not included.