ATP Baudouin - Leroy Somer Series

ATP500-BDN/LS

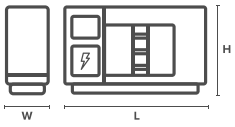
Main Features

T	Three-phase	Hz	50 Hz
	Diesel		1500 r.p.m.
	Baudouin / 6M21G500/5	V	400V
	Leroy somer / TAL-A473-B	cosφ	0,8
	Deepsea 7420		ABB / 4x1000 A

Standby Power (STP)	440 kVA	352 kW
Continuous Power (PRP)	400 kVA	320 kW
Continuous Power (COP)	- kVA	- kW

Soundproof

Length (L)	3550 mm
Height (H)	2716 mm
Width (W)	1400 mm
Weight	3830 kg
Daily deposit	1000 L



	50Hz
Sound pressure level @1m	84 dB(A)
Sound pressure level @7m	71 dB(A)

Installation in room

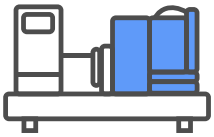
Exhaust System	50Hz		
	COP	PRP	STP
Max. Exhaust Temperature After Turbocharger (°C)	-	-	≤580
Exhaust Gas Flow (m^3/min)	-	N/A	99
Max. Exhaust Backpressure (mBar)	120		
Max. Bending Moment of the Exhaust Outlet Flange (Nm)	19		
Outlet Diameter (mm)	100		

Ventilation System	50Hz		
	COP	PRP	STP
Recommended Airflow (m^3/min)	-	N/A	28.7
Min. Intake Pipe Diameter (mm)			100
Intake Air Temperature Rise (°C)			≤15

Radiation Heat	50Hz		
	COP	PRP	STP
Total Heat Dissipation (kJ/s)	-	-	649.6
Heat Radiated to the Environment (kJ/s)	-	-	92.5

Engine specifications

General specifications	50 Hz
Model	6M21G500/5
Emissions	Does not comply with 97/68/EC
Performance Grade	G3
Operating Method	Four-stroke
Fuel Type	Diesel
Cooling System	Liquid (water + 50% antifreeze)
Aspiration System	Turbocharged and aftercooled
Injection System	Direct
Number and Arrangement of Cylinders	V6
Displacement (L)	12.54
Cylinder bore (mm)	127
Cylinder stroke (mm)	165
Compression ratio	16 : 1
Regulation	Electronic
Rotational speed	1500
Piston speed (m/s)	8,25
Gross power COP (kWm)	-
Gross power PRP (kWm)	409
Gross power STP (kWm)	450
Fan power supply (kW)	21



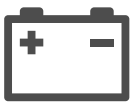
Consumptions		50Hz	
Fuel consumption	Burden	lt/h	g/kWh
STP	100%	205.5	110.2
PRP	100%	-	-
	75%	-	-
	50%	-	-
COP	-	-	-
	-	-	-
	-	-	-
Fuel Consumption Tolerance		+3%	
Reference conditions			
Temperature (°C)		25	
Atmospheric temperature (kPa)		100	
Capacity			
Coolant Capacity (L)		30	
Low / high oil capacity (L)		27/30	
Starting system			
Voltage (V)		24	
Power (kW)		5,4	
Battery (Ah)		70	

Alternator specifications

General specifications	
Model	TAL-A473-B
Number of Phases	Three-phase
Protection	IP23
Insulation	H
Heating	H
Telephone R.F.I interference 50 Hz	THF<2%
Telephone R.F.I interference 60 Hz	TIF<50
R.F.I interference suppression	CEM 2014/30/UE
Coupling	Semi-flexible
Support	Monopalier

No-load waveform distortion	< 1,5%
Load waveform distortion	< 5%
Number of windings	6
Excitation (standard / option)	SHUNT / AREP
AVR Model (standard / option)	R150 / R180
Voltage Regulation (standard / option)	± 1 % / ± 1 %

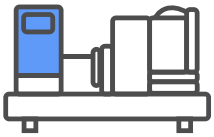
Starter Battery



Battery voltage	12V
Battery Capacity	80aH
Amount	2 pieces
Battery type	Maintenance-free, sealed lead-acid type

Certifications

Control Panel



Generator	DSE7410/20
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)	■
Number of available departures [2]	6
Engine running hours	★
Alarm i ndication on LCD	★
Total number of LED indicators	12
No. of LED alarms	4
Acoustic alarm signaling	■
Programmer	★
Fuel level	★
Engine	**DSE7410/20**
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	**DSE7410/20**
Female USB Type B port (Max. 6m) [7]	★
Female USB Type A port (n)	[X]
RS232 port (Max. 15m) (n)	★
RS485 port (Max. 1.2 km) [8]	★
RJ45 Ethernet port [9]	■
GSM and/or GPS [10]	■
ModBus RTU Protocol [8]	★
ModBus RCP Protocol [9]	■
SNMP Protocol [11]	■
CAN port (Max. 40m)	★
MSC port (Max. 240m) (m)	[X]
PLC function	★

Grid	DSE7410/20
Tension (F-F / F-N)	★ / ★
Intensity [1]	[X]
Frequency	★
kVA,kW, cos Ø (a)	[X]
Network-group switching control	★
Protections and alarms	**DSE7410/20**
High/low battery voltage	🔔
Battery charging alternator failure	🔔
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 l evel in radiator [f]	🔔 / ⊗
High engine temperature	🔔 / ⊗
Fuel leak/theft	🔔
Aplications	**DSE7410/20**
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	**DSE7410/20**
DSE2130 (8 digital inputs) I IG-IOM (8 in./out. digital + 4 analog inputs) I G-08 (8 digital inputs)	★
DSE2157 I I-RB8 I G-06 (8 relay outputs)	★
DSE890 I IL-NT-GPRS I G-GSM (GSM and/or GPS)	★
DSE891 I IB-LITE I G-ETH (Ethernet module)	★
DSE892 I IB-LITE I - (Ethernet module according to SNMP protocol)	★
DSE2548 I IGL-RA15 I - (expansion with 8 additional LEDs)	★
DSE2510/20 (mirror controller, maximum distance of 1km)	★
Rules	
Working temperature	-30 -> 70°C
Protection index (when mounted with sealing gasket)	IP65
Maximum humidity level (for 48 h)	93% / 40°C

Legend

★	Available
■	Optional
☒	Not available
🔔	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 ±5%.
2. 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.
3. 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.