ATP Cummins - Leroy Somer Series

ATP630-CMM/LS

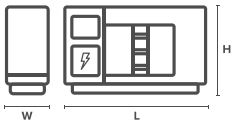
Main Features

T	Three-phase	Hz	50 Hz
	Diesel		1500 r.p.m.
	Baudouin / KTAA19-G5	V	230V/400V
	Leroy somer / TAL-A473-E	cosφ	0,8
	Deepsea 6120		ABB 4x1000A

Standby Power (STP)	630 kVA	505 kW
Continuous Power (PRP)	525 kVA	420 kW
Continuous Power (COP)	- kVA	- kW

Soundproof

Length (L)	4200 mm
Height (H)	2480 mm
Width (W)	1900 mm
Weight	5450 kg
Daily deposit	900 L



	50Hz
Diesel engine noise	113.6 dB(A)

Noise test performed at 100% of ESP power, at a distance of 1 m, with the engine without a radiator, without a cooling fan, and without a silencer.

Installation in room

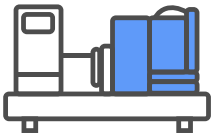
Sistema de escape	50Hz		
	COP	PRP	STP
Maximum backpressure (kPa)	10		
Maximum static weight supported on the turbocharger outlet flange (N.m)	-		
Maximum intake air restriction with heavy-duty air filter	-		
Dirty Element (kPa) Clean Element (kPa)	-		
Max. exhaust pipe diameter (mm)	127		

Fuel System	50Hz		
	COP	PRP	STP
Maximum allowed restriction (kPa)	-	-	13,55
Maximum allowed restriction for the PT fuel pump with check valves (kPa)	22		
Minimum allowed fuel tank ventilation capacity (L/h)			425

Electric System	50Hz		
	COP	PRP	STP
Starter engine (Vdc)	24		
Battery charging system, negative ground (A)	35		
Maximum allowed resistance of the starting circuit (Ω)	0,002		
Minimum recommended battery capacity — Cold soak @ 0 to 32°F (-18 to 0°C)	900		

Engine specifications

General specifications	50 Hz
Model	KTAA19-G5
Emissions	Not applicable
Performance Grade	G2
Operating Method	Four-stroke
Fuel Type	Diesel
Cooling System	Liquid (water + 50% antifreeze)
Aspiration System	Turbocharged
Injection System	Direct injection Cummins PT
Number and Arrangement of Cylinders	V6
Displacement (L)	19,0
Cylinder Bore (mm)	159
Cylinder Stroke (mm)	159
Compression Ratio	13.9:1
Regulation	Electronica
Rotational Speed	1500
Oil Capacity (L)	199
Gross Power COP (kWm)	354
Gross Power PRP (kWm)	448
Gross Power STP (kWm)	504
Coolant Capacity (L)	50
Net Power COP (kWm)	-
Net Power PRP (kWm)	-
Net Power STP (kWm)	-



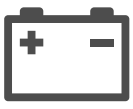
Consumption		60Hz	
Fuel consumption	Charge	lt/h	g/kWh
STP	100%	134	204
PRP	100%	114	204
	75%	86,9	206
	50%	57,1	182
	25%	33,3	143
Fuel supply flow (L/h)		134	
Condiciones de referencia			
Temperature (°C)		25	
Atmospheric pressure (kPa)		100	
Sistema de arranque			
Voltage (V)		24	
Standard thermostat range (°C)		82-93	

Alternator specifications

General specifications	
Model	TAL-A473-E
Number of Phases	Three-phase
Protection	IP23
Insulation	H
Heating	H
Waveform IEC = THF:	THF<2%
Waveform NEMA = TIF:	TIF<50
Coupling	Flex plate
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)	± 0,8 % / ± 0,5 %

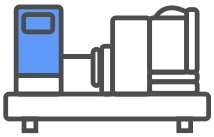
Starter Battery



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)	★
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	🔔
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	**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 I G-IOM (8 digital inputs/outputs + 4 analog inputs)I G-08 (8 ent. dig.)	★
DSE2157 I I -RB8 I G-06 (8 relay outputs)	★
DSE2548 I IGL-RA15 I - (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
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.