

Cummins Series

Product introduction



Model AC110 Generator set

110KVA/88KW - STD



General Performance Data

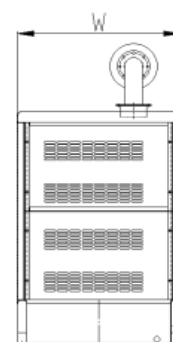
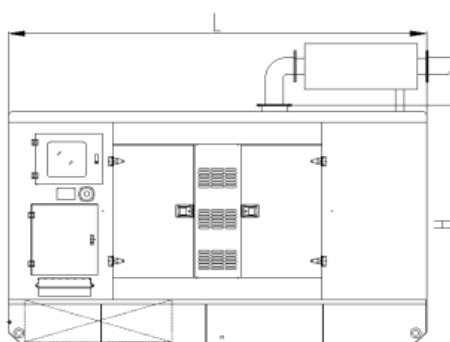
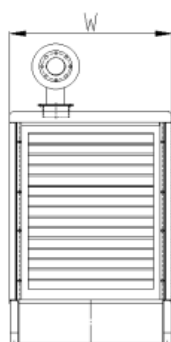
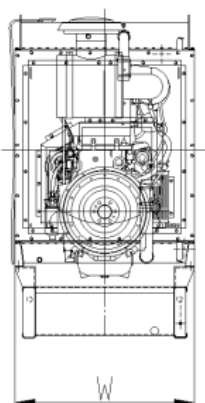
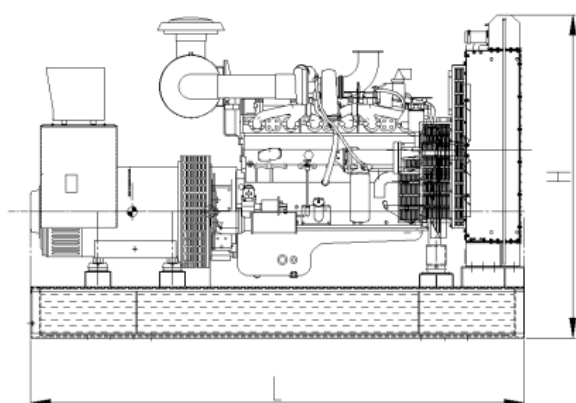
Prime Power	100KVA/80KW	Engine	Brand	Cummins
Stand by Power	110KVA/88KW		Model	6BTA5.9-G5
Frequency/Speed	50Hz/1500rpm	Control module	Deepsea 6120	
Rated Power Factor(cosφ)	0.8	Rated Current	144A	
Standard Voltage	230V/400V	Capacity of Breaker	160A	
Phases	3	Starting Voltage	DC24V	

Fuel consumption

Rated output	Fuel consumption rate
100%Standby	27.6L/h
100%Prime	25L/h
75%Prime	18.2L/h
50%Prime	12.3L/h
25%Prime	6.9L/h

Standards followed

ISO9001	ISO14001
ISO8528	ISO12100
ISO13849	EN12601
GB12786	GB/T2820
IEC60034	IEC60204
CE	RETIE



Engine specification

Basic parameter

Manufacturer	Cummins
Model	6BTA5.9-G5
No. of cylinder	4
Type	4 cycle, Vertical In-line
Prime Power	80kw /107HP
Standby Power	88kw /118HP
Induction system	Turbocharged and Air to Air Aftercooled
Governor	ECU
Bore x Stroke	102x120 mm
Displacement	5.9 L
Compression ratio	17.0:1
Oil Capacity(Total)	16.4L
Coolant Capacity(Engine only)	19.8L
Cranking Motor Voltage	DC24V

Fuel System

Type Injection system	WF PW/Electronic Governor
Min. Allowable flow of fuel to fuel pump	24.7 L/h

Lubrication system

Oil Pressure	
---Idle speed	207 kPa
---Rated speed	207-300kPa
Max. allowable oil temperature	121°C
Oil Pan capacity - Low/High	N /A
Total system capacity	16.4 L

Air induction system

Maximum allowable intake air restriction	
---with clean filter element	6.2kPa
---with dirty filter element	3.7kPa
Intake Air alarm temperature	85°C

Exhaust system

Max. allowable back pressure	10kPa
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Cooling system

Coolant capacity	
---Engine only	7.2L
---Total system	N/A
---With heat exchanger	54L
Standard thermostat(modulating) range	83-95°C
Minimum cap pressure	48kPa
Max. allowable top tank temperature for stand by/prime power	104/100 °C

Electric system

Min. recommended battery capacity (24V)	
---10°C(50°F) & above- 0°F CCA	900
--- 0°C(32°F) to 10°C(50°F)- 0°F CCA	900
---18°C(0°F) to 0°C(32°F)- 0°F CCA	900
Max. allowable resistance of Starting circuit	0.002ohm
Starter(heave,Anode)	DC24V
Battery recharge system, negative ground	40ampere

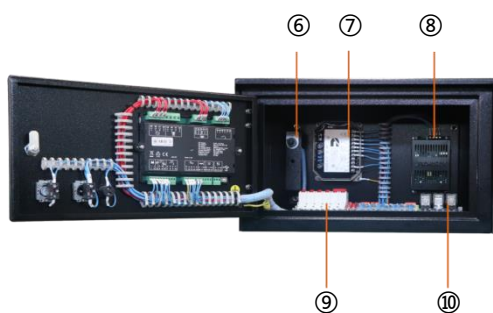
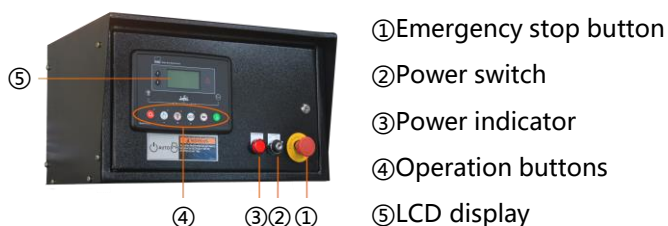
Alternator specification LeroySomer TAL044D

Phases	3	Coating	Vacuum impregnation
Poles	4	Insulation class	H
Power factor(cosφ)	0.8	Protection	IP23
Winding connection	Star	Excitation system	Self-excited
Winding pitch	2/3	Bearing	Single Bearing
Voltage regulator type	AVR	Coupling	Flexible disc

Control system Introduction

Deepsea 6120 Auto start & auto mains failure control panel

Deepsea 6120 is an auto mains failure controller for single generator, it can monitor and protect the generator working all the time. it has a LCD display which clearly shows the status of the engine. this controller include seven inputs and six outputs. This controller can also be programmed using the front panel or by using DSE configuration Suite PC software



Key Features:

- Auto start/stop, load transfer and alarming of generator
- Remote start on or off load
- With hierarchical loading function
- Multiple start/stop cycles can be preset
- 3 phase generator and mains voltage monitoring.
- Generator/load power detection(kW, kVA, kVA_r PF)
- Overload protection (kW)
- Load current monitoring and protection
- Engine speed protection
- Engine pre-heat
- Engine start idle & stop idle
- Battery voltage monitoring
- Start under the low battery
- 4 active outputs
- 4 digital inputs and 3 analogue inputs.
- 6 Custom digital input
- 6 outputs(4 configurable on magnetic pick-up, 6 configurable on Canbus version)
- DSE2130,DSE2157,DSE2548 expansion module can be connected
- Support 0-10V or 4-20mA oil pressure sensor

Main features:

- Multi language display
- Mains failure self starting
- The running time of the engine can be recorded to facilitate the maintenance and repair of the unit
- User-friendly set-up and button layout
- LCD display can display multiple parameters at the same time
- Support EFI engine
- IP65 rating (with optional gasket)
- PC and front panel configuration
- 100 event records
- Data recording and trend analysis

Protection:

- Two sets of protection parameters can be preset
- Normal alarm, electrical trip and shutdown alarm can be set to effectively monitor the engine speed,oil pressure, water temperature and oil level, as well as the frequency, voltage, current and power of the alternator, for complete engine/alternator protection
- Low Oil Pressure
- High water Temperature
- High voltage and low voltage
- Overspeed
- Emergency stop
- Fail to start

Decomposition diagram introduction of Typical Canopy



Standard supply scope:

