

Cummins Series

Product introduction



Model AC180 Generator set

180KVA/144KW - STD



General Performance Data

Prime Power	165KVA/132KW
Stand by Power	180KVA/144KW
Frequency/Speed	50Hz/1500rpm
Rated Power Factor(cosφ)	0.8
Standard Voltage	230V/400V
Phases	3

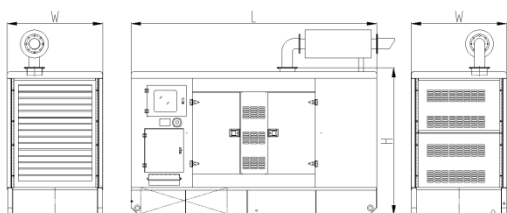
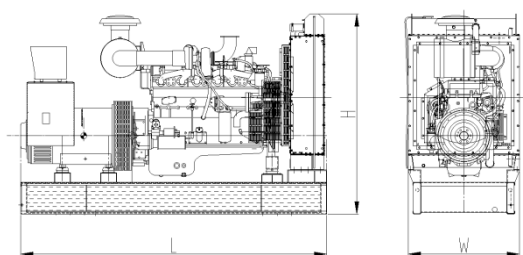
Engine	Brand	Cummins
	Model	6CTA8.3-G1
Control module	Deepsea 6120	
Rated Current	270A	
Capacity of Breaker	315A	
Starting Voltage	DC24V	

Fuel consumption

Rated output	Fuel consumption rate	
100%Standby	218g/KW.h	48L/h
100%Prime	212g/KW.h	42L/h
75%Prime	210g/KW.h	31L/h
50%Prime	214g/KW.h	21L/h
25%Prime	255g/KW.h	13L/h

Standards followed

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



Dimensions and Weights

Type	Open	Silent
Length(mm)	2350	3350
Width(mm)	840	1100
Height(mm)	1560	1950
Weight(kg)	1700	2350
Base fuel tank volume (L)	300	300

Engine specification

Basic parameter

Manufacturer	Cummins
Model	6CTA8.3-G1
No. of cylinder	6
Type	4 cycle, Vertical In-line
Prime Power	123kw /177HP
Standby Power	144kw /193HP
Induction system	Turbocharged & Aftercooled
Governor	Electronic speed
Bore x Stroke	114x135mm
Displacement	8.3L
Compression ratio	17.3:1
Oil Capacity(Total)	27.6L
Coolant Capacity(Engine only)	12.3L
Cranking Motor Voltage	DC24V

Fuel System

Type Injection system	BYC Type A inline pump
Min. Allowable flow of fuel to fuel pump	48 L/h

Lubrication system

Oil Pressure	
---Idle speed	103kPa
---Rated speed	276-414kPa
Max. allowable oil temperature	121°C
Oil Pan capacity - Low/High	N /A
Total system capacity	27.6L

Air induction system

Maximum allowable intake air restriction	
---with clean filter element	4kPa
---with dirty filter element	6kPa
Intake Air alarm temperature	82°C

Exhaust system

Max. allowable back pressure	10kPa
Standard exhaust pipe diameter	75mm

Cooling system

Coolant capacity	
---Engine only	12.3L
---Total system	30.6L
---With heat exchanger	18.3L
Standard thermostat(modulating) range	82-95°C
Minimum cap pressure	69kPa
Max. allowable top tank temerature for stand by/prime power	104/100 °C

Electric system

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

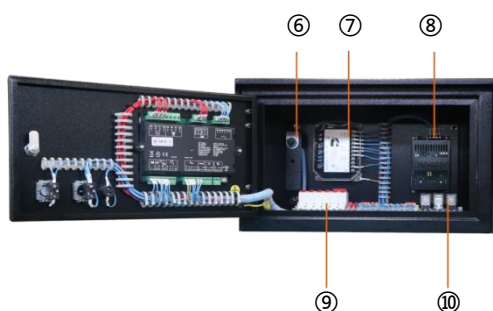
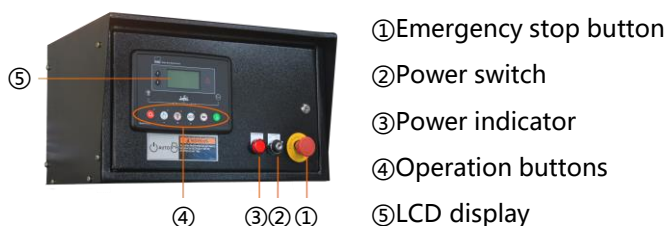
Alternator specification Leroysoner LSA44.3L12

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:

