

Cummins Series

Product introduction



Model AC455 Generator set

455KVA/364KW - STD



General Performance Data

Prime Power	416KVA/333KW
Stand by Power	455KVA/364KW
Frequency/Speed	50Hz/1500rpm
Rated Power Factor(cosφ)	0.8
Standard Voltage	230V/400V
Phases	3

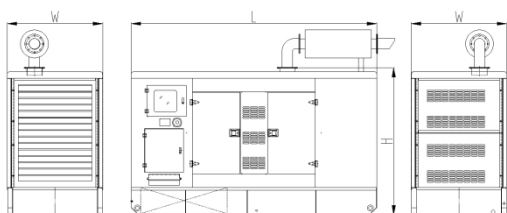
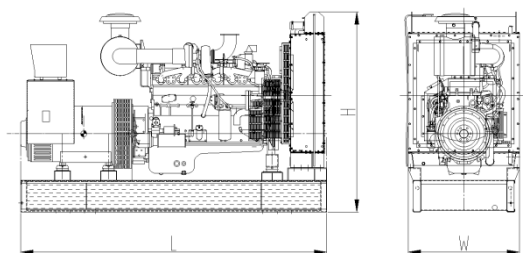
Engine	Brand	Cummins
	Model	QSG12-G4
Control module	Deepsea 6120	
Rated Current	526A	
Capacity of Breaker	630A	
Starting Voltage	DC24V	

Fuel consumption

Rated output	Fuel consumption rate
100%Standby	80L/h
100%Prime	82L/h
75%Prime	60L/h
50%Prime	41L/h
25%Prime	22L/h

Standards followed

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



Dimensions and Weights

Type	Open
Length(mm)	3200
Width(mm)	1100
Height(mm)	2000
Weight(kg)	2820
Base fuel tank volume (L)	740

Engine specification

Basic parameter

Manufacturer	Cummins
Model	QSG12-G4
No. of cylinder	6
Type	4 cycle, Vertical In-line
Prime Power	333kw /446HP
Standby Power	364kw /488HP
Induction system	Turbocharged and Air to Air Aftercooled
Governor	ECU
Bore x Stroke	132x144mm
Displacement	11.8L
Compression ratio	17.0:1
Oil Capacity(Total)	34L
Coolant Capacity(Engine only)	48L
Cranking Motor Voltage	DC24V

Fuel System

Type Injection system	Electronically controlled high voltage common rail
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Min. Allowable flow of fuel to fuel pump	101.8 L/h
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Lubrication system

Oil Pressure	
---Idle speed	82.7kPa
---Rated speed	207-300kPa
Max. allowable oil temperature	121°C
Oil Pan capacity - Low/High	N /A
Total system capacity	34L

Air induction system

Maximum allowable intake air restriction	
---with clean filter element	3.7kPa
---with dirty filter element	6.2kPa

Intake Air alarm temperature	85°C
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Exhaust system

Max. allowable back pressure	13kPa
Standard exhaust pipe diameter	130mm

Cooling system

Coolant capacity	
---Engine only	48L
---Total system	73.1L
---With heat exchanger	50L
Standard thermostat(modulating) range	82-95 °C
Minimum cap pressure	103kPa
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	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 Leroysoner TAL0473A

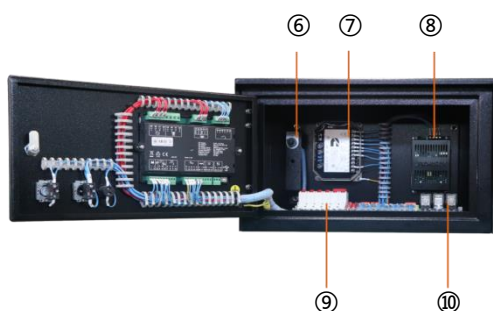
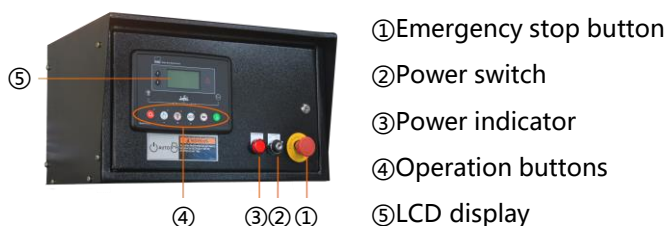
Manufacturer	LEROY SOMER
Phases	3
Poles	4
Power factor(cosφ)	0.8
Winding connection	Star
Winding pitch	2/3
Voltage regulator type	AVR

Model	TAL-A473-C
Coating	Vacuum impregnation
Insulation class	H
Protection	IP23
Excitation system	Self-excited
Bearing	Single Bearing
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:

