## **AOSIF Cummins Series Product introduction**









# Model AC220 Generator set 200KVA/160KW

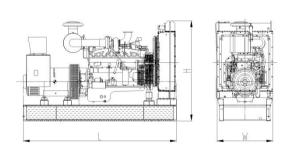


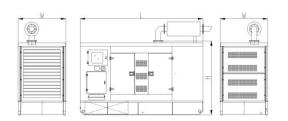


General Performance Data				
Prime Power	200KVA/160KW	Engine	Brand	Cummins
Stand by Power	220KVA/176KW		Model	QSB7-G4
Frequency/Speed	60Hz/1800rpm	Control module	Deepsea 6120	
Rated Power Factor(cosφ)	0.8	Rated Current	240A	
Standard Voltage	277V/480V	Capacity of Breaker	315A	
Phases	3	Starting Voltage	DC24V	

Fuel consumption			
Rated output	Fuel consumption rate		
100%Standby	N/A g/KW.h	52 <b>L/h</b>	
100%Prime	N/A g/KW.h	46L/h	
75%Prime	N/A g/KW.h	37L/h	
50%Prime	N/A g/KW.h	26L/h	
25%Prime	N/A g/KW.h	14 <b>L/h</b>	

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





Dimensions and Weights			
Туре	Open	Silent	
Length(mm)			
Width(mm)			
Height(mm)			
Weight(kg)			
Base fuel tank volume (L)			



## **Engine specification**

Basic parameter	
Manufacturer	Cummins
Model	QSB7-G4
No. of cylinder	6
Туре	4 cycle, Vertical In-line
Prime Power	184kw /246HP
Standby Power	214kw /287HP
Induction system	Turbocharged and Air- Air Charge Cooled
Governor	ECU
Bore x Stroke	107x124mm
Displacement	6.69L
Compression ratio	17.3:1
Oil Capacity(Total)	18.9L
Coolant Capacity(Engine only)	10.3L
Cranking Motor Voltage	DC24V
Fuel System	
Type Injection system	Bosch HPCR
Min. Allowable flow of fuel to fuel pump	52 L/h
Lubrication system	
Oil Pressure	
Idle speed	69kPa
Rated speed	172.4-413.7kPa
Max. allowable oil temperature	138℃
Oil Capacity with OP 9658 Oil P Low-High	an: 15 /17.5L
Total system capacity	18.9L

Air induction system	
Maximum allowable intake air restriction	
with clean filter element	4kPa
with dirty filter element	6kPa
Intake Air alarm temperature	82℃
Exhaust system	
Max. allowable back pressure	10kPa
Standard exhaust pipe diameter	N/A

Cooling system	
Coolant capacity	
Engine only	10.3L
Total system	36 L
With heat exchanger	25.7L
Standard thermostat(modulating) range	82-95 ℃
Minimum cap pressure	103kPa
Max. allowable top tank temerature for stand by/prime power	112/107 ℃

Electric system	
Min. recommended battery capacity (24V)	
10°C(50°F) & above- 0°F CCA	750
0°C(32°F) to 10°C(50°F)- 0°F CCA	750
18°C(0°F) to 0°C(32°F)- 0°F CCA	750
Max. allowable resistance of Starting circuit	0.002ohm
Starter(heave, Anode)	DC24V
Battery recharge system, negative ground	40ampere

Alternator specification			
Phases	3	Coating	Vacuum impregnation
Poles	4	Insulation class	н
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



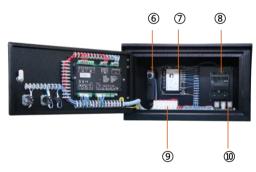
## **Control system Introduction**

## 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



- ①Emergency stop button
- ②Power switch
- ③Power indicator
- Operation buttons
- **⑤LCD** display



- **6** Voltage and frequency trimmer

**⑦Governor** 

®Charger

#### **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, kVAr 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



## **AOSIF Soundproof Canopy Introduction:**

#### Standard Type:

- The arc angle structure makes the appearance beautiful and not easy to bump
- High quality coating powder, chemical surface treatment & 100-120um coating thickness greatly improving the anticorrosion and anti rust level
- Stainless steel hinge & door lock are beautiful and anti-rust
- 2.0mm cold rolled plate used makes the body more solid
- The bottom forklift and loading port design enables easy loading and unloading
- The drainage outlets are all connected to the outside for easy operation

- The sufficient air in & out design ensure long-term and stable operation of the unit
- Isolation net is designed for air inlet, exhaust outlet and muffler outlet to prevent objects from entering the unit
- High density foam used inside effectively reduces noise
- Ceiling Lighting is equipped for easy operation
- The built-in base fuel tank with fuel filler set on the shell facilitates refueling
- Models above medium power range are designed with top hoisting mechanism to facilitate transportation of the unit.

#### Imitated container type:

- The shell is made of 3.0mm hot rolled steel plate so as to withstand the lifting capacity of 15-ton without deformation
- The switch cabinet and control panel are respectively set on both sides of the shell for easy maintenance & operation
- The shell looks similar to standard container, and can be loaded into 40HQ container for transportation, which is convenient for shipping
- The lifting eye holes are designed on the top same as the standard container for easy handling
- High density foam used inside effectively reduces noise
- The built-in base fuel tank with fuel filler set on the shell facilitates refueling
- Double emergency stop button set on different surfaces enables quick response to operation requirements

- The shell base is independent from the unit with 3mm thick checkered steel plate floor, which is beautiful & antiskid, and is convenient for overhaul & maintenance of the unit
- The door handle, lock and hinge are all made of stainless steel to avoid rusting
- The air out louver made of the mesh plate with podwer coating and pasted with high-density glass fiber is beautiful and not easy to rust, and can further reduce the noise
- Isolation net is designed for air inlet, exhaust outlet and muffler outlet to prevent objects from entering the unit
- The sufficient air in & out design ensure long-term and stable operation of the unit
- The drainage outlets are all connected to the outside for easy operation
- Ceiling Lighting is equipped for easy operation

#### Standard container type:

- Can be shipped on board directly during transportation
- The mesh plate with podwer coating and inner pasted with high-density glass fiber is installed inside the shell, which is beautiful and anti-rust, and can further reduce the noise
- 3mm thick checkered steel plate floor is beautiful & antiskid, and is convenient for overhaul & maintenance of the unit
- Double emergency stop button set on different surfaces enables quick response to operation requirements
- The independent daily fuel tank can be designed to put inside to meet requirements of continuous operation
- The fuel filler is set on the shell to facilitate refueling

- The switch cabinet and control panel are respectively set on both sides of the shell for easy maintenance & operation
- The air in & out louver made of the mesh plate with podwer coating and pasted with high-density glass fiber is beautiful and not easy to rust, and can further reduce the noise
- Isolation net is designed for air inlet, exhaust outlet and muffler outlet to prevent objects from entering the unit
- The sufficient air in & out design ensure long-term and stable operation of the unit
- The drainage outlets are all connected to the outside for easy operation
- Ceiling Lighting is equipped for easy operation













## **Decomposition diagram introduction of AOSIF Typical Canopy**



### **Standard supply scope:**



- ① Engine
- ② AC Alternator
- ③ Cooling Radiator
- 4 Auto Start Control Panel
- S Main Ciruit Breaker
- 6 Built in Shock Pad
- High Strength Frame
- Exhaust silencer
- Bellow
- Starting battery

## **Optional supply scope:**

Genset	Engine	Alternator	Control system
<ul> <li>Tool box</li> <li>Base fuel tank</li> <li>External daily fuel tank</li> <li>Trailer</li> </ul>	<ul><li>Fuel heater</li><li>Fuel and water separator</li></ul>	<ul> <li>Temp. detector for winding and bearing</li> <li>PMG</li> <li>Antirust, mildew and salt fog treatment</li> <li>Anti condensation heater</li> </ul>	<ul> <li>ATS</li> <li>Synchronization System</li> <li>Adjustable earth relay</li> </ul>
Breaker	Fuel system	Lub-oil system	Cooling system
<ul><li>ABB</li><li>Schneider</li></ul>	<ul><li>Low fuel level alarm</li><li>Auto Fuel Pump</li><li>T Vlave</li></ul>	<ul><li>Lub oil heater</li><li>Tempsensor</li><li>Oil drain Pump</li></ul>	• Elec.coolant Heater



# **Our Promises**

- AOSIF Engineering provides a full line of brand new and high quality products.
- Each unit passes strictly loading test in factory before shipment.
- Quality Warranty is provided strictly in accordance with warranty terms.
- Three level service guarantee: Aosif dealers, Service outlets of engine/alternator manufacturers, Aosif service team.



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You may get more information from our official account.

Specifications are subject to change without notice.