

# AOSIF Cummins Series

Product introduction

**AOSiF**  
POWER GENERATOR



## Model AC31-II Generator set

# 27.5KVA/22KW

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**XIAMEN AOSIF ENGINEERING LTD.**

## General Performance Data

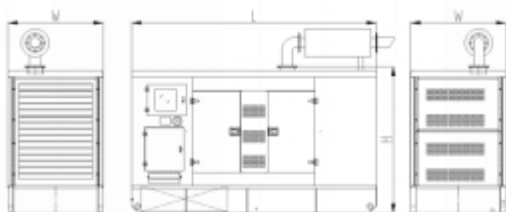
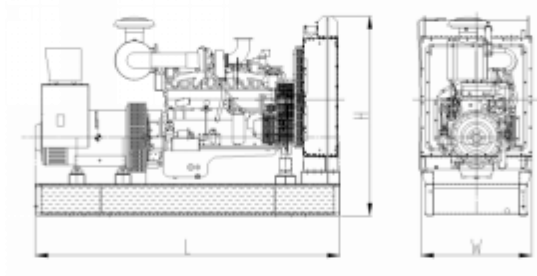
Prime Power	27.5KVA/22KW	Engine	Brand	Cummins
Stand by Power	31KVA/24.2KW		Model	4B3.9-G2
Frequency/Speed	50Hz/1500rpm	Control module	Deeppsea 6120	
Rated Power Factor(cosφ)	0.8	Rated Current	39A	
Standard Voltage	230V/400V	Capacity of Breaker	63A	
Phases	3	Starting Voltage	DC24V	

## Fuel consumption

Rated output	Fuel consumption rate	
	g/KW.h	L/h
100%Standby	228 g/KW.h	7.5 L/h
100%Prime	229 g/KW.h	6.7 L/h
75%Prime	240 g/KW.h	5.2 L/h
50%Prime	275 g/KW.h	4.0 L/h
25%Prime	374 g/KW.h	2.7 L/h

## Standards followed

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



## Dimensions and Weights

Type	Open	Silent
Length(mm)	1860	2250
Width(mm)	750	1000
Height(mm)	1350	1540
Weight(kg)	700	1100
Base fuel tank volume (L)	80	80

## Engine specification

### Basic parameter

Manufacturer	dongfeng Cummins
Model	4B3.9-G2
No. of cylinder	4
Type	4 cycle, Vertical In-line
Prime Power	24kw /32HP
Standby Power	27kw /36HP
Induction system	Natural air intake
Governor	Electronic speed
Bore x Stroke	102x120mm
Displacement	3.9L
Compression ratio	18.0:1

### Oil Capacity(Total)

Coolant Capacity(Engine only) 7.2L

Cranking Motor Voltage DC24V

### Fuel System

Type Injection system BYC Type A inline pump

Min. Allowable flow of fuel to fuel pump 7.5 L/h

### Lubrication system

Oil Pressure

---Idle speed 207kPa

---Rated speed 345kPa

Max. allowable oil temperature 121°C

Offset sump oil capacity: low/high 9.5 /8.5L

Total system capacity 10.9L

### Air induction system

Maximum allowable intake air restriction

---with clean filter element 3.7kPa

---with dirty filter element 6.2kPa

Intake Air alarm temperature 82°C

### Exhaust system

Max. allowable back pressure 10kPa

Standard exhaust pipe diameter 75mm

### Cooling system

Coolant capacity

---Engine only 7.2L

---Total system 15.2 L

---With heat exchanger 8L

Standard thermostat(modulating) range 82-95 °C

Minimum cap pressure 69kPa

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 312

--- 0°C(32°F) to 10°C(50°F)- 0°F CCA 312

---18°C(0°F) to 0°C(32°F)- 0°F CCA 312

Max. allowable resistance of Starting circuit 0.002ohm

Starter(heave,Anode) DC24V

Battery recharge system, negative ground 40ampere

## Alternator specification

Phases 3

Poles 4

Power factor(cosφ) 0.8

Winding connection Star

Winding pitch 2/3

Voltage regulator type AVR

Coating Vacuum impregnation

Insulation class H

Protection IP23

Excitation system Self-excited

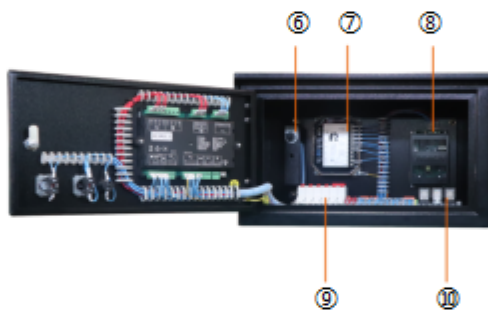
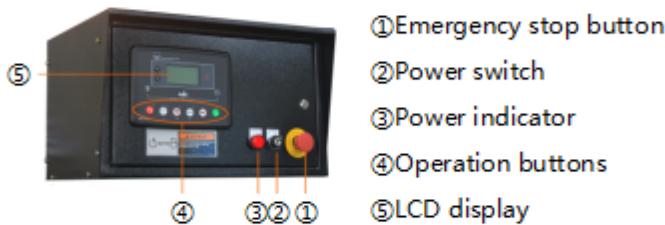
Bearing Single Bearing

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<sub>r</sub> 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 anti-corrosion 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 :

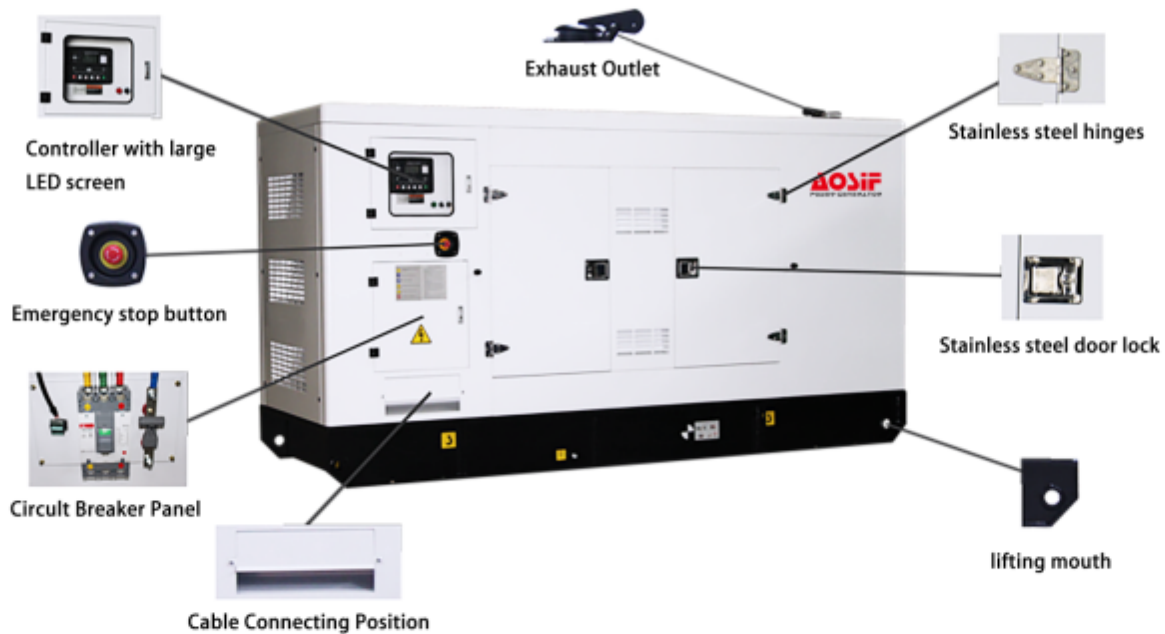
- The shell is made of 3.0mm hot rolled steel plate so as to withstand the lifting capacity of 15-ton without deformation
- The switch cabinet and control panel are respectively set on both sides of the shell for easy maintenance & operation
- The shell looks similar to standard container, and can be 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 :

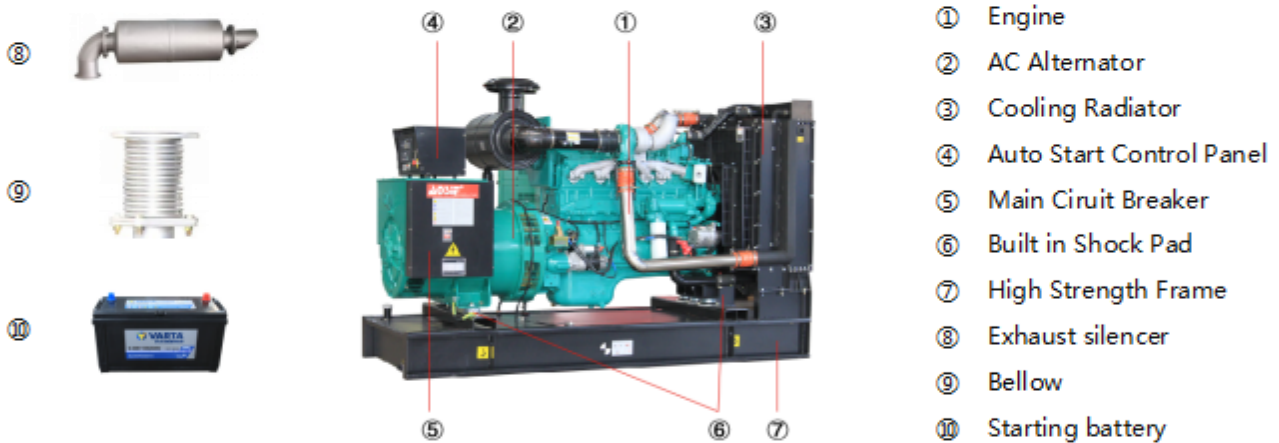
- Can be shipped on board directly during transportation
- The mesh plate with podwer coating and inner pasted with high-density glass fiber is installed inside the shell, which is beautiful and anti-rust, and can further reduce the noise
- 3mm thick checkered steel plate floor is beautiful & antiskid, 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:



## Optional supply scope:

Genset	Engine	Alternator	Control system
<ul style="list-style-type: none"> <li>• Tool box</li> <li>• Base fuel tank</li> <li>• External daily fuel tank</li> <li>• Trailer</li> </ul>	<ul style="list-style-type: none"> <li>• Fuel heater</li> <li>• Fuel and water separator</li> </ul>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>• ATS</li> <li>• Synchronization System</li> <li>• Adjustable earth relay</li> </ul>
Breaker	Fuel system	Lub-oil system	Cooling system
<ul style="list-style-type: none"> <li>• ABB</li> <li>• Schneider</li> </ul>	<ul style="list-style-type: none"> <li>• Low fuel level alarm</li> <li>• Auto Fuel Pump</li> <li>• T Valve</li> </ul>	<ul style="list-style-type: none"> <li>• Lub oil heater</li> <li>• Temp.-sensor</li> <li>• Oil drain Pump</li> </ul>	<ul style="list-style-type: none"> <li>• Elec.coolant Heater</li> </ul>

# 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.**