

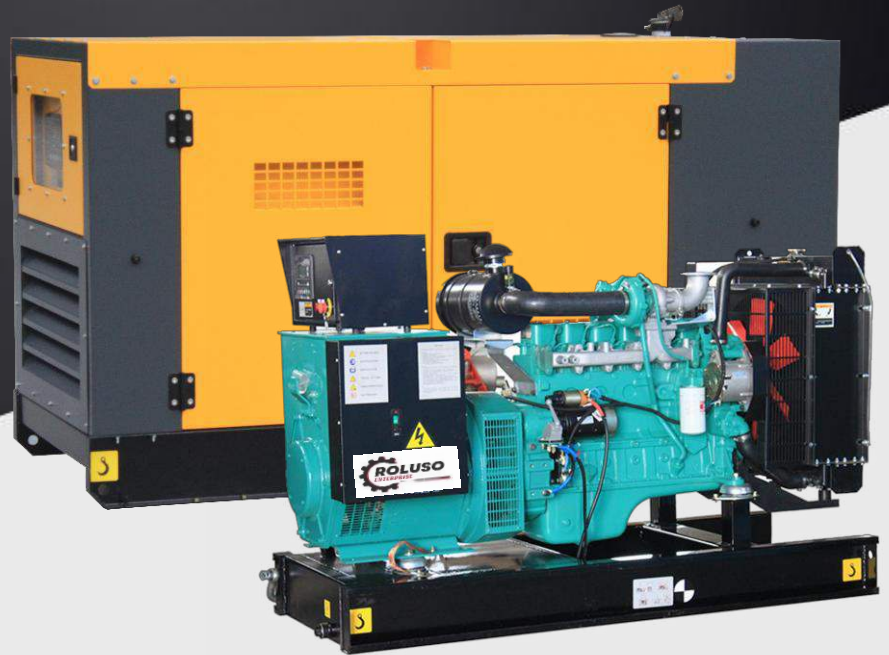
ROLUSO ENTERPRISE Cummins Series

Product introduction



Model AC110 Generator set

100KVA/80KW



Roluso Enterprise

General Performance Data

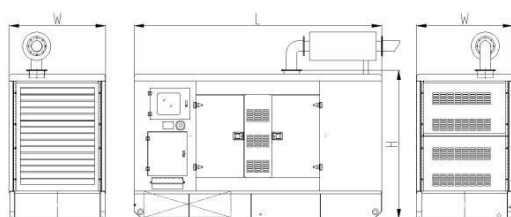
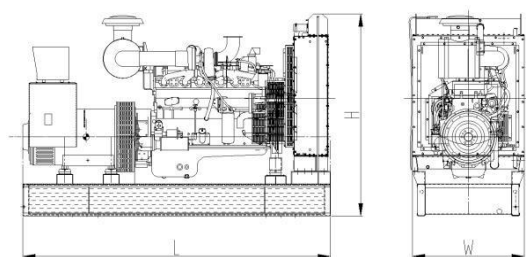
| | | | | |
|--------------------------|--------------|---------------------|--------------|-----------|
| Prime Power | 100KVA/80KW | Engine | Brand | Cummins |
| Stand by Power | 110KVA/88KW | | Model | 6BT5.9-G2 |
| Frequency/Speed | 60Hz/1800rpm | Control module | Deepsea 6120 | |
| Rated Power Factor(cosφ) | 0.8 | Rated Current | 262A | |
| Standard Voltage | 127V/220V | Capacity of Breaker | 315A | |
| Phases | 3 | Starting Voltage | DC24V | |

Fuel consumption

| Rated output | Fuel consumption rate | |
|--------------|-----------------------|-----------|
| | 100%Standby | 235g/KW.h |
| 100%Prime | 235g/KW.h | 28.5L/h |
| 75%Prime | 228g/KW.h | 20.7L/h |
| 50%Prime | 238g/KW.h | 14.4L/h |
| 25%Prime | 297g/KW.h | 9.0L/h |

Standards followed

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



Dimensions and Weights

| Type | Open | Silent |
|---------------------------|------|--------|
| Length(mm) | 2070 | 2900 |
| Width(mm) | 800 | 1100 |
| Height(mm) | 1450 | 1800 |
| Weight(kg) | 1150 | 1700 |
| Base fuel tank volume (L) | 170 | 170 |

Engine specification

Basic parameter

| | |
|-------------------------------|---------------------------|
| Manufacturer | dongfeng Cummins |
| Model | 6BT5.9-G2 |
| No. of cylinder | 6 |
| Type | 4 cycle, Vertical In-line |
| Prime Power | 100kw /133HP |
| Standby Power | 110kw /147HP |
| Induction system | Turbocharged |
| Governor | Electronic speed |
| Bore x Stroke | 102x120mm |
| Displacement | 5.9L |
| Compression ratio | 17.3:1 |
| Oil Capacity(Total) | 16.4L |
| Coolant Capacity(Engine only) | 7.9L |
| Cranking Motor Voltage | DC24V |

Fuel System

| | |
|--|------------------------|
| Type Injection system | BYC Type A inline pump |
| Min. Allowable flow of fuel to fuel pump | 31.3 L/h |

Lubrication system

| | |
|------------------------------------|-------------|
| Oil Pressure | |
| ---Idle speed | 207kPa |
| ---Rated speed | 345kPa |
| Max. allowable oil temperature | 121°C |
| Offset sump oil capacity: low/high | 14.2 /12.3L |
| Total system capacity | 16.4L |

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 | 7.9L |
| ---Total system | 22.4 L |
| ---With heat exchanger | 14.5L |
| 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 | 400 |
| --- 0°C(32°F) to 10°C(50°F)- 0°F CCA | 400 |
| ---18°C(0°F) to 0°C(32°F)- 0°F CCA | 400 |
| Max. allowable resistance of Starting circuit | 0.002ohm |
| Starter(heave,Anode) | DC24V |
| Battery recharge system, negative ground | 40ampere |

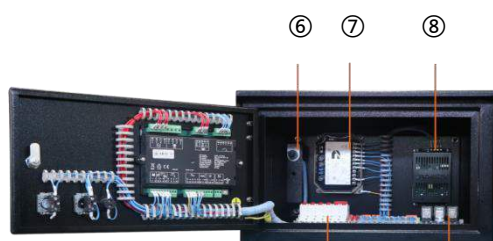
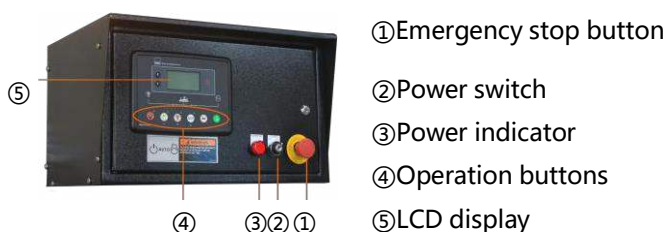
Alternator specification

| | | | |
|------------------------|------|-------------------|---------------------|
| Phases | 3 | Coating | Vacuum impregnation |
| Poles | 4 | Insulation class | 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



- ⑥ Voltage and frequency trimmer
- ⑦ Governor
- ⑧ Charger
- ⑨ MCB
- ⑩ Relay

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

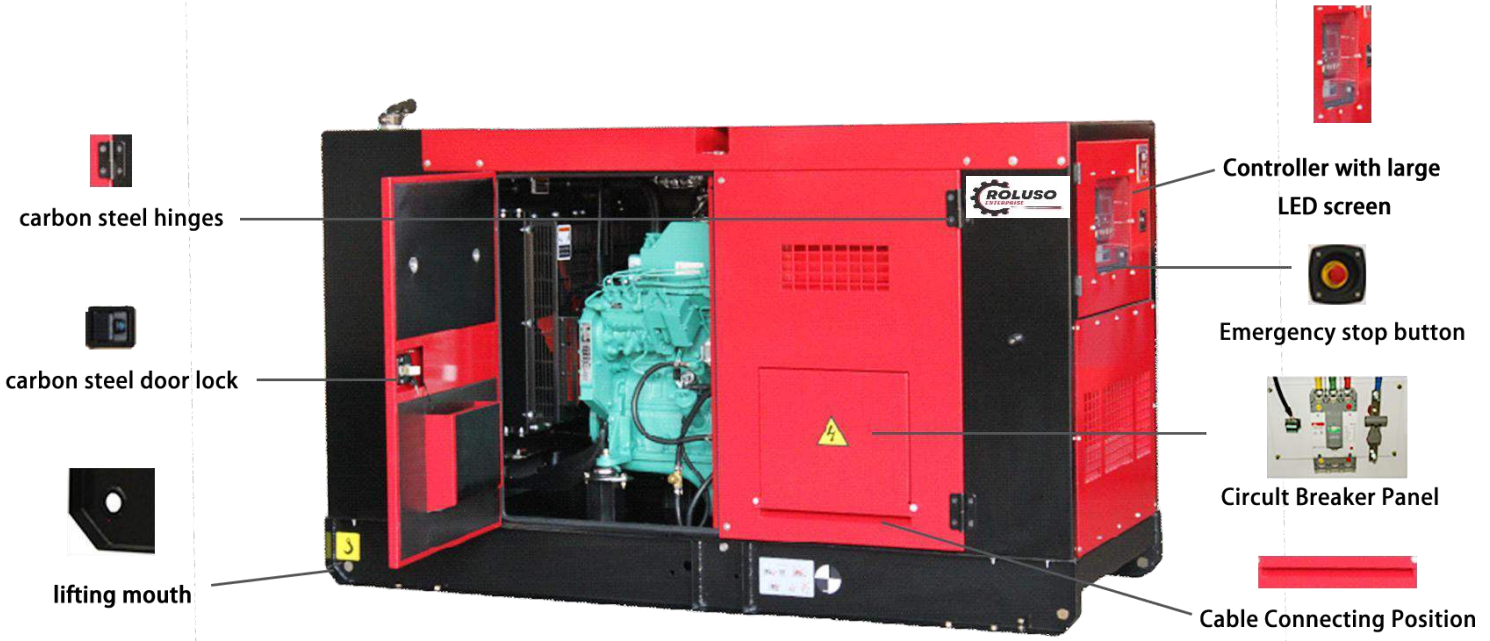
Soundproof Canopy Introduction:

Silent Type :

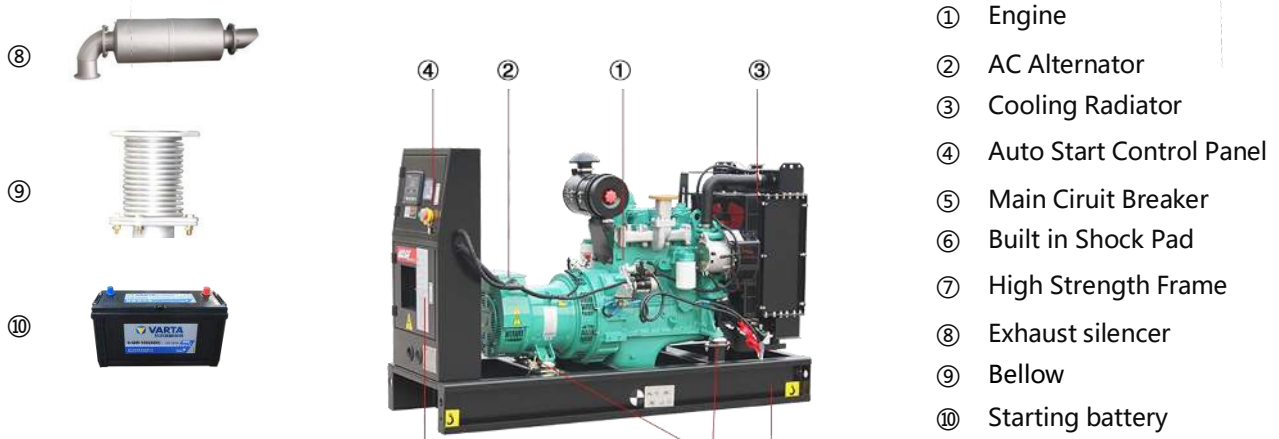
- The vertical angle structure makes the appearance beautiful
- High quality coating powder, chemical surface treatment & 100-120um coating thickness greatly improving the anti-corrosion and anti rust level
- carbon hinge & door lock are beautiful and anti-rust
- 1.8mm cold rolled plate used makes the body more solid
- The bottom forklift and loading port design enables easy loading and unloading
- 180° revolvable and disassemble door for easy maintenance.
- 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
- The built-in base fuel tank with fuel filler set on the shell facilitates refueling
- Emergency stop button mounted on the canopy exterior for urgency.



Decomposition diagram introduction of Typical Canopy



Standard supply scope:



- ① Engine
- ② AC Alternator
- ③ Cooling Radiator
- ④ Auto Start Control Panel
- ⑤ Main Circuit Breaker
- ⑥ Built in Shock Pad
- ⑦ High Strength Frame
- ⑧ Exhaust silencer
- ⑨ Bellows
- ⑩ Starting battery

Optional supply scope:

| Genset | Engine | Alternator | Control system |
|---|---|--|---|
| <ul style="list-style-type: none"> ● Tool box ● Base fuel tank ● External daily fuel tank ● Trailer | <ul style="list-style-type: none"> ● Fuel heater ● Fuel and water separator | <ul style="list-style-type: none"> ● Temp. detector for winding and bearing ● PMG ● Antirust, mildew and salt fog treatment ● Anti condensation heater | <ul style="list-style-type: none"> ● ATS ● Synchronization System ● Adjustable earth relay |
| Breaker | Fuel system | Lub-oil system | Cooling system |
| <ul style="list-style-type: none"> ● ABB ● Schneider | <ul style="list-style-type: none"> ● Low fuel level alarm ● Auto Fuel Pump ● T Valve | <ul style="list-style-type: none"> ● Lub oil heater ● Temp.-sensor ● Oil drain Pump | <ul style="list-style-type: none"> ● Elec.coolant Heater |