

Model AC83 Generator set

75KVA/60KW



General Performance Data

Prime Power	75KVA/60KW
Stand by Power	83KVA/66KW
Frequency/Speed	60Hz/1800rpm
Rated Power Factor(cosφ)	0.8
Standard Voltage	127V/220V
Phases	3

Engine	Brand	Cummins
	Model	4BTA3.9-G2
Control module	Deepsea 7120	
Rated Current	197A	
Capacity of Breaker	225A	
Starting Voltage	DC24V	

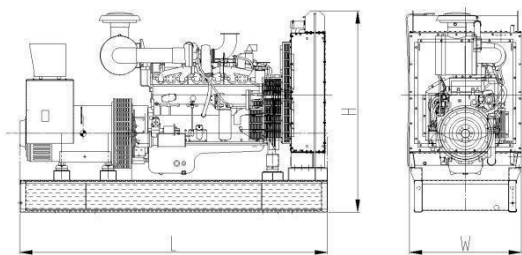
Fuel consumption

Rated output	Fuel consumption rate	
	100%Standby	216 g/KW.h
100%Prime	214 g/KW.h	17.4 L/h
75%Prime	220 g/KW.h	13.4 L/h
50%Prime	233 g/KW.h	9.5 L/h
25%Prime	298 g/KW.h	6.1 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)	1980	2450
Width(mm)	750	1000
Height(mm)	1350	1570
Weight(kg)	950	1400
Base fuel tank volume (L)	125	125

Engine specification

Basic parameter

Manufacturer	dongfeng Cummins
Model	4BTA3.9-G2
No. of cylinder	4
Type	4 cycle, Vertical In-line
Prime Power	67kw /90HP
Standby Power	74kw /99HP
Induction system	Turbocharged & Aftercooled
Governor	Electronic speed
Bore x Stroke	102x120mm
Displacement	3.9L
Compression ratio	18.0:1
Oil Capacity(Total)	10.9L
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	19.4 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	20.8 L
---With heat exchanger	13.6L
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

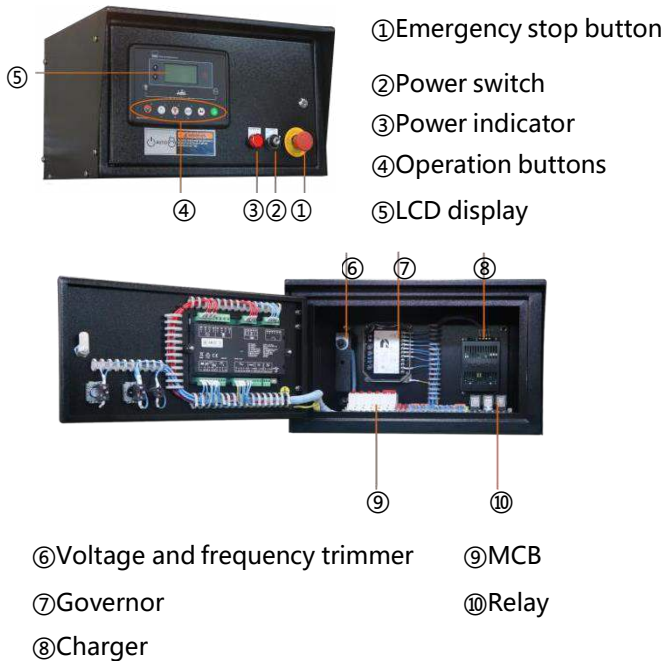
Phases	3
Poles	4
Power factor(cosφ)	0.8
Winding connection	Star
Winding pitch	2/3
Voltage regulator type	AVR

Coating	Vacuum impregnation
Insulation class	H
Protection	IP23
Excitation system	Self-excited
Bearing	Single Bearing
Coupling	Flexible disc

Control system Introduction

Deepsea 7120 Auto start & auto mains failure control panel

Deepsea 7120 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 includes 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

Soundproof Canopy Introduction:

Silent Type:

- The vertical angle structure makes the appearance beautiful

- The drainage outlets are all connected to the outside for easy operation

- High quality coating powder, chemical surface treatment & 100-120um coating thickness greatly improving the anti-corrosion and anti rust level

- The sufficient air in & out design ensure long-term and stable operation of the unit

- carbon hinge & door lock are beautiful and anti-rust

- Isolation net is designed for air inlet, exhaust outlet and muffler outlet to prevent objects from entering the unit

- 1.8mm cold rolled plate used makes the body more solid

- High density foam used inside effectively reduces noise

- The bottom forklift and loading port design enables easy loading and unloading

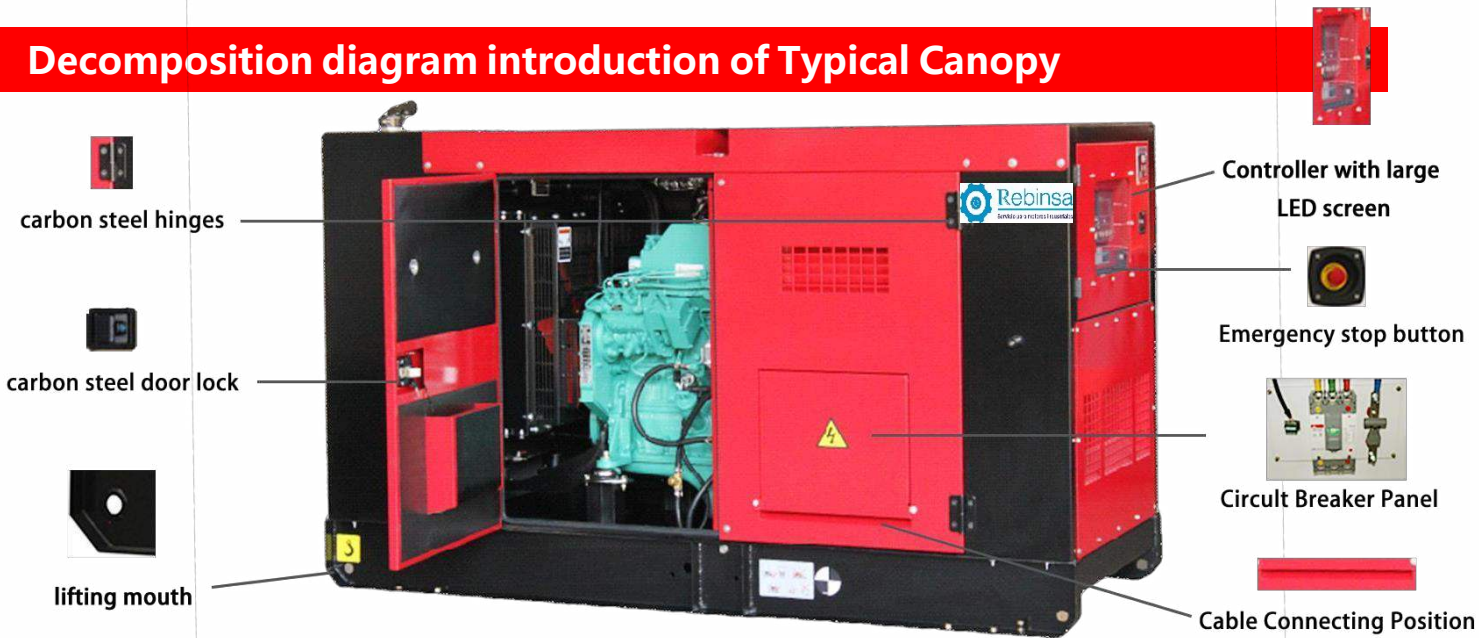
- The built-in base fuel tank with fuel filler set on the shell facilitates refueling

- 180° revolvable and disassemble door for easy maintenance.

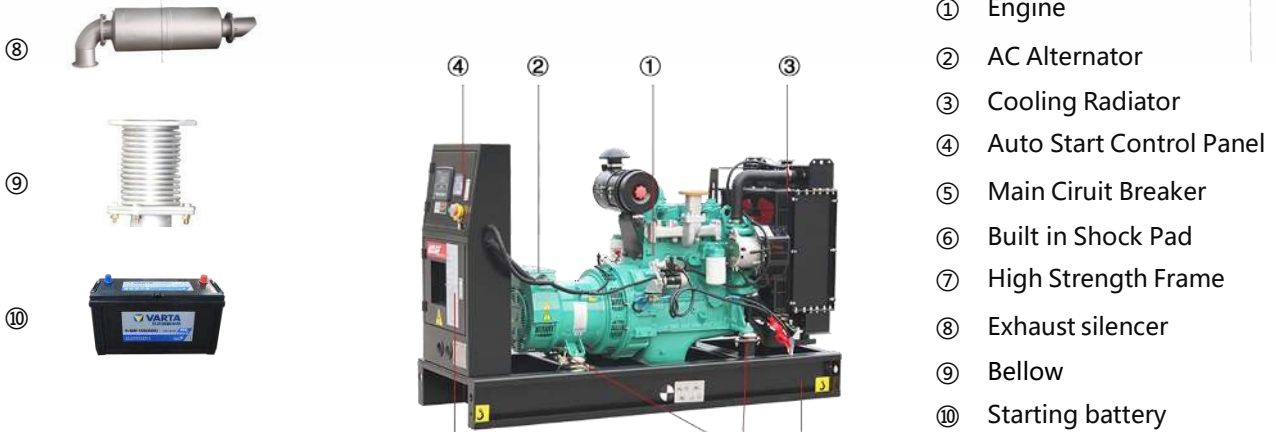
- Emergency stop button mounted on the canopy exterior for urgency.



Decomposition diagram introduction of Typical Canopy



Standard supply scope:



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