

TECHNICAL DATA

DIESEL GENERATING SET

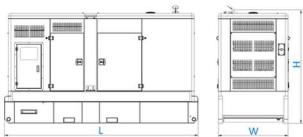
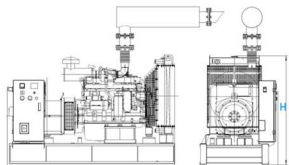


60HZ

Photos are for reference only

Features

- Compact structure & high-strength chassis
- Easy for operation and maintenance
- Good performance anti-vibration system
- Compliance with international electrical safety standards
- 8 hours base tank
- High-performance free-maintenance batteries with isolatio switch
- 50°C radiator
- Top lifting point, Forklift holes, easy for transportation.
- Industrial type muffler
- Noise reduction structure, Low overall noise
- Convenient power output interface and ATS Interface
- IP56 (control system)
- The customized design



Dimension and Weight

Generating set model	DG86CS-1	
Length(L) (mm)	3200	
Width(W) (mm)	1143	
Height(H) (mm)	1730	
Dry weight (kg)	1946	
Tank capacity (L)	300L	

Genset Technical Data

Output frequency	60 HZ
Rated speed	1800 rpm
Prime power	86KW
Standby power	94KW
Rated voltage	120V/240V
Phase	1 (2)
Engine model	6BT5.9-G2
Alternator model	UCI 274C
Fuel consumption of 100% load	22.8Litres/h
Fuel consumption of 75% load	17.6 Litres/h
Voltage regulation rate	±1%
Random voltage variation	±1%
Frequency regulation rate	±5%
Random frequency variation	±0.5%

Engine Specifications

Engine model	6BT5.9-G2
Engine manufacturer	Cummins
Number of cylinders	4
Cylinder arrangement	In-line
Cycle	Four stroke
Aspiration	Turbocharged & Charge Air Cooled
Bore x Stroke	102 x 120mm
Displacement (Liter)	4.5
Compression Ratio	17.3:1
Prime power/speed (kW/RPM)	100KW/1800rpm
Standby power/speed (kW/RPM)	110KW/1800rpm
Speed governor	Electrical
Cooling system	Forced Water Cooling Cycle
Steady speed droop (%)	≤1%
Total lubrication system capacity	16.4 L
Coolant capacity (engine only)	9.9L
Fuel consumption at 100% load (g/kWh)	235g/kw.h (at 1800RPM)
Starter motor	DC12/24V
Alternator	DC12/24V

Alternator Specifications

Rated frequency	60 Hz
Rated speed	1800 rpm
Alternator model	UCI274C
Rated output prime power	108kVA
Efficiency (%)	91%
Phase	3
Rated voltage	120V /240V
Exciter type	Self excited, Brushless
Power factor	0.8
Voltage adjust range	±5.0%
Voltage regulation NL-FL	±1.0%
Insulation grade	H
Protection grade	IP23
Xd DIR. AXIS SYNCHRONOUS	1.93
X'd DIR. AXIS TRANSIENT	0.15
X''d DIR. AXIS SUBTRANSIENT	0.09
Xq QUAD. AXIS REACTANCE	0.89
X''q QUAD. AXIS SUBTRANSIENT	0.10

Control System

DSE-7320

DSE-7320 is an advanced control module based on micro-processor, It is an Auto Mains (Utility) Failure Control Module(AMF), have been designed to start and stop generating sets that include electronic And non-electronic engines. Include the additional capability of being able to monitor a mains (utility) supply. when main is not available, It can automatically start the engine and close generating sets breaker automatically, Accurately measure various operational parameters and display all values and alarms information on the LCD. In additional, it can automatically open breaker, and shutdown the engine after the main supply recovers.

Main Features

- AMF and ATS and communication and expansion function
- Designed to work with electronic or non-electronic or gas engine simultaneously. (support many kinds of engines ECU).
- Manual, Automatic, Test and remote control mode selectable.
- Monitoring and measuring operational parameters of the mains supply and genset.
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections and multiple parameters display.
- Includes 12 inputs and 8 outputs. 8 inputs are configurable and 6 outputs are configurable.
- Can be programmed using the front panel or by using the PC software.
- Support twelve languages. The language was edited by customer.
- Graded protection: pre-alarm, shutdown and electrical trip, flexible setting.
- The module can be pre-set for four operating modes and protecting parameters.
- Add DSE890 module, internet network monitoring can be realized.
- The firmware can be updated automatically, so customer can have the latest version.



The control module display

- Generator voltage
- Generator frequency
- Battery voltage
- Engine speed
- Load current
- Generator KVA, KW, PF
- Engine run-time Hours
- Engine oil pressure
- Engine coolant temperature
- Real time clock for time and date, overall runtime

Optional

Engine

- Water Jacket Preheater
- Fuel-water separator
- Oil pump
- Oil preheater
- Battery preheater

Alternator

- PMG excitation
- Space heater
- Winding Temperature Measuring

Generator Set

- Tools with the machine
- Coolant (-30°C)

Control System

- AMF function
- ATS control cabinet
- Double-frequency and double voltage
- Single phase
- ABB MCCB

Fuel System

- 12 / 24 hour base tank (single wall)
- Dual wall base fuel tank
- Outside fuel tank
- Automatic fuel feeding
- Fuel level indicate

Canopy

- Hired type
- Economy Oil heater
- Trailer