

## Diesel Generator Set RCS40



Photos reference only

### Genset Technical Data

Prime power	40kVA/32kW
Standby power	44kVA/35kW
Rated speed	1500 RPM
Output frequency	50 Hz
Phase	3
Rated voltage	400 V
Engine model(Cummins)	4BT3.9G2
Alternator model(Stamford)	PI 144J
Fuel consumption of 100% load	8 L/h
Fuel consumption of 75% load	6 L/h
Voltage regulation rate	≤±1%

#### Prime Power

This rating is for the supply of continuous electrical power (at variable load). There is no limit on the annual hours of operation and 10% overload power can be supplied for 1 hour in 12.

#### Standby power

This rating is for the supply of continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted.

#### Rated voltage

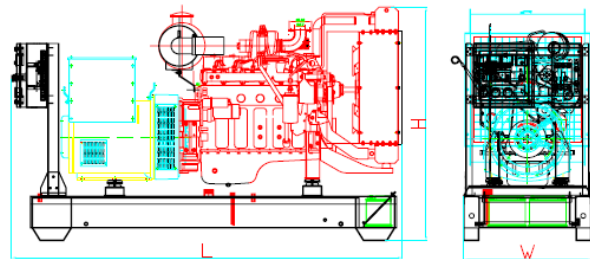
Subject to customer requirement

### Advantages

- ✓ High quality, reliable and complete power unit
- ✓ Compact design
- ✓ Easy start and maintenance possibility
- ✓ Every generating set is subject to a comprehensive test program which includes 50%, 75%, 100%, 110% load testing, checking and provision of all control and safety shut down functions testing
- ✓ The 24V high performance maintenance-free lead-acid starting battery including Rack and Cables
- ✓ Industrial capacity exhaust silencer and flexible exhaust hose
- ✓ With Chint Moulded Case Circuit Breaker (Up to 1250A)
- ✓ Packing: be secured with polythene dust cover

### Dimension and Weight

Length (L)	mm	1850
Width (W)	mm	850
Height (H)	mm	1250
Weight	kg	840
Tank capacity	L	160



### Chassis

- ✓ The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- ✓ Anti-vibration pads are fixed between the engine/alternator feet and the base frame
- ✓ Base frame design incorporates an 8-hours integral fuel tank
- ✓ The generator set can be lifted or carefully pushed / pulled by the base frame
- ✓ Dial type fuel gauge and drain plug on the fuel tank

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We reserve the right to change products' model and dimension at any time, without prior notice.

## Engine

Engine manufacturer		Cummins
Engine model		4BT3.9-G2
Emissions statement		---
Number of cylinders		4
Cylinder arrangement		Vertical in-line
Cycle		Four stroke
Aspiration		Turbocharged
Bore×Stroke	mm×mm	102 x 120
Displacement	Liter	3.9
Compression Ratio		17.3:1
Prime power/speed	kW/RPM	36/1500
Standby power/speed	kW/RPM	40/1500
Speed governor		Electrical
Cooling system		Forced Water Cooling Cycle
Steady speed droop	%	≤1%
Total lubrication system capacity	L	10.9
Coolant capacity (engine only)	L	7.2
Fuel consumption at 100% load	g/kWh	214 (at 1500RPM)
Starter motor & Alternator		DC24V

## Alternator

Design	Brushless, single bearing, flexible disc
Protection grade	IP23
Alternator cooling	Direct drive centrifugal blower fan
Insulation grade	Class H
Standard temperature rise	125°C
Exciter type	Self-excited & AVR(Automatic Voltage Regulator)
Power factor	0.8
Rated voltage	380-415V(Subject to customer requirement)
Voltage regulation rate	≤ ± 1%

### Alternator brand option

Alternator Brand	Alternator Model	Phase	Rated Speed	Rated Prime Power(kVA)
Stamford	PI 144J	3	1500RPM	40
Leroy Somer	LSA 42.3S5	3	1500RPM	40
FARADAY	FD2A	3	1500RPM	40
Raytheon Power	WHI224C	3	1500RPM	40

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## Control System

Control supervision and protection panel is mounted on the genset base frame.  
 The control panel is equipped as follows:

### 1. Manual & Auto Start Control Panel

Panel equipment:

- ✓ The deepsea (UK original) control module
- ✓ Static battery charger
- ✓ Emergency stop push button



DSE4620

#### a) Generator set control module DSE4620 features:

- ✓ The module be utilised as a Manual or Auto Start Module for single gen-set applications
  - ✓ Back-lit LCD display
  - ✓ Remote start input
  - ✓ Hours counter provides accurate information for monitoring maintenance and warranty periods
  - ✓ Full engine monitoring and protection
  - ✓ The module can be programmed using the front panel or by using the DSE Configuration Suite PC software
  - ✓ 4 customizable Digital Inputs
  - ✓ 4 customizable Outputs
  - ✓ Easy push button control
- STOP/RESET -MANUAL –AUTO START

#### b) Parameters via LED display:

- ✓ Generator Volts (L-N)
- ✓ Generator Frequency (Hz)
- ✓ Engine speed
- ✓ Engine run time
- ✓ Battery volts

#### c) Parameters display via the pointer instruments:

- ✓ Generator Ampere (L1,L2,L3)
- ✓ Engine oil pressure
- ✓ Engine water temperature

#### d) Alarms & Auto shutdown protect:

- ✓ Over and Under Speed
- ✓ Low and High Battery Volt
- ✓ Engine start failure
- ✓ Charge fail
- ✓ Over Current
- ✓ Under / Over Generator Voltage
- ✓ Low Oil Pressure
- ✓ Emergency stop
- ✓ High engine temperature

### 2. Power Outlet Terminal Board Mounted on the Gen-set Base Frame

### The control modules option :



HGM6120



DSE7320



DSE8610

Remarks: For the specific and detailed features of the above types, please refer to “Control System Selection” file.

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## Generator Set Options and Accessories

### Generator set

- Silent generator set
- Trailer generator set
- Single phase generator set
- ABB MCCB circuit breaker

### Fuel system

- 12 hour base tank(single wall)
- 24 hour base tank(single wall)
- Dual wall base fuel tank
- Outside fuel tank

### Exhaust system

- Residential exhaust silencer

### Alternator

- PMG excitation
- Space heater

### Low environment temperature

- Water heater
- Oil heater
- Battery heater

### Control system

- AMF function
- ATS control cabinet
- Multiple generator automatic paralleling

## Contact Us

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