R4 Raytheon Power 雷天动力设备 (苏州) 有限公司

RAYTHEON POWER MACHINERY (SUZHOU) CO., LTD

Diesel Generator Set RCS60



Photos reference only

Genset Technical Data

Prime power	60kVA/48kW
Standby power	66kVA/53kW
Rated speed	1500 RPM
Output frequency	50 Hz
Phase	3
Rated voltage	400 V
Engine model(Cummins)	4BTA3.9-G2
Alternator model(Stamford)	UCI 224E
Fuel consumption of 100% load	12 L/h
Fuel consumption of 75% load	9 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

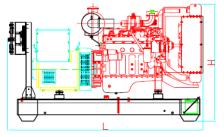
Subject to customer requirement

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
- ✓ 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	920
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-houres 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

Raytheon Power, your best global power partner

RAYTHEON POWER MACHINERY (SUZHOU) CO., LTD

Engine

Engine manufacturer		Cummins	
Engine model		4BTA3.9-G2	
Emissions statement			
Number of cylinders		4	
Cylinder arrangement		Vertical in-line	
Cycle		Four stroke	
Aspiration		Turbocharged & Aftercooled	
Bore×Stroke	mm×mm	102 x 120	
Displacement	Liter	3.9	
Compression Ratio		17.3:1	
Prime power/speed	kW/RPM	50/1500	
Standby power/speed	kW/RPM	55/1500	
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	8.3	
Fuel consumption at 100% load	g/kWh	213 (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	UCI 224E	3	1500RPM	60
Leroy Somer	LSA 43.2L8	3	1500RPM	64
FARADAY	FD2C	3	1500RPM	60
Raytheon Power	WHI224E	3	1500RPM	60

Raytheon Power, your best global power partner

R4 Raytheon Power 雷天动力设备(苏州) 有限公司

RAYTHEON POWER MACHINERY (SUZHOU) CO., LTD

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

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

DSE4620

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.

Raytheon Power, your best global power partner

RAYTHEON POWER MACHINERY (SUZHOU) CO., LTD

Generator Set Options and Accessories

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

RAYTHEON POWER MACHINERY (SUZHOU) CO., LTD

ADDRESS: No.599, Laixiu Road, Fenhu Economic Zone, Suzhou City,

Jiangsu Province, China

Tel: +86 21 52686721 Fax: +86 21 62772219

Email: <u>info@raytheonpower.com</u>
Web site: <u>www.raytheonpower.com</u>

DISTRIBUTED BY:		

©2013 by Raytheon Power, all right reserved.