

PCC390B

Prime Power: 280KW/350KVA

Standby Power: 310KW/388KVA

Voltage: 400V

Powered by Cummins QSM11-G4 Engine

Genset Performance

- 230/400V, 50Hz, 0.8PF, 3 Phases 4 wires
- Frequency drop $\leq 3\%$
- Voltage regulation $\leq 0.3\%$
- The steady state frequency $\leq 0.5\%$
- The steady state voltage deviation $\leq \pm 1\%$
- The transient frequency deviation $\leq +10\%$ $\leq -15\%$
- The transient voltage deviation $\leq +20\%$ $\leq -15\%$
- Frequency recovery time $\leq 3S$
- Voltage recovery time $\leq 1S(\text{Voltage} \pm 3\%)$
- THF (Telephone Harmonic Factor) < 3
- TIF (Telephone Influence Factor) < 50
Comply to Standard NEMA MG1-22.43
- Built-in vibration isolator with high performance on shock absorption.

Standard Configuration

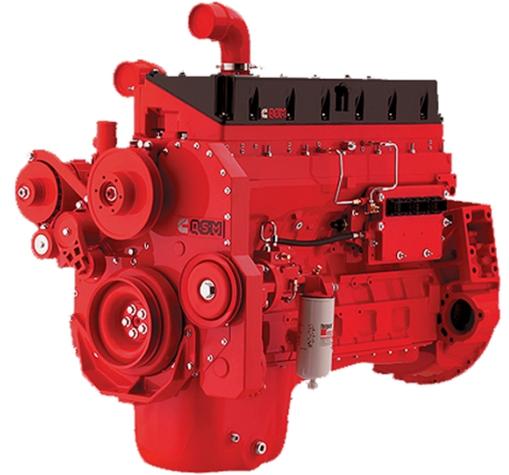
- Cummins Engine
- Brushless synchronous alternator
- POWERTEC intelligent controller
- 40°C standard ambient temperature
(50°C Optional)
- Circuit breaker (3P)
- Float battery charger
- Battery connect wire
- Steel base frame
- Silencer, bellows, exhaust bend
- Manual book and files

Optional Items

- Starting batteries
- Fuel tank
- Oil-water separator
- Sensor for low coolant level, low fuel/oil level
- Automatically monitoring & controlling system of city power
- Coolant heater
- Oil heater
- Heat exchanger--Water cooled tower system
- Soundproof canopy
- Trailer
- Design and construction of environmental protection engineering for the Genset room

Diesel Engine

- ◆ **Model: QSM11-G4**
- ◆ **Structure:** Using high-strength and tensile forged steel crankshaft, new anti-wear bearing shaft diameter and camshaft, highly integrated modular design, the number of parts is reduced by 30%, greatly reducing the failure rate.
- ◆ **Intake and exhaust:** Cummins Holset HX55 turbocharger is selected. Its wastegate valve can automatically adjust the air flow as needed to achieve four-level control within the speed range, which is suitable for high-rated power engines.
- ◆ **Cooling system:** forced water cooling by gear centrifugal water pump, large flow water channel design, good cooling effect; spin-on water filter and special DCA additive can effectively prevent rust and cavitation, control coolant acidity and remove impurities.
- ◆ **Fuel system:** Adopts Cummins XPI ultra-high pressure common rail fuel injection system and CTT high-flow turbine The supercharger, combined with Cummins' advanced power cylinder design and electronic control system, greatly reduces fuel consumption and ensures excellent fuel economy of the engine in different working conditions and applications.
- ◆ **Technology introduction:** QSM11-G fully electronic engine control system does not require the electronic fuel control governor (including speed sensor, governor control device, actuator and other installation parts) required for mechanical generator sets, greatly simplifying matching needs, and is perfectly combined with the most commonly used generator set controller in China. It has five core engine technologies (filtration system, fuel system, electronic control system, turbocharging system, and combustion optimization system) to help generator set products achieve economical, The perfect combination of power and emissions performance.



Alternator

- **Optional brands: Stamford / Marathon / Faraday / Engga / Mecc Alt**
- Brushless, 4 pole rotating magnetic field, single bearing with protective cover.
- Insulation: H Class.
- IP Class: IP23
- Cooling system
- AC exciter, rotate rectifying
- Rotor and exciter made with high temperature insulating resin, to satisfy tough environment.
- Rotor dynamic balancing complies for BS5625, class 2.
- Sealed with advanced lubricating grease to prolong life of bearing.



Standard

- 3 phases voltage: U_a, U_b, U_c
- Frequency F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature °C display
- Oil pressure OP
- Engine speed
- 3 phases current: I_a, I_b, I_c
- Active power PA
- Power factor PF
- Temperature °C display
- KPa/Psi/Bar display
- Battery voltage V
- Running Hour
- Starting timer:(999999)



Standard Protection

Genset Protection

- Programmable I/O signal
- Emergency stop

Engine Protection

- Stop for over speed
- Low oil pressure
- High Coolant temperature
- Sensor fail
- Alarm for low/high battery voltage
- Low battery voltage
- Fail to start/Cranking fail

Alternator Protection

- Over Voltage
- Over current
- Voltage signal lost
- Over Voltage
- Over frequency
- Under frequency

Control System Components

- Manual/auto/stop/start
- Setting button
- Fault status indicators
- Screen menu selection button
- Emergency stop button
- Digital displayer



Communication Interface (Option)

- International standard MODBUS communication protocol RS232/ RS485 is suitable for remote control and monitor; It is easy integrated with SCADA;.

Genset

Model	PCC390B
Prime Rating (kw)	280
Standby Rating (kw)	310
Rate current(A)	505
Power factor	0.8
Frequency(Hz)	50

Engine

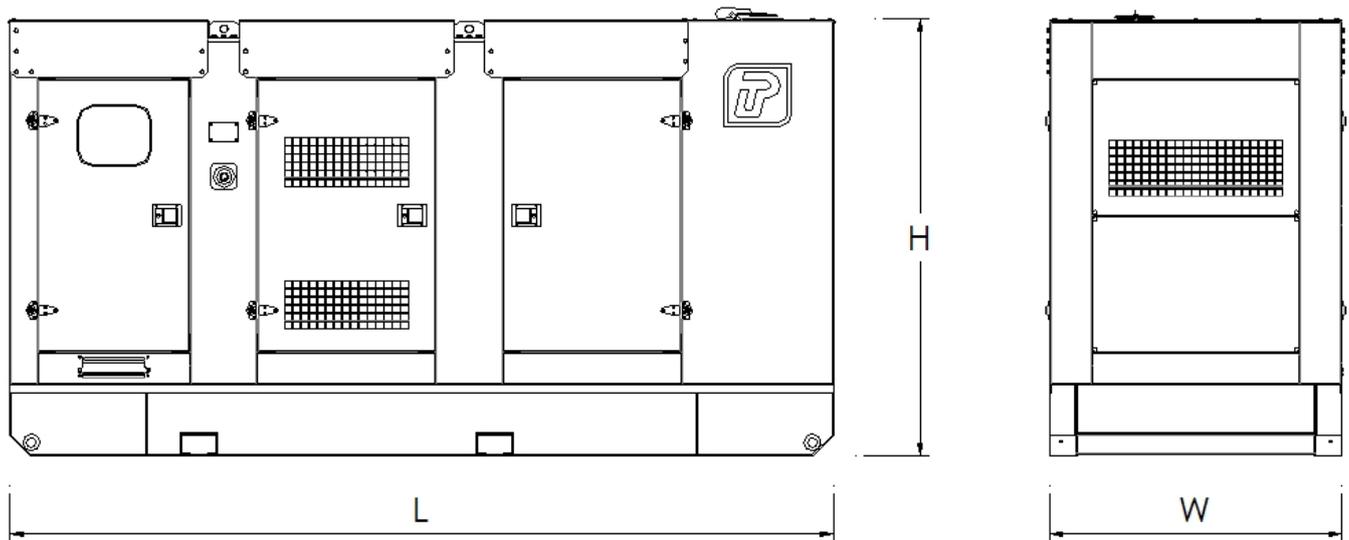
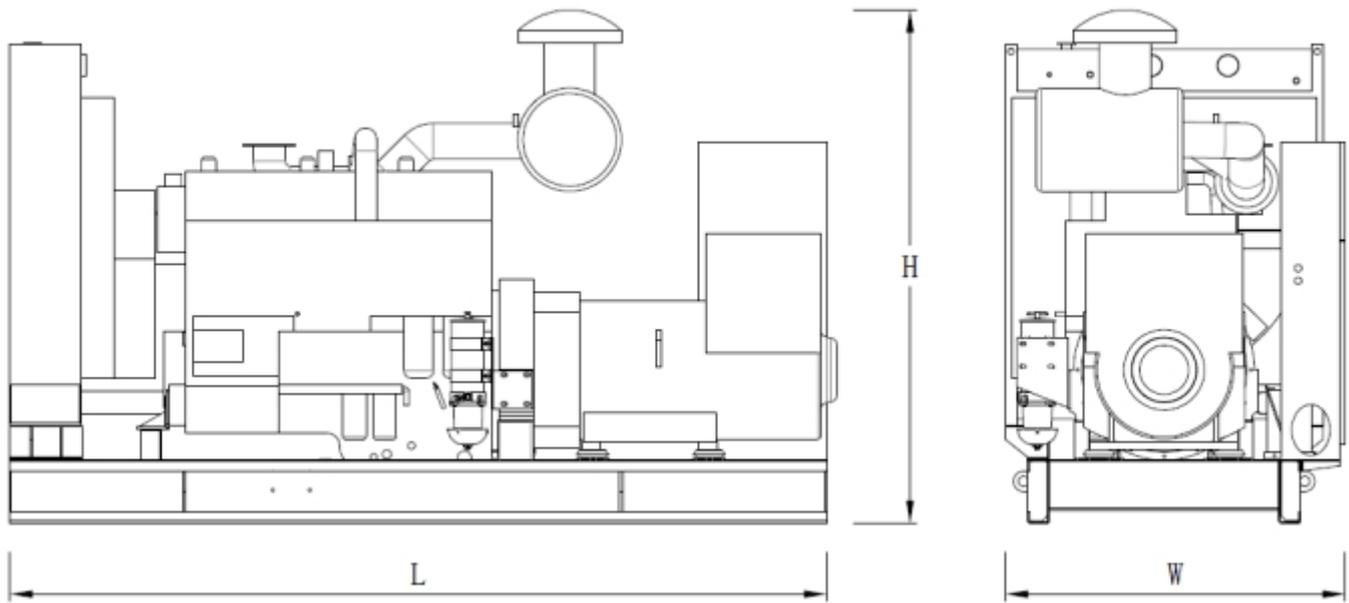
Engine Model	QSM11-G4
Gross Engine output-Prime (kw)	318
Gross Engine output-Standby (kw)	350
Bore * stroke (mm)	125*147
Cylinders and structure	6 In line
Displacement(Liter)	10.8
Compression Ratio	16.2:1
Intake way	Turbocharged and Charge Air Cooled
Max intake resistance (KPa)	6.2
Air intake (m3/h)	1566
Max exhaust back pressure (KPa)	10
Exhaust gas flow (m3/h)	3866
Exhaust temp (°C)	504
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	700
Coolant capacity (L)	66
Highest water temperature(°C)	104
Minimum air opening to room (m2)	2.5/2.0
Thermostat range (°C)	82-93
Max oil temperature (°C)	135
Lubrication system oil capacity (L)	36.7
Rate load fuel consumption(L/H)	78.68
Standard Governor/Class	Celect
Emission Certification	China Tier 3

Alternator

Rated Voltage(V)	230/400
Output Way	3 Phases, 4 wires
Rated power factor	0.8
Exciter	Brushless, Self-exciter
Max voltage regulation	±1%
Phase	3
Protection class	IP21-23
Insulation class	H

Controller

Brand	POWERTEC
-------	----------



Type	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	3250*1301*1815	2950	-
Silent Type	3950*1400*2115	4350	750

Contact Us

Powertec Generator System Inc.

Add: Danshui Yanna Industry Zone, Huiyang, Huizhou, Guangdong, China
Tel: +86 752-3911119 / 3911118
Fax: +86 752-3911110
Web: www.powertec.com.cn
Email: powertec@powertec.com.cn