



## PCC1375B

Prime Power: 1000KW/1250KVA Standby Power:1100KW/1375KVA Voltage: 400V

Powered by Cummins QSK38-G5 Engine

## Genset Performance

- 230/400V, 50Hz, 0.8PF, 3 Phases 4 wires
- Frequency drop ≤3%
- Voltage regulation ≤0.3%
- The steady state frequency ≤0.5%
- The steady state voltage deviation  $\leq \pm 1\%$
- The transient frequency deviation ≤+10% ≤-15%
- The transient voltage deviation ≤+20% ≤-15%
- Frequency recovery time
- Voltage recovery time ≤1S(Voltage±3%)

≤3S

- THF (Telephone Harmonic Factor) <3
- TIF (Telephone Influence Factor) <50</li>
   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)
- Float battery charger
- Battery connect wire
- Steel base frame
- Silencer, bellows, exhaust bend
- Manual book and files

## **Optional Items**

- Starting batteries
- Fuel tank
- circuit breaker
- 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
- Trailer
- 20GP or 40HQ container type canopy
- Design and construction of environmental protection engineering for the Genset room

1 / 5 PGS: PCC1375B 12/2023

# **Equipment Instruction**



## **Diesel Engine**

- Model: QSK38-G5
- Structure: Replaceable wet cylinder liner, good heat dissipation effect, easy to replace; all model parts have strong versatility, high degree of serialization, and easy maintenance; both the cylinder block and cylinder head adopt built-in pressure lubrication oil passages, with compact structure and easy to troubleshoot Low rate.
- 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: Using the world's leading high-pressure common rail fuel system and fully electronic control module, ultra-high fuel injection pressure。
- Lubricating oil system: pre-lubrication system, Centriguard centrifugal filter and CENTINEL continuous oil renewal system, two-stage combined Fleetguard oil filter, which can obtain a longer maintenance cycle and reduce the engine startup failure rate。
- The improved combustion chamber shape allows the engine to achieve excellent emission levels without the need for post-processing, and has passed China's non-road stage three emission certification.
- The engine may be operated at : 1800 RPM up to 7200 ft. (2200 m) and 104 ° F (40 °C) without power deration. 1500 RPM up to 3600 ft. (1100 m) and 104 ° F (40 °C) without power deration. For sustained operation above these conditions, derate by 8% per 1,000 ft.(300 m), and23% per 18 ° F (23% per 10 °C).

## **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

Emissions compliance:

- Rotor and exciter made with high temperature insulating resin, to satify tough environment.
- Rotor dynamic balancing complys for BS5625, class 2.5
- Sealed with advanced lubricating grease to prolong life of bearing.





2 / 5 PGS: PCC1375B 12/2023

# **Intelligent Control System**



## Standard

- 3 phases voltage: Ua, Ub, Uc
- Frequency F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature °C display
- Oil pressure OP
- Engine speed

- 3 phases current: La, Lb, Lc
- 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

#### **Engine Protection**

- Stop for over speed
- Low oil pressure
- High Coolant temperature
- Sensor fail

#### **Alternator Protection**

- Over Voltage
- Over current
- Voltage signal lost

#### **Control System Components**

- Manual/auto/stop/start
- Setting button
- Fault status indicators

- Emergency stop
- Alarm for low/high battery voltage
- Low battery voltage
- Fail to start/Cranking fail
- Over Voltage
- Over frequency
- Under frequency
- 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;

3 / 5 PGS: PCC1375B 12/2023

# **Data sheet of Genset**

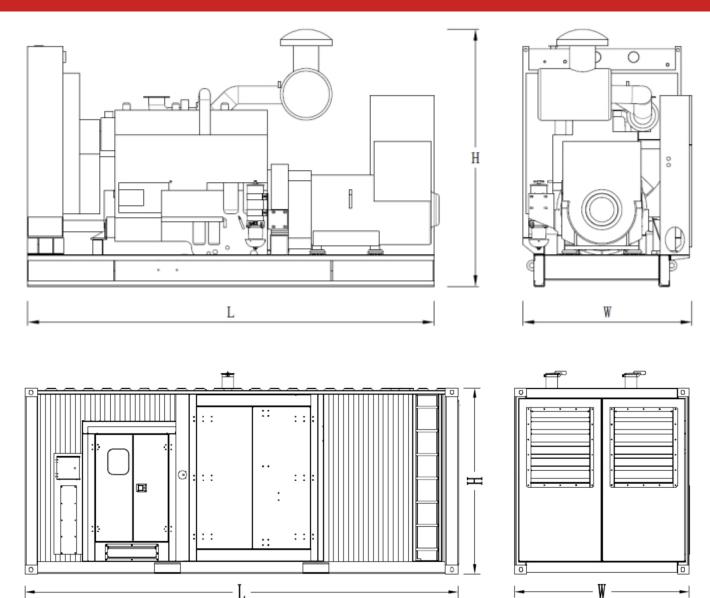


Genset				
Model PCC1375B				
Prime Rating (kw)	1000			
Standby Rating (kw)	1100			
Rate voltage(V)	400			
Rate current(A)	1804			
Frequency(Hz)	50			
Engine				
Engine Model	QSK38-G5			
Gross Engine output-Prime (kw)	1107			
Gross Engine output-Standby (kw)	1224			
Bore * stroke (mm)	159*159			
Cylinders and structure	12 Cylinder ; Vee			
Displacement(Liter)	37.7			
Compression Ratio	15:1			
Intake way	Turbocharged and Low Temp Aftercooled			
Max intake resistance (KPa)	6.2			
Air intake (m3/h)	5443			
Max exhaust back pressure (KPa)	7			
Exhaust gas flow (m3/h)	13572			
Exhaust temp (°C)	478			
Cooling way	Water Radiator & Fan			
Fan exhaust flow (m3/min)	1140			
Coolant capacity (L)	310			
Highest water temperature(°C)	96			
Minimum air opening to room (m2)	7.1/5.9			
Thermostat range (°C)	82-94			
Max oil temperature (°C)	120			
Lubrication system oil capacity (L)	170.3			
Rate load fuel consumption(L/H)	271			
Standard Governor/Class	CELECT			
Emission Certification	China Tier3			
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	Н			
Controller				
Brand	POWERTEC			

4 / 5 PGS: PCC1375B\_12/2023

# **Dimension and Weight**





Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	4900*2435*2259	8300	/
Silent Type	/	/	/

## **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

5 / 5 PGS: PCC1375B\_12/2023