



### PCC750B

Prime Power: 550KW/688KVA Standby Power: 600KW/750KVA Voltage: 400VAC Powered by Cummins QSK19-G11 Engine

## **Genset Performance**

- 230/400VAC, 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 ≤±1%
- The transient frequency deviation ≤+10% ≤-15%
- The transient voltage deviation ≤+20% ≤-15%
- Frequency recovery time ≤3S
- Voltage recovery time ≤1S(Voltage±3%)
- 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)
- Molded case 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
- 20GP or 40HQ container type canopy
- Design and construction of environmental protection
- Engineering for the Genset room

# **Equipment Instruction**



## **Diesel Engine**

- Model: Cummins QSK19-G11
- Construction: replaceable wet type cylinder block has excellent radiation. Mature standard spare parts commonly apply to other engine in this series. Cylinder block and head will have no fault with the designment of internal oil passage and compact structure
- Cooling system: Adopt gear centrifugal water pump to cool down water temperature. With large flow channel designmeng, it has good cooling performance;
- Fuel system: Cummins patented technology (PT) fuel system optimizes combustion and reduces emission;
- Environment: The engine can work normally under the following conditions without de-rating:
- A. 1800r/min engine--altitude less than 1500m (5000ft), ambient temperature less than 40 °C(104°F).
- B. 1500r/min engine--altitude less than 1310m (4300ft), ambient temperature less than 40 °C(104°F) But engine working environment conditions exceed above,

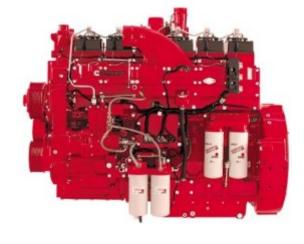
the engine output power will de-rate 4% as altitude increase each 300m(1000ft) at the altitude is higher than 1500m (5000ft),

Also it will de-rate 2% as temperature increase every 11  $^{\circ}$ C(1% de-rating ,when temperature increase each 10 $^{\circ}$ F). in the ambient temperature is higher than 40 $^{\circ}$ C(104 $^{\circ}$ F)



- 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 satify tough environment.
- Rotor dynamic balancing complys for BS5625, class 2.
- Sealed with advanced lubricating grease to prolong life of bearing.





# **Intelligent Control System**



## **Standard Meters**

- 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;.

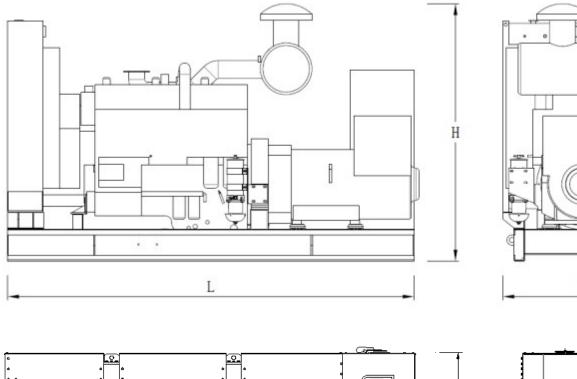
# Data sheet of Genset

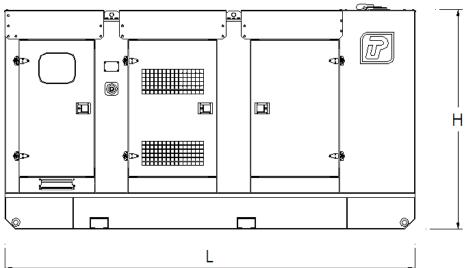


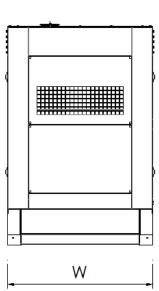
 Genset				
Model	PCC750B			
Prime Rating (kw)	550			
Standby Rating (kw)	600			
Rate voltage(V)	400			
Rate current(A)	992			
Power factor	0.8			
Frequency(Hz)	50			
Engine				
Engine Model	QSK19-G11			
Gross Engine output-Prime (kw)	606			
Gross Engine output-Standby (kw)	667			
Bore * stroke (mm)	159*159			
Cylinders and structure	6 In line			
Displacement(Liter)	18.9			
Compression Ratio	15:1			
Intake way	Turbocharged/Air-Air intercooler			
Max intake resistance (KPa)	6.2			
Air intake (m3/h)	3038			
Max exhaust back pressure (KPa)	6.8			
Exhaust gas flow (m3/h)	7639			
Exhaust temp (°C)	514			
Cooling way	Water Radiator & Fan			
Fan exhaust flow (m3/min)	1055			
Coolant capacity (L)	130			
Highest water temperature(°C)	104			
Minimum air opening to room (m2)	5.0/4.5			
Thermostat range (°C)	83-95			
Max oil temperature (°C)	121			
Lubrication system oil capacity (L)	84			
Rate load fuel consumption(L/H)	153.8			
Standard Governor/Class	Electronic			
Alternator				
Rated Voltage(V)	400/230			
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 GC7110.2			

# **Dimension and Weight**









Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	3950*1550*2100	4545	-
Silent Type	4700*1700*2450	6495	1000

## **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