



PCC715B

Prime Power: 520KW/650KVA Standby Power: 570KW/713KVA Voltage: 400V

Powered by Cummins QSK19-G4 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 ≤3S

■ Voltage recovery time ≤1S(Voltage±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



1 / 5 PGS: PCC715B_03/2025

Equipment Instruction



Diesel Engine

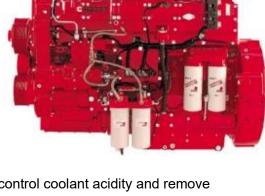
- Model: QSK19-G4
- Structure: Replaceable wet cylinder liner, good heat dissipation effect, easy to replace; all model parts have strong versatility, high degree of serialization, and easy maintenance; both the cylinder block and cylinder head adopt built-in pressure lubrication oil passages, with compact structure and easy to troubleshoot Low rate.
- Intake and exhaust: The efficient Holset exhaust gas supercharger further improves combustion; the pressure-type pulse exhaust pipe can make full use of exhaust gas energy and improve engine efficiency; intercooling tezchnology ensures better fuel economy and emissions.
- 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 theengine startup failure rate.
- Emissions compliance:

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.

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





2 / 5 PGS: PCC715B 03/2025

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: PCC715B 03/2025

Data sheet of Genset



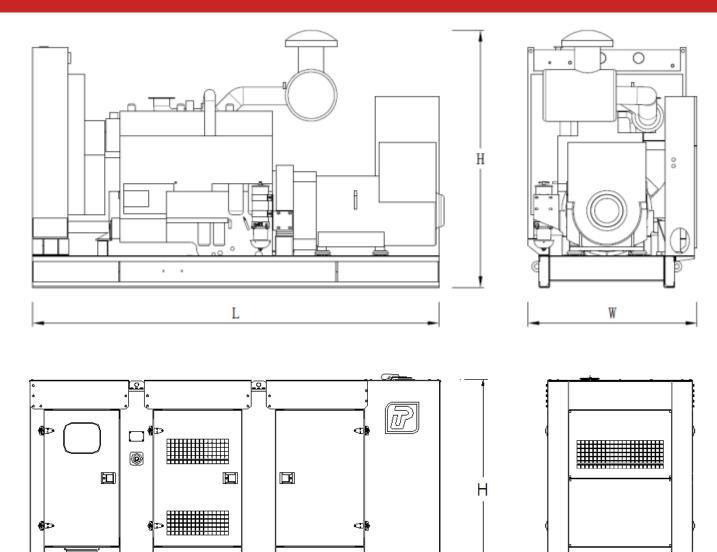
Genset				
Model	PCC715B			
Prime Rating (kw)	520			
Standby Rating (kw)	570			
Rate voltage(V)	400			
Rate current(A)	938			
Power factor	0.8			
Frequency(Hz)	50			
Engine				
Engine Model	QSK19-G4			
Gross Engine output-Prime (kw)	574			
Gross Engine output-Standby (kw)	634			
Bore * stroke (mm)	159*159			
Cylinders and structure	6 In line			
Displacement(Liter)	18.9			
Compression Ratio	15.0:1			
Intake way	Turbocharged and Charge Air Cooled			
Max intake resistance (KPa)	6.2			
Air intake (m3/h)	2901			
Max exhaust back pressure (KPa)	5.1			
Exhaust gas flow (m3/h)	7282			
Exhaust temp (°C)	512			
Cooling way	Water Radiator & Fan			
Fan exhaust flow (m3/min)	1055			
Coolant capacity (L)	130			
Highest water temperature(℃)	96			
Minimum air opening to room (m2)	4.1/3.4			
Thermostat range (℃)	83-95			
Max oil temperature (℃)	121			
Lubrication system oil capacity (L)	84.4			
Rate load fuel consumption(L/H)	145			
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	Н			
Controller				
Brand	POWERTEC			

4 / 5 PGS: PCC715B_03/2025

Dimension and Weight



W



Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	3650*1550*2123	4345	-
Silent Type	4700*1700*2450	6295	1100

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: PCC715B_03/2025