POWERTEC
Powertec Generator System Inc.

PDC470B

Prime Power: 350KW/438KVA **Standby Power: 375KW/469KVA** **Voltage: 400V**

Powered by Cummins QSZ13-G2 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

  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℃ standard ambient temperature （50℃ 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:**QSZ13-G2**
- Structure: Using forged steel camshaft and crankshaft, high-strength cylinder design, many parts are cast on the cylinder, high rigidity, strong high pressure resistance, and longer service life;
- Excellent reliability: It is designed using the world's leading engineering technology and analysis tools and combined with the usage conditions of Chinese users. With the support of powerful sensors and electronic control systems, the engine has stronger high-altitude operating performance,low-temperature operation and large-load sustainability. Operating capability, the engine can operate freely at temperatures ranging from minus 40 to 60degrees Celsius and at an altitude of 5,200 meters.
- Fuel system: Using Cummins XPI ultra-high pressure common rail fuelinjection system and CTT high-flow turbocharger, combined with Cummins'advanced power cylinder design and electronic control system, it greatly reduces fuel consumption and ensures the engine's performance in different working conditions and applications. Excellent fuel economy;
- Lower emissions: Using an in-machine purification solution, it can meet the needs of hospitals, schools and other places that have stricter emission requirements;

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 2.5
- Sealed with advanced lubricating grease to prolong life of bearing.

Standard

- 3 phases voltage: Ua, Ub, Uc
- Frequency F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature ℃ display
- Oil pressure OP
- Engine speed
- 3 phases current: La, Lb, Lc
- Active power PA
- Power factor PF
- Temperature ℃ 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

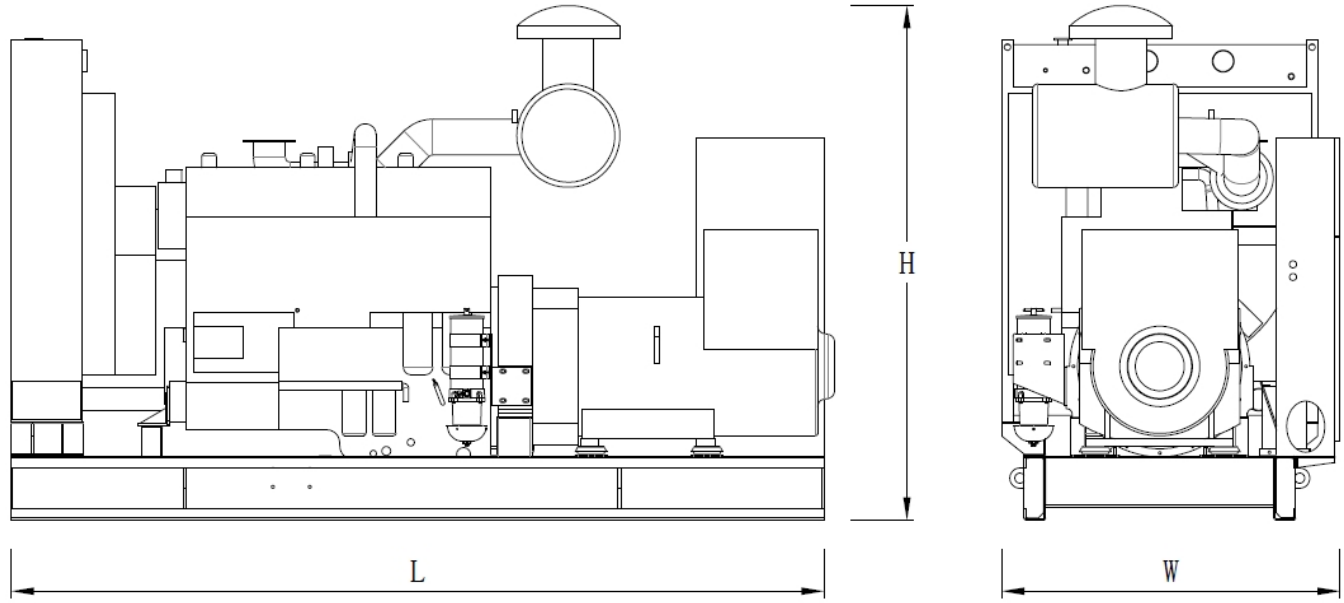
Control System Components

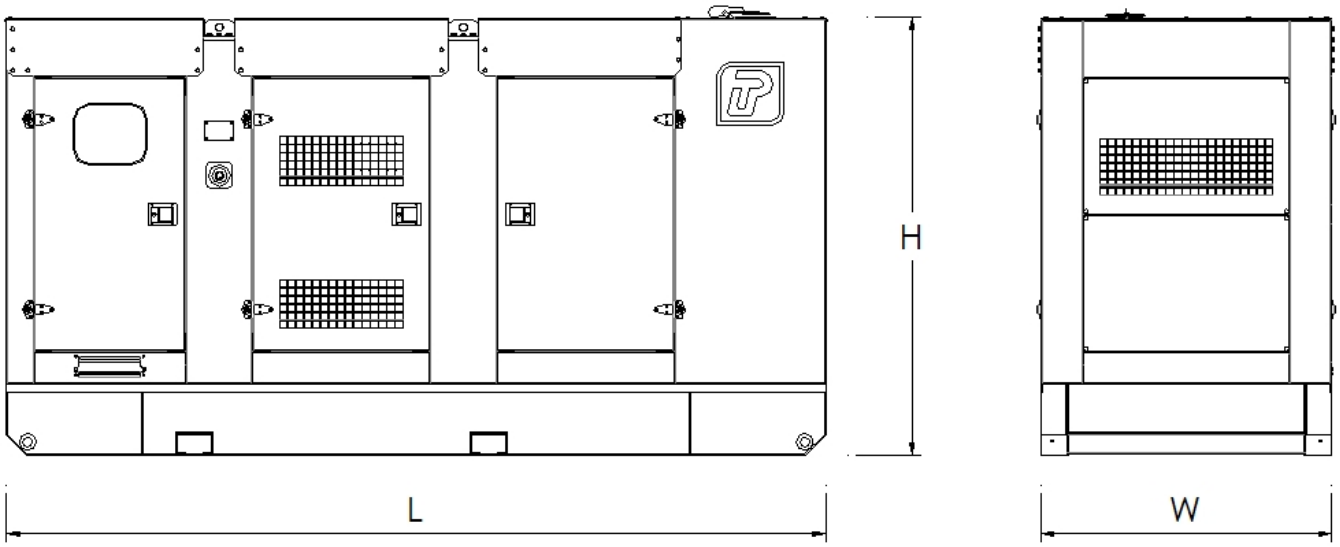
- Manual/auto/stop/start
- Setting button
- Fault status indicators
- Screen menu selection button
- Emergency stop button
- Digital displayer

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	PDC470B
Prime Rating (kw)	350
Standby Rating (kw)	375
Rate voltage(V)	400
Rate current(A)	631
Power factor	0.8
Frequency(Hz)	50
Engine	
Engine Model	QSZ13-G2
Gross Engine output-Prime (kw)	400
Gross Engine output-Standby (kw)	440
Bore * stroke (mm)	130*163
Cylinders and structure	6 In line
Displacement(Liter)	13
Compression Ratio	17:1
Intake way	Turbocharged and Charge Air Cooled
Max intake resistance (KPa)	6.2
Air intake (m3/h)	1698
Max exhaust back pressure (KPa)	10
Exhaust gas flow (m3/h)	2082
Exhaust temp (℃)	530
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	690
Coolant capacity (L)	73
Highest water temperature(℃)	107
Minimum air opening to room (m2)	2.6/2.2
Thermostat range (℃)	82-94
Max oil temperature (℃)	121
Lubrication system oil capacity (L)	45.42
Rate load fuel consumption(L/H)	88.8
Standard Governor/Class	Electronically Controlled High Voltage Common Rail
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	3000*1430*1974	3256	-
Silent Type	4300*1594*2250	5056	900

Contact Us

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