



PDC500B

Prime Power: 360KW/450KVA Standby Power: 400KW/500KVA Voltage: 400VAC

Powered by Cummins QSZ13-G5 Engine

Genset Performance

230/400VAC	$E \cap I =$	Λ ODE 3	Dhaaaa	1
Z3U/4UUVAU.	OUEZ.	U.OPE. 3	Phases 4	i 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)
- 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
- S470 Soundproof type canopy
- Design and construction of environmental protection
- Engineering for the Genset room



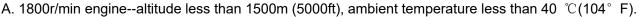
Equipment Instruction



Diesel Engine

■ Model: QSZ13-G5

- Construction: Cummins high pressure common rail fuel system (HPCR) realizes multi-point injection, and the throttle responds quickly at different speeds. More efficient power output, better fuel economy and less noise
- The integrated oil-water pipeline replaces the traditional hose to eliminate the hidden trouble of leakage.
- Enhanced cooling and lubrication functions effectively extend the service life of the engine
- The two-stage dual fuel filter ensures balanced particulate dispersion and maximizes the life of the fuel filter life, protect the main components of the fuel system
- Emission standards: Comply to China Tier III emission standards
- Environment: The engine can work normally under the following conditions without de-rating:



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

- 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;.

Notes: Above data of controller comes from POWERTEC GC6110. Customized solutions is available as required

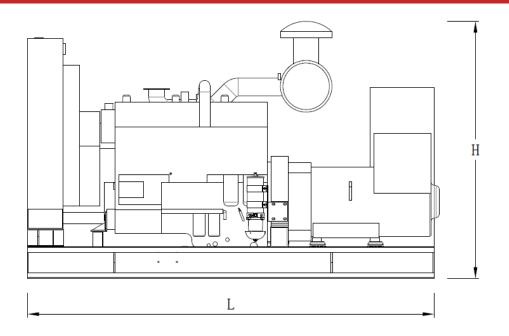
Data sheet of Genset

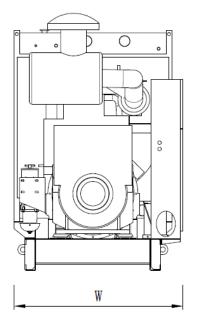


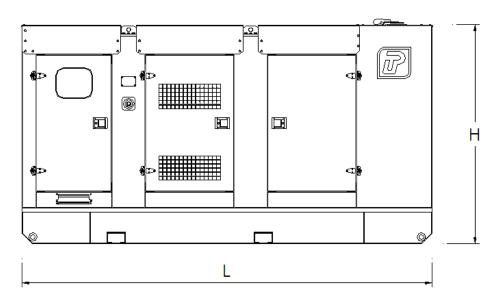
Genset					
Model	PDC500B				
Prime Rating (kw)	360				
Standby Rating (kw)	400				
Rate voltage(V)	400				
Rate current(A)	650				
Power factor	0.8				
Frequency(Hz)	50				
En	gine				
Engine Model	QSZ13-G5				
Gross Engine output-Prime (kw)	411				
Gross Engine output-Standby (kw)	470				
Bore * stroke (mm)	130*163				
Cylinders and structure	6 In line				
Displacement(Liter)	13				
Compression Ratio	17:1				
Intake way	Turbo Charge,Air-Air Intercool				
Max intake resistance (KPa)	6.2				
Air intake (m3/h)	1668				
Max exhaust back pressure (KPa)	10				
Exhaust gas flow (m3/h)	2046				
Expansi tamp (°C)	523				
Cooling way	Water Radiator & Fan				
Fan exhaust flow (m3/min)	690				
Coolant capacity (L)	73				
Highest water temperature/°C\	107				
Minimum air opening to room (m2)	2.8/2.5				
Thormostat range (°C)	82-94				
May ail tamparatura (°C)	121				
Lubrication system oil capacity (L)	75.33				
Rate load fuel consumption(L/H) Standard Governor/Class	93.2				
	Electronically Controlled High Voltage Common Rail				
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 or DEEPSEA				

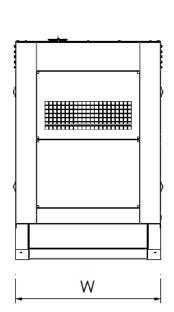
Dimension and Weight











Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	3094*1443*1911	3385	-
Silent Type	4300*1594*2250	5185	900

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