

PDC200A

Prime Power: 144KW/180KVA Standby Power: 160KW/200KVA Voltage: 400VAC

Powered by Cummins QSB6.7-G4 Engine

Genset Performance

- 230/400VAC, 50Hz, 0.8PF, 3 Phases 4 wires
- Frequency drop $\leq 3\%$
- Voltage regulation $\leq 0.3\%$
- The steady state frequency $\leq 0.5\%$
- The steady state voltage deviation $\leq \pm 1\%$
- The transient frequency deviation $\leq +10\% \leq -15\%$
- The transient voltage deviation $\leq +20\% \leq -15\%$
- Frequency recovery time $\leq 3S$
- Voltage recovery time $\leq 1S(\text{Voltage} \pm 3\%)$
- 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
- S395 soundproof canopy
- Design and construction of environmental protection
- Engineering for the Genset room



Diesel Engine

- Model: QSB6.7-G4
- Construction: Adopt forged steel camshaft and crankshaft, High strength cylinder block design, plenty parts cast on the Cylinders, stiffness strong, high pressure resistant capacity, longer service life.
- Advanced design and superior manufacture: Adapt to harsh severe work condition, high strength and has heavy loading work capacity.
- Fuel system: Rotator high pressure fuel pump, lower fuel consumption, and reduce noise effectively.
- 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 °C(1% de-rating ,when temperature increase each 10° F). in the ambient temperature is higher than 40°C(104° F)



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



Notes: Above data of alternator comes from Stamford. Specification may alternated without advance notice.

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
- 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;.

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

Genset

Model	PDC200A
Prime Rating (kw)	144
Standby Rating (kw)	160
Rate voltage(V)	400
Rate current(A)	260
Power factor	0.8
Frequency(Hz)	50

Engine

Engine Model	QSB6.7-G4
Gross Engine output-Prime (kw)	168
Gross Engine output-Standby (kw)	185
Bore * stroke (mm)	107*124
Cylinders and structure	6 In line
Displacement(Liter)	6.7
Compression Ratio	17.3:1
Intake way	Turbo Charge, Air-Air Intercool
Max intake resistance (KPa)	6.2
Air intake (m3/h)	709
Max exhaust back pressure (KPa)	10
Exhaust gas flow (m3/h)	1591
Exhaust temp. (°C)	494
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	240
Coolant capacity (L)	30
Highest water temperature(°C)	110
Minimum air opening to room (m2)	1.3/1.1
Thermostat range (°C)	82-95
Max oil temperature (°C)	124
Lubrication system oil capacity (L)	19.5
Rate load fuel consumption(L/H)	43
Standard Governor/Class	Electronically Controlled High Voltage Common Rail

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	H

Controller

Brand	POWERTEC or DEEPSEA
-------	---------------------



Type	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2579*1038*1657	1734	315
Silent Type	3950*1400*2115	3134	400

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