



## PDC300B

Prime Power: 216KW/270KVA Standby Power: 240KW/300KVA Voltage: 400VAC

Powered by Cummins 6LTAA9.5-G3 Engine

### **Genset Performance**

230/400VAC	$E \cap I =$	$\Lambda$ 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
- S395 soundproof canopy
- Design and construction of environmental protection
- Engineering for the Genset room

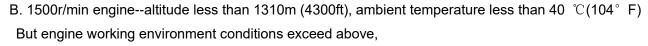


# **Equipment Instruction**



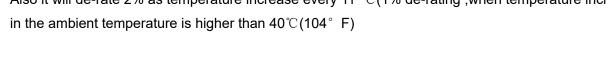
## **Diesel Engine**

- Model:6LTAA9.5-G3
- Construction: The enhanced cylinder block has low noise and little vibration.Longer stroke ensure gas burning more fully and increase effective power output with low fuel consumption.
- Advanced 4 air valve construction:more power output, more air combustion, lower fuel consumption. Increase low speed torque has good performance high efficiency
- 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).



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).



## **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.





# **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

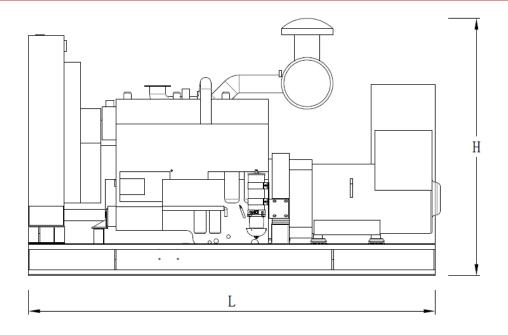
# **Data sheet of Genset**

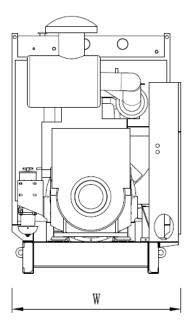


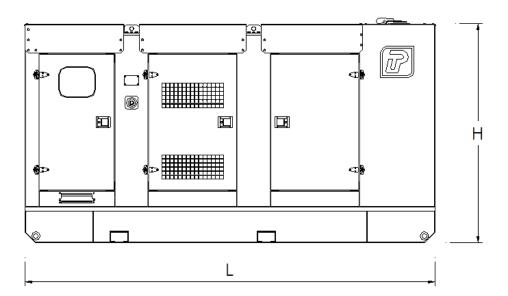
Model	PDC300B					
Prime Rating (kw)	216					
Standby Rating (kw)	240					
Rate voltage(V)	400					
Rate current(A)	390					
Power factor	0.8					
Frequency(Hz)	50					
Engine						
Engine Model	6LTAA9.5-G3					
Gross Engine output-Prime (kw)	250					
Gross Engine output-Standby (kw)	280					
Bore * stroke (mm)	116*148					
Cylinders and structure	6 In line					
Displacement(Liter)	9.5					
Compression Ratio	16.6:1					
Intake way	Turbo Charge,Water-Air Intercool					
Max intake resistance (KPa)	6.2					
Air intake (m3/h)	984					
Max exhaust back pressure (KPa)	10					
Exhaust gas flow (m3/h)	2102					
Exhaust temp (°C)	482					
Cooling way	Water Radiator & Fan					
Fan exhaust flow (m3/min)	480					
Coolant capacity (L)	40					
Highost water temperature/°C)	104					
Minimum air opening to room (m2)	2.5/2.0					
Thormostat rango (°C)	82-95					
Max oil temperature (°C)	121					
Lubrication system oil capacity (L)	32.4					
Rate load fuel consumption(L/H)	58					
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 or DEEPSEA					

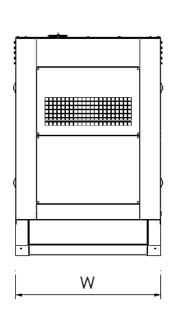
# **Dimension and Weight**











Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2900*1067*1528	2060	430
Silent Type	3950*1400*2115	3460	600

# Contact Us

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