POWERTEC
Powertec Generator System Inc.

PCC350B

Prime Power: 250KW/313KVA Standby Power: 280KW/350KVA Voltage: 400VAC

Powered by Cummins NTA855-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°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
- 20GP or 40HQ container type canopy
- Design and construction of environmental protection
- Engineering for the Genset room

Diesel Engine

- Model: **Cummins NTA855-G2**
- Construction: replaceable wet type cylinder block has excellent radiation. Mature standard spare parts commonly apply to other engine in this series.Cylinder block and head will have no fault with the designment of internal oil passage and compact structure
- Cooling system: Adopt gear centrifugal water pump to cool down water temperature. With large flow channel designmeng ,it has good cooling performance;
- Fuel system: Cummins patented technology (PT) fuel system optimizes combustion and reduces emission;
- 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 satify 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 Meters

- 3 phases voltage: U_a, U_b, U_c
- Frequency F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature ˚C display
- Oil pressure OP
- Engine speed
- 3 phases current: L_a, L_b, L_c
- 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

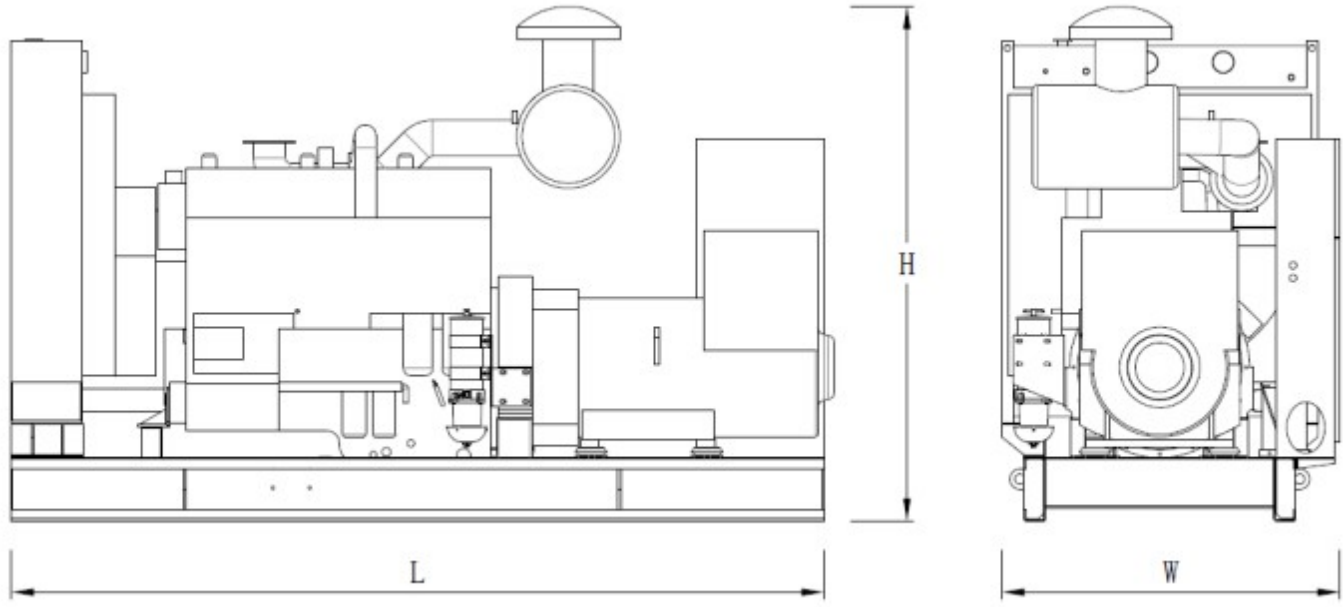
Communication Interface （Option）

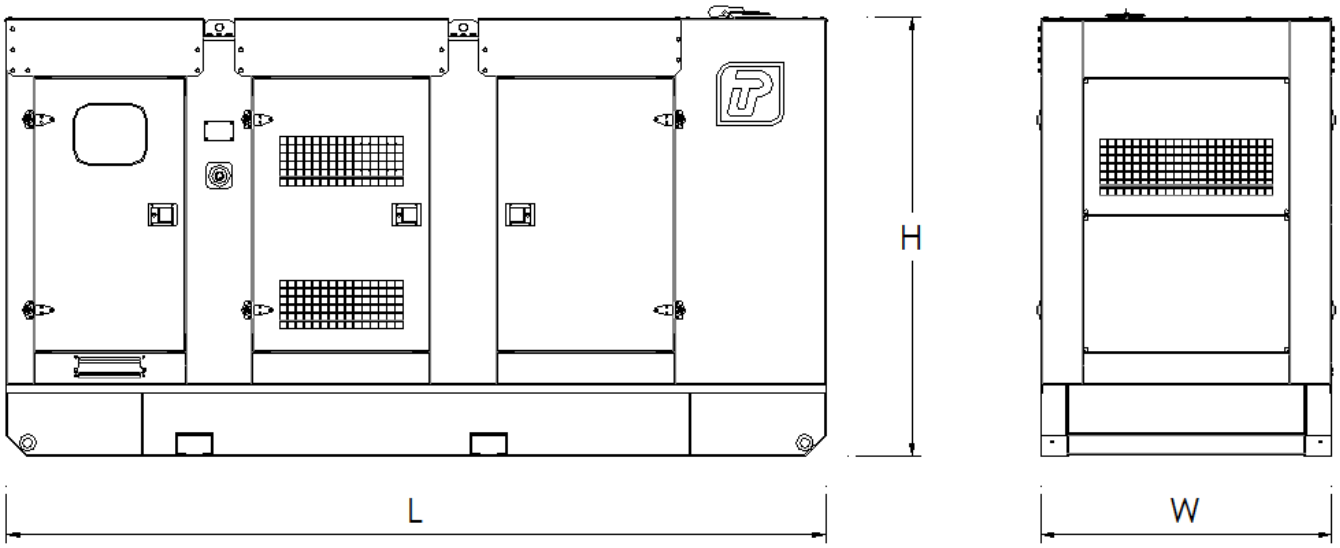
- International standard MODBUS communication protocol RS232/ RS485 is suitable for remote control and monitor; It is easy integrated with SCADA;.

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

Genset	
Model	PCC350B
Prime Rating (kw)	250
Standby Rating (kw)	280
Rate voltage(V)	400
Rate current(A)	451
Power factor	0.8
Frequency(Hz)	50
Engine	
Engine Model	NTA855-G2
Gross Engine output-Prime (kw)	284
Gross Engine output-Standby (kw)	321
Bore * stroke (mm)	140*152
Cylinders and structure	6 In line
Displacement(Liter)	14
Compression Ratio	14:1
Intake way	Turbocharged/Air-Air intercooler
Max intake resistance (KPa)	6.2
Air intake (m3/h)	1350
Max exhaust back pressure (KPa)	10
Exhaust gas flow (m3/h)	3550
Exhaust temp (°C)	485
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	540
Coolant capacity (L)	85
Highest water temperature(°C)	96
Minimum air opening to room (m2)	2.2/1.5
Thermostat range (°C)	82-94
Max oil temperature (°C)	121
Lubrication system oil capacity (L)	38.6
Rate load fuel consumption(L/H)	71.4
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	H
Controller	
Brand	POWERTEC GC6110

Dimension and Weight





Type	Dimension (mm) （L*W*H）	Weight (kg)	Fuel Tank Capacity (L)
Open Type	3000*1238*1720	2682	-
Silent Type	3500*1245*2052	3942	550

Contact Us

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