POWERTEC
Powertec Generator System Inc.

PCC1000B

Prime Power: 750KW/938KVA Standby Power: 800KW/1000KVA Voltage: 400V

Powered by Cummins KTA38-G5E Engine

Genset Performance

- 230/400V，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

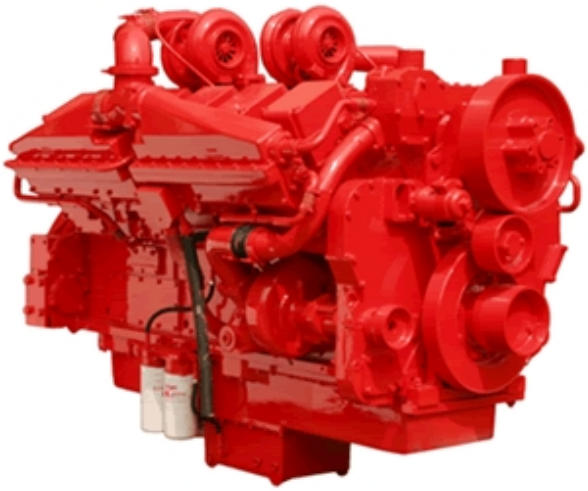
- Cummins Engine
- Brushless synchronous alternator
- POWERTEC intelligent controller
- 40℃ standard ambient temperature

  （50℃ Optional）
- Float battery charger
- Battery connect wire
- Steel base frame
- Silencer, bellows, exhaust bend
- Manual book and files

Optional Items

- Starting batteries
- Fuel tank
- Circuit Breaker
- Lubricate-water separator
- Sensor for low coolant level, low fuel/oil level
- City power monitoring & controlling system
- Coolant heater
- Oil heater
- Heat exchanger--Water cooled tower system
- 20GP or 40HQ container type Soundproof Canopy
- Trailer Type
- Environmentally design and construction of Genset room engineering for the Genset room

Diesel Engine



- Model: **KTA38-G5E**
- 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;
- The engine may be operated at :

1800 RPM up to 5000 ft. (1500 m) and 104° F (40 ℃) without power deration.
1500 RPM up to 5000 ft. (1500 m) and 104 ° F (40 ℃) without power deration.
For sustained operation above these conditions, derate by 4% per 1,000 ft.(300 m), and 1% per 10 ° F (2% per 11 ℃).

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.

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

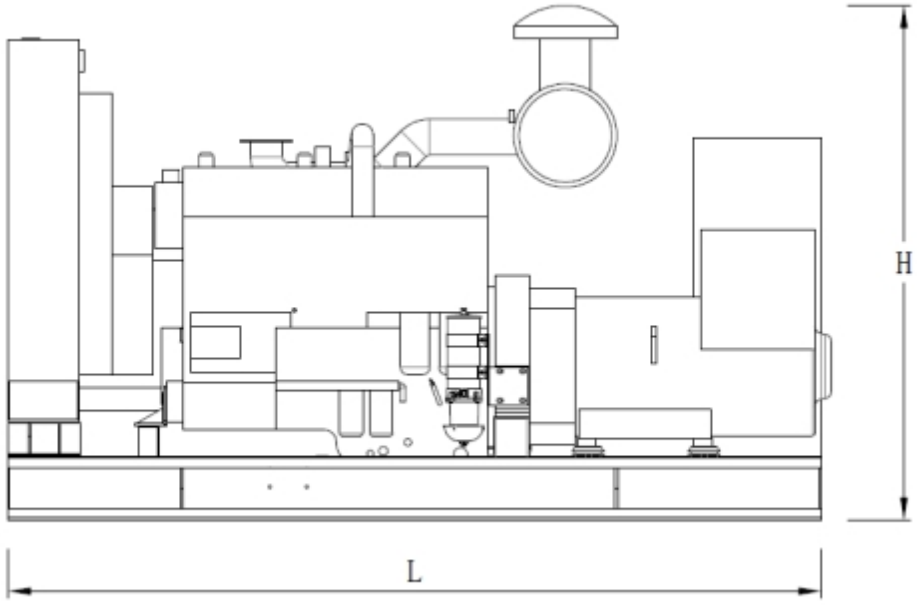
Control System Components

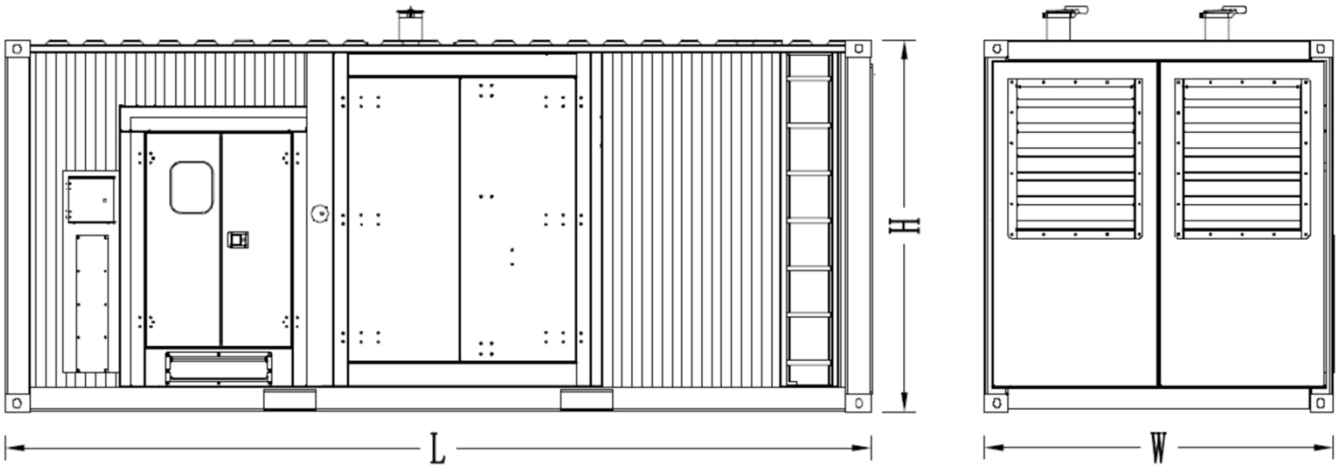
- Manual/auto/stop/start
- Setting button
- Fault status indicators
- Screen menu selection button
- Emergency stop button
- Digital displayer

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	PCC1000B
Prime Rating (kw)	750
Standby Rating (kw)	800
Rate voltage(V)	400
Rate current(A)	1353
Frequency(Hz)	50
Engine	
Engine Model	KTA38-G5E
Gross Engine output-Prime (kw)	825
Gross Engine output-Standby (kw)	880
Bore * stroke (mm)	159*159
Cylinders and structure	12 Cylinder ; Vee
Displacement(Liter)	38
Compression Ratio	14.7:1
Intake way	Turbocharged/Water-Air intercooler
Max intake resistance (KPa)	6.23
Air intake (m3/h)	3770
Max exhaust back pressure (KPa)	10
Exhaust gas flow (m3/h)	3901
Exhaust temp (℃)	462
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	1140
Coolant capacity (L)	303
Highest water temperature(℃)	96
Minimum air opening to room (m2)	5.2/4.3
Thermostat range (℃)	82-93
Max oil temperature (℃)	121
Lubrication system oil capacity (L)	135
Rate load fuel consumption(L/H)	203.6
Standard Governor/Class	Electronic
Emission	Provide non-road China III emission reports
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	4926*1888*2376	7500	-
Silent Type	6058*2438*2591	11700	1500

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