

PCC700B

Prime Power: 500KW/625KVA

Standby Power: 560KW/700KVA

Voltage: 400V

Powered by Cummins KT38-G Engine

Genset Performance

- 230/400V, 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)
- Circuit breaker (3P)
- Float battery charger
- Battery connect wire
- Steel base frame
- Silencer, bellows, exhaust bend
- Manual book and files

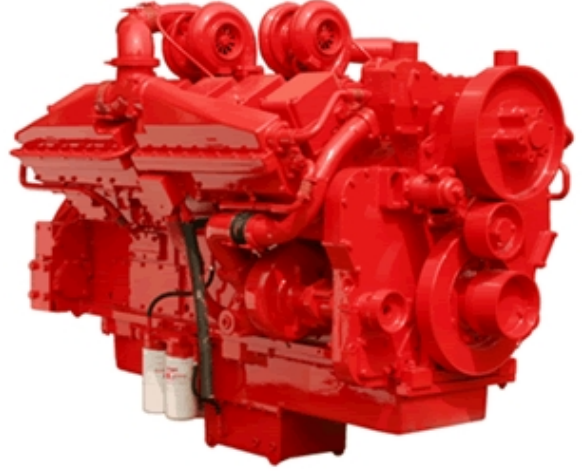
Optional Items

- 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
- Design and construction of environmental protection engineering for the Genset room



Diesel Engine

- Model: **KT38-G**
- 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. (1525 m) and 104° F (40 °C) without power deration.
1500 RPM up to 5000 ft. (1525 m) and 104° F (40 °C) 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 °C).



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.



Standard

- 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: I_a, I_b, I_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;

Genset

| | |
|---------------------|---------|
| Model | PCC700B |
| Prime Rating (kw) | 500 |
| Standby Rating (kw) | 560 |
| Rate voltage(V) | 400 |
| Rate current(A) | 902 |
| Power factor | 0.8 |
| Frequency(Hz) | 50 |

Engine

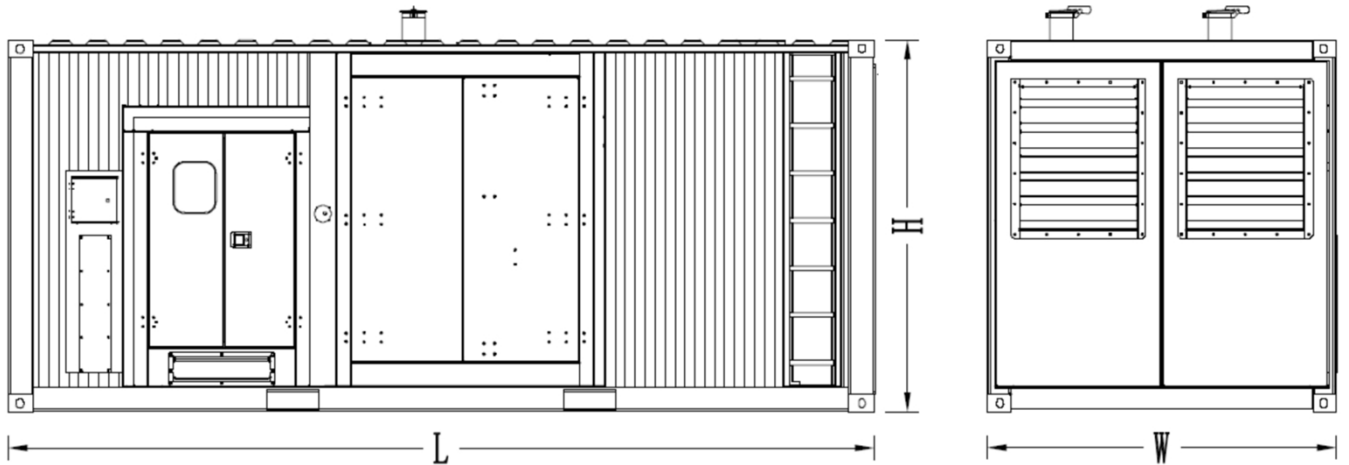
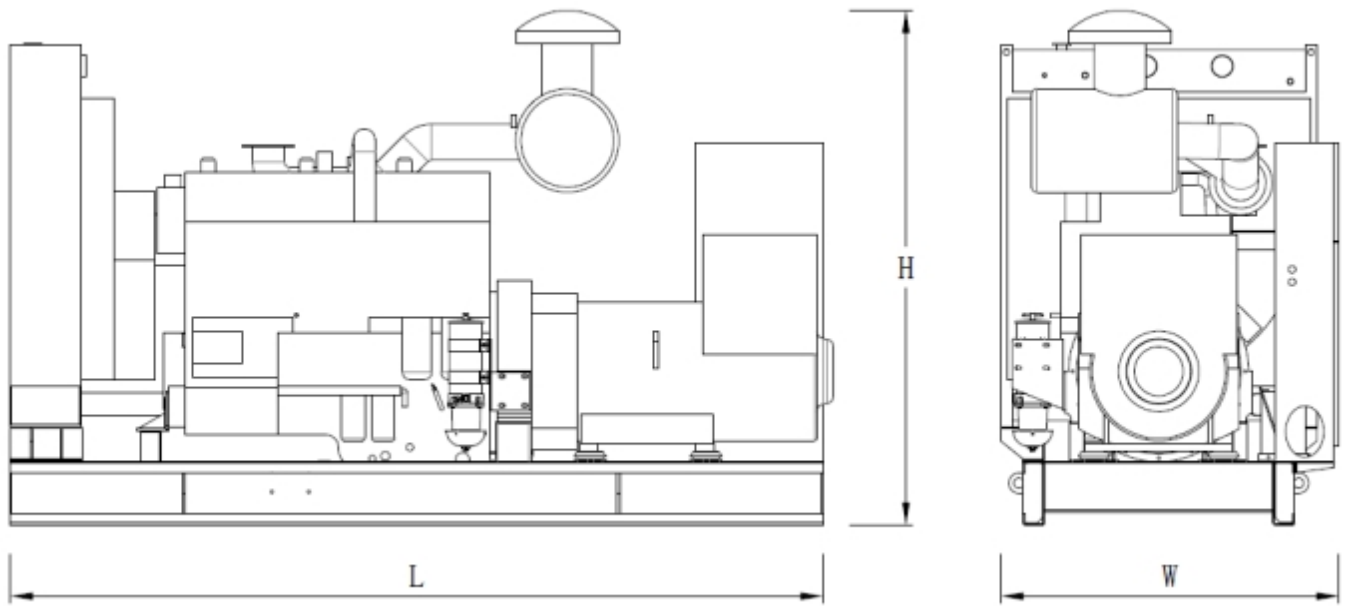
| | |
|-------------------------------------|----------------------|
| Engine Model | KT38-G |
| Gross Engine output-Prime (kw) | 560 |
| Gross Engine output-Standby (kw) | 616 |
| Bore * stroke (mm) | 159*159 |
| Cylinders and structure | 12 Cyлинд, 60°Vee |
| Displacement(Liter) | 38 |
| Compression Ratio | 15.5:1 |
| Intake way | Turbocharged |
| Max intake resistance (KPa) | 6.23 |
| Air intake (m3/h) | 2887 |
| Max exhaust back pressure (KPa) | 10 |
| Exhaust gas flow (m3/h) | 8071 |
| Exhaust temp (°C) | 539 |
| Cooling way | Water Radiator & Fan |
| Fan exhaust flow (m3/min) | 985 |
| Coolant capacity (L) | 252 |
| Highest water temperature(°C) | 96 |
| Minimum air opening to room (m2) | 4.8/4.0 |
| Thermostat range (°C) | 82-93 |
| Max oil temperature (°C) | 121 |
| Lubrication system oil capacity (L) | 135 |
| Rate load fuel consumption(L/H) | 142.5 |
| Standard Governor/Class | Electronic |

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 | 4250*1770*2513 | 6400 | - |
| Silent Type | 6058*2438*2591 | 10600 | 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