

PPE650B

Prime Power:473KW/591KVA Standby Power:520KW/650KVA Voltage: 400VAC

Powered by Perkins 2806C-E18TAG1A 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 deviatio $\leq +10\% \leq -15\%$
- 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

- Perkins 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: Perkins 2806C-E18TAG1A
- Construction: Forged steel crankshaft, cast iron steel body and Replaceable wet cylinder liner, two/four valves per cylinder ;
- Cooling system: Thermostatically-controlled system with belt driven coolant pump and pusher fan; mounted radiator, piping and guards;
- Fuel system: Mechanically regulated embedded fuel injection pump, non-direct injection ;



Environment: The engine can work under the following conditions without modulating power:

1800r/min engine--altitude less than 1000 m, ambient temperature less than 40 °C

1500r/min engine--altitude less than 1000 m, ambient temperature less than 40 °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.



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

Standard

- 3 phases voltage: U_a, U_b, U_c
- Frequency $F1$
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature $^{\circ}C$ display
- Oil pressure OP
- Engine speed
- 3 phases current: I_a, I_b, I_c
- Active power PA
- Power factor PF
- Temperature $^{\circ}C$ 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 | PPE650B |
| Prime Rating (kw) | 473 |
| Standby Rating (kw) | 520 |
| Rate voltage(V) | 400 |
| Rate current(A) | 853 |
| Power factor | 0.8 |
| Frequency(Hz) | 50 |

Engine

| | |
|-------------------------------------|--------------------------------------|
| Engine Model | 2806C-E18TAG1A |
| Gross Engine output-Prime (kw) | 522 |
| Gross Engine output-Standby (kw) | 574 |
| Bore * stroke (mm) | 145*183 |
| Cylinders and structure | 6 In line |
| Displacement(Liter) | 18.13 |
| Compression Ratio | 14.5:1 |
| Intake way | Supercharge / Air to air intercooled |
| Max intake resistance (KPa) | 6.35 |
| Air intake (m3/h) | 2400 |
| Max exhaust back pressure (KPa) | 6.9 |
| Exhaust gas flow (m3/h) | 6600 |
| Exhaust temp (°C) | 550 |
| Cooling way | Water Radiator & Fan |
| Fan exhaust flow (m3/min) | 702 |
| Coolant capacity (L) | 61 |
| Highest water temperature(°C) | 103 |
| Minimum air opening to room (m2) | 3.15/2.6 |
| Thermostat range (°C) | 88-98 |
| Max oil temperature (°C) | 113 |
| Lubrication system oil capacity (L) | 62 |
| Rate load fuel consumption(L/H) | 129 |
| Standard Governor/Class | Electronic Injection |

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 GC7110.2 |
|-------|-------------------|



| Type | Dimension (mm) (L*W*H) | Weight (kg) | Fuel Tank Capacity (L) |
|-------------|---------------------------|----------------|---------------------------|
| Open Type | 4000*1500*2200 | 4300 | - |
| Silent Type | 4700*1700*2450 | 6250 | 1000 |

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