POWERTEC
Powertec Generator System Inc.

Perkins

# PPE2250B

**Prime Power: 1600KW/2000KVA  Standby Power:1800KW/2250KVA  Voltage: 400V**

**Powered by Perkins 4016TAG2A 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
- Standard equipped with ambient temperature 40℃ Connecting radiator
- Built-in vibration isolator with high performance on shock absorption.
- Product standards: (1) GB/T 2820-2022 / IS08528:2018
  (2) GB/T 4712-2008 (3) YD/T 502-2020 (4)YD/T 1051-2018

## Standard Configuration

- Perkins 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
- Circuit breaker
- 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
- Silent type/Trailer
- Standardized container
- Design and construction of environmental protection; engineering for the Genset room.

## Diesel Engine

- Model：4016TAG2A
- The Perkins® 4000 Series family of 6, 8, 12 and 16 cylinder diesel engines, designed to address today's uncompromising demands within the power generation industry with particular aim at the standby market sector;
- The 4016TAG2A is a turbocharged, air-to-air charge-cooled, 16 cylinder vee form diesel engine;
- Its premium design and specification features provide economic and durable operation as well as exceptional power to weight ratio, improved serviceability, low gaseous emissions, overall performance and reliability essential to the power generation market. The 4016TAG2A is specially tuned for improved load acceptance response in standby duty;


- Individual 4 valve per cylinder give optimised gas flows;
- Unit fuel injectors ensure ultra fine fuel atomisation and hence controlled rapid combustion;
- Commonality of components with other engines in the 4000 Series family for reduced stocking level;
- Capable emissions of TA Luft (1986);
- Oil change service intervals are set at 500 hours as standard；
- Designed to provide low cost of ownership, simple maintenance and reduced downtime；

## 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
- The stator winding is impregnated and the surface is covered with moisture-proof epoxy insulating paint.
- Rotor and exciter made with high temperature insulating resin, to satify tough environment.
- Rotor dynamic balancing complys for BS5625, class 2.5
- Sealed with advanced lubricating grease to prolong life of bearing.

## Standard Meters

- 3 phases voltage: $U_a$, $U_b$, $U_c$
- Frequency F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature ℃ display
- Oil pressure OP
- Engine speed
- 3 phases current: $L_a$, $L_b$, $L_c$
- Active power PA
- Power factor PF
- Temperature ℃ display
- KPa/Psi/Bar display
- Battery voltage V
- Running Hour
- Starting timer:(999999)


## Standard Protection Function

### 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

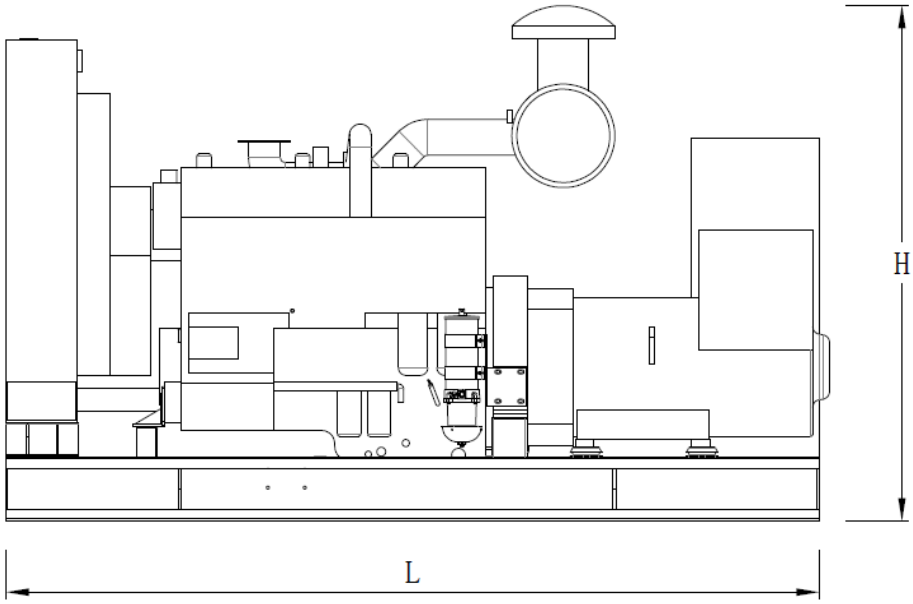
### Control System Components

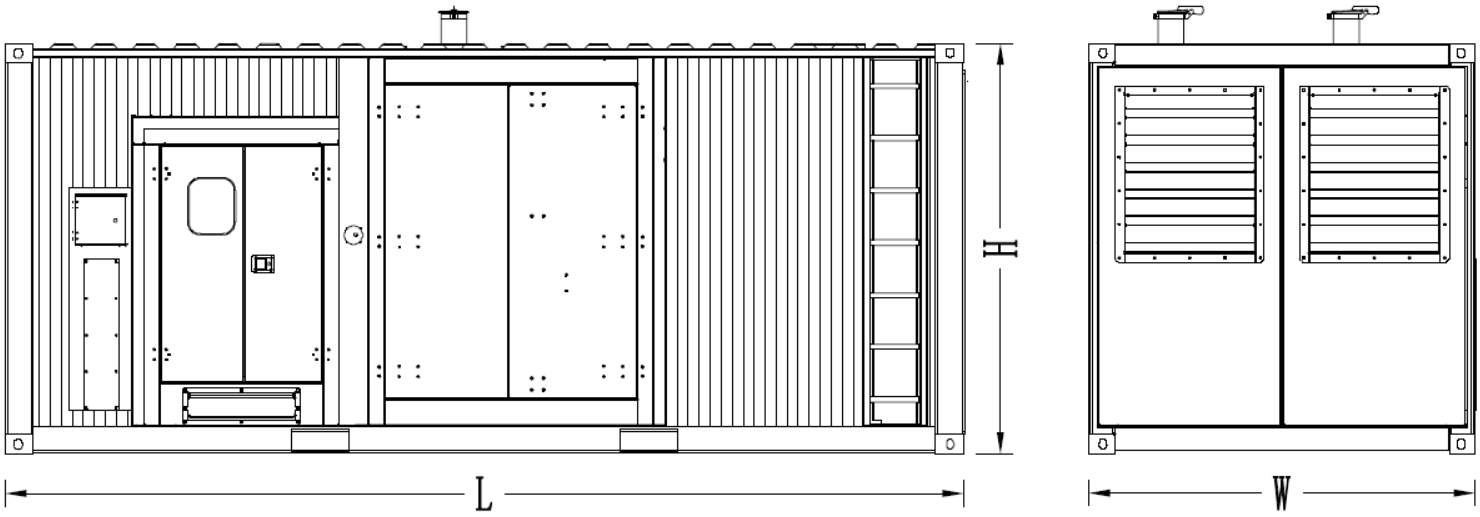
- Manual/auto/stop/start
- Setting button
- Fault status indicators
- Screen menu selection button
- Emergency stop button
- Digital displayer


## 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 | PPE2250B |
| Prime Rating (kw) | 1600 |
| Standby Rating (kw) | 1800 |
| Rate current(A) | 2887 |
| Power factor | 0.8 |
| Frequency(Hz) | 50 |
| **Engine** | |
| Engine Model | 4016TAG2A |
| Gross Engine output-Prime (kw) | 1715 |
| Gross Engine output-Standby (kw) | 1886 |
| Bore * stroke (mm) | 160*190 |
| Cylinders and structure | 16 60º Vee form |
| Displacement(Liter) | 61.123 |
| Compression Ratio | 13.6:1 |
| Intake way | Turbocharged and air to air charge cooled |
| Max intake resistance (KPa) | 3.7 |
| Air intake (m3/h) | 8220 |
| Max exhaust back pressure (KPa) | 6.6 |
| Exhaust gas flow (m3/h) | 23220 |
| Exhaust temp (℃) | 493 |
| Cooling way | Water Radiator & Fan |
| Fan exhaust flow (m3/min) | 2430 |
| Coolant capacity (L) | 316 |
| Highest water temperature(℃) | 98 |
| Minimum air opening to room (m2) | 10.0/9.0 |
| Thermostat range (℃) | 71-85 |
| Max oil temperature (℃) | 105 |
| Lubrication system oil capacity (L) | 237.2 |
| Rate load fuel consumption(L/H) | 434 |
| Standard Governor/Class | Electronic speed regulation |
| **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** | 6700*2300*2800 | 16500 | - |
| **Silent Type** | - | - | - |

**Contact Us**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