

# PPE15A

Prime Power: 10KW/13KVA

Standby Power: 11KW/14KVA

Voltage: 400V

Powered by Perkins 403A-15 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
- Standard equipped with ambient temperature 40°C  
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

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

## Standard Configuration

- Perkins 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
- Bottom fuel tank
- Manual book and files



## Diesel Engine

- Model: 403A-15
- The Perkins® 400 Series engine family continues to set new standards in the compact engine market. Developed alongside customers to fulfill their needs in the generator set, compressor, agricultural and general industrial markets;
- These new ElectropaKs provide compact power, from a robust family of 3 and 4 cylinder diesel engines designed to provide economic and durable operation at Prime and Standby duties, hitting the key power nodes required by the power generation industry;
- The 403A-15 ElectropaK is a powerful but quiet 1.5 litre naturally aspirated 3-cylinder compact package;
- Design features on the 400 Series ElectropaKs ensure clean rapid starting in all conditions whilst delivering impressive performance, with low operating costs, in a small, efficient package size;
- Approved for operation on biodiesel\* concentrations of up to 20%;
- Oil and filter changes are 500 hours, dependent on load factor;
- Engine durability and reliability, the warranty offering and ease of installation combine to drive down the cost of ownership;



## 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 satisfy 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  $^{\circ}C$  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 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

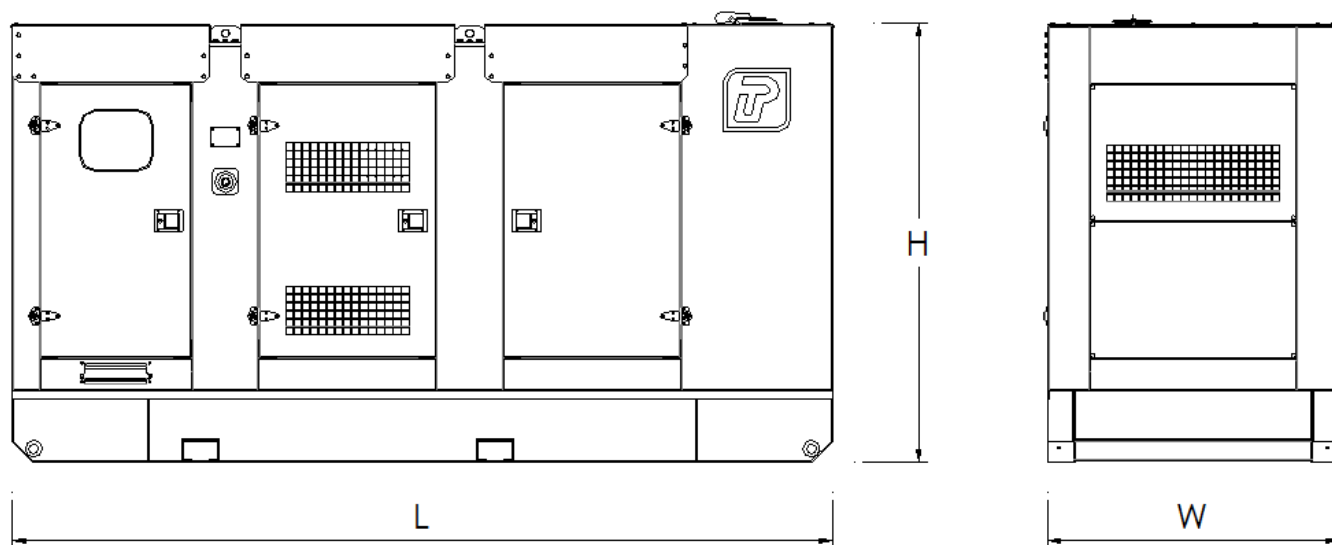
- Manual/auto/stop/start
- Setting button
- Fault status indicators
- Screen menu selection button
- Emergency stop button
- Digital displayer



## Communication Interface (Option)

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

| <b>Genset</b>                       |                             |
|-------------------------------------|-----------------------------|
| Model                               | PPE15A                      |
| Prime Rating (kw)                   | 10                          |
| Standby Rating (kw)                 | 11                          |
| Rate current(A)                     | 18                          |
| Power factor                        | 0.8                         |
| Frequency(Hz)                       | 50                          |
| <b>Engine</b>                       |                             |
| Engine Model                        | 403A-15                     |
| Gross Engine output-Prime (kw)      | 12                          |
| Gross Engine output-Standby (kw)    | 13.2                        |
| Bore * stroke (mm)                  | 84*90                       |
| Cylinders and structure             | 3 In line                   |
| Displacement(Liter)                 | 1.496                       |
| Compression Ratio                   | 22.5:1                      |
| Intake way                          | inhale naturally            |
| Max intake resistance (KPa)         | 6.4                         |
| Air intake (m3/h)                   | 66                          |
| Max exhaust back pressure (KPa)     | 10.2                        |
| Exhaust gas flow (m3/h)             | 162                         |
| Exhaust temp (°C)                   | 445                         |
| Cooling way                         | Water Radiator & Fan        |
| Fan exhaust flow (m3/min)           | 36.6                        |
| Coolant capacity (L)                | 6                           |
| Highest water temperature(°C)       | 112                         |
| Minimum air opening to room (m2)    | 1.0/0.75                    |
| Thermostat range (°C)               | 82-95                       |
| Max oil temperature (°C)            | 125                         |
| Lubrication system oil capacity (L) | 6                           |
| Rate load fuel consumption(L/H)     | 3.7                         |
| Standard Governor/Class             | Mechanical speed regulation |
| <b>Alternator</b>                   |                             |
| 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                           |
| <b>Controller</b>                   |                             |
| Brand                               | POWERTEC                    |



| Type        | Dimension (mm)<br>(L*W*H) | Weight<br>(kg) | Fuel Tank Capacity<br>(L) |
|-------------|---------------------------|----------------|---------------------------|
| Open Type   | 1400*750*1200             | 450            | 50                        |
| Silent Type | 2300*900*1550             | 1000           | 160                       |

**Contact Us**

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