



# PPE700B

Prime Power: 520KW/650KVA Standby Power: 560KW/700KVA Voltage: 400V

## Powered by Perkins 2806A-E18TAG2 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  $\leq \pm 1\%$ 

■ 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</li>
 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
- Manual book and files

## **Equipment Instruction**



### **Diesel Engine**

■ Model: 2806A-E18TAG2

- The Perkins 2800 Series is a family of well-proven 6 cylinder 16 and 18 litre inline diesel engines, designed to address today's uncompromising demands within the power generation industry with particular aim at the standby market sector. Developed from a proven heavy-duty industrial base, the engine offers superior performance and reliability;
- The 2806A-E18TAG2 is a turbocharged and air-to-air charge cooled, 6 cylinder diesel engine of 18 litres capacity. Its premium features provide economic and durable operation, low gaseous emissions and advanced overall performance and reliability;



- Mechanically operated unit fuel injectors with electronic control combined with carefully matched turbocharging give excellent fuel atomisation and combustion with optimum economy;
- Low emissions result from electronic control of fuel injected;
- Developed and tested using the latest engineering techniques and finite element analysis for high reliability, low oil usage and low wear rates;
- High compression ratios also ensure clean rapid starting in all conditions;
- Perkins global product support is designed to enhance the customer experience of owning a Perkins powered machine.
  We deliver this through the quality of our distribution network, extensive global coverage and a range of Perkins supported OEM partnership options. So whether you are an end-user or an equipment manufacturer our engine expertise is essential to your success;

#### **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.

## **Intelligent Control System**



#### **Standard Meters**

- 3 phases voltage: Ua, Ub, Uc
- Frequency F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature °C display
- Oil pressure OP
- Engine speed

- 3 phases current: La, Lb, Lc
- Active power PA
- Power factor PF
- Temperature <sup>®</sup> display
- KPa/Psi/Bar display
- Battery voltage V
- Running Hour
- Starting timer:(999999)



### **Standard Protection Function**

#### **Genset Protection**

Programmable I/O signal

#### **Engine Protection**

- Stop for over speed
- Low oil pressure
- High Coolant temperature
- Sensor fail

#### **Alternator Protection**

- Over Voltage
- Over current
- Voltage signal lost

#### **Control System Components**

- Manual/auto/stop/start
- Setting button
- Fault status indicators

- Emergency stop
- Alarm for low/high battery voltage
- Low battery voltage
- Fail to start/Cranking fail
- Over Voltage
- Over frequency
- Under frequency
- 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;.

# **Data sheet of Genset**

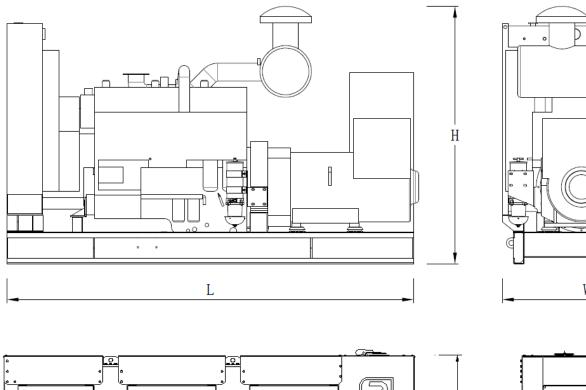


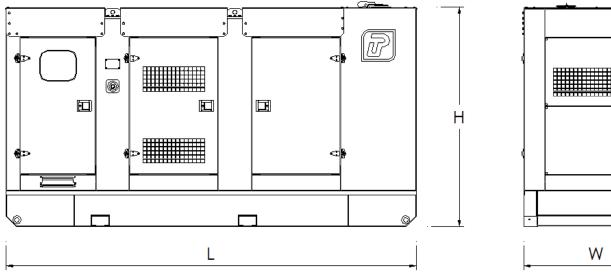
Genset				
Model	PPE700B			
Prime Rating (kw)	520			
Standby Rating (kw)	560			
Rate current(A)	938			
Power factor	0.8			
Frequency(Hz)	50			
Engine				
Engine Model	2806A-E18TAG2			
Gross Engine output-Prime (kw)	565			
Gross Engine output-Standby (kw)	609			
Bore * stroke (mm)	145*183			
Cylinders and structure	6 In line			
Displacement(Liter)	18.13			
Compression Ratio	14.5:1			
Intake way	Turbocharged and air-to-air charge cooled			
Max intake resistance (KPa)	6.35			
Air intake (m3/h)	2220			
Max exhaust back pressure (KPa)	6.9			
Exhaust gas flow (m3/h)	6360			
Exhaust temp (℃)	555			
Cooling way	Water Radiator & Fan			
Fan exhaust flow (m3/min)	702			
Coolant capacity (L)	61			
Highest water temperature(℃)	103			
Minimum air opening to room (m2)	3.15/2.6			
Thermostat range (℃)	88-98			
Max oil temperature (℃)	113			
Lubrication system oil capacity (L)	62			
Rate load fuel consumption(L/H)	132			
Standard Governor/Class	lass Electronic fuel injection			
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	Н			
Controller				
Brand	POWERTEC			

# **Dimension and Weight**



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Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	4300*1500*2200	4500	-
Silent Type	4700*1700*2450	6450	1100

## **Contact Us**

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