



# PPE15A

Prime Power: 10KW/13KVA Standby Power: 11KW/14KVA Voltage: 400V

## Powered by Perkins 403D-15 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</p>

TIF (Telephone Influence Factor) <50</li>
 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°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

# **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.



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# **Equipment Instruction**



## **Diesel Engine**

■ Model: 403D-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 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 403D-15 ElectropaK is a powerful but quiet 1.5 litre naturally aspirated 3-cylinder compact package;
- Design features on the 400D range of ElectropaKs ensures 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 satify tough environment.
- Rotor dynamic balancing complys for BS5625, class 2.5
- Sealed with advanced lubricating grease to prolong life of bearing.



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# **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 °C 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;.

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# **Data sheet of Genset**

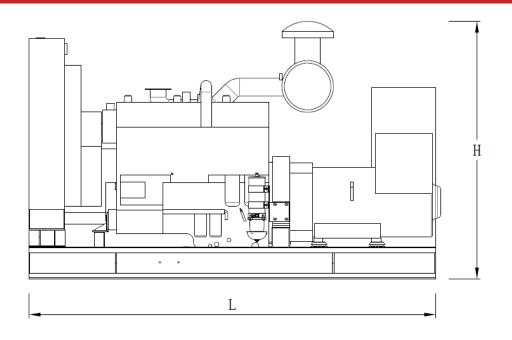


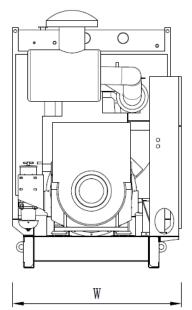
Ger	nset		
Model	PPE15A		
Prime Rating (kw)	10		
Standby Rating (kw)	11		
Rate current(A)	18		
Power factor	0.8		
Frequency(Hz)	50		
En	gine		
Engine Model	Engine Model 403D-15		
Gross Engine output-Prime (kw)	12		
Gross Engine output-Standby (kw)	13.2		
Bore * stroke (mm)	84*90		
Cylinders and structure	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)			
Coolant capacity (L)	36.6 6		
Highest water temperature(°C)	112		
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Minimum air opening to room (m2)	1.0/0.75 82-95		
Thermostat range ( $^{\circ}$ C)  Max oil temperature ( $^{\circ}$ C)	82-95 125		
Lubrication system oil capacity (L)	6		
	3.7		
Rate load fuel consumption(L/H)  Standard Governor/Class	Mechanical speed regulation		
	nator		
Rated Voltage(V)	230/400		
Output Way	3 Phases, 4 wires		
Rated power factor	0.8		
Exciter	Brushless, Self-exciter		
Max voltage regulation	±1%		
Protection class	3		
Protection class	IP21-23		
Insulation class	H		
	roller		
Brand	POWERTEC		

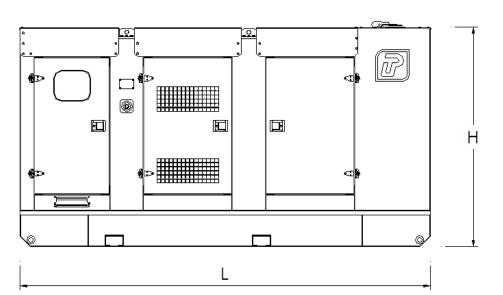
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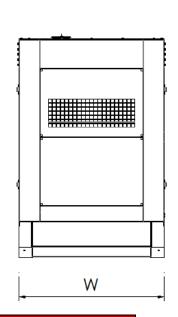
# **Dimension and Weight**











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

# Contact Us

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