

PPE110A

Prime Power: 80KW/100KVA

Standby Power: 88KW/110KVA

Voltage: 400V

Powered by Perkins **1104C-44TA** 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 $\leq +10\%$ $\leq -7\%$
- The transient voltage deviation $\leq +20\%$ $\leq -15\%$
- Frequency recovery time $\leq 3S$
- Voltage recovery time $\leq 1S(Voltage \pm 3\%)$
- 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 / ISO8528:2018
(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: 1104C-44TA
- Building upon Perkins proven reputation within the power generation industry, the 1100 Series range of ElectropaK engines now fit even closer to customers needs;
- With the 1104C-44TA unit, Perkins has engineered for its customers even higher levels of reliability, yet lowered the cost of ownership with six cylinder capability from a four cylinder package performance. Crucially, bare engine noise is lower than ever before;
- Rapid starting and pick-up are naturally built-in especially for cold operation, but where legislation or local markets demand an emissions capability, then the 1104C-44TA satisfies EU 2007 Stage II mobile off-highway legislation; and also complies to TA Luft (1986) regulations;
- 1100 Series see the marriage of technology to customer need. A 4.4 litre unit very quietly setting a new standard in prime power supply and standby for the power generation industry;
- The Perkins 1100 Series family was developed following an intensive period of customer research. The 3.3 and 4.4 litre engines feature new cylinder blocks which ensure bore roundness is maintained under the pressures of operation, as well as significantly reducing mechanical and combustion noise. A new cross-flow cylinder head design optimises combustion control, and combines with turbocharger and charge cooler technology to achieve the best combination of power delivery and low exhaust emissions;
- The refined structure of the 1100C range leads to an exceptionally low noise signature. To meet environmental needs swirl conditioned air is delivered through the new cross-flow cylinder head, and burns cleanly with the high pressure fuel from an advanced technology rotary pump;
- The compact packaging and low noise performance of the 1100C range bring clear benefits to the Genset packager. Low cost of operation is assured by lower fuel and oil consumption and 500 hour service intervals;



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 complies 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

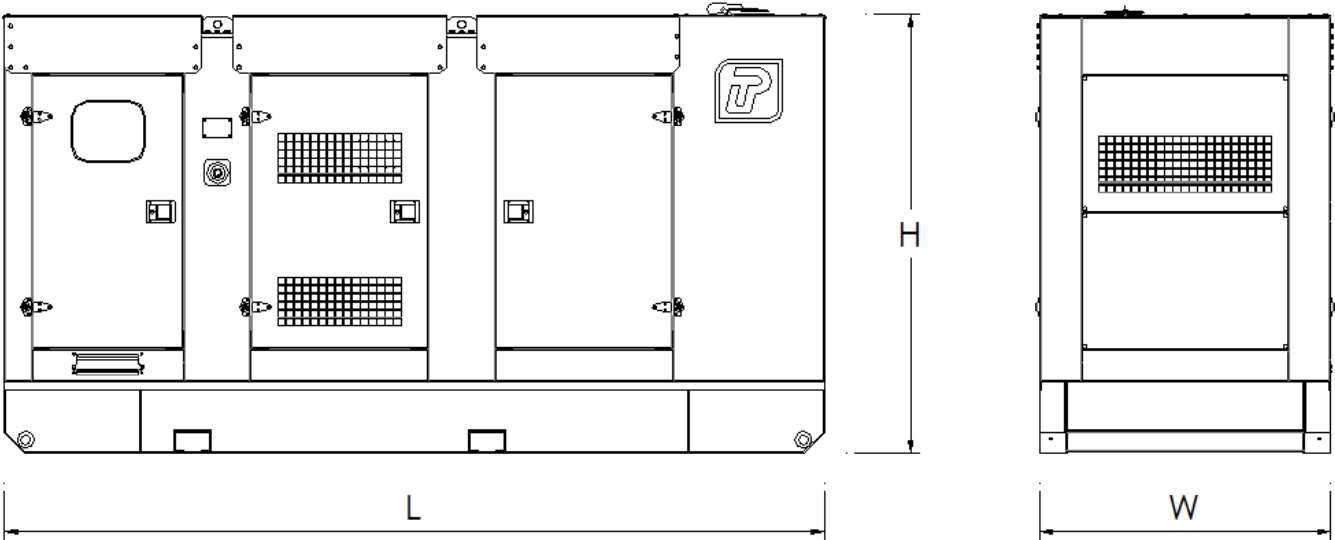
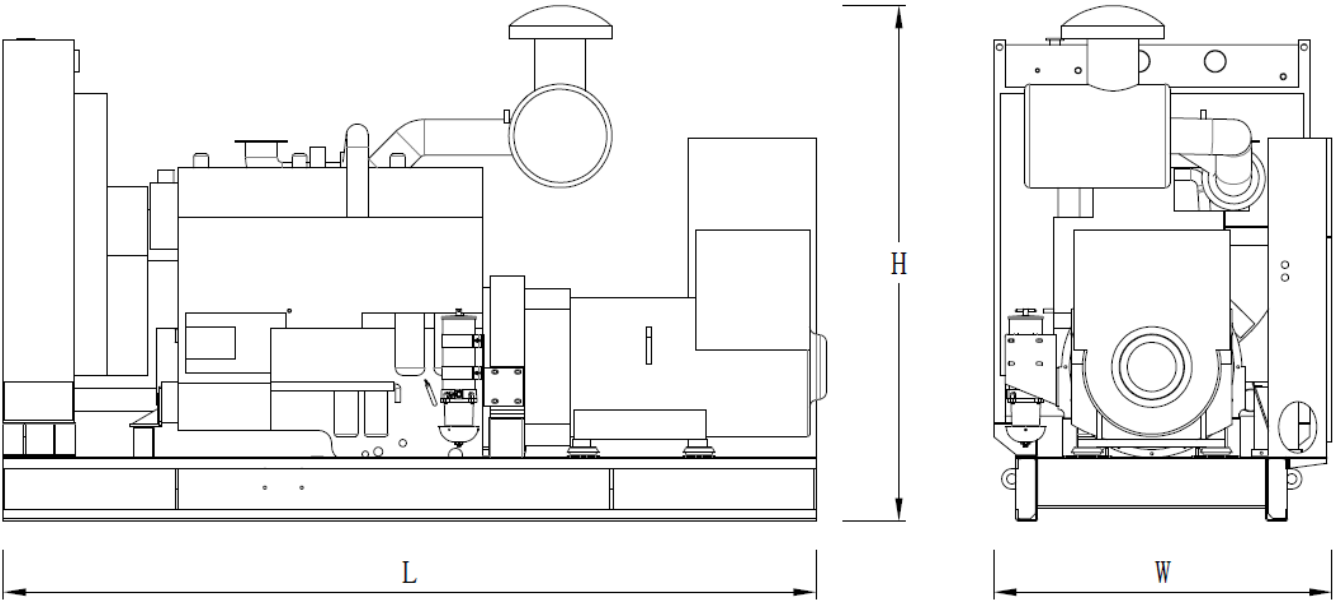
- Manual/auto/stop/start
- Setting button
- Fault status indicators
- Screen menu selection button
- Emergency stop button
- Digital displayer



Communication Interface (Option)

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

Genset	
Model	PPE110A
Prime Rating (kw)	80
Standby Rating (kw)	88
Rate current(A)	144
Power factor	0.8
Frequency(Hz)	50
Engine	
Engine Model	1104C-44TA
Gross Engine output-Prime (kw)	90.1
Gross Engine output-Standby (kw)	99.5
Bore * stroke (mm)	105*127
Cylinders and structure	4 In line
Displacement(Liter)	4.4
Compression Ratio	18.23:1
Intake way	Turbocharging/air to air charge cooled
Max intake resistance (KPa)	8
Air intake (m3/h)	360
Max exhaust back pressure (KPa)	18
Exhaust gas flow (m3/h)	912
Exhaust temp (°C)	514
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	165.6
Coolant capacity (L)	12.6
Highest water temperature(°C)	112
Minimum air opening to room (m2)	1.5/1.2
Thermostat range (°C)	82-93
Max oil temperature (°C)	125
Lubrication system oil capacity (L)	8
Rate load fuel consumption(L/H)	22.6
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	2200*1000*1363	1149	180
Silent Type	2920*1100*1750	1899	300

Contact Us

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