POWERTEC
Powertec Generator System Inc.

Perkins

PPE1875B

Prime Power: 1350KW/1688KVA Standby Power:1500KW/1875KVA Voltage: 400V

Powered by Perkins 4012-46TAG3A 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

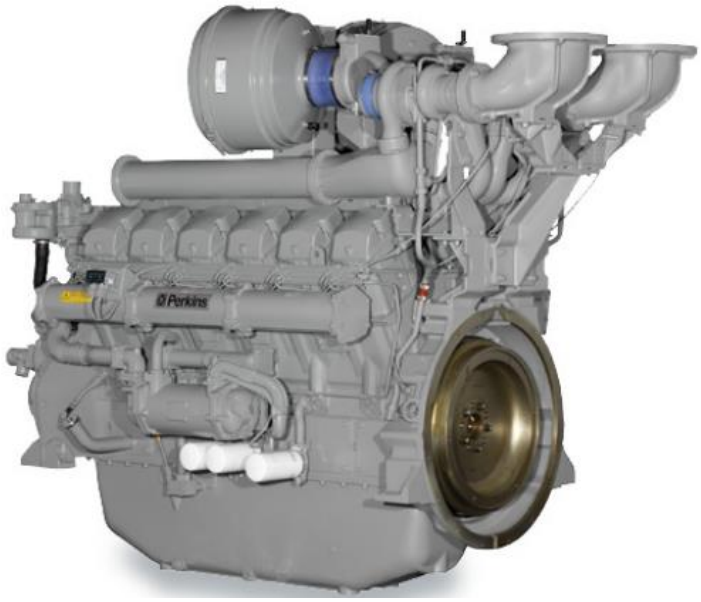
- Perkins Engine
- Brushless synchronous alternator
- POWERTEC intelligent controller
- 40℃ standard ambient temperature （50℃ Optional）
- Float battery charger
- Battery connect wire
- Steel base frame
- Silencer, bellows, exhaust bend
- Manual book and files

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：4012-46TAG3A
- 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;
- Developed from a proven engine range that offers superior performance and reliability;
- The 4012-46TAG3A ElectropaK is a turbocharged, air-to-air charge cooled, 12 cylinder diesel engine;
- Offered with either temperate or tropical cooling packages (with or without fuel oil cooling). Their 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;



- 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

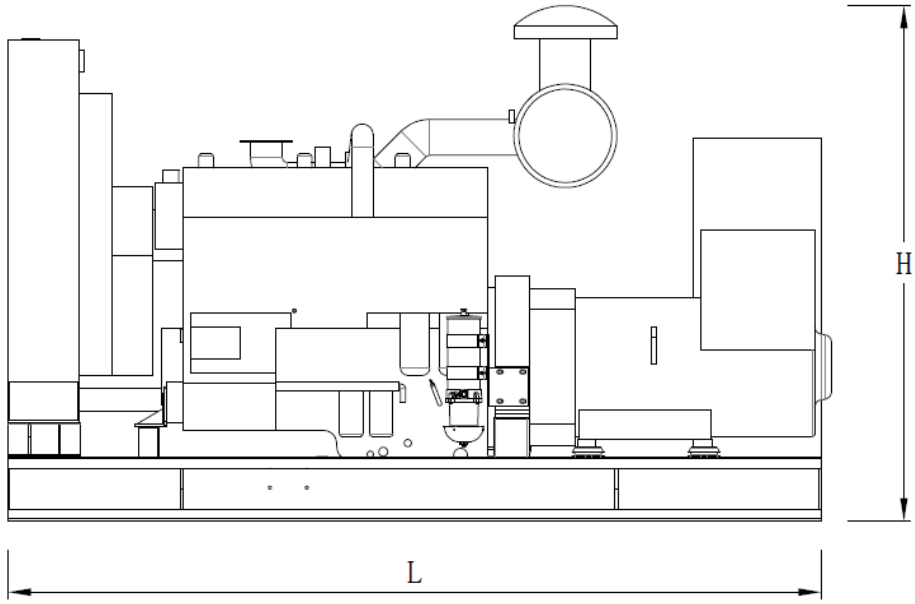
Control System Components

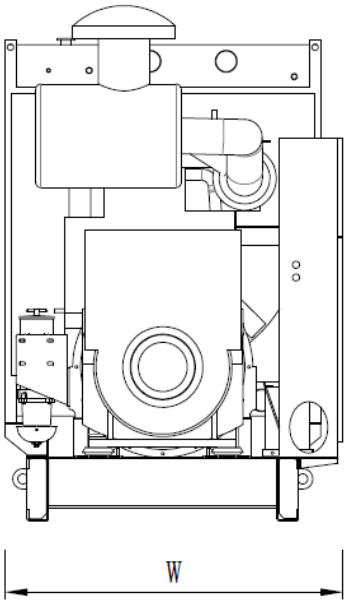
- Manual/auto/stop/start
- Setting button
- Fault status indicators
- Screen menu selection button
- Emergency stop button
- Digital displayer

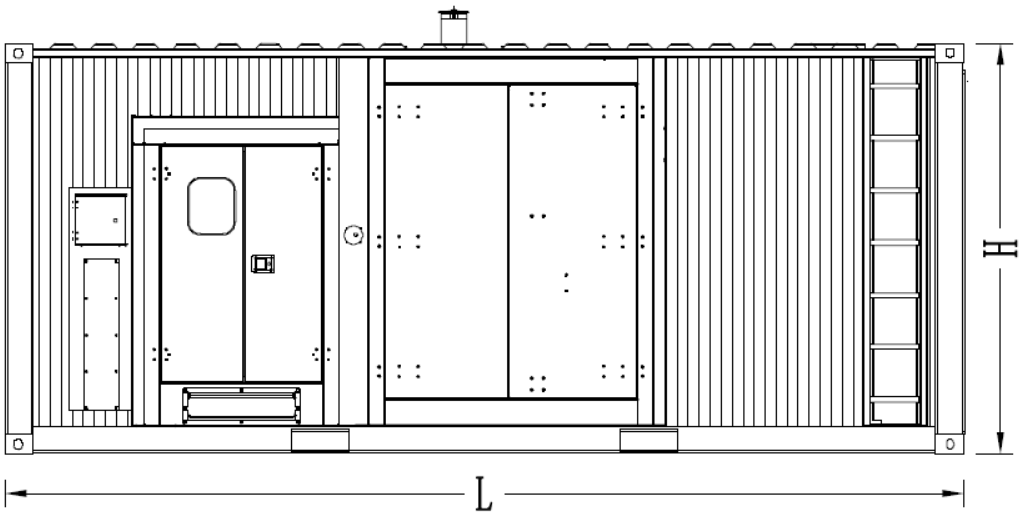
Communication Interface （Option）

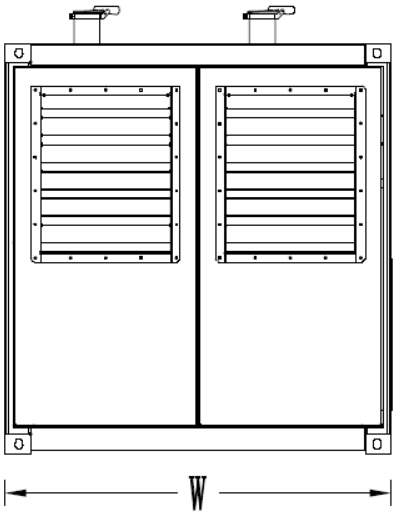
- International standard MODBUS communication protocol RS232/ RS485 is suitable for remote control and monitor; It is easy integrated with SCADA;.

Genset	
Model	PPE1875B
Prime Rating (kw)	1350
Standby Rating (kw)	1500
Rate current(A)	2436
Power factor	0.8
Frequency(Hz)	50
Engine	
Engine Model	4012-46TAG3A
Gross Engine output-Prime (kw)	1440
Gross Engine output-Standby (kw)	1583
Bore * stroke (mm)	160*190
Cylinders and structure	12 60º Vee form
Displacement(Liter)	45.842
Compression Ratio	13.6:1
Intake way	Turbocharged and air to air charge cooled
Max intake resistance (KPa)	4
Air intake (m3/h)	7500
Max exhaust back pressure (KPa)	5
Exhaust gas flow (m3/h)	21000
Exhaust temp (℃)	480
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	1920
Coolant capacity (L)	210
Highest water temperature(℃)	98
Minimum air opening to room (m2)	9.0/8.0
Thermostat range (℃)	71-85
Max oil temperature (℃)	105
Lubrication system oil capacity (L)	177
Rate load fuel consumption(L/H)	370
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	5550*2271*2582	13400	-
Silent Type	-	-	-

Contact Us

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