保达 品质·服务·价值 发电机组 POWERTEC GenSet

Perkins

POWERTEC Generator Set

Powered by Perkins 4012-46TAG2A Engine

Model：PPE1650　Prime Power: 1200KW/1500KVA　Standby Power: 1320KW/1650KVA

Genset Fundamental Characteristics

- 230/400VAC，50HZ 0.8PF 3 Phases, 4 wires output
- Frequency drop　≤3%
- Voltage modulation　≤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
- Inbuilt shock absorber has high performance on shock absorption. It's easy to be transported and installed without embedding and Fixing rubber shock pad between the genset and ground

Genset Standard Configuration

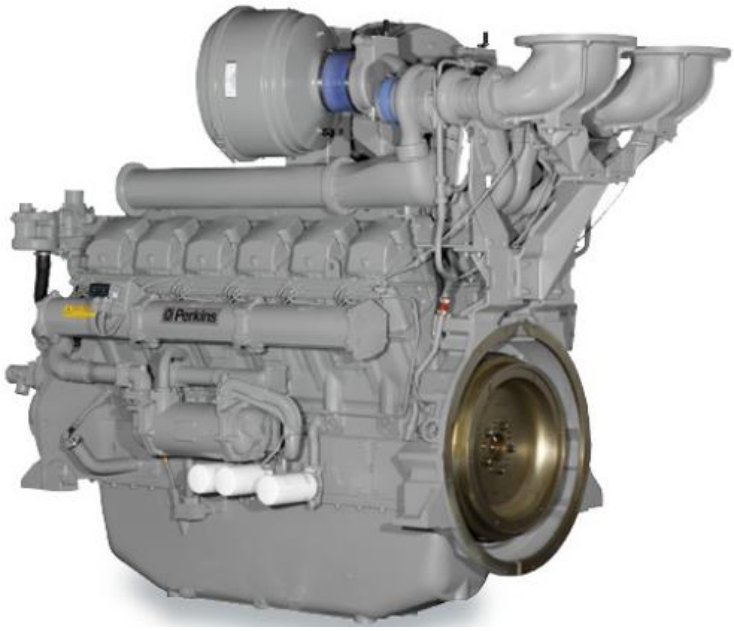
- Perkins Engine
- Brushless synchronous alternator
- POWERTEC intelligent controller
- 40℃ standard ambient temperature Water radiator
- Modularized case circuit breaker（3P）
- Float Battery Charger
- Battery connect wire
- Steel base frame(include shock absorbers)
- Bellows、exhaust bend
- Manual book and files

Genset Optional Configuration

- 24V Starter Batteries
- Daily Fuel Tank
- Oil-water separator
- Warning function of low water level, low fuel oil
- Automatically monitoring & controlling system of City power
- Coolant heater
- Oil heater
- Heat exchanger--Water cooling Tower System
- Soundproof Canopy/ Trailer
- ISO container
- Design and construction of environmental protection Engineering for the Genset room

Performance Description of Diesel Engine

- Model： **Perkins 4012-46TAG2A**
- Construction：Equipped with independent four valves cylinder Head to facilitate air flow. The single fuel injector ensures ultra atomization of diesel fuel and combust at high speed under full control. Sharing a large number of components with other 4000 series engines helps to reduce the inventory of the manufacture.



- Intake: Turbocharged
- Fuel system: Digital governor with isochronous function, speed is adjustable to ISO8528-5 standard; direct injection system with lift pump
- Lubrication system: Wet all aluminum oil pan with oil injector and oil dip stick
- Cooling system: Two sets of double thermostat
- Filtration system: Embedded air filter and turbocharger; rotary full-flow fuel filter; rotary full-flow oil filter
- Electrical equipment: 24V starter and 24V alternator, built-in regulator (DC output); turbine inlet high temperature protection switch; double coolant high temperature protection switch;double low oil pressure protection switch
- Lower operating cost: The standard replacement oil interval is set to 500 hours
- Engine Operating Environment Description:
  The engine can work under the following conditions without modulating power:
  1800r/min engine--altitude less than 1000 m, ambient temperature less than 40 ℃
  1500r/min engine--altitude less than1000 m, ambient temperature less than 40 ℃

Performance Description Alternator

- Optional Alternator: **Stamford / Marathon/ Faraday/Engga/Mecc Alt**
- Brushless, 4 pole rotating magnetic field, single bearing with protective cove

- Insulation: H Class.
- Standard IP23 grade
- Cooling system
- AC exciter, rotate rectifying unit
- Surface of stator winding is covered with damp-proof epoxy Insulation varnish after impregnation proceeding
- Rotor and exciter is proceeded with high temperature insulating resin, Will be more applicable for harsh environment.
- Rotor dynamic balancing comply to standard BS5625,class 2.5
- Sealed with advanced lubricating grease prolongs life of bearing.

Notes: Above data of alternator comes from Stamford. Proper specification is subject to the practice alternator if customers choose other alternator

Standard Detection Function

- 3 phases voltage Ua,Ub,Uc
- Frequency F1
- Apparent power PR
- Coolant temperature WT
- Oil pressure OP
- Speed RPM
- HC timer 99999 hours records
- 3 phases current La,Lb,Lc
- Active power PA
- Power factor PF
- Temperature ℃ display
- KPa/Psi/Bar display
- Battery voltage V
- Maximum cumulative times of starting can reach 999999

Standard Protection Function

Genset Protection

- Programmable alarm and status input
- Emergency stop

Engine Protection

- Stop for over speed
- Alarm/Stop for low oil pressure
- Alarm/Stop for coolant high temperature
- Stop for failure to start/jigger
- Indication of sensor fault
- Alarm for low/high battery voltage
- Alarm for shortage of battery

Alternator Protection

- Stop for over high/low voltage
- Alarm/stop for over current
- Stop for loss of voltage detection signal
- Stop for over frequency
- Stop for low frequency

Control System Components

- Control switch—manual/auto/stop/start
- Screen menu selection button
- Setting button
- Fault status indicators
- Emergency stop button
- Digital display

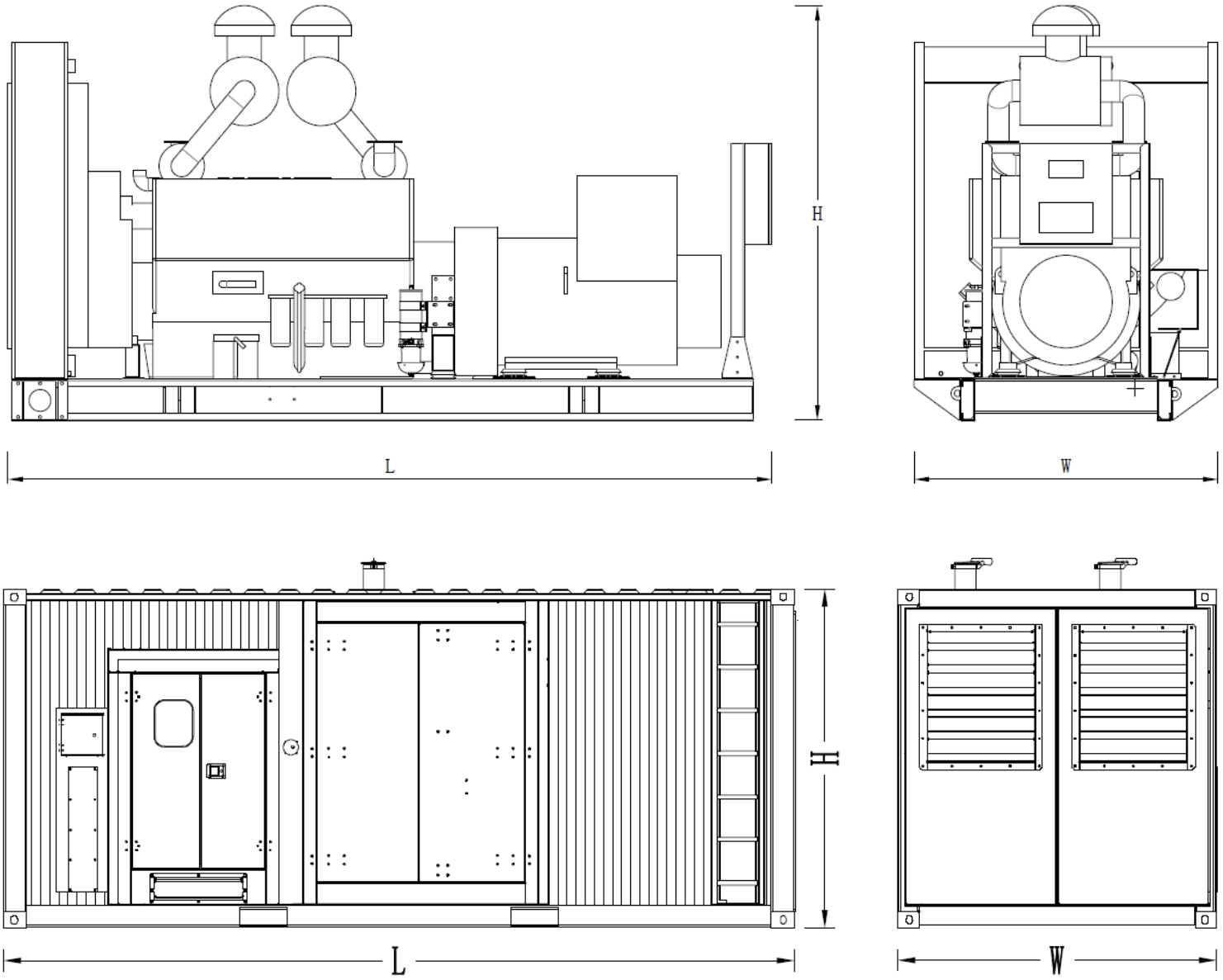
Communication Interface （optional function）

- International standard MODBUS communication protocol with error detection as well as RS232/ RS485 (RS485 is opto-isolated type) has functions of remote control, telemetry and telesignalling, which are facilitate to monitor genset.

Notes: Above data of controller comes from POWERTEC GC6110. Proper specification is subject to customers' practice controller if other controller is selected.

	Model	PPE1650
Genset	Prime Rating (kw)	1200
	Standby Rating (kw)	1320
	Prime current(A)	2165
	Frequency(hz)	50
Engine & Alternator	Engine Model	4012-46TAG2A
	Gross Engine output-Prime (kw)	1267
	Gross Engine output-Standby (kw)	1395
	Bore * stroke (mm)	160*190
	Cylinders and structure	12 V type
	Displacement(Liter)	45.84
	Compression Ratio	13:1
	Intake way	Turbocharged/ Air-Air intercooler
	Max intake resistance (KPa)	4
	Air intake (m3/h)	7200
	Max exhaust back pressure (KPa)	5
	Exhaust gas flow (m3/h)	19200
	Exhaust temp (℃)	455
	Cooling way	Water Radiator & Fan
	Fan exhaust flow (m3/min)	1944
	Coolant capacity (L)	210
	Highest water temperature(℃)	98
	Minimum air opening to room (m2)	8.0/7.2
	Thermostat range (℃)	71-85
	Max oil temperature (℃)	105
	Lubrication system oil capacity (L)	177
	Fuel consumption(L/H)	310
	Standard Governor/Class	Electronic
	Optional Alternator Model	Marathon--- MX-1240-4 Engga------- EG450-1350N Stamford---- PI 734C Faraday----- FD7B1-4
	Rated Voltage(V)	400/230
	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 and Model	POWERTEC GC6110

Dimension and Weight



Type	Dimension mm （L*W*H）	Weight KG	Fuel Tank Capacity L
Open Type	5400*2271*2582	12428	-
Silent Type	12192*2438*2896	19228	2000

Notes:： Above data are for reference only. Specific size is subjected to actual measurement.

Contact Way

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