

PYC45A

Prime Power: 30KW/38KVA Standby Power: 33KW/41KVA Voltage: 400VAC

Powered by Yuchai 4D24TG0 Engine

Genset Performance

- 230/400VAC, 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 $\leq +10\% \leq -15\%$
- The transient voltage deviation $\leq +20\% \leq -15\%$
- Frequency recovery time $\leq 3S$
- Voltage recovery time $\leq 1S(\text{Voltage} \pm 3\%)$
- 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.

Standard Configuration

- Guangxi Yuchai Engine
- Brushless synchronous alternator
- POWERTEC intelligent controller
- 40°C standard ambient temperature
(50°C Optional)
- Molded case circuit breaker (3P)
- Float battery charger
- Battery connect wire
- Steel base frame
- Silencer, bellows, exhaust bend
- 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.

Diesel Engine

- Model: PYC45A-4D24TG0
- 4D24 series engines are cooperated by Guangxi Yuchai and Chongqing Runtong Company, a new generation of non-road diesel engine, which is reliable, compact, efficient, environmentally friendly, and low noise.
- The engine has compact structure, small size, light weight and easy maintenance.
- Tunnel type cylinder liner-less body, good rigidity, low fuel consumption (combustion ratio less than 0.1%).
- Electrically controlled fuel supply system, low swirl ratio airway, multi-hole and small aperture fuel injector, strong power, excellent performance and economical.
- NVH optimization, low noise, small vibration, to reach the international advanced level of similar models;
- Relay or remote monitoring and easy operation; oil filter and fuel filter are arranged on the same side, which makes the maintenance easier.
- Adopt international famous fuel pump brand:
Electric Pump Rotor (adjustable rate within 1% and meet Chinese emission standard at phase III);
STANADYNE DB Pump (adjustable rate within 5% and meet eIIIA emission standard).



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 °C
- 1500r/min engine--altitude less than 1000 m, ambient temperature less than 40 °C

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.
- Sealed with advanced lubricating grease to prolong life of bearing.



Notes: Above data of alternator comes from Stamford. Specification may alternated without advance notice.

Standard

- 3 phases voltage: U_a, U_b, U_c
- Frequency F_1
- 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

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;.

Notes: Above data of controller comes from POWERTEC GC6110. Customized solutions is available as required

Genset

Model	PYC45A
Prime Rating (kw)	30
Standby Rating (kw)	33
Rate voltage(V)	400
Rate current(A)	54
Power factor	0.8
Frequency(Hz)	50

Engine

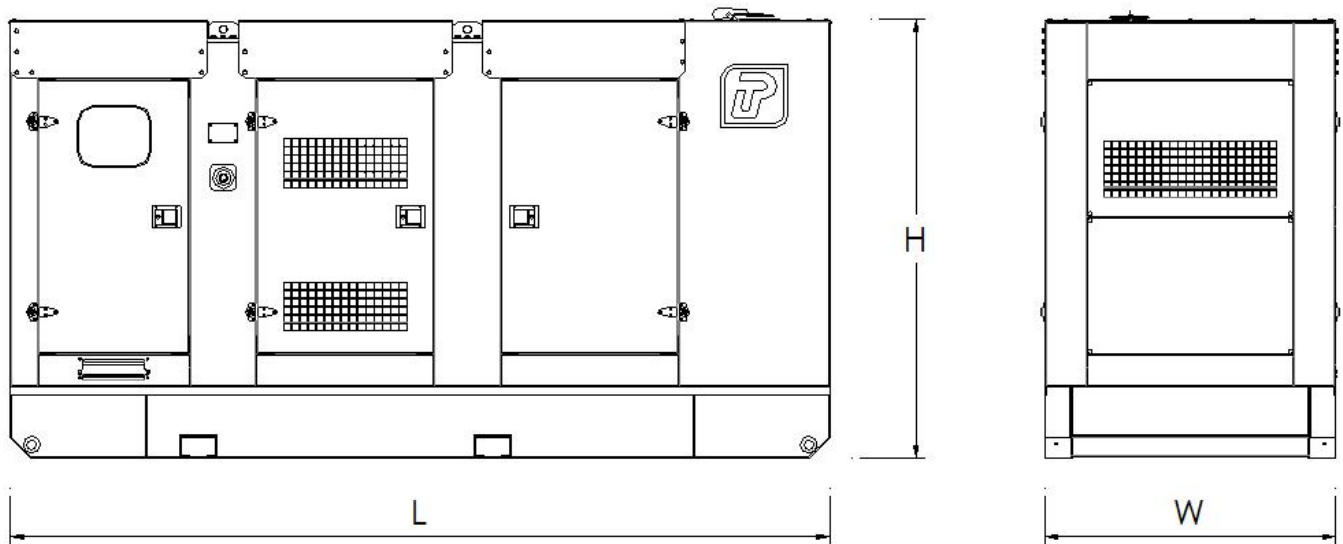
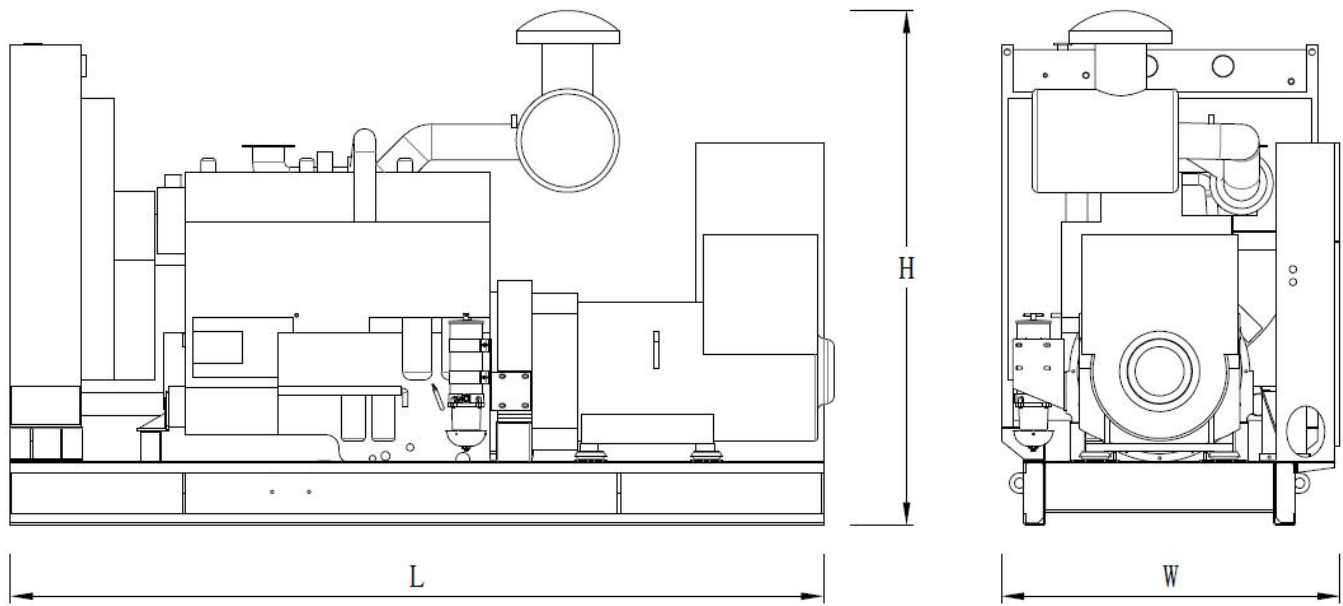
Engine Model	4D24TG0
Gross Engine output-Prime (kw)	36
Gross Engine output-Standby (kw)	39.6
Bore * stroke (mm)	87*103
Cylinders and structure	4 In line
Displacement(Liter)	2.45
Compression Ratio	17.8:1
Intake way	Turbocharging
Max intake resistance (KPa)	3.7
Air intake (m3/h)	132
Max exhaust back pressure (KPa)	10
Exhaust gas flow (m3/h)	324
Exhaust temp (°C)	500
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	84
Coolant capacity (L)	8.2
Highest water temperature(°C)	102
Minimum air opening to room (m2)	1.5/1.0
Thermostat range (°C)	71-82
Max oil temperature (°C)	130
Lubrication system oil capacity (L)	9.5
Rate load fuel consumption(L/H)	7.1
Standard Governor/Class	Electronic

Alternator

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	POWERTEC or DEEPSEA
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Type	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2100*810*1242	755	110
Silent Type	2300*900*1550	1305	250

Contact Us

Powertec Generator System Co., Ltd

Add: Danshui Yanna Industry Zone, Huiyang, Huizhou, Guangdong, China
Tel: +86 752-3911119 / 3911118
Fax: +86 752-3911110
Web: www.powertec.com.cn
Email: powertec@powertec.com.cn