

# PYG25A

Prime Power: 16KW/20KVA Standby Power: 18KW/23KVA Voltage: 400VAC

Powered by Yuchai 4D24G6 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: PYC25A-4D24G6
- 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 eIII A 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 F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature °C display
- Oil pressure OP
- Engine speed
- 3 phases current:  $I_a, I_b, I_c$
- Active power PA
- Power factor PF
- Temperature °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	PYC25A
Prime Rating (kw)	16
Standby Rating (kw)	18
Rate voltage(V)	400
Rate current(A)	29
Power factor	0.8
Frequency(Hz)	50

## Engine

Engine Model	4D24G6
Gross Engine output-Prime (kw)	18.5
Gross Engine output-Standby (kw)	20.4
Bore * stroke (mm)	87*103
Cylinders and structure	4 In line
Displacement(Liter)	2.45
Compression Ratio	19:1
Intake way	Natural aspiration
Max intake resistance (KPa)	2
Air intake (m3/h)	70
Max exhaust back pressure (KPa)	5
Exhaust gas flow (m3/h)	73
Exhaust temp (°C)	620
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	98.4
Coolant capacity (L)	10.2
Highest water temperature(°C)	95
Minimum air opening to room (m2)	1.5/1.0
Thermostat range (°C)	71-95
Max oil temperature (°C)	125
Lubrication system oil capacity (L)	9.5
Rate load fuel consumption(L/H)	5.2
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 GC6110
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Type	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	1700*800*1200	680	110
Silent Type	2300*900*1550	1250	250

**Contact Us**

## Powertec Generator System Inc.

**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