

# PYC200A

Prime Power: 150KW/188KVA

Standby Power: 160KW/200KVA

Voltage: 400V

Powered by Yuchai YC6A245L-D34 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  $\leq +10\%$   $\leq -15\%$
- 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.
- Product standards: (1) GB/T 2820-2022 / IS08528:2018  
(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

## Standard Configuration

- Guangxi Yuchai 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: YC6A245L-D21
- YC6A series engine through long-term market trial, is a mature product with excellent performance and high reliability; the market quantity of it is more than one million. Such model YC6A245L-D21 is developed for the characteristics of generator unit, which is characterized by high cost performance, easy use and maintenance;
- The engine body is made of high strength alloy cast iron, making the entire engine highly reliable even after many years of service.
- Stable operation: Electronic speed governing is adopted, ensuring small rotation speed fluctuation, stable operation, low steady speed droop and quick transient response;
- Easy maintenance: The universal rate of the parts and the parts for the products in the 6A production batch is over 90%.
- G3 performance requirements for generator set are met.



## 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 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  $F_1$
- 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 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

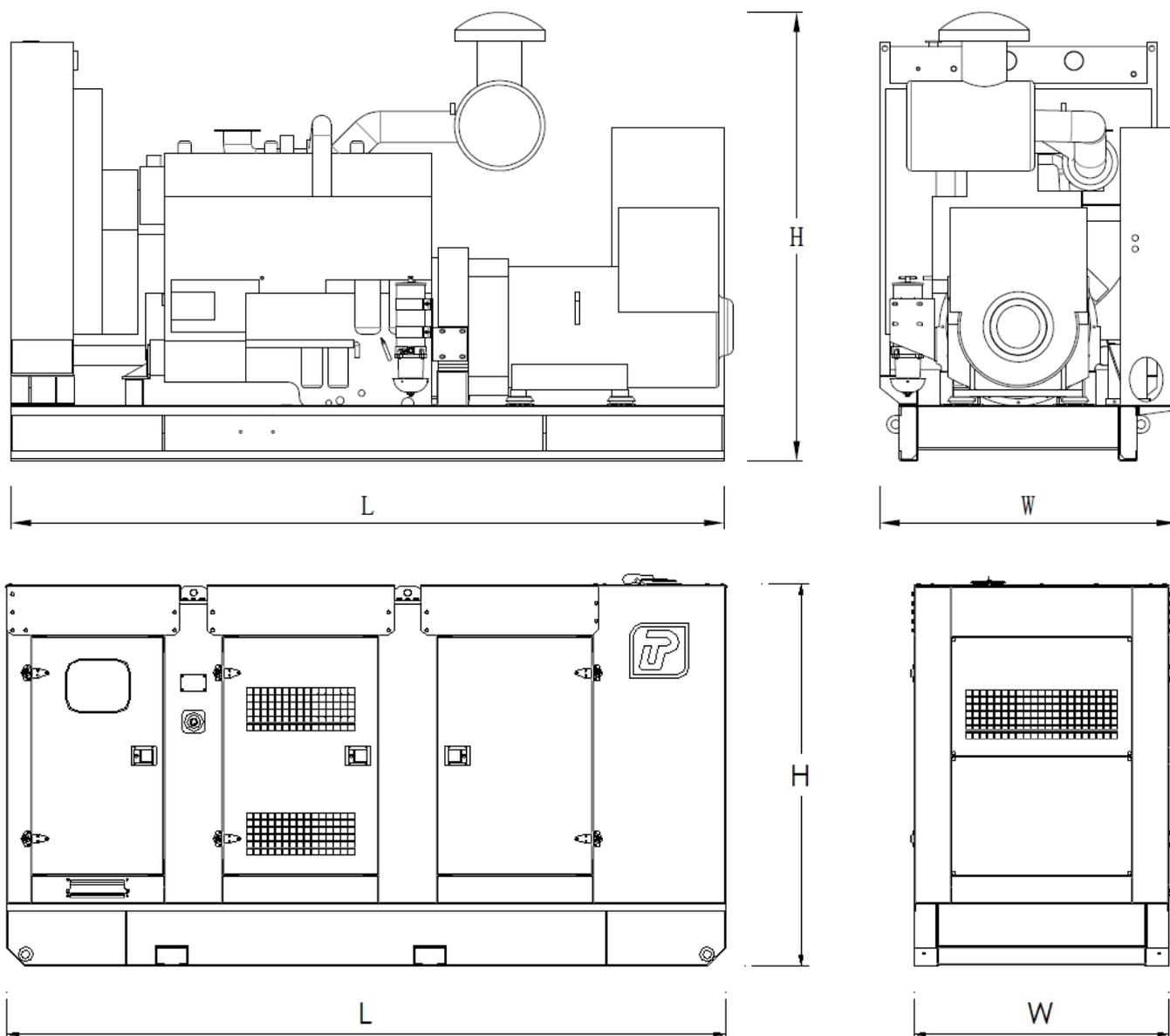
- Manual/auto/stop/start
- Setting button
- Fault status indicators
- Screen menu selection button
- Emergency stop button
- Digital displayer



## Communication Interface (Option)

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

<b>Genset</b>	
Model	PYC200A
Prime Rating (kw)	150
Standby Rating (kw)	160
Rate current(A)	271
Power factor	0.8
Frequency(Hz)	50
<b>Engine</b>	
Engine Model	YC6A245L-D21
Gross Engine output-Prime (kw)	165
Gross Engine output-Standby (kw)	181
Bore * stroke (mm)	108*132
Cylinders and structure	6 In line
Displacement(Liter)	7.255
Compression Ratio	17.5:1
Intake way	Turbocharged & Intercooled
Max intake resistance (KPa)	5
Air intake (m3/h)	756
Max exhaust back pressure (KPa)	10
Exhaust gas flow (m3/h)	2088
Exhaust temp (°C)	455
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	277.8
Coolant capacity (L)	55
Highest water temperature(°C)	97
Minimum air opening to room (m2)	1.3/1.1
Thermostat range (°C)	70-80
Max oil temperature (°C)	120
Lubrication system oil capacity (L)	21
Rate load fuel consumption(L/H)	40.2
Standard Governor/Class	electronic
Emission	China Tier 2
<b>Alternator</b>	
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
<b>Controller</b>	
Brand	POWERTEC



Type	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2510*1010*1586	1800	250
Silent Type	3500*1245*2052	3060	550

## 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](http://www.powertec.com.cn)  
**Email:** [powertec@powertec.com.cn](mailto:powertec@powertec.com.cn)