



# PYC275B

Prime Power: 200KW/250KVA Standby Power: 220KW/275KVA Voltage: 400V

### Powered by Yuchai YCA08350-D30 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  $\leq \pm 1\%$
- 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</li>
   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 room.

### **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
- Manual book and files

# **Equipment Instruction**



## **Diesel Engine**

■ Model: YCA08350-D30

- Structure: High-strength cylinder block, reinforced crankshaft, and alloy steel connecting rods make the engine more durable and have a lighter and more compact structure among similar products;
- It adopts advanced and mature electronically controlled high-pressure common rail + high-efficiency supercharging and intercooling technology to accurately control the fuel injection volume and sufficient air intake to ensure that the diesel engine has sufficient combustion, low fuel consumption and low emissions under different load conditions.
- Using a full-flow oil cooler, the heat dissipation efficiency is increased by 30%, effectively reducing the temperature of the oil, allowing the oil to lubricate parts at a reasonable temperature and reducing friction losses;
- The piston is cooled by an internal cooling oil channel, which effectively reduces the piston temperature and has a long service life;
- Adopting the German FEV technology platform; main performance indicators such as reliability and fuel consumption have reached the domestic advanced level;
- Meet the G3 level requirements for generator set performance;



- 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.



# **Intelligent Control System**



### **Standard Meters**

- 3 phases voltage: Ua, Ub, Uc
- Frequency F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature °C display
- Oil pressure OP
- Engine speed

- 3 phases current: La, Lb, Lc
- Active power PA
- Power factor PF
- Temperature °C display
- KPa/Psi/Bar display
- Battery voltage V
- Running Hour
- Starting timer: (999999)



### **Standard Protection Function**

#### **Genset Protection**

Programmable I/O signal

#### **Engine Protection**

- Stop for over speed
- Low oil pressure
- High Coolant temperature
- Sensor fail

#### **Alternator Protection**

- Over Voltage
- Over current
- Voltage signal lost

#### **Control System Components**

- Manual/auto/stop/start
- Setting button
- Fault status indicators

- Emergency stop
- Alarm for low/high battery voltage
- Low battery voltage
- Fail to start/Cranking fail
- Over Voltage
- Over frequency
- Under frequency
- 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;.

# **Data sheet of Genset**

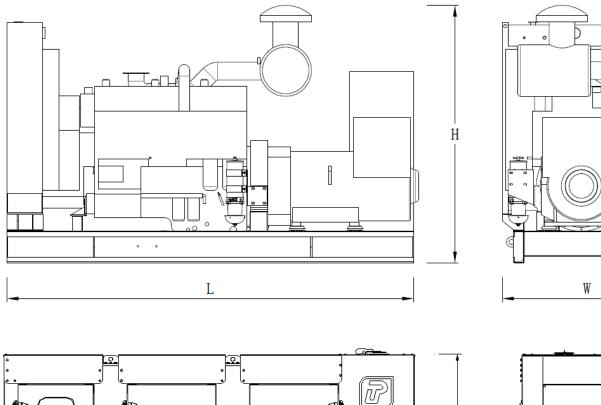


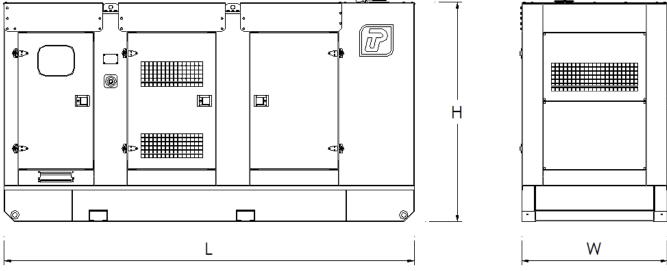
Genset			
Model	PYC275B		
Prime Rating (kw)	200		
Standby Rating (kw)	220		
Rate current(A)	361		
Power factor	0.8		
Frequency(Hz)	50		
Engine			
Engine Model	YCA08350-D30		
Gross Engine output-Prime (kw)	235		
Gross Engine output-Standby (kw)	259		
Bore * stroke (mm)	110*132		
Cylinders and structure	6 In line		
Displacement(Liter)	7.53		
Compression Ratio	17.5:1		
Intake way	Supercharge/Air-Air intercooling		
Max intake resistance (KPa)	5		
Air intake (m3/h)	768		
Max exhaust back pressure (KPa)	10		
Exhaust gas flow (m3/h)	2108		
Exhaust temp (°C)	580		
Cooling way	Water Radiator & Fan		
Fan exhaust flow (m3/min)	226		
Coolant capacity (L)	54.66		
Highest water temperature(℃)	97		
Minimum air opening to room (m2)	1.8/1.5		
Thermostat range (℃)	70-80		
Max oil temperature (°C)	120		
Lubrication system oil capacity (L)	24		
Rate load fuel consumption(L/H)	55.96		
Standard Governor/Class	Electronically controlled high voltage common rail		
Emission	China Tier 3		
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	Н		
Controller			
Brand	POWERTEC		

# **Dimension and Weight**



0





Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2600*1197*1465	1900	_
Silent Type	3500*1245*2052	3160	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

Email: powertec@powertec.com.cn