

# PYC350B

Prime Power: 250KW/313KVA

Standby Power: 280KW/350KVA

Voltage: 400V

Powered by Yuchai YC6MK420-D30 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 room.

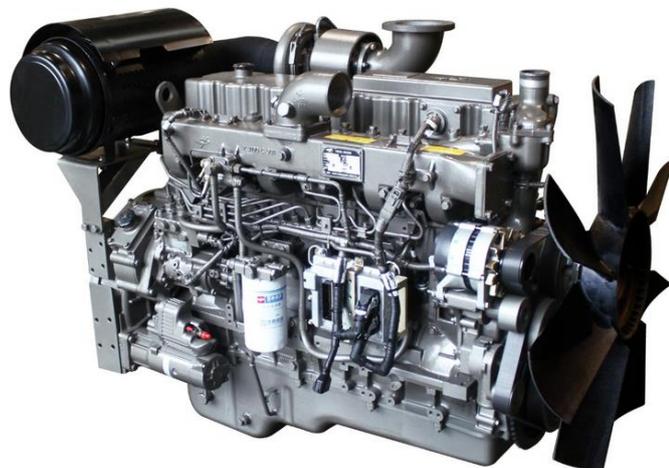
## Standard Configuration

- 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



## Diesel Engine

- Model: YC6MK420-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;
- Meet the G3 level requirements for generator set performance;
- Yuchai YC6MK series engines have gone through ten years of market testing and are widely used in heavy-duty buses, heavy-duty trucks, engineering machinery, ships and generator sets. After upgrading to the electronically controlled high-voltage common rail configuration, emissions meet the third stage non-road requirements with sufficient margin, stronger power, lower fuel consumption, and better transient loading capability.



## 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 2.5
- 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;

## Genset

Model	PYC350B
Prime Rating (kw)	250
Standby Rating (kw)	280
Rate current(A)	451
Power factor	0.8
Frequency(Hz)	50

## Engine

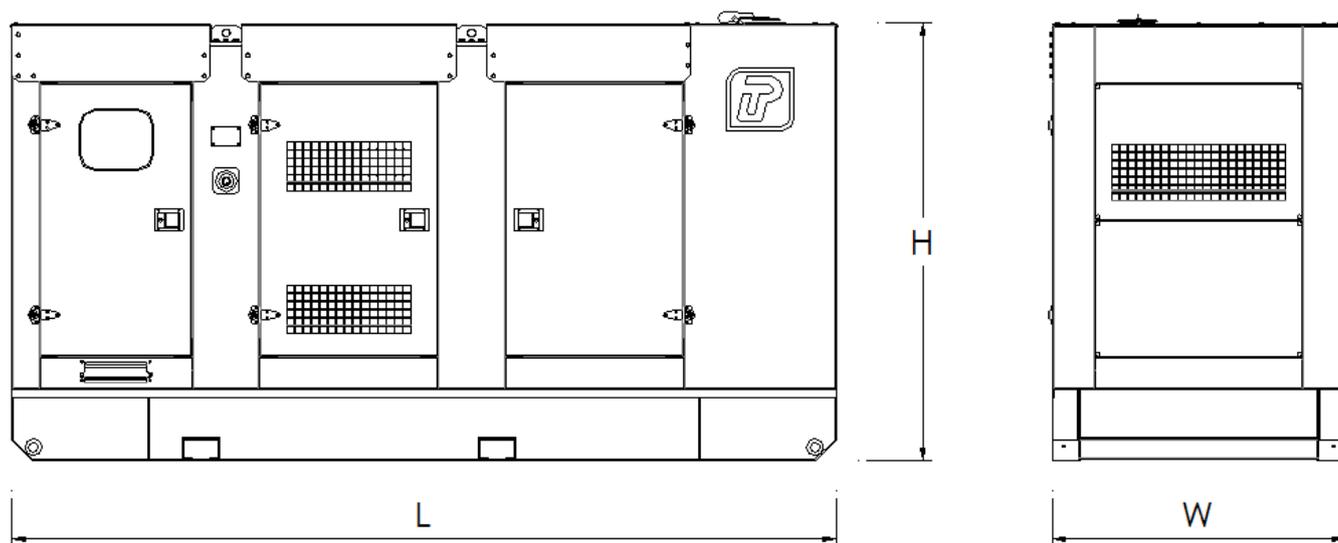
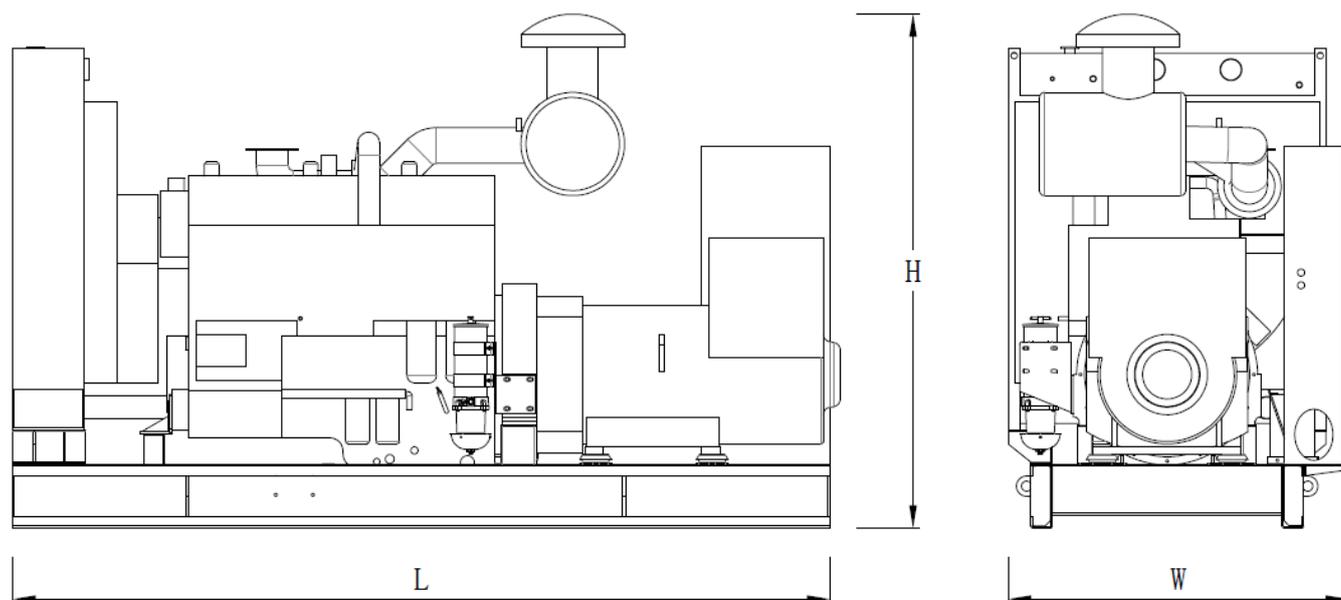
Engine Model	YC6MK420-D30
Gross Engine output-Prime (kw)	281
Gross Engine output-Standby (kw)	309
Bore * stroke (mm)	123*145
Cylinders and structure	6 In line
Displacement(Liter)	10.338
Compression Ratio	16.8:1
Intake way	Supercharge/Air-Air intercooling
Max intake resistance (KPa)	5
Air intake (m3/h)	1050
Max exhaust back pressure (KPa)	10
Exhaust gas flow (m3/h)	2706
Exhaust temp (°C)	580
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	612
Coolant capacity (L)	65
Highest water temperature(°C)	99
Minimum air opening to room (m2)	1.9/1.6
Thermostat range (°C)	80-90
Max oil temperature (°C)	120
Lubrication system oil capacity (L)	28
Rate load fuel consumption(L/H)	68.3
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	H

## Controller

Brand	POWERTEC
-------	----------



Type	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2929*1244*1722	2345	-
Silent Type	3950*1400*2115	3745	750

**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