

# PYC425B

Prime Power: 320KW/400KVA

Standby Power: 340KW/425KVA

Voltage: 400V

Powered by Yuchai YC6K520-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.

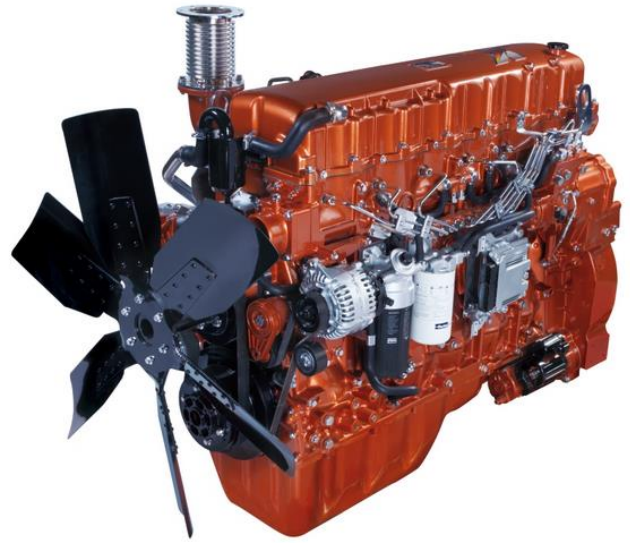
## Standard Configuration

- 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: YC6K520-D30
- Electronic-control and high-pressure injection technology realizes a faster transient respond and better speed regulation;
- Leading technology: high-pressure common rail technology and electrical calibration technology;
- Core parts apply high-strength vermicular graphite cast iron material with which engine weight decreases 15% compared with traditional engines;
- Yuchai specific piston ring sealing technology with which the oil consumption rate decreases 0.2%;
- Fuel consumption index reaches the world's leading level;
- Continuous improvement to enhance product reliability;
- Yuchai 6K series engine designed by AVL company is the leading product of YC engines, which possesses the latest technologies in the world and more than 30 patents; Yuchai 6K series engine share a good reputation and a considerable market share in the generator unit line.



## 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	PYC425B
Prime Rating (kw)	320
Standby Rating (kw)	340
Rate current(A)	577
Power factor	0.8
Frequency(Hz)	50

## Engine

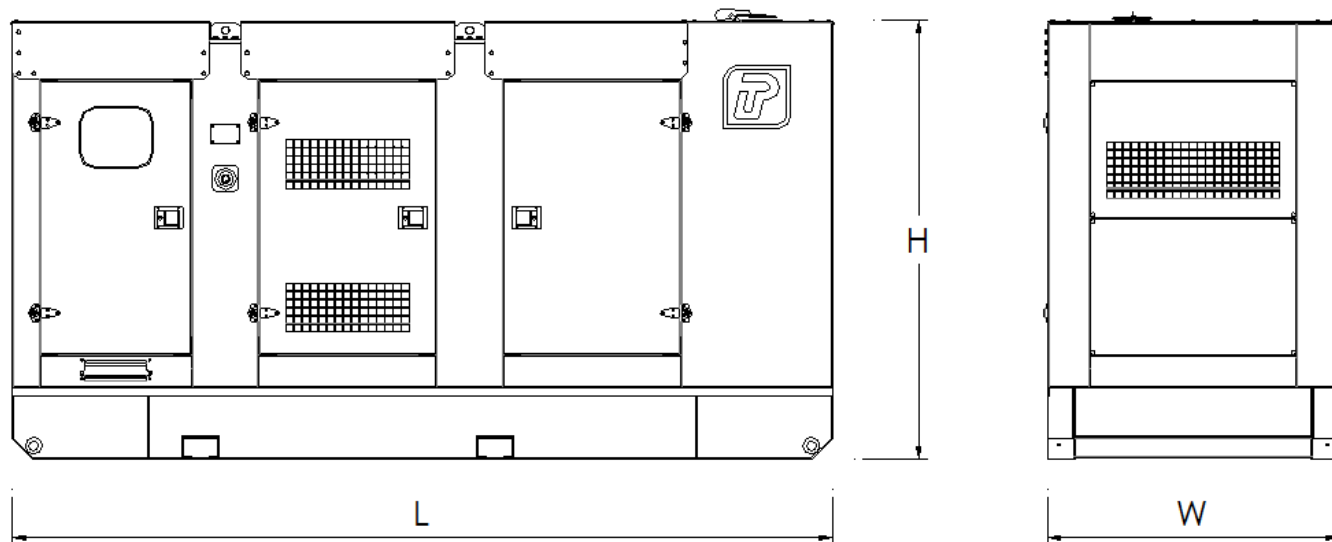
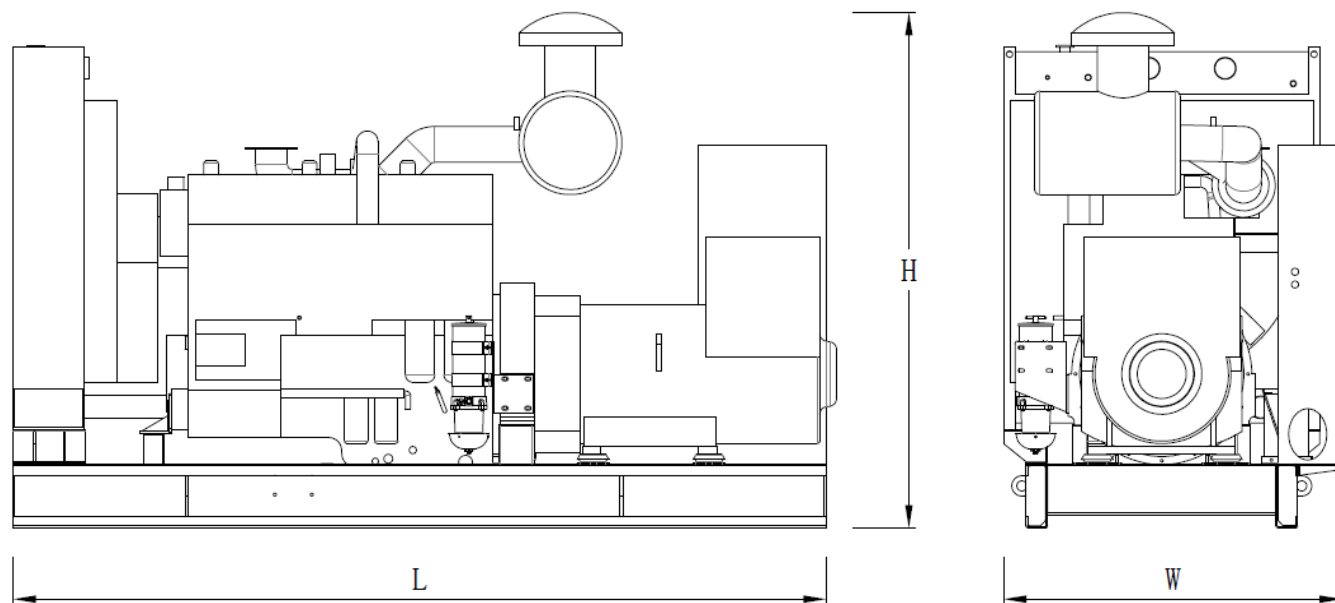
Engine Model	YC6K520-D30
Gross Engine output-Prime (kw)	356
Gross Engine output-Standby (kw)	382
Bore * stroke (mm)	129*155
Cylinders and structure	6 In line
Displacement(Liter)	12.16
Compression Ratio	16.5:1
Intake way	Supercharge/Air-Air intercooling
Max intake resistance (KPa)	5
Air intake (m3/h)	1260
Max exhaust back pressure (KPa)	10
Exhaust gas flow (m3/h)	3180
Exhaust temp (°C)	580
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	492
Coolant capacity (L)	56
Highest water temperature(°C)	99
Minimum air opening to room (m2)	2.1/1.7
Thermostat range (°C)	80-90
Max oil temperature (°C)	120
Lubrication system oil capacity (L)	32
Rate load fuel consumption(L/H)	87
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
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Type	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	3286*1367*1711	3000	-
Silent Type	4300*1594*2250	4800	900

**Contact Us**

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