

PYC440B

Prime Power: 320KW/400KVA Standby Power:350KW/438KVA Voltage: 400VAC

Powered by Yuchai YC6K520-D30 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

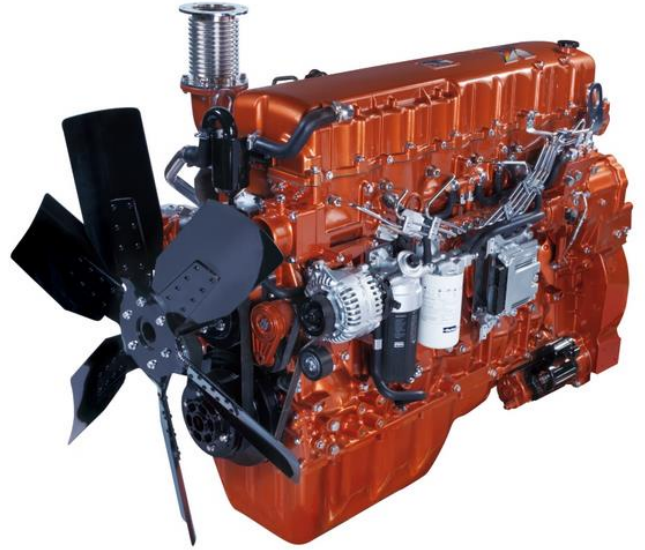
Optional Items

- 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: PYC440B-YC6K520-D30
- Construction: High strength cylinder block, alloy forged steel crankshaft, alloy steel connecting rod and inner cooling oil channel piston make the engine more durable, lighter and more compact in similar products.
- Intake: Charge inter-cooling
- Advanced and mature electronic common rail + high efficiency booster technology is adopted to accurately control the fuel injection volume. Adequate intake to ensure that the diesel engine under different loads, full combustion, less emissions.
- Using full-flow oil cooler and heat dissipation efficiency is increased by 30%. Oil temperature is effectively reduced. Lubricating oil at a reasonable temperature is to reduce friction loss.
- The piston adopts internal cooling channel to cool oil, effectively reducing the piston temperature so as to have a long service life.
- Adopt German FEV technology platform; Reliability, fuel consumption and other main performance indicators reach the advanced level in China; Meet the requirement of G3 grade of genset performance.
- Conform to non-road country T3 and European S3A standards.



Engine Operating Environment Description:

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 with BS5625, class 2.5
- 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 | PYC440B |
| Prime Rating (kw) | 320 |
| Standby Rating (kw) | 350 |
| Rate voltage(V) | 400 |
| 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 | Charge inter-cooling |
| 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) | 3.1/2.8 |
| 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 | 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 GC7110.2 |
|-------|-------------------|



| 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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