

# PYC1875B

**Prime Power:1350KW/1688KVA    Standby Power: 1500KW/1875KVA    Voltage: 400V**

**Powered by Yuchai YC12VC2270-D31 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  $\leq +10\% \leq -7\%$
- 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  $40^{\circ}\text{C}$   
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
- Circuit breaker
- 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
- $40^{\circ}\text{C}$  standard ambient temperature  
( $50^{\circ}\text{C}$  Optional)
- Float battery charger
- Battery connect wire
- Steel base frame
- Silencer, bellows, exhaust bend
- Manual book and files



## Diesel Engine

- Model: YC12VC2270-D31
- Electronic unit pump, four-valve structure, high-efficiency turbocharged & intercooled, and Yuchai combustor technologies are adopted for realizing low fuel consumption, less emission, outstanding speed governing performance, and fast and high-quality loading.
- High-strength material, reinforced grid structure with cambered surface, and 4-bolt main bearing structure are adopted for the engine body; thus the engine body is characterized by high stiffness, slight vibration, and lower noise;
- The crankshaft is made of high-quality alloy steel by using all fiber extrusion forging process, and the journal and circular bead are subject to quenching heat treatment for improving wear resistance and prolonging service life;
- The world-class equipment and technologies are used for production; thus, the quality of such model is stable and reliable;
- G3 performance requirements for generator set are met;
- YC12VC series engine developed independently by Yuchai is a classic product. It is characterized by energy-saving and environment-friendly, excellent performance, compact structure, and reliability and durability; the indexes, such as pollutant emission, dynamic performance, economy, and reliability, reach the international advanced level.



## 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 F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature  $^{\circ}\text{C}$  display
- Oil pressure OP
- Engine speed
- 3 phases current:  $I_a, I_b, I_c$
- Active power PA
- Power factor PF
- Temperature  $^{\circ}\text{C}$  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

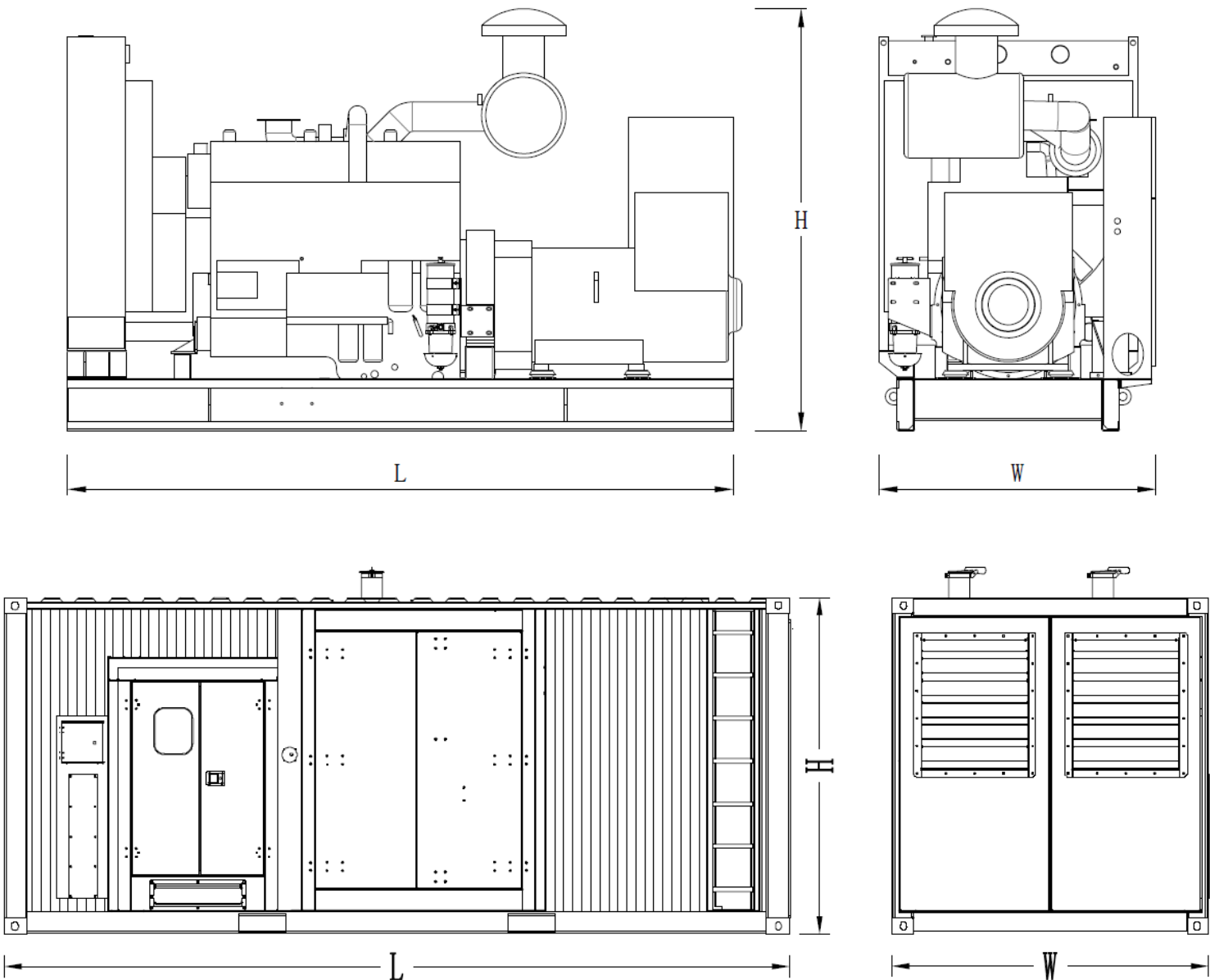
- Manual/auto/stop/start
- Setting button
- Fault status indicators
- Screen menu selection button
- Emergency stop button
- Digital displayer



## 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                               | PYC1875B                           |
| Prime Rating (kw)                   | 1350                               |
| Standby Rating (kw)                 | 1500                               |
| Rate current(A)                     | 2436                               |
| Power factor                        | 0.8                                |
| Frequency(Hz)                       | 50                                 |
| Engine                              |                                    |
| Engine Model                        | YC12VC2270-D31                     |
| Gross Engine output-Prime (kw)      | 1520                               |
| Gross Engine output-Standby (kw)    | 1670                               |
| Bore * stroke (mm)                  | 200*210                            |
| Cylinders and structure             | 12 Cylind V-type                   |
| Displacement(Liter)                 | 79.17                              |
| Compression Ratio                   | 13.5: 1                            |
| Intake way                          | Supercharge/Water-Air intercooling |
| Max intake resistance (KPa)         | 6                                  |
| Air intake (m3/h)                   | 9910.2                             |
| Max exhaust back pressure (KPa)     | 10                                 |
| Exhaust gas flow (m3/h)             | 21120                              |
| Exhaust temp (°C)                   | 550                                |
| Cooling way                         | Water Radiator & Fan               |
| Fan exhaust flow (m3/min)           | 2520                               |
| Coolant capacity (L)                | 626                                |
| Highest water temperature(°C)       | 95                                 |
| Minimum air opening to room (m2)    | 7.9/6.6                            |
| Thermostat range (°C)               | 75-85                              |
| Max oil temperature (°C)            | 110                                |
| Lubrication system oil capacity (L) | 370                                |
| Rate load fuel consumption(L/H)     | 370.6                              |
| Standard Governor/Class             | Electronic unit pump               |
| 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)<br>(L*W*H) | Weight<br>(kg) | Fuel Tank Capacity<br>(L) |
|-------------|---------------------------|----------------|---------------------------|
| Open Type   | 5981*2500*2924            | 13200          | —                         |
| Silent Type | —                         | —              | —                         |

Contact Us

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