

# PYC1100B

**Prime Power: 800KW/1000KVA    Standby Power: 880KW/1100KVA    Voltage: 400V**

**Powered by Yuchai YCDV270A3H-1320 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 / ISO8528:2018  
(2) GB/T 4712-2008 (3) YD/T 502-2020 (4) YD/T 1051-2018

## Optional Items

- Starting batteries
- Fuel tank
- Circuit breaker
- 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: YCDV270A3H-1320
- Four valves + turbocharged intercooler + electronically controlled single-pump technology: ample air intake, efficient combustion, low fuel consumption. Excellent speed regulation capabilities, with rapid and powerful acceleration.
- Keywords cylinder block with reticulated rib structure, cylinder head with double-layer water flow design, crankshaft connecting rod with high strength alloy, High reliability;
- A reduced-speed starter is used, ensuring rapid starting ;
- Parts have good universality, high serialization, one cylinder and one cover structure, and low comprehensive maintenance cost.;
- Supports dual-energy startup;
- The YCDV270A3H-1320 engine is a product developed through independent research, incorporating advanced technologies from large engines both at home and abroad. It features four valves and a turbocharged intercooler; it has been optimized and tested using Yuchai's advanced combustion technology, and boasts energy efficiency, high reliability, strong loading capacity, and easy maintenance..



## 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 complys 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

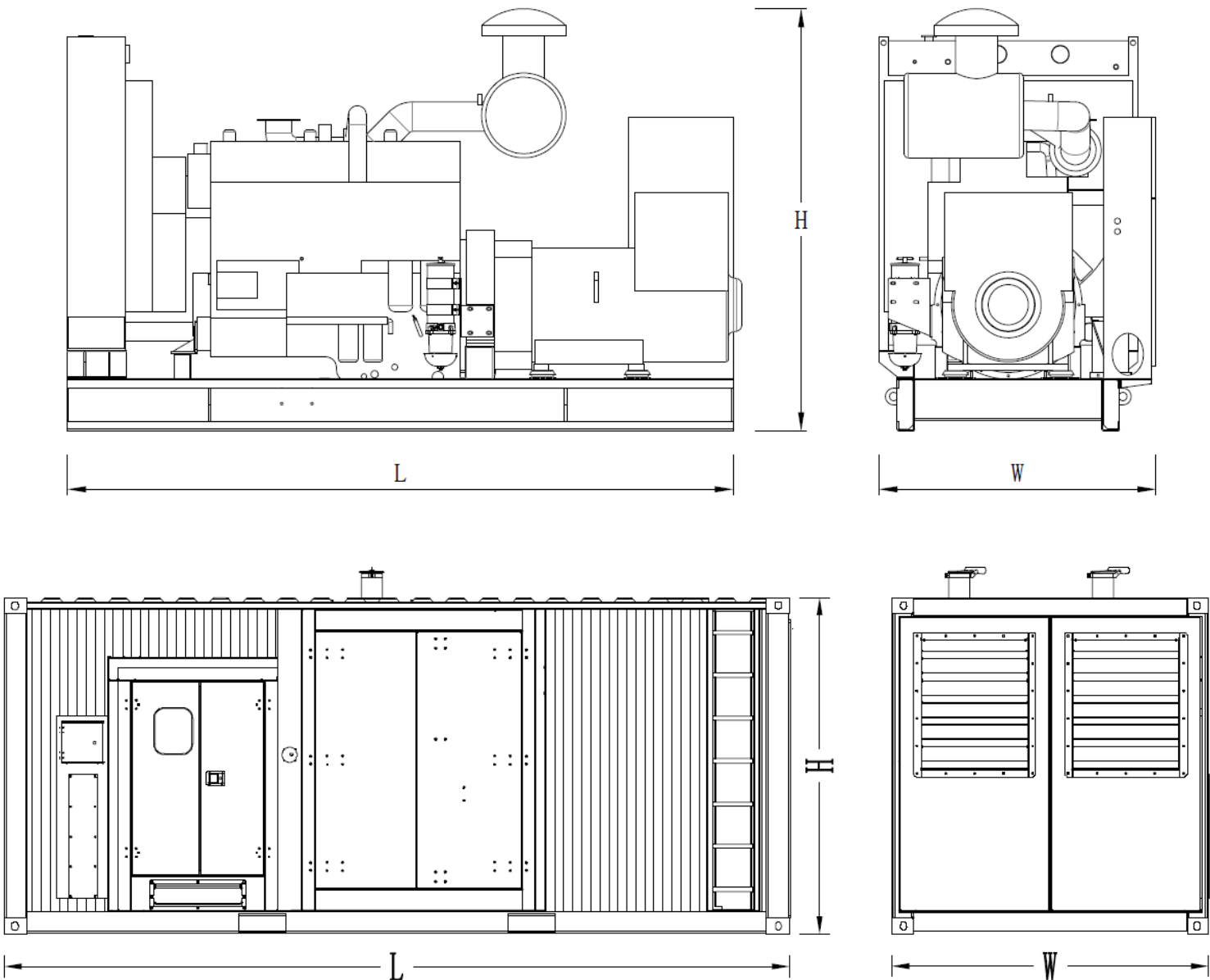
- Manual/auto/stop/start
- Setting button
- Fault status indicators
- Screen menu selection button
- Emergency stop button
- Digital displayer



## 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                               | PYC1100B                  |
| Prime Rating (kw)                   | 800                       |
| Standby Rating (kw)                 | 880                       |
| Rate current(A)                     | 1443                      |
| Power factor                        | 0.8                       |
| Frequency(Hz)                       | 50                        |
| Engine                              |                           |
| Engine Model                        | YCDV270A3H-1320           |
| Gross Engine output-Prime (kw)      | 880                       |
| Gross Engine output-Standby (kw)    | 968                       |
| Bore * stroke (mm)                  | 175*185                   |
| Cylinders and structure             | 6 In line                 |
| Displacement(Liter)                 | 26.7                      |
| Compression Ratio                   | 14:1                      |
| Intake way                          | Supercharged intercooling |
| Max intake resistance (KPa)         | 5                         |
| Air intake (m3/h)                   | 3720                      |
| Max exhaust back pressure (KPa)     | 10                        |
| Exhaust gas flow (m3/h)             | 10800                     |
| Exhaust temp (°C)                   | 550                       |
| Cooling way                         | Water Radiator & Fan      |
| Fan exhaust flow (m3/min)           | 1600                      |
| Coolant capacity (L)                | 165                       |
| Highest water temperature(°C)       | 97                        |
| Minimum air opening to room (m2)    | 4.9/4.1                   |
| Thermostat range (°C)               | 75-85                     |
| Max oil temperature (°C)            | 120                       |
| Lubrication system oil capacity (L) | 113                       |
| Rate load fuel consumption(L/H)     | 224.8                     |
| Standard Governor/Class             | Electronic unit pump      |
| 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   | 4321*2000*2130            | 7500           | —                         |
| Silent Type | 6058*2438*2591            | 11300          | 1500                      |

Contact Us

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