



## PYC965B

Prime Power: 700KW/875KVA Standby Power: 770KW/963KVA Voltage: 400V

Powered by Yuchai YCDV270A3H-1200 Engine

#### **Genset Performance**

■ 230/400V, 50Hz, 0.8PF, 3 Phases 4 wires

■ Frequency drop ≤3%

■ Voltage regulation ≤0.3%

■ The steady state frequency ≤0.5%

The steady state voltage deviation  $\leq \pm 1\%$ 

■ The transient frequency deviation ≤+10% ≤-15%

■ The transient voltage deviation ≤+20% ≤-15%

■ Frequency recovery time ≤3S

■ Voltage recovery time ≤1S(Voltage±3%)

■ THF (Telephone Harmonic Factor) <3

TIF (Telephone Influence Factor) <50</li>
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
- 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°C standard ambient temperature (50°C Optional)
- Float battery charger
- Battery connect wire
- Steel base frame
- Silencer, bellows, exhaust bend
- Manual book and files

# **Equipment Instruction**



### **Diesel Engine**

- Model: YCDV270A3H-1200
- Four-valve + supercharged intercooling + electronically controlled single-body pump technology, sufficient intake, sufficient combustion, low fuel consumption, excellent speed regulation performance, fast and powerful loading.
- Air intake: supercharged and medium cooling;
- Mesh reinforced rib structure cylinder block, double-layer water flow design cylinder head, high-strength alloy crankshaft connecting rod, high reliability;
- Good versatility of parts, high degree of serialization, one cylinder and one cover structure, low comprehensive maintenance cost;
- The YCDV270A3H-1200 engine is a product independently developed in combination with advanced technologies of large engines at home and abroad. Adopt four-valve, supercharged intercooling and other configurations, optimized and verified by Yuchai's advanced combustion development technology, and has the characteristics of energy-saving and efficient, high reliability, strong loading capacity and good maintenance..



- 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 satify tough environment.
- Rotor dynamic balancing complys for BS5625, class 2.5
- Sealed with advanced lubricating grease to prolong life of bearing.



# **Intelligent Control System**



#### **Standard Meters**

- 3 phases voltage: Ua, Ub, Uc
- Frequency F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature °C display
- Oil pressure OP
- Engine speed

- 3 phases current: La, Lb, Lc
- Active power PA
- Power factor PF
- Temperature <sup>®</sup> display
- KPa/Psi/Bar display
- Battery voltage V
- Running Hour
- Starting timer: (999999)



#### **Standard Protection Function**

#### **Genset Protection**

Programmable I/O signal

#### **Engine Protection**

- Stop for over speed
- Low oil pressure
- High Coolant temperature
- Sensor fail

#### **Alternator Protection**

- Over Voltage
- Over current
- Voltage signal lost

#### **Control System Components**

- Manual/auto/stop/start
- Setting button
- Fault status indicators

- Emergency stop
- Alarm for low/high battery voltage
- Low battery voltage
- Fail to start/Cranking fail
- Over Voltage
- Over frequency
- Under frequency
- 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;.

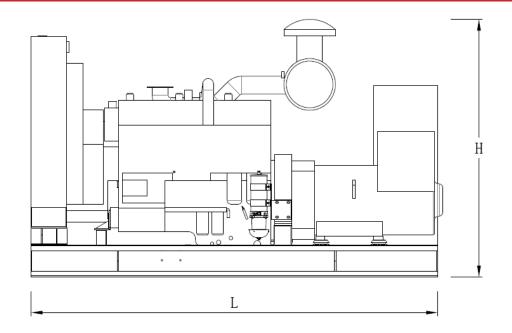
# **Data sheet of Genset**

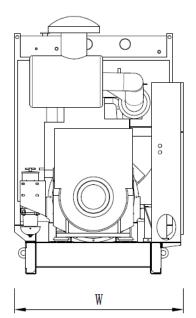


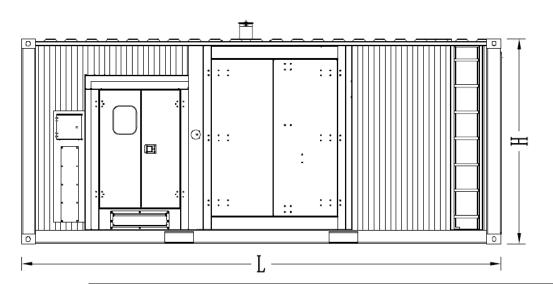
| Genset                              |                                  |  |  |  |
|-------------------------------------|----------------------------------|--|--|--|
| Model                               | PYC965B                          |  |  |  |
| Prime Rating (kw)                   | 700                              |  |  |  |
| Standby Rating (kw)                 | 770                              |  |  |  |
| Rate current(A)                     | 1263                             |  |  |  |
| Power factor                        | 0.8                              |  |  |  |
| Frequency(Hz)                       | 50                               |  |  |  |
| Engine                              |                                  |  |  |  |
| Engine Model                        | YCDV270A3H-1200                  |  |  |  |
| Gross Engine output-Prime (kw)      | 800                              |  |  |  |
| Gross Engine output-Standby (kw)    | 880                              |  |  |  |
| Bore * stroke (mm)                  | 175*185                          |  |  |  |
| Cylinders and structure             | 6 In line                        |  |  |  |
| Displacement(Liter)                 | 26. 7                            |  |  |  |
| Compression Ratio                   | 14:1                             |  |  |  |
| Intake way                          | Supercharge/Air-Air intercooling |  |  |  |
| Max intake resistance (KPa)         | 5                                |  |  |  |
| Air intake (m3/h)                   | 3540                             |  |  |  |
| Max exhaust back pressure (KPa)     | 10                               |  |  |  |
| Exhaust gas flow (m3/h)             | 9900                             |  |  |  |
| Exhaust temp (°C)                   | 550                              |  |  |  |
| Cooling way                         | Water Radiator & Fan             |  |  |  |
| Fan exhaust flow (m3/min)           | 1600                             |  |  |  |
| Coolant capacity (L)                | 154                              |  |  |  |
| Highest water temperature(℃)        | 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)     | 199. 9                           |  |  |  |
| 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                    | Н                                |  |  |  |
| Controller                          |                                  |  |  |  |
| Brand                               | POWERTEC                         |  |  |  |

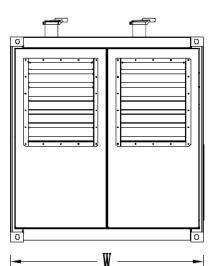
# **Dimension and Weight**











| Туре        | 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

## **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