

# PYC625B

Prime Power: 450KW/563KVA

Standby Power: 500KW/625KVA

Voltage: 400V

Powered by Yuchai YC6TD780-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  $\leq +10\%$   $\leq -7\%$
- 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
- 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)
- Circuit breaker (3P)
- Float battery charger
- Battery connect wire
- Steel base frame
- Silencer, bellows, exhaust bend
- Manual book and files



## Diesel Engine

- Model: YC6TD780-D30
- Four-valve design with sufficient air intake, intermediate injector with full fuel-air mixing and sufficient combustion.
- Mature turbocharger and intercooler technology, ensuring the sufficient and stable air intake of each load, and wide range of economic fuel consumption;
- High injection pressure, good atomization, sufficient combustion, high power density and light weight; and the oil can lubricate the parts under reasonable temperature to reduce the friction loss ;
- Compliance with China III emission standard, imported ECU, high-pressure common rail system, and large potential for emission upgrade;
- The cylinder block of netted reinforcement structure, and crankshaft connecting rod of high strength alloy, ensuring high reliability;
- YC6TD780-D30 engine is independently developed by Yuchai in combination with the advanced technology of large engines at home and abroad. It is equipped with high-pressure common rail system, four-valve, turbocharger and intercooler, and is optimized and verified through Yuchai's advanced combustion development technology, featuring energy saving, high efficiency, high reliability, strong loading capacity and good maintainability..



## 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               | PYC625B |
| Prime Rating (kw)   | 450     |
| Standby Rating (kw) | 500     |
| Rate current(A)     | 812     |
| Power factor        | 0.8     |
| Frequency(Hz)       | 50      |

## Engine

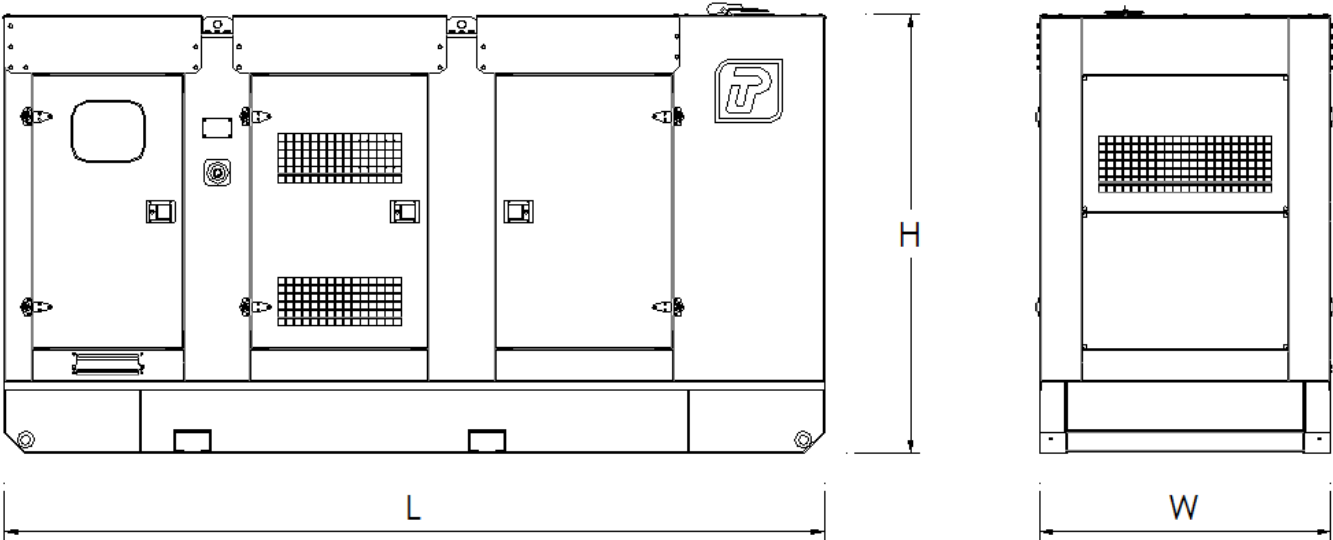
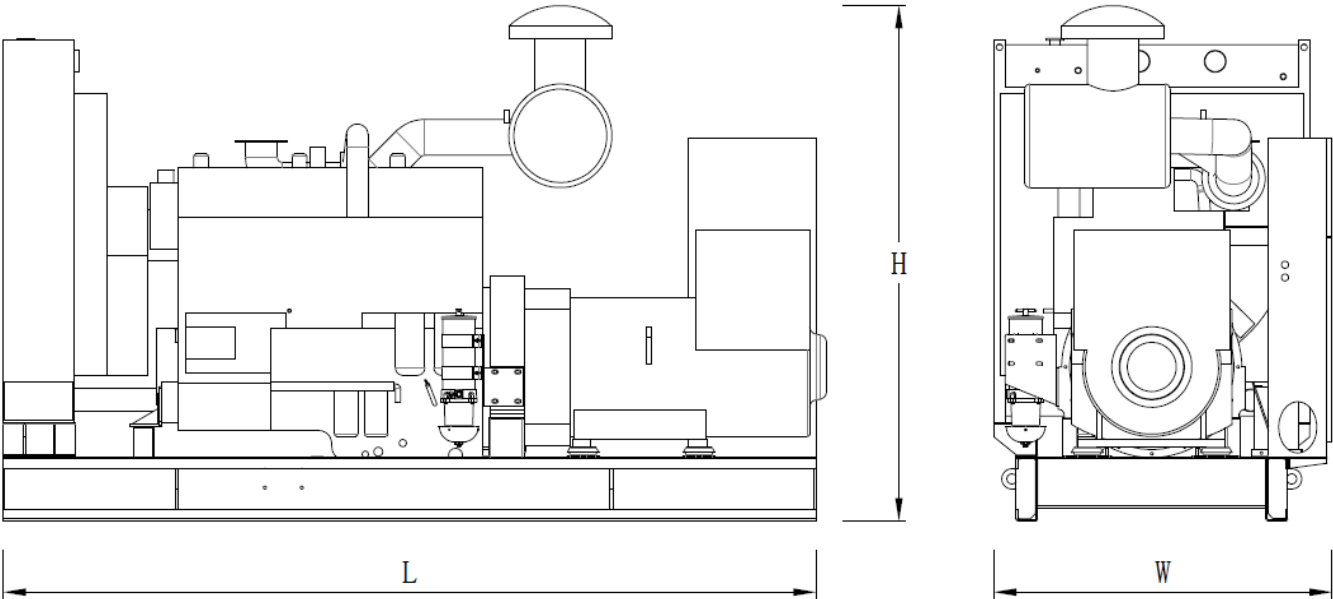
|                                     |                                                    |
|-------------------------------------|----------------------------------------------------|
| Engine Model                        | YC6TD780-D30                                       |
| Gross Engine output-Prime (kw)      | 520                                                |
| Gross Engine output-Standby (kw)    | 572                                                |
| Bore * stroke (mm)                  | 152*180                                            |
| Cylinders and structure             | 6 In line                                          |
| Displacement(Liter)                 | 19.6                                               |
| Compression Ratio                   | 14:1                                               |
| Intake way                          | Supercharge/Air-Air intercooling                   |
| Max intake resistance (KPa)         | 5                                                  |
| Air intake (m3/h)                   | 2208                                               |
| Max exhaust back pressure (KPa)     | 10                                                 |
| Exhaust gas flow (m3/h)             | 5508                                               |
| Exhaust temp (°C)                   | 550                                                |
| Cooling way                         | Water Radiator & Fan                               |
| Fan exhaust flow (m3/min)           | 1160                                               |
| Coolant capacity (L)                | 144                                                |
| Highest water temperature(°C)       | 97                                                 |
| Minimum air opening to room (m2)    | 2.8/2.3                                            |
| Thermostat range (°C)               | 75-85                                              |
| Max oil temperature (°C)            | 120                                                |
| Lubrication system oil capacity (L) | 56                                                 |
| Rate load fuel consumption(L/H)     | 123.9                                              |
| 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 |
|-------|----------|



| Type        | Dimension (mm)<br>(L*W*H) | Weight<br>(kg) | Fuel Tank Capacity<br>(L) |
|-------------|---------------------------|----------------|---------------------------|
| Open Type   | 3550*1600*1859            | 4500           | —                         |
| Silent Type | 4700*1700*2450            | 6450           | 1100                      |

Contact Us

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