

PYC690B

Prime Power: 500KW/625KVA

Standby Power: 550KW/688KVA

Voltage: 400V

Powered by Yuchai YC6TD840-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°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°C standard ambient temperature
(50°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: YC6TD840-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;
- 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;
- YC6TD840-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 $^{\circ}C$ display
- Oil pressure OP
- Engine speed
- 3 phases current: I_a, I_b, I_c
- Active power PA
- Power factor PF
- Temperature $^{\circ}C$ 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	PYC690B
Prime Rating (kw)	500
Standby Rating (kw)	550
Rate current(A)	902
Power factor	0.8
Frequency(Hz)	50

Engine

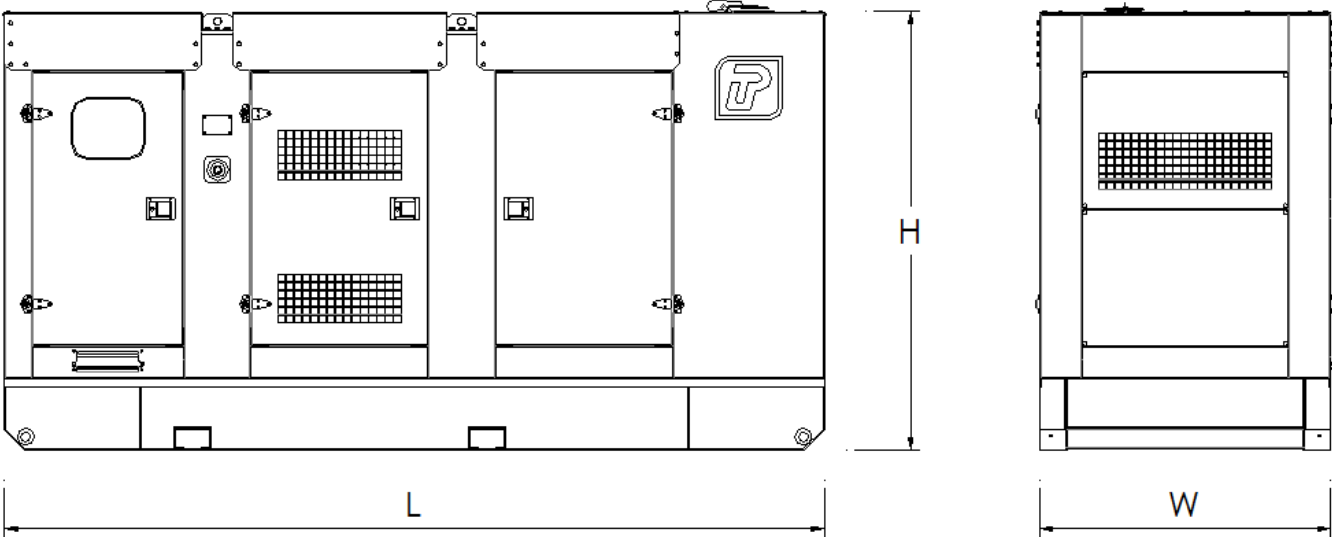
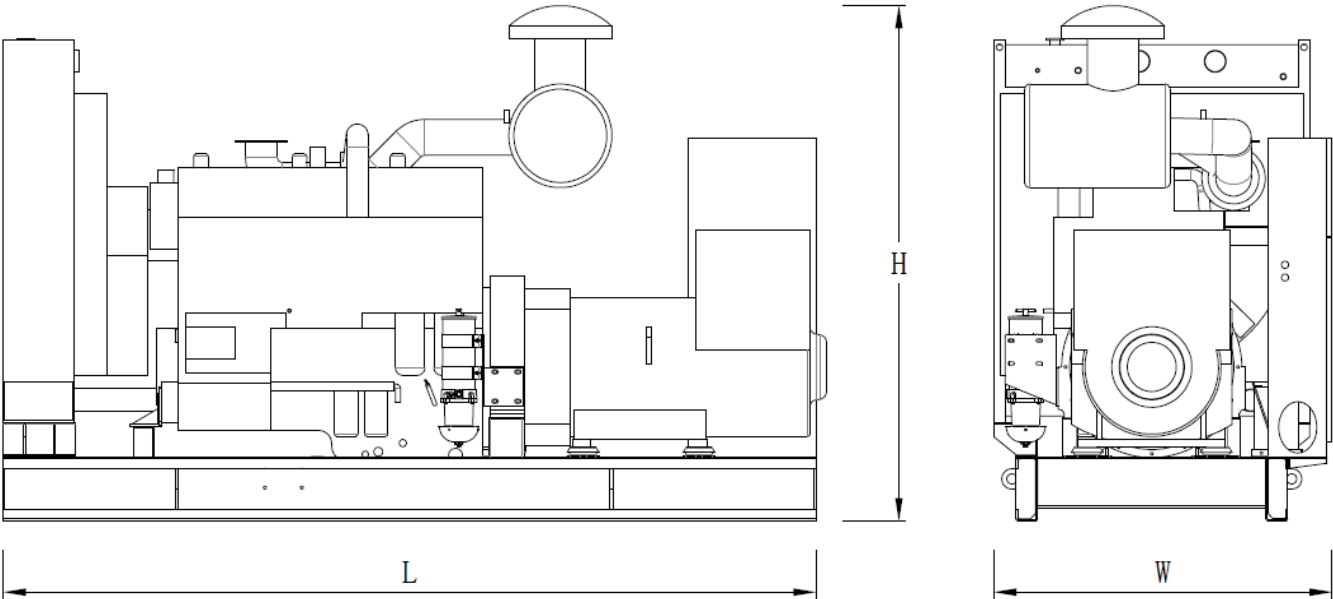
Engine Model	YC6TD840-D30
Gross Engine output-Prime (kw)	561
Gross Engine output-Standby (kw)	616
Bore * stroke (mm)	152*180
Cylinders and structure	6 In line
Displacement(Liter)	19.6
Compression Ratio	14:1
Intake way	Supercharge/Air-Air intercooling
Max intake resistance (KPa)	5
Air intake (m3/h)	2424
Max exhaust back pressure (KPa)	10
Exhaust gas flow (m3/h)	6000
Exhaust temp (°C)	550
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	1160
Coolant capacity (L)	141
Highest water temperature(°C)	97
Minimum air opening to room (m2)	2.8/2.4
Thermostat range (°C)	75-85
Max oil temperature (°C)	120
Lubrication system oil capacity (L)	56
Rate load fuel consumption(L/H)	135.7
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
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Type	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	3690*1640*1876	4500	—
Silent Type	4700*1700*2450	6450	1100

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