

# 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  $\leq +10\%$   $\leq -15\%$
- 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 / IS08528:2018  
(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
- The main structures, such as engine body, are time-tested, which ensures the high reliability of the whole engine.
- Advanced and mature electronic unit pump and high-efficient turbocharged & intercooled technologies are adopted, which ensure precise control of fuel-injection quantity and sufficient air intake; and the full combustion, low fuel consumption and less emission of diesel engine under different load conditions are ensured;
- Full-flow oil cooler is adopted; thus heat dissipation efficiency is increased by 30% and oil temperature is effectively reduced; and the oil can lubricate the parts under reasonable temperature to reduce the friction loss.;
- The structure of one head for one cylinder is adopted, which ensures easy maintenance and reliable sealing;
- The internal cooling oil passage technology is adopted for piston, which effectively reduces piston temperature and ensures the long service life;
- YC6TDseries engine is a classic engine product developed by Yuchai, which is well-known and highly recognized in the market and has large market volume. YC6TD840-D30 engines for generator sets, developed based on YC6TD engines, have advantages such as high reliability, durability, energy-saving and environment-friendly, compact structure, strong transient 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 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  $F_1$
- 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

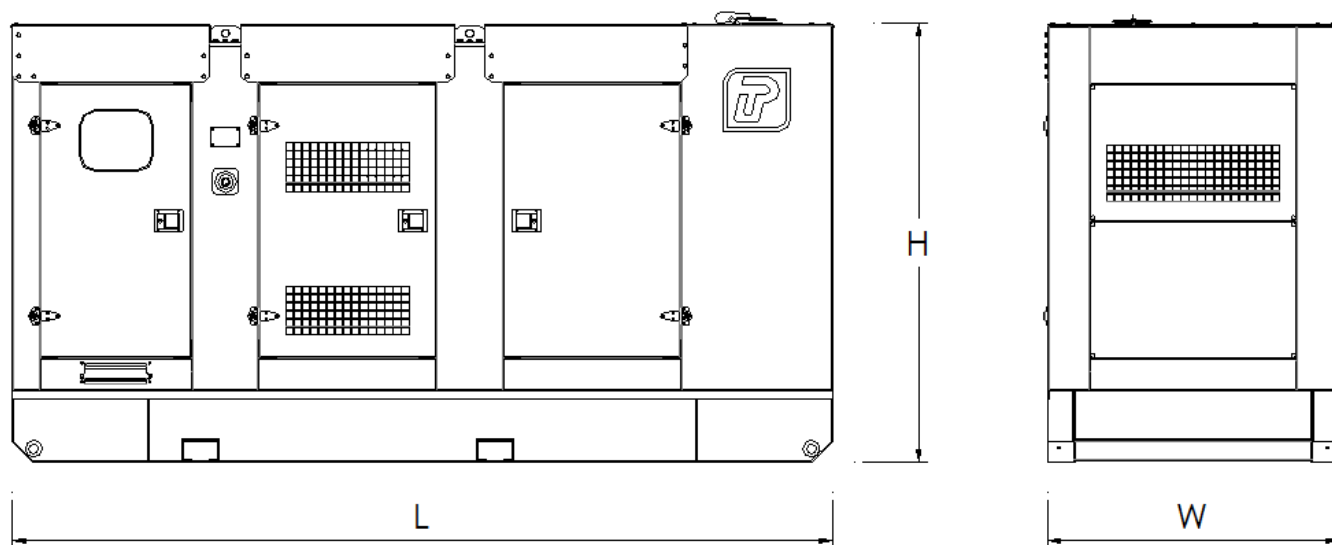
Engine Model	YC6TD840-D30
Gross Engine output-Prime (kw)	561
Gross Engine output-Standby (kw)	616
Bore * stroke (mm)	152*180
Cylinders and structure	6 In line
Displacement(Liter)	19.598
Compression Ratio	14:1
Intake way	Supercharge/Air-Air intercooling
Max intake resistance (KPa)	5
Air intake (m3/h)	2298
Max exhaust back pressure (KPa)	10
Exhaust gas flow (m3/h)	7140
Exhaust temp (°C)	550
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	1160
Coolant capacity (L)	131
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)	52
Rate load fuel consumption(L/H)	144.4
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*1622*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