



# PYC750B

Prime Power: 550KW/688KVA Standby Power:600KW/750KVA Voltage: 400VAC

≤0.3%

Powered by Yuchai YC6TD900-D31 Engine

## **Genset Performance**

- 230/400VAC, 50Hz, 0.8PF, 3 Phases 4 wires
- Frequency drop ≤3%
- Voltage regulation
- 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.

## **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)
- Molded case circuit breaker (3P)
- Float battery charger
- Battery connect wire
- Steel base frame
- Silencer, bellows, exhaust bend
- Manual book and files





## **Diesel Engine**

- Model: PYC750B-YC6TD900-D31
- Construction: Construction: High strength cylinder block, alloy forged steel crankshaft, alloy steel connecting rod and internal cooling oil pipe piston make the engine more durable, lighter and compact than other products.
- Intake: Charge inter-cooling
- Four valves + pressurized intercooling technology, sufficient air intake, full combustion and low fuel consumption.
- It adopts electronic control unit combined pump, ECU control, smooth operation and good performance in speed regulation.
- Using high precision paper filter element.
- Adopting 24V standard electrical system.
- The parts have good universality and high serialization, one cylinder with one lid structure, to reduce comprehensive maintenance cost.



The YC6TD series engine is a product developed independently according to the advanced technology of large engines at home and abroad. With four valves, supercharged intercooler and electronic controlled monomer pump, optimized and verified by advanced combustion development technology of Yuchai, it has the characteristics of energy saving, environmental protection, high reliability, strong loading capacity and good maintainability.

Engine Operating Environment Description:

1800r/min engine--altitude less than 1000 m, ambient temperature less than 40  $\,^\circ\!C$  1500r/min engine--altitude less than1000 m, ambient temperature less than 40  $\,^\circ\!C$ 

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



# **Intelligent Control System**



### Standard

- 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 °C display
- KPa/Psi/Bar display
- Battery voltage V
- Running Hour
- Starting timer:(999999)



### **Standard Protection**

#### **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;.

Notes: Above data of controller comes from POWERTEC GC6110. Customized solutions is available as required



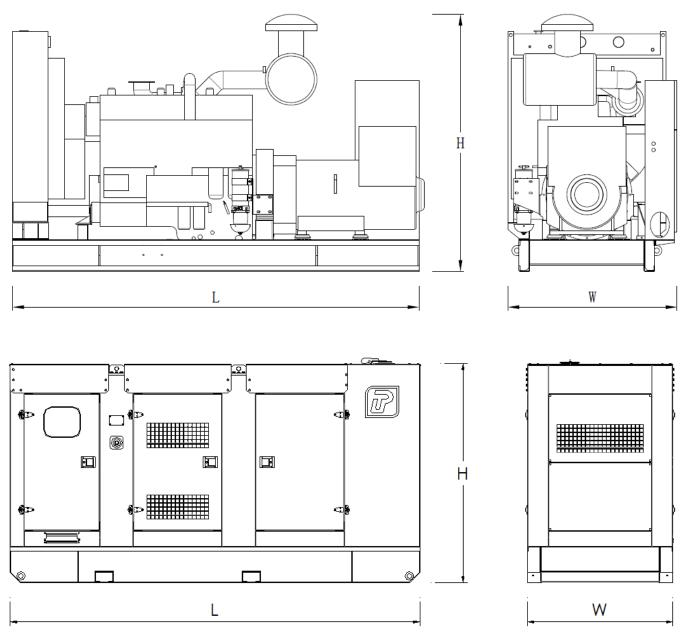
## **Data sheet of Genset**



Genset				
Model	PYC750B			
Prime Rating (kw)	550			
Standby Rating (kw) 600				
Rate voltage(V)	400			
Rate current(A)	992			
Power factor	0.8			
Frequency(Hz)	50			
Engine				
Engine Model	YC6TD900-D31			
Gross Engine output-Prime (kw)	605			
Gross Engine output-Standby (kw)	665			
Bore * stroke (mm)	152*180			
Cylinders and structure	6 In line			
Displacement(Liter)	19.598			
Compression Ratio 14:1				
Intake way	Supercharge/Air-Air intercooler			
Max intake resistance (KPa)	5			
Air intake (m3/h)	2568			
Max exhaust back pressure (KPa)	10			
Exhaust gas flow (m3/h)	7680			
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)	5.0/4.5			
Thermestet range (°C)	75-85			
	120			
Lubrication system oil capacity (L)				
Rate load fuel consumption(L/H)	154.3			
Standard Governor/Class	Electronic			
Alternator				
Rated Voltage(V)	400/230			
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 GC7110.2			

# **Dimension and Weight**





Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	3669*1578*1895	4250	-
Silent Type	4700*1700*2450	6200	1000

## 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