



# PYC1500B

Prime Power:1100KW/1375KVA Standby Power: 1200KW/1500KVA Voltage: 400VAC Powered by Yuchai YC12VTD1830—D30 Engine

≤3%

≤0.3%

## Genset Performance

- 230/400VAC, 50Hz, 0.8PF, 3 Phases 4 wires
- Frequency drop
- 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

## **Equipment Instruction**

## **Diesel Engine**

- Model: PYC1500B-YC12VTD1830-D30
- Construction:High strength cylinder block, alloy forged steel crankshaft, alloy steel connecting rod and internal cooling oil pipe piston make the engine more durable.
- Intake: Charge inter-cooling
- Four valves + pressurized intercooling technology, sufficient air intake, full combustion and low fuel consumption.
- High pressure common rail fuel injection system, excellent speed regulation performance, fast and powerful loading (5S).



- The engine body is made of high-strength material, with cambered reinforcement mesh structure and 4-bolt main bearing structure. High stiffness, small vibration and low noise.
- The crankshaft is extruded with high quality alloy steel. Shaft diameter and fillet are hardened by heat treatment, making them anti-wear and long service life.
- World-class equipment and technology production; stable and reliable quality.
- Supporting dual-energy startup.
- One cylinder and one lid structure, with maintenance window on the side of the machine body for easy maintenance. Conform to non-road country T3 and European S3A standards.

Engine Operating Environment Description:

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

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

### 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.



#### Notes: Above data of alternator comes from Stamford. Specification may alternated without advance notice.

# **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



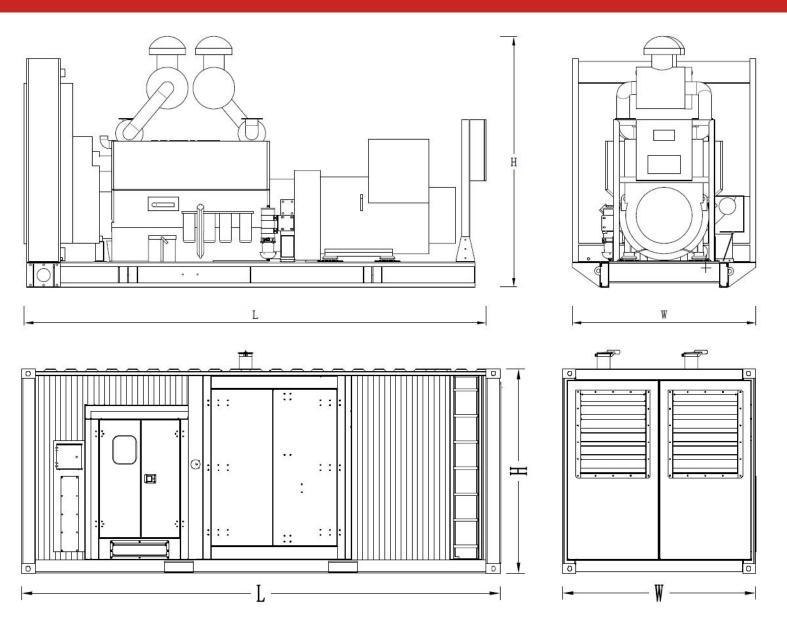
## **Data sheet of Genset**



Genset				
Model	PYC1500B			
Prime Rating (kw)	1100			
Standby Rating (kw)	1200			
Rate voltage(V)	400			
Rate current(A)	1985			
Power factor	0.8			
Frequency(Hz)	50			
Engine				
Engine Model	YC12VTD1830-D30			
Gross Engine output-Prime (kw)	1220			
Gross Engine output-Standby (kw) 1342				
Bore * stroke (mm)	152*180			
Cylinders and structure 12 V-Type				
Displacement(Liter)	39.2			
Compression Ratio	14: 1			
Intake way	Supercharge/Water-Air intercooler			
Max intake resistance (KPa)	5			
Air intake (m3/h)	5650			
Max exhaust back pressure (KPa)	10			
Exhaust gas flow (m3/h)	16200			
Exhaust temp (℃)	550			
Cooling way	Water Radiator & Fan			
Fan exhaust flow (m3/min)	1900			
Coolant capacity (L)	200			
Highest water temperature(℃)	102			
Minimum air opening to room (m2)	7.2/6.4			
Thermostat range (℃)	75-85			
Max oil temperature (℃)				
Lubrication system oil capacity (L)	210			
Rate load fuel consumption(L/H)	290			
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			
Contr	oller			
Brand	POWERTEC or DEEPSEA			
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# **Dimension and Weight**





Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	5461*1812*2564	8760	-
Silent Type	12192*2438*2896	15560	2000

## Contact Us

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