



# PYC140A

## Prime Power: 100KW/125KVA Standby Power: 110KW/138KVA Voltage: 400V

## **Genset Performance**

- 230/400V, 50Hz, 0.8PF, 3 Phases 4 wires
- Frequency drop
- Voltage regulation ≤0.3%
- The steady state frequency ≤0.5%
- The steady state voltage deviation  $\leq \pm 1\%$
- The transient frequency deviation  $\leq$ +10%  $\leq$ -15%
- The transient voltage deviation ≤+20% ≤-15%

≤3S

 $\leq$ 1S(Voltage $\pm$ 3%)

- Frequency recovery time
- Voltage recovery time
- THF (Telephone Harmonic Factor) <3</p>
- TIF (Telephone Influence Factor) <50</p>
- 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

## **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
- Bottom fuel tank
- Manual book and files





## **Diesel Engine**

- Model: YC6B180L-D20
- YC6B series engine developed by Yuchai, is a classic power product with high brand popularity and high market recognition. YC6B180L-D20 engine used for generator unit is characterized by reliability and durability, energy-saving and environment-friendly, compact structure, strong transient loading capability, good maintainability and high cost performance;
- The main structures, such as engine body, are time-tested, which ensures the high reliability of the whole engine.
- 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 internal cooling oil passage technology is adopted for piston, which effectively reduces piston temperature and ensures the long service life.

## 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 for BS5625, class 2.5
- Sealed with advanced lubricating grease to prolong life of bearing.





## **Standard Meters**

- 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 Function**

#### **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;.

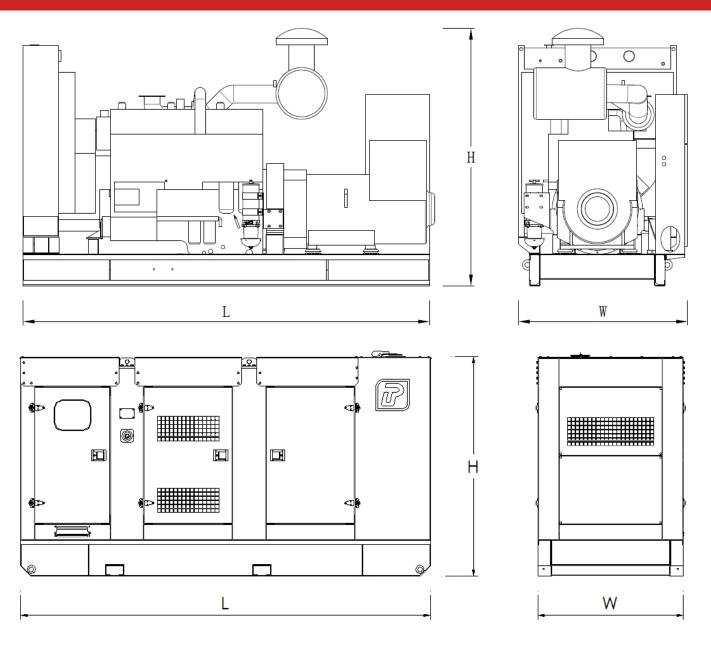
# **Data sheet of Genset**



Gen	set			
Model PYC140A				
Prime Rating (kw)	100			
Standby Rating (kw)	110			
Rate current(A)	180			
Power factor	0.8			
Frequency(Hz)	50			
Engine				
Engine Model	YC6B180L-D20			
Gross Engine output-Prime (kw)	120			
Gross Engine output-Standby (kw)	132			
Bore * stroke (mm)	108×125			
Cylinders and structure	6 In line			
Displacement(Liter)	6.871			
Compression Ratio	17.5:1			
Intake way	Turbocharged & Intercooled			
Max intake resistance (KPa)	5			
Air intake (m3/h)	690			
Max exhaust back pressure (KPa)	10			
Exhaust gas flow (m3/h)	1608			
Exhaust temp (°C)	495			
Cooling way	Water Radiator & Fan			
Fan exhaust flow (m3/min)	162			
Coolant capacity (L)	45			
Highest water temperature(℃)	99			
Minimum air opening to room (m2)	1.3/1.1			
Thermostat range (℃)	70-80			
Max oil temperature (℃)	120			
Lubrication system oil capacity (L)	20			
Rate load fuel consumption(L/H)	28.5			
Standard Governor/Class electronic				
Emission	China Tier 2			
Alteri	nator			
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	Н			
Controller				
Brand	POWERTEC			
	1			

# **Dimension and Weight**





Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2510*975*1586	1800	200
Silent Type	2920*1100*1750	2550	300

## Contact Us

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