



# PYC100A

Prime Power: 70KW/88KVA Standby Power: 80KW/100KVA Voltage: 400VAC

Powered by Yuchai YC4D120-D31 Engine

### **Genset Performance**

230//00\/&C	50Hz, 0.8PF, 3 Pha	acae /I wirae

■ Frequency drop ≤3%

■ Voltage regulation ≤0.3%

■ 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

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.

## **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

## **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.



## **Equipment Instruction**



## **Diesel Engine**

- Model: PYC80A-YC4D105-D34
- Construction: High strength cylinder block, reinforced crankshaft and alloy steel connecting rod make the engine more durable and have lighter and more compact structure in similar products.
- Intake:Turbo charged
- The engine body and other main structures have been long tested to ensure the high reliability of the whole machine.
- Integrated cylinder head and water outlet main pipe design, reduce sealing cover and improve sealing reliability.
- Advanced and mature electronic common rail + high efficiency booster technology is adopted to accurately control the fuel injection volume. Adequate intake to ensure that the diesel engine under different loads, full combustion, less emissions;
- Good filter transient state and strong loading capacity, which can meet the requirement of G3 grade of genset performance.
- Two-stage fuel filter with alarm function is adopted to ensure the operation;
- Meet non-road country T3 and European S3A standards;

Engine Operating Environment Description:

The engine can work under the following conditions without modulating power:

1800r/min engine--altitude less than 1000 m, ambient temperature less than 40  $^{\circ}$ C 1500r/min engine--altitude less than 1000 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 for BS5625, class 2.
- 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

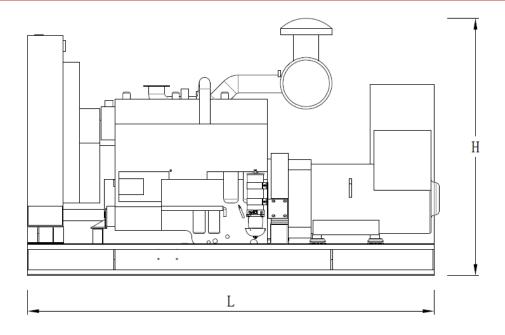
# **Data sheet of Genset**

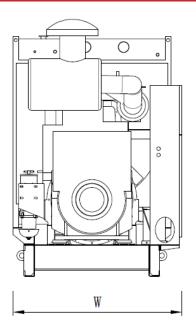


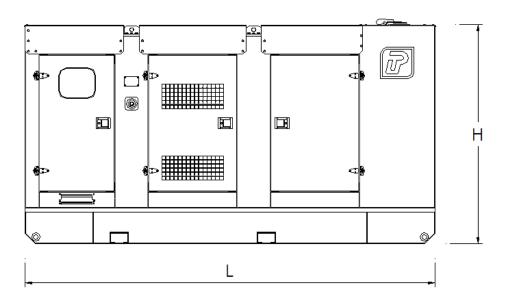
Genset					
Model	PYC100A				
Prime Rating (kw)	70				
Standby Rating (kw)	80				
Rate voltage(V)	400				
Rate current(A)	126				
Power factor	0.8				
Frequency(Hz)	50				
Engine					
Engine Model	YC4D120-D31				
Gross Engine output-Prime (kw)	80				
Gross Engine output-Standby (kw)	88				
Bore * stroke (mm)	108*115				
Cylinders and structure	4 In line				
Displacement(Liter)	4.214				
Compression Ratio	17.5:1				
Intake way	Turbocharging				
Max intake resistance (KPa)	5				
Air intake (m3/h)	456				
Max exhaust back pressure (KPa)	10				
Exhaust gas flow (m3/h)	540				
Evhaust temp (°C)	500				
Cooling way	Water Radiator & Fan				
Fan exhaust flow (m3/min)	294				
Coolant capacity (L)	30				
	97				
Minimum air opening to room (m2)	1.5/1.0				
Thormostat range (°C)	80-90				
May ail tamparatura (°C)	120				
Lubrication system oil capacity (L)	13				
Rate load fuel consumption(L/H)	21.9				
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					

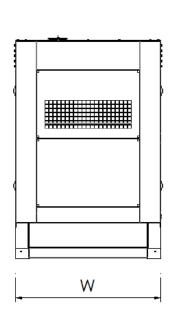
# **Dimension and Weight**











Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2231*924*1477	1348	200
Silent Type	2920*1100*1750	2098	400

## **Contact Us**

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