



# PYC115A

Prime Power: 80KW/100KVA Standby Power: 90KW/113KVA Voltage: 400VAC

Powered by Yuchai YC4A140-D30 Engine

### **Genset Performance**

230/400VAC, 50Hz, 0.8PF, 3 Phases 4 wires		230/400VAC,	50Hz, 0.	.8PF, 3	Phases 4	wires
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■ 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: PYC115A-YC4A140-D30
- Construction: High strength alloy cast iron with better rigidity, small vibration and low noise; wet cylinder liner, easy maintenance. The engine block and other main structures have been tested for a long time to ensure the high reliability of the whole machine.
- Intake: Charge inter-cooling
- The engine body and other main structures have been long tested to ensure the high reliability of the whole machine.
- 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.
- Using full-flow oil cooler and heat dissipation efficiency is increased by 30%. Oil temperature is effectively reduced. Lubricating oil at a reasonable temperature is to reduce friction loss.
- The piston adopts internal cooling channel to cool oil, effectively reducing the piston temperature so as to have a long service life.
- Meet the requirement of G3 grade of genset performance.
- Conform to 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  $\,^\circ\mathrm{C}$ 

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

## **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.





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

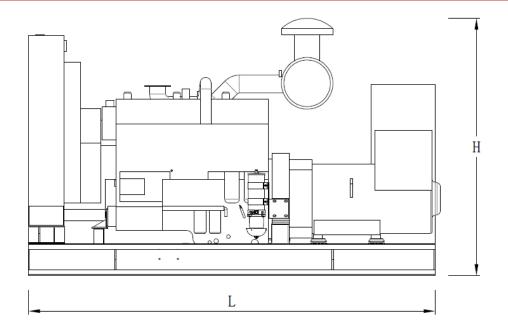
# **Data sheet of Genset**

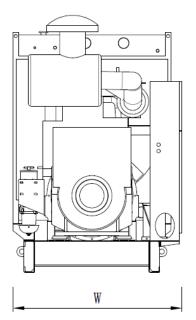


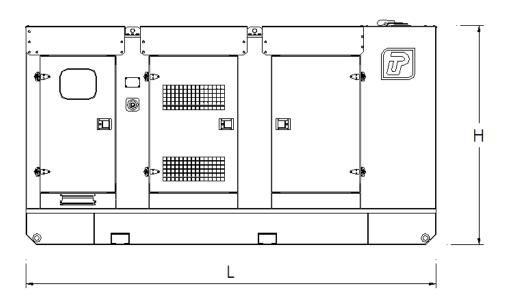
Genset						
Model	PYC115A					
Prime Rating (kw)	80					
Standby Rating (kw)	90					
Rate voltage(V)	400					
Rate current(A)	144					
Power factor	0.8					
Frequency(Hz)	50					
Engine						
Engine Model	YC4A140-D30					
Gross Engine output-Prime (kw)	95					
Gross Engine output-Standby (kw)	105					
Bore * stroke (mm)	108*132					
Cylinders and structure	4 In line					
Displacement(Liter)	4.837					
Compression Ratio	17.5:1					
Intake way	Supercharge/Air-air intercooling					
Max intake resistance (KPa)	5					
Air intake (m3/h)	408					
Max exhaust back pressure (KPa)	10					
Exhaust gas flow (m3/h)	1140					
Exhaust temp (°C)	550					
Cooling way	Water Radiator & Fan					
Fan exhaust flow (m3/min)	184.2					
Coolant capacity (L)	27					
	97					
Minimum air opening to room (m2)	1.8/1.5					
71 (05)	70-80					
Thermostat range (°C)	120					
Lubrication system oil capacity (L)	14					
Rate load fuel consumption(L/H)	25.4					
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					

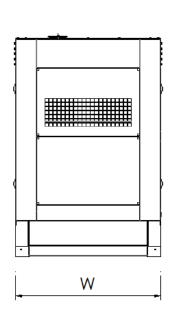
# **Dimension and Weight**











Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2165*859*1447	1348	200
Silent Type	2920*1100*1750	2098	400

## **Contact Us**

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