

## **PYC115A**

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

Powered by Yuchai YC4A140L-D20 Engine

#### **Genset Performance**

- 230/400VAC, 50Hz, 0.8PF, 3 Phases 4 wires
- 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
- Built-in vibration isolator with high performance on shock absorption.

## **Standard Configuration**

- Cummins 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
- Soundproof canopy
- Trailer
- Design and construction of environmental protection
- Engineering for the Genset room

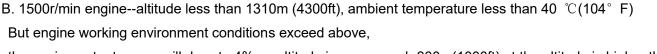


## **Equipment Instruction**



## **Diesel Engine**

- Model: YC4A140L-D20
- 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.
- 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.
- Environment: The engine can work normally under the following conditions without de-rating:
  - A. 1800r/min engine--altitude less than 1500m (5000ft), ambient temperature less than 40  $\,^{\circ}$ C (104 $^{\circ}$  F).



the engine output power will de-rate 4% as altitude increase each 300m(1000ft) at the altitude is higher than 1500m (5000ft),

Also it will de-rate 2% as temperature increase every 11  $^{\circ}$ C(1% de-rating ,when temperature increase each 10 $^{\circ}$  F). in the ambient temperature is higher than 40 $^{\circ}$ C(104 $^{\circ}$  F)



- 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
- 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

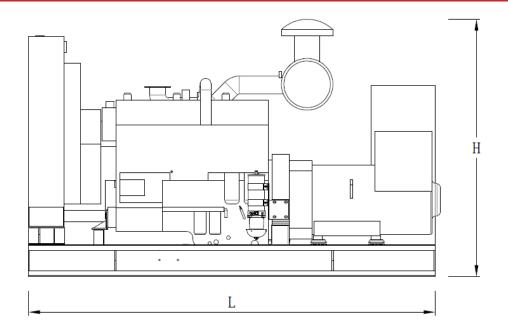
# **Data sheet of Genset**

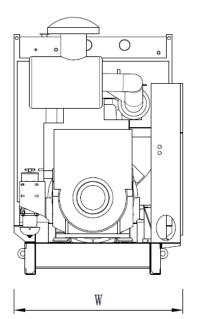


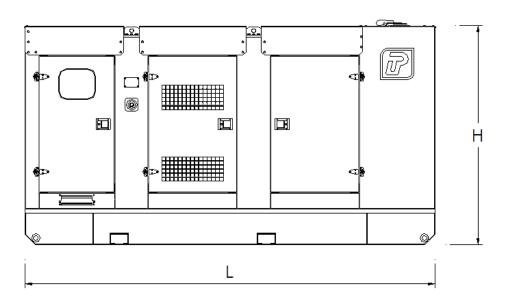
Model PYC115A				
Prime Rating (kw)	80			
Standby Rating (kw)	90			
Rate voltage(V)	400			
Rate current(A)	144			
Power factor	0.8			
Frequency(Hz)	50			
Engine				
Engine Model	YC4A140L-D20			
Gross Engine output-Prime (kw)	95			
Gross Engine output-Standby (kw)	105			
Bore * stroke (mm)	108*132			
Cylinders and structure	4 In line			
Displacement(Liter)	4.837			
Compression Ratio	17.5:1			
Intake way	Turbo Charge			
Max intake resistance (KPa)	5			
Air intake (m3/h)	430			
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)	186			
Coolant capacity (L)	26.3			
Highest water temperature(°C)	97			
Minimum air opening to room (m2)	1.2/1.1			
Thermostat range (°C)	70-80			
Max ail temperature (°C)	120			
Lubrication system oil capacity (L)	13			
Rate load fuel consumption(L/H)	23.1			
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 GC6110			

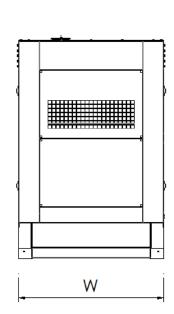
# **Dimension and Weight**











Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2419*850*1352	1348	200
Silent Type	2920*1100*1750	2098	400

## **Contact Us**

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