

## 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  $\leq 3\%$
- Voltage regulation  $\leq 0.3\%$
- The steady state frequency  $\leq 0.5\%$
- The steady state voltage deviation  $\leq \pm 1\%$
- The transient frequency deviation  $\leq +10\% \leq -15\%$
- The transient voltage deviation  $\leq +20\% \leq -15\%$
- Frequency recovery time  $\leq 3S$
- Voltage recovery time  $\leq 1S(\text{Voltage} \pm 3\%)$
- 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



## 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 °C(104° F).

B. 1500r/min engine--altitude less than 1310m (4300ft), ambient temperature less than 40 °C(104° F)

But engine working environment conditions exceed above,

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 °C(1% de-rating ,when temperature increase each 10° F ). in the ambient temperature is higher than 40°C(104° F)



## 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
- Rotor and exciter made with high temperature insulating resin, to satisfy 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.**

## 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
- Emergency stop

### Engine Protection

- Stop for over speed
- Low oil pressure
- High Coolant temperature
- Sensor fail
- Alarm for low/high battery voltage
- Low battery voltage
- Fail to start/Cranking fail

### Alternator Protection

- Over Voltage
- Over current
- Voltage signal lost
- Over Voltage
- Over frequency
- Under frequency

### Control System Components

- Manual/auto/stop/start
- Setting button
- Fault status indicators
- 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**

## 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 oil 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	H

## Controller

Brand	POWERTEC GC6110
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Type	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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