



PYC115A

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

Powered by Yuchai YC4D140-D31 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

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: 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.
- 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

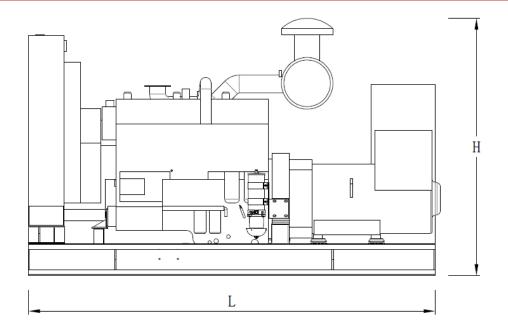
Data sheet of Genset

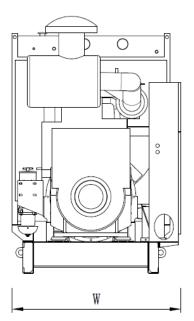


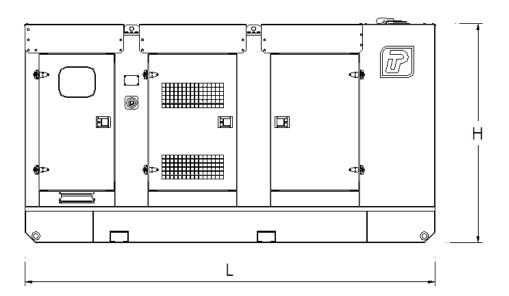
Genset				
Model	PYC115A			
Prime Rating (kw)	80			
Standby Rating (kw)	90			
Rate voltage(V)	400			
Rate current(A)	144			
Power factor	0.8			
Frequency(Hz)	50			
Engine				
Engine Model	YC4D140-D31			
Gross Engine output-Prime (kw)	95			
Gross Engine output-Standby (kw)	105			
Bore * stroke (mm)	108*115			
Cylinders and structure	4 In line			
Displacement(Liter)	4.214			
Compression Ratio	17.5:1			
Intake way	Turbo charged			
Max intake resistance (KPa)	5			
Air intake (m3/h)	492			
Max exhaust back pressure (KPa)	10			
Exhaust gas flow (m3/h)	1164			
Exhaust temp (°C)	600			
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			
71 (05)	80-90			
Thermostat range (°C)	120			
Lubrication system oil capacity (L)	13			
Rate load fuel consumption(L/H)	25.6			
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			

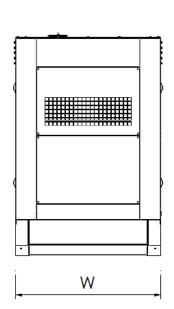
Dimension and Weight











Туре	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2239*859*1477	1370	200
Silent Type	2920*1100*1750	2120	400

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