

PYC125A

Prime Power: 90KW/113KVA Standby Power: 100KW/125KVA Voltage: 400VAC

Powered by Yuchai YC4D155-D31 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
- 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.



Diesel Engine

- Model: PYC125A-YC4A155-D30
- 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 °C

1500r/min engine--altitude less than 1000 m, ambient temperature less than 40 °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 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: U_a, U_b, U_c
- Frequency F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature °C display
- Oil pressure OP
- Engine speed
- 3 phases current: I_a, I_b, I_c
- 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	PYC125A
Prime Rating (kw)	90
Standby Rating (kw)	100
Rate voltage(V)	400
Rate current(A)	162
Power factor	0.8
Frequency(Hz)	50

Engine

Engine Model	YC4D155-D31
Gross Engine output-Prime (kw)	103
Gross Engine output-Standby (kw)	113
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)	1188
Exhaust temp (°C)	620
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	294
Coolant capacity (L)	30
Highest water temperature(°C)	97
Minimum air opening to room (m2)	1.5/1.0
Thermostat range (°C)	80-90
Max oil temperature (°C)	120
Lubrication system oil capacity (L)	13
Rate load fuel consumption(L/H)	27.6
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	H

Controller

Brand	POWERTEC GC7110.2
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Type	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2231*924*1477	1400	200
Silent Type	2920*1100*1750	2150	400

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