

PYC125A

Prime Power: 90KW/113KVA

Standby Power: 100KW/125KVA

Voltage: 400V

Powered by Yuchai YC4A165-D30 Engine

Genset Performance

- 230/400V, 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.
- Product standards: (1) GB/T 2820-2022 / IS08528:2018
(2) GB/T 4712-2008 (3) YD/T 502-2020 (4) YD/T 1051-2018

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.

Standard Configuration

- Guangxi Yuchai Engine
- Brushless synchronous alternator
- POWERTEC intelligent controller
- 40°C standard ambient temperature
(50°C Optional)
- Circuit breaker (3P)
- Float battery charger
- Battery connect wire
- Steel base frame
- Silencer, bellows, exhaust bend
- Bottom fuel tank
- Manual book and files



Diesel Engine

- Model: YC4A165-D30
- Structure: High-strength cylinder block, reinforced crankshaft, and alloy steel connecting rods make the engine more durable and have a lighter and more compact structure among similar products;
- Adopting advanced and mature BOSCH electronically controlled common rail + efficient supercharging and intercooling technology to accurately control the injection. The amount of oil and air intake are sufficient to ensure that the diesel engine has sufficient combustion under different load conditions and improves fuel consumption. Low, less emissions;
- Using a full-flow oil cooler, the heat dissipation efficiency is increased by 30%, effectively reducing the temperature of the oil, allowing the oil to lubricate parts at a reasonable temperature and reducing friction losses;
- The piston is cooled by an internal cooling oil channel, which effectively reduces the piston temperature and has a long service life;
- The YC4A series engine is a classic power product developed by Yuchai. It has high brand awareness, high market recognition, and a market share of more than 400,000 units. The engines developed on its basis for generator sets are reliable and durable, energy-saving and environmentally friendly, compact in structure, and instantaneous. It has the advantages of strong state loading capacity and good maintainability.



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 2.5
- Sealed with advanced lubricating grease to prolong life of bearing.



Standard Meters

- 3 phases voltage: U_a, U_b, U_c
- Frequency F_1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature $^{\circ}C$ display
- Oil pressure OP
- Engine speed
- 3 phases current: I_a, I_b, I_c
- Active power PA
- Power factor PF
- Temperature $^{\circ}C$ display
- KPa/Psi/Bar display
- Battery voltage V
- Running Hour
- Starting timer:(999999)



Standard Protection Function

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;.

Genset

Model	PYC125A
Prime Rating (kw)	90
Standby Rating (kw)	100
Rate current(A)	162
Power factor	0.8
Frequency(Hz)	50

Engine

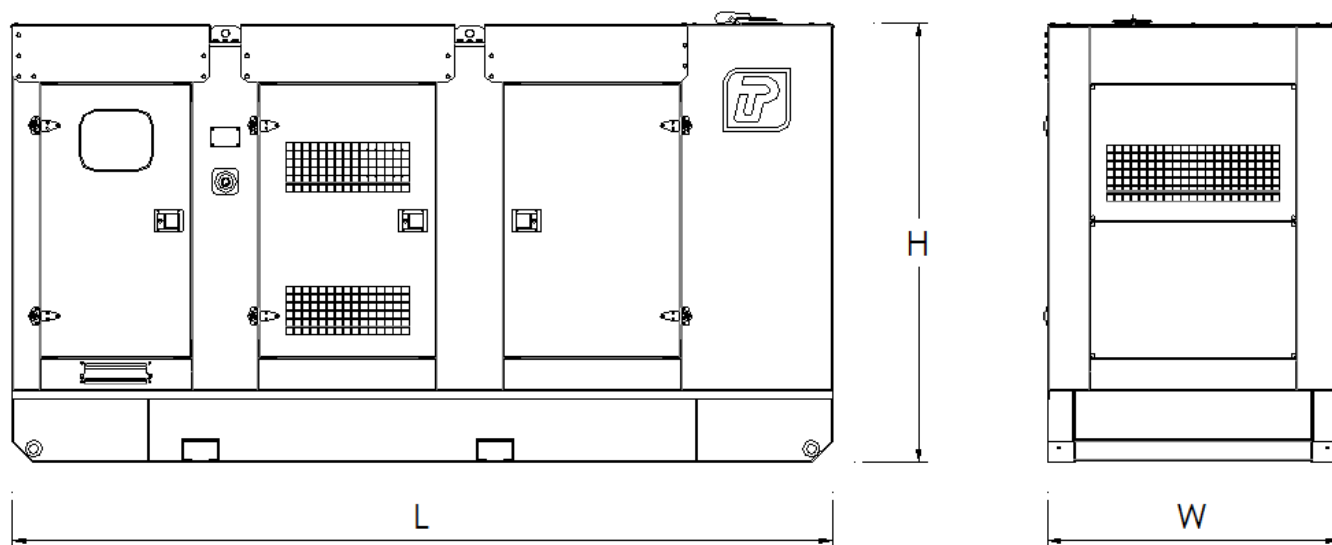
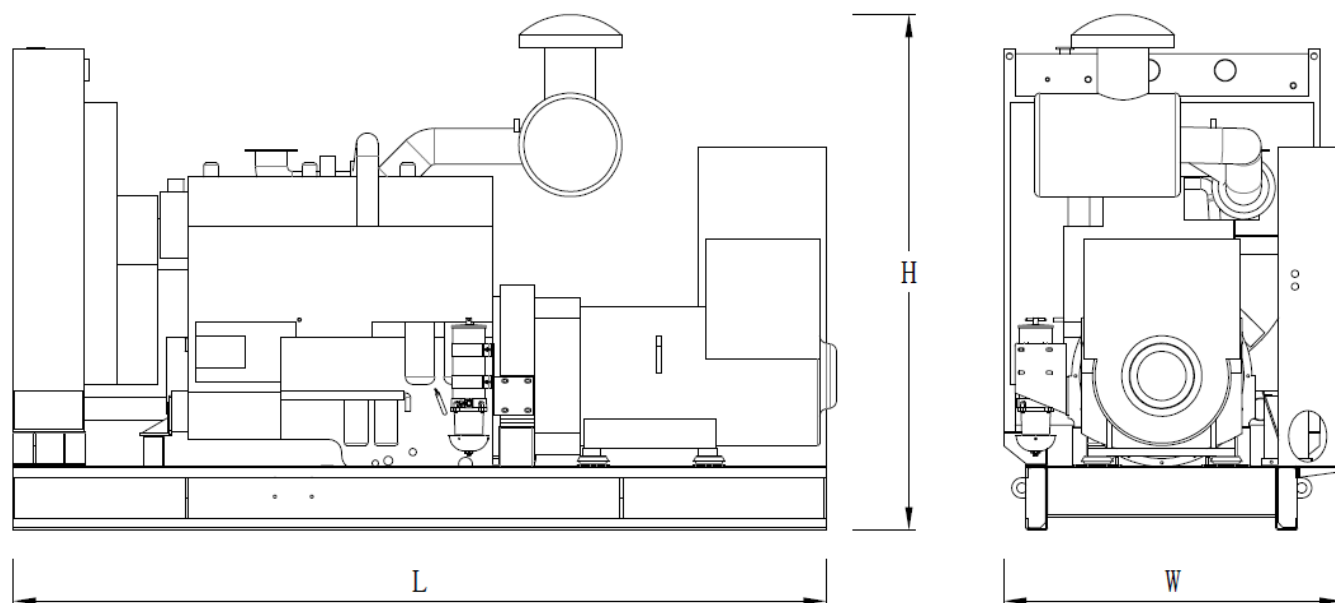
Engine Model	YC4A165-D30
Gross Engine output-Prime (kw)	110
Gross Engine output-Standby (kw)	121
Bore * stroke (mm)	108*132
Cylinders and structure	4 In line
Displacement(Liter)	4.837
Compression Ratio	17.5:1
Intake way	Supercharge/Air-Air intercooling
Max intake resistance (KPa)	5
Air intake (m3/h)	432
Max exhaust back pressure (KPa)	10
Exhaust gas flow (m3/h)	1128
Exhaust temp (°C)	550
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	184.2
Coolant capacity (L)	27
Highest water temperature(°C)	97
Minimum air opening to room (m2)	1.1/0.9
Thermostat range (°C)	70-80
Max oil temperature (°C)	120
Lubrication system oil capacity (L)	14
Rate load fuel consumption(L/H)	28.3
Standard Governor/Class	Electronically controlled high voltage common rail
Emission	China Tier 3

Alternator

Rated Voltage(V)	230/400
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
-------	----------



Type	Dimension (mm) (L*W*H)	Weight (kg)	Fuel Tank Capacity (L)
Open Type	2239*924*1428	1352	200
Silent Type	2920*1100*1750	2102	300

Contact Us

Powertec Generator System Inc.

Add: Danshui Yanna Industry Zone, Huiyang, Huizhou, Guangdong, China
Tel: +86 752-3911119 / 3911118
Fax: +86 752-3911110
Web: www.powertec.com.cn
Email: powertec@powertec.com.cn