

PYC190A

Prime Power: 140KW/175KVA

Standby Power: 150KW/190KVA

Voltage: 400V

Powered by Yuchai YC6A230L-D20 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 / ISO8528:2018
(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

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: YC6A230L-D20
- YC6A series engine through long-term market trial, is a mature product with excellent performance and high reliability; the market quantity of it is more than one million. Such model YC6A230L-D20 is developed for the characteristics of generator unit, which is characterized by high cost performance, easy use and maintenance;
- Structure: high-strength cylinder block, alloy forged steel crankshaft, alloy steel connecting rod and internal cooling oil gallery. The plug makes the engine more durable and has a lighter and more compact structure in similar products.
- The engine's casing is made of high-strength alloy cast iron, and thanks to its years of use in the market, the entire engine boasts high reliability ;
- Smooth operation: It features electronic speed control, resulting in minimal fluctuations in speed and smooth operation; it has a low steady-state speed regulation value and fast transient response.
- Easy maintenance: the general rate of spare parts and parts of 6A batch products is over 90%.
- G3 performance requirements for generator set are met.
- German FEV technology platform ;



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 complies 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 F1
- Apparent power PR
- Power factor PF
- Coolant temperature WT
- Temperature $^{\circ}\text{C}$ display
- Oil pressure OP
- Engine speed
- 3 phases current: I_a, I_b, I_c
- Active power PA
- Power factor PF
- Temperature $^{\circ}\text{C}$ 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

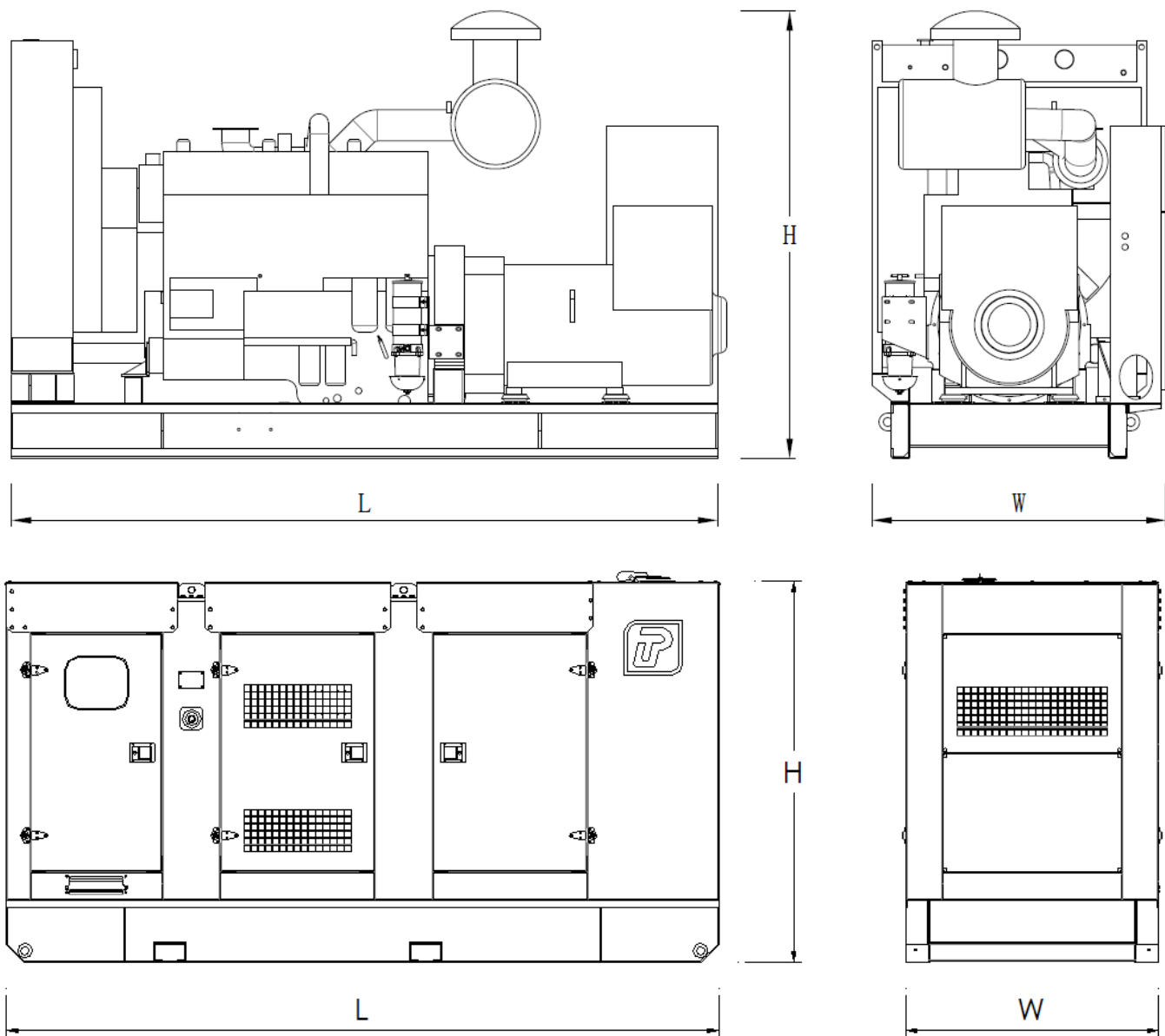
- Manual/auto/stop/start
- Setting button
- Fault status indicators
- Screen menu selection button
- Emergency stop button
- Digital displayer



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	PYC190A
Prime Rating (kw)	140
Standby Rating (kw)	150
Rate current(A)	253
Power factor	0.8
Frequency(Hz)	50
Engine	
Engine Model	YC6A230L-D20
Gross Engine output-Prime (kw)	155
Gross Engine output-Standby (kw)	170.5
Bore * stroke (mm)	108*132
Cylinders and structure	6 In line
Displacement(Liter)	7.255
Compression Ratio	17.5:1
Intake way	Turbocharged & Intercooled
Max intake resistance (KPa)	5
Air intake (m3/h)	540.6
Max exhaust back pressure (KPa)	10
Exhaust gas flow (m3/h)	1560
Exhaust temp (°C)	550
Cooling way	Water Radiator & Fan
Fan exhaust flow (m3/min)	277.8
Coolant capacity (L)	45.1
Highest water temperature(°C)	97
Minimum air opening to room (m2)	1.3/1.1
Thermostat range (°C)	70-80
Max oil temperature (°C)	120
Lubrication system oil capacity (L)	22
Rate load fuel consumption(L/H)	37.8
Standard Governor/Class	electronic
Emission	China Tier 2
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	2517*989*1478	1805	250
Silent Type	3950*1400*2115	3205	600

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