

PDC115A

Prime Power: 84KW/105KVA

Standby Power: 92KW/115KVA

Voltage: 400V

Powered by Cummins 6BT5.9-G2 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
- Built-in vibration isolator with high performance on shock absorption.

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

Standard Configuration

- Cummins 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
- Manual book and files



Diesel Engine

- Model: **6BT5.9-G2**
- Structure: Using forged steel camshaft and crankshaft, high-strength cylinder design, many parts are cast on the cylinder, with high rigidity, strong high-pressure resistance and longer service life;
- Integrated design: the cylinder block, cylinder head and other parts are "multi-purpose in one piece", reducing the number of connecting parts; 40% fewer parts than other similar engines, greatly reducing the failure rate .
- Advanced design and sophisticated manufacturing: adaptable to harsh working conditions and strong in high-intensity and heavy-load operation capabilities;
- Fuel system: The rotor high-pressure fuel pump consumes less fuel and effectively reduces noise.
- Lubrication system: The cylinder liner with platform texture honing design has a perfect geometric structure to effectively prevent oil leak;



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



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;.

Genset

| | |
|---------------------|---------|
| Model | PDC115A |
| Prime Rating (kw) | 84 |
| Standby Rating (kw) | 92 |
| Rate voltage(V) | 400 |
| Rate current(A) | 152 |
| Power factor | 0.8 |
| Frequency(Hz) | 50 |

Engine

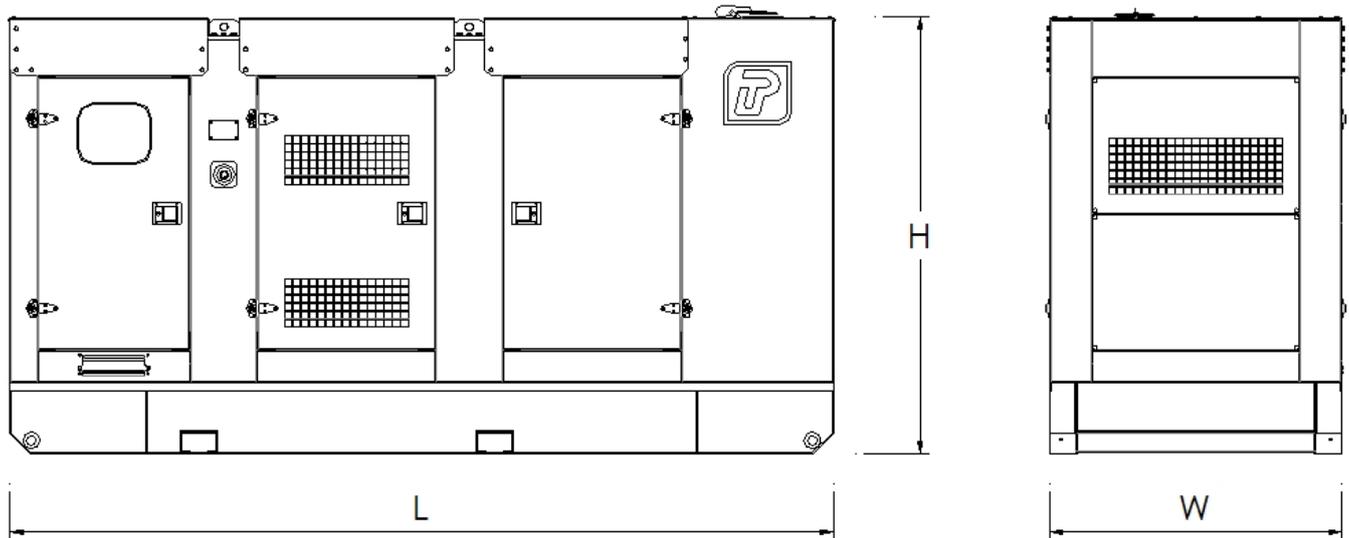
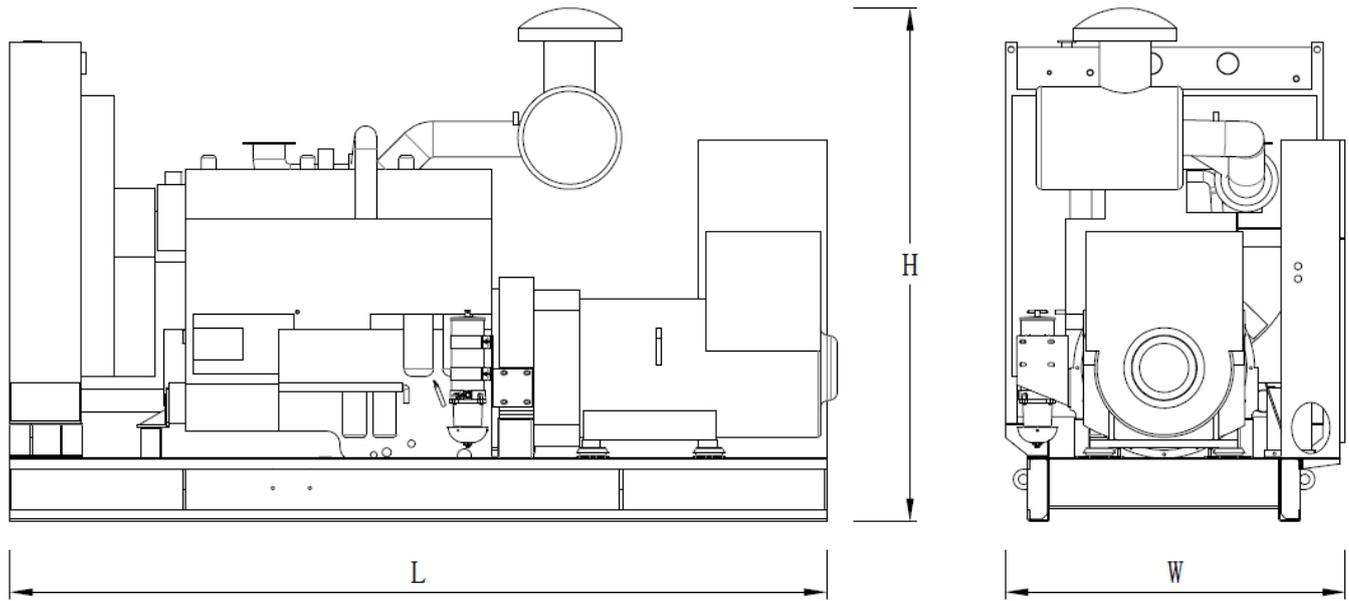
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|-------------------------------------|----------------------|
| Engine Model | 6BT5.9-G2 |
| Gross Engine output-Prime (kw) | 96 |
| Gross Engine output-Standby (kw) | 106 |
| Bore * stroke (mm) | 102*120 |
| Cylinders and structure | 6 In line |
| Displacement(Liter) | 5.9 |
| Compression Ratio | 17.3:1 |
| Intake way | Turbocharged |
| Max intake resistance (KPa) | 6.2 |
| Air intake (m3/h) | 360 |
| Max exhaust back pressure (KPa) | 10 |
| Exhaust gas flow (m3/h) | 900 |
| Exhaust temp (°C) | 565 |
| Cooling way | Water Radiator & Fan |
| Fan exhaust flow (m3/min) | 220 |
| Coolant capacity (L) | 27 |
| Highest water temperature(°C) | 104 |
| Minimum air opening to room (m2) | 1.1/0.9 |
| Thermostat range (°C) | 82-95 |
| Max oil temperature (°C) | 121 |
| Lubrication system oil capacity (L) | 16.4 |
| Rate load fuel consumption(L/H) | 22.7 |
| Standard Governor/Class | Electronic |

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 | 2319*890*1413 | 1099 | 200 |
| Silent Type | 2920*1100*1750 | 1849 | 300 |

Contact Us

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