



Y-C 50/S

Prime Power: 40KW/50KVA Standby Power: 44KW/55KVA Voltage: 400VAC

Powered by Cummins 4BT3.9-G2 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
- Built-in vibration isolator with high performance on shock absorption.

Standard Configuration

- Cummins Engine
- Brushless synchronous alternator
- 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
- Soundproof canopy
- Trailer
- S230 Soundproof canopy
- Design and construction of environmental protection
- Engineering for the Genset room



Equipment Instruction

Diesel Engine

- Model: 4BT3.9-G2
- Construction: Adopt forged steel camshaft and crankshaft, High strength cylinder block design, plenty parts cast on the Cylinders, stiffness strong, high pressure resistant capacity, longer service life.
- Advanced design and superior manufacture: Adapt to harsh severe work condition, high strength and has heavy loading work capacity.
- Fuel system: Rotator high pressure fuel pump, lower fuel consumption, and reduce noise effectively.
- Environment: The engine can work normally under the following conditions without de-rating:
 - A. 1800r/min engine--altitude less than 1500m (5000ft), ambient temperature less than 40 °C(104°F).
 - B. 1500r/min engine--altitude less than 1310m (4300ft), ambient temperature less than 40 °C(104°F)

But engine working environment conditions exceed above, the engine output power will de-rate 4% as altitude increase each 300m(1000ft) at the altitude is higher than 1500m (5000ft), Also it will de-rate 2% as temperature increase every 11 °C(1% de-rating ,when temperature increase each 10°F). in the ambient temperature is higher than 40°C(104°F).



Alternator

- Optional brands: **Stamford / Leroy Somer / Copy Stamford**
- 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.
- Optional Models: UCI 224D / TAL-A 42F / ZFLY 224D
- Sealed with advanced lubricating grease to prolong life of bearing.



Intelligent Control System

Standard Meters

- 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 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)

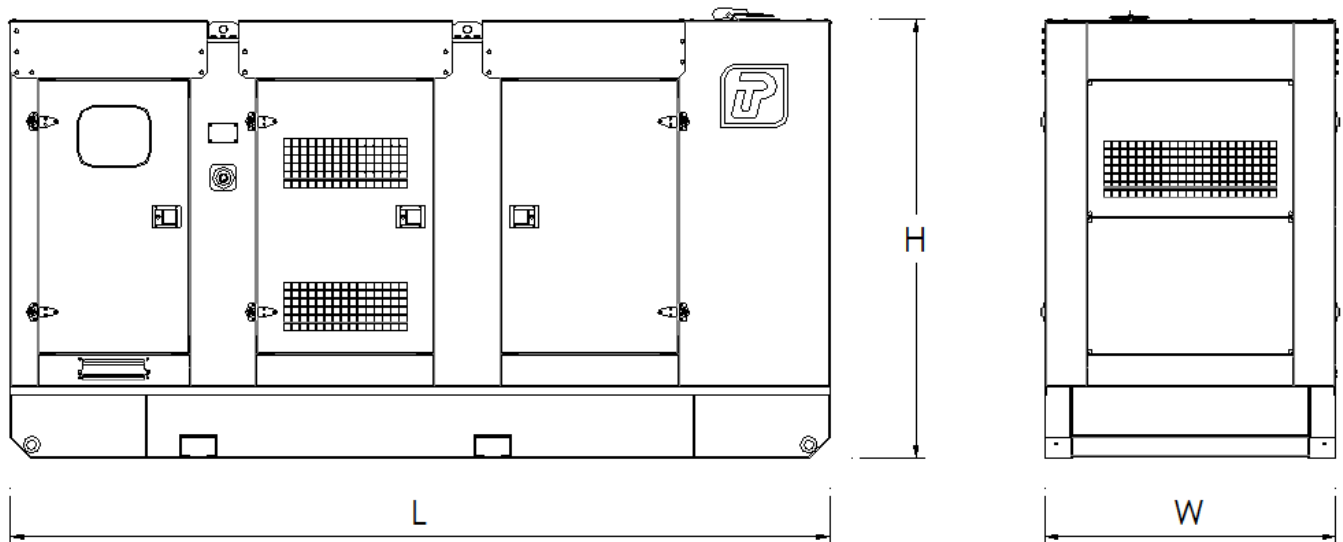
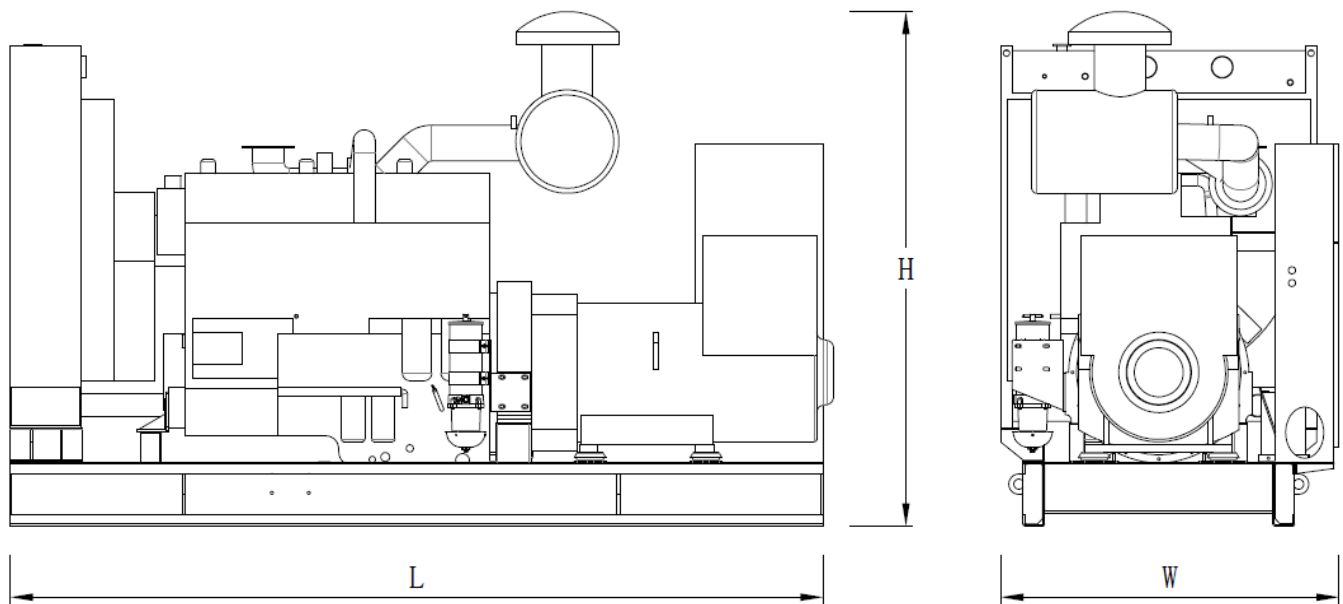
- International standard MODBUS communication protocol RS232/ RS485 is suitable for remote control and monitor; It is easy integrated with SCADA;

Notes: Above data of controller comes from Y-C 50/S. Customized solutions is available as required

Data sheet of Genset

| Genset | |
|-------------------------------------|----------------------------------|
| Model | Y-C 50/S |
| Prime Rating (kw) | 40 |
| Standby Rating (kw) | 44 |
| Rate voltage(V) | 400 |
| Rate current(A) | 58 |
| Power factor | 0.8 |
| Frequency(Hz) | 50 |
| Engine | |
| Engine Model | 4BT3.9-G2 |
| Gross Engine output-Prime (kw) | 36 |
| Gross Engine output-Standby (kw) | 40 |
| Bore * stroke (mm) | 102*120 |
| Cylinders and structure | 4 In line |
| Displacement(Liter) | 3.9 |
| Compression Ratio | 18:1 |
| Intake way | Turbo Charge |
| Max intake resistance (KPa) | 6.23 |
| Air intake (m3/h) | 157 |
| Max exhaust back pressure (KPa) | 10 |
| Exhaust gas flow (m3/h) | 364 |
| Exhaust temp (°C) | 487 |
| Cooling way | Water Radiator & Fan |
| Fan exhaust flow (m3/min) | 146 |
| Coolant capacity (L) | 19 |
| Highest water temperature(°C) | 104 |
| Minimum air opening to room (m2) | 0.9/0.5 |
| Thermostat range (°C) | 82-95 |
| Max oil temperature (°C) | 121 |
| Lubrication system oil capacity (L) | 11 |
| Rate load fuel consumption(L/H) | 9.3 |
| 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% |
| Model | UCI 224D / TAL-A 42F / ZFLY 224D |
| Protection class | IP21-23 |
| Insulation class | H |
| Controller | |
| Brand | DEEPSEA or MEBAY |

Dimension and Weight



| Type | Dimension (mm) (L*W*H) | Weight (kg) | Fuel Tank Capacity (L) |
|-------------|---------------------------|----------------|---------------------------|
| Open Type | 2100*835*1385 | 786 | 110 |
| Silent Type | 2300*900*1550 | 1336 | 250 |

Contact Us

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