

## Y-C 150

Prime Power: 120KW/150KVA Standby Power: 132KW/165KVA Voltage: 400VAC

Powered by Cummins 6BTAA5.9-G12 Engine

### Genset Performance

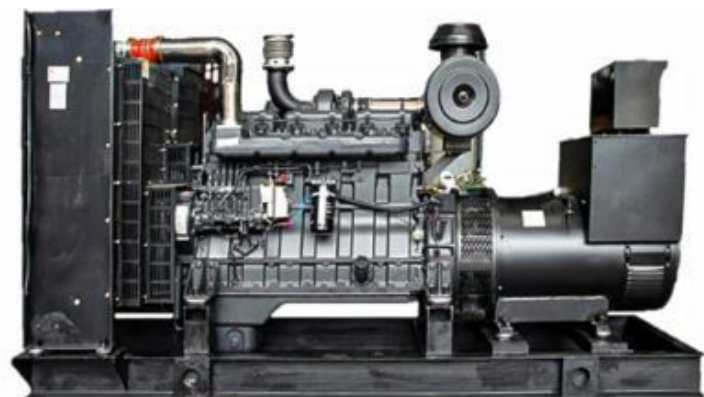
- 230/400VAC, 50Hz, 0.8PF, 3 Phases 4 wires
- Frequency drop  $\leq 3\%$
- Voltage regulation  $\leq 0.3\%$
- The steady state frequency  $\leq 0.5\%$
- The steady state voltage deviation  $\leq \pm 1\%$
- The transient frequency deviation  $\leq +10\% \leq -15\%$
- The transient voltage deviation  $\leq +20\% \leq -15\%$
- 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
- S292 soundproof canopy
- Design and construction of environmental protection
- Engineering for the Genset room



# Equipment Instruction

## Diesel Engine

- Model: 6BTAA5.9-G12
- 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 274F / TAL-A 274F/ ZFLY 274FS
- 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 150. Customized solutions is available as required**

# Data sheet of Genset

## Genset

|                     |        |
|---------------------|--------|
| Model               | Y-C150 |
| Prime Rating (kw)   | 120    |
| Standby Rating (kw) | 132    |
| Rate voltage(V)     | 400    |
| Rate current(A)     | 217    |
| Power factor        | 0.8    |
| Frequency(Hz)       | 50     |

## Engine

|                                     |                                |
|-------------------------------------|--------------------------------|
| Engine Model                        | 6BTAA5.9-G12                   |
| Gross Engine output-Prime (kw)      | 140                            |
| Gross Engine output-Standby (kw)    | 155                            |
| Bore * stroke (mm)                  | 102*120                        |
| Cylinders and structure             | 6 In line                      |
| Displacement(Liter)                 | 5.9                            |
| Compression Ratio                   | 17.3:1                         |
| Intake way                          | Turbo Charge,Air-Air Intercool |
| Max intake resistance (KPa)         | 6.2                            |
| Air intake (m3/h)                   | 493                            |
| Max exhaust back pressure (KPa)     | 10                             |
| Exhaust gas flow (m3/h)             | 1156                           |
| Exhaust temp (°C)                   | 507                            |
| 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)    | 0.9/0.6                        |
| Thermostat range (°C)               | 82-95                          |
| Max oil temperature (°C)            | 121                            |
| Lubrication system oil capacity (L) | 16.4                           |
| Rate load fuel consumption(L/H)     | 34                             |
| Standard Governor/Class             | Electronic                     |

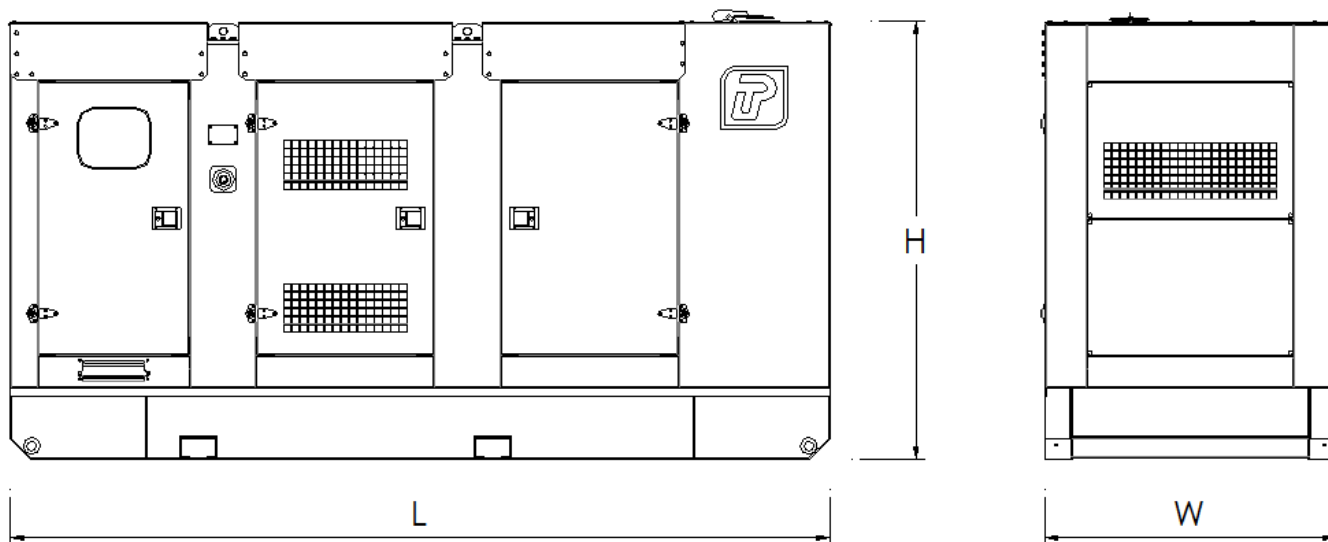
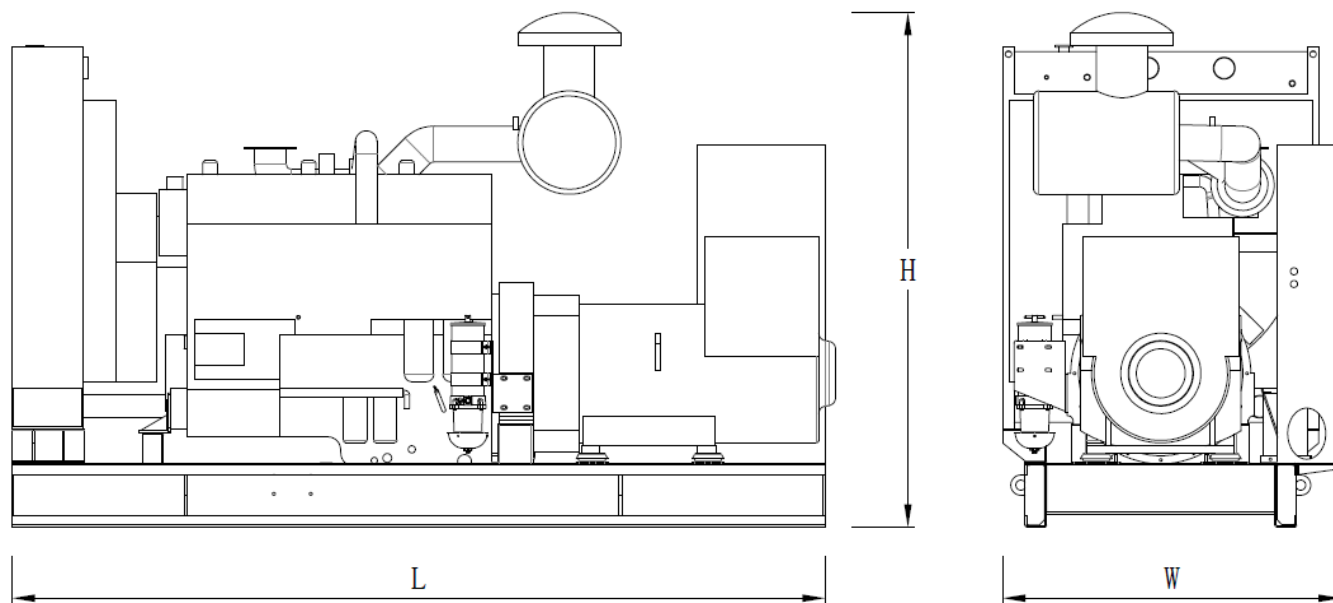
## Alternator

|                        |                                   |
|------------------------|-----------------------------------|
| 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 274F / TAL-A 274F/ ZFLY 274FS |
| Protection class       | IP21-23                           |
| Insulation class       | H                                 |

## Controller

|       |                  |
|-------|------------------|
| Brand | DEEPSEA or MEBAY |
|-------|------------------|

# Dimension and Weight



| Type        | Dimension (mm)<br>(L*W*H) | Weight<br>(kg) | Fuel Tank Capacity<br>(L) |
|-------------|---------------------------|----------------|---------------------------|
| Open Type   | 2445*945*1282             | 1309           | 315                       |
| Silent Type | 2920*1100*1750            | 1959           | 400                       |

**Contact Us**

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