

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance European (CE)
- China Compulsory Certification (CCC)
- ISO8528-5:2005
- GB/T2820.5-2009

Environmental Operating Conditions

- Installation place: Indoors (well ventilated).
- Ambient temperature: -25°C to 50°C. The coolant heater is needed when the temperature is below 5°C
- Humidity: Less than 80%.
- Altitude: Below one thousand (1000) meters above sea level.

Factory Inspection

- Inspection items.
- Protection devices working test.
- Starting ability in normal temperature.
- 50% rated power load moment capability.
- Voltage deviation and speed variation: 0%, 25%, 50%, 75%, 100%, 110% Load.

Painting Process

- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

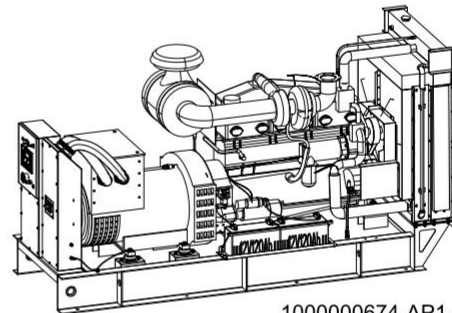
2 General Features

- Cummins engine NTA855-G1B
- Close coupled to a Stamford alternator HCI444ES
- Microprocessor control module PLC-7420
- MCCB main circuit breaker: 500A
- Rotate speed governor: Electrical governor FP801
- Excitation system: Self excited
- A.V.R model: AS440
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- 2x12V/120AH Sealed for life maintenance free battery
- Lockable battery isolator switch
- 50°C radiator
- Oil pump on the engine
- Steel base frame with lifting lugs
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank with 6 hours running
- Drain points for fuel tank
- Operator's Manual / Specifications

3 Equipment Specification

General technical data

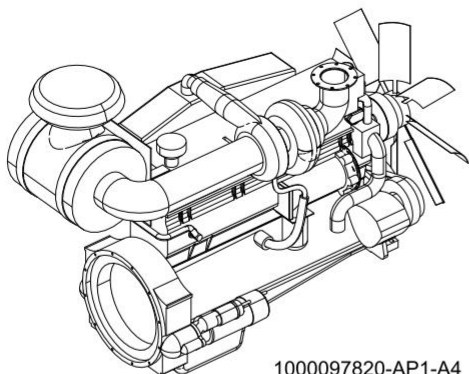


1000000674-AP1-E2

Model.....HCL312C
 Structure type..... A
 Tank capacity.....410L
 Dry weight.....3042kg
 Noise level @7m96.5dBA
 Dimensions L×W×H..... 3354x1130x1831mm
 Standby Power 345kVA/276kW
 Prime Power..... 312kVA/250kW

Voltage	380V	400V	415V	440V	
Ampere	474.8A	450.3A	434.1A	409.4A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	22.0	38.2	54.3	71.4	80.7

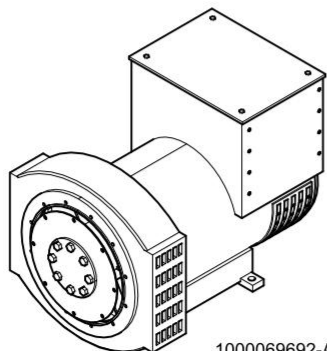
Diesel engine



1000097820-AP1-A4

Engine Manufacturer/Brand.....	Cummins
Engine Model.....	NTA855-G1B
Dimensions L×W×H.....	1950.1*948.8*1588.4
Dry Weigh (approx.)	1410Kg
Number of Cylinders.....	6
Bore.....	140mm
Stroke	152mm
Displacement.....	14L
Compression Ratio	14
Type of injection.....	Direct injection
Intake System.....	Turbocharged
Intake Resistance.....	≤6.22kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel.....	No.2-ASTM D975
Type of Oil	API CD/SE or CCMCD4
Oil Capacity	38.6L
Type of Coolant	Glycol mixture
Coolant Capacity	60.6L
Back Pressure	≤10kPa
Standby Power	321kW
Prime Power	284kW
Fuel Consumption(100%load).....	208.8g/kW.h

Alternator



1000069692-AP1-A1

Alternator Manufacturer/Brand	Stamford
Alternator Model	HCI444ES
Exciter.....	Brushless
Cooling Fan	Cast alloy aluminum
Windings.....	100% copper
Insulation Class	H
Winding Pitch.....	2/3
Terminals	12
Drip Proof	IP23
Altitude.....	≤1000m
Overspeed	2250rpm
Air Flow.....	0.8m³/s(50Hz),0.99 m³/s(60Hz)
Voltage Regulation	± 1.0 %
Total Harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

DSE-7320 Control System



1000246170-AP1-A1

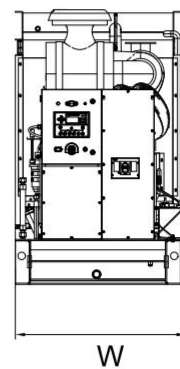
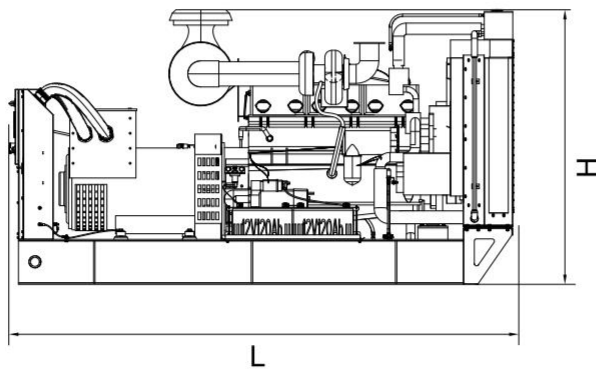
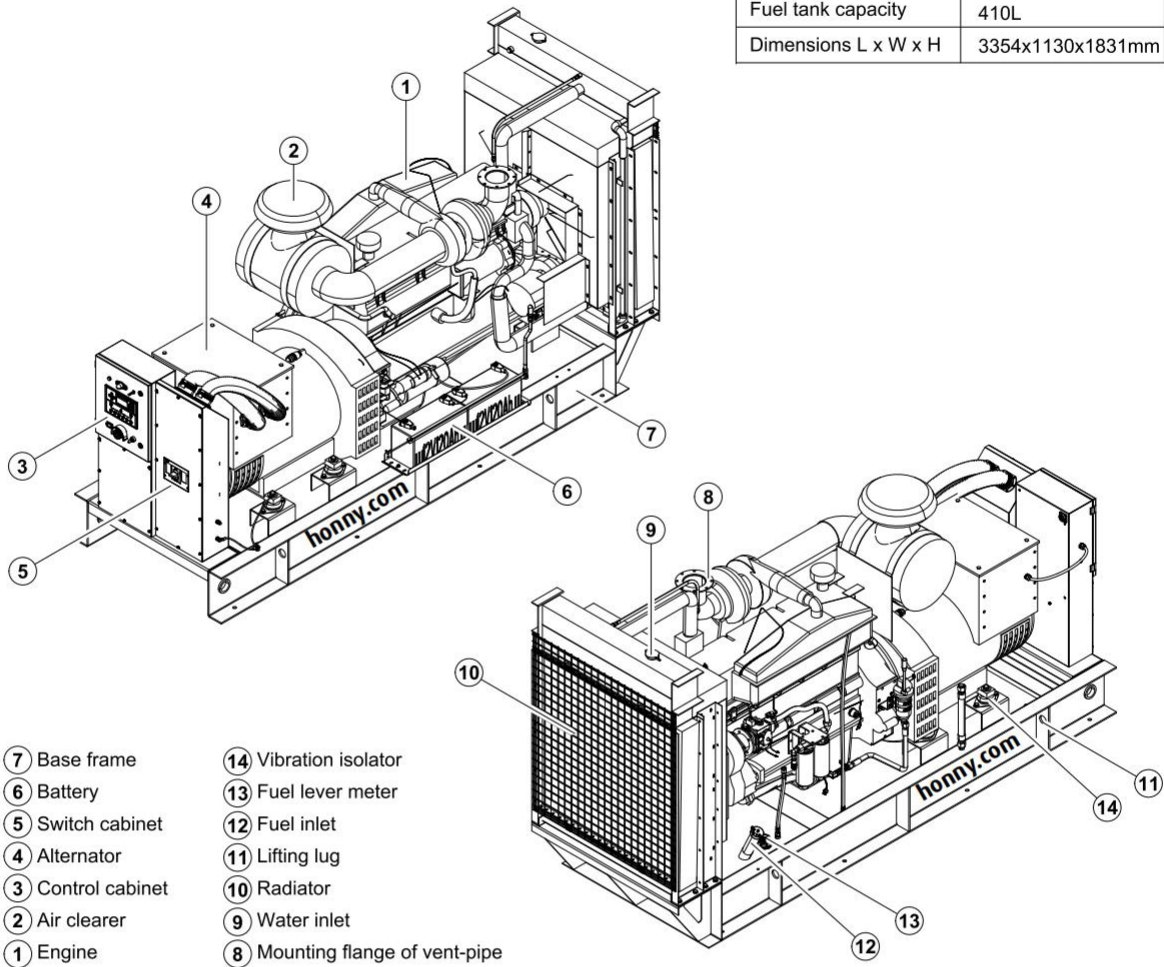
DSE-7320 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and display all values and alarms information on the LCD. In addition, the control module can automatically shut down the engine and indicate the engine failure.

- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual, automatic and remote work mode selectable
- Real time clock for time and date display, overall runtime display, 250 log entries
- Overall power output display
- Integral speed/frequency detecting, telling status of start, rated operation, overspeed etc.
- Communication with PC via RS485 OR RS232 interface, using MODBUS protocol

4. Open Type Overall Dimensions

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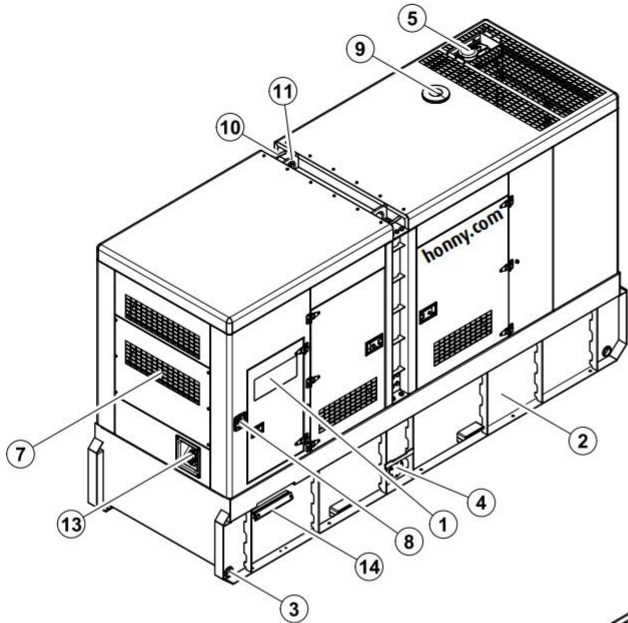
Dry weight	3042kg
Fuel tank capacity	410L
Dimensions L x W x H	3354x1130x1831mm



5. Silent Type Overall Dimensions

1000023422-DR1-B5

Dry weight	4773kg
Fuel tank capacity	1650L
Dimensions L x W x H	4242x1423x2425mm



- ⑧ Emergency stop switch
- ⑦ Air inlet
- ⑥ Access door
- ⑤ Exhaust gas outlet
- ④ Fuel drain
- ③ Tie down
- ② Base frame
- ① Control cabinet
- ⑬ Fuel inlet
- ⑫ Fork lift channel
- ⑪ Lifting lug
- ⑩ Roping lug
- ⑨ Coolant inlet
- ⑮ Coolant/Oil drain hose fitting
- ⑭ Cable trench
- ⑯ External fuel inlet/return hose fitting

