

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance Europeenne (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.

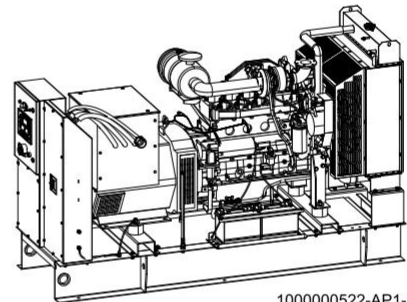
2 General Features

- Cummins engine 6BT5.9-G1
- Close coupled to a Stamford alternator UC1274C
- Microprocessor control module AMF-20
- MCCB main circuit breaker: 160A
- Rotate speed governor: Mechanical governor
- Excitation System: Self Excited, SHUNT
- A.V.R. Model: AS440
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- 2x12V/70AH sealed for life maintenance free battery
- Lockable battery isolator switch
- 50°C radiator
- Oil pump on the engine
- Steel base frame with forklifts
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 10 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

General technical data

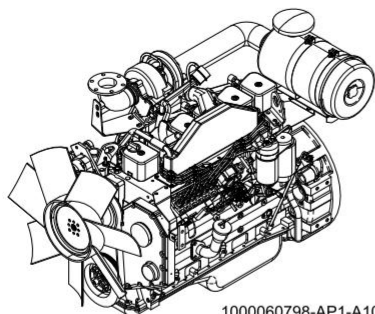


1000000522-AP1-E2

Model.....	HCL100C
Structure type	Open type
Tank capacity.....	230L
Dry weight.....	1234kg
Sound pressure level @1m/ 7m	N/A
Sound power level acc. 2000/14/EC	N/A
Dimensions L×W×H.....	2434x855x1490mm
Standby Power	110kVA/88kW
Prime Power	100kVA/80kW

Voltage	380V	400V	415V	440V	
Ampere	151.9A	144.3A	139.1A	131.2A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	7	11	17	22	25

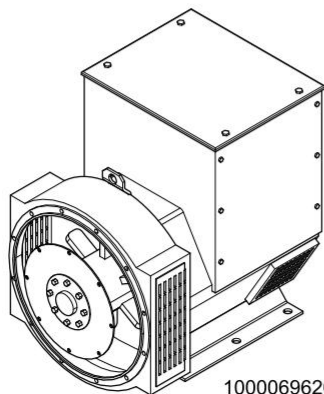
Diesel Engine



1000060798-AP1-A10

Engine Manufacturer/Brand.....	Cummins
Engine Model.....	6BT5.9G1
Dimensions L×W×H.....	N/A
Dry Weigh (approx.)	411kg
Number of Cylinders.....	6
Bore.....	102mm
Stroke	120mm
Displacement.....	5.9L
Compression Ratio	16.8
Type of injection.....	Direct injection
Intake System.....	Turbo charged
Intake Resistance.....	≤6.28kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	12/24V
Type of Fuel.....	Diesel
Type of Oil	15W40-CF4
Oil Capacity	14.2L
Type of Coolant	Glycol mixture
Coolant Capacity	29.7L
Heat Rejected To Exhaust System.....	N/A
Heat Rejected To Water&Oil.....	49kW(2744BTU/min)
Back Pressure	≤10.1kPa
Standby Power	92kW
Prime Power	86kW
Fuel Consumption(100%load).....	214g/kW.h

Alternator



1000069620-AP1-A1

Alternator Manufacturer/Brand	Stamford
Alternator Model	UCI274C
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	2250 rpm
Air Flow.....	0.514m³/s(50HZ),0.617m³/s(60HZ)
Voltage Regulation	±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

PLC-AMF Control System

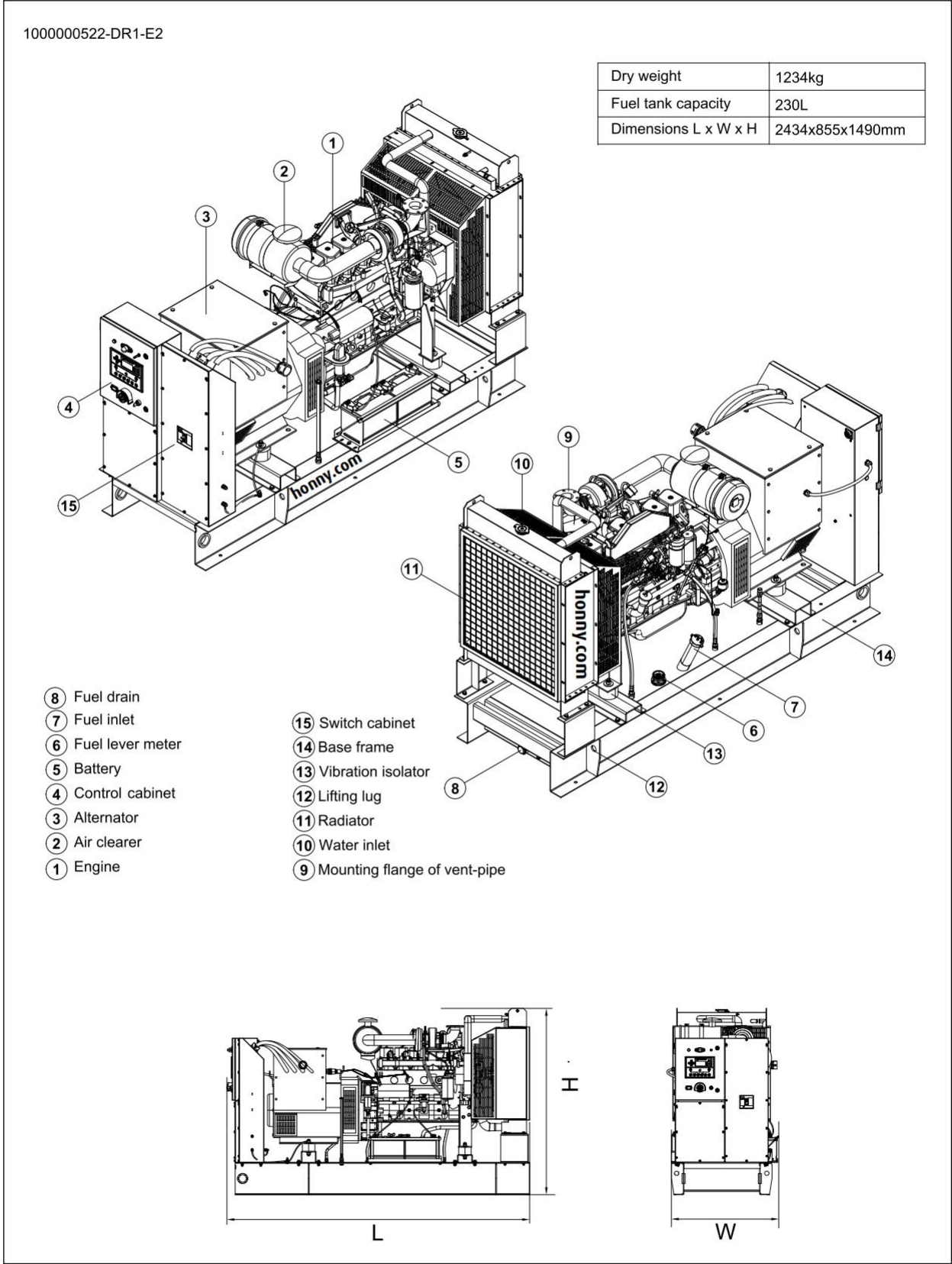


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PLC-AMF20 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. 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.

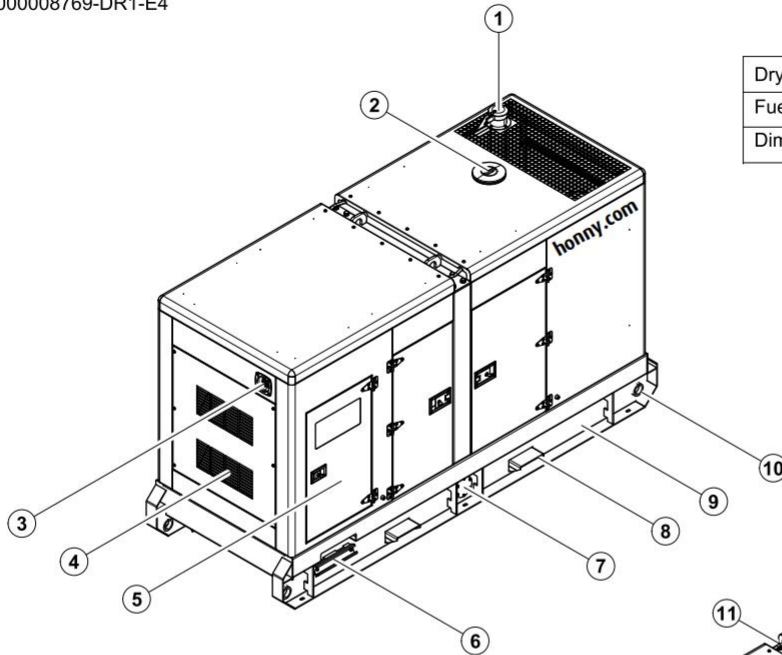
- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual, 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

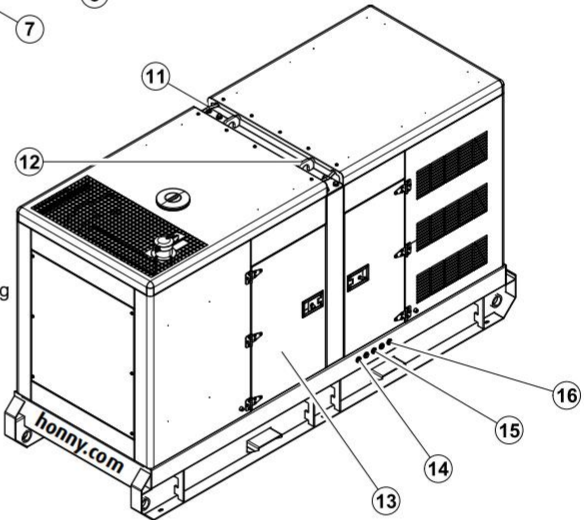


5. Silent Type Overall Dimensions

1000008769-DR1-E4



Dry weight	2044kg
Fuel tank capacity	280L
Dimensions L x W x H	3142x1150x1713mm



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

