

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 45°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.

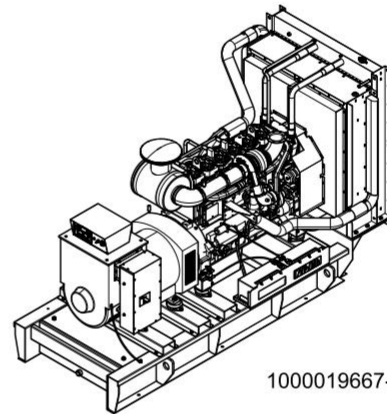
2 General Features

- Cummins engine QSK19-G4
- Close coupled to a alternator TAL-A473-F
- Microprocessor control module PLC-7420
- DMA main circuit breaker: 1000A
- Rotate speed governor: Electronic fuel injection governor
- Excitation System: Self excited,SHUNT
- A.V.R.Model: AS440
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- 2x12V/150AH 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 for 9 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

General technical data

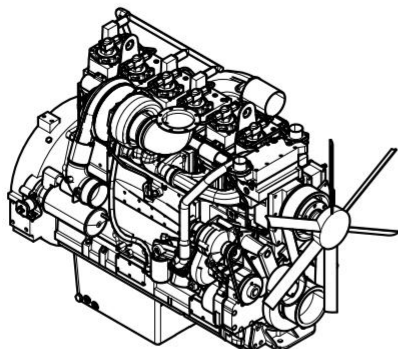


1000019667-AP1-A3

Model.....HCL650C
 Structure type A
 Tank capacity.....1300L
 Dry weight.....5256kg
 Noise level @7m N/A
 Dimensions L×W×H.....3823×1683×2386mm
 Standby Power 710kVA/568kW
 Prime Power..... 650kVA/520kW

Voltage	380V	400V	415V	440V	
Ampere	987.6A	938.2A	904.3A	852.9A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	40	77	109	143	156

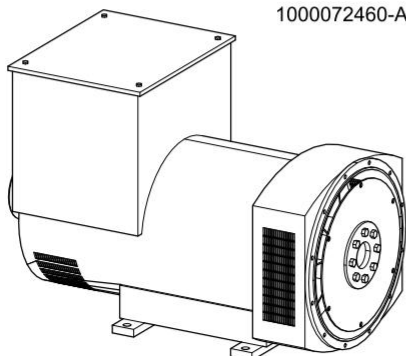
Diesel engine



1000099093-AP1-B6

Engine Manufacturer/Brand.....	Cummins
Engine Model.....	QSK19-G4
Dimensions L×W×H.....	1784×1126×1550mm
Dry Weigh (approx.)	1900kg
Number of Cylinders.....	6
Bore.....	159mm
Stroke	159mm
Displacement.....	19L
Compression Ratio.....	15
Type of injection.....	Cummins MCRC
Intake System.....	Turbocharged, air-to-air charged cooled
Intake Resistance.....	≤6.22KPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel.....	No.2 or ASTM D975
Type of Oil	API CD/SE or CCMCD4
Oil Capacity	84.4L
Type of Coolant	Glycol mixture
Coolant Capacity	41.6L(only engine)
Back Pressure	≤7.8KPa
Standby Power	634kW
Prime Power	574kW
Fuel Consumption(100%load).....	143L/h

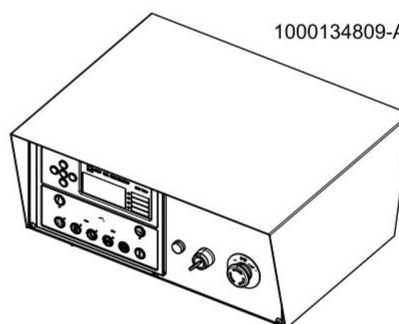
Alternator



1000072460-AP1-A1

Alternator Manufacturer/Brand	LEROY SOMER
Alternator Model	TAL-A473-F
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.....	1.035m³/s(50HZ), 1.312m³/s(60HZ)
Voltage Regulation	±1.0%
Total harmonic TGH / THCa no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

PLC-7420 Control System



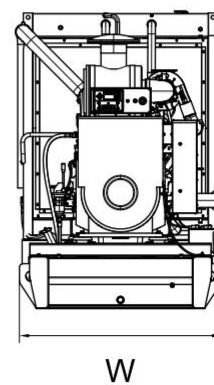
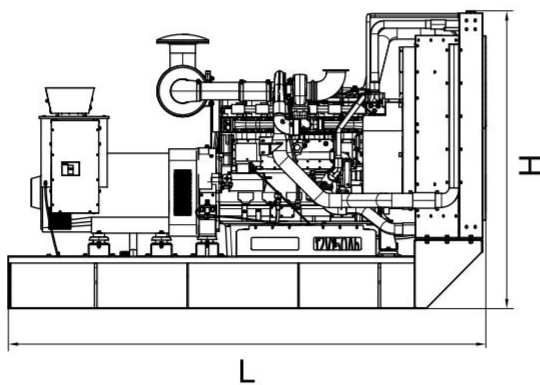
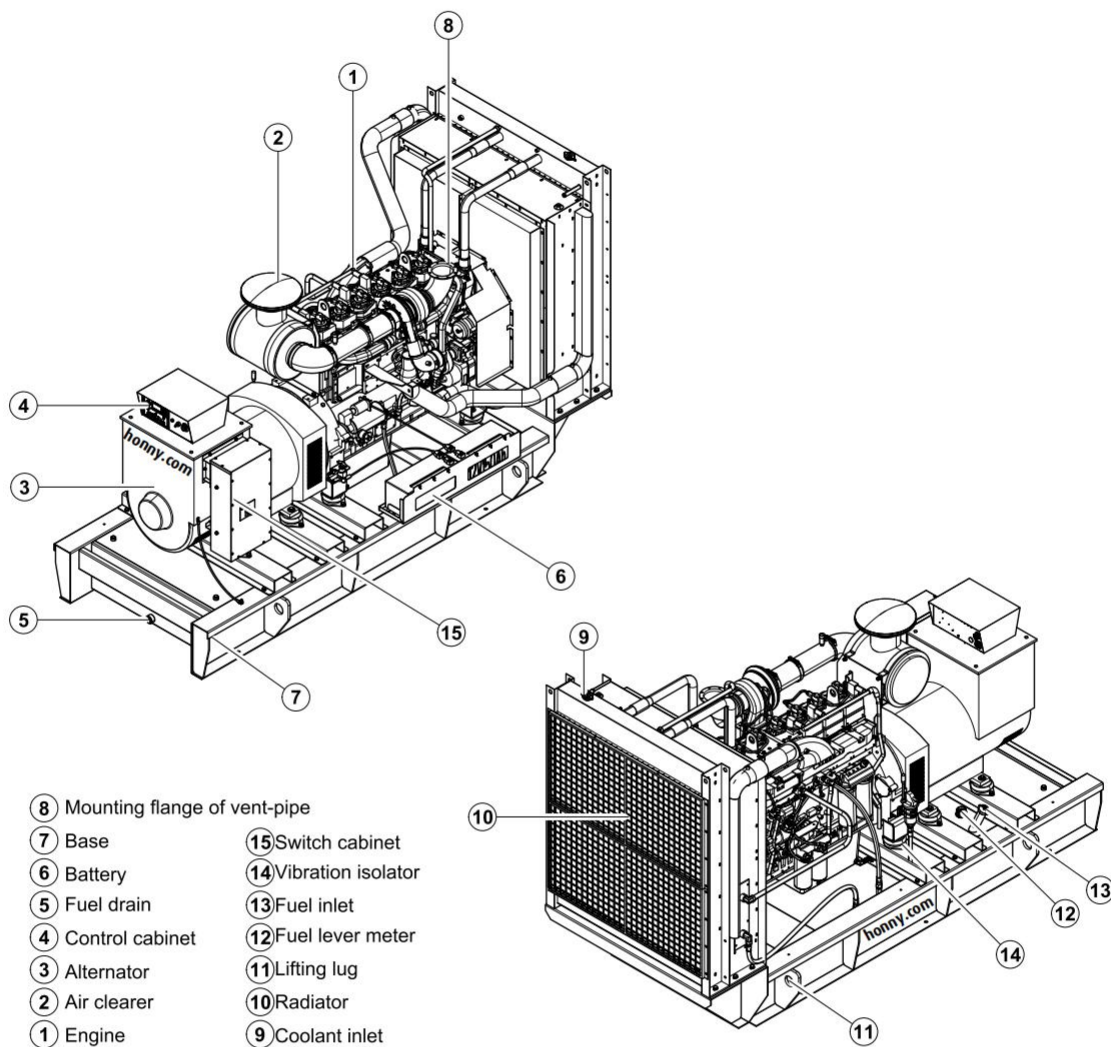
1000134809-AP1-D2

PLC-7420 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

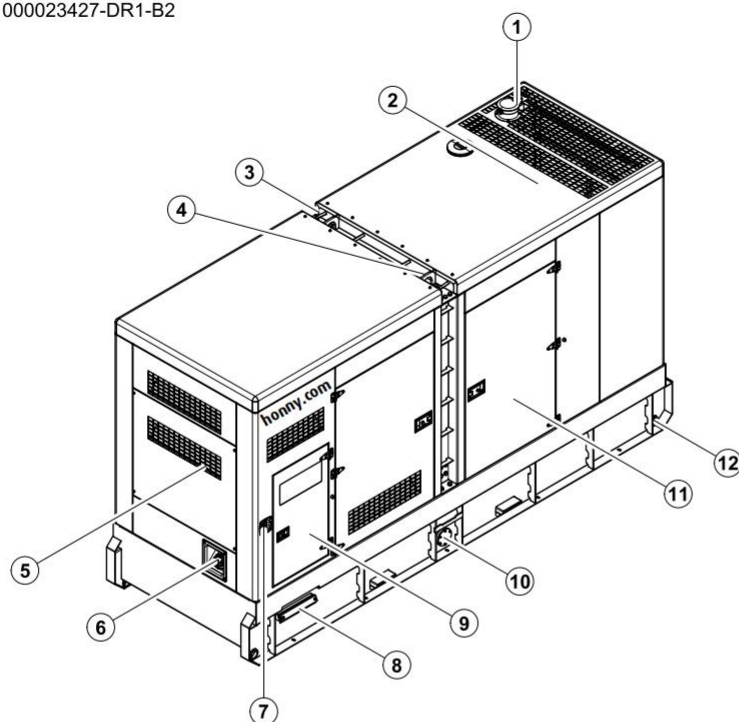
4. Open Type Overall Dimensions

1000019667-DR1-A3



5. Silent Type Overall Dimensions

1000023427-DR1-B2



- | | |
|-------------------------|---|
| ⑧ Cable trench | ⑬ Base frame |
| ⑦ Emergency stop switch | ⑭ Fork lift channel |
| ⑥ Fuel inlet | ⑮ Coolant/Oil drain hose fitting |
| ⑤ Air inlet | ⑯ External fuel inlet/return hose fitting |
| ④ Lifting lug | |
| ③ Roping lug | |
| ② Coolant inlet | |
| ① Exhaust gas outlet | |

