

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance European (CE)
- China Compulsory Certification (CCC)
- ISO8528-1995
- GB/T2820-1997

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 altitude.

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.

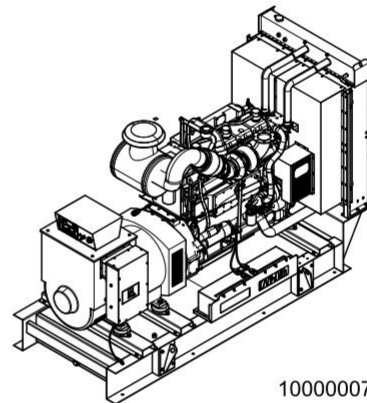
2 General Features

- Cummins engine KTA19G3
- Close coupled to a Stamford alternator HCL544C
- Microprocessor control module PLC-7320
- MCCB main circuit breaker: 3-Phase 700A
- Rotate speed governor: Electrical governor FP801
- Excitation system: Self excited
- A.V.R model: AS440
- Key switch

- ATS (automatic transfer switch) receptacle
- 2x12V 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 8 hours running
- Drain points for fuel tank
- Operator's Manual / Specifications

3 Equipment Specification

General technical data



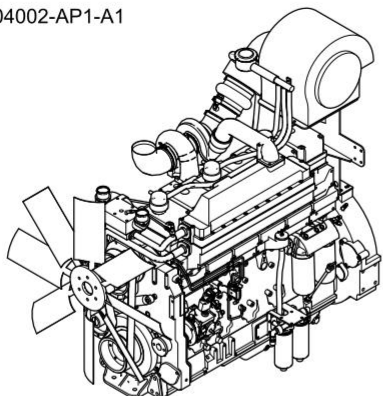
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Model.....HCL450C
 Structure type A
 Tank capacity.....940L
 Dry weigh.....4040kg
 Noise level @7m N/A
 Dimensions L×W×H..... 3350x1458x2194mm
 Standby Power 500kVA/400kW
 Prime Power 450kVA/360kW

Voltage	380V	400V	415V	440V
Ampere	683.7A	649.5A	626.1A	590.4A

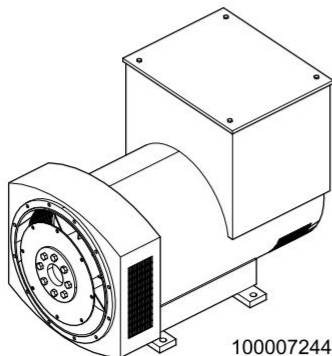
Diesel Engine

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Engine Manufacturer/Brand.....	cummins
Engine Model.....	KTA19G3
Dimensions L×W×H.....	2141.9×879.8×1733.5mm
Dry Weigh (approx.)	2005kg
Number of Cylinders.....	6
Bore.....	159mm
Stroke	159mm
Displacement.....	18.9L
Compression Ratio.....	13.9
Type of Injection	Direct
Intake System.....	Turbocharged and Aftercooled
Intake Resistance.....	≤6.23kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel.....	NO.2 or ASTM D2
Type of Oil	API CD/SE or CCMCD4
Oil Capacity	50L
Type of Coolant	Glycol mixture
Coolant Capacity	250L
Back Pressure	≤10kPa
Standby Power	448kW
Continuous Power	403kW
Fuel Consumption(100%load).....	204g/kW.h

Alternator

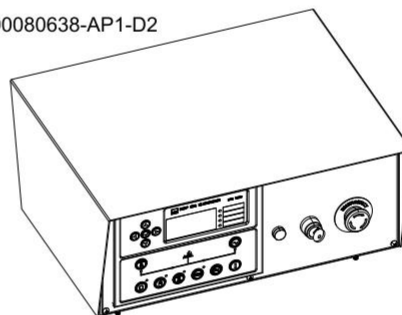


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Alternator Manufacturer/Brand	Stamford
Alternator Model	HCI544C
Exciter.....	Brushless
Cooling Fan	Cast alloy aluminum
Windings.....	100% copper
Insulation Class	H
Winding Pitch.....	2/3
Terminals	12
Drip Proof	IP23
Altitude.....	≤1000m
Overspeed	2250 rpm
Air Flow.....	1.035m³/s(50HZ),1.312m³/s(60HZ)
Voltage Regulation	±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

DSE-7320 Control System

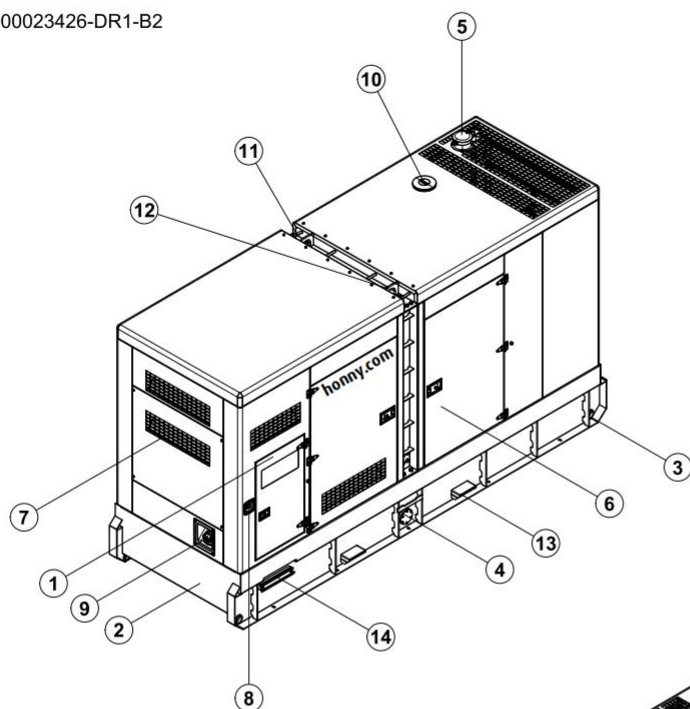
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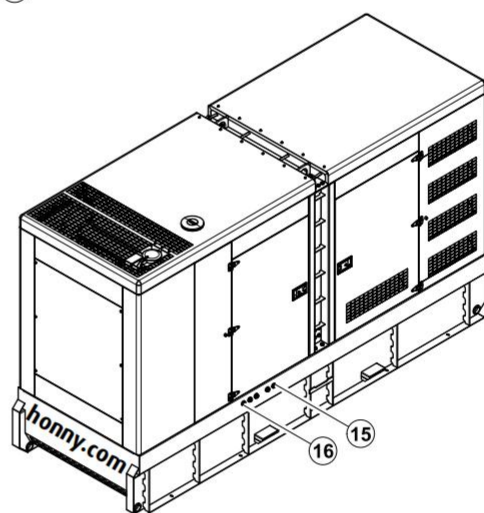
DSE-7320 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and 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

1000023426-DR1-B2



Dry weight	5838kg
Fuel tank capacity	1600L
Dimensions L x W x H	4512x1523x2566mm



- 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 Fork lift channel
- ⑫ Lifting lug
- ⑪ Roping lug
- ⑩ Coolant inlet
- ⑨ Fuel inlet
- ⑮ Coolant/Oil drain hose fitting
- ⑯ External fuel inlet/return hose fitting

