# 1 Standards & Conditions

## Design Standards

The designs and the productions are in conformity with:

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

## Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25℃ to 50℃. The coolant heater is needed when the temperature is below 5℃
- Humidity: Less than 80%.
- Altitude: Below one thousand (1000) meters.

## 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 6CTAA8.3G2
- Coupled to a Leroy-Somer or Stamford alternator
- Microprocessor control module PLC-7420
- MCCB main circuit breaker: 315A
- Rotate speed governor: Electrical governor S6700E
- Excitation system: PMG
- A.V.R model: MX341
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- 2x12V/120AH Sealed for life maintenance free battery
- Lockable battery isolator switch
- 50℃ 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
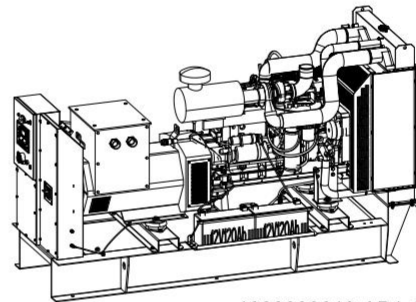


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| | |
|---|---|
| Model | G200DG |
| Structure type | A |
| Tank capacity | 370L |
| Dry weight | 1844kg |
| Noise level @7m | 94.5dBA |
| Dimensions L×W×H | 2760×950×1585mm |
| Standby Power | 212kVA/169.6kW |
| Prime Power | 200kVA/160kW |

| Voltage | 380V | 400V | 415V | 440V |
|---|---|---|---|---|
| Ampere | 303.9A | 288.7A | 278.2A | 262.4A |
| **Genset Fuel Consumption** | | | | |
| Frequency/Load | 25% | 50% | 75% | 100% | 110% |
| 50Hz (L/h) | 13.5 | 23.3 | 34.0 | 45.4 | 51.4 |

## Diesel Engine



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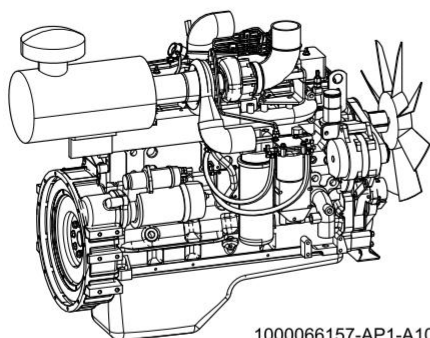
| | |
|---|---|
| Engine Manufacturer/Brand | Cummins |
| Engine Model | 6CTAA8.3G2 |
| Dimensions L×W×H | 1485.3*866.5*1245.0 |
| Dry Weigh (approx.) | 702kg |
| Number of Cylinders | 6 |
| Bore | 114mm |
| Stroke | 135mm |
| Displacement | 8.3L |
| Compression Ratio | 16.7 |
| Type of injection | Direct injection |
| Intake System | Turbocharged,water-to-air charge cooled |
| Intake Resistance | ≤6.28kPa |
| Cooling System | Water cooled |
| Fan | Pusher |
| Battery Voltage | 12/24V |
| Type of Fuel | Diesel |
| Type of Oil | ACEA E2, API CF, CF-4, CG-4 |
| Oil Capacity | 23.8L |
| Type of Coolant | Glycol mixture |
| Coolant Capacity | 45.3L |
| Back Pressure | ≤10.1kPa |
| Standby Power | 203kW |
| Prime Power | 183kW |
| Fuel Consumption(100%load) | 45L/h |

## Alternator



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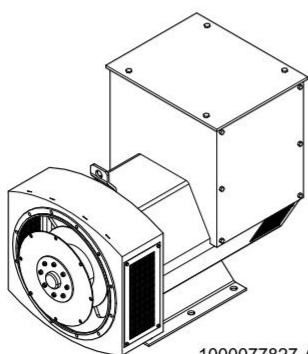
| | |
|---|---|
| Alternator Manufacturer/Brand | Stamford |
| Alternator Model | UCI274H |
| Exciter | Brushless |
| Cooling Fan | Cast alloy aluminum |
| Windings | 100% copper |
| Insulation Class | H |
| Winding Pitch | 2/3 |
| Terminals | 12 |
| Drip Proof | IP23 |
| Altitude | ≤1000m |
| Overspeed | 2250rpm |
| Air Flow | 0.514m³/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 |

## DSE-7320 Control System



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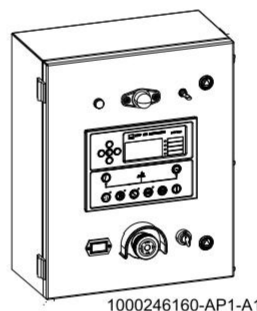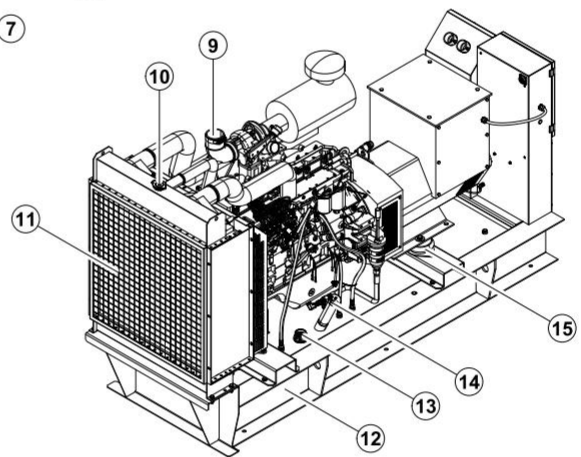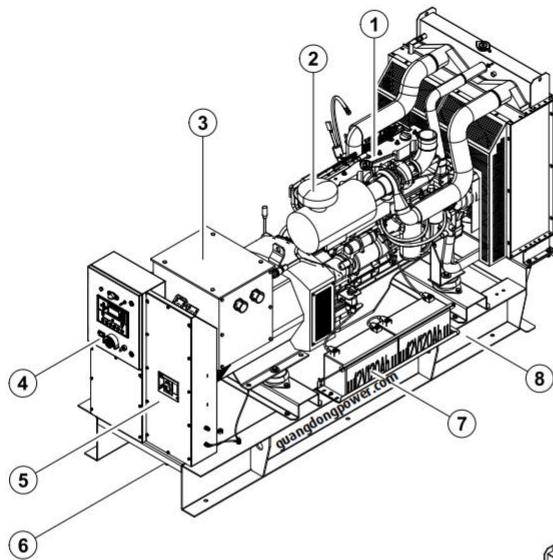
DSE-7320 is an advanced control module based on microprocessor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and 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.
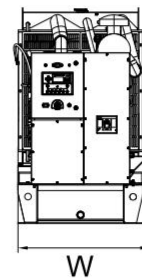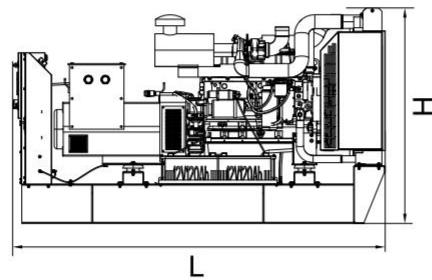
- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual, 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

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| Dry weight | 1844kg |
|---|---|
| Fuel tank capacity | 370L |
| Dimensions L x W x H | 2760x950x1585mm |



| | |
|---|---|
| (8) Base frame | |
| (7) Battery | (15) Vibration isolator |
| (6) Fuel drain | (14) Fuel inlet |
| (5) Switch cabinet | (13) Fuel lever meter |
| (4) Control cabinet | (12) Lifting lug |
| (3) Alternator | (11) Radiator |
| (2) Air clearer | (10) Water inlet |
| (1) Engine | (9) Mounting flange of vent-pipe |

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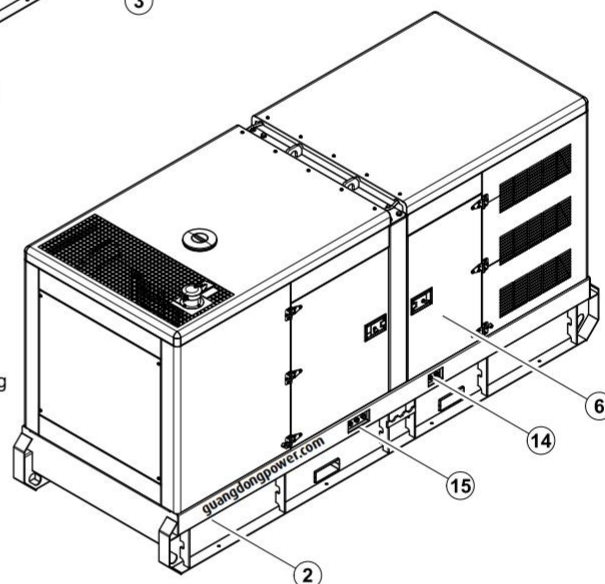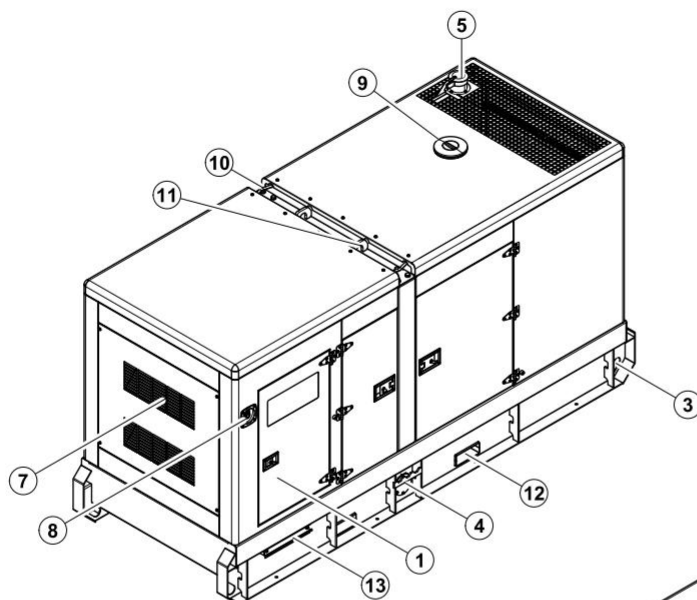


| Dry weight | 2699kg |
|---|---|
| Fuel tank capacity | 510L |
| Dimensions L x W x H | 3592x1300x1840mm |

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