

Generator set
Sound-proof type
GMS80CS

SPECIFICATIONS



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

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

Environmental Operating Conditions

- Installation place: Outdoors or 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 4BTA3.9-G11
- Close coupled to a Leroy Somer alternator LSA44.3S3
- Microprocessor control module DSE4520
- Main circuit breaker: 3-Phase 125A
- Rotate speed governor: Mechanical governor
- Excitation System: Self Excited, SHUNT
- A.V.R. Model: R220
- Key switch
- Emergency stop switch

- ATS (automatic transfer switch) receptacle
- 2x12V sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 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 24 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment

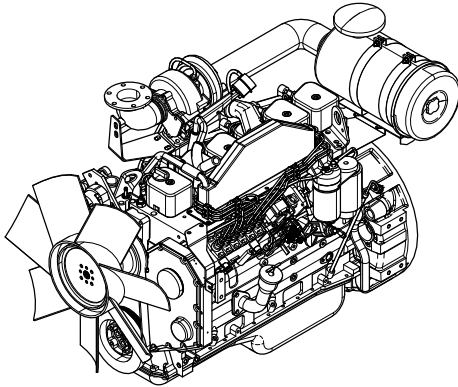
General technical data



Model.....GMS80CS
 Structure type R
 Tank capacity.....530L
 Dry weigh..... 2120.45kg
 Noise level @7m 62.8dBA
 Dimensions L×W×H..... 3162×1172×1971mm
 Standby Power 88kVA/70kW
 Prime Power..... 80kVA/64kW

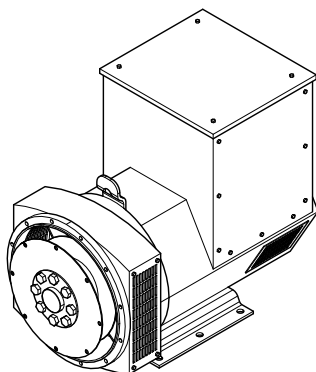
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| Voltage | 380V | 400V | 415V |
| Ampere | 122A | 115A | 111A |

Diesel Engine



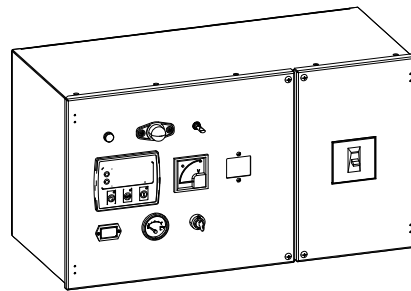
| | |
|-------------------------------------|------------------|
| Engine Manufacturer/Brand..... | Cummins |
| Engine Model..... | 4BTA3.9-G11 |
| Dimensions L×W×H..... | N/A |
| Dry Weigh (approx.)..... | N/A |
| Number of Cylinders..... | 4 |
| Bore..... | 102mm |
| Stroke..... | 120mm |
| Displacement..... | 3.9L |
| Compression Ratio..... | 17.3 |
| 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 (engine only)..... | 8.3L |
| Back Pressure..... | ≤10.1kPa |
| Standby Power..... | 92kW |
| Continuous Power..... | 86kW |
| Fuel Consumption(100%load)..... | 206g/kW.h |

Alternator



| | |
|---|---------------------------------|
| Alternator Manufacturer/Brand..... | Leroy Somer |
| Alternator Model..... | LSA44.3S3 |
| 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..... | 0.216m³/s(50HZ),0.281m³/s(60HZ) |
| Voltage Regulation..... | ±1.0% |
| Total harmonic TGH / THCat no load < 1.5 % - on load < 5% | |
| Telephone Interference..... | THF<2%;TIF<50 |

DSE4520 Control System

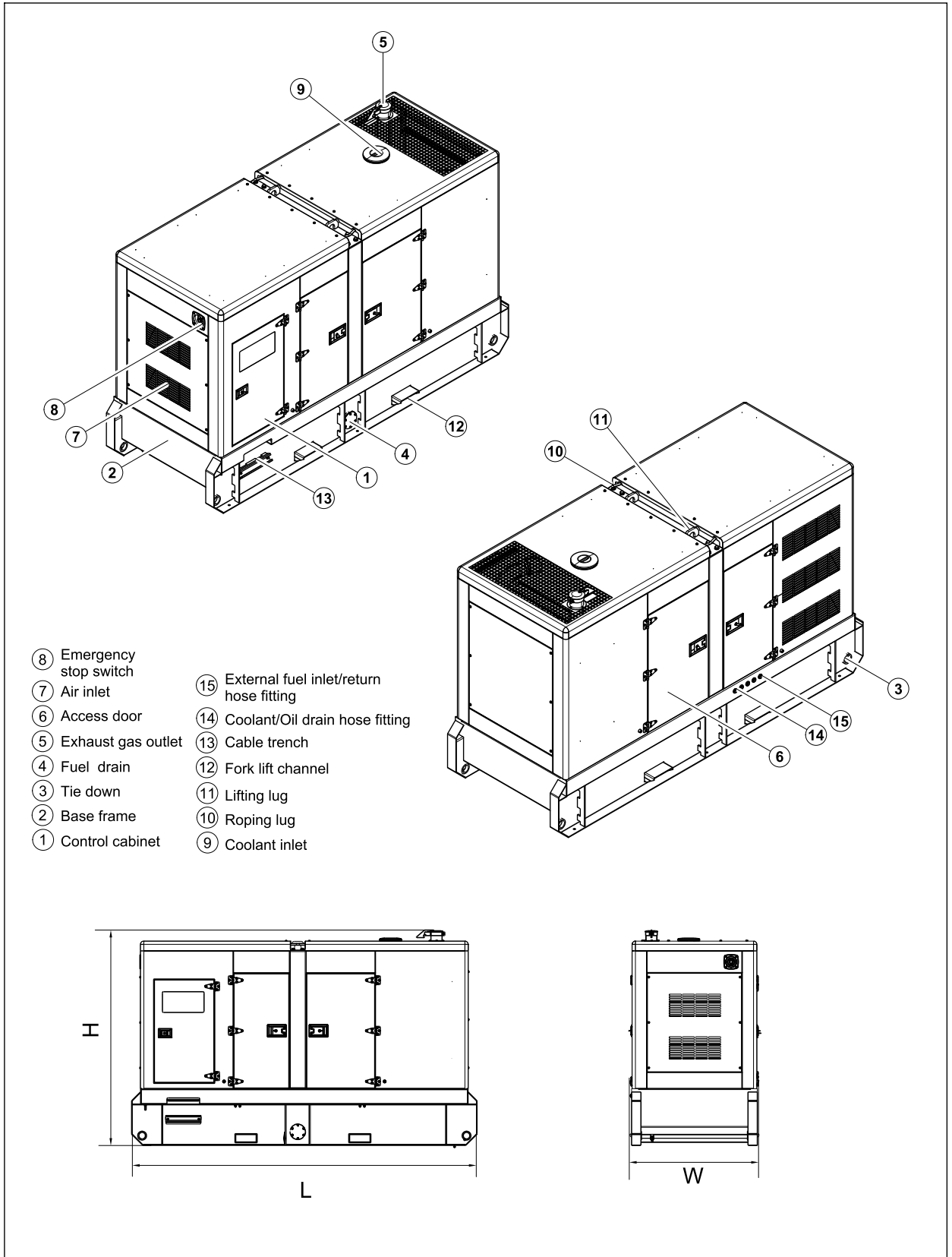


DSE4520 is an advanced control module based on micropro-cessor designed to control the engine via push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine failure.

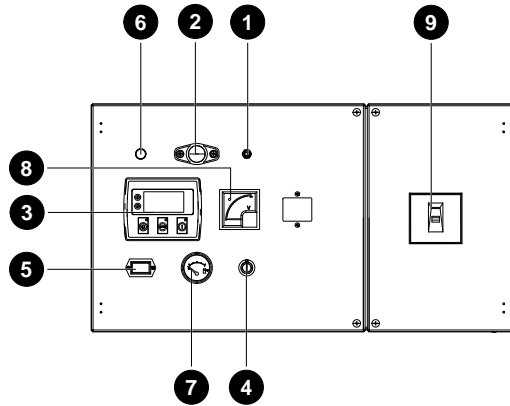
Standard Control Function

- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection hold-off timer
- Charge Failure warning

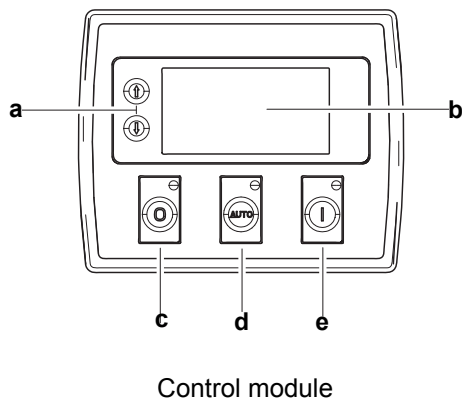
4 Overall Dimensions



6 Control System



| Ref. | Description |
|------|-----------------------------|
| 1 | Control cabinet lamp switch |
| 2 | Control cabinet lamp |
| 3 | Control module |
| 4 | Key switch |
| 5 | Time counter |
| 6 | Charge indicator |
| 7 | Fuel level meter |
| 8 | Voltage meter |
| 9 | Main circuit breaker |



| Ref. | Description |
|------|--|
| a | Navigation button» Accept (Configuration mode only) |
| b | Main status display |
| c | Stop/reset button» Next page (Configuration mode only) |
| d | Auto start button» Decrease value/next item (Configuration mode only) |
| e | Start button» Increase value/next item (Configuration mode only) |

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