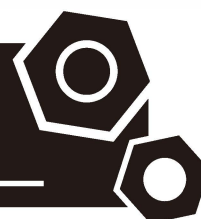


**Generator set**  
**Sound-proof type**  
**GMS80CS-AU**

# SPECIFICATIONS



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## 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
- AS 3000-1997
- AS 3010.1-1988

### Environmental Operating Conditions

- Installation place: Outdoors or 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 90%.
- 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.

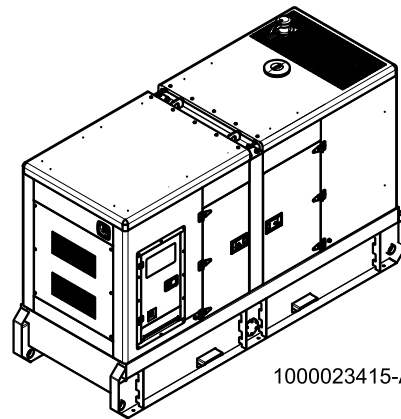
## 2 General Features

- Cummins engine 6BT5.9-G1
- Close coupled to a Stamford alternator UCI224G
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 125A
- 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
- Remote run connexor

- 2x12V/70AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy
- 50°C radiator
- Oil pump on the engine
- Non-returning valve for fuel inlet hose of the engine
- Steel base frame with forklifts
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 25 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Specifications

## 3 Equipment Specification

### General technical data

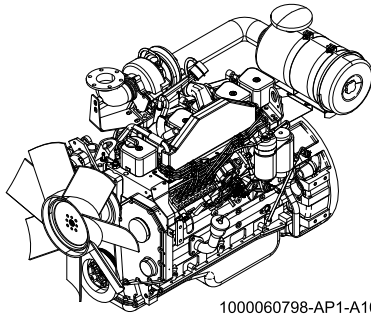


1000023415-AP1-B5

Model.....	GMS80CS-AU
Structure type .....	R
Tank capacity.....	540L
Dry weight.....	2103kg
Sound pressure level @ 7m .....	69.0dBA
Dimensions L×W×H.....	3162x1172x1974mm
Standby Power .....	88kVA/70kW
Prime Power .....	80kVA/64kW
Voltage/Ampere.....	415V/111.2A

Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	7	11	17	22	25

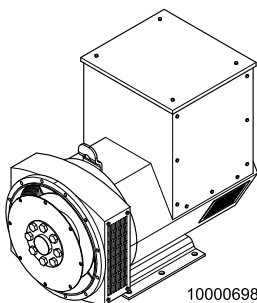
## Diesel Engine



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

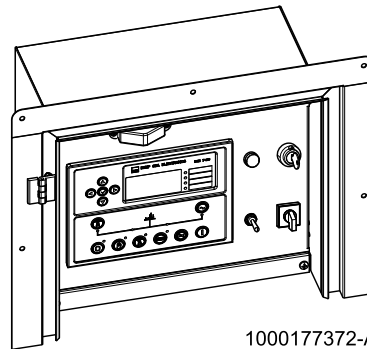
## Alternator



1000069871-AP1-A1

Alternator Manufacturer/Brand.....	Stamford
Alternator Model.....	UCI224G
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

## PLC-7420 Control System



1000177372-AP1-D4

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

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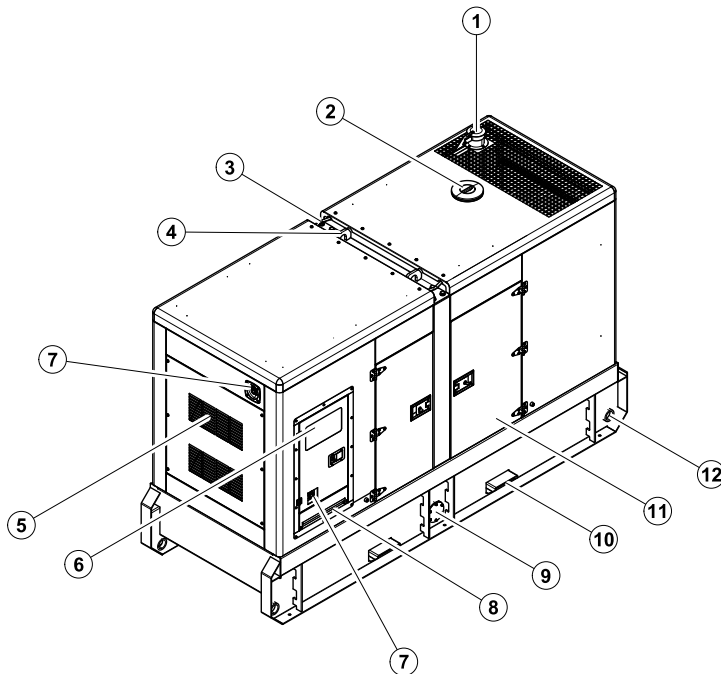
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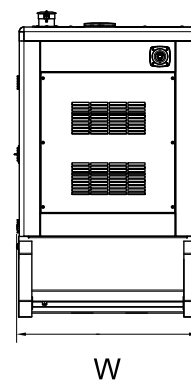
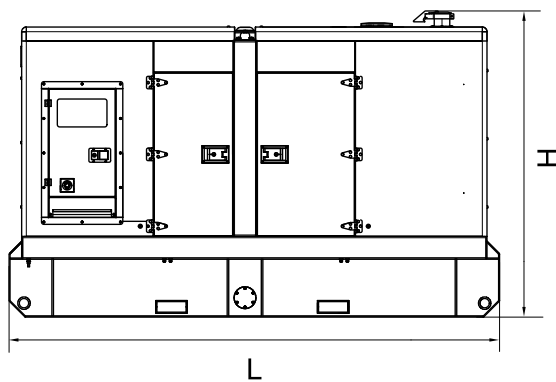
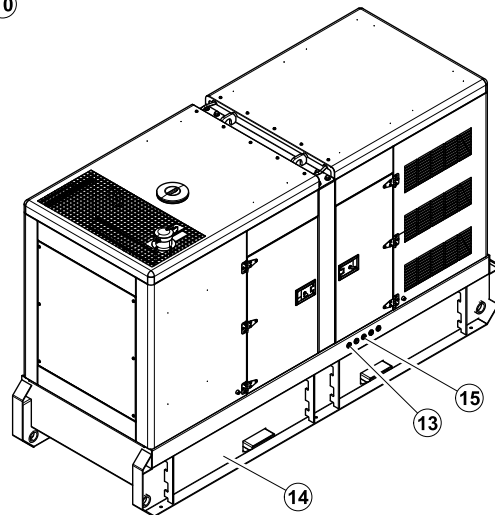
## 4 Overall Dimensions

1000023415-DR1-B5

Dry weight	2100kg
Fuel tank capacity	540L
Dimensions L x W x H	3162x1174x1974mm



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



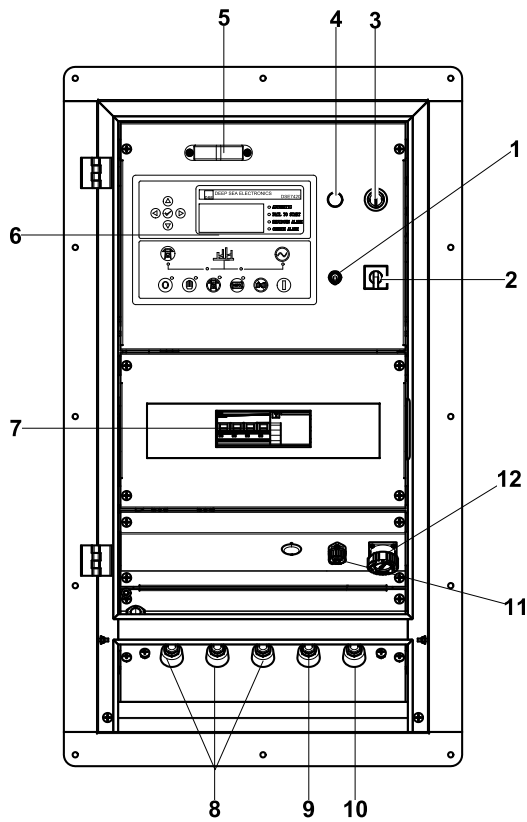
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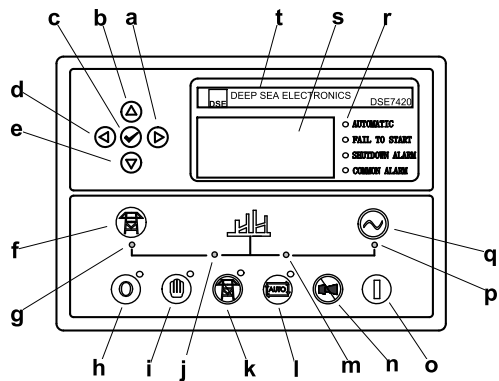
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## 5 Control System



Control & Field wiring cabinet



Control module

1000177372-IT1-D4

Ref.	Description
1	Control cabinet lamp switch
2	Mains input changeover switch
3	Charge indicator
4	Key switch
5	Control cabinet lamp
6	Control module
7	Main circuit breaker
8	Live wire terminals
9	Neutral wire terminal
10	Ground wire terminal
11	Remote communication interface
12	ATS communication interface

a	Button (next page)
b	Button (increase value / previous item)
c	Button (accept)
d	Button (previous page)
e	Button (decrease value / next item)
f	Button (transfer the load to the mains supply, when in Manual mode only)
g	Mains supply available LED
h	Stop / Reset button
i	Manual button (Manual control mode)
j	Mains supply on load LED
k	Test button (Test mode)
l	Auto button (Auto mode)
m	Genset on load LED
n	Mute/Lamp test button
o	Start button (Manual)
p	Genset available LED
q	Button (transfer the load to the genset, when in Manual mode only)
r	Alarm LED (4 alarm items)
s	LCD display
t	Control module name

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