

Generator set
Sound-proof type
GMS150CS-AU

SPECIFICATIONS





1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformite Europeenne (CE)
- ISO8528-5:2005
- AS 3000-2018
- AS 3010-2017

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 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.

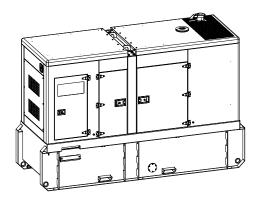
2 General Features

- Cummins engine 6BTAA5.9-G12
- Close coupled to Stamford alternator UCI274F
- Microprocessor control module PLC-7420
- · ABB Main circuit breaker: 250A,4P
- · Rotate speed governor: Electrical governor
- Excitation system: Self excited, SHUNT
- A.V.R model: AS440
- · Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- 2x12V/120AH 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 31 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

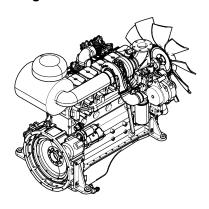
General technical data



Model	GMS150CS-AU
Structure type	R
Tank capacity	1087L
Dry weight	2257kg
Sound pressure level @7m	71.6dB(A)
Dimensions L×W×H	3312x1172x2213mm
Standby Power	165kVA/132kW
Prime Power	150kVA/120kW

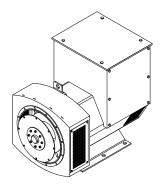
Voltage	380V		400V		415V		440V	
Ampere	227.9A		216.5A		208.7A		196.8A	
Genset Fuel Consumption								
Frequency/Load 25		5%	50%	75%	10	0%	110%	
50Hz (L/h)		1	0	17	26	3	4	38

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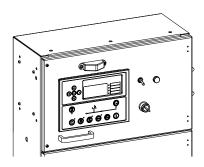
Engine Manufacturer/Brane	dCummins
Engine Model	6BTAA5.9-G12
Dimensions L×W×H	1215.8*730.5*1153.6
Dry Weigh (approx.)	653kg
Number of Cylinders	6
Bore	102mm
Stroke	120mm
Displacement	5.9L
Compression Ratio	17.3
Type of injection	Direct injection
Intake SystemTurboch	arged,water-to-air charge cooled
Intake 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	16.4L
Type of Coolant	Glycol mixture
Coolant Capacity	10.0L
Back Pressure	≦10.1kPa
Standby Power	140kW
Prime Power	155kW

Alternator



Alternator Manufacturer/Brand	Stamford
Alternator Model	UCl274F
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 0.216m ³ /s(50	0HZ),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

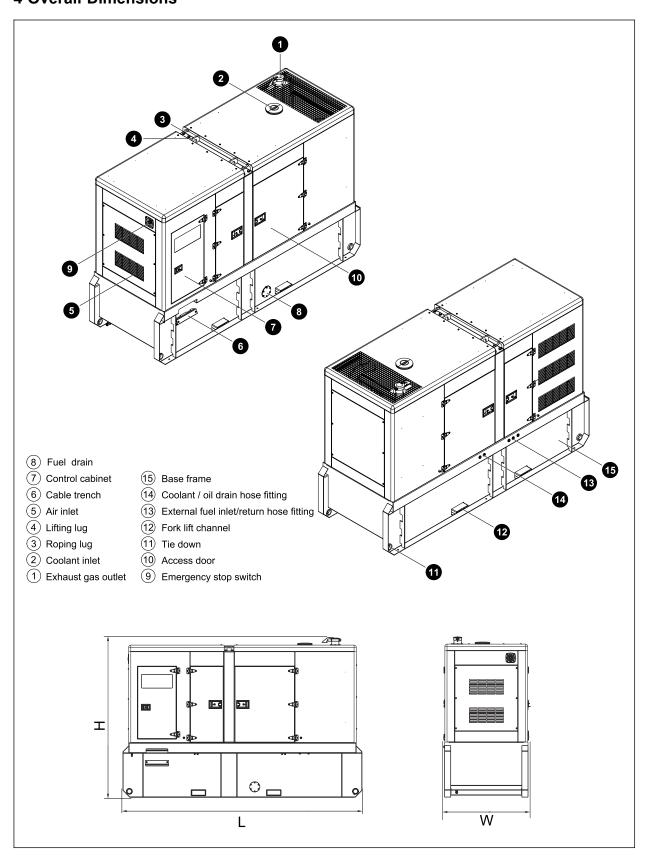
PLC-7420 Control System



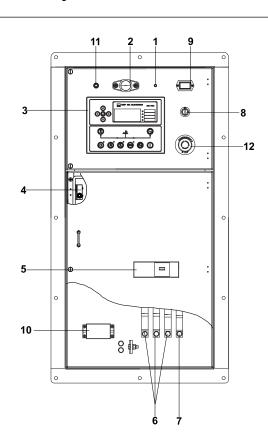
PLC-7420 is an advanced control module based on microprocessor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and 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

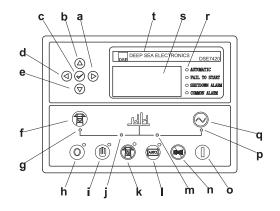
4 Overall Dimensions



5 Control System



Control & field wiring cabinet



Control module

Ref.	Description
1	Control cabinet lamp switch
2	Control cabinet lamp
3	Control module
4	Limit switch
5	Main circuit breaker
6	Live wire terminals
7	Neutral wire terminal
8	Key switch
9	Time counter
10	Mains input/remote communication connector
11	Charge indicator
12	Emergency stop switch

а	Button (next page)
b	Button (increase value / previous item)
С	Button (accept)
d	Button (previous page)
е	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)
1	Auto button (Auto mode)
m	Genset on load LED
n	Mute/Lamp test button
0	Start button (Manual)
р	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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