

Generator set
Sound-proof type
GMS500CS-AU

# **SPECIFICATIONS**



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# 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.

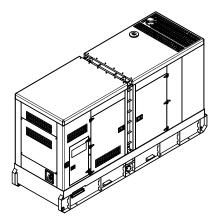
#### 2 General Features

- Cummins engine QSZ13-G3
- Close coupled to Leroy Somer alternator LSA47.2M7
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 800A
- Rotate speed governor: Electrical governor
- Excitation system: AREP
- A.V.R
- Key switch
- · Emergency stop switch
- Paralleling connector
- 2x12V/150AH saled for life maintenance free battery

- · Lockable battery isolator switch
- · Powder coated canopy
- 50°C radiator
- · Oil pump on the engine
- Steel base frame with forkslots
- Vibration isolators between the engine/alternator and base frame
- · Dry type air filter
- · Base fuel tank with 9 hours running
- · Drain points for fuel tank
- Operator's Manual / Specifications

# 3 Equipment Specification

#### General technical data

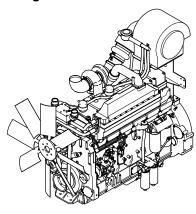


Model			GMS	S500CS-AU	
Structure ty	ре			R	
Tank capaci	ty			1650L	
Dry weight				5227kg	
Noise level	@7m		77.4dBA		
Dimensions	L×W×H		4520×163	35×2536mm	
Standby Po	wer		550	kVA/440kW	
Prime Power 500kVA/400k			kVA/400kW		
Voltage	380V	400V	415V	440V	

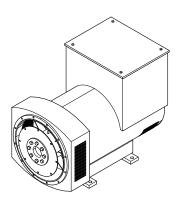
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Ampere	759/	A 721A		695A		656A		
Genset Fuel Consumption								
Frequency/Load		25%	%	50%	75%	10	0%	110%
50Hz (L/h) 26		26.	0	48.9	74.2	10	1.0	105.5



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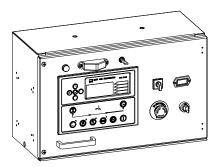


Engine Manufacturer/Brand	Cummins
Engine Model	QSZ13-G3
Dimensions L×W×H	2141.9×879.8×1733.5mm
Dry Weigh (approx.)	1245kg
Number of Cylinders	6
Bore	130mm
Stroke	163mm
Displacement	13.0L
Compression Ratio	17.0
Type of Injection	High pressure common rail
Intake System	Turbo charged
Intake Resistance	≦6.20kPa
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	45L
Type of Coolant	Glycol mixture
Coolant Capacity	23L
Back Pressure	≦13.0kPa
Standby Power	470kW
Prime Power	450kW
Fuel Consumption(100%load)	101L/h



Alternator Manufacturer/Brand	Leroy Somer
Alternator Model	LSA47.2M7
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(56	0HZ),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

# PLC-7420 Control System

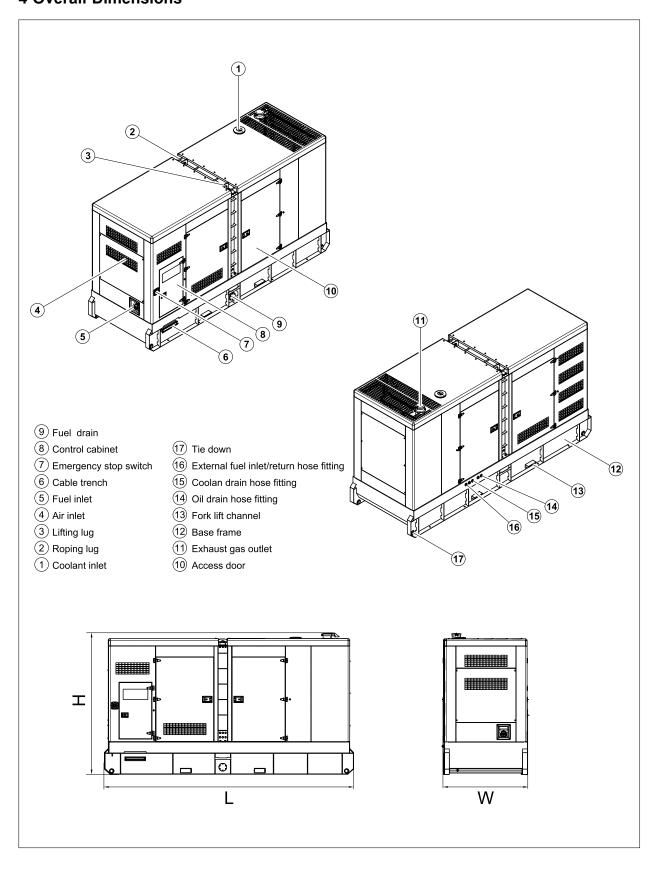


PLC-7420 is an advanced control module based on microprocessor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

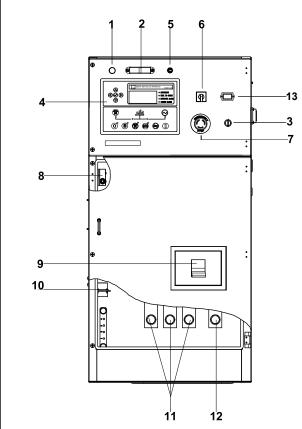
- · Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- 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



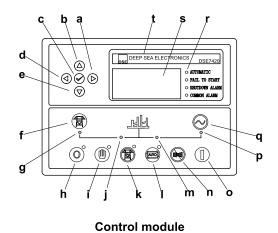
# **4 Overall Dimensions**



# **5 Control System**



Control & field wiring cabinet



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

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
О	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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Specification may change without prior notice. For more info., contact Power Link or your local distributors please.

