

# DGPL500C-3

## 50Hz @ 1500rpm, 3 - Phase / 4-wiring

### A. STANDARDS & CONDITIONS

#### Design Standards

The designs and the productions are in conformity with:

- Conformance 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 varying: 0%, 25%, 50%, 75%, 100%, 110% Load

#### Painting Process

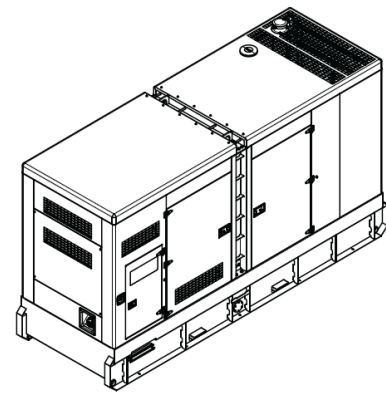
- Painting process specifications and colors are based on the manufacturer's standard
- The customer could also choose the color which the manufacturer offers

### B. 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 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 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

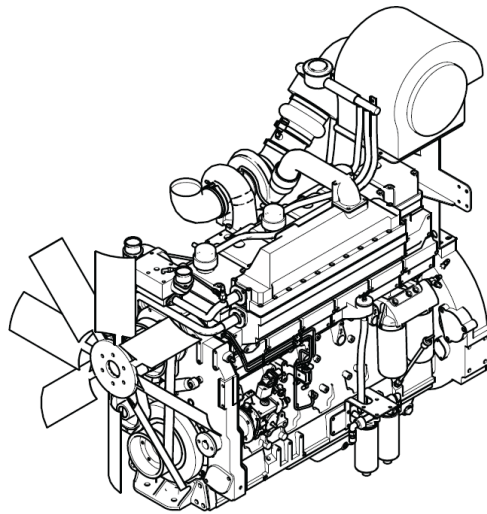
### C. GENERAL TECHNICAL DATA



<b>MODEL</b>	GMS500CS-AU
<b>STRUCTURE TYPE</b>	R
<b>TANK CAPACITY</b>	1650 L
<b>DRY WEIGHT</b>	5227 kg
<b>NOISE LEVEL @ 7M</b>	77.4 dBA
<b>DIMENSIONS</b>	4520 × 1635 × 2536 mm
<b>STANDBY POWER</b>	550 kVA / 440 kW
<b>PRIME POWER</b>	500 kVA / 400 kW

Voltage	380V	400V	415V	440V	
Ampere	759A	721A	695A	656A	
<b>GENSET FUEL CONSUMPTION</b>					
Freq./Load	25%	50%	75%	100%	110%
50Hz (L/h)	26.0	48.9	74.2	101.0	105.5

**POWER SYSTEM**

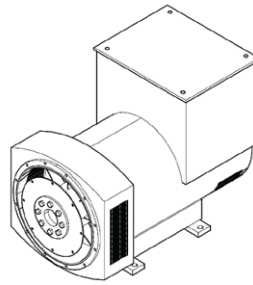


**ENGINE SPECIFICATIONS**

1	ENGINE MANUFACTURER/BRAND	Cummins
2	ENGINE MODEL	QSZ13-G3
3	DIMENSIONS	2141.9 × 879.8 × 1733.5 mm
4	DRY WEIGHT (APPROX.)	1245 kg
5	NUMBER OF CYLINDERS	6
6	BORE	130 mm
7	STROKE	163 mm
8	DISPLACEMENT (LITER)	13.0 L
9	COMPRESSION RATIO	17.0
10	TYPE OF INJECTION	High pressure common rail
11	INTAKE SYSTEM	Turbo charged
12	INTAKE RESISTANCE	6.20 kPa
13	COOLING SYSTEM	Water Cooled
14	FAN	Pusher
15	BATTERY VOLTAGE	24V
16	TYPE OF FUEL	NO.2 or ASTM D2
17	TYPE OF OIL	API CD/SE or CCMCD4
18	OIL CAPACITY	45 L
19	TYPE OF COOLANT	Glycol Mixture
20	COOLANT CAPACITY	23 L
21	BACK PRESSURE	13.0 kPa
22	STANDBY POWER	470 kW
23	PRIME POWER	450 kW
24	FUEL CONSUMPTION (100% LOAD)	101 L/h

## DIESEL GENERATION AUSTRALIA

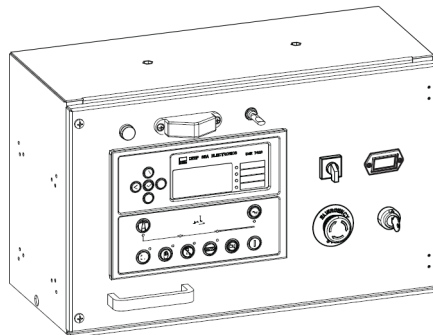
### ALTERNATOR



### ALTERNATOR SPECIFICATIONS

1	ALTERNATOR MANUFACTURER/BRAND	Leroy Somer
2	ALTERNATOR MODEL	LSA47.2M7
3	EXCITER	Brushless
4	COOLING FAN	Cast Alloy Aluminum
5	WINDINGS	100% Copper
6	INSULATION CLASS	H
7	WINDING PITCH	2 / 3
8	TERMINALS	12
9	DRIP PROOF	IP23
10	ALTITUDE	≤ 1000m
11	OVERSPEED	2250rpm
12	AIR FLOW	1.035m³/s(50HZ), 1.312m³/s(60HZ)
13	VOLTAGE REGULATION	± 1.0%
14	TOTAL HARMONING TGH / THCat No Load < 1.5%	on load < 5%
15	TELEPHONE INTERFERENCE	THF < 2%; TIF <50

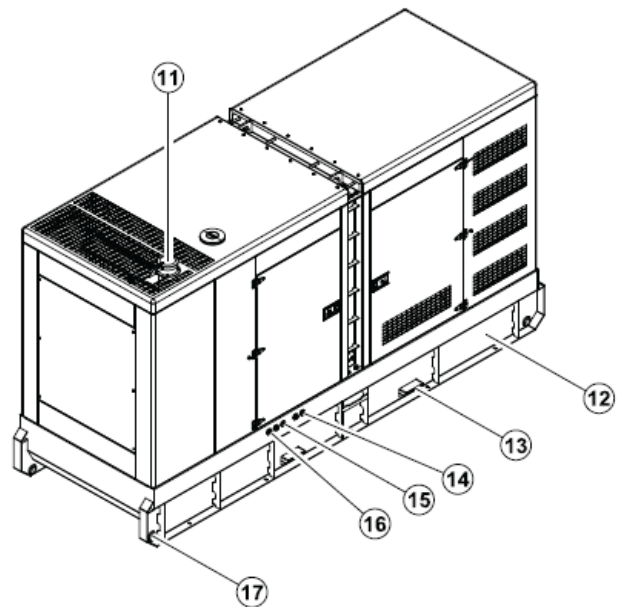
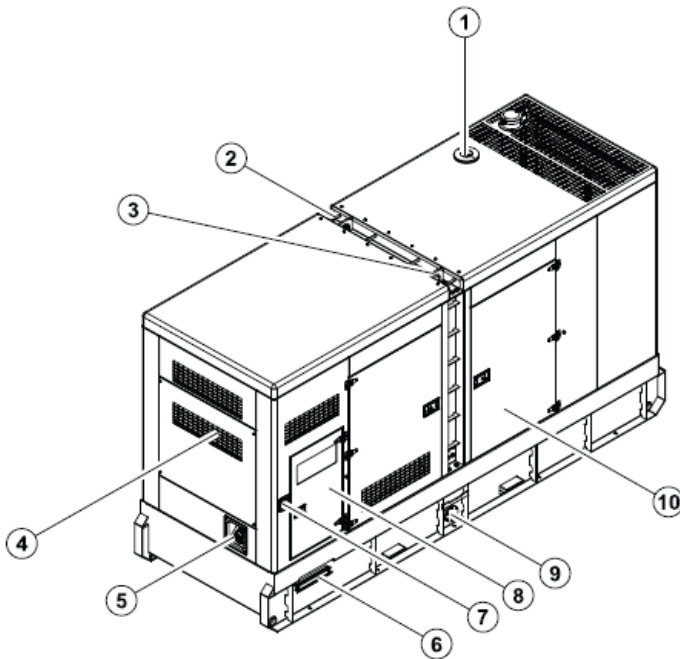
### PLC-920 CONTROL SYSTEM



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.

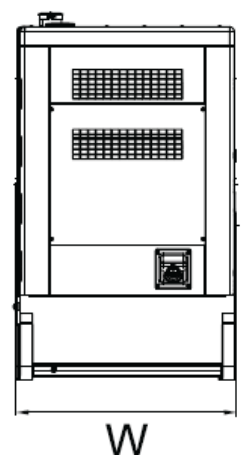
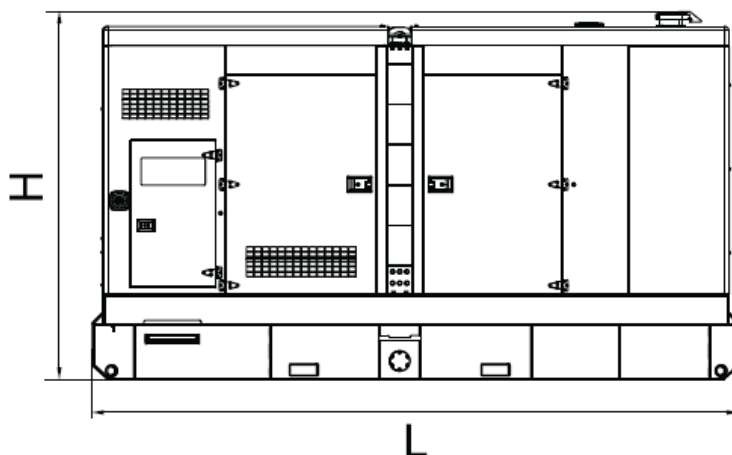
- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual,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

**D. OVERALL DIMENSION**

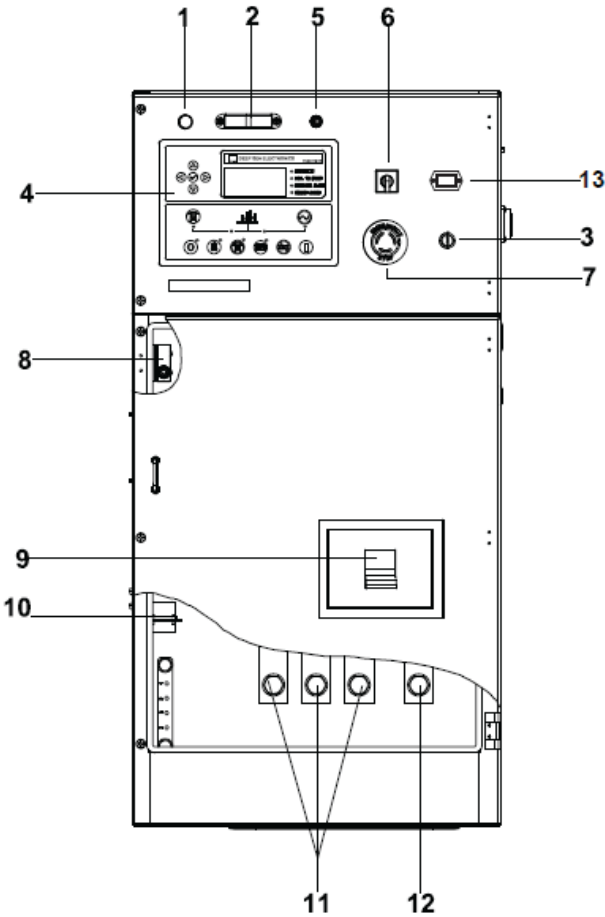


- ⑨ Fuel drain
- ⑧ Control cabinet
- ⑦ Emergency stop switch
- ⑥ Cable trench
- ⑤ Fuel inlet
- ④ Air inlet
- ③ Lifting lug
- ② Roping lug
- ① Coolant inlet
- ⑩ Access door
- ⑪ Exhaust gas outlet
- ⑫ Base frame
- ⑬ Fork lift channel
- ⑭ Oil drain hose fitting
- ⑮ Coolan drain hose fitting
- ⑯ External fuel inlet/return hose fitting
- ⑰ Tie down

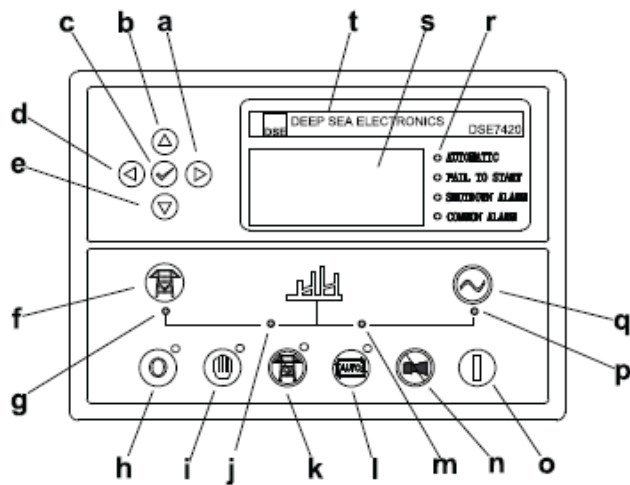
<b>DIMENSIONS</b>	2688 x 1080.5 x 1759 mm
<b>DRY WEIGHT</b>	1524 kg



**E. CONTROL SYSTEM**



**Control & field wiring cabinet**



**Control module**

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 / Remote / AMF Communicator Connector
11	Live Wire Terminals
12	Neutral Wire Terminal
13	Time Counter

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)
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)
r.	Alarm LED (4 alarm items)
s.	LCD Display
t.	Control Module Name

1000030748-A4-E

10.2020