405kVA DGPL405C-3

50 Hz @ 1500rpm, 3-phase / 4-wiring

A. 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 variating: 0%, 25%, 50%, 75%, 100%, 110% Load

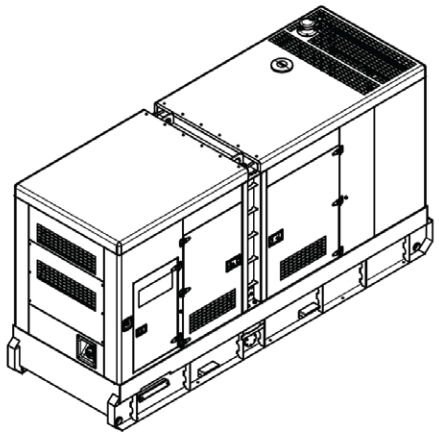
Painting Process

- 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 6ZTAA13-G3
- Close coupled to LSA alternator LSA47.2S4
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 630A, 4P
- Rotate speed governor: Electrical governor
- Excitation System: AREP
- A.V.R.Model: R250
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 2x12V/120AH 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 lifting lug
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for 21 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

C. GENERAL TECHNICAL DATA

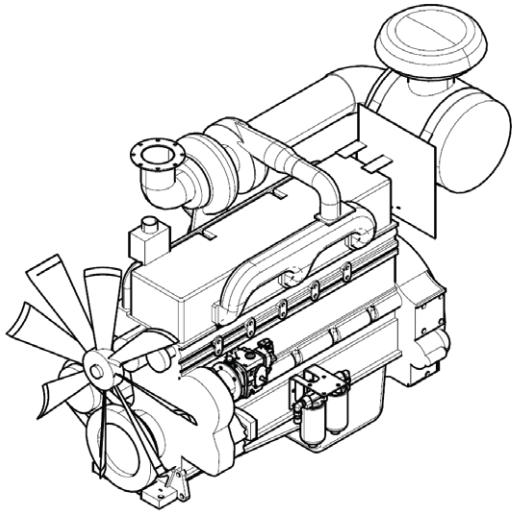


MODEL	GMS380CS-AU
STRUCTURE TYPE	R
TANK CAPACITY	1650 L
DRY WEIGHT	4780 kg
NOISE LEVEL @ 7M	75.8 dBA
DIMENSIONS	4345 × 1466 × 2316 mm
STANDYBY POWER	418 kVA / 330 kW
PRIME POWER	380 kVA / 304 kW

Voltage	380V	400V	415V	440V
Ampere	577.5A	548.5A	528.2A	498.6A

GENSET FUEL CONSUMPTION					
Freq./Load	25%	50%	75%	100%	110%
50Hz (L/h)	22	39	56.5	76.5	85

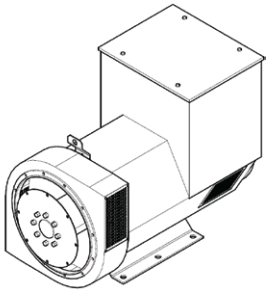
DIESEL ENGINE



ENGINE SPECIFICATIONS

1	ENGINE MANUFACTURER/BRAND	Cummins
2	ENGINE MODEL	6LTAA13-G3
3	DIMENSIONS	N/A
4	DRY WEIGHT (APPROX.)	1200 kg
5	NUMBER OF CYLINDERS	6
6	BORE	130 mm
7	STROKE	163 mm
8	DISPLACEMENT (LITER)	13 L
9	COMPRESSION RATIO	N/A
10	TYPE OF INJECTION	Direct Injection
11	INTAKE SYSTEM	Turbo charged
12	INTAKE RESISTANCE	6.22 kPa
13	COOLING SYSTEM	Water Cooled
14	FAN	Pusher
15	BATTERY VOLTAGE	24V
16	TYPE OF FUEL	No.2-D per ASTM D975.
17	TYPE OF OIL	API CD/SE or CCMCD4
18	OIL CAPACITY	45.4 L
19	TYPE OF COOLANT	Glycol Mixture
20	COOLANT CAPACITY	23.1 L
21	BACK PRESSURE	13 kPa
22	STANDBY POWER	380 kW
23	PRIME POWER	340 kW

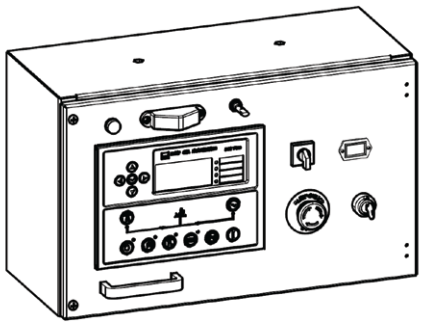
ALTERNATOR



ALTERNATOR SPECIFICATIONS

1	ALTERNATOR MANUFACTURER/BRAND	Leroy Somer
2	ALTERNATOR MODEL	LSA 47.2S4
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	0.58m³/s(50Hz),0.69m³/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

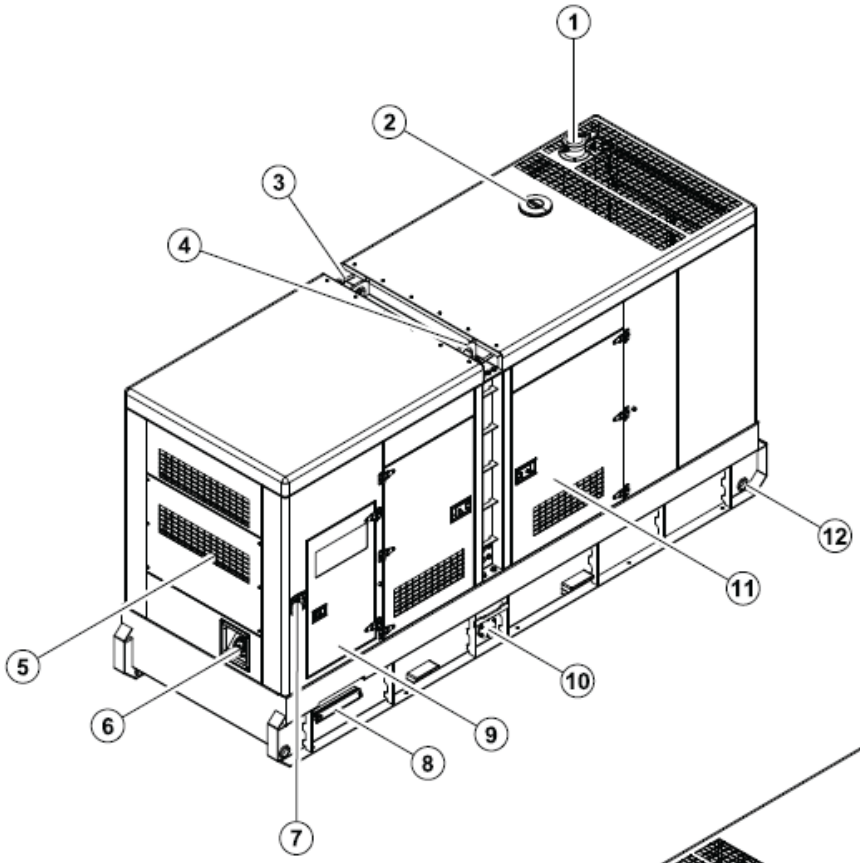
PLC-7420 CONTROL SYSTEM

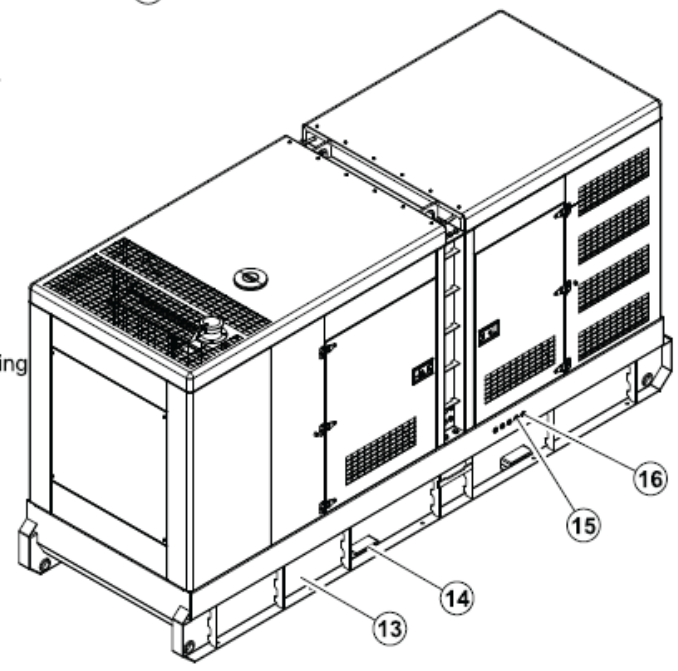


PLC-7420 is an advanced control module based on microprocessor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

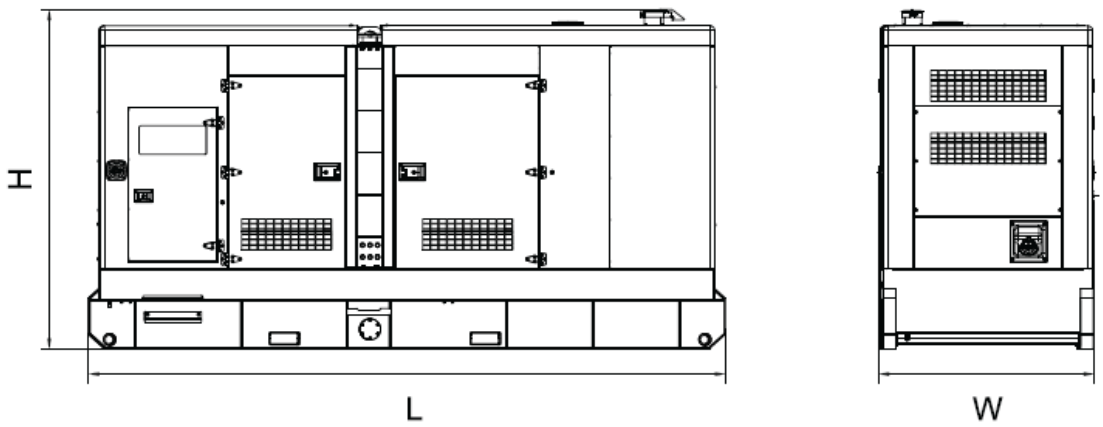
D. OVERALL DIMENSION



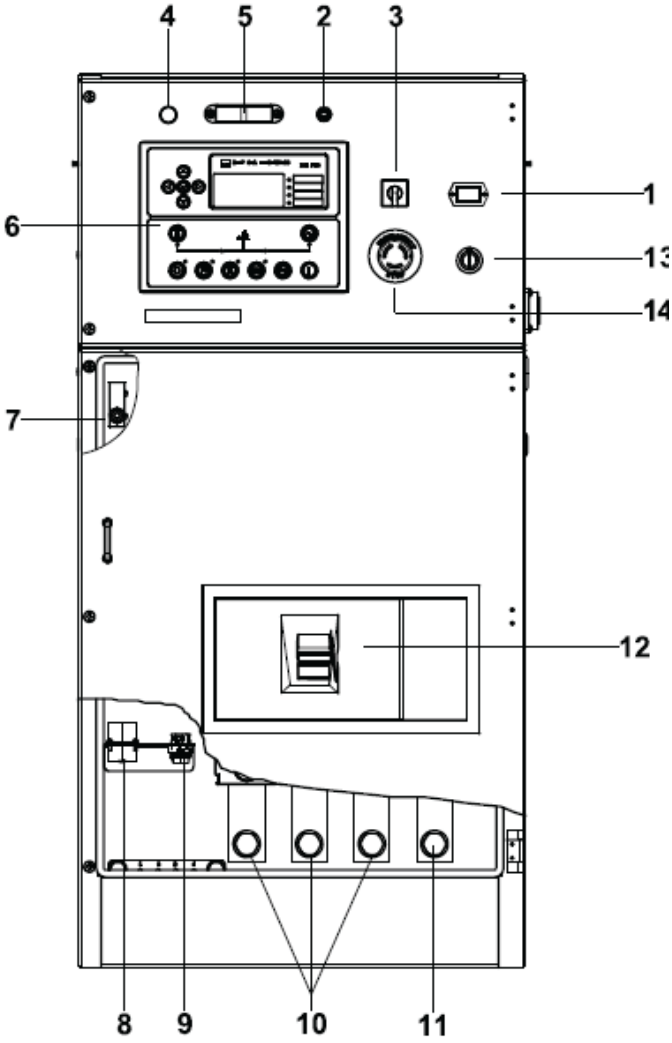


(8)	Cable trench	(16)	External fuel inlet/return hose fitting
(7)	Emergency stop switch	(15)	Coolant/Oil drain hose fitting
(6)	Fuel inlet	(14)	Fork lift channel
(5)	Air inlet	(13)	Base frame
(4)	Lifting lug	(12)	Tie down
(3)	Roping lug	(11)	Access door
(2)	Coolant inlet	(10)	Fuel drain
(1)	Exhaust gas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

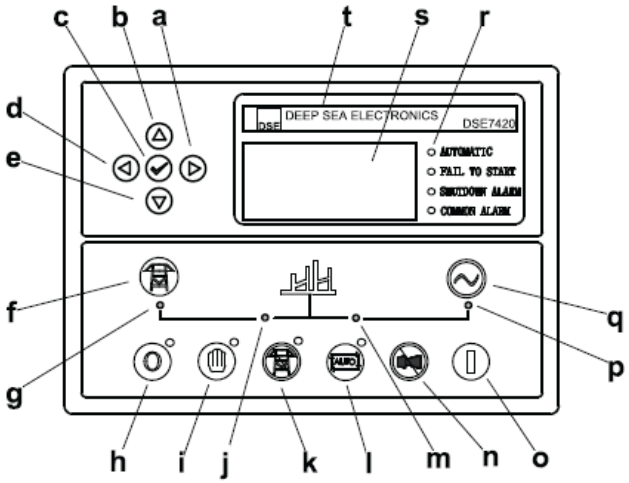
DIMENSIONS	4345 × 1466 × 2316 mm
DRY WEIGHT	4780 kg



E. CONTROL SYSTEM



Control & Field wiring cabinet



Ref.	Description
1	Time Counter
2	Control Cabinet Lamp Switch
3	Mains Input Changeover Switch
4	Charge Indicator
5	Control Cabinet Lamp
6	Control Module
7	Limit Switch
8	ATS Connector
9	Remote Run Connector
10	Live Wire Terminals
11	Neutral Wire Terminal
12	Main Circuit Breaker
13	Key Switch
14	Emergency Stop Switch

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

1000030746
10.2020

Control module