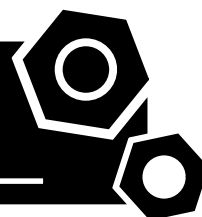


**Generator set**  
**Sound-proof type**  
**GMS30CS-AU**

# **SPECIFICATIONS**



## 1 Standards & Conditions

### Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- 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.

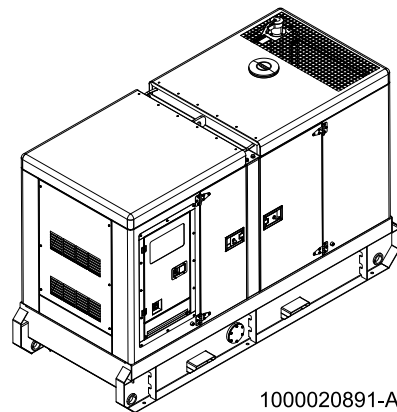
## 2 General Features

- Cummins engine 4B3.9-G2
- Close coupled to a LSA alternator LSA42.3VS3
- Microprocessor control module PLC-7420
- ABB main circuit breaker: 32A
- Rotate speed governor: Mechanical governor
- Excitation System: Self Excited SHUNT
- A.V.R. Model: AS480
- 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 42 hours running
- Drain points for fuel tank
- Breather valve for fuel tank
- Operation Manual / Specifications

## 3 Equipment Specification

### General technical data

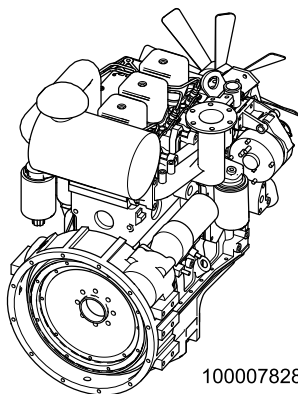


1000020891-AP1-B4

Model..... GMS30CS-AU  
 Structure type ..... R  
 Tank capacity..... 270L  
 Dry weight..... 1364kg  
 Noise level @7m ..... 63.9dBA  
 Dimensions L×W×H..... 2588x1080x1708mm  
 Standby Power ..... 33kVA/26kW  
 Prime Power ..... 30kVA/24kW

Voltage	380V	400V	415V	440V	
Ampere	45.6A	43.3A	41.7A	39.4A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	1.6	3.2	4.8	6.4	7.0

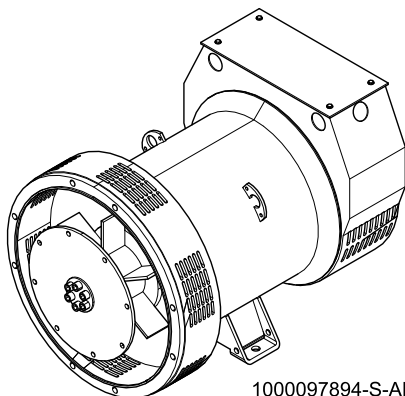
## Diesel Engine



1000078284-AP1-A9

Engine Manufacturer/Brand .....	Cummins
Engine Model .....	4B3.9G2
Dimensions L×W×H .....	765×582×908mm
Dry Weigh (approx.) .....	308kg
Number of Cylinders .....	4
Bore .....	102mm
Stroke .....	120mm
Displacement .....	3.9L
Compression Ratio .....	16.5
Type of Injection .....	Direct injection
Intake System .....	Natural aspirated
Intake Resistance .....	≤4.98kPa
Cooling System .....	Water cooled
Fan .....	Pusher
Battery Voltage .....	12/24V
Type of Fuel .....	0# or -10# Light Diesel
Type of Oil .....	15W40-CF4
Oil Capacity .....	9.5L
Type of Coolant .....	Glycol mixture
Coolant Capacity .....	19.6L
Back Pressure .....	≤ 10.1kPa
Standby Power .....	27kW
Prime Power .....	24kW
Fuel Consumption(100%load) .....	229g/kW.h

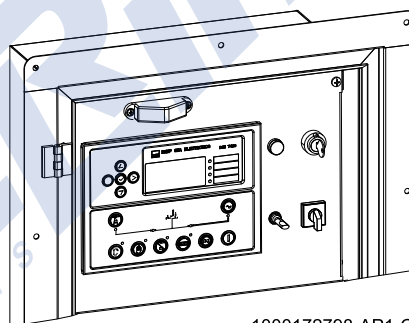
## Alternator



1000097894-S-AP1-A1

Alternator Manufacturer/Brand .....	Leroy Somer
Alternator Model .....	LSA42.3VS3
Exciter .....	Brushless
Cooling Fan .....	Synthetic plastic
Windings .....	100% copper
Insulation Class .....	H
Winding Pitch .....	2/3
Terminals .....	12
Drip Proof .....	IP23
Altitude .....	≤1000m
Overspeed .....	2250rpm
Air Flow .....	0.100 m³/sec(50Hz), 0.122 m³/sec(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



1000172798-AP1-C2

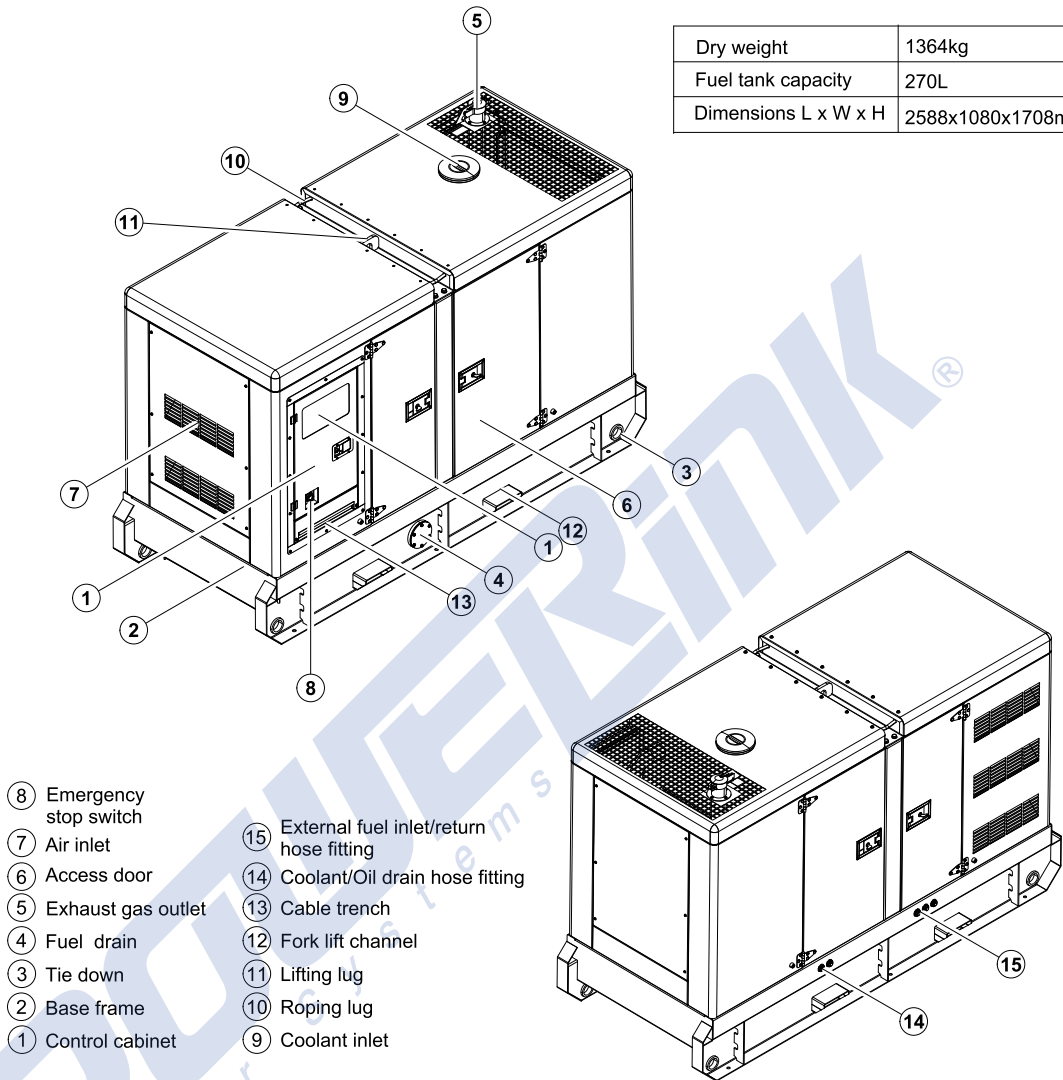
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

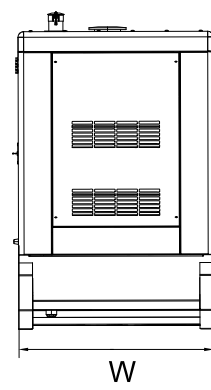
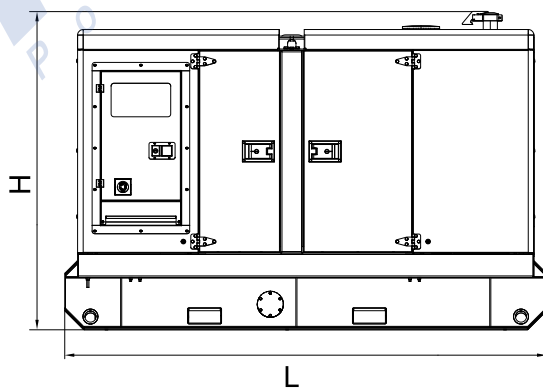
4 Overall Dimensions

1000023506-DR2-D2

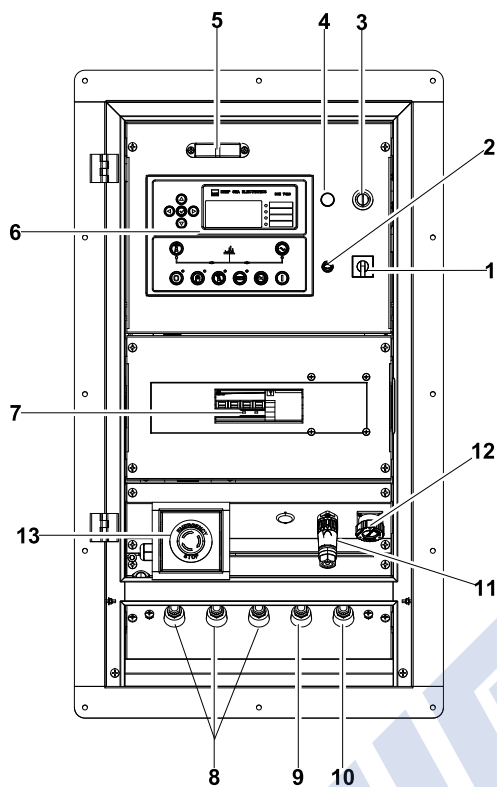
Dry weight	1364kg
Fuel tank capacity	270L
Dimensions L x W x H	2588x1080x1708mm



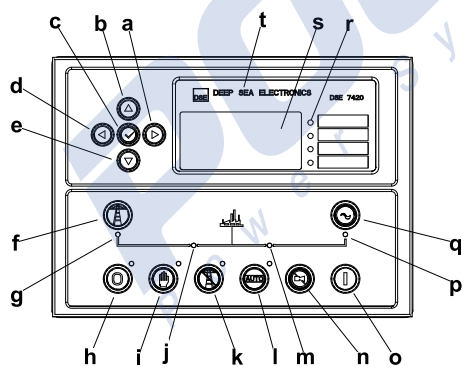
- ⑧ Emergency stop switch
- ⑦ Air inlet
- ⑥ Access door
- ⑤ Exhaust gas outlet
- ④ Fuel drain
- ③ Tie down
- ② Base frame
- ① Control cabinet
- ⑮ External fuel inlet/return hose fitting
- ⑭ Coolant/Oil drain hose fitting
- ⑬ Cable trench
- ⑫ Fork lift channel
- ⑪ Lifting lug
- ⑩ Roping lug
- ⑨ Coolant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



## 5 Control System



**Control & Field wiring cabinet**



**Control Panel**

1000172798-IT2-C2

Ref.	Description
1	Control cabinet lamp switch
2	Mains input changeover switch
3	Key switch
4	Charge indicator
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
13	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 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

1000030735-D2-E
03.2020