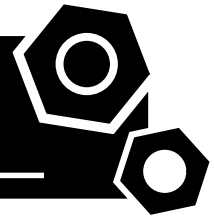


**Generator set**

**Open type**

**GMS30C**

# **SPECIFICATIONS**



## 1 Standards & Conditions

### Design Standards

The designs and the productions are in conformity with:

- Conformance Européenne (CE)
- China Compulsory Certification (CCC)
- ISO8528-5:2005
- GB/T2820.5-2009

### Environmental Operating Conditions

- Installation place: 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 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.

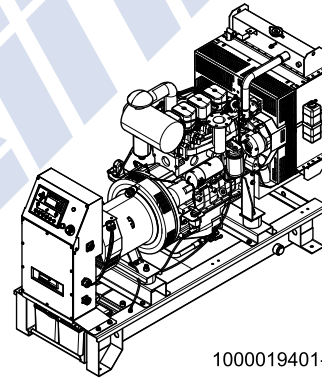
## 2 General Features

- Cummins engine 4B3.9-G1
- Close coupled to a Stamford alternator PI144G
- Microprocessor control module PLC-7420
- NADER main circuit breaker: 50A
- R.C.D.
- 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
- 2x12V/70AH 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 with 18 hours running
- Drain points for fuel tank
- Operator's Manual / Specifications

## 3 Equipment Specification

### General technical data

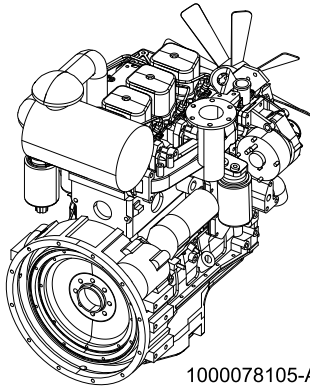


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Model.....	GMS30C
Structure type .....	D
Tank capacity.....	120L
Dry weight.....	731kg
Sound pressure level @1m/ 7m .....	N/A
Sound power level acc. 2000/14/EC .....	N/A
Dimensions L×W×H.....	1896x704x1399mm
Standby Power .....	32kVA/26kW
Prime Power .....	30kVA/24kW

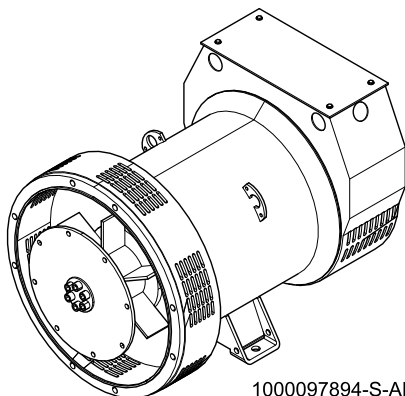
Voltage	380V	400V	415V	440V	
Ampere	45.5A	43.3A	41.7A	39.3A	
<b>Genset Fuel Consumption</b>					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	2.7	4	5.2	6.7	7.5

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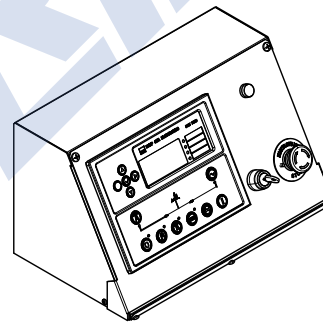
Engine Manufacturer/Brand .....	Cummins
Engine Model .....	4B3.9G1
Dimensions L×W×H.....	765×582×908mm
Dry Weigh (approx.) .....	308kg
Number of Cylinders .....	4
Bore .....	102mm
Stroke .....	120mm
Displacement.....	3.9L
Compression Ratio .....	16.5
Type of injection.....	Direct injection
Intake System .....	Natural aspirated
Intake Resistance .....	≤ 4.98kPa
Cooling System .....	Water cooled
Fan .....	Pusher
Battery Voltage .....	12/24V
Type of Fuel .....	0# or ASTM2
Type of Oil .....	API-CG4/CH4 or ACEA-E3/E5
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



1000097894-S-AP1-A1

Alternator Manufacturer/Brand .....	Stamford
Alternator Model .....	PI144G
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



1000094350-AP1-C2

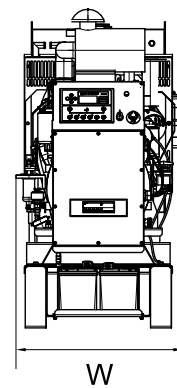
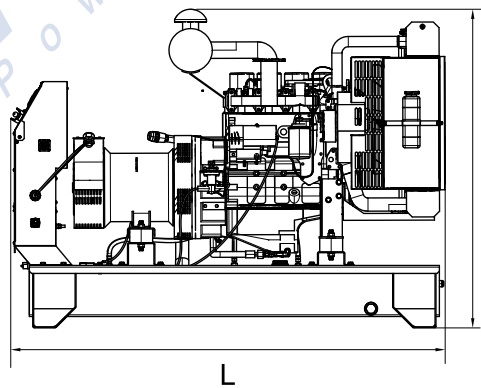
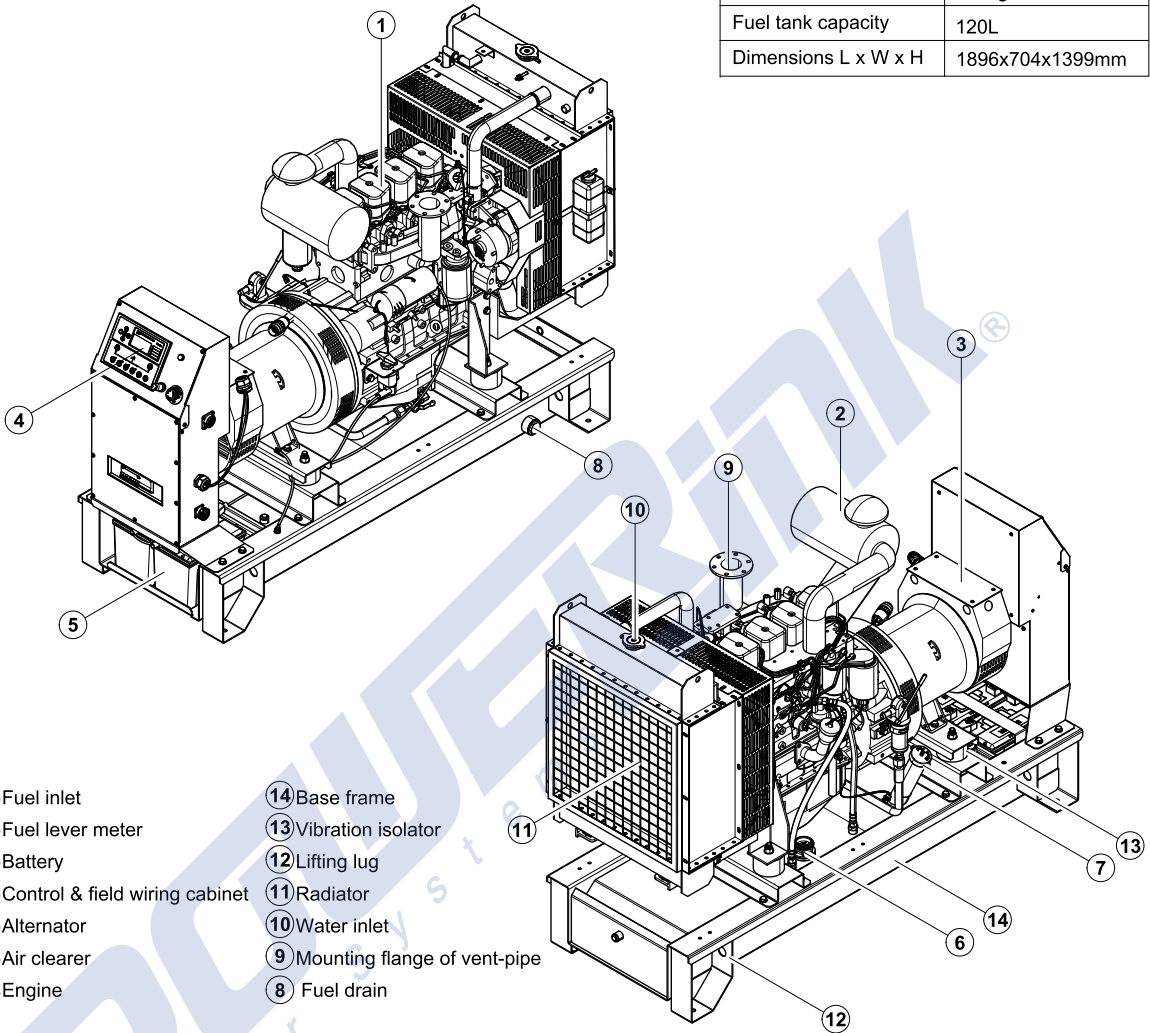
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

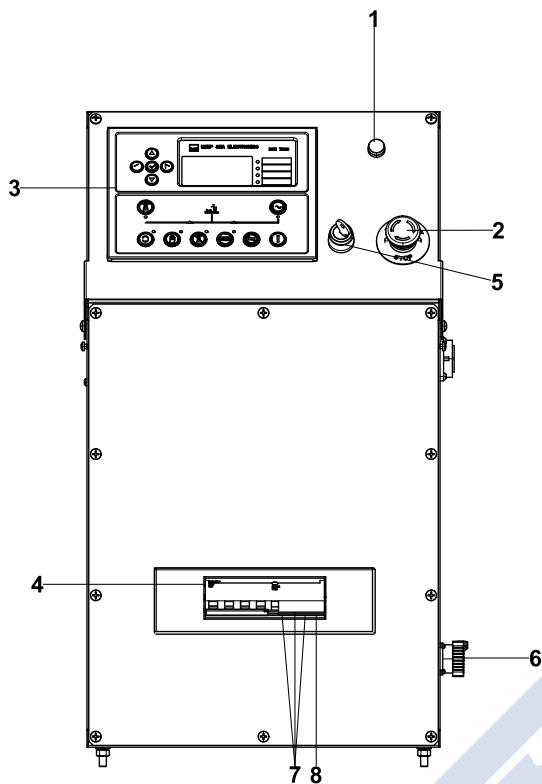
## 4 Overall Dimensions

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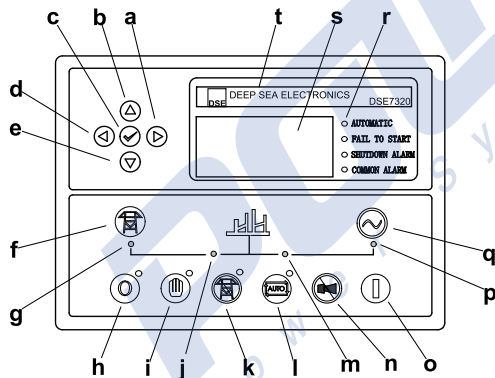
Dry weight	731kg
Fuel tank capacity	120L
Dimensions L x W x H	1896x704x1399mm



## 5 Control System



Control & field wiring cabinet



Control module

Ref.	Description
1	Charge indicator
2	Emergency stop button
3	Control module
4	Main circuit breaker
5	Key switch
6	ATS communication interface
7	Live wire terminals
8	Neutral wire terminal

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

100019401-B3-E
03.2014

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