

Generator set

Containerised type

GMS800CS

SPECIFICATIONS



1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

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

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 KTA38-G2B
- Close coupled to a Leroy Somer Alternator LSA49.3 M8
- Microprocessor control module PLC-7420
- Main circuit breaker: 1250A
- Rotate speed governor: Electrical governor FP801
- Excitation System: AREP
- A.V.R.Model: D350
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 4x12V/150AH sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy

- 50°C radiator
- Fire extinguisher
- Oil pump on the engine
- Steel base frame with forkslots
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- fuel tank for 9 hours running
- Drain points for fuel tank
- Fuel inlet pump and it's control box for the fuel tank
- Added fuel-water separator for fuel tank
- Operation Manual / Specifications

3 Equipment

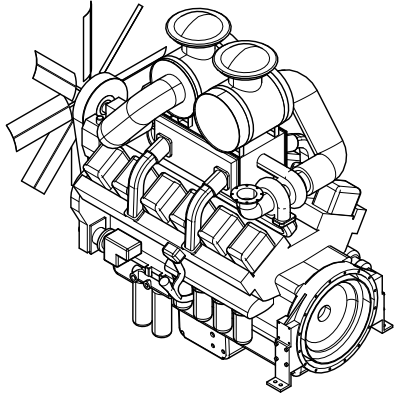
General technical data



Model.....	GMS800CS
Structure type	C
Tank capacity.....	1450L
Dry weight.....	11792kg
Noise level @7m	N/A
Sound power level acc. 2000/14/EC	N/A
Dimensions L×W×H.....	6058x2448x2735mm
Standby Power	880kVA/704kW
Prime Power.....	800kVA/640kW

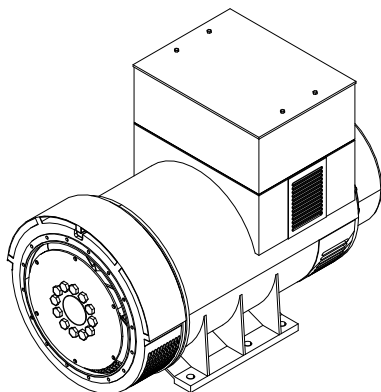
Voltage	380V	400V	415V	440V	
Ampere	1216A	1155A	1113A	1026A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	39.9	78.8	114	152	171.9

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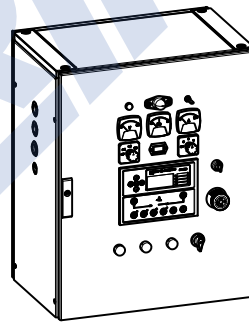
Engine Manufacturer/Brand.....	Cummins
Engine Model.....	KTA38-G2B
Dimensions L×W×H.....	2265.0x1379x2231.9
Dry Weigh (approx.).....	3723kg
Number of Cylinders.....	12
Bore.....	159mm
Stroke.....	159mm
Displacement.....	37.5L
Compression Ratio.....	14.5
Type of injection.....	Direct injection
Intake System.....	Turbo charged
Intake Resistance.....	6.23kPa
Cooling System.....	Water cooled
Fan.....	Pusher
Battery Voltage.....	24V
Type of Fuel.....	No.2 or ASTM D975
Type of Oil.....	CF4/SG15W-40
Oil Capacity.....	135L
Type of Coolant.....	Glycol mixture
Coolant Capacity.....	194L
Back Pressure.....	≤10kPa
Standby Power.....	789kW
Prime Power.....	711kW
Fuel Consumption(100%load).....	160L/h

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Alternator Manufacturer/Brand.....	Leroy Somer
Alternator Model.....	LSA49.3 M8
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.....	2250rpm
Air Flow.....	2.18m³/s(50Hz),2.63m³/s(60Hz)
Voltage Regulation.....	±0.5%
Total Harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

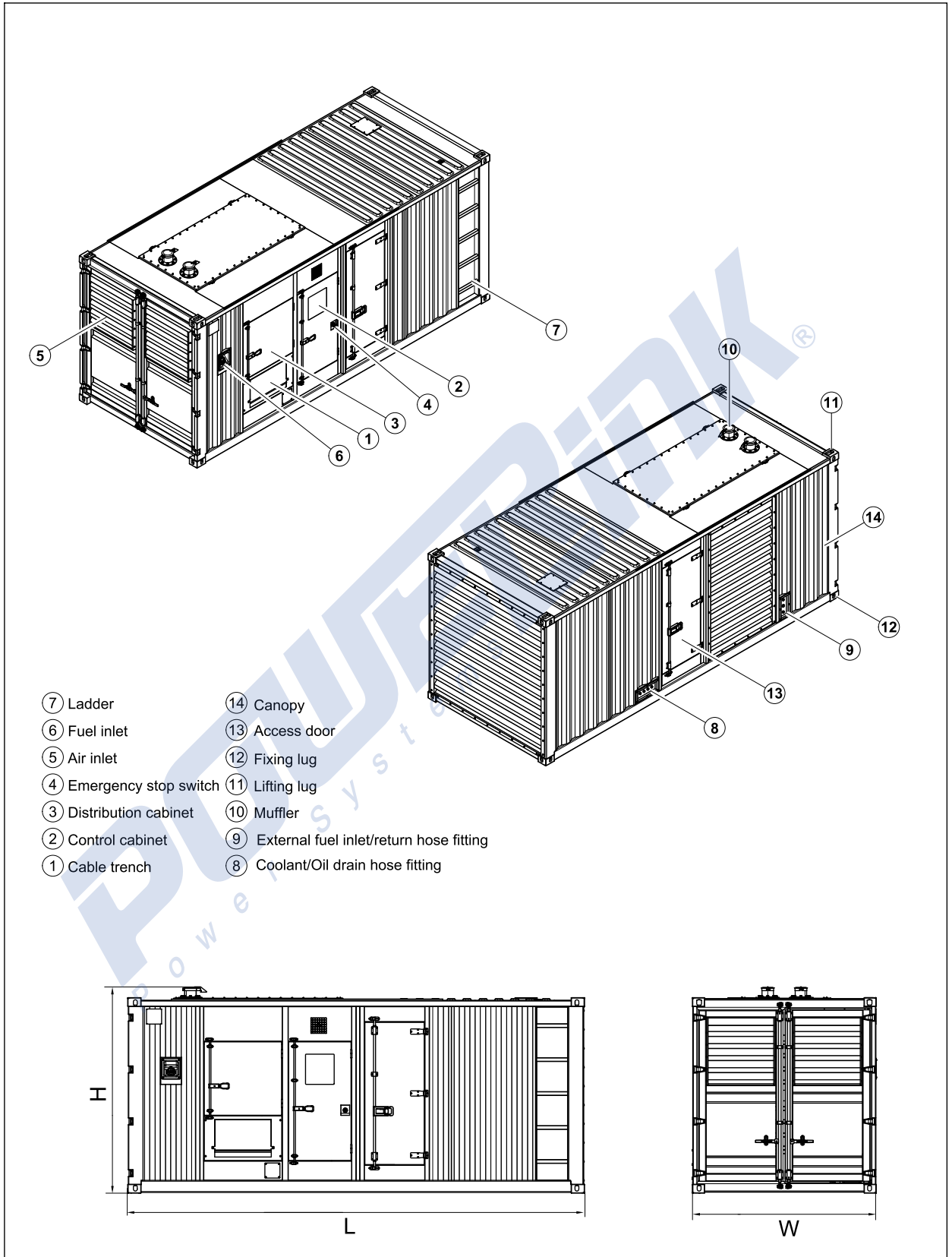
PLC-7420 Control System



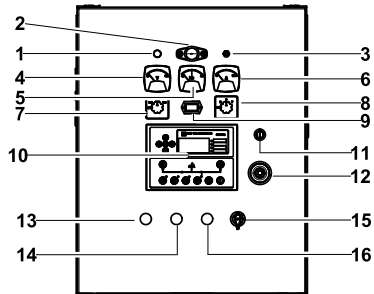
PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

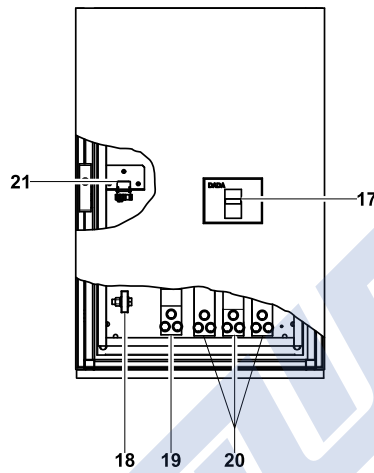
4 Overall Dimensions



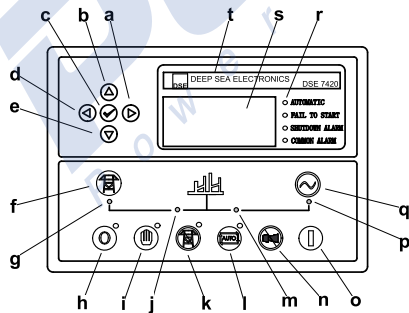
5 Control System



Control cabinet



Field wiring cabinet



Control module

Ref.	Description
1	Charge indicator
2	Control cabinet lamp
3	Control cabinet lamp switch
4	Voltage meter
5	Frequency meter
6	Current meter
7	Changerover switch-Voltage
8	Changerover switch-Current
9	Time counter
10	Control module
11	Key switch
12	Emergency stop switch
13	Fuel leak indicator
14	Running button with indicator
15	Oil drain switch
16	Stop button with indicator
17	Main circuit breaker
18	Ground wire terminal
19	Neutral wire terminal
20	Live wire terminals
21	Mains input/Remote control/ ATS communication connector

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

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