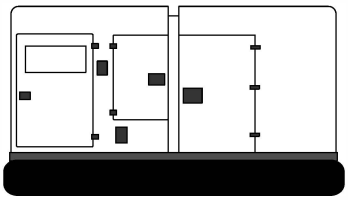
POWERLINK
Power Systems



Generator set

Sound-proof type

GMS150CS

SPECIFICATIONS

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EC series
GMS150CS
50 Hz @ 1500rpm,3-phase/5-wiring

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformite Europeenne (CE)
- ISO8528-5:2005
- GB/T2820.5-2009

Environmental Operating Conditions

- Installation place: Outdoors or indoors (well ventilated).
- Ambient temperature: -25℃ to 50℃.The coolant heater is needed when the temperature is below 5℃
- 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 6BTAA5.9-G12
- Close coupled to Leroy Somer alternator LSA44.3L10
- Microprocessor control module PLC-7420
- Main circuit breaker: 250A
- Rotate speed governor: ECU
- Excitation system: Self excited,SHUNT
- 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
- 50℃ 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 for 8 hours running
- Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment

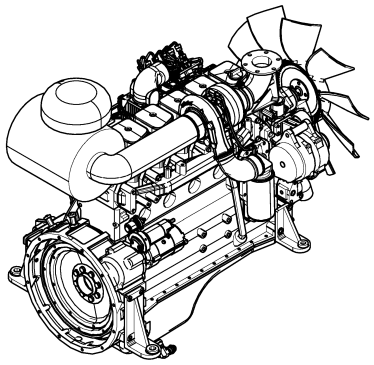
General technical data

Model..... GMS150CS
Structure type .....R
Tank capacity.....300L
Dry weight.....2231kg
Noise level @7m 71.6dBA
Dimensions L×W×H.....3308x1172x1739mm
Standby Power 165kVA/132kW
Prime Power..... 150kVA/120kW

Voltage	380V	400V	415V	440V
Ampere	227.9A	216.5A	208.7A	196.8A

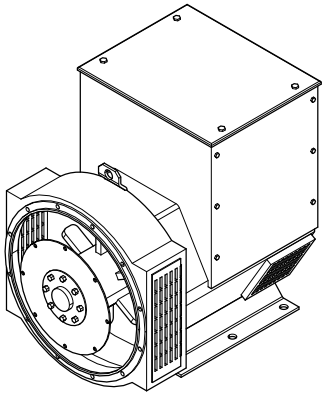
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	11	22	31	38	42

Diesel Engine



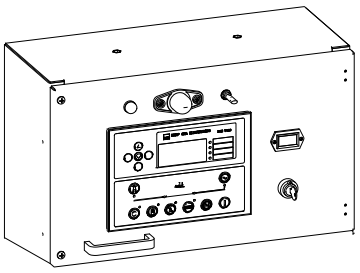
Engine Manufacturer/Brand.....Cummins
Engine Model.....6BTAA5.9-G12
Dimensions L×W×H..... 1216x731x1154mm
Dry Weigh (approx.) 520kg
Number of Cylinders.....6
Bore 102mm
Stroke 120mm
Displacement.....5.9L
Compression Ratio 17.3
Type of injection..... High pressure common rail
Intake System.....Turbocharged,air-to-air charge cooled
Intake Resistance .....≦6.28kPa
Cooling System .....Water cooled
Fan ..... Pusher
Battery Voltage 24V
Type of Fuel.....Diesel
Type of Oil 15W40-CH4
Oil Capacity(engine only).....10L
Type of Coolant .....Glycol mixture
Coolant Capacity 16.4L
Back Pressure .....≦10.1kPa
Standby Power 155kW
Prime Power 140kW
Fuel Consumption(100%load)..... 34L/h

Alternator



Alternator Manufacturer/Brand .....Leroy Somer
Alternator Model LSA44.3L10
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 .....2250 rpm
Air Flow..... 0.216m³/s(50HZ),0.281m³/s(60HZ)
Voltage Regulation .....±1.0%
Total harmonic TGH / THCat no load < 1.5 % - on load < 5%
Telephone Interference..... THF<2%;TIF<50

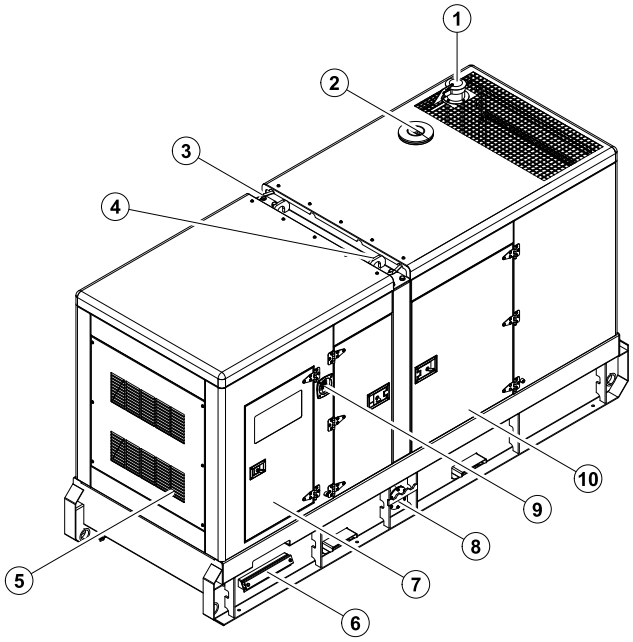
PLC-7420 Control System

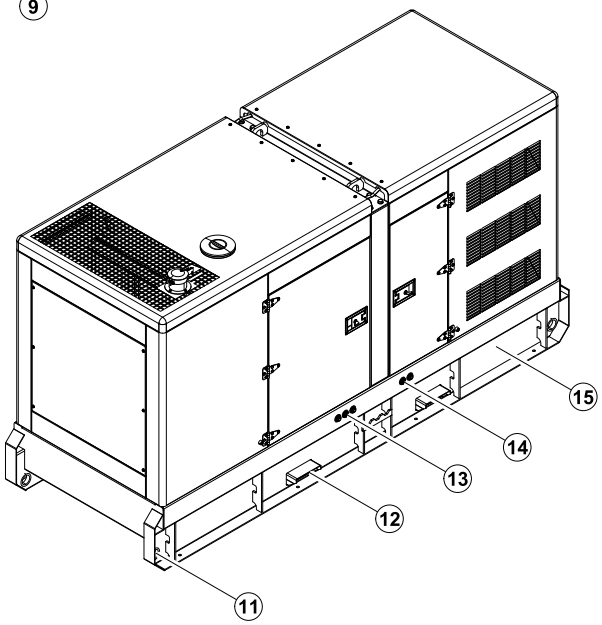


PLC-7420 is an advanced control module based on microprocessor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

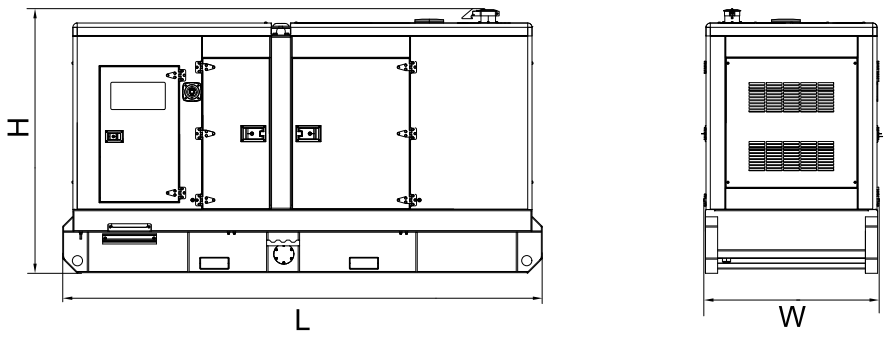
- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual,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

4 Overall Dimensions

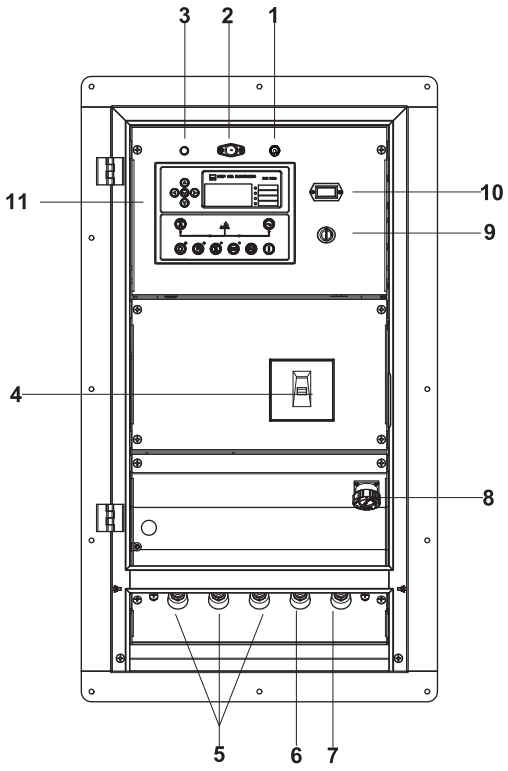




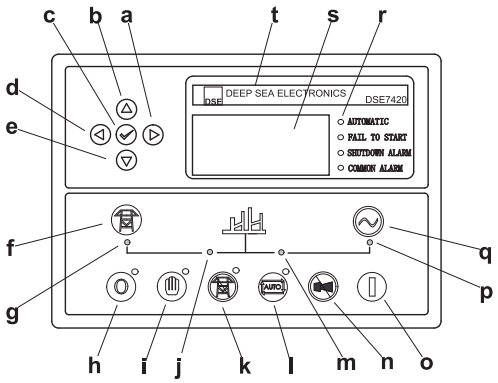
(8) Fuel drain
(7) Control cabinet
(6) Cable trench
(5) Air inlet
(4) Lifting lug
(3) Roping lug
(2) Coolant inlet
(1) Exhaust gas outlet
(15) Base frame
(14) Coolant / oil drain hose fitting
(13) External fuel inlet/return hose fitting
(12) Fork lift channel
(11) Tie down
(10) Access door
(9) Emergency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



5 Control System



Control & field wiring cabinet



Control module

Ref.	Description
1	Control panel lamp switch
2	Control panel lamp
3	Charge indicator
4	Main circuit breaker
5	Live wire terminals
6	Neutral wire terminal
7	Ground wire terminal
8	Mains input/ remote/AMF communication connector
9	Key switch
10	Time counter
11	Control module

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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