

Generator set
Sound-proof type
GMS250CS

SPECIFICATIONS





1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformite Europeenne (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

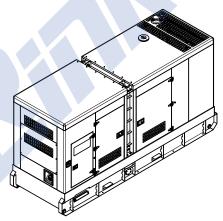
2 General Features

- Cummins engine 6LTAA8.9-G2
- Close coupled to a Leroy Somer alternator LSA46.3S5
- Microprocessor control module PLC-7420
- · Main circuit breaker: 400A
- Rotate speed governor: Electrical governor FP801
- 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°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 13 hours running
- · Drain points for fuel tank
- Operation Manual / Specifications

3 Equipment Specification

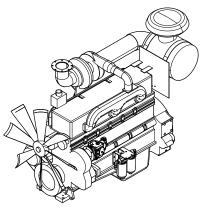
General technical data



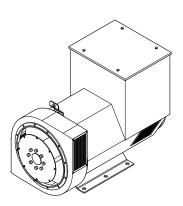
Model	GMS250CS
Structure type	R
Tank capacity	660L
Dry weight	4174kg
Sound pressure level @7m	N/A
Sound power level acc. 2000/14/EC	N/A
Dimensions L×W×H	4242×1423×2259mm
Standby Power	275kVA/220kW
Prime Power	250kVA/200kW

Voltage	380V		400V		415V		440V	
Ampere	379.8A		360.8A		347.8A		328A	
Genset Fuel Consumption								
Frequency	//Load	ad 25		50%	75%	10	0%	110%
50Hz (L/h)		15	5.0	27.0	39.0	53	3.0	58.0

Dck Yf GmghYa

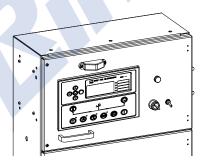


Engine Manufacturer/Brand	Cummins
Engine Model	6LTAA8.9-G2
Dimensions L×W×H	1922×816×1597mm
Dry Weigh (approx.)	1380Kg
Number of Cylinders	6
Bore	114mm
Stroke	141mm
Displacement	8.9L
Compression Ratio	16.6
Type of injection	Direct injection
Intake System	Turbocharged
Intake Resistance	≤6.22kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel	No.2-D per ASTM D975.
Type of Oil	API CD/SE or CCMCD4
Oil Capacity	27.6L
Type of Coolant	
Coolant Capacity(engine ontly)	11.1L
Back Pressure	≤10kPa
Standby Power	240kW
Standby Power	220kW
Fuel Consumption(100%load)	197.0g/kW.h



Alternator Manufacturer/Bra	andLeroy Somer
Alternator Model	LSA46.3S5
Exciter	Brushless
Cooling Fan	Cast alloy aluminum
Windings	100% copper
Insulation Class	Н
Winding Pitch	2/3
Terminals	12
Drip Proof	IP23
Altitude	≤1000m
Overspeed	2250rpm
Air Flow	0.58m³/s(50Hz),0.69m³/s(60Hz)
Voltage Regulation	±1.0%
Total Harmonic TGH / THC	at no load < 1.5 % - on load < 5%
Telephone Interference	THF<2%;TIF<50

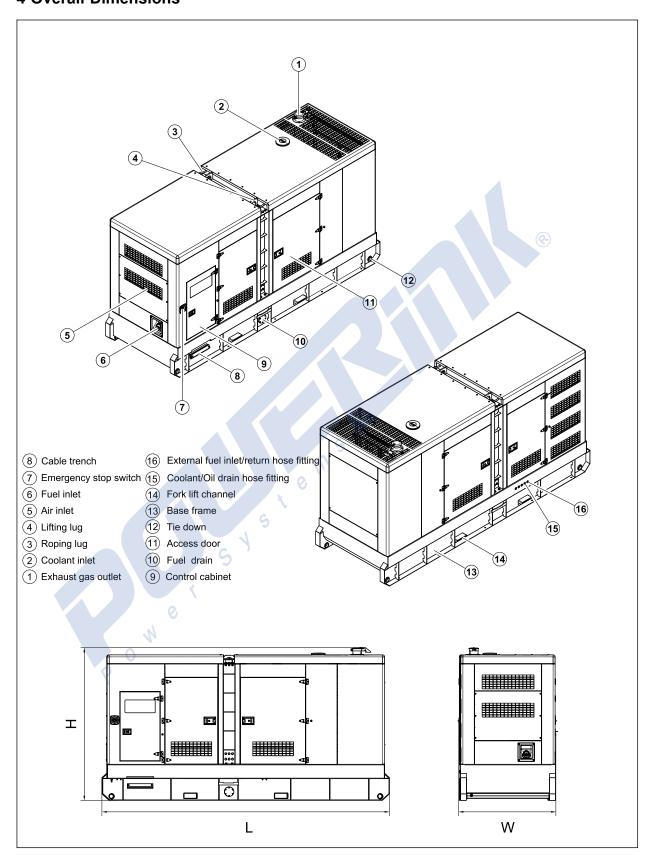
PLC-7420 Control System



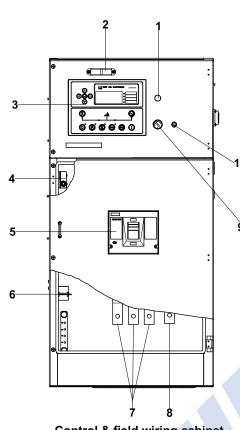
PLC-7420 is an advanced control module based on microprocessor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and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

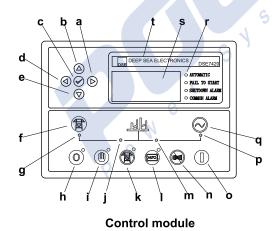
4 Overall Dimensions



5 Control System



Control & field wiring cabinet



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

	а	Button (next page)
	b	Button (increase value / previous item)
	С	Button (accept)
	d	Button (previous page)
	е	Button (decrease value / next item)
	f	Button (transfer the load to the mains supply, when in Manual mode only)
	g	Mains supply available LED
(ð h	Stop / Reset button
	i	Manual button (Manual control mode)
	j	Mains supply on load LED
	k	Test button (Test mode)
	I	Auto button (Auto mode)
	m	Genset on load LED
	n	Mute/Lamp test button
	0	Start button (Manual)
	р	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

1000029549

01.2023

