

**EC Series**

**GMS100C**

— **Generator Set Specification**



**Your Partner for Power...**

# GMS100C



3-Phase, 50Hz@1500RPM				
	Voltage	kW	kVA	Amps
<b>Prime Power</b>	380	80	100	151.9
	400	80	100	144.3
	415	80	100	139.1
	440	80	100	131.2
<b>Standby Power</b>	380	88.9	111.1	168.8
	400	88.9	111.1	160.4
	415	88.9	111.1	154.6
	440	88.9	111.1	145.8
<b>Noise Level at 7 meters (dBA)</b>			90.8	

## Notes:

- 1) Ambient reference conditions: 1,000 mbar, 27°C, 30% relative humidity;
- 2) Standby Power: the maximum power available under varying loads. Only for standby and emergency use. No overload is permissible. Prime Power: the maximum power available under varying loads for continuous operation. A 10% overload is permissible for 1 hour every 12 hours.

Features		Benefits	
	Tightly structure, excellent design and craft		Beautiful appearance
	Designed with safety in mind		Low operating cost results in optimal economy
	Earth leakage protection		Ease of installation, operation, and maintenance
	Quick fix electrical power connections		Customization
	Extensive option list		Good quality ensure

## Performance Specification and Craftwork

Performance Specification		Telephone Interference, Electromagnetism	
Efficiency of Rated Power	96.3%	TIF	≤50
Time needed from start-up to full load (inductive)	125 seconds	THF	≤2%
Time needed from start-up to 50% load (inductive) allowed	8 seconds	Radio interference in compliance with BS800 and VED LEVELS G and N.	
1.1 times overload operation time (hour)	1	<b>Craftwork</b> <ul style="list-style-type: none"> <li>• Steel base frame with AV mounting</li> <li>• standard 8h fuel tank with flexible rubber fuel tube, fuel level indicator and drainage</li> <li>• Overall sprayed powder coating</li> <li>• Whole set documents, including Installation Manual, Operation Manual, Spare Parts Catalog, Circuit Diagram</li> </ul> <b>Criterion</b> <ul style="list-style-type: none"> <li>• ISO3046, ISO8528, BS4999, BS5514,</li> <li>• BS5000PT99、AS1359, IEC34</li> <li>• UTE5100, VDE0530</li> <li>• ISO9001:2000</li> </ul>	
2.0 time overload operation time (minute)	1		
Voltage Regulation, steady state	≤±1%		
Voltage Regulation, transient state	20%-15%		
Voltage Settle Time	≤5 seconds		
Voltage Fluctuation Ratio	0.5%		
Frequency Regulation, steady state	±0.5% adjustable		
Frequency Regulation, transient state	±5%		
Frequency Settle Time	5 seconds		
Frequency Fluctuation Ratio	0.5%		
Recovery Time	0.5 seconds		

# GMS100C

Engine Specification			Alternator Specification	
<b>Brand</b>	<b>Cummins</b>		<b>Brand</b>	<b>Stamford</b>
<b>Model</b>	<b>6BT5.9G1</b>		<b>Model</b>	<b>UCI274C</b>
No. of Cylinders and Cycle	6L, 4 Stroke		Rated Output (kVA)	100
Induction System	TC		Rated current (A)	144.3
Compression Ratio	16.8: 1		Exciter	Brushless
Displacement (L)	5.9		THF (BS EN60034- 1)	<2%
Bore x Stroke (mm)	102 x 120		Bearing number	Single
Torque (N.m)	548		Windings	100% Copper
Speed RPM	1500		Connection Type	Star Connection
Piston speed (m/s)	6		Insulation Class	H
Air intake flow (L/s)	100		Winding Pitch	2/3
Exhaust flow (L/s)	250		Amortisseur Winding	Full
Net weight (kg)	411		A.V.R. Model	SX460
Starting System	Electronic		Voltage Regulation (no load- full load)	± 1.0%
Engine coolant flow (L/s)	2		Underspeed Protection	Standard
Base Output power (kW)	86		Protection	IP23
Fuel Consumption (L/h)	110% load		Phase Sequence	A(U), B(V), C(W)
	100% load	22	TIF (NEMA MG 1-22)	<50
	75% load	17	Excitation System	Self-excited, PMG optional
	50% load	11	Ambient Temp. (°C)	40
Governor Type	Mechanical		Stator Rated Temp. (°C)	125

Cooling System		Fuel System	
Max. coolant cycling resistance exterior engine (kPA)	28	Fuel injection pump model	pump with GAC governor
Thermostat adjusting temperature (°C)	82-95	Max. fuel input resistance of transfer pump (mmHg)	102
Min. opening pressure of radiator cap (kPA)	69	Max. overflow fuel resistance at overflow pipe of injector (mmHg)	254
Coolant capacity-engine only (L)	9.9	Total fuel overflow amount (L/h)	30
Exhaust System		Lubricating System	
Max. Back Pressure (kPA)	10.2	<b>Normal oil pressure range</b>	
Electrical System		Low idle (kPA)	207
Starter (V)	12/24	Rated speed (kPA)	345
Battery charging system (A)	63/40	Max. oil temperature permitted in oil pan (°C)	121
		Lubrication system Min. capacity (L)	16.4

# GMS100C

## Control System

### PLC-702

DSE-702 key manual start module is a manual engine control module designed to control the engine via a key switch and push buttons on the front panel. The module is used to start and stop the engine and indicate fault conditions, automatically shutting down the engine and giving a true first up fault condition of an engine failure.



#### Standard Control Function

- Manual Engine Control Module
- Low Oil Pressure
- High Engine Temperature
- Auxiliary Shutdown
- Overspeed Protection
- Protection hold-off timer
- Charge Failure warning

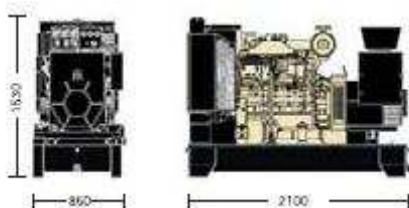
### PLC-5220

DSE-5220 control panel is applied

- | Microprocessor control, with high stability and credibility
- | Mains supply and generator operation monitoring
- | Indicating operation status and fault conditions
- | Multiple protections; multiple parameters display, like pressure, temp.
- | Manual and automatic work mode selectable
- | Real time clock for time and date display, overall runtime display, 99 log entries
- | Overall power output display
- | Integral speed/frequency detecting, telling status of start, rated operation, overspeed
- | Communication with PC via RS485 OR RS232 interface, using MODBUS protocol.



## Dimension and Weight



### GMS100C

Length × Width × Height, mm  
2100×850×1530

Weight (kg):  
1165

# GMS100C

## Optional

Engine	Alternator	Generator Set	Fuel System	Canopy
<ul style="list-style-type: none"> <li>● Coolant heater</li> </ul>	<ul style="list-style-type: none"> <li>● Space heater</li> <li>● AVR PMG with regulator</li> <li>● Anti-damp and anti-corrosion treatment</li> <li>● Anti-condensation heater</li> </ul>	<ul style="list-style-type: none"> <li>● Tools with the machine</li> </ul>	<ul style="list-style-type: none"> <li>● Low fuel level alarm</li> <li>● Automatic fuel feeding system</li> </ul>	<ul style="list-style-type: none"> <li>● Canopy</li> </ul>
Lubricating System	Exhaust System	Cooling System	Control Panel	Voltages
<ul style="list-style-type: none"> <li>● Oil with the machine</li> </ul>	<ul style="list-style-type: none"> <li>● Protection board from hotness</li> <li>● Low frequency silencer</li> </ul>	<ul style="list-style-type: none"> <li>● Front heat protection</li> <li>● 50°C radiator</li> <li>● Coolant (-30°C)</li> </ul>	<ul style="list-style-type: none"> <li>● Remote control panel</li> <li>● Automatic paralleling control panel</li> <li>● Automatic Transfer Switch (ATS)</li> </ul>	<ul style="list-style-type: none"> <li>● 415/240V</li> <li>● 400/230V</li> <li>● 380/220V</li> <li>● 220/127V</li> <li>● 200-115V</li> </ul>



Local Distributor