

**EC Series**

**GMS42CS**

— **Generator Set Specification**



**Super Quiet, Superior Life!**



# GMS42CS



## 3-Phase, 50Hz@1500RPM

	Voltage	kW	kVA	Amps
<b>Prime Power</b>	380	33.6	42	63.8
	400	33.6	42	60.6
	415	33.6	42	58.4
	440	33.6	42	55.1
<b>Standby Power</b>	380	37.3	46.7	70.9
	400	37.3	46.7	67.4
	415	37.3	46.7	64.9
	440	37.3	46.7	61.2
<b>Noise Level at 7 meters (dBA)</b>			64.2	

- 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
<ul style="list-style-type: none"> <li>  Tightly structure, excellent design and craft</li> <li>  Designed with safety in mind</li> <li>  Earth leakage protection</li> <li>  Quick fix electrical power connections</li> <li>  Extensive option list</li> <li>  Well enclosed canopies with high protection against water and dust</li> </ul>	<ul style="list-style-type: none"> <li>  Beautiful appearance</li> <li>  Low operating cost results in optimal economy</li> <li>  Ease of installation, operation, and maintenance</li> <li>  Customization</li> <li>  Good quality ensure</li> </ul>

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		

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Engine Specification			Alternator Specification		
<b>Brand</b>	<b>Cummins</b>		<b>Brand</b>	<b>Stamford</b>	
<b>Model</b>	<b>4BT3.9G1</b>		<b>Model</b>	<b>PI144K</b>	
No. of Cylinders and Cycle	4L, 4 Stroke		Rated Output (kVA)	42.5	
Induction System	TC		Rated current (A)	60.6	
Compression Ratio	16.5: 1		Exciter	Brushless	
Displacement (L)	3.9		THF (BS EN60034- 1)	<2%	
Bore x Stroke (mm)	102 x 120		Bearing number	Single	
Torque (N.m)	229		Windings	100% Copper	
Speed RPM	1500		Connection Type	Star Connection	
Piston speed (m/s)	6		Insulation Class	H	
Air intake flow (L/s)	43.6		Winding Pitch	2/3	
Exhaust flow (L/s)	101		Amortisseur Winding	Full	
Net weight (kg)	321		A.V.R. Model	SX460	
Starting System	Electronic		Voltage Regulation (no load- full load)	± 1.0%	
Engine coolant flow (L/s)	2.2		Underspeed Protection	Standard	
Base Output power (kW)	36		Protection	IP23	
Fuel Consumption (L/h)	110% load		Phase Sequence	A(U), B(V), C(W)	
	100% load	9.3	TIF (NEMA MG 1-22)	<50	
	75% load	7.3	Excitation System	Self-excited, PMG optional	
	50% load	5.3	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	BYC A 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)	7.2		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)	10.9	

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## 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



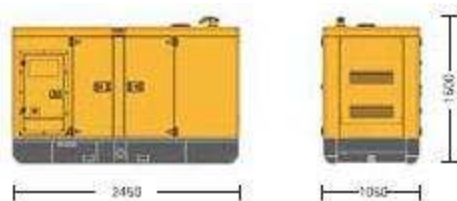
### PLC-5220

DSE-5220 control pannel 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



### GMS42CS

Length × Width × Height, mm  
2450×1050×1500

Weight (kg):  
1309

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## 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>● Trailer</li> <li>● Container</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