

**EC Series**

**GMS312C**

— **Generator Set Specification**



**Your Partner for Power...**

# GMS312C



## 3-Phase, 50Hz@1500RPM

	Voltage	kW	kVA	Amps
<b>Prime Power</b>	380	249.6	312	474.0
	400	249.6	312	450.3
	415	249.6	312	434.1
	440	249.6	312	409.4
<b>Standby Power</b>	380	277.3	346.7	526.7
	400	277.3	346.7	500.4
	415	277.3	346.7	482.3
	440	277.3	346.7	454.9
<b>Noise Level at 7 meters (dBA)</b>			96.5	

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

# GMS312C

Engine Specification		Alternator Specification	
<b>Brand</b>	<b>Cummins</b>	<b>Brand</b>	<b>Stamford</b>
<b>Model</b>	<b>NTA855G1B</b>	<b>Model</b>	<b>HCI444ES</b>
No. of Cylinders and Cycle	6L, 4 Stroke	Rated Output (kVA)	350
Induction System	TCA	Rated current (A)	450.3
Compression Ratio	14: 1	Exciter	Brushless
Displacement (L)	14	THF (BS EN60034- 1)	<2%
Bore x Stroke (mm)	140 x 152	Bearing number	Single
Net weight (kg)	1410	Windings	100% Copper
Torque (N.m)	1808	Connection Type	Star Connection
Piston speed (m/s)	7.62	Insulation Class	H
Intake Air Flow (L/s)	375	Winding Pitch	2/3
Exhaust gas temperature (°C)	485	Amortisseur Winding	Full
Exhaust gas flow (L/s)	980	A.V.R. Model	AS440
Base Output power (kW)	284	Voltage Regulation (no load- full load)	± 1.0%
RPM	1500	Underspeed Protection	Standard
Brake mean effective pressure (kPA)	1623	Protection	IP23
Fuel Consumption (L/h)	110% load	Phase Sequence	A(U), B(V), C(W)
	100% load	TIF (NEMA MG 1-22)	<50
	75% load	Excitation System	Self-excited, PMG optional
	50% load	Ambient Temp. (°C)	40
Governor Type	E	Stator Rated Temp. (°C)	125

Cooling System		Fuel System	
Max. coolant friction head external to engine (kPA)	41	Type injection System	Direct injection
Thermostat adjusting temperature (°C)	96	Max. fuel pump supply (L/h)	305
Min. opening pressure of radiator cap (kPA)	48.2	Fuel rail pressure (kPA)	1141
Coolant capacity-engine only (L)	20.8	Max. fuel temperature (°C)	71
Exhaust System		Lubricating System	
Max. Back Pressure (kPA)	10.1	Total system capacity (L)	38.6
Electrical System		Oil pressure	
Starter (V)	24	Low idle (kPA)	103
Battery charging system (A)	35	Rated speed (kPA)	241-345

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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

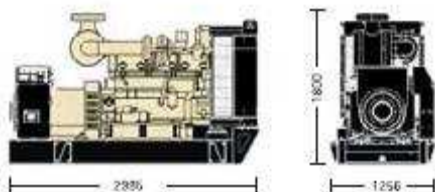
### PLC-5220

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



### GMS312C

Length × Width × Height, mm  
2995×1256×1800

Weight (kg):  
5402

## 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