

EC Series

GMS450CS

— Generator Set Specification



Super Quiet, Superior Life!



GMS450CS



3-Phase, 50Hz@1500RPM				
	Voltage	kW	kVA	Amps
Prime Power	380	360	450	683.7
	400	360	450	649.5
	415	360	450	626.1
	440	360	450	590.5
Standby Power	380	400	500	759.7
	400	400	500	721.7
	415	400	500	695.6
	440	400	500	656.1
Noise Level at 7 meters (dBA)				73

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"> Tightly structure, excellent design and craft Designed with safety in mind Earth leakage protection Quick fix electrical power connections Extensive option list Equipped with a ladder (for generators 300-500kVA), exterior fueling point, water tank inlet 	<ul style="list-style-type: none"> Beautiful appearance Low operating cost results in optimal economy Ease of installation, operation, and maintenance Customization 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	Craftwork <ul style="list-style-type: none"> ● Steel base frame with AV mounting ● standard 8h fuel tank with flexible rubber fuel tube, fuel level indicator and drainage ● Overall sprayed powder coating ● Whole set documents, including Installation Manual, Operation Manual, Spare Parts Catalog, Circuit Diagram Criterion <ul style="list-style-type: none"> ● ISO3046, ISO8528, BS4999, BS5514, ● BS5000PT99、AS1359, IEC34 ● UTE5100, VDE0530 ● ISO9001:2000 	
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		
Brand		Cummins	Brand		Stamford
Model		KTA19G3	Model		HCI544C
No. of Cylinders and Cycle		6L, 4 Stroke	Rated Output (kVA)		450
Induction System		TCA	Rated current (A)		649.5
Compression Ratio		13.9: 1	Exciter		Brushless
Displacement (L)		18.9	THF (BS EN60034- 1)		<2%
Bore x Stroke (mm)		159 x 159	Bearing number		Single
Net weight (kg)		1855	Windings		100% Copper
Piston speed (m/s)		7.9	Connection Type		Star Connection
Intake Air Flow (L/s)		486	Insulation Class		H
Exhaust gas temperature (°C)		524	Winding Pitch		2/3
Exhaust gas flow (L/s)		1345	Amortisseur Winding		Full
Base Output power (kW)		403	A.V.R. Model		AS440
RPM		1500	Voltage Regulation (no load- full load)		± 1.0%
Brake mean effective pressure (kPA)		1710	Underspeed Protection		Standard
			Protection		IP23
Fuel Consumption (L/h)	110% load		Phase Sequence		A(U), B(V), C(W)
	100% load	97	TIF (NEMA MG 1-22)		<50
	75% load	73	Excitation System		Self-excited, PMG optional
	50% load	51	Ambient Temp. (°C)		40
Governor Type		E	Stator Rated Temp. (°C)		125

Cooling System			Fuel System		
Max. coolant friction head external to engine (kPA)		55	Type injection System		Direct injection
Thermostat adjusting temperature (°C)		69	Fuel rail pressure (kPA)		22
Min. opening pressure of radiator cap (kPA)		48.2			
Coolant capacity-engine only (L)		30			
Exhaust System			Lubricating System		
Max. Back Pressure (kPA)		10.1	Total system capacity (L)		50
Electrical System			Oil pressure		
Starter (V)		24	Rated speed (kPA)		345-483
Battery charging system (A)		35			

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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 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



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Length × Width × Height, mm
4362×1500×2519

Weight (kg):
6180

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Optional

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



Local Distributor