

# GMS200C/S

## EC Series



### Features:

- Rotate speed governor: Electrical governor S6700E
- Excitation system: Self excited
- A.V.R model: AS440
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 2x12V sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy (Only for Soundproofed sets)
- 50°C radiator
- Oil pump on the engine
- Steel base frame with fork holes
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for daily running
- Drain points for fuel tank
- Operation Manual / Specifications



### Output Ratings

Generating Set Model	Prime Power	Standby Power
<b>GMS200C</b>	200kVA/160kW	212kVA/169.6kW
<b>GMS200CS</b>	200kVA/160kW	212kVA/169.6kW

Ratings at 0.8 power factor

### Dimensions and Weights

Model	Length (L) mm	Width (W) mm	Height (H) mm	Dry Weight kg
<b>GMS200C</b>	2450	999	1667	1809
<b>GMS200CS</b>	3600	1300	1900	2699

#### Notes:

##### \*Prime Power

Continuous duty operation, under variable load 24/24h-10% over load permissible 1 hour/12 hours;

##### \*\*Standby Power

Standby duty, operation under variable load, without over load;

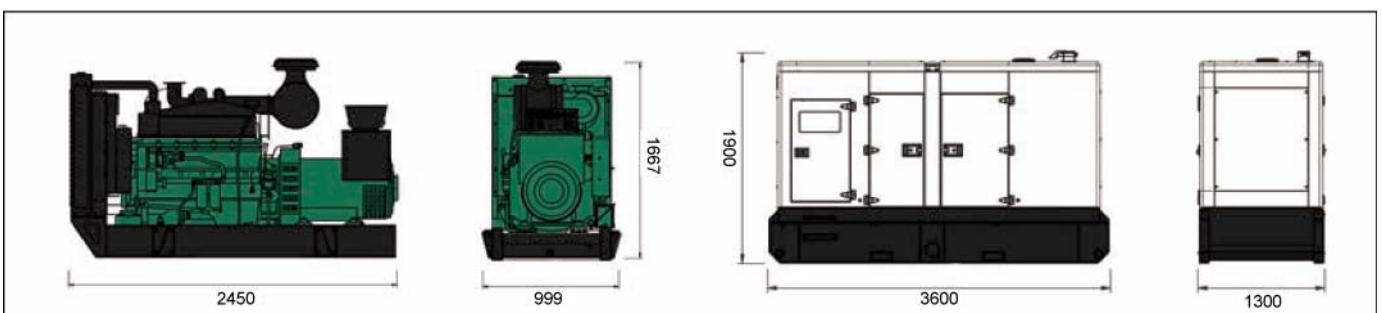
##### Standard Reference Conditions

Note: Standard reference conditions 25°C (77°F) Air Inlet Temp, 100m(328 ft) A.S.L. 30% relative humidity.

Fuel consumption data at full load with diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998, Class A2.

### Ratings and Performance Data

<b>Engine Make &amp; Model:</b>	Cummins 6CTAA8.3-G2
<b>Alternator Brand:</b>	Stamford
<b>Alternator Model:</b>	UCI274H
<b>Control System:</b>	Auto Gen / AMF
<b>Circuit Breaker Type:</b>	3 Pole MCCB
<b>Frequency &amp; Phase:</b>	50Hz & 3PH
<b>Engine Speed: RPM</b>	1500
<b>Fuel Tank Capacity: L</b>	
<b>GMS200C</b>	330
<b>GMS200CS</b>	520
<b>Fuel Consumption: l/hr (100% Load)</b>	
<b>- Prime Power</b>	45.4
<b>- Standby Power</b>	51.4



### Engine model:6CTAA8.3-G2

#### Engine Technical Data

<b>No. of Cylinders / Alignment:</b>	6 / In Line
<b>Cycle:</b>	6 Stroke
<b>Bore / Stroke: mm</b>	114X135
<b>Induction:</b>	Turbocharged
<b>Cooling Method:</b>	Water
<b>Governing Type:</b>	Electrical
<b>Governing Class:</b>	ISO 8528 G2
<b>Compression Ratio:</b>	N/A
<b>Displacement: L</b>	8.3
<b>Moment of Inertia:kg.m<sup>2</sup></b>	0.37
<b>Engine Electrical System:</b>	
- Voltage / Ground	12/Negative
- Battery Charger	63
<b>Weight: kg</b>	
- Dry	702
- Wet	

#### Performance

<b>Engine Speed: RPM</b>	1500
<b>Gross Engine Power: kWm</b>	
-Prime	183
- Standby	203
<b>BMEP: kPa</b>	
- Prime	
- Standby	

#### Lubrication System

<b>Oil Pressure @ Idle Speed</b> kPa	276
<b>@ Rated Speed</b> kPa	414
<b>Maximum Oil Temperature: °C</b>	121
<b>Total Oil Capacity: L</b>	23.8
<b>Oil Type:</b>	API CH4 / 15W-40

#### Exhaust System

<b>Silencer Type</b>	Industrial
<b>Silencer Quantity:</b>	1
<b>Silencer Noise Reduction Level:</b>	15-20dBA
<b>Maximum Allowable Back Pressure:mmhg</b>	76
<b>Exhaust Gas Flow: l/s</b>	
- Prime	442
- Standby	485
<b>Exhaust Gas Temperature: °C</b>	
- Prime	500
- Standby	545

#### Cooling System

<b>Cooling System Capacity: L</b>	12.3
<b>Maximum coolant Friction Head External to Engine: kPa</b>	28
<b>Maximum Static Head of Coolant Above Engine Crank Centerline : m</b>	14
<b>Standard Thermostat (Modulating) Range: °C</b>	82-95
<b>Minimum Pressure Cap: kPa</b>	69
<b>Maximum Top Tank Temperature for Standby / prime Power: °C</b>	104/100

Designed to operate in ambient conditions up to 50°C (122°F). Contact your local Multiphase Power Dealer for power ratings at specific site conditions

#### Fuel System

<b>Injection System Type:</b> BYC P7100 pump with GAC governor				
<b>Recommended Fuel Type:</b> Diesel Fuel No.2-D(ASTM D975)				
<b>Fuel Consumption: l/hr</b>				
Prime	110% Load	100% Load	75% Load	50% Load
<b>GMS200C</b>	51.4	45.4	34	23.3
<b>GMS200CS</b>	51.4	45.4	34	23.3

(Based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2)

#### Air Systems

<b>Air Filter Type:</b>	Dry type replaceable Element
<b>Intake Air Flow: l/s</b>	
- Prime	180
- Standby	187
<b>Max. Air Intake Restriction: mmH<sub>2</sub>O</b>	
-With Dirty Filter Element	635
-With Normal Duty and Clean Filter Element	254
-With Heavy Duty and Clean Filter Element	381

The weights are approximate and without fuel.

### Alternator model: UCI274H

Alternator Physical Data	
Manufactured by:	Stamford
Model:	UCI274H
No. of Bearings:	Single
Insulation Class:	H
Winding Pitch Code:	2/3
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	Self excited
AVR Model:	AS440

Alternator Operating Data	
Overspeed: rpm	2250rpm
Voltage Regulation: (Steady state)	±1.0%
Wave Form NEMA = TIF:	< 50
Wave Form IEC = THF:	< 2%
Air Flow: m <sup>3</sup> /s	0.514
Altitude: m	≤1000

Alternator Performance Data:	GMS200C	GMS200CS
<b>Time constants/400V:Ms</b>		
T'd	42	42
T''d	12	12
T'do	1100	1100
Ta	12	12
<b>Short Circuit Capacity** %</b>	1/Xd	1/Xd
<b>Reactances: Per Unit</b>		
Xd	1.91	1.91
X'd	0.16	0.16
X''d	0.11	0.11

Voltage Technical Data GMS200C				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
380/220	182.0	145.6	212.0	169.6
400/230	182.0	145.6	212.0	169.6
415/240	182.0	145.6	212.0	169.6
440/254	N/A	N/A	N/A	N/A

Voltage Technical Data GMS200CS				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
380/220	182.0	145.6	212.0	169.6
400/230	182.0	145.6	212.0	169.6
415/240	182.0	145.6	212.0	169.6
440/254	N/A	N/A	N/A	N/A

# ControlSystem

## PLC-7420

### FEATURES

- Microprocessor control, with high stability and credibility .
- Mains supply and generator operation monitoring.
- Indicating operation status and fault conditions.
- Multiple protections; multiple parameters display, such as pressure, temperature.
- 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.
- Engine ECU is available.
- Common USB cable is usable for parameter configuration.
- Multi-language is available.



## PLC-920 (Optional)

### FEATURES

- Parameter configuration via RS-232 serial communication;
- Log last 50 events & alarm information with measured values;
- Statistics records;
- Remote start/stop;
- Speed sensing from alternator voltage or magnetic pickup;
- Configurable 3 inputs and 6 outputs;
- ECU powers, ECU stop, STOP or fuel solenoid selection;
- Automatic transfer switching control and engine control;
- Adjustable start, load and stop timers.



Diesel Generator Sets 6-2250 kVA		PLC-7420	PLC-920
General accessory	AVR	●	●
	Electronic Governing	×	×
	Glow plug control	●	●
	Cycle Cranking	●	●
	(MODBUS) Networking	●	×
Operator Interface	Fault History	●	●
	Manual start/stop	●	●
	Auto/remote start	●	●
	Regular Test	●	●
	Auto operation LED	●	●
	Manual operation LED	●	●
	Common Shutdown LED	●	●
	Common warning LED	●	●
	Fail to start LED	●	●
	Emergency stop(lock)	●	●
Measurement and Instrumentation	Alphanumeric screen	●	●
	Remote start input active LED	●	×
	Alarm reset	●	●
	Engine		
	Oil pressure	●	●
	Water Temperature	●	●
	Engine Speed	●	●
	Hours Run	●	●
	Number of Starts	●	●
	Battery Voltage	●	●
Coolant Temperature	●	●	
Mains Expression	3Phase-L Voltage&Frequency	●	●
	3phase Current	●	●
	Frequency	●	●
	kWh	●	●
	Apparent Power	●	●
	Active Power and Reactive Power	●	●
	Power Factor	●	●
	Per PhasekW, kVAr	●	●
	Per Phase kVA	●	●
	Phase Voltage	●	●
Output Power	●	×	
Shutdown Protection and Indication	Grid Line Voltage	●	×
	Grid Phase Voltage	●	×
	Grid Frequency	●	×
	Engine		
	Low Fuel Level	●	●
	High Fuel Level	○	×
	Low Oil Pressure	●	●
	High Water Temperature	●	●
	Failure to Stop	●	●
	Failure to Start	●	●
Controllable start circles/times	●	×	
Paralleling Capability	Overspeed	●	●
	Under/Over Voltage	●	●
	Under/Over Frequency	●	●
	Overcurrent	●	●
	Earth Leakage	○	○
	Reverse Power	×	×
	Reverse kWh	×	×
	Low Oil Pressure	●	●
	Low Water Temperature	○	○
	High Water Temperature	●	●
Low Water Level	●	●	
Low/High Battery Voltage	●	●	
Failure to Charge	●	●	
Power Transfer Function	Overcurrent	●	●
	Overload	●	●
	Genset Under/Over Voltage	●	●
	Genset Under/Over Frequency	●	●
	under/over Speed	●	●
	High Engine Temperature	●	●
	Earth Leakage	●	○
	Synchronscope(Independent Bus)	×	×
	Active and Reactive Power Control	×	×
	Synchronscope(Shared Bus)	×	×
Synchronization Detector	×	×	
Peak Lapping	×	×	
Environment	Automatic Transfer	●	○
	Hard Closed Transition	●	●
	Soft Closed Transition	×	×
	Gen/Mains Breaker	●	×
	Gen/Mains Breaker Status Protection	●	×
	Speed/Voltage Control	×	×
	Power Indication	●	×
	Fuel&Solenoid Valve Control	●	●
	Starter Control	●	●
	Preheating	○	○
Mains Transfer Switch (Standard)	●	×	
Mains Transfer Switch (Emergency)	●	×	
Monitoring Function	Operating Temperature [-40℃-70℃]	●	●
	Ambient Temperature [-25℃-45℃]	●	●
	Humidity<=80%	●	●
	Grid Over/Under Voltage Control	●	×
	Grid Over/Under Frequency Control	●	×
	Remote Start (Output/Load/No-load)	●	●
	Optional Relay Output	●	●
	Remote Telecom Control with All Functions	●	×
	Engine Instrument Monitoring	●	●
	Alternator Output Instrument Monitoring	●	●
Connection Point with All-around Setting For 6 Users	●	●	
3 Users Input Connection Point	●	●	
LCD Light Control of Low Light Operation Environment	●	●	
Safe PIN Code	●	●	
RS232/485 Interface	●	×	
Language Selection	●	●	
Multi-Language Function	●	●	

● Standard ○ Optional × Impossible

### Optional



Engine	Alternator	Generator Set	Fuel System	Canopy
<ul style="list-style-type: none"> <li>Water Jacket Preheater</li> <li>Oil Preheater</li> </ul>	<ul style="list-style-type: none"> <li>Winding Temperature</li> <li>Measuring Instrument</li> <li>Alternator Preheater</li> <li>PMG</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 feedingsystem</li> <li>Fuel T-valves</li> </ul>	<ul style="list-style-type: none"> <li>Trailer</li> </ul>

Lubricating System	Exhaust System	Cooling System	Control System	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> </ul>	<ul style="list-style-type: none"> <li>Front heat protection</li> <li>Coolant (-30°C)</li> </ul>	<ul style="list-style-type: none"> <li>Remote control panel</li> <li>PLC-920</li> <li>ATS</li> </ul>	<ul style="list-style-type: none"> <li>415/240V</li> <li>400/230V</li> <li>380/220</li> <li>220/127V</li> <li>200-115V</li> </ul>

The following lists are optional by the needs of customers.

6C Series 1000 Hour Maintaining List				
No.	Part Name	Part No.	Qty	Remark
1	CARTRIDGE,LUB	C3401544	5	
2	FILTER,FUEL	C3931063	5	
3	WATER FUEL SEPERATOR	C3930942	5	
4	RESISTOR,CORROTION	C3100305	5	
5	CLEANER, AIR	6CTA (KW1638)	5	
6	CLEANER, AIR	6CTAA (KW2140)	5	
7	GASKET,VALVE COVER	C3905449	2	
8	BEARING,CRANKSHAFT THRUS	C3944163	1	
9	BEARING,MAIN, UPPER	C3944153	6	
10	BEARING,MAIN, BOTTOM	C3944158	7	
11	BEARING,CONNECTING ROD	C3950661	12	
12	FRON OIL SEAL	C3968562	1	
13	REAR OIL SEAL	C3968563	1	
14	BELT,V RIBBED	C3288475	2	
15	SOLENOID, FUEL PUMP	C4942879	1	
16	AIR RING, PISTON	C3921919	6	
17	MID RING, PISTON	C3919918	6	
18	OIL RING, PISTON	C3922686	6	

# GMS200C/S

EC Series



If you have any question or inquiry, please contact Multiphase Power sales organization. Or contact by: 02-168-3193-5

*Specification may change without prior notice.  
For more info, please contact Multiphase Power or your local distributors.*

EC Series / 2017 1st Edition

Local Distributor
-------------------