

# GMS130C/S

## EC Series



**MULTIPHASE  
POWER**

## 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>GMS130C</b>	130kVA/104kW	145kVA/116kW
<b>GMS130CS</b>	130kVA/104kW	145kVA/116kW

Ratings at 0.8 power factor

### Dimensions and Weights

Model	Length (L) mm	Width (W) mm	Height (H) mm	Dry Weight kg
<b>GMS130C</b>	2319	887	1540	1308
<b>GMS130CS</b>	3350	1150	1750	2126

### 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;

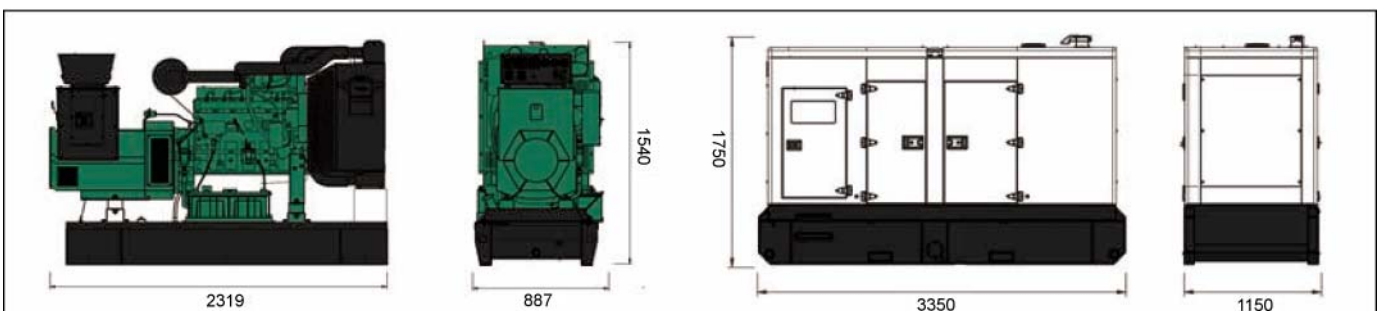
#### Standard Reference Conditions

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 6BTAA5.9-G2
<b>Alternator Brand:</b>	Stamford
<b>Alternator Model:</b>	UCI274E
<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>GMS130C</b>	225
<b>GMS130CS</b>	300
<b>Fuel Consumption: l/hr (100% Load)</b>	
<b>- Prime Power</b>	30
<b>- Standby Power</b>	34



### Engine model:6BTAA5.9-G2

Engine Technical Data	
No. of Cylinders / Alignment:	6 / In Line
Cycle:	4 Stroke
Bore / Stroke: mm	102X120
Induction:	Turbocharged
Cooling Method:	Water
Governing Type:	Electrical
Governing Class:	ISO 8528 G2
Compression Ratio:	16.8:1
Displacement: L	5.9
Moment of Inertia:kg.m <sup>2</sup>	0.25
Engine Electrical System:	
- Voltage / Ground	12/Negative
- Battery Charger	63
Weight: kg	
- Dry	411
- Wet	

Cooling System	
Cooling System Capacity: L	9.9
Maximum coolant Friction Head External to Engine: kPa	28
Maximum Static Head of Coolant Above Engine Crank Centerline : m	14
Standard Thermostat (Modulating) Range: °C	82-95
Minimum Pressure Cap: kPa	69
Maximum Top Tank Temperature for Standby / prime Power: °C	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

Performance	
Engine Speed: RPM	1500
Gross Engine Power: kWm	
-Prime	120 (161)
- Standby	130 (174)
BMEP: kPa	
- Prime	
- Standby	

Fuel System				
Injection System Type: PB pump_GAC governor/BYC ASIMCO				
Recommended Fuel Type: Diesel Fuel No.2-D(ASTMD975)				
Fuel Consumption: l/hr				
Prime	110% Load	100% Load	75% Load	50% Load
GMS130C	34	30	23	16
GMS130CS	34	30	23	16

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

Lubrication System	
Oil Pressure @ Idle Speed kPa	207
@ Rated Speed kPa	345
Maximum Oil Temperature: °C	121
Total Oil Capacity: L	16.4
Oil Type:	API CH4 / 15W-40

Exhaust System	
Silencer Type	Industrial
Silencer Quantity:	1
Silencer Noise Reduction Level:	15-20dBA
Maximum Allowable Back Pressure: mmhg	76
Exhaust Gas Flow: l/s	
- Prime	293
- Standby	324
Exhaust Gas Temperature: °C	
- Prime	481
- Standby	495

Air Systems	
Air Filter Type:	Dry type replaceable Element
Intake Air Flow: l/s	
- Prime	135
- Standby	145
Max. Air Intake Restriction: mmH <sub>2</sub> O	
-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: UCI274E

Alternator Physical Data	
Manufactured by:	Stamford
Model:	UCI274E
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:	GMS130C	GMS130CS
<b>Time constants/400V:Ms</b>		
T'd	32	32
T''d	10	10
T'do	850	850
Ta	7	7
<b>Short Circuit Capacity** %</b>	1/Xd	1/Xd
<b>Reactances: Per Unit</b>		
Xd	2.11	2.11
X'd	0.19	0.19
X''d	0.13	0.13

Voltage Technical Data GMS130C				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
380/220	125.0	100.0	145.0	116.0
400/230	125.0	100.0	145.0	116.0
415/240	125.0	100.0	145.0	116.0
440/254	N/A	N/A	N/A	N/A

Voltage Technical Data GMS130CS				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
380/220	125.0	100.0	145.0	116.0
400/230	125.0	100.0	145.0	116.0
415/240	125.0	100.0	145.0	116.0
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			
	MODEL	PLC-7420	PLC-920
General Accessory	AIR	●	●
	Electronic Governing	×	×
	Slow plug control	●	●
	Cycle Cranking	●	●
	( MODBUS ) Networking	●	×
Operate Interface	Fault History	●	●
	Manual start/stop	●	●
	Auto/remote start	●	●
	Regular Test	●	●
	Auto operation LED	●	●
	Manual operation LED	●	●
	Common Shutdown LED	●	●
	Common warning LED	●	●
	Fall to start LED	●	●
	Emergency stop/local	●	●
Measurement and Instrumentation	Alphanumeric screen	●	●
	Remote start input active LED	●	×
	Alarm reset	●	●
	Oil pressure	●	●
	Water Temperature	●	●
	Engine Speed	●	●
	Hours Run	●	●
	Number of Starts	●	●
	Battery Voltage	●	●
	Coolant Temperature	●	●
Shutdown Protection and Indication	3Phase-L Voltage&Frequency	●	●
	3phase Current	●	●
	Frequency	●	●
	kWh	●	●
	Apparent Power	●	●
	Active Power and Reactive Power	●	●
	Power Factor	●	●
	Per PhasekVA, kW	●	●
	Per Phase kVA	●	●
	Phase Voltage	●	●
Threshold Warning/Indication	Output Power	●	×
	Grid Line Voltage	●	×
	Grid Phase Voltage	●	×
	Grid Frequency	●	×
	Mains Expression	●	×
	Low Fuel Level	●	●
	High Fuel Level	○	×
	Low Oil Pressure	●	●
	High Water Temperature	●	●
	Failure to Stop	●	●
Power Transfer Function	Failure to Start	●	●
	Controllable start circles/times	●	×
	Overspeed	●	●
	Under&Over Voltage	●	●
	Under&Over Frequency	●	●
	Overcurrent	●	●
	Earth Leakage	○	○
	Reverse Power	×	×
	Reverse kWh	×	×
	Monitoring Function	Low Oil Pressure	●
Low Water Temperature		○	○
High Water Temperature		●	●
Low Water Level		●	●
Low/High Battery Voltage		●	●
Failure to Charge		●	●
Overcurrent		●	●
Overload		●	●
Genset Under/Over Voltage		●	●
Genset Under/Over Frequency		●	●
Paralleling Capability	under/over Speed	●	●
	High Engine Temperature	●	●
	Earth Leakage	○	○
	Synchronscope(Independent Bus)	×	×
	Active and Reactive Power Control	×	×
	Synchronscope(Shared Bus)	×	×
	Synchronization Detector	×	×
	Peak Logging	×	×
	Automatic Transfer	●	○
	Hard Closed Transition	●	○
Environment	Soft Closed Transition	×	×
	Gen/Mains Breaker	●	×
	Gen/Mains Breaker Status Protection	●	×
	Speed/Voltage Control	×	×
	Power Indication	●	×
	Fuel&Solenoid Valve Control	●	●
	Stator Control	●	●
	Preheating	○	○
	Mains Transfer Switch (Standard)	●	×
	Mains Transfer Switch (Emergency)	●	×
General Accessory	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	●	●
Monitoring Function	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	●	×
Monitoring Function	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.

6B Series 1000 Hour Maintaining List				
No.	Part Name	Part No.	Qty	Remark
1	CARTRIDGE,LUB	1012N-010(3937743)	5	
2	FILTER,FUEL	C3931063	5	
3	WATER FUEL SEPERATOR	C3930942	5	
4	CLEANER,AIR	6BT-6BTA(KW1833)	3	
5	CLEANER,AIR	6BTAA(KW2140)	3	
6	BELT,V RIBBED	3288790	2	
7	FRON OIL SEAL	C4991305	1	
8	REAR OIL SEAL	C4982415	1	
9	BEARING,CRANKSHAFT THRUS	A3906230	1	
10	BEARING,MAIN, UPPER	C3929016	6	
11	BEARING,MAIN, BOTTOM	C3929021	7	
12	BEARING,CONNECTING ROD	A3901170	12	
13	AIR RING, PISTON	C3918315	6	
14	MID RING, PISTON	C3904531	6	
15	OIL RING, PISTON	C3932520	6	
16	GASKET,VALVE COVER	A3902666	12	
17	SOLENOID, FUEL PUMP	C4942879	1	
18	NOZZLE TIP	P277	6	

# GMS130C/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

[www.multiphase-power.com](http://www.multiphase-power.com)

Local Distributor
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