

GMS175C/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
GMS175C	175kVA/140kW	187kVA/149.6kW
GMS175CS	175kVA/140kW	187kVA/149.6kW

Ratings at 0.8 power factor

Dimensions and Weights

Model	Length (L) mm	Width (W) mm	Height (H) mm	Dry Weight kg
GMS175C	2353	921	1675	1709
GMS175CS	3450	1150	1750	2733

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;

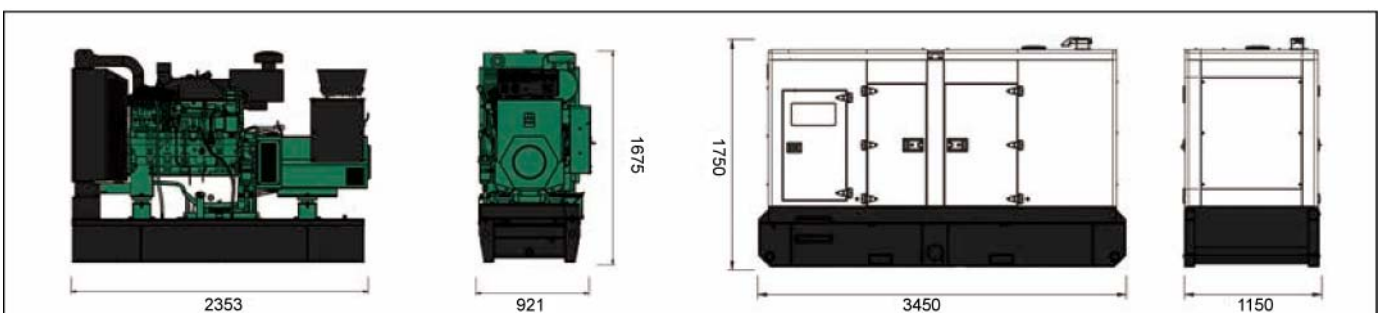
Standard Reference Conditions

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

Engine Make & Model:	Cummins 6CTA8.3-G2
Alternator Brand:	Stamford
Alternator Model:	UCI274G
Control System:	Auto Gen / AMF
Circuit Breaker Type:	3 Pole MCCB
Frequency & Phase:	50Hz & 3PH
Engine Speed: RPM	1500
Fuel Tank Capacity: L	
GMS175C	290
GMS175CS	300
Fuel Consumption: l/hr (100% Load)	
- Prime Power	40
- Standby Power	45



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Engine model:6CTA8.3-G2

Engine Technical Data	
No. of Cylinders / Alignment:	6 / In Line
Cycle:	4 Stroke
Bore / Stroke: mm	114(4.49)/135 (5.32)
Induction:	Turbocharged
Cooling Method:	Water
Governing Type:	Mechanical
Governing Class:	ISO 8528 G2
Compression Ratio:	16.5:1
Displacement: L	8.3 (201.4)
Moment of Inertia:kg.m ²	0.25
Engine Electrical System:	
- Voltage / Ground	12/Negative
- Battery Charger	24
Weight: kg	
- Dry	629
- Wet	

Cooling System	
Cooling System Capacity: L	26
Maximum coolant Friction Head External to Engine: kPa	28
Maximum Static Head of Coolant Above Engine Crank Centerline : m	14.0
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 PowerLink Dealer for power ratings at specific site conditions

Performance	
Engine Speed: RPM	1500
Gross Engine Power: kWm	
- Prime	163 (219)
- Standby	180 (241)
BMEP: kPa	
- Prime	
- Standby	

Fuel System					
Injection System Type: PB pump_GAC governor/BYC ASIMCO					
Recommended Fuel Type: Diesel Fuel No.2-D(ASTM D975)					
Fuel Consumption: l/hr					
Prime	110% Load	100% Load	75% Load	50% Load	
GMS175C	45	40	30	20	
GMS175CS	45	40	30	20	

(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	55
Total Oil Capacity: L	24
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	7.0 (247)
- Standby	7.7 (272)
Exhaust Gas Temperature: °C	
- Prime	492 (918)
- Standby	537 (999)

Air Systems	
Air Filter Type:	Dry type replaceable Element
Intake Air Flow: l/s	
- Prime	3.7
- Standby	
Max. Air Intake Restriction: mmH ₂ 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.

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Alternator model: UCI274G

Alternator Physical Data	
Manufactured by:	Stamford
Model:	UCI274G
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 ³ /s	0.514
Altitude: m	≤1000

Alternator Performance Data:	GMS175C	GMS175CS
Time constants/400V:Ms		
T'd	38	38
T''d	12	12
T'do	1000	1000
Ta	10	10
Short Circuit Capacity** %	1/Xd	1/Xd
Reactances: Per Unit		
Xd	1.94	1.94
X'd	0.17	0.17
X''d	0.12	0.12

Voltage Technical Data GMS175C				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
380/220	164.6	131.7	187.0	149.6
400/230	164.6	131.7	187.0	149.6
415/240	164.6	131.7	187.0	149.6
440/254	N/A	N/A	N/A	N/A

Voltage Technical Data GMS175CS				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
380/220	164.6	131.7	187.0	149.6
400/230	164.6	131.7	187.0	149.6
415/240	164.6	131.7	187.0	149.6
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	MODEL	●	●
	AVR	●	●
	Electronic Governing	×	×
	Glow plug control	●	●
	Cycle Cranking	●	●
	(MODBUS) Networking	●	×
	Fault History	●	●
	Manual start/stop	●	●
	Auto/remote start	●	●
	Regular Test	●	●
Operator Interface	Auto operation LED	●	●
	Manual operation LED	●	●
	Common Shutdown LED	●	●
	Common warning LED	●	●
	Fail to start LED	●	●
	Emergency stop(lock)	●	●
	Alphanumeric screen	●	●
	Remote start input active LED	●	×
	Alarm reset	●	●
	Alarm reset	●	●
Measurement and Instrumentation	Engine		
	Oil pressure	●	●
	Water Temperature	●	●
	Engine Speed	●	●
	Hours Run	●	●
	Number of Starts	●	●
	Battery Voltage	●	●
	Coolant Temperature	●	●
	3Phase-L Voltage&Frequency	●	●
	3phase Current	●	●
	Frequency	●	●
	kWh	●	●
	Alternator		
	Apparent Power	●	●
	Active Power and Reactive Power	●	●
	Power Factor	●	●
	Per PhasekW, kVAr	●	●
	Per Phase kVA	●	●
	Phase Voltage	●	●
	Output Power	●	×
Grid Line Voltage	●	×	
Grid Phase Voltage	●	×	
Grid Frequency	●	×	
Shutdown Protection and Indication	Engine		
	Low Fuel Level	●	●
	High Fuel Level	○	×
	Low Oil Pressure	●	●
	High Water Temperature	●	●
	Failure to Stop	●	●
	Failure to Start	●	●
	Controllable start circles/times	●	×
	Overspeed	●	●
	Under/Over Voltage	●	●
Under/Over Frequency	●	●	
Alternator			
Overcurrent	●	●	
Earth Leakage	○	○	
Reverse Power	×	×	
Reverse kWh	×	×	
Threshold Warning&Indication	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	●	●
under/over Speed	●	●	
High Engine Temperature	●	●	
Earth Leakage	●	○	
Paralleling Capability	Synchrscope(Independent Bus)	×	×
	Active and Reactive Power Control	×	×
	Synchrscope(Shared Bus)	×	×
	Synchronization Detector	×	×
	Peak Lapping	×	×
Power Transfer Function	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)	●	×	
Environment	Operating Temperature (-40℃-70℃)	●	●
	Ambient Temperature (-25℃-45℃)	●	●
	Humidity<=80%	●	●
Monitoring Function	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	●	●	

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Optional

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

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

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,CORROSION	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	



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Multiphase Power reserves the right to make changes in model, technical specification, color, configuration and accessories without prior notice. Please contact the salesman before ordering.