

GMS1500C/S

EC Series



Features:

- Rotate speed governor: Electrical governor FP801
- Excitation system: PMG
- A.V.R model: MX341
- 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
- PMG



Output Ratings

Generating Set Model	Prime Power	Standby Power
GMS1500C	1500kVA/1200kW	1615kVA/1292kW
GMS1500CS	1500kVA/1200kW	1615kVA/1292kW

Ratings at 0.8 power factor

Dimensions and Weights

Model	Length (L) mm	Width (W) mm	Height (H) mm	Dry Weight kg
GMS1500C	4500	1750	2700	7079
GMS1500CS	6058	2438	2730	12100

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;

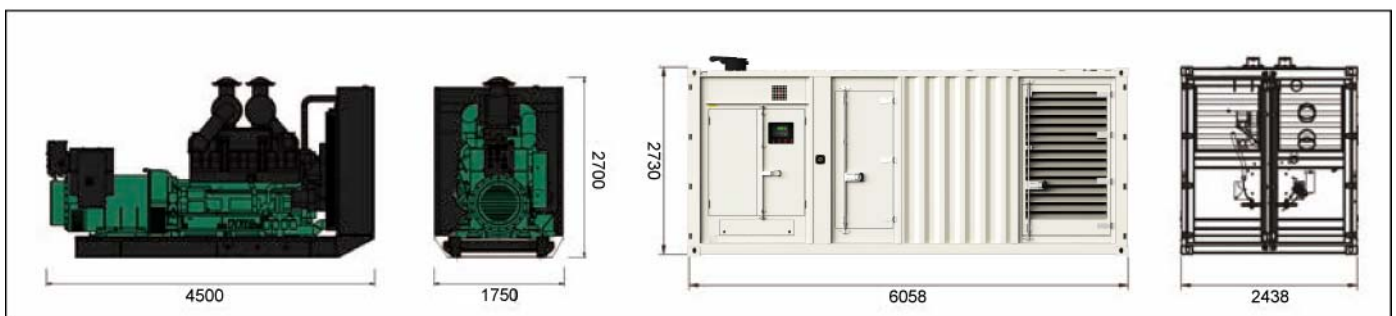
Standard Reference Conditions

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 KTA50-GS8
Alternator Brand:	Stamford
Alternator Model:	PI734C
Control System:	Auto Gen / AMF
Circuit Breaker Type:	3 Pole MCCB
Frequency & Phase:	50Hz & 3PH
Engine Speed: RPM	1500
Fuel Tank Capacity: L GMS1500C GMS1500CS	1300 2000
Fuel Consumption: L (100% Load) - Prime Power - Standby Power	81.6 91.2



Engine model: KTA50-GS8

Engine Technical Data	
No. of Cylinders / Alignment:	16 / In Line
Cycle:	4 Stroke
Bore / Stroke: mm	159(6.25)/159 (6.25)
Induction:	Turbocharged
Cooling Method:	Water
Governing Type:	Electrical
Governing Class:	ISO 8528 G2
Compression Ratio:	14.91
Displacement: L	50.3 (3067)
Moment of Inertia:kg.m ²	11.4 (271)
Engine Electrical System:	
- Voltage / Ground	24Negative
- Battery Charger	35
Weight: kg	
- Dry	5360 (11820)
- Wet	5662 (12485)

Cooling System	
Cooling System Capacity: L	165 (43.5)
Maximum coolant Friction Head External to Engine: kPa	35
Maximum Static Head of Coolant Above Engine Crank Centerline : m	18.3
Standard Thermostat (Modulating) Range: °C	82-93
Minimum Pressure Cap: kPa	96
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	1287 (1725)
- Standby	1429 (1915)
BMEP: kPa	
- Prime	2275(330)
- Standby	2062 (299)

Fuel System				
Injection System Type: Direct Injection Cummins PT				
Recommended Fuel Type: Diesel Fuel No.2-D(ASTM D975)				
Fuel Consumption: l/hr				
Prime	110% Load	100% Load	75% Load	50% Load
GMS1500C	91.2	81.6	62.8	44.1
GMS1500CS	91.2	81.6	62.8	44.1

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

Lubrication System	
Oil Pressure @ Idle Speed kPa	138
@ Rated Speed kPa	345-483
Maximum Oil Temperature: °C	121
Total Oil Capacity: L	204 (54)
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	51
Exhaust Gas Flow: l/s	
- Prime	4350 (9210)
- Standby	4038(8555)
Exhaust Gas Temperature: °C	
- Prime	510 (950)
- Standby	499 (930)

Air Systems	
Air Filter Type:	Dry type replaceable Element
Intake Air Flow: l/s	
- Prime	1581
- Standby	1655
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.

Alternator model: PI734C

Alternator Physical Data	
Manufactured by:	Stamford
Model:	PI734C
No. of Bearings:	Single
Insulation Class:	H
Winding Pitch Code:	2/3
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	PMG
AVR Model:	MX341

Alternator Operating Data	
Over speed: rpm	2250rpm
Voltage Regulation: (Steady state)	±1.0%
Wave Form NEMA = TIF:	< 50
Wave Form IEC = THF:	< 2%
Air Flow: m ³ /s	2.69
Altitude: m	≤1000

Alternator Performance Data:	GMS1500C	GMS1500CS
Time constants/400V:Ms		
T'd	135	135
T''d	10	10
T'do	2230	2230
Ta	20	20
Short Circuit Capacity** %	1/Xd	1/Xd
Reactances: Per Unit	2.96	2.96
Xd		
X'd	0.18	0.18
X''d	0.13	0.13

Voltage Technical Data GMS1500C				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
380/220	1400	1120	1570	1256
400/230	1445	1156	1615	1292
415/240	1445	1156	1615	1292
440/254	1415	1132	1590	1272

Voltage Technical Data GMS1500CS				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
380/220	1400	1120	1570	1256
400/230	1445	1156	1615	1292
415/240	1445	1156	1615	1292
440/254	1415	1132	1590	1272

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-8610 (Optional)

FEATURES

- By using inbuilt device with synchronization, power matching and paralleling functions, the controller can be synchronized with the mains, uninterruptedly returning when reaching the peak;
- Can parallel up to 16 generator sets;
- Multiple languages display;
- Root mean square value voltage measurement;
- Optional power measurement device;
- Optional communication ability function, automatic synchronization indication function;
- Inbuilt or expansion relay outputs.



Diesel Generator Sets 6-2250 kVA		PLC-7420	PLC-8610
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	●	●
	3Phase-L Voltage&Frequency	●	●
	3phase Current	●	●
	Frequency	●	●
	kWh	●	●
Altimeter			
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	●	●	
Mains Expression			
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	●	●	
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	●	●	
Overcurrent	●	●	
Overload	●	●	
Genset Under/Over Voltage	●	●	
Genset Under/Over Frequency	●	●	
under/over Speed	●	●	
High Engine temperature	●	●	
Earth Leakage	●	●	
Paralleling Capability	Synchroscope(Independent Bus)	×	●
	Active and Reactive Power Control	×	●
	Synchroscope(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	●	●
Stator Control	●	●	
Environment	Preheating	○	○
	Mains Transfer Switch (Standard)	●	●
	Mains Transfer Switch (Emergency)	●	●
	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	●	●	

● Standard ○ Optional × Impossible

GMS1500C/S

EC Series



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"> ● Weatherproof Canopy
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-8610 ● ATS 	<ul style="list-style-type: none"> ● 415/240V ● 400/230V ● 380/220 ● 220/127V ● 200-115V



If you have any question or inquiry, please contact Multiphase Power sales organization.

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

EC Series / 2017 1st Edition

