

GMS1250C/S

EC Series



Features:

- Rotate speed governor: Mechanical governor
- Excitation system: Self excited, SHUNT
- A.V.R model: R250
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 4x12V 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
GMS1250C	N/A	1250kVA/1000kW
GMS1250CS	N/A	1250kVA/1000kW

Ratings at 0.8 power factor

Dimensions and Weights

Model	Length (L) mm	Width (W) mm	Height (H) mm	Dry Weight kg
GMS1250C	4500	1750	2700	7079
GMS1250CS	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;

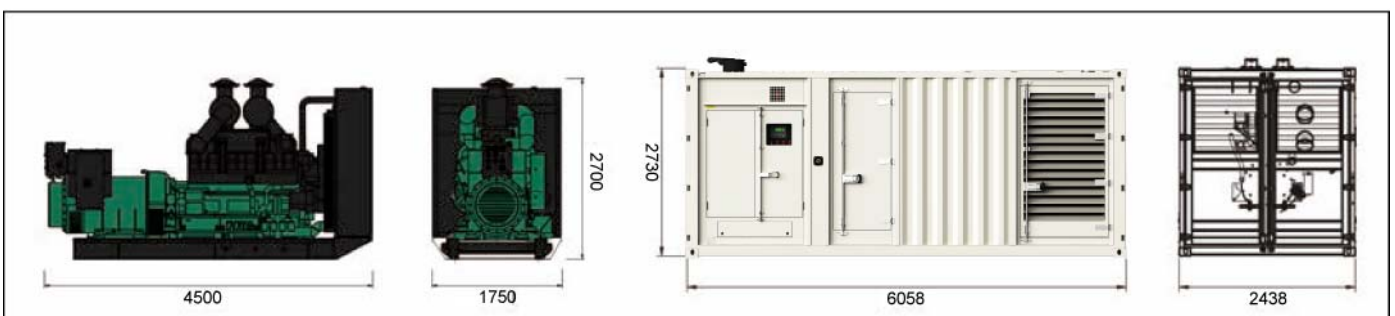
Standard Reference Conditions

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 KTA38-G9
Alternator Brand:	Stamford
Alternator Model:	LVI634G
Control System:	Auto Gen / AMF
Circuit Breaker Type:	3 Pole MCCB
Frequency & Phase:	50Hz & 3PH
Engine Speed: RPM	1500
Fuel Tank Capacity: L GMS1250C GMS1250CS	1300 2000
Fuel Consumption: L (100% Load) - Prime Power - Standby Power	67.4



Engine model: KTA38-G9

Engine Technical Data	
No. of Cylinders / Alignment:	12 / In Line
Cycle:	4 Stroke
Bore / Stroke: mm	159 (6.25)/159(6.25)
Induction:	Turbocharged
Cooling Method:	Water
Governing Type:	Mechanical
Governing Class:	ISO 8528 G2
Compression Ratio:	13.9:1
Displacement: L	38 (2300)
Moment of Inertia:kg.m ²	10.4(248)
Engine Electrical System:	
- Voltage / Ground	24/Negative
- Battery Charger	35
Weight: kg	
- Dry	3719 (8200)
- Wet	3946(8700)

Cooling System	
Cooling System Capacity: L	124 (32.7)
Maximum coolant Friction Head External to Engine: kPa	48
Maximum Static Head of Coolant Above Engine Crank Centerline : m	18.3
Standard Thermostat (Modulating) Range: °C	82-93
Minimum Pressure Cap: kPa	69
Maximum Top Tank Temperature for Standby / prime Power: °C	104

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	
- Standby	1089 (1460)
BMEP: kPa	
- Prime	
- Standby	2296 (333)

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
GMS1250C		67.4	51.7	36.0
GMS1250CS		67.4	51.7	36.0

(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	310-448
Maximum Oil Temperature: °C	121
Total Oil Capacity: L	135(35.7)
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	
- Standby	7500(3540)
Exhaust Gas Temperature: °C	
- Prime	
- Standby	529 (985)

Air Systems	
Air Filter Type:	Dry type replaceable Element
Intake Air Flow: l/s	
- Prime	
- Standby	1309
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: LVI634G

Alternator Physical Data	
Manufactured by:	Stamford
Model:	LVI634G
No. of Bearings:	Single
Insulation Class:	H
Winding Pitch Code:	2/3
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	SHUNT
AVR Model:	MX321

Alternator Operating Data	
Overspeed: rpm	2250rpm
Voltage Regulation: (Steady state)	±0.5%
Wave Form NEMA = TIF:	< 50
Wave Form IEC = THF:	< 2%
Air Flow: m ³ /s	2.18
Altitude: m	≤1000

Alternator Performance Data:	GMS1250C	GMS1250CS
Time constants/400V:Ms		
T'd	115	115
T''d	15	15
T'do	3600	3600
Ta	38	38
Short Circuit Capacity** %	1X/d	1X/d
Reactances: Per Unit		
Xd	2.05	2.05
X'd	0.11	0.11
X''d	0.08	0.08

Voltage Technical Data GMS1250C				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
380/220	1190	952	1225	980
400/230	1250	1000	1288	1030
415/240	1250	1000	1288	1030

Voltage Technical Data GMS1250CS				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
380/220	1190	952	1225	980
400/230	1250	1000	1288	1030
415/240	1250	1000	1288	1030

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	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	●	●
	Oil pressure	●	●
Measurement and Instrumentation	Water Temperature	●	●
	Engine Speed	●	●
	Hours Run	●	●
	Number of Starts	●	●
	Battery Voltage	●	●
	Coolant Temperature	●	●
	3Phase-L Voltage&Frequency	●	●
	3phase Current	●	●
	Frequency	●	●
	kWh	●	●
Mains Expression	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	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	●	●
Threshold Warning&Indication	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	●	●
Paralleling Capability	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)	×	●
Power Transfer Function	Synchronization Detector	×	●
	Peak Lapping	×	○
	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	●	●
Environment	Starter Control	●	●
	Preheating	○	○
	Mains Transfer Switch (Standard)	●	●
	Mains Transfer Switch (Emergency)	●	●
	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)	●	●
Monitoring Function	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

GMS1250C/S

EC Series

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"> 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



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

EC Series / 2017 1st Edition



GMS1250C/S

EC Series

Features:

- Rotate speed governor: Electrical governor
- Excitation system: SHUNT
- A.V.R model: MX321
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 4x12V 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
GMS1250C	1250kVA/1000kW	1288kVA/1030kW
GMS1250CS	1250kVA/1000kW	1288kVA/1030kW

Ratings at 0.8 power factor

Dimensions and Weights

Model	Length (L) mm	Width (W) mm	Height (H) mm	Dry Weight kg
GMS1250C	4500	1750	2700	7079
GMS1250CS	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-G3
Alternator Brand:	Stamford
Alternator Model:	LV1634G
Control System:	Auto Gen / AMF
Circuit Breaker Type:	3 Pole MCCB
Frequency & Phase:	50Hz & 3PH
Engine Speed: RPM	1500
Fuel Tank Capacity: L GMS1250C GMS1250CS	1300 2000
Fuel Consumption: L (100% Load) - Prime Power - Standby Power	69.0 77.4



Engine model: KTA50-G3

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:	13.9:1
Displacement: L	50.3 (3067)
Moment of Inertia:kg.m ²	12.7 (301)
Engine Electrical System:	
- Voltage / Ground	24/Negative
- Battery Charger	35
Weight: kg	
- Dry	5360 (11820)
- Wet	5662 (12485)

Cooling System	
Cooling System Capacity: L	161 (42.5)
Maximum coolant Friction Head External to Engine: kPa	69
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	1097 (1470)
- Standby	1227 (1645)
BMEP: kPa	
- Prime	1951 (283)
- Standby	1744(253)

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
GMS1250C	77.4	69.0	52.5	36.6
GMS1250CS	77.4	69.0	52.5	36.6

(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	177
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	3728 (7900)
- Standby	4011 (8500)
Exhaust Gas Temperature: °C	
- Prime	520 (968)
- Standby	525 (977)

Air Systems	
Air Filter Type:	Dry type replaceable Element
Intake Air Flow: l/s	
- Prime	1605
- Standby	1746
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: LVI634G

Alternator Physical Data	
Manufactured by:	Stamford
Model:	LVI634G
No. of Bearings:	Single
Insulation Class:	H
Winding Pitch Code:	2/3
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	SHUNT
AVR Model:	MX321

Alternator Operating Data	
Overspeed: rpm	2250rpm
Voltage Regulation: (Steady state)	±0.5%
Wave Form NEMA = TIF:	< 50
Wave Form IEC = THF:	< 2%
Air Flow: m ³ /s	2.18
Altitude: m	≤1000

Alternator Performance Data:	GMS1250C	GMS1250CS
Time constants/400V:Ms		
T'd	115	115
T''d	15	15
T'do	3600	3600
Ta	38	38
Short Circuit Capacity** %	1X/d	1X/d
Reactances: Per Unit		
Xd	2.05	2.05
X'd	0.11	0.11
X''d	0.08	0.08

Voltage Technical Data GMS1250C				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
380/220	1190	952	1225	980
400/230	1250	1000	1288	1030
415/240	1250	1000	1288	1030

Voltage Technical Data GMS1250CS				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
380/220	1190	952	1225	980
400/230	1250	1000	1288	1030
415/240	1250	1000	1288	1030

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	●	●	
Mains Expression			
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	●	●
	Controlable start circles/times	●	●
	Overspeed	●	●
	Under&Over Voltage	●	●
Under&Over Frequency	●	●	
Altitude			
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	Synchronizer(Independent Bus)	×	●
	Active and Reactive Power Control	×	●
	Synchronizer(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	●	●	
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	●	●	

● Standard ○ Optional × Impossible

GMS1250C/S

EC Series

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"> 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



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EC Series / 2013 1st Edition

