# GMS375C/S

## EC Series

## Features:

- Rotate speed governor: Electrical governor FP801
- Excitation system: SHUNT
- 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℃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 |
|---|---|---|
| GMS375C | 375kVA/300kW | 390kVA/312kW |
| GMS375CS | 375kVA/300kW | 390kVA/312kW |

Ratings at 0.8 power factor

### Dimensions and Weights

| Model | Length (L) mm | Width (W) mm | Height (H) mm | Dry Weight kg |
|---|---|---|---|---|
| GMS375C | 3233 | 1278 | 1840 | 3121 |
| GMS375CS | 4450 | 1500 | 2200 | 4749 |

**Notes:**

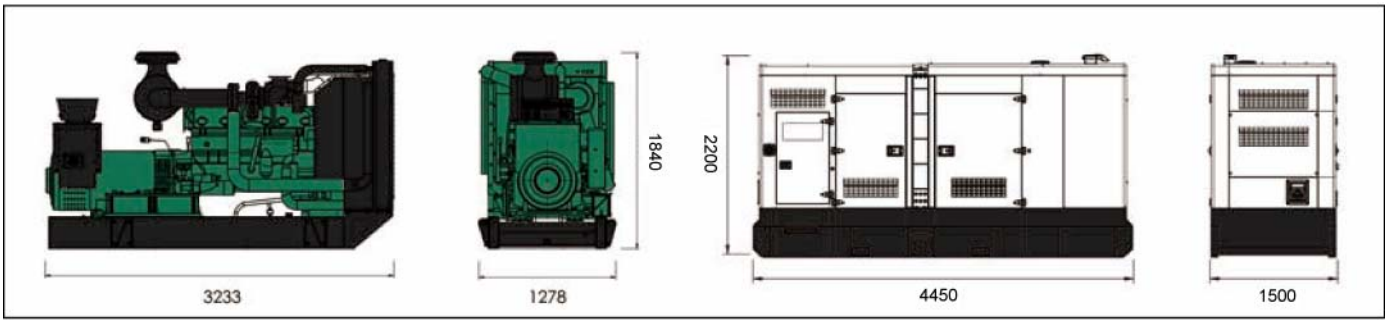
***Prime Power**
Continuous duty operation, under variable load 24/24h-10% over load permissible 1 hour/12 hours;

****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 NTAA855-G7 |
| **Alternator Brand:** | Stamford |
| **Alternator Model:** | HCI444FS |
| **Control System:** | Auto Gen / AMF |
| **Circuit Breaker Type:** | 3 Pole MCCB |
| **Frequency & Phase:** | 50Hz & 3PH |
| **Engine Speed: RPM** | 1500 |
| **Fuel Tank Capacity: L**<br>**GMS375C**<br>**GMS375CS** | <br>390<br>800 |
| **Fuel Consumption: L (100% Load)**<br>**- Prime Power**<br>**-Standby Power** | <br>85.4<br>94.0 |



# GMS375C/S

## EC Series

## Engine model:NTAA855-G7

### Engine Technical Data

| | |
|---|---|
| **No. of Cylinders / Alignment:** | 6/ In Line |
| **Cycle:** | 4 Stroke |
| **Bore / Stroke:** mm | 140 (5.5)/152 (6.0) |
| **Induction:** | Turbocharged |
| **Cooling Method:** | Water |
| **Governing Type:** | Electrical |
| **Governing Class:** | ISO 8528 G2 |
| **Compression Ratio:** | 14.0:1 |
| **Displacement:** L | 14 (855) |
| **Moment of Inertia:**kg.m² | 4.99 (188.5) |
| **Engine Electrical System:**<br>**- Voltage / Ground**<br>**- Battery Charger** | <br>24/Negative<br>35 |
| **Weight:** kg **- Dry**<br>**- Wet** | 1270 (2800)<br>1320 (2910) |

### Performance

| | |
|---|---|
| **Engine Speed:** RPM | 1500 |
| **Gross Engine Power:** kWm<br>**-Prime**<br>**- Standby** | <br>343(460)<br>377 (505) |
| **BMEP:** kPa<br>**- Prime**<br>**- Standby** | <br>1960 (284)<br>2154 (312) |

### Lubrication System

| | |
|---|---|
| **Oil Pressure @ Idle Speed** kPa<br>**@ Rated Speed** kPa | 103<br>241-345 |
| **Maximum Oil Temperature:** °C | 121 |
| **Total Oil Capacity:** L | 38.6(10.2) |
| **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 | 3.0(10) |
| **Exhaust Gas Flow:** l/s<br>**- Prime**<br>**- Standby** | <br>1090 (2313)<br>1150 (2432) |
| **Exhaust Gas Temperature:** °C (°F)<br>**- Prime**<br>**- Standby** | <br>451 (845)<br>497 (926) |

### Cooling System

| | |
|---|---|
| **Cooling System Capacity:** L | 20.8 |
| **Maximum coolant Friction Head External to Engine:** kPa | 41 |
| **Maximum Static Head of Coolant Above Engine Crank Centerline :** m | 14.0 |
| **Standard Thermostat (Modulating) Range:** °C | 82-94 |
| **Minimum Pressure Cap:** kPa | 48.2 |
| **Maximum Top Tank Temperature for Standby / prime Power:** °C | 104/110 |

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

### Fuel System

**Injection System Type:** Direct Injection Cummins PT

**Recommended Fuel Type:**
Diesel Fuel No.2-D(ASTMD975)

**Fuel Consumption:** l/hr

| Prime | 110% Load | 100% Load | 75% Load | 50% Load |
|---|---|---|---|---|
| GMS375C | 94.0 | 85.4 | 64.7 | 44.6 |
| GMS375CS | 94.0 | 85.4 | 64.7 | 44.6 |

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

### Air Systems

| | |
|---|---|
| **Air Filter Type:** | Dry type replaceable Element |
| **Intake Air Flow:** l/s<br>**- Prime**<br>**- Standby** | <br>485<br>510 |
| **Max. Air Intake Restriction:**$mmH_2O$<br>**-With Dirty Filter Element**<br>**-With Normal Duty and Clean Filter Element**<br>**-With Heavy Duty and Clean Filter Element** | <br>25<br>15<br>25 |

The weights are approximate and without fuel.

# GMS375C/S

## EC Series

## Alternator model: HCI444FS

| Alternator Physical Data | |
|---|---|
| **Manufactured by:** | Stamford |
| **Model:** | HCI444FS |
| **No. of Bearings:** | Single |
| **Insulation Class:** | H |
| **Winding Pitch Code:** | 2/3 |
| **Wires:** | 12 |
| **Ingress Protection Rating:** | IP23 |
| **Excitation System:** | SHUNT |
| **AVR Model:** | AS440 |

| Alternator Operating Data | |
|---|---|
| **Overspeed:** rpm | 2250rpm |
| **Voltage Reguation:** (Steady state) | ±1.0% |
| **Wave Form NEMA = TIF:** | < 50 |
| **Wave Form IEC = THF:** | < 2% |
| **Air Flow:** $m^3/s$ | 0.8 |
| **Altitude:** m | ≤1000 |

| Alternator Performance Data: | GMS375C | GMS375CS |
|---|---|---|
| **Time constants/400V:Ms** | | |
| **T'd** | 80 | 80 |
| **T''d** | 19 | 19 |
| T'do | 1700 | 1700 |
| Ta | 18 | 18 |
| **Short Circuit Capacity** %** | 1/Xd | 1/Xd |
| **Reactances: Per Unit** | | |
| **Xd** | 2.45 | 2.45 |
| **X'd** | 0.16 | 0.16 |
| **X"d** | 0.12 | 0.12 |

**Voltage Technical Data GMS375C**

| Voltage | Prime: | | Standby: | |
|---|---|---|---|---|
| | kVA | kW | kVA | kW |
| 380/220 | 370 | 296 | 415 | 332 |
| 400/230 | 370 | 296 | 430 | 344 |
| 415/240 | 370 | 296 | 430 | 344 |
| 440/254 | 370 | 296 | 430 | 344 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**Voltage Technical Data GMS375CS**

| Voltage | Prime: | | Standby: | |
|---|---|---|---|---|
| | kVA | kW | kVA | kW |
| 380/220 | 370 | 296 | 415 | 332 |
| 400/230 | 370 | 296 | 430 | 344 |
| 415/240 | 370 | 296 | 430 | 344 |
| 440/254 | 370 | 296 | 430 | 344 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

# GMS375C/S

## EC Series

| Diesel Generator Sets \| 6-2250 kVA | | | |
|---|---|---|---|
| | MODEL | PLC-7420 | PLC-920 |
| General accessory | AVR | ● | ● |
| | Electronic Governing | × | × |
| | Glow plug control | ● | ● |
| | Cycle Cranking | ● | ● |
| | ( MODBUS ) Networking | ● | × |
| | Fault History | ● | ● |
| Operator Interface | 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(local) | ● | ● |
| | Alphanumeric screen | ● | ● |
| | Remote start input active LED | ● | × |
| | Alarm reset | ● | ● |
| Measurement and Instrumentation — Engine | Oil pressure | ● | ● |
| | Water Temperture | ● | ● |
| | Engine Speed | ● | ● |
| | Hours Run | ● | ● |
| | Number of Starts | ● | ● |
| | Battery Voltage | ● | ● |
| | Coolant Temperature | ● | ● |
| Measurement and Instrumentation — Alternator | 3Phase(L-L Voltage&Frequency | ● | ● |
| | 3phase Current | ● | ● |
| | Frequency | ● | ● |
| | kWh | ● | ● |
| | Apparent Power | ● | ● |
| | Active Power and Reactive Power | ● | ● |
| | Power Factor | ● | ● |
| | Per Phase(W, kW) | ● | ● |
| | Per Phase kVA | ● | ● |
| | Phase Voltage | ● | ● |
| | Output Power | ● | × |
| Measurement and Instrumentation — 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 | ● | ● |
| Shutdown Protection and Indication — Alternator | Under&Over Voltage | ● | ● |
| | Under&Over Frequency | ● | ● |
| | Overcurrent | ● | ● |
| | Earth Leakage | ○ | ○ |
| | Reverse Power | × | × |
| | Reverse kW | × | × |
| 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 | Synchroscope(Independent Bus) | × | × |
| | Active and Reactive Power Control | × | × |
| | Synchroscope(Shared Bus) | × | × |
| | Synchronization Dector | × | × |
| | Peak Lopping | × | × |
| Power Transfer Function | Automatic Transfer | ● | ○ |
| | Hard Closed Transition | ● | ● |
| | Soft Closed Transtion | × | × |
| | Gen/Mains Breaker | ● | × |
| | Gen/Mains Breaker Status Protection | ● | × |
| | Speed/Voltage Control | × | × |
| | Power Indication | ● | × |
| | Fuel&solenoid Valve Control | ● | ● |
| | Startor 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<br>Multi-Language Function | ● | ● |
| | | ● | ● |

● Standard ○ Optional × Impossible

# 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.

# GMS375C/S

## EC Series

# Optional

| Engine | Alternator | Generator Set | Fuel System | Canopy |
|---|---|---|---|---|
| ● Water Jacket Preheater<br>● Oil Preheater | ● Winding Temperature<br>● Measuring Instrument<br>● Alternator Preheater<br>● PMG<br>● Anti-damp andanti-corrosion treatment<br>● Anti-condensationheater | ● Tools with the machine | ● Low fuel level alarm<br>● Automatic fuel feedingsystem<br>● Fuel T-valves | ● Trailer |

| LubricatingSystem | Exhaust System | Cooling System | Control System | Voltages |
|---|---|---|---|---|
| ● Oil with the machine | ● Protection board fromhotness | ● Front heat protection<br>● Coolant (-30°C) | ● Remote control panel<br>● PLC-920<br>● ATS | ● 415/240V<br>● 400/230V<br>● 380/220<br>● 220/127V<br>● 200-115V |

**The following lists are optional by the needs of customers.**

| Minor Repair / 1000 hrs optional | | | | |
|---|---|---|---|---|
| No. | Part Name | Part No. | Qty | Remark |
| 1 | CARTRIDGE,LUB | 3401544=LF9009 | 4 | |
| 2 | FILTER,FUEL | 3315843=FS1212 | 8 | |
| 3 | CORROSION RESISTOR | 4058965=WF2076 | 4 | |
| 4 | CLEANER，AIR | 3022209 | 4 | |
| 5 | BELT,V, FAN | 3040386 | 1 | |
| 6 | BELT,V RIBBED | 217638 | 1 | |
| 7 | BELT,V, MULTI-SLOT | 3040303 | 1 | |
| 8 | TURBOCHARGER ,KIT | 3801523 | 1 | IMPORT |
| 9 | SET,MAIN BEARING | 3801260 | 1 | |
| 10 | BEARING,CONNECTING | 214950 | 6 | |
| 11 | NOZZLE,PISTION COOLING | 3013591 | 6 | |
| 12 | THERMOSTAT | 3076489 | 1 | |
| 13 | OIL PRESSURE SENSOR | 3015237 | 1 | |
| 14 | WATER TEMP SENSOR | 3015238 | 1 | IMPORT |
| 15 | SPEED SENSOR | 3034572 | 1 | |
| 16 | SWITCH,MAGNETIC | 3050692 | 1 | |
| 17 | SET,UPPER ENGINE GSK | 4024919 | 1 | IMPORT |
| 18 | SET,LOWER ENGINE GSK | 3801235 | 1 | IMPORT |

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*.

Local Distributor