

## EPA Certified / Stationary Emergency

| OUTPUT POWER OPTIONS |         |            |       |       | Natural Gas<br>125° RISE RATING |      | LP Vapor<br>125° RISE RATING |      | sKVA            |
|----------------------|---------|------------|-------|-------|---------------------------------|------|------------------------------|------|-----------------|
| Make                 | Voltage | Alternator | Phase | Hertz | kW/kVA                          | Amps | kW/kVA                       | Amps | 30% Voltage Dip |
| Marathon             | 600     | 361PSL1632 | 3     | 60    | 40/50                           | 48   | 40/50                        | 48   | 154             |
|                      | 277/480 | 361CSL1600 | 3     | 60    | 40/50                           | 60   | 40/50                        | 60   | 154             |
|                      | 120/208 | 361CSL1600 | 3     | 60    | 40/50                           | 139  | 40/50                        | 139  | 116             |
|                      | 120/240 | 361CSL1600 | 3     | 60    | 40/50                           | 120  | 40/50                        | 120  | 116             |
|                      | 120/240 | 361CSL1600 | 1     | 60    | 39/39                           | 163  | 39/39                        | 163  | 53              |
|                      | 120/240 | 361CSL1611 | 1     | 60    | 40/40                           | 167  | 40/40                        | 167  | 75              |
| Marathon             | 277/480 | 361CSL1601 | 3     | 60    | 40/50                           | 60   | 40/50                        | 60   | 189             |
|                      | 120/208 | 361CSL1601 | 3     | 60    | 40/50                           | 139  | 40/50                        | 139  | 142             |
|                      | 120/240 | 361CSL1601 | 3     | 60    | 40/50                           | 120  | 40/50                        | 120  | 142             |
|                      | 120/240 | 361CSL1601 | 1     | 60    | 40/40                           | 167  | 40/40                        | 167  | 63              |
| Stamford             | 600     | UCI224D17  | 3     | 60    | 40/50                           | 48   | 40/50                        | 48   | 195             |
|                      | 277/480 | UCI224D311 | 3     | 60    | 40/50                           | 60   | 40/50                        | 60   | 182             |
|                      | 120/208 | UCI224D311 | 3     | 60    | 40/50                           | 139  | 40/50                        | 139  | 136             |
|                      | 120/240 | UCI224D311 | 3     | 60    | 40/50                           | 120  | 40/50                        | 120  | 136             |
|                      | 120/240 | UCI224D311 | 1     | 60    | 40/40                           | 167  | 40/40                        | 167  | 96              |
|                      | 120/240 | PI1144J06  | 1     | 60    | 40/40                           | 167  | 40/40                        | 167  | 65              |

**Engine Data**

|                                     |                    |
|-------------------------------------|--------------------|
| Manufacturer                        | GM                 |
| Model                               | 4.3L               |
| Aspiration                          | Natural Aspiration |
| Arrangement                         | V-6, 4-Cycle       |
| Firing Order                        | 1-6-5-4-3-2        |
| Displacement: L (in. <sup>3</sup> ) | 4.3 (262)          |
| Bore: mm (in.)                      | 101.6 (4.00)       |
| Stroke: mm (in.)                    | 88.0 (3.48)        |
| Compression Ratio                   | 9.05:1             |
| Gross Horsepower: Natural Gas       | 66.45              |
| LP Vapor                            | 71.39              |
| Rated RPM                           | 1800               |
| Governor                            | Isochronous        |
| Speed Regulation                    | ±0.5%              |

**Engine Liquid Capacity**

|                                            |            |
|--------------------------------------------|------------|
| Oil system: qt. (L)                        | 4.5 (4.25) |
| Engine Cooling System Capacity:<br>gal (L) | 1.92 (7.3) |

**Engine Electrical**

|                     |     |
|---------------------|-----|
| Electric Volts: DC  | 12  |
| Cold Cracking Amps  | 650 |
| Battery(s) Required | 1   |

**Fuel System**

|                                                     |                                    |
|-----------------------------------------------------|------------------------------------|
| Fuel Type                                           | Natural Gas, LP Vapor or Dual Fuel |
| Fuel Supply Inlet:                                  |                                    |
| Natural Gas                                         | 1.25" NPT                          |
| LP Vapor                                            | 1.25" NPT                          |
| Fuel Supply Pressure:<br>in. H <sub>2</sub> O (kPa) | 7-11 (1.74-2.74)                   |

**Filters and Quantity**

|                        |   |
|------------------------|---|
| Air Cleaner Quantity   | 1 |
| Oil Filter(s) Quantity | 1 |

**Air Requirements**

|                                                        |               |
|--------------------------------------------------------|---------------|
| Air Filter(s) Type                                     | Dry           |
| Air Flow: CFM (m <sup>3</sup> /min)                    | 5,000 (142)   |
| Max Air Intake Restriction: in. H <sub>2</sub> O (kPa) |               |
| Clean                                                  | 3.00 (1.49)   |
| Dirty                                                  | 13.00 (3.24)  |
| Combustion Air: CFM (m <sup>3</sup> /min)              | 112.10 (3.17) |

**Exhaust System**

|                                                       |              |
|-------------------------------------------------------|--------------|
| Gas Temperature: °F (°C)                              | 1200 (649)   |
| Gas Flow: CFM (m <sup>3</sup> /min)                   | 361.9 (10.3) |
| Max Exhaust Back Pressure: in. H <sub>2</sub> O (kPa) | 40.9 (10.2)  |
| Exhaust Outlet Size: in. (mm)                         | 3.0 (76)     |

**Cooling System**

|                                      |             |
|--------------------------------------|-------------|
| Heat Rejection to Ambient: kW (BTUM) | 16.0 (910)  |
| Heat Rejection to Coolant: kW (BTUM) | 39.2 (2230) |
| Coolant Flow: gpm (Lpm)              | 28 (106)    |

**Fuel Consumption Natural Gas - 130°C**

|                                                   |            |
|---------------------------------------------------|------------|
| At 100% of Power Rating: CFH (m <sup>3</sup> /hr) | 584 (16.5) |
| At 75% of Power Rating: CFH (m <sup>3</sup> /hr)  | 486 (13.8) |
| At 50% of Power Rating: CFH (m <sup>3</sup> /hr)  | 360 (10.2) |
| At 25% of Power Rating: CFH (m <sup>3</sup> /hr)  | 272 (7.7)  |

**Fuel Consumption LP Vapor - 130°C**

|                                                   |           |
|---------------------------------------------------|-----------|
| At 100% of Power Rating: CFH (m <sup>3</sup> /hr) | 242 (6.9) |
| At 75% of Power Rating: CFH (m <sup>3</sup> /hr)  | 191 (5.4) |
| At 50% of Power Rating: CFH (m <sup>3</sup> /hr)  | 141 (4.0) |
| At 25% of Power Rating: CFH (m <sup>3</sup> /hr)  | 101 (2.9) |

**GENERAL GUIDELINES FOR DERATION:** Altitude: Derate 0.5% per 100m (328 ft.) Elevation above 1000m (3279 ft.) Temperature: Derate 1.0% per 10°C (18°F) temperature above 25°C (77°F)

**RATINGS:** All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor.

**125° RATINGS:** 125° apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271.

**105° RATINGS:** 105° ratings apply to installations where utility power is unavailable or unreliable. At varying load the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528/1, overload power in accordance with ISO-3046/1, BS5514, AS2789, and DIN 6271. For limited running time and base load ratings consult the factory. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

## Alternator Data

|                           |              |             |
|---------------------------|--------------|-------------|
| Manufacturer              | Marathon     |             |
| Type                      | PMG          |             |
| Insulation NEMA Rise/Temp | NEMA N/125°C |             |
| Hertz                     | 60           |             |
| Phase                     | 3            |             |
| RPM                       | 1800         |             |
| Leads                     | 12           |             |
| Amortisseur Windings      | Full         |             |
| CFM Cooling Required      | 700          |             |
| Voltage Regulator         | DVR2000E+    | PM500       |
| Sensing                   | Three Phase  | Three Phase |
| Voltage Regulation        | 0.25%        | 0.25%       |

## Features

- NEMA MG1-32, BS5000, and IEC 34-1 compliant; CE & CSA Certified and UL Listed
- Self-ventilated and drip proof construction
- Two-thirds pitch stator and skewed rotor
- Wet wound, epoxied field windings
- Designed to withstand overspeeds of up to 125%
- Hybrid analog/digital voltage regulator
- Under frequency protection
- Under frequency indication light
- Less than one cycle response time
- Over excitation protection
- Over excitation indication light
- Easy access front-panel adjustments
- Over voltage protection shutdown
- Analog input for paralleling

## Alternator Data

|                           |              |             |
|---------------------------|--------------|-------------|
| Manufacturer              | Stamford     |             |
| Type                      | PMG          |             |
| Insulation NEMA Rise/Temp | NEMA H/125°C |             |
| Hertz                     | 60           |             |
| Phase                     | 3            |             |
| RPM                       | 1800         |             |
| Leads                     | 12           |             |
| Amortisseur Windings      | Full         |             |
| CFM Cooling Required      | 595          |             |
| Voltage Regulator         | MX341        | MX321       |
| Sensing                   | Single Phase | Three Phase |
| Voltage Regulation        | 1.0%         | 0.50%       |

## Features

- BS EN 60034, BS5000, VDE 0530, NEMA MG1-32, IEC34, CSA C22.2-100, and AS1359 complaint
- IP23 enclosure
- Dynamically balanced to exceed BS6861:Part 1 Grade 2.5 vibration standard
- Quality assurance to BS EN ISO 9001
- Self-ventilated and
- Drip proof construction
- Two-thirds pitch stator and skewed rotor
- Heavy duty bearings
- Fully guarded
- Overexcitation protection
- Under frequency protection
- Analog input
- Overvoltage protection
- Paralleling compatible



## DGC2020 Digital Controller

- Integrated engine-genset control, protection, and metering
- Microprocessor allows for exact measurement, setpoint adjustment, and timing functions
- Front panel 3 position controls and indicators enable quick and simple operation
- Emergency stop push button and an Alarm Horn with silence button
- A wide temperature-range liquid crystal display (LCD) with backlighting
- SAE J1939 Engine ECU communications
- Remote RS-485 communications for Optional RDP-110 Remote Annunciator
- 4 programmable contact inputs and 10 contact outputs (2 ADC rated)
- Modbus Communications with RS-485, Battery Backup for Real Time Clock, UL recognized, CSA certified, CE approved, HALT (Highly Accelerated Life Tests) tested
- IP 54 Front Panel rating with integrated gasket and NFPA 110 Level 1 Compatible.
- Manual Override Keyswitch



## Analog Controller with Emergency Bypass Key Switch

- Automatic CANBUS Engine Control
- Oil Pressure, Water Temperature, Battery Voltage and RPM Gauges
- Automatic Gauge Zeroing on Shutdown
- AC Voltage, Frequency, Percent of Load, and Run-Time Metering
- 3-Position Auto-Off-Manual Control Switch
- LED Status Lights: Low Oil Pressure, High Temperature, Overcrank, Overspeed, & Engine Start



## Standard Features:

### Warranty

2 Year Standard

5 Year Comprehensive

- Heavy Duty Steel Base
- Vibration Isolators
- Oil Drain Valve with Extension
- Battery Rack & Cables
- High Ambient Unit Mounted Radiator
- Battery Charging Alternator
- Factory Powder Coating
- Factory Test
- Owner's Manual

### Controller Options

DGC-2020HD Controller

Fiber Optic Ethernet (DGC-2020HD)

RS-232 Port & Generator Protection (DGC-2020)

Flush or Surface Mount Remote Annunciator

Remote Mount Break Glass E-Stop Switch

### Miscellaneous Options:

- Battery Charger
- Coolant Drain Kit
- Block Heater
- Line Circuit Breaker
- Pad Type Battery Heater
- Battery Heater Blanket w/Thermostat
- Oil Pan Heater
- Generator Strip Heater

## Open Unit

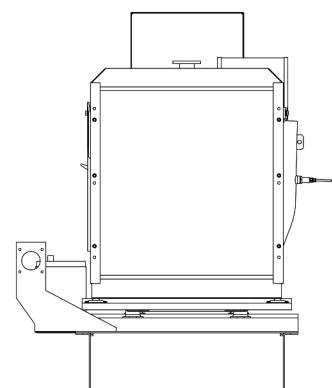
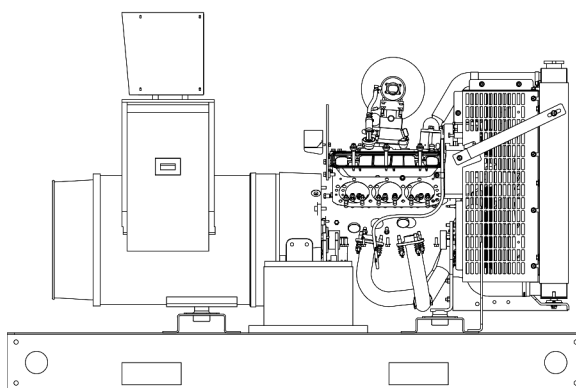
### Options:

- Radiator Duct Flange
- Flex Exhaust
- Critical Silencer

OVERALL SIZE: 78"L x 38"W x 44"H

Approximate Weight: 1,400 lbs.

*Note: Dimensions and weights reflect standard open unit with no options and are subject to change.*



## Standard Enclosed Unit

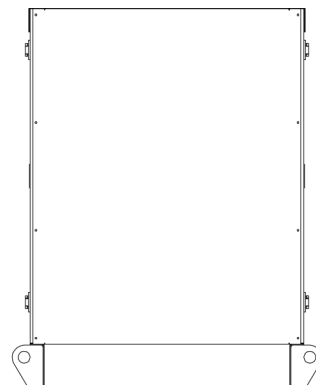
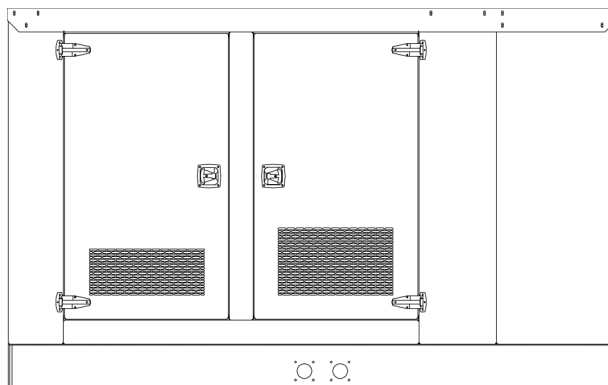
### Options:

- Sound Attenuated Enclosure
- Load Center, Lights & GFI Receptacle

OVERALL SIZE: 102"L x 52"W x 64"H

Approximate Weight: 2,200 lbs.

*Note: Dimensions and weights reflect standard enclosed unit with no options and are subject to change.*



**Note: The above drawings are provided for reference only and should not be used for planning installation.**

**Contact your local distributor for more information.**