

BLUE STAR

Power Systems Inc.

Gaseous Product Line

208-600 Volt

GM50-02

60 Hz / 1800 RPM

50 kWe

Standby

Ratings

	240V	208V	240V	480V	600V
Phase	1	3	3	3	3
PF	1	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60
Generator Model	361CSL1602	361CSL1601	361CSL1601	361CSL1601	361PSL1633
Connection	12 LEAD ZIG-ZAG	12 LEAD WYE	12 LEAD DELTA	12 LEAD WYE	4 LEAD WYE
kWe Nat (LP)	50 (50)	50 (50)	50 (50)	50 (50)	50 (50)
AMPS Nat (LP)	208 (208)	174 (174)	150 (150)	75 (75)	60 (60)
Temp Rise	130°C / 27°C	130°C / 27°C	130°C / 27°C	130°C / 27°C	130°C / 27°C

Standard Equipment

Engine

- ▶ Radiator Cooled Unit Mounted (50°C)
- ▶ Blower Fan & Fan Drive
- ▶ Starter & Alternator
- ▶ Oil Pump & Filter
- ▶ Oil Drain Extension w/Valve
- ▶ Governor - Electronic Isochronous
- ▶ 12V Battery System & Cables
- ▶ SAE Flywheel & Housing
- ▶ Air Cleaner (Dry Single Stage)
- ▶ Flexible Fuel Connector
- ▶ EPA Certified

Generator

- ▶ Brushless Single Bearing
- ▶ Automatic Voltage Regulator
- ▶ ± 1% Voltage Regulation
- ▶ 4 Pole, Rotating Field
- ▶ 130°C Standby Temperature Rise
- ▶ 100% of Rated Load - One Step
- ▶ 5% Maximum Harmonic Content
- ▶ NEMA MG 1, IEEE and ANSI standards compliance for temperature rise

Additional

- ▶ UL 2200 Certified
- ▶ cUL Certified
- ▶ Microprocessor Based Digital Control
- ▶ Base - Formed Steel
- ▶ Main Line Circuit Breaker Mounted & Wired
- ▶ Critical Grade Silencer Mounted
- ▶ Battery Charger 12V 6 Amp
- ▶ Jacket Water Heater -20°F 1000W 120V w/Isolation Valves
- ▶ Vibration Isolation Mounts
- ▶ Radiator Duct Flange (OPU Only)
- ▶ Single Source Supplier
- ▶ 2YR / 2000HR Standby Warranty
- ▶ Standard Colors - White / Tan / Gray



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50 kW_e



Application Data

Engine

Manufacturer:	General Motors	Displacement - Cu. In. (lit):	305 (5.0)
Model:	GM 5.0L EPA	Bore - in. (cm) x Stroke - in. (cm):	3.75 (9.5) x 3.48 (8.8)
Type:	4-Cycle	Compression Ratio:	9.4 : 1
Aspiration:	Natural	Rated RPM:	1800
Cylinder Arrangement:	8 Cylinder Vee	Max HP Stby (kW _m):	83.4 (62.2)

Exhaust System

Gas Temp. (Stack): °F (°C)	1,350 (732)
Gas Volume at Stack Temp: CFM (m ³ /min)	380 (10.8)
Maximum Allowable Exhaust Restriction: in. H ₂ O (kPa)	40.8 (10.2)

Cooling System

Ambient Capacity of Radiator: °F (°C)	122 (50)
Maximum Allowable Static Pressure on Rad. Exhaust: in. H ₂ O (kPa)	0.5 (0.12)
Water Pump Flow Rate: Gpm (lit/min)	36.6 (138.5)
Heat Rejection to Coolant: BTUM (kW)	3,400 (59.5)
Heat Rejection to CAC: BTUM (kW)	N/A
Heat Radiated to Ambient: BTUM (kW)	605 (10.6)

Air Requirements

Aspirating: CFM (m ³ /min)	159 (4.5)
Air Flow Required for Rad. Cooled Unit: CFM (m ³ /min)	7,115 (201)
Air Flow Required for Heat Exchanger/Rem. Rad. CFM (m ³ /min)	Consult Factory For Remote Cooled Applications

Fuel Consumption

	Natural Gas	LP
At 100% of Power Rating: ft ³ /hr (m ³ /hr)	734 (20.8)	308 (8.72)
At 75% of Power Rating: ft ³ /hr (m ³ /hr)	614 (17.4)	250 (7.08)
At 50% of Power Rating: ft ³ /hr (m ³ /hr)	482 (13.6)	195 (5.51)
Fuel Inlet Size: NPT	1.0"	1.0"
Fuel Pressure Required: in. H ₂ O (kPa)	11 (2.7)	11 (2.7)

Fluids Capacity

Total Oil System: gal (lit)	1.4 (5.3)
Engine Jacket Water Capacity: gal (lit)	2.0 (7.6)
System Coolant Capacity: gal (lit)	6.0 (22.7)

All calculations based on natural gas fuel.

Deration Factors: Temperature: Derate 1% Per 10°F Over 77°F Air Inlet Temperature | Altitude: Derate 3% Per 1000ft Over 328ft

DGC-2020 Control Panel

Standard Features

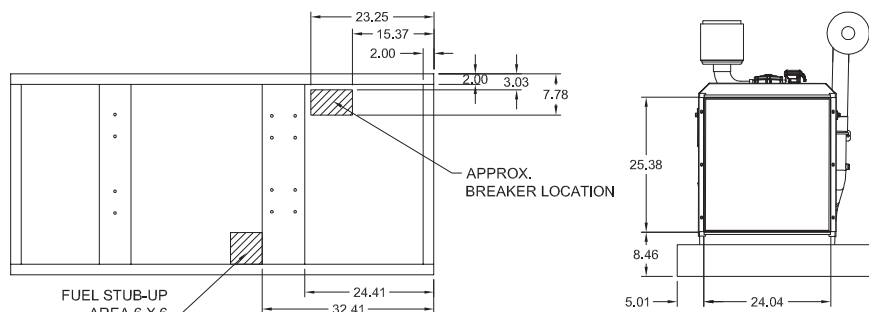
- ▶ Digital Metering
- ▶ Engine Parameters
- ▶ Generator Protection Functions
- ▶ Engine Protection
- ▶ CAN Bus ECU Communications
- ▶ Windows-Based Software
- ▶ Multilingual Capability
- ▶ Remote Communications to RDP-110 Remote Annunciator
- ▶ 16 Programmable Contact Inputs
- ▶ Up to 15 Contact Outputs (7 standard)
- ▶ UL Recognized, CSA Certified, CE Approved
- ▶ Event Recording
- ▶ IP 54 Front Panel Rating with Integrated Gasket
- ▶ NFPA 110 Level 1 Compatible



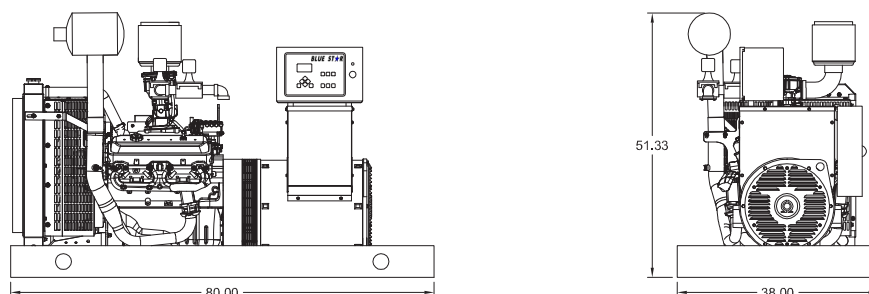
Weights / Dimensions / Sound Data

	L x W x H	Weight lbs
OPU	80 x 38 x 52 in	1650
Level 1	80 x 38 x 60 in	2000
Level 2	80 x 38 x 76 in	2150
Level 3	110 x 38 x 68 in	2350

Height measured from bottom of base to exhaust stack.



	No Load	Full Load
OPU	79 dBA	81 dBA
Level 1	77 dBA	79 dBA
Level 2	75 dBA	78 dBA
Level 3	71 dBA	74 dBA



Drawings based on standard open power 480 volt standby generator. Lengths may vary with other voltages. Subject to change without notice. Sound data as measured at 23 feet (7 meters) in accordance with ISO 8528-10 at standby rating.

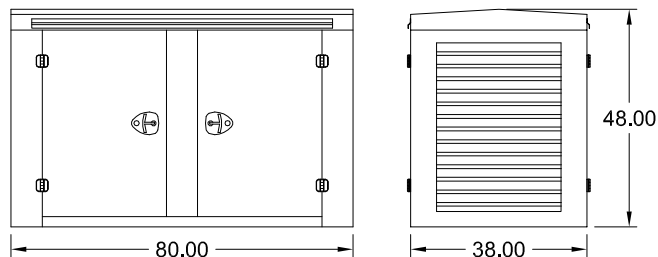
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50 kWe

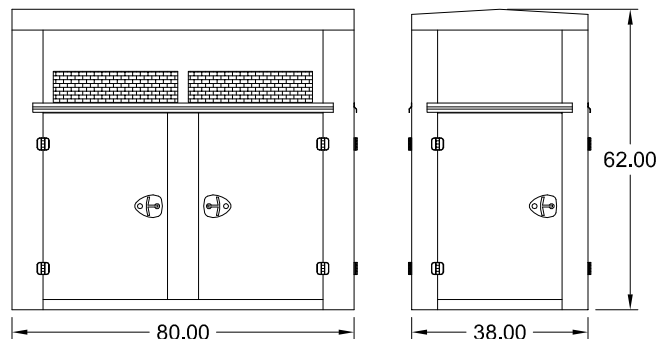
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Optional Enclosures

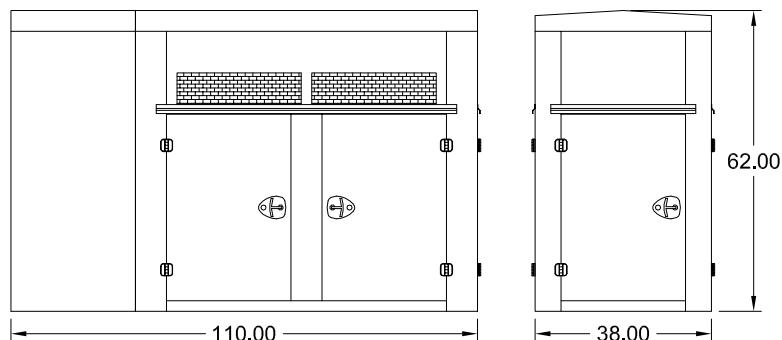
Level 1 Enclosure (WPE)



Level 2 Enclosure (WPF)



Level 3 Enclosure (SAE)



*Level 1 enclosures are 100 MPH Wind Rated as standard (up to 150 MPH available).

**Level 2 & 3 enclosures are 150 MPH Wind Rated as standard.

***Enclosure height does not include unit base or exhaust stack.

*All specification sheet dimensions are represented in inches.

**All enclosures are based on the standard standby unit configuration. Any deviation can change dimensions.

***Level 1 enclosure not UL listed.

Materials and specifications subject to change without notice.

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