

# BLUE STAR

## Power Systems Inc.

### Gaseous Product Line

208-600 Volt

NG400-01 / NG400-01P

60 Hz / 1800 RPM

400 kWe / 350 kWe

Standby / Prime

### Ratings

	208V	240V	480V	600V
<b>Phase</b>	3	3	3	3
<b>PF</b>	0.8	0.8	0.8	0.8
<b>Hz</b>	60	60	60	60
<b>Generator Model</b>	433CSL6220	433CSL6220	433CSL6220	433PSL6248
<b>Connection</b>	12 LEAD WYE	12 LEAD DELTA	12 LEAD WYE	4 LEAD WYE
<b>Standby</b>				
<b>kWe Nat (LP)</b>	400 (300)	400 (300)	400 (300)	400 (300)
<b>AMPS Nat (LP)</b>	1390 (1042)	1204 (903)	602 (451)	482 (361)
<b>Temp Rise</b>	130°C / 27°C	130°C / 27°C	130°C / 27°C	130°C / 27°C
<b>Prime</b>				
<b>kWe Nat (LP)</b>	350 (NA)	350 (NA)	350 (NA)	350 (NA)
<b>AMPS Nat (LP)</b>	1246 (NA)	1054 (NA)	527 (NA)	421 (NA)
<b>Temp Rise</b>	105°C / 40°C	105°C / 40°C	105°C / 40°C	105°C / 40°C

### Standard Equipment

- |  |  |  |
|--|--|--|
| <p><b>Engine</b></p> <ul style="list-style-type: none"> <li>▶ Radiator Cooled Unit Mounted (50°C)</li> <li>▶ Blower Fan &amp; Fan Drive</li> <li>▶ Starter &amp; Alternator</li> <li>▶ Oil Pump &amp; Filter</li> <li>▶ Oil Drain Extension w/Valve</li> <li>▶ Governor - Electronic Isochronous</li> <li>▶ 24V Battery System &amp; Cables</li> <li>▶ SAE Flywheel &amp; Housing</li> <li>▶ Air Cleaner (Dry Single Stage)</li> <li>▶ Flexible Fuel Connector</li> <li>▶ EPA Certified</li> </ul> | <p><b>Generator</b></p> <ul style="list-style-type: none"> <li>▶ Brushless Single Bearing</li> <li>▶ Automatic Voltage Regulator</li> <li>▶ ± 1% Voltage Regulation</li> <li>▶ 4 Pole, Rotating Field</li> <li>▶ 130°C Standby Temperature Rise</li> <li>▶ 105°C Prime Temperature Rise</li> <li>▶ 100% of Rated Load - One Step</li> <li>▶ 5% Maximum Harmonic Content</li> <li>▶ NEMA MG 1, IEEE and ANSI standards compliance for temperature rise</li> </ul> | <p><b>Additional</b></p> <ul style="list-style-type: none"> <li>▶ Microprocessor Based Digital Control</li> <li>▶ Base - Structural Steel</li> <li>▶ Main Line Circuit Breaker Mounted &amp; Wired</li> <li>▶ Catalyst/Silencer Mounted</li> <li>▶ Battery Charger 24V 5 Amp</li> <li>▶ Jacket Water Heater -20°F 5000W 240V w/Isolation Valves</li> <li>▶ Vibration Isolation Mounts</li> <li>▶ Radiator Duct Flange (OPU Only)</li> <li>▶ Single Source Supplier</li> <li>▶ 2YR / 2000HR Standby Warranty</li> <li>▶ Standard Colors - White / Tan / Gray</li> </ul> |
|--|--|--|

## Application Data

Engine			
Manufacturer:	PSI	Displacement - Cu. In. (lit):	1,338 (21.9)
Model:	D219TIC	Bore - in. (cm) x Stroke - in. (cm):	5.04 (12.8) x 5.59 (14.2)
Type:	4-Cycle	Compression Ratio:	10.5 : 1
Aspiration:	Turbo Charged, CAC	Rated RPM:	1800
Cylinder Arrangement:	12 Cylinder Vee	Max HP Stby (kWm):	612 (457)

Exhaust System	Prime	Standby
Gas Temp. (Stack): °F (°C)	1,350 (732)	1,350 (732)
Gas Volume at Stack Temp: CFM (m³/min)	2,621 (74.2)	2,995 (84.8)
Maximum Allowable Exhaust Restriction: in. H <sub>2</sub> O (kPa)	40.8 (10.2)	40.8 (10.2)

Cooling System		
Ambient Capacity of Radiator: °F (°C)	122 (50.0)	122 (50.0)
Maximum Allowable Static Pressure on Rad. Exhaust: in. H <sub>2</sub> O (kPa)	0.50 (0.12)	0.50 (0.12)
Water Pump Flow Rate: Gpm (lit/min)	174 (659)	174 (659)
Heat Rejection to Coolant: BTUM (kW)	22,540 (394)	25,760 (451)
Heat Rejection to CAC: BTUM (kW)	5,320 (93.1)	6,080 (106)
Heat Radiated to Ambient: BTUM (kW)	2,988 (52.3)	3,415 (59.8)

Air Requirements		
Aspirating: CFM (m³/min)	847 (24.0)	968 (27.0)
Air Flow Required for Rad. Cooled Unit: CFM (m³/min)	40,000 (1,132)	40,000 (1,132)
Air Flow Required for Heat Exchanger/Rem. Rad. CFM (m³/min)	Consult Factory For Remote Cooled Applications	

Fuel Consumption	Prime		Standby	
	Natural Gas	LP	Natural Gas	LP
At 100% of Power Rating: ft <sup>3</sup> /hr (m <sup>3</sup> /hr)	3,701 (105)	1,480 (41.9)	4,230 (120)	1,692 (47.9)
At 75% of Power Rating: ft <sup>3</sup> /hr (m <sup>3</sup> /hr)	2,885 (81.6)	1,154 (32.7)	3,297 (93.3)	1,318 (37.3)
At 50% of Power Rating: ft <sup>3</sup> /hr (m <sup>3</sup> /hr)	2,025 (57.3)	810 (22.9)	2,314 (65.5)	926 (26.2)
Fuel Inlet Size: NPT (Qty)	3"	3"	3"	3"
Fuel Pressure Required: in. H <sub>2</sub> O (kPa)	7.0 - 11.0 (1.75 - 2.75)		7.0 - 11.0 (1.75 - 2.75)	

Fluids Capacity	
Total Oil System: gal (lit)	10.6 (40.0)
Engine Jacket Water Capacity: gal (lit)	13.8 (52.3)
System Coolant Capacity: gal (lit)	60.2 (228)

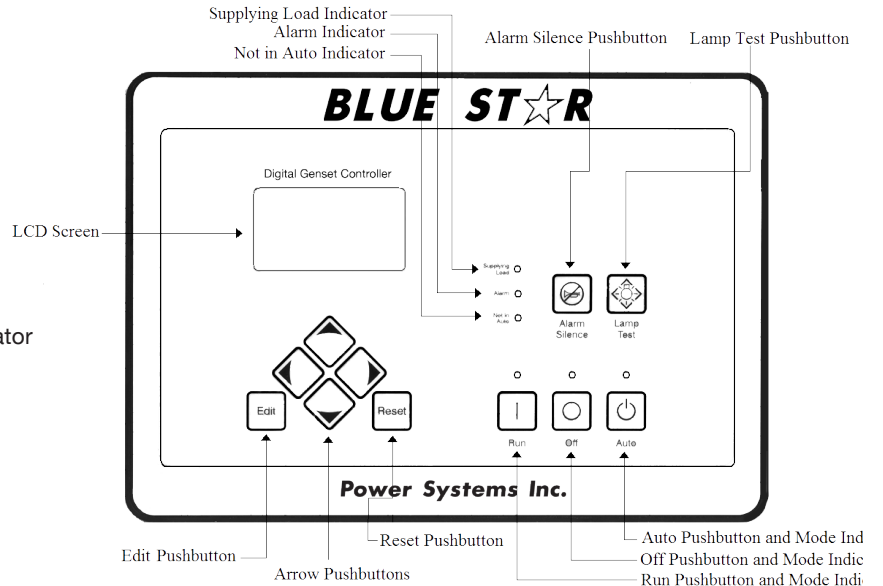
All calculations based on natural gas fuel.

Deration Factors: Temperature: Derate 1.5% Per 10°F Over 77°F Air Inlet Temperature | Altitude: Derate 2.5% Per 1000ft Over 1200ft

DGC-2020 Control Panel

**Standard Features**

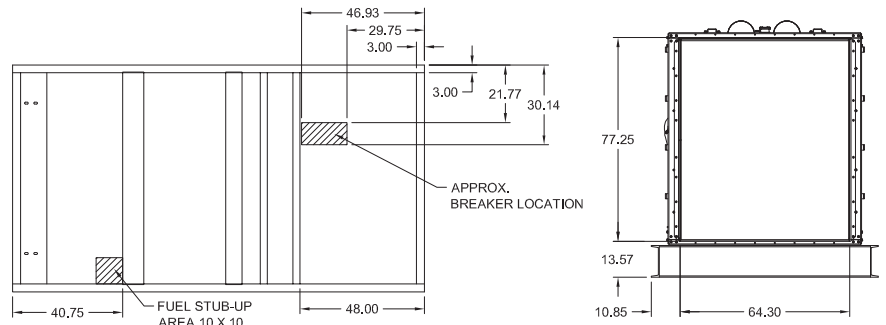
- ▶ Digital Metering
- ▶ Engine Parameters
- ▶ Generator Protection Functions
- ▶ Engine Protection
- ▶ CAN Bus ECU Communications
- ▶ Windows-Based Software
- ▶ Multilingual Capability
- ▶ Remote Communications to RDP-110 Remote Annunciator
- ▶ 16 Programmable Contact Inputs
- ▶ Up to 15 Contact Outputs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



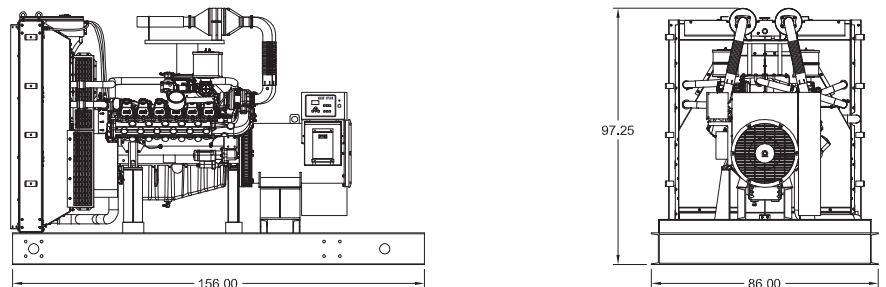
Weights / Dimensions / Sound Data

	L x W x H	Weight lbs
<b>OPU</b>	156 x 86 x 97 in	10050
<b>Level 1</b>	156 x 86 x 116 in	12200
<b>Level 2</b>	N/A	N/A
<b>Level 3</b>	288 x 86 x 116 in	13575

Height measured from bottom of base to exhaust stack.



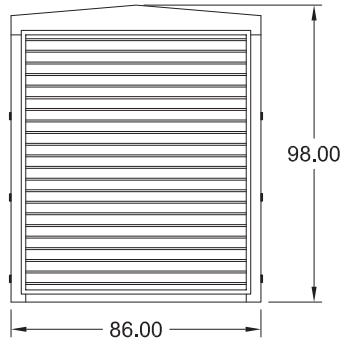
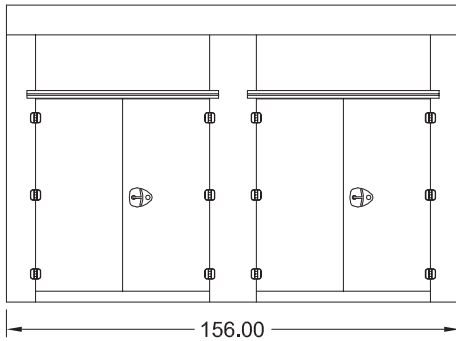
	No Load	Full Load
<b>OPU</b>	83 dBA	86 dBA
<b>Level 1</b>	81 dBA	84 dBA
<b>Level 2</b>	N/A	N/A
<b>Level 3</b>	72 dBA	74 dBA



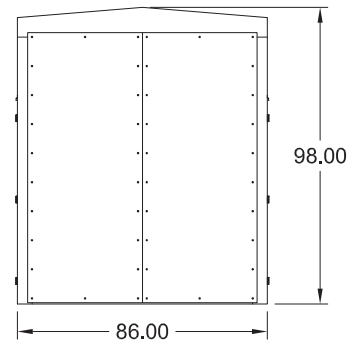
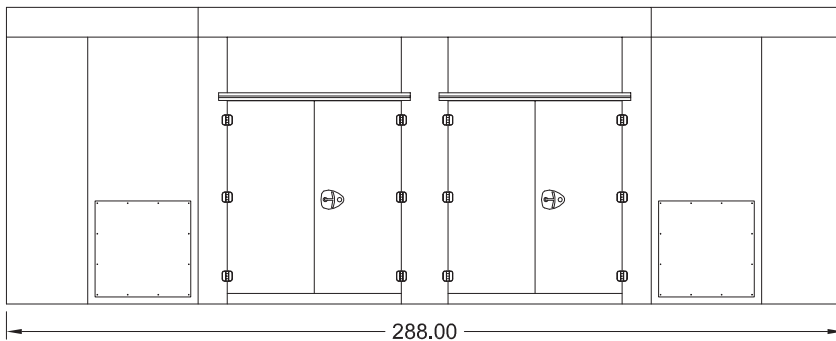
Drawings based on standard open power 480 volt standby generator. Lengths may vary with other voltages. Subject to change without notice. Sound data as measured at 23 feet (7 meters) in accordance with ISO 8528-10 at standby rating.

Optional Enclosures

**Level 1 Enclosure (WPE)**



**Level 3 Enclosure (SAE)**



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

\*\*Level 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 and fuel tanks 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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