

# BLUE STAR

## Power Systems Inc.

### Gaseous Product Line

208-600 Volt

NG425-01

60 Hz / 1800 RPM

425 kWe

Standby

### Ratings

	208V	240V	480V	600V
Phase	3	3	3	3
PF	0.8	0.8	0.8	0.8
Hz	60	60	60	60
Generator Model	574RSL4025	572RSL4025	572RSL4025	572RSS4270
Connection	12 LEAD WYE	12 LEAD DELTA	12 LEAD WYE	4 LEAD WYE
kWe Nat (LP)	425 (300)	425 (300)	425 (300)	425 (300)
AMPS Nat (LP)	1476 (1042)	1280 (903)	639 (451)	512 (361)
Temp Rise	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
- ▶ 24V Battery System & Cables
- ▶ SAE Flywheel Housing
- ▶ Air Cleaner (Dry Single Stage)
- ▶ Flexible Fuel Connector
- ▶ EPA Certified

#### Generator

- ▶ Brushless Single Bearing
- ▶ Automatic Voltage Regulator
- ▶ ± .25% 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

- ▶ Microprocessor Based Digital Control
- ▶ Base - Structural Steel
- ▶ Main Line Circuit Breaker Mounted & Wired
- ▶ Catalysts/Silencers Mounted
- ▶ Battery Charger 24V 5 Amp
- ▶ Jacket Water Heater -20°F 5000W 240V w/Isolation Valves
- ▶ Vibration Isolation Mounts
- ▶ Radiator Duct Flange (OPU Only)
- ▶ Single Source Supplier
- ▶ 2YR / 2000HR Standby Warranty
- ▶ Standard Colors - White / Tan / Gray

# Gaseous Product Line

425 kW<sub>e</sub>



## Application Data

### Engine

Manufacturer:	NGE	Displacement - Cu. In. (lit):	1,338 (21.9)
Model:	D219TICHO	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 (kW <sub>m</sub> ):	649 (484)

### Exhaust System

Gas Temp. (Stack): °F (°C)	1,350 (732)
Gas Volume at Stack Temp: CFM (m³/min)	3,179 (89.8)
Maximum Allowable Exhaust Restriction: in. H <sub>2</sub> O (kPa)	40.8 (10.2)

### Cooling System

Ambient Capacity of Radiator: °F (°C)	122 (50.0)
Maximum Allowable Static Pressure on Rad. Exhaust: in. H <sub>2</sub> O (kPa)	0.5 (0.12)
Water Pump Flow Rate: Gpm (lit/min)	174 (659)
Heat Rejection to Coolant: BTUM (kW)	27,342 (479)
Heat Rejection to CAC: BTUM (kW)	6,454 (113)
Heat Radiated to Ambient: BTUM (kW)	3,629 (63.5)

### Air Requirements

Aspirating: CFM (m³/min)	1027 (29.1)
Air Flow Required for Rad. Cooled Unit: CFM (m³/min)	40,000 (1,132)
Air Flow Required for Heat Exchanger/Rem. Rad. CFM (m³/min)	Consult Factory For Remote Cooled Applications

### Fuel Consumption

	Natural Gas	LP
At 100% of Power Rating: ft³/hr (m³/hr)	4,490 (127)	1,495 (42.3)
At 75% of Power Rating: ft³/hr (m³/hr)	3,500 (99.0)	1,234 (36.0)
At 50% of Power Rating: ft³/hr (m³/hr)	2,456 (69.54)	849 (24.0)
Fuel Inlet Size: NPT (Qty)	3" (2)	3" (2)
Fuel Pressure Required: in. H <sub>2</sub> O (kPa)	11 (2.7)	11 (2.7)

### 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)

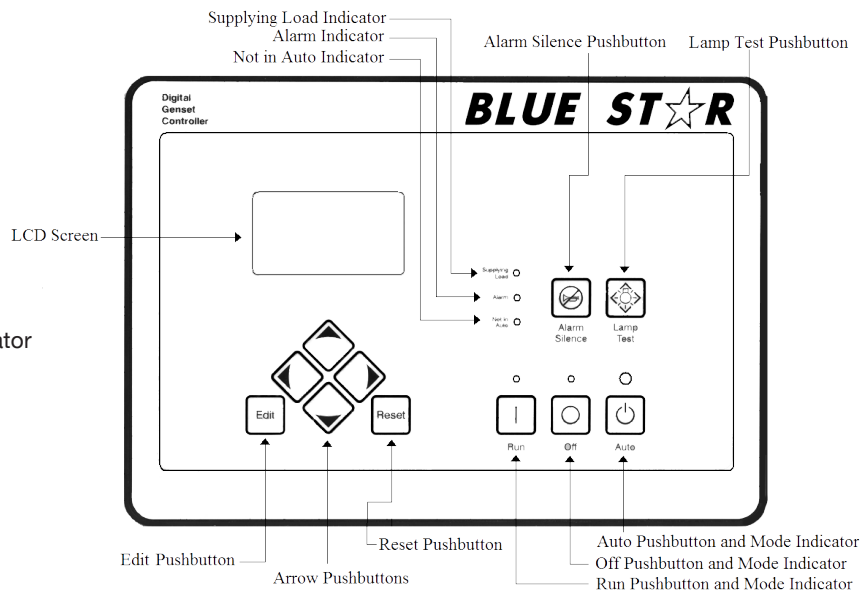
All calculations based on natural gas fuel.

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

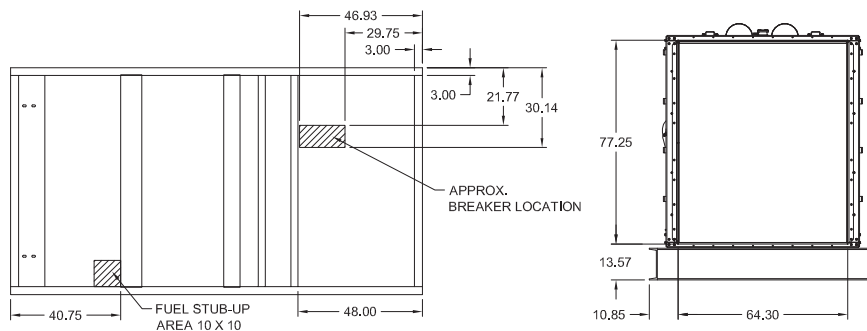
- ▶ Digital Metering
- ▶ Engine Parameters
- ▶ Generator Protection Functions
- ▶ Engine Protection
- ▶ CAN Bus ECU Communications
- ▶ Windows-Based Software
- ▶ Multilingual Capability
- ▶ Remote Communications to RDP-110 Remote Annunciator
- ▶ 16 Programmable Contact Inputs
- ▶ Up to 15 Contact Outputs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



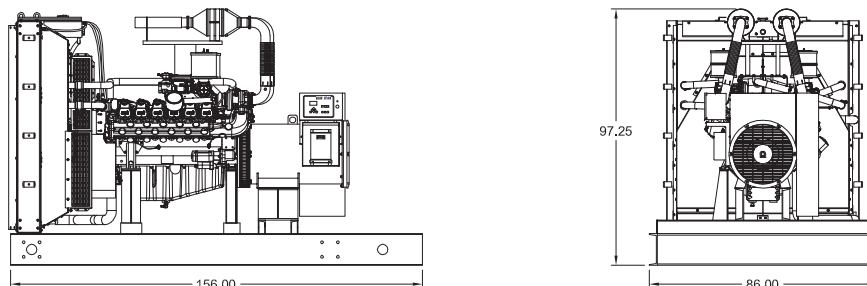
## Weights / Dimensions / Sound Data

	L x W x H	Weight lbs
<b>OPU</b>	156 x 86 x 97 in	10575
<b>Level 1</b>	156 x 86 x 116 in	12675
<b>Level 2</b>	N/A	N/A
<b>Level 3</b>	288 x 86 x 108 in	14100

Height measured from bottom of base to exhaust stack.



	No Load	Full Load
<b>OPU</b>	83 dBA	87 dBA
<b>Level 1</b>	81 dBA	85 dBA
<b>Level 2</b>	N/A	N/A
<b>Level 3</b>	72 dBA	75 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.

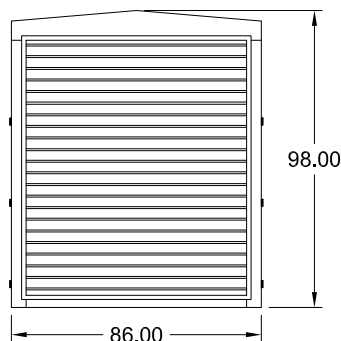
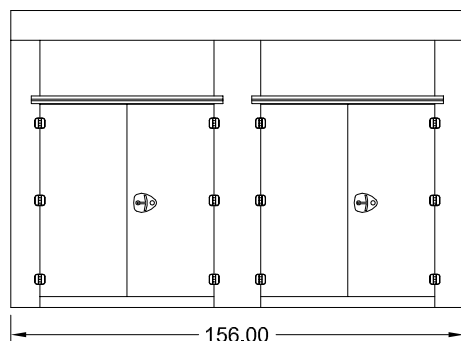
# Gaseous Product Line

425 kWe

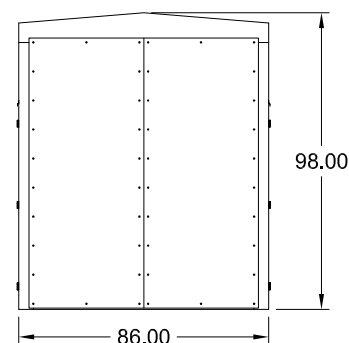
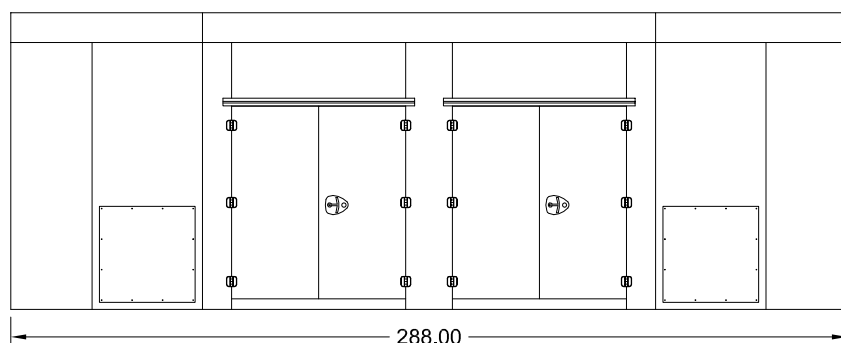
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Power Systems Inc.

## 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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