

# BLUE STAR

## Power Systems Inc.

### Diesel Product Line

208-4160 Volt

VD600-01

60 Hz / 1800 RPM

600 kWe

Standby

### Ratings

	208V	240V	480V	600V	4160V
<b>Phase</b>	3	3	3	3	3
<b>PF</b>	0.8	0.8	0.8	0.8	0.8
<b>Hz</b>	60	60	60	60	60
<b>Generator Model</b>	573RSL6433	573RSL6433	572RSL6431	572RSS4272	574FSM4356
<b>Connection</b>	12 LEAD WYE	12 LEAD DELTA	12 LEAD WYE	4 LEAD WYE	6 LEAD WYE
<b>kWe</b>	600	600	600	600	550
<b>AMPS</b>	2084	1806	903	723	104
<b>Temp Rise</b>	130°C / 27°C	130°C / 27°C	130°C / 27°C	130°C / 27°C	130°C / 27°C

### Standard Equipment

- |  |  |  |
|--|--|--|
| <p><b>Engine</b></p> <ul style="list-style-type: none"> <li>▶ Radiator Cooled Unit Mounted (55°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>▶ Air Cleaner (Dry Single Stage)</li> <li>▶ Flexible Fuel Connector</li> <li>▶ EPA Certified Tier 2</li> </ul> <p><b>Listing Certifications</b></p> <ul style="list-style-type: none"> <li>▶ UL 2200 Listed*</li> <li>▶ cUL Listed*</li> <li>▶ CSA Certified*</li> <li>▶ Seismic Certified to IBC 2018</li> </ul> | <p><b>Generator</b></p> <ul style="list-style-type: none"> <li>▶ Brushless Single Bearing</li> <li>▶ Automatic Voltage Regulator</li> <li>▶ ± .25% Voltage Regulation</li> <li>▶ 4 Pole, Rotating Field</li> <li>▶ 130°C Standby 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>▶ Single Source Supplier</li> <li>▶ Microprocessor Based Digital Control</li> <li>▶ Interface Connection Box</li> <li>▶ Control Panel Mounted in NEMA 12 Enclosure</li> <li>▶ Base - Structural Steel</li> <li>▶ Main Line Circuit Breaker Mounted &amp; Wired</li> <li>▶ Critical Grade 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>▶ 2YR / 2000HR Standby Warranty</li> <li>▶ Standard Colors - White / Gray</li> </ul> |
|--|--|--|

\*Through 600 VAC

## Application Data

Engine			
Manufacturer:	Volvo Penta	Displacement - Cu. In. (lit):	984 (16.12)
Model:	TWD1643GE	Bore - in. (cm) x Stroke - in. (cm):	5.70 (14.4) x 6.50 (16.5)
Type:	4-Cycle	Compression Ratio:	16.5:1
Aspiration:	Turbo Charged, H <sub>2</sub> O to Air CAC	Rated RPM:	1800
Cylinder Arrangement:	6 Cylinder Inline	Max HP Stby (kWm):	917 (674)

Exhaust System	Standby
Gas Temp. (Stack): °F (°C)	862 (461)
Gas Volume at Stack Temp: CFM (m <sup>3</sup> /min)	4,594 (130)
Maximum Allowable Exhaust Restriction: in. H <sub>2</sub> O (kPa)	40.2 (10.0)

Cooling System	
Ambient Capacity of Radiator: °F (°C)	131 (55.0)
Maximum Allowable Static Pressure on Rad. Exhaust: in. H <sub>2</sub> O (kPa)	0.50 (0.12)
Water Pump Flow Rate: GPM (lit/min)	95.4 (361)
Heat Rejection to Coolant: BTUM (kW)	15,355 (270)
Heat Rejection to CAC: BTUM (kW)	7,677 (135)
Heat Radiated to Ambient: BTUM (kW)	3,928 (68.7)

Air Requirements	
Aspirating: CFM (m <sup>3</sup> /min)	1,937 (54.8)
Air Flow Required for Rad. Cooled Unit: CFM (m <sup>3</sup> /min)	31,802 (900)
Air Flow Required for Heat Exchanger/Rem. Rad. CFM (m <sup>3</sup> /min)	Consult Factory For Remote Cooled Applications

Fuel Consumption	
At 100% of Power Rating: gal/hr (lit/hr)	40.8 (154.4)
At 75% of Power Rating: gal/hr (lit/hr)	29.7 (112.4)
At 50% of Power Rating: gal/hr (lit/hr)	20.0 (75.7)

Fluids Capacity	
Total Oil System: gal (lit)	12.7 (48.0)
Engine Jacket Water Capacity: gal (lit)	8.70 (33.0)
System Coolant Capacity: gal (lit)	25.1 (95.0)

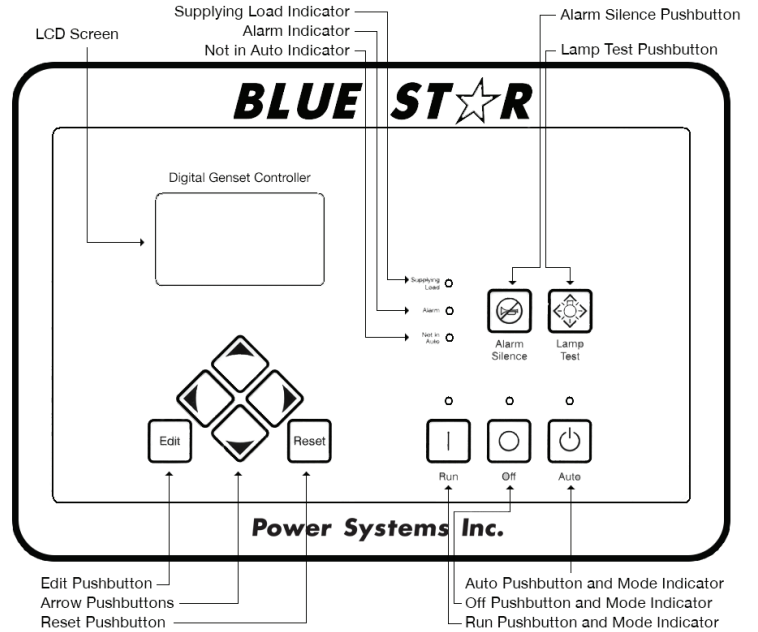
### Deration Factors

Rated Power is available up to 4,920 ft (1,500 m) at ambient temperatures to 122°F (50°C).  
Consult factory for site conditions above these parameters.

## DGC-2020 Control Panel

### Standard Features

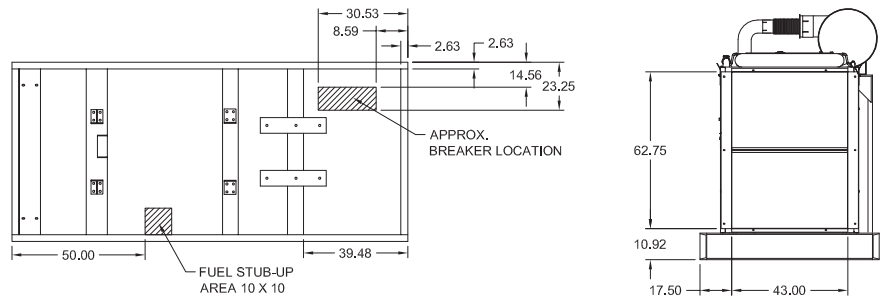
- ▶ Digital Metering
- ▶ Engine Parameters
- ▶ Generator Protection Functions
- ▶ Engine Protection
- ▶ CAN Bus (J1939) ECU Communications
- ▶ Windows-Based Software
- ▶ Multilingual Capability
- ▶ Remote Communications to RDP-110 Remote Annunciator
- ▶ 16 Programmable Contact Inputs
- ▶ 15 Contact Outputs
- ▶ RS485 Communicator Interface
- ▶ UL Recognized, CSA Certified, CE Approved
- ▶ Event Recording
- ▶ IP 54 Front Panel Rating with Integrated Gasket
- ▶ NFPA 110 Level 1 Compatible



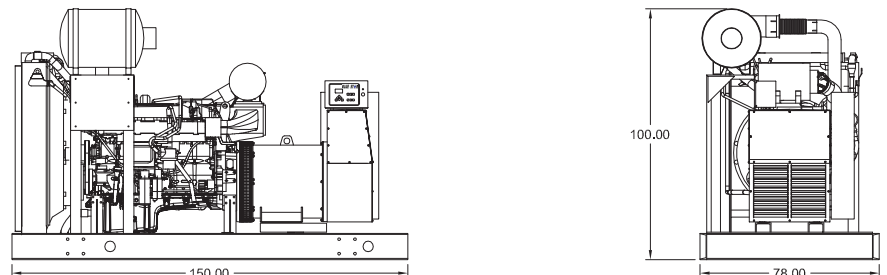
## Weights / Dimensions / Sound Data

	L x W x H	Weight lbs
<b>OPU</b>	150 x 78 x 100 in	10,275
<b>Level 1</b>	200 x 78 x 110 in	12,100
<b>Level 2</b>	200 x 78 x 110 in	12,200
<b>Level 3</b>	255 x 78 x 110 in	12,700

Please allow 6-12 inches for height of exhaust stack.



	No Load	Full Load
<b>OPU</b>	92 dBA	94 dBA
<b>Level 1</b>	87 dBA	90 dBA
<b>Level 2</b>	82 dBA	84 dBA
<b>Level 3</b>	74 dBA	76 dBA



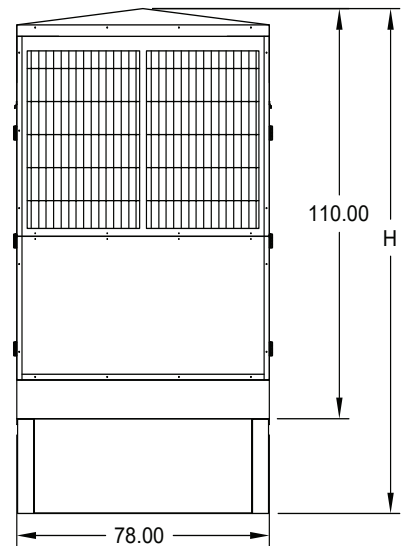
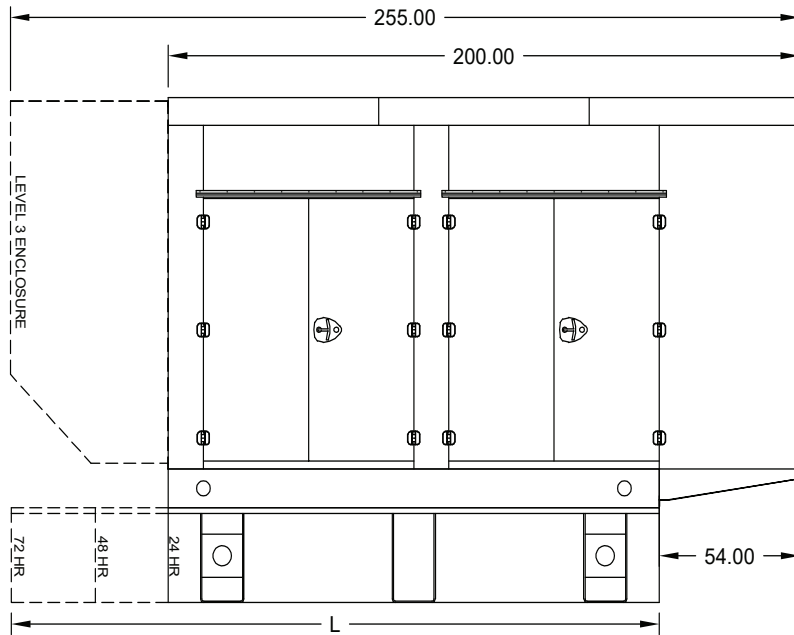
Drawings based on standard open power 480 volt standby generator. Lengths may vary with other voltages. Subject to change without notice. Sound data as measured at 23 feet (7 meters) in accordance with ISO 8528-10 at standby rating.

# Diesel Product Line

600 kWe



## Enclosures & Fuel Tanks



All enclosure models are 200 MPH wind rating certified in accordance with IBC2018 and ASCE/SEI 7-16 standards.

Level 2 & 3 enclosures include sound attenuation foam.

Level 3 enclosure includes frontal sound & exhaust hood.

\*Enclosure height does not include exhaust stack.

	24 Hour 1000 Gallon	48 Hour 2000 Gallon	72 Hour 3000 Gallon
<b>L</b>	150.00	228.00	336.00
<b>H</b>	140.00	146.00	146.00

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.

Materials and specifications subject to change without notice.

American Owned



American Made

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