

# BLUE STAR

## Power Systems Inc.

### Diesel Product Line

208-600 Volt

TD1000-01

60 Hz / 1800 RPM

1000 kWe / 900 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>	741RSL4045	741RSL4045	575RSL4044	741RSS4282
<b>Connection</b>	12 LEAD WYE	12 LEAD DELTA	4 LEAD WYE	4 LEAD WYE
<b>Standby</b>				
<b>kWe</b>	1000	1000	1000	1000
<b>AMPS</b>	3474	3011	1505	1204
<b>Temp Rise</b>	130°C / 27°C	130°C / 27°C	130°C / 27°C	130°C / 27°C
<b>Prime [Only Available For Mobile Applications]</b>				
<b>kWe</b>	900	900	900	900
<b>AMPS</b>	3126	2710	1355	1084
<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 Connectors</li> <li>▶ EPA Certified - Tier 2</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>▶ 105°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>▶ Microprocessor Based Digital Control</li> <li>▶ Base - Structural Steel</li> <li>▶ Main Line Circuit Breaker Mounted &amp; Wired</li> <li>▶ Critical Grade Silencer (Loose)</li> <li>▶ Flexible Exhaust Connectors</li> <li>▶ Battery Charger 24V 5 Amp</li> <li>▶ Jacket Water Heater -20°F 9000W 240V w/Isolation Valves</li> <li>▶ Vibration Isolation Mounts (Pad Type)</li> <li>▶ Radiator Duct Flange (OPU Only)</li> <li>▶ Single Source Supplier</li> <li>▶ 2YR / 2000HR Standby Warranty</li> <li>▶ 1YR / 1500HR Prime Warranty</li> <li>▶ Standard Colors - White / Tan / Gray</li> </ul> |
|--|--|---|

# Diesel Product Line

1000 kWe / 900 kWe



## Application Data

Engine			
Manufacturer:	MTU	Displacement - Cu. In. (lit):	1943 (31.8)
Model Standby (Prime):	16V2000G85	Bore - in. (cm) x Stroke - in. (cm):	5.12 (13.0) x 5.91 (15.0)
Type:	4-Cycle	Compression Ratio:	16.0:1
Aspiration:	Turbo Charged, Intercooled	Rated RPM:	1800
Cylinder Arrangement:	16 Cylinder Vee	Max HP Stby (kWm):	1495 (1115)

Exhaust System	Standby	Prime
Gas Temp. (Stack): °F (°C)	1,022 (550)	986 (530)
Gas Volume at Stack Temp: CFM (m³/min)	7,845 (222)	7,420 (210)
Maximum Allowable Exhaust Restriction: in. H2O (kPa)	34.1 (8.53)	34.1 (8.53)

Cooling System	Standby	Prime
Ambient Capacity of Radiator: °F (°C)	122 (50.0)	122 (50.0)
Maximum Allowable Static Pressure on Rad. Exhaust: in. H2O (kPa)	0.5 (0.12)	0.5 (0.12)
Jacket Water Pump Flow Rate: Gpm (lit/min)	220 (833)	220 (833)
Heat Rejection to Jacket Coolant: BTUM (kW)	22,857 (400)	20,286 (355)
Intercooler Pump Flow Rate: Gpm (lit/min)	68.2 (258)	68.2 (258)
Heat Rejection to Intercooler: BTUM (kW)	18,286 (320)	16,571 (290)
Heat Radiated to Ambient: BTUM (kW)	6,216 (110)	5,635 (98.6)

Air Requirements	Standby	Prime
Aspirating: CFM (m³/min)	3,074 (87.0)	2,968 (84.0)
Air Flow Required for Rad. Cooled Unit: CFM (m³/min)	60,883 (1,723)	60,883 (1,723)
Air Flow Required for Heat Exchanger/Rem. Rad. CFM (m³/min)	Consult Factory For Remote Cooled Applications	

Fuel Consumption	Standby	Prime
At 100% of Power Rating: gal/hr (lit/hr)	71.0 (269)	64.9 (246)
At 75% of Power Rating: gal/hr (lit/hr)	53.7 (203)	49.2 (186)
At 50% of Power Rating: gal/hr (lit/hr)	36.7 (139)	33.4 (126.4)

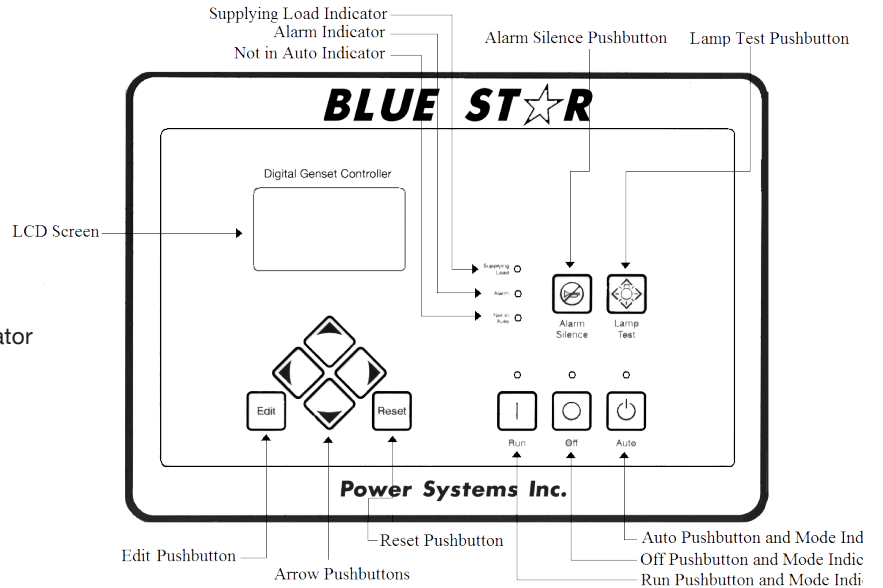
Fluids Capacity	Standby	Prime
Total Oil System: gal (lit)	26.9 (102)	26.9 (102)
Engine Jacket Water Capacity: gal (lit)	34.3 (130)	34.3 (130)
System Coolant Capacity: gal (lit)	56.0 (212)	56.0 (212)

Deration Factors  
 Rated power available at ambient temperatures to 40°C. At Altitudes to 5906 ft (1800 m).  
 Consult factory for site conditions above these parameters.

## DGC-2020 Control Panel

### Standard Features

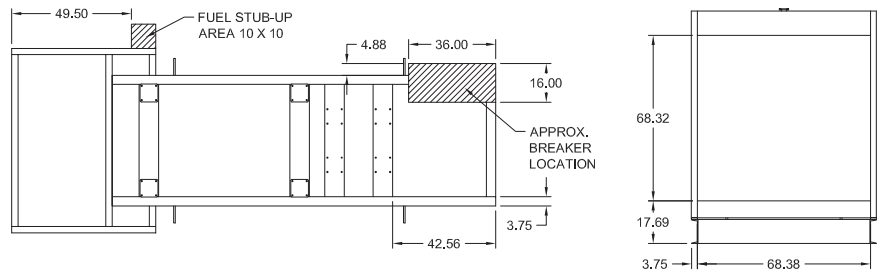
- ▶ Digital Metering
- ▶ Engine Parameters
- ▶ Generator Protection Functions
- ▶ Engine Protection
- ▶ CAN Bus ECU Communications
- ▶ Windows-Based Software
- ▶ Multilingual Capability
- ▶ Remote Communications to RDP-110 Remote Annunciator
- ▶ 16 Programmable Contact Inputs
- ▶ Up to 15 Contact Outputs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



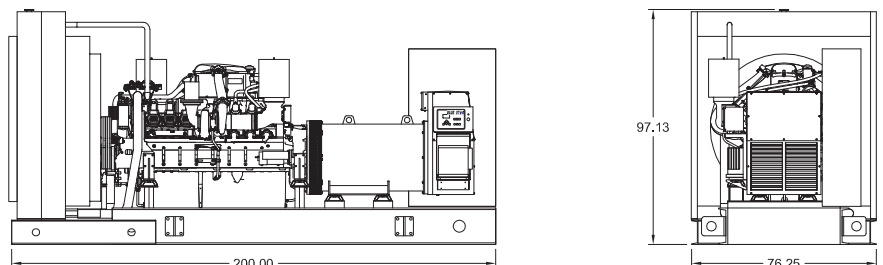
## Weights / Dimensions / Sound Data

	L x W x H	Weight lbs
<b>OPU</b>	200 x 76 x 97 in	17300
<b>Level 1</b>	212 x 106 x 129 in	19500
<b>Level 2</b>	N/A	N/A
<b>Level 3</b>	392x 106 x 129 in	22400

Height measured from bottom of base to exhaust stack.



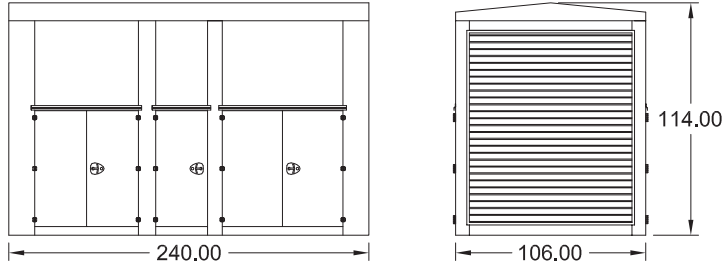
	No Load	Full Load
<b>OPU</b>	89 dBA	92 dBA
<b>Level 1</b>	87 dBA	90 dBA
<b>Level 2</b>	N/A	N/A
<b>Level 3</b>	77 dBA	81 dBA



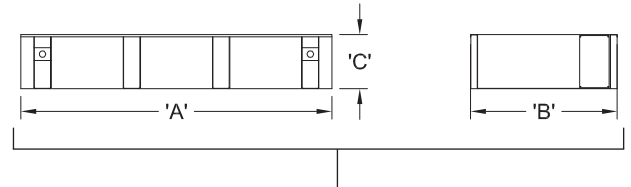
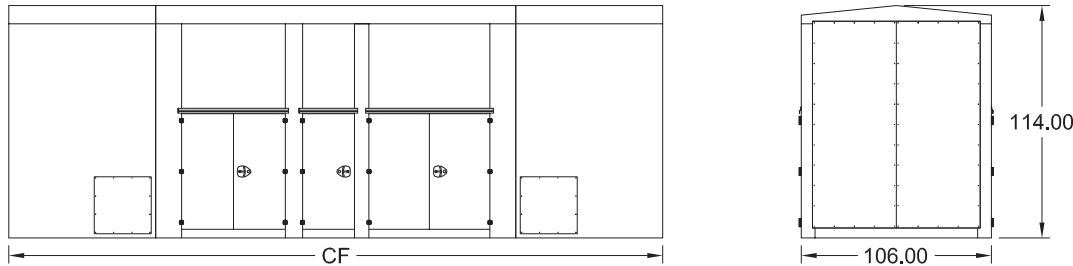
Drawings based on standard open power 480 volt standby generator. Lengths may vary with other voltages. Subject to change without notice. Sound data as measured at 23 feet (7 meters) in accordance with ISO 8528-10 at standby rating.

## Optional Enclosures and Fuel Tanks

### Level 1 Enclosure (WPE)



### 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.

### Double Wall UL 142 Listed Fuel Tanks

	12 Hour (875 Gallon)			24 Hour (1750 Gallon)			48 Hour (3500 Gallon)		
	A	B	C	A	B	C	A	B	C
<b>OPU</b>	212.00	106.00	14.00	212.00	106.00	28.00	288.00	106.00	26.00
<b>Level 1</b>	212.00	106.00	14.00	212.00	106.00	28.00	288.00	106.00	26.00
<b>Level 2</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Level 3</b>	392.00	106.00	8.00	392.00	106.00	14.00	392.00	106.00	26.00

\*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.

\*\*\*Level 1 enclosure not UL listed.

Materials and specifications subject to change without notice.

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American Made

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