

# BLUE STAR

## Power Systems Inc.

### Diesel Product Line

480-600 Volt

TD2000-01

60 Hz / 1800 RPM

2000 kWe / 1850 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>	CF	CF	744RSL4054	744RLS4292
<b>Connection</b>	4 LEAD WYE	4 LEAD DELTA	4 LEAD WYE	4 LEAD WYE
<b>Standby</b>				
<b>kWe</b>	2000	2000	2000	2000
<b>AMPS</b>	6948	6021	3011	2408
<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>	1850	1850	1850	1850
<b>AMPS</b>	6426	5570	2785	2228
<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 1-8000W 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

2000 kWe / 1850 kWe



## Application Data

Engine			
Manufacturer:	MTU	Displacement - Cu. In. (lit):	4656 (76.3)
Model Standby (Prime):	16V4000G43	Bore - in. (cm) x Stroke - in. (cm):	6.69 (17.0) x 8.27 (17.0)
Type:	4-Cycle	Compression Ratio:	16.4:1
Aspiration:	Turbo Charged, Intercooled	Rated RPM:	1800
Cylinder Arrangement:	16 Cylinder Vee	Max HP Stby (kWm):	3,058 (2,281)

Exhaust System	Standby	Prime
Gas Temp. (Stack): °F (°C)	896 (480)	815 (435)
Gas Volume at Stack Temp: CFM (m³/min)	16,113 (456)	15,053 (426)
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)
Water Pump Flow Rate: Gpm (lit/min)	357 (1,351)	357 (1,351)
Heat Rejection to Coolant: BTUM (kW)	48,000 (840)	42,286 (740)
Intercooler Pump Flow Rate: Gpm (lit/min)	154 (583)	154 (583)
Heat Rejection to Intercooler: BTUM (kW)	34,857 (610)	29,714 (520)
Heat Radiated to Ambient: BTUM (kW)	11,953 (209)	11,057 (193)

Air Requirements	Standby	Prime
Aspirating: CFM (m³/min)	6,360 (180)	6,360 (180)
Air Flow Required for Rad. Cooled Unit: CFM (m³/min)	112,820 (3,193)	112,820 (3,193)
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)	150 (568)	131 (496)
At 75% of Power Rating: gal/hr (lit/hr)	115 (435)	103 (388)
At 50% of Power Rating: gal/hr (lit/hr)	80.4 (304)	71.2 (269)

Fluids Capacity	Standby	Prime
Total Oil System: gal (lit)	79.3 (300)	79.3 (300)
Engine Jacket Water Capacity: gal (lit)	46.2 (175)	46.2 (175)
System Coolant Capacity: gal (lit)	174 (659)	174 (659)

### Deration Factors

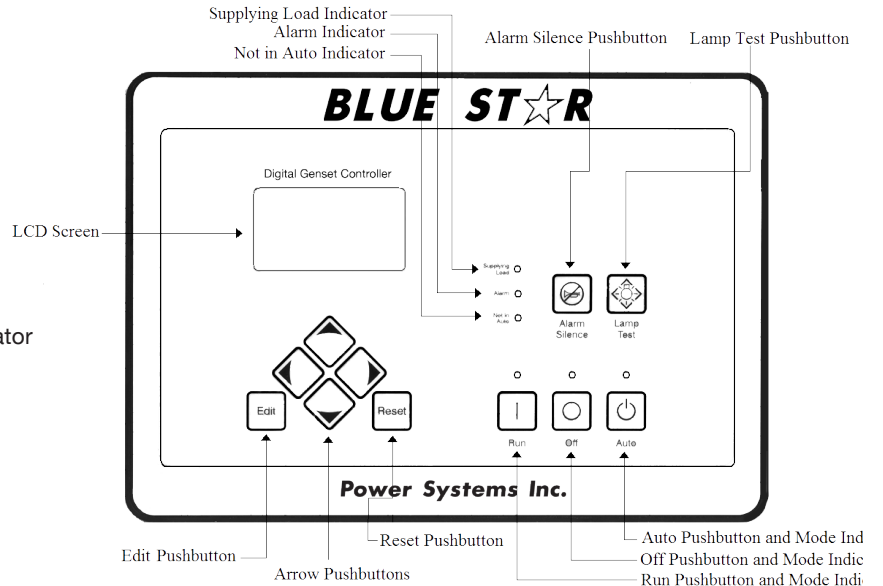
Rated power available at ambient temperatures to 50°C. Derate 3% per 1640 ft (500 m) above 4265 ft (1000 m). Consult factory for site conditions above these parameters.

TD2000-01

## DGC-2020 Control Panel

### Standard Features

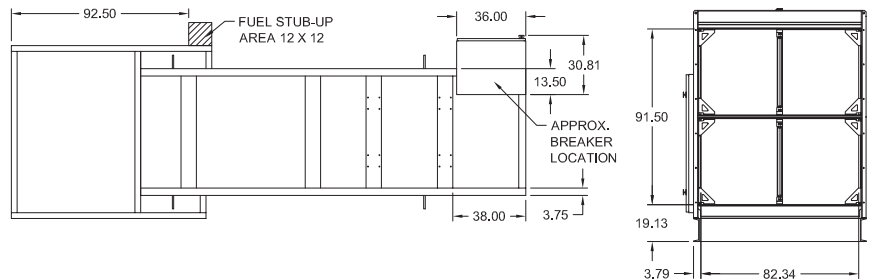
- ▶ Digital Metering
- ▶ Engine Parameters
- ▶ Generator Protection Functions
- ▶ Engine Protection
- ▶ CAN Bus ECU Communications
- ▶ Windows-Based Software
- ▶ Multilingual Capability
- ▶ Remote Communications to RDP-110 Remote Annunciator
- ▶ 16 Programmable Contact Inputs
- ▶ Up to 15 Contact Outputs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



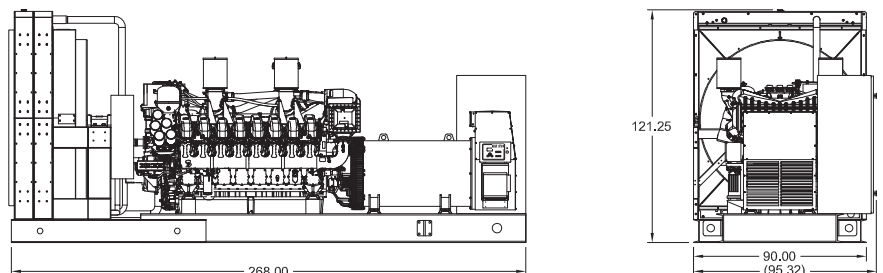
## Weights / Dimensions / Sound Data

	L x W x H	Weight lbs
<b>OPU</b>	268 x 90 x 121 in	37800
<b>Level 1</b>	285 x 110 x 145 in	43600
<b>Level 2</b>	N/A	N/A
<b>Level 3</b>	CF	CF

Height measured from bottom of base to exhaust stack.



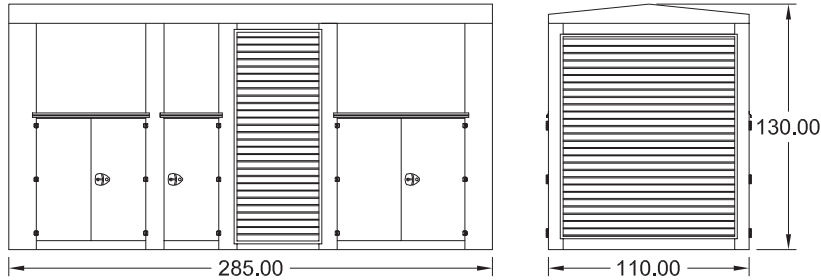
	No Load	Full Load
<b>OPU</b>	92 dBA	96 dBA
<b>Level 1</b>	91 dBA	95 dBA
<b>Level 2</b>	N/A	N/A
<b>Level 3</b>	CF	CF



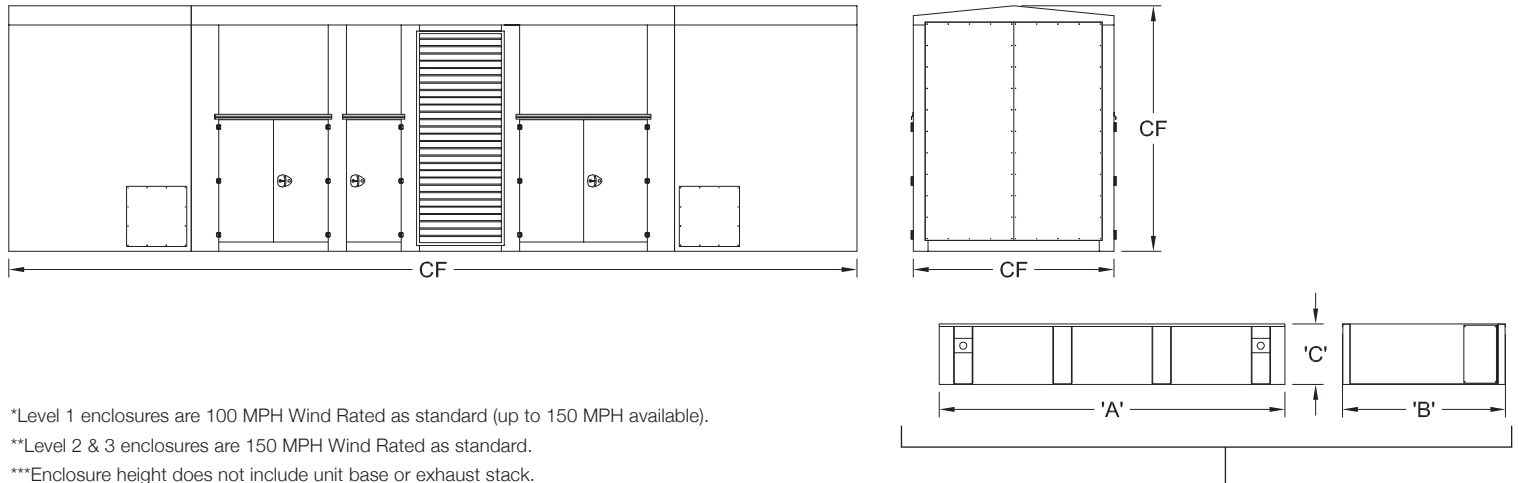
Drawings based on standard open power 480 volt standby generator. Lengths may vary with other voltages. Subject to change without notice. Sound data as measured at 23 feet (7 meters) in accordance with ISO 8528-10 at standby rating.

## 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 (1800 Gallon)			24 Hour (3600 Gallon)			48 Hour (7200 Gallon)		
	A	B	C	A	B	C	A	B	C
<b>OPU</b>	285.00	110.00	20.00	285.00	110.00	36.00	528.00	110.00	36.00
<b>Level 1</b>	285.00	110.00	20.00	285.00	110.00	36.00	528.00	110.00	36.00
<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>	CF	CF	CF	CF	CF	CF	CF	CF	CF

\*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.

Distributed By:

American Owned



American Made

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