

BLUE STAR

Power Systems Inc.

Diesel Product Line

208-600 Volt

TD1500-01

60 Hz / 1800 RPM

1500 kWe / 1350 kWe

Standby / Prime

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	CF	CF	742RSL4050	743RSS4290
Connection	4 LEAD WYE	4 LEAD DELTA	4 LEAD WYE	4 LEAD WYE
Standby				
kWe	1500	1500	1500	1500
AMPS	5211	4516	2258	1806
Temp Rise	130°C / 27°C	130°C / 27°C	130°C / 27°C	130°C / 27°C
Prime [Only Available For Mobile Applications]				
kWe	1350	1350	1350	1350
AMPS	4690	4064	2032	1626
Temp Rise	105°C / 40°C	105°C / 40°C	105°C / 40°C	105°C / 40°C

Standard Equipment

- | | | |
|--|--|---|
| <p>Engine</p> <ul style="list-style-type: none"> ▶ 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 Connectors ▶ EPA Certified - Tier 2 | <p>Generator</p> <ul style="list-style-type: none"> ▶ Brushless Single Bearing ▶ Automatic Voltage Regulator ▶ ± .25% Voltage Regulation ▶ 4 Pole, Rotating Field ▶ 130°C Standby Temperature Rise ▶ 105°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 | <p>Additional</p> <ul style="list-style-type: none"> ▶ Microprocessor Based Digital Control ▶ Base - Structural Steel ▶ Main Line Circuit Breaker Mounted & Wired (480V & 600V Only) ▶ Critical Grade Silencer (Loose) ▶ Flexible Exhaust Connectors ▶ Battery Charger 24V 5 Amp ▶ Jacket Water Heater 20°F 2-6000W 240V w/Isolation Valves ▶ Vibration Isolation Mounts (Pad Type) ▶ Radiator Duct Flange (OPU Only) ▶ Single Source Supplier ▶ 2YR / 2000HR Standby Warranty ▶ 1YR / 1500HR Prime Warranty ▶ Standard Colors - White / Tan / Gray |
|--|--|---|

Diesel Product Line

1500 kWe / 1350 kWe



Application Data

Engine

Manufacturer:	MTU	Displacement - Cu. In. (lit):	3491 (57.2)
Model:	12V4000G43	Bore - in. (cm) x Stroke - in. (cm):	6.69 (17.0) x 8.27 (21.0)
Type:	4-Cycle	Compression Ratio:	16.4:1
Aspiration:	Turbo Charged, Intercooled	Rated RPM:	1800
Cylinder Arrangement:	12 Cylinder Vee	Max HP Stby (kWm):	2,328 (1,737)

Exhaust System

	Standby	Prime
Gas Temp. (Stack): °F (°C)	815 (435)	806 (430)
Gas Volume at Stack Temp: CFM (m ³ /min)	12,085 (342)	11,661 (330)
Maximum Allowable Exhaust Restriction: in. H ₂ O (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. H ₂ O (kPa)	0.5 (0.12)	0.5 (0.12)
Jacket Water Pump Flow Rate: Gpm (lit/min)	295 (1,117)	295 (1,117)
Intercooler Water Pump Flow Rate: Gpm (lit/min)	154 (583)	154 (583)
Heat Rejection to Jacket Coolant: BTUM (kW)	36,571 (640)	32,000 (560)
Heat Rejection to Intercooler: BTUM (kW)	25,143 (440)	21,143 (370)
Heat Radiated to Ambient: BTUM (kW)	9,605 (168)	8,645 (151)

Air Requirements

	Standby	Prime
Aspirating: CFM (m ³ /min)	5,088 (144)	4,664 (132)
Air Flow Required for Rad. Cooled Unit: CFM (m ³ /min)	79,827 (2,259)	79,827 (2,259)
Air Flow Required for Heat Exchanger/Rem. Rad. CFM (m ³ /min)	Consult Factory For Remote Cooled Applications	

Fuel Consumption

	Standby	Prime
At 100% of Power Rating: gal/hr (lit/hr)	111 (421)	95.8 (363)
At 75% of Power Rating: gal/hr (lit/hr)	85.4 (323)	74.7 (283)
At 50% of Power Rating: gal/hr (lit/hr)	59.6 (226)	52.4 (198)

Fluids Capacity

	Standby	Prime
Total Oil System: gal (lit)	68.7 (260)	68.7 (260)
Engine Jacket Water Capacity: gal (lit)	42.3 (160)	42.3 (160)
Intercooler Water Cap: gal (lit)	10.6 (42.3)	10.6 (42.3)
System Coolant Capacity: gal (lit)	155 (587)	155 (587)

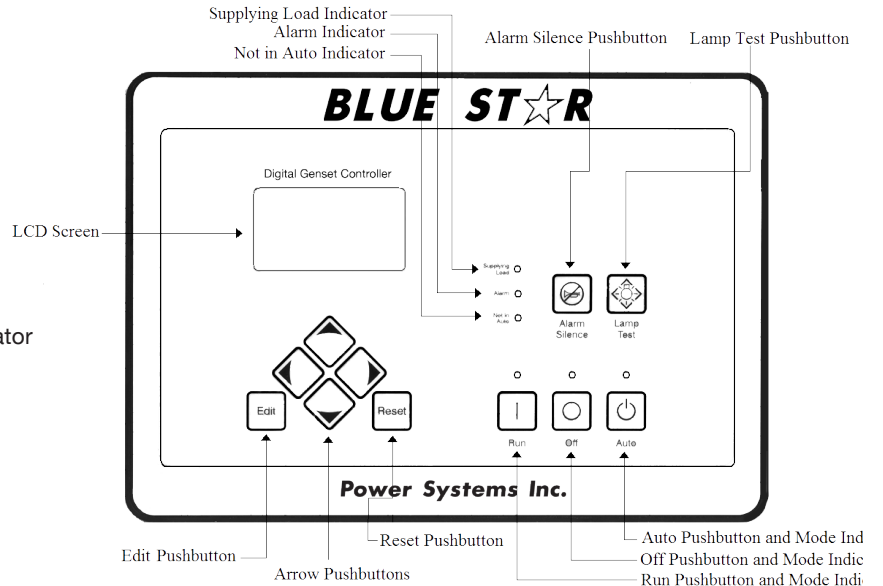
Deration Factors

Rated power available at ambient temperatures to 40°C. Derate 3% per 1640 ft (500 m) above 1640 ft (500 m). Consult factory for site conditions above these parameters.

DGC-2020 Control Panel

Standard Features

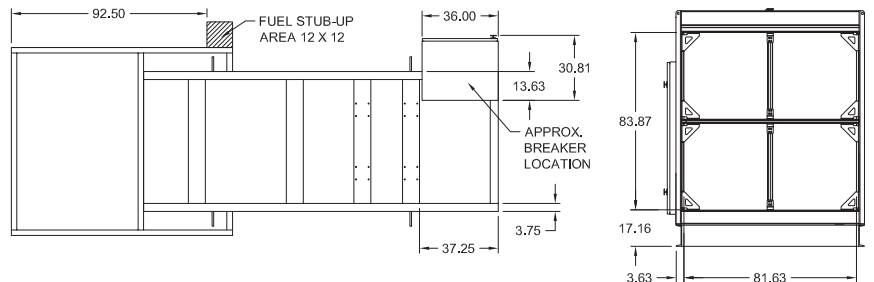
- ▶ Digital Metering
- ▶ Engine Parameters
- ▶ Generator Protection Functions
- ▶ Engine Protection
- ▶ CAN Bus ECU Communications
- ▶ Windows-Based Software
- ▶ Multilingual Capability
- ▶ Remote Communications to RDP-110 Remote Annunciator
- ▶ 16 Programmable Contact Inputs
- ▶ Up to 15 Contact Outputs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



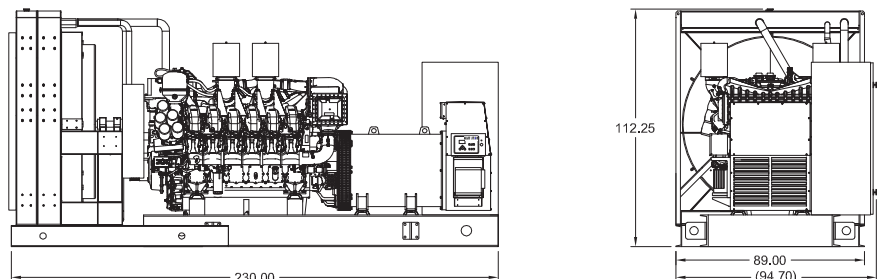
Weights / Dimensions / Sound Data

	L x W x H	Weight lbs
OPU	230 x 89 x 112 in	32450
Level 1	265 x 102 x 135 in	38100
Level 2	N/A	N/A
Level 3	CF	CF

Height measured from bottom of base to exhaust stack.



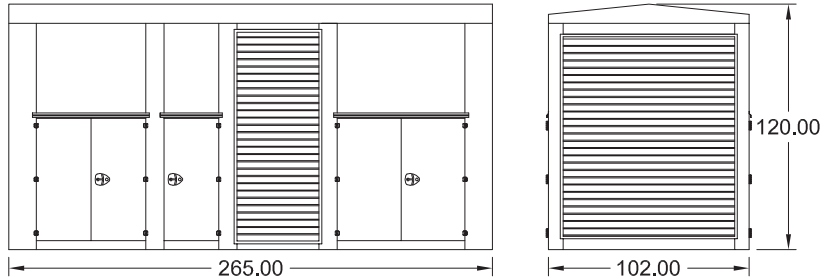
	No Load	Full Load
OPU	89 dBA	92 dBA
Level 1	87 dBA	90 dBA
Level 2	N/A	N/A
Level 3	81 dBA	85 dBA



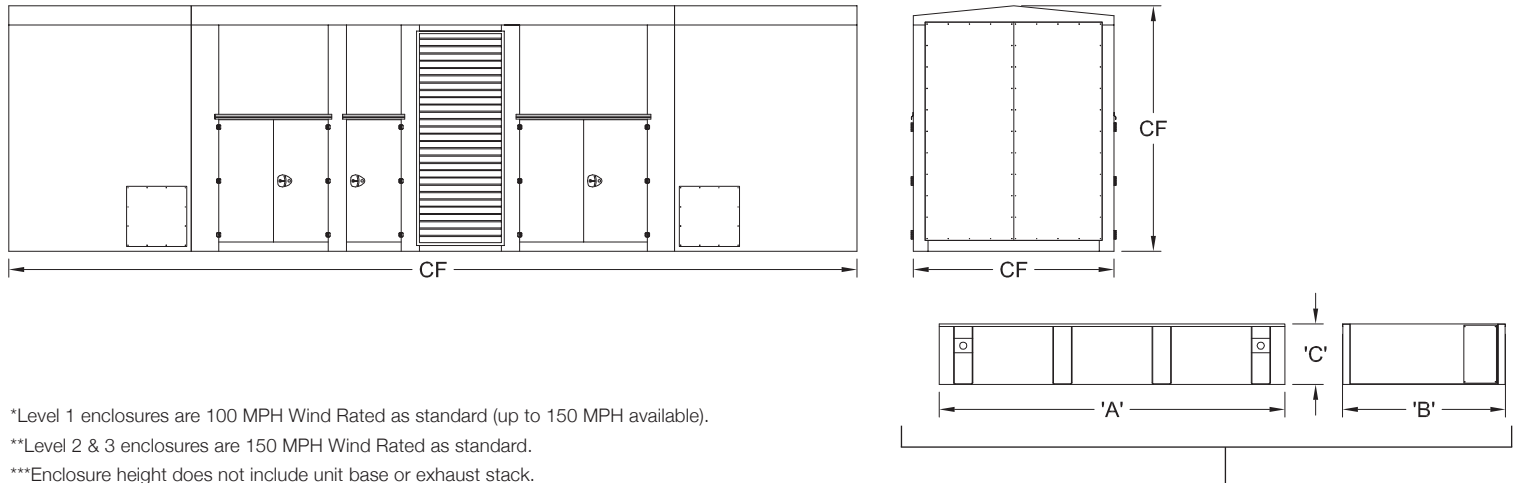
Drawings based on standard open power 480 volt standby generator. Lengths may vary with other voltages. Subject to change without notice. Sound data as measured at 23 feet (7 meters) in accordance with ISO 8528-10 at standby rating.

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 (1350 Gallon)			24 Hour (2700 Gallon)			48 Hour (5400 Gallon)		
	A	B	C	A	B	C	A	B	C
OPU	265.00	110.00	16.00	265.00	110.00	30.00	408.00	110.00	30.00
Level 1	265.00	110.00	16.00	265.00	110.00	30.00	408.00	110.00	30.00
Level 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Level 3	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.

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