

BLUE STAR

Power Systems Inc.

Diesel Product Line

208-600 Volt

MD1000-01

60 Hz / 1800 RPM

1000 kWe / 920 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	741RSL4045	741RSL4045	575RSL4044	741RSS4282
Connection	12 LEAD WYE	12 LEAD DELTA	4 LEAD WYE	4 LEAD WYE
Standby				
kWe	1000	1000	1000	1000
AMPS	3474	3011	1505	1204
Temp Rise	130°C / 27°C	130°C / 27°C	130°C / 27°C	130°C / 27°C
Prime				
kWe	920	920	920	920
AMPS	3196	2770	1385	1108
Temp Rise	105°C / 40°C	105°C / 40°C	105°C / 40°C	105°C / 40°C

Standard Equipment

Engine <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 	Generator <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 Prime Temperature Rise ▶ 100% of Rated Load - One Step ▶ 5% Maximum Harmonic Content ▶ NEMA MG 1, IEEE and ANSI standards compliance for temperature rise 	Additional <ul style="list-style-type: none"> ▶ Microprocessor Based Digital Control ▶ Base - Structural Steel ▶ Main Line Circuit Breaker Mounted & Wired ▶ Critical Grade Silencer Loose ▶ Exhaust Flex Connector ▶ Battery Charger 24V 5 Amp ▶ Jacket Water Heater -20°F 2 Qty: 5000W 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
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Diesel Product Line

1000 kWe / 920 kWe



Application Data

Engine

Manufacturer:	Mitsubishi	Displacement - Cu. In. (lit):	2,265 (37.1)
Model:	S12H-Y2PTAW-1	Bore - in. (cm) x Stroke - in. (cm):	5.91 (15.0) x 6.89 (17.5)
Type:	4-Cycle	Compression Ratio:	14.5:1
Aspiration:	Turbo Charged, H ₂ O/Air Intercooled	Rated RPM:	1800
Cylinder Arrangement:	12 Cylinder Vee	Max HP Stby (kWm):	1,528 (1,140)

Exhaust System

	Standby	Prime
Gas Temp. (Stack): °F (°C)	910 (488)	870 (465)
Gas Volume at Stack Temp: CFM (m³/min)	9,534 (270)	8,722 (247)
Maximum Allowable Exhaust Restriction: in. H ₂ O (kPa)	23.6 (5.9)	23.6 (5.9)

Cooling System

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)
Water Pump Flow Rate: Gpm (lit/min)	383 (1,450)	383 (1,450)
Heat Rejection to Coolant: BTUM (kW)	23,715 (415)	21,678 (379)
Heat Rejection to Intercooler: BTUM (kW)	18,633 (326)	17,033 (298)
Heat Radiated to Ambient: BTUM (kW)	7,115 (125)	6,546 (115)

Air Requirements

Aspirating: CFM (m³/min)	3,602 (102)	3,284 (92.9)
Air Flow Required for Rad. Cooled Unit: CFM (m³/min)	47,973 (1,358)	47,973 (1,358)
Air Flow Required for Heat Exchanger/Rem. Rad. CFM (m³/min)	Consult Factory For Remote Cooled Applications	

Fuel Consumption

At 100% of Power Rating: gal/hr (lit/hr)	75.0 (284)	70.2 (266)
At 75% of Power Rating: gal/hr (lit/hr)	59.7 (226)	54.6 (207)
At 50% of Power Rating: gal/hr (lit/hr)	39.8 (151)	36.0 (136)

Fluids Capacity

Total Oil System: gal (lit)	52.8 (200)	52.8 (200)
Engine Jacket Water Capacity w/Intercooler: gal (lit)	26.4 (100)	26.4 (100)
System Coolant Capacity: gal (lit)	84.0 (318)	84.0 (318)

Deration Factors

Altitude: Derate 0.5% per 328 ft (100 m) above 3280 ft (1000 m) standby and prime. | Temperature: Derate 1.0% per 18°F (10°C) above 104°F (40°C) standby and prime.
Consult factory for site conditions above these parameters.

DGC-2020 Control Panel

Standard Features

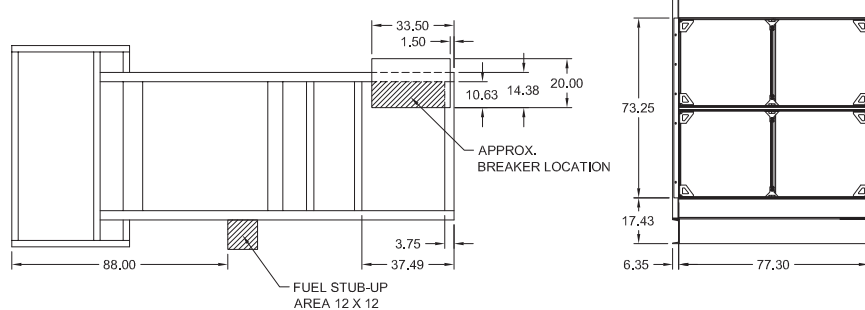
- ▶ Digital Metering
- ▶ Engine Parameters
- ▶ Generator Protection Functions
- ▶ Engine Protection
- ▶ CAN Bus ECU Communications
- ▶ Windows-Based Software
- ▶ Multilingual Capability
- ▶ Remote Communications to RDP-110 Remote Annunciator
- ▶ 16 Programmable Contact Inputs
- ▶ Up to 15 Contact Outputs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



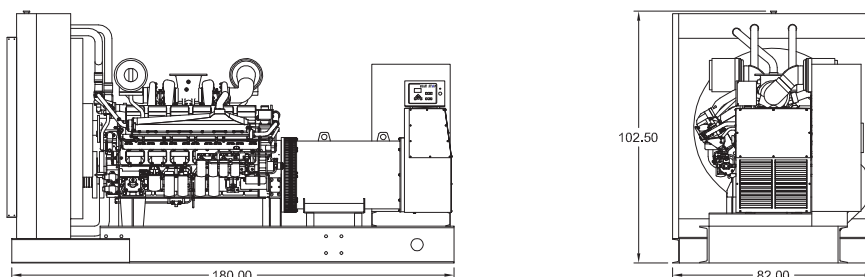
Weights / Dimensions / Sound Data

	L x W x H	Weight lbs
OPU	180 x 82 x 103 in	20,550
Level 1	200 x 90 x 108 in	22,650
Level 2	N/A	N/A
Level 3	344 x 90 x 108 in	24,800

Height measured from bottom of base to top of enclosure.



	No Load	Full Load
OPU	87 dBA	90 dBA
Level 1	86 dBA	88 dBA
Level 2	N/A	N/A
Level 3	75 dBA	79 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.

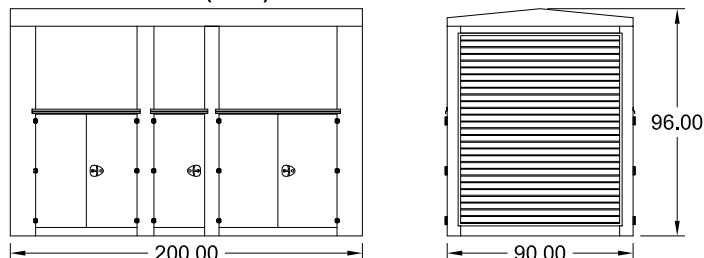
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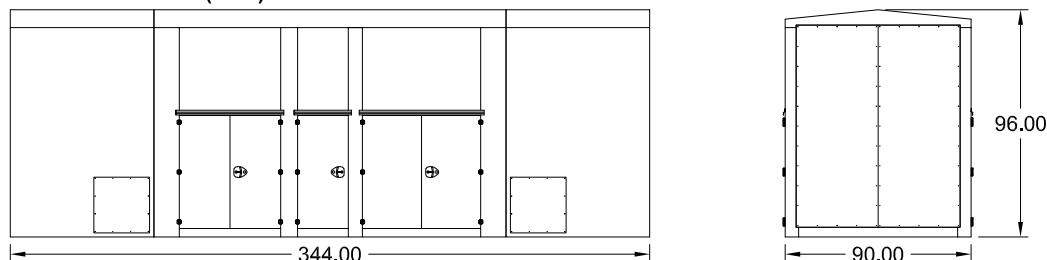


Optional Enclosures and Fuel Tanks

Level 1 Enclosure (WPE)



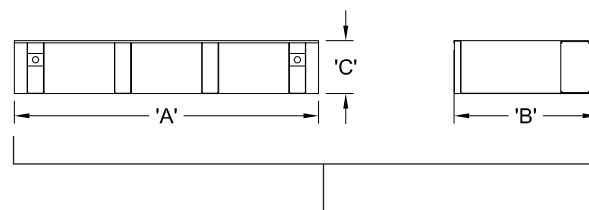
Level 3 Enclosure (SAE)



*Level 1 enclosures are 100 MPH Wind Rated as standard (up to 150 MPH available).

**Level 3 enclosures are 150 MPH Wind Rated as standard.

***Enclosure height does not include unit base.



Double Wall UL Listed 142 Fuel Tanks

	12 Hour (900 Gallon)			24 Hour (1250 Gallon)			48 Hour (3600)		
	A	B	C	A	B	C	A	B	C
OPU	CF	CF	CF	CF	CF	CF	CF	CF	CF
Level 1	200.00	90.00	20.00	200.00	90.00	36.00	360.00	90.00	36.00
Level 2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Level 3	344.00	90.00	10.00	344.00	90.00	20.00	360.00	90.00	36.00

*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.

Distributed By:



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