

BLUE STAR

Power Systems Inc.

Diesel Product Line

208-600 Volt

JD30-02

60 Hz / 1800 RPM

30 kWe / 25 kWe

Standby / Prime

Ratings

	240V	208V	240V	480V	600V
Phase	1	3	3	3	3
PF	1.0	0.8	0.8	0.8	0.8
Hz	60	60	60	60	60
Generator Model	284PSL1708	283PSL1707	283PSL1707	283PSL1707	283PSL5251
Connection	12 LEAD ZIG-ZAG	12 LEAD WYE	12 LEAD DELTA	12 LEAD WYE	4 LEAD WYE
Standby					
kWe	30	30	30	30	30
AMPS	125	104	90	45	36
Temp Rise	130°C / 27°C	130°C / 27°C	130°C / 27°C	130°C / 27°C	130°C / 27°C
Prime					
kWe	25	25	25	25	25
AMPS	104	87	75	38	30
Temp Rise	105°C / 40°C	105°C / 40°C	105°C / 40°C	105°C / 40°C	105°C / 40°C

Standard Equipment

Engine

- ▶ Radiator Cooled Unit Mounted (50°C)
- ▶ Blower Fan & Fan Drive
- ▶ Starter & Alternator
- ▶ Oil Pump & Filter
- ▶ Oil Drain Extension w/Valve
- ▶ Governor - Electronic Isochronous
- ▶ 12V Battery System & Cables
- ▶ SAE Flywheel Housing
- ▶ Air Cleaner (Dry Single Stage)
- ▶ Flexible Fuel Connectors
- ▶ EPA Certified - Tier IT4

Generator

- ▶ Brushless Single Bearing
- ▶ Automatic Voltage Regulator
- ▶ ± 1.0% 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 2200 Listed
- ▶ cUL Listed
- ▶ Microprocessor Based Digital Control
- ▶ Base - Formed Steel
- ▶ Main Line Circuit Breaker Mounted & Wired
- ▶ Critical Grade Silencer Mounted
- ▶ Battery Charger 12V 6 Amp
- ▶ Jacket Water Heater -20°F 1000W 120V w/Isolation Valves
- ▶ Vibration Isolation Mounts
- ▶ Radiator Duct Flange (OPU Only)
- ▶ Single Source Supplier
- ▶ 2YR / 2000HR Standby Warranty
- ▶ 1YR / 1500HR Prime Warranty
- ▶ Standard Colors - White / Tan / Gray



Application Data

Engine			
Manufacturer:	John Deere	Displacement - Cu. In. (lit):	146 (2.4)
Model:	4024TF281	Bore - in. (cm) x Stroke - in. (cm):	3.4 (8.6) x 4.1 (10.5)
Type:	4-Cycle	Compression Ratio:	20.5:1
Aspiration:	Turbo Charged	Rated RPM:	1800
Cylinder Arrangement:	4 Cylinder Inline	Max HP Stby (kWm):	49.0 (36.0)

Exhaust System	Standby	Prime
Gas Temp. (Stack): °F (°C)	1,026 (552)	963 (517)
Gas Volume at Stack Temp: CFM (m³/min)	283 (8.1)	261 (7.38)
Maximum Allowable Exhaust Restriction: in. H ₂ O (kPa)	30.0 (7.5)	30.0 (7.5)

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)
Water Pump Flow Rate: Gpm (lit/min)	24.0 (91.8)	24.8 (91.8)
Heat Rejection to Coolant: BTUM (kW)	1,423 (24.9)	1,309 (22.9)
Heat Radiated to Ambient: BTUM (kW)	470 (8.21)	396 (6.85)

Air Requirements	Standby	Prime
Aspirating: CFM (m³/min)	106 (3.0)	99.0 (2.8)
Air Flow Required for Rad. Cooled Unit: CFM (m³/min)	2,606 (74.0)	2,606 (74.0)
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)	2.79 (10.6)	2.52 (9.54)
At 75% of Power Rating: gal/hr (lit/hr)	2.06 (7.8)	1.89 (7.15)
At 50% of Power Rating: gal/hr (lit/hr)	1.39 (5.26)	1.24 (4.69)

Fluids Capacity	Standby	Prime
Total Oil System: gal (lit)	2.1 (8.0)	2.1 (8.0)
Engine Jacket Water Capacity: gal (lit)	0.68 (2.6)	0.68 (2.6)
System Coolant Capacity: gal (lit)	2.3 (8.7)	2.3 (8.7)

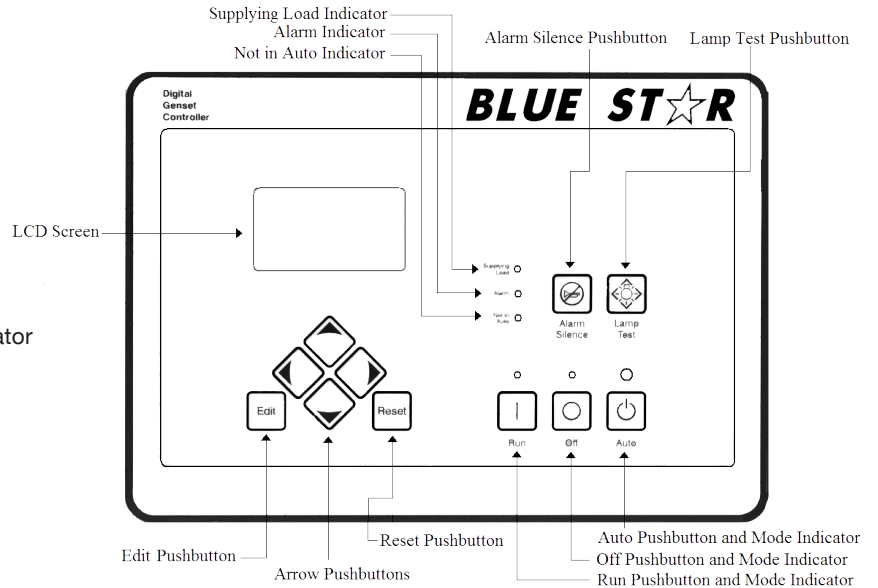
Deration Factors

Rated Power is available up to 10,000 ft (3048 m) at ambient temperatures to 122°F (50°C) standby and prime. Consult factory for site conditions above these parameters.

DGC-2020 Control Panel

Standard Features

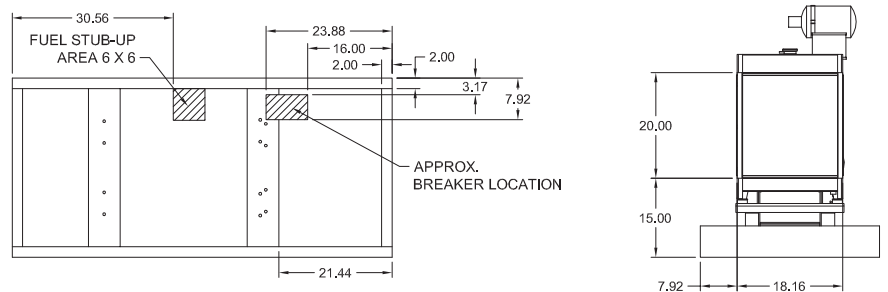
- ▶ Digital Metering
- ▶ Engine Parameters
- ▶ Generator Protection Functions
- ▶ Engine Protection
- ▶ CAN Bus ECU Communications
- ▶ Windows-Based Software
- ▶ Multilingual Capability
- ▶ Remote Communications to RDP-110 Remote Annunciator
- ▶ 16 Programmable Contact Inputs
- ▶ Up to 15 Contact Outputs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



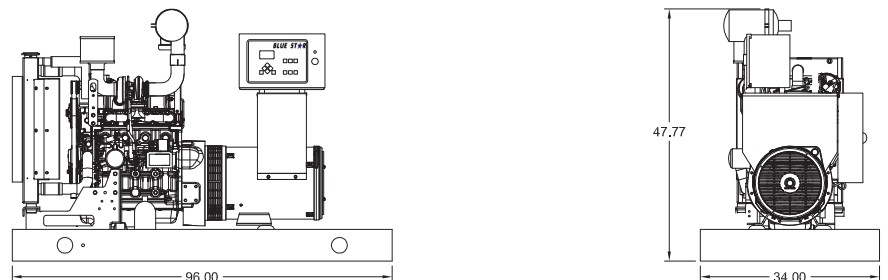
Weights / Dimensions / Sound Data

	L x W x H	Weight lbs
OPU	72 x 34 x 48 in	1375
Level 1	72 x 34 x 60 in	1675
Level 2	72 x 34 x 72 in	1850
Level 3	96 x 34 x 66 in	2050

Height measured from bottom of base to exhaust stack.



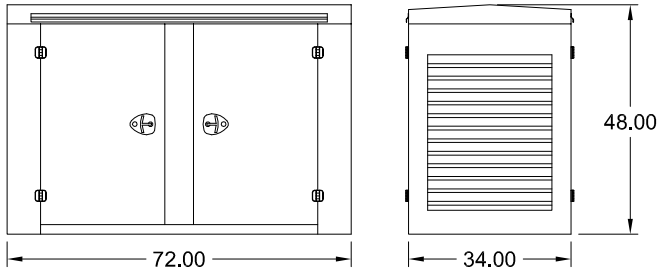
	No Load	Full Load
OPU	69 dBA	72 dBA
Level 1	66 dBA	68 dBA
Level 2	64 dBA	66 dBA
Level 3	61 dBA	63 dBA



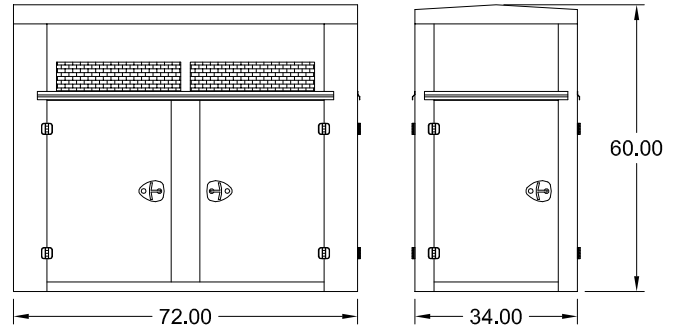
Drawings based on standard open power 480 volt standby generator. Lengths may vary with other voltages. Subject to change without notice. Sound data as measured at 23 feet (7 meters) in accordance with ISO 8528-10 at standby rating.

Optional Enclosures and Fuel Tanks

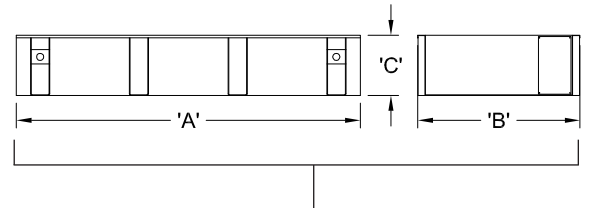
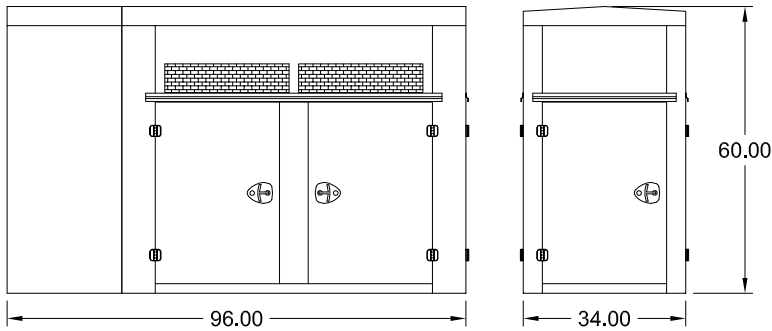
Level 1 Enclosure (WPE)



Level 2 Enclosure (WPF)



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

	24 Hour (70 Gallon)			48 Hour (140 Gallon)			72 Hour (210 Gallon)		
	A	B	C	A	B	C	A	B	C
OPU	72.00	34.00	14.00	72.00	34.00	26.00	90.00	34.00	28.00
Level 1	72.00	34.00	14.00	72.00	34.00	26.00	90.00	34.00	28.00
Level 2	72.00	34.00	14.00	72.00	34.00	26.00	90.00	34.00	28.00
Level 3	96.00	34.00	10.00	96.00	34.00	18.00	96.00	34.00	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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