

# BLUE STAR

## Power Systems Inc.

### Diesel Product Line

208-600 Volt

JD250-02

60 Hz / 1800 RPM

250 kWe / 250 kWe

Standby / Prime

### Ratings

|   | 240V            | 208V         | 240V          | 480V         | 600V         |
|---|-----------------|--------------|---------------|--------------|--------------|
| <b>Phase</b>  | 1               | 3            | 3             | 3            | 3            |
| <b>PF</b>   | 1.0             | 0.8          | 0.8           | 0.8          | 0.8          |
| <b>Hz</b>   | 60              | 60           | 60            | 60           | 60           |
| <b>Generator Model</b>                                | 572RSL4027      | 432CSL6210   | 432CSL6210    | 432CSL6210   | 432PSL6246   |
| <b>Connection</b>                                     | 12 LEAD ZIG-ZAG | 12 LEAD WYE  | 12 LEAD DELTA | 12 LEAD WYE  | 4 LEAD WYE   |
| <b>Standby</b>  |                 |              |               |              |              |
| <b>kWe</b>  | 250             | 250          | 250           | 250          | 250          |
| <b>AMPS</b>   | 1042            | 868          | 753           | 376          | 301          |
| <b>Temp Rise</b>                                      | 130°C / 27°C    | 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>  | 250             | 250          | 250           | 250          | 250          |
| <b>AMPS</b>   | 1042            | 868          | 753           | 376          | 301          |
| <b>Temp Rise</b>                                      | 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 3

#### 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 2500W 240V 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):        | 549 (9.0)                 |
| Model:                | 6090HF484          | Bore - in. (cm) x Stroke - in. (cm): | 4.66 (11.8) x 5.35 (13.6) |
| Type:                 | 4-Cycle            | Compression Ratio:                   | 16.0:1                    |
| Aspiration:           | Turbo Charged, CAC | Rated RPM:                           | 1800                      |
| Cylinder Arrangement: | 6 Cylinder Inline  | Max HP Stby (kWm):                   | 422 (315)                 |

| Exhaust System                                       | Standby      | Prime        |
|--|--------------|--------------|
| Gas Temp. (Stack): °F (°C)                           | 1,180 (638)  | 1,180 (638)  |
| Gas Volume at Stack Temp: CFM (m³/min)               | 2,085 (59.0) | 2,067 (58.5) |
| Maximum Allowable Exhaust Restriction: in. H2O (kPa) | 30 (7.5)     | 30 (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. H2O (kPa) | 0.5 (0.12)   | 0.5 (0.12)   |
| Water Pump Flow Rate: Gpm (lit/min)                              | 74.0 (280)   | 74.0 (280)   |
| Heat Rejection to Coolant: BTUM (kW)                             | 5,943 (104)  | 5,371 (94)   |
| Heat Rejection to CAC: BTUM (kW)                                 | 5,029 (88.0) | 4,943 (86.5) |
| Heat Radiated to Ambient: BTUM (kW)                              | 2,312 (40.5) | 2,312 (40.5) |

| Air Requirements  | Standby  | Prime        |
|---|--|--------------|
| Aspirating: CFM (m³/min)                                    | 901 (25.5)                                     | 901 (25.5)   |
| Air Flow Required for Rad. Cooled Unit: CFM (m³/min)        | 15,333 (434)                                   | 15,333 (434) |
| 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) | 19.6 (74.3) | 18.4 (69.9) |
| At 75% of Power Rating: gal/hr (lit/hr)  | 17.0 (64.2) | 15.9 (60.2) |
| At 50% of Power Rating: gal/hr (lit/hr)  | 12.0 (45.4) | 11.3 (42.7) |

| Fluids Capacity                         | Standby     | Prime       |
|---|-------------|-------------|
| Total Oil System: gal (lit)             | 8.2 (31.0)  | 8.2 (31.0)  |
| Engine Jacket Water Capacity: gal (lit) | 4.25 (16.0) | 4.25 (16.0) |
| System Coolant Capacity: gal (lit)      | 13.2 (50.0) | 13.2 (50.0) |

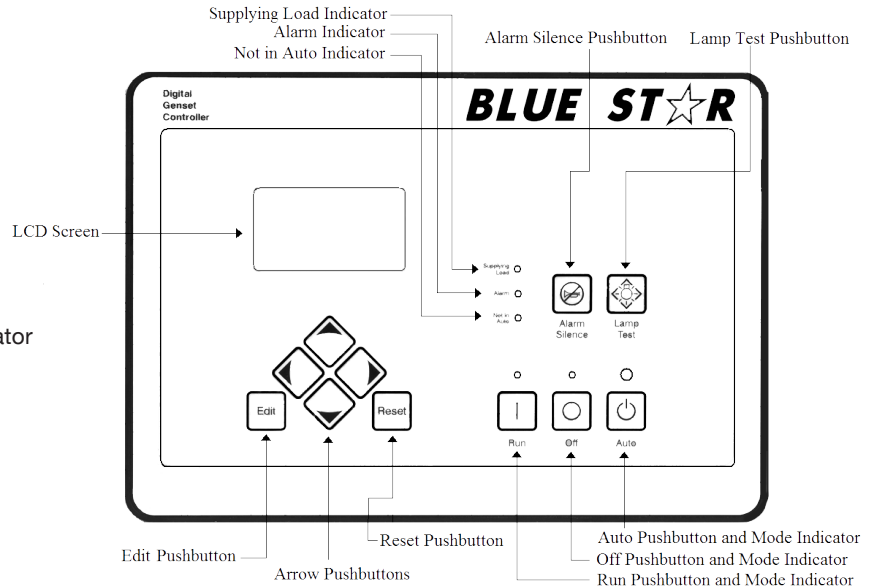
### Deration Factors

Rated Power is available up to 5500 ft (1677 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

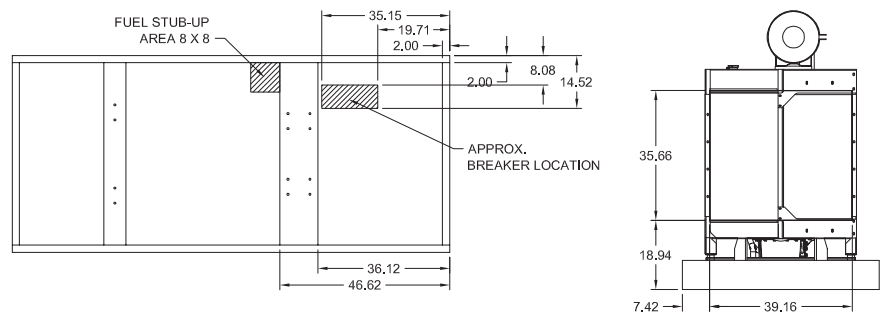
- ▶ Digital Metering
- ▶ Engine Parameters
- ▶ Generator Protection Functions
- ▶ Engine Protection
- ▶ CAN Bus ECU Communications
- ▶ Windows-Based Software
- ▶ Multilingual Capability
- ▶ Remote Communications to RDP-110 Remote Annunciator
- ▶ 16 Programmable Contact Inputs
- ▶ Up to 15 Contact Outputs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



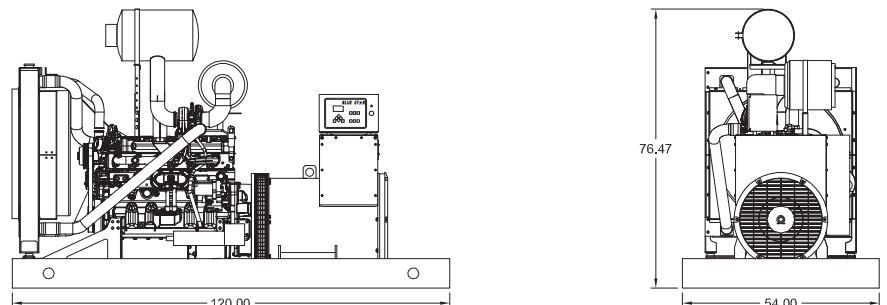
## Weights / Dimensions / Sound Data

|                | L x W x H         | Weight lbs |
|----------------|-------------------|------------|
| <b>OPU</b>     | 120 x 54 x 77 in  | 4200       |
| <b>Level 1</b> | 120 x 54 x 90 in  | 5000       |
| <b>Level 2</b> | 120 x 54 x 107 in | 5300       |
| <b>Level 3</b> | 160 x 54 x 98 in  | 5725       |

Height measured from bottom of base to exhaust stack.



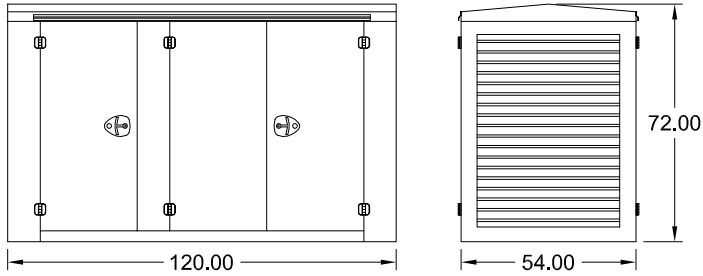
|                | No Load | Full Load |
|----------------|---------|-----------|
| <b>OPU</b>     | 80 dBA  | 84 dBA    |
| <b>Level 1</b> | 78 dBA  | 82 dBA    |
| <b>Level 2</b> | 77 dBA  | 80 dBA    |
| <b>Level 3</b> | 68 dBA  | 71 dBA    |



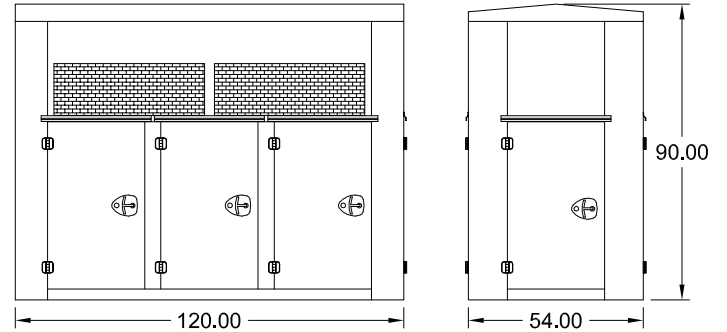
Drawings based on standard open power 480 volt standby generator. Lengths may vary with other voltages. Subject to change without notice. Sound data as measured at 23 feet (7 meters) in accordance with ISO 8528-10 at standby rating.

## Optional Enclosures and Fuel Tanks

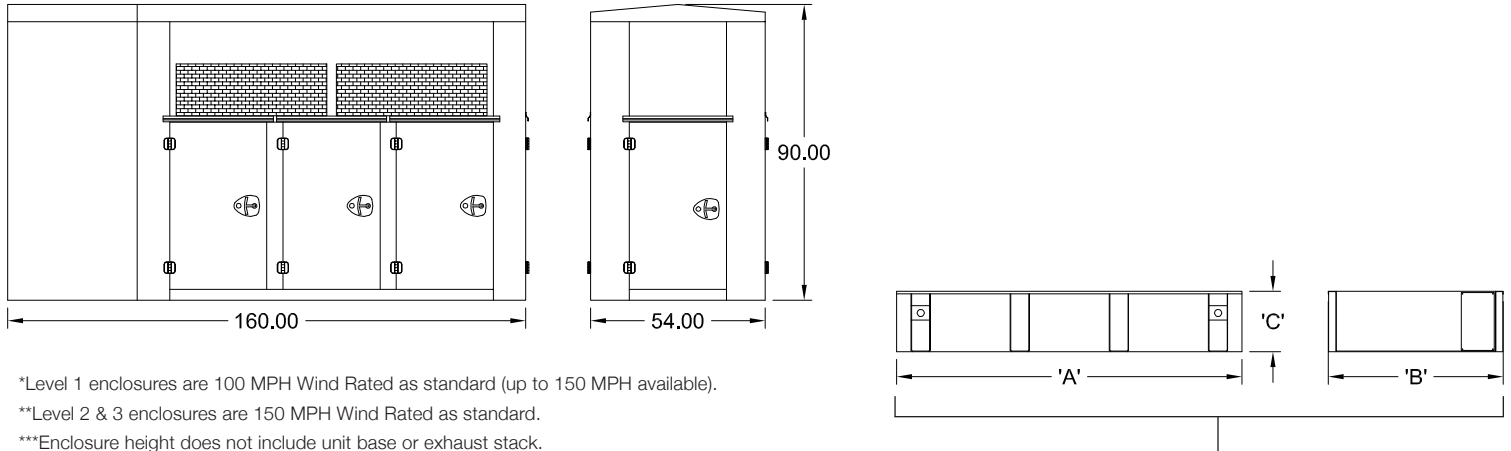
**Level 1 Enclosure (WPE)**



**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 (475 Gallon) |       |       | 48 Hour (950 Gallon) |       |       | 72 Hour (1425 Gallon) |       |       |
|----------------|----------------------|-------|-------|----------------------|-------|-------|-----------------------|-------|-------|
|                | A                    | B     | C     | A                    | B     | C     | A                     | B     | C     |
| <b>OPU</b>     | 120.00               | 54.00 | 28.00 | 165.00               | 54.00 | 36.00 | 230.00                | 54.00 | 36.00 |
| <b>Level 1</b> | 120.00               | 54.00 | 28.00 | 165.00               | 54.00 | 36.00 | 230.00                | 54.00 | 36.00 |
| <b>Level 2</b> | 120.00               | 54.00 | 28.00 | 165.00               | 54.00 | 36.00 | 230.00                | 54.00 | 36.00 |
| <b>Level 3</b> | 160.00               | 54.00 | 20.00 | 165.00               | 54.00 | 36.00 | 230.00                | 54.00 | 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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