

BLUE STAR Power Systems

Diesel Product Line

208-600 Volt

VD550-01

60 Hz / 1800 RPM

550 kWe

Standby

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 | HCI534F | HCI534F | HCI534E | HCI534E |
| Connection | 12 LEAD WYE | 12 LEAD DELTA | 12 LEAD WYE | 4 LEAD WYE |
| kWe | 550 | 550 | 550 | 550 |
| AMPS | 1911 | 1656 | 828 | 662 |
| Temp Rise | 125°C / 40°C | 125°C / 40°C | 125°C / 40°C | 125°C / 40°C |

Standard Equipment

Engine

- Radiator Cooled Unit Mounted (55°C)
- Radiator Duct Flange (OPU Only)
- Blower Fan & Fan Drive
- Starter & Alternator
- Oil Pump & Filter
- Oil Drain Extension w/Valve
- Governor - Electronic Isochronous
- 24V Battery System & Cables
- Air Cleaner (Dry Single Stage)
- Critical Grade Silencer Mounted
- Flexible Fuel Connector
- EPA Certified Tier 2

Generator

- Brushless Single Bearing
- Automatic Voltage Regulator
- ± 0.50% Voltage Regulation
- 4 Pole, Rotating Field
- 125°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

Additional

- Single Source Supplier
- UL 2200 & cUL Listed
- CSA Certified
- Seismic Certified to IBC 2021
- NFPA 110 / CSA C282 Compliant
- Microprocessor Based Digital Control Panel Mounted in NEMA 12 Enclosure
- Base - Structural Steel
- Main Line Circuit Breaker Mounted & Wired
- Battery Charger 24V 5 Amp
- Jacket Water Heater -20°F 5000W 240V w/Isolation Valves
- Vibration Isolation Mounts (Pad Type)
- 2 Year / 2000 Hour Standby Warranty
- Standard Colors - White / Gray

Application Data

Engine

| | | | |
|-----------------------|-------------------------------|--------------------------------------|---------------------------|
| Manufacturer: | Volvo Penta | Displacement - Cu. In. (lit): | 984 (16.1) |
| Model: | TAD1642GE-B | Bore - in. (cm) x Stroke - in. (cm): | 5.67 (14.4) x 6.50 (16.5) |
| Type: | 4-Cycle | Compression Ratio: | 16.8:1 |
| Aspiration: | Turbo Charged, Air to Air CAC | Rated RPM: | 1800 |
| Cylinder Arrangement: | 6 Cylinder Inline | Max HP Stby (kWm): | 821 (612) |

Exhaust System

Standby

| | |
|---|-------------|
| Gas Temp. (Stack): °F (°C) | 954 (512) |
| Gas Volume at Stack Temp: CFM (m³/min) | 4,153 (118) |
| Maximum Allowable Exhaust Restriction: in. H ₂ O (kPa) | 40.2 (10.0) |

Cooling System

| | |
|---|--------------|
| Ambient Capacity of Radiator: °F (°C) | 131 (55.0) |
| Maximum Allowable Static Pressure on Rad. Exhaust: in. H ₂ O (kPa) | 0.50 (0.12) |
| Water Pump Flow Rate: GPM (lit/min) | 122 (462) |
| Heat Rejection to Coolant: BTUM (kW) | 14,104 (248) |
| Heat Rejection to CAC: BTUM (kW) | 9,042 (158) |
| Heat Radiated to Ambient: BTUM (kW) | 10,724 (188) |

Air Requirements

| | |
|---|--|
| Aspirating: CFM (m³/min) | 1,603 (45.4) |
| Air Flow Required for Rad. Cooled Unit: CFM (m³/min) | 22,261 (630) |
| 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) | 37.4 (141) |
| At 75% of Power Rating: gal/hr (lit/hr) | 28.1 (106) |
| At 50% of Power Rating: gal/hr (lit/hr) | 18.8 (71.0) |

Fluids Capacity

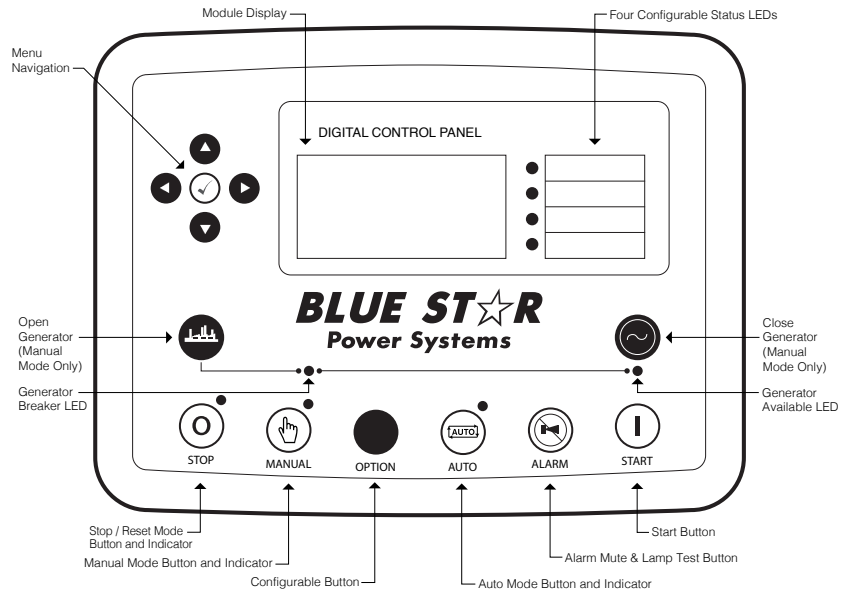
| | |
|---|-------------|
| Total Oil System: gal (lit) | 12.7 (48.0) |
| Engine Jacket Water Capacity: gal (lit) | 8.72 (33.0) |
| System Coolant Capacity: gal (lit) | 15.9 (60.0) |

Deration Factors: Rated Power is available up to 4,920 Ft (1,500 m) at ambient temperatures to 122°F (50°C). Consult factory for site conditions above these parameters.

DCP7310 Control Panel

Standard Features

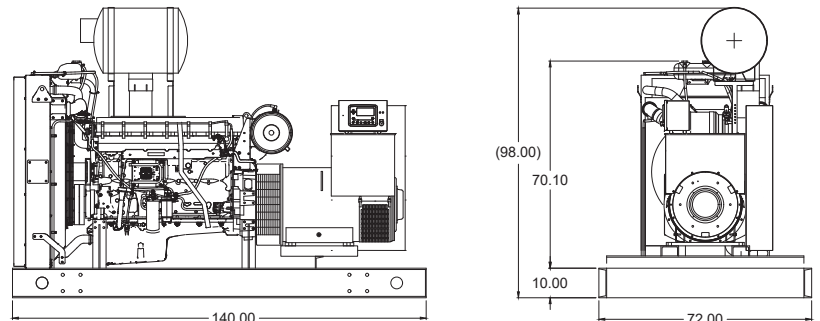
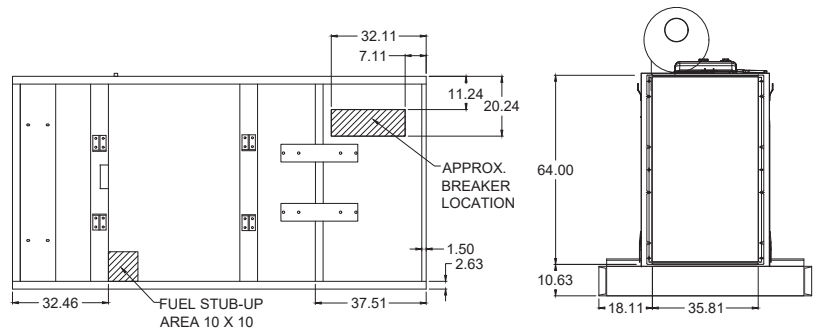
- Digital Metering
- Engine Parameters
- Generator Protection Functions
- Engine Protection
- CAN Bus (J1939) ECU Communications
- Windows-Based Software
- Multilingual Capability
- Remote Communications to DSE2548 Remote Annunciator
- 8 Programmable Contact Inputs
- 10 Contact Outputs
- RS485 Communicator Interface
- cULus Listed, CE Approved
- Event Recording
- IP 65 rating (with supplied gasket) offers increased resistance to water ingress
- NFPA 110 Level 1 Compatible



Weights / Dimensions / Sound Data

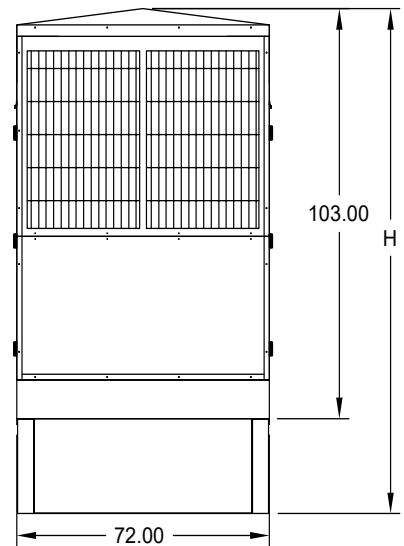
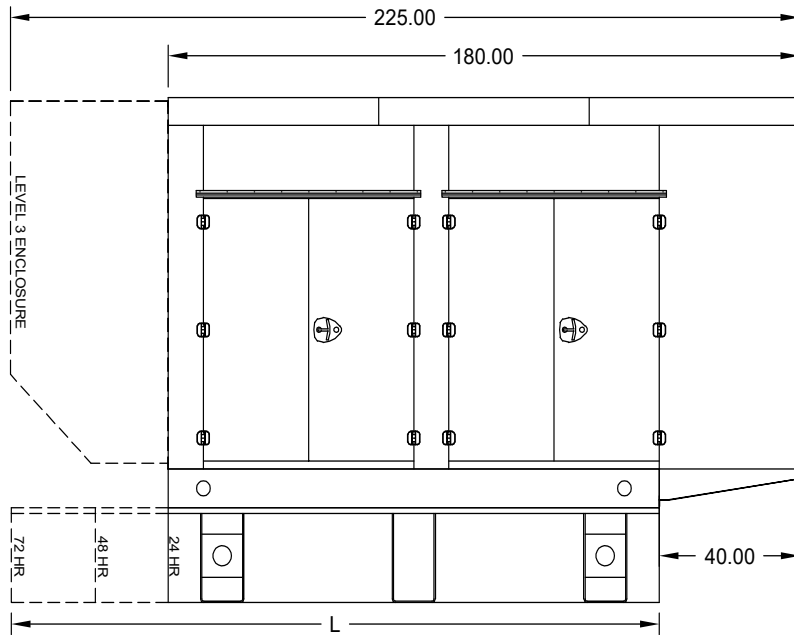
| | L x W x H | Weight lbs |
|----------------|-------------------|------------|
| OPU | 140 x 72 x 98 in | 10,225 |
| Level 1 | 180 x 72 x 103 in | 11,875 |
| Level 2 | 180 x 72 x 103 in | 11,975 |
| Level 3 | 225 x 72 x 103 in | 12,375 |

Please allow 6-12 inches for height of exhaust stack.



| | No Load | Full Load |
|----------------|---------|-----------|
| OPU | 92 dBA | 94 dBA |
| Level 1 | 87 dBA | 90 dBA |
| Level 2 | 82 dBA | 84 dBA |
| Level 3 | 74 dBA | 76 dBA |

Enclosures & Fuel Tanks



- All enclosure models are 200 MPH wind rating certified in accordance with IBC2021 and ASCE/SEI 7-16 standards.
- Level 2 & 3 enclosures include sound attenuation foam
- Level 3 enclosure includes frontal sound & exhaust hood.
- Enclosure height does not include exhaust stack.

| | 24 Hour 1000 Gallon | 48 Hour 2000 Gallon | 72 Hour 3000 Gallon |
|----------|------------------------|------------------------|------------------------|
| L | 140.00 | 246.00 | 348.00 |
| H | 137.00 | 139.00 | 139.00 |

Notes

- All specification sheet dimensions are represented in inches.
- All drawings based on standard 480 volt standby generator. Lengths may vary with other voltages. All drawings and dimensions subject to change without notice.
- All enclosures and fuel tanks are based on the standard unit configuration. Any requested deviation can change dimensions.
- Sound data is measured at 23 feet (7 meters) in accordance with ISO 8528-10.
- All materials and specifications subject to change without notice.

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