

# BLUE STAR

## Power Systems Inc.

### Diesel Product Line

208-600 Volt

VD350-02FT4

60 Hz / 1800 RPM

350 kWe / 350 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 | S4L1D-G41    | S4L1D-G41     | S4L1D-F41    | S4L1D-F4     |
| Connection      | 12 LEAD WYE  | 12 LEAD DELTA | 12 LEAD WYE  | 4 LEAD WYE   |
| Standby kWe     | 350          | 350           | 350          | 350          |
| AMPS            | 1216         | 1054          | 527          | 421          |
| Temp Rise       | 105°C / 40°C | 105°C / 40°C  | 105°C / 40°C | 105°C / 40°C |
| Prime kWe       | 350          | 350           | 350          | 350          |
| AMPS            | 1216         | 1054          | 527          | 421          |
| Temp Rise       | 105°C / 40°C | 105°C / 40°C  | 105°C / 40°C | 105°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)
- SRC Catalyst / Silencer Mounted
- Flexible Fuel Connector
- EPA Certified Tier 4 Final

#### Generator

- Brushless Single Bearing
- Automatic Voltage Regulator
- ± 0.50% Voltage Regulation
- 4 Pole, Rotating Field
- 105°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

- 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
- 2 Year / 2000 Hour Standby Warranty
- 1 Year / 1500 Hour Prime Warranty
- Standard Colors - White / Gray

# Diesel Product Line

350 kWe / 350 kWe



## Application Data

### Engine

|                       |                    |                                      |                           |
|-----------------------|--------------------|--------------------------------------|---------------------------|
| Manufacturer:         | Volvo Penta        | Displacement - Cu. In. (lit):        | 984 (16.1)                |
| Model:                | TAD1670VE          | Bore - in. (cm) x Stroke - in. (cm): | 5.67 (14.4) x 6.50 (16.5) |
| Type:                 | 4-Cycle            | Compression Ratio:                   | 17.0:1                    |
| Aspiration:           | Turbo Charged, CAC | Rated RPM:                           | 1800                      |
| Cylinder Arrangement: | 6 Cylinder Inline  | Max HP Stby (kWm):                   | 551 (405)                 |

### Exhaust System

|                                                                   | Standby      | Prime        |
|-------------------------------------------------------------------|--------------|--------------|
| Gas Temp. (Stack): °F (°C)                                        | 869 (465)    | 869 (465)    |
| Gas Volume at Stack Temp: CFM (m³/min)                            | 2,861 (81.0) | 2,861 (81.0) |
| Maximum Allowable Exhaust Restriction: in. H <sub>2</sub> O (kPa) | 16.0 (4.00)  | 16.0 (4.00)  |

### Cooling System

|                                                                               |              |              |
|-------------------------------------------------------------------------------|--------------|--------------|
| Ambient Capacity of Radiator: °F (°C)                                         | 131 (55.0)   | 131 (55.0)   |
| Maximum Allowable Static Pressure on Rad. Exhaust: in. H <sub>2</sub> O (kPa) | 0.50 (0.12)  | 0.50 (0.12)  |
| Water Pump Flow Rate: GPM (lit/min)                                           | 108 (409)    | 108 (409)    |
| Heat Rejection to Coolant: BTUM (kW)                                          | 9,668 (169)  | 9,668 (169)  |
| Heat Rejection to CAC: BTUM (kW)                                              | 4,891 (85.6) | 4,891 (85.6) |
| Heat Radiated to Ambient: BTUM (kW)                                           | 6,953 (122)  | 6,953 (122)  |

### Air Requirements

|                                                             |                                                |              |
|-------------------------------------------------------------|------------------------------------------------|--------------|
| Aspirating: CFM (m³/min)                                    | 1,155 (32.7)                                   | 1,155 (32.7) |
| Air Flow Required for Rad. Cooled Unit: CFM (m³/min)        | 19,878 (563)                                   | 19,878 (563) |
| 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) | 24.0 (91.0) | 24.0 (91.0) |
| At 75% of Power Rating: gal/hr (lit/hr)  | 17.7 (67.0) | 17.7 (67.0) |
| At 50% of Power Rating: gal/hr (lit/hr)  | 12.7 (48.0) | 12.7 (48.0) |
| DEF Consumption (% of fuel consumption)  | ± 5.60%     | ± 5.60%     |

### Fluids Capacity

|                                         |             |             |
|-----------------------------------------|-------------|-------------|
| Total Oil System: gal (lit)             | 12.7 (48.1) | 12.7 (48.1) |
| Engine Jacket Water Capacity: gal (lit) | 6.30 (23.8) | 6.30 (23.8) |
| System Coolant Capacity: gal (lit)      | 16.1 (60.9) | 16.1 (60.9) |
| DEF Tank Capacity: gal (lit)            | 18.5 (70.0) | 18.5 (70.0) |

Deration Factors: Rated Power is available up to 4,921 Ft (1500m) at ambient temperatures to 122°F (50°C).  
Consult factory for site conditions above these parameters.

# Diesel Product Line

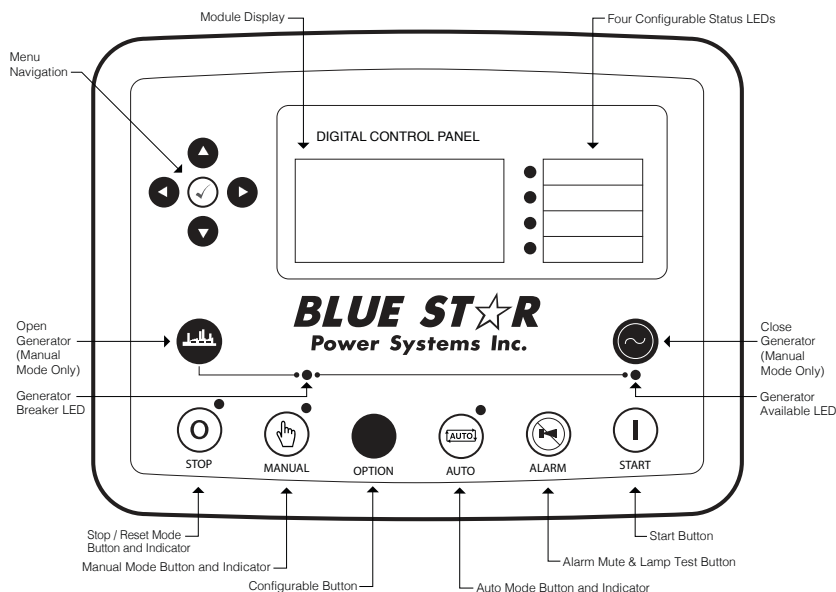
350 kWe / 350 kWe

**BLUE STAR**  
Power Systems Inc.

## DCP7310 Control Panel

### Standard Features

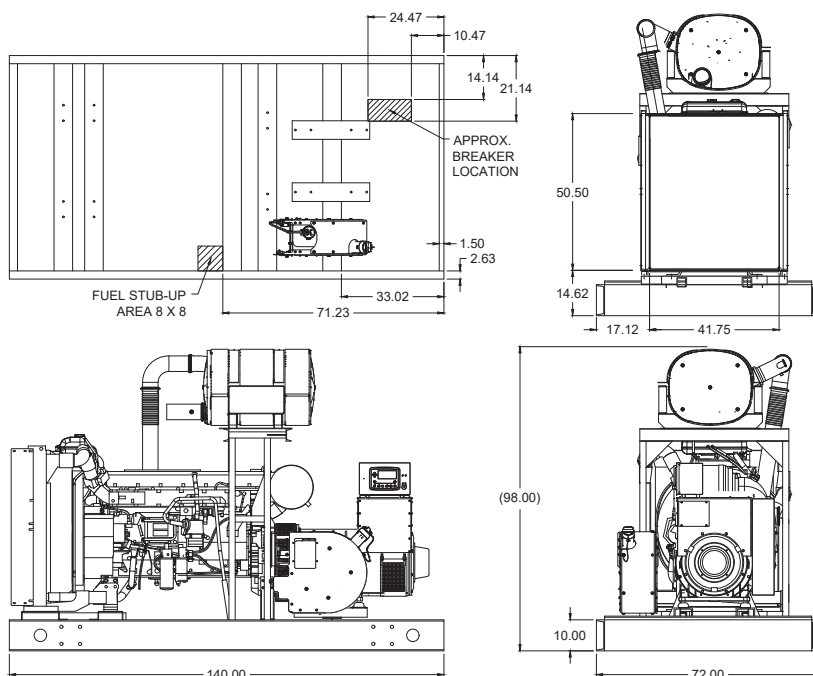
- Digital Metering
- Engine Parameters
- Generator Protection Functions
- Engine Protection
- CAN Bus (J1939) ECU Communications
- Windows-Based Software
- Multilingual Capability
- Remote Communications to DSE2548 Remote Annunciator
- 8 Programmable Contact Inputs
- 10 Contact Outputs
- RS485 Communicator 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 |
|----------------|-------------------|------------|
| <b>OPU</b>     | 140 x 72 x 98 in  | 10,025     |
| <b>Level 1</b> | 180 x 72 x 103 in | 11,625     |
| <b>Level 2</b> | 180 x 72 x 103 in | 11,700     |
| <b>Level 3</b> | 225 x 72 x 103 in | 12,150     |

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



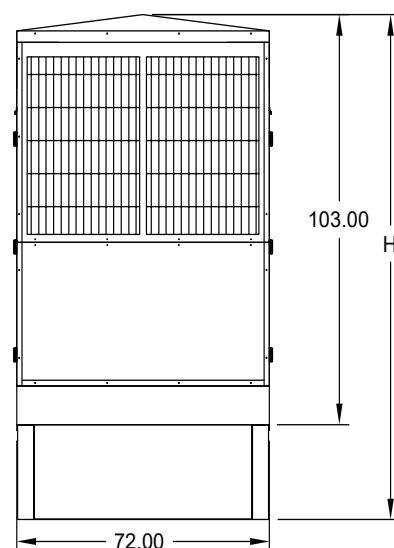
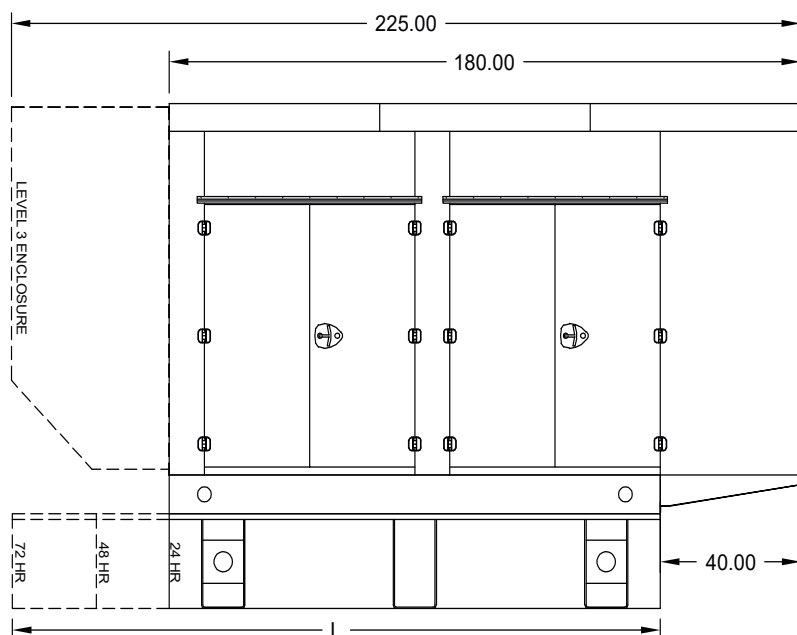
|                | No Load | Full Load |
|----------------|---------|-----------|
| <b>OPU</b>     | 85 dBA  | 87 dBA    |
| <b>Level 1</b> | 81 dBA  | 83 dBA    |
| <b>Level 2</b> | 77 dBA  | 79 dBA    |
| <b>Level 3</b> | 71 dBA  | 73 dBA    |

# Diesel Product Line

350 kW<sub>e</sub> / 350 kW<sub>e</sub>



## 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<br>710 Gallon | 48 Hour<br>1420 Gallon | 72 Hour<br>2130 Gallon |
|---|-----------------------|------------------------|------------------------|
| L | 140.00                | 180.00                 | 250.00                 |
| H | 127.00                | 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.

American Owned



American Made

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