



# POWERDAK

POWER PRODUCTS, LLC

## Diesel Product Line

208-600 Volt

**BSVD550KWSP**

**60 Hz / 1800 RPM**

**550 kWe / 510 kWe**

**Standby / Prime**

## Ratings

|   | 208V         | 240V          | 480V         | 600V         |
|---|--------------|---------------|--------------|--------------|
| <b>Phase</b>  | 3            | 3             | 3            | 3            |
| <b>PF</b>   | 0.8          | 0.8           | 0.8          | 0.8          |
| <b>Hz</b>   | 60           | 60            | 60           | 60           |
| <b>Generator Model</b>                                | 572RSL4031   | 572RSL4031    | 572RSL4029   | 572RSS4272   |
| <b>Connection</b>                                     | 12 LEAD WYE  | 12 LEAD DELTA | 12 LEAD WYE  | 4 LEAD WYE   |
| <b>Standby</b>  |              |               |              |              |
| <b>kWe</b>  | 550          | 550           | 550          | 550          |
| <b>AMPS</b>   | 1911         | 1656          | 828          | 662          |
| <b>Temp Rise</b>                                      | 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>  | 510          | 510           | 510          | 510          |
| <b>AMPS</b>   | 1772         | 1535          | 768          | 614          |
| <b>Temp Rise</b>                                      | 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)
- ▶ 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)
- ▶ Flexible Fuel Connector
- ▶ EPA Certified Tier 2

### Listing Certifications

- ▶ UL 2200 Listed
- ▶ cUL Listed
- ▶ CSA Certified
- ▶ Seismic Certified to IBC 2012

### Generator

- ▶ Brushless Single Bearing
- ▶ Automatic Voltage Regulator
- ▶  $\pm .25\%$  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

- ▶ Microprocessor Based Digital Control
- ▶ Interface Connection Box
- ▶ Control Panel Mounted in NEMA 12 Enclosure
- ▶ Base - Structural Steel
- ▶ Main Line Circuit Breaker Mounted & Wired
- ▶ Critical Grade Silencer Mounted
- ▶ Battery Charger 24V 5 Amp
- ▶ Jacket Water Heater -20°F 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

# Diesel Product Line

**BSVD550KWSP**  
**550 kWe / 510 kWe**



**POWERDAK**  
POWER PRODUCTS, LLC

## Application Data

| Engine                |                               |  |
|-----------------------|-------------------------------|--|
| Manufacturer:         | Volvo Penta                   | Displacement - Cu. In. (lit): 984 (16.12)                      |
| Model:                | TAD1642GE                     | Bore - in. (cm) x Stroke - in. (cm): 5.70 (14.4) x 6.50 (16.5) |
| Type:                 | 4-Cycle                       | Compression Ratio: 16.5:1                                      |
| Aspiration:           | Turbo Charged, Air to Air CAC | Rated RPM: 1800  |
| Cylinder Arrangement: | 6 Cylinder Inline             | Max HP Stby (kWm): 822 (613)                                   |

| Exhaust System                                       | Standby     | Prime       |
|--|-------------|-------------|
| Gas Temp. (Stack): °F (°C)                           | 954 (512)   | 874 (468)   |
| Gas Volume at Stack Temp: CFM (m³/min)               | 4,153 (118) | 3,846 (109) |
| Maximum Allowable Exhaust Restriction: in. H₂O (kPa) | 40.2 (10.0) | 32.1 (8.00) |

| Cooling System   |              |              |
|--|--------------|--------------|
| Ambient Capacity of Radiator: °F (°C)                            | 131 (55.0)   | 131 (55.0)   |
| Maximum Allowable Static Pressure on Rad. Exhaust: in. H₂O (kPa) | 0.50 (0.12)  | 0.50 (0.12)  |
| Water Pump Flow Rate: GPM (lit/min)                              | 122 (462)    | 122 (462)    |
| Heat Rejection to Coolant: BTUM (kW)                             | 14,104 (248) | 12,397 (218) |
| Heat Rejection to CAC: BTUM (kW)                                 | 9,042 (158)  | 7,957 (139)  |
| Heat Radiated to Ambient: BTUM (kW)                              | 4,253 (74.4) | 3,919 (68.6) |

| Air Requirements  |  |              |
|---|--|--------------|
| Aspirating: CFM (m³/min)                                    | 1,646 (46.6)                                   | 1,603 (45.4) |
| Air Flow Required for Rad. Cooled Unit: CFM (m³/min)        | 21,120 (598)                                   | 21,120 (598) |
| 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) | 39.9 (151.0) | 35.9 (136.0) |
| At 75% of Power Rating: gal/hr (lit/hr)  | 28.8 (109.0) | 26.0 (98.0)  |
| At 50% of Power Rating: gal/hr (lit/hr)  | 19.1 (72.0)  | 17.5 (66.0)  |

| Fluids Capacity                         |             |             |
|---|-------------|-------------|
| Total Oil System: gal (lit)             | 12.7 (48.0) | 12.7 (48.0) |
| Engine Jacket Water Capacity: gal (lit) | 8.70 (33.0) | 8.70 (33.0) |
| System Coolant Capacity: gal (lit)      | 15.9 (60.0) | 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) standby and prime.  
Consult factory for site conditions above these parameters.

# Diesel Product Line

**BSVD550KWSP**  
**550 kWe / 510 kWe**

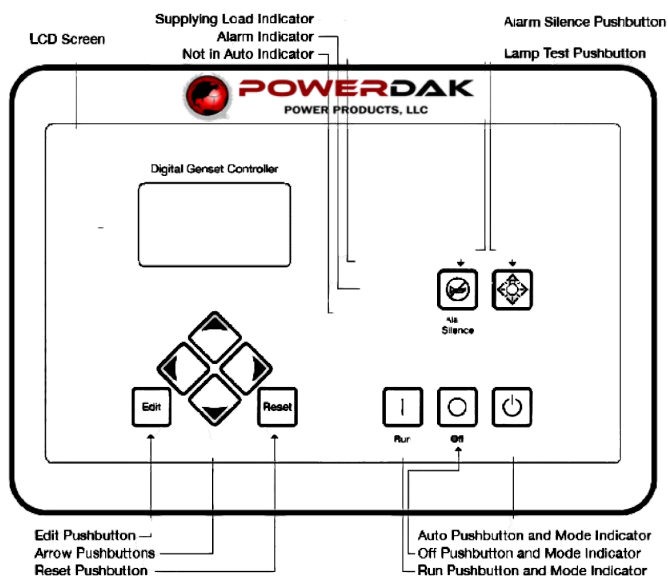


**POWERDAK**  
 POWER PRODUCTS, LLC

## DGC-2020 Control Panel

### Standard Features

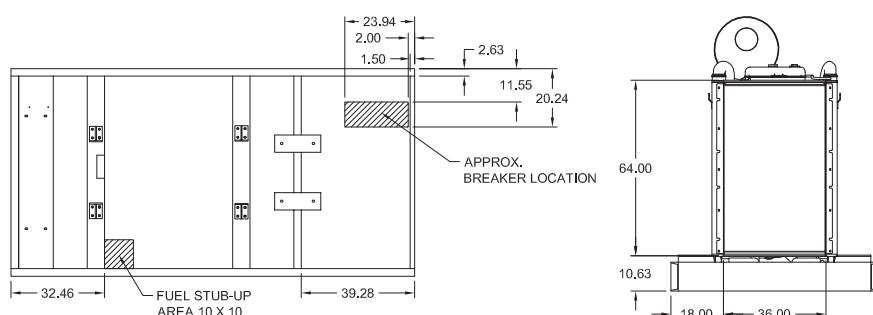
- ▶ Digital Metering
- ▶ Engine Parameters
- ▶ Generator Protection Functions
- ▶ Engine Protection
- ▶ CAN Bus ECU Communications
- ▶ Windows-Based Software
- ▶ Multilingual Capability
- ▶ Remote Communications to RDP-110 Remote Annunciator
- ▶ 16 Programmable Contact Inputs
- ▶ Up to 15 Contact Outputs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



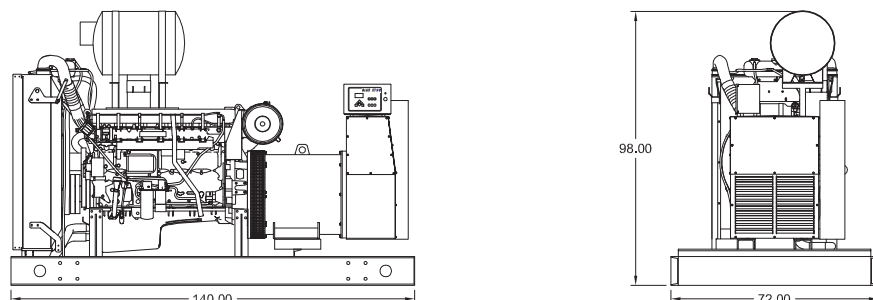
## Weights / Dimensions / Sound Data

|                | L x W x H         | Weight lbs |
|----------------|-------------------|------------|
| <b>OPU</b>     | 140 x 72 x 98 in  | 9,650      |
| <b>Level 1</b> | 180 x 72 x 103 in | 11,300     |
| <b>Level 2</b> | 180 x 72 x 103 in | 11,400     |
| <b>Level 3</b> | 225 x 72 x 103 in | 11,800     |

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



|                | No Load | Full Load |
|----------------|---------|-----------|
| <b>OPU</b>     | 92 dBA  | 94 dBA    |
| <b>Level 1</b> | 87 dBA  | 90 dBA    |
| <b>Level 2</b> | 82 dBA  | 84 dBA    |
| <b>Level 3</b> | 74 dBA  | 76 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.

**BSVD550KWSP**  
**550 kWe / 510 kWe**

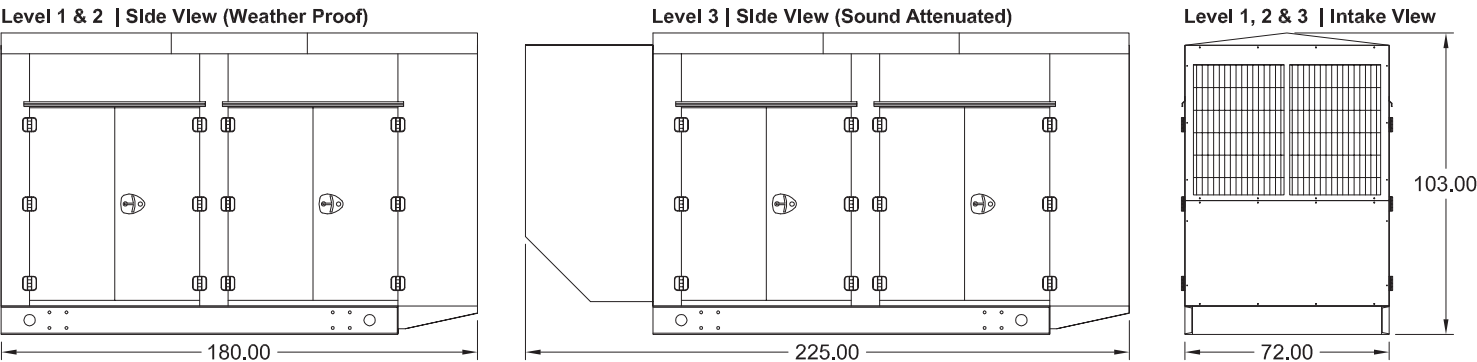
# Diesel Product Line

**BSVD550KWSP**  
**550 kWe / 510 kWe**



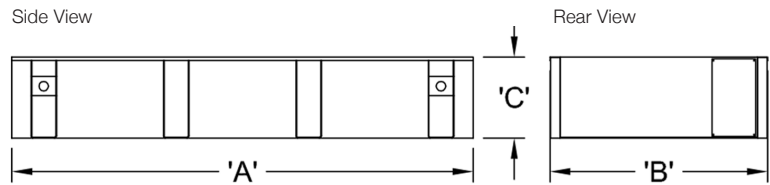
**POWERDAK**  
POWER PRODUCTS, LLC

## Enclosures



All enclosures are 150 MPH Wind Rated.  
Level 2 & 3 enclosures include sound attenuation foam.  
Level 3 enclosure includes frontal sound & exhaust hood.  
\*Enclosure height does not include exhaust stack.

## Double Wall UL 142 Listed Fuel Tanks



|   | 24 Hour<br>1000 Gallon | 48 Hour<br>2000 Gallon | 72 Hour<br>3000 Gallon |
|---|------------------------|------------------------|------------------------|
| A | 140.00                 | 246.00                 | 348.00                 |
| B | 72.00                  | 72.00                  | 72.00                  |
| C | 34.00                  | 36.00                  | 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. Materials and specifications subject to change without notice.**

**Powerdak Power Products - 3350 Jet Drive, Rapid City, South Dakota 57703 - 605.341.6160 Ext 1 - Fax 605.718.9998**  
**e-mail: [dave@dakgenerator.com](mailto:dave@dakgenerator.com)**

American Owned



American Made