

POWERDAK

POWER PRODUCTS, LLC

Diesel Product Line

208-600 Volt

BSVD100KWS 60 Hz / 1800 RPM

100 kWe Standby

Ratings

| | 240V | 208V | 240V | 480V | 600 V |
|-----------------|-----------------|--------------|---------------|--------------|--------------|
| 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 | 363PSL3133 | 362CSL1606 | 362CSL1606 | 362CSL1606 | 362PSL1636 |
| Connection | 12 LEAD ZIG-ZAG | 12 LEAD WYE | 12 LEAD DELTA | 12 LEAD WYE | 4 LEAD WYE |
| Standby | | | | | |
| kWe | 100 | 100 | 100 | 100 | 100 |
| AMPS | 417 | 347 | 301 | 151 | 120 |
| Temp Rise | 130°C / 27°C | 130°C / 27°C | 130°C / 27°C | 130°C / 27°C | 130°C / 27°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 3

Listing Certifications

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

Generator

- ► Brushless Single Bearing
- ► Automatic Voltage Regulator
- ▶ ± 1% Voltage Regulation
- ▶ 4 Pole, Rotating Field
- ▶ 130°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

- ▶ Microprocessor Based Digital Control
- ▶ Interface Connection Box
- ▶ Control Panel Mounted in NEMA 12 Enclosure
- ▶ Base Formed Steel
- ► Main Line Circuit Breaker Mounted & Wired
- ▶ Critical Grade Silencer Mounted
- ▶ Battery Charger 24V 5 Amp
- ► Jacket Water Heater -20°F 1500W 120V w/Isolation Valves
- ▶ Vibration Isolation Mounts
- ► Radiator Duct Flange (OPU Only)
- ▶ Single Source Supplier
- ▶ 2YR / 2000HR Standby Warranty
- ▶ Standard Colors White / Tan / Gray

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BSVD100KWS 100 kWe





Application Data

| Engine | | | |
|-----------------------|--------------------|--------------------------------------|---------------------------|
| Manufacturer: | Volvo Penta | Displacement - Cu. In. (lit): | 291 (4.76) |
| Model: | TAD551GE | Bore - in. (cm) x Stroke - in. (cm): | 4.25 (10.8) x 5.12 (13.0) |
| Type: | 4-Cycle | Compression Ratio: | 18.0:1 |
| Aspiration: | Turbo Charged, CAC | Rated RPM: | 1800 |
| Cylinder Arrangement: | 4 Cylinder Inline | Max HP Stby (kWm): | 155 (116) |

| Exhaust System | Standby |
|---|--|
| Gas Temp. (Stack): °F (°C) | 1,148 (620) |
| Gas Volume at Stack Temp: CFM (m³/min) | 851 (24.1) |
| Maximum Allowable Exhaust Restriction: in. H ₂ O (kPa) | 27.7 (7.00) |
| 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) | 39.6 (148.8) |
| Heat Rejection to Coolant: BTUM (kW) | 3,810 (66.8) |
| Heat Rejection to CAC: BTUM (kW) | 1,308 (22.9) |
| Heat Radiated to Ambient: BTUM (kW) | 1,281 (22.4) |
| Air Requirements | |
| Aspirating: CFM (m³/min) | 332 (9.40) |
| Air Flow Required for Rad. Cooled Unit: CFM (m³/min) | 5,936 (168) |
| 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) | 7.29 (27.6) |
| At 75% of Power Rating: gal/hr (lit/hr) | 6.09 (23.1) |
| At 50% of Power Rating: gal/hr (lit/hr) | 4.88 (18.5) |
| Fluids Capacity | |
| Total Oil System: gal (lit) | 3.40 (13.0) |
| Engine Jacket Water Capacity: gal (lit) | 1.98 (7.50) |
| System Coolant Capacity: gal (lit) | 5.81 (22.0) |

<u>Deration Factors</u>
Rated Power is available up to 3,280 Ft (1,000 m) at ambient temperatures to 122°F (50°C).
Consult factory for site conditions above these parameters.

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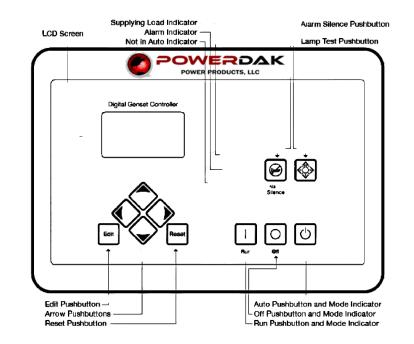


POWER PRODUCTS, LLC

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

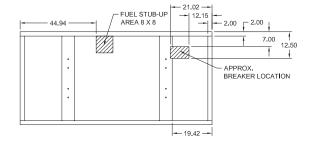
| | LxWxH | Weight Ibs |
|---------|------------------|------------|
| OPU | 90 x 44 x 62 in | 2,950 |
| Level 1 | 102 x 44 x 66 in | 3,600 |
| Level 2 | 102 x 44 x 66 in | 3,650 |
| Level 3 | 132 x 44 x 66 in | 3,850 |

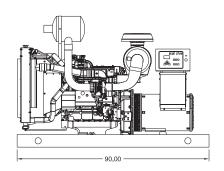
Please allow 6-12 inches for height of exhaust stack.

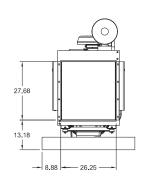
| | No Load | Full Load |
|---------|---------|-----------|
| OPU | 79 dBA | 82 dBA |
| Level 1 | 75 dBA | 78 dBA |
| Level 2 | 71 dBA | 74 dBA |

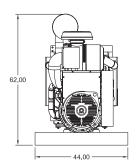
67 dBA

69 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.

Level 3

Diesel Product Line

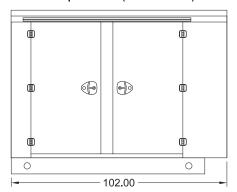
BSVD100KWS 100 kWe

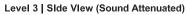


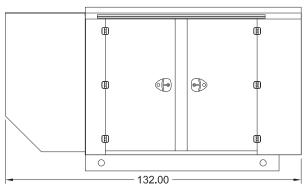


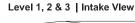
Enclosures

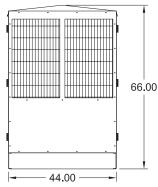
Level 1 & 2 | Side View (Weather Proof)









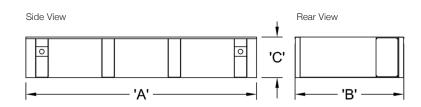


All enclosures are 150 MPH Wind Rated.

Level 2 & 3 enclosures include sound attenuation foam.

Level 3 enclosure includes frontal sound & exhaust hood.

Double Wall UL 142 Listed Fuel Tanks



| 24 Hour 250 Gallon | 48 Hour 500 Gallon | 72 Hour 750 Gallon |
|-----------------------|------------------------------|--|
| 90.00 | 120.00 | 174.00 |
| 44.00 | 44.00 | 44.00 |
| 28.00 | 36.00 | 36.00 |
| | 250 Gallon 90.00 44.00 | 250 Gallon 500 Gallon 90.00 120.00 44.00 44.00 |

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



^{*}Enclosure height does not include exhaust stack.