

# BLUE STAR Power Systems

## Diesel Product Line

208-600 Volt

VD250-04FT4

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>	S4L1D-G41	S4L1D-D41	S4L1D-D41	S4L1D-D41	S4L1S-D4
<b>Connection</b>	12 LEAD DD	12 LEAD WYE	12 LEAD DELTA	12 LEAD WYE	4 LEAD WYE
<b>Standby kWe</b>	250	250	250	250	250
<b>AMPS</b>	1042	868	753	376	301
<b>Temp Rise</b>	125°C / 40°C	105°C / 40°C	105°C / 40°C	105°C / 40°C	105°C / 40°C
<b>Prime kWe</b>	250	250	250	250	250
<b>AMPS</b>	1042	868	753	376	301
<b>Temp Rise</b>	125°C / 40°C	105°C / 40°C	105°C / 40°C	105°C / 40°C	105°C / 40°C

## Standard Equipment

Engine	Generator	Additional
<ul style="list-style-type: none"> <li>- Radiator Cooled Unit Mounted (55°C)</li> <li>- Radiator Duct Flange (OPU Only)</li> <li>- Blower Fan &amp; Fan Drive</li> <li>- Starter &amp; Alternator</li> <li>- Oil Pump &amp; Filter</li> <li>- Oil Drain Extension w/Valve</li> <li>- Governor - Electronic Isochronous</li> <li>- 24V Battery System &amp; Cables</li> <li>- Air Cleaner (Dry Single Stage)</li> <li>- SCR/DPF/DOC Catalyst / Silencer Mounted</li> <li>- Flexible Fuel Connector</li> <li>- EPA Certified Tier 4 Final / EU Stage 5 Certified</li> </ul>	<ul style="list-style-type: none"> <li>- Brushless Single Bearing</li> <li>- Automatic Voltage Regulator</li> <li>- ± 0.50% Voltage Regulation</li> <li>- 4 Pole, Rotating Field</li> <li>- 105°C/125°C Standby Temperature Rise</li> <li>- 105°C/125°C Prime Temperature Rise</li> <li>- 100% of Rated Load - One Step</li> <li>- 5% Maximum Harmonic Content</li> <li>- NEMA MG 1, IEEE and ANSI Standards Compliance for Temperature Rise</li> </ul>	<ul style="list-style-type: none"> <li>- Single Source Supplier</li> <li>- UL 2200 &amp; cUL Listed</li> <li>- CSA Certified</li> <li>- Seismic Certified to IBC 2021</li> <li>- NFPA 110 / CSA C282 Compliant</li> <li>- Microprocessor Based Digital Control Panel Mounted in NEMA 12 Enclosure</li> <li>- Base - Formed Steel</li> <li>- Main Line Circuit Breaker Mounted &amp; Wired</li> <li>- Battery Charger 24V 5 Amp</li> <li>- Jacket Water Heater -20°F 4000W 240V w/Isolation Valves</li> <li>- Vibration Isolation Mounts</li> <li>- 2 Year / 2000 Hour Standby Warranty</li> <li>- 1 Year / 1500 Hour Prime Warranty</li> <li>- Standard Colors - White / Gray</li> </ul>

## Application Data

### Engine

Manufacturer:	Volvo Penta	Displacement - Cu. In. (lit):	780 (12.8)
Model:	TAD1381VE	Bore - in. (cm) x Stroke - in. (cm):	5.16 (13.1) x 6.22 (15.8)
Type:	4-Cycle	Compression Ratio:	16.8:1
Aspiration:	Turbo Charged, CAC	Rated RPM:	1800
Cylinder Arrangement:	6 Cylinder Inline	Max HP Stby (kWm):	388 (285)

### Exhaust System

	Standby	Prime
Gas Temp. (Stack): °F (°C)	753 (401)	753 (401)
Gas Volume at Stack Temp: CFM (m <sup>3</sup> /min)	2,069 (58.6)	2,069 (58.6)
Maximum Allowable Exhaust Restriction (Post Catalyst): in. H <sub>2</sub> O (kPa)	56.0 (14.0)	56.0 (14.0)

### 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)	100 (379)	100 (379)
Heat Rejection to Coolant: BTUM (kW)	8,527 (149)	8,527 (149)
Heat Rejection to CAC: BTUM (kW)	3,523 (61.7)	3,523 (61.7)
Heat Radiated to Ambient: BTUM (kW)	5,034 (88.1)	5,034 (88.1)

### Air Requirements

Aspirating: CFM (m <sup>3</sup> /min)	913 (25.8)	913 (25.8)
Air Flow Required for Rad. Cooled Unit: CFM (m <sup>3</sup> /min)	14,196 (402)	14,196 (402)
Air Flow Required for Heat Exchanger/Rem. Rad. CFM (m <sup>3</sup> /min)	Consult Factory For Remote Cooled Applications	

### Fuel Consumption

At 100% of Power Rating: gal/hr (lit/hr)	17.3 (65.6)	17.3 (65.6)
At 75% of Power Rating: gal/hr (lit/hr)	13.6 (51.4)	13.6 (51.4)
At 50% of Power Rating: gal/hr (lit/hr)	9.8 (37.3)	9.8 (37.3)
DEF Consumption (% of fuel consumption)	± 5.10%	± 5.10%

### Fluids Capacity

Total Oil System: gal (lit)	9.51 (36.0)	9.51 (36.0)
Engine Jacket Water Capacity: gal (lit)	5.30 (20.1)	5.30 (20.1)
System Coolant Capacity: gal (lit)	11.6 (43.9)	11.6 (43.9)
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.

## DCP7310 Control Panel

### Standard Features

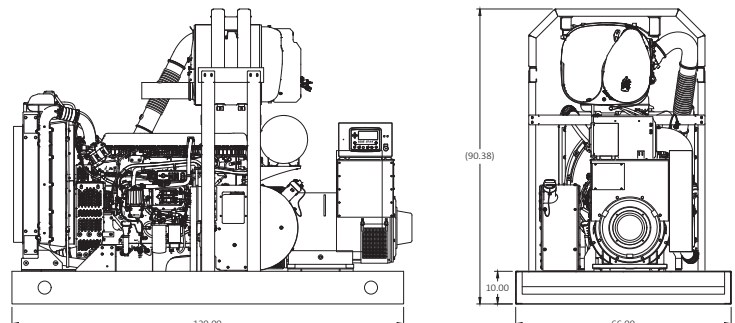
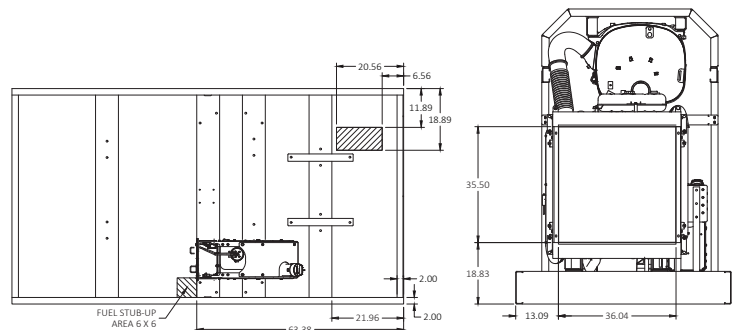
- Digital Metering
- Engine Parameters
- Generator Protection Functions
- Engine Protection
- CAN Bus (J1939) ECU Communications
- Windows-Based Software
- Multilingual Capability
- Remote Communications to DSE2548 Remote Annunciator
- 8 Programmable Contact Inputs
- 10 Contact Outputs
- RS485 Communicator 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

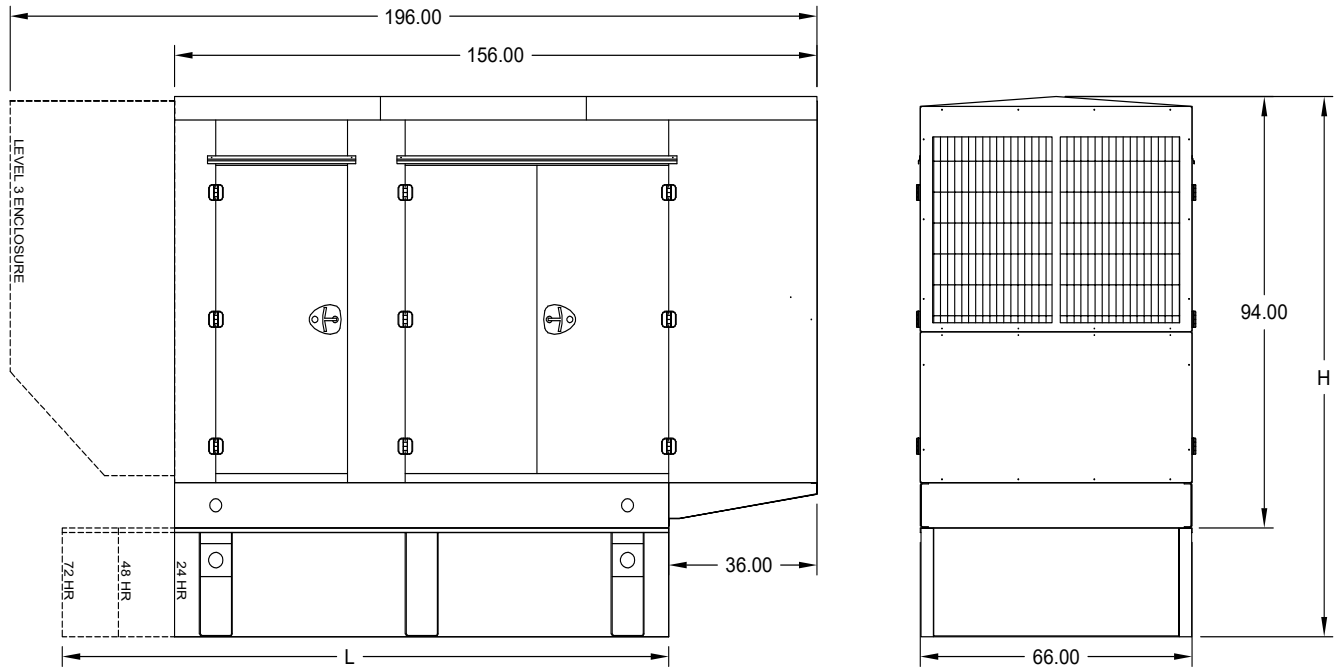
	L x W x H	Weight lbs
<b>OPU</b>	120 x 66 x 91 in	8,725
<b>Level 1</b>	156 x 66 x 94 in	10,050
<b>Level 2</b>	156 x 66 x 94 in	10,100
<b>Level 3</b>	196 x 66 x 94 in	10,400

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



	No Load	Full Load
<b>OPU</b>	83 dBA	86 dBA
<b>Level 1</b>	79 dBA	81 dBA
<b>Level 2</b>	75 dBA	77 dBA
<b>Level 3</b>	69 dBA	71 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 540 Gallon	48 Hour 1080 Gallon	72 Hour 1620 Gallon
<b>L</b>	120.00	162.00	228.00
<b>H</b>	118.00	130.00	130.00

**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.

**Blue Star Power Systems**

2250 Carlson Drive  
North Mankato, Minnesota 56003  
Phone + 1 507 345 1776  
bluestarps.com  
quote.bluestarps.com  
sales@bluestarps.com

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