

# BLUE STAR Power Systems

Diesel Product Line

208-600 Volt

PD50-01

60 Hz / 1800 RPM

50 kWe

Standby

## 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>	UCI224F	UCI224E	UCI224E	UCI224D	UCI224D
<b>Connection</b>	12 LEAD DD	12 LEAD WYE	12 LEAD DELTA	12 LEAD WYE	4 LEAD WYE
<b>kWe</b>	50	50	50	50	50
<b>AMPS</b>	208	174	151	75	60
<b>Temp Rise</b>	125°C / 40°C	125°C / 40°C	125°C / 40°C	125°C / 40°C	125°C / 40°C

## Standard Equipment

### Engine

- Radiator Cooled Unit Mounted (50°C)
- Radiator Duct Flange (OPU Only)
- Blower Fan & Fan Drive
- Starter & Alternator
- Oil Pump & Filter
- Oil Drain Extension w/Valve
- Governor - Electronic Isochronous
- 12V Battery System & Cables
- Air Cleaner (Dry Single Stage)
- Critical Grade Silencer Mounted
- Flexible Fuel Connector
- EPA Certified Tier 3

### Generator

- Brushless Single Bearing
- Automatic Voltage Regulator
- ± 1% 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 - Formed Steel
- Main Line Circuit Breaker Mounted & Wired
- Battery Charger 12V 6 Amp
- Jacket Water Heater -20°F 1500W 120V w/Isolation Valves
- Vibration Isolation Mounts
- 2YR / 2000HR Standby Warranty
- Standard Colors - White / Gray

## Application Data

### Engine

Manufacturer:	Perkins	Displacement - Cu. In. (lit):	269 (4.40)
Model:	1104D-44TG1	Bore - in. (cm) x Stroke - in. (cm):	4.13 (10.5) x 5.00 (12.7)
Type:	4-Cycle	Compression Ratio:	18.2:1
Aspiration:	Turbo Charged	Rated RPM:	1800
Cylinder Arrangement:	4 Cylinder Inline	Max HP Stby (kWm):	85.8 (64.0)

### Exhaust System

### Standby

Gas Temp. (Stack): °F (°C)	1,060 (571)
Gas Volume at Stack Temp: CFM (m³/min)	484 (13.7)
Maximum Allowable Exhaust Restriction: in. H <sub>2</sub> O (kPa)	60.0 (15.0)

### Cooling System

Ambient Capacity of Radiator: °F (°C)	122 (50.0)
Maximum Allowable Static Pressure on Rad. Exhaust: in. H <sub>2</sub> O (kPa)	0.50 (0.12)
Water Pump Flow Rate: GPM (lit/min)	39.6 (151)
Heat Rejection to Coolant: BTUM (kW)	2,634 (46.1)
Heat Radiated to Ambient: BTUM (kW)	1,050 (18.4)

### Air Requirements

Aspirating: CFM (m³/min)	167 (4.73)
Air Flow Required for Rad. Cooled Unit: CFM (m³/min)	3,470 (98.2)
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)	4.42 (16.7)
At 75% of Power Rating: gal/hr (lit/hr)	3.10 (11.7)
At 50% of Power Rating: gal/hr (lit/hr)	2.23 (8.5)

### Fluids Capacity

Total Oil System: gal (lit)	2.22 (8.40)
Engine Jacket Water Capacity: gal (lit)	1.85 (7.00)
System Coolant Capacity: gal (lit)	4.36 (16.5)

Deration Factors: Rated Power is available up to 8202ft (2500m) at ambient temperatures to 122°F (50°C).  
Consult factory for site conditions above these parameters.

## DCP7310 Control Panel

### Standard Features

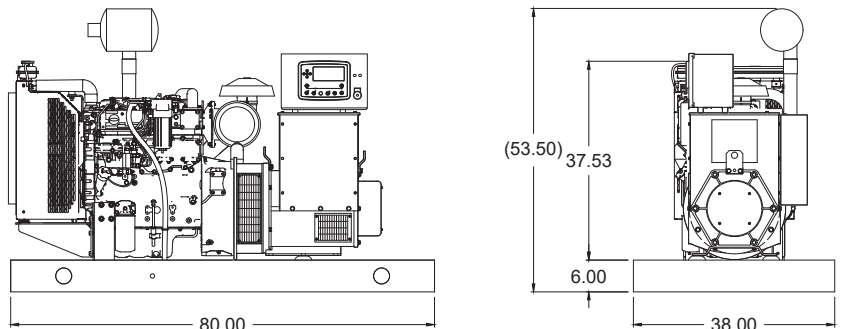
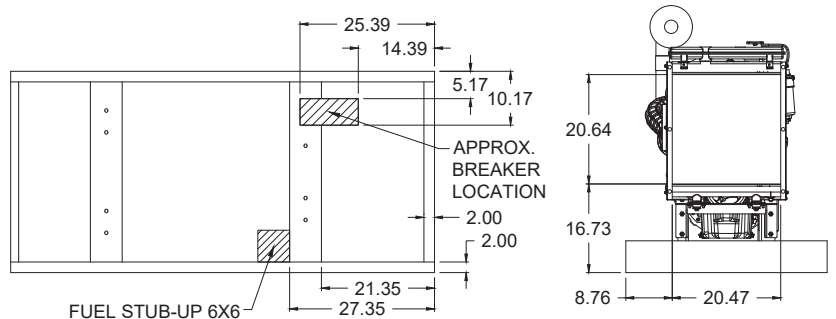
- Digital Metering
- Engine Parameters
- Generator Protection Functions
- Engine Protection
- CAN Bus (J1939) ECU Communications
- Windows-Based Software
- Multilingual Capability
- Remote Communications to DSE2548 Remote Annunciator
- 8 Programmable Contact Inputs
- 10 Contact Outputs
- RS485 Communicator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

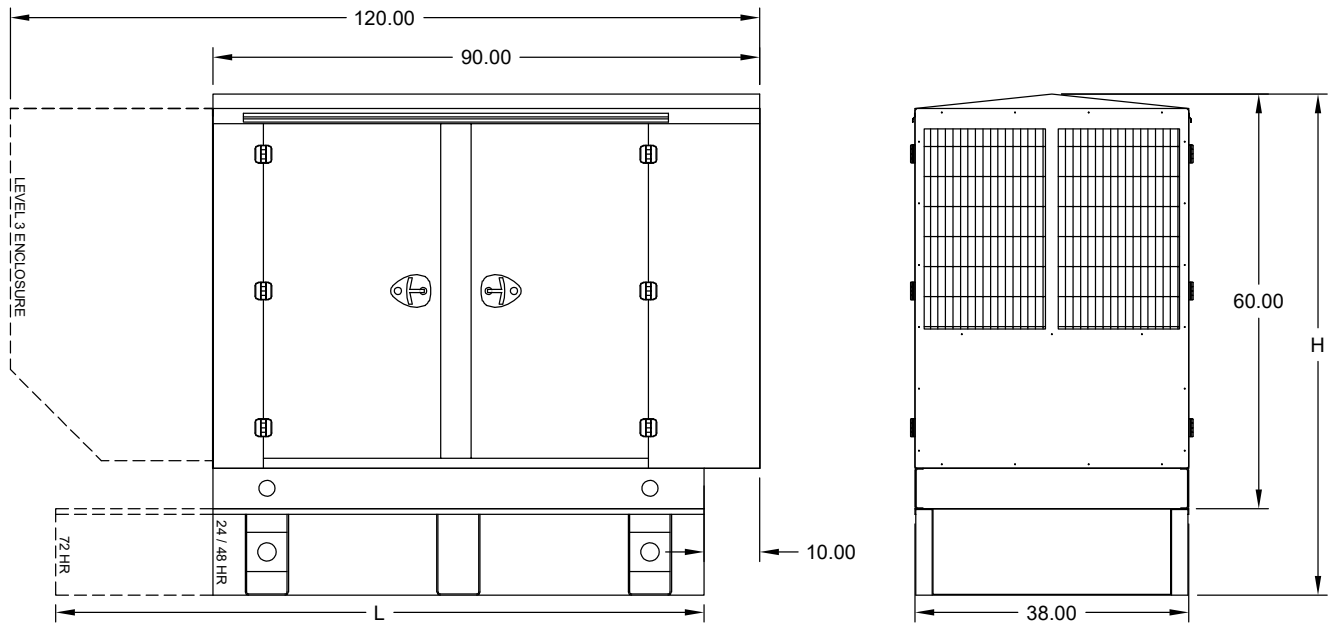
	L x W x H	Weight lbs
<b>OPU</b>	80 x 38 x 53.5 in	2,225
<b>Level 1</b>	90 x 38 x 66 in	2,725
<b>Level 2</b>	90 x 38 x 66 in	2,775
<b>Level 3</b>	120 x 38 x 60 in	2,875

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



	No Load	Full Load
<b>OPU</b>	72 dBA	76 dBA
<b>Level 1</b>	70 dBA	72 dBA
<b>Level 2</b>	67 dBA	69 dBA
<b>Level 3</b>	62 dBA	64 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 120 Gallon	48 Hour 240 Gallon	72 Hour 360 Gallon
<b>L</b>	80.00	80.00	108.00
<b>H</b>	80.00	96.00	96.00

**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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