

BLUE STAR Power Systems

Diesel Product Line

208-600 Volt

PD250-01

60 Hz / 1800 RPM

250 kWe

Standby

Ratings

| | 240V | 208V | 240V | 480V | 600V |
|------------------------|--------------|--------------|---------------|--------------|--------------|
| 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 | S4L1D-G41 | S4L1D-D41 | S4L1D-D41 | S4L1D-C41 | S4L1S-C4 |
| Connection | 12 LEAD DD | 12 LEAD WYE | 12 LEAD DELTA | 12 LEAD WYE | 4 LEAD WYE |
| kWe | 250 | 250 | 250 | 250 | 250 |
| AMPS | 1042 | 868 | 753 | 376 | 301 |
| Temp Rise | 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
- 24V 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
- ± 0.50% 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 24V 5 Amp
- Jacket Water Heater -20°F 2500W 240V w/Isolation Valves
- Vibration Isolation Mounts
- 2 Year / 2000 Hour Standby Warranty
- Standard Colors - White / Gray

Application Data

Engine

| | | | |
|-----------------------|--------------------|--------------------------------------|---------------------------|
| Manufacturer: | Perkins | Displacement - Cu. In. (lit): | 567 (9.29) |
| Model: | 1706D-E93TAG1 | Bore - in. (cm) x Stroke - in. (cm): | 4.53 (11.5) x 5.87 (14.9) |
| Type: | 4-Cycle | Compression Ratio: | 16.5:1 |
| Aspiration: | Turbo Charged, CAC | Rated RPM: | 1800 |
| Cylinder Arrangement: | 6 Cylinder Inline | Max HP Stby (kWm): | 394 (294) |

Exhaust System

Standby

| | |
|---|--------------|
| Gas Temp. (Stack): °F (°C) | 925 (496) |
| Gas Volume at Stack Temp: CFM (m³/min) | 2,219 (62.8) |
| Maximum Allowable Exhaust Restriction: in. H ₂ O (kPa) | 40.0 (10.0) |

Cooling System

| | |
|---|--------------|
| Ambient Capacity of Radiator: °F (°C) | 122 (50.0) |
| Maximum Allowable Static Pressure on Rad. Exhaust: in. H ₂ O (kPa) | 0.50 (0.12) |
| Water Pump Flow Rate: GPM (lit/min) | 87.2 (330) |
| Heat Rejection to Coolant: BTUM (kW) | 6,686 (117) |
| Heat Rejection to CAC: BTUM (kW) | 4,417 (77.3) |
| Heat Radiated to Ambient: BTUM (kW) | 5,104 (89.3) |

Air Requirements

| | |
|---|--|
| Aspirating: CFM (m³/min) | 989 (28.0) |
| Air Flow Required for Rad. Cooled Unit: CFM (m³/min) | 17,032 (482) |
| 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) | 19.1 (72.3) |
| At 75% of Power Rating: gal/hr (lit/hr) | 14.9 (56.5) |
| At 50% of Power Rating: gal/hr (lit/hr) | 11.3 (42.7) |

Fluids Capacity

| | |
|---|-------------|
| Total Oil System: gal (lit) | 7.93 (30.0) |
| Engine Jacket Water Capacity: gal (lit) | 5.36 (20.3) |
| System Coolant Capacity: gal (lit) | 9.46 (35.8) |

Deration Factors: Rated Power is available up to 3281ft (1000m) at ambient temperatures to 104°F (40°C). Consult factory for site conditions above these parameters.

DCP7310 Control Panel

Standard Features

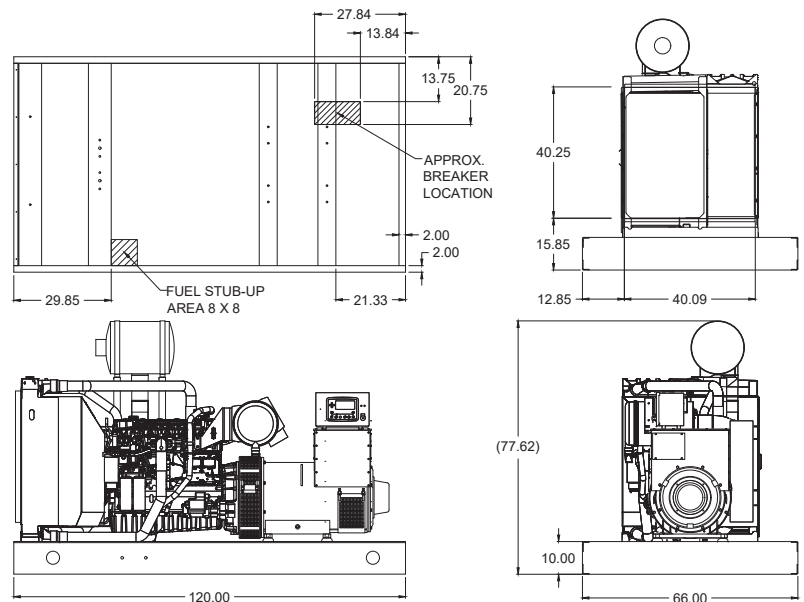
- Digital Metering
- Engine Parameters
- Generator Protection Functions
- Engine Protection
- CAN Bus (J1939) ECU Communications
- Windows-Based Software
- Multilingual Capability
- Remote Communications to DSE2548 Remote Annunciator
- 8 Programmable Contact Inputs
- 10 Contact Outputs
- RS485 Communicator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

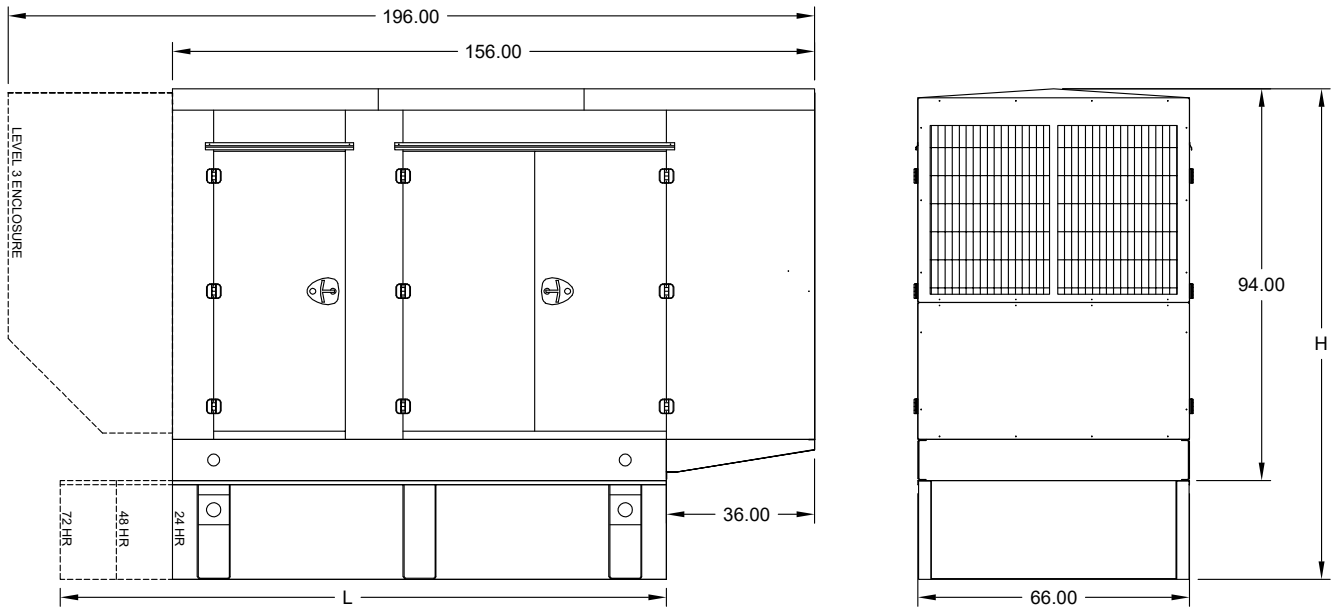
| | L x W x H | Weight lbs |
|----------------|------------------|------------|
| OPU | 120 x 66 x 78 in | 5,850 |
| Level 1 | 156 x 66 x 94 in | 7,100 |
| Level 2 | 156 x 66 x 94 in | 7,175 |
| Level 3 | 196 x 66 x 94 in | 7,500 |

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



| | No Load | Full Load |
|----------------|---------|-----------|
| OPU | 86 dBA | 88 dBA |
| Level 1 | 83 dBA | 85 dBA |
| Level 2 | 77 dBA | 79 dBA |
| Level 3 | 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 |
|----------|-----------------------|------------------------|------------------------|
| L | 120.00 | 162.00 | 228.00 |
| H | 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.

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