

BLUE STAR

Power Systems Inc.

Diesel Product Line

208-480 Volt

VD100-02FT4MP

60 Hz / 1800 RPM

100 kWe / 100 kWe

Standby / Prime

Ratings

	240V	208V	240V	480V	Multi-Voltage
Phase	1	3	3	3	3 / 1
PF	1.0	0.8	0.8	0.8	0.8 / 1.0
Hz	60	60	60	60	60
Generator Model	431CSL6202	431CSL6202	431CSL6202	431CSL6202	431CSL6202
Connection	12 LEAD ZIG-ZAG	12 LEAD WYE	12 LEAD DELTA	12 LEAD WYE	12 LEAD CONFIGURABLE
Standby					
kWe	100	100	100	100	100
AMPS	417	347	301	151	417/347/301/151
Temp Rise	105°C / 40°C	105°C / 40°C	105°C / 40°C	105°C / 40°C	105°C / 40°C
Prime					
kWe	100	100	100	100	100
AMPS	417	347	301	151	417/347/301/151
Temp Rise	105°C / 40°C	105°C / 40°C	105°C / 40°C	105°C / 40°C	105°C / 40°C

Standard Equipment

- | | | |
|---|--|---|
| <p>Engine</p> <ul style="list-style-type: none"> ▶ 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 4 Final | <p>Generator</p> <ul style="list-style-type: none"> ▶ Brushless Single Bearing ▶ Automatic Voltage Regulator ▶ ± .25% Voltage Regulation ▶ 4 Pole, Rotating Field ▶ 105°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 | <p>Additional</p> <ul style="list-style-type: none"> ▶ Single Source Supplier ▶ Microprocessor Based Digital Control ▶ Control Panel Mounted in NEMA 12 Enclosure ▶ Base - Formed Steel ▶ Level 3 Enclosure ▶ Trailer with Integrated Fuel Tank ▶ Main Line Circuit Breaker Mounted & Wired ▶ SCR Catalyst / Slencer Mounted ▶ Battery Charger 24V 5 Amp ▶ Jacket Water Heater -20°F 1500W 120V w/Isolation Valves ▶ Vibration Isolation Mounts ▶ 2YR / 2000HR Standby Warranty ▶ 1YR / 1500HR Prime Warranty ▶ Standard Color - White |
|---|--|---|

Application Data

Engine			
Manufacturer:	Volvo Penta	Displacement - Cu. In. (lit):	291 (4.76)
Model:	TAD571VE	Bore - in. (cm) x Stroke - in. (cm):	4.33 (11.0) x 5.31 (13.5)
Type:	4-Cycle	Compression Ratio:	17.5:1
Aspiration:	Turbo Charged, CAC	Rated RPM:	1800
Cylinder Arrangement:	4 Cylinder Inline	Max HP Stby (kWm):	175 (131)

Exhaust System	Standby	Prime
Gas Temp. (Stack): °F (°C)	716 (380)	716 (380)
Gas Volume at Stack Temp: CFM (m ³ /min)	689 (19.5)	689 (19.5)
Maximum Allowable Exhaust Restriction (Post SCR Cat.): in. H ₂ O (kPa)	24.0 (6.00)	24.0 (6.00)

Cooling System			
Ambient Capacity of Radiator: °F (°C)	131 (55.0)	131 (55.0)	
Maximum Allowable Static Pressure on Rad. Exhaust: in. H ₂ O (kPa)	0.50 (0.12)	0.50 (0.12)	
Water Pump Flow Rate: GPM (lit/min)	117 (444)	117 (444)	
Heat Rejection to Coolant: BTUM (kW)	4,356 (77.0)	4,356 (77.0)	
Heat Rejection to CAC: BTUM (kW)	1,348 (23.7)	1,348 (23.7)	
Heat Radiated to Ambient: BTUM (kW)	1,281 (22.4)	1,281 (22.4)	

Air Requirements			
Aspirating: CFM (m ³ /min)	332 (9.40)	332 (9.40)	
Air Flow Required for Rad. Cooled Unit: CFM (m ³ /min)	10,954 (310)	10,954 (310)	
Air Flow Required for Heat Exchanger/Rem. Rad. CFM (m ³ /min)	Consult Factory For Remote Cooled Applications		

Fuel Consumption			
At 100% of Power Rating: gal/hr (lit/hr)	7.50 (28.4)	7.50 (28.4)	
At 75% of Power Rating: gal/hr (lit/hr)	6.36 (24.1)	6.36 (24.1)	
At 50% of Power Rating: gal/hr (lit/hr)	4.57 (17.3)	4.57 (17.3)	
DEF Consumption (% of fuel consumption)	± 6.00%	± 6.00%	

Fluids Capacity			
Total Oil System: gal (lit)	4.23 (16.0)	4.23 (16.0)	
Engine Jacket Water Capacity: gal (lit)	3.40 (13.0)	3.40 (13.0)	
System Coolant Capacity: gal (lit)	10.2 (38.6)	10.2 (38.6)	
DEF Tank Capacity: gal (lit)	18.5 (70.0)	18.5 (70.0)	

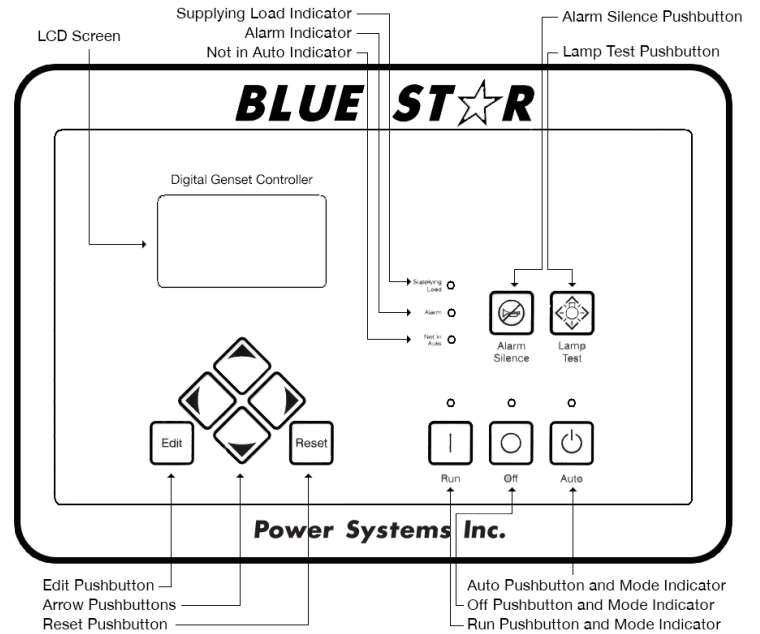
Deration Factors

Rated Power is available up to 4,921 Ft (1500m) at ambient temperatures to 122°F (50°C) standby and prime. Consult factory for site conditions above these parameters.

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



Convenience Panel

- ▶ 2-50A 125/250VAC 3P4W Twist Lock Non-Nema CS6369
- ▶ 1-30A 125/250VAC 3P4W Twist Lock Nema L14-30R
- ▶ 2-20A 120VAC Duplex GFCI Nema 5-20R
- ▶ Thumb Screw Terminals for 2-Wire Remote Start
- ▶ 15A 120VAC Male Receptacle for Jacket Water Heater and Battery Charger Shore Power Connection
- ▶ 5-400A Rated Female Cam Style Locking Receptacles for Load Connection

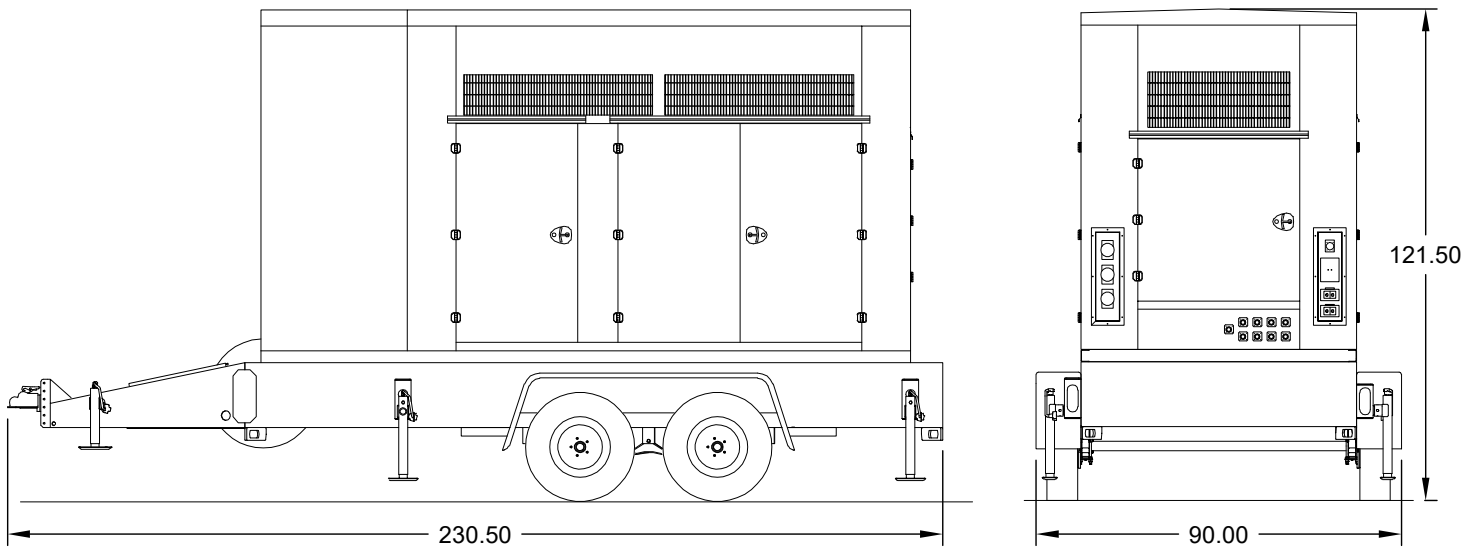
Drawings based on standard open power 480 volt standby generator. Lengths may vary with other voltages. Subject to change without notice. Sound data as measured at 23 feet (7 meters) in accordance with ISO 8528-10 at standby rating.

Diesel Product Line

100 kWe / 100 kWe



Dimensions



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.

American Owned



American Made

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