MDE2900 | (4) 16.1L | 2,900 kVA

MOBILE DIESEL GENERATOR SET

EPA Emissions Certification: Tier 4 Final

Standby Power Rating

2,254 kW, 2,818 kVA, 50 HZ

2,542 kW, 3,178 kVA, 60 Hz

Prime Power Rating

2,078 kW, 2,598 kVA, 50 Hz

2,316 kW, 2,894 kVA, 60 Hz

Picture shown may not reflect actual configuration.

Codes and Standards

Generac Mobile products are designed to the following standards:

TIER 4 FINAL

TIER 4 FINAL EMISSIONS

Power When and Where You Need It

Generac Mobile generators are designed and engineered to power a variety of projects, in the most extreme environments. Gensets are configured to meet customer needs, including choice of containment, cold weather packages, trailer options, and more.

Generac Mobile generators are manufactured to deliver reliable power, when and where you need it.

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STANDARD FEATURES

ENGINE SYSTEM
- (4) Volvo TWD1683GE
- 6 Cylinder
- Turbocharged & After-cooled
- 16.1L Displacement
- 1,800 rpm
- Two Fuel Filters
- (4) 975 CCA, Optima Yellow Top Batteries
- Tier 4 Final/ EU Stage 5 Certified

EXHAUST SYSTEM
- SCR & DOC
- No DPF
- Exhaust Insulation
- (4) Roof Mounted Silencers with Rain Caps

COOLING SYSTEM
- Capable of Operating at 122° F (50° C) Ambient (at Prime)
- (8) Electric Cooling Fans
- Remote Radiators
- Hot Air Room Separation
- 50/50 Coolant (50% Ethylene Glycol)
- (2) Radiator Coolant Capacity: 103 US gal (390 L)

FUEL and DEF SYSTEM
- (2) Double Wall Fuel Tank
  - Metal with Containment (fuel, DEF, engine oil)
- Fuel Tank Capacity 475.5 US gal (1,800 L)
  - 8 Hour Runtime @ 75% PRP
- Auxiliary Fuel Quick Connections w/3-Way Fuel Valve
- (4) DEF Tanks
  - 42.2 US gal (160 L) each
  - 84.4 US gal (320 L) total
  - 21 Hour Autonomy @ 75% PRP
- Auxiliary DEF Quick Connections
- Lockable Fuel and DEF Fills

CONTROL SYSTEM
- (4) Deep Sea DSE8610 Controllers
  - Operate Each 725 kVA Genset Individually
- (1) Deep Sea DSE8003 Paralleling Controller
  - Operate Both 1,450 kVA Gensets Together (2,900 kVA)
- Emergency Stop Switch
- Hour Meter
- Generac LINK Gateway
- Lockable Battery Disconnect
- (2) 24V, 5A Battery Charger

ALTERNATOR SYSTEM
- (4) 50/60 Hz Engine-Driven Alternators
- Mecc Alte ECO40 3L4 C Alternator
  - Brushless
  - 4 Pole
  - Class H Insulation
- Mecc Alte DER 1 Automatic Voltage Regulator

POWER DISTRIBUTION
- Copper Bar Connections
- Convenience Receptacles
  - (1)120 V, 20 A, GFCI, Duplex Receptacles (NEMA 5-20R)
- Shore Power Connections
- Cam Locks - (5) Sets, Female (US color code)
- Grounding System: TN-S, TN-C, IT

ENCLOSURE
- (2) 20' High Cube Container
- Soundproofed & Weatherproofed
- ISO 4-Point Lifting Hooks
- Fully Lockable Enclosure
- Internal Enclosure Light
- Fork Pockets
- Roof Access Ladder
- Double Seal Gaskets
- CSC (Convention for Safe Container) Approved
- Ladder Straps Beneath Access Doors
- 4-Step Aluminum Ladder (mounted inside door)
- (2) Radiator Shipping Covers (mount on trailer tongue during use)
- Screened Bi-Fold Access Doors w/ Lockbar Latch

TRAILER
- 53 in. tri-axle trailer
- Air Ride Equipped
- Air Brakes
- Landing Gear Spreader Channel
- Storage Bracket (on tongue for radiator covers)
- US DOT approved

WARRANTY
- 2 year Limited or 2,000 hours
  - Unlimited Hours Covered in First Year

COLD WEATHER
- -13° F (-30° C) Minimum Operating Temperature

COLD WEATHER KIT:
- Air Grid Heater
- Alternator Anti-Condensation Heater
- Battery Blanket Heater
- Coolant Block Heater
- Heated Fuel Pre-Filter
- Heated Fuel Filters
- Oil Pan Heater
- Winter Blend Oil

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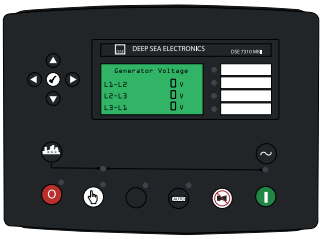
MOBILE DIESEL GENERATOR SET

EPA Emissions Certification: Tier 4 Final

CONTROL SYSTEM



CONTROLLER AND DISPLAY

- Controller: (2) Deep Sea ® Mode DSE8610 MKII
- 4 Line Back Lit LCD Text Display
- -40 to 158° F (-40 to 70° C) Operating Temperature Range
- Multiple Language Options
- Configurable Timers and Alarms
- Configurable Start/Stop Timers
- Configurable Maintenance Alarms

PUSH BUTTONS FOR EASY OPERATION

- Manual or Auto Start
- Engine Start
- Engine Stop/Reset
- User Friendly Setup and Button Layout
- Five Key Menu Navigation
- Hours Counter
- Multiple Parameters are Monitored and Displayed Simultaneously for Full Visibility
- View Controller Parameters (Configuration, Firmware Version, Connections)

LCD ALARM INDICATION

- Generator Diagnostic Display
- System kVA Output Display
- Line Output and Frequency Display
- Alarm Types: Warning, Shutdown, Electrical Trip, Engine
- Alarm List – Warnings/Shutdowns; 250 Event History Log – Date/Time Stamped
  - Fuel Level: Warning – 15%; Shutdown – 5%
  - Overspeed Protection: Shutdown – 110%
  - Engine Diagnostic Warnings Communicated Through J1939 CANbus
  - Battery Voltage: Over – 30 VDC; Under – 18 VDC
  - Generator Over Voltage: Warning – 110%; Electrical Trip – 115%
  - Generator Under Voltage: Warning – 90%; Shutdown – 85%
  - Generator Over Frequency: Warning – 105%; Electrical Trip – 110%
  - Generator Under Frequency: Warning – 95%; Electrical Trip – 90%
- Auto Schedule
- Status

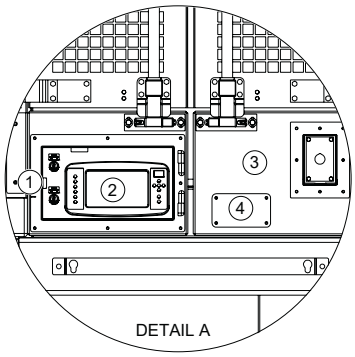
ELECTRICAL CONTROLS

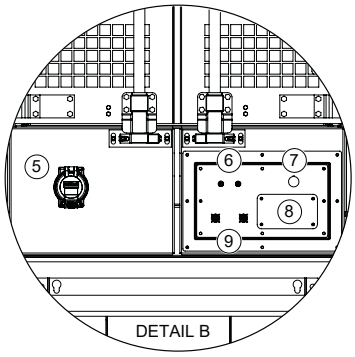
- Lockable Control Box Door
- Voltage Adjustment ±10%

DEEP SEA® MODEL DSE8003

- Main Interface with Full Color 7 in. Graphical Display
- Operate Each 725 kVA Genset Individually

CONTROL PANEL DETAILS





1. Power Management Switches
2. DSE8003 Genset Controller
3. E-Stop Switch (Curbside)
4. Tank Drain Access Panel (Curbside)
5. 50A Twist Style Shore Power Plug
6. Remote Start Connection
7. E-Stop Switch (Roadside)
8. Tank Drain Access Panel (Roadside)
9. Communication Plugs

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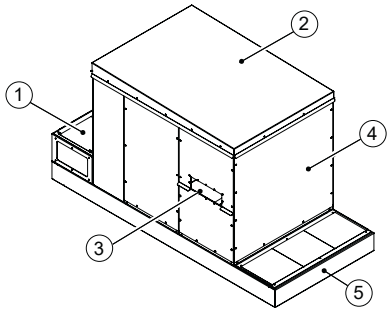
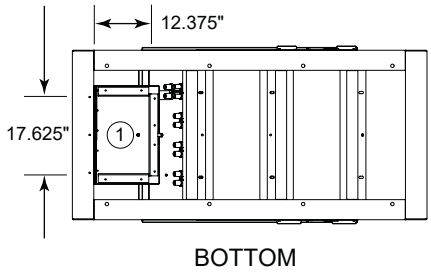
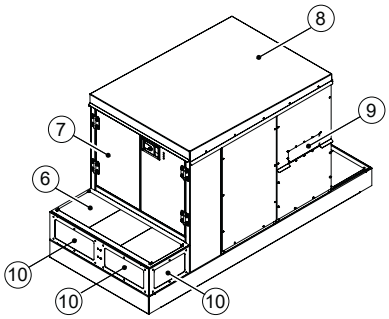
SWITCHGEAR CABINET

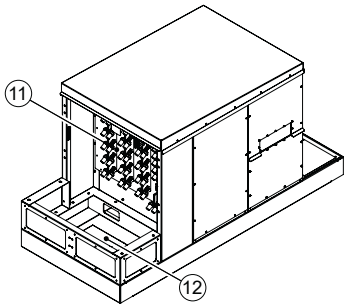




BOTTOM

1. Bottom Load Cable Access
2. Removable Roof
3. Cable Access - Rear
4. Removable Rear Cover
5. Cabinet Mounting Skid
6. Removable Floor Cover
7. Bi-fold Access Door
8. 2300kW 480V (60Hz) Cabinet
9. Cable Access - Front
10. Removable Access Panels
11. Cam-lock Connectors
12. Hinged Floor Cover





RATING DEFINITIONS

Standby: Applicable to varying emergency load for the duration of a utility power outage.

Prime: Applicable to supplying power to a varying load in lieu of utility for an unlimited amount of running time.

*Consult factory for availability

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MOBILE DIESEL GENERATOR SET

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APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make (Model)	Volvo TWD1683GE
EPA Emissions Compliance	Tier 4 Final
Cylinders – Qty	6
Type	Inline
Displacement: in³ (L)	983.8 (16.1)
Bore: in (mm)	5.7 (144)
Stroke: in (mm)	6.5 (165)
Compression Ratio	16:8:1
Intake Air Method	Turbocharged & Aftercooled

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	+-0.5%

Lubrication System

Oil Pump	Gear Drive (by Transmission)
Oil Filter Type	40 Micron
Engine Oil Capacity: qt (L)	50 (48)

Cooling System

Cooling System Type	Water Cooled
Water Pump Type	Centrifugal Pump
Belt	1.85/1
Fan Type	Electric w/ Inverter
Fan Speed: rpm	Variable: min 150 - max 1250
Fan Diameter: in (mm)	45 (1,143)
Cooling System Capacity – US gal (L)	Total 2 Engines 103 (390) x 2 Per Unit

Fuel System

Fuel Type	Ultra Low Sulfur Diesel
Fuel Specifications	ASTM D975 D1 & D2
Fuel Filtering	5 micron
Double Fuel Pre-filter w/Water Separator	10 micron + 30 micron
Injector Type	Unit Injector - Delphi

Engine Electrical System

System Voltage: VDC	24V
Battery – CCA	975
Battery – V (Qty)	12V (4)
Ground Polarity	Negative (-)

STANDARD ALTERNATOR SPECIFICATIONS

Make (Model)	Mecc Alte ECO40 3L4 C
Poles – Qty	4
Field Type	Revolving
Insulation Class – Rotor	Class H
Insulation Class – Stator	Class H
Total Harmonic Distortion (THD)	<3.5%
Telephone Interference Factor (TIF)	<40

Standard Excitation	DER1
Bearings	1
Coupling	14
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Digital AVR
Quantity of Sensed Phases	3
Regulation Accuracy (Steady State)	0.50%

OPERATING DATA

POWER RATINGS

		Standby: kW/kVA (A)	Prime: kW/kVA (A)
50Hz	3-phase, 400 / 230 VAC @ 0.8 pf high wye	2,254 / 2,818 (3,824)	2,078 / 2,598 (3,824)
60Hz	3-phase, 480 / 277 VAC @ 0.8 pf high wye	2,542 / 3,178 (3,824)	2,316 / 2,894 (3,824)

FUEL CONSUMPTION RATES

	60 Hz	
Load	Fuel: US gph (L/hr)	DEF: US gph (L/hr)
100% (Standby)	76.6 (290)	5.3 (20.3)
75%	58.4 (221)	4 (15.5)

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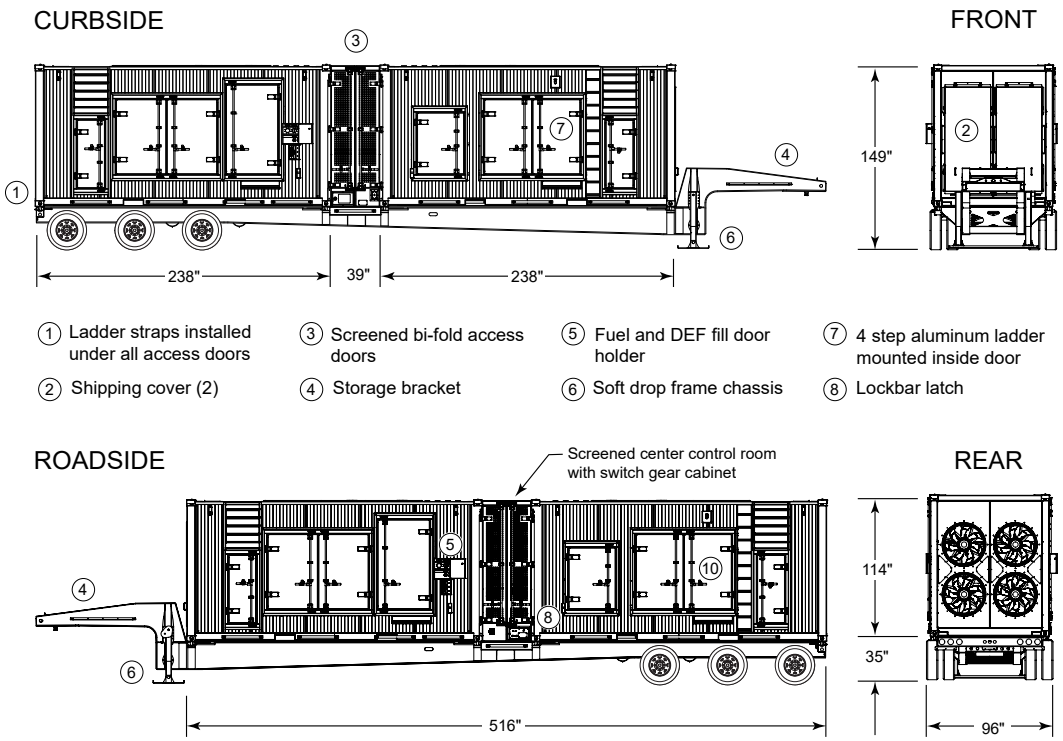
DIMENSIONS AND WEIGHTS*



1. Ladder straps installed under all access doors
2. Shipping cover (2)
3. Screened bi-fold access doors
4. Storage bracket
5. Fuel and DEF fill door holder
6. Soft drop frame chassis
7. 4 step aluminum ladder mounted inside door
8. Lockbar latch

	Runtime: hr*	(2) Usable Fuel Capacity: US gal (L)	Dimensions: in (mm)	Weight: lb (kg)
Trailer	8	475.5 (1,800)	636 (16,154) x 96 (2,438) x 149 (3,785)	Dry: 85,000 Operating: 91,752

**Runtime based on 75% of prime rated power*

SOUND RATING

- 73 dB(A) @ 23 ft. (7 m) @ 75% PRP

* All measurements are approximate and for estimation purposes only.

YOUR FACTORY RECOGNIZED GENERAC MOBILE DEALER

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Mobile Authorized Service Dealer for detailed installation drawings.

Generac Power Systems, Inc. | S45 W29290 HWY. 59 | Waukesha, WI 53189 | generac.com
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