

**MDE1450 | (2)16.1L | 1,450 kVA**

MOBILE DIESEL GENERATOR (TWINGEN)

EPA Certified: Tier 4 Final

**GENERAC®** | **MOBILE**

#### Standby Power Rating

1271 kW, 1589 kVA, 60 Hz

1127 kW, 1409 kVA, 50 Hz

#### Prime Power Rating

1158 kW, 1447 kVA, 60 Hz

1039 kW, 1299 kVA, 50 Hz



Picture shown may not reflect actual configuration.

## Codes and Standards

Generac Mobile products are designed to the following standards:



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

- (2) Volvo TWD1683GE
- 6 Cylinder
- Turbocharged & After-cooled
- 16.1L Displacement
- 1500/1800 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
- (2) Roof Mounted Silencers with Rain Caps

### COOLING SYSTEM

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

### FUEL & DEF SYSTEM

- Double Wall Fuel Tank
  - Metal with 110% Containment
  - Contains all Fuel, DEF, Engine Fluids
- Fuel Tank Capacity 475.5 US gal (1800L)
  - 8 Hour Runtime @ 75% PRP
- Auxiliary Fuel Quick Connections w/6-Way Fuel Valve

### FUEL & DEF SYSTEM (cont)

- (2) DEF Tanks
  - 42.2 US gal (160L) each
  - 84.4 US gal (320L) total
  - 21 Hour Autonomy @ 75% PRP
- Auxiliary DEF Quick Connections
- Lockable Fuel & DEF Fills

### CONTROL SYSTEM

- (2) Deep Sea DSE8610 Controllers
  - Operate Each 725 kVA Genset Individually
- (1) Deep Sea DSE8003 Paralleling Controller
  - Operate Both 725 kVA Gensets Together (1,450 kVA)
- (2) 1,000 A 4-pole motorized Circuit Breakers
- Parallel up to 16 MDE1450 Twin Gen Units
- 50/60 Hz Dual Frequency Switch
- Emergency Stop Switch
- Hour Meter
- Lockable Battery Disconnect
- 5A Battery Charger

### ALTERNATOR SYSTEM

- (2) 50/60 Hz Engine-Driven Alternators
- Mecc Alte ECO40 3L4 C Alternator
  - Brush-less
  - 4 Pole
  - Class H Insulation
- Mecc Alte DER 1 Automatic Voltage Regulator
- Permanent Magnet Generator (PMG) Excitation

### POWER DISTRIBUTION

- Connection Lugs
- Copper Bar Connections

### POWER DISTRIBUTION (cont)

- Grounding System: TN-S, TN-C, IT
- Convenience Receptacle
  - (1) 120V, 20A, GFCI Duplex Receptacle
- Cam Locks - (5) Sets, Female (US color code)

### COLD WEATHER

- -13° F (-25° C) Minimum Operating Temperature
- Coolant Block Heater
- Air Grid Heater
- Oil Pan Heater
- Winter Blend Oil
- Battery Blanket Heater
- Alternator Anti-Condensation Heater

### ENCLOSURE

- 20 ft High Cube Container
- Soundproofed & Weatherproofed
- ISO 4-Point Lifting Hooks
- Fully Lockable Enclosure
- Internal Enclosure Light
- Fork Pockets
- Roof Access Ladder
- CSC (Convention for Safe Container) Approved

### WARRANTY

- 2 Years, 2,000 Hours (Unlimited Hours Covered in First Year)

## CONFIGURABLE OPTIONS

### TRAILER

- Chassis
  - Tandem Axle
  - Gooseneck Platform
  - 377 in (L) x 96 in (W) x 155 in (H)
  - 9.57 m (L) x 2.43 (W) x 3.93 m (H)

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## SPECIFICATIONS

### CONTROL SYSTEM



### CONTROLLER & DISPLAY

- Controller: (2) Deep Sea® Model 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)

### POWER DISTRIBUTION

- 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%
- Over-speed 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  $\pm 10\%$

### DEEP SEA® MODEL DSE8003



- Main Interface with Full Color 7 in Graphical Display
- Paralleling Controller for Both Gensets in MDE1450 TwinGen

## RATING DEFINITIONS

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

*Continuous:* The maximum power the generator is capable of delivering continuously while supplying a constant electrical load when operated.

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## APPLICATION AND ENGINEERING DATA

### ENGINE SPECIFICATIONS

#### General

Make (Model)	Volvo TWD1683GE
EPA	Tier 4 Final
Cylinders: Configuration-Qty	Inline 6
Displacement: in <sup>3</sup> (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 & After-cooled

#### Engine Governing

Governor	Electronic
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#### Engine Electrical System

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

#### Lubrication System

Oil Pump Type	Gear Drive (by Transmission)
Oil Filter Type	40 Micron
Crankcase 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 (1143)
Coolant System Capacity: US gal (L)	Total 2 Engines 103 (390)

#### Fuel System

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

### ALTERNATOR SPECIFICATIONS

#### General

Make (Model)	Mecc Alte ECO40 3L4 C
Poles: Qty	4
Field Type	Revolving
Insulation Class—Rotor	H
Insulation Class—Stator	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
Number of Sensed Phases	3
Regulation Accuracy (Steady State)	0.50%

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OPERATING DATA

POWER RATINGS

		Standby: kW/kVA (A)	Prime: kW/kVA (A)
60Hz	3-phase, 480 / 277 VAC @ 0.8 pf high wye	1,271 / 1,589	1,158 / 1,447
50Hz	3-phase, 400 / 230 VAC @ 0.8 pf high wye	1,127 / 1,409	1,039 / 1,299

FUEL AND DEF CONSUMPTION RATES

Load	60 Hz		50 Hz	
	Fuel: US gph (L/hr)	DEF: US gph (L/hr)	Fuel: US gph (L/hr)	DEF: US gph (L/hr)
100% (Standby)	76.6 (290)	5.3 (20.3)	68.7 (260)	4.8 (18.2)
75%	58.4 (221)	4 (15.5)	52.1 (197)	3.6 (13.8)

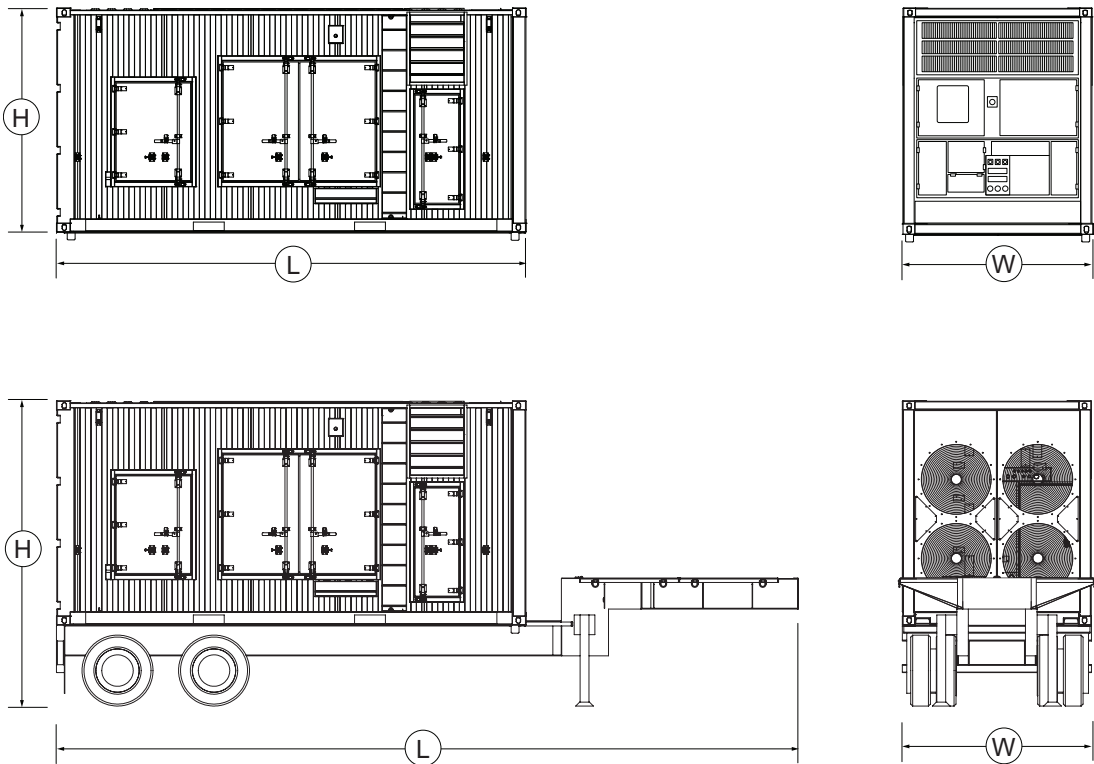
Deration - Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.  
Please consult a Generac Mobile Authorized Service Dealer for additional details. All performance ratings in accordance with SAE J1228, SAE J1995, and DIN6271 standards.

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DIMENSIONS AND WEIGHTS\*



	Run Time: hr*	Usable Fuel Capacity: US gal (L)	Dimensions: L×W×H in (m)	Weight: lb (kg)
Skid	8	475.5 (1,800)	238 (6.0)×96 (2.4)×114 (2.9)	Dry: 37,700 (17,100) Operating: 41,076 (18,631)
Trailer	8	475.5 (1,800)	377 (9.6)×99 (2.5)×155 (3.9)	Dry: <b>PENDING</b> Operating: <b>PENDING</b>

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

SOUND RATING

- 71 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.