

MDG100DF4 | 4.5 L | 100 kVA**MOBILE DIESEL GENERATOR SET**

EPA Emissions Certification: Final Tier 4

GENERAC® | **MOBILE****Standby Power Rating**

85 kW, 106.25 kVA, 60 Hz

Prime Power Rating

80 kW, 100 kVA, 60 Hz



*Assembled in the USA using domestic and foreign parts



Image used for illustration purposes only

Codes and Standards

Generac Mobile products are designed to the following standards:



CSA CERTIFIED



NATM



TIER 4 FINAL EMISSIONS



ISO 8528-5

Power When and Where You Need It

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

STANDARD FEATURES

ENGINE SYSTEM

- John Deere® 4045HFG04
- 4 cylinder
- Turbocharged
- 275 in³ (4.5 L) displacement
- EPA Final Tier 4
- Power @ 1,800 rpm – hp (kW):
 - Prime: 122 (90)
 - Standby: 133 (99)
- Iso mounted engine supports
- Paper element air filter with safety cartridge
- Electronic isochronous governing
- Variable speed fan drive
- Spin-on cartridge oil filter

FUEL SYSTEM

- Fuel tank capacity – gal (L):
 - Total: 165 (625)
 - Usable: 146 (552)
- Maximum run time @ 100% load: 24 hr
- DEF tank capacity – gal (L):
 - Total: 12 (45.4)
 - Usable: 9.1 (34.4)

COOLING SYSTEM

- Capable of operating at 104 °F ambient
- Radiator and oil drains plumbed to exterior

SYSTEM OUTPUTS

- Voltage selection switch: 3-position, lockable

GENERATOR

- 60 Hz engine/generator
- Marathon Electric® 362CSL1606
 - Brushless
 - 4-pole
 - Class H insulation

ENCLOSURE

- Aluminum, sound attenuated enclosure
 - UV and fade resistant, high temperature cured, white polyester powder paint
 - Insulated and baffled
- Fully lockable – including doors, fuel fill, and DEF fill
- Exterior emergency stop switch
- Central lifting point
- Multi-lingual operating and safety decals
- Document holder with owner's manual – includes AC and DC wiring diagrams

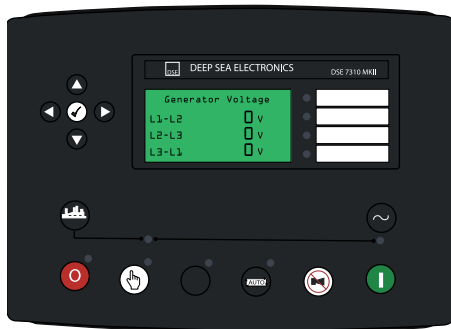
TRAILER

- DOT approved tail, side, brake, and directional lights; recessed rear lights
- Surge brakes
- Transportation tie downs
- Safety chains with spring loaded safety hooks
- 3 in (76.2 mm) ring hitch
- Single axle – 6,000 lb (2,722 kg)
- 2,000 lb (906 kg) tongue jack w/footplate
- Tires: 15 in (38.1 cm), 10-ply, tubeless, load range E

WARRANTY

- 2 year limited or 2,000 hours
 - Unlimited hours covered in first year

CONTROL SYSTEM



010643

Deep Sea® CONTROLLER AND DISPLAY

- Model DSE7310 MKII
- 4-line back-lit LCD text display
- -40 to 158 °F (-40 to 70 °C) operating temperature range
- Multiple language options
- Configurable timers & alarms
- Configurable start/stop timers
- Configurable maintenance alarms
- Heated display

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 & 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 stamp
 - Fuel level: warning – 15%; shutdown – 5%
 - Overspeed protection: shutdown – 110%
 - Engine diagnostic warnings communicated through J1939 CANbus
 - Battery voltage: over – 15 VDC; under – 11 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

- Remote start/stop contacts in receptacle box
- Lockable control box door with diagnostics window
- Lockable lug box with safety switch
 - Trips main breaker when door is opened
 - Disables voltage regulator
- Output ground connection lug inside lug box
- 400 A main breaker with shunt trip
- Convenience receptacles with individual breakers (restricted use in high wye mode)
 - Two 120 V, 20 A, GFCI, duplex outlets (NEMA 5-20R type)
 - Three 125/250 V, 50 A, 3-pole, 4-wire, twistlock outlets (Non-NEMA 6369)
- Voltage adjustment ±10%
- One 12 V, 720 CCA, wet cell battery

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GENERAC® | **MOBILE**

OPTIONS*

ENGINE SYSTEM

- Two fuel filter heaters
- Oil pan heater
- Battery heater
- CCV multi-heater system
- 60/40 coolant
- Positive air shutdown

FUEL SYSTEM

- 110% fluid containment
- Leak detection
- Auxiliary fuel and DEF system

TRAILER

- Electric brakes
- Tandem axle
- Stabilizer jacks
- Tool box/storage bin
- 2 in (50.8 mm) ball hitch

- 2-5/16 in (58.7 mm) ball hitch
- Full-size spare tire

CABINET

- Control panel light
- Interior lights

CONTROL SYSTEM

- 4-position phase switch
- PMG
- Paralleling
- Buck transformer
- Battery disconnect switch
- Cam locks
- 10 A battery charger
- DVR

GENERATOR SYSTEM

- SUPERSTART®
- VFLEX (600 V)

CAN PACKAGE

- Two fuel filter heaters
- Oil pan heater
- Battery heater
- CCV multi-heater system
- 60/40 coolant
- Containment

CAN6 PACKAGE

- Two fuel filter heaters
- Oil pan heater
- Battery heater
- CCV multi-heater system
- 60/40 coolant
- VFLEX
- Containment

RATING DEFINITIONS

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

Prime: Applies 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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APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

Make (Model)	John Deere (4045HFG04)
EPA Emissions Compliance	Final Tier 4
After-Treatment System	DOC and SCR
Cylinders – Qty	4
Type	In-Line
Displacement – in ³ (L)	275 (4.5)
Bore – in (cm)	4.2 (10.6)
Stroke – in (cm)	5.0 (12.7)
Compression Ratio	17:1
Intake Air Method	Turbo/Air-To-Air, After-Cooled

Engine Governing

Governor	Electronic
Frequency Regulation (Steady State)	2%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Spin-On Cartridge
Crankcase Capacity – qt (L)	15.9 (15)

Cooling System

Cooling System Type	Radiator and CAC
Water Pump Type	Engine Belt Driven
Fan Type	Pusher
Fan Speed – rpm	Variable Speed Clutch
Fan Diameter – in (cm)	23.2 (59.0)
Cooling System Capacity – qt (L)	22.0 (20.8)

Fuel System

Fuel Type	Ultra Low Sulfur Diesel
Fuel Specifications	EN 590 / ASTM D975
Fuel Filtering – μ	Primary: 10 Final: 2
Fuel Injection Pump – Make (Model)	Denso (HP3)
Fuel Pump Type	Engine Gear Driven
Injection Type	Electronic
Engine Type	Direct Injection High Pressure Common Rail
Fuel Supply Line Diameter – in (mm)	0.375 (9.5)
Fuel Return Line Diameter – in (mm)	0.375 (9.5)

Engine Electrical System

System Voltage – VDC	12
Battery Charger Alternator – VDC (A)	12 (90)
Battery – CCA	720
Battery – V (Qty)	12 (1)
Ground Polarity	Negative (-)

ALTERNATOR SPECIFICATIONS

Make (Model)	Marathon Electric (362CSL1606)
Poles – Qty	4
Field Type	Rotating
Insulation Class – Rotor	H
Insulation Class – Stator	H
Total Harmonic Distortion	<3.5%
Telephone Interference Factor	<50

Standard Excitation	Brushless
Bearings	Single Bearing
Coupling	Direct Flexible Disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	AVR
Number of Sensed Phases	1
Regulation Accuracy (Steady State)	$\pm 0.5\%$

SUPERSTART ALTERNATOR SPECIFICATIONS

Make (Model)	Marathon Electric (362PSL1650)
Poles – Qty	4
Field Type	Rotating
Insulation Class – Rotor	H
Insulation Class – Stator	H
Total Harmonic Distortion	<3.5%
Telephone Interference Factor	<50

Standard Excitation	Brushless
Bearings	Single Bearing
Coupling	Direct Flexible Disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	AVR
Quantity of Sensed Phases	1
Regulation Accuracy (Steady State)	$\pm 0.5\%$

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APPLICATION AND ENGINEERING DATA (CONTINUED)

VFLEX ALTERNATOR SPECIFICATIONS

Make (Model)	Marathon Electric (362PSL36115)	Standard Excitation	Brushless
Poles – Qty	4	Bearings	Single Bearing
Field Type	Rotating	Coupling	Direct Flexible Disc
Insulation Class – Rotor	H	Prototype Short Circuit Test	Yes
Insulation Class – Stator	H	Voltage Regulator Type	AVR
Total Harmonic Distortion	<3.5%	Quantity of Sensed Phases	1
Telephone Interference Factor	<50	Regulation Accuracy (Steady State)	±0.5%

OPERATING DATA

POWER RATINGS

	Standby: kW/kVA (A)	Prime: kW/kVA (A)
1-phase, 120/240 VAC @ 1.0 pf*	78/78 (325)	78/78 (325)
3-phase, 120/208 VAC @ 0.8 pf	85/106.25 (295)	80/100 (278)
3-phase, 120/240 VAC @ 0.8 pf**	85/106.25 (256)	80/100 (241)
3-phase, 277/480 VAC @ 0.8 pf	85/106.25 (128)	80/100 (120)
3-phase, 346/600 VAC @ 0.8 pf***	85/106.25 (102)	80/100 (96)

*Alternator limited.
**Power ratings achieved through use of optional 4-position phase switch.
***Power ratings achieved through use of optional VFLEX alternator.

FUEL AND DEF CONSUMPTION RATES

Load	Fuel: gph (Lph)		DEF: gph (Lph)	
	Standby	Prime	Standby	Prime
25%	2.0 (7.57)	1.90 (6.37)	NA	NA
50%	3.46 (13.10)	3.17 (12.02)	NA	NA
75%	4.95 (18.75)	4.51 (17.07)	NA	NA
100%	6.64 (25.12)	6.01 (22.72)	NA	0.26 (1.15)

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.
Please contact a Generac Mobile Authorized Service Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, ISO8665, SAE J1228, SAE J1995, and DIN6271 standards.

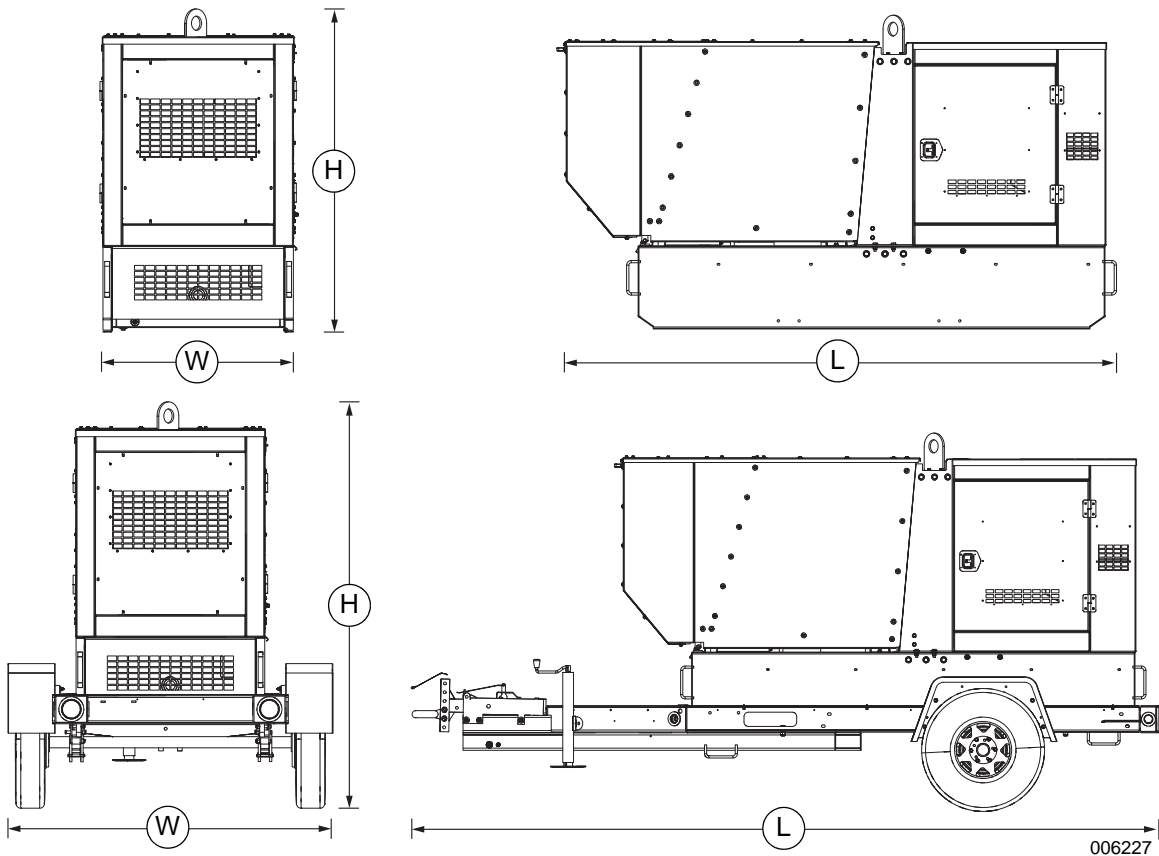
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DIMENSIONS AND WEIGHTS*



	Run Time: hr	Usable Fuel Capacity: gal (L)	Dimensions – L×W×H: in (m)	Weight: lb (kg)
Skid	24	146 (552)	119 (3.02)×40 (1.02)×62 (1.57)	Dry: 3,980 (1,805) Operating: 4,940 (2,240)
Trailer	24	146 (552)	170 (4.31)×69 (1.75)×80 (2.03)	Dry: 4,680 (2,122) Operating: 5,640 (2,555)

SOUND RATING

- 74 dB(A) @ 23 ft (7 m) @ prime power

* 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.