## MDG75DF4 | 4.5L | 75 kVA

MOBILE DIESEL GENERATOR SET FPA Emissions Certification: Final Tier 4



Standby Power Rating 68 kW, 85 kVA, 60Hz

Prime Power Rating 60 kW. 75 kVA. 60Hz



Image used for illustration purposes only

## **Codes and Standards**

Generac Magnum products are designed to the following standards:



CSA



NATM



**TIER 4 FINAL EMISSIONS** 



ISO 8528-5

## Power When and Where You Need It

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

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## STANDARD FFATURES

#### **ENGINE SYSTEM**

- John Deere 4045HFG04 B
- Prime 97hp, 73kWM @ 1800 rpm
- Standby 107hp, 80kWH @ 1800 rpm
- 4 cylinder, 4.5 displacement, EPA Final Tier 4

#### FUEL SYSTEM

- Fuel tank 165 gallon (625L)
- DEF 11 gallon (9 usable)
- DEF consumption 0.22 gph
- 30 hour run time 4.85 gph consumption

#### **COOLING SYSTEM**

- Capable of handling 107°F
- Low coolant shutdown
- Radiator and oil drains plumbed to exterior

#### SYSTEM OUTPUTS

- 68 kW / 85 kVA standby-three phase
- 60 kW / 75 kVA prime-three phase

#### GENERATOR

- 60 Hz engine/generator
  - Marathon Electric
  - Brushless
  - 4-pole
  - · Class H insulation
- Voltage regulation ± 1.0% with PM600 Voltage Regulator

#### **ENCLOSURE**

- Aluminum, sound attenuated enclosure
  - UV and fade resistant, high temperature cured, white polyester powder paint
  - · Insulated and baffled
  - 74 dB(A) at 23 ft (7 m) prime power
- Fully lockable enclosure including doors and fuel fill and DEF fill
- Emergency stop switch located on outside of enclosure
- Central lifting point
- Multi-lingual operating/safety decals
- Document holder with operating manual including AC/DC wiring diagrams

#### TRAILER

- DOT approved tail, side, brake, and directional lights; recessed rear lights
- Transportation tie downs
- Safety chains with spring loaded safety hooks
- 3 in (76.2 mm) Lunette ring hitch

#### WARRANTY

2 year limited or 2000 hours
Unlimited hours covered in first year

#### CERTIFICATIONS

CSA certified

#### SYSTEM CONTROLS

#### Power Zone<sup>®</sup> Controller And Display

- Backlit, 800 x 480 pixel resolution color display
- -40 °F to 185 °F (-40 °C to 85 °C) operating temperature range
- Automatic coarse voltage adjustment
- Integrated fine voltage adjustment
- PLC functionality

#### **Push Buttons For Easy Operation**

- Manual or Auto Start
- Engine Start
- Engine Stop/Reset
- Alarm Mute
- Operator Screens
  - Home
  - EngineGenerator
  - Voltage Adjust

#### Scrolling Arrows for Diagnostic Information

- Engine diagnostic display
  - Oil pressure
  - · Engine temperature
  - Fuel level
  - Battery
  - · After-treatment inlet/outlet temperature
  - Ash/soot levels
- Generator diagnostic display
  - System kW output display
  - · Line output and frequency display
- Alarms
  - Warning
  - Shutdown
  - Electrical Trip
  - Engine
- Alarm list warnings/shutdowns; 250 event history log – date/time stamp
  - Fuel level: warning 15%; shutdown 5%
  - Over speed protection: shutdown 115%
  - Oil pressure: warning 25 psi; shutdown 20 psi
  - Coolant temperature: warning 230 °F (110 °C); shutdown 235 °F (113 °C)
  - Battery voltage: over 15VDC; under 11VDC
  - Generator over voltage: warning 110%; electrical trip – 125%

- Generator under voltage: warning 91.4%; shutdown – 70%
- Generator over frequency: warning 102.5%; electrical trip – 110%
- Generator under frequency: warning 95%; electrical trip – 90%
- Inputs/Outputs
- Auto Schedule
- Status
- Configuration of controller, firmware, and connections

#### **ELECTRICAL CONTROLS**

GENERAC<sup>®</sup> | MAGNUM

- Remote start/stop contacts located in receptacle box
- Lockable control box door with diagnostics window

Convenience receptacles with individual breakers

Two 120V 20 amp GFCI duplex outlets –

Three 125/250V 50 amp. 3-pole. 4-wire Twist-

SPEC SHEET

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- Lockable lug box with safety switch
  - Trips main breaker when door is opened
    Disables voltage regulator
- Output around connection lug inside lug box
- 300A main breaker with shunt trip

(restricted use in high wye mode)

lock (Non-NEMA 6369)

One 12V / 720 CCA wet cell battery

(NEMA 5-20R type)

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#### **OPTIONS**

#### **ENGINE SYSTEM**

- Fuel filter heater
- CCV heater
- 60/40 coolant
- Positive air shutdown
- Cam locks
- 10A battery charger

#### FUEL SYSTEM

- 110% fluid containment
- Leak detection

#### TRAILER

- Full size spare tire
- Tool box / storage bin
- 2-5/16" (5.9 cm) ball hitch
- Electric brakes
- Rear stabilizer jacks
- 2" ball hitch
- Tandem axle

### CABINET

- Control panel light
- Interior lights

#### **CONTROL SYSTEM**

- 4-position selector switch
- PMG/DVR
- Paralleling
- Buck transformer
- Battery disconnect switch

#### **GENERATOR SYSTEM**

• SuperStart



### **RATING DEFINITIONS**

Standby - Applicable for varying emergency load for the duration of a utility power outage. Prime - Applicable for 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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EPA Emissions Certification: Final Tier 4

### **APPLICATION AND ENGINEERING DATA**

#### **ENGINE SPECIFICATIONS**

#### General

Make	John Deere
EPA Emissions Compliance	Final Tier 4
After Treatment System	DOC & SCR
Cylinder #	4
Туре	Inline
Displacement	4.5L
Bore – in (mm)	4.2" (106mm)
Stroke – in (mm)	5.0" (127mm)
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

#### Cooling System

Cooling System Type	Radiator and CAC
Water Pump Type	Engine - belt driven
Fan Type	Pusher
Fan Speed (rpm)	Variable Visc clutch
Fan Diameter – in (mm)	23.2" (590mm)
Cooling System Capacity – qt (L)	22 (20.8)

#### Fuel System

Fuel Type	ULSD (Ultra low sulfur diesel)	
Fuel Specifications	EN590 / ASTM D975	
Fuel Filtering (microns)	2 microns (final), 10 micron (primary)	
Fuel Inject Pump Make	Denso HP3	
Fuel Pump Type	Engine driven - belt	
Injector Type	Electronic	
Engine Type	Direct Injection	
Fuel Supply Line – in (mm)	.313 (8.0)	
Fuel Return Line – in (mm)	.313 (8.0)	

#### **Engine Electrical System**

System Voltage	12VDC
Battery Charger Alternator	STD
Battery Size	720CCA
Battery Voltage	12V (1)
Ground Polarity	Negative

#### **ALTERNATOR SPECIFICATIONS**

Standard Model	361CSL1602
Poles	4
Field Type	Rotating
Insulation Class - Rotor	Class H
Insulation Class - Stator	Class H
Total Harmonic Distortion	<3.5%
Telephone Interference Factor (TIF)	<50

Standard Excitation	Brushless
Bearings	Single bearing
Coupling	Direct, flex disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	Analog
Number of Sensed Phases	1
Regulation Accuracy (Steady State)	+/- 1%

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#### **OPERATING DATA**

#### **POWER RATINGS**

	Standby: KW/kVA (A)	Prime: KW/kVA (A)
Single-phase, 120/240VAC @ 1.0pf	60/60 (250)	55/55 (229)
Three-phase, 120/208VAC @ 0.8pf	68/85 (236)	60/75 (208)
Three-phase, 120/240VAC @ 0.8pf	68/85 (204)	60/75 (180)*
Three-phase, 277/480VAC @ 0.8pf	68/85 (102)	60/75 (90)

\*Power ratings achieved with use of optional 4-position phase switch

#### **STARTING CAPABILITIES (sKVA)**

sKVA vs. Voltage Dip	
150 kVa	
25%	

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#### **FUEL CONSUMPTION RATES\***

	Diesel - gal/hr (L/hr)	
Percent Load	Standby	Prime
25%	1.74 (6.61)	1.69 (6.37)
50%	2.85 (10.82)	2.69 (10.22)
75%	4.06 (15.38)	3.74 (14.18)
100%	5.33 (20.19)	4.85 (18.39)

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

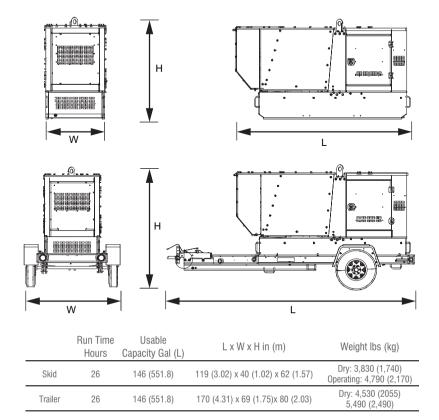
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#### **DIMENSIONS AND WEIGHTS\***



\* All measurements are approximate and for estimation purposes only.

YOUR FACTORY RECOGNIZED GENERAC MOBILE PRODUCTS DEALER

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