#### MOBILE DIESEL GENERATOR SET

EPA Emissions Certification: Tier 4 Final



**Standby Power Rating** 

25 kW, 31 kVA, 60 Hz

Prime Power Rating 20 kW, 25 kVA, 60 Hz





Image used for illustration purposes only

# **Codes and Standards**

Generac Mobile products are designed to the following standards:



**CSA** 



**NATM** 



**TIER 4 FINAL EMISSIONS** 

# **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.

#### MOBILE DIESEL GENERATOR SET

EPA Emissions Certification: Tier 4 Final

# GENERAC MOBILE

#### STANDARD FEATURES

#### **ENGINE SYSTEM**

- Isuzu<sup>®</sup> 4LE2TAGV08
- 4 cylinder
- Turbocharged
- 134 in<sup>3</sup> (2.2 L) displacement
- · EPA Tier 4 Final approved
- Power @ 1,800 rpm hp (kW):
  - Prime: 36 (27)
  - Standby: 40 (30)
- · Approved for use with Hydrotreated Vegetable Oil (HVO) fuels compliant with ASTM D975 or EN 15940
- Paper Element Air Filter
- Electronic Isochronous Governing
- Fixed Speed Fan
- One Spin-on Cartridge Oil Filter
- Oil Drain Extension
- Two Fuel Filters
- One 12 V. 720 CCA. Wet Cell Battery

#### **COOLING SYSTEM**

· Capable of operating at 120 °F (49 °C) ambient (at Prime)

DEEP SEA ELECTRONICS

- 50/50 Coolant (50% Ethylene Glycol)
- Coolant Drain Extension

#### **FUEL SYSTEM**

•

0

· Polyethylene Fuel Tank

**CONTROL SYSTEM** 

• Fuel tank capacity - gal (L):

- Total: 62 (234)
- Usable: 56 (211)
- Runtime @ 75% load: 35 hr
- Padlockable Fuel Cap

#### **CONTROL SYSTEM**

- Deep Sea Electronics 7310 MKII Controller
- 3-Position Voltage Selection Switch
- 125 A Main Circuit Breaker (MCB), Manual, with Shunt Trip
- Individual Convenience Receptacle Circuit Breakers
- Emergency Stop Switch
- · 2-Wire Remote Start/Stop Contacts

#### **ALTERNATOR SYSTEM**

- 60 Hz Engine-Driven Alternator
- Standard Alternator
  - Brushless
  - 4-pole
  - 2/3 Pitch
  - · Class H insulation
  - · Corrosion Protection
- Marathon Electric PM500 AVR
- Shunt Excitation System

#### **POWER DISTRIBUTION**

• Connection Lugs

- · Convenience Receptacles
  - Two 120 V, 20 A, GFCI Duplex (NEMA 5-20R)
  - Three 120/240 V, 50 A, 3 Pole, 4 Wire Twistlock (CS6369)

#### **ENCLOSURE**

- · All Steel Construction, Sound Attenuated, Insulated
- · UV and Fade Resistant, High Temperature Cured, White Polvester Powder Paint
- Central Lifting Point
- · Fully Lockable Enclosure
- . Multi Lingual Operating and Safety Decals
- Document Holder with Owner's Manual includes AC and DC wiring diagrams

#### **TRAILER**

- 2 in. (50.8 mm) Ball Hitch
- Single 2,000 lb. (907 kg) Axle
- 13 in. Tires. Tubeless
- 2,000 lb (907 kg) Tongue Jack with Footplate
- · Safety Chains with Spring Loaded Safety Hooks
- Transportation Tie Downs
- Plug Adapter, 4-Way Flat
- DOT Approved Tail, Side, Brake, and Directional Lights

#### WARRANTY

- · 2 year limited or 2,000 hours
  - · Unlimited hours covered in first year
  - 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 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
- Voltage adjustment ±10%

#### 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 010643

- · 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 15 VDC; Under 11 VDC
  - Generator Over Voltage: Warning 110%; Electrical Trip - 115%

# **Deep Sea Electronics CONTROLLER AND DISPLAY** Model DSE7310 MKII

- 4 Line Back Lit LCD Text Display -40 to 158 °F (-40 to 70 °C) Operating Temperature
- Multiple Language Options Configurable Timers and Alarms
- Configurable Start/Stop Timers Configurable Maintenance Alarms
- Heated Display

Range

#### **CONFIGURABLE OPTIONS\***

#### **ENGINE SYSTEM**

- O Positive Air Shutdown (PAS), Electronic
- O Alternate Load Device (ALD)
- Oil Evacuation System requires customersourced, specialized equipment to use for oil change

#### **COLD WEATHER**

- O Engine Block Heater
- O Two Fuel Filter Heaters
- Oil Heater
- O Crankcase Ventilation (CCV) System Heater
- O 10 A Battery Charger
- O 60/40 Coolant (60% Ethylene Glycol)

#### **FUEL SYSTEM**

- 110% Containment engine fluid (oil & coolant) and fuel
- O Engine Fluid and Fuel Leak Detection Sensor
- Auxiliary Fuel Tank Connection
  - 3-Way Fuel Valve

#### **CONTROL SYSTEM**

- O 4-Position Voltage Selection Switch
- Telemetry
- O Lojack Equipment Recovery System
- O Battery Disconnect Switch, Padlockable

#### **ALTERNATOR SYSTEM**

- SUPERSTART® Alternator
- O VFLEX (600 V) Alternator
- O Marathon Electric DVR2400 DVR
- Permanent Magnet Generator (PMG) Excitation System

#### **POWER DISTRIBUTION**

- Camlocks—one set, female (US or Canada color code)
- O Buck Transformer

#### **ENCLOSURE**

Fire extinguisher

#### **TRAILER**

- O Skid Mount (Non-trailer)
- O Electric Brakes
- O 2 in. (50.8 mm) BULLDOG® Ball Hitch
- O 2-5/16 in. (58.7 mm) BULLDOG Ball Hitch
- O 3 in. (76.2 mm) Pintle Ring Hitch
- O Rear Stabilizer Jacks
- O Toolbox: Aluminum,  $49 \times 15 \times 18.5$  in.  $(125 \times 38 \times 47 \text{ cm})$
- O Plug Adapter, Round 7 Blade (SAE J2863)
- Spare Tire

#### **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





# MOBILE DIESEL GENERATOR SET

EPA Emissions Certification: Tier 4 Final



# **APPLICATION AND ENGINEERING DATA**

# **ENGINE SPECIFICATIONS**

$\sim$	_		_	1
1-	Δ	n	Δ	rai

Isuzu (4LE2T)
Tier 4 Final
DOC
4
In-Line
134 (2.2)
3.35 (85)
3.78 (96)
17.6:1
Turbocharged

# **Engine Governing**

Governor		Electror
Frequency Regulation	n (Steady State)	±2%

# **Lubrication System**

Oil Pump Type	Gear Driven
Oil Filter Type	Spin-On Cartridge, Full Flow
Crankcase Capacity – qt (L)	10.9 (10.4)

# Cooling System

Cooling System Type	Radiator
Water Pump Type	Belt Driven
Fan Type	Pusher
Fan Speed – rpm	2,016
Fan Diameter – in (cm)	15.75 (40)
Cooling System Canacity – gt (L)	17.6 (16.6)

# Fuel System

Fuel Type	Ultra Low Sulfur Diesel
Fuel Specifications	EN 590 / ASTM D975
Fuel Filtering – $\mu$	Primary: 10 Final: 2
Fuel Inject Pump – Make (Model)	Denso (HP3)
Fuel Pump Type	Engine Gear Driven
Injector 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 (50)
Battery Size – CCA	720
Battery Voltage (Battery Qty)	12 (1)
Ground Polarity	Negative (-)

# STANDARD ALTERNATOR SPECIFICATIONS

Make (Model)	Marathon Electric (282PSL1705)
Poles – Qty	4
Field Type	Rotating
Insulation Class - Rotor	Class H
Insulation Class - Stator	Class H
Total Harmonic Distortion	<5%
Telephone Interference Factor	<50

Standard Excitation	Shunt
Bearings	Double Shielded, Prelubricated
Coupling	Direct Flexible Disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	AVR
Quantity of Sensed Phases	1
Regulation Accuracy (Steady State)	±0.5%

# **SUPERSTART ALTERNATOR SPECIFICATIONS**

Marathon Electric (283PSL1707)
4
Rotating
Н
Н
<5%
< 50

Standard Excitation	Shunt
Bearings	Double Shielded, Prelubricated
Coupling	Direct Flexible Disc
Prototype Short Circuit Test	Yes
Voltage Regulator Type	AVR
Quantity of Sensed Phases	1
Regulation Accuracy (Steady State)	±0.5%

# MOBILE DIESEL GENERATOR SET

EPA Emissions Certification: Tier 4 Final



# **APPLICATION AND ENGINEERING DATA (CONTINUED)**

#### **VFLEX ALTERNATOR SPECIFICATIONS**

Make (Model)	Marathon Electric (283PSL28106)
Poles – Qty	4
Field Type	Rotating
Insulation Class – Rotor	Н
Insulation Class – Stator	Н
Total Harmonic Distortion	<5%
Telephone Interference Factor	<50

Standard Excitation	Shunt			
Bearings	Double Shielded, Prelubricated			
Coupling	Direct Flexible Disc			
Prototype Short Circuit Test	Yes			
Voltage Regulator Type	AVR			
Quantity of Sensed Phases	1			
Regulation Accuracy (Steady State)	±0.5%			

#### **OPERATING DATA**

#### **POWER RATINGS**

	Standard Alternator		SUPERSTART Alternator		VFLEX Alternator	
	Standby: kW/kVA (A)	Prime: kW/kVA (A)	Standby: kW/kVA (A)	Prime: kW/kVA (A)	Standby: kW/kVA (A)	Prime: kW/kVA (A)
1-phase, 120/240 VAC @ 1.0 pf—zig zag*	17.5/17.5 (73)	17.5/17.5 (73)	17.5/17.5 (73)	17.5/17.5 (73)	11/11 (46)	11/11 (46)
3-phase, 208/120 VAC @ 0.8 pf—low wye	25/31 (86)	20/25 (70)	25/31 (86)	20/25 (70)	24/30 (83)	19/24 (66)
3-phase, 240/120 VAC @ 0.8 pf—delta**	25/31 (75)	20/25 (60)	25/31 (75)	20/25 (60)	24/30 (72)	19/24 (57)
3-phase, 480/277 VAC @ 0.8 pf—high wye	25/31 (37)	20/25 (30)	25/31 (37)	20/25 (30)	26/32 (36)	21/26 (32)
3-phase, 600/346 VAC @ 0.8 pf—high wye	N/A	N/A	N/A	N/A	26/32 (29)	21/26 (25)

<sup>\*</sup>Alternator limited.

#### **FUEL CONSUMPTION RATES**

Prime Load	Fuel: gph (L/hr)
50%	1.1 (4.2)
75%	1.6 (6.1)
100%	2.0 (7.4)
110% (Standby)	2.3 (8.6)

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions.

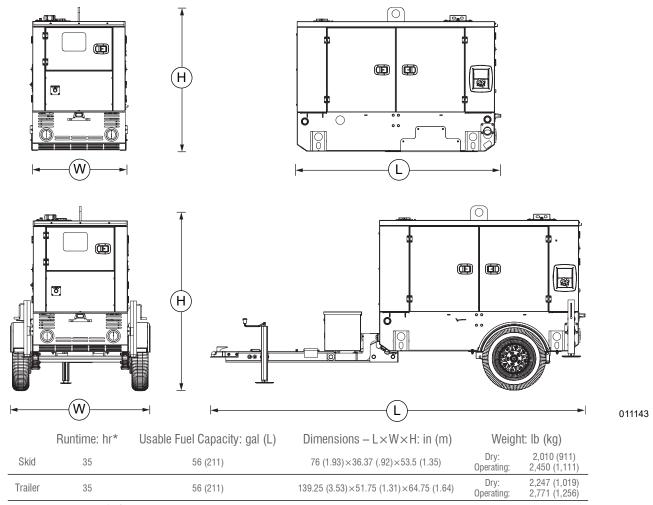
Please consult a Generac Mobile Products Authorized Service Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528, ISO8665, SAE J1228, SAE J1995, and DIN6271 standards.

<sup>\*\*</sup>Power ratings achieved through use of optional 4-position voltage selection switch.

EPA Emissions Certification: Tier 4 Final



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



<sup>\*</sup>Runtime based on 75% of prime rated power

### **SOUND RATING**

• 67 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.

6 of 6