

50 kW Mobile Generator

GPR-J50-60T4iF

EPA T.P.E.M. Tier i4 FLEX



Power Ratings

48kW 60kVA Standby ESP
43kW 54kVA Prime PRP

John Deere Engine

74bHP 4045TF290-3074
EPA T.P.E.M. Tier i4 FLEX

Leroy Somer Alternator

171 sKVA Tal-042-H 3Phase (AREP)

Deep Sea Electronics

DSE7320 Controller / DSEA109 AVR

ABB Circuit Breaker

T-Max Range

Quality Standard

100% designed, engineered, assembled and tested in USA

Your mobile power generation solution

Powered by the most reliable components in the industry: EPA T.P.E.M. Tier i4 FLEX John Deere diesel engines, Leroy Somer alternators, Deep Sea digital controllers, & ABB circuit breakers, these mobile diesel generators have been meticulously designed to deliver maximum ROI, versatility and dependability for even the most demanding mobile and prime applications.

Voltage	Power ESP kWe/kVA	Power PRP kWe/kVA	Standby Amps	Prime Amps	Phase
480/277	48/60	43/54	72	65	3
220/127	48/60	43/54	157	141	3
208/120	48/60	43/54	167	149	3
240/120	40/40	36/36	167	150	1

ATB (Air to Boil)

Unit mounted radiator with 40C (104F) ambient air capability at the prime (PRP) rating

POWER RATINGS

PRP: Prime Power is available for an unlimited number of annual operating hours in variable load applications, in accordance with ISO 8528-1:2018
ESP: Standby Power is applicable for supplying emergency power in variable load applications in accordance with ISO 8528-1:2018

AMBIENT CONDITIONS

According to ISO 8528-1:2018

LOAD ACCEPTANCE

According to ISO 8528-5, Class G3 (when equipped with the necessary electronic engine governor and digital AVR)

Dimensions with Lifting Kit / without trailer	Dimensions with Lifting Kit / with trailer	Fuel Tank Standard Capacity 2-wall, NON-UL	D.o.T. Compliant Trailer
L: 2,963 mm (116.67 in)	L: 4,623 mm (182 in)	662 L (175 Gal)	7,000 lbs GVWR
W: 1,136 mm (44.72 in)	W: 2,286 mm (90 in)	46 Hours at 100% PRP	2-axle tandem
H: 2,111 mm (83.12 in)	H: 2,863 mm (112.73 in)	60 Hours at 75% PRP	Electric brakes

V3 12/2020



John Deere Engine Specifications

General Data

Manufacturer	John Deere 4045TF290-3074 Turbocharged & Aftercooled (Air-to-air) T.P.E.M. Tier i4 FLEX
Cylinders-arrangement	4-L
Displacement	4.5-L
Bore (mm) X Stroke (mm)	106X127
Compression Ratio	19.0:1
Speed (RPM)	1800
Maximum stand-by power at rated RPM (kW)	55 kW (74HP)
Governor	Mechanical

Fuel Consumption

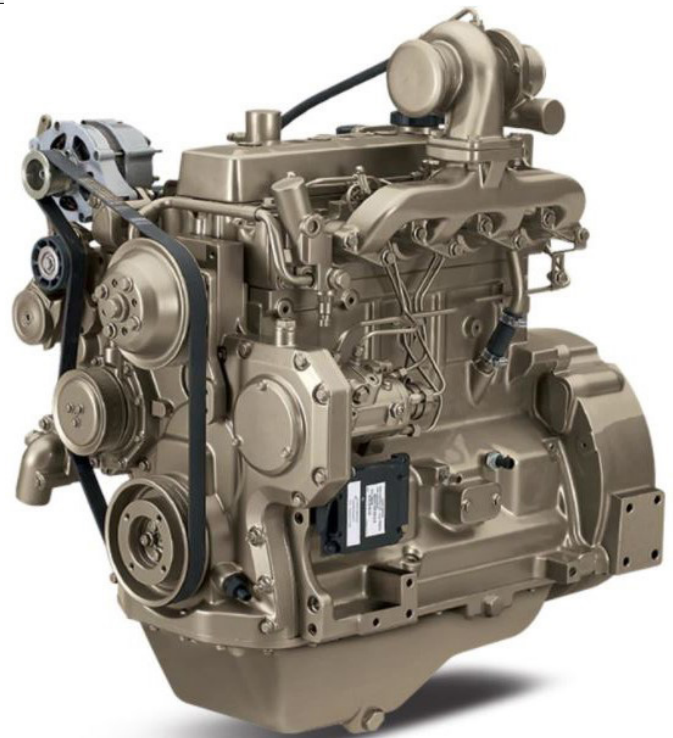
Fuel consumption 100% Prime load	14.4 L/hr [3.8 Gal/hr]
Fuel consumption 75% Prime load	11 L/hr [2.9 Gal/hr]

Fuel Runtime Autonomy

Integral Tank (175 Gal)	46 Hours @ 100% Prime 60 Hours @ 75% Prime
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U.S. EPA Compliance

EPA Tier	T.P.E.M. Tier i4 FLEX
Transition Program for Equipment Manufacturers (T.P.E.M.)	Yes, as per Flexibility Allowance Provisions
T.P.E.M. Regulation	40 CFR §1039.625
Mobile Prime Application	Yes, compliant for mobile prime application
Stationary Standby Application	No, does not comply. Must use Tier 3 Stationary Emergency only.
Stationary Prime Application	No, does not comply. Must use Tier 4 Final only



Leroy Somer Alternator Specifications

General Data

Manufacturer	Leroy Somer
Alternator	TAL-042-H
Starting KVA	171 at 30% voltage dip
Number of phases	3
Power factor (Cos Phi)	0.8
Altitude (M)	<1000
Overspeed (RPM)	2250
Number of poles	4
Excitation System	Auxiliary Winding Excitation (AREP)
Short Circuit Capability	250% for 5 seconds
Insulation class/ Temperature class	H / H
Automatic Voltage Regulator	Deep Sea DSEA109 Digital AVR
Coupling	Direct / Single Bearing
Voltage regulation 0 to 100%	+/- 1.0%



Control/Electronics Features

Deep Sea DSE7320MKII Digital Controller

Microprocessor-based generator controller with dual-core main processor and extended memory	✓
User friendly, large, 4-line back-lit LCD text display with support for up to 7 display languages	✓
Support for up to 3 wired-remote mimic display/control units	✓
Engine and alternator control	✓
J1939 Engine communication	✓
Manual, auto, and test operation mode	✓
Full range of engine and electrical measurements	✓
kW/kVA/kvar/hours counter	✓
250 event history log	✓
Push buttons for easy operation	✓
Operator Screens: Status, Engine, Alternator, Alarms, Event Log, and ECU Alarm	✓

Warning Alarms

50+ fully configurable alarms	✓
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Automatic Shutdowns

Under and Over voltage alarm (ANSI 27, ANSI 59)	✓
Over load alarm (ANSI 32)	✓
Over current alarm (ANSI 50)	✓
Under and Over frequency (ANSI 81)	✓
Under and Over speed	✓
High coolant temperature	✓
Low oil pressure	✓
Low coolant level	✓
Earth fault alarm (ANSI 87G)	✓
Fuel containment leak	✓
Breaker safety switch	✓
Voltage selector switched when engine running	✓

✓ = Standard Feature ○ = Optional Upgrade

Deep Sea DSEA109 Digital AVR

Advanced digital automatic voltage regulator with CANBUS and LED indicators	✓
↳ Under frequency roll off protection with optional instantaneous step	
↳ Loss of voltage sensing protections	
↳ Over excitation protection	
↳ Soft start ramping mode with ON/OFF switch. Temporarily reduces the load & torque in the powertrain and current surge of motor during start-up, permitting the sizing of a genset with a lower power rating.	○

Deep Sea DSEWEBNET Cloud-Based Remote Monitoring

Many Internet-access hardware options: 3G/4G/Ethernet	○
↳ Free 24/7 multi-user, powerful, industry leading remote monitoring software (requires Internet hardware/access)	
↳ Available via free desktop, iOS and Android app	
↳ Customizable branding for corporate accounts	
↳ Configurable event triggers and automated reporting for up to 25 users	
↳ Geo-fencing and asset tracking via GPS	○

Load-Sharing Configuration Upgrades

Set-to-set synchronizing and load sharing package, set mounted, Deep Sea DSE8610	○
Set-to-set synchronizing and load sharing package, set mounted, DEIF AGC 150	○
Remote "overview" display panel kit (multi-genset), 10" touch-enabled, multi-color, Deep Sea DSE8004 ⁽¹⁾	○

Control and Communication Accessories

Remote "mimic" control/display panel kit (single genset), Deep Sea DSE7320MKII ⁽¹⁾	○
Remote annunciator panel kit (single genset), Deep Sea DSE2548: 8;16; or 24x lights ⁽¹⁾	○
Output expansion module kit, Deep Sea DSE2157 8x configurable relay contacts	○
Input expansion module kit, Deep Sea DSE2130 8x configurable digital inputs (up to 4 analog)	○

(1) Available either as indoor-rated for surface mounting or outdoor-rated inside NEMA3R box



General Features

Engine System

G-Drive optimized heavy duty diesel engine	✓
Electrolyte-charged battery with rack, cables, and rubber boot connections	✓
Oil drain extension with in-line valve	✓
Mechanical isochronous governing	✓
Racor water/fuel separator filter	o
Oil pan heater	o
Battery heater	o
Automatic coolant heater	o
5 AMP automatic battery charger	o
10 AMP UL automatic battery charger	o
10 AMP UL intelligent automatic battery charger with configurable 2-3-4 stage charging	o
AMOT Positive air intake shutdown	o
Extended engine warranty: 3 years or 4,000 hours	o
Extended engine warranty: 4 years or 5,000 hours	o
Extended engine warranty: 5 years or 10,000 hours	o

Cooling System

Industrial grade cooling system	✓
Coolant drain extension with in-line valve	✓
Fan guards	✓
Belt guards	o
Radiator and oil drains plumbed to a convenient ports box on the exterior of the skid	✓

Alternator System

Full load rated with thermo-magnetic switch protection	✓
Skewed rotor and 2/3 pitch winding suppress triple harmonics and guarantee a superior voltage waveform	✓
Windings are vacuum-impregnated with fungus resistant epoxy	✓
Class H insulation and self-ventilated drip-proof design	✓
Digital automatic voltage regulator (DAVR)	✓
Auxiliary-excited advanced AVR power and control (by auxiliary winding or permanent magnet generator)	✓
Alternator oversizing	o
Anti-condensation heater	o
Reinforced impregnation, coastal environment	o
Reinforced impregnation, marine/harsh environment	o
Winding temperature sensors	o

✓ = Standard Feature o = Optional Upgrade

Main Line Breaker System

Main line circuit breaker, output rated, 80% rating	✓
Main line circuit breaker, output rated, 80% rating, UL listed	o
2nd main line circuit breaker, output rated, 80% rating, UL listed	o
Breaker shunt trip	✓
Electronic trip breaker	o
Grounding system: TN-S (PE and N via separate conductors that are connected together only near power source)	✓

Base Tank System

Extended capacity/runtime: 175 Gal/46 hours @100%PRP	
2-PSI factory pressure tested	✓
Sloped-surface basin design for 110% containment of engine fluids	✓
Electronic fuel level sender with programmable alarms	✓
Mechanical float level with visual gauge	✓
Supply line with in-line check valve	✓
Heavy-duty AVM's isolate engine/radiator/generator from base tank to reduce vibration and noise	✓
Single walled, non UL-142 listed	o
Double walled, non UL-142 listed, 110% containment	✓
Double walled, UL142 listed, 110% containment	o
Specialty fuel tanks: UL2085, MDEQ, FDEP/DERM	o
Aluminum or stainless steel construction	o
Fuel leak containment detection switch	✓
Herculiner® poly-urethane and rubber granule coating for maximum chip/abrasion/solvent/corrosion/UV resistance	✓
Automatic Fuel Transfer Kit. PLC-controlled to maintain a predetermined level in the primary tank as well as automatic start, stop, and fuel overflow check.	o

Maintenance Kits

1,000 Hour Engine Maintenance Kit includes OIL/FUEL/AIR/COOLANT filters as applicable for mandatory <1,000 hours service intervals	o
2,000 Hour Engine Maintenance Kit includes OIL/FUEL/AIR/COOLANT filters as applicable for mandatory <2,000 hours service intervals	o
Zero-Downtime prevention kit includes: 1x AVR, 1x Diodes Kit, 1x Varistor, 1x Starter Relay, 1x Control Relay, 1x 2 AMP minibreaker, 1x 4 AMP minibreaker, 1x 6 AMP minibreaker, 1x Fuel level sender unit, 1x Fuel lines set	o

Quality Control

90-point quality control inspection	✓
Standard load bank testing: full load, 30 min, 1.0PF	✓
Extended load bank testing: full load, 1 hour, 1.0PF	o
Extended load bank testing: full load, 1 hour, 0.8PF	o
Customizable witness testing: on-site at factory or remote via virtual session	o

Additional Features

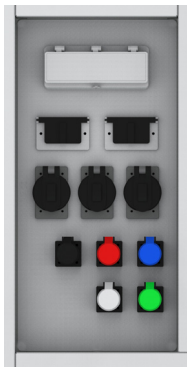
Enclosure System: SILENT-TYPE



Illustrations may show optional equipment

- TYPE: IP56, outdoor rated, weather-proof design ✓
- ↳ MATERIAL-ALUMINUM: 12GA, AL5052 Marine-Grade aluminum alloy panels and stainless steel hardware for maximum corrosion resistance
- ↳ SILENCER: MIRATECH COWL aluminized-steel critical silencer 35dBA sound reduction
- ↳ HOT AIR DISCHARGE: Indirect, upward-facing, vertical air discharge outlet redirects cooling air up and above enclosure to minimize sound
- ↳ LEVEL-2 DISCHARGE PLENUM: Dedicated enclosure compartment with a built-in air deflecting shield & completely lined with sound-absorbing material. It houses the silencer and redirects both the discharge air from the radiator and the exhaust gases from the engine upwards above the generator for a maximum level of sound reduction
- ↳ ACOUSTIC INSULATION: with hydrocarbon sealing film for max sound/flame/moisture resistance
- ↳ ACCESS: XXL maintenance-friendly access featuring beam-less design for industry-leading access to the engine and radiator from both sides
- ↳ FINISH: UV/fade-resistant, high temp cured, RAL9003-white polyester powder paint
- ↳ FINISH UPGRADE: Herculiner® poly-urethane & rubber granule coating for maximum chip/abrasion/solvent/corrosion/UV resistance ○

Power Distribution and Quick-Connections System



- Rental-grade distribution panel with externally accessible/surface mounted features (IP68) ✓
- ↳ 2x 20A Duplex Outlets
- ↳ 3x 50A 125/250V Twist Locks
- ↳ 5x 400A E1016-series female camlock connectors with flip covers
- ↳ 1x 400A Single conductor 350mcm mechanical lugs (located inside breaker cabinet)
- ↳ Individual branch breakers with easy access see-through protector cover
- ↳ Interface/programming USB-B connector & remote start/stop screw-on contacts
- ↳ Simultaneous 1-phase/3-phase duplex-output upgrade: 139V output on duplex outlets while genset operates on 480/277V (does not require buck transformer)

Heavy-Duty Highway Trailer



- DOT heavy-duty road/highway trailer with running lights and 7-wire connector, G.V.W.R.: 7,000 lbs ○
- ↳ Dual-axle with electric brakes on all axles, battery back-up & auto breakaway system
- ↳ 4x 205/75D15H188ST bias 6 ply load range C tires
- ↳ 1x 2 5/16" ball hitch coupler with adaptability for Lunette eye
- ↳ 1x 7K top wind tongue mounted jack, 2x 7K side wind jacks on rear, and 1/4" x 30" safety chains
- Lockable tool box and full-sized spare tire ○
- Hydraulic brakes ○

Rental-Grade Features



- 3 position voltage selector switch: 3PH low-wye, 3PH high-wye, 1PH zig-zag ✓
- 4-position voltage selector switch (3ph low-wye, 3ph high-wye, 3ph delta, 1ph zig-zag) ○
- External shore power connector (for auto battery charger and auto coolant heater) ✓
- Breaker cabinet LED light with auto on/off ✓
- On/off battery switch ✓
- Enclosure lighting kit (AC/DC) ○
- System-wide differential protection: LOVATO earth leakage relay ✓
- Single-point lifting frame kit (rated: generator-only or generator+trailer) ○

✓ = Standard Feature ○ = Optional Upgrade

Generator Photos

ISOMETRIC VIEW



Illustrations may show optional equipment

ISOMETRIC VIEW



Illustrations may show optional equipment

Generator Photos

LEFT SIDE VIEW



Illustrations may show optional equipment

RIGHT SIDE VIEW



Illustrations may show optional equipment

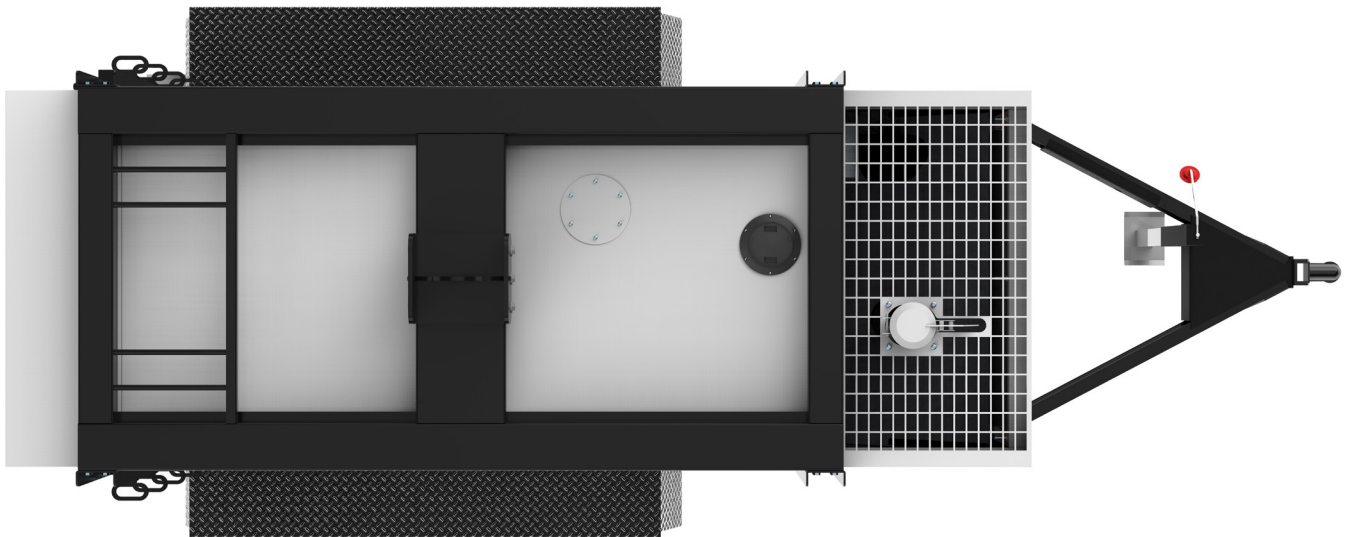
Generator Photos

REAR VIEW



Illustrations may show optional equipment

TOP VIEW



Illustrations may show optional equipment