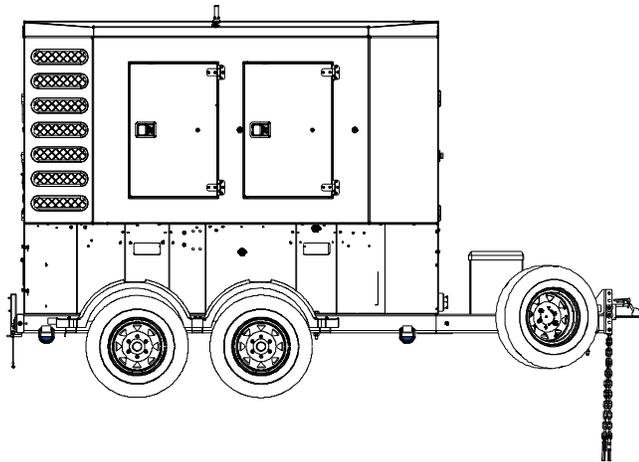


## Tier 4 Final EPA-Certified for Nonroad Applications

### Ratings Range

		<b>60 Hz</b>
<b>Standby:</b>	<b>kW</b>	106-150
	<b>kVA</b>	106-187.5
<b>Prime:</b>	<b>kW</b>	106-139
	<b>kVA</b>	106-174



Towable Tank Model

### Mobile Generator Set

- Rehlko provides one-source responsibility for the generating system and accessories.
- Approved for use with certified renewable Hydrotreated Vegetable Oil (HVO)/Renewable Diesel (RD) fuels compliant with EN15940/ASTM D975.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- A three-year, 3000-hour limited warranty covers all generator set systems and components. The trailer has a one-year limited warranty.
- Generator set features:
  - Unit-mounted radiator with 45°C (113°F) ambient air capability at the prime rating.
  - The unique Fast-Response™ X excitation system delivers excellent voltage response and short-circuit capability using a rare-earth, permanent magnet (PM)-excited alternator.
  - The brushless, rotating-field alternator has broadrange reconnectability when ordered without a selector switch.
- Engine features:
  - Heavy-duty air cleaner with air restrictor indicator.
  - The generator set engine is certified by the Environmental Protection Agency (EPA) to conform to Tier 4 Final nonroad emissions regulations.
  - Lockable battery disconnect switch.
- Enclosure/tank features:
  - Durable steel, sound-attenuating housing with quiet operation of 71 dB(A) log average @ 7 m (23 ft.) with full load at the prime rating.
  - Stainless steel hinges and lockable latches on doors.
  - 125% environmental containment basin for oil and coolant.
  - 110% secondary containment tank for fuel.
  - Single-point lifting eye and four-point tie down system.
  - Subbase fuel tank for 24-hour run time with full load at prime rating (minimum).
  - Fuel fill and Diesel Exhaust Fluid (DEF) fill with lockable caps.
- Customer connection panel features:
  - Decision-Maker® 3500 controller with potted circuitry for protection from vibration and debris.
  - Externally mounted, recessed emergency stop switch.
  - Adjustable trip main line circuit breaker.
  - 1 load lug per phase #6-350MCM, 400 amp.
  - Remote start/stop capabilities.
  - Shore power connection points to front of junction box for block heater, battery chargers, and battery heater.

### Generator Set Ratings

Alternator	Voltage	Ph	Hz	150°C Rise Standby Rating		125°C Rise Prime Rating		Ordering Options*
				kW/kVA	Amps	kW/kVA	Amps	
4S12X	120/208	3	60	150/187	520	139/174	482	A
	120/240	3	60	149/186	448	135/168	404	B
	120/240	1	60	106/106	442	106/106	442	A
	277/480	3	60	150/187	225	139/174	209	A
	347/600	3	60	150/187	180	139/174	167	C

\* Ordering Options: A-Reconnectable or selector switch, B-Reconnectable, C-Stand alone

RATINGS: All three-phase units are rated at 0.8 power factor. All single-phase units are rated at 1.0 power factor. *Standby Ratings:* The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. *Prime Power Ratings:* At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528-1 and ISO-3046-1. For limited running time ratings, consult the factory. Obtain technical information bulletin (TIB-101) for ratings guidelines, complete ratings definitions, and site condition derates. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever.

### Alternator Specifications

Specifications	Alternator
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Rare-Earth Permanent Magnet
Leads: quantity, type	12, Reconnectable 6, 600 Volt
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	150°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	±0.5%
One-step load acceptance	100% of Rating
Unbalanced load capability	100% of Rated Standby Current
Peak motor starting kVA:	(35% dip for voltages below)
480 V           4S12X (12 lead)	480

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and drip-proof construction.
- Windings are vacuum-impregnated with epoxy varnish for dependability and long life.
- Superior voltage waveform from a two-thirds pitch stator and skewed rotor.
- The unique Fast-Response® X excitation system delivers excellent voltage response and short-circuit capability using a rare-earth, permanent magnet (PM)-excited alternator.

### Application Data

#### Engine

##### Engine Specifications

Manufacturer	John Deere
Engine: model, type	6068HG550 4-Cycle, Turbocharged, Charge Air Cooled
Cylinder arrangement	6 Inline
Displacement, L (cu. in.)	6.8 (415)
Bore and stroke, mm (in.)	106 x 127 (4.2 x 5.0)
Compression ratio	17.2:1
Piston speed, m/min. (ft./min.)	457.2 (1500)
Rated rpm	1800
Max. power at rated rpm, kW (HP)	180 (241)
Valve (exhaust) material	Silicon-Chrome stem with Inconel head (NiCr)
Valve (intake) material	CrMo Alloy
Governor type	Electronic
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±0.5%
Air cleaner type, all models	Dry

#### Exhaust

##### Exhaust System

Exhaust manifold type	Dry
Exhaust flow at rated kW, m <sup>3</sup> /min. (cfm)	23.4 (826)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	403 (757)
Maximum allowable back pressure, kPa (in. Hg)	14 (4.1)
Back pressure available after losses due to exhaust aftertreatment system, kPa (in. Hg)	2.7 (0.8)

#### Engine Electrical

##### Engine Electrical System

Battery charging alternator:	
Ground (negative/positive)	Negative
Volts (DC)	24
Ampere rating	60
Starter motor rated voltage (DC)	24
Battery, recommended cold cranking amps (CCA):	
Qty., rating for -30°C (-22°F)	Two, 400
Battery voltage (DC)	12

#### Fuel

##### Fuel System

Fuel supply line, min. ID, mm (in.)	8 (0.31)
Fuel return line, min. ID, mm (in.)	4.8 (0.19)
Max. lift, fuel pump: type, m (ft.)	Electronic, 1.8 (6.0)
Max. fuel flow, Lph (gph)	147.5 (38.6)
Max. return line restriction, kPa (in. Hg)	40 (11.8)
Fuel prime pump	Automatic
Fuel filter	
Primary	2 Microns
Recommended fuel	ASTM D975 or EN 590 Ultra Low Sulfur Diesel (ULSD) with sulfur content <15 mg/kg (15 ppm)/RD/HVO

#### Lubrication

##### Lubricating System

Type	Full Pressure
Oil pan capacity, L (qt.) §	27.5 (29.1)
Oil pan capacity with filter, L (qt.) §	28.5 (30.1)
Oil filter: quantity, type §	One, Cartridge
Oil type §	API CJ-4 or ACEA E6-E9
§ Rehiko recommends the use of Rehiko Genuine oil and filters.	

#### Cooling

##### Radiator System

Radiator system capacity, including engine, L (gal.)	35.6 (9.4)
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#### Operation Requirements

##### Air Requirements

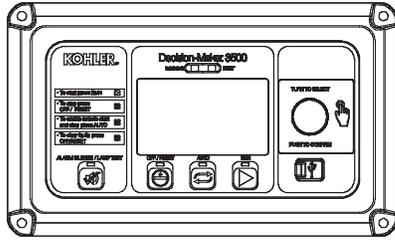
Radiator-cooled cooling air, m <sup>3</sup> /min. (scfm)†	297 (10500)
Combustion air, m <sup>3</sup> /min. (cfm)	11.4 (403)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	26 (1480)
Alternator, kW (Btu/min.)	21.3 (1212)
† Air density = 1.20 kg/m <sup>3</sup> (0.075 lbf/ft <sup>3</sup> )	

**Fuel Consumption\*\***

Diesel, Lph (gph) at % load	Standby Ratings	Prime Ratings
100%	42.4(11.2)	38.6(10.2)
75%	32.3 (8.5)	29.1 (7.7)
50%	22.3 (5.9)	20.4 (5.4)
25%	13.2 (3.5)	12.1 (3.2)
0%	3.0 (0.8)	3.0 (0.8)

\*\* Volumetric Fuel consumption is up to 4% higher when using HVO/RD than #2 ULSD.

**Controller**



**Decision-Maker® 3500 Paralleling Controller**

Provides advanced control, system monitoring, and system diagnostics for optimum performance and compatibility.

- Paralleling capability with bus sensing, first-on logic, synchronizer, and (isochronous, droop, and external controlled) load sharing
- Digital display with adjustable contrast and menu control provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or serial configuration
- Controller supports Modbus® protocol
- Integrated hybrid voltage regulator with ±0.5% regulation
- Potted circuitry for protection from vibration and debris
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

**Fuel and DEF Tanks**

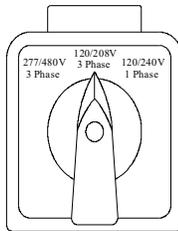
- Subbase fuel tank for 24-hour run time with full load at prime rating (minimum).
- Fuel tank includes the fuel level gauge, fuel fill with lockable cap, and an atmospheric vent.
- The secondary containment tank's construction protects against fuel leaks or ruptures. The inner (primary) tank is sealed inside the outer (secondary) tank. The outer tank contains the fuel if the inner tank leaks or ruptures.
- DEF tank with DEF quality sensor.

**Tank Specifications**

Diesel tank capacity	1045 L (276 gal.)
DEF tank capacity	44.2 L (11.7 gal.)
Recommended DEF	AUS 32 according to ISO 22241-1

**Available Voltage Selector Switch**

(Available Options, see page 4)

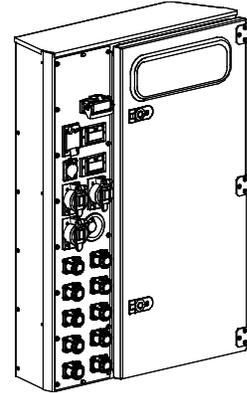


**3-Position**

- Voltage selector switch, 3-position lockable, wired for:
  - 120/240 volt, 1 phase
  - 120/208 volt, 3 phase
  - 277/480 volt, 3 phase

Modbus® is a registered trademark of Schneider Electric.

**Customer Connection Panel**



- Viewable generator set controller with security cover
- Emergency stop switch
- Shore power connector, 120 V, 15 amp (for battery charger, battery heater, block heater, and one extra customer outlet)
- Remote start connection
- Mobile paralleling box connection
- Main line circuit breaker
  - Reconnectable and selector switch models: Rating 600 amps, field adjustable based on voltage selected
  - 600 volt models: Rating 250 amps, field adjustable
- Available Options, see page 4
  - Two 15-amp 120 V, 1 phase, GFCI duplex receptacles (includes circuit breakers)
  - Three 50-amp 240 V twistlock receptacles (includes circuit breakers)
  - Color-coded camlock connectors

2 load lug per phase #6-350MCM. 400 amp

**Available Trailer**

(Available Options, see page 4)

- Dual-axle trailer with electric brake system on both axles with battery back-up breakaway system.
- DOT and TC (Transport Canada) compliant per current specifications published by both agencies, at the time of trailer manufacture.
- 2 5/16 in. ball hitch coupler with adaptability for an optional Lunette eye.
- Running lights with 7-wire harness and connector.
- Front tongue jack.

**Trailer Specifications**

Axle Rating	Dual, 2722 kg (6000 lb.) per axle
Tires	ST225/75R15 LRE with 1284 kg (2830 lb.) load rating
Wheels	Steel, 15 x 6, 6-bolt

## Standard Features

- Alternator Protection
- Batteries, Battery Rack, and Battery Cables
- Engine Oil and Coolant Added
- Integral Vibration Isolation
- Local Emergency Stop Switch
- Oil and Coolant Drain Extension
- Operation Literature

## Tier 4 Final Technologies Applied

- Diesel Oxidation Catalyst (DOC)
- Diesel Particulate Filter (DPF)
- High Pressure Common Rail (HPCR)
- Selective Catalytic Reduction (SCR)
- Variable Geometry Turbocharger (VGT)

### Approvals and Listings

- CSA Certified

### Controller

- 15-Relay Dry Contact

### Electrical System

- Battery Charger (qty. 2)
- Cold Weather Package (includes block heater and battery heater)
- Voltage Selector Switch and Convenience Receptacles (3-240 volt, 2-120 volt)
- Camlock Style Load Connectors, Color Coded

### Fuel System

- Two-Way Fuel Valve (for connection of a user-supplied external fuel tank)

### Paralleling System

- Mobile Paralleling Box

### Skid

- Fuel Tank

### Trailer and Options

- Trailer
- Lunette Eye (for pintle hitch tow vehicles)
- Spare Tire
- Wheel Chock Blocks
- Lockable Utility Box with Fire Extinguisher (same common key as enclosure)

### Literature

- General Maintenance
- NFPA 110
- Overhaul
- Production

### Other Options

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## Dimensions and Weights (Off Trailer)

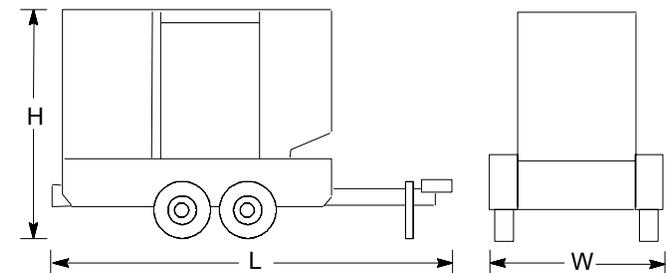
Overall Size, L x W x H, mm (in.):	3593 x 1190 x 2294
Fuel Tank	(141.4 x 46.8 x 90.3)
Weight with engine fluids and no fuel in tank kg (lb.):	3606 (7950)



**Note:** This drawing is provided for reference only and should not be used for planning. Contact your local distributor for more detailed information.

## Dimensions and Weights ( On Trailer)

Overall Size, L x W x H, max., mm (in.):	5146 x 2020.6 x 2874.5
Fuel Tank	(202.6 x 79.5 x 113.1)
Weight with engine fluids and no fuel in tank kg (lb.):	4154 (9159)



**Note:** This drawing is provided for reference only and should not be used for planning. Contact your local distributor for more detailed information.