KOHLER Power Systems

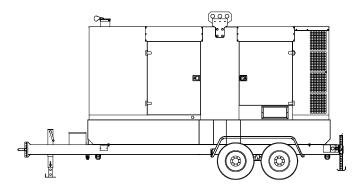
208-480 V

Diesel



Ratings Range

		60 Hz
Standby:	kW	460-510
	kVA	575-638
Prime:	kW	440-460
	kVA	550-575



Industrial Towable Generator Sets

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- A one-year limited warranty covers all generator set systems and components.
- Generator sets are available with and without trailers.
- Generator set features:
 - o Durable galvanized steel, sound-attenuating housing.
 - Electrical power panel.
 - Unit-mounted radiator with 40°C (104°F) ambient air capability with prime rating.
 - Skid and vibration isolators.
 - o Main line circuit breaker, 1600 amps.
 - Microprocessor controller with emergency stop switch.
 - o Externally mounted, recessed emergency stop switch.
 - o Generator set and trailer operation literature.

Engine features:

- Volvo engine with 24-volt battery charging alternator.
- O Heavy-duty air cleaner with air restrictor indicator.
- Battery, battery rack, and cables.
- Engine is compliant with the Environmental Protection Agency (EPA) requirements.
- Water separator fuel filter.
- o Battery disconnect switch.
- O Block heater, 120 V/2250 W.
- Enclosure/fuel tank package features:
 - Ouiet operation, 75 dB(A) @ 7 m (23 ft.) (full load).
 - Lockable housing doors.
 - O Subbase fuel tank, 1770 L (468 gal.).
 - 110% environmental containment basin for fuel, oil, and coolant.

Trailer features:

- o Lunette eye.
- Lockable utility tool box.
- o Running lights with 7-wire harness and connector.
- Dual-axle trailer with electric brake system including breakaway and battery backup. 4536 kg (10000 lb.) rating per axle.
- Steel wheels, 8-bolt, and 215/75R17.5 LRH tires with 2180 kg (4805 lb.) load rating.
- Rear stabilizer trailer jacks.

Generator Set Ratings

				Standby	Rating	Prime F	lating
Alternator	Voltage	Ph	Hz	kW/kVA	Amps	kW/kVA	Amps
LCA 470M7	120/208	3	60	460/575	1596	440/550	1527
LSA472M7	277/480	3	60	510/638	767	460/575	692

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 and continuous 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. For dual fuel engines, use the natural gas ratings for both the primary and secondary fuels.

Alternator Specifications

- NEMA-MG21, UTE NF C51.111, VDE 0530, BS 4999, CSA standards compliance for temperature rise and motor starting.
- Self-ventilated and dripproof 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.

Specifications	Alternator
Manufacturer	Leroy Somer
Туре	4-Pole, Rotating-Field
Exciter type	Shunt
Leads: quantity, type	12, Reconnectable
Voltage regulator	Solid State, R230
Insulation:	NEMA MG1
Material	Class H
Bearing: quantity, type	1, Sealed
Coupling	Direct
Voltage regulation, no-load to full-load	±0.5%
Direct axis subtransient reactance (X"d), %	13.2

Application Data

Engine

Engine Cassifications	
Engine Specifications	
Manufacturer	Volvo
Engine model	TAD1641GE
Engine type	4-Cycle, Turbocharged
Cylinder arrangement	6 Inline
Displacement, L (cu. in.)	16.12 (983.7)
Bore and stroke, mm (in.)	144 x 165 (5.7 x 6.5)
Compression ratio	16.5:1
Piston speed, m/min. (ft./min.)	594 (1949)
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	565 (757)
Valve material:	
Intake	Chromium-Silicon Steel
Exhaust	Stainless Steel
Governor type	Electronic
Frequency regulation, no-load to full-load	ISO 5%
Frequency regulation, steady state	±2.5%
Air cleaner type, all models	Dry

Engine Electrical

Oil pan capacity, L (qt.)

Oil pan capacity with filter, L (qt.)

Ingino Licourteur	
Engine Electrical System	
Battery charging alternator:	
Ground (negative/positive)	Negative
Volts (DC)	24
Starter motor rated voltage (DC)	24
Battery, recommended cold cranking amps (CCA):	
Quantity, CCA rating each	Two, 1000
Battery voltage (DC)	12
Fuel System	
Max. fuel flow, Lph (gph)	190 (50.2)
Fuel prime pump	Manual
Recommended fuel	#2 Diesel
Fuel tank capacity, L (gal.)	1770 (468)
Lubrication	
Lubricating System	
Туре	Full Pressure

42 (44.4)

48 (50.7)

Application Data

Operation Requirements

Fuel Consumption		
Diesel, Lph (gph) at % load	Prime Rating	
100% (of the prime rating)	120.73 (31.9)	
75% (of the prime rating)	88.79 (23.5)	
50% (of the prime rating)	59.78 (15.8)	

Controllers



Decision-Maker® 4000

Standard Features

- Large LCD display panel
- Unique control wheel for system access
- User buttons for start, stop, menu, and escape
- Emergency stop button
- · On/off key switch
- · Panel-mounted battery fuse
- Panel-mounted USB ports for PC access and software upgrades
- Password-protected access to control parameters

LCD Panel Features

- 600 x 800 resolution
- · Multiple lines of text or graphic display
- · Icons for quick identification of system status

Communication Features

- Engine communication via CANbus
- Modbus® communication via RS-485 or ethernet
- PC and flash drive connections via USB

Functions

- View and adjust system operation parameters
- View system faults

Viewable/Selectable Parameters (may require optional module)

- Voltage: phase-to-neutral, total voltage
- Current
- Frequency
- Power (active/reactive/apparent)
- Power factor
- Engine speed
- Oil pressure
- Coolant temperature
- Battery voltage
- Fuel level (%)
- Time delays

Viewable Faults (over 60 individual faults are monitored including)

- Alternator protection (if equipped)
- Circuit breaker and ground fault protection
- · Communication and engine ECM monitoring
- Cooling air monitoring
- Electrical charging system
- Engine cooling system
- Engine lube system
- Fuel system
- Generator set status

Modbus® is a registered trademark of Schneider Electric.

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Distribution Panel

Bus Bar Connection

- Main bus connection studs enclosed behind a lockable access door for easy access and operator safety
- Strain relief to prevent cables from being pulled free from bus connections



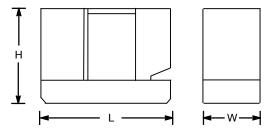
Available Accessories

- ☐ Battery Charger, Equalize/Float Type
- Bottle Jack
- ☐ Cable Rack (bolt on)
- ☐ Fire Extinguisher
- ☐ Remote Start Connections
- Spare Tire
- ☐ Trailer (includes utility tool box)

Dimensions and Weights

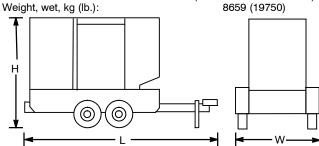
Overall Size, L x W x H, mm (in.): 5083 x 1560 x 2780 (200.12 x 61.42 x 109.45) 7280 (16050)

Weight, wet, kg (lb.):



Overall Size, L x W x H, mm (in.):

6870 x 2308 x 3464 (270.48 x 90.86 x 136.38) 8659 (19750)



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

