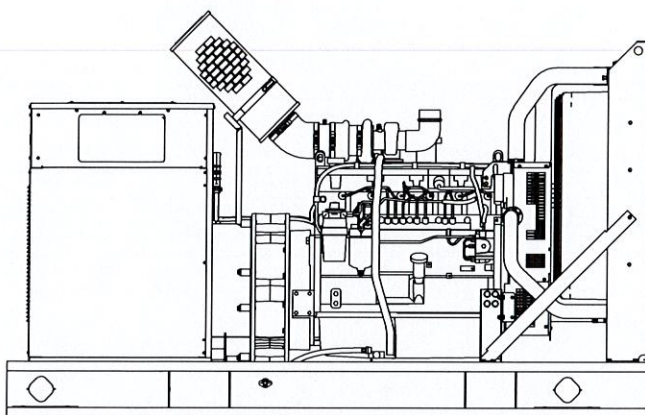




Tier 3 EPA-Certified for Stationary Emergency Applications

Ratings Range

		60 Hz
Standby:	kW	230-255
	kVA	230-319
Prime:	kW	210-230
	kVA	210-288



Standard Features

- 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.
- The 60 Hz generator set offers a UL 2200 listing.
- The generator set accepts rated load in one step.
- The 60 Hz generator set meets NFPA 110, Level 1, when equipped with the necessary accessories and installed per NFPA standards.
- A one-year limited warranty covers all generator set systems and components. Two- and five-year extended limited warranties are also available.
- Alternator features:
 - The unique Fast-Response® II excitation system delivers excellent voltage response and short-circuit capability using a permanent magnet (PM)-excited alternator.
 - The brushless, rotating-field alternator has broadrange reconnectability.
- Other features:
 - Kohler designed controllers for one-source system integration and remote communication. See Controllers on page 3.
 - The low coolant level shutdown prevents overheating (standard on radiator models only).
 - Integral vibration isolation eliminates the need for under-unit vibration spring isolators.
 - Multiple circuit breaker configurations.

Generator Set Ratings

Alternator	Voltage	Ph	Hz	130° C Rise Standby Rating		105° C Rise Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps
4UA10	120/208	3	60	250/313	867	225/281	781
	127/220	3	60	250/313	820	225/281	738
	120/240	3	60	250/313	752	225/281	677
	139/240	3	60	250/313	752	225/281	677
	220/380	3	60	250/313	475	225/281	427
	240/416	3	60	250/313	434	225/281	390
	277/480	3	60	250/313	376	225/281	338
4UA13	347/600	3	60	250/313	301	225/281	271
	120/208	3	60	255/319	885	230/288	798
	127/220	3	60	255/319	837	230/288	754
	120/240	3	60	255/319	767	230/288	692
	120/240	1	60	230/230	958	210/210	875
	139/240	3	60	255/319	767	230/288	692
	220/380	3	60	255/319	484	230/288	437
240/416	3	60	255/319	442	230/288	399	
	277/480	3	60	255/319	383	230/288	346
	347/600	3	60	255/319	307	230/288	277

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.

Application Data

Cooling

Radiator System

Ambient temperature, °C (°F) *	50 (122)
Engine jacket water capacity, L (gal.)	16 (4.25)
Radiator system capacity, including engine, L (gal.)	36 (9.5)
Engine jacket water flow, Lpm (gpm)	265 (70)
Heat rejected to cooling water at rated kW, dry exhaust, kW (Btu/min.)	97 (5521)
Heat rejected to air charge cooler at rated kW, dry exhaust, kW (Btu/min.)	70.5 (4013)
Water pump type	Centrifugal
Fan diameter, including blades, mm (in.)	863.6 (34.0)
Fan, kWm (HP)	9.0 (12.1)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H ₂ O)	0.125 (0.5)

* Enclosure with enclosed silencer reduces ambient temperature capability by 5°C (9°F).

Operation Requirements

Air Requirements

Radiator-cooled cooling air, m ³ /min. (scfm)‡	368.1 (13000)
Combustion air, m ³ /min. (cfm)	21.8 (770)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	53.8 (3060)
Alternator, kW (Btu/min.)	20.6 (1170)

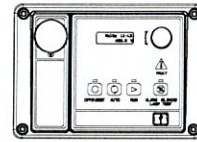
‡ Air density = 1.20 kg/m³ (0.075 lbm/ft³)

Fuel Consumption

Diesel, Lph (gph) at % load	Standby Rating	
100%	66.5	(17.6)
75%	50.4	(13.3)
50%	35.0	(9.2)
25%	20.5	(5.4)

Diesel, Lph (gph) at % load	Prime Rating	
100%	59.1	(15.6)
75%	45.3	(12.0)
50%	31.6	(8.3)
25%	18.4	(4.9)

Controllers

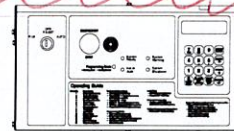


Decision-Maker® 3000 Controller

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

- Digital display 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
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-100 for additional controller features and accessories.

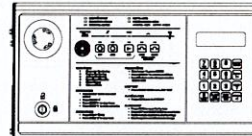


Decision-Maker® 550 Controller

Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities.

- Digital display and keypad provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or modem configuration
- Controller supports Modbus® protocol
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-46 for additional controller features and accessories.



Decision-Maker® 6000 Paralleling Controller

Provides advanced control, system monitoring, and system diagnostics with remote monitoring capabilities for paralleling multiple generator sets.

- Paralleling capability with first-on logic, synchronizer, kW and kVAR load sharing, and protective relays
- Digital display and keypad provide easy local data access
- Measurements are selectable in metric or English units
- Remote communication thru a PC via network or modem configuration
- Controller supports Modbus® protocol
- Integrated voltage regulator with ±0.25% regulation
- Built-in alternator thermal overload protection
- NFPA 110 Level 1 capability

Refer to G6-107 for additional controller features and accessories.

Modbus® is a registered trademark of Schneider Electric.

Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Permanent-Magnet
Leads: quantity, type	12, Reconnectable
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H
Temperature rise	130°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	Controller Dependent
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 4UA10 (12 lead)	785
480 V 4UA13 (12 lead)	960

- 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.
- Fast-Response® II brushless alternator with brushless exciter for excellent load response.

Application Data

Engine

Engine Specifications	
Manufacturer	John Deere
Engine model	6090HF484
Engine type	4-Cycle, Turbocharged, Charge Air-Cooled
Cylinder arrangement	6 Inline
Displacement, L (cu. in.)	9.0 (548)
Bore and stroke, mm (in.)	118.4 x 136 (4.66 x 5.35)
Compression ratio	16.0:1
Piston speed, m/min. (ft./min.)	457 (1500)
Main bearings: quantity, type	7, Replaceable Insert
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	287 (385)
Cylinder head material	Cast Iron
Crankshaft material	Forged Steel
Valve material:	
Intake	Chromium-Silicon Steel
Exhaust	Stainless Steel
Governor: type, make/model	JDEC Electronic L14 Denso HP4
Frequency regulation, no-load to full-load	Isochronous
Frequency regulation, steady state	±0.25%
Frequency	Fixed
Air cleaner type, all models	Dry

Exhaust

Exhaust System	
Exhaust manifold type	Dry
Exhaust flow at rated kW, m ³ /min. (cfm)	54.1 (1911)
Exhaust temperature at rated kW, dry exhaust, °C (°F)	625 (1157)
Maximum allowable back pressure, kPa (in. Hg)	Min. 0 (0) Max. 7.5 (2.2)
Engine exhaust outlet size, mm (in.)	98 (3.86)

Engine Electrical

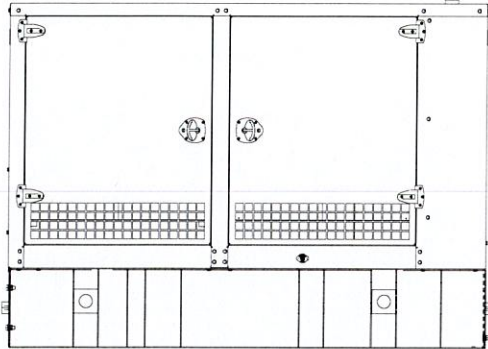
Engine Electrical System	
Battery charging alternator:	24 Volt
Ground (negative/positive)	Negative
Volts (DC)	24
Ampere rating	60
Starter motor rated voltage (DC)	24
Battery, recommended cold cranking amps (CCA):	
Quantity, CCA rating each	Two, 950
Battery voltage (DC)	12

Fuel

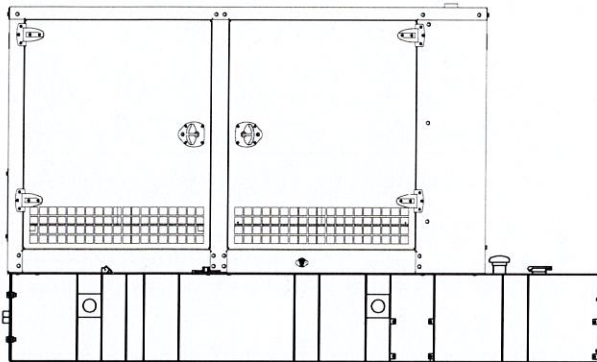
Fuel System	
Fuel supply line, min. ID, mm (in.)	11.0 (0.44)
Fuel return line, min. ID, mm (in.)	6.0 (0.25)
Max. lift, fuel pump: type, m (ft.)	Electronic, 3 (10)
Max. fuel flow, Lph (gph)	240.0 (63.4)
Max. return line restriction, kPa (in. Hg)	20 (5.9)
Fuel prime pump	Electronic
Fuel filter	
Secondary	2 Microns @ 98% Efficiency
Primary	10 Microns
Water Separator	Yes
Recommended fuel	#2 Diesel

Lubrication

Lubricating System	
Type	Full Pressure
Oil pan capacity, L (qt.)	32.5 (34.4)
Oil pan capacity with filter, L (qt.)	33.4 (35.3)
Oil filter: quantity, type	1, Cartridge
Oil cooler	Water-Cooled



Enclosure with Standard Subbase Fuel Tank



Enclosure with State Code Subbase Fuel Tank

Available Approvals and Listings

- UL 2200 Listing
- CSA Certified
- IBC Seismic Certification *
- California OSHPD Approval *
- cUL Listing (fuel tanks only)

NOTE: Some models may have limited third-party approvals; see your local distributor for details.

* Requires a state code subbase fuel tank selection.

Applicable to the following:

- 40REOZJC**
- 50/60REOZJD**
- 80/100/150/200REOZJF**
- 125/180REOZJG**
- 230-275REOZJE**
- 300REOZJ**

Weather Enclosure Standard Features

- Internal-mounted silencer and flexible exhaust connector.
- Lift base or tank-mounted, steel construction with hinged doors.
- Fade-, scratch-, and corrosion-resistant Kohler® Power Armor™ automotive-grade textured finish.
- Enclosure has four access doors which allow for easy maintenance.
- Lockable, flush-mounted door latches.
- Vertical air inlet and outlet discharge to redirect air and reduce noise.
- Enclosure has a 241 kph (150 mph) wind load rating.

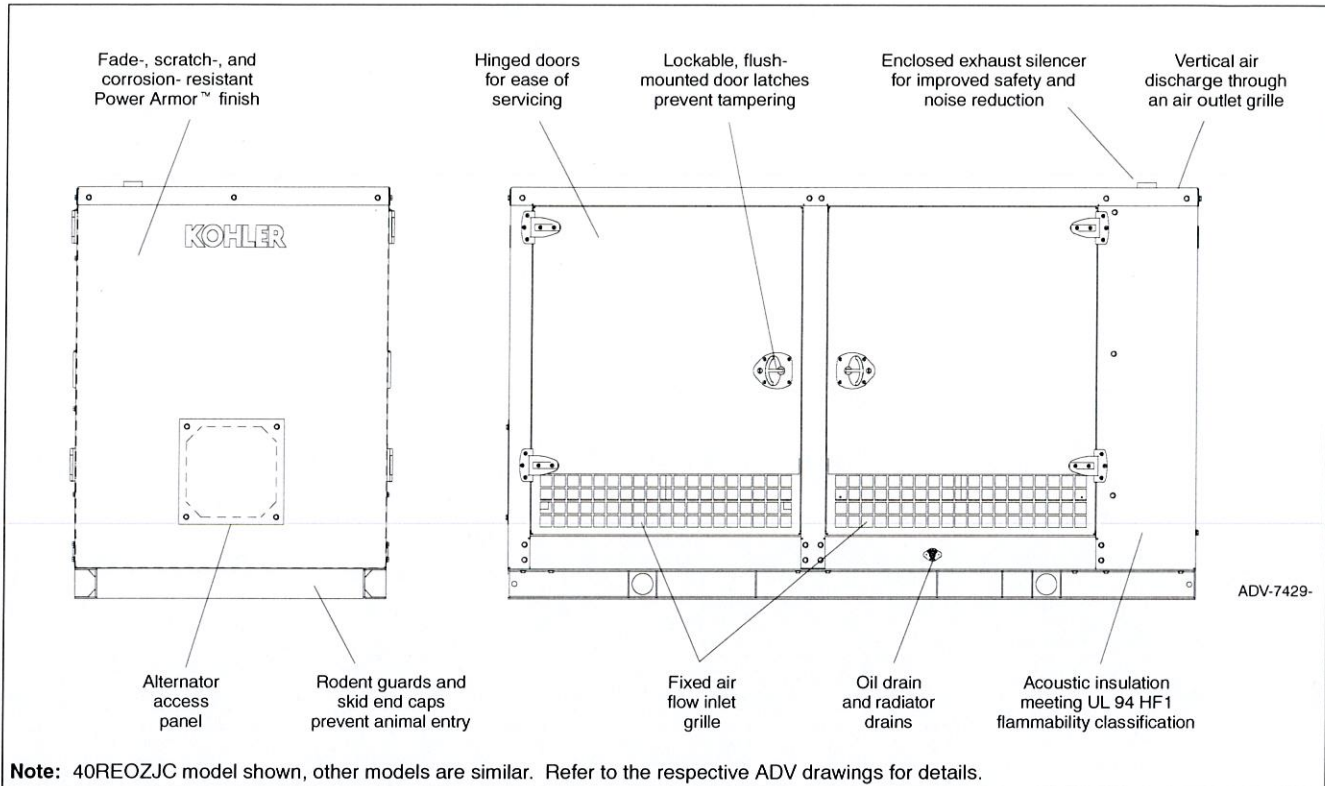
Sound Enclosure Standard Features

- Includes all of the weather enclosure features with the addition of acoustic insulation material.
- Lift base or tank-mounted, steel or aluminum construction with hinged doors. Aluminum enclosures are recommended for high humidity and/or high salt/coastal regions.
- Acoustic insulation that meets UL 94 HF1 flammability classification and repels moisture absorption.
- Sound-attenuated enclosure that uses up to 51 mm (2 in.) of acoustic insulation.

Subbase Fuel Tank Features

- The fuel tank has a Power Armor Plus™ textured epoxy-based rubberized coating.
- The above-ground rectangular secondary containment tank mounts directly to the generator set, below the generator set skid (subbase).
- Both the inner and outer tanks have emergency relief vents.
- Flexible fuel lines are provided with subbase fuel tank selection.
- The secondary containment generator set base tank meets UL 142 tank requirements. The inner (primary) tank is sealed inside the outer (secondary) tank. The outer tank contains the fuel if the inner tank leaks or ruptures.
- State tanks with varying capacities are an available option. Florida Dept. of Environmental Protection (FDEP) File No. EQ-634 approved.

Weather and Sound Enclosure



Enclosure Features

- Available in steel (14 gauge) formed panel, solid construction. Preassembled package offering corrosion resistant, dent resilient structure mounting directly to lift base or fuel tank.
 - Power Armor™ automotive-grade finish resulting in advanced corrosion and abrasion protection as well as enhanced edge coverage and color retention.
 - Internal exhaust silencer offering maximum component life and operator safety.
 - Interchangeable modular panel construction. Allows complete serviceability or replacement without compromising enclosure design.
 - Cooling/combustion air intake with a horizontal air inlet. Sized for maximum cooling airflow.
 - Service access. Multi-personnel doors for easy access to generator set control and servicing of the fuel fill, fuel gauge, oil fill, and battery.
 - Cooling air discharge. Weather protective design featuring a vertical air discharge outlet grille. Redirects cooling air up and above enclosure to reduce ambient noise.
- NOTE:** Installing an additional length of exhaust tail pipe may increase backpressure levels. Please refer to the generator set spec sheet for the maximum backpressure value.

Additional Sound Enclosure Features

- Available in steel (14 gauge) or aluminum 3.2 mm (0.125 in.) formed panel, solid construction.
- Sound-attenuated design. Acoustic insulation UL 94 HF1 listed for flame resistance offering up to 51 mm (2 in.) mechanically restrained acoustic insulation.
- Cooling air discharge. The sound enclosures include acoustic insulation with urethane film.
- Snow package enclosure is designed to meet NFPA 110 requirement to -20°C (-4°F).

Enclosure and Subbase Fuel Tank Specifications (continued)

Fuel Tank Capacity, L (gal.)	Est. Fuel Supply Hours at 60 Hz with Full Load, Nominal/Actual	Enclosure and Subbase Fuel Tank					Fuel Tank Height (or additional skid height with no tank), mm (in.)	Sound Pressure Level at 60 Hz with Full Load, Weather/Sound, dB(A)‡
		Max. Dimensions, mm (in.)			Max. Weight, kg (lb.) *			
		Length	Width	Height	With Steel Enclosure	With Aluminum Enclosure		
230REOZJE Standard Fuel Tank								
No Tank	0	4121 (162.3)	1338 (52.7)	2153 (84.8)	2654 (5850)	2540 (5600)	260 (10)	87/75
1787 (472)	24/29			2655 (104.5)	3561 (7850)*	3447 (7600)*	762 (30)	
230REOZJE State Code Fuel Tank †								
2101 (555)	24/34	5009 (197.2)	1338 (52.7)	2894 (113.9)	3895 (8587)*	3782 (8337)*	635 (25)	87/75
3573 (944)	48/58	5325 (209.7)		3173 (124.9)	4504 (9930)*	4391 (9680)*	914 (36)	
250REOZJE Standard Fuel Tank								
No Tank	0	4121 (162.3)	1338 (52.7)	2153 (84.8)	2699 (5950)	2585 (5700)	260 (10)	89/75
1787 (472)	24/26			2655 (104.5)	3606 (7950)*	3493 (7700)*	762 (30)	
250REOZJE State Code Fuel Tank †								
2101 (555)	24/31	5009 (197.2)	1338 (52.7)	2894 (113.9)	3940 (8687)*	3827 (8437)*	635 (25)	89/75
3573 (944)	48/53	5325 (209.7)		3173 (124.9)	4550 (10030)*	4436 (9780)*	914 (36)	
275REOZJE Standard Fuel Tank								
No Tank	0	4121 (162.3)	1338 (52.7)	2153 (84.8)	2835 (6250)	2722 (6000)	260 (10)	89/75
1787 (472)	24/24			2655 (104.5)	3742 (8250)*	3629 (8000)*	762 (30)	
275REOZJE State Code Fuel Tank †								
2101 (555)	24/28	5009 (197.2)	1338 (52.7)	2894 (113.9)	4076 (8987)*	3963 (8737)*	635 (25)	89/75
3573 (944)	48/48	5325 (209.7)		3173 (124.9)	4686 (10330)*	4572 (10080)*	914 (36)	
300REOZJ Standard Fuel Tank								
No Tank	0	4121 (162.3)	1338 (52.7)	2153 (84.8)	2835 (6250)	2722 (6000)	260 (10)	89/75
2067 (546)	24/24			2731 (107.5)	3770 (8311)*	3656 (8061)*	838 (33)	
300REOZJ State Code Fuel Tank †								
2101 (555)	24/25	5009 (197.2)	1338 (52.7)	2894 (113.9)	4076 (8987)*	3963 (8737)*	635 (25)	89/75
4065 (1074)	48/48	5588 (220.0)		3173 (124.9)	4644 (10238)*	4530 (9988)*	914 (36)	

Note: Data in table is for reference only, refer to the respective ADV drawings for details.

* Max. weight includes the generator set (wet) using the largest alternator option, enclosure with acoustic insulation added, silencer, and tank (no fuel).

† State code fuel tank specifications (height and weight) include I-beam option.

‡ Log average sound pressure level of 8 measured positions around the perimeter of the unit at a distance of 7 m (23 ft). Refer to TIB-114 for details.