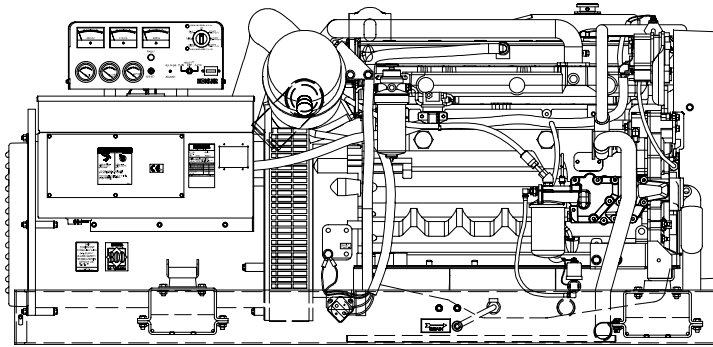


**Model: 80EOZ (60 Hz)
70EFOZ (50 Hz)**

KOHLER POWER SYSTEMS

3-Phase Diesel

ISO 9001
KOHLER
POWER SYSTEMS
NATIONALLY REGISTERED



Marine Generator Set

Generator Features

- Remote control connector
- Class H insulation
- Reconnectable voltage
- 60/50 Hz field adjustable generator set
- One- or three-phase reconnectable alternator
- Voltage regulation of $\pm 2\%$
- Frequency regulation of $\pm 5\%$

Optional Accessories

- Sound shield
- Power takeoff (PTO)
- Electronic governor
- Paralleling governor
- Circuit breakers

Generator Weights and Dimensions

| | Without Sound Shield | With Sound Shield |
|-------------------|-------------------------|----------------------|
| Weight, kg (lb.) | | |
| Wet | 1212 (2672) | 1289 (2842) |
| Dry | 1168 (2576) | 1212 (2672) |
| Length, mm (in.)* | 2004 (78.90) | 2127 (83.73) |
| Width, mm (in.) | 811 (31.91) | 811 (31.91) |
| Height, mm (in.) | 956 (37.63) | 1035 (40.75) |

* Add 181 mm (7.14 in.) to the unit's length if the unit has the 12/24-volt electric clutch PTO option.

See the drawings on the last page for detailed dimensions.

Generator Ratings

| Model Series | Voltage | Hz | 25° C (77° F) Amps | Continuous Rated kW/kVA (25° C) | Ph |
|--------------|---------|----|-----------------------|------------------------------------|----|
| 80EOZ | 120/208 | 60 | 273 | 78.5/98.1 | 3 |
| | 120/240 | 60 | 236 | 78.5/98.1 | 3 |
| | 120/240 | 60 | 250 | 60/60 | 1 |
| | 127/220 | 60 | 258 | 78.5/98.1 | 3 |
| | 139/240 | 60 | 241 | 80/100 | 3 |
| | 220/380 | 60 | 140 | 73.5/91.9 | 3 |
| | 277/480 | 60 | 120 | 80/100 | 3 |
| 70EFOZ | 110/190 | 50 | 259 | 68/85 | 3 |
| | 110/220 | 50 | 213 | 65/81.3 | 3 |
| | 110/220 | 50 | 245 | 54/54 | 1 |
| | 220/380 | 50 | 129 | 68/85 | 3 |
| | 230/400 | 50 | 123 | 68/85 | 3 |
| | 240/416 | 50 | 118 | 68/85 | 3 |

RATINGS: Marine continuous ratings per ISO 3046, ISO 8528-1, and Kohler ISO rating guideline 2.14. Obtain technical information bulletin (TIB-101) on ratings guidelines for complete ratings definitions.

Availability is subject to change without notice. Kohler Co. reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever. Contact your local Kohler generator set distributor for availability.

Application Data

Engine

| Engine Specifications | 60 Hz | 50 Hz |
|--------------------------------|--|-------|
| Manufacturer | John Deere | |
| Model | 6068TFM | |
| Type | Inline, 4-cycle | |
| Number of cylinders | 6 | |
| Firing order | 1-5-3-6-2-4 | |
| Aspiration | Turbocharged | |
| Displacement, L (cu. in.) | 6.8 (414) | |
| Bore and stroke, mm (in.) | 106 x 127 (4.19 x 5.00) | |
| Compression ratio | 17.2:1 | |
| Combustion system | Direct injection | |
| Rated rpm | 1800 | 1500 |
| Maximum power at rated rpm, HP | 154 | 119 |
| Cylinder block material | Cast iron | |
| Cylinder head material | Cast iron | |
| Piston rings | 2 compression/1 oil | |
| Crankshaft material | Forged steel | |
| Connecting rod material | Forged steel | |
| Governor type | Mechanical (standard) Electric (optional) | |

Engine Electrical

| Engine Electrical System | 60 Hz | 50 Hz |
|--|---------------------|-------|
| Battery, voltage | 12- or 24-volt spec | |
| Battery, charging (12 volt) | 65 amp | |
| Battery, charging (24 volt) | 40 amp | |
| Battery, recommendation (minimum, 12 volt) | 640 CCA | |
| Starter motor | Gear-reduction type | |

Cooling

| Cooling System | 60 Hz | 50 Hz |
|--|------------------------|-----------|
| Capacity, L (U.S. qt.) (approx.) | 28 (30) | |
| Cooling type | Heat exchanger | |
| Seawater pump type | John Deere gear driven | |
| Seawater pump suction lift, maximum, m (ft.) | 0.9 (3.0) | |
| Heat rejected to cooling water at rated kW, wet exhaust, kW (Btu/min.) | 98 (5575) | 75 (4275) |
| Engine water pump flow, Lpm (gpm) | 174 (46) | 144 (38) |
| Seawater pump flow, Lpm (gpm) | 83 (22) | 68 (18) |

Fuel

| Fuel System | 60 Hz | 50 Hz |
|--|--|-------|
| Fuel recommendation | Diesel fuel specified to EN 590 or ASTM D975 | |
| Fuel shutoff solenoid | Electric | |
| Fuel injection pump | Stanadyne | |
| Fuel pump priming | Manual | |
| Maximum recommended fuel lift, m (ft.) | 0.9 (3.0) | |

Lubrication

| Lubricating System | 60 Hz | 50 Hz |
|--|-----------|-------|
| Oil pan capacity with filter, L (U.S. qt.) | 24.6 (26) | |
| Type | Pressure | |

Operation Requirements

| Air Requirements | 60 Hz | 50 Hz |
|---|------------|------------|
| Engine combustion air requirements, L/min. (cfm) | 6739 (238) | 5635 (199) |
| Cooling air required for generator set at 14°C (25°F) rise, m³/min. (cfm) | N/A | N/A |
| Exhaust gas flow, m³/min. (cfm) | 21.3 (753) | 17.8 (628) |

| Fuel Consumption | 60 Hz | 50 Hz |
|------------------------------------|------------|------------|
| Diesel, Lph (gph) at % load | | |
| 100% | 23.5 (6.2) | 19.3 (5.1) |
| 75% | 18.5 (4.9) | 15.1 (4.0) |
| 50% | 13.6 (3.6) | 11.4 (3.0) |
| 25% | 7.9 (2.1) | 6.4 (1.7) |

Engine Features

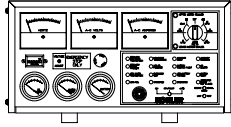
- One-side serviceability of fuel system, lubrication system, and air cleaner
- Low oil pressure cutout
- High water temperature cutout
- Loss of coolant cutout
- Overcrank cutout
- Belt guard
- Optional oil pressure gauge, water temperature gauge, and battery voltage gauge
- Disposable oil filter
- Extended oil drain
- PTO options: 12- or 24-volt electric clutch

Controller Features

- Rubber mounted to isolate vibration
- Safety shutdowns
 - Engine overheating
 - Low oil pressure
 - Overcrank
- Safety shutdown lamp
- Shutdown reset switch
- Terminal strip connection for remote panel harness
- Hourmeter for scheduling maintenance
- Voltage-adjusting rheostat
- Start/stop switch

Controller Options

Decision-Maker™ 3+ Controller Features



- Type: 16-light microprocessor (NFPA 110, level 1)
- Power source, with circuit protection: 12-volt DC
- Panel lamps (2)
- Analog Meters:
 - AC meters, 89 mm (3.5 in.) 2% full-scale accuracy on voltmeter and ammeter, 0.5% full-scale accuracy on frequency meter
 - DC meters, 51 mm (2 in.), volts, engine water temperature, oil pressure
 - Running time meter
- Switches and Controls:
 - Alarm horn and silencing switch
 - Cyclic cranking
 - Engine cooldown timer, 5 minute
 - Front-mounted voltage-adjusting rheostat $\pm 5\%$
 - Lamp-test switch
 - Local emergency stop button switch (optional)
 - Meter-phase selector switch, 7-position
 - Overvoltage protection shutdown
 - Prime power mode
 - Run/off-reset/auto switch (engine start), local/remote two-wire
- Fault and Condition Lamps:
 - Auxiliary fault (red)
 - Auxiliary prealarm (yellow)*
 - Battery charger fault (red)*
 - Emergency stop (red)*
 - Generator switch not-in-auto (red)
 - High engine temperature safety shutdown (red)
 - Low battery voltage (red)*
 - Low coolant level shutdown (auxiliary)
 - Low fuel (red)*
 - Low oil pressure safety shutdown (red)
 - Low water temperature (red)*
 - Overcrank safety shutdown (red)
 - Overspeed safety shutdown (red)
 - Prealarm high engine temperature (yellow)*
 - Prealarm low oil pressure (yellow)*
 - System ready (green)

* Requires an optional kit or a user-provided device for lamp to function.

Manual Controllers

- Standard Decision-Maker™ 1 controller
- Expanded Decision-Maker™ 1 controller with engine gauges and AC meters
(For manual controller features, see the marine controller spec sheet.)

Alternator Specifications

Alternator Specifications

| Specifications | Fast-Response™ Generator |
|--|---|
| Manufacturer | Kohler |
| Type | 4-pole, rotating-field |
| Exciter type | Brushless, permanent-magnet, Fast-Response™ |
| Number of leads | 12, reconnectable |
| Voltage regulator | Solid state, volts/Hz |
| Insulation: NEMA MG1-1.66 | |
| Material | Class H |
| Temperature rise | 120°C |
| Bearing: number, type | 1, sealed |
| Coupling | Flexible disc |
| Amortisseur windings | Full |
| Voltage regulation, no load to full load | $\pm 2\%$ |
| One-step load acceptance per NFPA 110 | 100% of rating |
| Peak motor starting kVA—4S7 | 315 (60 Hz), 250 (50 Hz) |

Alternator Features

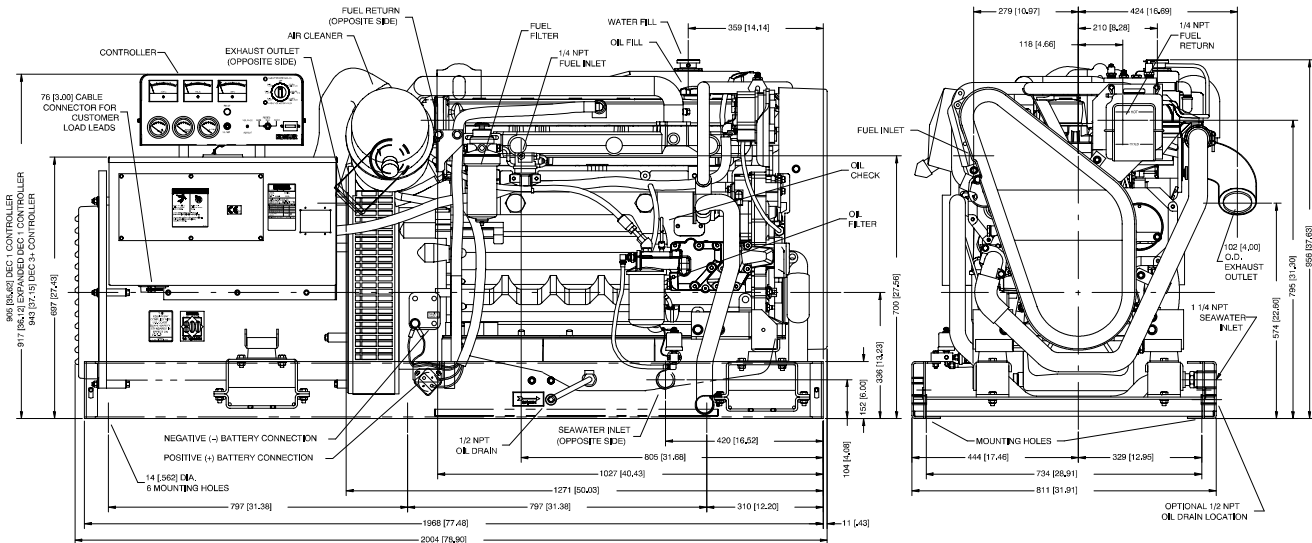
- The generator complies with NEMA, IEEE, and ANSI standards for temperature rise.
- The alternator uses a permanent-magnet, Fast-Response™ excitation system.
- The alternator has a two-thirds pitch stator and skewed rotor.
- The generator has a solid-state, volts-per-hertz voltage regulator.
- The brushless, synchronous generator is broadrange and reconnectable.
- The windings are vacuum-impregnated with fungus-resistant epoxy varnish.
- The generator sustains short-circuit current up to 300% of the rated current for up to 10 seconds.

Accessories/Options

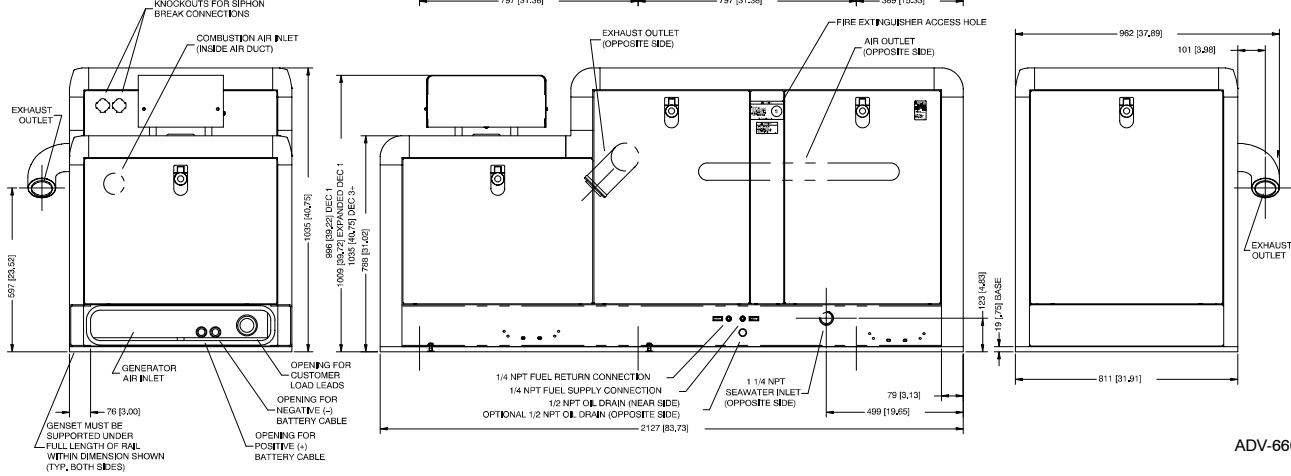
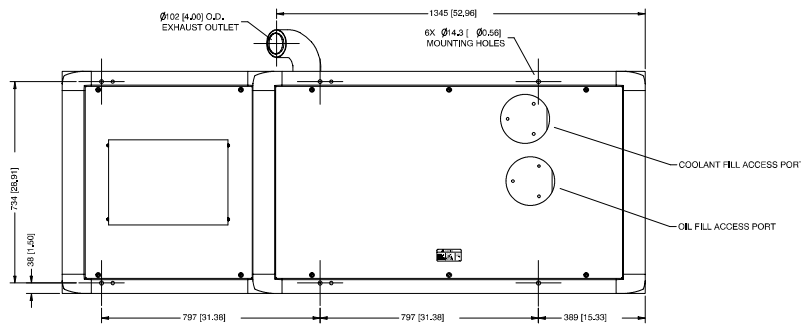
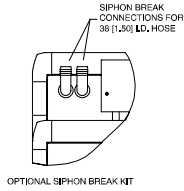
- Electronic governor
- Fluid-filled isolation mounts
- Electric front clutch PTO (12- or 24-volt)
- Line circuit breaker
- DEC 3+ controller
- Sound shield
- Remote control panel
- Siphon break
- Overspeed shutdown kit
- Remote connection/extension harness
- Safeguard breaker
- Fuel filter
- Oil level indicator (high/low)
- Low coolant level indicator
- Crankcase emission canister

KOHLER[®] POWER SYSTEMS

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Phone 920-565-3381, Fax 920-459-1646
For the nearest sales and service outlet in the
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ADV-6603A-B



ADV-6603C-B

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NOTE: Dimensions in [] are inch equivalents.
NOTE: This drawing is provided for reference only and is not intended for installation planning. Contact your local distributor for more detailed information.

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