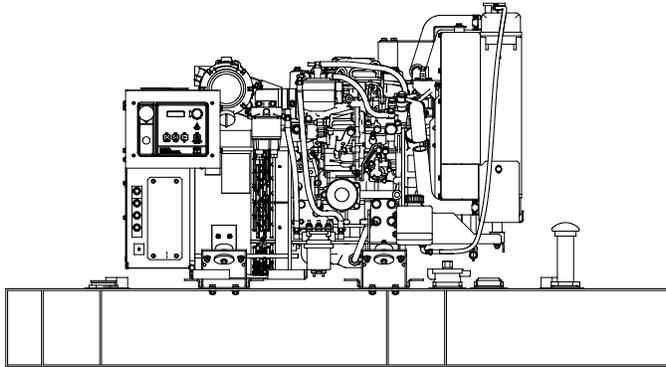




**EPA-Certified for Stationary
Emergency Applications**



Shown with available subbase fuel tank.

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 generator set is CSA certified, file # LR 955.
- UL 2200 listing is available.
- The generator set engine is certified to meet the Environmental Protection Agency (EPA) emergency stationary emissions requirements.
- The 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.
- Four-point mounting with vibration isolators.
- The brushless, rotating-field alternator has broadrange reconnectability.
- Voltage regulation of $\pm 0.25\%$.
- Sustained short-circuit capability.
- Customer connection box with field-connection terminal blocks.
- Single-side access.
- Weather and sound enclosures are available.
 - Enclosures reduce sound levels and protect the generator set from the elements, animal intrusion, and unwanted entry.
 - Enclosures have a fade-, scratch-, and corrosion-resistant Kohler® Power Armor™ cream beige automotive-grade textured finish and lockable, flush-mounted door latches.
 - See specification sheet G6-96 for enclosure features and specifications.

Generator Set Ratings

Alternator	Voltage	Hz	Ph	130 °C Rise Standby Rating		105 °C Rise Prime Rating	
				kW/kVA	Amps	kW/kVA	Amps
4H4	120/240	60	1	10.0/10.0	41.7	9.0/9.0	37.5
	120/208	60	3	10.0/12.5	34.7	9.0/11.3	31.2
	120/240	60	1	10.0/10.0	41.7	9.0/9.0	37.5
	120/240	60	3	10.0/12.5	30.1	9.0/11.3	27.1
4J4	127/220	60	3	10.0/12.5	32.8	9.0/11.3	29.5
	139/240	60	3	10.0/12.5	30.1	9.0/11.3	27.1
	220/380	60	3	9.5/11.9	18.0	8.6/10.7	16.2
	277/480	60	3	10.0/12.5	15.0	9.0/11.3	13.5

RATINGS: All three-phase units are rated at 0.8 power factor. *Standby Ratings:* Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271. *Prime Power Ratings:* Prime power ratings apply to installations where utility power is unavailable or unreliable. 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, overload power in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271. For limited running time and base load ratings, consult the factory. Obtain the technical information bulletin (TIB-101) on ratings guidelines for the complete ratings definitions. The generator set manufacturer 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. **GENERAL GUIDELINES FOR DERATING:** *ALTITUDE:* Derate 1.0% per 100 m (328 ft.) elevation above 200 m (656 ft.). *TEMPERATURE:* Derate 2.0% per 10°C (18°F) temperature above 25°C (77°F).

Alternator Specifications

Specifications	Alternator
Manufacturer	Kohler
Type	4-Pole, Rotating-Field
Exciter type	Brushless
Leads: quantity, type	
4H4	4
4J4	12, Reconnectable
Voltage regulator	Solid State
Insulation:	
Material	Class H
Temperature rise in 25°C ambient	130°C
Bearings, quantity	1
Coupling	Flexible Disc
Amortisseur windings	Full
Voltage regulation, no-load to full-load	± 0.25%
One-step load acceptance	100% of Rating
Peak motor starting kVA (35% dip for voltages below):	
240 V 4H4 (4 lead)	28 (60 Hz)
240 V 4J4 (12 lead)	35 (60 Hz)

- 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 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.
- Rotors dynamically balanced to minimize vibration.
- Copper windings to ensure minimal heat buildup. Insulation meeting NEMA standards for class H insulation.
- Generator direct connected to the engine.
- Sealed precision ball bearings with a precision-machined steel sleeve in the end bracket to prevent shaft misalignment and extend bearing life.

Application Data

Engine

Engine Specifications	60 Hz
Manufacturer	Yanmar
Engine: model, type	3TNV82A, 4-Cycle
Cylinder arrangement	3 Inline
Displacement, L (cu. in.)	1.330 (81.14)
Bore and stroke, mm (in.)	82 x 84 (3.23 x 3.31)
Compression ratio	19.2:1
Combustion system	Direct Injection
Main bearings: quantity, type	4, Replaceable Sleeve
Rated rpm	1800
Max. power at rated rpm, kWm (BHP)	13.8 (18.5)
Cylinder head material	Cast Iron
Crankshaft material	Forged Steel
Connecting rod material	Forged Carbon Steel
Governor: type, make	Mechanical, Yanmar
Frequency regulation:	
No-load to full-load	±2.5%
Steady state	±0.33%
Frequency	Mechanically Adjustable
Air cleaner type	Dry

Exhaust

Exhaust System	60 Hz
Exhaust flow at rated kW, m ³ /min. (cfm)	2.9 (104)
Exhaust temperature at rated kW, °C (°F)	550 (1022)
Maximum allowable back pressure, kPa (in. Hg)	12.8 (3.8)
Exhaust outlet size at engine hookup	1.5 NPT

Engine Electrical

Engine Electrical System	60 Hz
Battery-charging alternator:	
Ground (negative/positive)	Negative
Volts (DC)	12
Ampere rating	70
Starter motor rated voltage (DC)	12
Battery recommended cold cranking amps (CCA):	
Qty., CCA for 0°C (-18°F)	One, 650
Battery voltage (DC)	12

Fuel

Fuel System	60 Hz
Fuel supply line	1/4 NPT
Fuel return line, mm (in.)	8 (0.31)
Maximum lift, m (ft.)	1 (3.3)
Fuel pump	Electric
Fuel filter	5 Micron
Fuel/water separator	Yes
Recommended fuel	Diesel Fuel ASTM D975 No. 2-D

Lubrication

Lubricating System	60 Hz
Type	Pressure
Oil pan capacity with filter, L (qt.)	3.6 (3.8)
Oil filter	Full flow, Cartridge
Oil cooler	None

Application Data

Cooling

Radiator System	60 Hz
Ambient temperature, °C (°F)	50 (122) *
Type	Liquid
Capacity, engine only, L (qt.)	1.8 (1.9)
Engine jacket water flow, Lpm (gpm)	24.3 (6.4)
Capacity with unit-mounted radiator, L (qt.)	4.1 (4.3)
Heat rejected to cooling water at rated kW, Btu/min.	574
Fan diameter, unit-mounted radiator, mm (in.)	409 (16.1)
Fan, kW (HP)	0.6 (0.75)
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).

Remote Radiator System†	60 Hz
Exhaust manifold type	Dry
Connection sizes	
Water inlet, mm (in.)	28 (1.1)
Water outlet, mm (in.)	28 (1.1)
Static head, maximum, m (ft.)	4 (13.1)

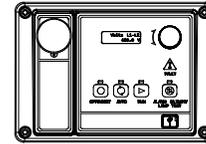
† Contact your local distributor for cooling system options and specifications based on your specific application.

Operation Requirements

Air Requirements	60 Hz
Radiator min. cooling air, m ³ /min. (cfm)	39 (1400)
Alternator min. cooling air, m ³ /min. (cfm)	4.8 (170)
Radiator min. cooling air, m ³ /min. (cfm)	39 (1400)
Combustion air, m ³ /min. (cfm)	1.1 (38)
Heat rejected to ambient air:	
Engine, kW (Btu/min.)	10.6 (605)
Alternator, kW (Btu/min.)	1.8 (100)

Fuel Consumption	60 Hz
Diesel, Lph (gph), at % load	Standby Rating
100%	4.0 (1.1)
75%	2.7 (0.7)
50%	2.0 (0.5)
25%	1.3 (0.4)
Diesel, Lph (gph), at % load	Prime Rating
100%	3.5 (0.9)
75%	2.5 (0.7)
50%	1.9 (0.5)
25%	1.2 (0.3)

Controller



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

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

Additional Standard Features

- Battery Rack and Cables
- Decision-Maker® 3000 Controller
- Fuel/Water Separator
- Oil Drain Extension
- Oil Pressure Sender

Available Accessories

Cooling Systems

- Remote Radiator Setup (radiator sold separately)
- Unit-Mounted Radiator w/Pusher Fan (included with enclosures)

Cooling System Accessories

- Block Heater
(recommended for ambient temperatures below 0°C [32°F])
- Coolant Added (N/A with remote radiator)
- Radiator Duct Flange (open units only)
- Remote Radiator, 12V

Enclosures (with enclosed silencer)

- Sound Enclosure (rated for 150 mph wind load)
- Weather Enclosure (rated for 150 mph wind load)

Open Units

- Exhaust Silencer (kit GM41678-KP2) (engine-mounted)

Electrical System

- Battery
- Battery Charger, 6 Amp
- Battery Charger, 10 Amp
- Battery Charger, 10 Amp with alarms (required for NFPA 110)
- Battery Heater
(recommended for ambient temperatures below 0°C [32°F])
- Electronic Governor
(isochronous, with ±0.25% steady-state frequency regulation)
- Emergency Stop Switch, Remote
- Line Circuit Breaker
- Preheat Kit
(recommended for ambient temperatures below 5°C [41°F])

Engine

- Auxiliary Fuel Pump
- Flexible Fuel Lines

Fuel Tank and Mounting (must select one)

- Skid only
- 40 Gallon Subbase Tank and Mounting
- 80 Gallon Subbase Tank and Mounting

Fuel Tank Accessories

- Inner Tank Leak Alarm

Controller Accessories

- Communication Products and PC Software
- Input/Output Module
- Remote Serial Annunciator
- Run Relay

Maintenance and Literature

- General Maintenance Literature Kit
- NFPA 110 Literature Kit
- Overhaul Literature Kit
- Production Literature Kit

Warranty

- Five-Year Comprehensive Limited Warranty
- Two-Year Extended Limited Warranty
- Five-Year Extended Limited Warranty

Miscellaneous Accessories

- _____
- _____
- _____
- _____

Dimensions and Weights

Open Units with Radiator:

Dimensions, L x W x H, mm (in.):

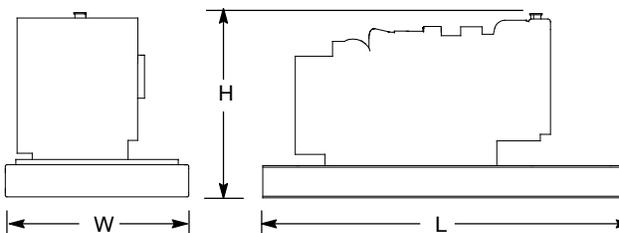
with skid only:	1730 x 860 x 899 (68.1 x 33.9 x 35.4)
with 40 gal. tank:	1730 x 860 x 949 (68.1 x 33.9 x 37.4)
with 80 gal. tank:	1730 x 860 x 1127 (68.1 x 33.9 x 44.4)

NOTE: Height does not include engine-mounted silencer.

Weight, wet, max., kg (lb.):

with skid only:	660 (1455)
with 40 gal. tank:	586 (1290)
with 80 gal. tank:	753 (1660)

For tanks and enclosures, see specification sheet G6-96.



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

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