



## Mobile Auxiliary Power Unit

### Engine Features

- Diesel fueled
- Four cycle
- Two cylinder
- Certified by the Environmental Protection Agency (EPA) to conform to Tier 4 emissions regulations
- Liquid cooled
- Automatic temperature compensated preheating for cold weather starts

### Generator Features

- Stand alone operation
- Remote start capability
- Class H insulation
- Inherent voltage regulation of  $\pm 10\%$
- Frequency regulation of  $\pm 5\%$
- Power to start and run a typical 14,000 Btu air conditioner or heater, plus hotel loads
- Integral muffler
- Integral radiator
- Quiet operation
- Single-side serviceability
- Meets international EMI standard
- Four-point mounting with vibration isolators
- Prototype-tested, factory-built, and production-tested design
- Limited warranty

### APU Digital Control Features

- Designed using today's most sophisticated electronics
- Compact, integrally mounted, remote in-cab digital keypad/display
- Potted boards/sealed connectors for maximum corrosion protection
- Monitoring of up to 6 fault conditions
- Pre-programmed automatic crank cycle
- Remote in-cab digital keypad/display

### Optional Accessories

- HVAC system\*
- Air distribution kits for various truck models
- GFCI protected 15 amp power receptacle

## Generator Weights and Dimensions

Weight, wet, kg (lb.)	245 (540)
Length, mm (in.)	648 (25.5)
Depth, mm (in.)	605 (23.8) + 135 (5.3)
Height, mm (in.)	729 (28.7)

See the drawings on the last page for detailed dimensions.

## Generator Ratings

Model Series	Voltage	Hz	25° C (77° F) Amps	25° C (77° F) kW/kVA
7APU	120	60	54	6.5

RATINGS: Mobile 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 distributor for availability.

\* See Specification Sheet, G3-40, for more information.

# Application Data

## Engine

Engine Specifications	60 Hz
Type	4 cycle
Cylinder, quantity	2
Combustion system	Indirect injection
Displacement, cc (cu. in.)	686 (41.86)
Bore and stroke, mm (in.)	75 x 77.6 (2.96 x 3.06)
Compression ratio	22.8:1
Rated rpm	3600
7APU operational rpm	2600
Max. power at rated rpm, HP	17.0
Cylinder block material	Cast iron
Cylinder head material	Aluminum
Piston rings	2 compression/ 1 oil control
Governor, type	Mechanical

## Exhaust

Exhaust System	60 Hz
Exhaust outlet size, mm. (in.)	38.1 (1.5)

## Electrical

Engine Electrical System	60 Hz
Battery voltage, DC	12 volt
DC output battery charging	45 amp
AC output	120 V, 60 Hz, 1 phase
Starter motor	12 V electric

## Cooling

Cooling System	Integral & APU Mounted
APU Mounted Radiator Capacity U.S. L (gal.)	3.8 (1)

## Fuel

Fuel System	60 Hz
Type	Indirect injection
Fuel pump - transfer	Electric
Fuel pump, max. lift, m (ft.)	1.2 (3.9)

Fuel Consumption	60 Hz
<b>Diesel, Lph (gph) at load</b>	
Full	3.4 (0.9)
Typical	1.1 (0.3)

## Lubrication

Lubricating System	60 Hz
Type	Pressurized
Oil capacity U.S. L (qt.)	4.2 (4.4)

## Operation Requirements

Air Requirements	60 Hz
Engine combustion air requirements, m <sup>3</sup> /min. (cfm)	31.1 (1098)
Generator cooling requirements, m <sup>3</sup> /min. (cfm)	0.90 (31.6)
Exhaust gas flow, cfm	25.9

## Sound Data

Sound Levels	Sound Level dBA
Kohler APU	< 71

## Sound Data Reference

Source of Noise	Sound Level dBA
Jet plane @ 50 ft. distance	130
Chain saw	108
Heavy city traffic	100
Motorcycle @ 30 ft. distance	88
Automobile @ 25 ft. distance	80
Automobile interior @ 50 m.p.h.	70
Kohler APU	< 71
Normal conversation	60
Soft whisper	35

## Application Data

### Engine Features

- One-side serviceability of the air cleaner, fuel filter, and lubrication system
- Low oil pressure switch
- Oil filter
- Oil drain plug
- Full-pressure lube
- Replaceable air intake filter element
- Fuel filter
- Fuel shutoff valve, stop solenoid
- Glow plug, cold starting aid
- Separate cooling system with 3 pass radiator

### Generator Features

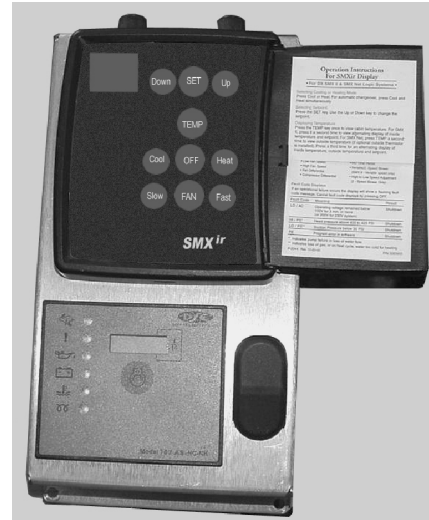
- The brushless generator design combines high efficiency and functionality with outstanding durability into one compact generating device.
- Inherit capacitor regulation:  $\pm 10.0\%$  RMS no-load to full-load.
- The rotor and stator are vacuum-impregnated and coated with a high-bond epoxy varnish. The varnish helps prevent corrosion in high-humidity areas.
- The rotor is dynamically balanced to minimize vibration.
- The copper windings ensure minimal heat buildup. The insulation meets NEMA standards for class H insulation.
- The belt driven system couples power from the flywheel to the durable alternator pulley using a high quality poly V-belt system, utilizing an automatic belt tensioner.
- The circuit breaker protects the generator from extreme overload.
- The generator is mounted in a protective steel enclosure.
- GFCI protection for all 120 VAC outlets.

## Accessories

### Climate Control System

- A thermostat provides access to air conditioning and heating for total climate control inside the sleeper cab.

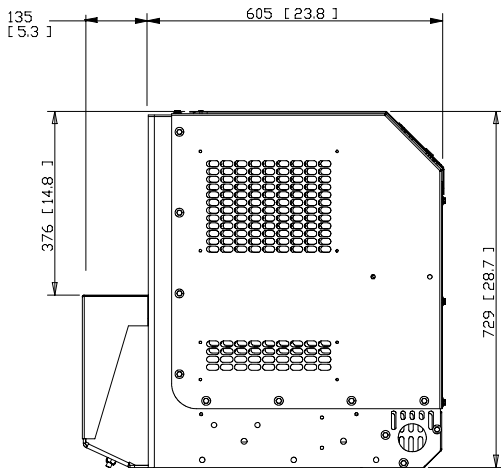
## Controller



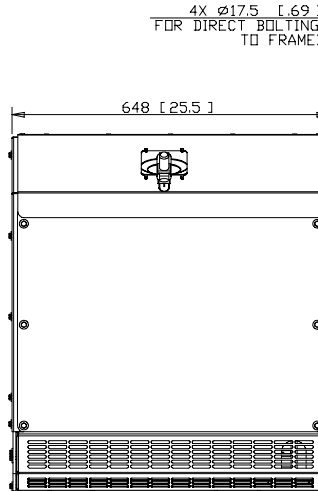
### APU Digital Control Features

- Compact controller
- Cab mounted
- LED display:
  - Diagnostics
  - Glow plug
- LCD display:
  - Runtime hours
- Faults with shutdown:
  - High engine temperature
  - Low oil pressure
  - Over speed/under speed
  - Failure to start
- Warnings:
  - Battery charge failure
- Master switch: Off/On
- Superior electronics
- Automatic start sequence with programmed cranking cycle
- Mounted remote in-cab digital keypad/display
  - Allows starting/stopping from inside the sleeper cab

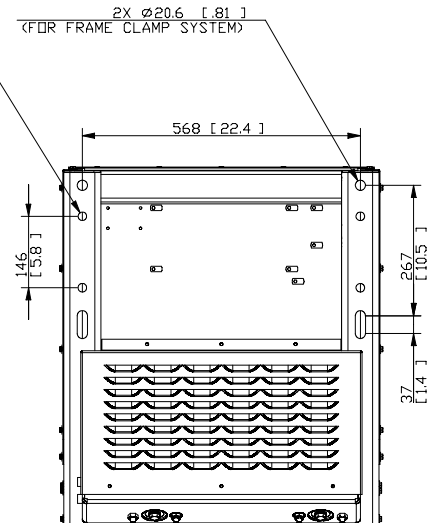
**Left Side View**



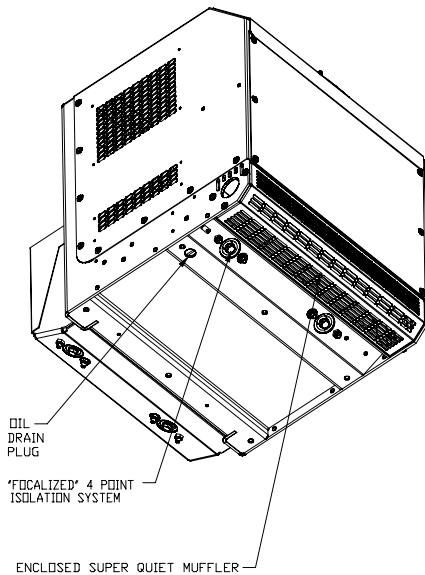
**Front View**



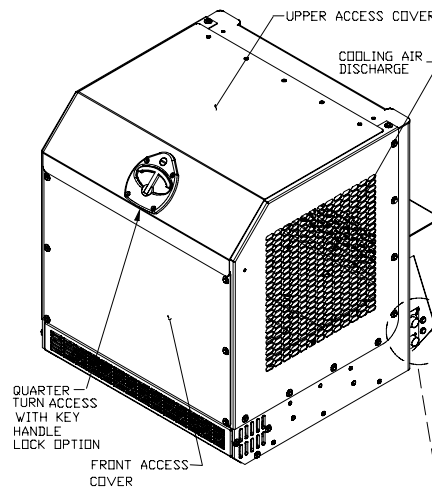
**Back View**



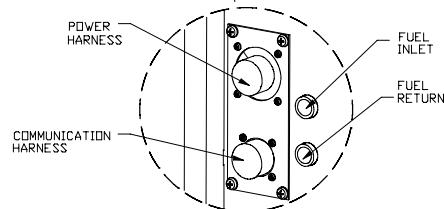
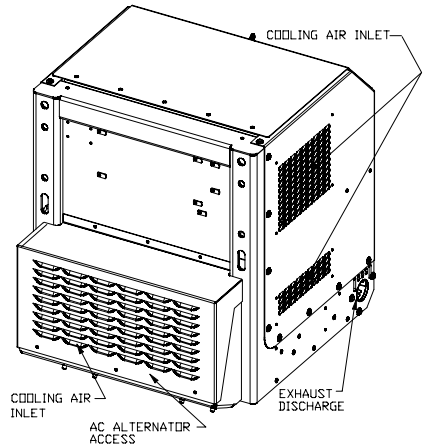
**Bottom Iso View**



**Front Iso View**



**Back Iso View**



ADV-7409

Dimensions are in mm [in] and not to scale.

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