Specification sheet

Cummins **Onan**

RV generator set Quiet Gasoline™ Series RV QG 2800

Features and benefits

- Microprocessor control with diagnostics and lightweight, compact design.
- Gasoline or LP fueled.
- Quietest generator sets of their size.
- Easy maintenance with single-side service.
- Completely enclosed with muffler, quick and easy to install.
- 3-year limited warranty.
- Low fuel consumption.

Weight, size and sound level

Weight: 125 lbs (57 kg)

Size: Length 22 in (560 mm), width 16.3 in (415 mm), height 12.8 in (325 mm)

Sound: 70 dB(A) readings at 10 ft (3 m) half load

- Meets National Park Service sound level requirements (60 dB(A) @ 50 ft) for use in national parks.
- Typical installation will further reduce sound level.

Models and ratings

Model	Fuel	Hz	RPM	Watts	Voltage	Amps	Phase	Circuit breaker
2.8HGJBB-1120A	Gasoline	60	3600	2800	120	23.3	1	25A
2.8HGJBB-1124A	Gasoline	60	3600	2800	100	28	1	30A
2.3HGJBB-1122A	Gasoline	50	3000	2300	230	10	1	10A
2.5HGJBB-1121A	LP vapor	60	3600	2500	120	20.8	1	21A
2.0HGJBB-1123A	LPvapor	50	3000	2000	230	8.7	1	10A

Ambient conditions for rated power output with muffler and RV enclosure, per ISO 8528-1:
- Temperature: 77° F (25° C)
- Altitude: 500 ft (152.4 m), (99 kPa dry)

Typical power output change based on ambient conditions:
- Temperature: Power output decreases 1% for every 10° F (5.5° C) increase
- Altitude: Power output decreases 3.5% for every 1000 ft (305 m) increase

Ratings represent minimums. Actual peak performance may be significantly higher (between 5-7%) based on installation and operating conditions.

Operating temperature range

	Low	High
Gasoline	-20° F (-29° C)	120° F (49° C)
LP	0° F (-18° C)	120° F (49° C)

- Depends upon LP tank capacity, surface area and butane content of LPG.

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Standard features

- Cummins Onan sound-attenuating enclosure
- Focalized mounting system with vibration isolators
- Cross-flow cooling
- Sheet steel drip controlling base
- Enclosed muffler
- Integral USDA Forest Service approved spark arrestor muffler
- Adjustable mechanical governor
- Automatic choke
- Overhead cam
- Single-side service
- Low oil level shutdown
- Electric fuel pump (gasoline); electric solenoid (LP)
- Mounted control panel
- Sealed remote start connector
- Electric start
- Fused DC circuits to protect set wiring and remote control wiring
- Magnetic circuit breaker
- 50 in (1.3 m) generator set output leads
- Solid-state ignition
- Standard onboard diagnostic capability

Engine details

Model: EX 21

Design: 4-cycle, single cylinder, OHC

Displacement: 13.2 in^3 (217 cm^3)

Compression ratio: 8.5:1

Power: 7.0 bhp (max) at 3600 r/min

Cooling: Pressurized air

Cooling air volume: Includes engine cooling air volume
60 Hz: 300 ft^3/m (8.5 m^3/min) at 3600 r/min
50 Hz: 250 ft^3/m (7.1 m^3/min) at 3000 r/min

Fuel system: (Gasoline) electric fuel pump, fuel lift 3 ft (914 mm); (LP) electric fuel solenoid; automatic choke

Combustion air:
60 Hz: 12.5 ft^3/m (0.35 m^3/min) at 3600 r/min
50 Hz: 10.4 ft^3/m (0.3 m^3/min) at 3000 r/min

Ignition system: Breakerless, electronic

Starting system: Remote, 12 V, 3-wire negative ground; start-stop rocker switch on control; connector for remote start cable

Lubrication: Splash lubrication

Oil capacity: 0.6 qt (0.63 L)

Cylinder crankcase: Alloy aluminum with iron cylinder liner cast into the block

Oil base: Aluminum

Cylinder head: Alloy aluminum, removable

Average fuel consumption

Gasoline	No load	Half load	Full load
60 Hz	0.2 Gal/h (0.8 L/h)	0.4 Gal/h (1.3 L/h)	0.5 Gal/h (1.7 L/h)
50	0.2 Gal/h (0.6 L/h)	0.3 Gal/h (1.1 L/h)	0.4 Gal/h (1.4 L/h)
LPG	**No load**	**Half load**	**Full load**
60 Hz	0.3 Gal/h (1.2 lb/h) 0.6 kg/h	0.4 Gal/h (1.6 lb/h) 0.7 kg/h	0.6 Gal/h (2.3 lb/h) 1.0 kg/h
50 Hz	0.2 Gal/h (1.0 lb/h) 0.4 kg/h	0.3 Gal/h (1.3 lb/h) 0.6 kg/h	0.4 Gal/h (1.8 lb/h) 0.8 kg/h

Alternator details

Design: Cummins 2-pole revolving field, self-excited, electronically regulated, 1 phase, direct drive

Insulation system and temperature rise: Class H insulation system meets ANSI/RVIA EGS-1 standards and CSA TIL RV-06 temperature requirements

Cooling: Direct drive centrifugal blower

Rotor: Laminated electrical steel assembly press-fitted to shaft, balanced, heavy insulated copper wire windings, copper damper circuit for excellent waveform

Stator: Laminated electrical steel assembly; heavy insulated copper wire windings

Voltage regulator: Electronic

DC brushes: Electrographite

Generator set performance

Air conditioner operation:
2.8kW generator set will start and run one 13500 Btu high efficiency air conditioner(15.5 Amps or less) plus 600 watt base load with an additional 300 watts of power available.

2.5kW generator set will start and run one 13500 Btu high efficiency air conditioner (15.5 Amps or less) plus a 600 watt base load with no additional watts of power available.

2.0kW generator set will start and run one 7800 Btu high efficiency air conditioner(5.5 Amps or less) plus 600 watt base load with an additional 100 watts of power available.

Voltage regulation: Exceeds requirements of ANSI/RVIA EGS-1 ±10%

Frequency regulation: Exceeds requirements of ANSI/RVIA EGS-1 ± 5%

Note: See your Cummins Onan distributor or certified Cummins Onan service dealer for a listing of approved air conditioners.

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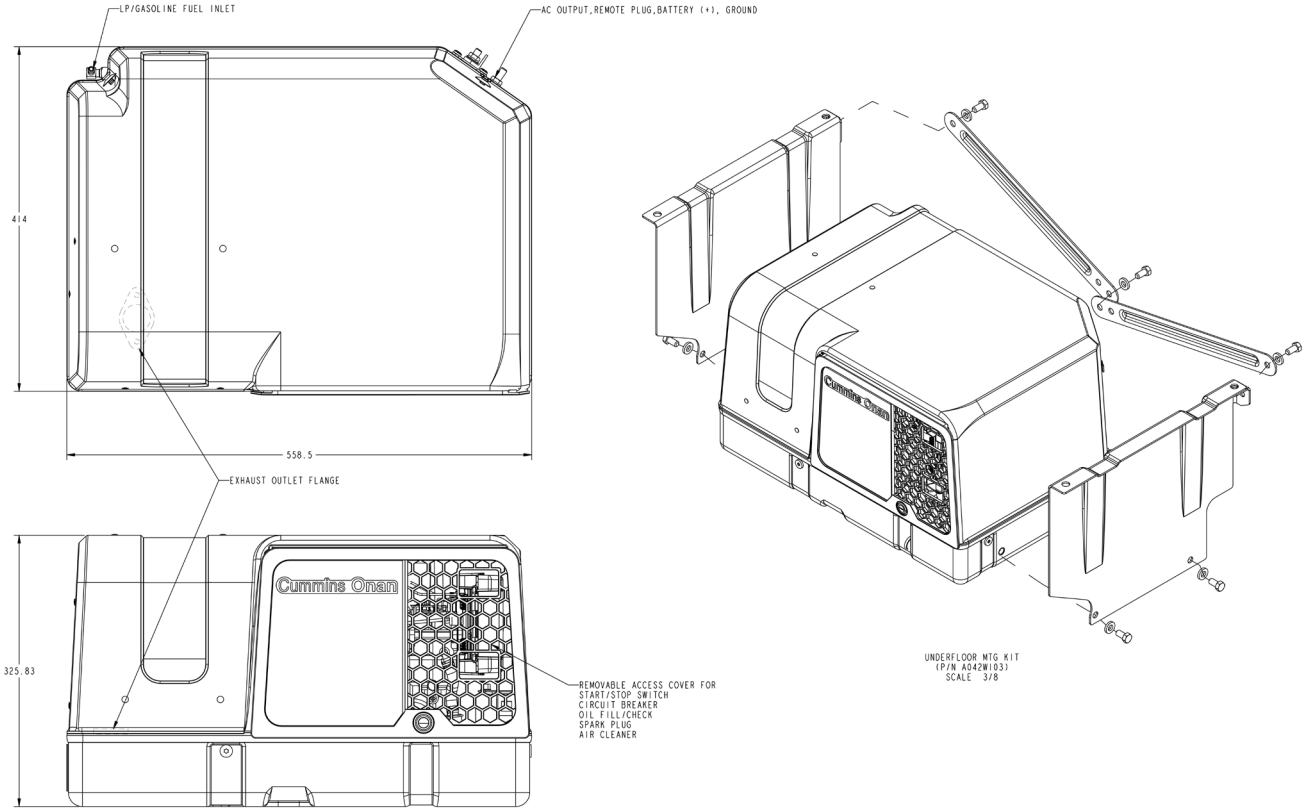
Basic dimensions

Dimensions in (mm)



Note: This outline drawing is provided for general reference only and is not intended for design or installation. For more information see Operation and Installation manuals or obtain drawing and wiring diagram from your distributor/dealer.

Accessories

- Exhaust kit elbow 90 degree (P/N A041H694)
- Exhaust kit downtube (P/N A041L816)
- Display shell gasoline (P/N A041Y359)
- Display shell LP (P/N A041Y361)
- Under floor mounting kit (P/N A042W103)
- Retro adapter from KV (P/N A043F937)
- Remote start/stop rocker switch (P/N 300-5331)
- Remote control with start/stop switch and running time meter (P/N 300-5332)
- Remote control with start/stop switch and DC voltmeter (P/N 300-5333)
- Remote control plug and wire harness 10 ft (P/N 338-3489-01), 30 ft (P/N 338-3489-02)
- Battery, 12 V, 360 cold cranking amps at 0° F (-18° C)
- Energy Command 30 auto generator start (P/N 018-02030)
- Energy Command 20 remote start/stop with diagnostics (P/N 018-02020)
- Energy Command 30W wireless auto generator start (P/N 018-03000)
- Energy Command Y harness (P/N 044-00087)

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Testing for RV application

- Tested at extremes of temperature -20 °F (-29 °C) to 120 °F (49 °C) for starting and operation
- Tested with RV loads, air conditioners, microwaves, converter, TVs, VCRs
- Tested installed; Cummins owned RVs used for product development testing
- Tested in high humidity conditions
- Tested in salt spray conditions
- Tested in heavy airborne dust conditions
- Field test program
- 60 Hz (120 V only) models listed by SGS United States Testing Company, Inc. per ANSI/RVIA EGS-1 and CSA-certified per Std. 100 Motors and Generators and TIL RV-06.
- This generator set was designed and manufactured in facilities certified to ISO 9001
- 60 Hz models meet applicable U.S. EPA and California emissions standards
- 50 Hz models are CE certified

Warranty policy

This limited warranty covers virtually everything except routine maintenance for the first two years you own your RV generator set, and covers parts and labor on major power train and generator set parts during the third year. In addition, it also includes a free 90-day adjustment policy, which provides that Cummins Inc. will make minor adjustments during the first three months you own it - free of charge! Please note: This 3-year limited warranty applies to RV generator sets used in RV applications only, and does not apply to RV generator sets used in commercial mobile applications.

WARNING:

Do not use this generator set on a boat. Such use may violate U.S. Coast Guard regulations, and can result in severe personal injury or death from fire, explosion, electrocution, or carbon monoxide poisoning.

WARNING:

Back feed to a utility system can cause electrocution and/or property damage. Do not connect to any building electrical except through an approved device or after building main breaker is open.

After sale support

Complete line of parts and accessories
Cummins Inc offers replacement and tune-up parts, accessories, oil and maintenance chemicals - all specially designed to help keep your Cummins Onan generator set running at peak performance. Cummins Inc. also provides genuine Onan Green Label Parts™ that exactly match generator set specifications and will help maximize power output and extend the life of your generator set.

Largest distributor/dealer support network
Cummins Onan generator sets are supported by the largest and best trained worldwide certified distributor/dealer network in the industry. This network of knowledgeable Cummins Onan distributor/dealers will help you select and install the right generator set and accessories to meet the requirements of your specific application. This same network offers a complete selection of commonly used generator set maintenance parts, accessories and products plus manuals and specification sheets. Plus, they can answer your questions regarding proper operation, maintenance schedules and more.

Manuals: Operation and installation manuals ship with the generator set. To obtain additional copies or other manuals for this model, see your Cummins Onan distributor/dealer and request the following manual numbers: Operation (A031C171), Installation (A031C172), Parts (A035B506), Service (A031C173).

To easily locate the nearest Cummins Onan distributor/dealer in your area, or for more information, contact us at 1-800-888-6626 (or 763-574-5000), or visit www.cumminsonan.com.

Contact your distributor/dealer for more information.

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