

RV generator set

Quiet Diesel™ Series

RV QD 10000/12500



Cummins Onan

Performance you rely on.™



Features and benefits

- Computer-controlled constant speed operation - quiet diesel performance for larger RVs.
- Special sound-controlling housing encloses cooling system and muffler.
- Three-point, fully focalized internal mounting system reduces vibration.
- Self-diagnostic capabilities simplify troubleshooting.
- Easy, accessible maintenance points.
- Runs two or three rooftop air conditioners with power to spare.
- High quality, pure sine wave electrical output helps prevent damage to appliances.

Weight, size and sound level

Weight	765 lbs	(347 kg) 10.0 kW
	770 lbs	(349 kg) 12.5 kW
Length	41.4 in	(1051 mm)
Width	24.5 in	(622 mm)
Height	27 in	(685 mm)
Sound	68 dB(A)	(readings at 10 ft (3 m) half load)
	- Meets National Park Service sound level requirements (60 dB(A) @ 50 ft) for national park use.	
	- Typical installation will further reduce sound level.	

Models and ratings

Model	Fan	Hz	Watts	Voltage	Amps	Phase	Circuit breaker
12.5 HDKCB-11506	Internal	60	12500	120/240	104.0/52.0	1	50 A, 2-pole
10.0 HDKCA-11506	Internal	60	10000	120/240	83.3/41.7	1	45 A, 2-pole

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 performance may be significantly higher based on installation and operating conditions.

Standard features

- 3 cylinder diesel engine
- Brush type AC alternator
- Digital voltage regulation w/no adjustments required
- Bottom air inlet and outlet
- Integral enclosed muffler with stationary exhaust pipe connection point
- USDA-approved spark arrestor
- Internal radiator
- Sound insulated cover with cooling air inlet and outlet ducts
- Intake silencer
- Heavy-duty air cleaner
- Maintenance-free electronic governor
- Hour meter
- Meets applicable U.S. EPA and California emissions standards
- Waterproof connector for remote operation
- Focalized mounting system
- Over voltage, low oil pressure, over temp, over speed, overload and AC alternator over temp safeties
- Bulkhead type connections for fuel and battery
- Terminal block connection for AC output
- Electric fuel pump
- Fuel filter
- Full flow oil and fuel filter
- Service and maintenance through service doors
- Automatic timed glow plugs for quick easy start
- Instant one-touch stop

Average fuel consumption:

Diesel	No load	Half load	Full load
10.0HDKCA	0.1 Gal/h (0.4 L/h)	0.43 Gal/h (1.63 L/h)	1.01 Gal/h (3.8 L/h)
12.5HDKCB	0.1 Gal/h (0.4 L/h)	0.48 Gal/h (1.8 L/h)	1.2 Gal/h (4.5 L/h)

Alternator details

Design: Cummins Onan brush type, drip-proof construction

Insulation system: Class H per NEMA MGI-1.65 and BS 2757, insulating varnish conforms to MIL-1-24092, Grade CB, Class 155C

Exciter system: Electronite voltage regulator

Bearings: Double sealed, pre-lubricated ball bearing

Cooling: Direct drive centrifugal blower; cast aluminum housing for excellent heat transfer

Control system

Microprocessor control

Integrated generator set and engine control

User and service personnel accessible diagnostics

Over voltage, over speed and overload safety

Low oil pressure safety

AC alternator over temp safety

Automatic timed glow plugs

One touch stop

Engine details

Design: 4-cycle, liquid-cooled diesel engine

Cylinders: 3, inline vertical

Bore: 3.43 in (87.0 mm)

Stroke: 3.64 in (92.4 mm)

Displacement: 100.5 cu in (1647 cc)

Compression ratio: 23 to 1

Lube oil capacity: 5.9 qt (5.6 L)

Cooling system capacity: 6.6 qt (6.2 L)

Power (max) at 1800 rpm: 27 hp (20.2 kW) SAE net intermittent

Starting system: Remote, 12 V

Fuel injection pump: Zexel, licensed Bosch PFR

Combustion chamber: IDI

Generator set performance

Voltage regulation no load to full load: $\pm 2\%$

Frequency regulation no load to full load:

$\pm 0.1\%$

Random frequency variation for constant loads:

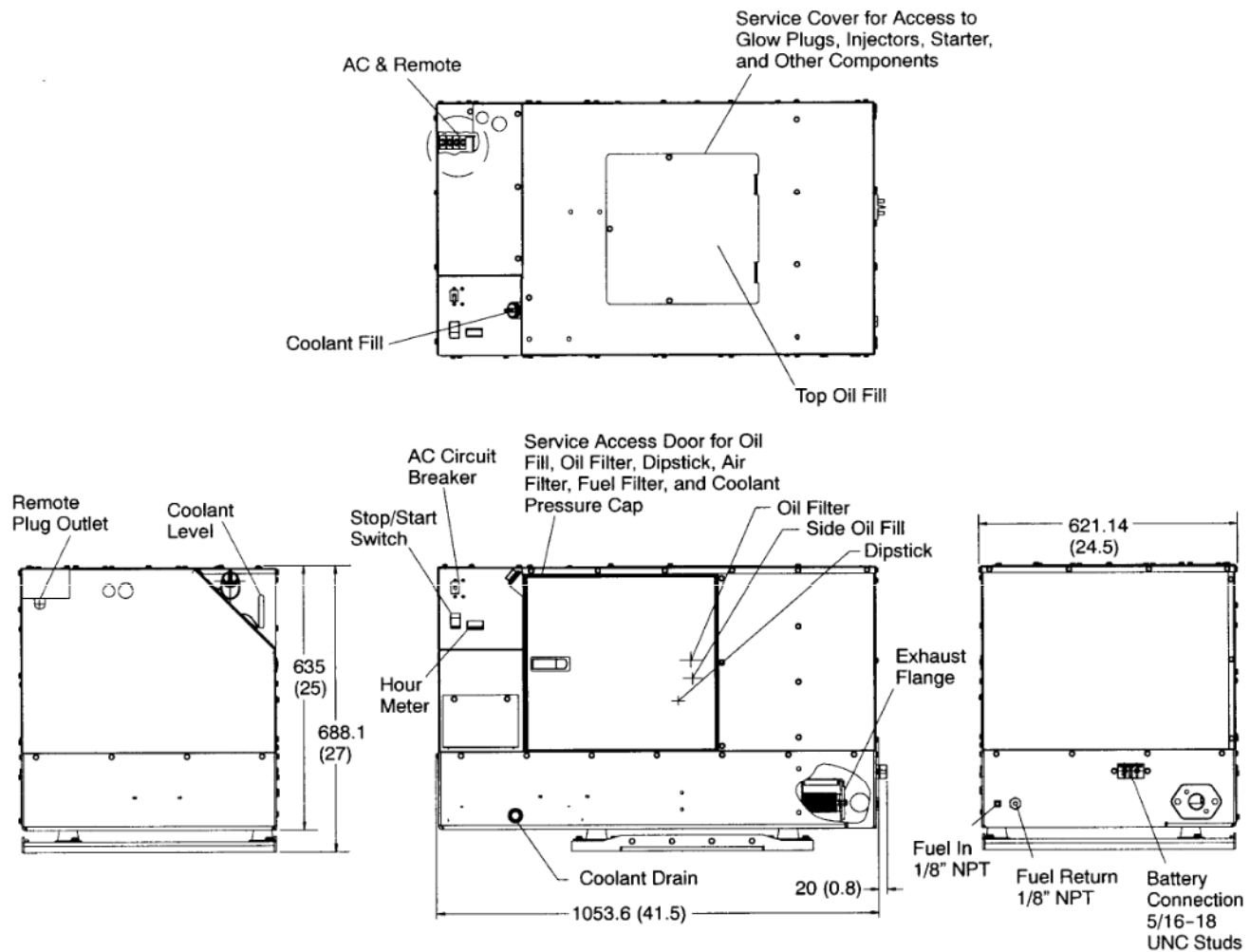
$\pm 0.6\%$

Random voltage variation for constant loads:

$\pm 0.5\%$

Air conditioner operation: Will operate with three 15000 Btu air conditioners and an additional load of up to 4000 W at 100° F and 500 ft (152.4 m) altitude

Basic dimensions



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 500-4040 drawing and wiring diagram from your distributor/dealer.

Accessories

- Exhaust elbow (P/N 155-3194)
- Exhaust adapter - 7 in (P/N 155-2424)
- Exhaust adapter - 3 in (P/N 155-2610)
- Remote wiring harnesses for use with remote panels:
 - 10 ft (P/N 338-3490-01)
 - 30 ft (P/N 338-3490-02)
- Remote control pigtail (P/N 300-4947)
- Remote control panels:
 - Switch only (P/N 300-4942)
 - Switch and hour meter (P/N 300-4943)
 - Switch and DC voltmeter (P/N 300-4944)
- Energy command auto generator start EC-30 (P/N 018-02030)
- Energy command remote start/stop with diagnostics EC-20 (P/N 018-02020)
- Energy command wireless start/stop EC-15W (P/N 018-02015)


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 Onan 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 Electrical Bulletin 946
- 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



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 (981-0173), Installation (981-0640), Parts (981-0277), Service (981-0540).

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

Cummins Onan

Cummins Power Generation

1400 73rd Ave. NE
Minneapolis, MN 55432 USA
Phone 1 763 574 5000
Toll-free 1 800 888 6626
Fax 1 763 574 5298
Email www.cumminsonan.com/contact
www.cumminsonan.com

Cummins®, Onan®, the "C" logo, Performance you rely on.™ and Quiet Diesel™ are servicemarks and/or registered trademarks of Cummins Inc. Specifications subject to change without notice.
©2007 Cummins Power Generation. All Rights Reserved.
A-1483f (03/07)

