

# Commercial generator set Standard Diesel™ Series SD 10.0 60 Hz/8.0 50 Hz



## Cummins Onan

Performance you rely on.™



### Features and benefits

- Low vibration for smooth operation
- Powerful 22.3 hp engine
- User-friendly remote control option
- Cross-flow radiator for increased cooling efficiency
- Installation flexibility with remountable 90° exhaust elbow and two oil fill locations

### Weight, size and sound level

Weight: 520 lb (236.9 kg)

Size:

- 60 Hz (single phase) length 39.5 in (1003 mm), width 21.0 in (533 mm), height 26.0 in (662 mm);
- 50 Hz (3 phase) length 40.5 in (1028 mm), width 21.0 in (533 mm), height 26.0 in (662 mm)

Sound:

- 60 Hz (single phase) 78 dB(A) at 10 ft (3 m) before installation, full load
- 50 Hz (3 phase) 76 dB(A) at 10 ft (3 m) before installation, full load

### Models and ratings

| Model                     | Fan    | Hz | Watts | Voltage        | Amps           | PF  | Phase | Circuit breaker        |
|---------------------------|--------|----|-------|----------------|----------------|-----|-------|------------------------|
| 10HDKAG/61731             | Pusher | 60 | 10000 | 120/240        | 83.3/41.7      | 1.0 | 1     | 2-pole, 45 A           |
| 10HDKAG/5008 <sup>#</sup> | Pusher | 60 | 10000 | 120/240        | 83.3/41.7      | 1.0 | 1     | 2-pole, 45 A           |
| 10HDKAG/11322             | Pusher | 60 | 10000 | 120/240        | 30.1           | 0.8 | 3     | 3-pole, 35 A           |
| 10HDKAG/61733             | Pusher | 60 | 10000 | 120/208        | 34.7           | 0.8 | 3     | 3-pole, 35 A           |
| 10HDKAG/11509             | Pusher | 60 | 10000 | 100/200        | 100/50         | 1.0 | 1     | 2-pole, 50 A           |
| 10HDKAG/5280 <sup>#</sup> | Pusher | 60 | 10000 | 100/200        | 100/50         | 1.0 | 1     | 2-pole, 50 A           |
| 8HDKAG/11378              | Pusher | 50 | 8000  | Reconnectable* | Reconnectable* | 0.8 | 3     | 3-pole, reconnectable* |
| 8HDKAG/11473              | Pusher | 50 | 8000  | 110/220        | 72.7/36.4      | 1.0 | 1     | 2-pole, 35 A           |
| 8HDKAG/5007 <sup>#</sup>  | Pusher | 50 | 8000  | 110/220        | 72.7/36.4      | 1.0 | 1     | 2-pole, 35 A           |

- All 60 Hz models operate at 1800 r/min. All 50 Hz models operate at 1500 r/min.
- Ratings apply up to 500 ft (152.4 m) altitude, 85° F (29° C) ambient with No. 2 diesel fuel.
- Maximum power capability decreases 3.5% for each 1000 ft (305 m) above 500 ft (153 m) and 1% for each 10° F (5.5° C) increase in ambient temperature above 85° F (29° C).

\* 12-lead reconnectable for a broad range of voltage applications.

<sup>#</sup> With export packaging.

Cummins®, Onan®, the "C" logo, Performance you rely on.™ and Standard Diesel™ are servicemarks, trademarks and/or registered trademarks of Cummins Inc.

Specifications are subject to change without notice

©2011 Cummins Power Generation. All Rights Reserved.

A-1393f (4/11)

---

## Standard features

- 4-cylinder diesel engine
- Brush type AC alternator
- Bi-directionally optimized mounting system with point vibration isolation
- Cross-flow radiator
- Full flow lube oil filter
- Fuel filter/water separator
- Vertically mounted fuel and oil filters
- Replaceable element air cleaner
- Remote mountable DC control box
- 4-position exhaust elbow
- 30 A battery charging DC alternator
- Lifting bracket
- Glow plugs for easy starting
- Base pan for drip control
- Electric fuel pump

## Engine details

Model: Kubota V1505  
Design: 4-cycle, liquid-cooled diesel engine  
Cylinders: 4, inline vertical  
Bore: 3.07 in (78.0 mm)  
Stroke: 3.08 in (78.4 mm)  
Displacement: 91.4 in<sup>3</sup> (1498 cm<sup>3</sup>)  
Compression ratio: 24:1  
Lube oil capacity: 7.08 qt (6.7 L)  
Power (max): At 1800 r/min: 22.3 hp  
Cooling system capacity: 1.25 Gal (4.73 L)  
Starting system: Remote, 12 V  
Fuel injection pump: Bosch MD mini  
Fuel pump: Electric  
Combustion chamber: Spherical

## Typical fuel consumption

| No. 2 diesel fuel, Gal/hr (L/hr) | <u>No load</u> | <u>Half load</u> | <u>Full load</u> |
|----------------------------------|----------------|------------------|------------------|
| 10HDKAG                          | 0.29 (1.10)    | 0.55 (2.08)      | 1.04 (3.90)      |
| 8HDKAG                           | 0.26 (0.98)    | 0.45 (1.71)      | 0.94 (3.52)      |

---

## Alternator details

Design: Cummins Onan, brush type, drip proof construction

Insulation system: Class F, per NEMA MGI-1.65 and BS 2757; insulating varnish conforms to MIL-I-24092, grade CB, Class 155 C

Three-phase models: Broad range reconnectable design for installed voltage flexibility

Exciter system: Electronic voltage regulation

Bearing: Double sealed, pre-lubricated ball bearing.

Cooling: Direct drive centrifugal blower

Damper bar system: Generator set design (100 V spec unit only) incorporates a damper bar system which results in low harmonic waveform distortion. This design feature becomes significant when powering SCR type loads (converters, etc.)

## Generator set details

### Control

- Unit mounted, drip-proof, vibration isolated console DC controls, 12 V system
- Start/stop/preheat switch
- Remote connector for start/stop/preheat switch and gauge package
- Manual reset fault relay indicating engine shutdown for high coolant temperature, low oil pressure
- Hour meter

### AC controls

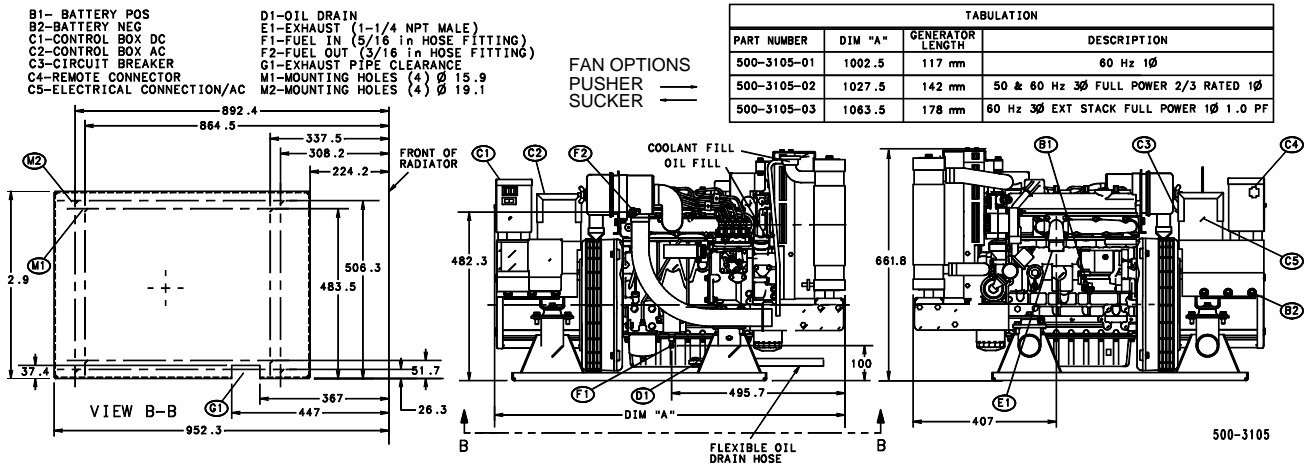
- Electronic voltage regulator
- Three-phase models, factory shipped reconnectable (no breaker on 50 Hz models)
- Three-phase breaker kits available for field fitted installation

Voltage regulation:

Frequency regulation:

| <u>No load/full load</u> | <u>Constant load</u> |
|--------------------------|----------------------|
| ±2.5%                    | ±1%                  |
| ±2.5%                    | ±1%                  |

# 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 drawing 500-3105 and wiring diagram from your distributor/dealer.

## Options and accessories

- USDA Forest Service approved spark arrestor muffler (P/N 155-2262)
- Exhaust resonator (P/N 155-2653)
- Remote gauge package with start/stop/preheat switch, DC voltage meter, water temperature gauge, oil pressure gauge, running time meter (P/N 300-5026)
- Remote control panel, switch only (P/N 300-4939)
- Remote control panel, switch and hour meter (P/N 300-4940)
- Remote control panel, switch and DC voltmeter (P/N 300-4941)
- Remote harness (for use with above panels), 15 ft (P/N 338-2237), 25 ft (P/N 338-2238)
- Remote harness pigtail at set (P/N 338-2102)
- Remote harness pigtail at panel (P/N 338-3573)
- Engine block heater (P/N 333-0593)
- Coolant overflow recovery kit (P/N 130-2781)
- Fan conversion kit (pusher to suction) (P/N 130-4121)
- Fan conversion kit (suction to pusher) (P/N 130-4556)
- 45 A circuit breaker kit (P/N 320-1840)
- Auxiliary alternator air cooling kit on suction fan units for compartment-mounted generator sets (P/N 140-3214)

---

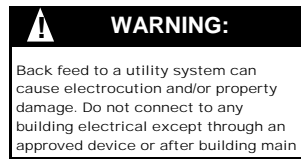
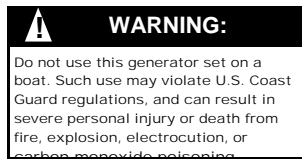
## Standards and testing

- Tested at extremes of temperature -20° F (-29° C) to 120° F (49° C) for starting and operation
- Tested with commercial loads
- Tested in high humidity conditions
- Tested in salt spray conditions
- Tested in heavy airborne dust conditions
- Field test program
- This product meets U.S. EPA Tier IV
- This generator set was designed and manufactured in facilities certified to ISO 9001
- 60 Hz 120/240V and 120/208V models certified for CSA C22.2 Std. 100 and Std. 14



## Warranty policy

The Cummins Onan limited warranty covers virtually everything except routine maintenance for the first two years you own your generator set, or the first 2,000 hours of operation, whichever comes first. In addition, it includes a free 90-day adjustment policy, which provides that Cummins Inc. will make minor adjustments to your new generator set during the first three months you own it - free of charge!



## After sale support

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 (981-0149), Installation (981-0605), Parts (981-0252), Service (981-0516).

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](http://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](http://www.cumminsonan.com/contact)  
[www.cumminsonan.com](http://www.cumminsonan.com)

