

# Marine generator set Mechanical Series 5.5/6.5 Model MDKUB



## Cummins Onan

Performance you rely on.™



### Features and benefits

- Rugged dependability and high quality features make Cummins Onan Marine Generators a leading name in the marine industry. Reliable Cummins Onan Marine Generator sets have more standard features than any other marine generator set available.
- Certified to U.S. Environmental Protection Agency (EPA) emission standards.
- The Cummins Onan Marine Generators designed and manufactured high efficiency alternator delivers the power you need with excellent load response and AC output characteristics. This alternator is protected with corrosion-resistant resins for salt water environments.
- Cummins Onan Marine Generator sets are designed for compliance with U.S. Coast Guard regulations and ABYC voluntary standards, developed to increase your boating enjoyment.
- Cummins Onan Marine Generator sets are produced by Cummins Power Generation, a subsidiary of Cummins Inc. Cummins Onan Marine Generator sets are supported by the largest worldwide certified distributor/dealer network in the industry. Our extensive warranty coverage provides owner peace of mind.
- Cummins Onan Marine Generator sets are complemented by a full line of accessories, making it easy to customize a generator set to suit your application. Cummins Onan Marine Generator sets are easy to install, operate and maintain, plus they are small in size.
- More than 70 years of marine experience, gained by supplying generator sets to the U.S. Coast Guard, Navy, recreational boaters and some of the finest yacht builders in the world, stand behind every Cummins Onan Marine Generator set.

### Models and ratings

Model	kW/kVA	Voltage	Amps	Phase	Hz	Engine RPM
<b>5.5MDKUB</b>	5.5/5.5	110/220	50/25	1	50	3000
		115/230	47.8/23.9	1	50	3000
		120/240	45.8/23	1	50	3000
<b>6.5MDKUB</b>	6.5/6.5	120	54.2	1	60	3600
		120/240	54/27.1	1	60	3600

Three phase and other single phase configurations are available, contact your distributor/dealer for more information. Rating conditions are 100 kPa (29.6 in Hg) barometric pressure, 30% relative humidity and 25° C (77° F) (ref. ISO 3046).

### Sound level, weight, and size

Sound level		Dimensions			
50 Hz configuration	60 Hz configuration	Weight (dry)	Length	Width	Height
69 dB(A)*	71 dB(A)*	173 kg (380 lb)	709 mm (28 in)	552 mm (21.75 in)	596 mm (23.5 in)

\* Full load at 1 m

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## Standard features

- Switchable between 50/60 Hz
- Single phase AC alternator with single or dual voltages
- Solid state voltage regulator
- Capped voltage regulator for stability as appliance load changes
- 12 V DC electric system with battery charging, negative ground
- DC control console mounted with isolation and DC protective circuit breakers
- Start-run-stop switch with glow plug preheat for easy starting
- Electric fuel pump for lift capability
- Engine starter with automatic start disconnect
- Freshwater cooling system with heat exchanger, expansion tank and coolant recovery system
- Water cooled exhaust mixing elbow
- Gear-driven raw water pump
- AC mainline circuit breaker
- Field circuit breaker
- Engine shutdown for: high engine coolant temperature, high exhaust temperature, low oil pressure and additional customer input
- Running time meter
- Air intake silencer
- Full flow lube oil filter
- Oil drain with valve and hose extension
- Electric fuel shut-off solenoid
- Fuel filter/water separator
- Drip pan base capable of containing all generator set fluids
- Captive focalized mounting systems with vibration isolators
- Bulk head type connections for ease of installation
- Single point lifting bracket for ease of installation
- Sound shield housing
- Plug-in watertight connector for optional remote control
- Closed crankcase breather re-circulation to eliminate engine room contamination
- Coolant overflow bottle to easily maintain coolant level
- Factory load tested
- Five year limited warranty
- DNV type approval

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## Engine details

**Design:** 4-cycle, water-cooled diesel

**Cylinders:** 2

**Bore:** 67 mm (2.64 in)

**Stroke:** 68.0 mm (2.68 in)

**Displacement:** 479 cm<sup>3</sup> (29.23 in<sup>3</sup>)

**Compression ratio:** 23.5:1

**Max fuel lift:** 1.22 m (4 ft)

**Lube oil capacity:** 3.8 L (4 qt)

**Coolant capacity:** 2.2 L (2.3 qt)

**Coolant flow rate:**

50 Hz: 24.6 L/min (6.5 Gal/min)

60 Hz: 29.9 L/min (7.9 Gal/min)

## Typical fuel consumption

**No. 2 diesel fuel, L/hr (Gal/hr)**

**5.5 MDKUB-50 Hz**

**6.5 MDKUB-60 Hz**

**Raw water flow rate:**

50 Hz: 11.4 L/min (3.0 Gal/min)

60 Hz: 13.2 L/min (3.5 Gal/min)

**Starting system:** 12 V

**Power (max):** SAEJ1995

50 Hz at 3000 RPM 8.7 kW (11.7 hp)

60 Hz at 3600 RPM 9.5 kW (12.7 hp)

**Fuel Injection pump:** Bosch MD type

**Combustion chamber:** Spherical

**Max raw water lift:** 1.22 m (4 ft)

Half load

1.5 (0.4)

1.7 (0.5)

Full load

2.1 (0.6)

2.7 (0.7)

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## Alternator details

**Design:** Cummins Onan revolving field, 2-pole, drip proof construction, with encapsulated rectifiers

**Voltage regulator:** Solid state capped voltage regulator; no SRC tracking problems

**Stator:** Skewed stator and 2/3 pitch windings minimize field heating and voltage harmonics; resin-coated for corrosion protection

**Rotor:** Dynamically balanced assembly; supported by pre-lubricated, maintenance-free ball bearing

**Cooling:** Rotor mounted centrifugal blower

**Insulation system:** Class H per NEMA MG1-1.65

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## Generator set performance

**Operating environment:** Generator sets are durability tested at maximum ambient air temperature: 80° C (176° F); raw water temperature 37.8° C (100° F)

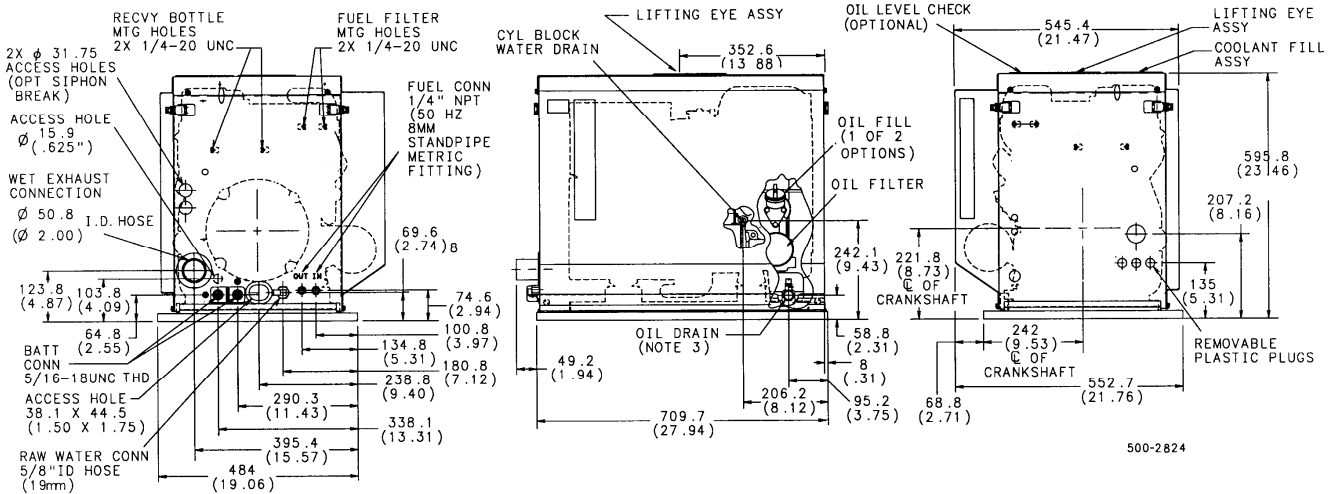
**Frequency regulation:** 5% no load to full load

**Random frequency variation:** Will not exceed +/-0.5% of its mean value for constant loads from no load to full load

**Voltage regulation:** No load to rated load +/-1.5%

**Random voltage variation:** Will not exceed +/-1% of its mean value for constant loads from no load to full load

## 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 500-2824 and wiring diagram from your distributor/dealer.

## Options

- Oil level indicator access from sound shield roof panel

## Accessories

- Basic remote start/stop switch
- Deluxe remote start/stop switch with hour meter
- Deluxe remote start/stop switch with DC voltmeter
- Remote station harness pigtail
- Remote panel wire harness - 15 ft, 25 ft, 45 ft, 75 ft, 100 ft or 150 ft
- Remote gauge package with start/stop switch, hour meter, DC voltmeter, oil pressure and water temperature gauges; select appropriate sender kit for negative ground or isolated DC
- Line circuit breakers for field conversion of frequency or AC voltage output
- Remote fuel filter/water separator assembly
- Siphon break kit
- Wet exhaust hose
- Battery
- Marine muffler and water separator - dual silencers
- Isolated DC control conversion kit
- Ship-to-shore selector switch, single phase, 2 or 3 wire output
- Oil level indicator kit for access from outside sound shield; requires installer to modify sound shield roof
- Cruise kit - maintenance parts - fuel filters, oil filters, sea water pump impellers, zinc pencils, alternator belt and plastic container



Cummins Onan Cruise Kit

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## Standards and testing

National Marine Manufacturers Association (NMMA) members produce every conceivable product used by recreational boaters. NMMA provides a wide variety of programs and services including technical expertise, standards monitoring, government relations advocacy and industry statistics.

The American Boat and Yacht Council (ABYC) develops standards and recommended practices for designing, constructing, equipping and maintaining small pleasure and commercial craft.

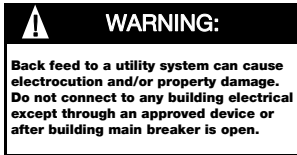
This generator set was designed and manufactured in facilities certified to ISO 9001.

Lloyd's Register states that Cummins Onan Marine Generators have been successfully tested in accordance with the relevant requirements of the Lloyd's Register Type Approval System for Marine, offshore and industrial applications.



## Warranty policy

The Cummins Onan express, written limited warranty covers virtually everything except routine maintenance for the first two years you own your marine generator set, and covers parts and labor on major power train and generator set parts during the third through fifth years.



## 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, installation and parts 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 (981-0151), Installation (981-0602), Parts (981-0262), Service (981-0512).

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).

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## Contact your distributor/dealer for more information

# Cummins Onan

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