

# CMQD 12,000 GenSet

Diesel  
12 kW 60 Hz



## Commercial GenSet

- Dramatically Lower Noise, Vibration, Harshness (NVH)
- Significantly Quieter Than Conventional Diesel Generators
- Enclosed Muffler for Added Quietness, Easy Installation
- Automatic Glow Plug Eliminates Preheat Time Uncertainty
- Convenient, Top-Mounted Switches and Coolant Level Check/Fills
- Service and Maintenance Points Accessible Through Easy-Latch Side Service Door
- Self-Diagnostic Capability Simplifies Troubleshooting
- Complete, Integrated Package for Easy, Low-Cost Installation

## Models and Ratings

<u>Model</u>	<u>Fan</u>	<u>Hz</u>	<u>Watts</u>	<u>Voltage</u>	<u>Amps</u>	<u>PF</u>	<u>Phase</u>	<u>Circuit Breaker</u>
12.0 HDCAD-2209A	Internal	60	12,000	120/240	100/50	1.0	1	(1) 2 pole 50 A

All 60 Hz models operate at 1800 r/min.

Ratings apply to altitudes up to 500 ft (153 m), 104° F (40° C) ambient with No. 2 diesel fuel.

Derating: Power output will decrease 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).

## Weight, Size and Sound Level

- 660 lb, wet
- Length 41.5 in (1053.6 mm), Width 24.5 in (621.1 mm), Height 27 in (685.8 mm)
- 69 dB(A) at 10 ft (3 m) before installation, full load



**GeneratorJoe**

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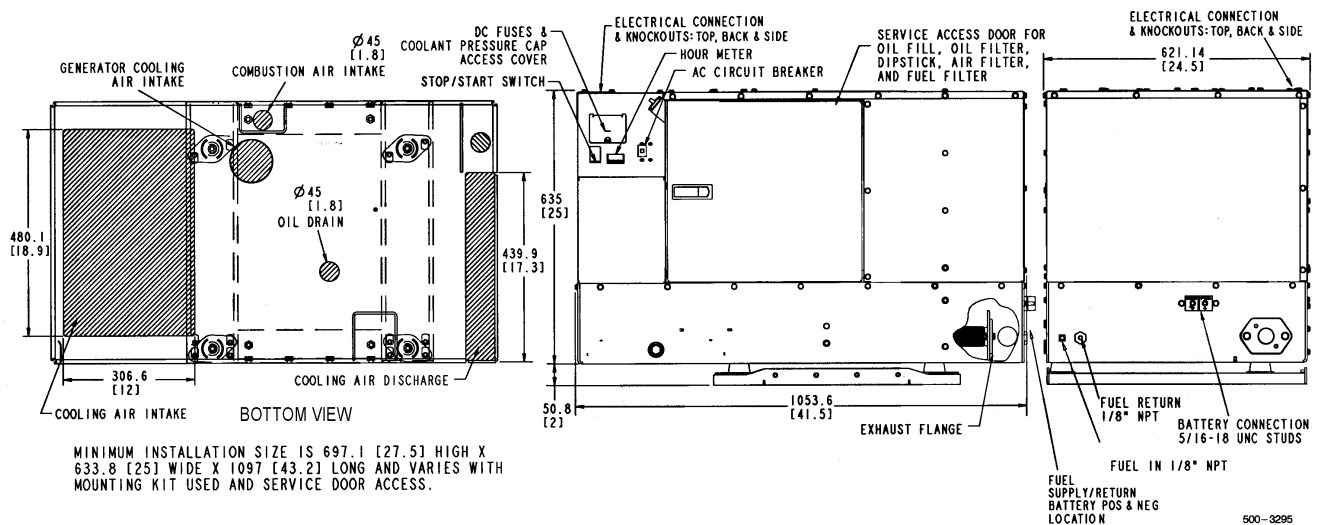
## Standard Features

- 3 cylinder diesel engine
- Brush type AC alternator
- Digital voltage regulation with no adjustments required
- Bottom air inlet and outlet configuration
- 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
- Fused DC circuits
- Regulated-voltage 20 A battery charging
- Hourmeter
- Waterproof connector for remote operation
- Focalized mounting system with 3-point vibration isolation
- Overvoltage, low oil pressure, overtemp, overspeed and overload safeties
- Bulkhead type connections for fuel and battery
- Terminal block connection for AC output
- Electric fuel pump
- Fuel filter
- Full flow oil filter
- Service and maintenance from below or side service access panel
- Automatic timed glow plugs for quick easy start
- Instant one touch stop
- Sealed circuit breaker

## Accessories

- Exhaust elbow, 90° (part #155-3194)
- Exhaust adapter, 3-inch (part #155-2610), 7-inch (part #155-2424)
- Remote control pigtail (part #300-4947)
- Remote control harness pigtail at panel (part #338-3573)
- Remote control panel, switch only (part #300-4942)
- Remote control panel, switch and hourmeter (part #300-4943)
- Remote control panel, switch and DC voltmeter (part #300-4944)
- Remote gauge panel, switch, DC voltmeter, water temperature gauge, oil pressure switch and hourmeter (part #300-5218 Spec A, 300-5027 Spec B and later)
- Battery 12 V, 660 cold cranking amps at 0° F (-17.8° C) (wet) (part #416-0796)
- Battery 12 V, 620 cold cranking amps at 0° F (-17.8° C) (dry) (part #416-0823)
- Remote harness (for use with remote panels), 10 ft (part #338-3490-01), 30 ft (part #338-3490-02)
- Secondary vibration isolation kit (part #402-0752)

## Basic Dimensions



This outline drawing is provided for general reference only is not intend for design or installation. See installation manual and obtain outline drawing number 500-3295 for more information (available from your Distributor/Dealer).

## Engine Detail

**Model:** Isuzu  
**Design:** 4-cycle, liquid-cooled diesel engine  
**Cylinders:** 3, inline vertical  
**Bore:** 3.27 in (83.1 mm)  
**Stroke:** 3.62 in (92 mm)  
**Displacement:** 91.0 in<sup>3</sup> (1496 cm<sup>3</sup>)  
**Compression ratio:** 22:1

**Lube oil capacity:** 6.7 qt (6.3 L)  
**Cooling system capacity:** 6.1 qt (5.8 L)  
**Power (max):** at 1800 r/min: 23.1 hp, SAE net intermittent  
**Starting system:** Remote, 12 V  
**Fuel injection pump:** Zexel, licensed Bosch PFR  
**Combustion chamber:** IDI

### Typical fuel consumption

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

	No load	Half load	Full load
10.0 HDCAC	0.11 (0.4)	0.62 (2.34)	1.10 (4.16)

## Alternator Detail

**Design:** Onan, brush type, drip-proof construction  
**Insulation system:** Class F per NEMA MGI-1.65 and BS 2757

**Exciter system:** Electronic voltage regulator  
**Bearings:** Double sealed prelubricated ball bearing  
**Cooling:** Direct drive centrifugal blower

## GenSet Detail

	No load - full load	Constant load
<b>Voltage regulation:</b>	±1%	±1%
<b>Frequency regulation:</b>	±0.1%	±0.5%

### Control

- Microprocessor control
- Integrated generator and engine control
- User and service personnel accessible diagnostics
- Fused DC circuits
- Overvoltage safety
- Low oil pressure safety
- Overspeed safety
- Overload safety
- Automatic times glow plugs
- One-touch stop



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## Warranty Policy

The 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 Onan will make minor adjustments to your new genset during the first three months you own it - free of charge!

For complete Onan limited warranty details see your certified Onan Distributor/Dealer.

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## After Sale Support

**EASY TO LOCATE CERTIFIED ONAN SERVICE AND PARTS DEALERS** - Onan has the largest and best-trained worldwide certified Distributor/Dealer network in the industry, offering on-time parts and service, and installation assistance. Cummins Onan Distributor/Dealers stock and sell commonly used Onan GenSet maintenance parts, accessories and products, plus operator manuals and literature on current Onan GenSets. They can help you select and install the right genset or accessories on older models, or provide answers to questions on proper operation and maintenance procedures.

**MANUALS** - Installation and operators manuals are shipped with the genset. To obtain additional copies or other manuals for this model, see your Cummins Onan Distributor/Dealer and request the following part numbers: Operators Manual (981-0165), Parts Manual (981-0259), Service Manual (981-0526), and Installation Manual (981-0632).

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## Standards and Testing

Tested at extremes of temperature -20° F to 120° F for starting and operation. Tested installed.

Tested with commercial loads.

Tested in high humidity conditions.

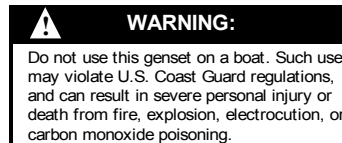
Tested in salt spray conditions.

Tested in heavy air borne dust conditions.

Field Test Program.

This product meets U.S. EPA Tier II.

This generator set was designed and manufactured in facilities certified to ISO 9001. CSA Certified for CSA C22.2 std 100 and std 14.



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## Contact your Distributor/Dealer for more information



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**WARNING:** Backfeed to utility systems can cause electrocution or property damage. Do not connect to building electrical except through approved device and after building main breaker is opened.