



Onan Marine QD 22.5–29 kW

Product Dimensions and Weight

| | | Housed | | Unhoused | | |
|-----------------------|---------|--------|--------|----------|--------|---------------|
| Overall Length | mm (in) | 1358 | (53.5) | 1358 | (53.5) | |
| Overall Width | mm (in) | 622 | (24.5) | 622 | (24.5) | |
| Overall Height | mm (in) | 761 | (30.0) | 731 | (28.8) | |
| Weight | kg (lb) | 601 | (1325) | 565 | (1245) | MDKDT |
| | kg (lb) | 626 | (1380) | 590 | (1300) | MDKDU MDKDS |

Dimensions and weight may vary based on selected configuration.



Power Ratings

| Model | kWe | kVa* | Speed | | Phase | Voltage | Amps | Fuel Consumption (L/hr (gal/hr)) | | | | Emissions |
|----------------------------------|------|------|-------|------|-------|-------------------------------------|---------------------------------------|----------------------------------|-----------|-----------|------------|------------|
| | | | Hz | RPM | | | | 1/4 Load | 1/2 Load | 3/4 Load | Full Load | |
| KC- and HX-Cooled Ratings | | | | | | | | | | | | |
| MDKDT | 22.5 | 22.5 | 50 | 1500 | 1 | 110 220 115 230 120 240 | 205 102 196 97.8 188 93.8 | 3.0 (0.8) | 4.0 (1.1) | 5.2 (1.4) | 7.0 (1.8) | EPA Tier 3 |
| MDKDT | 22.5 | 28.1 | 50 | 1500 | 3 | 220 380 | 42.7 | 3.0 (0.8) | 4.0 (1.1) | 5.2 (1.4) | 7.0 (1.8) | EPA Tier 3 |
| MDKDU | 27.0 | 17.0 | 50 | 1500 | 1 | 110 220 115 230 120 240 | 245 123 235 117 225 113 | 3.0 (0.8) | 4.7 (1.2) | 6.2 (1.6) | 9.1 (2.4) | EPA Tier 3 |
| MDKDU | 27.0 | 21.2 | 50 | 1500 | 3 | 220 380 | 51.3 | 3.0 (0.8) | 4.7 (1.2) | 6.2 (1.6) | 9.1 (2.4) | EPA Tier 3 |
| MDKDS | 29.0 | 29.0 | 60 | 1800 | 1 | 120 240 | 241.7 120.8 | 3.9 (1.0) | 5.6 (1.5) | 7.6 (2.0) | 10.7 (2.8) | EPA Tier 3 |
| MDKDS | 29.0 | 36.2 | 60 | 1800 | 3 | 120 208 | 100.6 | 3.9 (1.0) | 5.6 (1.5) | 7.6 (2.0) | 10.7 (2.8) | EPA Tier 3 |

Ratings below 130 kW are not subject to IMO emission regulations.

* Single phase output at 1.0 power output; three phase output at .8 power factor

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Engine Details

Design – 4-cycle, water-cooled Kubota marine diesel. Displacement of 3318 cm³ (202.48 in³)

Fuel System – Electric fuel transfer pump for priming and lift capability. Max fuel lift of 1.22 m (4 ft)

Cooling System – Freshwater cooling system with heat exchanger, expansion tank and coolant recovery system. Coolant overflow bottle to easily maintain coolant level. Coolant capacity of 13.7 L (14.5 qt). Coolant flow rate of 43.5 L/min (11.5 gal/min) for 50 Hz ratings and 53.0 L/min (14.0 gal/min) for 60 Hz ratings

Lubrication System – Marine grade oil pan with a capacity of 11.4 L (11 qt), plus an oil drain and hose extension for ease of maintenance

Alternator Details

Design – Onan brushless, revolving field, 4-pole alternator, rigidly coupled to engine and permanently aligned

Voltage Regulator – Solid state, circuit board encapsulated for corrosion protection

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

Rotor – Dynamically balanced assembly; direct-coupled to engine by flexible drive discs; supported by pre-lubricated, maintenance-free ball bearings

Cooling – Direct drive centrifugal blower

Insulation System – Class H per NEMA MG1-1-1.65 and BS 5000

Generator Set Performance

Frequency Regulation – Isochronous

Steady-State Frequency Band – Less than 1% per ISO 8528-5

Steady-State Voltage Deviation – Less than +/-1% per ISO 8528-5

Communications Protocol – NEMA 2000 and SAE J-1939 CAN data link for monitoring generator set status, as well as engine and alternator diagnostics

Standards and Testing

- National Marine Manufacturers Association (NMMA) and American Boat and Yacht Council (ABYC) member
- This generator set was designed and manufactured in facilities certified to ISO 9001
- Lloyd's Register Type Approval for marine, offshore and industrial applications

Warranty Policy

The Cummins 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. Optional extended warranty available.



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Bulletin 5410554 Rev.10/17
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