



# Onan Marine QD 22.5–29 kW

## Product Dimensions and Weight

		Housed		Unhoused		
<b>Overall Length</b>	mm (in)	1358	(53.5)	1358	(53.5)	
<b>Overall Width</b>	mm (in)	622	(24.5)	622	(24.5)	
<b>Overall Height</b>	mm (in)	761	(30.0)	731	(28.8)	
<b>Weight</b>	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	
<b>KC- and HX-Cooled Ratings</b>												
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 cm<sup>3</sup> (202.48 in<sup>3</sup>)

**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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