



# Onan Marine QD

## 13.5/17/17.5/19/21.5 kW

### Product Dimensions and Weight

		Housed		Unhoused		
<b>Overall Length</b>	mm (in)	1127	(44.4)	1127	(44.4)	
<b>Overall Width</b>	mm (in)	602	(23.7)	602	(23.7)	
<b>Overall Height</b>	mm (in)	698	(27.5)	672	(26.5)	
<b>Weight</b>	kg (lb)	408	(899)	381	(840)	MDKDP
	kg (lb)	422	(930)	395	(870)	MDKDR   MDKDV

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>												
MDKDP	13.5	13.5	50	1500	1	110   220 115   230 120   240	122.7   61.4 117.4   58.7 112.5   56.3	1.9 (0.5)	2.7 (0.7)	3.6 (0.9)	4.8 (1.3)	EU Stage 3a
MDKDP	13.5	16.9	50	2900	3	220   380	25.6	1.9 (0.5)	2.7 (0.7)	3.6 (0.9)	4.8 (1.3)	EU Stage 3a
MDKDP	17.0	17.0	60	1800	1	120   240	141.7   70.8	2.6 (0.7)	3.6 (1.0)	4.8 (1.3)	6.1 (1.6)	EPA Tier 3
MDKDP	17.0	21.2	60	1800	3	120   208	59.0	2.6 (0.7)	3.6 (1.0)	4.8 (1.3)	6.1 (1.6)	EPA Tier 3
MDKDR	17.5	17.5	50	1500	1	110   220 115   230 120   240	159.1   79.5 152.2   76.1 145.8   72.9	2.3 (0.6)	3.4 (0.9)	4.7 (1.2)	6.5 (1.7)	EPA Tier 3
MDKDR	17.5	21.9	50	1500	3	220   380	33.2	2.3 (0.6)	3.4 (0.9)	4.7 (1.2)	6.5 (1.7)	EPA Tier 3
MDKDV	19.0	19.0	50	1500	1	110   220 115   230	172.7   86.4 165.2   82.6	2.5 (0.7)	3.9 (1.0)	5.2 (1.4)	6.6 (1.7)	EU Stage 3a
MDKDV	19.0	23.8	50	1500	3	220   380	36.1	2.5 (0.7)	3.9 (1.0)	5.2 (1.4)	6.6 (1.7)	EU Stage 3a
MDKDR	21.5	21.5	60	1800	1	120   240	179   89.6	2.9 (0.8)	4.1 (1.1)	5.7 (1.5)	8.2 (2.2)	EPA Tier 3
MDKDR	21.5	26.9	60	1800	3	120   208	74.6	2.9 (0.8)	4.1 (1.1)	5.7 (1.5)	8.2 (2.2)	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 1999 cm<sup>3</sup> (122 in<sup>3</sup>) on MDKDP 50 Hz ratings and 2434 cm<sup>3</sup> (148.5 in<sup>3</sup>) on remaining ratings

**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 7.6 L (8 qt). Coolant flow rate of 37.9 L/min (10.0 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 7.6 L (8 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

**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%

**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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