



Onan Marine QD

13.5/17/17.5/19/21.5 kW

Product Dimensions and Weight

		Housed		Unhoused		
Overall Length	mm (in)	1127	(44.4)	1127	(44.4)	
Overall Width	mm (in)	602	(23.7)	602	(23.7)	
Overall Height	mm (in)	698	(27.5)	672	(26.5)	
Weight	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		
KC- and HX-Cooled Ratings													
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 cm³ (122 in³) on MDKDP 50 Hz ratings and 2434 cm³ (148.5 in³) 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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