

# Onan Marine QD 40-65 kW



## Product Dimensions and Weight MDDCW, MDDCU

|                       |         | Housed      |             | Unhoused    |             |
|-----------------------|---------|-------------|-------------|-------------|-------------|
| <b>Overall Length</b> | mm (in) | 1738 (68.4) | 1734 (68.3) | 1734 (68.3) | 1734 (68.3) |
| <b>Overall Width</b>  | mm (in) | 840 (33.1)  | 822 (32.4)  | 822 (32.4)  | 822 (32.4)  |
| <b>Overall Height</b> | mm (in) | 1039 (40.9) | 994 (39.1)  | 994 (39.1)  | 994 (39.1)  |
| <b>Weight</b>         | kg (lb) | 1098 (2420) | 998 (2200)  | 998 (2200)  | 998 (2200)  |

## MDDCY, MDDCS, MDDCT

|                       |         | Housed      |             | Unhoused    |             |
|-----------------------|---------|-------------|-------------|-------------|-------------|
| <b>Overall Length</b> | mm (in) | 1738 (68.4) | 1734 (68.3) | 1734 (68.3) | 1734 (68.3) |
| <b>Overall Width</b>  | mm (in) | 840 (33.1)  | 822 (32.4)  | 822 (32.4)  | 822 (32.4)  |
| <b>Overall Height</b> | mm (in) | 1039 (40.9) | 994 (39.1)  | 994 (39.1)  | 994 (39.1)  |
| <b>Weight</b>         | kg (lb) | 1167 (2572) | 1067 (2352) | 1067 (2352) | 1067 (2352) |

Dimensions and weight may vary based on selected configuration.



## Power Ratings - 40/50 kW

| 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> |     |      |       |      |       |  |  |                                  |           |            |            |            |
| MDDCW                            | 40  | 40   | 50    | 1500 | 1     | 110   220<br>115   230<br>120   240  | 363.6   181.8<br>347.8   173.9<br>333.3   166.7                                    | 3.9 (1.0)                        | 6.4 (1.7) | 9.0 (2.4)  | 11.5 (3.0) | -          |
| MDDCW                            | 40  | 50   | 50    | 1500 | 3     | 110   190<br>115   200<br>120   208<br>110   220<br>115   230<br>120   240<br>220   380<br>230   400<br>240   416<br>255   440 | 151.9<br>144.3<br>138.8<br>131.2<br>125.5<br>120.3<br>76.0<br>72.2<br>69.4<br>65.6 | 3.9 (1.0)                        | 6.4 (1.7) | 9.0 (2.4)  | 11.5 (3.0) | -          |
| MDDCU                            | 40  | 40   | 60    | 1800 | 1     | 120   240  | 333.3   166.7  | 4.5 (1.2)                        | 7.2 (1.9) | 9.9 (2.6)  | 12.7 (3.4) | EPA Tier 3 |
| MDDCU                            | 40  | 50   | 60    | 1800 | 3     | 120   208<br>127   220<br>120   240<br>139   240<br>240   416<br>255   440<br>277   480  | 138.8<br>131.2<br>120.3<br>120.3<br>69.4<br>65.6<br>60.1                           | 4.5 (1.2)                        | 7.2 (1.9) | 9.9 (2.6)  | 12.7 (3.4) | EPA Tier 3 |
| MDDCY                            | 50  | 50   | 50    | 1500 | 1     | 110   220<br>115   230<br>120   240  | 454.5   227.3<br>434.8   217.4<br>416.7   208.3                                    | 4.6 (1.2)                        | 7.6 (2.0) | 10.8 (2.9) | 14.1 (3.7) | -          |
| MDDCY                            | 50  | 62.5 | 50    | 1500 | 3     | 110   190<br>115   200<br>120   208<br>110   220<br>115   230<br>120   240<br>220   380<br>230   400<br>240   416<br>255   440 | 189.9<br>180.4<br>173.5<br>164.0<br>156.9<br>150.4<br>95.0<br>90.2<br>86.7<br>82.0 | 4.6 (1.2)                        | 7.6 (2.0) | 10.8 (2.9) | 14.1 (3.7) | -          |

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

TECHNOLOGY THAT TRANSFORMS

## Power Ratings - 55/65 kW

| 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> |     |       |       |      |       |   |  |                                  |            |            |            |            |
| MDDCS                            | 55  | 55    | 60    | 1800 | 1     | 120   240   | 458.3   229.2  | 5.5 (1.4)                        | 9.3 (2.4)  | 13.0 (3.4) | 16.8 (4.4) | EPA Tier 3 |
| MDDCS                            | 55  | 68.7  | 60    | 1800 | 3     | 120   208<br>127   220<br>120   240<br>139   240<br>240   416<br>255   440<br>277   480 | 190.8<br>180.4<br>165.4<br>165.4<br>95.4<br>90.2<br>82.7   | 5.5 (1.4)                        | 9.3 (2.4)  | 13.0 (3.4) | 16.8 (4.4) | EPA Tier 3 |
| MDDCT                            | 65  | 65    | 60    | 1800 | 1     | 120   240   | 541.7   270.8  | 5.8 (1.5)                        | 10.7 (2.8) | 14.3 (4.0) | 19.7 (5.2) | EPA Tier 3 |
| MDDCT                            | 65  | 81.25 | 60    | 1800 | 3     | 120   208<br>127   220<br>120   240<br>139   240<br>240   416<br>255   440<br>277   480 | 225.5<br>213.2<br>195.5<br>195.5<br>112.8<br>106.6<br>97.7 | 5.8 (1.5)                        | 10.7 (2.8) | 14.3 (4.0) | 19.7 (5.2) | 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

### Engine Details

**Design** – 4-cylinder, 4-cycle, turbocharged watercooled marine diesel. Displacement of 4.5 L (275 in3)

**Fuel System** – Mechanical fuel transfer pump with manual priming lever. Max fuel lift of 3 m (10 ft)

**Cooling System** – Freshwater cooling system with keel cooling connections. Coolant overflow bottle to easily maintain coolant level. Coolant flow rate of 53 L/min (14 gal/min) for 50 Hz ratings and 94 L/min (25 gal/min) for 60 Hz ratings

**Lubrication System** – Marine grade oil pan with a capacity of 12.6 L (13.3 qt), plus an oil drain valve 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 0.5% per ISO 8528-5

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

**Communications Protocol** – 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

### 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.



Cummins Inc.  
4500 Leeds Avenue – Suite 301  
Charleston, SC 29405-8539  
U.S.A.

Internet: marine.cummins.com

Bulletin 5410993 1/18  
©2018 Cummins Inc.