

Cummins **Onan**



Marine Generators Pocket Guide



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Quiet Diesel™ (QD) Series

(kW, 50/60 Hz, Model)

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Introduction

This Cummins® Onan® Marine Generator Pocket Guide offers basic information on our line of diesel generator sets from 4 to 99 kW. More information about all models, including complete specifications, the latest news releases, generator set installation outline drawings, accessories, and much more can be found at www.cumminsonan.com/marine.

Service Support

Cummins Onan generator sets are supported by the largest and best-trained worldwide certified Distributor/Dealer network in the industry. That means wherever your journey takes you, you can feel confident a Cummins Onan Distributor/Dealer is nearby. The largest network in the business makes it easier to get genuine parts, quality service, and expert installation assistance when and where you need them. Our extensive training and certification process demonstrates our strong commitment to exceptional product service and support. To find the nearest authorized Cummins Onan generator certified dealer, visit www.cumminsonan.com/locator or call 1-800-888-6626.

Warranty

The Cummins Onan Limited Warranty for Marine Generators covers the generators for a period of five (5) years or 2,000 hours, whichever occurs first, from date of delivery to the first retail purchaser. This coverage applies to the original owner and easily transfers to all subsequent owners for the duration of the coverage—at no additional charge or deductibles for the customer. Parts, labor including diagnostic labor, limited travel, and removal and reinstallation are covered for the first and second years on virtually everything except routine maintenance. Parts, labor and travel on selected power train and generator parts are warranted for the remaining years or 2,000 hours.

We also offer Limited Marine 5 Year or 3,000 Hour Comprehensive Extended Warranty. Please visit Cummins Onan website or contact Cummins Onan Distributor/Dealer for more details.

Our well trained professional technicians will be more than happy to make recommendations for your specific needs.

Maintenance & Parts

To obtain an Instruction Sheet (F-1576) providing brief operating instructions for the QD Series (including pre-start checks, starting the generator, and shutdown codes) plus a periodic maintenance schedule and list of maintenance parts, or to order genuine Cummins Onan parts, please contact the Cummins Onan Distributor/Dealer nearest to you.

Cruise Kits

The cruise kits provide all the necessary and essential generator maintenance and service parts boaters need for worry-free voyages. Enjoy peace-of-mind by having the parts on hand for routine maintenance.

Included in the cruise kits are the following parts:



- Oil filter – 2 units
- Oil filter wrench – 1 unit*
- Fuel filter – 2 units
- Sea water pump impeller kit – 2 units
- V-belt – 1 unit
- Zinc pencil – 2 units**
- Convenient plastic carrying case
- Laminated marine service & maintenance schedule***

* For MDKBJ/BW only

** For MDKBH and MDKBJ/BW zinc pencil is not required and not included

*** For current models only

Models and part numbers include:

Model	Part Number
MDKBH	100-3478-58
MDKBJ, MDKBW	A029E631
MDKBK, MDKBL, MDKBM, MDKBN	100-3478-52
MDKDT, MDKDU, MDKDS	100-3478-60
MDKDP, MDKDR (12 V Negative Ground Spec D & up)	100-3478-61
MDKDP, MDKDR (24 V Negative Ground Spec D & up)	100-3478-62
MDKDP, MDKDR (Isolated Ground Spec D & up)	100-3478-63
MDKDV (12 V Negative Ground)	100-3478-61
MDKDV (24 V Negative Ground)	100-3478-62
MDKDV (Isolated Ground)	100-3478-63
MDDCF/G/K/L/M/N	541-1529-51
MDDCH/J/P/R	541-1529-52

To order kits, contact your closest
Cummins Onan Distributor/Dealer.

The features you need for optimal performance

MDK series

- Powered by Kubota diesel engines
- 5 to 29 kW; 60 Hz; US EPA certified
- 4 to 32 kW; 50 Hz;
export (non-USA use) only

MDD series

- Powered by John Deere diesel engines
- 40 to 99 kW; 60 Hz; Tier II emissions
export (non-USA use) only
- 35 to 80 kW; 50 Hz; Tier II emissions
export (non-USA use) only

Standard features

- Electronic governor maintains isochronous frequency control and digital voltage regulation providing quality power for digital appliances and computers
- Advanced digital electronic control providing extensive diagnostic capability
- DC control console mounted with isolation and DC protective circuit breakers
- Shutdown with indicator light for: high engine coolant temperature, high exhaust temperature, low oil pressure, over speed/voltage, starter overcrank, no raw water flow
- Brushless single phase or three phase AC alternators for use in harsh conditions
- 12 V DC electric system with battery charging, negative ground, isolated ground optional
- AC mainline circuit breaker – MDK (STD); MDD (OPT)

- Plug-in watertight connector for optional remote control
- Engine starter with automatic start disconnect
- Automatic glow plug preheat providing cleaner starting verify MDK and MDD
- Freshwater cooling system with heat exchanger, expansion tank and coolant recovery system, keel cooling optional
- Closed crankcase breather re-circulation to eliminate engine room contamination
- Coolant overflow bottle to easily maintain coolant level
- Full flow lube oil filter
- Fuel filter/water separator
- Gear-driven raw water pump
- 90/10 CU/NI heat exchanger with cleanout covers, standard
- Electric hour meter for maintenance scheduling
- Captive focalized mounting systems with vibration isolators
- Large drip pan base to maintain a clean engine room and bilge
- Bulk head type connections for ease of installation; fuel in, fuel out, battery, raw water inlet, wet exhaust, generator set ground (vessel bond)
- Single point lifting bracket for ease of installation
- Fire extinguisher access port
- Factory load tested
- Transferrable 5 year warranty with optional extended warranty available
- Optional Network Communications
 - NMEA2000 – MDK models
 - SAE J1939 – All models
 - SmartCraft 1.0 – MDK models
- Optional 12 VDC or 24 VDC front PTO with electric clutch, MDKxP,R,S,T,U,V and all MDD

MODEL MDKBH



MDKBH

kW	Hz	RPM	Ph	Voltage	Amps
5	60	2900	1	120	41.7
				120/240	41.7/20.8
4	50	2400	1	110/220	36.4/18.2
				115/230	34.8/17.4
				120/240	33.3/16.6

MDKBH

Dimensions

Housed, mm (in)

Length 662 (26.1) x Width 511 (20.1) x

Height 524 (20.6)

Weight, kg (lb) 166 (365)

Not available unboxed

Fuel Consumption

No. 2 diesel fuel, L/hr (Gal/hr)

	4 kW/50 Hz	5 kW/60 Hz
1/4 load	0.8 (0.21)	1.0 (0.27)
1/2 load	1.0 (0.28)	1.3 (0.35)
3/4 load	1.3 (0.35)	1.7 (0.44)
Full load	1.7 (0.44)	2.1 (0.55)

MODELS MDKBJ/W



MDKBJ

kW	Hz	RPM	Ph	Voltage	Amps
7.5	60	2900	1	120	62.5
				120/240	62.5/31.3
6.0	50	2400	1	115/230	52.2/26.1

MDKBW

kW	Hz	RPM	Ph	Voltage	Amps
8	50	2880	1	115/230	69.6/34.8

MDKBJ/W

Dimensions

Housed, mm (in)

Length 664 (26.1) x Width 583 (22.9) x

Height 535 (21.1)

Weight, kg (lb) 195 (429)

Not available unhoused

Fuel Consumption

No. 2 diesel fuel, L/hr (Gal/hr)

MDKBJ	6.0 kW/50 Hz	7.5 kW/60 Hz
1/4 load	1.12 (0.30)	1.40 (0.37)
1/2 load	1.46 (0.39)	1.84 (0.48)
3/4 load	1.84 (0.48)	2.33 (0.61)
Full load	2.28 (0.60)	2.93 (0.70)

MDKBW	8 kW/50 Hz
1/4 load	1.41 (0.37)
1/2 load	1.85 (0.49)
3/4 load	2.35 (0.62)
Full load	2.97 (0.78)

MODEL MDKBK



MDKBK

kW	Hz	RPM	Ph	Voltage	Amps
9	60	1800	1	120	75
				120/240	75/37.5
7	50	1500		110/220	63.6/31.8
				115/230	60.9/30.4
				120/240	58.3/29.2

MDK BK

Dimensions

Unhoused, mm (in)

Length 823 (32.4) x Width 479 (18.9) x

Height 560 (22.05)

Weight, kg (lb) 238 (525)

Not available housed

Fuel Consumption

No. 2 diesel fuel, L/hr (Gal/hr)

	7 kW/50 Hz	9 kW/60 Hz
1/4 load	1.1 (0.3)	1.3 (0.3)
1/2 load	1.5 (0.4)	1.9 (0.5)
3/4 load	2.0 (0.5)	2.6 (0.7)
Full load	2.8 (0.8)	3.8 (1.0)

MODEL MDKBL



MDKBL

kW	Hz	RPM	Ph	Voltage	Amps
9	60	1800	1	120	75
				120/240	75/37.5
7	50	1500		110/220	63.6/31.8
				115/230	60.9/30.4
				120/240	58.3/29.2

MDKBL

Dimensions

Housed, mm (in)

Length 911 (35.9) x Width 566 (22.3) x

Height 593 (23.4)

Weight, kg (lb) 272 (600)

Unhoused, mm (in)

Length 911 (35.9) x Width 566 (22.3) x

Height 585 (23.04)

Weight, kg (lb) 252 (555)

Fuel Consumption

No. 2 diesel fuel, L/hr (Gal/hr)

	7 kW/50 Hz	9 kW/60 Hz
1/4 load	1.1 (0.3)	1.3 (0.3)
1/2 load	1.5 (0.4)	1.9 (0.5)
3/4 load	2.0 (0.5)	2.6 (0.7)
Full load	2.8 (0.8)	3.8 (1.0)

MODELS MDKBM/N



MDKBM

kW	Hz	RPM	Ph	Voltage	Amps
11.5	60	1800	1	120	95.8
				120/240	95.8/47.9
9.5	50	1500	1	115/230	82.6/41.3

MDKBN

kW	Hz	RPM	Ph	Voltage	Amps
5	60	1800	1	120	112.5
				120/240	112/56.3
11	50	1500		115/230	95.7/47.8

MDKBM/N

Dimensions

Housed, mm (in)

Length 1033 (40.7) x Width 566 (22.3) x

Height 593 (23.4)

Weight, kg (lb) 315 (695)

Unhoused, mm (in)

Length 1033 (40.7) x Width 566 (22.3) x

Height 585 (23.04)

Weight, kg (lb) 290 (640)

Fuel Consumption

No. 2 diesel fuel, L/hr (Gal/hr)

MDKBM	9.5 kW/50 Hz	11.5 kW/60 Hz
1/4 load	1.4 (0.4)	1.7 (0.4)
1/2 load	2.1 (0.6)	2.5 (0.7)
3/4 load	2.8 (0.7)	3.2 (0.8)
Full load	3.4 (0.9)	3.9 (1.0)

MDKBN	11 kW/50 Hz	13.5 kW/60 Hz
1/4 load	1.5 (0.4)	1.8 (0.5)
1/2 load	2.2 (0.6)	2.6 (0.7)
3/4 load	3.0 (0.8)	3.6 (1.0)
Full load	4.0 (1.0)	4.5 (1.2)

MODELS MDKDP/R/V



MDKDP

kW	Hz	RPM	Ph	Voltage	Amps
17	60	1800	1	120/240	141.7/70.8
			3	120/208	59.0
13.5	50	1500	1	115/230	117.4/58.7
			3	220/380	25.6

MDKDR

kW	Hz	RPM	Ph	Voltage	Amps
21.5	60	1800	1	120/240	179/89.6
			3	120/208	74.6
17.5	50	1500	1	115/230	152.2/76.1
			3	220/380	33.2

MDKDV

kW	Hz	RPM	Ph	Voltage	Amps
23	60	1800	1	120/240	191.7/95.8
			3	120/208	79.8
19	50	1500	1	115/230	165.2/82.6
			3	220/380	36.1

MDKDP/R/V

Dimensions

Housed, mm (in)

Length 1127 (44.4) x Width 602 (23.7) x
Height 698 (27.5)

MDKDP Weight, kg (lb) 408 (899)

MDKDR Weight, kg (lb) 422 (930)

MDKDV Weight, kg (lb) 422 (930)

Unhoused, mm (in)

Length 1127 (44.4) x Width 602 (23.7) x
Height 672 (26.5)

MDKDP Weight, kg (lb) 381 (840)

MDKDR Weight, kg (lb) 395 (870)

MDKDV Weight, kg (lb) 395 (870)

Fuel Consumption

No. 2 diesel fuel, L/hr (Gal/hr)

MDKDP 13.5 kW/50 Hz 17 kW/60 Hz

1/4 load 1.9 (0.5) 2.6 (0.7)

1/2 load 2.7 (0.7) 3.6 (1.0)

3/4 load 3.6 (0.9) 4.8 (1.3)

Full load 4.8 (1.3) 6.1 (1.6)

MDKDR 17.5 kW/50 Hz 21.5 kW/60 Hz

1/4 load 2.5 (0.6) 2.9 (0.8)

1/2 load 3.4 (0.9) 4.1 (1.1)

3/4 load 4.7 (1.2) 5.7 (1.5)

Full load 6.5 (1.7) 8.2 (2.2)

MDKDV 19 kW/50 Hz

1/4 load 2.5 (0.7)

1/2 load 3.9 (1.0)

3/4 load 5.2 (1.4)

Full load 6.6 (1.7)

MODELS MDKDT/U/S



MDKDT

kW	Hz	RPM	Ph	Voltage	Amps
22.5	50	1500	1	115/230	196/97.8
			3	220/380	42.7

MDKDU

kW	Hz	RPM	Ph	Voltage	Amps
27	50	1500	1	115/230	235/117
			3	220/380	51.3

MDKDS

kW	Hz	RPM	Ph	Voltage	Amps
29	60	1800	1	120/240	241.7/120.8
			3	120/208	100.6

MDKDT/U/S

Dimensions

Housed, mm (in)

Length 1358 (53.5) x Width 622 (24.5) x
Height 761 (30.0)

MDKDT Weight, kg (lb) 601 (1325)

MDKDU Weight, kg (lb) 626 (1380)

MDKDS Weight, kg (lb) 626 (1380)

Unhoused, mm (in)

Length 1358 (53.5) x Width 622 (24.5) x
Height 731 (28.8)

MDKDT Weight, kg (lb) 565 (1245)

MDKDU Weight, kg (lb) 590 (1300)

MDKDS Weight, kg (lb) 590 (1300)

Fuel Consumption

No. 2 diesel fuel, L/hr (Gal/hr)

MDKDT **22.5 kW/50 Hz**

1/4 load 3.0 (0.8)

1/2 load 4.0 (1.1)

3/4 load 5.2 (1.4)

Full load 7.0 (1.8)

MDKDU **27 kW/50 Hz**

1/4 load 3.0 (0.8)

1/2 load 4.7 (1.2)

3/4 load 6.2 (1.6)

Full load 9.1 (2.4)

MDKDS **29 kW/60 Hz**

1/4 load 3.9 (1.0)

1/2 load 5.6 (1.5)

3/4 load 7.6 (2.0)

Full load 10.7 (2.8)

MODELS MDDCK/F/L*



MDDCK

kW	Hz	Cyl	RPM	Ph	Voltage	Amps
35	50	4	1500	1	115/230	304.3/152.2
				3	115/230	219.6/109.8
					220/380	114.8/66.5

MDDCF

kW	Hz	Cyl	RPM	Ph	Voltage	Amps
40	50	4	1500	1	115/230	347.8/173.9
				3	115/230	125.5
					220/380	76.0

MDDCL*

kW	Hz	Cyl	RPM	Ph	Voltage	Amps
40	60	4	1800	1	120/240	333.4/166.7
					115/230	69.4
					220/380	131

Additional configurations/voltages available

* Not certified for USA EPA emissions

MDDCK/F/L*

Dimensions

Housed, mm (in)

Length 1738 (68.4) x Width 840 (33.1) x
Height 1039 (40.9)

MDDCK Weight, kg (lb) 1090 (2403)

MDDCF Weight, kg (lb) 1098 (2420)

MDDCL Weight, kg (lb) 1072 (2363)

Unhoused, mm (in)

Length 1734 (68.3) x Width 822 (32.4) x
Height 994 (39.1)

MDDCK Weight, kg (lb) 990 (2183)

MDDCF Weight, kg (lb) 998 (2200)

MDDCL Weight, kg (lb) 972 (2143)

Fuel Consumption

No. 2 diesel fuel, L/hr (Gal/hr)

MDDCK **35 kW/50 Hz**

1/4 load 3.9 (1.0)

1/2 load 6.4 (1.7)

3/4 load 9.0 (2.4)

Full load 11.5 (3.0)

MDDCF **40 kW/50 Hz**

1/4 load 3.9 (1.0)

1/2 load 6.4 (1.7)

3/4 load 9.0 (2.4)

Full load 11.5 (3.0)

MDDCL* **40 kW/60 Hz**

1/4 load 4.5 (1.2)

1/2 load 7.2 (1.9)

3/4 load 9.9 (2.6)

Full load 12.7 (3.4)

MODELS MDDCG/M*/N*



MDDCG

kW	Hz	Cyl	RPM	Ph	Voltage	Amps
50	50	4	1500	1	115/230	434.8/217.4
				3	115/230	156.9
					220/380	95.0

MDDCM*

kW	Hz	Cyl	RPM	Ph	Voltage	Amps
55	60	4	1800	1	120/240	458.4/229.2
				3	240/416	95.4
					127/220	180.4
					255/440	90.2
					120/208	190.8
					120/240	165.4

MDDCN*

kW	Hz	Cyl	RPM	Ph	Voltage	Amps
65	60	4	1800	1	120/240	541.6/270.8
				3	240/416	112.8
					127/220	213.2
					255/440	106.6
					120/208	225.5
					120/240	195.5

* Not certified for USA EPA emissions

MDDCG/M*/N*

Dimensions

Housed, mm (in)

Length 1783 (70.2) x Width 840 (33.1) x

Height 1039 (40.9)

Weight, kg (lb) 1167 (2572)

Unhoused, mm (in)

Length 1779 (70.0) x Width 822 (32.4) x

Height 994 (39.1)

Weight, kg (lb) 1067 (2352)

Fuel Consumption

No. 2 diesel fuel, L/hr (Gal/hr)

MDDCG 50 kW/50 Hz

1/4 load 4.6 (1.2)

1/2 load 7.6 (2.0)

3/4 load 10.8 (2.9)

Full load 14.1 (3.7)

MDDCM* 55 kW/60 Hz

1/4 load 5.5 (1.4)

1/2 load 9.3 (2.4)

3/4 load 13.0 (3.4)

Full load 16.8 (4.4)

MDDCN* 65 kW/60 Hz

1/4 load 5.8 (1.5)

1/2 load 10.7 (2.8)

3/4 load 14.3 (4.0)

Full load 19.7 (5.2)

MODELS MDDCH/J



MDDCH

kW	Hz	Cyl	RPM	Ph	Voltage	Amps
65	50	6	1500	1	115/230	565.2/282.6
				3	115/230	204.0
					220/380	123.4

MDDCJ

kW	Hz	Cyl	RPM	Ph	Voltage	Amps
80	50	6	1500	1	115/230	695.6/347.8
				3	115/230	288.7
					220/380	151.9

Additional configurations/voltages available.

MDDCH/J

Dimensions

Housed, mm (in)

Length 2146 (84.5) x Width 840 (33.1) x

Height 1039 (40.9)

Weight, kg (lb) 1434 (3161)

Unhoused, mm (in)

Length 2142 (84.3) x Width 822 (32.4) x

Height 994 (39.1)

Weight, kg (lb) 1320 (2910)

Fuel Consumption

No. 2 diesel fuel, L/hr (Gal/hr)

MDDCH 65 kW/50 Hz

1/4 load 5.7 (1.5)

1/2 load 9.9 (2.6)

3/4 load 14.1 (3.7)

Full load 18.4 (4.9)

MDDCJ 80 kW/50 Hz

1/4 load 6.7 (1.8)

1/2 load 11.8 (3.1)

3/4 load 16.9 (4.5)

Full load 22.4 (5.9)

MODELS MDDCP*/R*



MDDCP*

kW	Hz	Cyl	RPM	Ph	Voltage	Amps
80	60	6	1800	1	120/240	666.6/333.3
				3	240/416	138.8
					127/220	262.4
					255/440	131.2
					120/208	277.6
					120/240	240.6

MDDCR*

kW	Hz	Cyl	RPM	Ph	Voltage	Amps
99	60	6	1800	1	120/240	825.0/412.5
				3	240/416	171.7
					127/220	324.8
					255/440	162.4
					120/208	343.5
					120/240	297.7

Additional configurations/voltages available.

* Not certified for USA EPA emissions

MDDCP*/R*

Dimensions

Housed, mm (in)

Length 2146 (84.5) x Width 840 (33.1) x

Height 1039 (40.9)

Weight, kg (lb) 1434 (3161)

Unhoused, mm (in)

Length 2142 (84.3) x Width 822 (32.4) x

Height 994 (39.1)

Weight, kg (lb) 1320 (2910)

Fuel Consumption

No. 2 diesel fuel, L/hr (Gal/hr)

MDDCP* 80 kW/60 Hz

1/4 load 7.6 (2.0)

1/2 load 13.2 (3.5)

3/4 load 18.7 (4.9)

Full load 24.2 (6.4)

MDDCR* 99 kW/60 Hz

1/4 load 9.2 (2.4)

1/2 load 15.5 (4.1)

3/4 load 22.9 (6.0)

Full load 29.4 (7.8)

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