

Magnetic Drive Pump



Compact magnetic drive pumps with brushless DC motors
Max. discharge capacity 17.7 GPM (67 L/min), Max. head 36 ft (11.0 m)

Brushless DC motor models have been added to the MD-series high-performance compact magnetic drive pumps. With no leaks, AC motor-equivalent long life, and excellent corrosion resistance, the pumps can handle a wide range of liquid pumping solutions. Ideal for integration into various devices, such as medical equipment, analysis equipment, thermal management, and surface treatment devices.

Applications

Unit coolers, servers, Thermal management, analysis equipment, cleaning equipment, medical equipment, Plating filtration machines, plating solution circulation equipment, surface treatment equipment, Electronic components etching, pure water production equipment, water treatment equipment, Food machinery, beauty equipment, scientific instruments, Ultrasonic cleaning equipment, and printing equipment etc.



DC brushless motor

Without brushes, which can wear out, the motor features a long life—equivalent to that of an AC motor. The flow rate can be easily changed by DC 1–5 V external input signal. The built-in motor drive circuit enables the operation of the device by connecting the power supply and the external input. Note that the power supply voltage is classified as safe voltage (50 V or less), facilitating compliance with international standards, such as UL, CSA, CE, and GS. The universal voltage of BLDC motors enables the same pump performance in equipment from 100-240 VAC in virtually all countries.

Leak free

Magnetic drive seal-less pumps are free from leakage problems and the need for seal replacement. This feature and their compact design make them ideal for OEM built-in applications.

High corrosion-resistance

GFRPP (Glass fiber reinforced polypropylene) pump ends of the MD series handle a wide range of chemicals.

Easy maintenance

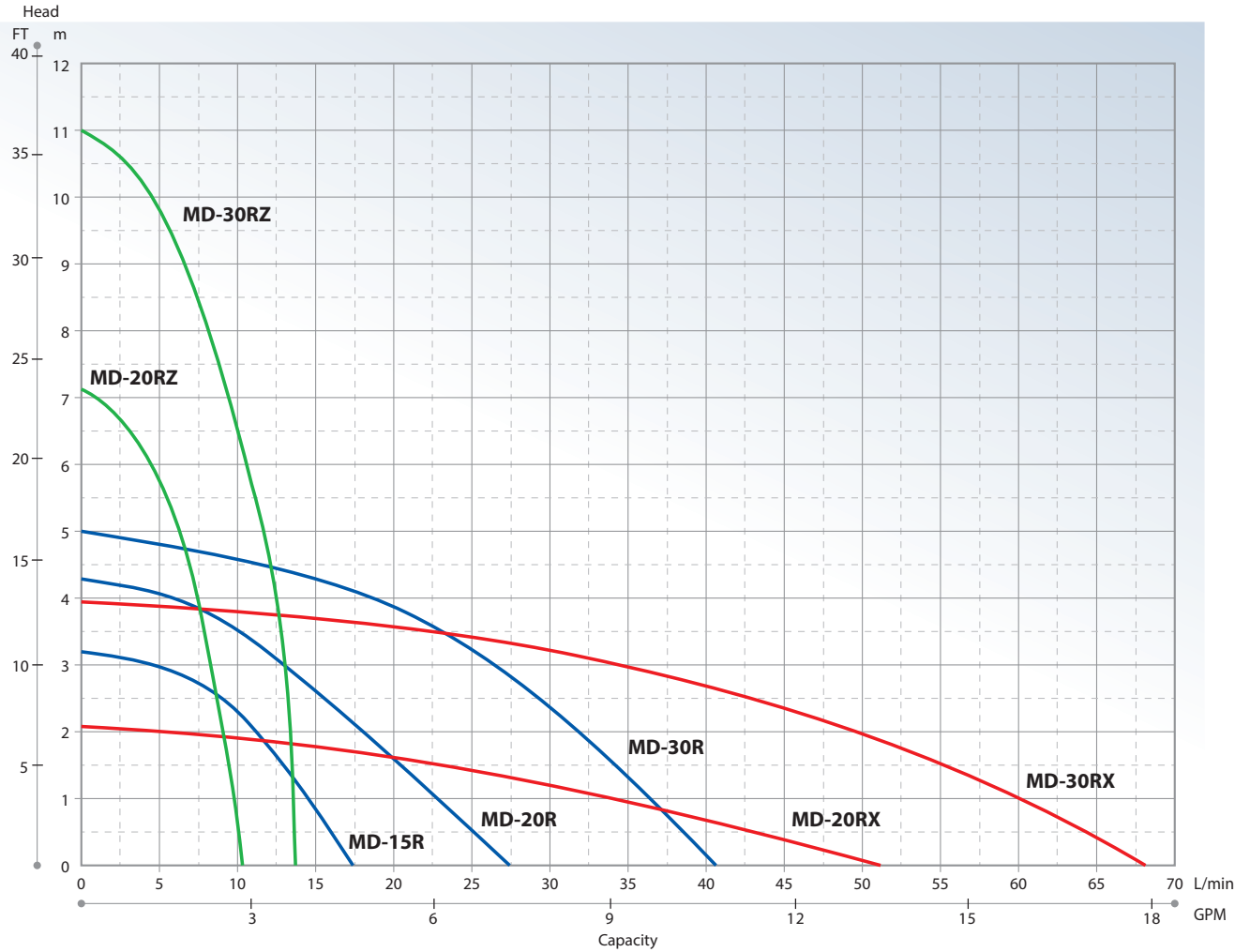
The pump unit is comprised of four integrated parts, so maintenance is easy.

Specifications

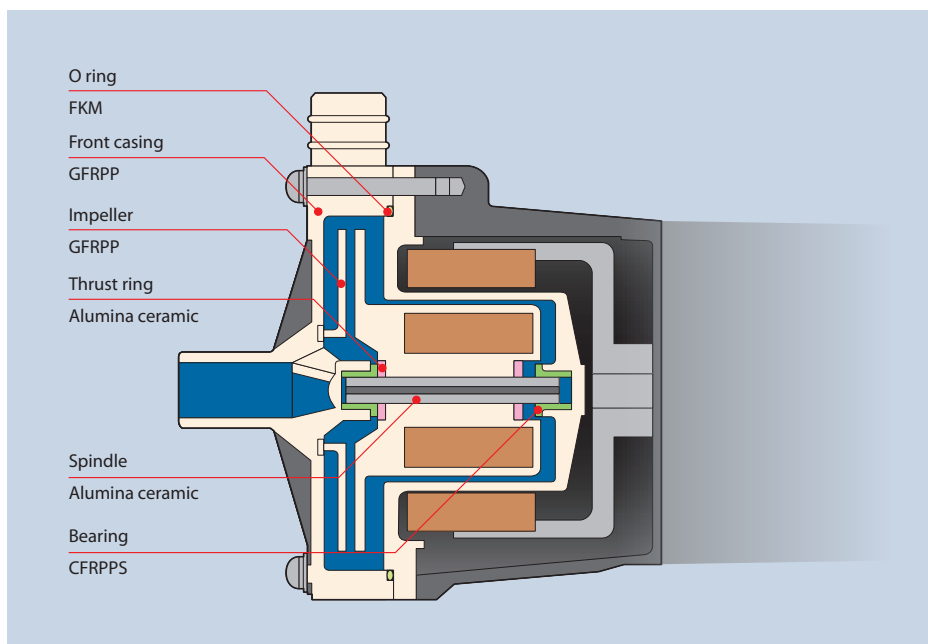
Model	Connections		Max. Capacity GPM (L/min)	Max. Head FT (m)	Noise dB	S.G.	Motor			Mass lb (kg)
	Hose in (mm)	NPT in (mm)					Power source V	Output W	Power consumption W	
MD-15R-D24	1/2 (12.7)	1/2 (12.7)	4.5 (17)	10.5 (3.2)	40	1.3	DC24	20.1	33.6	3.5 (1.6)
MD-20R-D24	5/8 (15.8)	3/4 (19)	7.1 (27)	14.1 (4.3)	45	1.1		31.7	45.6	4 (1.8)
MD-20RX-D24	1 (25.4)	1 (25.4)	13.2 (50)	6.9 (2.1)	50	1.3			48.0	
MD-20RZ-D24	5/8 (15.8)	3/4 (19)	2.6 (10)	23.3 (7.1)		1.1		55	56.5	72.0
MD-30R-D24	3/4 (19)	3/4 (19)	10.6 (40)	16.4 (5.0)	1.3	60				79.2
MD-30RX-D24	1 (25.4)	1 (25.4)	17.7 (67)	13.1 (4.0)	1.1			81.6		
MD-30RZ-D24	5/8 (15.8)	3/4 (19)	3.4 (13)	36.1 (11.0)	1.0					



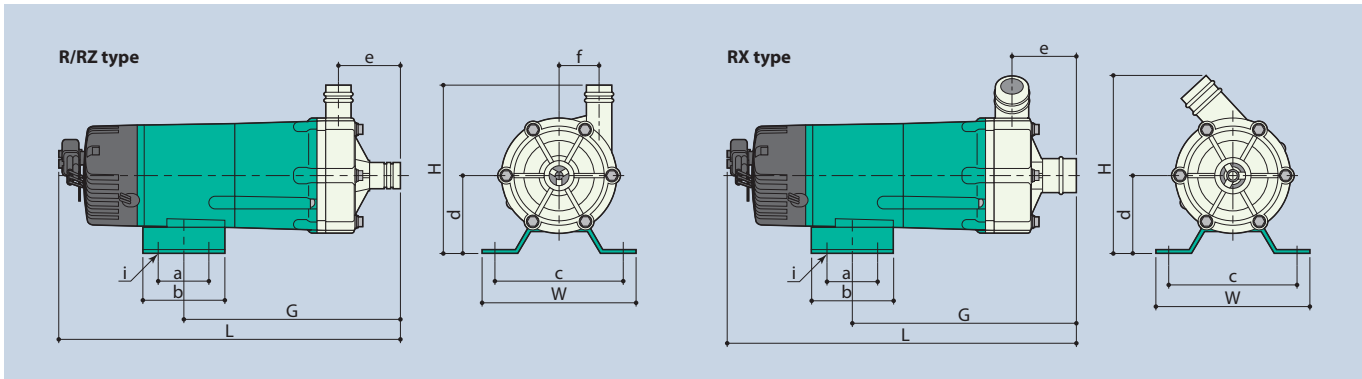
Performance curves



Construction and materials



Dimensions (mm)



Dimensions in inches (mm)

Model	W	H	L	a	b	c	d	e	f	G	i
MD-15R-D24	3.74 (95)	4.29 (109)	8.94 (227)	—	1.97 (50)	2.68 (68)	2.17 (55)	1.54 (39)	0.85 (21.5)	4.61 (117)	2 × φ0.22" (5.6)
MD-20R-D24	3.35 (85)	4.53 (115)	9.45 (240)	1.18 (30)	1.97 (50)	2.68 (68)	2.17 (55)	1.52 (38.5)	1.12 (28.5)	5.18 (131.5)	4 × 0.23"(5.7) × 0.31" (8)
MD-20RZ-D24	4.17 (106)	4.92 (125)	9.47 (240.5)	1.73 (44)	2.36 (60)	3.54 (90)		1.56 (39.5)	1.52 (38.5)	5.04 (128)	4 × 0.24" (6) × 0.39" (10)
MD-20RX-D24	3.35 (85)	5.08 (129)	9.90 (251.5)	1.18 (30)	1.97 (50)	2.68 (68)		1.83 (46.5)	—	5.63 (143)	4 × 0.23"(5.7) × 0.31" (8)
MD-30R-D24	4.72 (120)	5.12 (130)	10.49 (266.5)	1.57 (40)	2.52 (64)	3.94 (100)	2.36 (60)	1.89 (48)	1.22 (31)	6.65 (169)	4 × φ0.35" (9)
MD-30RZ-D24		9.82 (249.5)	1.56 (39.5)					1.52 (38.5)	5.98 (152)		
MD-30RX-D24		5.39 (137)	10.73 (272.5)					1.97 (50)	—	6.89 (175)	