



Magnetic drive pumps

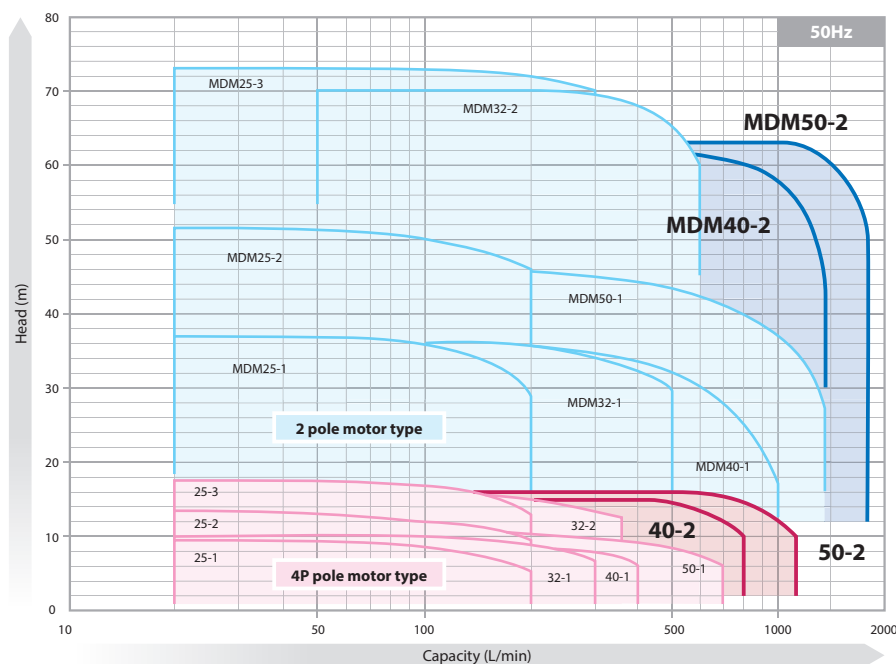
**NEW** **MDM40/50-2**



The Heart of Industry

# MDM40-2 and MDM50-2 have achieved a higher head and a larger flow rate while retaining the advantages of the MDM series.

- Maximum head about 63m, Maximum flow rate 1800L/min, expanded selection range. (see the figure below)
- Newly designed high-efficiency magnetic coupling. Motor output up to 30kW.
- Withstand pressure 1.6MPa, high specific gravity liquid can be transferred.
- Connection flange, compatible with JIS, ISO, ANSI standards.
- Installation dimensions compliant with ISO standards. (For pump with common base)
- Ability to withstand various abnormal operations such as dry run operation. (Iwaki original Non-contact system)



MDM50-2



### High efficiency and low NPSH by optimizing design

(Improvement of wetted parts structure)

We pursued hydraulic efficiency by utilizing CFD. As a result, best-in-class pump efficiency has been achieved. The newly designed impeller suppresses the occurrence of cavitation. The suction characteristics have also improved.

Note1: CFD (Computational Fluid Dynamics)  
 Note2: Comparison with the equivalent size of magnet pump (Our company / other companies)



### Miniaturization / Lightening

Footprint reduced by 27%, weight reduced by about 9%, compared with MDE series. (Pump of equivalent performance)



### Withstand pressure 1.6MPa

Adopting a rear casing cover made of CFRP achieves high pressure resistance. (Carbon fiber reinforced plastic) Pumps can handle high specific gravity liquids. ①



### New shape bearing

Improved resistance to abnormal operation and slurry liquid. ②



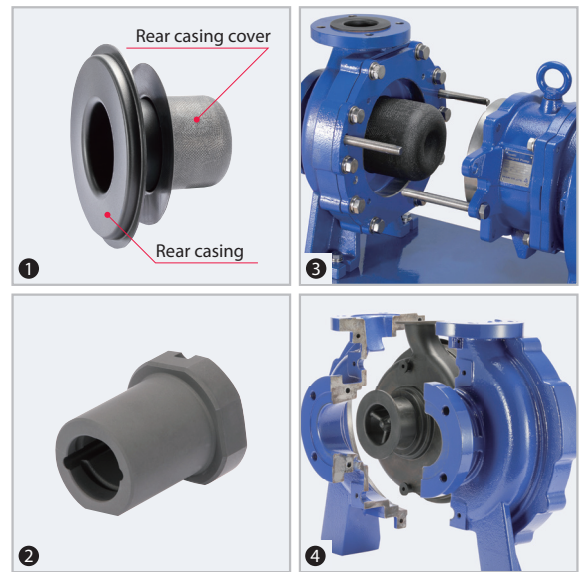
### Improved maintainability

Addition of maintenance bolts makes disassembly and assembly safer and easier than conventional products. ③



### Split front casing

The casing cover and resin casing can be separated, reducing maintenance costs. ④



### Wet-end materials

**Impeller**  
CFRETFE

**Front casing**  
CFRETFE

**Bearing**  
CF : High density carbon  
KK : SiC

**Spindle**  
CF : High purity alumina ceramic  
KK : SiC

**Liner ring**  
CF : High purity alumina ceramic  
KK : SiC

**Mouth ring**  
CF : PTFE (with filler)  
KK : SiC

**Gasket**  
PTFE

**Magnet capsule**  
CFRETFE

**Rear casing cover**  
CFRP

**Rear casing**  
CFRETFE

**Rear thrust**  
PTFE (with filler)

# Pump identification

**MDM 50 - 200 2 E KK F 185 J - D 2**

1 2 3 4 5 6 7 8 9 10

- 1 Pump size (Suction×Discharge)  
40 : 65A×40A  
50 : 80A×50A
- 2 Impeller size  
150 - 210 (mm)
- 3 Impeller range  
2
- 4 Wet-end main material  
E : CFRETFE
- 5 Material of Bearing / Spindle  
CF : High density carbon /  
High purity alumina ceramic  
KK : SiC/SiC
- 6 Type of motor  
F : Flange motor

- 7 Motor output  
055 : 5.5kW  
075 : 7.5kW  
110 : 11kW  
150 : 15kW  
185 : 18.5kW  
220 : 22kW  
300 : 30kW
- 8 Standard for pipe connection and motor  
J : JIS flange +JIS motor  
I : ISO flange +IEC motor  
A : ANSI flange +JIS motor

9 Special version

Mark	Drain	Base	Special version
A	Without drain	With base	Standard
S			Special
D			Standard
X	With drain		Special
B	Without drain	Without base	Standard
Y			Special
E			Standard
Z	With drain		Special

# Specifications

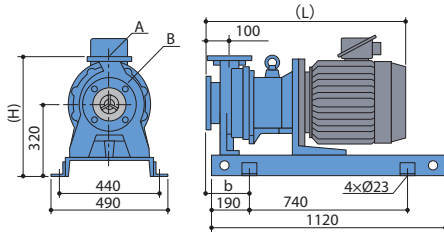
2 pole motor type

Model	Pump size Suction×Discharge	50Hz			Motor kW
		Impeller size	Capacity L/min	Head m	
MDM40-2 (Impeller range 2)	65A×40A	210	417	62.0	5.5, 7.5, 11, 15, 18.5, 22, 30
		205			
		200			
		190			
		180			
		170			
		160			
		150			
		210			
		205			
MDM50-2 (Impeller range 2)	80A×50A	210	833	63.5	5.5, 7.5, 11, 15, 18.5, 22, 30
		205			
		200			
		190			
		180			
		170			
		160			
		150			
		210			
		205			

4 pole motor

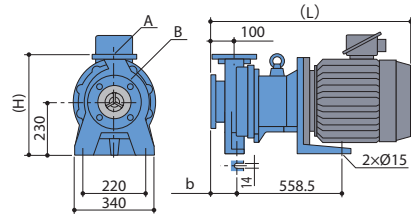
Model	Pump size Suction×Discharge	50Hz			Motor kW
		Impeller size	Capacity L/min	Head m	
MDM40-2 (Impeller range 2)	65A×40A	210	208	15.5	5.5, 7.5, 11, 15
MDM50-2 (Impeller range 2)	80A×50A	210	417	16.0	5.5, 7.5, 11, 15

# Dimensions in mm



With base type

Model	Motor kW	(H)	(L)	b	A	B	Mass kg
MDM40-2	5.5	500	770	227.5	40A	65A	230
	7.5						235
	11						255
	15						265
	18.5						280
	22						380
MDM50-2	30	520	881	230	50A	80A	420
	5.5						230
	7.5						235
	11						255
	15						270
	18.5						285
	22		937				385
	30						425



Without base type

Model	Motor kW	(H)	(L)	b	A	B	Mass kg
MDM40-2	5.5	410	879	110.5	40A	65A	170
	7.5						175
	11						195
	15						210
	18.5						220
	22						320
MDM50-2	30	430	881	113	50A	80A	360
	5.5						170
	7.5						175
	11						200
	15						210
	18.5						235
	22		937				325
	30						365

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**Caution for safety use:**  
 Before use of pump, read instruction manual carefully to use the product correctly.

Actual pumps may differ from the photos. Specifications and dimensions are subject to change without prior notice. For further details please contact us.

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