



Magnetic drive pumps

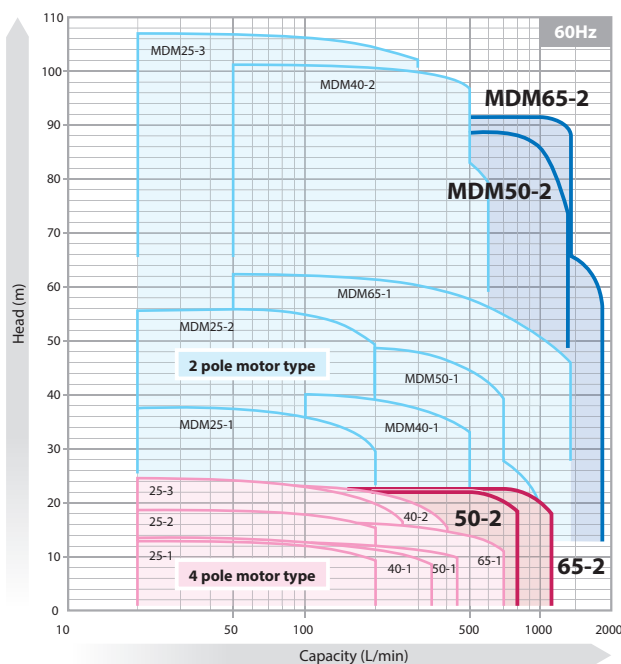
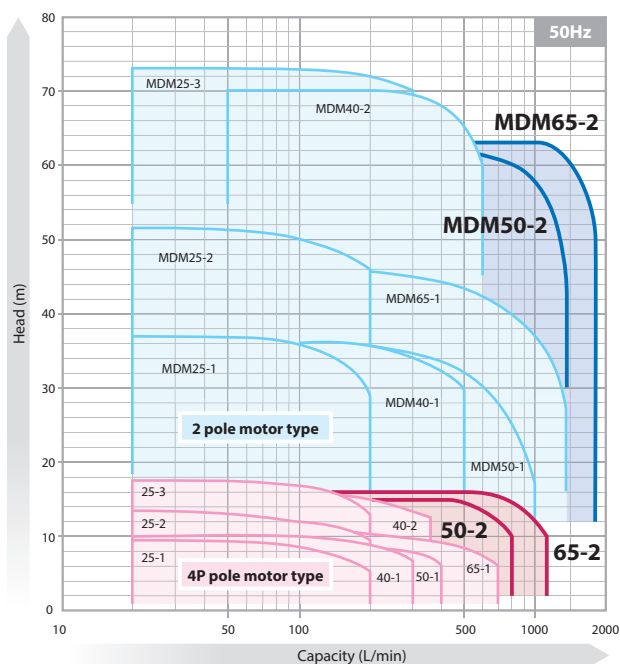
**NEW** **MDM50/65-2**



The Heart of Industry

# MDM50-2 and MDM65-2 have achieved a higher head and a larger flow rate while retaining the advantages of the MDM series.

- Maximum head about 90m, 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



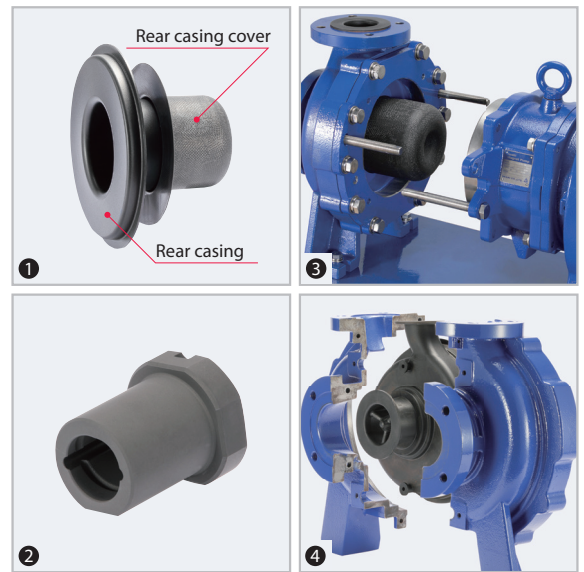
### Improved maintainability

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 65 - 200 2 E KK F 185 J - D 2**

- 1 Pump size (Suction×Discharge)  
50 : 65A×50A  
65 : 80A×65A
- 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
- 10 Motor pole  
2 : 2 pole    4 : 4 pole

# Specifications

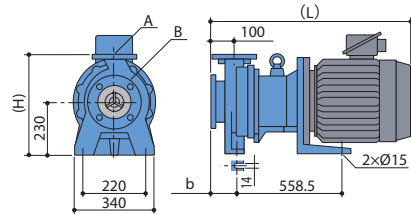
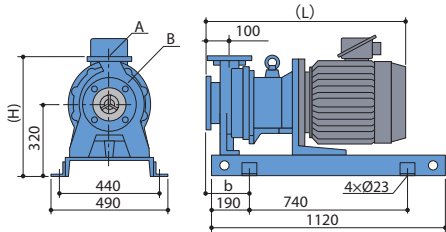
2 pole motor type

Model	Pump size Suction×Discharge	50Hz			60Hz			Motor kW					
		Impeller size	Capacity L/min	Head m	Impeller size	Capacity L/min	Head m						
MDM50-2 (Impeller range 2)	65A×50A	210	417	62.0	210	500	88.5	5.5, 7.5, 11, 15, 18.5, 22, 30					
		205		58.0	205		83.5						
		200		51.0	200		74.0						
		190		48.0	190		68.5						
		180		42.0	180		61.0						
		170		36.5	170		53.0						
		160		32.0	160		45.5						
		150		27.0	150		39.5						
		MDM65-2 (Impeller range 2)		80A×65A	210		833		63.5	210	1000	90.5	5.5, 7.5, 11, 15, 18.5, 22, 30
					205				58.5	205		84.0	
200	51.0		200		72.5								
190	48.0		190		69.5								
180	42.0		180		60.5								
170	36.0		170		51.0								
160	30.5		160		44.0								
150	26.0		150		37.5								

4 pole motor

Model	Pump size Suction×Discharge	50Hz			60Hz			Motor kW
		Impeller size	Capacity L/min	Head m	Impeller size	Capacity L/min	Head m	
MDM50-2 (Impeller range 2)	65A×50A	210	208	15.5	210	250	22.0	5.5, 7.5, 11, 15
MDM65-2 (Impeller range 2)	80A×65A	210	417	16.0	210	500	23.0	5.5, 7.5, 11, 15

# Dimensions in mm



With base type

Model	Motor kW	(H)	(L)	b	A	B	Mass kg
MDM50-2	5.5	500	770	227.5	50A	65A	230
	7.5						235
	11						255
	15						265
	18.5						280
	22						380
MDM65-2	30	520	881	230	65A	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
MDM50-2	5.5	410	770	110.5	50A	65A	170
	7.5						175
	11						195
	15						210
	18.5						220
	22						320
MDM65-2	30	430	881	113	65A	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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