



The Heart of Industry

IWAKI

IWAKI
MAGNETIC
DRIVE
PUMPS

MDW



Solutions for chemical handling applications

Max. flow capacity of 5,000 L/min and max. discharge head of 98m. The world's largest class fluoroplastic magnetic drive pump.

The MDW series are the largest class fluoroplastic magnetic drive pumps in the world, offering high efficiency and durability for chemical process applications. Using larger motors for even higher output, the MDW series opens up performance potential in previously unexplored areas.

Application example

- Chemical transfer between supply tanks and through chemical process equipment.
- Chemical recirculation for filtration and heat exchange applications.
- Scrubber liquid recirculation.
- Replacements for conventional sealed pumps.



MDW100



High discharge capacity, High head and high efficiency

The heavy-duty MDW is capable of a maximum discharge capacity of 300m³/hr and max. discharge head of 98m, enabling applications in previously unexplored areas with a wide range of liquid specific gravities.

Highly chemically resistant

Fluoroplastic and fine ceramic wetted parts offer high resistance to virtually every industrial chemical, irrespective of concentration.

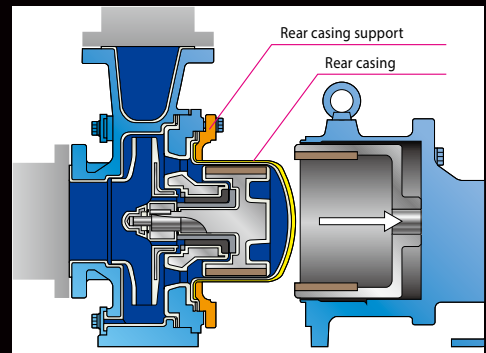
Robust structure

Use of the high strength ductile cast iron external armour is mandatory for heavy duty chemical process applications. High casing pressure resistance is achieved with a unique rear casing design preventing stress concentration and incorporating a triple-layer structure. A special metal shaft is used on the MDW to withstand high radial forces and allow continuous extended operation even under harsh service conditions.



Back pullout system

The back pullout system allows easy maintenance and inspection without removing pipework. Integrated components and a sealed rear casing support structure enable motor removal safely without chemical leakage.

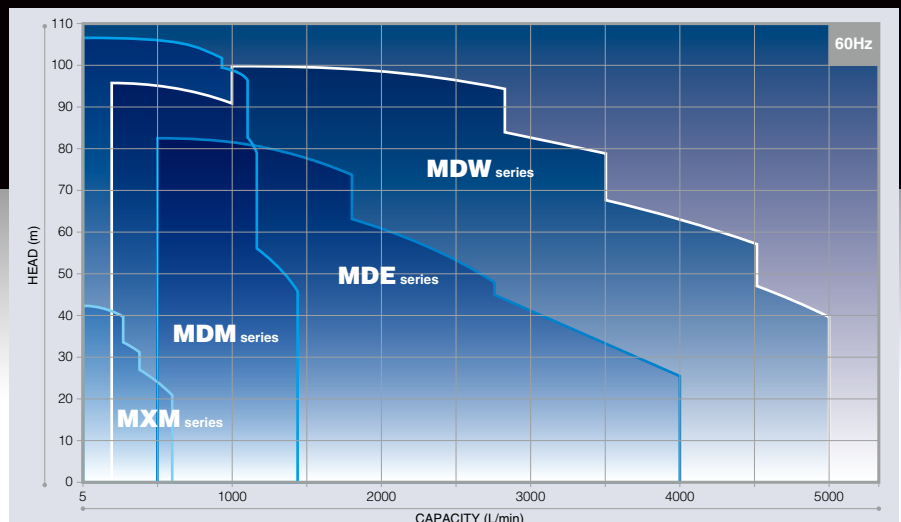


ISO compliant

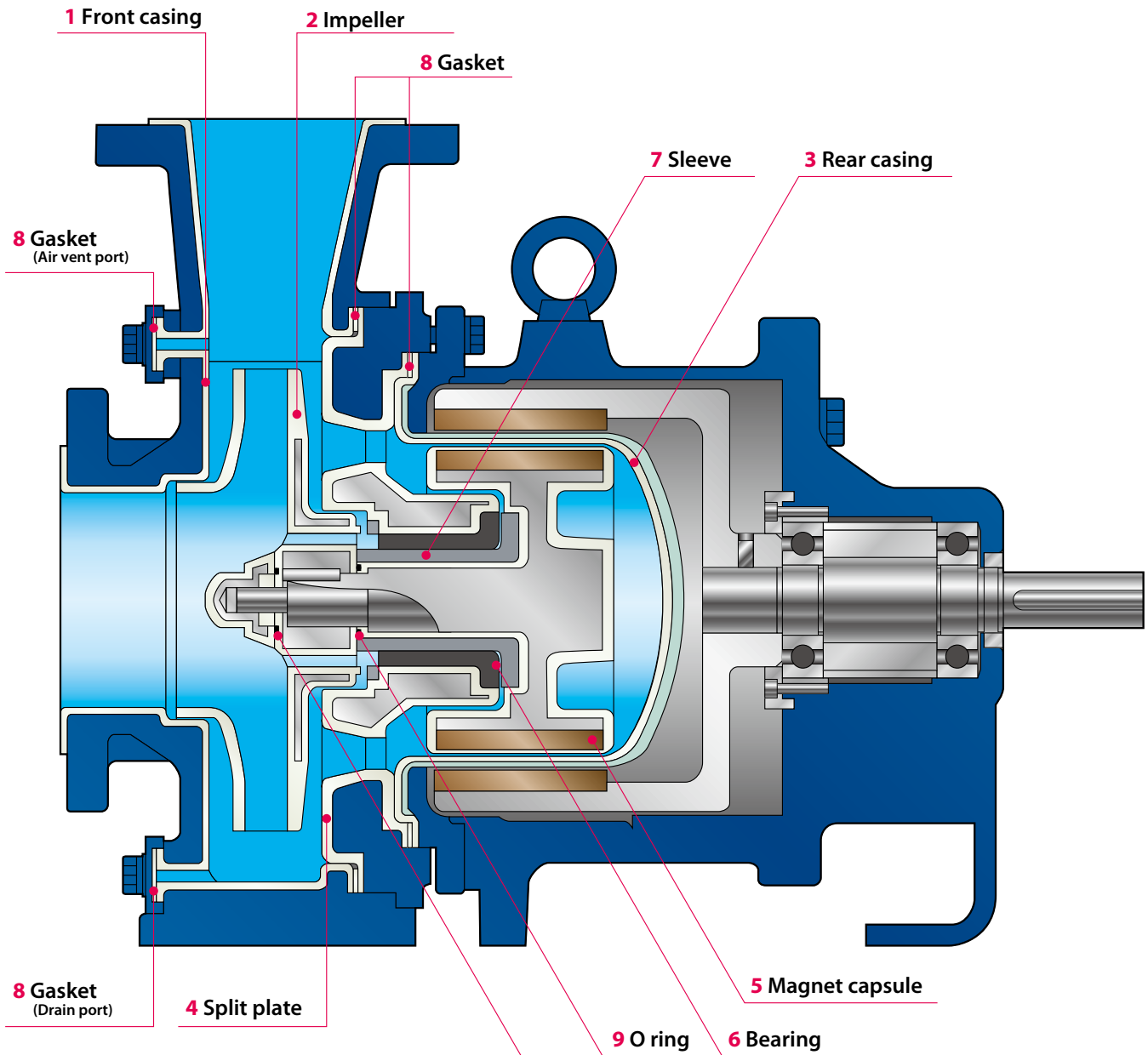
The MDW is dimensionally compliant with the international standard (ISO2858, 3661) and is interchangeable with conventional sealed centrifugal pumps.

Performance curves

(Flow range of IWAKI Magnetic drive process pumps)



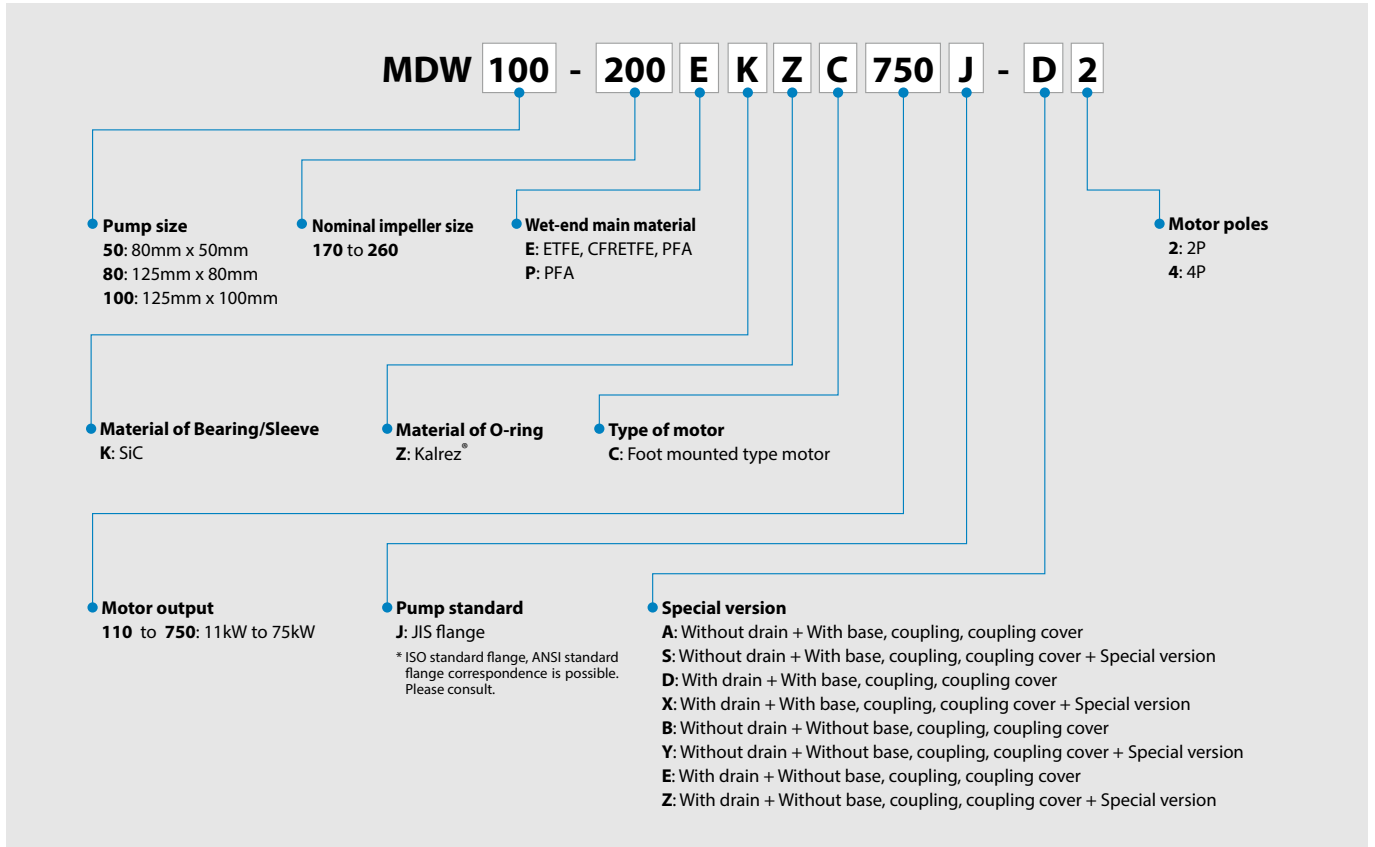
Construction



Wet-end materials

Part number	Part name	MDW50	MDW80, 100
1	Front casing	PFA	ETFE
2	Impeller	PFA	CFRETFE
3	Rear casing		PFA
4	Split plate		PFA
5	Magnet capsule		PFA
6	Bearing		SiC
7	Sleeve		SiC
8	Gasket		PTFE
9	O-ring		Kalrez®

Pump identification



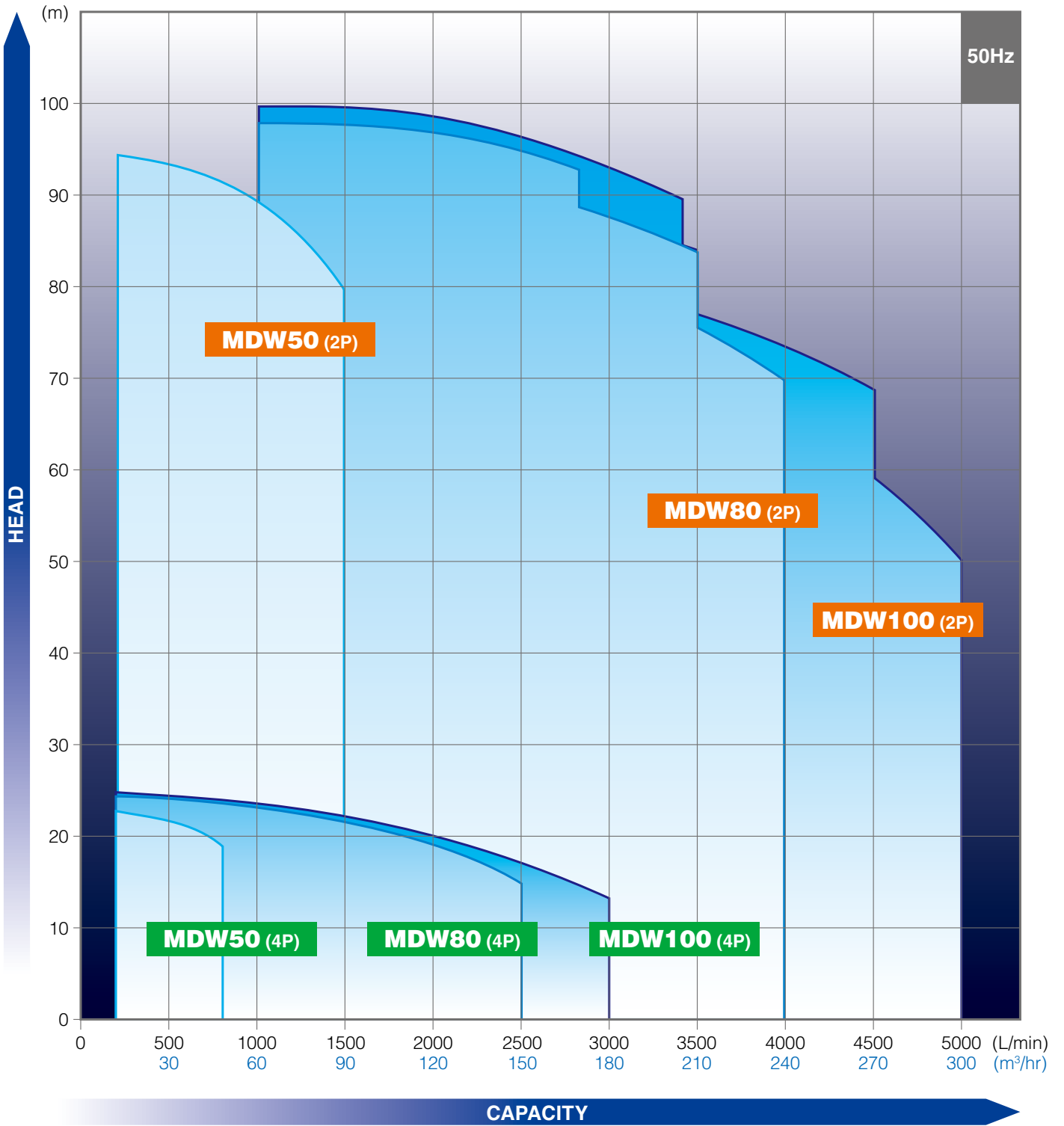
Specification (50/60Hz)

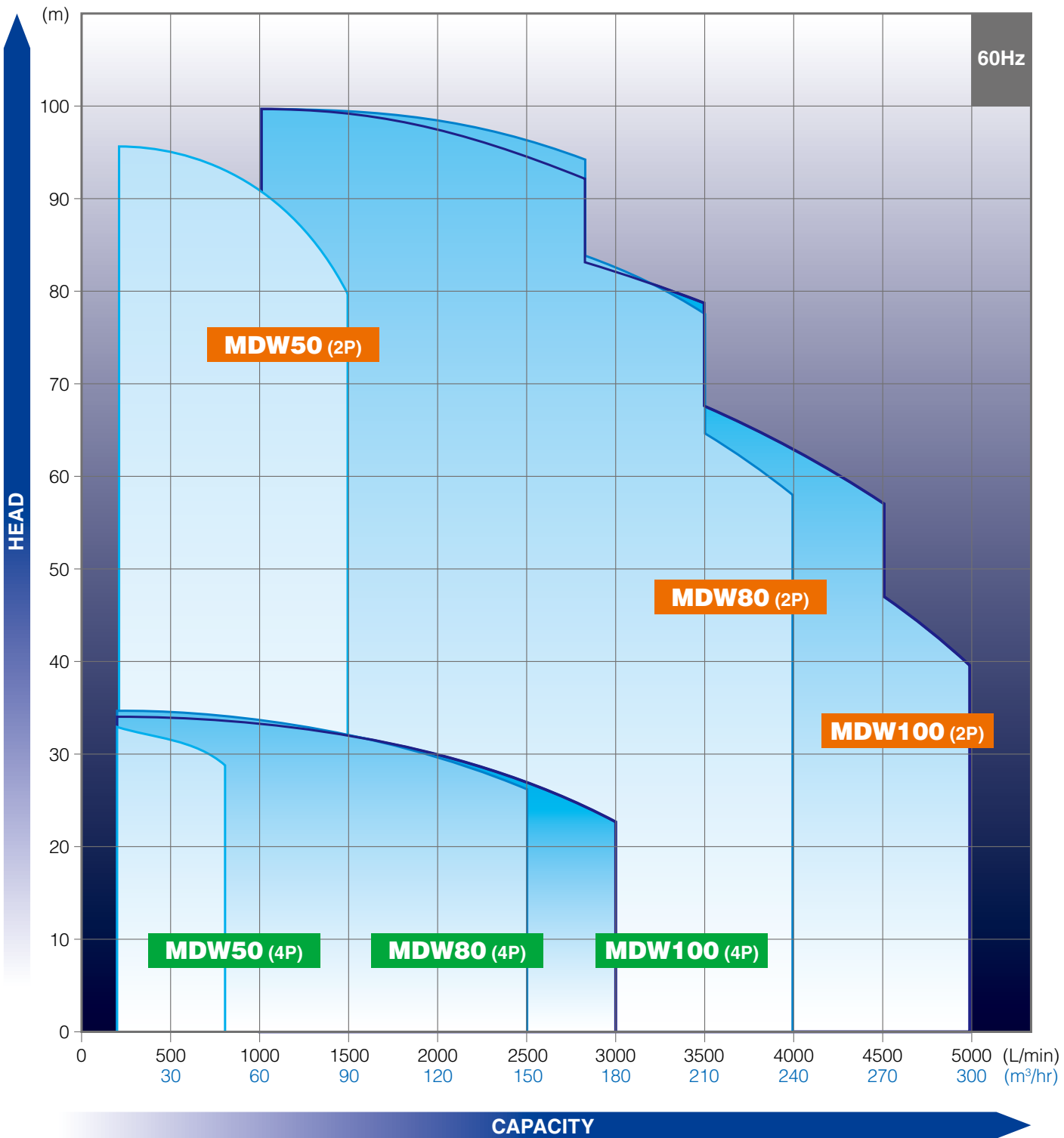
Model	Pump size Suction X Discharge mm	Nominal Impeller size	Capacity		Head m	Motor kW	
			L/min	m³/hr			
MDW50	80 X 50	250 / 220	833 / 1000	50 / 60	83 / 93	2P	22, 30, 37, 45, 55, 75
		260 / 260	417 / 500	25 / 30	21.5 / 31	4P	11, 15, 18.5, 22, 30, 37
MDW80	125 X 80	250 / 220	2667 / 2000	160 / 120	90 / 99	2P	37, 45, 55, 75
		255 / 255	1333 / 2000	80 / 120	23 / 30	4P	11, 15, 18.5, 22, 30, 37
MDW100	125 X 100	200 / 200	3333 / 2000	200 / 120	62 / 97	2P	37, 45, 55, 75
		235 / 235	1667 / 2000	100 / 120	21.5 / 30	4P	11, 15, 18.5, 22, 30, 37

Common specification

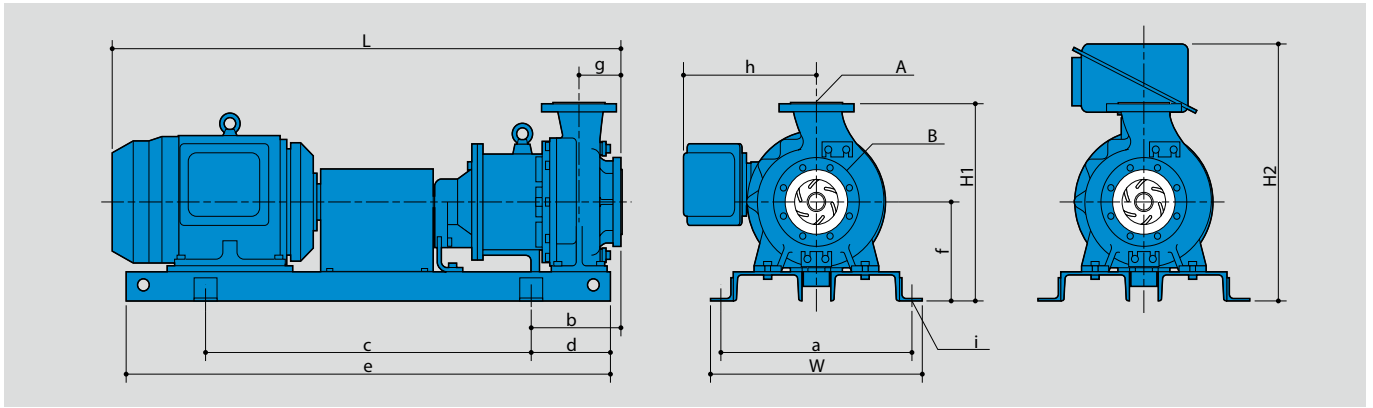
Temperature range of liquid handled	MDW80/100: -10 to 105°C, MDW50: -10 to 120°C
Maximum operating pressure	1.6MPa
Motor	Foot mounted type motor

Performance curves





Dimension (mm)



Model	Motor output kW	W	H1	H2	L	a	b	c	d	e	f	g	h	i	A	B	Mass kg															
MDW50	2P	22	(540)	(485)	-	(1364)	500	(255)	840	205	1250	260	125	(390)	4Xø23	50A	80A	440														
		(1442)				465																										
		37	(610)	(505)		(1515)	550	(280)	940	230	1400	280		(410)	4Xø27			-	-	-	-	605										
		(1508)				615																										
		(1737)				655																										
	55	(525)	(1508)	(1737)	600	(320)	1060	270	1600	330	(440)	-	-	-	-	-	735															
	75	(660)	-	(782)	(1737)	600	(320)	1060	270	1600	330	-	-	-	-	-	-	735														
	4P	11	(540)	(485)	-	(1338)	500	(255)	840	205	1250	260	125	(283)	4Xø23	50A	80A	350														
		15				(1364)												365														
		18.5				(610)								(505)	-			(1442)	550	(280)	940	230	1400	280	(390)	4Xø23	-	-	-	-	420	
22		(1545)																425														
30		(1442)																470														
37	(610)	(505)	(1545)	550	(280)	940	230	1400	280	(410)	4Xø27	-	-	-	-	615																
MDW80	2P	37	(610)	(580)	-	(1555)	550	(265)	940	230	1400	300	125	(410)	4Xø27	80A	125A	590														
		(1548)				600																										
		45				(580)								(782)	(1777)			600	(305)	1060	270	1600	330	(440)	-	-	-	-	-	645		
		55																												(1548)	645	
	75	(660)	-	(782)	(1777)	600	(305)	1060	270	1600	330	-	-	-	-	-	790															
	4P	11	(540)	(580)	-	(1378)	500	(240)	840	205	1250	260	125	(283)	4Xø23	80A	125A	365														
		15				(1404)												380														
		18.5				(610)								(580)	-			(1482)	550	(265)	940	230	1400	280	(390)	4Xø23	-	-	-	-	440	
		22																													(1585)	445
		30																													(1482)	500
37	(610)	(580)	(1585)	550	(265)	940	230	1400	280	(410)	4Xø27	-	-	-	-	595																
MDW100	2P	37	(610)	(560)	-	(1555)	550	(265)	940	230	1400	280	125	(410)	4Xø27	100A	125A	585														
		(1548)				600																										
		45				(580)								(782)	(1777)			600	(305)	1060	270	1600	330	(440)	-	-	-	-	-	695		
		55																												(1548)	695	
	75	(660)	-	(782)	(1777)	600	(305)	1060	270	1600	330	-	-	-	-	-	760															
	4P	11	(540)	(560)	-	(1378)	500	(240)	840	205	1250	260	125	(283)	4Xø23	100A	125A	370														
		15				(1404)												385														
		18.5				(610)								(560)	-			(1482)	550	(265)	940	230	1400	280	(390)	4Xø23	-	-	-	-	445	
		22																													(1585)	450
		30																													(1482)	505
37	(610)	(560)	(1585)	550	(265)	940	230	1400	280	(410)	4Xø27	-	-	-	-	590																

IWAKI CO., LTD. 6-6 Kanda-Sudacho 2-chome Chiyoda-ku Tokyo 101-8558 Japan TEL : (81)3 3254 2935 FAX : 3 3252 8892 IWAKI has global net work. Please find your distributor location at www.iwakupumps.jp

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|--|---|---|--|
| European office : IWAKI Europe GmbH
Germany : IWAKI Europe GmbH
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TEL: (49)2154 9254 50 FAX: 2154 9254 55
TEL: (31)74 2420011 FAX: (49)2154 925448
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TEL: (47)23 38 49 00 FAX: 23 38 49 01
TEL: (46)8 511 72900 FAX: 8 511 72922
TEL: (44)1743 231363 FAX: 1743 366507
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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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