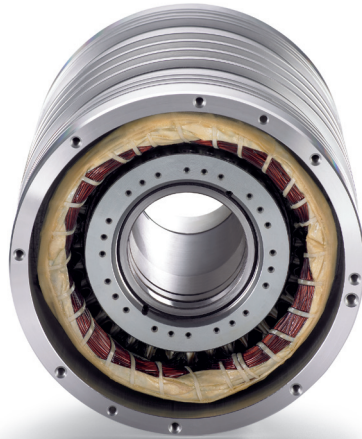
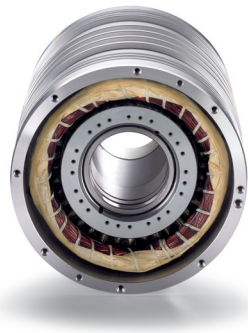


Motors and Gearboxes

# High-Speed Asynchronmotors 1MB - for high speed



**High-Speed Asynchronmotors ■ 1MB - for high speed****Robust and reliable**

- Rated torques up to 875 Nm
- Maximum speeds up to 20,000 rpm
- Large spindle cutoff
- Excellent running smoothness
- Straightforward integration in the machine

The 1MB frameless (kit) motors are maintenance-free asynchronous motors with high power density. For different performance requirements and installation situations, our product range offers 9 motor sizes with different overall lengths and diameters.

Typical areas of application of these motors are the main spindles of modern CNC machines and machining centers. These frameless (kit) motors excel by their superb running smoothness and perfect servo quality for C-axis machining, thread cutting and spindle positioning.

**Technical data****Electric data**

Type	Rated speed	Maximum speed	Rated torque	Rated power	Rated current	Maximum current	Moment of inertia
	$n_N$	$n_{Max}$	$M_N$	$P_N$	$I_N$	$I_{Max}$	$J$
	[1/min]	[1/min]	[Nm]	[kW]	[A]	[A]	[kgm <sup>2</sup> ]
1MS105N-4A	4500	15000	15	7	29	73.68	0.0033
1MS105N-4B	2400	12000	22	5.5	16.4	35.11	0
1MS140B-4A	7500	20000	7		18	41.79	0.0044
1MS140B-4B	5000			25	52.69		
1MS140D-4B	4000	16000	14	6	43	89.37	0.0061
1MS140F-4A	3000	15000	24	7.5		111.27	0.0082
1MS140H-4B			34	10.5	58	127.28	0.0103
1MS160B-4A		12000	16	32	5	36	78.37
1MS160D-4A	10				48	112.83	0.0121
1MS160D-4B	2000	8000	33	6.7	23.8	53.28	
1MS160E-4B	1000	4000		3.5	19	34.77	0.0149

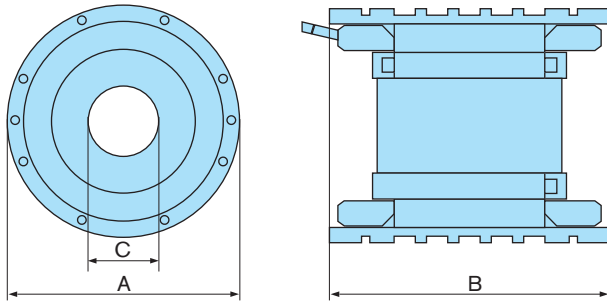
Motors and Gearboxes

**High-Speed Asynchronmotors ■ 1MB - for high speed****Electric data**

Type	Rated speed	Maximum speed	Rated torque	Rated power	Rated current	Maximum current	Moment of inertia
	$n_N$	$n_{Max}$	$M_N$	$P_N$	$I_N$	$I_{Max}$	J
	[1/min]	[1/min]	[Nm]	[kW]	[A]	[A]	[kgm <sup>2</sup> ]
1MS160F-4A	3000	12000	48	15	74	169.43	0.0161
1MS160F-4B					45	99.87	
1MS160F-4D	2500	10000		12.5	23.2	54.15	
1MS160F-4E				15	53	114.57	
1MS160H-4A	3000	12000	64	20	58	132.2	0.0201
1MS160N-4A				28	75	170.83	
1MS160N-4B	2000	8000	89	18.6	60	135.51	0.0267
1MS160N-4C				14	26	67.76	
1MS200C-4A	1500	6000	57	9	50	114.48	0.041
1MS200D-4B			85	13.5	48	115.76	
1MS200D-4C	5000	20000	59	31	75	157.18	
1MS200D-4D	2500	10000	85	22	59	144.29	0.037
1MS200D-4E	1500	6000		13.5	84	201.91	
1MS200D-4F	6000	18000	49	31	82	182.24	
1MS200E-4B	1800	7200	85	16	41.4	111.08	0.059
1MS200E-4C	3900	15600	74	30.2	65	139.44	
1MS200H-4B	1500	6000	124	19.5	68	171	0.069
1MS200H-4D					52.6	128.21	
1MS240B-4A	1000	4000	62	6.5	46	101.06	0.078
1MS240F-4A			123	13	74	164.18	0.12
1MS240H-4B			169	18	56	124.16	0.153
1MS241D-6A			112	12	62	139.52	0.135
1MS241D-6C					27	59.68	
1MS241H-6C	1800	7200	202	32	75.5	184.55	0.227
1MS241H-6D	850	3400		18	66.4	127.88	
1MS241H-6G	800	3200		16.9	39.7	91.92	
1MS242N-4B	1700	6800	185	33	98	224.31	0.135
1MS270C-4B	1500	6000	190	30	96	228.5	0.258
1MS310B-6B	1000	4000	260	27	75	164.03	0.477
1MS310B-6D	700	2800		19	81	178.92	
1MS310B-6E	440	1760		12	58	125.75	
1MS310D-6B	800	3200	340	28.5	81	174.17	0.492
1MS310F-6A	400	1600	480	20	61	138.75	0.723
1MS310F-6B	900	3600		35	111	246.64	
1MS375B-6B	600	2400	636	40	120	257.22	1.39
1MS375D-6B			875	55	150	329.29	1.73
1MS375D-6D	300	1200		27.5	94	210.01	

All the specifications relate to operation with liquid cooling and 540 V DC bus voltage.

Motors and Gearboxes

**High-Speed Asynchronmotors ■ 1MB - for high speed****Dimensions**

Type	Ø A	B	Ø C	Weight			
	[mm]			[mm]	[mm]	Stator[kg]	Rotor[kg]
1MS105N-4A	120	350	40.5	11.2	2.8		
1MS105N-4B					0		
1MS140B-4A	160	150	45	5.3	3.3		
1MS140B-4B							
1MS140D-4B		190				8.2	4.5
1MS140F-4A		240				11.8	6.1
1MS140H-4B		290				15.5	7.3
1MS160B-4A	180	160	60	6.8	5.3		
1MS160D-4A		205				11.1	7.3
1MS160D-4B		240				14.4	9.4
1MS160F-4A		255				15.8	10.2
1MS160F-4B							
1MS160F-4D							
1MS160F-4E		310				21	9.8
1MS160H-4A							
1MS160N-4A							
1MS160N-4B							
1MS160N-4C		385				28.1	12.7

Motors and Gearboxes

**High-Speed Asynchronmotors ■ 1MB - for high speed**

Type	Ø A	B	Ø C	Weight						
	[mm]	[mm]	[mm]	Stator[kg]	Rotor[kg]					
1MS200C-4A	220	240	66	21	15					
1MS200D-4B		295		66	29	19				
1MS200D-4C										
1MS200D-4D										
1MS200D-4E										
1MS200D-4F										
1MS200E-4B							330	66	34	22
1MS200E-4C										
1MS200H-4B							380	66	41	26
1MS200H-4D										
1MS240B-4A							270	270	72	29
1MS240F-4A	360	48	29							
1MS240H-4B	430	62	37							
1MS241D-6A	290	111	38	24						
1MS241D-6C										
1MS241H-6C	410	111	63	39						
1MS241H-6D										
1MS241H-6G										
1MS242N-4B	440	71	81	37						
1MS270C-4B					300	400		120		82
1MS310B-6B	340	385	125	67	65					
1MS310B-6D										
1MS310B-6E										
1MS310D-6B		450		86	80					
1MS310F-6A		520		125	103	97				
1MS310F-6B										
1MS375B-6B	405	620	170	162	106					
1MS375D-6B				205	132					
1MS375D-6D										

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