

Asynchronous servo motors

IndraDyn A

MAD with fan cooling



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Documentation

**Robust and easy-maintenance**

- Rated outputs up to 93 kW
- Maximum speeds up to 11,000 rpm
- Encoder systems for a wide and diverse range of applications
- High degree of protection IP65
- Easy-maintenance motor design

With their high power density, the MAD range of motors is predestined for servo and main spindle applications, such as in machine tools, printing presses or metal forming technology.

High-resolution single-turn or multi-turn encoder systems and outstanding true running quality guarantee maximum handling precision. In addition to the optional keyway and holding brake, these motors can also be supplied with a special bearing assembly for high-speed applications or for applications with increased radial load.

The motor protection class IP65 even includes the fan motor, making it suitable for harsh industrial use. The easy-maintenance design of the motor means that it is even possible to exchange the fan while the motor is running particularly advantageous in the printing industry.

Technical data**Electrical data**

Type	Rated speed	Maximum speed	Rated torque	Maximum torque	Rated power	Rated current	Maximum current	Moment of inertia
	n_N	n_{Max}	M_N	M_{Max}	P_N	I_N	I_{Max}	J
	[1/min]	[1/min]	[Nm]	[Nm]	[kW]	[A]	[A]	[kgm ²]
MAD100B-0050	500	3,000	34	75.1	1.8	5.3	10.25	0.019
MAD100B-0100	1,000	6,000	31	74.7	3.2	8.9	17.96	
MAD100B-0150	1,500	9,000	30	68	4.71	12.9	23.55	
MAD100B-0200	2,000	11,000	28	66.2	5.9	14.6	28.92	
MAD100B-0250	2,500		25	61.5	6.5	16.2	28.32	
MAD100C-0050	500	3,000	51	112.3	2.7	8.2	15.88	0.0284
MAD100C-0100	1,000	6,000	50	118.8	5.2	13.2	25.39	
MAD100C-0150	1,500	9,000	48	110.4	7.5	19.7	38.96	
MAD100C-0200	2,000	11,000	45	105.5	9.4	25.7	47.31	
MAD100C-0250	2,500		40	91	10.47	27.8	64.3	
MAD100D-0050	500	3,000	70	153.6	3.7	10.1	19.09	0.0392
MAD100D-0100	1,000	6,000	64	146.5	6.7	19.3	34.3	
MAD100D-0150	1,500	9,000	59	140.8	9.27	24.7	47.63	
MAD100D-0200	2,000	11,000	54	129.8	11.3	27.18	52.68	
MAD100D-0250	2,500		50	118.7	13.1	32.42	63.95	

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Type	Rated speed	Maximum speed	Rated torque	Maximum torque	Rated power	Rated current	Maximum current	Moment of inertia
	n_N	n_{Max}	M_N	M_{Max}	P_N	I_N	I_{Max}	J
	[1/min]	[1/min]	[Nm]	[Nm]	[kW]	[A]	[A]	[kgm ²]
MAD130B-0050	500	3,000	95	208.8	5	12.8	25.39	0.084
MAD130B-0100	1,000	6,000	100	230	10.5	26.9	53.67	
MAD130B-0150	1,500	9,000	85	200	13.35	34.9	71.01	
MAD130B-0200	2,000	10,000	80	187.2	16.8	43	80.75	
MAD130B-0250	2,500	11,000	75	176.5	19.6	47.2	83.35	
MAD130C-0050	500	3,000	140	307.9	7.3	19.7	35.36	0.108
MAD130C-0100	1,000	6,000	125	305	13.09	36.2	73.8	
MAD130C-0150	1,500	9,000	117	275.2	18.4	48.9	93.28	
MAD130C-0200	2,000	10,000	110	252.9	23	57	106.7	
MAD130C-0250	2,500		100	250	26.2	62	126.6	
MAD130D-0050	500	3,000	180	395.6	9.4	24.2	47.02	0.164
MAD130D-0100	1,000	6,000	170	417.8	17.8	43.7	93.43	
MAD130D-0150	1,500	9,000	155	374.6	24.3	61.5	123	
MAD130D-0200	2,000	10,000	150	340.7	31.4	71.3	137	
MAD130D-0250	2,500		120	310		72	123.4	
MAD160B-0050	500	3,000	220	483.9	11.5	26.08	51.67	0.25
MAD160B-0100	1,000	6,000	200	520	20.94	50.8	110	
MAD160B-0150	1,500		190	440.1	29.86	61.6	132.18	
MAD160B-0200	2,000		160	375.3	33.5	75.8	157.4	
MAD160C-0050	500	3,000	240	528.2	12.6	27.6	54.79	0.311
MAD160C-0100	1,000	6,000	225	530	23.56	52.9	112.3	
MAD160C-0150	1,500		215	496	33.8	75.3	152.56	
MAD160C-0200	2,000		210	494.2	44	93.9	182.4	
MAD180C-0050	500	3,000	325	715.5	17	38.2	76.57	0.458
MAD180C-0100	1,000	6,000	300	620	31.4	69	147.55	
MAD180C-0150	1,500		270	681	42.4	88.6	182.12	
MAD180C-0200	2,000		250	594.4	52.4	104.6	221.71	
MAD180D-0050	500	3,000	390	857.8	20.4	39.7	78.42	0.594
MAD180D-0100	1,000	6,000	370	901.5	38.7	82.4	188.01	
MAD180D-0150	1,500		340	794	53.4	107.4	220.8	
MAD180D-0200	2,000		300	768.2	62.8	117.4	269.69	
MAD225C-0050	500	3,000	660	1,450	34.56	72	151.92	1.65
MAD225C-0100	1,000	3,750	640		67.02	121.03	265.86	
MAD225C-0150	1,500		593		93.1	174	376.3	

All specifications refer to the basic version of the motor without a holding brake.
The maximum speed depends on the bearing version.

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Dimensions

Type	A	B	C	Ø D	Ø E	Ø F	Ø G	H	Weight												
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]												
MAD100B-0050	192	462	60	32	130	215	14	287	43												
MAD100B-0100									43												
MAD100B-0150									43												
MAD100B-0200									43												
MAD100B-0250									43												
MAD100C-0050		537							60	32	130	215	14	287	59						
MAD100C-0100															59						
MAD100C-0150															59						
MAD100C-0200															59						
MAD100C-0250															59						
MAD100D-0050		612													60	32	130	215	14	287	72
MAD100D-0100																					72
MAD100D-0150																					72
MAD100D-0200																					72
MAD100D-0250																					72

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Type	A	B	C	Ø D	Ø E	Ø F	Ø G	H	Weight												
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]												
MAD130B-0050	260	570	110	42	250	300	18	368	100												
MAD130B-0100									100												
MAD130B-0150									100												
MAD130B-0200									100												
MAD130B-0250									100												
MAD130C-0050		640							110	42	250	300	18	368	124						
MAD130C-0100															124						
MAD130C-0150															124						
MAD130C-0200															124						
MAD130C-0250															124						
MAD130D-0050		770													110	42	250	300	18	368	165
MAD130D-0100																					165
MAD130D-0150																					165
MAD130D-0200																					165
MAD130D-0250	165																				
MAD160B-0050	316	748	140	55	300	350	18	420													201
MAD160B-0100																					201
MAD160B-0150																					201
MAD160B-0200																					201
MAD160C-0050		838							140	55	300	350	18	420							238
MAD160C-0100																					238
MAD160C-0150																					238
MAD160C-0200																					238
MAD180C-0050	320	979		140	60	300		350													18
MAD180C-0100															334						
MAD180C-0150															334						
MAD180C-0200															334						
MAD180D-0050		1,089								140	60	300		350	18	447	403				
MAD180D-0100																	403				
MAD180D-0150			403																		
MAD180D-0200			403																		
MAD225C-0050	434	1,240	140		75	350	400	18									572	610			
MAD225C-0100																		610			
MAD225C-0150									610												

All specifications refer to the basic version of the motor without a holding brake.

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It must be remembered that our products are subject to a natural process of wear and aging.