

Asynchronous servo motors

IndraDyn A

MAD – with fan cooling



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Documentation

**Robust and easy-maintenance**

- Rated outputs up to 100 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	3000	34	75.1	1.8	5.3	10.25	0.019
MAD100B-0100	1000	6000	31	74.7	3.2	8.9	17.96	
MAD100B-0150	1500	9000	30	68	4.71	12.9	23.55	
MAD100B-0200	2000	11000	28	66.2	5.9	14.6	28.92	
MAD100B-0250	2500		25	61.5	6.5	16.2	28.32	
MAD100C-0050	500	3000	51	112.3	2.7	8.2	15.88	0.0284
MAD100C-0100	1000	6000	50	118.8	5.2	13.2	25.39	
MAD100C-0150	1500	9000	48	110.4	7.5	19.7	38.96	
MAD100C-0200	2000	11000	45	105.5	9.4	25.7	47.31	
MAD100C-0250	2500		40	91	10.47	27.8	64.3	
MAD100D-0050	500	3000	70	153.6	3.7	10.1	19.09	0.0392
MAD100D-0100	1000	6000	64	146.5	6.7	19.3	34.3	
MAD100D-0150	1500	9000	59	140.8	9.27	24.7	47.63	
MAD100D-0200	2000	11000	54	129.8	11.3	27.18	52.68	
MAD100D-0250	2500		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	3000	95	208.8	5	12.8	25.39	0.084
MAD130B-0100	1000	6000	100	230	10.5	26.9	53.67	
MAD130B-0150	1500	9000	85	200	13.35	34.9	71.01	
MAD130B-0200	2000	10000	80	187.2	16.8	43	80.75	
MAD130B-0250	2500	11000	75	176.5	19.6	47.2	83.35	
MAD130C-0050	500	3000	140	307.9	7.3	19.7	35.36	0.108
MAD130C-0100	1000	6000	125	305	13.09	36.2	73.8	
MAD130C-0150	1500	9000	117	275.2	18.4	48.9	93.28	
MAD130C-0200	2000	10000	110	252.9	23	57	106.7	
MAD130C-0250	2500		100	250	26.2	62	126.6	
MAD130D-0050	500	3000	180	395.6	9.4	24.2	47.02	0.164
MAD130D-0100	1000	6000	170	417.8	17.8	43.7	93.43	
MAD130D-0150	1500	9000	155	374.6	24.3	61.5	123	
MAD130D-0200	2000	10000	150	340.7	31.4	71.3	137	
MAD130D-0250	2500		120	310		72	123.4	
MAD160B-0050	500	3000	220	483.9	11.5	26.08	51.67	0.25
MAD160B-0100	1000	6000	200	520	20.94	50.8	110	
MAD160B-0150	1500		190	440.1	29.86	61.6	132.18	
MAD160B-0200	2000		160	375.3	33.5	75.8	157.4	
MAD160C-0050	500	3000	240	528.2	12.6	27.6	54.79	0.311
MAD160C-0100	1000	6000	225	530	23.56	52.9	112.3	
MAD160C-0150	1500		215	496	33.8	75.3	152.56	
MAD160C-0200	2000		210	494.2	44	93.9	182.4	
MAD180C-0050	500	3000	325	715.5	17	38.2	76.57	0.458
MAD180C-0100	1000	6000	300	620	31.4	69	147.55	
MAD180C-0150	1500		270	681	42.4	88.6	182.12	
MAD180C-0200	2000		250	594.4	52.4	104.6	221.71	
MAD180D-0050	500	3000	390	857.8	20.4	39.7	78.42	0.594
MAD180D-0100	1000	6000	370	901.5	38.7	82.4	188.01	
MAD180D-0150	1500		340	794	53.4	107.4	220.8	
MAD180D-0200	2000		300	768.2	62.8	117.4	269.69	
MAD225C-0050	500	3000	660	1450	34.56	72	151.92	1.65
MAD225C-0100	1000	3750	640		67.02	121.03	265.86	
MAD225C-0150	1500		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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IndraDyn A ■ MAD – with fan cooling**Dimensions**

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

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Type	A	B	C	Ø D	Ø E	Ø F	Ø G	H	Mass
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[kg]
MAD130B-0050	260	570	110	42	250	300	18	368	100
MAD130B-0100									
MAD130B-0150									
MAD130B-0200									
MAD130B-0250									
MAD130C-0050		640						124	
MAD130C-0100									
MAD130C-0150									
MAD130C-0200									
MAD130C-0250									
MAD130D-0050		770						165	
MAD130D-0100									
MAD130D-0150									
MAD130D-0200									
MAD130D-0250									
MAD160B-0050	316	748	55	300	350	18	420	201	
MAD160B-0100									
MAD160B-0150									
MAD160B-0200									
MAD160C-0050		838					238		
MAD160C-0100									
MAD160C-0150									
MAD160C-0200									
MAD180C-0050	320	979	140	60	300	18	447	334	
MAD180C-0100									
MAD180C-0150									
MAD180C-0200		1089					403		
MAD180D-0050									
MAD180D-0100									
MAD180D-0150									
MAD180D-0200									
MAD225C-0050	434	1240	75	350	400	18	572	610	
MAD225C-0100									
MAD225C-0150									

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.