

## Technical Data

## 4.3.3 Data Sheet of MAD100C

Parameter	Symbol	Unit	MAD100C				
			0050	0100	0150	0200	0250
Rated torque <sup>1)</sup>	M <sub>N</sub>	Nm	51.0	50.0	48.0	45.0	40.0
Rated power	P <sub>N</sub>	kW	2.70	5.20	7.50	9.40	10.47
Rated current	I <sub>N</sub>	A	8.2	13.2	19.7	25.7	27.8
Rated speed	n <sub>N</sub>	1/min	500	1,000	1,500	2,000	2,500
Key speed	n <sub>1</sub>	1/min	500		1,000	1,500	2,000
Maximum speed with bearing A	n <sub>max</sub>	1/min	3,000	6,000	9,000		
Maximum speed with bearing H	n <sub>max</sub>	1/min	3,000	6,000	9,000	11,000	
Maximum speed with bearing N	n <sub>max</sub>	1/min	3,000	6,000	9,000		
Maximum torque	M <sub>max</sub>	Nm	112.3	118.8	110.4	105.5	91.0
Maximum power	P <sub>S6max</sub>	kW	5.54	10.66	15.38	19.27	22.50
Maximum current	I <sub>max(eff)</sub>	A	15.9	25.4	39.0	47.3	64.3
Continuous torque at standstill	M <sub>n1</sub>	Nm	51.0	54.0	50.0	48.0	42.0
Continuous current at standstill	I <sub>n1</sub>	A	8.2	13.8	20.2	26.6	28.8
Torque constant at 20 °C	K <sub>M_N</sub>	Nm/A	7.40	4.94	2.94	2.41	1.67
Thermal time constant	T <sub>th_nenn</sub>	min	20.0				
Cycle duration (S6 - 44%)	T <sub>C</sub>	min	10				
Discharge capacity of the component	C <sub>ab</sub>	nF	9.0	8.5	8.1	8.5	9.2
Number of pole pairs	p	--	3				
Power wire cross-section	A	mm <sup>2</sup>	1.5		2.5	4.0	
Mass	m <sub>mot</sub>	kg	59.0				
Rotor moment of inertia	J <sub>rot</sub>	kg * m <sup>2</sup>	0.0284000				
Sound pressure level	L <sub>P</sub>	dB[A]	70 (+3)				
Ambient air temperature during operation	T <sub>um</sub>	°C	0...+40				
Insulation class according to DIN EN 60034-1	I.CL.	-	155				

Last revision: 2008-08-05

1) Please note the information on the specified parameters at the beginning of this chapter  
 Fig.4-13: MAD100C - Technical data

Type Codes IndraDyn A

6.2      Type Code MAD100

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Short text column →	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
Example:	M	A	D	1	0	0	C	-	0	1	0	0	-	S	A	-	S	2	-	B	H	0	-	0	5	-	N	1												

**Product**  
MAD ..... = MAD

**Size**  
100 ..... = 100

**Length**  
Lengths ..... = B, C, D

**Winding**  
MAD100B = 0050, 0100, 0150, 0200, 0250  
MAD100C = 0050, 0100, 0150, 0200, 0250  
MAD100D = 0050, 0100, 0150, 0200, 0250

**Cooling mode**  
Axial fan, blowing ..... = SA  
Fan top with fan cowl ..... = SL

**Encoder ①**  
Singleturn absolut encoder, EnDat2.1, 2048 increments ..... = S2  
Singleturn absolut encoder, EnDat2.1, 2048 increments, for Ex areas ..... = S6  
Multiturn absolut encoder, EnDat2.1, 2048 increments ..... = M2  
Multiturn absolut encoder, EnDat2.1, 2048 increments for Ex areas ..... = M6  
Incremental encoder, 2048 increments ..... = C0  
Without motor encoder ..... = N0

Fig.6-4:      Type code MAD100 (1/2)

Publication	Edition	Title
DIN EN 60034-14	2008-03	Rotating electrical machines - Part 14
DIN EN 60079 ff	-	Electrical apparatus for explosive gas atmospheres (ATEX)
DIN IEC 60204-1	2002-09	Safety for machinery - Electrical equipment of machines - Part 1
DIN IEC 60364-5-52	2004-07	Erection of low voltage installation - Part 5

Fig.6-5: Type code MAD100 (2/2)

Technical Data

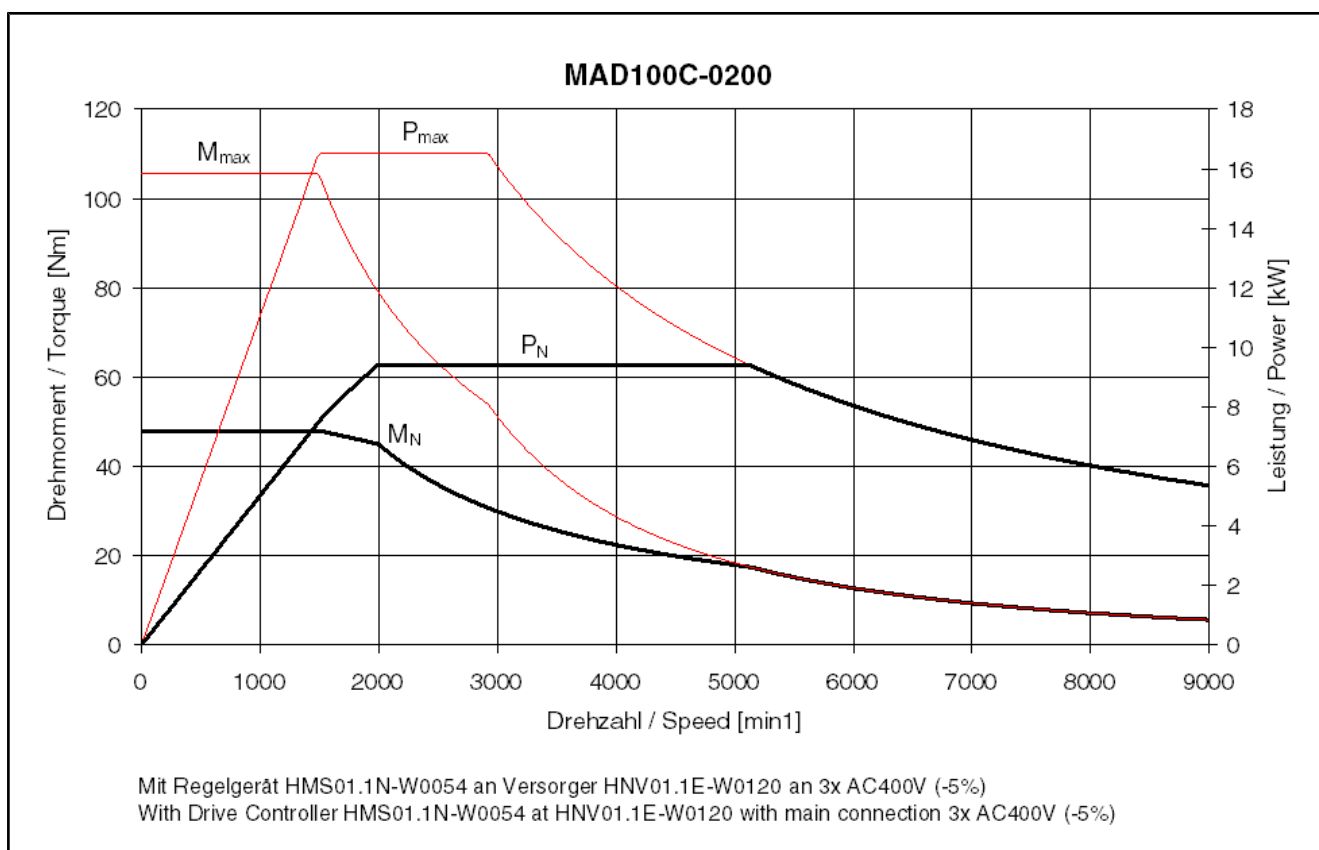


Fig.4-17: Motor characteristic curve of MAD100C-0200

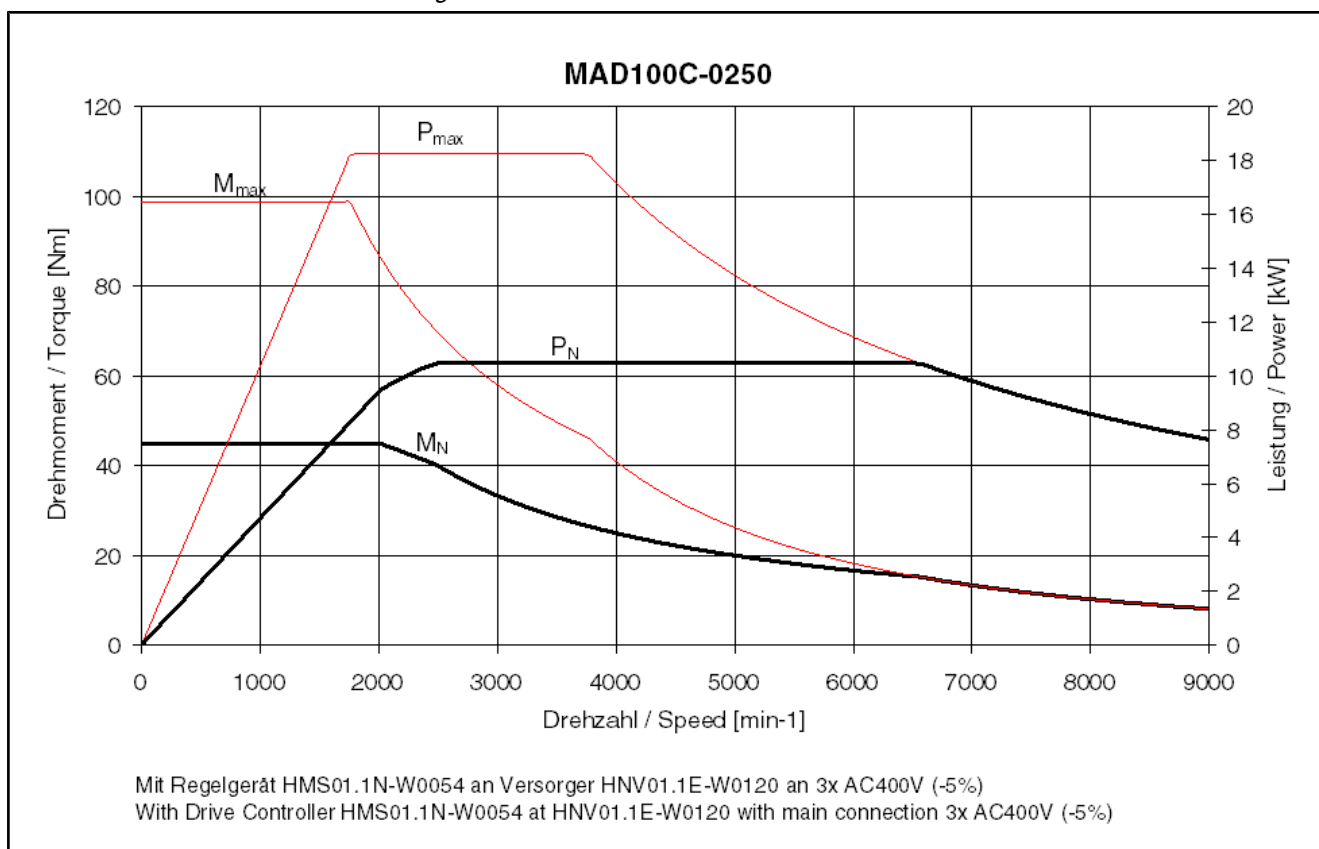


Fig.4-18: Motor characteristic curve of MAD100C-0250