

MS2N04-D0BQN

Designation	Symbol	Unit	MS2N04-D0BQN-__0-N	MS2N04-D0BQN-__1-N
Standstill torque - 60K ¹⁾	M _{0 60K}	Nm	3.85	
Standstill current - 60K	I _{0 60K}	A	2.86	
Standstill torque - 100K ¹⁾	M _{0 100K}	Nm	4.65	
Standstill current - 100K	I _{0 100K}	A	3.48	
Moment of inertia of rotor ¹⁾	J _{rot}	kg*m ²	0.00016	0.00020
Rated speed - 100K	n _{N 100K}	1/min	3320	
Rated torque - 100K ¹⁾	M _{N 100K}	Nm	2.65	
Rated current - 100K	I _{N 100K}	A	2.12	
Rated power - 100K ¹⁾	P _{N 100K}	kW	0.92	
Maximum torque 20 °C (cold) ¹⁾	M _{max 20°C}	Nm	19.7	
Maximum torque 100K (warm) ¹⁾	M _{max 100K}	Nm	18.1	
Maximum current	I _{max(rms)}	A	17.3	
Maximum speed (electrical)	n _{max el}	1/min	6000	
Maximum speed (mechanical)	n _{max mech}	1/min	6000	
Number of pole pairs	p		5	
Torque constant at 20 °C ¹⁾	K _m	Nm/A	1.48	
Voltage constant at 20 °C ¹⁾	K _E	V/1000 min ⁻¹	89.9	
Winding resistance at 20 °C	R ₁₂	Ohm	4.87	
Winding inductance	L _{12_min}	mH	24.5	
Leakage capacitance of the component	C _{ab}	nF	3.24	
Thermal time constant of winding	T _{th_W}	s	44.0	
Thermal time constant of motor	T _{th_M}	min	18.5	
Mass	m _{mot}	kg	4.7	5.4
Holding brake				
Holding torque	M ₄	Nm	0	5.00
Rated voltage	U _N	V	0	24
Rated current	I _N	A	0	0.63
Maximum connection time	t ₁	ms	0	30
Maximum disconnection time	t ₂	ms	0	45
1) For tolerance details refer to ➔ chapter 6.4 "Tolerances"			Latest amendment: 2017-05-05	

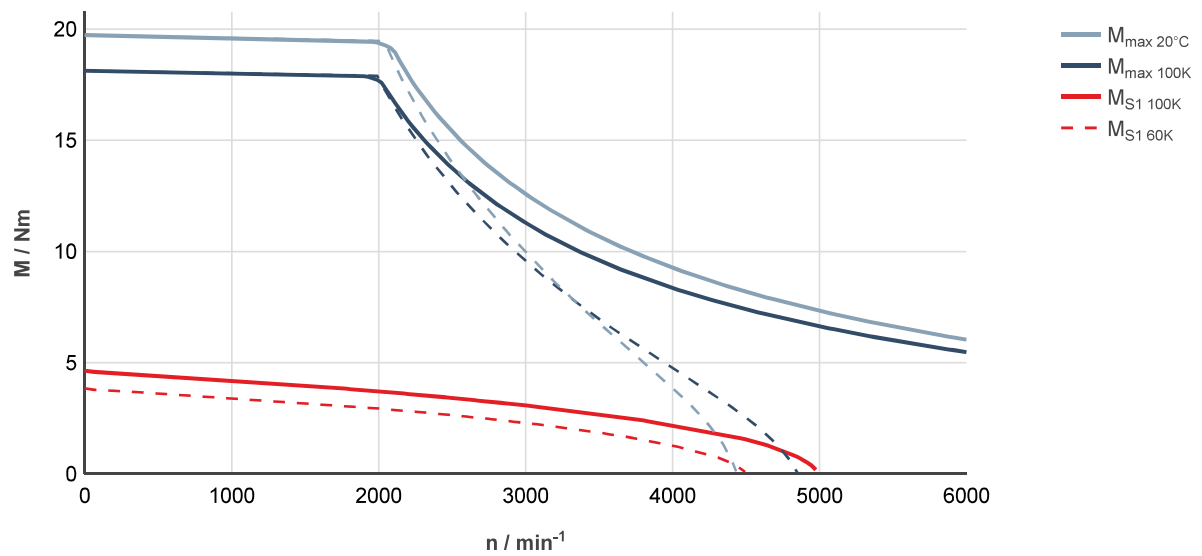


Fig. 43: MS2N04-D0BQN-___0-___-_, ctrlIX DRIVE, uncontrolled supply 3 × AC 400 V

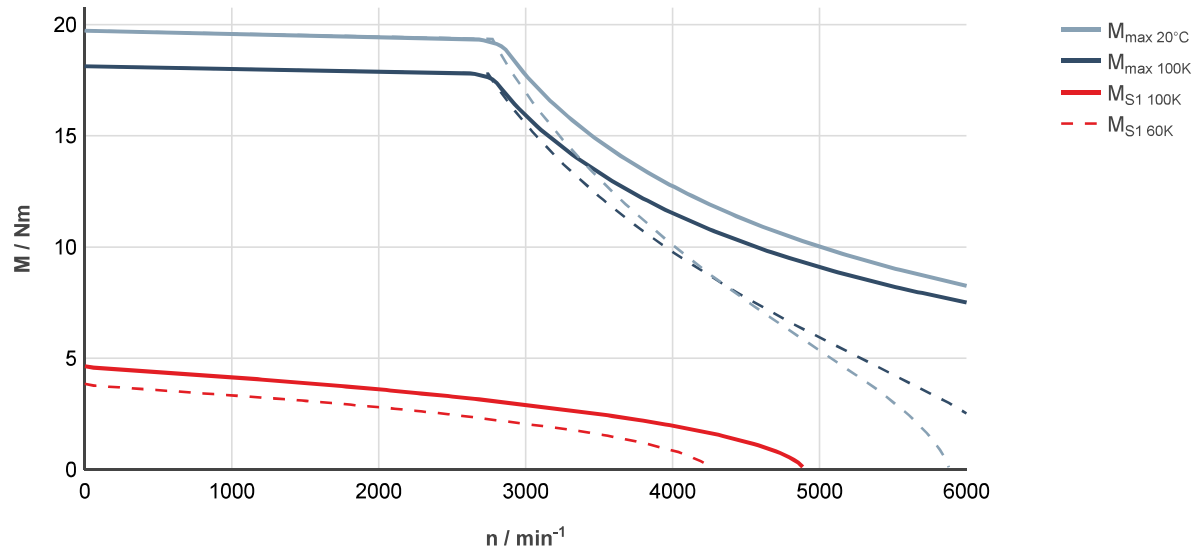


Fig. 44: MS2N04-D0BQN-___0-___-_, ctrlIX DRIVE, controlled supply 3 × AC 400 ... 480 V

7.2.2 MS2N04 Self-cooling specification

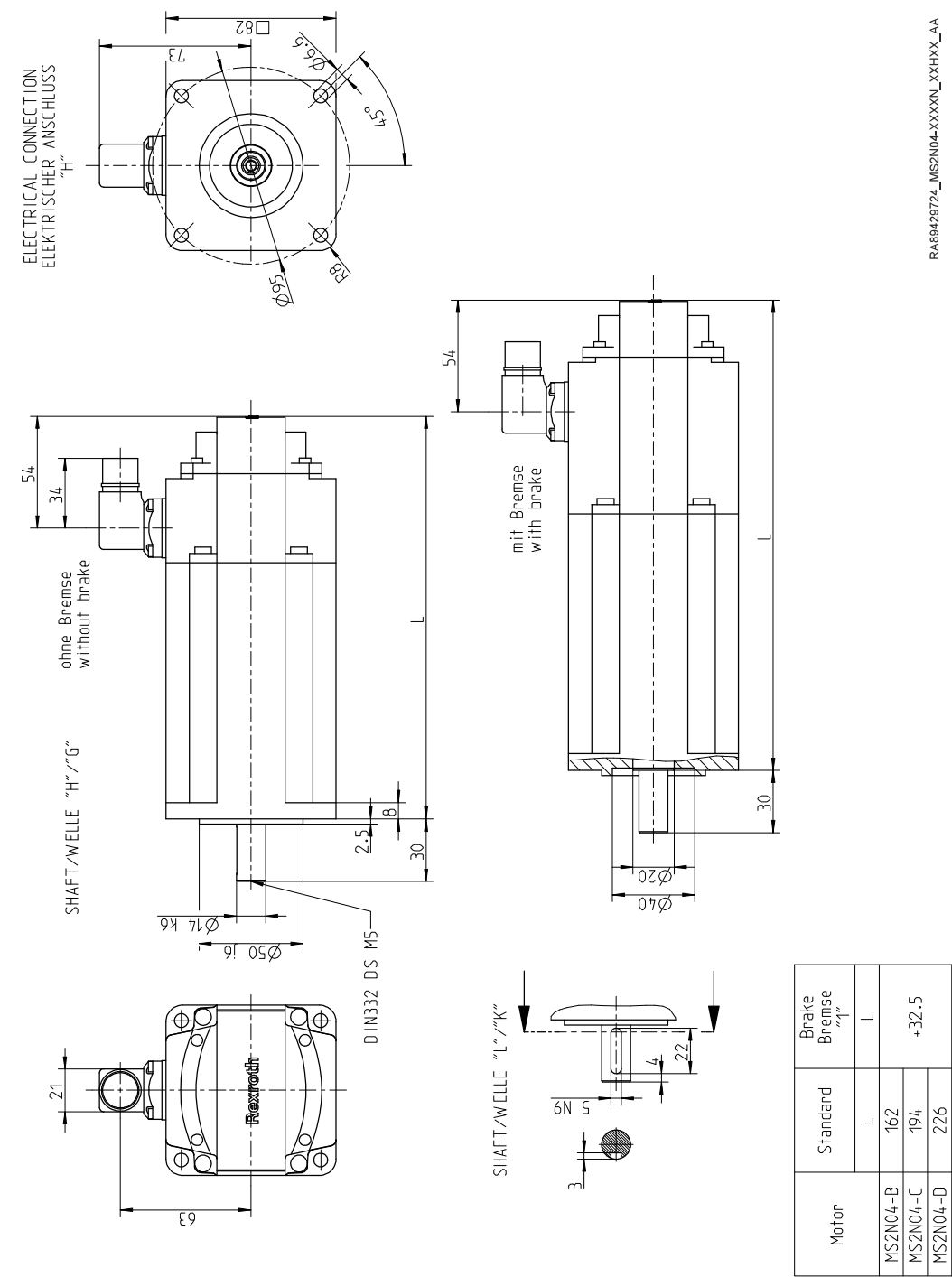


Fig. 45: MS2N04-XXXXN_XXHXX

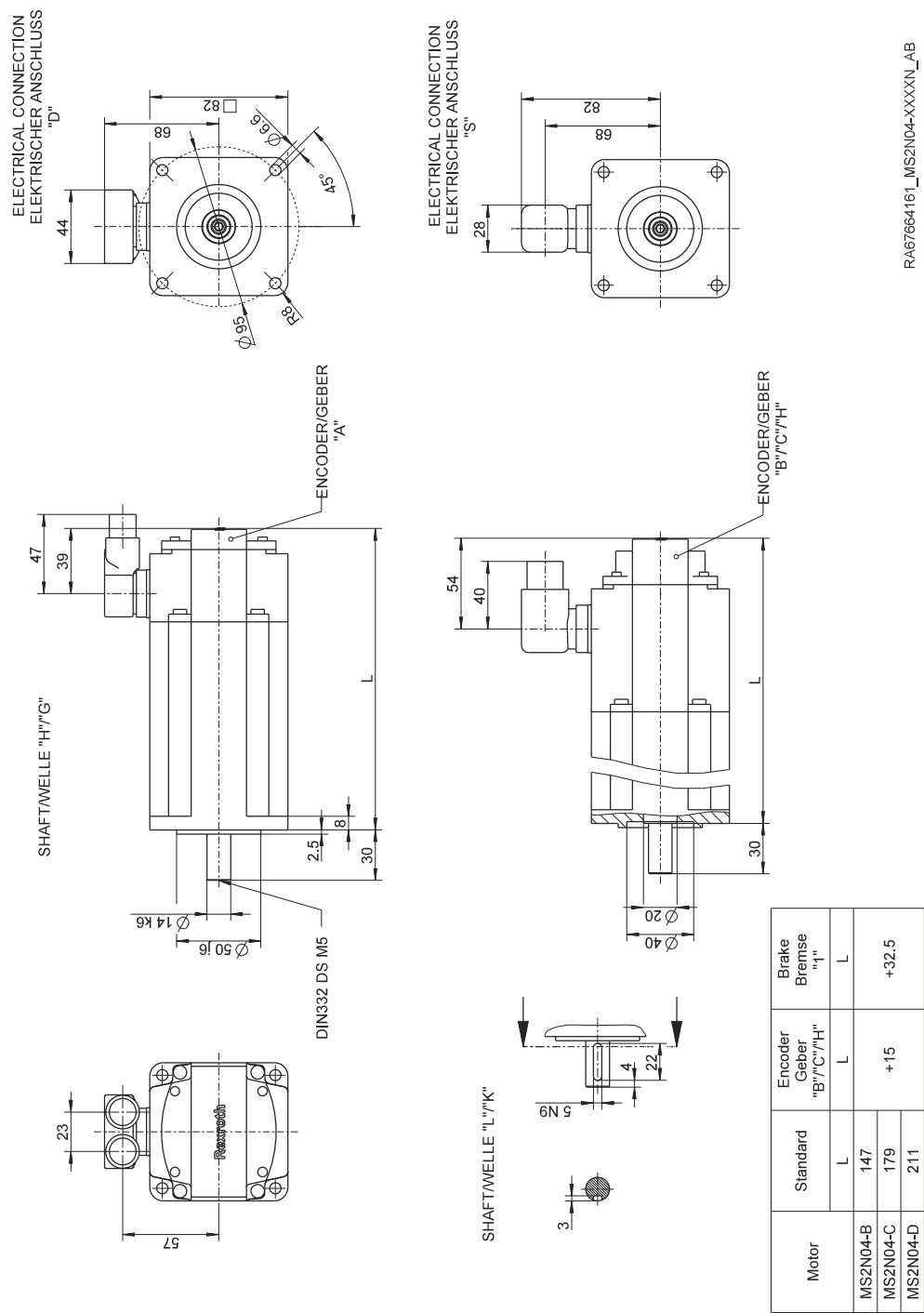
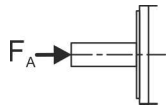


Fig. 46: MS2N04-XXXXN

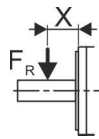
7.2.3 MS2N04 Axial force



Axial forces F_A are permissible without limitation up to 30 N. Higher axial forces only after a detailed dimensioning by your distribution partner at Bosch Rexroth. For evaluation purposes, please specify the following information:

- Axial and radial force with force application point
- Installation position (horizontal, vertical with the shaft end pointing to the top or bottom)
- Mean speed

7.2.4 MS2N04 Radial force



The permissible radial force F_R is specified in distance x from the shaft shoulder, depending on the mean speed in the following diagram.

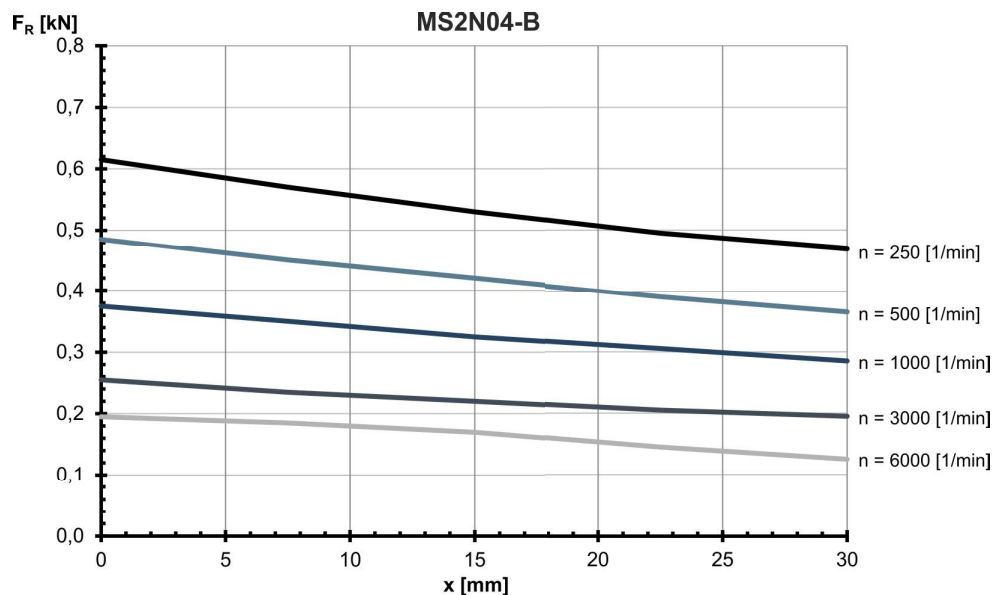


Fig. 47: MS2N04-B: Radial force in distance x from the shaft shoulder at a nominal bearing service life of $L_{h10} = 30000$ h

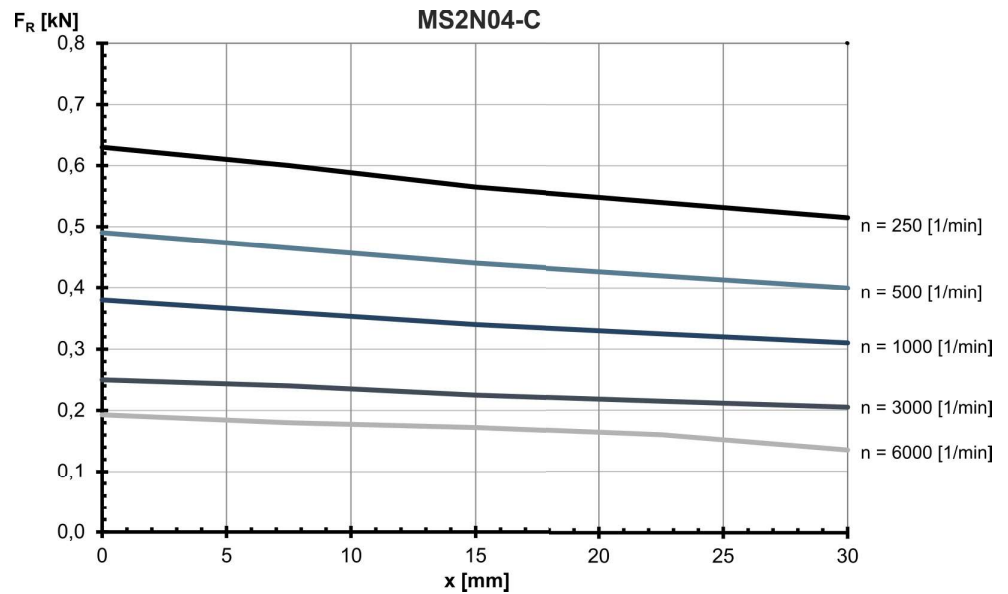


Fig. 48: MS2N04-C: Radial force in distance x from the shaft shoulder at a nominal bearing service life of $L_{h10} = 30000$ h

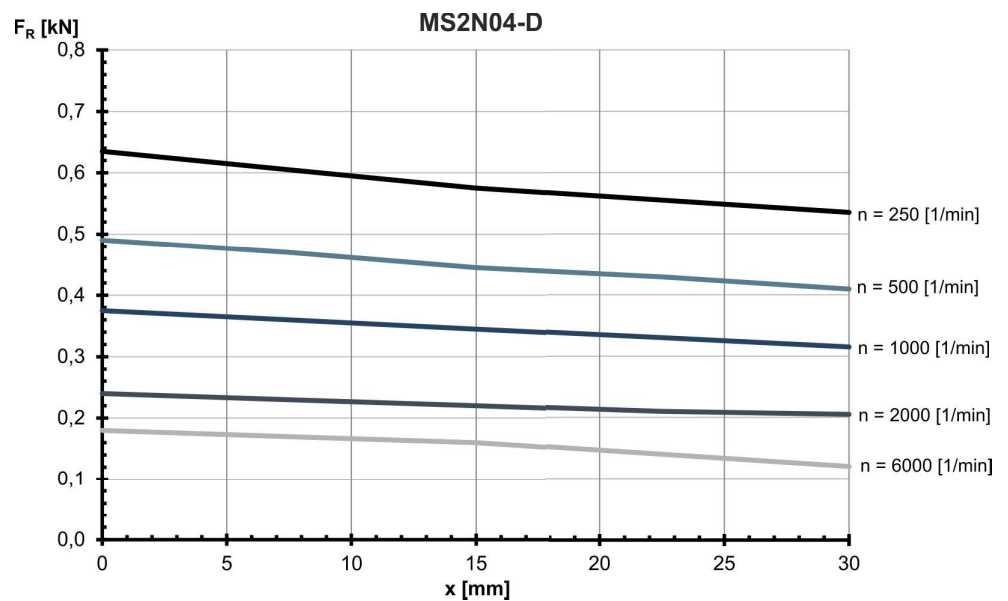


Fig. 49: MS2N04-D: Radial force in distance x from the shaft shoulder at a nominal bearing service life of $L_{h10} = 30000$ h