Technical data[1)]	Abbre-viation	LSH-050-1-45-320	LSH-050-2-45-320	LSH-050-3-45-320	LSH-050-4-45-320
Rated speed	n_n	4500 min^{-1}	4500 min^{-1}	4500 min^{-1}	4500 min^{-1}
Rated frequency	f_N	225 Hz	225 Hz	225 Hz	225 Hz
DC link voltage (controller)	U_{dc}	320 V	320 V	320 V	320 V
Rated voltage	U_n	200 V	200 V	200 V	200 V
Rated torque	M_n	0.24 Nm	0.45 Nm	0.67 Nm	0.84 Nm
Rated current	I_n	0.68 A	1.11 A	1.55 A	1.90 A
Power	P	0.11 kW	0.21 kW	0.31 kW	0.40 kW
Stall torque	M_0	0.26 Nm	0.53 Nm	0.74 Nm	0.95 Nm
Stall current	I_0	0.70 A	1.26 A	1.66 A	2.1 A
Maximum permissible torque	M_{max}	1.0 Nm	2.0 Nm	2.8 Nm	3.6 Nm
Maximum permissible current	I_{max}	2.9 A	5.1 A	6.7 A	8.5 A
Maximum permissible speed	n_{max}	12000 min^{-1}	12000 min^{-1}	12000 min^{-1}	12000 min^{-1}
EMF constant	K_E	22.5 V/1000 min^{-1}	25.5 V/1000 min^{-1}	27.0 V/1000 min^{-1}	27.5 V/1000 min^{-1}
Torque constant	K_T	0.37 Nm/A	0.42 Nm/A	0.45 Nm/	0.45 Nm/A
Winding resistance (2 phases)	R_{2ph}	33.1 Ω	16.4 Ω	11.1 Ω	8.4 Ω
Winding inductance (2 phases)	L_{2ph}	51 mH	32.7 mH	24.5 mH	19.4 mH
No load speed	n_0	8890 min^{-1}	7840 min^{-1}	7410 min^{-1}	7250 min^{-1}
Electrical time constant	T_{el}	1.5 ms	2.0 ms	2.2 ms	2.3 ms
Thermal time constant	T_{th}	13 min.	15 min.	20 min.	22 min.
Moment of inertia of rotor	J	0.000006 kgm^2	0.000008 kgm^2	0.00001 kgm^2	0.000012 kgm^2
Mass	m	0.75 kg	0.92 kg	1.1 kg	1.26 kg
Brake (optional)					
Rated voltage	U_N	24 V ± 10 %			
Rated current at 20 °C for releasing	I_N	0.46 A			
Permissible maximum speed	n_{max}	10,000 min^{-1}			
Permissible friction work	W_R	0.41 x 10^6 Ws			
Moment of inertia	J_B	0.000007 kgm^2			
Mass	m	0.15 kg			
Braking torque	M_H	2 Nm			

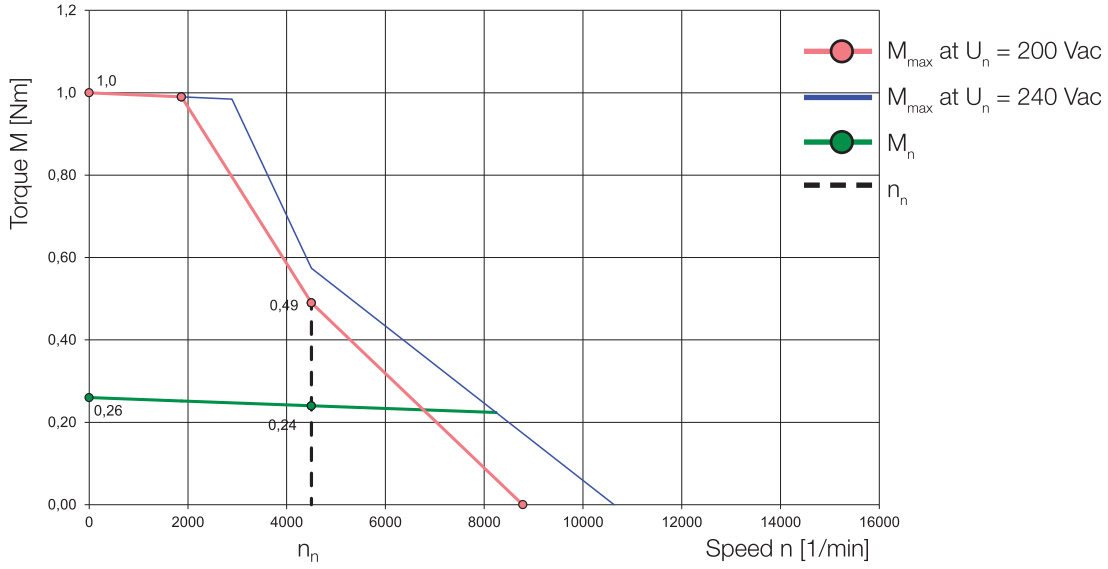
1) All figures with a tolerance of ± 10%.

Characteristics

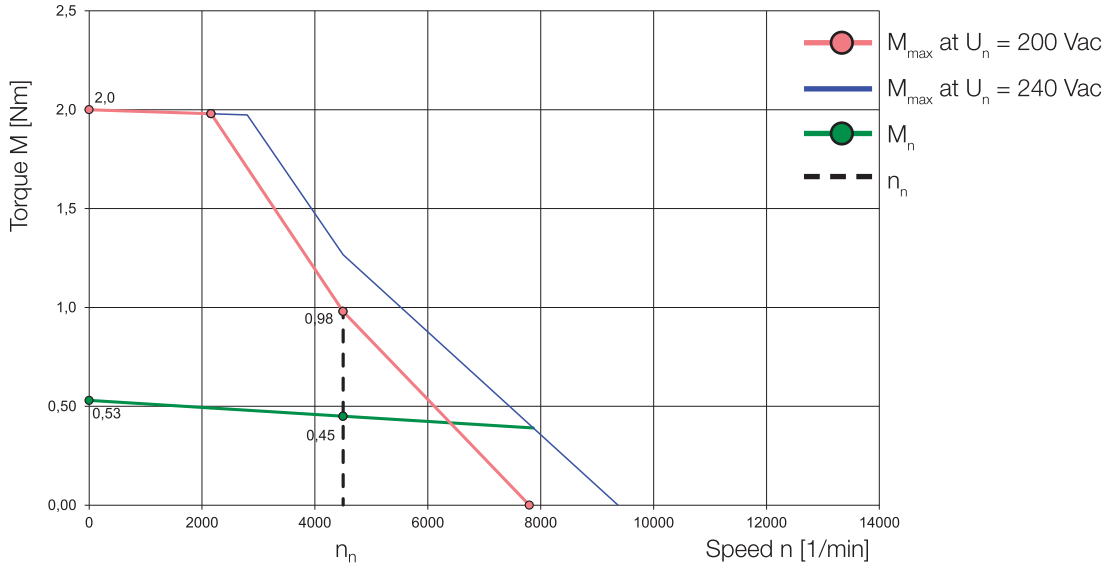
Explanations on the characteristics:

The characteristic M_{max} describes the maximum torque possible for a short time at the related speed. It is important for dynamic processes.
The characteristic M_n shows the thermally permissible rated torque.
The characteristics are limited by the related permissible speed n_{max}
(for n_{max} see the table "Technical data").

LSH-050-1-45-320



LSH-050-2-45-320



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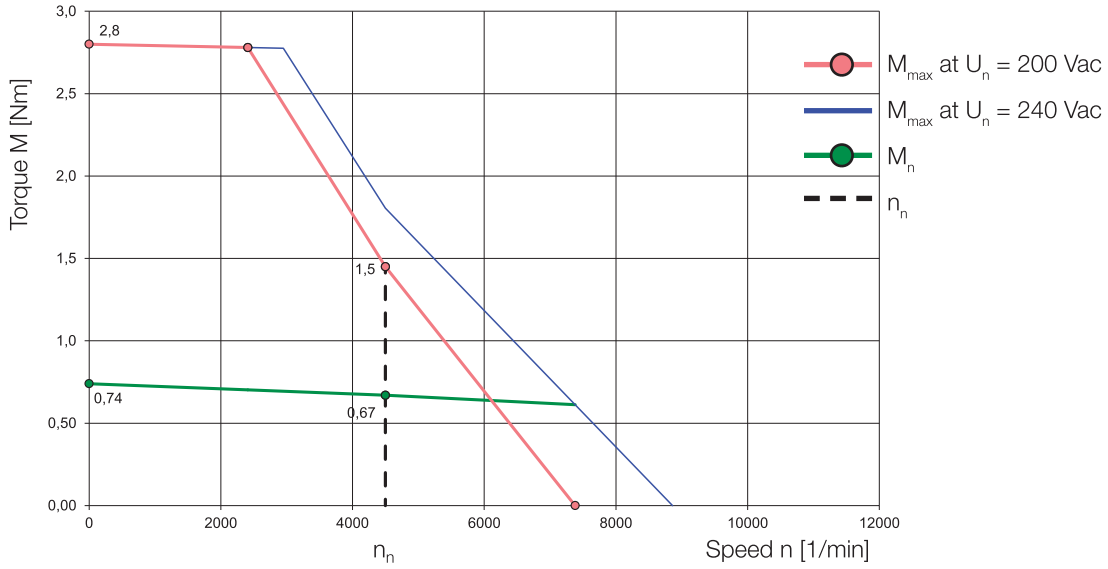

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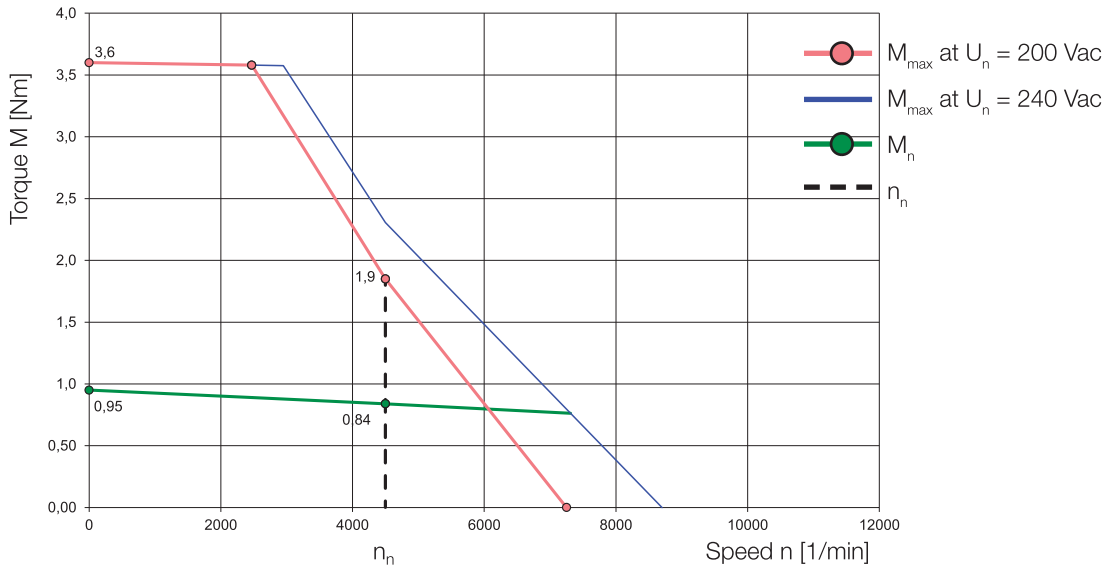

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