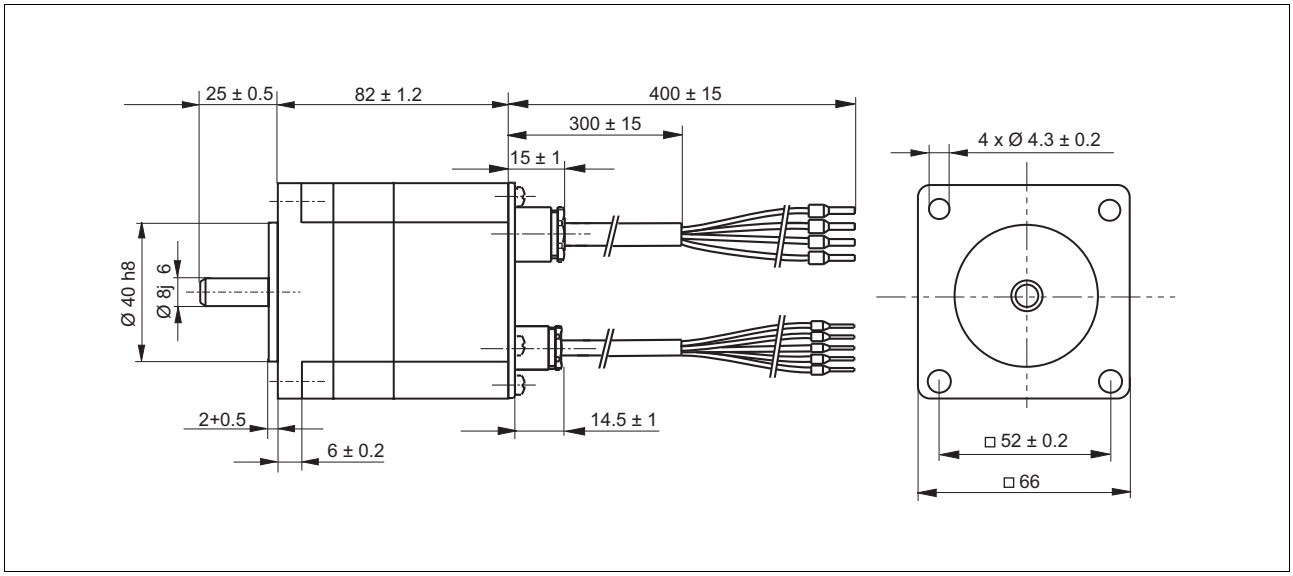
BDM 724

Dimensional drawing

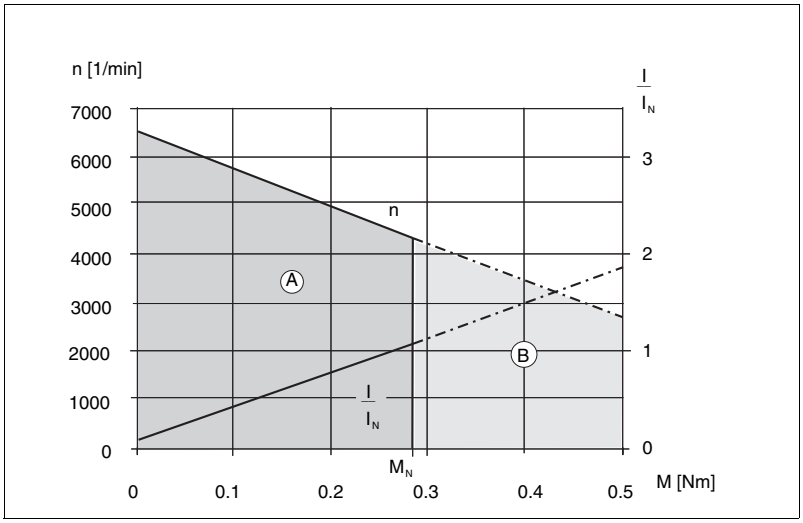


Dimensional drawing BDM 724

Technical data

DC bus voltage U_{DC}	**V**	**24**	**48**
Number of pole pairs p		4	4
Nominal power P_N	W	130	130
Nominal torque M_N	Nm	0.28	0.28
Nominal speed n_N	1/min	4350	4350
Nominal current I_N	A	8.1	4.03
Nominal current $\hat{i}_N$	A	9.9	4.93
No-load speed n_0	rpm	6500	6500
No-load current I_0	A	0.63	0.31
Continuous holding torque M_{d0}	Nm	0.33	0.33
Continuous holding current I_{d0}	A	9.1	4.70
Max. continuous holding current $\hat{i}_{d0}$	A	11.2	5.76
Max. torque M_{max}	Nm	0.70	0.70
Max. current I_{max}	A	20.7	10.3
Detent torque M_S	Nm	0.015	0.015
Torque constant ($M_{d0}/\hat{i}_{d0}$) k_M	Nm/A	0.030	0.057
Generator voltage constant k_{Ett}	mV/(1/min)	2.583	5.166
Terminal resistance R_{tt}	Ω	0.17	0.54
Terminal inductivity L_{tt}	mH	0.619	2.477
Rotor inertia J_R	kg cm^2	0.170	0.170
Heat resistance (winding/surface) R_{th1}	K/W	1.25	1.25
Ambient temperature	°C	-25 ... 40	-25 ... 40
Max. permissible radial shaft load F_q	N	80	80
Max. permissible axial shaft load F_a	N	30	30
Mass m	kg	1.05	1.05
Vibration strain as per DIN EN 60068-2-6	m/s²	20	
Degree of protection as per DIN EN 60592		IP41	IP41
Heat class as per DIN EN 60034-1		155 (F)	155 (F)

Characteristic curves

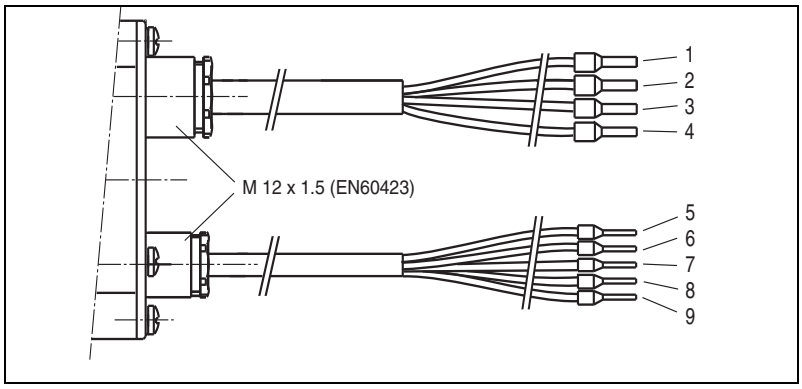


Torque characteristic BDM 724

(A) S1: continuous operation

(B) S2 ... S9: Short-term operation

Motor connection



Terminal assignment

Pin	Motor cable	Colour
1	U	orange (OG)
2	V	black (BK)
3	W	white (WS)
4	PE	green/yellow (GNYE)

Pin	Motor cable	Colour
5	Power supply 5 V … 18 V	red (RD)
6	Power supply GND	blue (BU)
7	Hall U	orange (OG)
8	Hall V	black (BK)
9	Hall W	white (WH)

The pull-up resistance is not integrated. The maximum current at the Hall sensors is 30 mA.