

Brushless DC-Servomotors

2,6 mNm

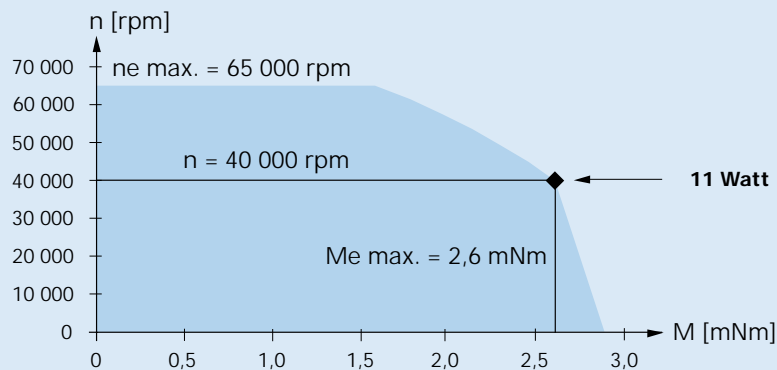
For combination with
 Gearheads:
 16/7
 Encoders:
 IE2-1024
 Drive Electronics:
 Speed Controller, Motion Controller

Series 1628 ... B

	1628 T	012 B	024 B	
1 Nominal voltage	U_N	12	24	Volt
2 Terminal resistance, phase-phase	R	4,3	15,1	
3 Output power ¹⁾	$P_{2 \text{ max.}}$	10	11	W
4 Efficiency	$\eta_{\text{ max.}}$	68	68	%
5 No-load speed	n_o	28 650	29 900	rpm
6 No-load current (with shaft \varnothing 1,5 mm)	I_o	0,098	0,052	A
7 Stall torque	M_H	11	12	mNm
8 Friction torque, static	C_o	0,15	0,15	mNm
9 Friction torque, dynamic	C_v	$8,0 \cdot 10^{-6}$	$8,0 \cdot 10^{-6}$	mNm/rpm
10 Speed constant	k_n	2 474	1 287	rpm/V
11 Back-EMF constant	k_E	0,404	0,777	mV/rpm
12 Torque constant	k_M	3,86	7,42	mNm/A
13 Current constant	k_i	0,259	0,135	A/mNm
14 Slope of n-M curve	$\Delta n / \Delta M$	2 737	2 610	rpm/mNm
15 Terminal inductance, phase-phase	L	141	525	μH
16 Mechanical time constant	τ_m	15	14	ms
17 Rotor inertia	J	0,54	0,54	gcm^2
18 Angular acceleration	$\alpha_{\text{ max.}}$	198	217	10^3rad/s^2
19 Thermal resistance	$R_{\text{th} 1} / R_{\text{th} 2}$	7,8 / 30,1		K/W
20 Thermal time constant	τ_{w1} / τ_{w2}	8 / 379		s
21 Operating temperature range		- 30 ... +125		$^{\circ}\text{C}$
22 Shaft bearings		ball bearings, preloaded		
23 Shaft load max.:				
- radial at 3 000/20 000 rpm (4,5 mm from mounting flange)		17 / 10		N
- axial at 3 000/20 000 rpm (push-on only)		10 / 6		N
- axial at standstill (push-on only)		20		N
24 Shaft play:				
- radial		0,015		mm
- axial	=	0		mm
25 Housing material		aluminium, black anodized		
26 Weight		31		g
27 Direction of rotation		electronically reversible		
Recommended values - mathematically independent of each other				
28 Speed up to ²⁾	$n_{e \text{ max.}}$	65 000	65 000	rpm
29 Torque up to ^{1) 2)}	$M_{e \text{ max.}}$	2,5	2,6	mNm
30 Current up to ^{1) 2)}	$I_{e \text{ max.}}$	0,77	0,41	A

¹⁾ at 40 000 rpm

²⁾ thermal resistance $R_{\text{th} 2}$ by 55% reduced



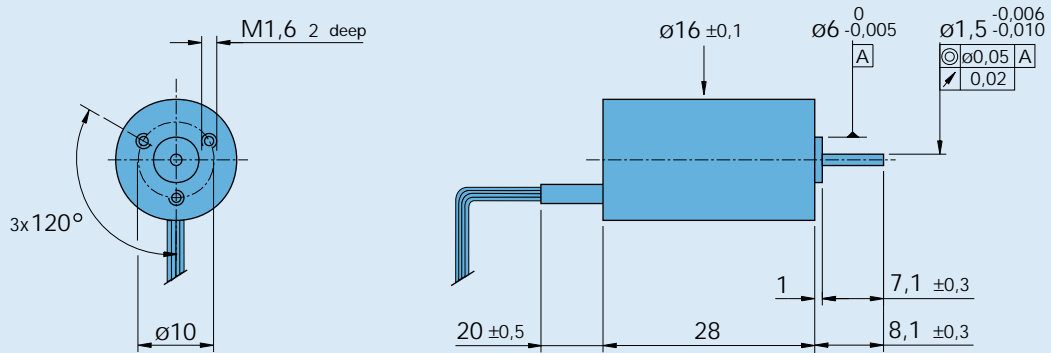
Recommended area for continuous operation

Options

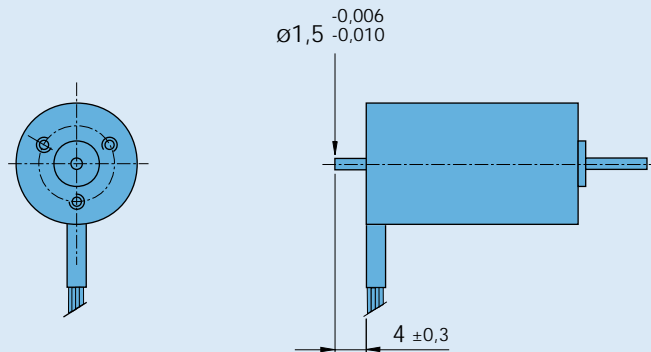
K1000:
Motors in autoclavable version.

K1155:
Motors for operation with Motion Controllers
MCBL 3003 S/C, MCBL 3006 S/C.

1628 T ... B



1628 T ... B - K312 with rear end shaft



Cable and connection information

