

BCI motor.

BCI-52.XX

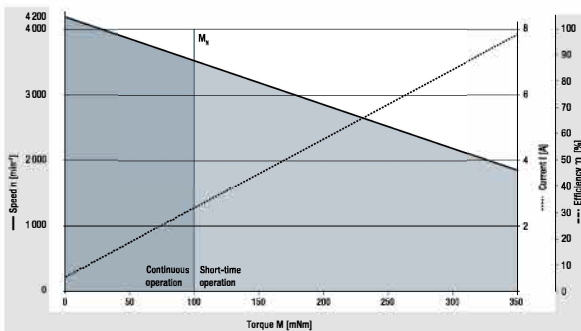


- Direct current motor with permanent magnets made of ceramic bound ferrite
- Mechanical commutation through 12-piece collector
- Closed steel motor housing with die-cast zinc bearing flanges
- Operation in both directions of rotation
- Service life 3 000 h for continuous operation (S1)
- Insulation class B
- Protection class IP 40, optionally higher

Nominal data					
Type		BCI-52.30-A00	BCI-52.30-B00	BCI-52.60-A00	BCI-52.60-B00
Nominal voltage (U_{BN})	V DC	12	24	12	24
Nominal speed (n_N)*	rpm	3 600	3 600	3 100	3 100
Nominal torque (M_N)*	mNm	100	100	170	170
Nominal current (I_{BN})*	A	4.80	2.20	6.40	3.00
Nominal output power (P_N)*	W	38	38	55	55
Rated efficiency, approx. (η_N)	%	66	71	72	77
Free-running speed (n_f)	rpm	4 200	4 200	3 500	3 500
Free-running current (I_{fL})	A	0.48	0.30	0.60	0.40
Starting torque (M_A)	mNm	550	650	800	980
Starting current (I_A)	A	20.8	12.0	27.6	16.0
Induced voltage (U_{imax})	V/1 000 rpm	2.78	5.60	3.04	6.40
Connection resistance (R_v)	Ohm	0.58	2.00	0.44	1.50
Connection inductance (L_v)	mH	0.90	3.60	1.10	4.70
Rotor moment of inertia (J_R)	kgm ² x 10 ⁻⁶	23	23	46	46
Heat resistance (R_{th})	K/W	3.20	3.20	3.30	3.30
Protection class**		IP 40			
Permissible ambient temperature range (T_U)	°C	0 ... +40			
Weight	kg	0.90	0.90	1.10	1.10
Order no.		on request	931 5230 001	on request	931 6325 070
Subject to alterations		* at T_U max. 40°C ** Classification of protection class refers to installed state with sealing on the flange side			

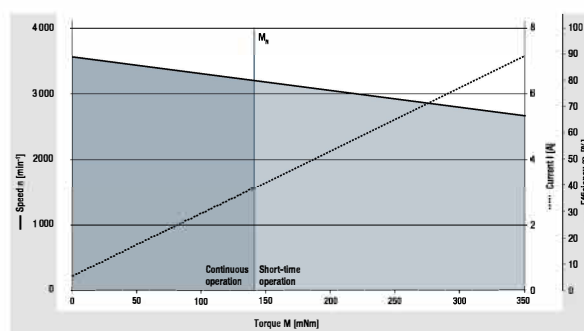
Characteristic curve

BCI-52.30, 24 V (at 25°C)



¹⁾ Nominal data, see table

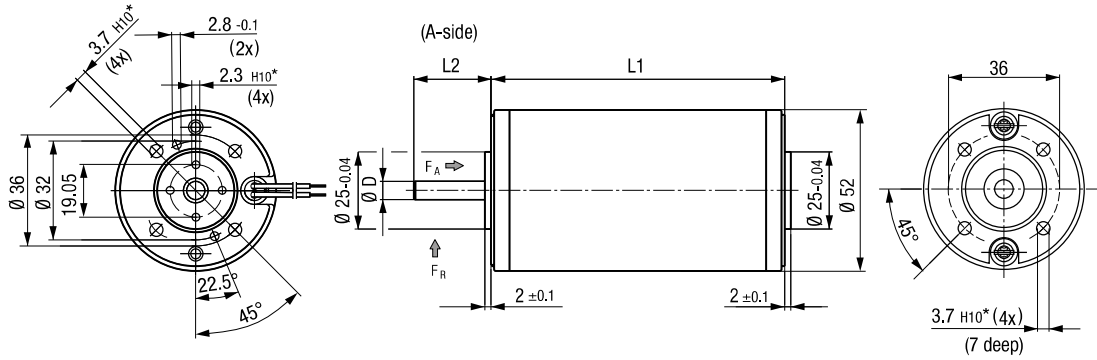
BCI-52.60, 24 V (at 25°C)



¹⁾ Nominal data, see table

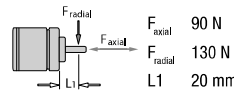
Technical drawing

Image standard type / All dimensions in mm



Shaft dimensions	ØD (A-side)	L2 (A-side)	ØD (B-side)	L (B-side)
Standard type	6 _{gs}	25,0 mm	--	--
Preferred type	6 _{gs}	18,2 mm	6 _{gs}	15 mm

Type	L1
BCI-52,30	95 ± 0,5
BCI-52,60	125 ± 0,5



Permissible shaft load at nominal speed and life expectancy L_{10} of 3 000 h (at T_v 40°C).

F_{axial}	90 N
F_{radial}	130 N
$L1$	20 mm

* Blind holes for thread-forming screws according to DIN 7500

Electrical connection

Connection cable

Color	Function	
red	Power supply (+)	Cable length 300 ± 30 from motor Cable end 7 ± 2 stripped and tin-coated
black	GND (-)	

Change of the rotating direction is possible by polarity reversal of the wires

Modular construction kit

<p>Brake system</p> <p>Spring-applied braking BFK 457-02 (page 48)</p>		<p>Basic motor</p>
<p>Encoder system</p> <p>Magnetic encoder system PMG 2-X (page 50) Optical incremental encoder HEDS 5500 / PWB AE30 (page 52)</p>		<p>Planetary gearhead</p> <p>Performax® 52 (page 24)</p>

For motor-gearbox combinations, depending on the choice of the single components, the maximum allowable torque (gearbox) can be exceeded or respectively not reached.