

# Brushless Gearmotors

## Electronic Commutation

### 5 mNm

For combination with  
Drive Electronics:  
BLD 1501 H

### Series 1309 ... BH

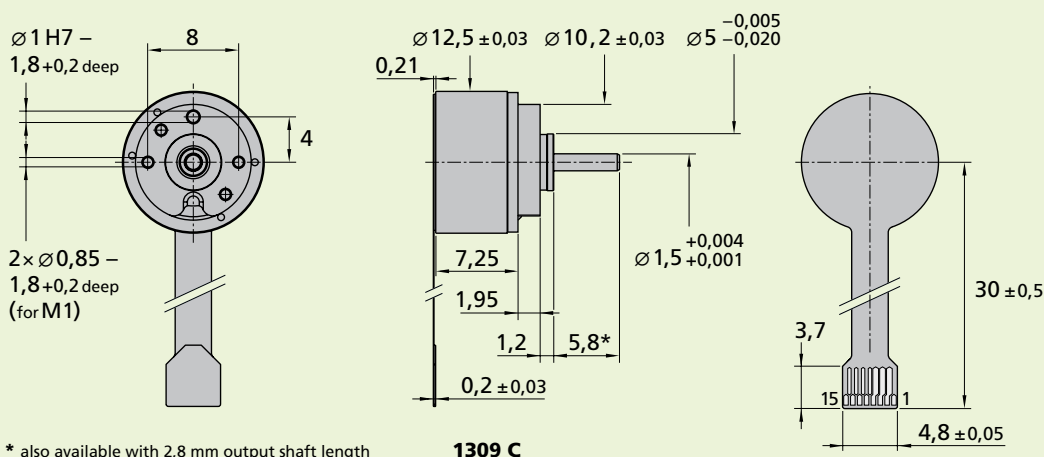
	1309 C	008 BH	035 BH	
Power supply Electronic <sup>1)</sup>	U <sub>B</sub>	5 ... 15	5 ... 15	Volt
Strand resistance	R	8	35	Ω
Max. continuous current <sup>2)</sup>	I <sub>c</sub>	200	100	mA
Max. intermittent current <sup>2)</sup>	I <sub>s</sub>	400	200	mA
No-load current at 10 000 min <sup>-1</sup>	I <sub>0</sub>	14	9	mA
Recommended max. input speed for: – continuous operation	n <sub>max.</sub>	10 000	10 000	min <sup>-1</sup>
Rotor inertia	J	0,16	0,16	gcm <sup>2</sup>
Operating temperature range		0 ... +70	0 ... +70	°C
Bearings on output shaft – gearhead – motor		ball bearings sleeve bearings	ball bearings sleeve bearings	
Orientation output shaft		centric	centric	
Housing material		plastic	plastic	
Geartrain material		metal	metal	
Magnet material		NdFeB	NdFeB	

Reduction ratio (rounded)	008 BH				035 BH			weight with motor
	output speed up to n <sub>max</sub> rpm	output torque		torque constant	output torque		torque constant	
		continuous operation	intermittent operation		continuous operation	intermittent operation		
		M <sub>max.</sub> mNm	M <sub>max.</sub> mNm	k <sub>n</sub> μNm/mA	M <sub>max.</sub> mNm	M <sub>max.</sub> mNm	k <sub>n</sub> μNm/mA	g
17 : 1	592	1,0	2,1	5,4	0,8	1,6	8,6	2,6
31 : 1	323	1,6	3,3	8,5	1,2	2,6	13,6	2,7
90 : 1	111	3,9	8,1	21	3,1	6,5	34	2,8
259 : 1	39	5,0	10,0	53	5,0	10,0	84	2,9
749 : 1	13	5,0	10,0	131	5,0	10,0	210	2,9
1 830 : 1	5	5,0	10,0	275	5,0	10,0	440	3,0

<sup>1)</sup> DC link voltage with BLD 1501 H

<sup>2)</sup> DC link current

Scale enlarged M 1,5:1



### Connection

No.	Function
1	Star point
2	Phase A
3	Phase A
4	Phase B
5	Phase B
6	Phase C
7	Phase C
8	Hall sensor In+
9	Hall sensor In-
10	analog Hall A Out+
11	analog Hall A Out-
12	analog Hall B Out+
13	analog Hall B Out-
14	analog Hall C Out+
15	analog Hall C Out-

### Connectors

15-pole; 0,3 mm pitch; e.g.:  
Hirose: FH23-15S-0.35HAW

\* also available with 2,8 mm output shaft length

**1309 C**