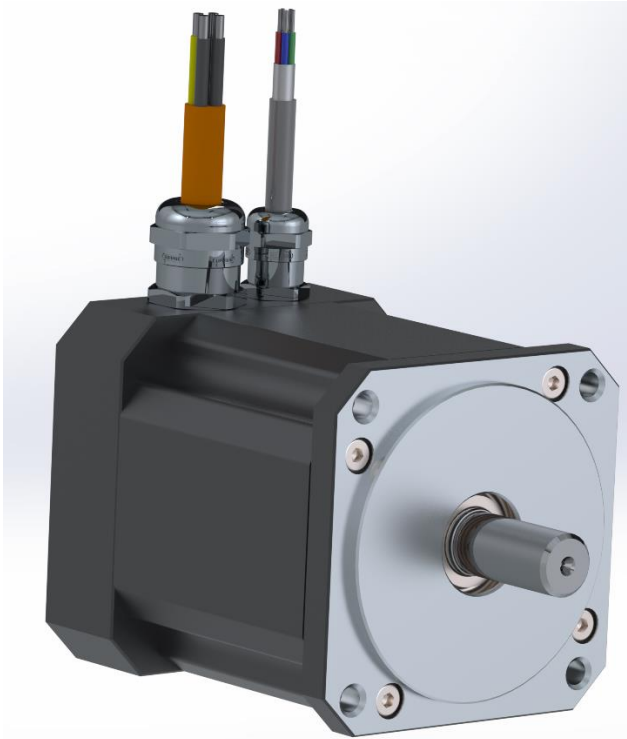


## Brushless motor series BLDC



### Field of application

- Positioning drive
- Mechanical engineering
- Fine and opto mechanics
- Mechanical machinery
- Robotics
- Test and measuring technics
- Assembly equipment

### Advantages and properties

- High-pole, thus exact positioning
- 10° angle resolution for Hallsensors
- Lowest cogging
- High running smoothness at low speed
- Hardwearing and durable
- Compact construction
- Special solutions on request

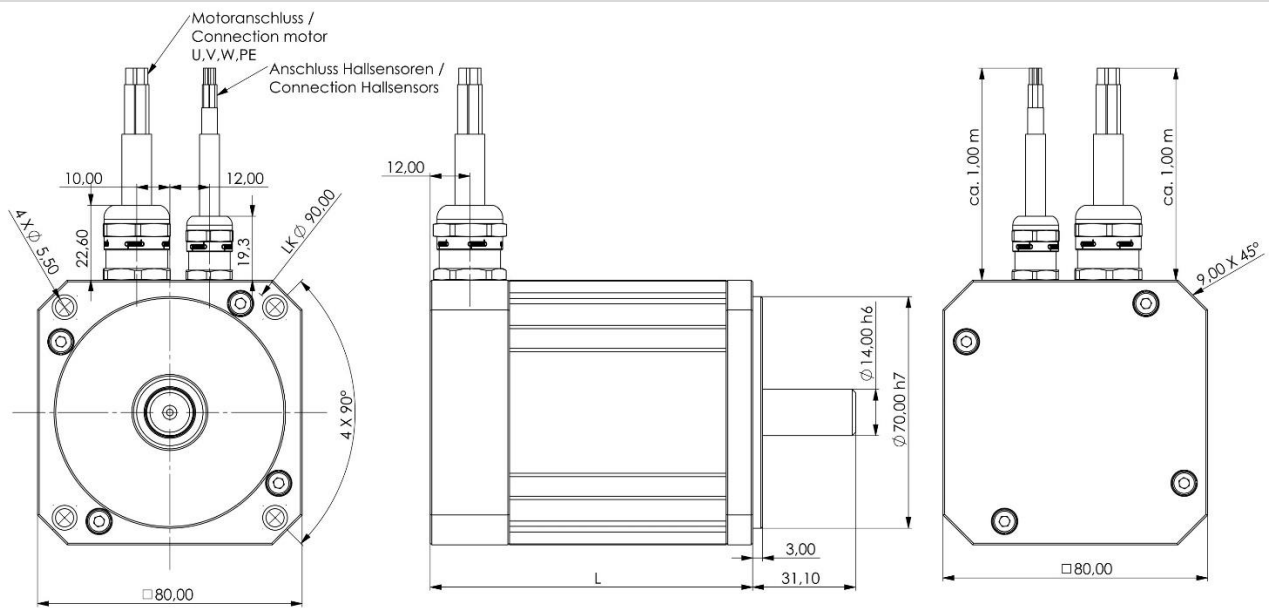
Key features	Data
Performance levels	4 different levels
Power	150 - 400 W
Torque	0,5 – 1,3 Nm
Rated speed	Up to 4000 min <sup>-1</sup>

Standard	Options
<ul style="list-style-type: none"> <li>• Black housing</li> </ul>	<ul style="list-style-type: none"> <li>• Gear</li> </ul>
<ul style="list-style-type: none"> <li>• 1 m cable</li> </ul>	<ul style="list-style-type: none"> <li>• Integrated electronics</li> </ul>
<ul style="list-style-type: none"> <li>• Hallsensor integriert IP 45</li> </ul>	<ul style="list-style-type: none"> <li>• Different encoders</li> </ul>
<ul style="list-style-type: none"> <li>• Hallsensor integrated</li> </ul>	<ul style="list-style-type: none"> <li>• IP 67</li> </ul>
<ul style="list-style-type: none"> <li>• IP 52</li> </ul>	<ul style="list-style-type: none"> <li>• More options</li> </ul>
	<ul style="list-style-type: none"> <li>• connector</li> </ul>

Data	Unit	BLDC 44	BLDC 43	BLDC22	BLDC 12
Power rated (S1)	W	400	400	250	150
Nominal voltage	V	48	36	24	24
Rated torque (S1)*	Nm	1,3	1,0	0,8	0,5
Peak torque (S3)*	Nm	2	1,8	1,35	0,63
Rated speed	min <sup>-1</sup>	3000	4000	3000	3000
Max. idle speed	min <sup>-1</sup>	4000	5000	4000	4000
Rated current*	A	14	14	11	9
Peak current*	A	20	20	18	16
Resistance phase to phase	Ω	0,1	0,08	0,14	0,16
Pair of pole		6	6	6	6
Torque constant	Nm/A	0,093	0,072	0,072	0,055
Weight without brake	kg	1,95	1,95	1,42	1,25

\*Preliminary data, motor measurement at mounted steelplates of 300 x 300 mm, 10 mm thickness.

## Drawing

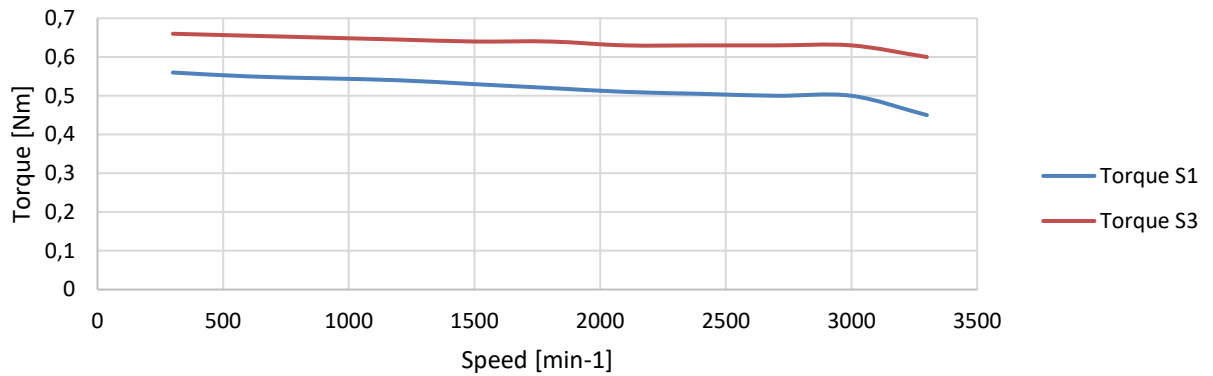


### Measures of length L

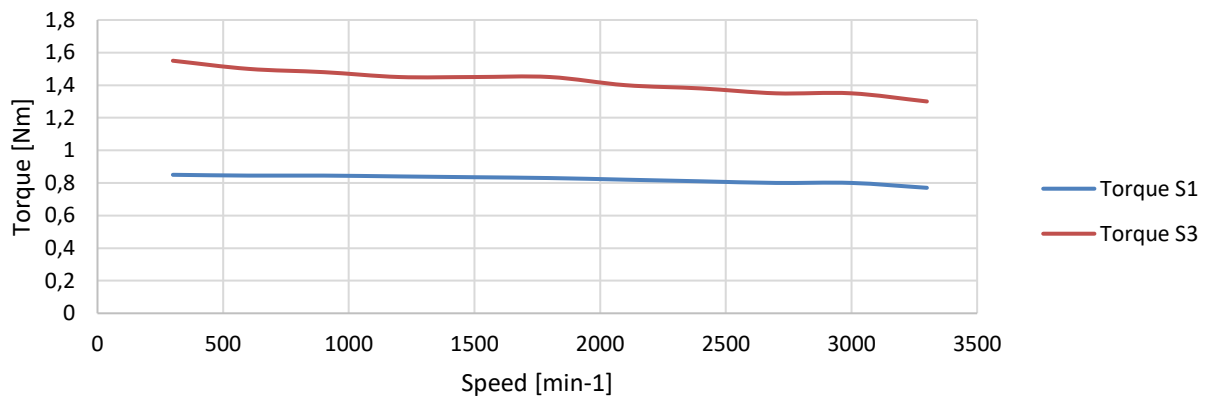
BLDC 44	118,5 mm
BLDC 43	118,5 mm
BLDC 22	97,7 mm
BLDC 12	87,5 mm

Torque characteristics

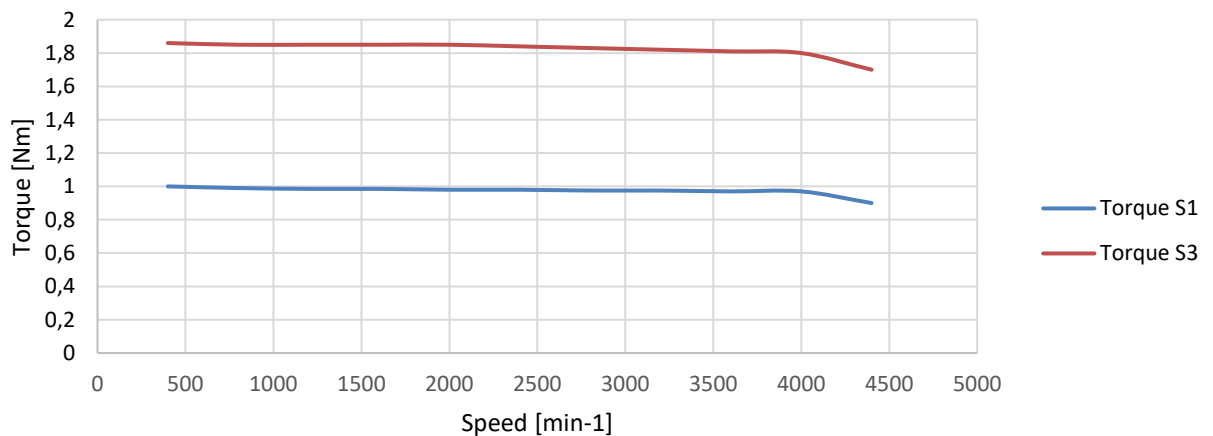
BLDC 12 S 150W; 3000 min<sup>-1</sup>; 24 V



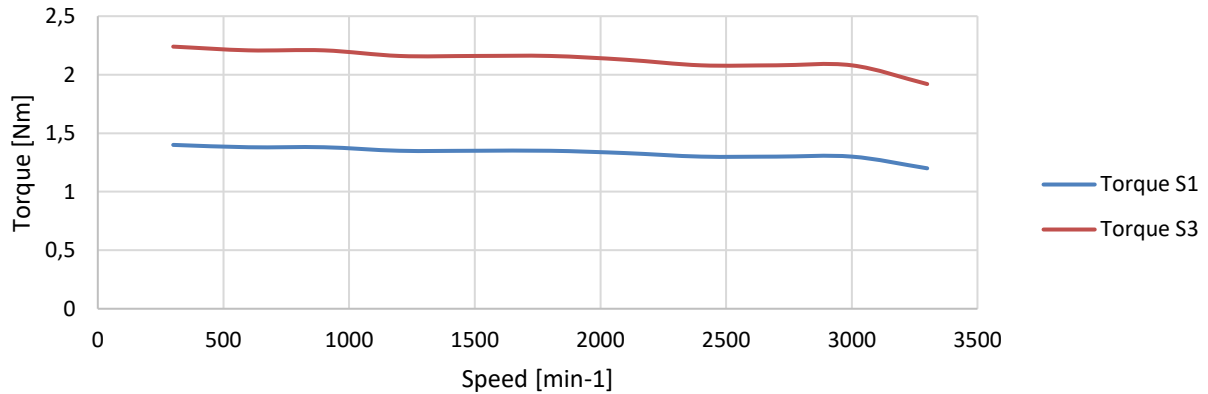
BLDC 22 S 250W; 3000 min<sup>-1</sup>; 24 V



BLDC43 S 400W; 4000 min<sup>-1</sup>; 36 V



BLDC 44 S 400W; 3000 min-1; 48 V



Cable assignment

Motoranschluß Farbbelegung / Motor cable color assignment	
U	Siehe Litzenmarkierung / see wire labeling
V	
W	
PE	gelb-grün / yellow - green

Hallsensor Farbbelegung / Hallsensor cable color assignment	
+5V DC	braun / brown
GND	weiß / white
A / H1	grün / green
B / H2	gelb / yellow
C / H3	grau / grey

Drawings and data are for customer information only. For specific indications a separate quote is to be required.  
 Kern Antriebstechnik GmbH is not responsible for possible errors in the data sheets.  
 Subject to technical modifications.