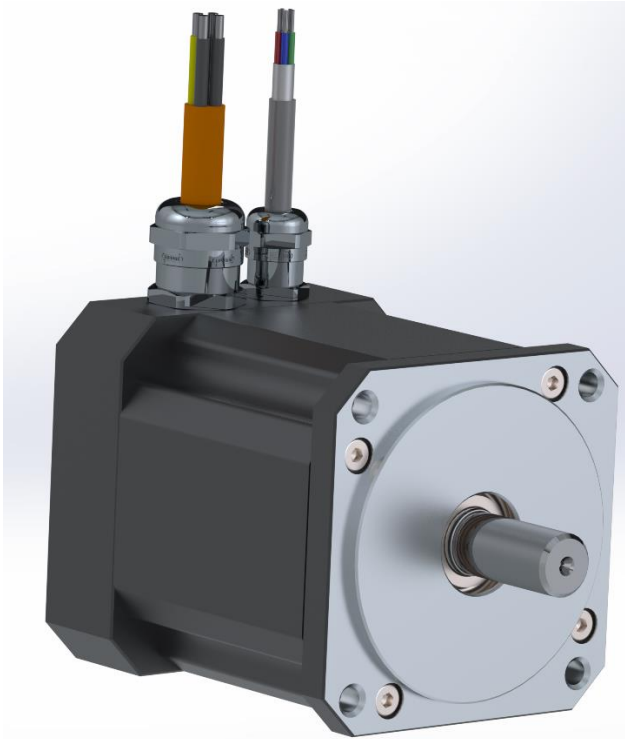


## Brushless motor series BLDC



### 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

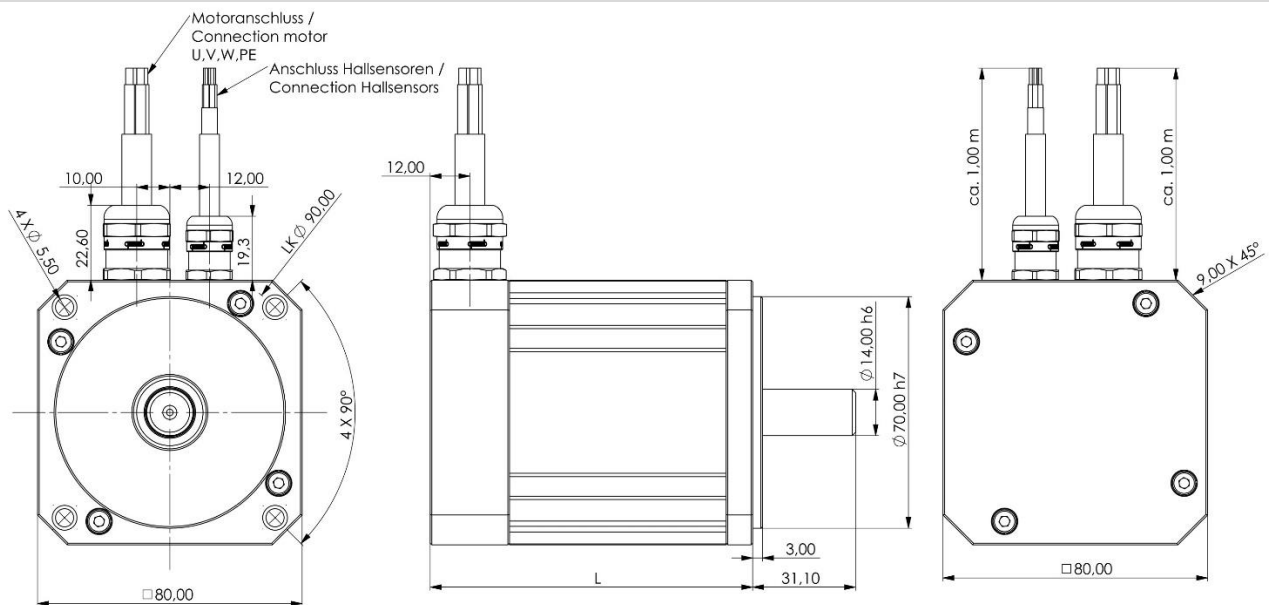
Key features	Data
Performance levels	4 different levels
Power	150 - 400 W
Torque	0,5 – 1,3 Nm
Rated speed	Up to 4000 min <sup>-1</sup>

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

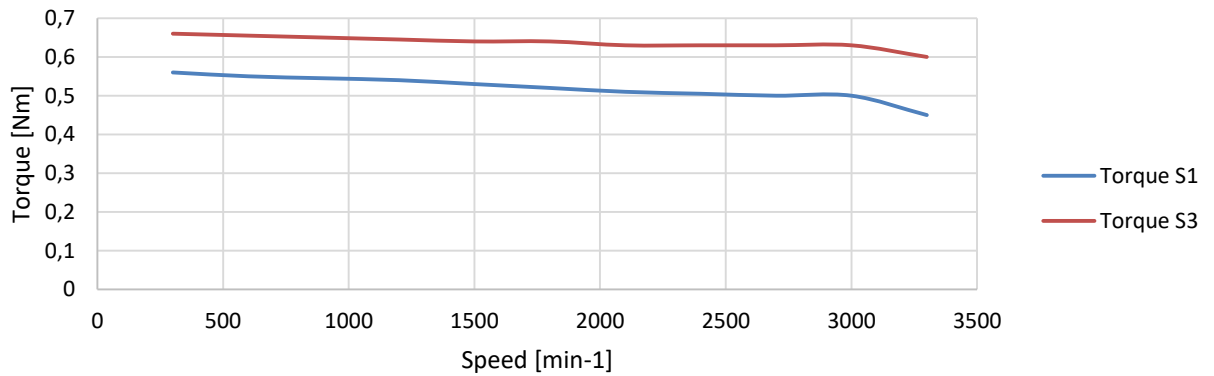


### Measures of length L

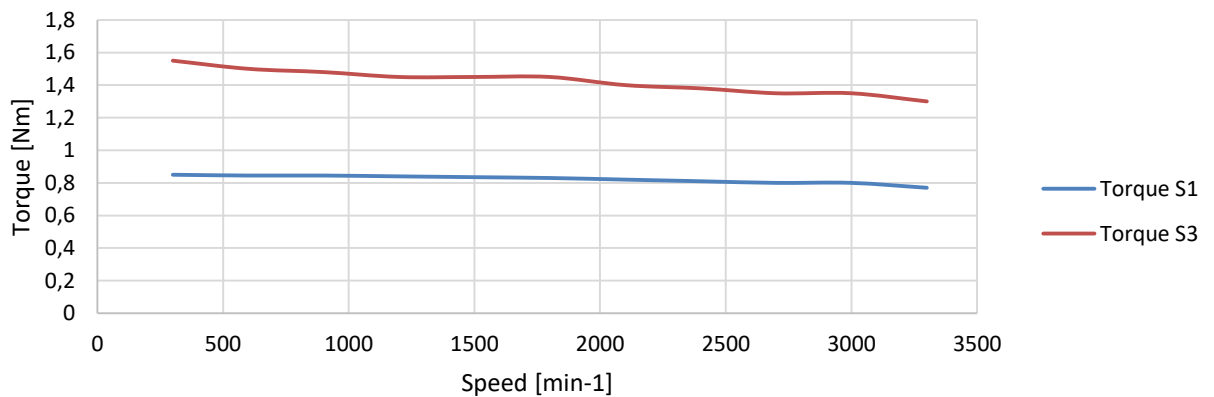
BLDC 44	118,5 mm
BLDC 43	118,5 mm
BLDC 22	97,7 mm
BLDC 12	87,5 mm

Torque characteristics

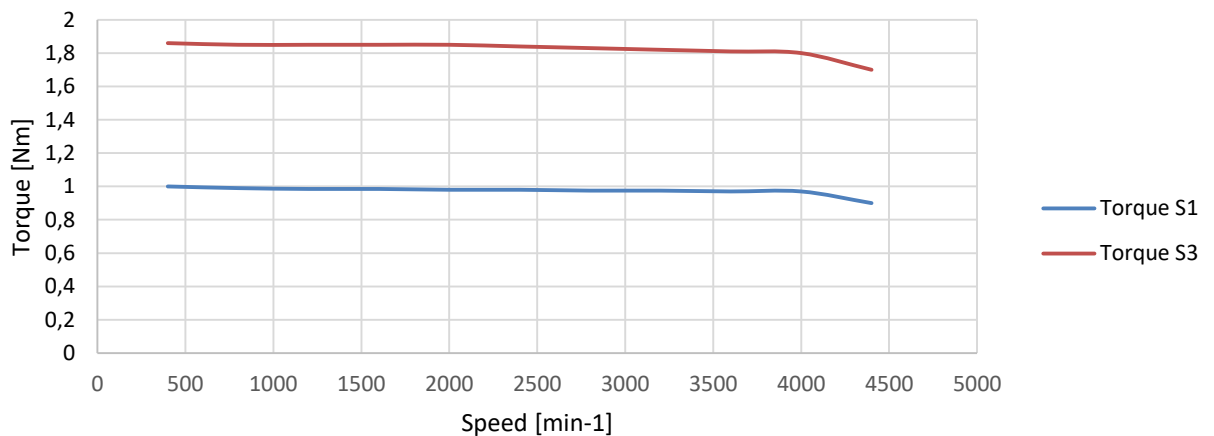
BLDC 12 S 150W; 3000 min<sup>-1</sup>; 24 V



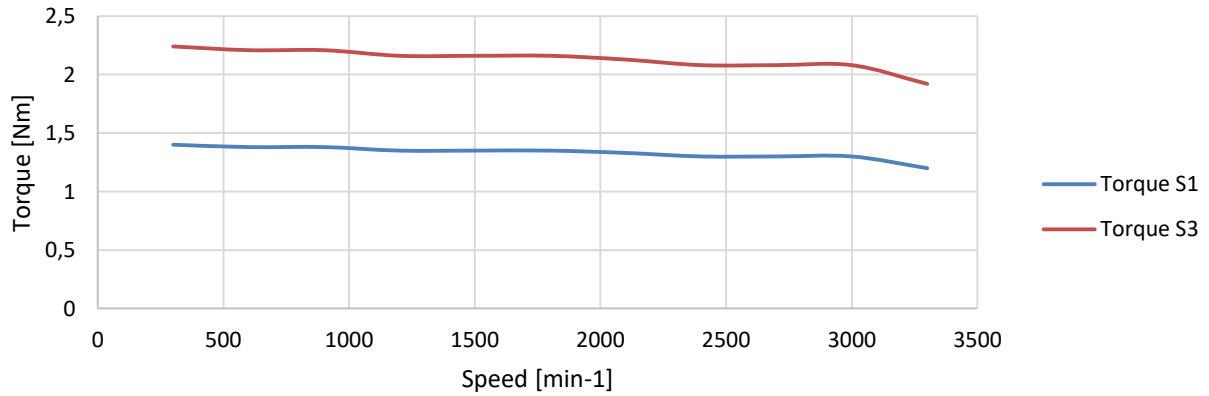
BLDC 22 S 250W; 3000 min<sup>-1</sup>; 24 V



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.

Depending on the controller and other attachments, the values may differ.