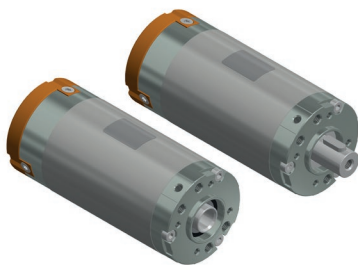


t-Rex 3200 (long version, focus torque)
I-44-89-L41 S2



Description

14-pole BLDC motor with high-performance neodymium magnets and three digital Hall sensors to detect the rotor position. The electrical connections are designed as a plug-in system. Additional power electronics are required to operate the motor. The design of the motor with a hollow shaft allows the output on both sides.

Special features

- Designed with **focus on max. torque**
- Enormous performance density – 3 times stronger than motors of comparable size
- High overload resistance
- Ideally suited as direct drive, or generator for gearless applications
- Special winding upon request
- Design and manufacture of motor to specified operating point is possible

t-Rex 3200 I-44-89 L41 S2 DH	3200.00-0005 / 3200.00-0006		
Rated voltage	24 VDC	36 VDC	48 VDC
Rated current	1.7A	1.65 A	1.5 A
Rated torque	0.5 Nm	0.46 Nm	0.42 Nm
Rated speed	600 rpm	980 rpm	1390 rpm
Shaft power (output)	31 W	47 W	61 W
Max. efficiency	83 %	83 %	83 %
Idle speed	790 rpm	1221 rpm	1653 rpm
No-load current	0.3 A	0.2 A	0.2 A
Stall torque	1.8 Nm	2.3 Nm	2.9 Nm
Starting current at idle speed	6.9 A	8.7 A	11.2 A
Torque constant	0.261 Nm/A	0.264 Nm/A	0.259 Nm/A
Speed constant	33 rpm/V	34 rpm/V	34 rpm/V

Motor parameters

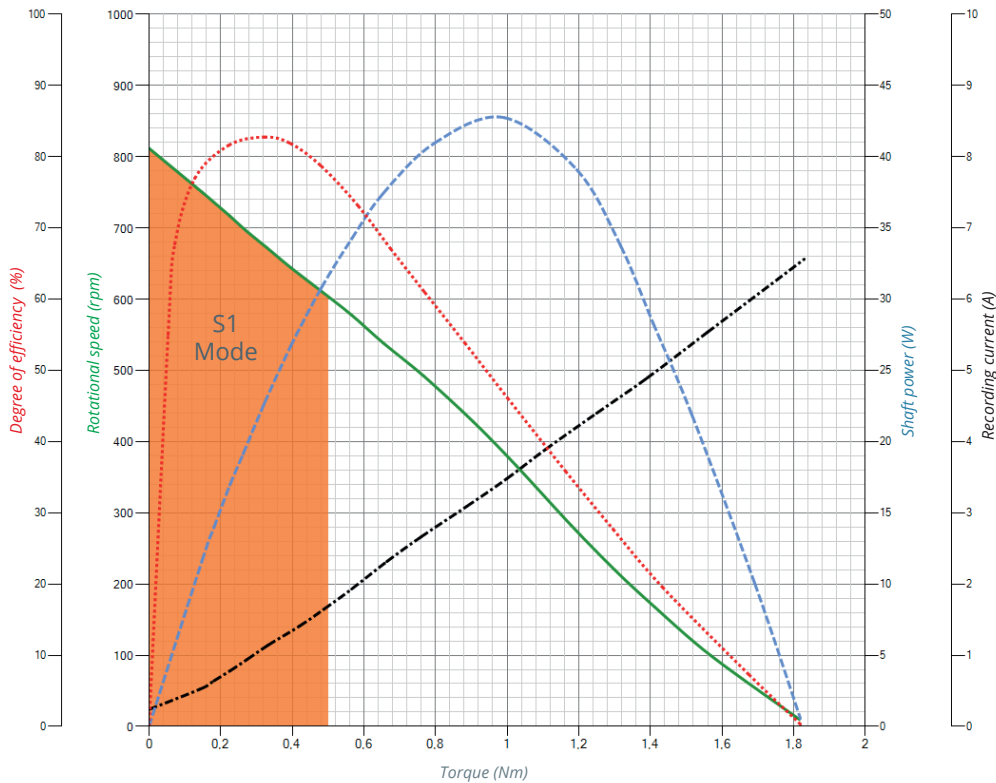
Terminal resistance (phase to phase)	2.6 Ohm
Terminal inductance (phase to phase)	1.6 mH
Rotor inertia	26.5 kg* mm²
Number of poles	14
Interconnection of the motor	Star
Number of coils per phase	2
Interconnection of coils	2 Series
Direction of rotation	bidirectional

Note: Max. ambient temperature = 40 °C, controller-specific
At the nominal point (TU = 20°C), controller-specific

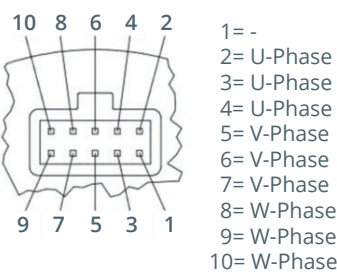
Motor cable approx. 1.5 m

Item number: 3200.53-05

Motor characteristics at 24 V

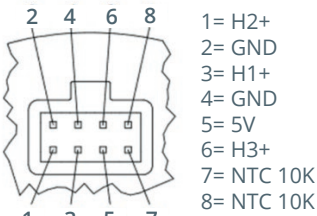


Motor phases



Socket strip RM 2.54 / 10 PIN
W+P 3491-10

Hall-sensors



Socket strip RM 2.54 / 8 PIN
W+P 3491-08

Digital Hall-sensors

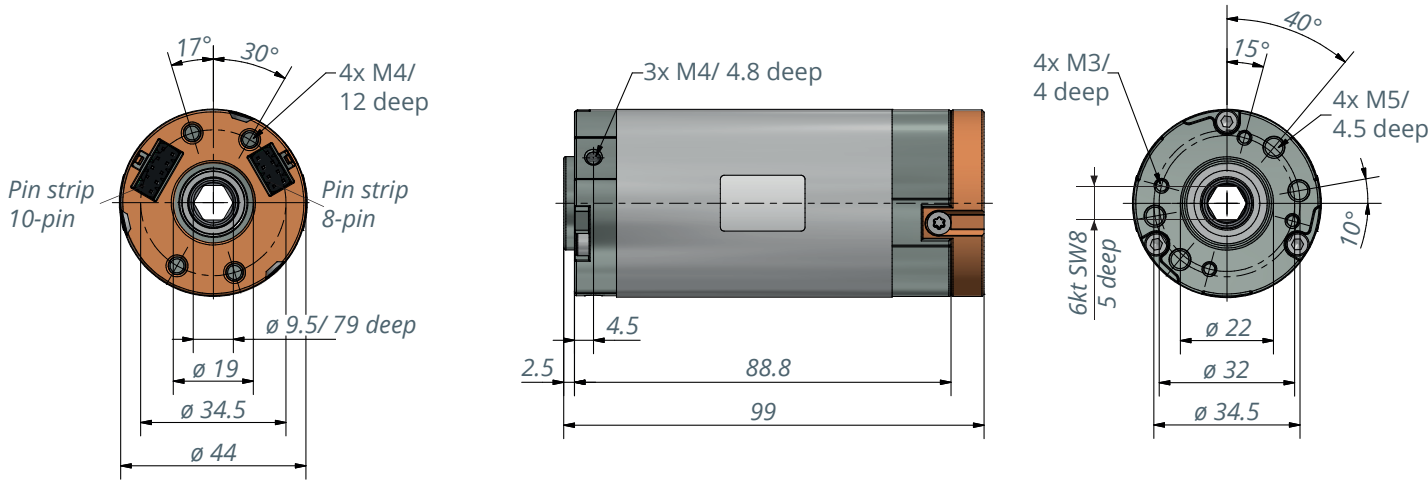
Supply of sensors: 5 V DC +/-10 % / Power consumption: < 70 mA

Output signals of sensors: „single ended“ TTL 5 V output

Signal structure: The Hall sensors have a 120° phase shift to each other. Due to the 14-pole design the Signal frequency is seven times higher than the speed

Temperature sensor: NTC 10k B-value 3650 K

3200.00-0005 with hollow shaft



3200.00-0006 with shaft

