

t-Rex 3200 (long version, focus rotational speed)

I-44-89-L12 S2



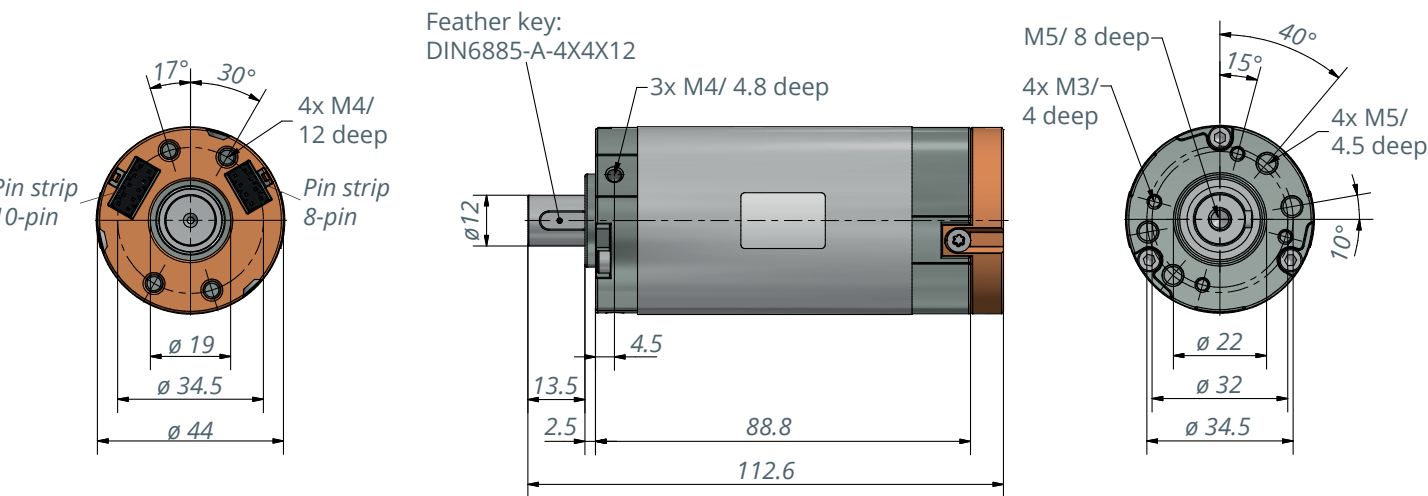
Description

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. Motor design with a hollow shaft is also available upon request. This allows the implementation of output on both sides.

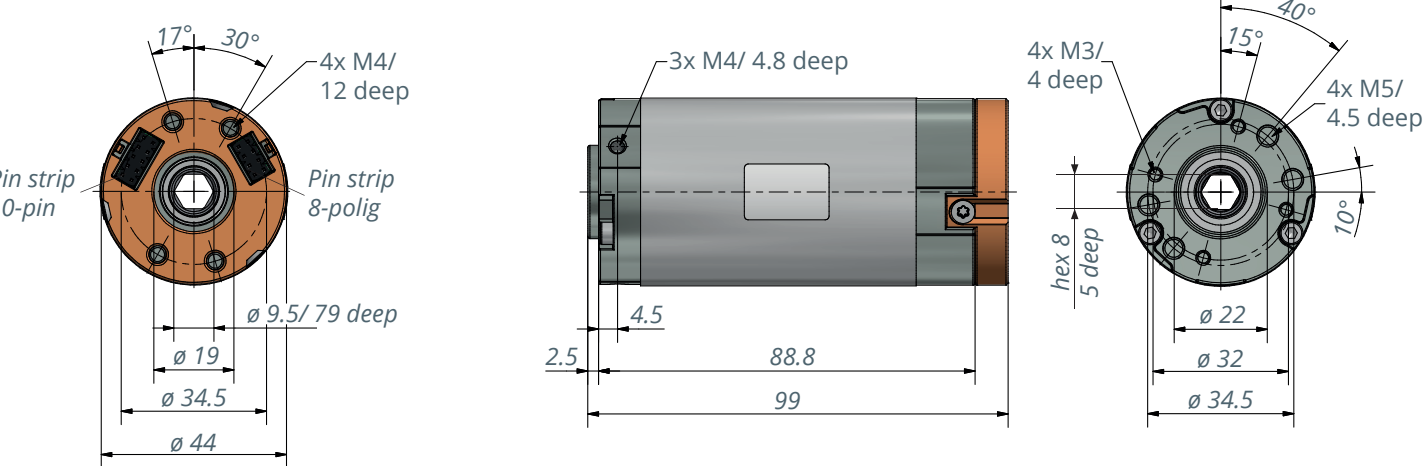
Special feature

- Designed with **focus on rotational speed**
- 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

3200.00-0004 with shaft



3200.00-0009 with hollow shaft



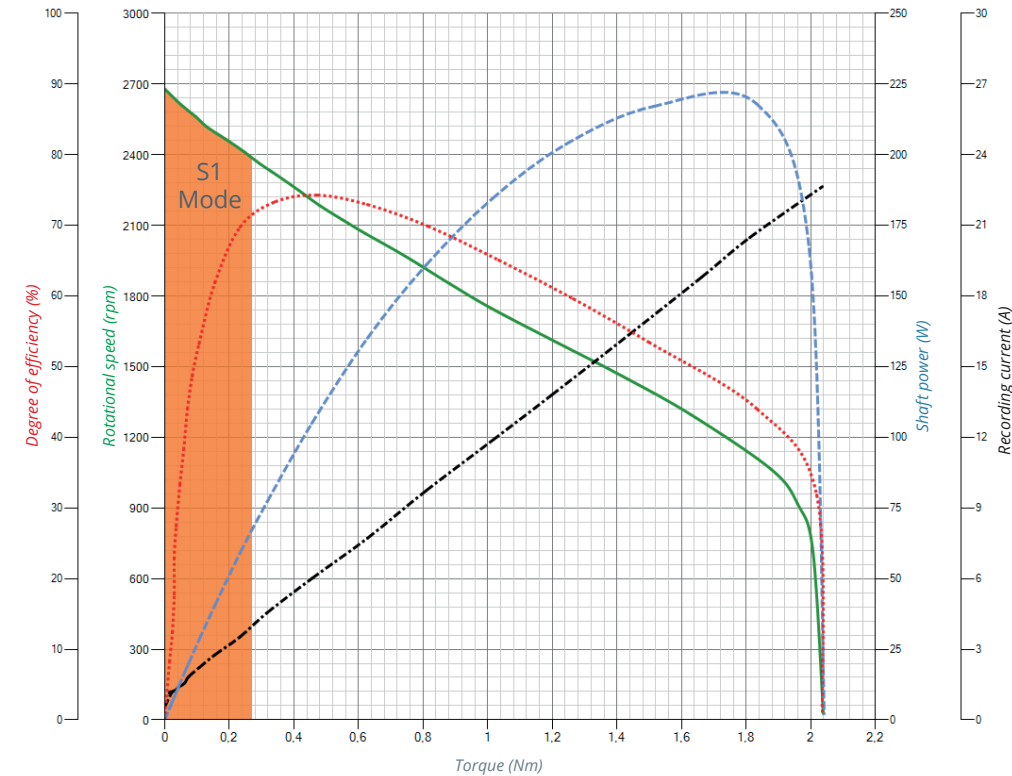
t-Rex 3200 I-44-89 L12 S2 DH	3200.00-0004/3200.00-0009	
Rated voltage	24 VDC	36 VDC
Rated current	4.0 A	3.2 A
Rated torque	0.27 Nm	0.2 Nm
Rated speed	2375 rpm	3770 rpm
Shaft power (output)	67 W	78 W
Max. efficiency	74 %	76 %
Idle speed	2680 rpm	4053 rpm
No-load current	0.55 A	0.56 A
Stall torque	2 Nm	2 Nm
Starting current at idle speed	22.8 A	21.8 A
Torque constant	0.09 Nm/A	0.09 Nm/A
Speed constant	112 rpm/V	113 rpm/V

Motor parameters

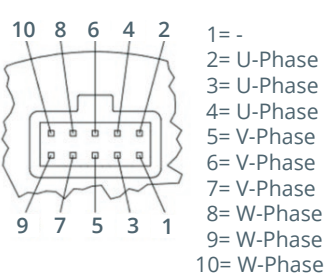
Terminal resistance (phase to phase)	27 mOhm
Terminal inductance (phase to phase)	45 µH
Rotor inertia	26.5 kg* mm²
Number of poles	14
Interconnection of the motor	Star
Number of coils per phase	2
Interconnection of coils	2 Series
Direction of rotation	bidirectional

Note: Max. ambient temperature = 40 °C, controller-specific
At the nominal point (TU = 20°C), controller-specific
Only cyclical operation is possible with 48 V

Motor characteristics at 24 V

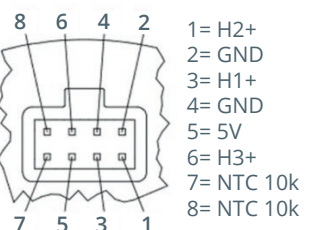


Motor phases



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 / 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-Wert 3650 K

Motor cable approx. 1,5 m

Item number: 3200.53-05