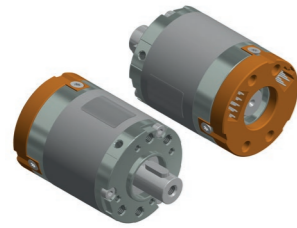


t-Rex 3200 (short version, focus rotational speed) I-44-47-L21 S2



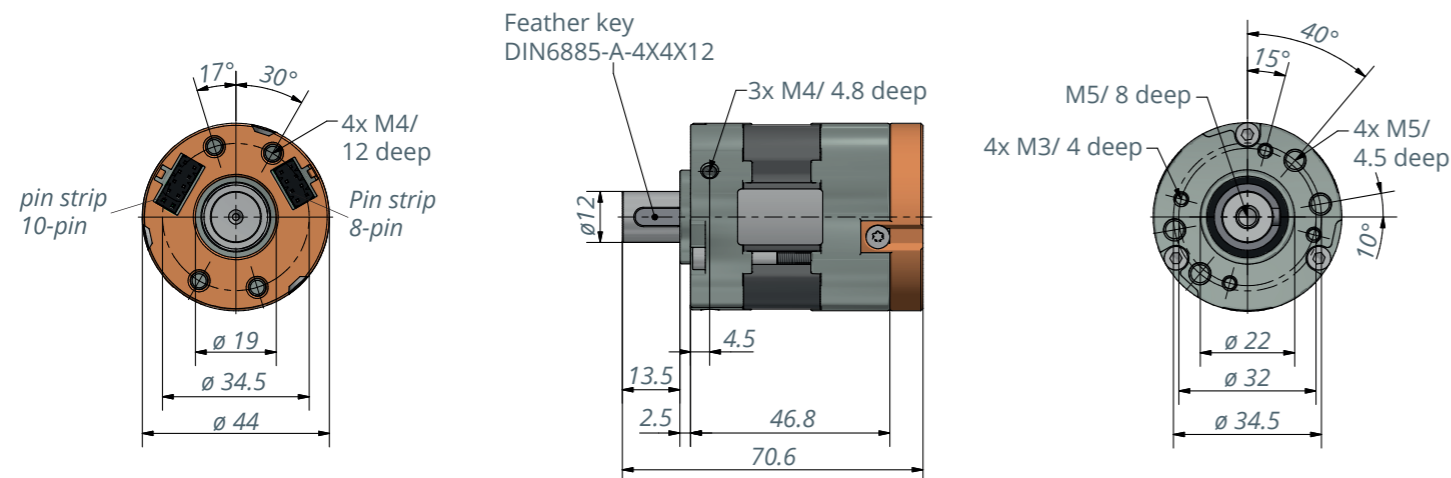
Description

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 cables to run through the motor or the implementation of output on both sides.

Special features

- 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

3200.00-3002 with shaft



Digital Hall-sensors

Supply of sensors

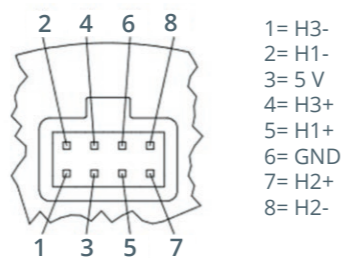
Voltage range: 4.5 to 5.5 V DC
Optional: voltage regulator for 5 V
Input current: < 70 mA

Output signals of sensors

Differential output
(RS422 standard, datasheet AM26 C31-TI)
Typical voltage range: 0.2/ 3.4 V @ 20 mA
Output current: max. 20 mA

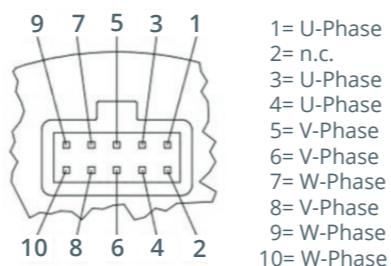
Signal structure: The Hall sensors have a 120° phase shift to each other
Due to the 14-pole design the
Signal frequency is seven times higher than the speed

Hall-sensors



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

Motor phases



n.c.= please do not connect
RM 2.54 / 10 PIN
W+P 3491-10

t-Rex 3200-I-44-47 L21 S2 DH	3200.00-3002	
Rated voltage	24 VDC	36 VDC
Rated current	3.4 A	2.4 A
Rated torque	0.1 Nm	0.05 Nm
Rated speed	4600 rpm	7400 rpm
Shaft power (output)	48 W	38 W
Max. efficiency	65 %	71 %
Idle speed	5168 rpm	7778 rpm
No-load current	1.2 A	1.3 A
Stall torque	1.1 Nm	0.9 Nm
Starting current at idle speed	24 A	18 A
Torque constant	0.047 Nm/A	0.05 Nm/A
Speed constant	215 rpm/V	216 rpm/V

Motor parameters

Terminal resistance (phase to phase)	0.29 Ohm
Terminal inductance (phase to phase)	171 mH
Rotor inertia	9.5 kg* mm ²
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 characteristics at 24 V

Motor cable approx. 1,5 m

Item number: 3200.53-05

