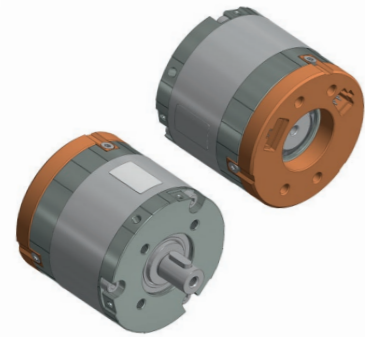


t-Rex 3206 (short version, focus rotational speed) I-65-51-L36 S2



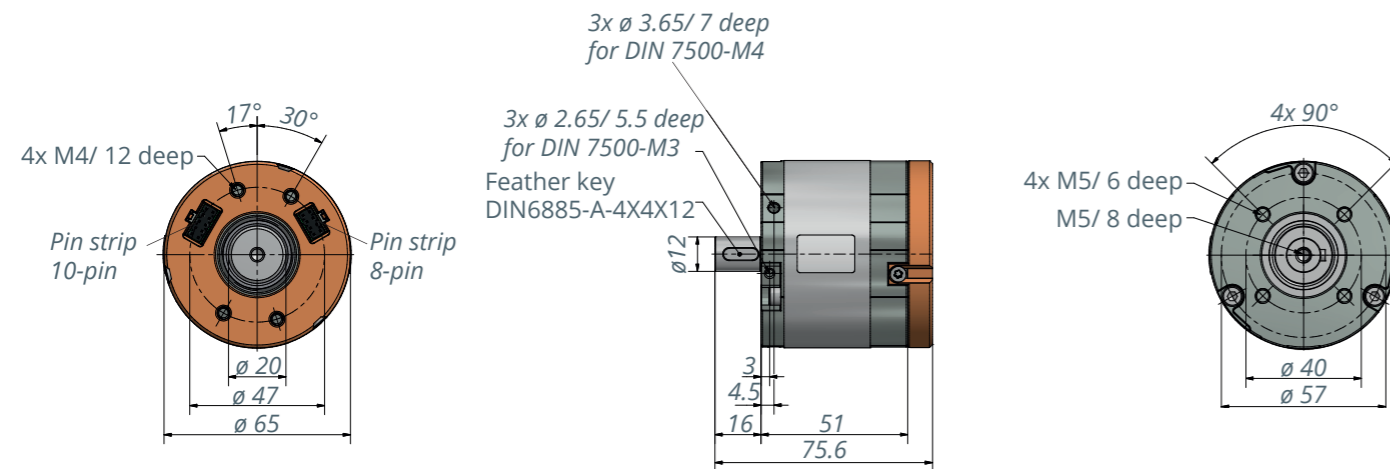
Description

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
- Special winding upon request
- Design and manufacture of motor to specified operating point is possible

3206.00-1000 with shaft



Motor cable approx. 1.5 m

Item number: 3200.53-05

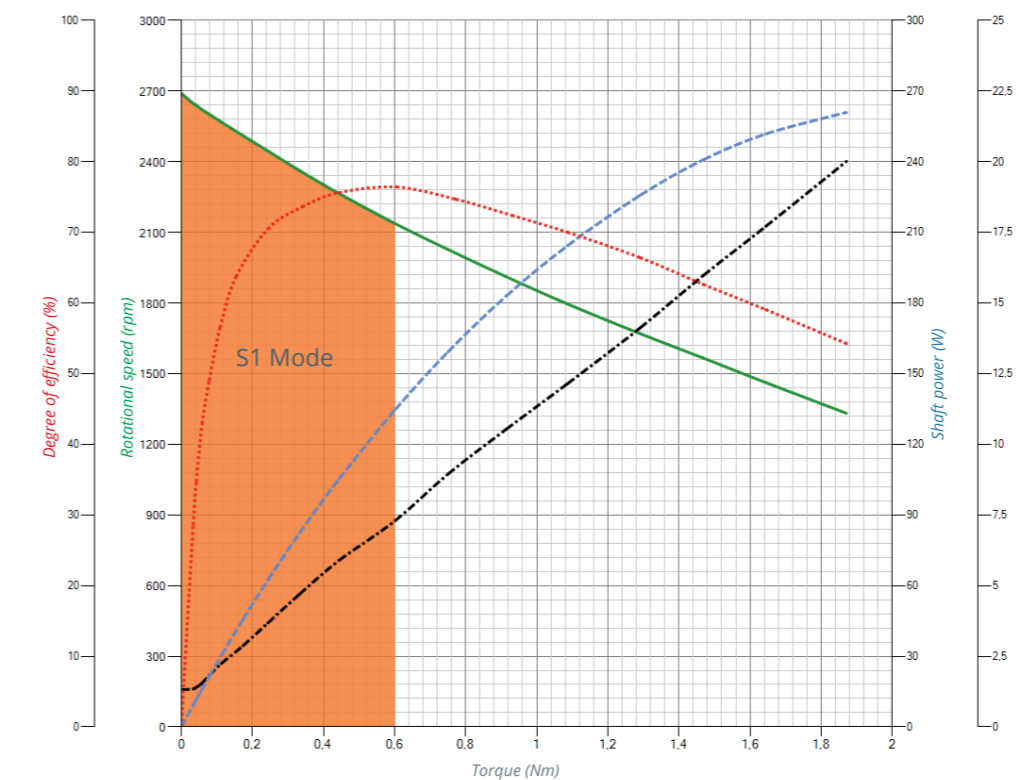
t-Rex 3206 I-65-51 L36 S2 DH	3206.00-1000		
Rated voltage	24 VDC	36 VDC	48 VDC
Rated current	7.3 A	5.6 A	5.6 A
Rated torque	0.6 Nm	0.6 Nm	0.6 Nm
Rated speed	2139 rpm	3208 rpm	4812 rpm
Shaft power (output)	134 W	201 W	301 W
Max. efficiency	76 %	77 %	77 %
Idle speed	2680 rpm	4053 rpm	6054 rpm
No-load current	0.5 A	0.6 A	0.6 A
Stall torque*	1.9 Nm	1.9 Nm	1.9 Nm
Starting current at idle speed	20 A	20 A	20 A
Torque constant	0.094 Nm/A	0.094 Nm/A	0.094 Nm/A
Speed constant	112 rpm/V	112 rpm/V	126 rpm/V

Motor parameters

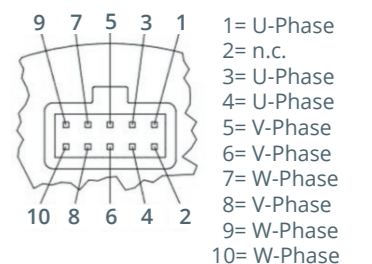
Terminal resistance (phase to phase)	0.348 Ohm
Terminal inductance (phase to phase)	0.36 mH
Rotor inertia	65 kg* mm ²
Number of poles	14
Interconnection of the motor	Star
Number of coils per phase	2
Interconnection of coils	2 Series
Direction of rotation	bidirectional

* Is limited by the current carrying capacity of the coils
Note: Max. ambient temperature = 40 °C, controller-specific
At the nominal point (T_U = 20°C), controller-specific

Motor characteristics at 24 V

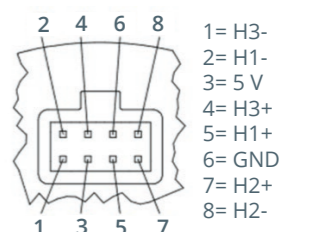


Motor phases



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

Hall-sensors



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

Digitale 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