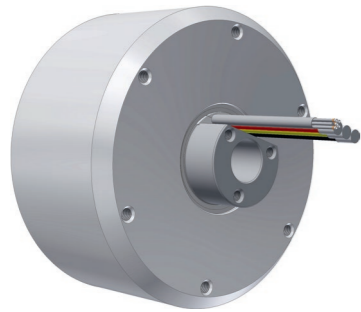


i-Rex 3207

Description

The 32-pole BLDC outrunner motor with its compact design is perfectly suited for a direct drive.



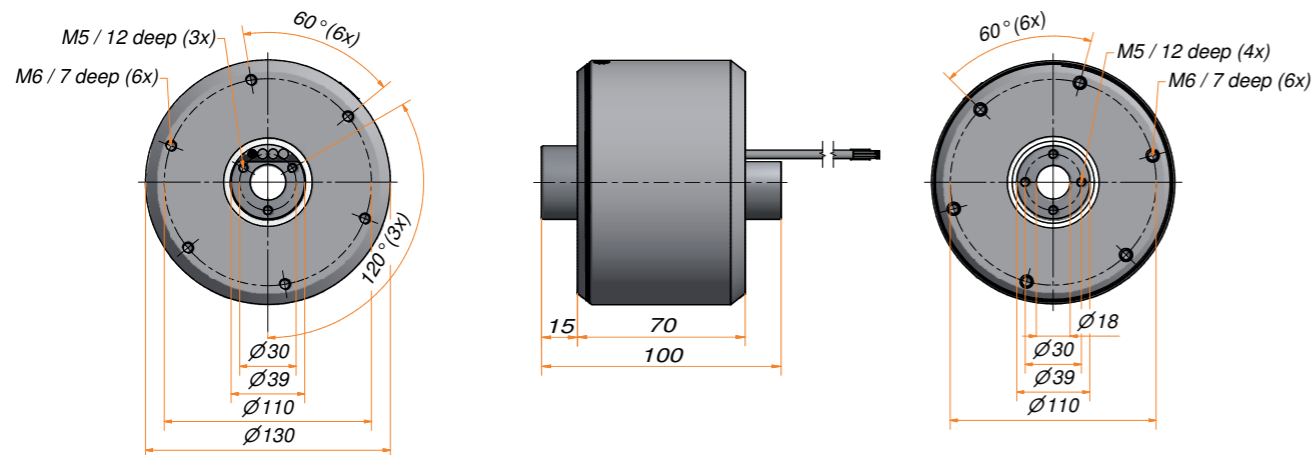
Direct drive - Benefits in a nutshell

- No gearbox – no wear
- Much longer service life compared to conventional drive technology with a gear stage
- Excellent running properties with barely perceptible noise level
- Ultra-compact with extremely high power density

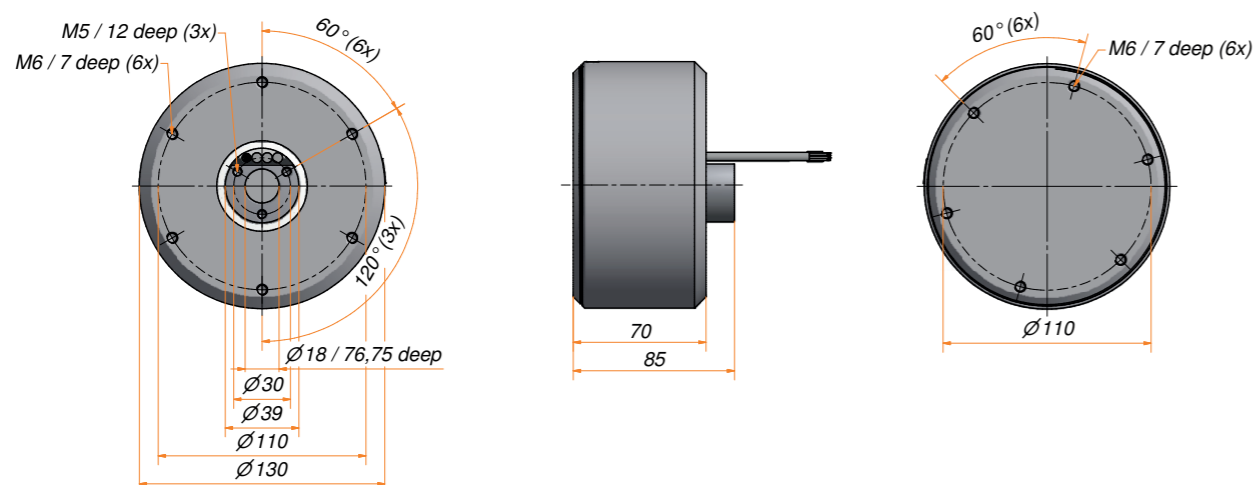
The choice is yours - we implement it

- Two analog Hall sensors as standard
Other encoder types are available on request
- Brake optional
- Combinable with various controllers
- Customized mechanical integration or system connection

3207.48-2001: With throughgoing hollow shaft

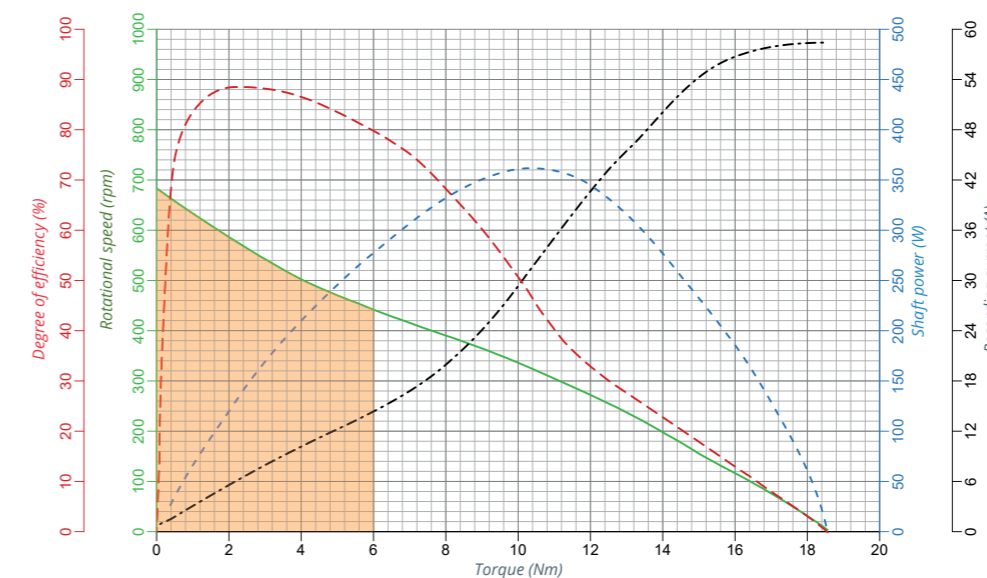


3207.48-2010: With hollow shaft



	3207.48-2001 / 3207.48-2010 i-Rex-A-130		
Voltage range	48 VDC	48 VDC	48 VDC
Rated voltage	24 VDC	36 VDC	48 VDC
Rated current	14.5 A	14 A	14 A
Rated torque¹⁾	6 Nm	6 Nm	6 Nm
Rated speed	440 rpm	670 rpm	880 rpm
Shaft power (output)	270 W	420 W	550 W
Max. efficiency	89 %	89 %	88 %
Idle speed²⁾	680 rpm	1,000 rpm	1,360 rpm
No-load current²⁾	1 A	1 A	1 A
Stall torque²⁾	18.5 Nm	17.9 Nm	17.8 Nm
Starting current at idle speed²⁾	58 A	39.5 A	33 A
Torque constant³⁾	0.43 Nm/A	0.43 Nm/A	0.43 Nm/A
Speed constant³⁾	28.3 rpm/V	27.8 rpm/V	28.3 rpm/V
Terminal resistance (phase to phase)	0.12 Ohm		
Terminal inductance	0.88 mH		
Rotor inertia	1,713 kg* mm ²		
Number of poles	32		
Interconnection of the motor	H36S4		
Encoder type	2x Halls analog		

- 1) At the nominal point (TU = 20°C), controller-specific
- 2) Max. ambient temperature = 40 °C, controller-specific
- 3) Radial and axial forces apply to the nominal service life
L10h = 20,000h according to DIN ISO 281



Sensor connection:

1 Sensorsignal cos+	brown
2 Sensorsignal cos-	brown-white
3 5 V	orange
4 Sensorsignal sin+	green
5 Sensorsignal sin-	brown
6 GND	orange-white

Phase connection:

U	= red	4 mm ²
V	= yellow	4mm ²
W	= black	4 mm ²

Analoge Hall-sensors

Supply of sensors:
Voltage range: 5 V DC
Input current: < 70 mA

Output signals of sensors:
Differential output
Typical voltage range: 1 ± 0.2 V DC
Output current: Max. 20 mA

Signal structure: The hall sensors have a 90° phase shift to each other.
Due to the 32-pole design the **signal frequency** is 16 times higher than the speed.