

LON:139,2589°

LAT:-61,7519°

LEO SPACE

ALT:421,6253 KM

Minimal vibrations

Reliable & durable

Lightweight

Precise control

Scalable for volume production

cyber® wheel family

Excellent solution for ambitious missions

In collaboration with WITTENSTEIN

Excellent solution for ambitious missions

Reliability & durability

- Lifetime >7 years
- Special material selection for max. durability
- Prevention of single-event upset data corruption

Precision control

- Sensorless closed loop control
- Precise zero crossing
- Dynamic PI control structure

Minimal vibrations

- Laser balanced rotor
- Maximum stiffness of rotating parts



Scalable for volume production

- Fitting for all satellite sizes
- In-house stator and rotor production

Lightweight

- Weight optimized design of all parts

Technical data				
		1 Nms	6 Nms	12 Nms
Availability		Q4 2026		
Wheel Dimensions	mm	53 x Ø140	65 x Ø174	75 x Ø215
Total Wheel Overall Mass	kg	1.2	3	4
Maximum Torque	Nm	0.25	0.5	0.7
Minimal Torque	Nm	0.0003	0.0006	0.0009
Bearing Lifetime	yrs	> 7		
Maximum Power	W	140	240	300
Nominal Power	W	<15	<20	<25
Standby Power	W	< 2		
Nominal Bus Voltage	V	12-50		
Interface		Flexible Digital Interface (CAN, SPI, I2C, ...)		
Environment		Designed for LEO		

Note: Preliminary data to be confirmed in further development process