



Parameter	Type A	Type B
Angular momentum	5.8 E ⁻⁴ Nms	1.0 E ⁻⁴ Nms
Nominal rotation speed	8000 rpm	
Maximum rotation Speed	≈ 16 380 rpm	
Speed Resolution	0.25 rpm (1LSB)	
Nominal Torque (max. commandable)	23 E ⁻⁶ Nm	4 E ⁻⁶ Nm
Torque Deviation – rms value	<2.2 E ⁻⁶ Nm	0.8 E ⁻⁶ Nm
Power interface		
Supply voltage	5 V	
Power consumption for WDE ¹ (stand by, motor off, P _{wde})	WDE for 1 wheel WDE for 3 wheels WDE for 4 wheels	< 250 mW < 350 mW < 500mW
maintaining nominal rotation speed ^{1,2}	< 275 mW + P _{WDE}	< 200 mW + PWDE
maximum consumption ^{1,2}	< 375 mW + PWDE	< 300 mW + PWDE
Mechanical interface		
Mass (including 40 cm cable)	≤ 24 g	≤ 15 g
WDE Mass	≤ 45 g	
Moment of inertia	694.5 E ⁻⁹ kg m ²	119.5 E ⁻⁹ kg m ²
Dimension Single Wheel	21 x 12 x 21 mm ³	21 x 12 x 21 mm ³
Temperatures		
Operation	-20 °C to +50 °C	
Non-operation	-40 °C to +65 °C	
Design lifetime	1 year in LEO	
Storage time	2 years including 250h of ground operation	

¹... values determined at ambient temperature (~25 °C), vacuum

²... based on the operation on 1 x RW1