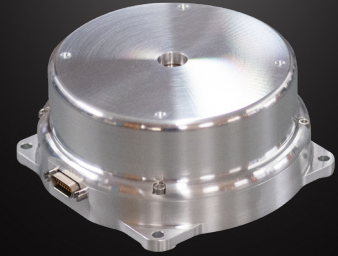


# REACTION WHEEL

## 400 mNms RW-0.4 Data Sheet

Version 2, 7 April 2022



<b>MOMENTUM</b>	Nominal: 0.2 Nms (light rotor) or 0.4 Nms (heavy rotor)
<b>TORQUE</b>	±100 mNm at nominal momentum Enhanced motor cooling for high duty cycle (CMG replacement)
<b>CONTROL MODE</b>	Speed or torque, with built-in control CPU
<b>COMMAND/TELEMETRY</b>	Redundant RS-485
<b>MECHANICAL</b>	Dimensions: 46mm high x Ø103 mm (not including mounting feet) Mass: 600g (0.2 Nms) or 770 g (0.4 Nms)
<b>SUPPLY VOLTAGE</b>	Nominal: 24 V to 34 V, +75 V options available
<b>SUPPLY POWER (28 V IN VACCUM)</b>	TBD. Regenerative braking returns power to bus
<b>ENVIRONMENT</b>	Thermal: -40° C to +70° C (operating) Vibration: >14 gRMS
<b>RADIATION</b>	> 60 krad Total Dose, with LDRS testing. Heavy ion tested to 50 MeV cm <sup>2</sup> /mg. Hardware TMR on all flip flops, EDAC on all RAM
<b>RELIABILITY</b>	Advanced hybrid ball bearings, redundant motor windings, active neutralization of rotor static charge
<b>HERITAGE</b>	Mechanical design from 1 Nms wheel, with 85 Units on orbit First Flight Deliveries Q2 2021
<b>PRICE</b>	US \$45,000 each (0.2 Nms), US \$50,000 each (0.4 Nms)