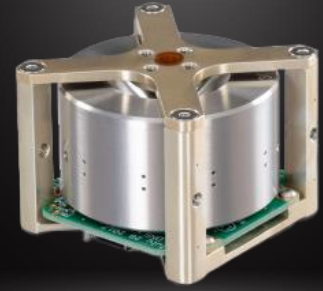


REACTION WHEEL

RW-0.03 Data Sheet

Version 3.0 – 2024-08-02



MOMENTUM	Nominal: ± 0.03 Nms Peak: ± 0.04 Nms (at 5 V)
TORQUE	± 2 mNm at 0.02 Nms ± 0.5 mNm at 0.04 Nms (at 5 V) See below torque-box
CONTROL MODE	Speed or Torque
COMMAND/TELEMETRY	UART/ASYNC
MECHANICAL	Dimensions: 50 mm x 50 mm x 40 mm Mass: 183 g
SUPPLY VOLTAGE	3.5 V to 6.0 V (nominal 5V)
POWER (28 V in VACCUM)	1.8 W @ 0.02 Nms, +2 mNm 0.3 W @ 0.04 Nms, steady state 0.1 W @ 0.01 Nms, steady state (See below power curve for various torque commands)
ENVIRONMENT	Thermal: -30°C to $+85^{\circ}\text{C}$ (operating) Vibration: 12.87 gRMS Radiation (TID): 24 krad (board level)
FLIGHT HERITAGE	Total of 87 units on orbit, with cumulated 446 years of heritage since first launch in 2008. Common design with RW-0.01, with additional 19 units and 92 years since 2014.

