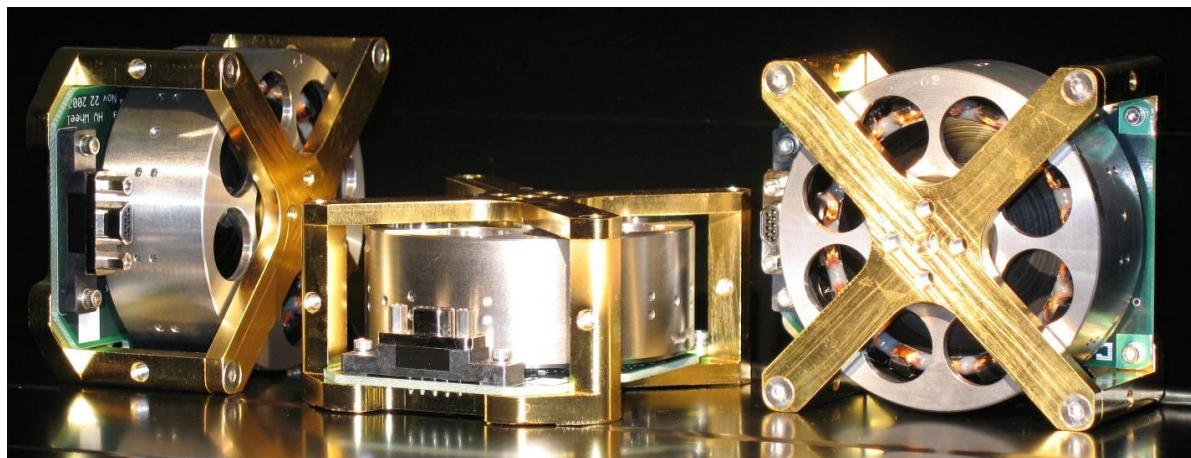
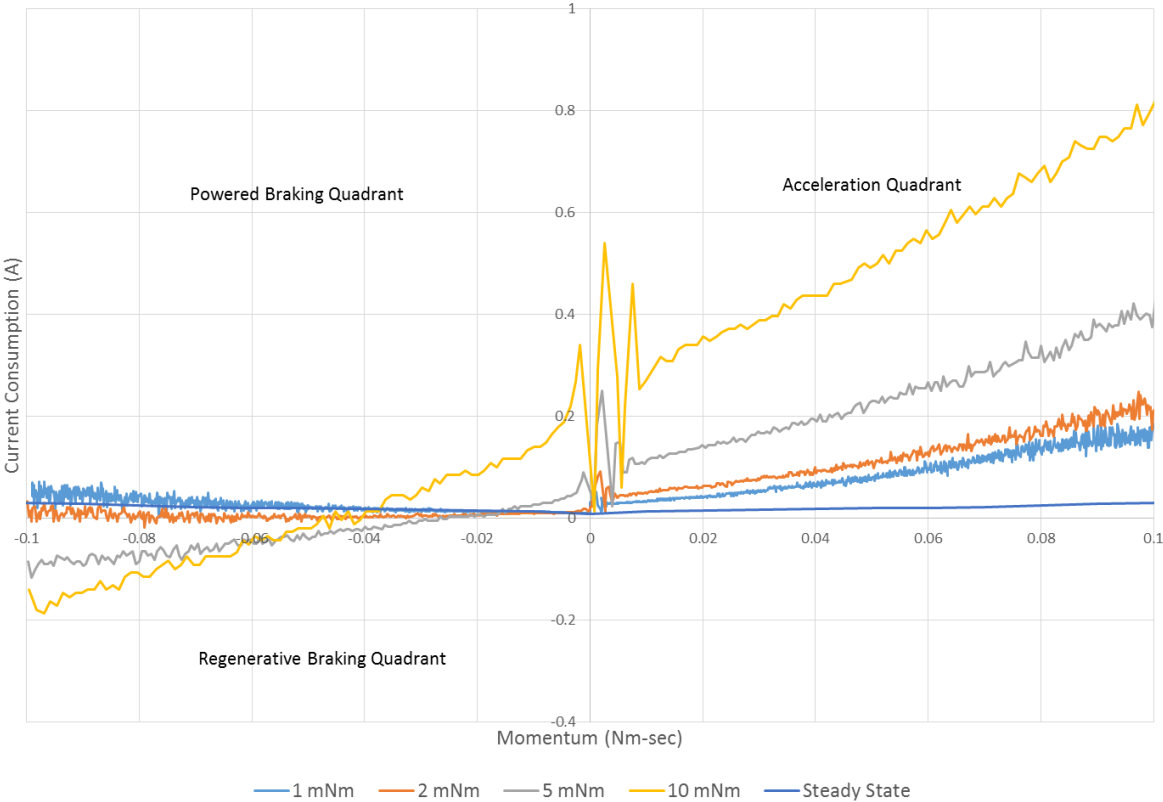


# Microsatellite Reaction Wheels (RW3-0.060)



<b>Momentum</b>	Nominal: 0.06 Nms Peak: 0.18 Nms (at 28 V supply)	
<b>Torque</b>	±20 mNm at 0.12 Nms (at 28 V supply)	
<b>Control Mode</b>	Speed, torque or current with built-in control CPU	
<b>Command / Telemetry</b>	Two RS-485, or one RS-485 and one CAN ±36 V fault tolerant	
<b>Mechanical</b>	Dimensions: 77 mm x 65 mm x 38 mm Mass: 226 g	
<b>Supply Voltage</b>	Nominal: 7.5 V to 34 V Maximum: 50 V	Redundant pins, reverse polarity protected, shorted bus protected
<b>Supply Power (in vacuum)</b>	23.4 W @ 0.12 Nms, +10 mNm 0.9 W @ 0.12 Nms, steady state 0.5 W @ 0.06 Nms, steady state -4.6 W @ 0.10 Nms, -10 mNm regenerative braking	
<b>Environment</b>	Thermal: -40°C to +70°C (operating) Vibration: >23 g <sub>RMS</sub> Radiation: >20 krad dose	
<b>Reliability</b>	Diamond coated hybrid ball bearings Redundant motor windings Radiation lot-screened parts on all flight models	
<b>Heritage</b>	16 Units total on-orbit on 4 satellites, first launched June 2014 Common design to RW-0.03, with >8 year on-orbit	
<b>Price</b>	US\$35,000 each	

Input Current at 28 V in Vacuum for Various Torques



Torque Box at 28 V in Vacuum

