

HONEYWELL COMMERCIAL (HC) SERIES RWA

Small Satellite Class Reaction Wheel Assembly (RWA)

Honeywell is advancing the state of the art for a smallsat RWA application by offering a technical solution that preserves Honeywell's high value, heritage and reliable operation.

INTRODUCING THE HC7 AND HC9 RWAs

These RWAs have been designed to offer extreme flexibility in momentum and torque options, tailored to New Space price points, while providing precision RWA performance supported by advanced drive technology. Gen 1 Qualification was completed in June 2021.



Performance does not need to be compromised for a small scale RWA response in a large market demand.

HC7 and HC9 Performance

PARAMETER		UNIT	CAPABILITY*	
Model (Gen 1)			HC7	HC9
Momentum		Nms	6	11.5
Reaction Torque		Nm	0.2	
Standby Power. nominal		Watts	5	
Peak System Power. max		Watts	130	
Steady State System Power. max		Watts	25	
Mass		Kg	<4.5	<5.5
Envelope. H x D		Cm	10.5 x 20	11.5 x 25
Integral Electronics		No/Yes	Yes	
Mission Life		Years	7	
Storage Life		Years	2	
Parts	Type	-	COTS	
	Grade	-	AEC-Q or Higher	
Bearing		Size	101	
Op Temp Range		deg C	-10 to 50	
Bus Interface. Digital	Voltage	V	28±4	
	Interface	-	RS422@9600 BAUD	
Radiation Hardness System		Krad (Si)	20+	
Comand Mode**		-	Speed or Torque	

* Performance values subject to change based on product advancement or specific user application needs.

** Torque loss is internally compensated for resulting in commanded torque = reaction torque.

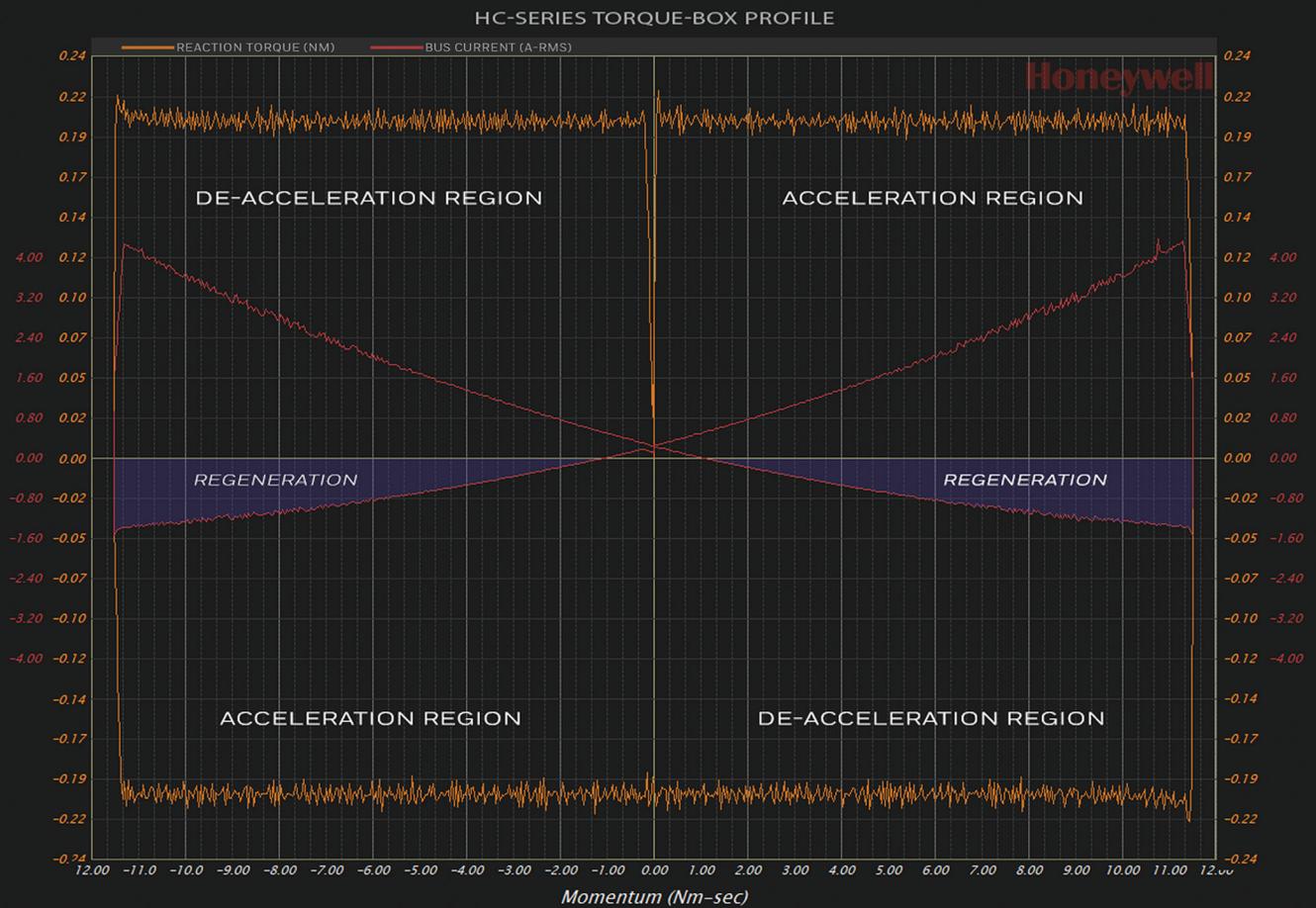
PERFORMANCE ADVANTAGES:

- Honeywell reliability
- High-output, low-jitter performance for precision position and pointing control
- Plug-and-play ACS insertion
- Minimized vehicle integration time
- Application scalable optimization

KEY INTEGRATED HONEYWELL TECHNOLOGIES:

- Proven spin-bearing design
- Insensitive to low or transitional operational speeds
- Optimized momentum density packaging
- Flexible vehicle digital interface

HONEYWELL HC SERIES TORQUE-BOX PROFILE



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