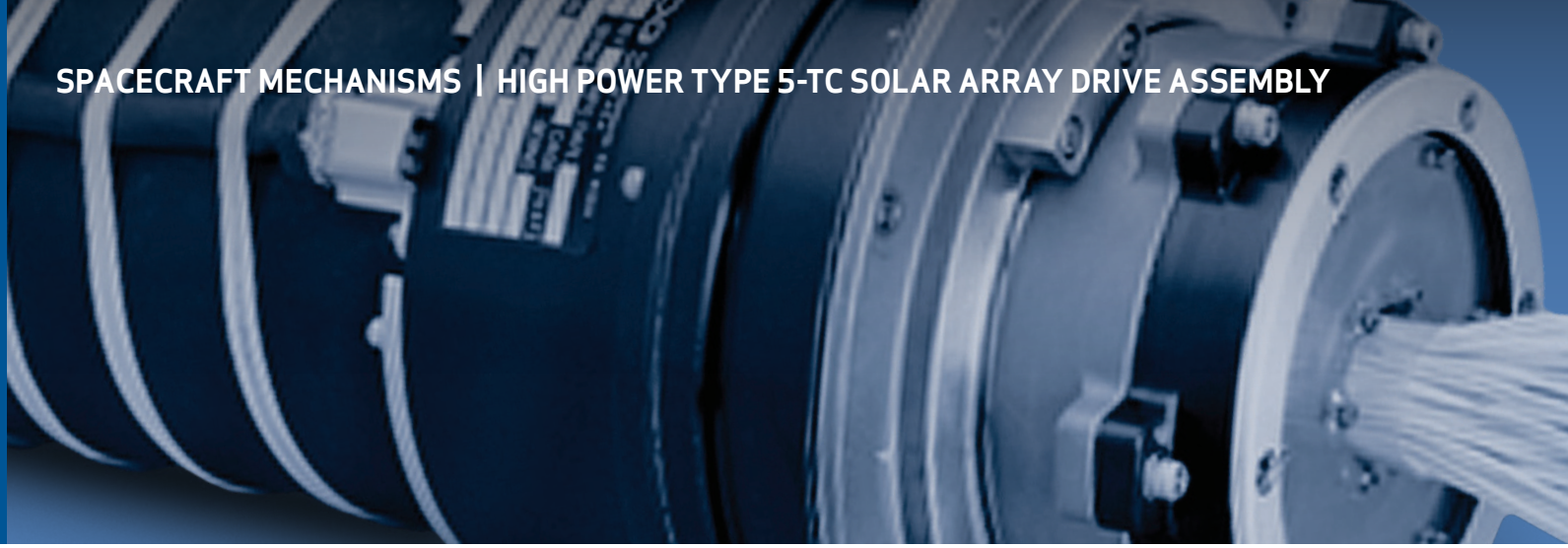
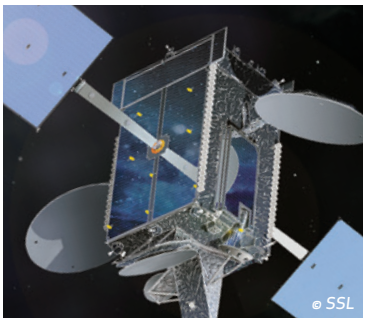
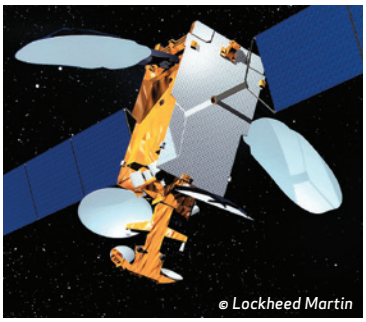


HIGH POWER TYPE 5-TC SOLAR ARRAY DRIVE ASSEMBLY

The single axis High Power Solar Array Drive Assembly (SADA) is based on the Type 5 Rotary Incremental Actuator. This standard SADA meets up to 10 kilowatts of power transfer. The design is configured with a Harmonic Drive gear set driven by a Moog discrete permanent magnet stepper motor, potentiometer for position sensing and a high power Twist Capsule assembly for power transfer.





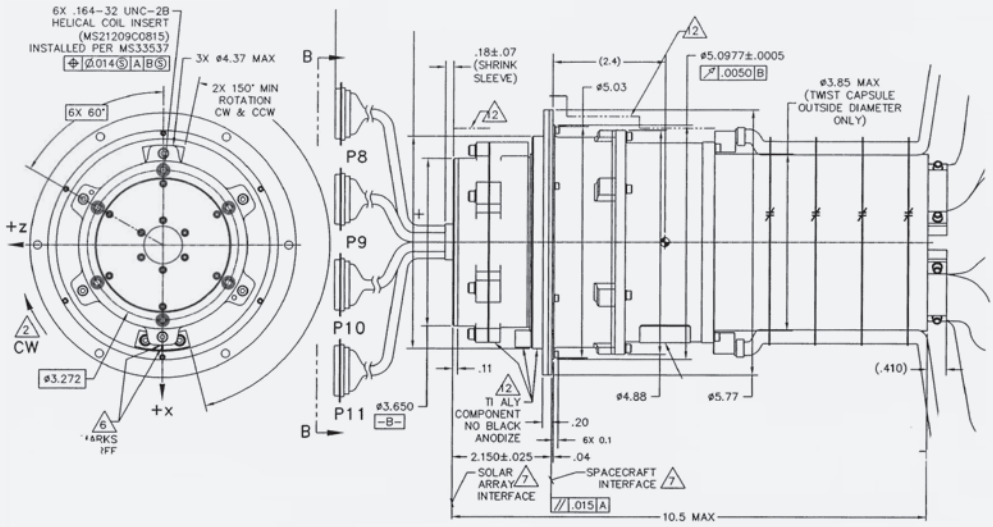
MOOG

HIGH POWER TYPE 5-TC SOLAR ARRAY DRIVE ASSEMBLY

SPECIFICATIONS

Parameter	Units	Basis	Data
Output Step Angle	Degrees	Standard	0.0075
Steps per Revolution	Steps	Standard	48000
Max. Output Step Rate	Steps/sec (Deg/sec)	Maximum	300 (2.25)
Backlash	Degrees	Maximum	zero backlash
Operating Temperature Range	°C	Maximum	-24 to +61
Torsional Stiffness	lb-in/Rad	Minimum	350,000
Moment Stiffness	lb-in/Rad	Minimum	500,000
Axial Stiffness	lb/in	Minimum	200,000
Radial Stiffness	lb/in	Minimum	800,000
Output Load Capability Axial	lbf	Nominal	370
Radial Stiffness	lbf	Nominal	370
Moment	Lb-in	Nominal	430
Output Torque	Lb-in	Minimum	500
Mechanical Accuracy	Degrees	Better than	+/- 0.02
Unpowered Holding Torque	Lb-in	Minimum	300
Powered Holding Torque	Lb-in	Minimum	600
Twist Capsule Power Circuits	75 circuits derated at 2.6 A each (150 lines)		
Twist Capsule Signal Circuits	47 lines derated at 0.50 A each		
Range of Motion	Degrees	Maximum	+/-150°
Actuator Power Consumption	Watts	Maximum	12
SADA Weight (without Harness)	Lb	Maximum	11.00
Flight Heritage	Over 20 SADAs in Flight on GPS Satellites		

DIMENSIONS



MOOG
SPACE AND DEFENSE GROUP

21339 Nordhoff Street, Chatsworth, CA 91311
Sandra Browne – sbrowne@moog.com (International)
Scott Reynolds – sreynolds@moog.com (USA & Canada)
+1.818.734.6700 • www.moog.com

Moog Space and Defense @MoogSDG @MoogSDG @MoogSDG

Form 500-1079 0619