



## SLIP RING PRODUCT GUIDE

FOR AEROSPACE AND DEFENSE  
APPLICATIONS

# PROVEN SLIP RINGS

A slip ring is an electromechanical device that allows the transmission of power and data signals from a stationary to a rotating structure. Also called a rotary electrical joint, collector or electric swivel, a slip ring can be used in any electromechanical system that requires unrestrained, intermittent or continuous rotation while transmitting power and / or data. It can improve mechanical performance, simplify system operation and eliminate damage-prone wires dangling from movable joints.

Moog is a worldwide designer, manufacturer, and integrator of precision control components and systems. Moog's high-performance systems control military and commercial aircraft, satellites, and space vehicles, launch vehicles, missiles, automated industrial machinery, and marine and medical equipment.

Additional information about the company's broad range of slip rings and motion solutions can be found at [www.moog.com](http://www.moog.com).

## PRODUCT RANGE

As the world's leading slip ring manufacturer, Moog offers more than 10,000 slip ring designs that are used in FLIR systems, blade de-ice, target acquisition systems, tank turrets and manned / unmanned vehicles. Specific applications include:

- EO / IR Sensor Pods
- Fixed and Rotary Wing Aircraft
- Ground Vehicles
- Radar Systems
- Remote Weapons Systems
- SATCOM
- Unmanned Vehicles / Remotely Operated Vehicles



VEHICULAR



HELICOPTER



PROPELLER



TWIST CAPSULES

# SLIP RING OVERVIEW

Moog's slip rings have been successfully performing in aerospace and defense applications for over 70 years. These products are developed for rugged environments and demanding requirements.

AEROSPACE AND DEFENSE SLIP RINGS	
Type	Description
Vehicular Slip Rings	The increasing complexity of modern military vehicles demands slip rings that provide reliable electrical interfaces between the stationary and rotating parts of these vehicles. Moog slip rings have been chosen to operate on numerous vehicular programs to meet these challenges.
Helicopter Slip Rings	Today's rotorcraft applications place unique demands on slip ring technology because of equipment requirements and environmental conditions. From de-ice applications (with their need for high rotational speed, exposure to weather conditions and high vibration) to weapon stations and electro-optic sensor systems (with high bandwidth signal transmission), helicopter slip rings must perform in a highly reliable mode with the latest product advancements.
Propeller Slip Rings	Fixed wing propeller aircraft use specialist de-icing slip rings to pass electrical power from the airframe generators to the rotating propellers. These propellers are heated to avoid the build up of ice either in flight or on the ground in difficult weather conditions.
Twist Capsules	The dramatic increase of sophisticated gimbaled electro-optic sensor systems that provide battlefield information has led to major developments in supporting hardware. These EO systems require an enormous amount of data to be transmitted across the rotating axis as well as power and other signals. Moog has always been one step ahead of these requirements with the development of high bandwidth slip rings, twist capsules, fiber optic rotary joints and multiplexing technologies.

Miniature slip ring capsule assemblies economically address both critical space and weight limitations. Each assembly includes the rotor, brush blocks, frame, ball bearings and dust cover.

MINIATURE SLIP RING CAPSULES						
Model	Circuits	Current	Voltage	Size Dia" x L" (mm)	Operational Speed	Through-Bore
AC264	20, 30, 40, 50, 60	0.8 amp	100 VDC	.50 x 1.04 - 2.24 (12.7 x 26.3 - 56.8)	100 rpm	No
AC267	16, 20, 24, 28, 32, 36	0.8 amp	100 VDC	.375 x .91 - 1.51 (9.525 x 23.2 - 38.4)	100 rpm	No
RE4815	32	1.2 amps	50 VAC / VDC	0.50 x 1.32 (12.7 x 33.5)	600 rpm	No
AC6292	80	0.8 amp	100 VDC	.685 x 2.0 (17.2 x 50.8)	40 rpm max.	No
RK4288	95	0.8 amp	70 VDC	.880 x 3.3 (22.35 x 83.82)	40 rpm	No
M Series	40 to 120	2 amps	60 VDC	2.70 x 2.80 - 5.50 (68.58 x 71.12 - 139.7)	1,000 rpm	No



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