

Solar array drive assembly





Overview

What is a type 1 solar array drive assembly?

The solar power application is one of the most established for Moog actuators and biaxial gimbals. [CONTACT OUR EXPERTS](#)> The Type 1 Solar Array Drive Assembly offers a minimum weight, minimum power solution for positioning solar array panels at the lower end of the size/power spectrum. [Learn More >](#).

What is a solar array drive assembly (Sada)?

Solar Array Drive Assemblies (SADA) are primarily used to rotate and position solar panels on satellites. The systems consist of a Solar Array Drive Mechanism (SADM) and electronics which are commercially available as standalone components or as a complete SADA solution.

What is a solar array drive assembly?

Solar Array Drive Assemblies, or SADAs, are an integration of mechanical and electrical components used for rotating the solar panels on the satellite.

How does a solar array drive system work?

The mechanical actuator drive system of the SADA rotates the solar arrays based on sun tracking information, while the electrical component of the SADA provides a pathway for power transfer from the arrays to the satellite. A SADA mainly consists of Solar Array Drive Mechanism (SADM) and Solar Array Drive Electronics (SADE).

What is a side-drive solar array drive mechanism?

The Side-Drive Solar Array Drive Mechanism (SADM) consists of a slip ring assembly and an actuator coupled by a spur gear set, which, when driven by suitable drive electronics, will position the Solar Array toward the sun for maximum power and transfer the collected energy to the spacecraft power bus. [Learn More >](#).



Can a new solar array drive assembly be used on CubeSats?

This paper describes in detail the need for, process of designing, and benefits of a new solar array drive assembly for use on CubeSats. The goal of this project is to enable missions utilizing this architecture to maximize the solar power received via their solar arrays by rotating them towards the sun while minimizing weight and volume.



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[Small Satellite Solar array Drive Assembly](#)



The small satellite Solar Array Drive Assembly (SADA) is a lightweight and compact power solution for positioning solar array panels. Continuous rotation of the solar array is facilitated by the integration of a slip ring ...

Solar Array Drive Assembly (SADA)

The Solar Array Drive Assembly for Smallsats (SADA) is a brand new solution developed by DHV Technology to allow your satellite solar arrays to be orientated accordingly to the sun and providing the maximum power ...



[SADA 150: Advanced Solar Array Drive Assembly](#)



The Frontgrade Standard Solar Array Drive Assembly, SADA-150, is designed with SWaP-C top-of-mind to support a wide range of missions from Low Earth Orbit to Deep Space. With a TRL-9 status, this device has ...

[Type 2 Side-Drive Solar Array Drive Mechanism](#)

The Side-Drive Solar Array Drive Mechanism (SADM) consists of a slip ring assembly and an actuator coupled by a spur gear set, which, when driven by suitable drive electronics, will position



the Solar Array toward the sun for ...



Modeling and Disturbance Compensation Sliding

...

In this study, a dynamic model of a solar array drive system that includes a pair of flexible solar arrays with a central rigid shaft and a permanent-magnet synchronous motor (PMSM) was developed, and a ...



Design and Test Analysis of a Solar Array Root Hinge Drive ...

A ground prototype deployment test is conducted to verify the capacity of the drive assembly. The test device consists of a large-area solar array system and a root hinge drive assembly. The ...

Modular design,
unlimited combinations in parallel
BUILT-IN DUAL FIRE PROTECTION MODULE



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