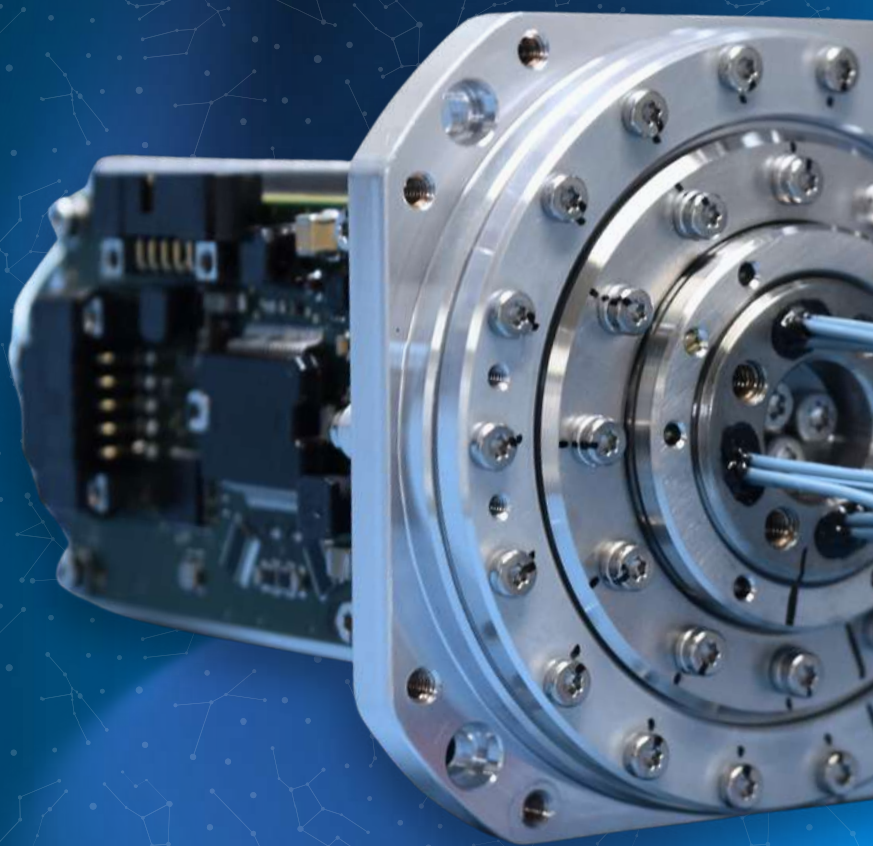




SADM

Maximal power



Plug
& play



Compact
accommodation



Unlimited
rotation

**Innovative
Spacecraft
Solutions.**



NASA | State-of-the-art 2024



2025

SADM

Solar Array Drive Mechanism



| State-of-the-art 2024



SADM-200



SADM-1500

Performances

POWER TRANSFER

Up to **400W**
7 power pairs under 28V/1.02A

Up to **4000W**
13 power pairs under 28V/3.08A

SPEED GROUND TESTING

Nominal
Max

0.01 rad/s (0.1 rpm)
0.14 rad/s (1.3 rpm)

0.018 rad/s (0.17 rpm)
0.21 rad/s (2 rpm)

TORQUE

0.350 Nm

10 Nm

ACCURACY

3°

3°

RESOLUTION

0.03° (per motor step)

0.013° (per motor step)

Mechanical

MASS

0.465 kg

4.7 kg

VOLUME

Ø80, length 85 mm

Ø167, length 235 mm

RANGE OF MOTION

360° unlimited - Slip Ring

Electrical

SUPPLY VOLTAGE

14 V [10 V; 18 V]

28 V [22 V ; 38 V]

POWER MAX TORQUE

3.5 W

7.5 W

PROTOCOL

Full duplex RS 485

Full duplex RS 485 or CAN

SLIP-RING CAPACITY

Power/Signal *
tracks
Ground track

16
1

28
1

*all tracks have the same design and are compatible with both power and signal transfer

Environmental

OPERATIONAL T°

- 20°C ; + 50°C

- 20°C ; + 50°C

NON-OPERATIONAL T° AT SATELLITE INTERFACE

- 40°C ; + 60°C

- 40°C ; + 90°C

RADIATION ELECTRONIC BOARD LEVEL

< 24 Krad

< 30 Krad

LIFETIME

5 years
100,000 revolutions

10 years
220,000 revolutions

TESTS

QSL
Random
Shock

25 g
20.8 g
1,000 g / 2,000 Hz

25 g
18.3 g
1.400 g / 2,000 Hz

HIGH RELIABILITY

47 FIT

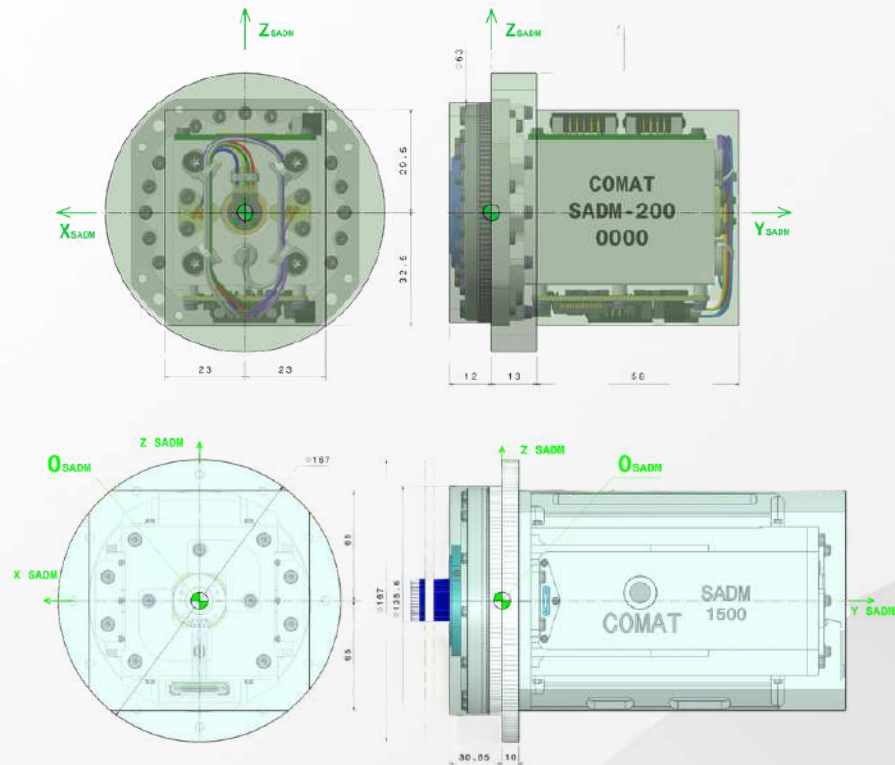
100 FIT

Traceability | process & components
EN9100 and EIDP

Manufacturing control
**More than 30
parameters controlled**

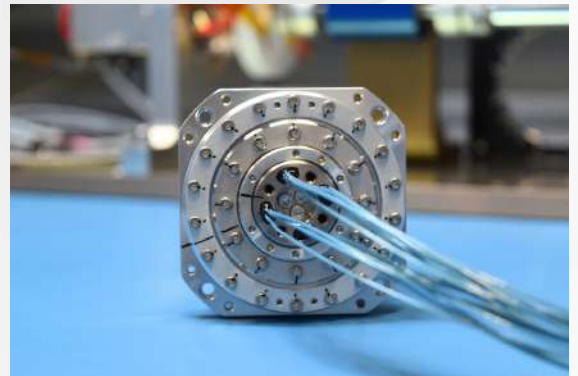
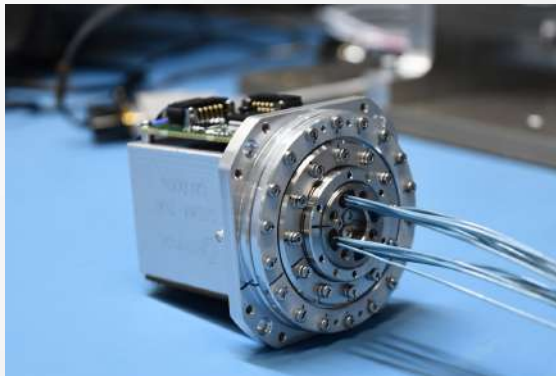


Dimensions - Simplified volume

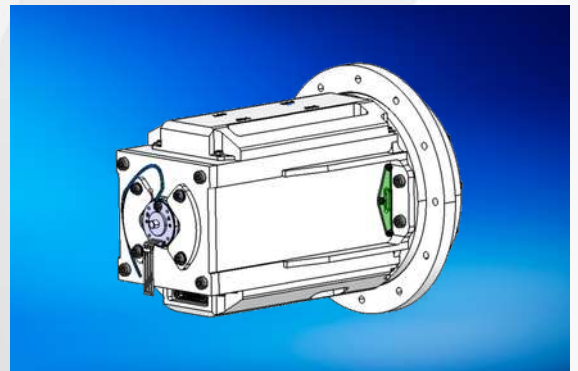
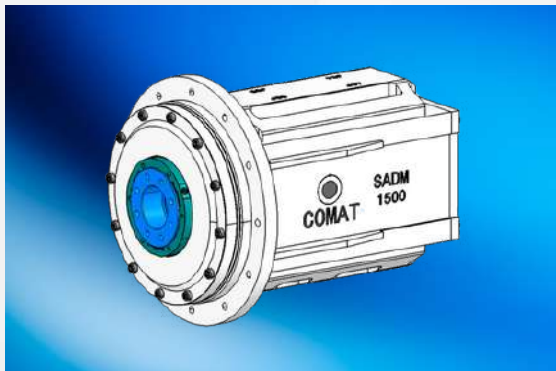


Photos

SADM-200



SADM-1500





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