Universal small actuator

Modular electro-mechanical actuator



Aerospace



Our experience – your benefit

Liebherr-Aerospace, a pioneer in the field of electromechanical actuators (EMA) for CS-25 aircraft applications is taking this experience into the future: We are expanding our portfolio to smaller sized actuators. Our new Liebherr modular small actuation concept specifically targets future CS-23 aircraft, helicopters and eVTOLs.

The modular family concept takes advantage of millions of in-service flight hours of our actuators and related electronics collected during the last decades in numerous aircraft programs. The required technology bricks are already at technology readiness level (TRL) 6 to 9 allowing for shortest possible time to market. The design concept offers scalability for small installation envelopes, beneficial power-to-weight ratio and high reliability – an ideal solution for various kinds of applications.

Liebherr-Aerospace has proven itself over many decades and will remain a reliable partner to airframers, offering a wide range of products and services over the entire product lifecycle. Our comprehensive in-house capabilities in mechanical, electronic and software design as well as test & qualification, production and sustainment services create advanced technology solutions for our customers.

Main features and key technology

- Modular, scalable plug-and-play concept
- High torque density
- Highly reliable gear stage
- High dynamics and positioning accuracy
- Integrated flexible electronic control platform
- Parameter adoptable generic software
- Integrated power-off brake
- Compact design / installation envelope

Technical data

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Demonstrator.	
Voltage	28 Vdc
Current	< 28 A
Max. operating torque	151 Nm
Operational torque	70 Nm
Stroke	± 60°
Loaded rate	80°/s
Weight	6 kg
Space envelope volume	320 x 120 x 95 mm (l x w x h)
Data bus interface	4x RS 485 (bi-directional)
Potential family concept:	
Max. operating torque	60 - 360 Nm
Stroke	~ 120°
Loaded rate	< 150°/s
Data bus interface	RS 485, ARINC 429, CAN

Modular family concept

