

P170 Orion

High Performance Force-controlled Actuators:

The Orion linear series elastic actuator (SEA) offers a unique combination of power-density, efficiency, and safety in a compact package. Orion actuators are perfect in applications that demand power and precision with impedance control.



Features:

- Small compact design
- 4kN/kg force density
- Impact Tolerance
- Ball screw drive train
- Maxon brushless DC motor
- High Fidelity Force feedback

Benefits:

- Fits into small design envelopes
- Minimizes mass and inertial effects while maximizing power
- Shock absorption and robustness vs. rigid drivetrains
- High mechanical efficiency, quiet operation
- Smaller, more efficient and optimized for torque and power
- Reactive and adaptive to the environment.

Specifications:

| | |
|---------------------------|-------------------------|
| Rated power output | 170W |
| Continuous force | 847N [190lbs] |
| Peak force | 3200N [719lbs] |
| Max speed | 27.7cm/s [10.9in/s] |
| Stroke | 6.47cm [2.55in] |
| Voltage | 48-60V |
| Mass | 786g [1.73lbs] |
| Max efficiency | 80% (load-dependent) |
| Current Draw | 5A continuous, 20A peak |

Applications:

- Human interactive robotic systems
- Wearable robotics
- Dynamic robotic systems
- Precision agriculture
- Aerospace
- Industrial automation
- Any other application that demands force precision