

MOT Low Voltage Servo Motors

Combining high dynamics and power density, MOT synchronous servo motors provide an efficient and economical solution for low voltage applications. Paired with ZED low voltage servo drives, MOT servo motors offer excellent performance and high power density in a compact design.

Optimal servo motor solutions for cost-effective low-voltage applications

The MOT series of permanent magnet low voltage servo motors includes four servo motors with a power range from 50 W to 3kW and a peak torque of up to 28.6 Nm.

The series' electromechanical design ensures a highly dynamic performance and low cogging. A range of motor feedback devices as well as winding, cable, and connector options are available on request and can be customized to the specific application needs.

Seamless integration with STXi's ZED servo drives for optimal performance

The ZED-MOT servo drive and motor bundle is optimized for best performance, offering advanced functionality, high power density, and seamless commissioning in a cost-effective package.

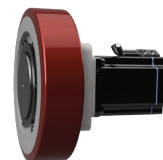
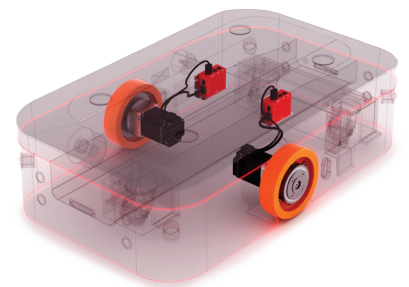
Configurable motor and gear options to meet specific application requirements.

MOT servo motors offer a wide range of flexible gear and motor configurations. With optional motor holding brakes, a compact design for space-constrained environments, and energy-efficient performance, these IP54-rated motors are built to handle high radial and axial forces. With power options ranging from 200-800 W, rated torque of 6.4-64 Nm, and speeds of up to 3000 rpm, they operate at 24-48V and can be customized to meet specific application requirements.



Product Highlights

- Frame size: 40 - 130 mm
- 0.16 to 9.55 Nm rated output torque
- 50 to 3kW rated output power
- Low cogging
- Insulation class B
- Feedback: Incremental, AqB, 4096 ppr + HALL signal
- IP54 protection class (IP65 optional)
- Motor holding brake (optional)
- CE and cUL certifications



MOT - GM
Wheel Hub Gear Motors



MOT - SG
Gear Motors

MOT product offering

Each motor model can be ordered with the following options:

- Shaft: Smooth, keyway
- Brake: With brake, without brake
- Connector: 0.35m cable with mating connector for ZED servo drives

Rating and dimensions

| Model | Flange Size (mm) | Voltage (VDC) | Power (W) | Rated Current (Arms) | Rated Torque (Nm) | Rated Speed (rpm) | Max. Speed (rpm) |
|-----------|------------------|---------------|-----------|----------------------|-------------------|-------------------|------------------|
| SM2-40001 | 40 | 48 | 50 | 1.50 | 0.16 | 3000 | 5000 |
| SM2-40003 | 40 | 48 | 100 | 2.80 | 0.32 | 3000 | 5000 |
| SM2-60006 | 60 | 48 | 200 | 6.50 | 0.64 | 3000 | 5400 |
| SM2-60013 | 60 | 48 | 400 | 12.00 | 1.27 | 3000 | 5000 |
| SM2-80015 | 80 | 48 | 480 | 14.60 | 1.53 | 3000 | 5100 |
| SM2-80025 | 80 | 48 | 800 | 22.60 | 2.55 | 3000 | 4800 |
| SM2-80035 | 80 | 48 | 1100 | 31.50 | 3.50 | 3000 | 4800 |
| SM2-11045 | 110 | 48 | 1350 | 37.00 | 4.20 | 3000 | 4800 |
| SM2-13060 | 130 | 48 | 2000 | 45.30 | 5.97 | 3200 | 4800 |
| SM2-13095 | 130 | 48 | 3000 | 69.90 | 9.55 | 3200 | 4800 |

Ordering information

| | | | | | | | | | | | |
|-----------------------|---|---|----|-----|---|----|---|---|----|---|---|
| | SM2 | - | 60 | 006 | 4 | 30 | 0 | 5 | AB | 0 | M |
| SM2 Servo Motor | | | | | | | | | | | |
| Frame Size | | | | | | | | | | | |
| 40 | 40 mm | | | | | | | | | | |
| 60 | 60 mm | | | | | | | | | | |
| 80 | 80 mm | | | | | | | | | | |
| 11 | 110 mm | | | | | | | | | | |
| 13 | 130 mm | | | | | | | | | | |
| Torque | | | | | | | | | | | |
| 001 | 0.16 Nm (40mm, 50W) | | | | | | | | | | |
| 003 | 0.32 Nm (40mm, 100W) | | | | | | | | | | |
| 006 | 0.64 Nm (60mm, 200W) | | | | | | | | | | |
| 013 | 1.27 Nm (60mm, 400W) | | | | | | | | | | |
| 015 | 1.53 Nm (80mm, 480W) | | | | | | | | | | |
| 025 | 2.55 Nm (80mm, 800W) | | | | | | | | | | |
| 035 | 3.50 Nm (80mm, 1.1kW) | | | | | | | | | | |
| 042 | 4.20 Nm (110mm, 1.4kW) | | | | | | | | | | |
| 060 | 6.00 Nm (130mm, 2 kW) | | | | | | | | | | |
| 095 | 9.55 Nm (130mm, 3 kW) | | | | | | | | | | |
| DC Bus Voltage | | | | | | | | | | | |
| 2 | 24 VDC (optional) | | | | | | | | | | |
| 4 | 48 VDC | | | | | | | | | | |
| Rated Speed | | | | | | | | | | | |
| 30 | 3000 rpm | | | | | | | | | | |
| 32 | 3200 rpm (2 + 3 kW) | | | | | | | | | | |
| Shaft | | | | | | | | | | | |
| 0 | Smooth | | | | | | | | | | |
| 2 | Keyway | | | | | | | | | | |
| IP Rating | | | | | | | | | | | |
| 4 | IP40 | | | | | | | | | | |
| 5 | IP54 | | | | | | | | | | |
| Feedback | | | | | | | | | | | |
| AB | Incremental encoder AqB, Res.4096 ppr + Halls | | | | | | | | | | |
| Brake | | | | | | | | | | | |
| 0 | No brake | | | | | | | | | | |
| B | With brake | | | | | | | | | | |
| Connector | | | | | | | | | | | |
| F | 0.35 m cable with flying leads | | | | | | | | | | |
| M | 0.35 m cable with connector for ZED-drive, Power+Feedback+Brake | | | | | | | | | | |

