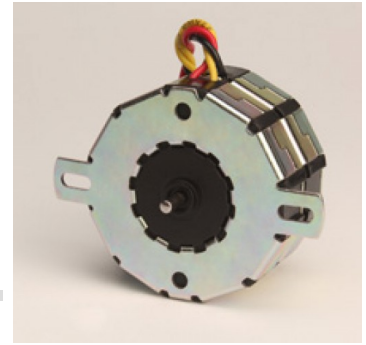




MTS7a



Stepper Motor 7.5°

Design

7.5° MTS7a - Permanent magnet stepper motor with simple mechanical structure. Clawpole principle (Tin Can) with 2 stator halves. Self lubricated sinteres sleeve with long life expectancy.

Features

7.5° MTS7a - Permanent magnet stepper motor with simple mechanical structure. Clawpole principle (Tin Can) with 2 stator halves. Self lubricated sinteres sleeve with long life expectancy.

Application

Industrial Automation Machines.

Options

7.5° MTS7a - Permanent magnet stepper motor with simple mechanical structure. Clawpole principle (Tin Can) with 2 stator halves. Self lubricated sinteres sleeve with long life expectancy.

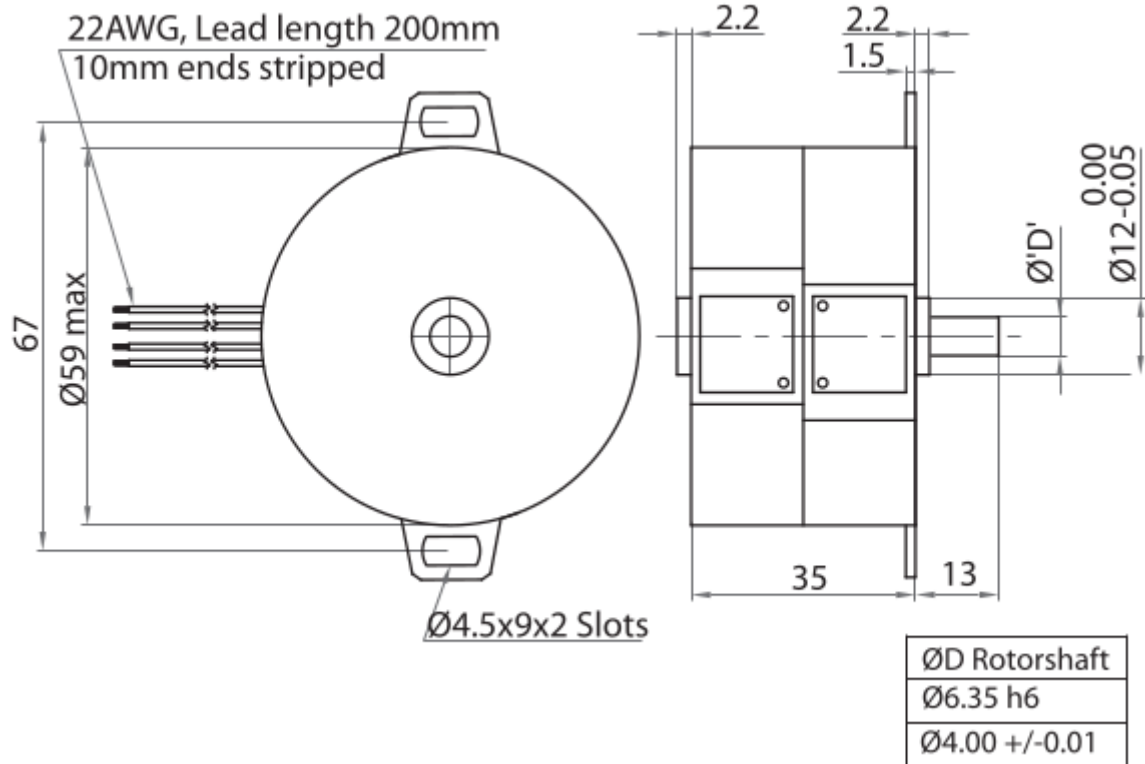
Standard Data

| Parameter | Value | Unit |
|----------------------|---|------|
| Motor type | Permanent Magnet (PM) stepper motor | |
| Electrical Enclosure | 40 | IP |
| Connections | Flexible leads 22 AWG, 200mm length, end striped 10mm | |
| Life expectancy | 3 Year in continuous operation | |
| Weight | 300 | g |
| Mounting | Any position by ears or screw clip | |

Technical Data

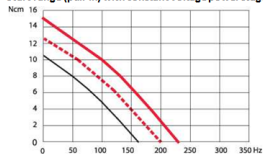
| Parameter | Value | Unit |
|--|------------------------------|------------------|
| Steps per revolution | 48 | |
| Degree/step | 7.5 | |
| Winding type | bipolar, unipolar | |
| Standard Voltage | 6, 12, 24 | V |
| Resistance per winding at 6V - (Bipolar) | 6.8 | Ω |
| Resistance per winding at 12V - (Bipolar) | 36 | Ω |
| Resistance per winding at 24V - (Bipolar) | 168 | Ω |
| Resistance per winding at 6V - (Unipolar) | 10 | Ω |
| Resistance per winding at 12V - (Unipolar) | 45 | Ω |
| Resistance per winding at 24V - (Unipolar) | 190 | Ω |
| Winding temperature | 105 max | °C |
| Holding torque | 17.1, (MTSB7a), 13, (MTSU7a) | Ncm |
| Axial Force at 17.1 | | Ncm |
| Axial Force at (MTSB7a) | 5 | Ncm |
| Axial Force at 13 | | Ncm |
| Axial Force at (MTSU7a) | | Ncm |
| Lateral Force at 17.1 | | Ncm |
| Lateral Force at (MTSB7a) | 12 | N |
| Lateral Force at 13 | | N |
| Lateral Force at (MTSU7a) | | |
| Rotor inertia at 17.1 | | gcm ² |
| Rotor inertia at (MTSB7a) | 65 | |
| Rotor inertia at 13 | | |
| Rotor inertia at (MTSU7a) | | |

Dimensional Drawing

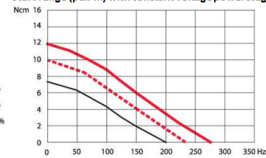


Torque Graphs

Start range (pull-in) with constant voltage power stage

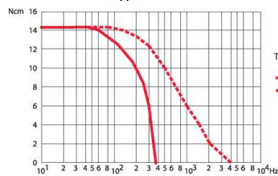


Start range (pull-in) with constant voltage power stage

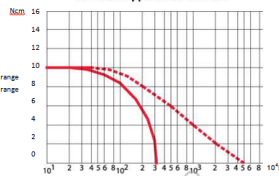


2-Phase stepper Motor MTSB7a

4-Phase Stepper Motor MTSU7a



Slew range (pull-out) and start range (pull-in) with constant current power stage (chopper Drive)



Slew range (pull-out) and start range (pull-in) with constant current power stage (chopper Drive)