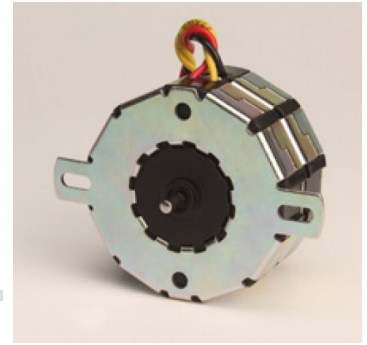




MTS7a



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 sinter sleeve with long life expectancy.

Application

Industrial Automation Machines.

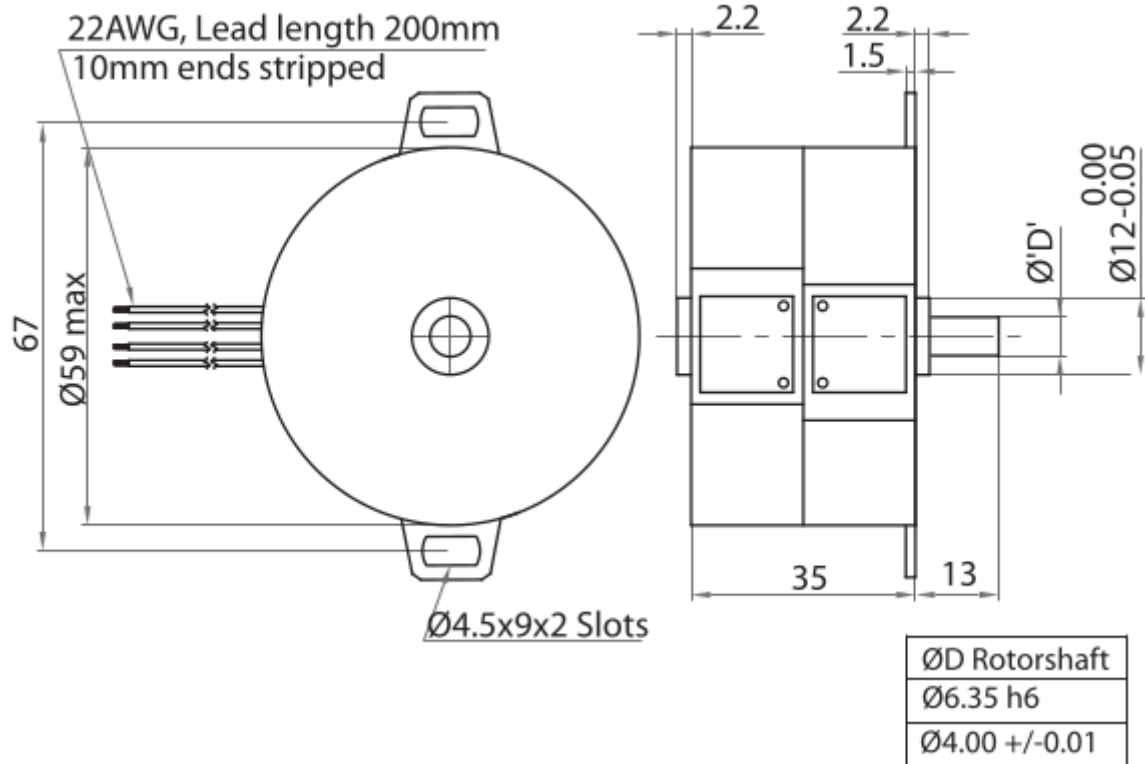
Standard Data

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

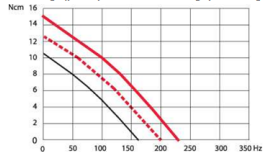
Parameter	Value	Unit
Steps per revolution	48	
Degree/step	7.5	
Winding type	bipolar, unipolar	
Standard Voltage	6, 12, 24	V
Resistance per winding (Bipolar)	6.8, 36, 168	Ω
Resistance per winding (Unipolar)	10, 45, 190	
Winding temperature	108 max	°C
Holding torque	17.1 (MTSB7a), 13 (MTSU7a)	Ncm
Axial Force	5	Ncm
Lateral Force	12	N
Rotor inertia at 17.1	65	gcm ²

Dimensional Drawing



Torque Graphs

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



Torque
Duty Cycle

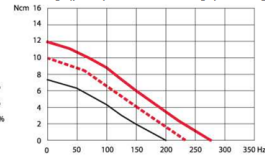
— 30%

- - - 50%

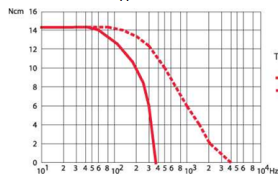
— 100%

2-Phase stepper Motor MTSB7a

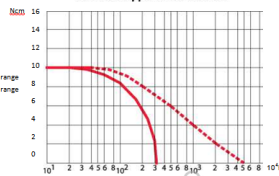
Start range (pull-in) with constant voltage power stage



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)