



## MTS2b

### Stepper Motor 15°



#### Design

15° MTS2b - 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

Liquid Dispenser, Valve actuators.

#### Standard Data

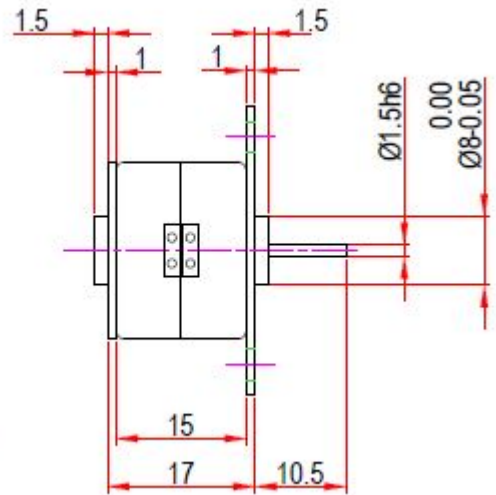
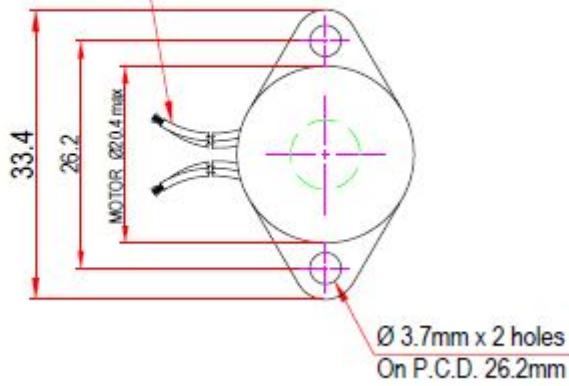
Parameter	Value	Unit
Motor type	Permanent Magnet (PM) stepper motor	
Electrical Enclosure	40	IP
Life expectancy	3 Year in Continuous operation	
Connections	Flexible leads 30 AWG, 200mm length, end striped 10mm	
Weight	30	g
Mounting	Any position by ears or screw clip	

#### Technical Data

Parameter	Value	Unit
Steps per revolution	24	
Degree/step	15	
Winding type	bipolar, unipolar	
Standard Voltage	6, 12, 24	V
Resistance per winding at 6V - (Bipolar)	27, 125, 500	$\Omega$
Resistance per winding at 6V - (Unipolar)	35, 150, 600	$\Omega$
Winding temperature	105 max	$^{\circ}\text{C}$
Holding torque	0.4 (MTSB2b) 0.3 (MTSU2b)	Ncm
Axial Force	0	N
Lateral Force	0.8	N
Rotor Inertia	0.3	gcm <sup>2</sup>

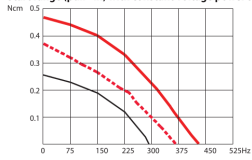
## Dimensional Drawing

30AWG Leads length 200mm  
10mm ends stripped



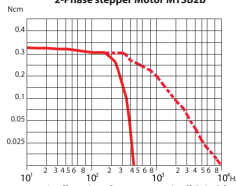
## Torque Graphs

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



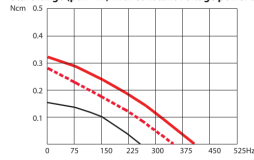
Torque  
Duty Cycle  
— 30%  
- - - 50%  
— 100%

2-Phase stepper Motor MTSB2b



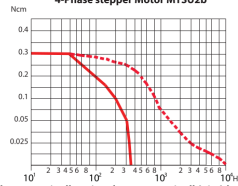
Slew range (pull-out) and start range (pull-in) with constant current power stage (chopper Drive)

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



Torque  
— Start range  
- - - Slew range

4-Phase stepper Motor MTSU2b



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