

**General specifications**

- Dielectric strength: 500 VAC
- Insulation resistance: 100 MΩ (500 VDC)
- Insulation type: B type
- Allowable radial load: 28N
- Allowable thrust load: 10N

\* The load point is 1/3 from the axis end.

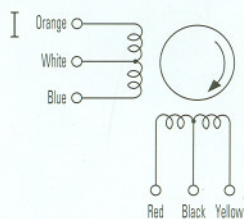
**Specifications (unipolar windings)**

Model	Axis	Basic step angle (°)	Voltage (V)	Current (A/phase)	Resistance (Ω/phase)	Inductance (mH/phase)	Holding torque N·m (kgf·cm)	Rotor inertia (x10 <sup>-4</sup> kg·m <sup>2</sup> )	Mass (kg)	Connection cord
103H546-0440(0410)	One axis (both axes)	1.8	3.15	1	3.15	2.8	0.147(1.5)	0.03	0.2	I
103H548-0440(0410)			3.6	1.2	3	4.3	0.265(2.7)	0.053	0.28	
103H549-0440(0410)			3.96	1.2	3.3	3.8	0.315(3.2)	0.065	0.35	

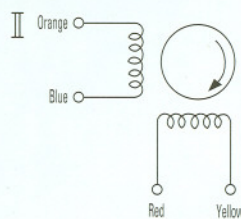
**Specifications (bipolar windings)**

Model	Axis	Basic step angle (°)	Voltage (V)	Current (A/phase)	Resistance (Ω/phase)	Inductance (mH/phase)	Holding torque N·m (kgf·cm)	Rotor inertia (x10 <sup>-4</sup> kg·m <sup>2</sup> )	Mass (kg)	Connection cord
103H546-5040(5010)	One axis (both axes)	1.8	3.15	2	0.6	0.7	0.147(1.5)	0.03	0.2	II
103H548-5040(5010)			3.6	2	0.8	1.5	0.265(2.7)	0.053	0.28	

**Motor inner connections and rotation direction (as viewed from the mounting base)**



		Color of lead				
		Black and white	Red	Blue	Yellow	Orange
Step	1	⊕	⊖	⊖		
	2	⊕		⊖	⊖	
	3	⊕			⊖	⊖
	4	⊕	⊖			⊖

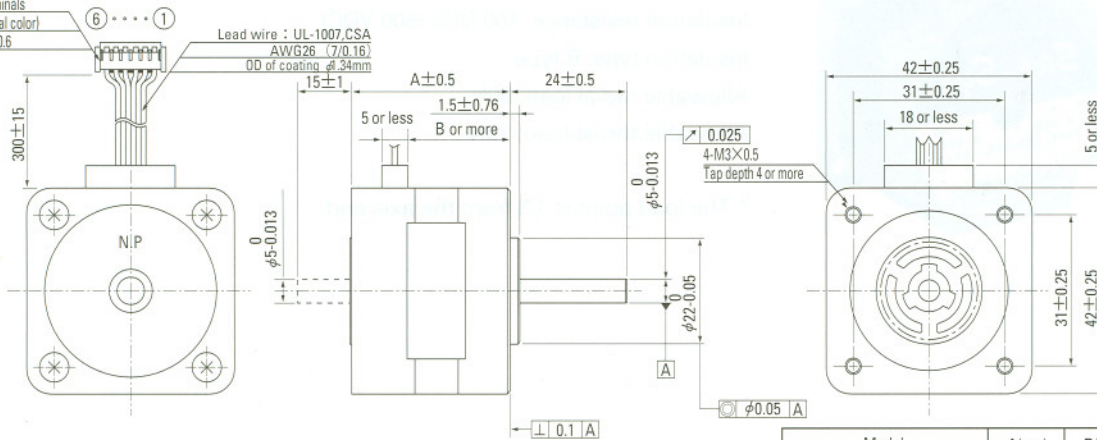


		Color of lead			
		Red	Blue	Yellow	Orange
Step	1	⊖	⊖	⊕	⊕
	2	⊕	⊖	⊖	⊕
	3	⊕	⊕	⊖	⊖
	4	⊖	⊕	⊕	⊖

### Dimension (unipolar windings) [unit:mm]

Manufacturer : Japan Solderless Terminals  
 Housing : EHR-8 (natural color)  
 Terminal : SEH-001T-P0.6  
 Lead wire : UL-1007, CSA AWG26 (7/0.16) OD of coating  $\phi$  0.34mm

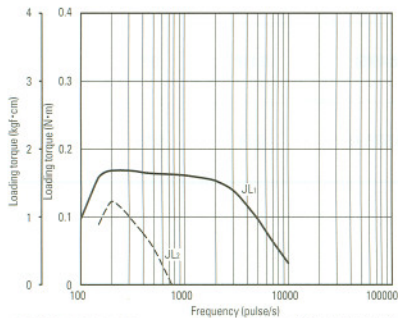
Pin No.	Lead wire
1	Blue
2	Yellow
3	White
4	Black
5	Orange
6	Red



Model	A(mm)	B(mm)
103H546-□□□□	32	21.5
103H548-□□□□	41	30.5
103H549-□□□□	47	36.5

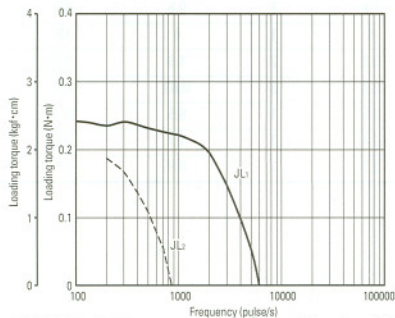
\*The bipolar windings consist only of lead wires.

### Frequency-torque characteristics (2-phase excitation drive)



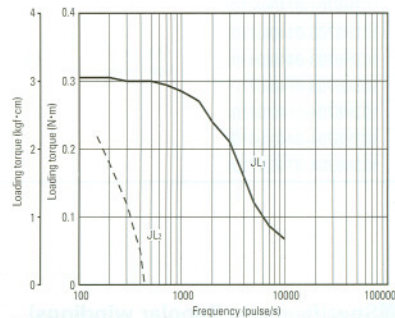
103H546-0440

— : Getaway torque (JL<sub>1</sub>)  
 - - - : Starting torque (JL<sub>2</sub>)  
 Drive circuit = SLA-7026M  
 E = 24V  
 JL<sub>1</sub> = 0.33×10<sup>-3</sup>kg·m<sup>2</sup>  
 JL<sub>2</sub> = 0.175×10<sup>-3</sup>kg·m<sup>2</sup>



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— : Getaway torque (JL<sub>1</sub>)  
 - - - : Starting torque (JL<sub>2</sub>)  
 Drive circuit = SLA-7026M  
 E = 24V  
 JL<sub>1</sub> = 0.94×10<sup>-3</sup>kg·m<sup>2</sup>  
 JL<sub>2</sub> = 0.8×10<sup>-3</sup>kg·m<sup>2</sup>



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— : Getaway torque (JL<sub>1</sub>)  
 - - - : Starting torque (JL<sub>2</sub>)  
 Drive circuit = SLA-7026M  
 E = 24V  
 JL<sub>1</sub> = 0.94×10<sup>-3</sup>kg·m<sup>2</sup>  
 JL<sub>2</sub> = 0.8×10<sup>-3</sup>kg·m<sup>2</sup>

\*The measured current is based on the specification.