



## 60 mm sq. (2.36 inch sq.)

0.9° /step

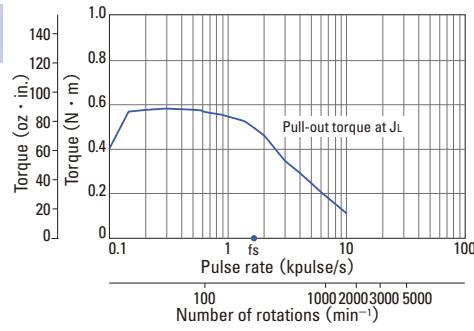
Unipolar winding • Lead wire type  
Bipolar winding • Lead wire type

Unipolar winding • Lead wire type

Model number		Holding torque at 2-phase energization [N · m (oz · in) MIN.]	Rated current A/phase	Wiring resistance Ω /phase	Winding inductance mH/phase	Rotor inertia [×10 <sup>-4</sup> kg · m <sup>2</sup> (oz · in <sup>2</sup> )]	Mass (Weight) [kg (lbs)]
Single shaft	Dual shaft	[N · m (oz · in) MIN.]	A/phase	Ω /phase	mH/phase	[×10 <sup>-4</sup> kg · m <sup>2</sup> (oz · in <sup>2</sup> )]	[kg (lbs)]
<b>SH1601-0440</b>	<b>SH1601-0410</b>	0.57 (80.71)	2	1.35	2	0.24 (1.312)	0.55 (1.21)
<b>SH1602-0440</b>	<b>SH1602-0410</b>	1.1 (155.77)	2	1.8	3.5	0.4 (2.187)	0.8 (1.76)
<b>SH1603-0440</b>	<b>SH1603-0410</b>	1.7 (240.74)	2	2.3	4.5	0.75 (4.101)	1.2 (2.64)

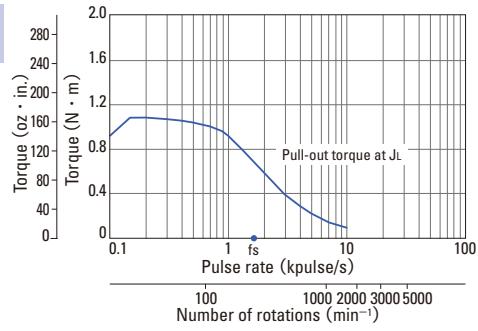
### Characteristics diagram

**SH1601-0440**  
**SH1601-0410**



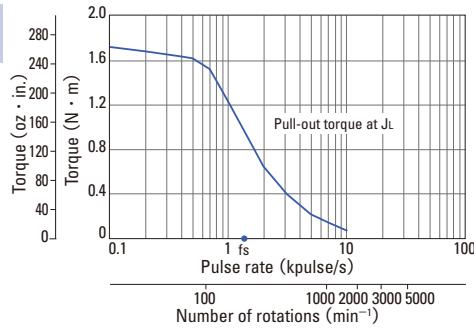
Constant current circuit  
Source voltage : DC24V · Operating current : 2A/phase,  
2-phase energization (full-step)  
 $J_L = [0.94 \times 10^{-4} \text{kg} \cdot \text{m}^2 (5.14 \text{ oz} \cdot \text{in}^2)]$  use the rubber coupling]  
fs: Maximum self-start frequency when not loaded

**SH1602-0440**  
**SH1602-0410**



Constant current circuit  
Source voltage : DC24V · Operating current : 2A/phase,  
2-phase energization (full-step)  
 $J_L = [2.6 \times 10^{-4} \text{kg} \cdot \text{m}^2 (14.22 \text{ oz} \cdot \text{in}^2)]$  use the rubber coupling]  
fs: Maximum self-start frequency when not loaded

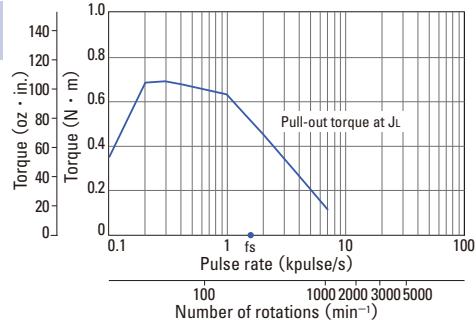
**SH1603-0440**  
**SH1603-0410**



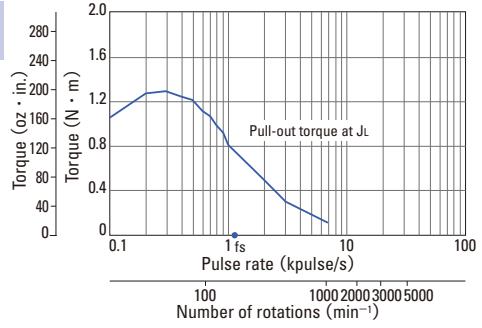
Constant current circuit  
Source voltage : DC24V · Operating current : 2A/phase,  
2-phase energization (full-step)  
 $J_L = [7.4 \times 10^{-4} \text{kg} \cdot \text{m}^2 (40.46 \text{ oz} \cdot \text{in}^2)]$  use the rubber coupling]  
fs: Maximum self-start frequency when not loaded

**Bipolar winding • Lead wire type**

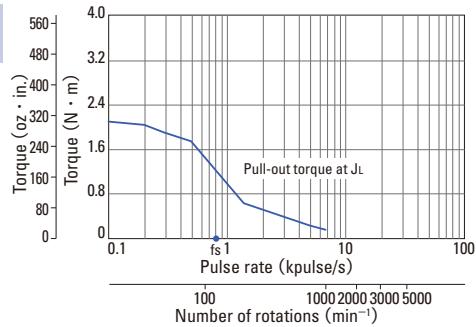
Model number		Holding torque at 2-phase energization [N · m (oz · in) MIN.]	Rated current A/phase	Wiring resistance Ω /phase	Winding inductance mH/phase	Rotor inertia [×10 <sup>-4</sup> kg · m <sup>2</sup> (oz · in <sup>2</sup> )]	Mass (Weight) [kg (lbs)]
Single shaft	Dual shaft	[N · m (oz · in) MIN.]	A/phase	Ω /phase	mH/phase	[×10 <sup>-4</sup> kg · m <sup>2</sup> (oz · in <sup>2</sup> )]	[kg (lbs)]
<b>SH1601-5240</b>	<b>SH1601-5210</b>	0.69 (97.7)	2	1.2	3.5	0.24 (1.31)	0.55 (1.21)
<b>SH1602-5240</b>	<b>SH1602-5210</b>	1.28 (181.2)	2	1.65	6.1	0.4 (2.19)	0.8 (1.76)
<b>SH1603-5240</b>	<b>SH1603-5210</b>	2.15 (304.4)	2	2.3	8.8	0.75 (4.10)	1.2 (2.65)

**Characteristics diagram****SH1601-5240  
SH1601-5210**

Constant current circuit  
Source voltage : DC24V · Operating current : 2A/phase,  
2-phase energization (full-step)  
 $J_L = [0.94 \times 10^{-4} \text{kg} \cdot \text{m}^2 (5.14 \text{ oz} \cdot \text{in}^2)]$  use the rubber coupling  
fs: Maximum self-start frequency when not loaded

**SH1602-5240  
SH1602-5210**

Constant current circuit  
Source voltage : DC24V · Operating current : 2A/phase,  
2-phase energization (full-step)  
 $J_L = [2.6 \times 10^{-4} \text{kg} \cdot \text{m}^2 (14.22 \text{ oz} \cdot \text{in}^2)]$  use the rubber coupling  
fs: Maximum self-start frequency when not loaded

**SH1603-5240  
SH1603-5210**

Constant current circuit  
Source voltage : DC24V · Operating current : 2A/phase,  
2-phase energization (full-step)  
 $J_L = [7.4 \times 10^{-4} \text{kg} \cdot \text{m}^2 (40.46 \text{ oz} \cdot \text{in}^2)]$  use the rubber coupling  
fs: Maximum self-start frequency when not loaded