



2-phase stepping motor

60mm sq. (2.36inch sq.)

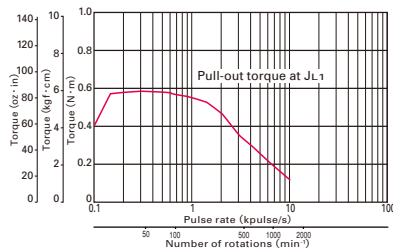
SH160 □
0.9° /step

Unipolar winding • Lead wire type

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

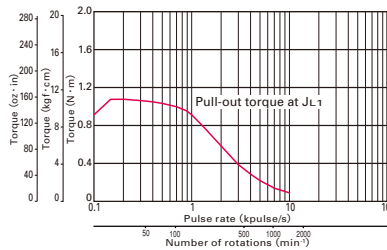
Pulse rate-torque characteristics

● SH1601-04 □ □



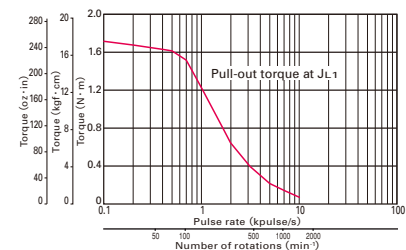
Constant current circuit
Source voltage : DC24V · operating current : 2A/phase,
2-phase energization (full-step)
 $J_{L1} = [0.94 \times 10^{-4} \text{kg} \cdot \text{m}^2 (5.14 \text{oz} \cdot \text{in}^2)]$ use the rubber coupling)

● SH1602-04 □ □



Constant current circuit
Source voltage : DC24V · operating current : 2A/phase,
2-phase energization (full-step)
 $J_{L1} = [2.6 \times 10^{-4} \text{kg} \cdot \text{m}^2 (14.22 \text{oz} \cdot \text{in}^2)]$ use the rubber coupling)

● SH1603-04 □ □



Constant current circuit
Source voltage : DC24V · operating current : 2A/phase,
2-phase energization (full-step)
 $J_{L1} = [7.4 \times 10^{-4} \text{kg} \cdot \text{m}^2 (40.46 \text{oz} \cdot \text{in}^2)]$ use the rubber coupling)

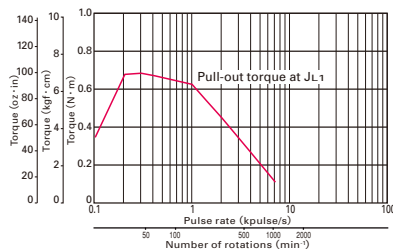
The data are measured under the drive condition of our company. The drive torque may vary depending on the accuracy of customer-side equipment.

Bipolar winding • Lead wire type

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

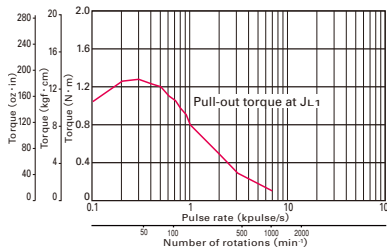
Pulse rate-torque characteristics

● SH1601-52 □ □



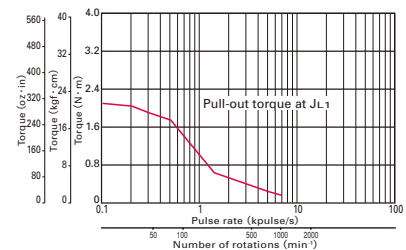
Constant current circuit
Source voltage : DC24V · operating current : 2A/phase,
2-phase energization (full-step)
 $J_{L1} = [0.94 \times 10^{-4} \text{kg} \cdot \text{m}^2 (5.14 \text{oz} \cdot \text{in}^2)]$ use the rubber coupling)

● SH1602-52 □ □



Constant current circuit
Source voltage : DC24V · operating current : 2A/phase,
2-phase energization (full-step)
 $J_{L2} = [2.6 \times 10^{-4} \text{kg} \cdot \text{m}^2 (14.22 \text{oz} \cdot \text{in}^2)]$ use the rubber coupling)

● SH1603-52 □ □

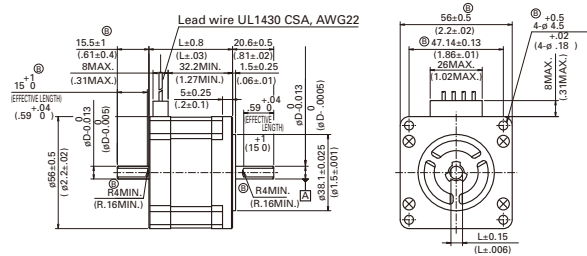


Constant current circuit
Source voltage : DC24V · operating current : 2A/phase,
2-phase energization (full-step)
 $J_{L3} = [7.4 \times 10^{-4} \text{kg} \cdot \text{m}^2 (40.46 \text{oz} \cdot \text{in}^2)]$ use the rubber coupling)

The data are measured under the drive condition of our company. The drive torque may vary depending on the accuracy of customer-side equipment.

Motors [Unit: mm (inch)]

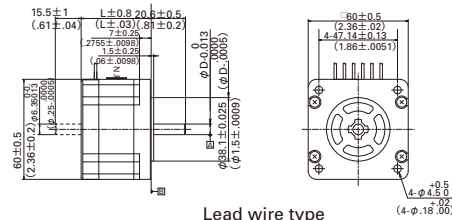
56mm (2.20inch)



Lead wire type

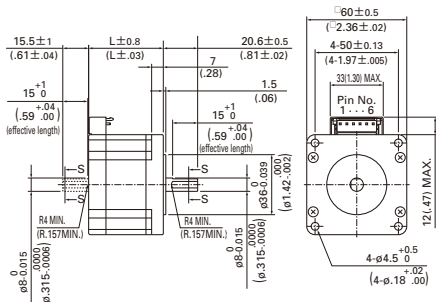
	Set part number	Motor model number	Motor length : mm (inch)	Cable type
Bipolar	DB16H711 △	103H7121-57 △	41.8 (1.65)	Lead wire
	DB16H713 △	103H7123-57 △	53.8 (2.12)	Lead wire
	DB16H716 △	103H7126-57 △	75.8 (2.98)	Lead wire
	—	103H7121-56 △	41.8 (1.65)	Lead wire
	—	103H7121-58 △	41.8 (1.65)	Lead wire
	—	103H7123-56 △	53.8 (2.12)	Lead wire
	—	103H7123-58 △	53.8 (2.12)	Lead wire
	—	103H7126-56 △	75.8 (2.98)	Lead wire
	—	103H7126-58 △	75.8 (2.98)	Lead wire
	—	103H7128-56 △	94.8 (3.73)	Lead wire
—	103H7128-57 △	94.8 (3.73)	Lead wire	
—	103H7128-58 △	94.8 (3.73)	Lead wire	

60mm (2.36inch)



	Set part number	Motor model number	Motor length : mm (inch)	Cable type
Unipolar	—	SH1601-04 △	42 (1.65)	Lead wire
	—	SH1602-04 △	54 (2.13)	Lead wire
	—	SH1603-04 △	76 (2.99)	Lead wire
Bipolar	DB16S161 △	SH1601-52 △	42 (1.65)	Lead wire
	DB16S162 △	SH1602-52 △	54 (2.13)	Lead wire
	DB16S163 △	SH1603-52 △	76 (2.99)	Lead wire

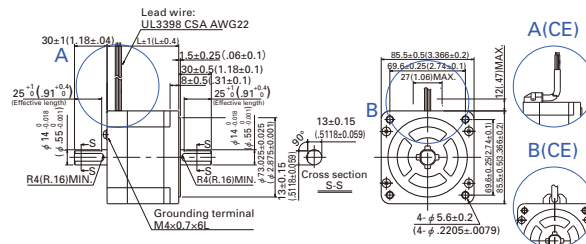
60mm (2.36inch)



Connector type

	Set part number	Motor model number	Motor length : mm (inch)	Cable type
Unipolar	—	103H7821-01 △	44.8 (1.76)	Connector
	—	103H7821-04 △	44.8 (1.76)	Connector
	—	103H7821-07 △	44.8 (1.76)	Connector
	—	103H7822-01 △	53.8 (2.12)	Connector
	—	103H7822-04 △	53.8 (2.12)	Connector
	—	103H7822-07 △	53.8 (2.12)	Connector
	—	103H7823-01 △	85.8 (3.38)	Connector
	—	103H7823-04 △	85.8 (3.38)	Connector
	—	103H7823-07 △	85.8 (3.38)	Connector
	Bipolar	DB16H781 △	103H7821-57 △	44.8 (1.76)
DB16H782 △		103H7822-57 △	53.8 (2.12)	Connector
DB16H783 △		103H7823-57 △	85.8 (3.38)	Connector
—		103H7821-17 △	44.8 (1.76)	Connector
—		103H7822-17 △	53.8 (2.12)	Connector
—	103H7823-17 △	85.8 (3.38)	Connector	

86mm (3.39inch)



Lead wire type

CE type

	Set part number	Motor model number	Motor length : mm (inch)	Cable type
Unipolar	—	SH2861-04 △	66 (2.6)	Lead wire
	—	SH2862-04 △	96.5 (3.8)	Lead wire
	—	SH2863-04 △	127 (5)	Lead wire
Bipolar	—	SM2861-50 ◇	66 (2.6)	Lead wire (CE)
	—	SM2861-51 ◇	66 (2.6)	Lead wire (CE)
	—	SM2861-52 ◇	66 (2.6)	Lead wire (CE)
	—	SM2862-50 ◇	96.5 (3.8)	Lead wire (CE)
	—	SM2862-51 ◇	96.5 (3.8)	Lead wire (CE)
	—	SM2862-52 ◇	96.5 (3.8)	Lead wire (CE)
—	SM2863-50 ◇	127 (5)	Lead wire (CE)	
—	SM2863-51 ◇	127 (5)	Lead wire (CE)	
—	SM2863-52 ◇	127 (5)	Lead wire (CE)	

Model number	Shaft diameter(D)	DCut thickness(L)
103H7121-□□□□	φ 6.35	5.8
103H7123-□□□□		
103H7126-□□□□		
103H7128-□□□□	φ 8	7.5
Model number	Shaft diameter(D)	DCut thickness(L)
SH1601-□□□□	φ 6.35	5.8
SH1602-□□□□		
SH1603-□□□□		
	φ 8	7.5

△ : Motor shaft specification code

Motor shaft spec	Set type code	Motor type code
Single shaft	S	4
Double shafts	D	1

◇ : Motor shaft specification code

Motor shaft spec	Set type code	Motor type code
Single shaft	S	5
Double shafts	D	2