



2-phase stepping motor

42mm sq. (1.65inch sq.)

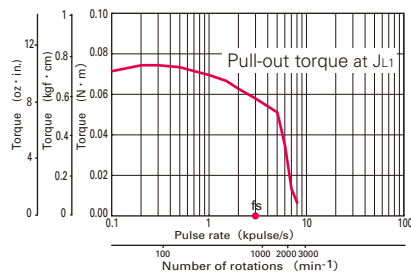
SS242 □
1.8° / step Bipolar winding

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	[×10 ⁻⁴ kg · m ² (oz · in ²)]	[kg (lbs)]
SS2421-5041	-5011	0.083 (11.75)	1	3.5	1.2	0.015 (0.082)	0.07 (0.15)
SS2422-5041	-5011	0.186 (26.33)	1	5.4	2.9	0.028 (0.153)	0.14 (0.31)
SS2423-5041	-5011	0.240 (33.98)	1	7.3	5	0.038 (0.208)	0.20 (0.44)

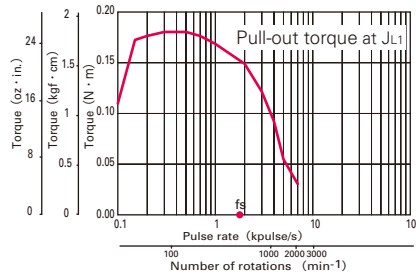
Pulse rate-torque characteristics

● SS2421-50 □ □



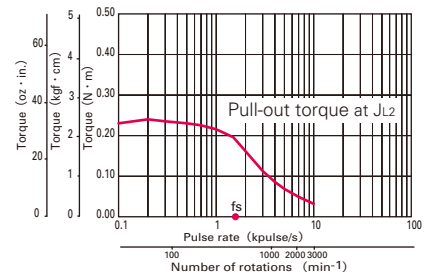
Constant current circuit
Source voltage : DC24V · operating current : 1A/phase,
2-phase energization (full-step)
 $J_{L1} = [0.33 \times 10^{-4} \text{kg} \cdot \text{m}^2 (1.80 \text{oz} \cdot \text{in}^2)]$ inertia of rubber coupling is included
 $J_{L2} = [0.94 \times 10^{-4} \text{kg} \cdot \text{m}^2 (5.14 \text{oz} \cdot \text{in}^2)]$ inertia of rubber coupling is included
fs: No load maximum starting pulse rate

● SS2422-50 □ □



Constant current circuit
Source voltage : DC24V · operating current : 1A/phase,
2-phase energization (full-step)
 $J_{L1} = [0.33 \times 10^{-4} \text{kg} \cdot \text{m}^2 (1.80 \text{oz} \cdot \text{in}^2)]$ inertia of rubber coupling is included
 $J_{L2} = [0.94 \times 10^{-4} \text{kg} \cdot \text{m}^2 (5.14 \text{oz} \cdot \text{in}^2)]$ inertia of rubber coupling is included
fs: No load maximum starting pulse rate

● SS2423-50 □ □

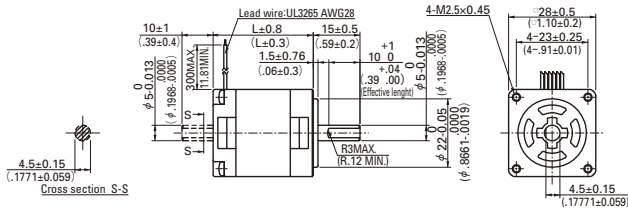


Constant current circuit
Source voltage : DC24V · operating current : 1A/phase,
2-phase energization (full-step)
 $J_{L1} = [0.33 \times 10^{-4} \text{kg} \cdot \text{m}^2 (1.80 \text{oz} \cdot \text{in}^2)]$ inertia of rubber coupling is included
 $J_{L2} = [0.94 \times 10^{-4} \text{kg} \cdot \text{m}^2 (5.14 \text{oz} \cdot \text{in}^2)]$ inertia of rubber coupling is included
fs: No load maximum starting pulse rate

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)]

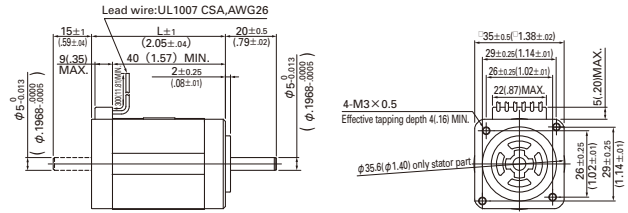
□ 28mm (□ 1.10inch)



Connector type Lead wire type

	Set part number	Motor model number	Motor length : mm (inch)	Cable type
Unipolar	DU14S281 ▽	SH2281-51 ▽ 1	32 (1.26)	Lead wire
	DU14S281 ▽	SH2281-52 ▽ 1	32 (1.26)	Lead wire
	DU14S285 ▽	SH2285-51 ▽ 1	51.5 (2.03)	Lead wire
	DU14S285 ▽	SH2285-52 ▽ 1	51.5 (2.03)	Lead wire
Bipolar	DB14S281 ▽	SH2281-56 ▽ 1	32 (1.26)	Lead wire
	DB14S285 ▽	SH2285-56 ▽ 1	51.5 (2.03)	Lead wire
	DB14S285 ▽	SH2285-57 ▽ 1	51.5 (2.03)	Lead wire

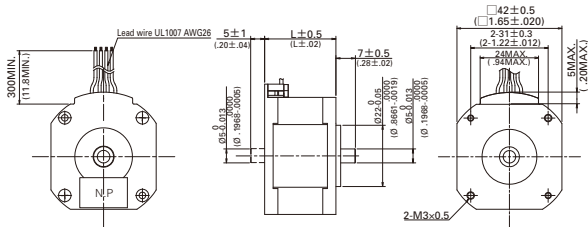
□ 35mm (□ 1.65inch)



Lead wire type

	Set part number	Motor model number	Motor length : mm (inch)	Cable type
Unipolar	—	SH3533-12U △ 0	33 (1.25)	Lead wire
	—	SH3537-12U △ 0	37 (1.54)	Lead wire
	—	SH3552-12U △ 0	52 (1.89)	Lead wire

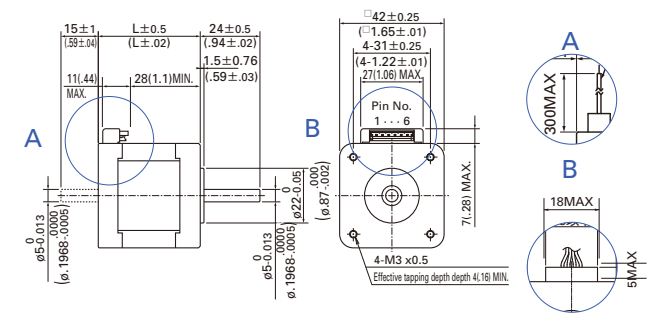
□ 42mm (□ 1.65inch)



Lead wire type

	Set part number	Motor model number	Motor length : mm (inch)	Cable type
Bipolar	—	SS2421-50 △ 1	11.6 (.457)	Lead wire
	—	SS2422-50 △ 1	18.6 (.732)	Lead wire
	—	SS2423-50 △ 1	25.6 (1.008)	Lead wire

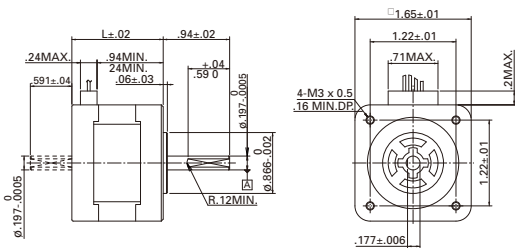
□ 42mm (□ 1.65inch)



Connector type Lead wire type

	Set part number	Motor model number	Motor length : mm (inch)	Cable type
Unipolar	DU15H521 ▽	103H5205-04 △ 0	33 (1.25)	Connector
	DU15H522 ▽	103H5208-04 △ 0	39 (1.54)	Connector
	DU15H524 ▽	103H5210-04 △ 0	48 (1.89)	Connector
	—	103H5209-04 △ 0	41 (1.61)	Connector

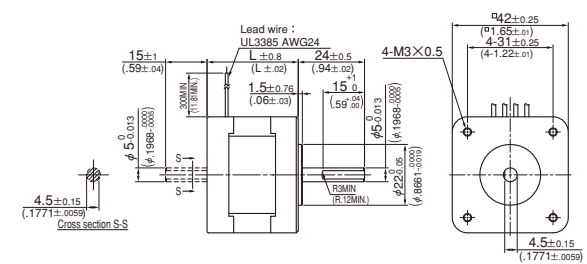
□ 42mm (□ 1.65inch)



Connector type Lead wire type

	Set part number	Motor model number	Motor length : mm (inch)	Cable type
Bipolar	DB14H521 ▽	103H5205-52 △ 0	33 (1.25)	Lead wire
	DB14H522 ▽	103H5208-52 △ 0	39 (1.54)	Lead wire
	DB14H524 ▽	103H5210-52 △ 0	48 (1.89)	Lead wire
	—	103H5205-50 △ 0	33 (1.25)	Lead wire
	—	103H5205-51 △ 0	33 (1.25)	Lead wire
	—	103H5208-50 △ 0	39 (1.54)	Lead wire
	—	103H5208-51 △ 0	39 (1.54)	Lead wire
	—	103H5209-50 △ 0	41 (1.61)	Lead wire
	—	103H5209-51 △ 0	41 (1.61)	Lead wire
	—	103H5209-52 △ 0	41 (1.61)	Lead wire
	—	103H5210-50 △ 0	48 (1.89)	Lead wire
	—	103H5210-51 △ 0	48 (1.89)	Lead wire

□ 42mm (□ 1.65inch)



Lead wire type

	Set part number	Motor model number	Motor length : mm (inch)	Cable type
Unipolar	DU15S141 ▽	SH1421-04 ▽ 1	33 (1.25)	Lead wire
	DU15S142 ▽	SH1422-04 ▽ 1	39 (1.54)	Lead wire
	DU15S144 ▽	SH1424-04 ▽ 1	48 (1.89)	Lead wire
Bipolar	DB16H141 ▽	SH1421-52 ▽ 1	33 (1.25)	Lead wire
	DB16H142 ▽	SH1422-52 ▽ 1	39 (1.54)	Lead wire
—	DB16H144 ▽	SH1424-52 ▽ 1	48 (1.89)	Lead wire

▽ : Motor shaft specification code

△ : Motor shaft specification code

Motor shaft spec	Set type code	Motor type code	Motor shaft spec	Set type code	Motor type code
Single shaft	S	7	Single shaft	S	4
Double shafts	D	3	Double shafts	D	1