



2-phase stepping motor

# 42mm sq. (1.65inch sq.)

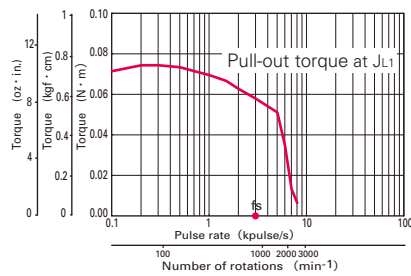
SS242 □  
1.8° / step Bipolar winding

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 <sup>-4</sup> kg · m <sup>2</sup> (oz · in <sup>2</sup> )]	[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)

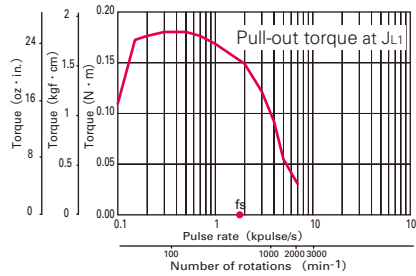
## Pulse rate-torque characteristics

● SS2421-50 □ □



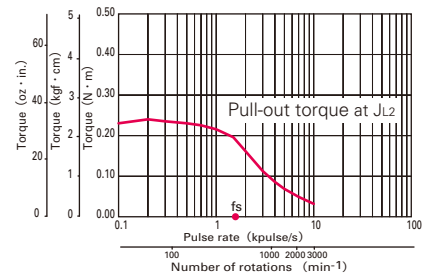
Constant current circuit  
Source voltage : DC24V · operating current : 1A/phase,  
2-phase energization (full-step)  
 $J_{L1} = [0.33 \times 10^{-4} \text{kg} \cdot \text{m}^2 (1.80 \text{oz} \cdot \text{in}^2)]$  inertia of rubber coupling is in cluded  
 $J_{L2} = [0.94 \times 10^{-4} \text{kg} \cdot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

● SS2423-50 □ □



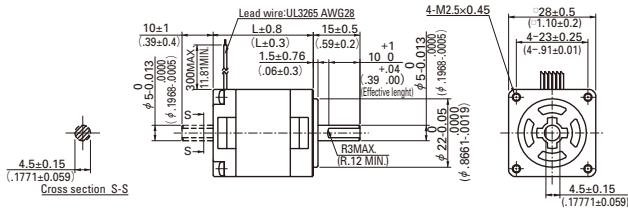
Constant current circuit  
Source voltage : DC24V · operating current : 1A/phase,  
2-phase energization (full-step)  
 $J_{L1} = [0.33 \times 10^{-4} \text{kg} \cdot \text{m}^2 (1.80 \text{oz} \cdot \text{in}^2)]$  inertia of rubber coupling is in cluded  
 $J_{L2} = [0.94 \times 10^{-4} \text{kg} \cdot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

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

Dimensions

# Motors [Unit: mm (inch)]

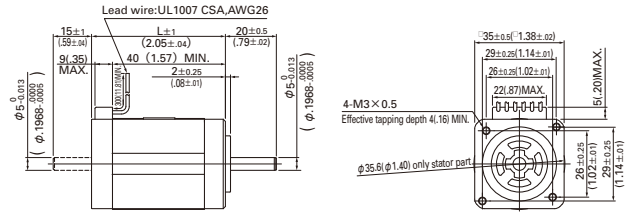
## □ 28mm (□ 1.10inch)



Connector type      Lead wire type

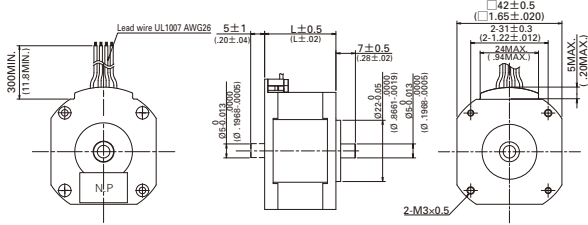
	Set part number	Motor model number	Motor length : mm (inch)	Cable type
Unipolar	DU14S281	SH2281-51	32 (1.26)	Lead wire
	DU14S281	SH2281-52	32 (1.26)	Lead wire
	DU14S285	SH2285-51	51.5 (2.03)	Lead wire
	DU14S285	SH2285-52	51.5 (2.03)	Lead wire
Bipolar	DB14S281	SH2281-56	32 (1.26)	Lead wire
	DB14S285	SH2285-56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

## □ 35mm (□ 1.65inch)



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

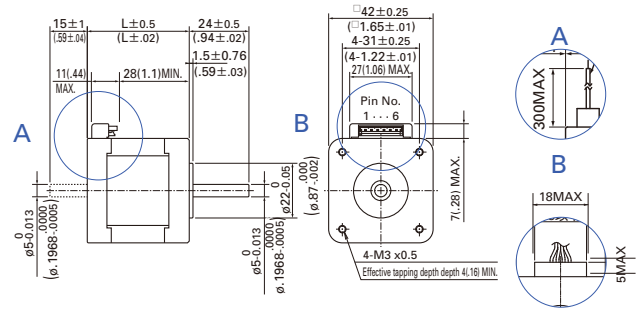
## □ 42mm (□ 1.65inch)



Lead wire type

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

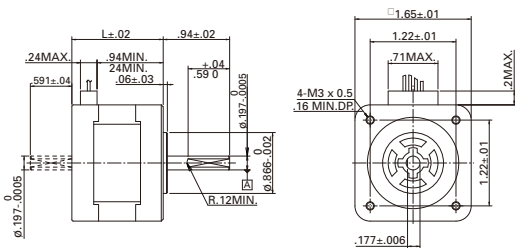
## □ 42mm (□ 1.65inch)



Connector type      Lead wire type

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

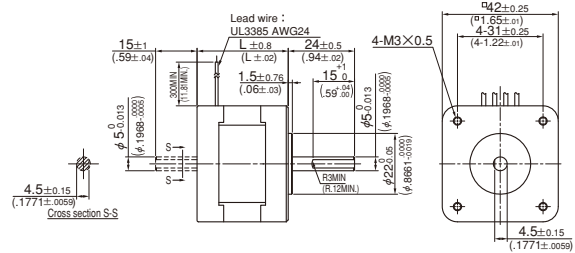
## □ 42mm (□ 1.65inch)



Connector type      Lead wire type

	Set part number	Motor model number	Motor length : mm (inch)	Cable type
Bipolar	DB14H521	103H5205-52	33 (1.25)	Lead wire
	DB14H522	103H5208-52	39 (1.54)	Lead wire
	DB14H524	103H5210-52	48 (1.89)	Lead wire
	—	103H5205-50	33 (1.25)	Lead wire
	—	103H5205-51	33 (1.25)	Lead wire
	—	103H5208-50	39 (1.54)	Lead wire
	—	103H5208-51	39 (1.54)	Lead wire
	—	103H5209-50	41 (1.61)	Lead wire
	—	103H5209-51	41 (1.61)	Lead wire
	—	103H5209-52	41 (1.61)	Lead wire
	—	103H5210-50	48 (1.89)	Lead wire
	—	103H5210-51	48 (1.89)	Lead wire
	—	103H5210-51	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	33 (1.25)	Lead wire
	DU15S142	SH1422-04	39 (1.54)	Lead wire
	DU15S144	SH1424-04	48 (1.89)	Lead wire
Bipolar	DB16H141	SH1421-52	33 (1.25)	Lead wire
	DB16H142	SH1422-52	39 (1.54)	Lead wire
—	DB16H144	SH1424-52	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