



# 42 mm sq.

1.8°/step RoHS

Unipolar winding, Connector type  
Bipolar winding, Connector type ▶ p. 46

## Customizing

Shaft length Shaft shape

Varies depending on the model number  
and quantity. Contact us for details.

### Unipolar winding, Connector type

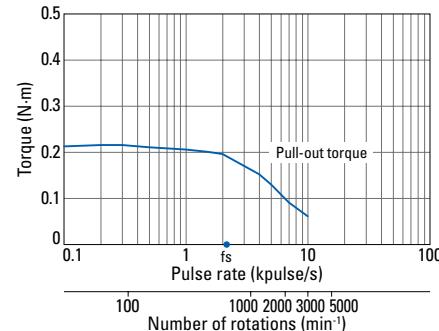
Model no.		Holding torque at 2-phase energization	Rated current	Wiring resistance	Winding inductance	Rotor inertia	Mass	Motor length (L)
Single shaft	Dual shaft	N·m min.	A/phase	Ω/phase	mH/phase	×10 <sup>-4</sup> kg·m <sup>2</sup>	kg	mm
SF2421-12U41	SF2421-12U11	0.22	1.2	2.4	2.4	0.031	0.23	33±0.5
SF2422-12U41	SF2422-12U11	0.33	1.2	3	3.3	0.046	0.3	39±0.5
SF2423-12U41	SF2423-12U11	0.4	1.2	3.4	3.9	0.063	0.38	48±0.5
SF2424-12U41	SF2424-12U11	0.58	1.2	4.4	5.4	0.094	0.51	59.5±1

Motor cable: model no. 4835710-1

### Characteristics diagram

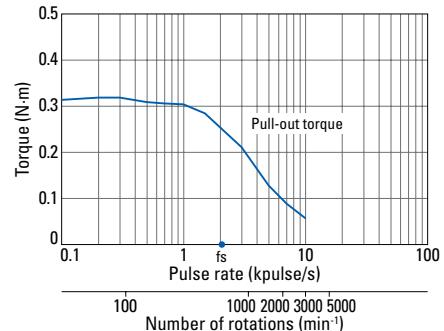
#### SF2421-12U41 SF2421-12U11

Constant current circuit  
Source voltage: 24 VDC  
Operating current:  
1.2 A/phase, 2-phase  
energization (full-step)  
Pull-out torque:  
 $J=0.94 \times 10^{-4} \text{ kg}\cdot\text{m}^2$  (use the  
rubber coupling)  
fs: Maximum self-start  
frequency when not  
loaded



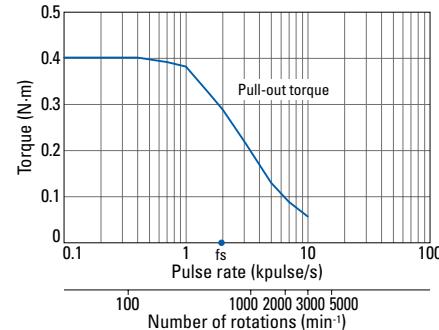
#### SF2422-12U41 SF2422-12U11

Constant current circuit  
Source voltage: 24 VDC  
Operating current:  
1.2 A/phase, 2-phase  
energization (full-step)  
Pull-out torque:  
 $J=0.94 \times 10^{-4} \text{ kg}\cdot\text{m}^2$  (use the  
rubber coupling)  
fs: Maximum self-start  
frequency when not  
loaded



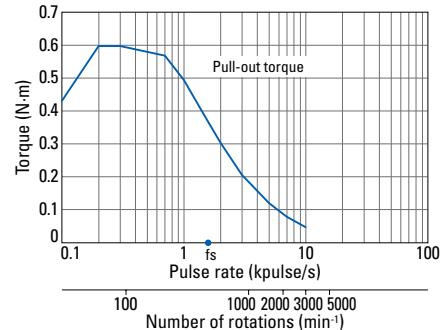
#### SF2423-12U41 SF2423-12U11

Constant current circuit  
Source voltage: 24 VDC  
Operating current:  
1.2 A/phase, 2-phase  
energization (full-step)  
Pull-out torque:  
 $J=0.94 \times 10^{-4} \text{ kg}\cdot\text{m}^2$  (use the  
rubber coupling)  
fs: Maximum self-start  
frequency when not  
loaded

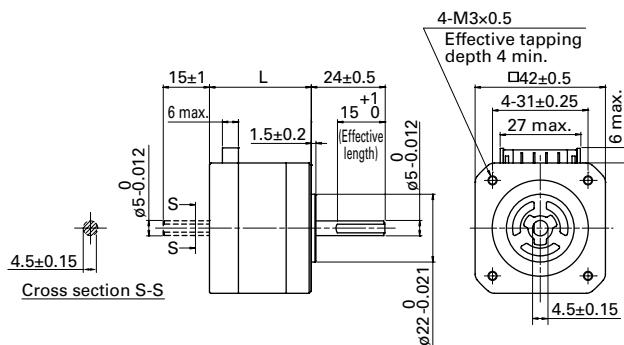


#### SF2424-12U41 SF2424-12U11

Constant current circuit  
Source voltage: 24 VDC  
Operating current:  
1.2 A/phase, 2-phase  
energization (full-step)  
Pull-out torque:  
 $J=0.94 \times 10^{-4} \text{ kg}\cdot\text{m}^2$  (use the  
rubber coupling)  
fs: Maximum self-start  
frequency when not  
loaded



### Dimensions (Unit: mm)



Option (sold separately): Motor cable model no. 4835774-1

Manufacturer: J.S.T.

Housing: PHR-11

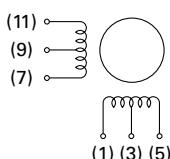
Pin: SPH-002T-P0.5S

Pin no.	Lead wire color	Length
11	Orange	500 min.
9	White	
7	Blue	
5	Yellow	
3	Black	
1	Red	

Lead wire: UL 1007 AWG26

This motor cable is for model no. SF242□-12U□1.

### Internal wiring ( ) connector pin number



### Compatible drivers

Model no.: US1D200P10

Operating current select switch setting: 8

The characteristics diagram shown above is from our experimental circuit.