

# 2 Phase Hybrid Stepping Motor

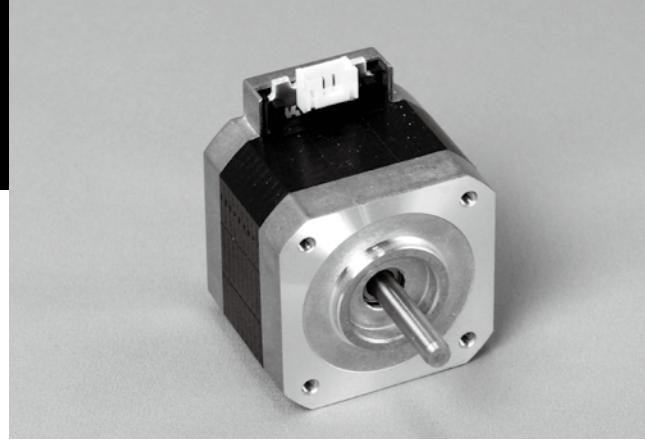
## 42D SERIES (For large quantity orders)



□42mm

1.8°

Bipolar



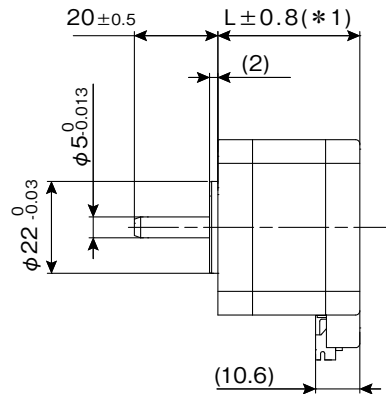
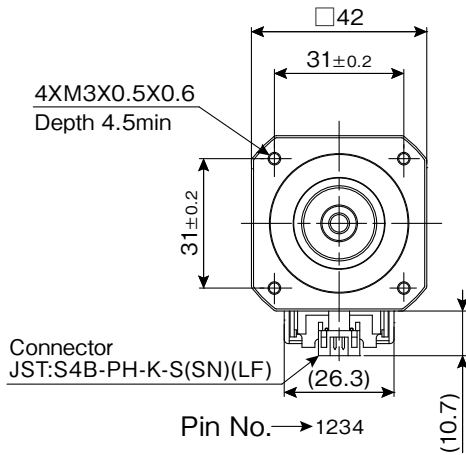
STA-42D series can achieve larger torque than existing motors in same dimension.

### SPECIFICATIONS

MODEL	STEP ANGLE	VOLTAGE	CURRENT	RESISTANCE	HOLDING TORQUE	ROTOR INERTIA	NUMBER OF PINS	MASS	LENGTH
	Deg.	V	A/φ	Ω/φ	mN·m	g·cm <sup>2</sup>	Pin	kg	mm
STA-42D1004	1.8	4.8	0.6	8.0	200	29	4	0.19	30
STA-42D1005	1.8	3.7	0.8	4.6	200	29	4	0.19	30
STA-42D1006	1.8	3.3	1.0	3.3	210	29	4	0.19	30
STA-42D1007	1.8	2.4	1.2	2.0	200	29	4	0.19	30
STA-42D2004	1.8	3.8	0.8	4.7	280	44	4	0.23	34
STA-42D2005	1.8	3.2	1.0	3.2	290	44	4	0.23	34
STA-42D2006	1.8	2.9	1.2	2.4	300	44	4	0.23	34
STA-42D2007	1.8	2.4	1.4	1.7	290	44	4	0.23	34
STA-42D3004	1.8	3.9	1.0	3.9	410	65	4	0.29	40
STA-42D3005	1.8	3.5	1.2	2.9	430	65	4	0.29	40
STA-42D3006	1.8	2.8	1.4	2.0	410	65	4	0.29	40
STA-42D3007	1.8	2.4	1.6	1.5	380	65	4	0.29	40

↑ Last Digit 4-7 : for Bipolar

### DIMENSIONS [EXAMPLE]



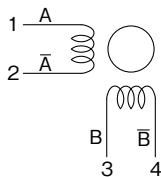
\* Available motor length 27.5~49.5mm.

Mating connector

Housing	JST:PHR-4
Contact	JST:SPH-002T-P0.5S

Available connector

Manufacturer	Connector	Housing	Contact
Tyco electronics	292250-4	179228-4	50212-08100



Wiring diagram  
(Bipolar)

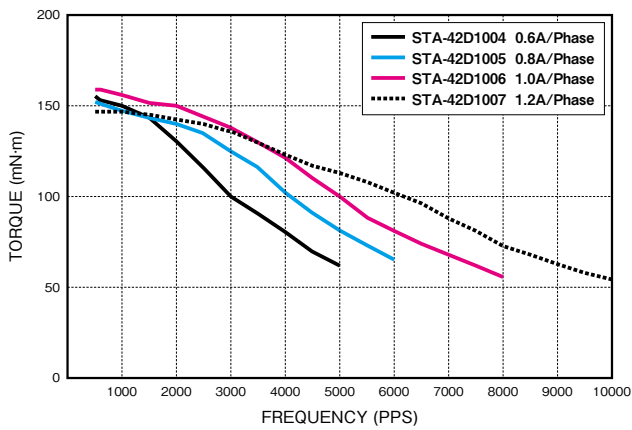
Lead wire type is available.

## TORQUE RANGE

STEP ANGLE	SIZE		WINDINGS	MODEL	TORQUE (mN·m) *FREQUENCY at 1,000pps															
					0	50	100	200	300	400	600	800	1000	1500	2000					
1.8°	□42mm	NEMA17	Biipolar	42D1	[Torque range bars for 42D1]															
				42D2	[Torque range bars for 42D2]															
				42D3	[Torque range bars for 42D3]															

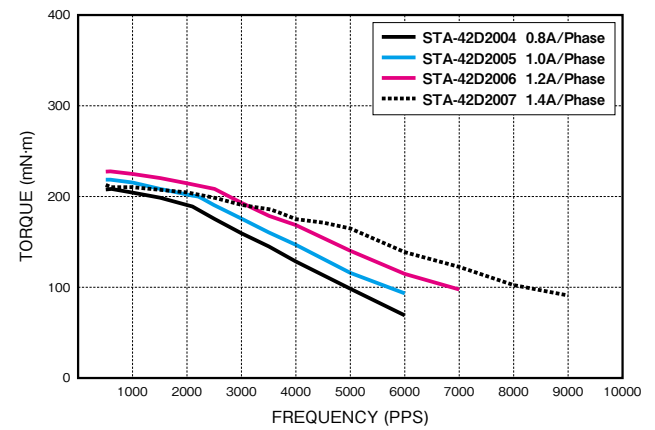
## PULL OUT TORQUE CURVE

STA-42D1XXX



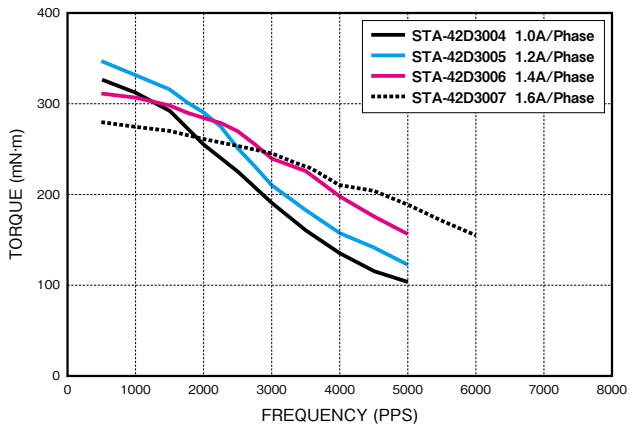
DRIVER : Chopper  
 SUPPLY VOLTAGE : DC24V  
 EXCITING MODE = 2 Phase  
 MOUNTING : With rubber damper

STA-42D2XXX



DRIVER : Chopper  
 SUPPLY VOLTAGE : DC24V  
 EXCITING MODE = 2 Phase  
 MOUNTING : With rubber damper

STA-42D3XXX



DRIVER : Chopper  
 SUPPLY VOLTAGE : DC24V  
 EXCITING MODE = 2 Phase  
 MOUNTING : With rubber damper

**i** Available shaft, lead wires, winding, encoder and other customization. Feel free to contact sales office or sales agent. This motor series can not be sold in small lot size.

**!** Operate the motor keeping the motor surface temperature at 100 deg. C or lower.

Stepping Motor  
BLDC Motor  
AC Motor  
Motor Driver  
Other Motor