

## Ordering Information

<b>A</b>	<b>2K</b>	<b>-M</b>	<b>2</b>									
			Shaft type		Blank	Single						
			Motor length (mm)		W	Dual						
			Motor frame size (width×height)		2		□42 (42mm×42mm)	3	34mm			
					4		□56 (56.4mm×56.4mm)	4	40mm			
					4		□56 (56.4mm×56.4mm)	5	47.5mm			
			Motor phase		2		□56 (56.4mm×56.4mm)	4	43mm			
					4		□56 (56.4mm×56.4mm)	5	55mm			
					8		□56 (56.4mm×56.4mm)	8	79mm			
			Rated current		2		□56 (56.4mm×56.4mm)	2 phase				
					M		□56 (56.4mm×56.4mm)	1.2A/Phase				
					G		□56 (56.4mm×56.4mm)	2.0A/Phase				
			Max. holding torque		Square		□56 (56.4mm×56.4mm)	kgf·cm (Refer to motor specification)				
					Series		□56 (56.4mm×56.4mm)					

## Motor Type

Type	Model	A/phase (A)	Max. holding torque (kgf·cm)	Moment of rotor inertia (g·cm <sup>2</sup> )	Winding resistance (Ω)	Motor length (mm)
□42	<b>A2K-M243</b>	1.2	2.06	33	2.7	34
	<b>A3K-M244 (W)</b>	1.2	2.97	56	3.3	40
	<b>A4K-M245</b>	1.2	3.48	72	2.8	47.5
□56	<b>A6K-G264 (W)</b>	2	5.67	145.0	1.3	42
	<b>A9K-G265 (W)</b>	2	9.25	245.0	1.7	54.5
	<b>A16K-G268</b>	2	15.70	470.0	2.5	77.5

※ (W) stands for dual shaft of motor. The brake built-in type provides single shaft type only.

※ Motor length was measured without shaft.

## Specifications

### □42

Model	A2K-M243	A3K-M244 (W)	A4K-M245
Max. holding torque	2.06kgf·cm (0.202N·m)	2.97kgf·cm (0.291N·m)	3.30kgf·cm (0.323N·m)
Moment of rotor inertia	33g·cm <sup>2</sup> (33×10 <sup>-7</sup> kg·m <sup>2</sup> )	56g·cm <sup>2</sup> (56×10 <sup>-7</sup> kg·m <sup>2</sup> )	72g·cm <sup>2</sup> (72×10 <sup>-7</sup> kg·m <sup>2</sup> )
Rated current	1.2A/Phase		
Standard step angle	1.8°/ 0.9° (Full/Half step)		
Insulation class	B type (130°C)		
Insulation resistance	Min. 100MΩ (at 500VDC megger) between motor coil-case		
Dielectric strength	0.5kVAC 50/60Hz for 1 min. between motor coil-case		
Environ-ment	Ambient temperature	0 to 50°C, storage: -20 to 70°C	
	Ambient humidity	20 to 90%RH, storage: 15 to 95%RH	
Protection structure	IP30 (IEC34-5 standard)		
Unit weight <sup>※1</sup>	Approx. 0.33kg (approx. 0.23kg)	Approx. 0.39kg (approx. 0.29kg)	Approx. 0.53kg (approx. 0.43kg)
Reference	<b>Q-56 to 57</b>		

※1: The weight includes packaging. The weight in parentheses is for unit only.

※ Environment resistance is rated at no freezing or condensation.

### □56

Model	A6K-G264 (W)	A9K-G265 (W)	A16K-G268
Max. holding torque	5.70kgf·cm (0.559N·m)	9.00kgf·cm (0.882N·m)	15.70kgf·cm (1.539N·m)
Moment of rotor inertia	145g·cm <sup>2</sup> (145×10 <sup>-7</sup> kg·m <sup>2</sup> )	245g·cm <sup>2</sup> (245×10 <sup>-7</sup> kg·m <sup>2</sup> )	470g·cm <sup>2</sup> (470×10 <sup>-7</sup> kg·m <sup>2</sup> )
Rated current	2.0A/Phase		
Standard step angle	1.8°/ 0.9° (Full/Half step)		
Insulation class	B type (130°C)		
Insulation resistance	Min. 100MΩ (at 500VDC megger) between motor coil-case		
Dielectric strength	0.5kVAC 50/60Hz for 1 min. between motor coil-case		
Environ-ment	Ambient temperature	0 to 50°C, storage: -20 to 70°C	
	Ambient humidity	20 to 90%RH, storage: 15 to 95%RH	
Protection structure	IP30 (IEC34-5 standard)		
Unit weight <sup>※1</sup>	Approx. 0.65kg (approx. 0.50kg)	Approx. 0.85kg (approx. 0.70kg)	Approx. 1.25kg (approx. 1.10kg)
Reference	<b>Q-56 to 57</b>		

※1: The weight includes packaging. The weight in parentheses is for unit only.

※ Environment resistance is rated at no freezing or condensation.

(A) Photoelectric Sensors

(B) Fiber Optic Sensors

(C) Door/Area Sensors

(D) Proximity Sensors

(E) Pressure Sensors

(F) Rotary Encoders

(G) Connectors/ Sockets

(H) Temperature Controllers

(I) SSRs / Power Controllers

(J) Counters

(K) Timers

(L) Panel Meters

(M) Tacho / Speed / Pulse Meters

(N) Display Units

(O) Sensor Controllers

(P) Switching Mode Power Supplies

(Q) Stepper Motors & Drivers & Controllers

(R) Graphic/ Logic Panels

(S) Field Network Devices


(T) Software

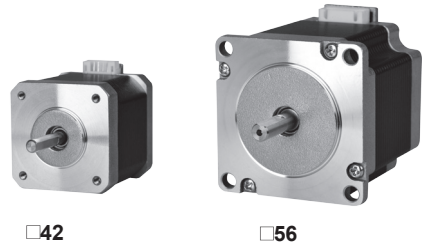
# AK-2 Series

## □42mm/□56mm/ 2-Shaft Type

### ■ Features

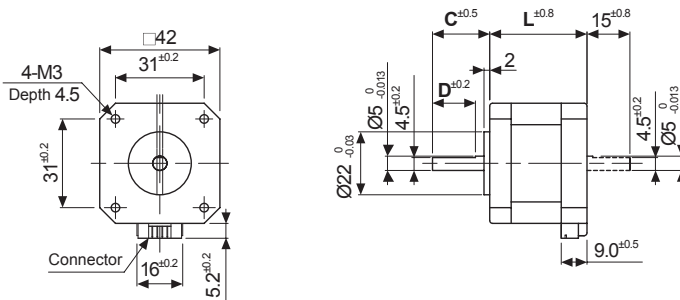
- Compact design and light weight with high accuracy, speed and torque
- Suitable for small-sized equipment applications
- Connector cable type
- Cost-effective

 Please read "Caution for your safety" in operation manual before using.



### ■ Dimensions

#### ◎ □42



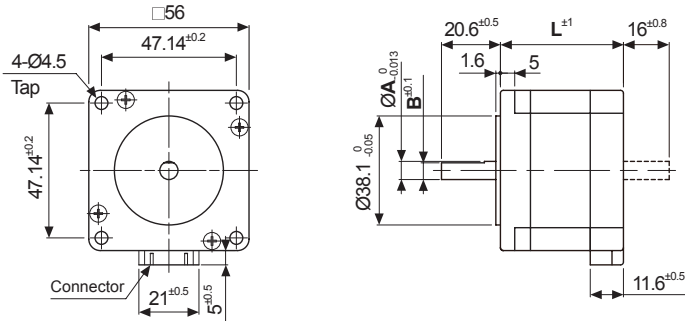
(unit: mm)

MODEL	L	C	D
A2K-M243	34	20	15
A3K-M244 (W)	40	20	15
A4K-M245	47.5	23	18

※These dimensions are for dual shaft models.  
For single shaft models, ignore dotted line (.....) part.

※Including connector head and cable (320mm)  
Manufacturer: J.S.T.MFG.CO.,LTD  
Model: S6B-PH-K-S

#### ◎ □56



(unit: mm)

MODEL	L	A	B
A6K-M243	43	6.35	5.85
A9K-M265 (W)	55	6.35	5.85
A16K-G268	79	8	7.5

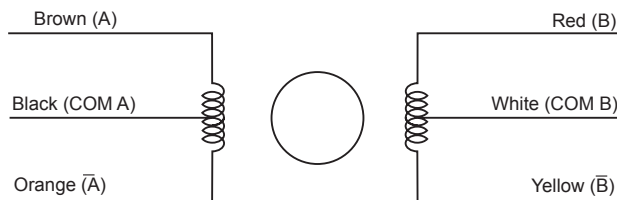
※These dimensions are for dual shaft models.  
For single shaft models, ignore dotted line (.....) part.

※Including connector head and cable (400mm)  
Manufacturer: J.S.T.MFG.CO.,LTD  
Model: S6B-XH-A-1

※For flexible coupling (ERB Series), refer to the page F-75.

### ■ Connection Diagram Of 2-Phase Stepper Motor

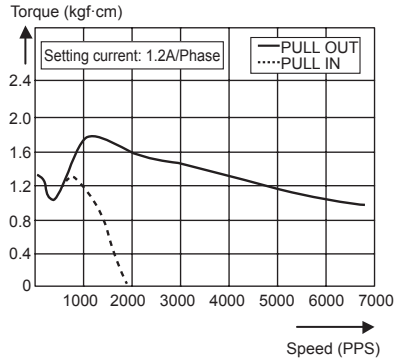
Autonics 2-phase stepper motor is the pentagon connection and color of each phase and lead wire is shown as follows.



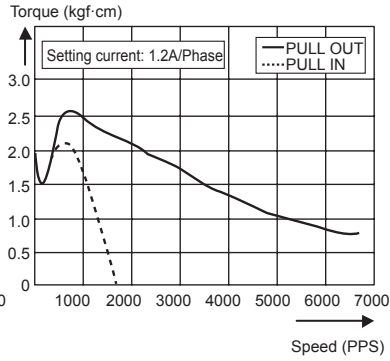
# 2-Phase Stepper Motor Driver

## Characteristic

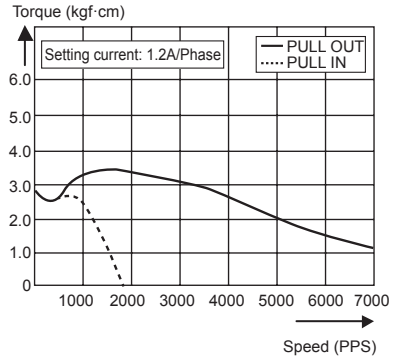
### • A2K-M243



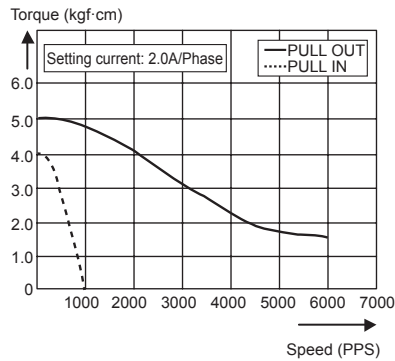
### • A3K-M244 (W)



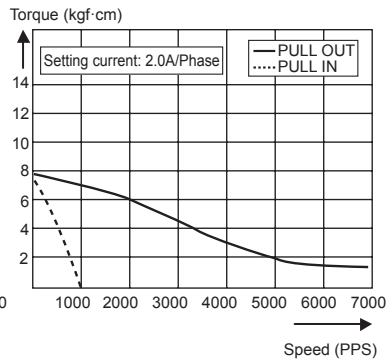
### • A4K-M245



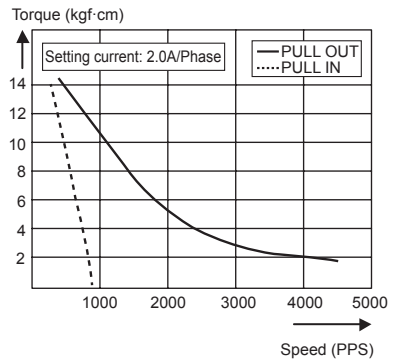
### • A6K-G264 (W)



### • A9K-G265 (W)



### • A16K-G268



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