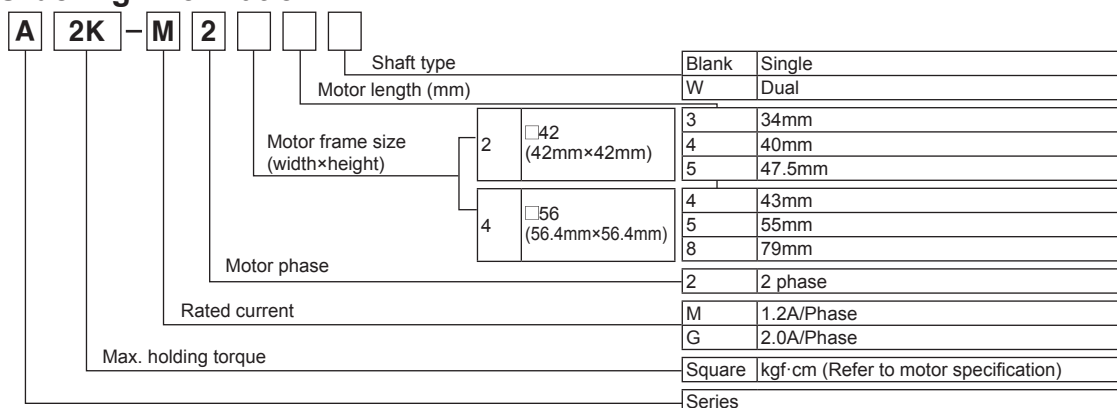


2-Phase Stepper Motor Driver

■ Ordering Information



Motor Type

Type		Model	A/phase (A)	Max. holding torque (kgf·cm)	Moment of rotor inertia (g·cm ²)	Winding resistance (Ω)	Motor length (mm)
□42	Shaft type	A2K-M243	1.2	2.06	33	2.7	34
		A3K-M244 (W)	1.2	2.97	56	3.3	40
		A4K-M245	1.2	3.48	72	2.8	47.5
□56		A6K-G264 (W)	2	5.67	145.0	1.3	42
A9K-G265 (W)		2	9.25	245.0	1.7	54.5	
A16K-G268		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 ² (33×10 ⁻⁷ kg·m ²)	56g·cm ² (56×10 ⁻⁷ kg·m ²)	72g·cm ² (72×10 ⁻⁷ kg·m ²)
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 ^{*1}	Approx. 0.33kg (approx. 0.23kg)	Approx. 0.39kg (approx. 0.29kg)	Approx. 0.53kg (approx. 0.43kg)
Reference	Q-56 to 57		

※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 ² (145×10 ⁻⁷ kg·m ²)	245g·cm ² (245×10 ⁻⁷ kg·m ²)	470g·cm ² (470×10 ⁻⁷ kg·m ²)
Rated current	2.0A/Phase	2.0A/Phase	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※ ¹	Approx. 0.65kg (approx. 0.50kg)	Approx. 0.85kg (approx. 0.70kg)	Approx. 1.25kg (approx. 1.10kg)
Reference	Q-56 to 57		

※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
Main

(M)	Tacho / Speed / Pulse Meters
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(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

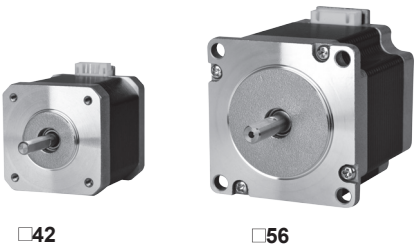
AK-2 Series

42mm/56mm/ 2-Shaft Type

Features

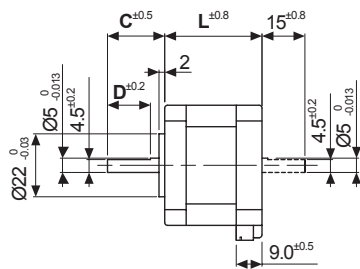
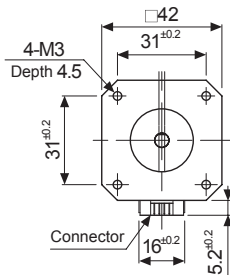
- Compact design and light weight with high accuracy, speed and torque
- Suitable for small-sized equipment applications
- Connector cable type
- Cost-effective

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



Dimensions

42



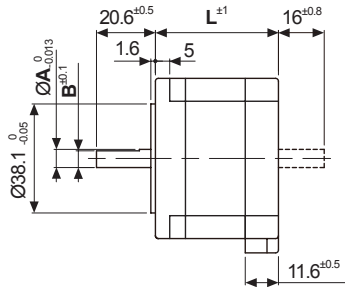
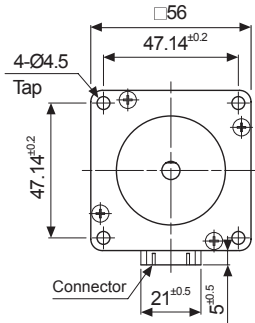
(unit: mm)

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

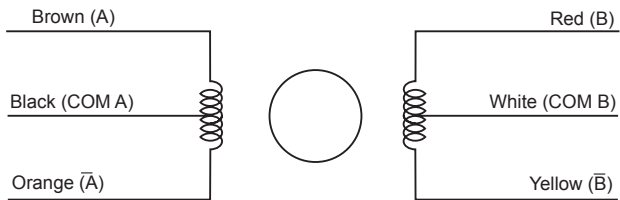
※These dimensions are for dual shaft models.
For single shaft models, ignore dotted line (.....) part.

※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

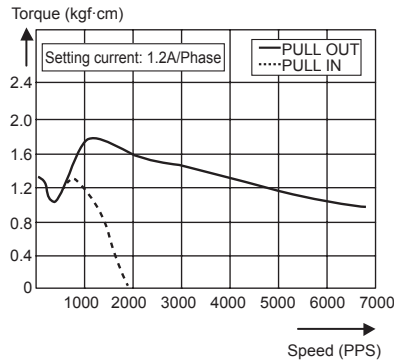
Autonics 2-phase stepper motor is the pentagon connection and color of each phase and lead wire is shown as follows.



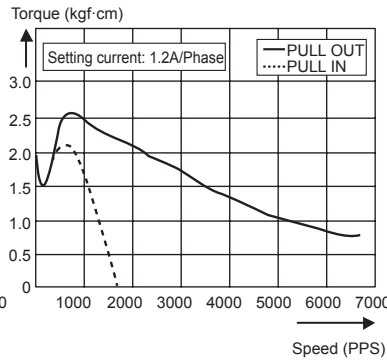
2-Phase Stepper Motor Driver

■ Characteristic

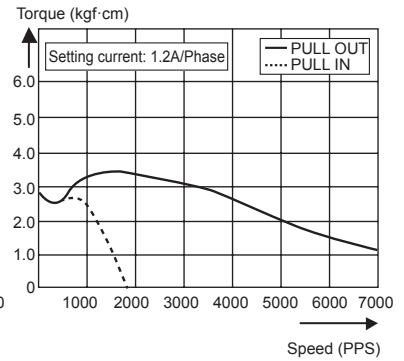
● A2K-M243



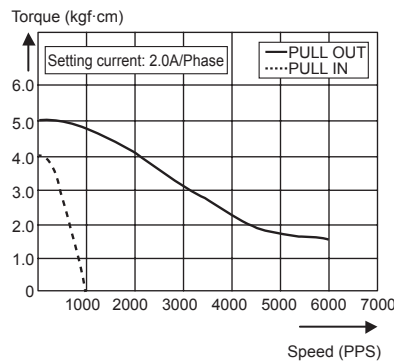
● A3K-M244 (W)



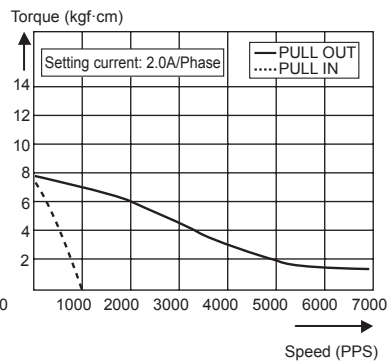
● A4K-M245



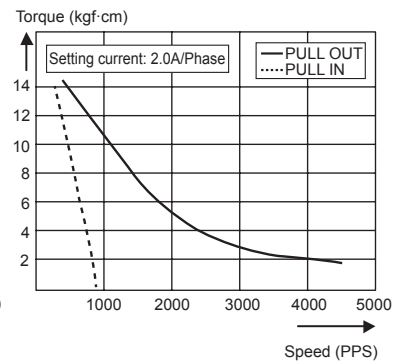
● A6K-G264 (W)



● A9K-G265 (W)



● A16K-G268



(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