

AK-2 Series

Ordering information

A	□	K	-	M	2	□	□	□	Motor shaft	Blank	Single shaft
									Motor length(mm)	W	Dual shaft
									Motor frame size(mm)	2	42mm (42mm×42mm)
										3	34mm
										4	40mm
										5	47.5mm
										4	42mm
										5	54.5mm
										8	77.5mm
										2	2 phase
										M	1.2A/Phase or 1.5A/Phase
										G	2.0A/Phase
											Max. holding torque
											Square
											kgf·cm(Refer to motor specification)
											Series

Motor type

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

※(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-square

Model	A2K-M243	A3K-M244(W)	A4K-M245
Max. holding torque	2.06kgf·cm(0.206N·m)	2.97kgf·cm(0.297N·m)	3.48kgf·cm(0.348N·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		
Basic step angle	1.8°/ 0.9°(Full/Half step)		
Insulation class	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		
Environment	Ambient temperature	0 to 50°C, storage: -20 to 70°C	
	Ambient humidity	20 to 90%RH, storage: 15 to 95%RH	
Protection	IP30(IEC34-5 standard)		
Unit weight	Approx. 0.23kg	Approx. 0.29kg	Approx. 0.43kg
Reference	Q-50 to 51		

56-square

Model	A6K-G264(W)	A9K-G265(W)	A16K-G268
Max. holding torque	5.70kgf·cm(0.570N·m)	9.25kgf·cm(0.925N·m)	15.70kgf·cm(1.570N·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
Basic step angle	1.8°/ 0.9°(Full/Half step)		
Insulation class	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		
Environment	Ambient temperature	0 to 50°C, storage: -20 to 70°C	
	Ambient humidity	20 to 90%RH, storage: 15 to 95%RH	
Protection	IP30(IEC34-5 standard)		
Unit weight	Approx. 0.5kg	Approx. 0.7kg	Approx. 1.1kg
Reference	Q-50 to 51		

2-Phase Stepper motor Driver

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.

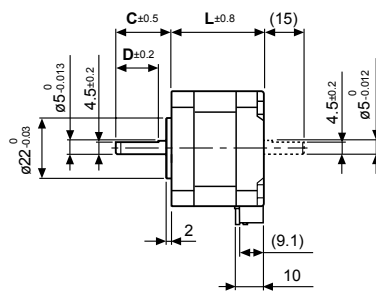
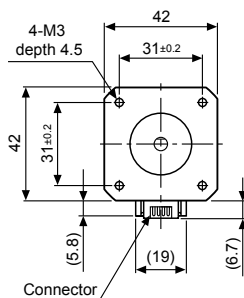


42-square

56-square

Dimensions

42-square



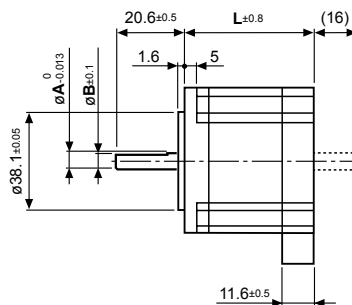
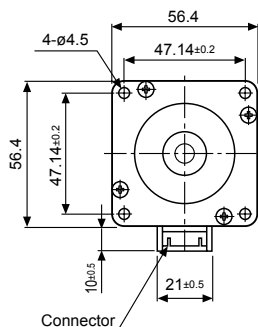
(unit: mm)

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)
Manufacture: J.S.T.MFG.CO.,LTD
Model: S6B-PH-K-S

56-square



(unit: mm)

MODEL	L	C	D
A6K-M243	42	6.35	5.85
A9K-M265(W)	54.5	6.35	5.85
A16K-G268	77.5	8	7.5

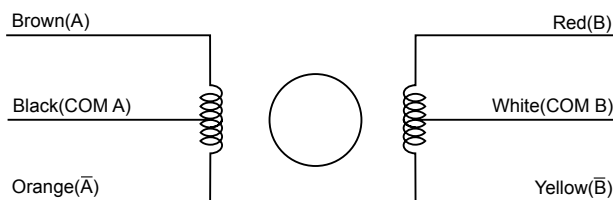
※These dimensions are for dual shaft models.
For single shaft models, ignore dotted line(.....) part.

※Including connector head and cable(400mm)
Manufacture: J.S.T.MFG.CO.,LTD
Model: S6B-PH-K-S

※For flexible coupling(ERB Series), refer to the F-63 page.

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.

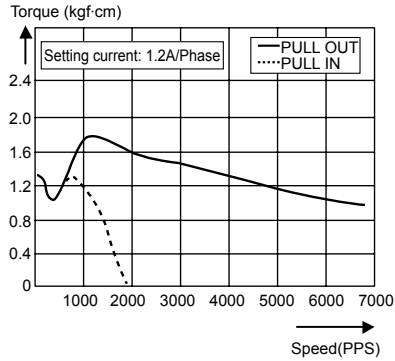


(A)	Photo electric sensor
(B)	Fiber optic sensor
(C)	Door/Area sensor
(D)	Proximity sensor
(E)	Pressure sensor
(F)	Rotary encoder
(G)	Connector/Socket
(H)	Temp. controller
(I)	SSR/ Power controller
(J)	Counter
(K)	Timer
(L)	Panel meter
(M)	Tacho/ Speed/ Pulse meter
(N)	Display unit
(O)	Sensor controller
(P)	Switching mode power supply
(Q)	Stepper motor& Driver&Controller
(R)	Graphic/ Logic panel
(S)	Field network device
(T)	Software
(U)	Other

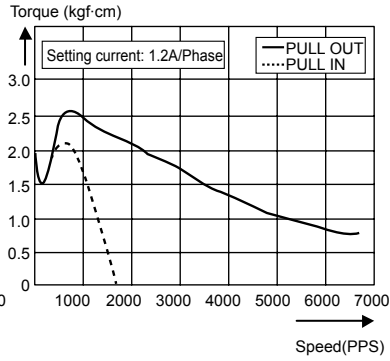
AK-2 Series

Characteristic

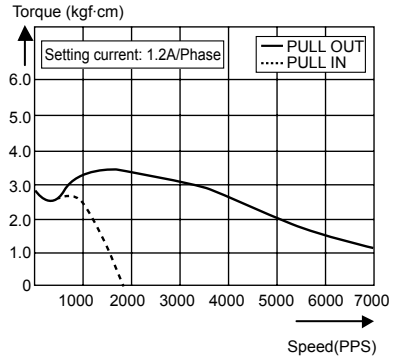
• A2K-M243



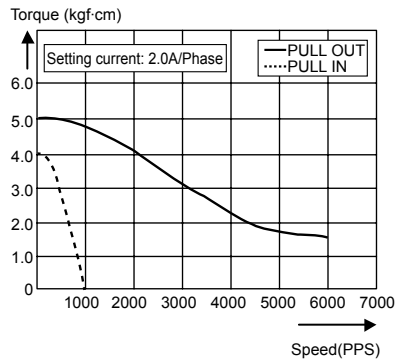
• A3K-M244(W)



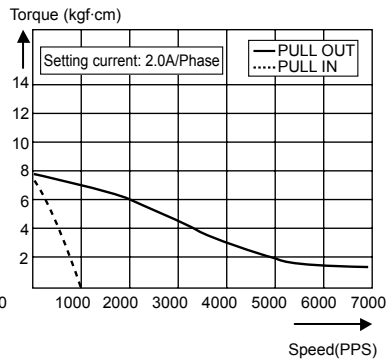
• A4K-M245



• A6K-G264(W)



• A9K-G265(W)



• A16K-G268

