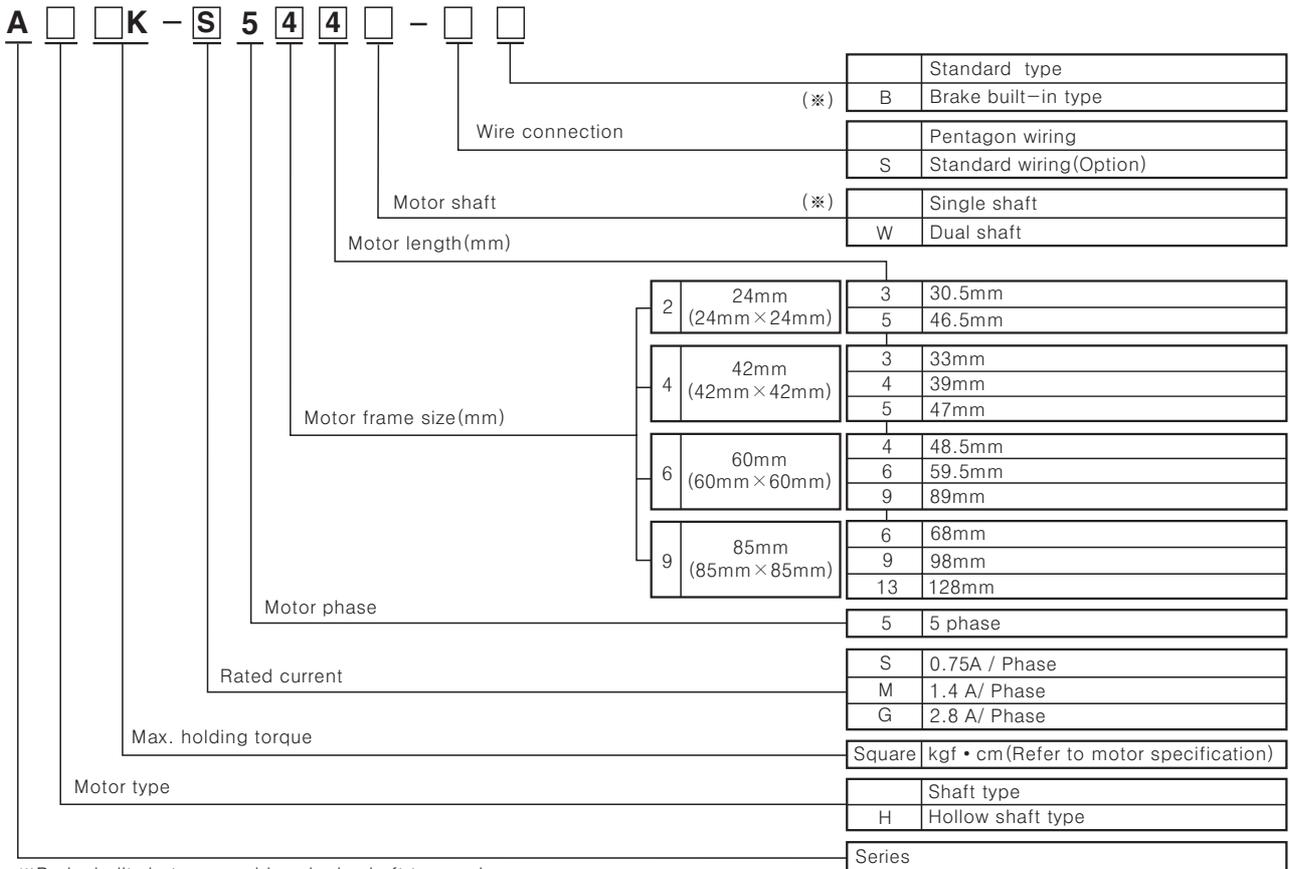


5-Phase Stepping Motor

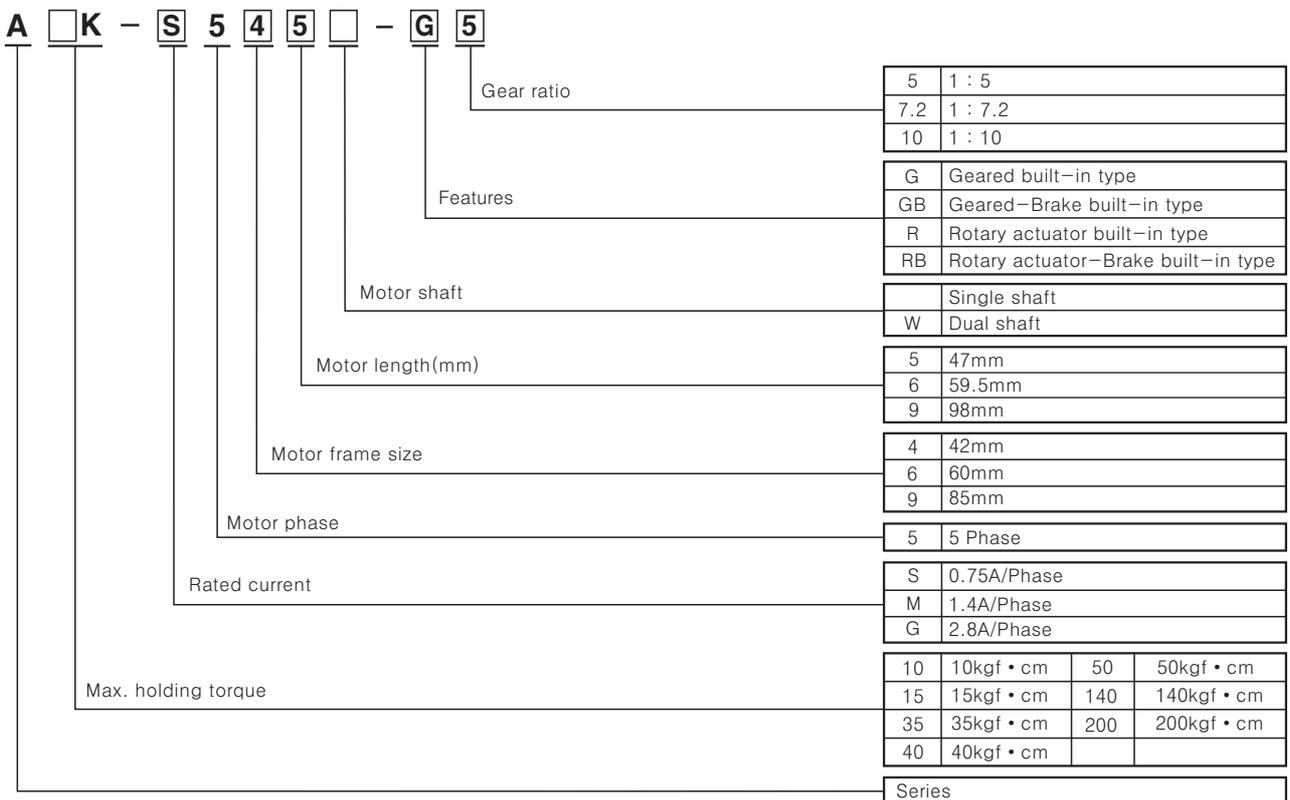
Ordering information

●Application model : Shaft type, Hollow shaft type, Shaft type+Brake built-in type



*Brake built-in type provides single shaft type only.

●Application model : Geared built-in type, Geared+Brake built-in type, Rotary actuator, Rotary actuator+Brake built-in type



5-Phase Stepping Motor

Specifications

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)	
24 Square	Shaft type	02K-S523(W)	0.75	0.18	—	4.2	30.5	
		04K-S525(W)	0.75	0.28	—	8.2	46.5	
42 Square	Shaft type	A1K-S543(W)	0.75	1.3	—	35	33	
		A2K-S544(W)	0.75	1.8	—	54	39	
		A3K-S545(W)	0.75	2.4	—	68	47	
	Hollow shaft type	AH1K-S543	0.75	1.3	—	35	33	
		AH2K-S544	0.75	1.8	—	54	39	
		AH3K-S545	0.75	2.4	—	68	47	
	Shaft type / Geared built-in type	A10K-S545(W)-G5	0.75	—	10	68	1.7	74.5
		A15K-S545(W)-G7.2	0.75	—	15	68	2.2	74.5
		A15K-S545(W)-G10	0.75	—	15	68	2.2	74.5
	60 Square	Shaft type / Shaft type + Brake built-in type	A4K-S564(W)-B	0.75	4.2	—	175	2.6
A4K-M564(W)-B			1.4	4.2	—	175	0.8	48.5
A8K-S566(W)-B			0.75	8.3	—	280	4.0	59.5
A8K-M566(W)-B			1.4	8.3	—	280	1.1	59.5
A16K-M569(W)-B			1.4	16.6	—	560	1.8	89
A16K-G569(W)-B			2.8	16.6	—	560	0.56	89
Hollow shaft type		AH4K-S564(W)	0.75	4.2	—	175	2.6	48.5
		AH4K-M564(W)	1.4	4.2	—	175	0.8	48.5
		AH8K-S566(W)	0.75	8.3	—	280	4.0	59.5
		AH8K-M566(W)	1.4	8.3	—	280	1.1	59.5
		AH16K-M569(W)	1.4	16.6	—	560	1.8	89
		AH16K-G569(W)	2.8	16.6	—	560	0.56	89
Shaft type / Geared built-in type		A35K-M566(W)-G5	1.4	—	35	280	1.1	94.5
		A40K-M566(W)-G7.2	1.4	—	40	280	1.1	94.5
		A50K-M566(W)-G10	1.4	—	50	280	1.1	94.5
Geared + Brake built-in type		A35K-M566-GB5	1.4	—	35	280	1.1	136
		A40K-M566-GB7.2	1.4	—	40	280	1.1	136
		A50K-M566-GB10	1.4	—	50	280	1.1	136
Rotary actuator type		A35K-M566(W)-R5	1.4	—	35	280	1.1	93.5
		A40K-M566(W)-R7.2	1.4	—	40	280	1.1	93.5
		A50K-M566(W)-R10	1.4	—	50	280	1.1	93.5
Rotary actuator + Brake built-in type		A35K-M566-RB5	1.4	—	35	280	1.1	135
		A40K-M566-RB7.2	1.4	—	40	280	1.1	135
		A50K-M566-RB10	1.4	—	50	280	1.1	135
85 Square	Shaft type / Shaft type + Brake built-in type	A21K-M596(W)-B	1.4	21	—	1400	1.76	68
		A21K-G596(W)-B	2.8	21	—	1400	0.4	68
		A41K-M599(W)-B	1.4	41	—	2700	2.6	98
		A41K-G599(W)-B	2.8	41	—	2700	0.58	98
		A63K-M5913(W)-B	1.4	63	—	4000	3.92	128
		A63K-G5913(W)-B	2.8	63	—	4000	0.86	128
	Hollow shaft type	AH21K-M596(W)	1.4	21	—	1400	1.76	68
		AH21K-G596(W)	2.8	21	—	1400	0.4	68
		AH41K-M599(W)	1.4	41	—	2700	2.6	98
		AH41K-G599(W)	2.8	41	—	2700	0.58	98
		AH63K-M5913(W)	1.4	63	—	4000	3.92	128
		AH63K-G5913(W)	2.8	63	—	4000	0.86	128
	Shaft type / Geared built-in type	A140K-M599(W)-G5	1.4	—	140	2700	2.6	145
		A140K-G599(W)-G5	2.8	—	140	2700	0.58	145
		A200K-M599(W)-G7.2	1.4	—	200	2700	2.6	145
		A200K-G599(W)-G7.2	2.8	—	200	2700	0.58	145
		A200K-M599(W)-G10	1.4	—	200	2700	2.6	145
		A200K-G599(W)-G10	2.8	—	200	2700	0.58	145
	Geared + Brake built-in type	A140K-M599-GB5	1.4	—	140	2700	2.6	182
		A140K-G599-GB5	2.8	—	140	2700	0.58	182
		A200K-M599-GB7.2	1.4	—	200	2700	2.6	182
		A200K-G599-GB7.2	2.8	—	200	2700	0.58	182
		A200K-M599-GB10	1.4	—	200	2700	2.6	182
		A200K-G599-GB10	2.8	—	200	2700	0.58	182

(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/Speed/Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

(N) Stepping motor & Driver & Controller

(O) Graphic panel

(P) Production stoppage models & replacement

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

※ Motor length was measured without shaft.

※ Hollow shaft type with standard wiring is customizable. (Except for 24mm)

5-Phase Stepping Motor

■ Specifications

●24 square

Model	02K-S523(W)	04K-S525(W)
Max. holding torque	0.18 kgf · cm (0.018N · m)	0.28kgf · cm (0.028 N · m)
Moment of rotor inertia	4.2 g · cm ² (4.2×10 ⁻⁷ kg · m ²)	8.2 g · cm ² (8.2×10 ⁻⁷ kgf · m ²)
Rated current	0.75A/Phase	
Basic step angle	0.72° / 0.36° (Full step/Half step)	
Insulation class	CLASS B type(130℃)	
Insulation resistance	Min. 100MΩ (Standard 500VDC mega) between Motor coil-case	
Dielectric strength	1Min. at 0.5kVAC 50/60Hz between Motor coil-case	
Ambient temperature	-10℃ ~ +50℃, Storage condition : -25℃ ~ +85℃	
Ambient humidity	35 ~ 85%RH	
Protection	IP30(IEC34-5 standard)	
Unit weight	Approx. 0.07kg	Approx. 0.12kg

●42 square

Model	Shaft type	A1K-S543(W)	A2K-S544(W)	A3K-S545(W)	—	—	—
	Hollow shaft type	AH1K-S543	AH2K-S544	AH3K-S545	—	—	—
	Shaft type+ Geared buit-in type	—	—	—	A10K-S545(W)-G5	A15K-S545(W)-G7.2	A15K-S545(W)-G10
	Geared type+ Brake buit-in type	—	—	—	—	—	—
Max. allowable torque	—	—	—	10kgf · cm (1.0 N · m)	15kgf · cm (1.5 N · m)	15kgf · cm (1.5 N · m)	—
Max. holding torque	1.3kgf · cm (0.13 N · m)	1.8kgf · cm (0.18 N · m)	2.4kgf · cm (0.24 N · m)	—	—	—	—
Moment of rotor inertia	35 g · cm ² (35×10 ⁻⁷ kg · m ²)	54 g · cm ² (54×10 ⁻⁷ kg · m ²)	68 g · cm ² (68×10 ⁻⁷ kg · m ²)	68 g · cm ² (68×10 ⁻⁷ kg · m ²)			—
Rated current	0.75A/Phase						
Basic step angle	0.72° / 0.36(Full / Half step)			0.144° / 0.072° (Full / Half step)	0.1° / 0.05° (Full / Half step)	0.072° / 0.036° (Full / Half step)	
Gear ratio	—			1 : 5	1 : 7.2	1 : 10	
Allowable speed range	—			0 ~ 360rpm	0 ~ 250rpm	0 ~ 180rpm	
Backlash[min]	—			±35' (0.58°)			
Insulation class	CLASS B type(130℃)						
Insulation resistance	Min. 100MΩ (Standard 500VDC mega) between Motor coil-case						
Dielectric strength	1Min. at 1kVAC(0.5kVAC for 0.75A/Phase) 50/60Hz between Motor coil-case						
Ambient temperature	-10℃ ~ +50℃, Storage condition : -25℃ ~ +85℃						
Ambient humidity	35 ~ 85%RH						
Protection	IP30(IEC34-5 standard)						
Unit weight	Approx. 0.25kg	Approx. 0.3kg	Approx. 0.4kg	Approx. 5.8kg			

5-Phase Stepping Motor

Specifications

●60 square

Model	Shaft type	A4K-S564(W)	A4K-M564(W)	A8K-S566(W)	A8K-M566(W)	A16K-S569(W)	A16K-M569(W)	A16K-G569(W)
	Hollow shaft type	AH4K-S564(W)	AH4K-M564(W)	AH8K-S566(W)	AH8K-M566(W)	AH16K-S569(W)	AH16K-M569(W)	AH16K-G569(W)
	Shaft type+ Brake built-in type	A4K-S564-B	A4K-M564-B	A8K-S566-B	A8K-M566-B	A16K-S569-B	A16K-M569-B	A16K-G569-B
Max. holding torque	4.2kgf • cm (0.42N • m)			8.3kgf • cm (0.83N • m)		16.6kgf • cm (1.66N • m)		
Moment of rotor inertia	175g • cm ² (175 × 10 ⁻⁷ kg • m ²)			280g • cm ² (280 × 10 ⁻⁷ kg • m ²)		560g • cm ² (560 × 10 ⁻⁷ kg • m ²)		
Rated current	0.75A/Phase	1.4A/Phase	0.75A/Phase	1.4A/Phase	0.75A/Phase	1.4A/Phase	2.8A/Phase	
Basic step angle	0.72° / 0.36(Full/Half step)							
Electro magnetic brake	Rated excitation voltage	24VDC (non-polarity)						
	Rated excitation current	0.33A						
	Static friction torque	4kgf • cm						
	Rotation part inertia	2.5 × 10 ⁻⁶ kgf • cm ²						
	Operating time	Max. 22ms						
	Releasing time	Max. 37ms						
Insulation class	CLASS B type (130°C)							
Insulation resistance	Min. 100MΩ (Standard 500VDC mega) between Motor coil-case							
Dielectric strength	1Min. at 1kVAC (0.5kVAC for 0.75A/Phase) 50/60Hz between Motor coil-case							
Ambient temperature	-10 ~ +50°C, Storage condition : -25 ~ +85°C							
Ambient humidity	35 ~ 85%RH							
Protection	IP30 (IEC34-5 standard)							
Unit weight	Standard type : 0.6kg, Brake built-in type : 0.9kg		Standard type : 0.8kg, Brake built-in type : 1.1kg		Standard type : 1.3kg, Brake built-in type : 1.6kg			

●60 square

Model	Shaft type+ Geared built-in type	A35K-M566(W)-G5	A40K-M566(W)-G7.2	A50K-M566(W)-G10	
	Geared type+ Brake built-in type	A35K-M566-GB5	A40K-M566-GB7.2	A50K-M566-GB10	
	Rotary actuator type	A35K-M566(W)-R5	A40K-M566(W)-R7.2	A50K-M566(W)-R10	
	Rotary actuator type+ Brake built-in type	A35K-M566-RB5	A40K-M566-RB7.2	A50K-M566-RB10	
Max. holding torque	35kgf • cm (3.5N • m)		40kgf • cm (4.0 N • m)		50kgf • cm (5.0 N • m)
Moment of rotor inertia	280 g • cm ² (280 × 10 ⁻⁷ kg • m ²)				
Rated current	1.4A/Phase				
Basic step angle	0.144° / 0.072° (Full/Half step)		0.1° / 0.05° (Full/Half step)		0.072° / 0.036° (Full/Half step)
Gear ratio	1 : 5		1 : 7.2		1 : 10
Allowable speed range	0 ~ 360rpm		0 ~ 250rpm		0 ~ 180rpm
Backlash [min]	±20' (0.33°)				
Electro magnetic brake	Rated excitation voltage	24VDC (non-polarity)			
	Rated excitation current	0.33A			
	Static friction torque	4kgf • cm			
	Rotation part inertia	2.5 × 10 ⁻⁶ kgf • cm ²			
	Operating time	Max. 22ms			
	Releasing time	Max. 37ms			
Absolute position error (★1)	±20 minute (0.33°)				
Lost motion (★1)	±20 minute (0.33°)				
Insulation class	CLASS B type (130°C)				
Insulation resistance	Min. 100MΩ (Standard 500VDC mega) between Motor coil-case				
Dielectric strength	1Min. at 1kVAC 50/60Hz between Motor coil-case				
Ambient temperature	-10°C ~ +50°C, Storage condition : -25°C ~ +85°C				
Ambient humidity	35 ~ 85%RH				
Protection	IP30 (IEC34-5 standard)				
Unit weight	Geared type:1.3kg, Geared+Brake type:1.4kg, Rotary actuator type:1.5kg, Rotary actuator+Brake type:1.8kg				

※ (★1) It is only available for rotary actuator type.

(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/Speed/Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

(N) Stepping motor & Driver & Controller

(O) Graphic panel

(P) Production stoppage models & replacement

5-Phase Stepping Motor

■ Specifications

●85 square

Model	Shaft type	A21K-M596(W)-□	A21K-G596(W)-□	A41K-M599(W)-□	A41K-G596(W)-□	A63K-M5913(W)-□	A63K-G5913(W)-□
	Hollow shaft type	AH21K-M596(W)	AH21K-G596(W)	AH41K-M599(W)	AH41K-G599(W)	AH63K-M5913(W)	AH63K-G5913(W)
	Shaft type+ Brake built-in type	A21K-M596-□B	A21K-G596-□B	A41K-M599-□B	A41K-G599-□B	A63K-M5913-□B	A63K-G5913-□B
Max. holding torque	21kgf·cm(2.1 N·m)		41kgf·cm(4.1 N·m)		63kgf·cm(6.3 N·m)		
Moment of rotor inertia	1400 g·cm ² (1400×10 ⁻⁷ kg·m ²)		2700 g·cm ² (2700×10 ⁻⁷ kg·m ²)		4000 g·cm ² (4000×10 ⁻⁷ kg·m ²)		
Rated current	1.4A/Phase	2.8A/Phase	1.4A/Phase	2.8A/Phase	1.4A/Phase	2.8A/Phase	
Basic step angle	0.72° / 0.36° (Full/Half step)						
Electro magnetic brake	Rated excitation voltage	24VDC(non-polarity)					
	Rated excitation current	0.62A					
	Static friction torque	40kgf·cm					
	Rotation part inertia	42.5×10 ⁻⁶ kgf·cm ²					
	Operating time	Max. 80ms					
	Releasing time	Max. 70ms					
Insulation class	CLASS B type(130℃)						
Insulation resistance	Min. 100MΩ (Standard 500VDC mega) between Motor coil-case						
Dielectric strength	1Min. at 1kVAC 50/60Hz between Motor coil-case						
Ambient temperature	-10℃ ~ +50℃, Storage condition : -25℃ ~ +85℃						
Ambient humidity	35 ~ 85%RH						
Protection	IP30(IEC34-5 standard)						
Unit weight	Standard type : 1.7kg, Brake built-in type : 2.9kg		Standard type : 2.8kg, Brake built-in type : 4.0kg		Standard type : 3.8kg, Brake built-in type : 5.0kg		

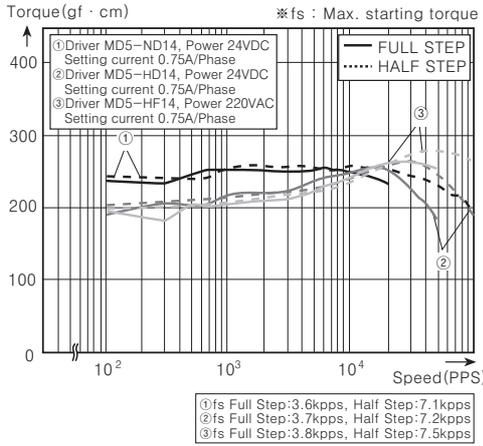
●85 square

Model	Shaft type+ Geared built-in type	A140K-M599(W)-G5	A140K-G599(W)-G5	A200K-M599(W)-G7.2	A200K-G599(W)-G7.2	A200K-M599(W)-G10	A200K-G599(W)-G10
	Geared type+ Brake built-in type	A140K-M599-GB5	A140K-G599-GB5	A200K-M599-GB7.2	A200K-G599-GB7.2	A200K-M599-GB10	A200K-G599-GB10
Max. holding torque	140kgf·cm(14 N·m)		200kgf·cm(20 N·m)		200kgf·cm(20 N·m)		
Moment of rotor inertia	2700 g·cm ² (270×10 ⁻⁷ kg·m ²)						
Rated current	1.4A/Phase	2.8A/Phase	1.4A/Phase	2.8A/Phase	1.4A/Phase	2.8A/Phase	
Basic step angle	0.144° / 0.072° (Full/Half step)		0.1° / 0.05° (Full/Half step)		0.072° / 0.036° (Full/Half step)		
Gear ratio	1 : 5		1 : 7.2		1 : 10		
Allowable speed range	0 ~ 360rpm		0 ~ 250rpm		0 ~ 180rpm		
Backlash[min]	±15' (0.25°)						
Electro magnetic brake	Rated excitation voltage	24VDC(non-polarity)					
	Rated excitation current	0.62A					
	Static friction torque	40kgf·cm					
	Rotation part inertia	42.5×10 ⁻⁶ kgf·cm ²					
	Operating time	Max. 80ms					
	Releasing time	Max. 70ms					
Insulation class	CLASS B type(130℃)						
Insulation resistance	Min. 100MΩ (Standard 500VDC mega) between Motor coil-case						
Dielectric strength	1Min. at 1kVAC 50/60Hz between Motor coil-case						
Ambient temperature	-10℃ ~ +50℃, Storage condition : -25℃ ~ +85℃						
Ambient humidity	35 ~ 85%RH						
Protection	IP30(IEC34-5 standard)						
Unit weight	Geared type : 4.4kg, Geared+Brake type : 5.6kg						

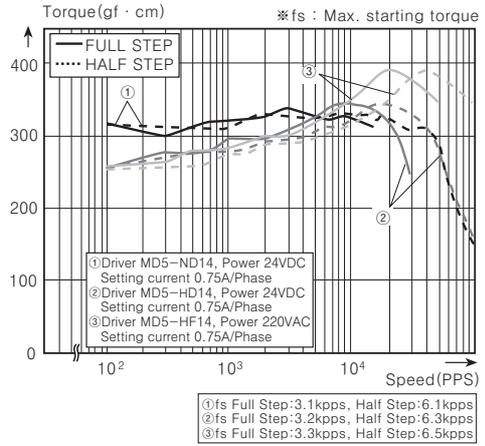
5-Phase Stepping Motor

Characteristic

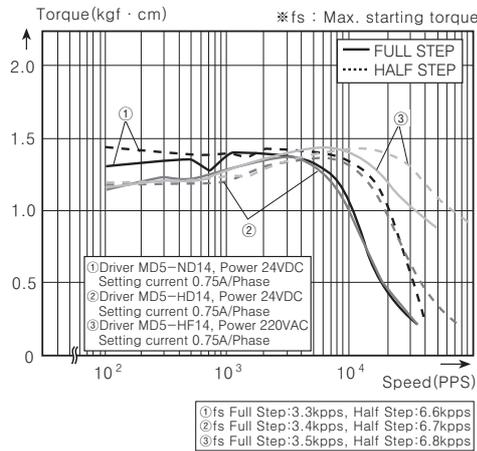
●02K-S523



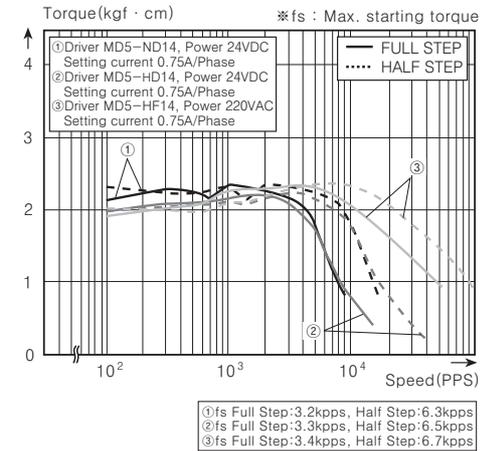
●04K-S525



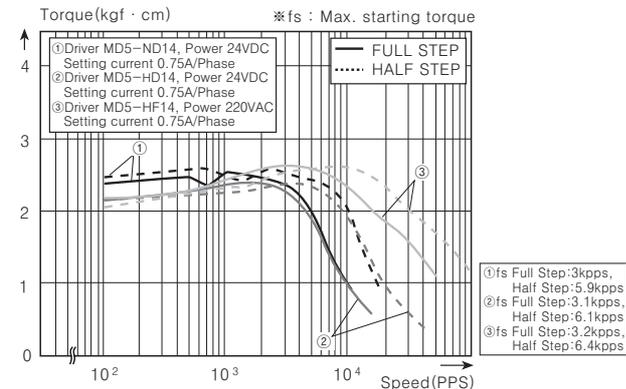
●A1K-S543



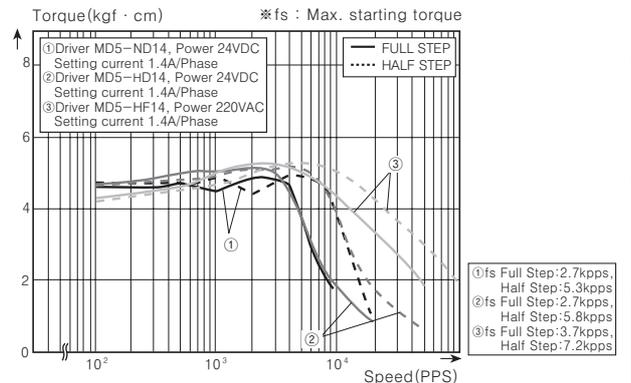
●A2K-S544



●A3K-S545



●A4K-M564 / A4K-M564-B



(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/Speed/Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

(N) Stepping motor & Driver & Controller

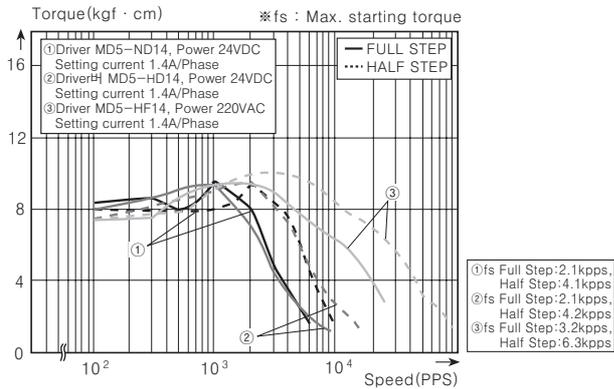
(O) Graphic panel

(P) Production stoppage models & replacement

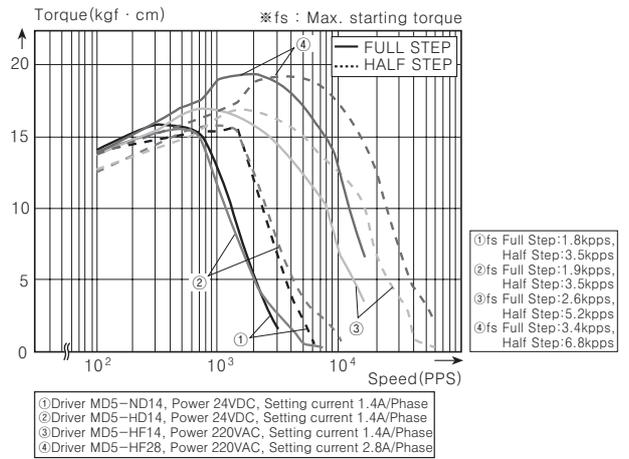
5-Phase Stepping Motor

Characteristic

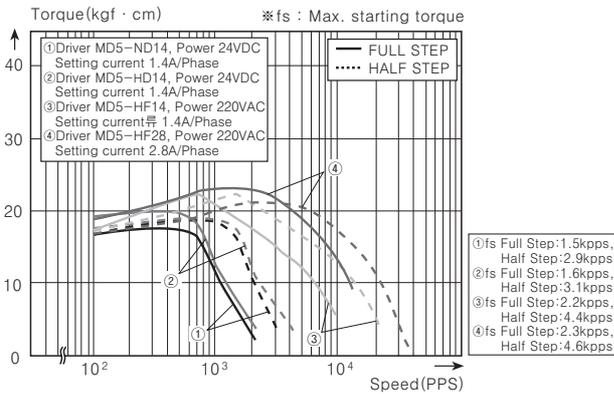
●A8K-M566 / A8K-M566-B



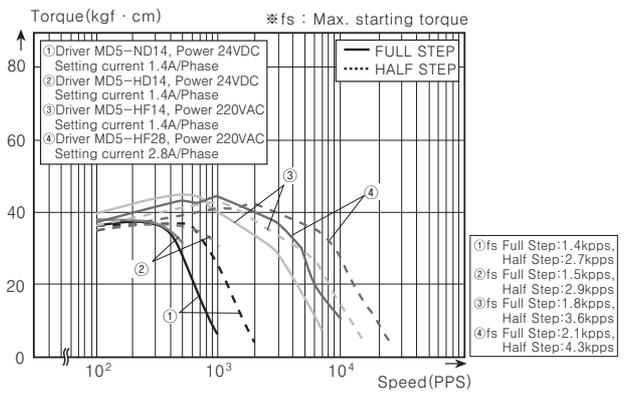
●A16K-□569 / A16K-□569-B



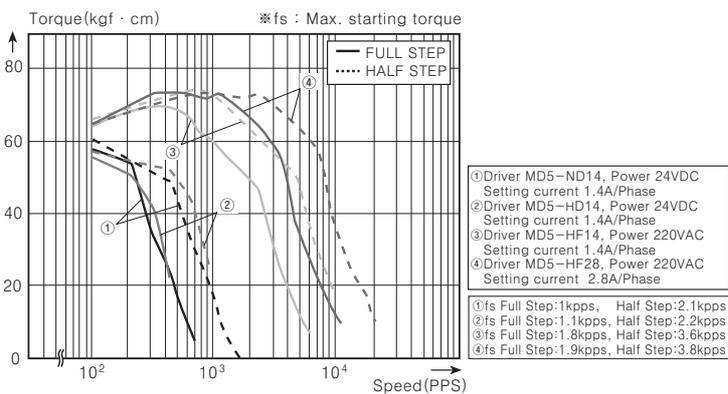
●A21K-□596 / A21K-□596-B



●A41K-□599 / A41K-□599-B



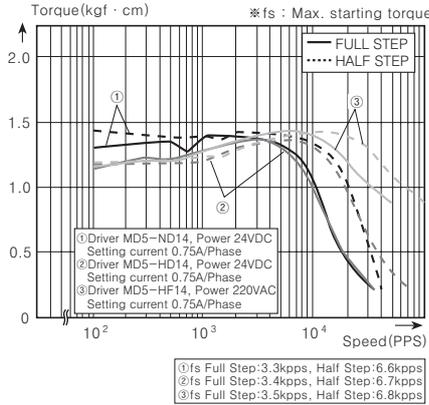
●A63K-G5913 / A63K-G5913-B



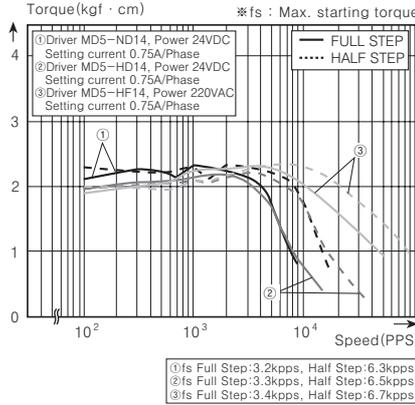
5-Phase Stepping Motor

Characteristic

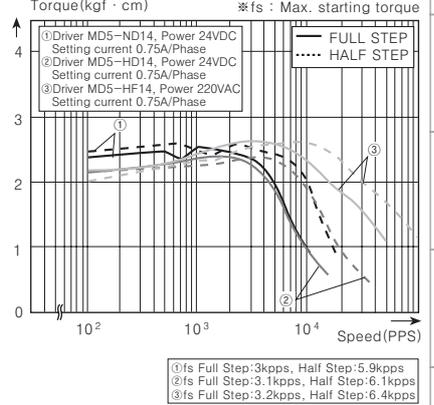
●AH1K-S543



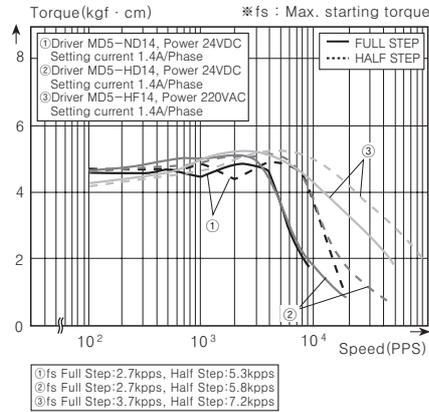
●AH2K-S544



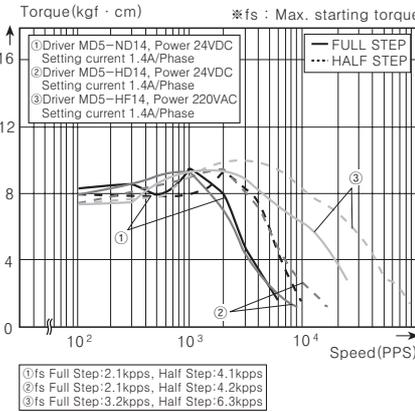
●AH3K-S545



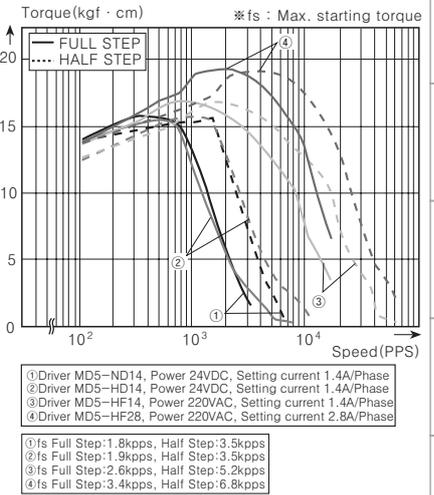
●AH4K-M564



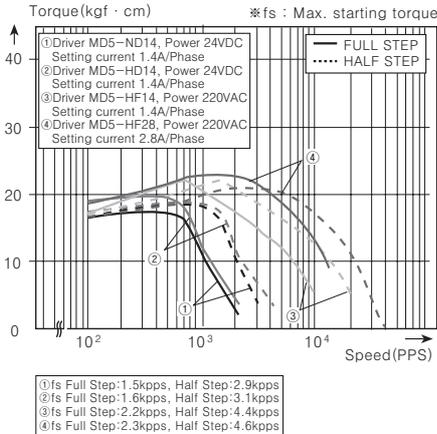
●AH8K-M566



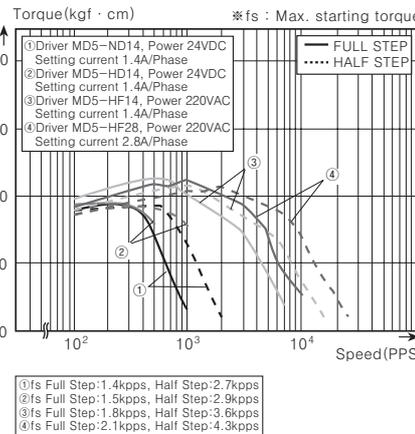
●AH16K-M(G)569



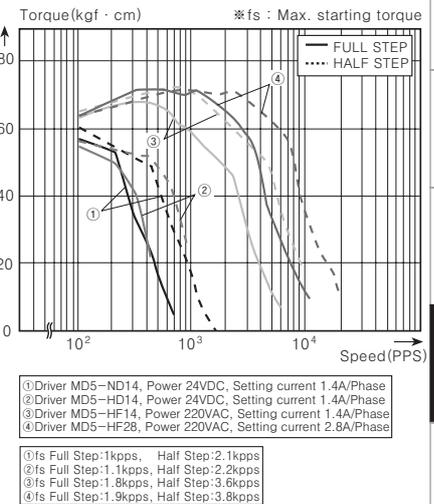
●AH21K-M(G)596



●AH41K-M(G)599



●AH63K-G5913



(A) Counter

(B) Timer

(C) Temp. controller

(D) Power controller

(E) Panel meter

(F) Tacho/Speed/Pulse meter

(G) Display unit

(H) Sensor controller

(I) Switching power supply

(J) Proximity sensor

(K) Photo electric sensor

(L) Pressure sensor

(M) Rotary encoder

(N) Stepping motor & Driver & Controller

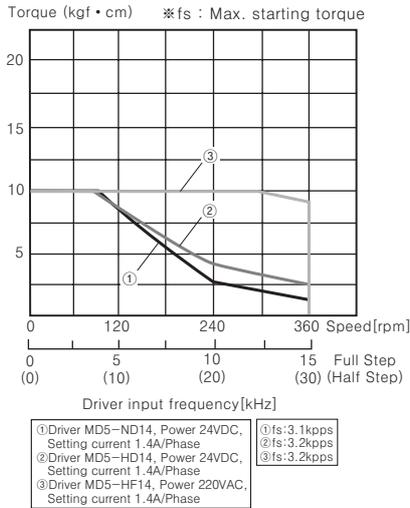
(O) Graphic panel

(P) Production stoppage models & replacement

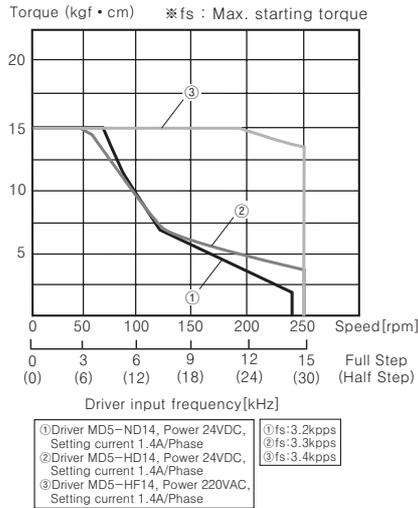
5-Phase Stepping Motor

Characteristic

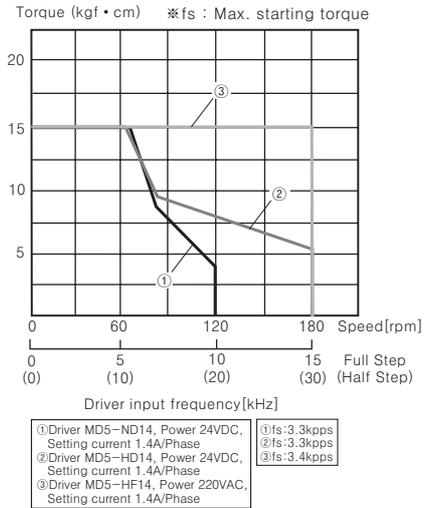
●A10K-S545(W)-G5



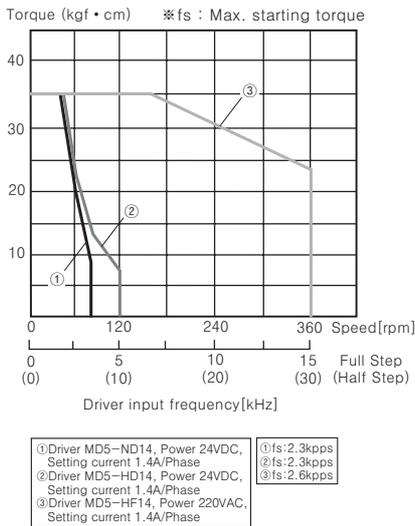
●A15K-S545(W)-G7.2



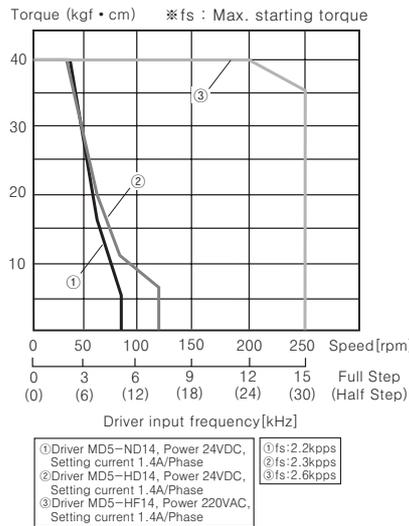
●A15K-S545(W)-G10



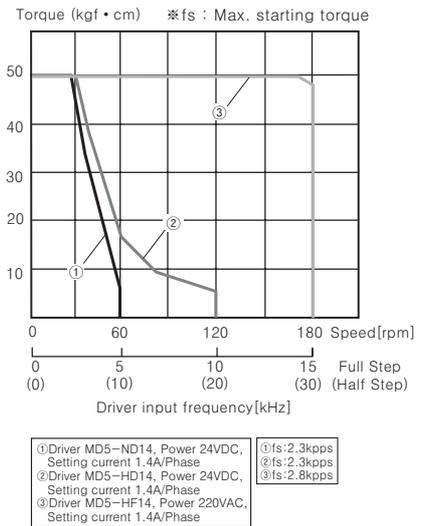
●A35K-M566(W)-□5 A35K-M566-□B5



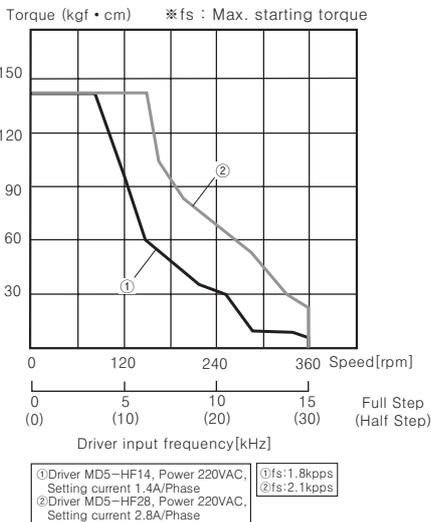
●A40K-M566(W)-□7.2 A40K-M566-□B7.2



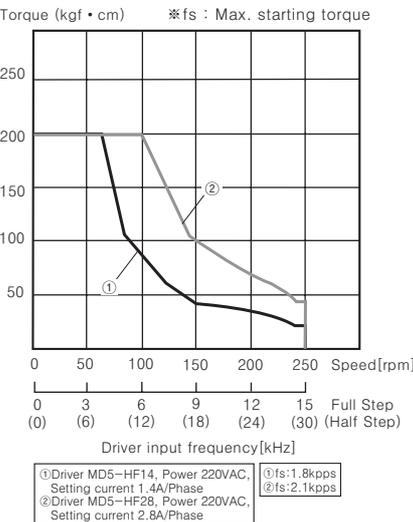
●A50K-M566(W)-□10 A50K-M566-□B10



●A140K-□599(W)-G5 A140K-□599-GB5



●A200K-□599(W)-G7.2 A200K-□599-GB7.2



●A200K-□599(W)-G10 A200K-□599-GB10

