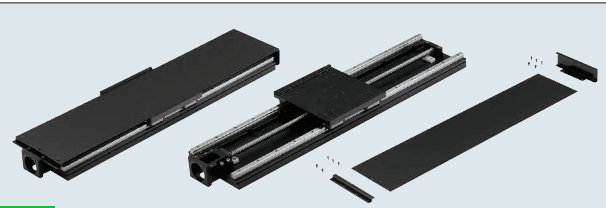


KU – Single Axis Units

Roller Ball Screw Type with Cover



RoHS10

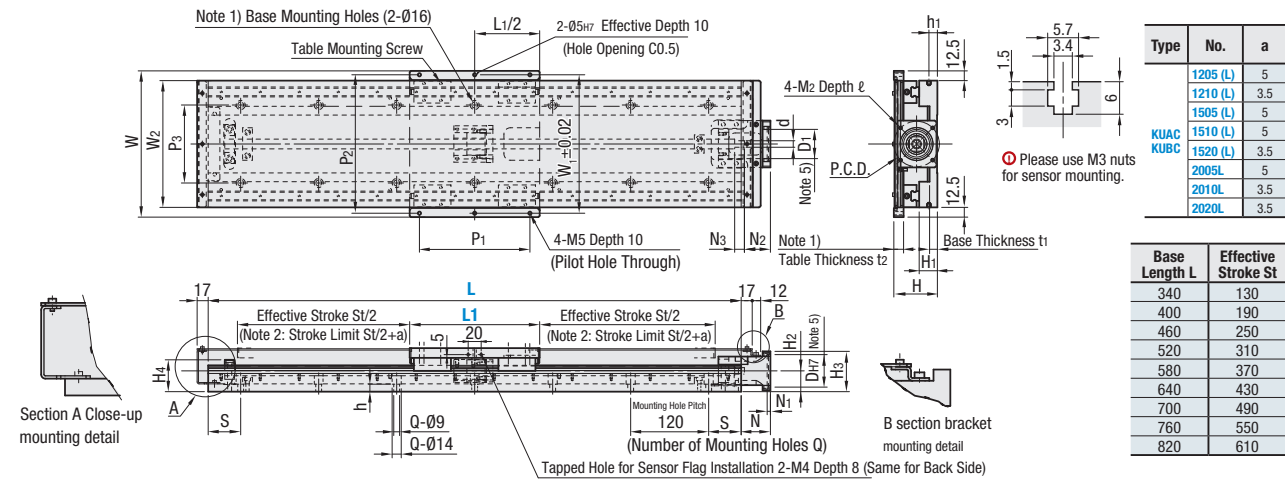
KUAC Servo Motor Type
KUBC Stepper Motor Type

Note 1) Access hole is provided when L=340 (except L=100).
Note 2) Stroke limit is the stroke at the point of contact with the stopper.
Note 3) Some motor brackets have D dimensions smaller than D1. When selecting couplings, refer to "Coupling Application Examples Part Numbers" below.
⊙ For KUBC Motor installation interface drawing and dimensions, see the following page.

Accessory	Material	Surface Treatment	Quantity	Note
Bracket (1)	Steel	Electrodeposited Paint (Black)	1	—
Bracket (2)	Steel	Electrodeposited Paint (Black)	1	—
Cover (3)	Aluminum Alloy	Anodize (Black)	1	—
Hex Socket Head Cap Screw M4x8	Steel	Trivalent Chromate (Black)	6	Cover Mounting Screw
Hex Socket Head Cap Screw M5x10	Steel	Trivalent Chromate (Black)	8	Bracket Mounting Screw

Type	No.	a
KUBC	1205 (L)	5
	1210 (L)	3.5
	1505 (L)	5
	1510 (L)	5
	1520 (L)	3.5
	2005L	5
	2010L	5
	2020L	3.5

Base Length L	Effective Stroke St
340	130
400	190
460	250
520	310
580	370
640	430
700	490
760	550
820	610



Parts	Base	Table	Motor Bracket	Nut Bracket	Fixed Side Support Unit	Support Side Bearing with Housing	Stopper
Material	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy	Steel	Aluminum Alloy	Plastic
Surface Treatment	Black Anodize	Black Anodize	Black Anodize	Black Anodize	Black Oxide	Black Anodize	—

Part Number	Selection	Ball Screw			Table										Coupling Application Examples Part Numbers	
		L Base Length	L ₁ Table Length	Diameter	Lead	W	W ₁	H	H ₁ Guide Height	H ₂ Shaft Center Height	W	t ₂	W ₁	P ₁ , P ₂	KUAC	KUBC
KUBC	1204	340	100	4	170	159	65	21	28	170	20	159	L ₁ P ₁ P ₂ 100 50 158 150 100	CPDW25	CPDW19	
	1210			10										MCSLC25	MCSLC20	
	1505			5										CPDW40	CPDW32	
	1510			10										MCSLC40	MCSLC32	
	1520			20												
	KUBC	1204L	150	150	4	200	209	65	21	28	220	20	209	L ₁ P ₁ P ₂ 150 80 208 200 130	CPDW25	CPDW19
		1210L			10										MCSLC25	MCSLC20
		1505L			5										CPDW40	CPDW32
		1510L			10										MCSLC40	MCSLC32
		1520L			20											
KUBC	2005L	200	200	5	200	209	78	28	34	22	22	209	L ₁ P ₁ P ₂ 150 100 208 200 150	CPDW40	CPDW32	
	2010L			10										MCSLC40	MCSLC32	
	2020L			20												
				5												
				20												

⊙ Cautions are required when CPDW is used for 400W Servo Motors. Motor peak torque may exceed coupling allowable torque.

Part Number	Selection	Base			Base Mounting Holes			*Motor Installation Interface (KUBC)													
		W ₁	H ₄	t ₁	h ₁	P ₃	h	Q	S	P.C.D.	D	D ₁	H ₃	N	N ₁	N ₂	N ₃	d	M ₂	l	
KUBC	1204 (S)	145	42	10	13	9.5	75	Q	S	46	30	34	49	37	32	15	8	M4	8		
	1210 (S)																				
	1505																				
	1510																				
	1520																				
	KUBC	1204L (S)	195	49	12	20	11.5	120	Q	S	70	50	45	62	45	40	10	M5	10		
		1210L (S)																			
		1505L																			
		1510L																			
		1520L																			
KUBC	2005L	55	55	20	20	11.5	120	Q	S	70	50	45	64	57.5	39.5	18	12	M5	10		
	2010L																				
	2020L																				

Part Number Example: **KUHC1204 - 340 - 150**

KU – Single Axis Units

Roller Ball Screw Type with Cover, *continued*

KUBC Motor Installation Interface / NEMA Motor Installation Interface (KUAC/KUBC)

Motor Adapter Plate Installation Drawing (KUBC12_(L))
Note 1) Locating pin is press-fit into the motor bracket.
Note 2) A motor adapter plate and 4 Pcs. of mounting screws M3 x 10 are included.
Note 3) Motor and coupling are not included.

Type	No.	Motor Installation Interface (KUBC)										
		D	D ₁	H ₃	H ₄	N	N ₂	N ₃	d	M ₂	l	
Stepping Motor Type	12_(L)	31	22	33.5	49	21	35	30	15	8	M4	8
	15_(L)	50	36	35.5	62	43	38	15	10			
	2005L				64							
KUBC	2010L	50	36	35.5	70	58	40	8	12			
	2020L				64							

⊙ KUBC12_(L) flanged surface (H₃ dimensions) protrudes downward from the base bottom surface by 2 mm.

NEMA Motor Alterations

Type	Code	Application Motor Part Number	Coupling Application Examples
NEMA23	N2	KUAC (Servo Motor) V0100-211-B-000 V0100-214-B-000 V0200-211-B-000 V0200-214-B-000 V0250-214-B-000 V0300-211-B-000 V0300-212-B-000	KUBC (Stepping Motor) HT23-601 STM23X-3RX MCSLC32
		KUAC (Servo Motor) V0400-211-C-000 V0400-212-C-000	KUBC (Stepping Motor) HT34-505 MCSLC40

NEMA Motor Installation Interface

Type	No.	NEMA Motor Installation Interface (KUAC/KUBC)													
		D	D ₁	H ₂	H ₃	H ₄	N	N ₂	N ₃	d	M ₂	l			
NEMA23	12_(L)	47.1	38.1	35.5	28	58	30	42	37	15	8	M4	8		
	15_(L)				32	62		43	38						
	2005L				34	64		55	37					20	12
	2010L				40	70									
	2020L				34	64									
NEMA34	15_(L)	69.9	73.03	45	32	75	43	56	51	15	10	M5	14		
	2005L				34	77		68	50					20	12
	2010L				40	83									
	2020L				34	77									

* When H2-H4<0, Motor Bracket protrudes from Base Fixing Surface.
* When MCSLC40 is to be applied to NEMA34 series, ensure input torque is limited to 9.0N·m (=1,270 oz-in) or less.

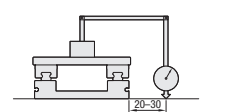
Servo Motor Application Table

Part Number	Manufacturers	Part Number	Output (W)	Flange
KUAC12_(L)	Yasukawa Electric Corp.	SGMAH-A3	30	40
		SGMAH-A5	50	
		SGMAH-01	100	
	Mitsubishi Electric Corporation	HC-MFS053	50	
		HF-MP053	50	
		HC-MFS13	100	
		HF-MP13	100	
	Sanyo Denki Co., Ltd.	R2AA04003F	30	
		R2AA04005F	50	
		R2AA04010F	100	
R2AA04010F		100		
Omron Corporation	R88M-W03030	30		
	R88M-W05030	50		
	R88M-W10030	100		
	R88M-W10030	100		
KUAC15_(L)	Yasukawa Electric Corp.	SGMAH-02	200	60
		SGMAH-04	400	
		HC-MFS23	200	
	Mitsubishi Electric Corporation	HC-KFS23	200	
		HF-MP23	200	
		HA-KP23	200	
		HC-KFS43	400	
	Sanyo Denki Co., Ltd.	HF-MP43	400	
		HA-KP43	400	
		R2AA06020F	200	
R2AA06040F		400		
Omron Corporation	R88M-W20030	200		
	R88M-W40030	400		

Accuracy / Maximum Speed

Part Number	*Positioning Repeatability Positioning (mm)	Static Load Capacity (kg)		*Parallelism (mm)
		Horizontal	Vertical	
KUAC	±0.03	1679	138	340 0.06 400 0.07 460 0.08 520 0.09 580 0.10
	±0.05			
	±0.03			
	±0.05			
	±0.08			
KUBC	±0.05	2897	153	700 0.13 760 0.14 820 0.15
	±0.05			
	±0.05			
	±0.05			
	±0.05			

Parallelism Measurement



⊙ The table to the left lists reference values in static state. For actual life calculations, please use our Technical Calculation Software (visit the address indicated on P.569).
⊙ See P.569 for Max. Speed and Static Load Capacity. See our website for Moment of Inertia.
⊙ For Terminology, see P.569.

Stepping Motor Application Table

Part Number	Manufacturers	Part Number	Flange
KUBC12_(L)	Oriental Motor	α Step AS46 / ASC46	42
		5-Phase RK54* (PK543)	
		5-Phase RK54* (PK544)	
		5-Phase RK54* (PK545)	
		5-Phase RK54* (PK545)	
KUBC15_(L)	Oriental Motor	α Step AS6*	60
		5-Phase RK56* (PK564)	
		5-Phase RK56* (PK566)	
		5-Phase RK56* (PK566)	
		5-Phase RK56* (PK569)	

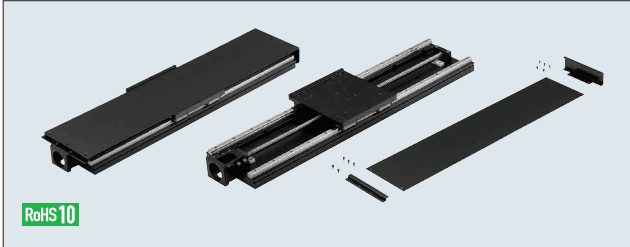
Part Number Alterations: **KUHC1204 - 340 - 150 - N2**

⊙ KUAC and KUBC Sensor Set can be specified as an alteration. For details of alterations, see P.578.

KU – Single Axis Units

Precision Ball Screw Type with Cover

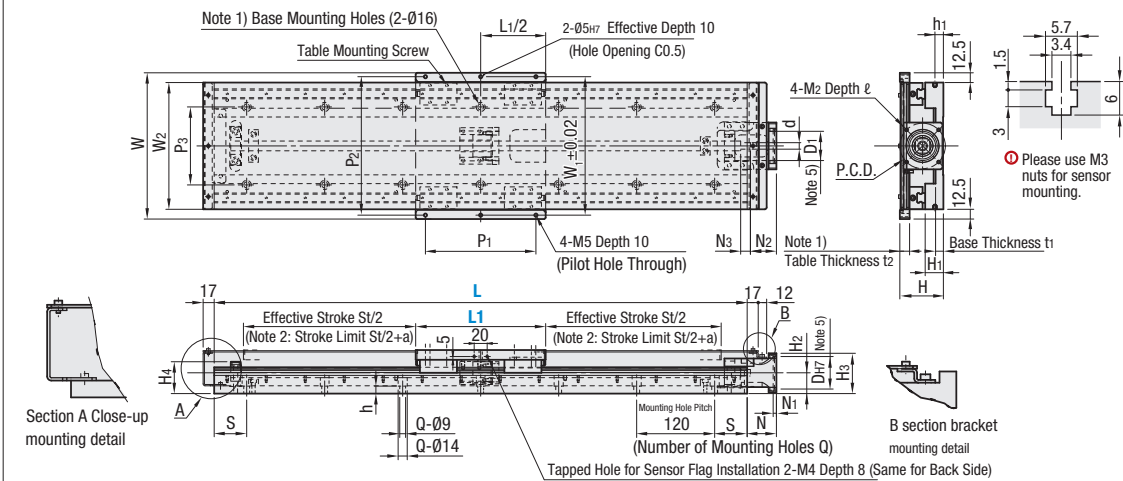
Precision ball screws are used, improving accuracy and noise level.



KUHC Servo Motor Type
KUTC Stepper Motor Type

- Note 1) Access hole is provided when L=340 (except L=100).
 - Note 2) Stroke limit is the stroke at the point of contact with the stopper.
 - Note 3) Some motor brackets have D dimensions smaller than D₁. When selecting couplings, refer to "Coupling Application Examples Parts Numbers" below.
- ⊕ For KUTC Motor installation interface drawing and dimensions, see the following page.

Accessory	Material	Surface Treatment	Quantity	Note
Bracket (1)	Steel	Electrodeposited Paint (Black)	1	—
Bracket (2)	Steel	Electrodeposited Paint (Black)	1	—
Cover (3)	Aluminum Alloy	Anodize (Black)	1	—
Hex Socket Head Cap Screw M4 x 8	Steel	Trivalent Chromate (Black)	6	Cover Mounting Screw
Hex Socket Head Cap Screw M5 x 10	Steel	Trivalent Chromate (Black)	8	Bracket Mounting Screw



Parts	Base	Table	Motor Bracket	Nut Bracket	Fixed Side Support Unit	Support Side Bearing with Housing	Stopper
Material	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy	Aluminum Alloy	Steel	Aluminum Alloy	Plastic
Surface Treatment	Black Anodize	Black Anodize	Black Anodize	Black Anodize	Black Oxide	Black Anodize	—

Part Number	Selection	Selection		Diameter	Lead	W Width	W ₁	H Height	H ₁ Guide Height	H ₂ Shaft Center Height	Table				Coupling Application Examples Part Numbers	
		L Base Length	L ₁ Table Length								W	t ₂	W ₁	P ₁ , P ₂	KUHC	KUTC
KUHC KUTC	1205	340	100	12	5	170	159	65	21	28	170	20	159	L ₁ P ₁ P ₂ 100 50 158 150 100	CPDW25	CPDW19
	1210				10										MCSLC25	MCSLC20
	1505				5										CPDW40	CPDW32
	1510				10										MCSC40	MCSC32
	1520				20											
	1205L	150	150	12	5	200	209	65	21	28	200	20	209	L ₁ P ₁ P ₂ 150 80 208 200 130	CPDW25	CPDW19
	1210L				10										MCSLC25	MCSLC20
	1505L				5										CPDW40	CPDW32
	1510L				10										MCSC40	MCSC32
	1520L				20											
2005L	200	200	15	5	200	209	74	28	32	220	22	209	L ₁ P ₁ P ₂ 150 100 208 200 150	CPDW40	CPDW32	
2010L				10										MCSC40	MCSC32	
2010L				20												
2020L				20												
2020L				20												

⊕ Cautions are required when CPDW is used for 400W Servo Motors. Motor peak torque may exceed coupling allowable torque.

Part Number	Selection	Base		Base Mounting Holes				*Motor Installation Interface (KUHC)											
		W ₁	H ₄	t ₁	h ₁	P ₃	h	Q	S	P.C.D.	D	D ₁	H ₃	N	N ₁	N ₂	N ₃	d	M ₂
KUHC KUTC	1204 (S)	145	42	10	13	9.5	75	Q	S	46	30	34	49	37	32	15	8	M4	8
	1210 (S)																		
	1505																		
	1510																		
	1520																		
	1204L (S)	195	42	10	13	9.5	120	Q	S	46	30	34	49	37	5	8	M4	8	
	1210L (S)																		
	1505L																		
	1510L																		
	1520L																		
2005L	195	55	12	20	11.5	120	Q	S	70	50	45	62	45	40	10	M5	10		
2010L																			
2010L																			
2020L																			
2020L																			

Part Number Example: **KUHC1204 - 340 - 150**

KU – Single Axis Units

Precision Ball Screw Type with Cover, *continued*

KUTC Motor Installation Interface / NEMA Motor Installation Interface (KUHC/KUTC)

Motor Adapter Plate Installation Drawing (KUTC12_L)

Note 1) Locating pin is press-fit into the motor bracket.
Note 2) A motor adapter plate and 4 Pcs. of mounting screws M3 x 10 are included.
Note 3) Motor and coupling are not included.

Type	No.	Motor Installation Interface (KUTC)										
		D	D ₁	H ₃	H ₄	N	N ₂	N ₃	d	M ₂	l	
Stepping Motor Type KUTC	12_(L)	31	22	33.5	49	21	35	30	15	8	M4	8
	15_(L)	50	36	35.5	62	43	38	15	10			
	2005L				64							
	2010L				70							
2020L	70											

⊕ KUTC12_(L) flanged surface (H₃ dimensions) protrudes downward from the base bottom surface by 2 mm.

NEMA Motor Alterations

Type	Code	Application Motor Part Number	Coupling Application Examples		
NEMA23	N2	KUHC (Servo Motor) V0100-211-B-000 V0100-214-B-000 V0200-211-B-000 V0200-214-B-000 V0250-214-B-000 V0300-211-B-000 V0300-212-B-000	KUTC (Stepping Motor) HT23-601 STM23X-3RX		
		MCSLC32			
		NEMA34	N3	KUHC (Servo Motor) V0400-211-C-000 V0400-212-C-000	KUTC (Stepping Motor) HT34-505
				MCSLC40	

NEMA Motor Installation Interface

Type	No.	NEMA Motor Installation Interface (KUHC/KUTC)															
		D	D ₁	H ₂	H ₃	H ₄	N	N ₂	N ₃	d	M ₂	l					
NEMA23	12_(L)	47.1	38.1	35.5	28	58	30	42	37	15	8	M4	8				
	15_(L)				32	62								43	38	10	
	2005L				34	64								55	37	20	12
	2010L				40	70											
2020L	40	70															
NEMA34	15_(L)	69.9	73.03	45	32	75	43	56	51	15	10	M5	14				
	2005L				34	77								68	50	20	12
	2010L				40	83											
	2020L				40	83											

* When H₂-H₄<0, Motor Bracket protrudes from Base Fixing Surface.

* When MCSLC40 is to be applied to NEMA34 series, ensure input torque is limited to 9.0N·m (=1,270 oz-in) or less.

Servo Motor Application Table

Part Number	Manufacturers	Part Number	Output (W)	Flange
KUHC12_(L)	Yasukawa Electric Corp.	SGMAH-A3	30	40
		SGMAH-A5	50	
		SGMAH-01	100	
	Mitsubishi Electric Corporation	HC-MFS053	50	
		HC-MFS13	100	
		HC-MP13	100	
		R2AA04003F	30	
	Sanyo Denki Co., Ltd.	R2AA04005F	50	
		R2AA04010F	100	
	Omron Corporation	R8M-W03030	30	
R8M-W05030		50		
R8M-W10030		100		
KUHC15_(L) KUHC20_(L)	Yasukawa Electric Corp.	SGMAH-02	200	60
		SGMAH-04	400	
	Mitsubishi Electric Corporation	HC-MFS23	200	
		HC-KFS23	200	
		HC-MFS43	400	
		HC-KFS43	400	
		HC-MP43	400	
		HA-KP43	400	
	Sanyo Denki Co., Ltd.	R2AA06020F	200	
		R2AA06040F	400	
Omron Corporation	R8M-W20030	200		
	R8M-W40030	400		

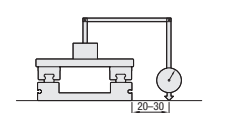
Stepping Motor Application Table

Part Number	Manufacturers	Part Number	Flange
KUTC12_(L)	Oriental Motor	α Step AS46 / ASC46	42
		5-Phase RK54* (PK543)	
		5-Phase RK54* (PK544)	
		5-Phase RK54* (PK545)	
		α Step AS6*	
KUTC15_(L) KUTC20_(L)	Oriental Motor	5-Phase RK56* (PK564)	60
		5-Phase RK56* (PK566)	
		5-Phase RK56* (PK569)	

Accuracy / Maximum Speed

Part Number	*Positioning Repeatability (mm)	Static Load Capacity (kg)		*Parallelism (mm)							
		Horizontal	Vertical								
KUHC KUTC	±0.003	1679	138	340							
	±0.003			2897	153						
						±0.003	4345	169			
									±0.003	4345	169

Parallelism Measurement



⊕ The table to the left lists reference values in static state. For actual life calculations, please use our Technical Calculation Software (visit the address indicated on P.568).

⊕ See P.569 for Max. Speed and Static Load Capacity. See our website for Moment of Inertia.

⊕ For Terminology, see P.569.

Part Number Alterations

Part Number Alterations: **KUHC1204 - 340 - 150 - N2**

⊕ KUHC and KUTC Sensor Set can be specified as an alteration. For details of alterations, see P.567.