

# Single-Axis Robot

## 8. KE Series

### 8.1 Features

- ◎ Lightweight aluminum base
- ◎ Dustproof design
- ◎ High accuracy, high efficiency, high reliability

### 8.2 Applications

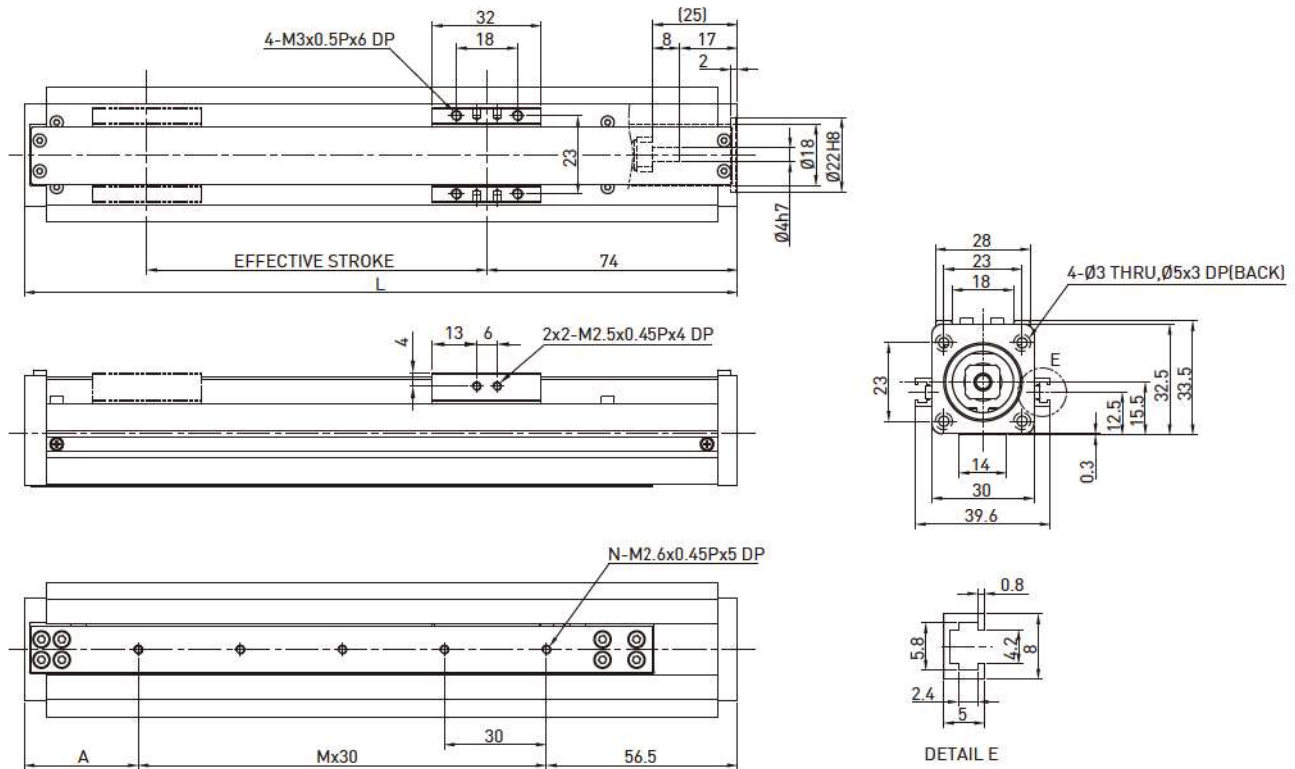
- ◎ Precision industry & semiconductor
- ◎ Inspection, testing & assembly equipment
- ◎ Optical & medical equipment

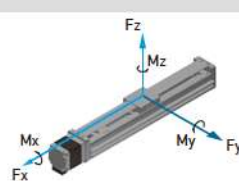


### 8.3 KE Series

#### Model Number for KE030

<b>KE030</b>	<b>-1</b>	<b>C</b>	<b>-300</b>	<b>A</b>	<b>F0</b>	<b>S1</b>	<b>M</b>
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	1 mm	C: Normal P: Precision		A: Standard	F0 : Direct	S1: OMRON SX671 S2: OMRON SX674 S3: Panasonic GX-F12A S4: Panasonic GX-F12A-P None: No Limit Switch	M:customer specified None:Without Motor



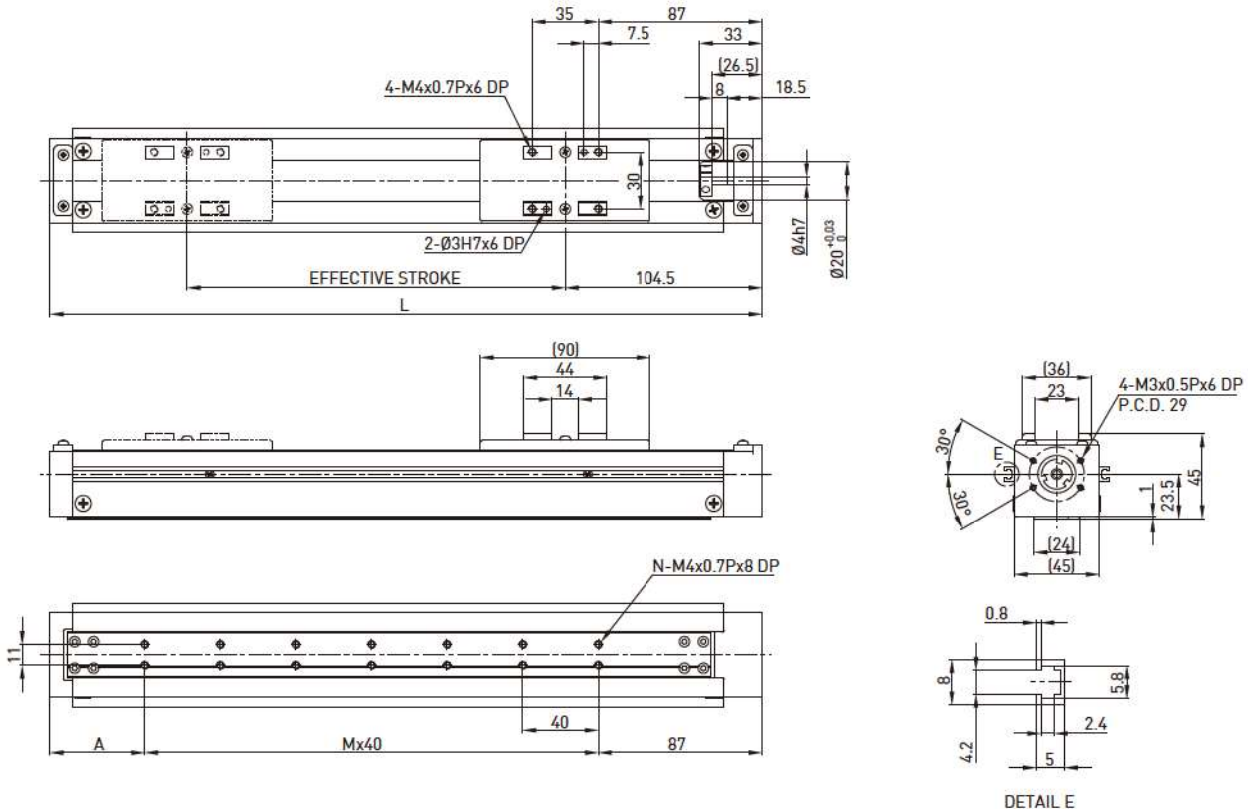
Effective stroke (mm)	L	A	M	N	Weight (kg)	AC motor output	W	28 stepping motor															
						Rated RPM	RPM	-															
50	160	43.5	2	3	0.2	Lead	mm	1.25															
100	210	33.5	4	5	0.5	Max linear speed	mm/sec	62.5															
150	260	23.5	6	7	0.8	Rated thrust	N	175															
200	310	43.5	7	8	1.1	Repeatability	mm	±0.02															
250	360	33.5	9	10	1.4	Effective stroke	mm	50-300															
300	410	53.5	10	11	1.9	Max load (H)	kg	3															
<div style="display: flex; align-items: center;">  <table border="1" style="margin-left: 20px;"> <tr> <td>Fyd</td> <td>N</td> <td>4</td> </tr> <tr> <td>Fzd</td> <td>N</td> <td>30</td> </tr> <tr> <td>Mxd</td> <td>N-m</td> <td>0.2</td> </tr> <tr> <td>Myd</td> <td>N-m</td> <td>0.1</td> </tr> <tr> <td>Mzd</td> <td>N-m</td> <td>0.1</td> </tr> </table> </div>						Fyd	N	4	Fzd	N	30	Mxd	N-m	0.2	Myd	N-m	0.1	Mzd	N-m	0.1	Rated dynamic load*		
						Fyd	N	4															
						Fzd	N	30															
						Mxd	N-m	0.2															
						Myd	N-m	0.1															
Mzd	N-m	0.1																					
Permitted load condition** $\frac{F_y}{F_{yd}} + \frac{F_z}{F_{zd}} + \frac{M_x}{M_{xd}} + \frac{M_y}{M_{yd}} + \frac{M_z}{M_{zd}} \leq 1$ Fy, Fz, Mx, My, Mz are working loads																							

\* The load condition is based on 10,000km operation.

\*\* If used on the vertical axis or in a special condition, please contact HIWIN.

## Model Number for KE040

KE040	-10	C	-300	A	F0	S1	M051
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	2 mm 5 mm	C: Normal P: Precision		A: Standard	F0: Direct	S1: OMRON SX671 S2: OMRON SX674 S3: Panasonic GX-F12A S4: Panasonic GX-F12A-P None: No Limit Switch	M05□, K05□ M10□, K10□ Motor specification: ref. catalog P.167 M:customer specified None:Without Motor



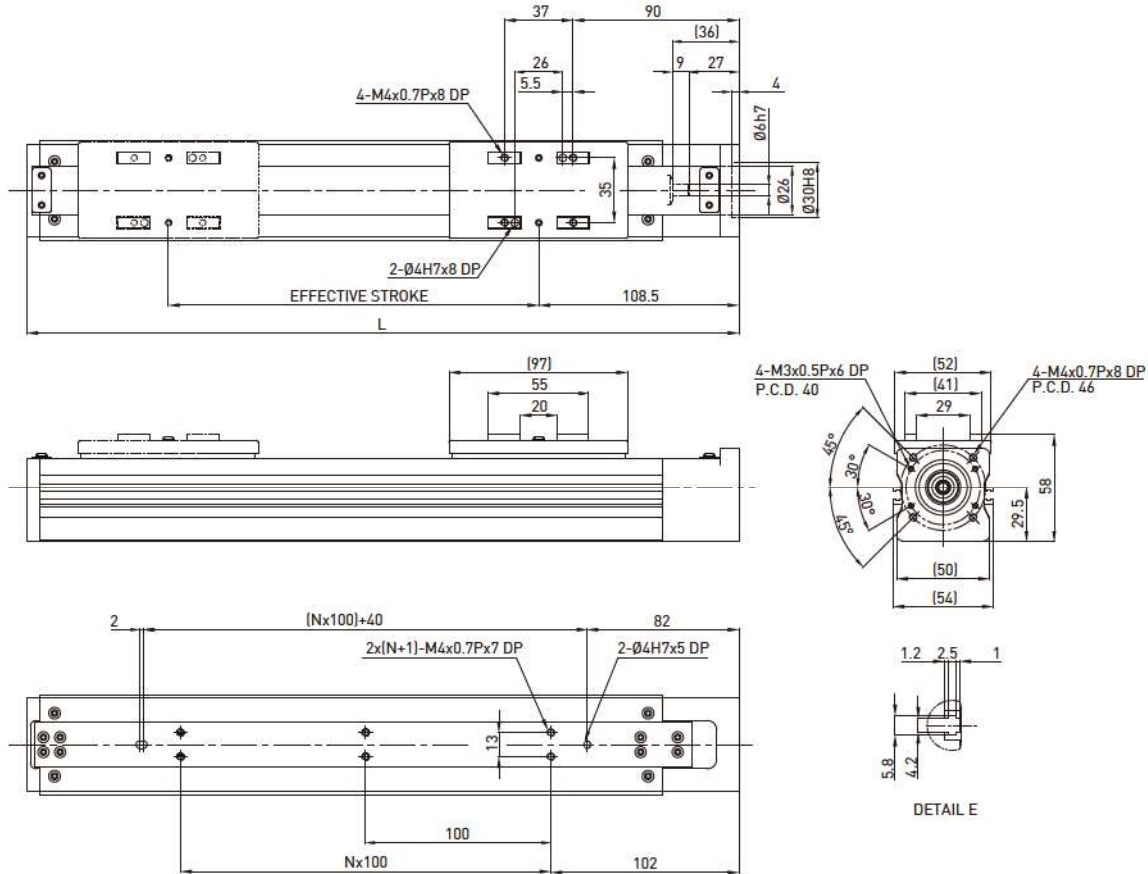
Effective stroke (mm)	L	A	M	N	Weight (kg)	AC motor output	W	50	
50	227	60	2	6	1	Rated RPM	RPM	3000 3000	
100	277	70	3	8	1.3	Lead	mm	2 5	
150	327	40	5	12	1.6	Max linear speed	mm/sec	100 250	
200	377	50	6	14	1.9	Rated thrust	N	280 140	
250	427	60	7	16	2.2	Repeatability	mm	±0.02	
300	477	70	8	18	2.5	Effective stroke	mm	50-300	
						Max load (H)	kg	6 4	
							Fyd	N	10 10
					Fzd		N	60 30	
					Mxd		N-m	1 1	
					Myd		N-m	0.55 0.6	
					Mzd		N-m	0.55 0.5	
					Rated dynamic load*				
					Permitted load condition**	$\frac{F_y}{F_{yd}} + \frac{F_z}{F_{zd}} + \frac{M_x}{M_{xd}} + \frac{M_y}{M_{yd}} + \frac{M_z}{M_{zd}} \leq 1$ Fy, Fz, Mx, My, Mz are working loads			

\* The load condition is based on 10,000km operation.

\*\* If used on the vertical axis or in a special condition, please contact HIWIN.

## Model Number for KE050 (Single Slider)

KE050	-04	C	-400	A	F0	S2	M051
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	4 mm	C: Normal		A: Standard	F0:Direct	S1: OMRON SX671 S2: OMRON SX674 S3: Panasonic GX-F12A S4: Panasonic GX-F12A-P None: No Limit Switch	M05□, K05□ M10□, K10□ Motor specification: ref. catalof P.167 M:customer specified None:Without Motor



Effective stroke (mm)	L	N	Weight (kg)	AC motor output	W	50	
100	285	1	1.4	Rated RPM	RPM	3000	
200	385	2	1.7	Lead	mm	4	
300	485	3	2	Max linear speed	mm/sec	200	
400	585	4	2.3	Rated thrust	N	175	
				Repeatability	mm	±0.02	
				Effective stroke	mm	100-400	
				Max load (H)	kg	8	
				Rated dynamic load*	Fyd	N	10
					Fzd	N	80
					Mxd	N-m	1.5
					Myd	N-m	0.8
					Mzd	N-m	0.8
				Permitted load condition**	$\frac{F_y}{F_{yd}} + \frac{F_z}{F_{zd}} + \frac{M_x}{M_{xd}} + \frac{M_y}{M_{yd}} + \frac{M_z}{M_{zd}} \leq 1$ Fy, Fz, Mx, My, Mz are working loads		

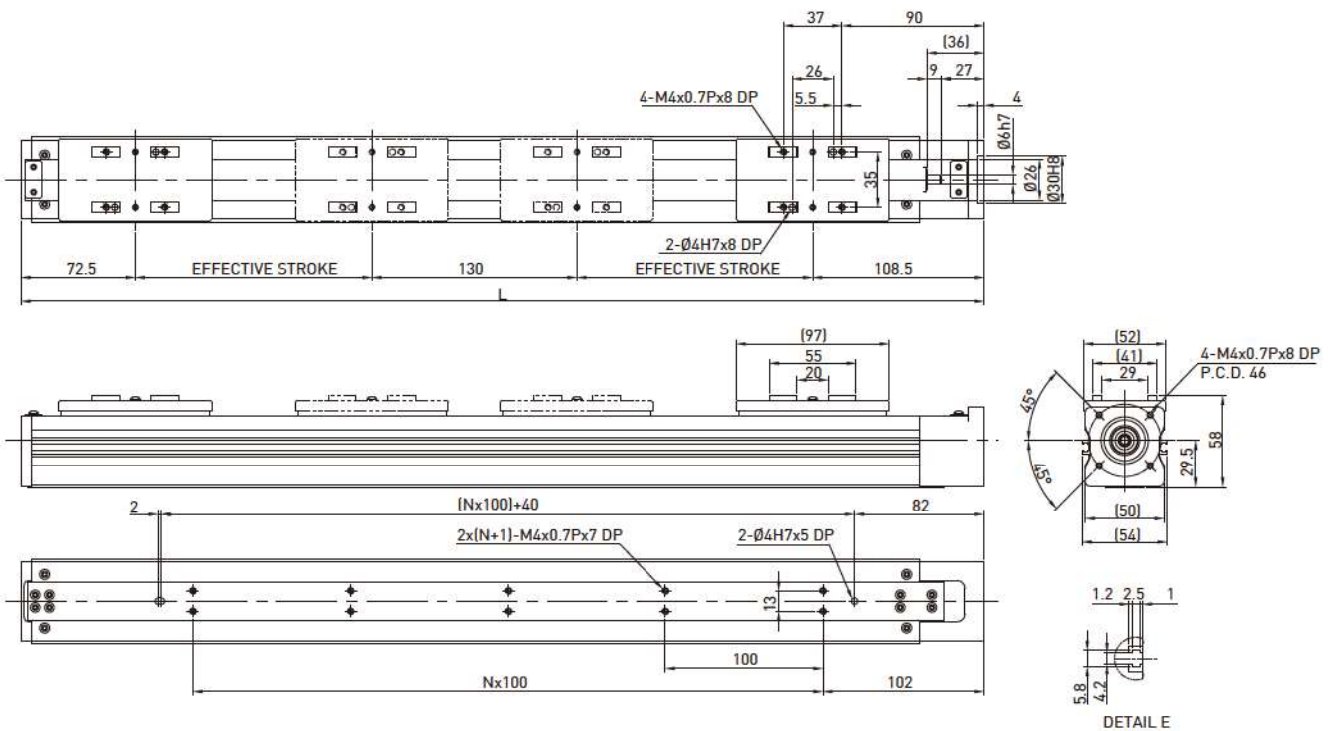
\* The load condition is based on 10,000km operation.

\*\* If used on the vertical axis or in a special condition, please contact HIWIN.



## Model Number for KE050 (Double Slider)

KE050	D	-04	C	-250	A	F0	S2	M051
Model	Double Slider	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
		4mm	C: Normal		A: Standard	F0 :Direct	S2: OMRON SX674 None: No Limit Switch	M05□, K05□ M10□, K10□ Motor specification: ref. catalof P.167 M:customer specified None:Without Motor



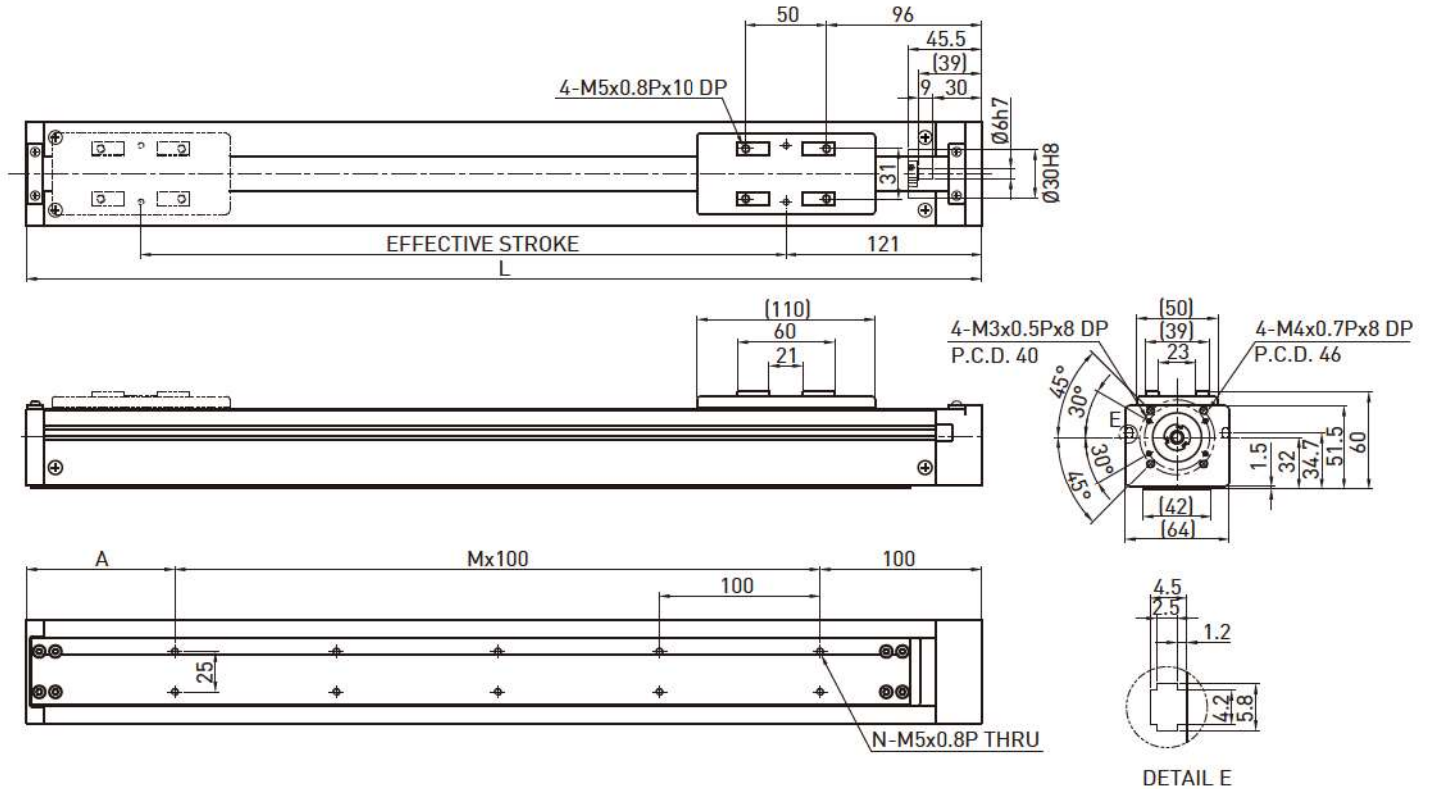
Effective stroke (mm)	L	N	Weight (kg)	AC motor output	W	50	
100	511	3	2.3	Rated RPM	RPM	3000	
150	611	4	2.5	Lead	mm	4	
200	711	5	2.8	Max linear speed	mm/sec	200	
250	811	6	3.0	Rated thrust	N	175	
				Repeatability	mm	±0.02	
				Effective stroke	mm	100-400	
				Max load (H)	kg	8	
					Fyd	N	10
					Fzd	N	80
					Mxd	N-m	1.5
					Myd	N-m	0.8
					Mzd	N-m	0.8
				Rated dynamic load*			
				Permitted load condition**	$\frac{F_y}{F_{yd}} + \frac{F_z}{F_{zd}} + \frac{M_x}{M_{xd}} + \frac{M_y}{M_{yd}} + \frac{M_z}{M_{zd}} \leq 1$ Fy, Fz, Mx, My, Mz are working loads		

\* The load condition is based on 10,000km operation.

\*\* If used on the vertical axis or in a special condition, please contact HIWIN.

## Model Number for KE065

KE065	-10	C	-600	A	F0	S1	M101
Model	Lead	Accuracy Grade	Effective Stroke	Slider Type	Flange F0	Limit Switch	Motor
	5 mm 10 mm	C: Normal P: Precision		A: Standard	F0: 100W	S1: OMRON SX671 S2: OMRON SX674 S3: Panasonic GX-F12A S4: Panasonic GX-F12A-P None: No Limit Switch	M05□, K05□ M10□, K10□ Motor specification: ref. catalog P.167 M:customer specified None:Without Motor

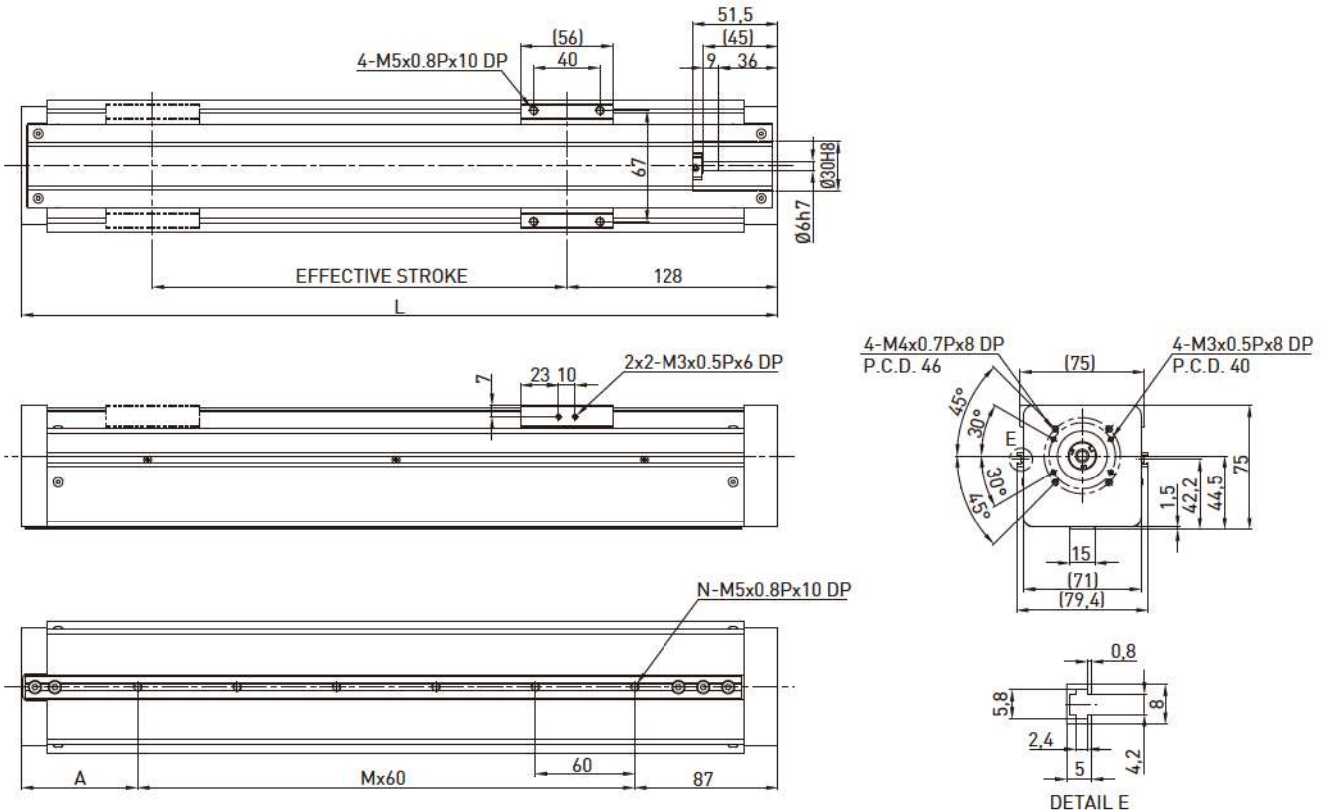


Effective stroke (mm)	L	A	M	N	Weight (kg)	AC motor output	W	100	
50	242	42	1	4	2.5	Rated RPM	RPM	3000 3000	
100	292	92	1	4	2.8	Lead	mm	5 10	
150	342	42	2	6	3.1	Max linear speed*	mm/sec	250 500	
200	392	92	2	6	3.4	Rated thrust	N	280 140	
250	442	42	3	8	3.7	Repeatability	mm	±0.02	
300	492	92	3	8	4	Effective stroke	mm	50-600	
350	542	42	4	10	4.3	Max load (H)	kg	15 8	
400	592	92	4	10	4.6	Rated dynamic load** 	Fyd	N	10 10
450	642	42	5	12	4.9		Fzd	N	150 80
500	692	92	5	12	5.2		Mxd	N-m	4.4 4.7
550	742	42	6	14	5.5		Myd	N-m	2.3 2.6
600	792	92	6	14	5.8		Mzd	N-m	2.3 2.6
Permitted load condition***						$\frac{F_y}{F_{yd}} + \frac{F_z}{F_{zd}} + \frac{M_x}{M_{xd}} + \frac{M_y}{M_{yd}} + \frac{M_z}{M_{zd}} \leq 1$ Fy, Fz, Mx, My, Mz are working loads			

\* Vibration might occur when the effective stroke is longer than 550mm.  
 The maximum speed should be decreased by 15% for every 100mm of increased stroke.  
 \*\*The load condition is based on 10,000km operation.  
 \*\*\*If used on vertical axis or special condition, please contact HIWIN.

## Model Number for KE070

KE070	-10	C	-600	A	F0	S1	M101
Model	Lead	Accuracy Grade	Effective Stroke	Slider Type	Flange F0	Limit Switch	Motor
	5 mm 10 mm	C: Normal P: Precision		A: Standard	F0: Direct	S1: OMRON SX671 S2: OMRON SX674 S3: Panasonic GX-F12A S4: Panasonic GX-F12A-P None: No Limit Switch	M05□, K05□ M10□, K10□ Motor specification: ref. catalog P.167 M:customer specified None:Without Motor



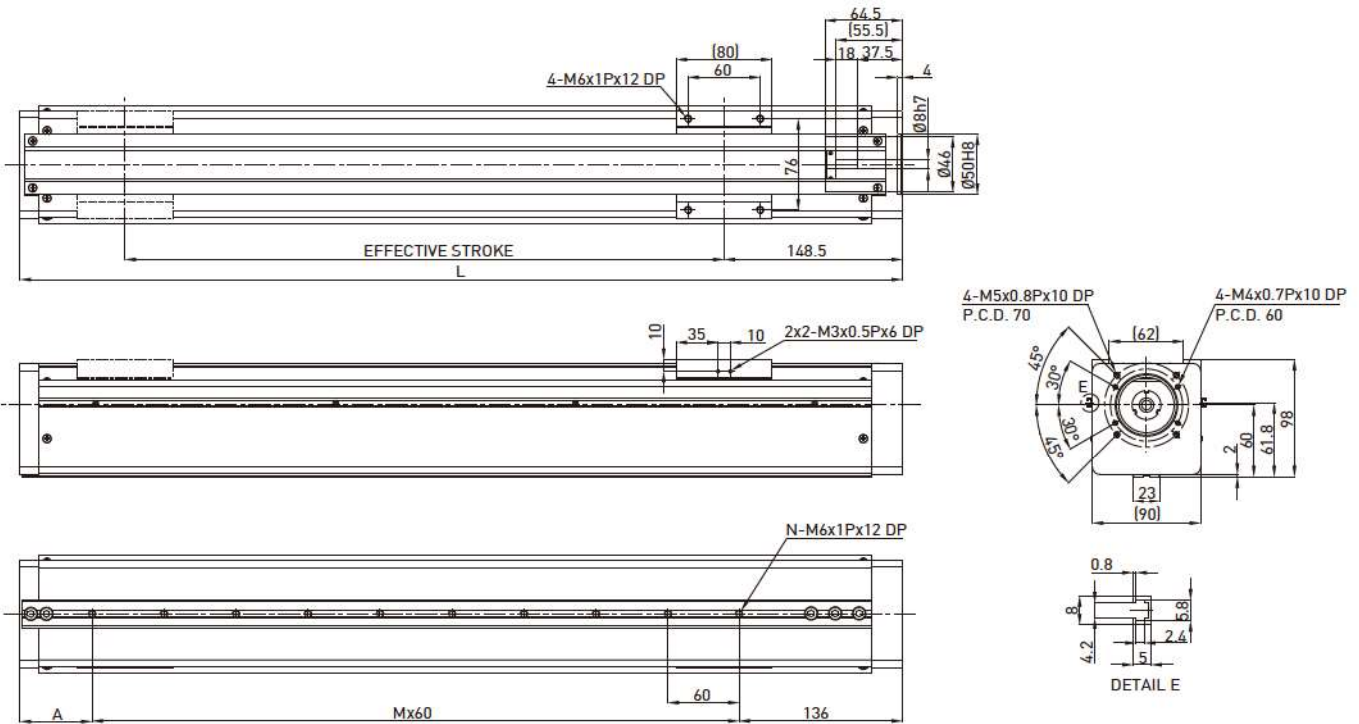
Effective stroke (mm)	L	A	M	N	Weight (kg)	AC motor output	W	100	
50	257	50	2	3	2.8	Rated RPM	RPM	3000 3000	
100	307	40	3	4	3.1	Lead	mm	5 10	
150	357	90	3	4	3.4	Max linear speed*	mm/sec	250 500	
200	407	80	4	5	3.7	Rated thrust	N	280 140	
250	457	70	5	6	4	Repeatability	mm	±0.02	
300	507	60	6	7	4.3	Effective stroke	mm	50-600	
350	557	50	7	8	4.6	Max load (H)	kg	20 15	
400	607	40	8	9	4.9		Fyd	N	10 10
450	657	90	8	9	5.2		Fzd	N	200 150
500	707	80	9	10	5.5		Mxd	N-m	3.5 3.5
550	757	70	10	11	5.8		Myd	N-m	2 2.1
600	807	60	11	12	6.1		Mzd	N-m	2 2.1
<b>Rated dynamic load**</b>						$\frac{F_y}{F_{yd}} + \frac{F_z}{F_{zd}} + \frac{M_x}{M_{xd}} + \frac{M_y}{M_{yd}} + \frac{M_z}{M_{zd}} \leq 1$			
<b>Permitted load condition***</b>						Fy, Fz, Mx, My, Mz Mz are working loads			

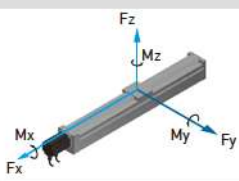
\* Vibration might occur when the effective stroke is longer than 550mm. The maximum speed should be decreased by 15% for every 100mm of increased stroke.  
 \*\*The load condition is based on 10,000km operation.  
 \*\*\*If used on vertical axis or special condition, please contact HIWIN.



## Model Number for KE090

KE090	-10	C	-600	A	F0	S1	M201
Model	Lead	Accuracy Grade	Effective Stroke	Slider Type	Flange F0	Limit Switch	Motor
	5 mm 10 mm	C: Normal P: Precision		A: Standard	F0: Direct	S1: OMRON SX671 S2: OMRON SX674 S3: Panasonic GX-F12A S4: Panasonic GX-F12A-P None: No Limit Switch	M20□, K20□ M40□, K40□ Motor specification: ref. catalog P.167 M: customer specified None: Without Motor



Effective stroke (mm)	L	A	M	N	Weight (kg)	AC motor output	W	200																			
50	286	90	1	2	6.7	Rated RPM	RPM	3000 3000																			
100	336	80	2	3	7	Lead	mm	5 10																			
150	386	70	3	4	7.3	Max linear speed	mm/sec	250 500																			
200	436	60	4	5	7.6	Rated thrust	N	560 280																			
250	486	50	5	6	7.9	Repeatability	mm	±0.02																			
300	536	40	6	7	8.2	Effective stroke	mm	50-600																			
350	586	90	6	7	8.5	Max load (H)	kg	25 23																			
400	636	80	7	8	8.8	<div style="display: flex; align-items: center;">  <table border="1" style="margin-left: 20px;"> <tr><td>Fyd</td><td>N</td><td>10</td><td>10</td></tr> <tr><td>Fzd</td><td>N</td><td>250</td><td>230</td></tr> <tr><td>Mxd</td><td>N-m</td><td>13</td><td>12</td></tr> <tr><td>Myd</td><td>N-m</td><td>7.1</td><td>7.3</td></tr> <tr><td>Mzd</td><td>N-m</td><td>7.1</td><td>7.3</td></tr> </table> </div>	Fyd	N	10	10	Fzd	N	250	230	Mxd	N-m	13	12	Myd	N-m	7.1	7.3	Mzd	N-m	7.1	7.3	
Fyd	N	10	10																								
Fzd	N	250	230																								
Mxd	N-m	13	12																								
Myd	N-m	7.1	7.3																								
Mzd	N-m	7.1	7.3																								
450	686	70	8	9	9.1	Rated dynamic load*																					
500	736	60	9	10	9.4																						
550	786	50	10	11	9.7																						
600	836	40	11	12	10	Permitted load condition**	$\frac{F_y}{F_{yd}} + \frac{F_z}{F_{zd}} + \frac{M_x}{M_{xd}} + \frac{M_y}{M_{yd}} + \frac{M_z}{M_{zd}} \leq 1$ Fy, Fz, Mx, My, Mz are working loads																				

\*The load condition is based on 10,000km operation.

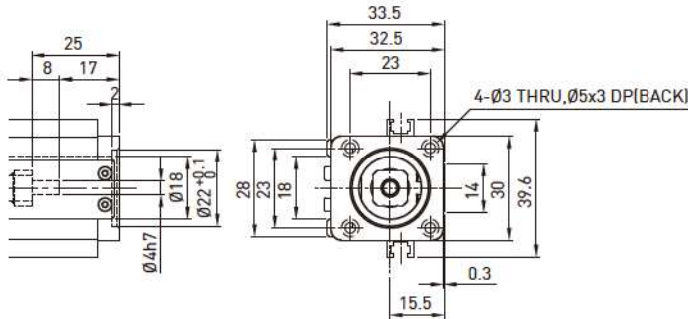
\*\*If used on vertical axis or special condition, please contact HIWIN.



## 8.4 Motor Adaptor Flange List

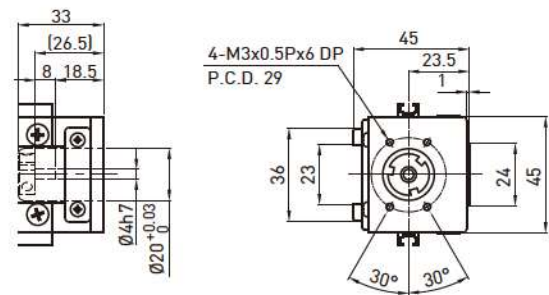
### KE30

Motor Adaptor Flange F0

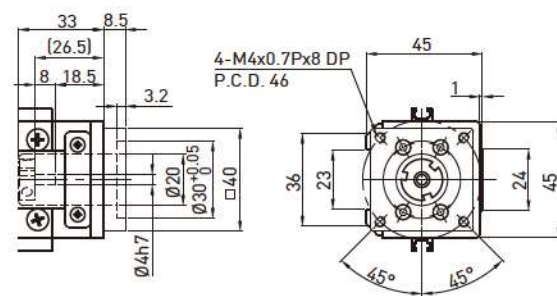


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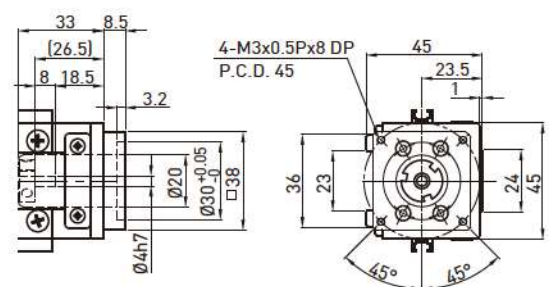
Motor Adaptor Flange F0



Motor Adaptor Flange F1

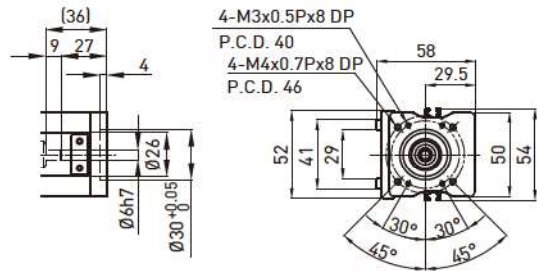


Motor Adaptor Flange F2

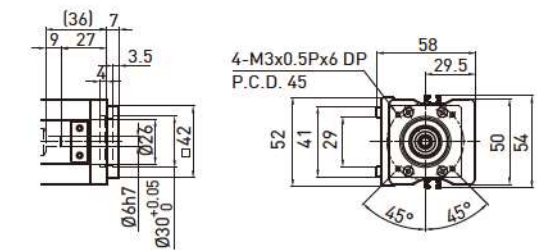


### KE50

Motor Adaptor Flange F0

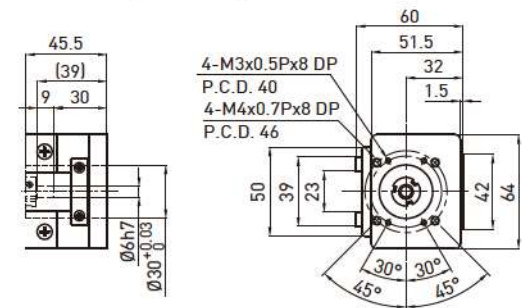


Motor Adaptor Flange F1

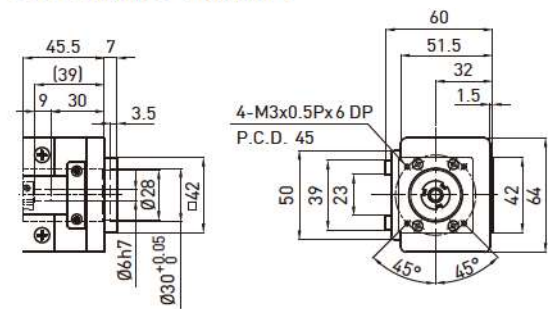


### KE65

Motor Adaptor Flange F0

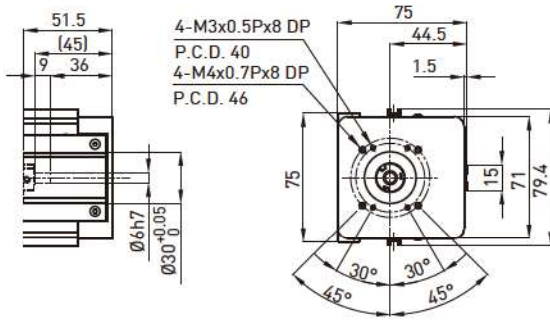


Motor Adaptor Flange F1

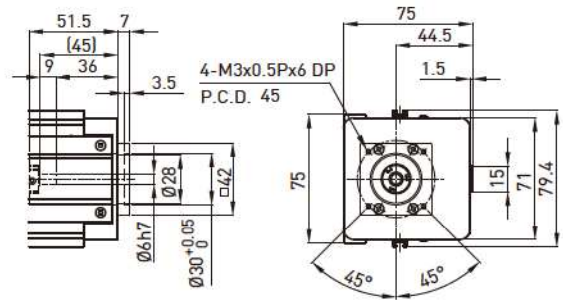


**KE70**

Motor Adaptor Flange F0

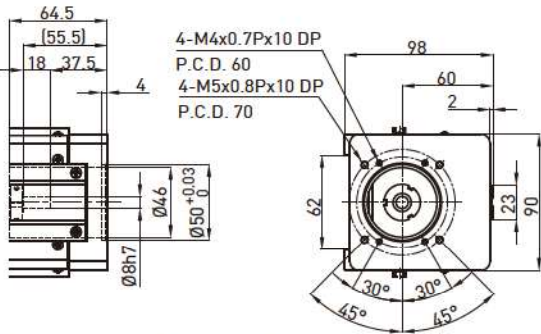


Motor Adaptor Flange F1

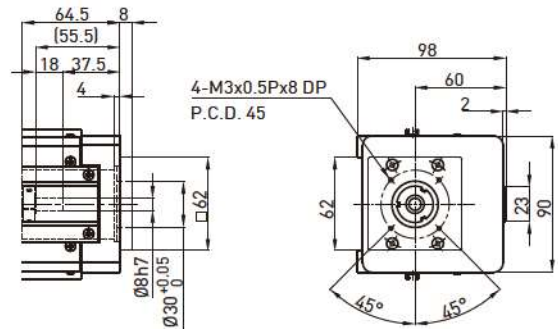


**KE90**

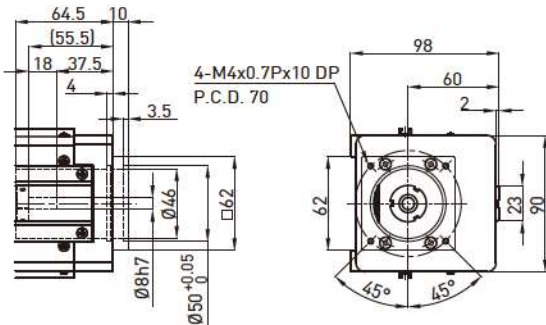
Motor Adaptor Flange F0



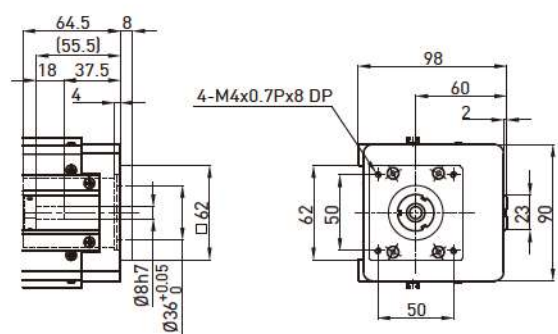
Motor Adaptor Flange F3



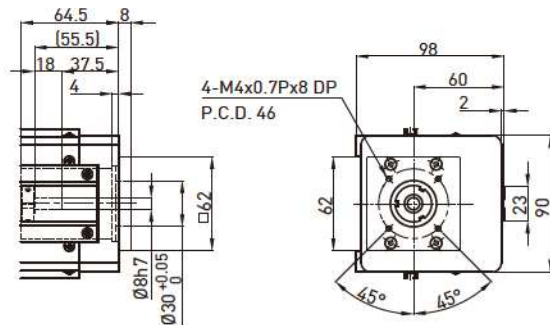
Motor Adaptor Flange F1



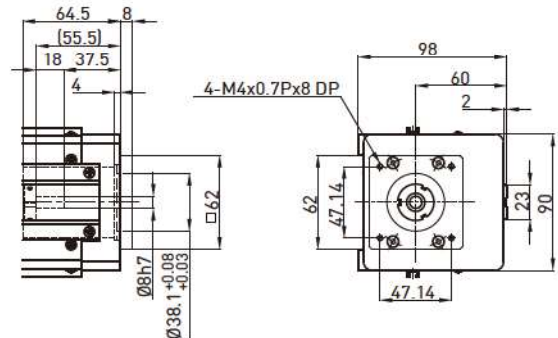
Motor Adaptor Flange F5



Motor Adaptor Flange F2



Motor Adaptor Flange F6



## 8.5 Motor Housing and Motor Adaptor Flange(KE Series)

### HIWIN Mikrosystem Servo Motor

Motor Output	Motor	Flange Selection						Drive	Remarks
		KE30	KE40	KE50	KE65	KE70	KE90		
50W	FRLS052□□A4□	-	F2	F1	F1	F1	F3	D2T-0123-S-A□	220V
100W	FRLS102□□A4□	-	F2	F1	F1	F1	F3		220V
200W	FRLS202□□06□	-	-	-	-	-	F0	D2T-0423-S-B□	220V
400W	FRLS402□□06□	-	-	-	-	-	F0		220V
750W	FRMS752□□08□	-	-	-	-	-	-	D2T-1023-S-C□	220V

### Mitsubishi Servo Motor

Motor Output	Motor	Flange Selection						Drive	Remarks
		KE30	KE40	KE50	KE65	KE70	KE90		
50W	HF-KP053	-	F1	F0	F0	F0	F2	MR-J3S-10A	220V
100W	HF-KP13	-	F1	F0	F0	F0	F2	MR-J3S-10A	220V
200W	HF-KP23	-	-	-	-	-	F0	MR-J3S-20A	220V
400W	HF-KP43	-	-	-	-	-	F0	MR-J3S-40A	220V
750W	HF-KP73	-	-	-	-	-	-	MR-J3S-70A	220V

### Panasonic Servo Motor

Motor Output	Motor	Flange Selection						Drive	Remarks
		KE30	KE40	KE50	KE65	KE70	KE90		
50W	MSMD5AZP1	-	F2	F1	F1	F1	F3	MADDT1105	110V
50W	MSMD5AZP1	-	F2	F1	F1	F1	F3	MADDT1205	220V
100W	MSMD011P1	-	F2	F1	F1	F1	F3	MADDT1107	110V
100W	MSMD012P1	-	F2	F1	F1	F1	F3	MADDT1205	220V
200W	MSMD021P1	-	-	-	-	-	F1	MADDT2110	110V
200W	MSMD022P1	-	-	-	-	-	F1	MADDT1207	220V
400W	MSMD041P1	-	-	-	-	-	F1	MADDT3120	110V
400W	MSMD042P1	-	-	-	-	-	F1	MADDT2210	220V
750W	MSMD082S1	-	-	-	-	-	-	MADDT3520	220V

### Yasukawa Servo Motor

Motor Output	Motor	Flange Selection						Drive	Remarks
		KE30	KE40	KE50	KE65	KE70	KE90		
50W	SGMAV-A5ADA61	-	F1	F0	F0	F0	F2	SGDV-R70A01A	with key
50W	SGMAV-A5ADA2C	-	F1	F0	F0	F0	F2	SGDV-R70A01A	no key
50W	SGMAV-A5ADA21	-	F1	F0	F0	F0	F2	SGDV-R70A01A	no key
100W	SGMAV-01ADA21	-	F1	F0	F0	F0	F2	SGDV-R90A01A	
200W	SGMAV-02ADA21	-	-	-	-	-	F0	SGDV-1R6A01A	
400W	SGMAV-04ADA21	-	-	-	-	-	F0	SGDV-2R8A01A	
750W	SGMAV-08ADA21	-	-	-	-	-	F1	SGDV-5R5A01A	



