Single-Axis Robot
6. KS Series

6.1 Features

◎ For use in clean room
◎ Stainless steel cover
◎ Already installed AC servo motor (optional)
◎ High repeatability ±0.02mm
◎ Dustproof
◎ Different strokes available

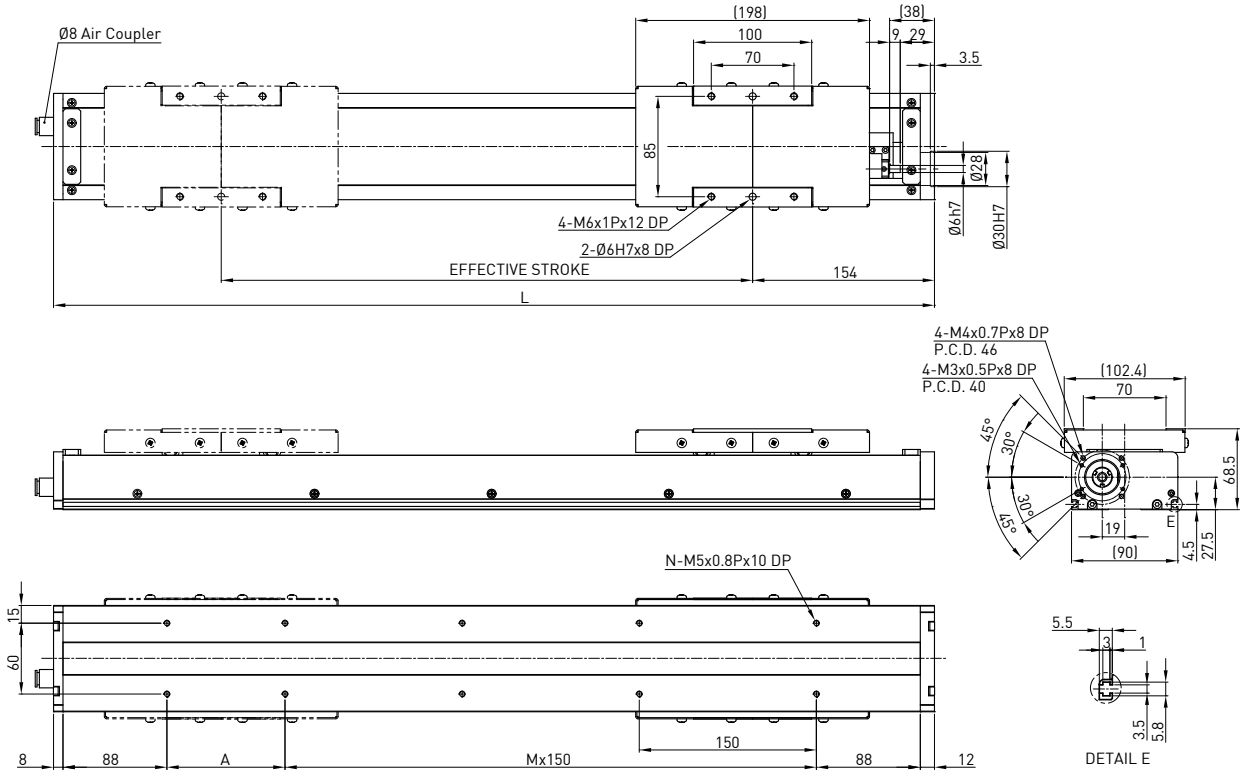
6.2 Applications

◎ FPD industry
◎ Semiconductor
◎ Medical applications
◎ FPD glass transfer
◎ Inspection & testing equipment

6.3 KS Series

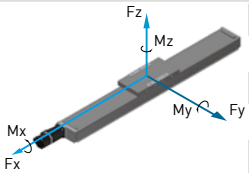
Model Number for KS090

KS090	-10	P	-0600	A	F0	S1	M101
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	5mm 10mm	P: Precision 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	A	M	N	Weight (kg)
50	346	150	0	4	3.38
100	396	50	1	6	3.78
150	446	100	1	6	4.18
200	496	150	1	6	4.58
250	546	50	2	8	4.98
300	596	100	2	8	5.38
350	646	150	2	8	5.78
400	696	50	3	10	6.18
450	746	100	3	10	6.58
500	796	150	3	10	7.19
550	846	50	4	12	7.38
600	896	100	4	12	7.78

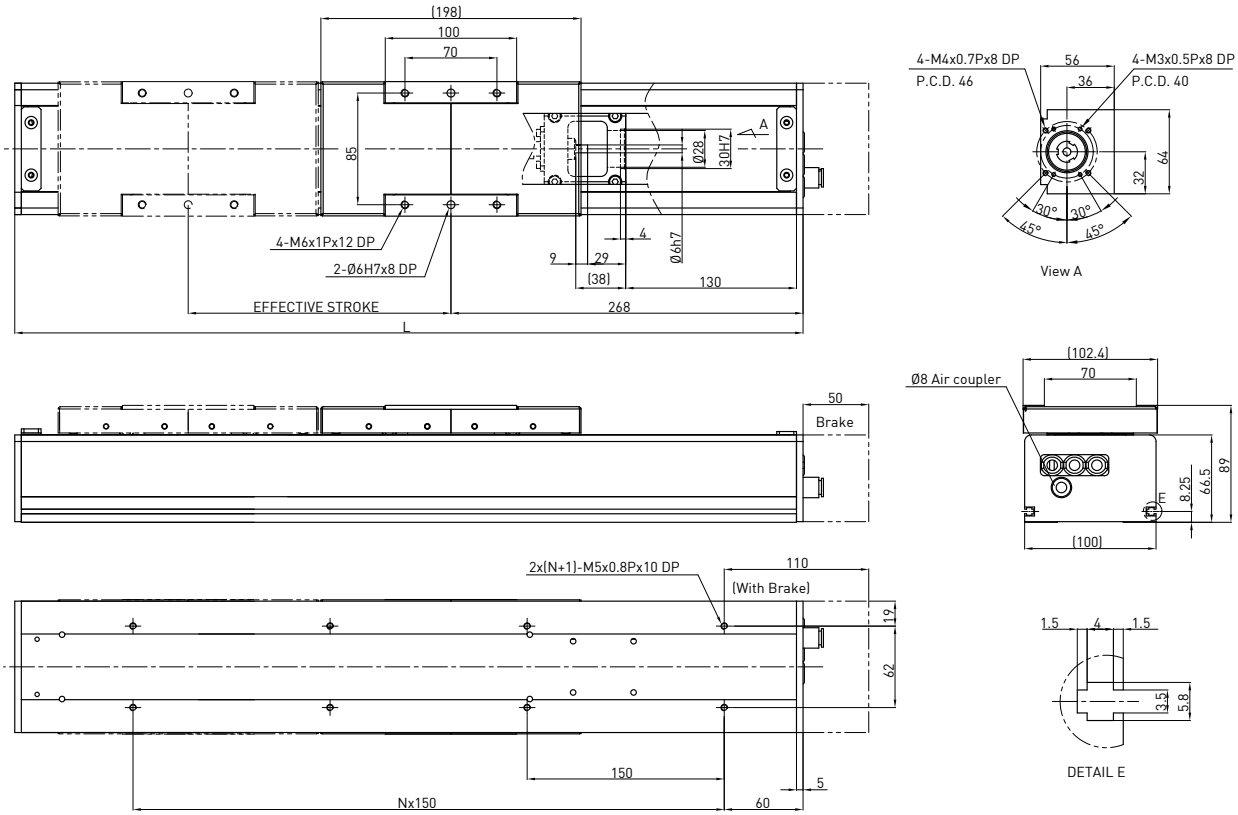
AC motor output		W	100	
Drive			Ballscrew C7(normal)	
Lead		mm	5	10
Rated RPM		RPM	3000	3000
Max linear speed*		mm/sec	250	500
Rated thrust		N	280	140
Repeatability		mm	±0.02	
Effective stroke		mm	50~600	
Max load (H)		kg	24	12
Rated dynamic load**	Fyd	N	50	50
	Fzd	N	240	120
	Mxd	N-m	5	4.5
	Myd	N-m	2.3	2.1
	Mzd	N-m	2.3	2.1
Permitted load condition***	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads			



* Vibration might occur when the effective stroke is longer than 650mm.
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 the vertical axis or in a special condition, please contact HIWIN.

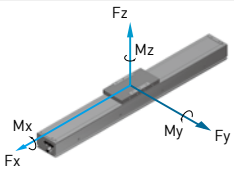
Model Number for KS100-FI

KS100	-20	P	-800	A	FI	S2	M101
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	10mm 20mm	P: Precision C: Normal		A: Standard	FI: Internal	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)
200	600	3	9.1
300	700	4	9.8
400	800	4	10.5
500	900	5	11.2
600	1000	6	11.9
700	1100	6	12.6
800	1200	7	13.3

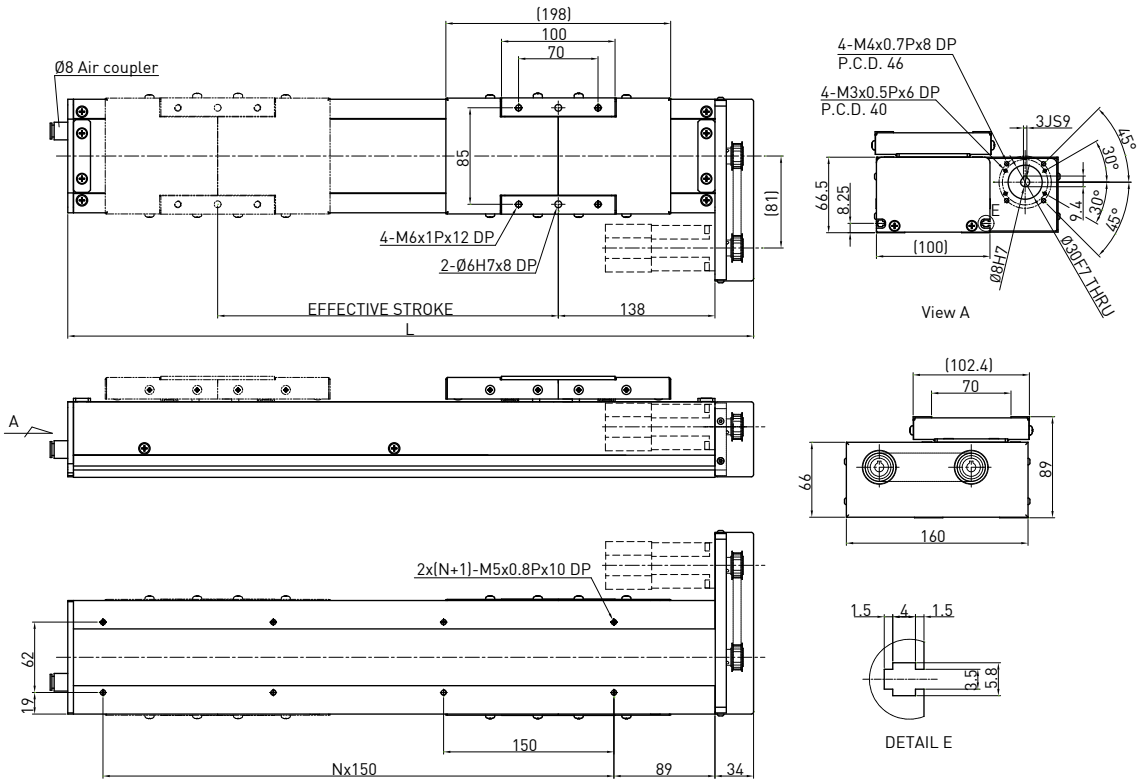
AC motor output		W	100	
Drive			Ballscrew C7(normal)	
Lead		mm	5	10	20
Rated RPM		RPM	3000	3000	3000
Max linear speed*		mm/sec	250	500	1000
Rated thrust		N	280	140	70
Repeatability		mm	±0.02	
Effective stroke		mm	200~800	
Max load (H)		kg	8	6	3.5
Rated dynamic load**	Fyd	N	20	20	20
	Fzd	N	80	60	35
	Mxd	N-m	1.1	1.2	1.1
	Myd	N-m	0.9	0.9	0.9
	Mzd	N-m	0.9	0.9	0.9
Permitted load condition***	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads			



* Vibration might occur when the effective stroke is longer than 650mm.
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 the vertical axis or in a special condition, please contact HIWIN.

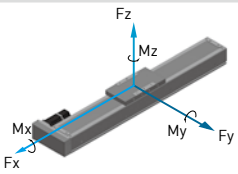
Model Number for KS100-FL

KS100	-20	P	-800	A	FL	S2	M101
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	10mm 20mm	P: Precision C: Normal		A: Standard	FL: Left	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)
200	504	2	6.0
300	604	3	6.9
400	704	3	7.8
500	804	4	8.7
600	904	5	9.6
700	1004	5	10.5
800	1104	6	11.4

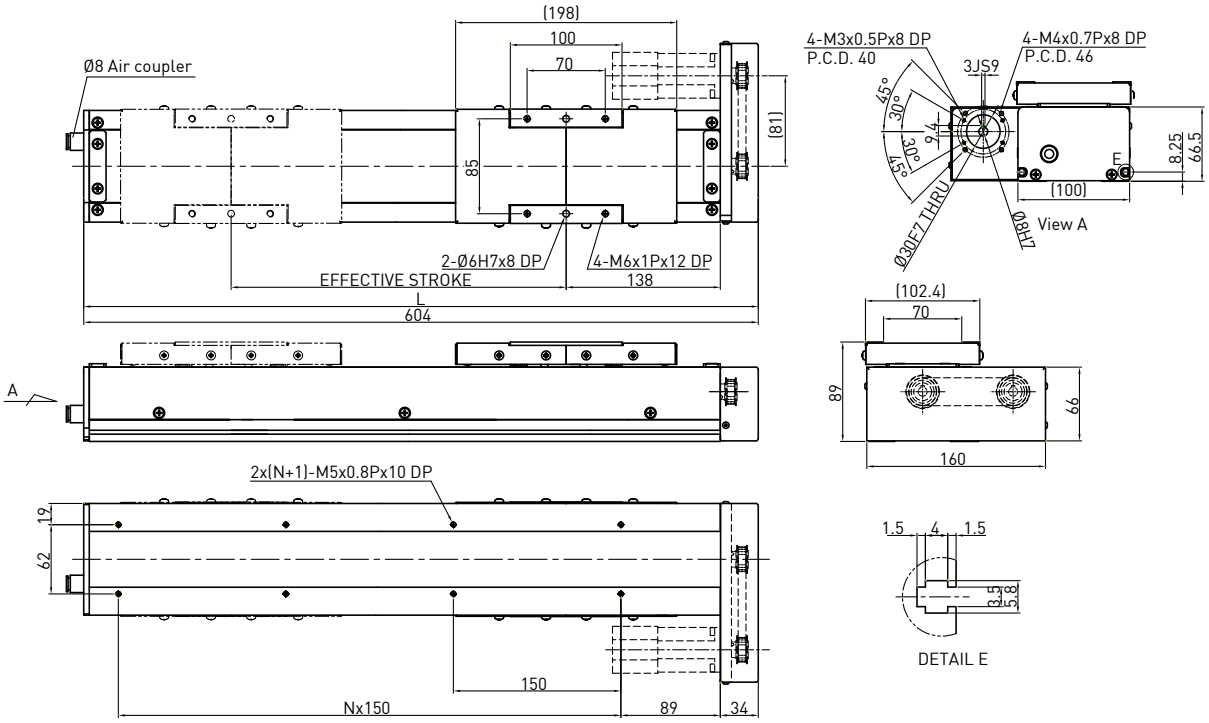
AC motor output		W	100	
Drive			Ballscrew C7(normal)	
Lead		mm	5	10	20
Rated RPM		RPM	3000	3000	3000
Max linear speed*		mm/sec	250	500	1000
Rated thrust		N	280	140	70
Repeatability		mm	±0.02	
Effective stroke		mm	200~800	
Max load (H)		kg	8	6	3.5
Rated dynamic load**	Fyd	N	20	20	20
	Fzd	N	80	60	35
	Mxd	N-m	1.1	1.2	1.1
	Myd	N-m	0.9	0.9	0.9
	Mzd	N-m	0.9	0.9	0.9
Permitted load condition***	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads			



* Vibration might occur when the effective stroke is longer than 650mm.
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 the vertical axis or in a special condition, please contact HIWIN.

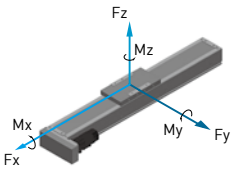
Model Number for KS100-FR

KS100	-20	P	-800	A	FR	S2	M101
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	10mm 20mm	P: Precision C: Normal		A: Standard	FR: Right	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)
200	504	2	6.0
300	604	3	6.9
400	704	3	7.8
500	804	4	8.7
600	904	5	9.6
700	1004	5	10.5
800	1104	6	11.4

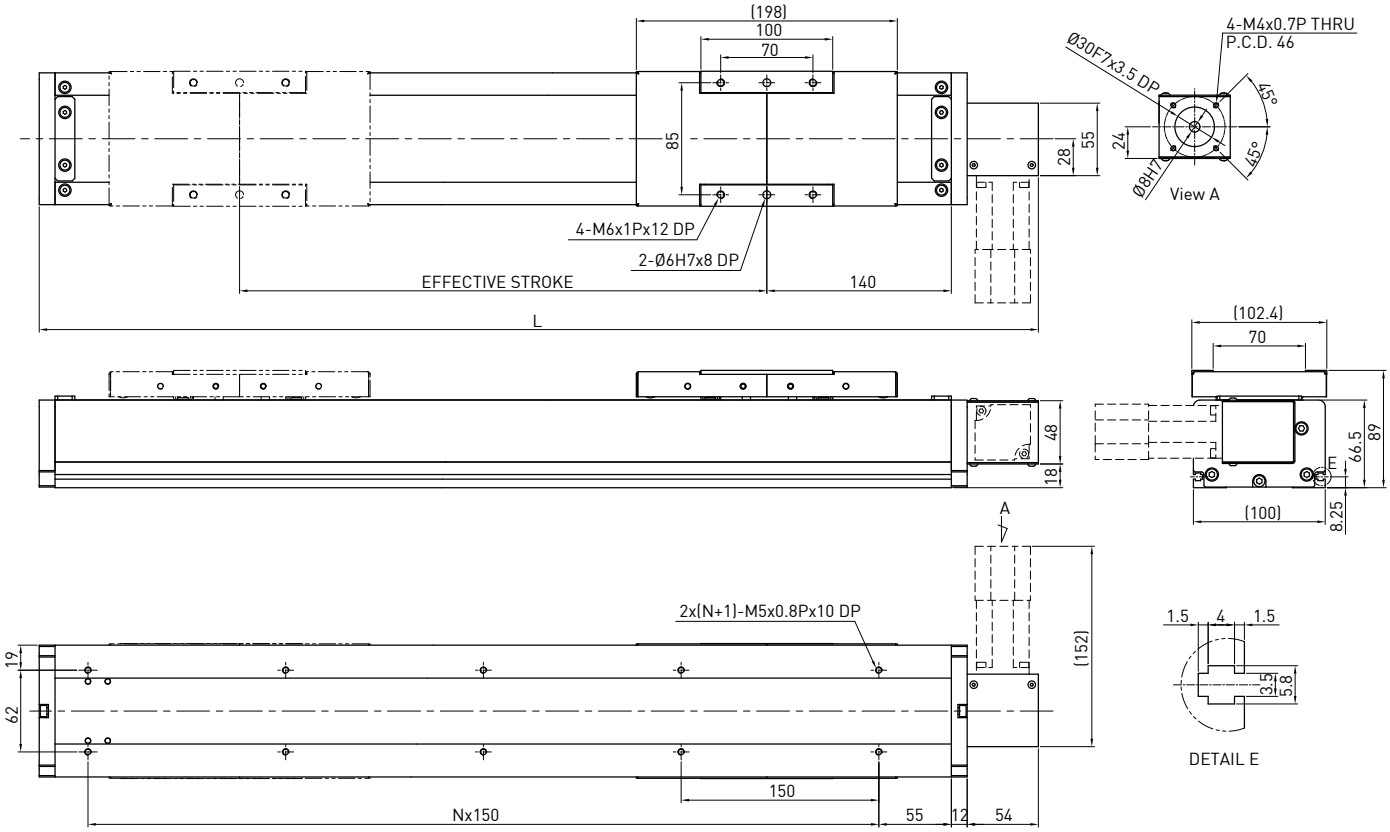
AC motor output		W	100		
Drive			Ballscrew C7(normal)		
Lead		mm	5	10	20
Rated RPM		RPM	3000	3000	3000
Max linear speed*		mm/sec	250	500	1000
Rated thrust		N	280	140	70
Repeatability		mm	±0.02		
Effective stroke		mm	200~800		
Max load (H)		kg	8	6	3.5
Rated dynamic load**	Fyd	N	20	20	20
	Fzd	N	80	60	35
	Mxd	N-m	1.1	1.2	1.1
	Myd	N-m	0.9	0.9	0.9
	Mzd	N-m	0.9	0.9	0.9
Permitted load condition***	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads				



* Vibration might occur when the effective stroke is longer than 650mm.
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 the vertical axis or in a special condition, please contact HIWIN.

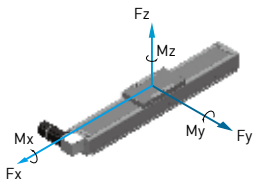
Model Number for KS100B-FL

KS100	B	-84	C	-3000	A	FL	S2	M101
Model	Timing Belt	Pulley Perimeter	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
			C: Normal		A: Standard	FL: Left	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)
200	558	2	6.1
400	758	4	7.6
600	958	5	9.1
800	1158	6	10.6
1000	1358	8	12.1
1200	1558	9	13.6
1400	1758	10	15.1
1600	1958	12	16.6
1800	2158	13	18.1
2000	2358	14	19.6
2200	2558	16	21.1
2400	2758	17	22.6
2600	2958	18	24.1
2800	3158	20	25.6
3000	3358	21	27.1

AC motor output		W	100
Drive			Timing Belt
Pulley Perimeter		mm	84
Pulley RPM		RPM	1286
Max linear speed		mm/sec	1800
Rated thrust		N	33
Repeatability		mm	±0.1
Effective stroke		mm	200~3000
Max load (H)		kg	3
Rated dynamic load*	Fyd	N	20
	Fzd	N	30
	Mxd	N-m	1.2
	Myd	N-m	1
	Mzd	N-m	1



Permitted load condition**

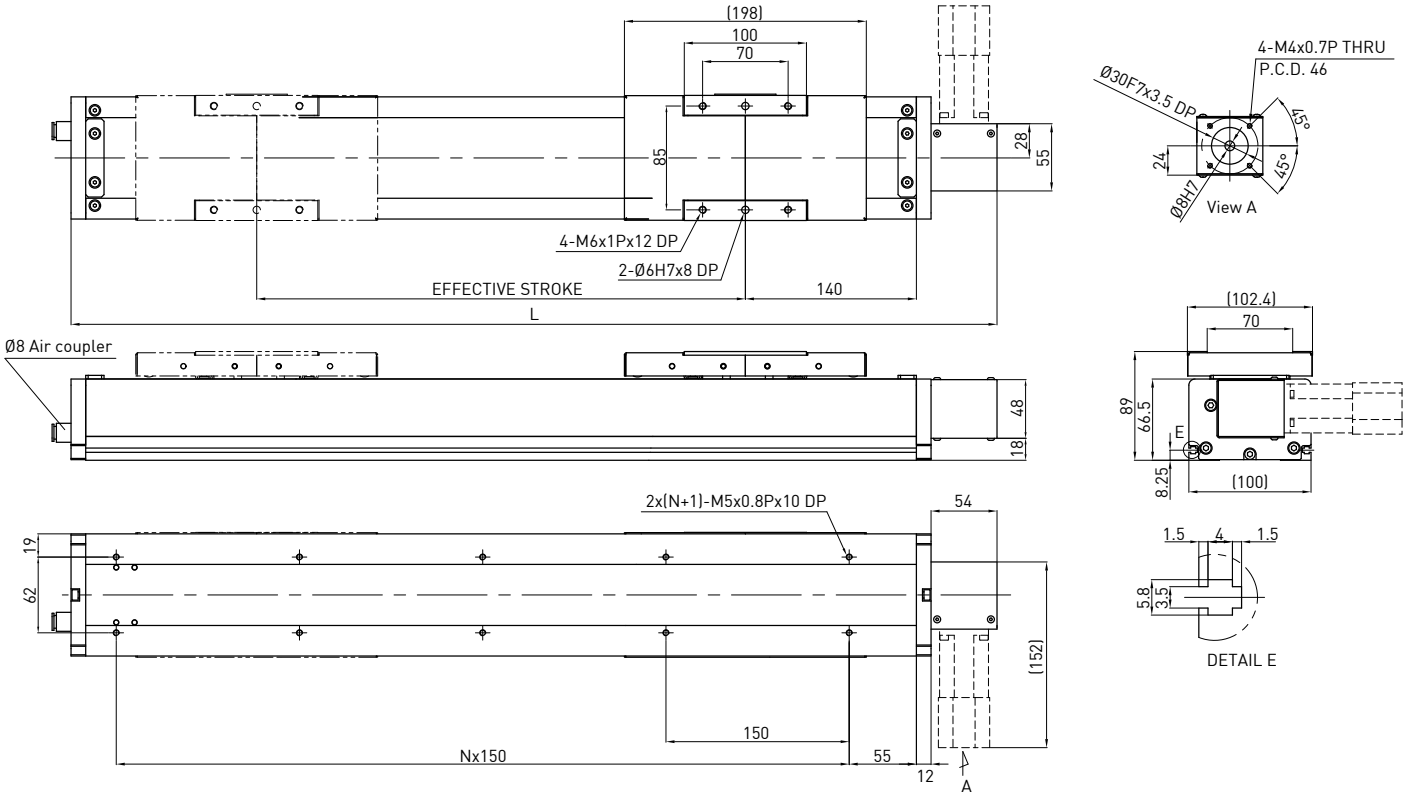
$$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$$

Fy, Fz, Mx, My, Mz are working loads

*The load condition is based on 10,000km operation.
**For horizontal applications only. If used in a special condition, please contact HIWIN.

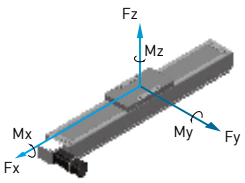
Model Number for KS100B-FR

KS100	B	-84	C	-3000	A	FR	S2	M101
Model	Timing Belt	Pulley Perimeter	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
			C: Normal		A: Standard	FR: Right	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)
200	558	2	6.1
400	758	4	7.6
600	958	5	9.1
800	1158	6	10.6
1000	1358	8	12.1
1200	1558	9	13.6
1400	1758	10	15.1
1600	1958	12	16.6
1800	2158	13	18.1
2000	2358	14	19.6
2200	2558	16	21.1
2400	2758	17	22.6
2600	2958	18	24.1
2800	3158	20	25.6
3000	3358	21	27.1

AC motor output		W	100
Drive			Timing Belt
Pulley Perimeter		mm	84
Pulley RPM		RPM	1286
Max linear speed		mm/sec	1800
Rated thrust		N	33
Repeatability		mm	±0.1
Effective stroke		mm	200~3000
Max load (H)		kg	3
Rated dynamic load*	Fyd	N	20
	Fzd	N	30
	Mxd	N-m	1.2
	Myd	N-m	1
	Mzd	N-m	1



Permitted load condition**

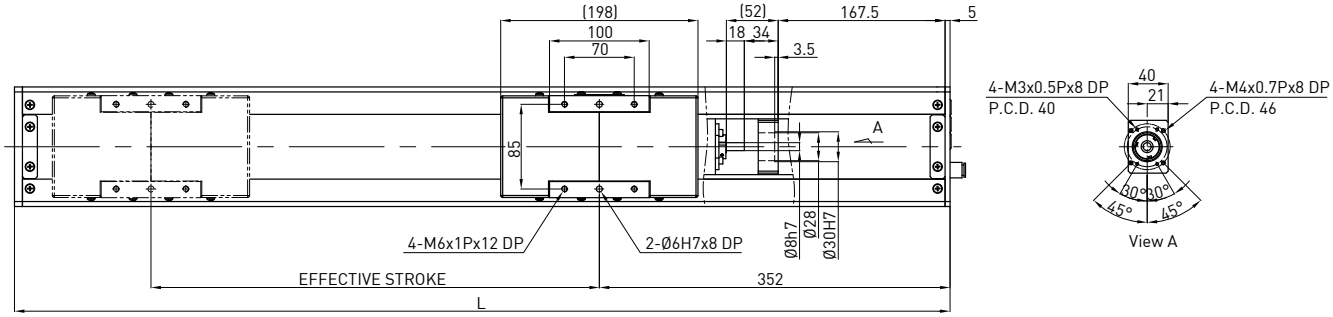
$$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$$

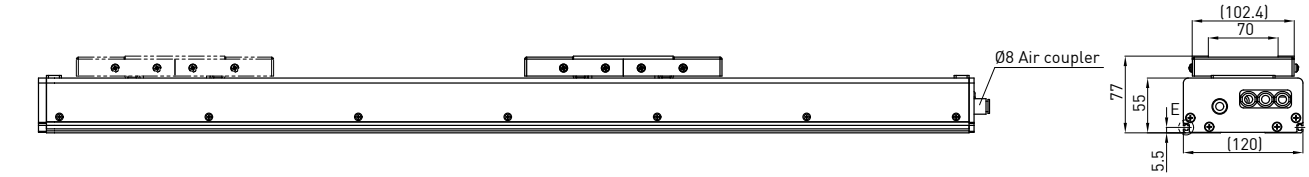
Fy, Fz, Mx, My, Mz are working loads

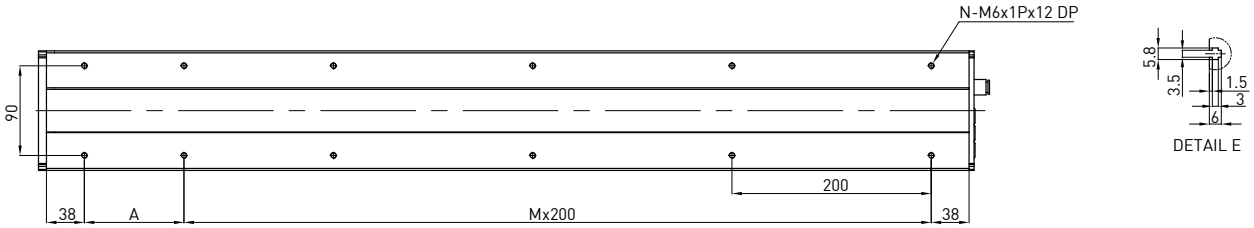
*The load condition is based on 10,000km operation.
**For horizontal applications only. If used in a special condition, please contact HIWIN.

Model Number for KS120

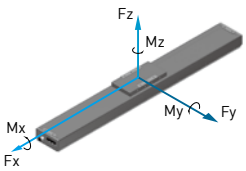
KS120	-20	P	-1050	A	FI	S1	M101
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	5 mm 10 mm 20 mm	P: Precision C: Normal		A: Standard	FI: Internal	S1: OMRON SX671 S2: OMRON SX674 S3: Panasonic GX-F12A S4: Panasonic GX-F12A-P None: No Limit Switch	M05□, K05□ M10□, K10□ Motor specification: ref. catalof P.167 M:customer specified None:Without Motor







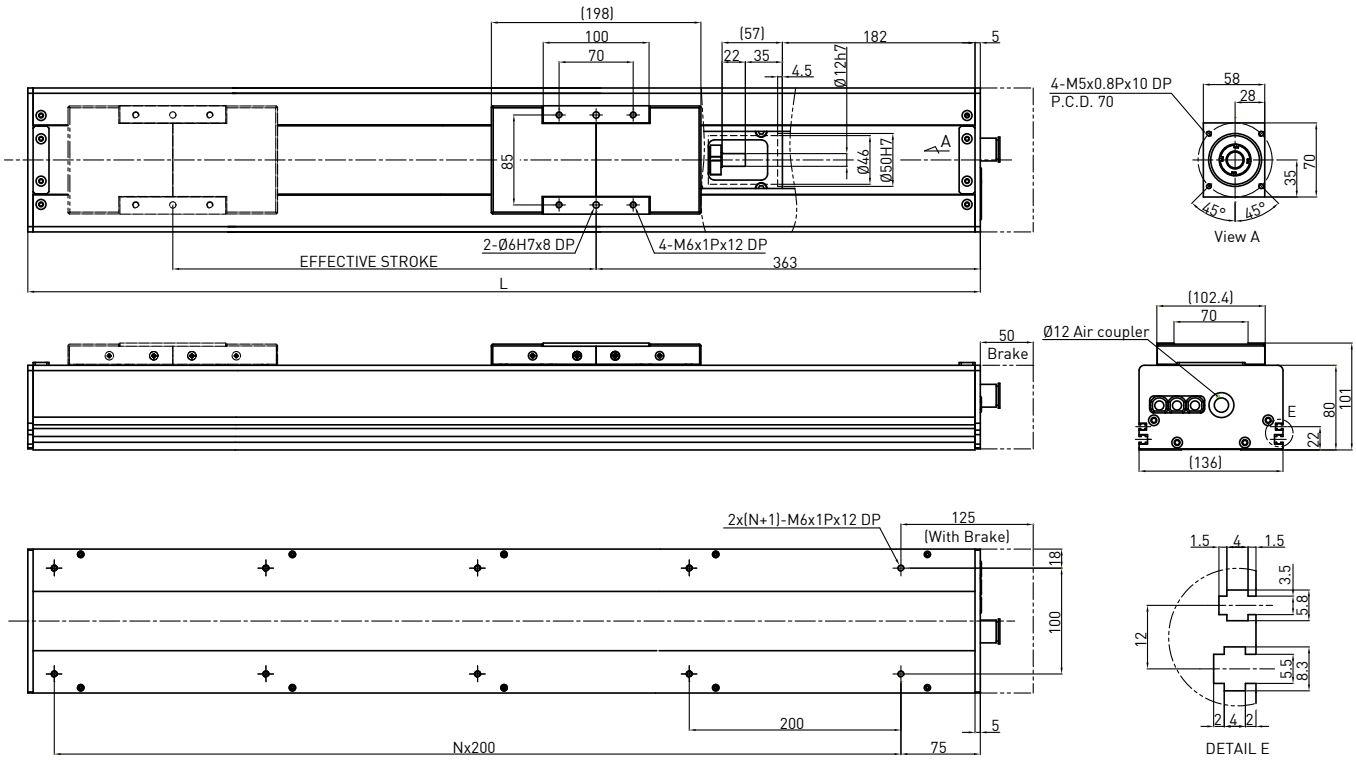
Effective stroke (mm)	L	A	M	N	Weight (kg)
100	589	100	2	8	6.32
150	639	150	2	8	6.94
200	689	200	2	8	7.57
250	739	50	3	10	8.2
300	789	100	3	10	8.83
350	839	150	3	10	9.46
400	889	200	3	10	10.09
450	939	50	4	12	10.72
500	989	100	4	12	11.35
550	1039	150	4	12	11.98
600	1089	200	4	12	12.61
650	1139	50	5	14	13.24
700	1189	100	5	14	13.87
750	1239	150	5	14	14.5
800	1289	200	5	14	15.13
850	1339	50	6	16	15.76
900	1389	100	6	16	16.39
950	1439	150	6	16	17.02
1000	1489	200	6	16	17.65
1050	1539	50	7	18	18.28

AC motor output		W	100		
Drive			Ballscrew C7(normal)		
Lead		mm	5	10	20
Rated RPM		RPM	3000	3000	3000
Max linear speed*		mm/sec	250	500	1000
Rated thrust		N	280	140	70
Repeatability		mm	±0.02		
Effective stroke		mm	100~1050		
Max load (H)		kg	50	32	20
Rated dynamic load**		Fyd	N	50	50	50
		Fzd	N	500	320	200
		Mxd	N-m	25	27	28
		Myd	N-m	20	22	23
		Mzd	N-m	20	22	23
Permitted load condition***	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads				

* Vibration might occur when the effective stroke is longer than 600mm.
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 the vertical axis or in a special condition, please contact HIWIN.

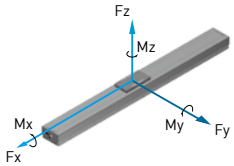
Model Number for KS140-FI

KS140	-20	P	-1100	A	FI	S2	M201
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	10mm 20mm	P: Precision C: Normal		A: Standard	FI: Internal	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. catalof P.167 M:customer specified None:Without Motor



Effective stroke (mm)	L	N	Weight (kg)
200	700	3	13.5
300	800	3	14.7
400	900	4	15.9
500	1000	4	17.1
600	1100	5	18.3
700	1200	5	19.5
800	1300	6	20.7
900	1400	6	21.9
1000	1500	7	23.2
1100	1600	7	24.4

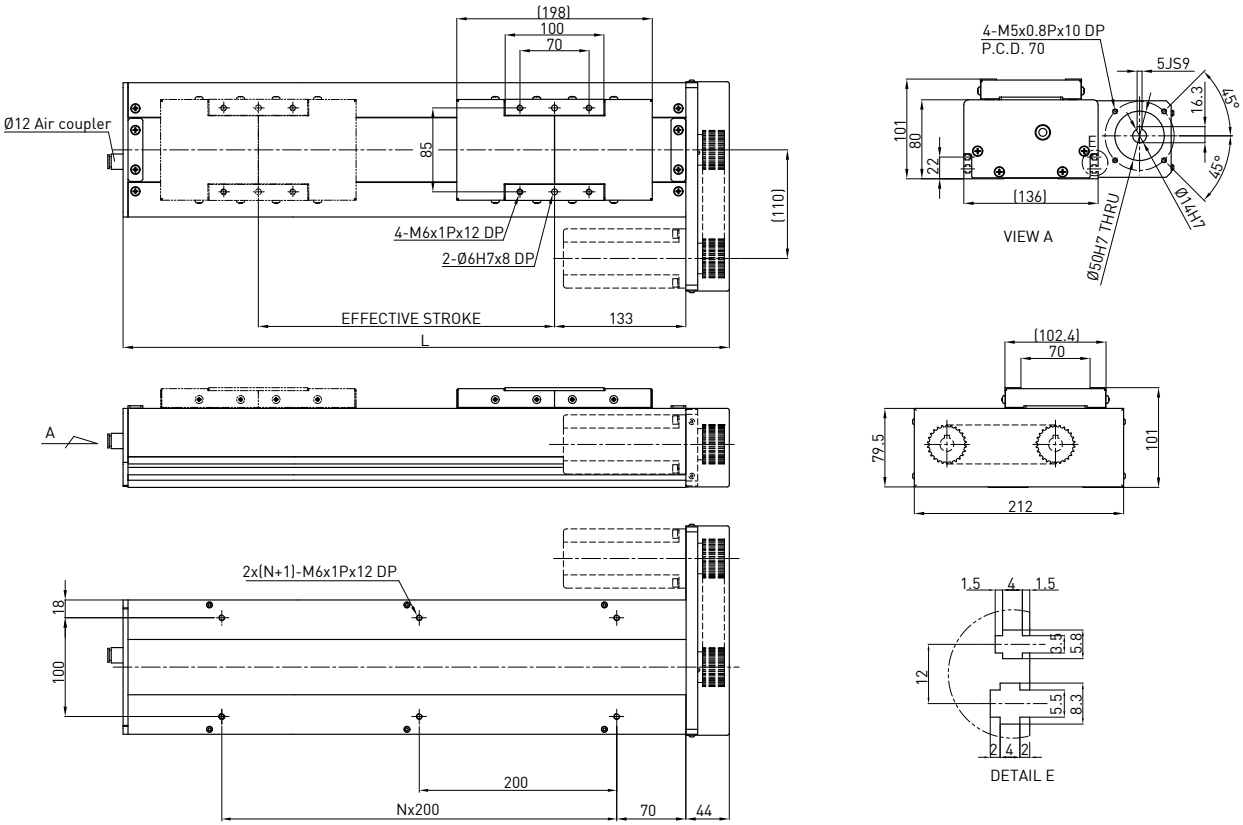
AC motor output		W	200	
Drive			Ballscrew C7(normal)	
Lead		mm	10	20
Rated RPM		RPM	3000	3000
Max linear speed*		mm/sec	500	1000
Rated thrust		N	280	140
Repeatability		mm	±0.02	
Effective stroke		mm	200~1100	
Max load (H)		kg	75	35
Rated dynamic load**	Fyd	N	50	50
	Fzd	N	750	350
	Mxd	N-m	55	60
	Myd	N-m	47	51
	Mzd	N-m	47	51
Permitted load condition***	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads			



* Vibration might occur when the effective stroke is longer than 800mm.
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 the vertical axis or in a special condition, please contact HIWIN.

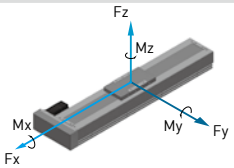
Model Number for KS140-FL

KS140	-20	P	-1100	A	FL	S2	M201
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	10mm 20mm	P: Precision C: Normal		A: Standard	FL: Left	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. catalof P.167 M:customer specified None:Without Motor



Effective stroke (mm)	L	N	Weight (kg)
200	514	1	11.5
300	614	2	13.0
400	714	2	14.5
500	814	3	16.0
600	914	3	17.5
700	1014	4	19.0
800	1114	4	20.5
900	1214	5	22.0
1000	1314	5	23.5
1100	1414	6	25.0

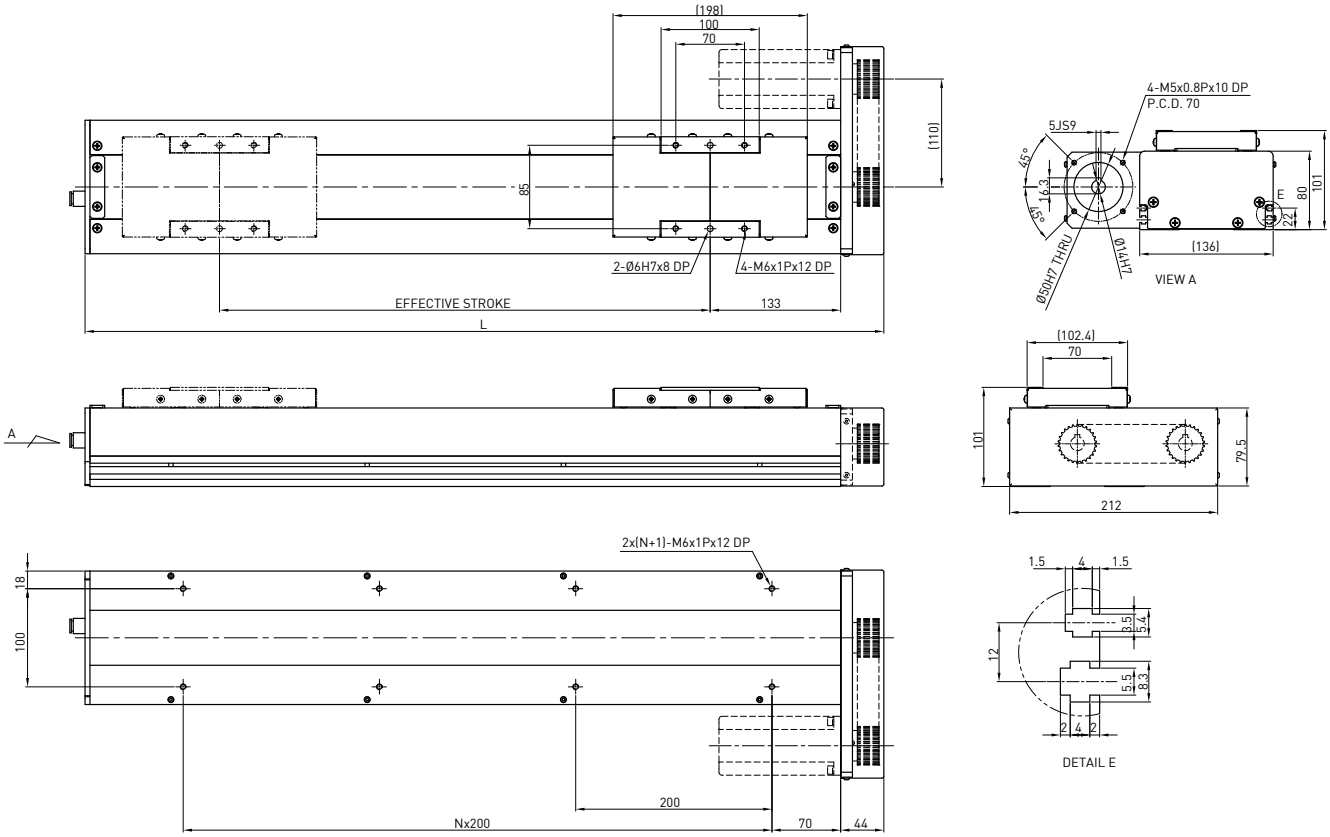
AC motor output		W	200	
Drive			Ballscrew C7(normal)	
Lead		mm	10	20
Rated RPM		RPM	3000	3000
Max linear speed*		mm/sec	500	1000
Rated thrust		N	280	140
Repeatability		mm	±0.02	
Effective stroke		mm	200~1100	
Max load (H)		kg	75	35
Rated dynamic load**	Fyd	N	50	50
	Fzd	N	750	350
	Mxd	N-m	55	60
	Myd	N-m	47	51
	Mzd	N-m	47	51
Permitted load condition***	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads			



* Vibration might occur when the effective stroke is longer than 800mm.
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 the vertical axis or in a special condition, please contact HIWIN.

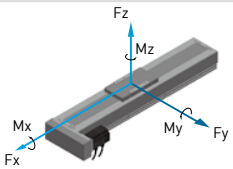
Model Number for KS140-FR

KS140	-20	P	-1100	A	FR	S2	M201
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	10mm 20mm	P: Precision C: Normal		A: Standard	FR: Right	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. catalof P.167 M:customer specified None:Without Motor



Effective stroke (mm)	L	N	Weight (kg)
200	514	1	11.5
300	614	2	13.0
400	714	2	14.5
500	814	3	16.0
600	914	3	17.5
700	1014	4	19.0
800	1114	4	20.5
900	1214	5	22.0
1000	1314	5	23.5
1100	1414	6	25.0

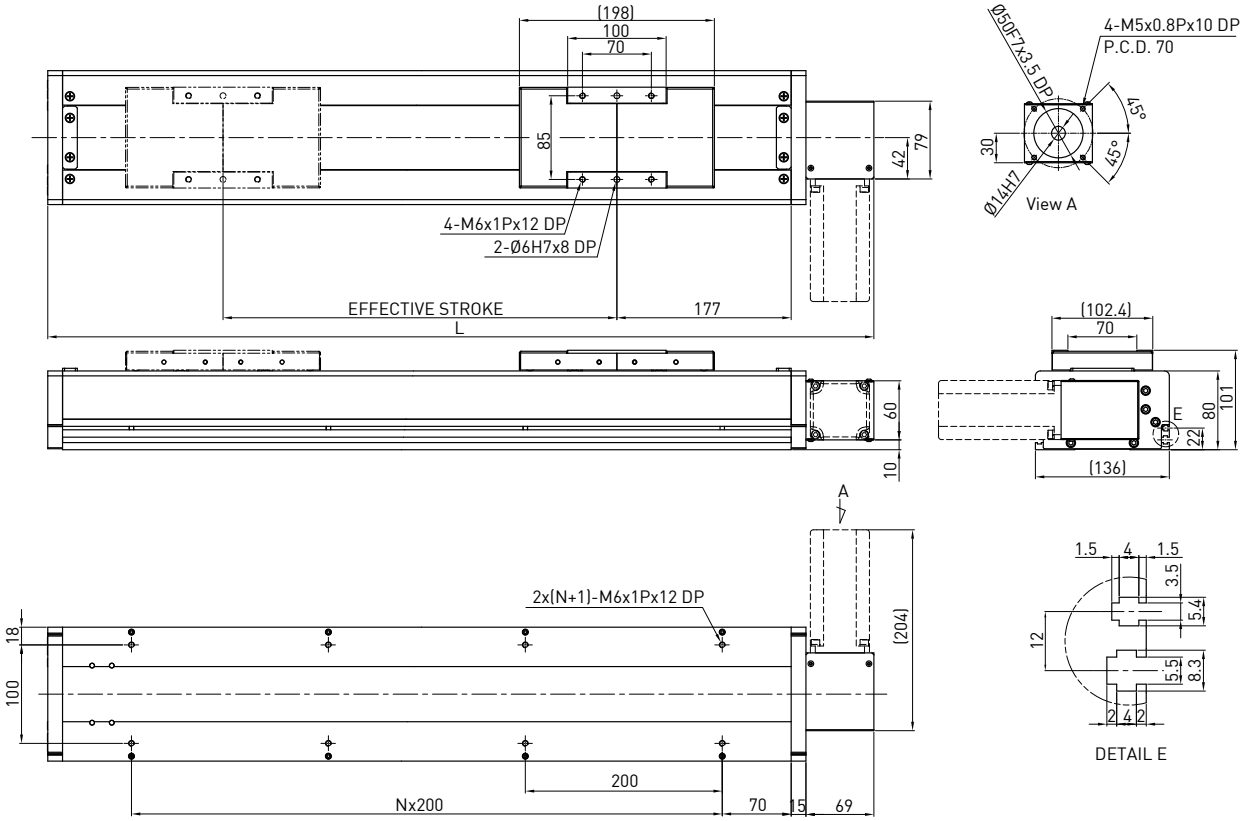
AC motor output		W	200	
Drive			Ballscrew C7(normal)	
Lead		mm	10	20
Rated RPM		RPM	3000	3000
Max linear speed*		mm/sec	500	1000
Rated thrust		N	280	140
Repeatability		mm	±0.02	
Effective stroke		mm	200~1100	
Max load (H)		kg	75	35
Rated dynamic load**	Fyd	N	50	50
	Fzd	N	750	350
	Mxd	N-m	55	60
	Myd	N-m	47	51
	Mzd	N-m	47	51
Permitted load condition***	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads			



* Vibration might occur when the effective stroke is longer than 800mm.
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 the vertical axis or in a special condition, please contact HIWIN.

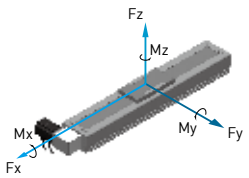
Model Number for KS140B-FL

KS140	B	-120	C	-3000	A	FL	S2	M201
Model	Timing Belt	Pulley Perimeter	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
			C: Normal		A: Standard	FL: Left	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. catalof P.167 M:customer specified None:Without Motor



Effective stroke (mm)	L	N	Weight (kg)
200	639	2	10.4
400	839	3	12.6
600	1039	4	14.8
800	1239	5	17.0
1000	1439	6	19.2
1200	1639	7	21.4
1400	1839	8	23.6
1600	2039	9	25.8
1800	2239	10	28.0
2000	2439	11	30.2
2200	2639	12	32.4
2400	2839	13	34.6
2600	3039	14	36.8
2800	3239	15	39.0
3000	3439	16	41.2

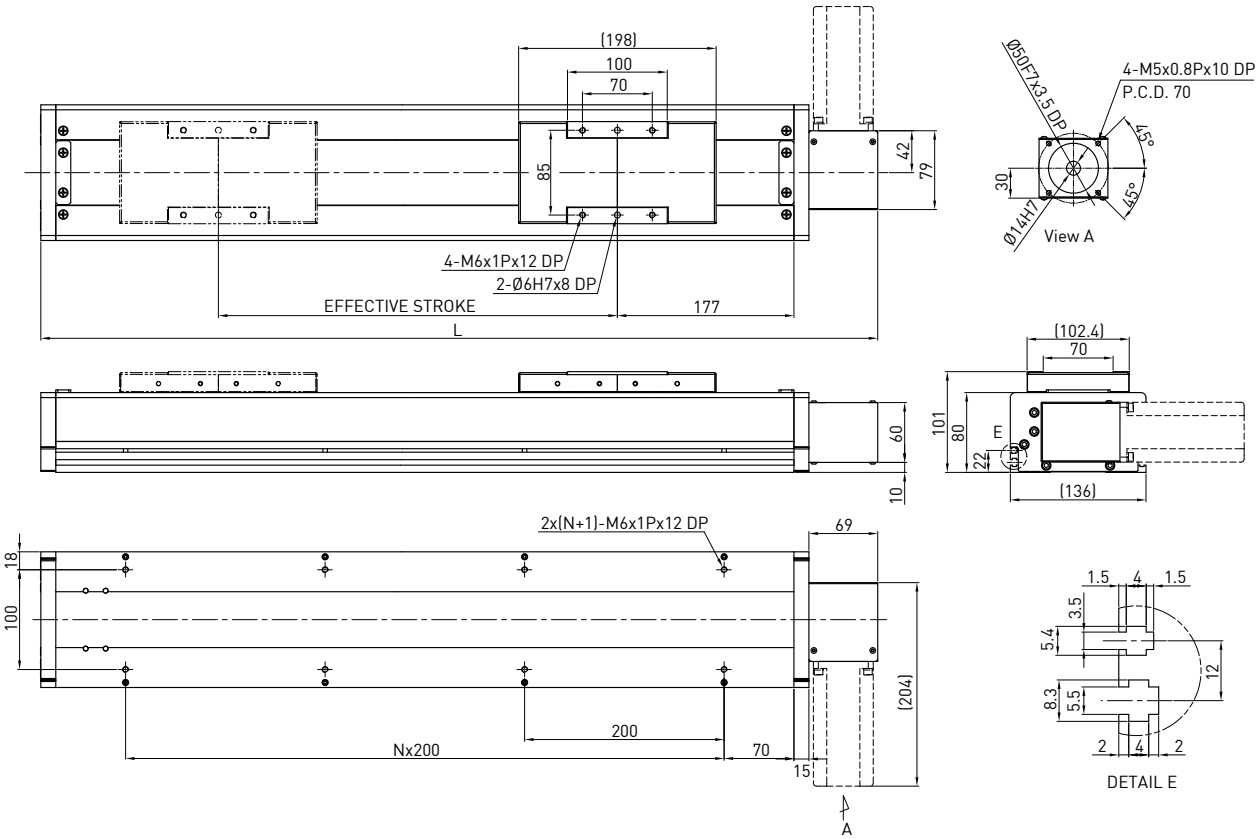
AC motor output		W	200
Drive			Timing Belt
Pulley Perimeter		mm	120
Pulley RPM		RPM	900
Max linear speed		mm/sec	1800
Rated thrust		N	67
Repeatability		mm	±0.1
Effective stroke		mm	200~3000
Max load (H)		kg	15
Rated dynamic load*	Fyd	N	50
	Fzd	N	150
	Mxd	N-m	67
	Myd	N-m	53
	Mzd	N-m	53
Permitted load condition**	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads		



*The load condition is based on 10,000km operation.
**For horizontal applications only. If used in a special condition, please contact HIWIN.

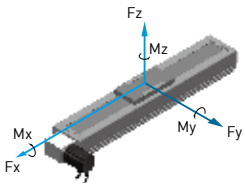
Model Number for KS140B-FR

KS140	B	-120	C	-3000	A	FR	S2	M201
Model	Timing Belt	Pulley Perimeter	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
			C: Normal		A: Standard	FR: Right	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. catalof P.167 M:customer specified None:Without Motor



Effective stroke (mm)	L	N	Weight (kg)
200	639	2	10.4
400	839	3	12.6
600	1039	4	14.8
800	1239	5	17.0
1000	1439	6	19.2
1200	1639	7	21.4
1400	1839	8	23.6
1600	2039	9	25.8
1800	2239	10	28.0
2000	2439	11	30.2
2200	2639	12	32.4
2400	2839	13	34.6
2600	3039	14	36.8
2800	3239	15	39.0
3000	3439	16	41.2

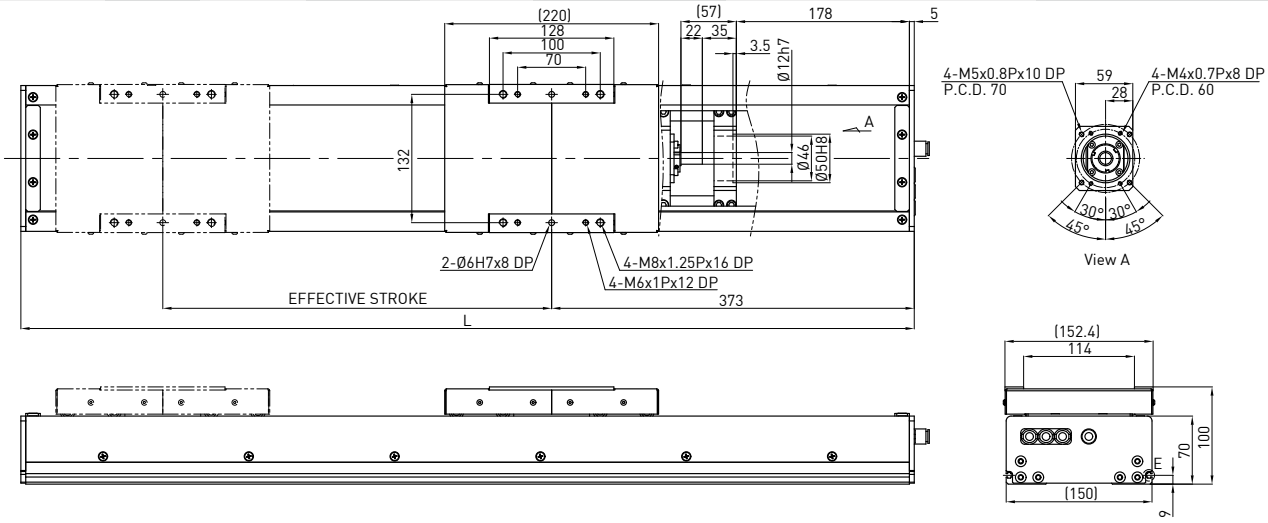
AC motor output		W	200
Drive			Timing Belt
Pulley Perimeter		mm	120
Pulley RPM		RPM	900
Max linear speed		mm/sec	1800
Rated thrust		N	67
Repeatability		mm	±0.1
Effective stroke		mm	200~3000
Max load (H)		kg	15
Rated dynamic load*	Fyd	N	50
	Fzd	N	150
	Mxd	N-m	67
	Myd	N-m	53
	Mzd	N-m	53
Permitted load condition**	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads		

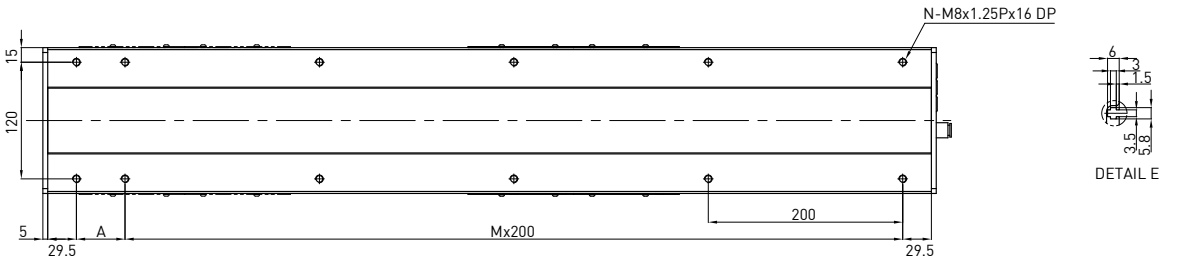


*The load condition is based on 10,000km operation.
**For horizontal applications only. If used in a special condition, please contact HIWIN.

Model Number for KS150-FI

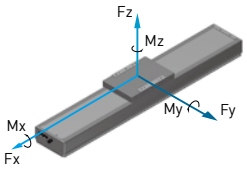
KS150	-10	P	-1250	A	FI	S1	M201
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	10 mm 20 mm	P: Precision C: Normal		A: Standard	FI: Internal	S1: OMRON SX671 S2: OMRON SX674 S3: Panasonic GX-F12A S4: Panasonic GX-F12A-P None: No Limit Switch	M20□, K20□ M40□, K40□ Motor specification: ref. catalof P.167 M:customer specified None:Without Motor





Effective stroke (mm)	L	A	M	N	Weight (kg)
150	669	200	2	8	13.96
200	719	50	3	10	14.84
250	769	100	3	10	15.72
300	819	150	3	10	16.6
350	869	200	3	10	17.48
400	919	50	4	12	18.36
450	969	100	4	12	19.24
500	1019	150	4	12	20.12
550	1069	200	4	12	21
600	1119	50	5	14	21.88
650	1169	100	5	14	22.76
700	1219	150	5	14	23.64
750	1269	200	5	14	24.52
800	1319	50	6	16	25.4
850	1369	100	6	16	26.28
900	1419	150	6	16	27.16
950	1469	200	6	16	28.04
1000	1519	50	7	18	28.92
1050	1569	100	7	18	29.8
1100	1619	150	7	18	30.68
1150	1669	200	7	18	31.56
1200	1719	50	8	20	32.44
1250	1769	100	8	20	33.32

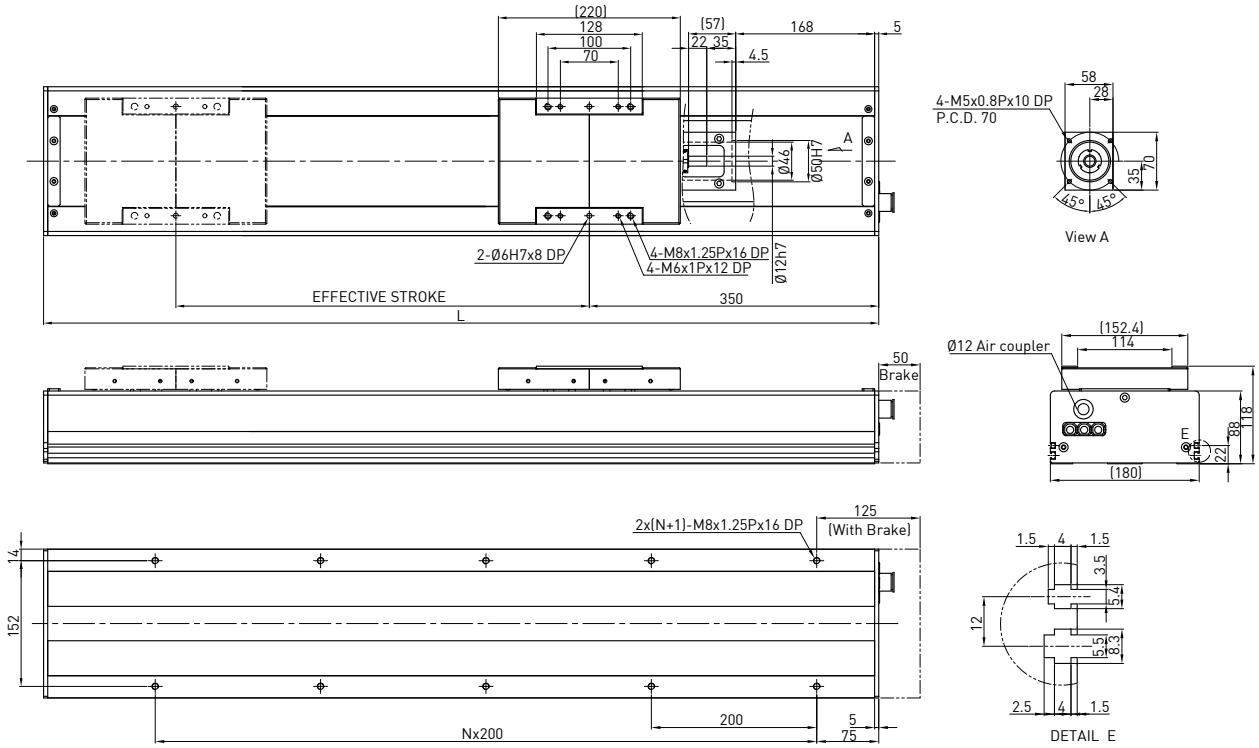
AC motor output		W	200	
Drive			Ballscrew C7(normal)	
Lead		mm	10	20
Rated RPM		RPM	3000	3000
Max linear speed*		mm/sec	500	1000
Rated thrust		N	280	140
Repeatability		mm	±0.02	
Effective stroke		mm	150~1250	
Max load (H)		kg	80	40
Rated dynamic load**	Fyd	N	50	50
	Fzd	N	800	400
	Mxd	N-m	56	63
	Myd	N-m	49	53
	Mzd	N-m	49	53
Permitted load condition***	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads			



* Vibration might occur when the effective stroke is longer than 700mm.
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 the vertical axis or in a special condition, please contact HIWIN.

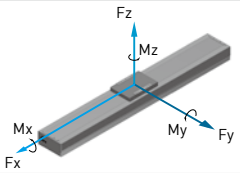
Model Number for KS180-FI

KS180	-20	P	-1200	A	FI	S2	M401
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	10mm 20mm	P: Precision C: Normal		A: Standard	FI: Internal	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. catalof P.167 M:customer specified None:Without Motor



Effective stroke (mm)	L	N	Weight (kg)
200	710	3	16.5
300	810	3	18.1
400	910	4	19.7
500	1010	4	21.3
600	1110	5	22.9
700	1210	5	24.4
800	1310	6	26
900	1410	6	27.6
1000	1510	7	29.2
1100	1610	7	30.8
1200	1710	8	32.3

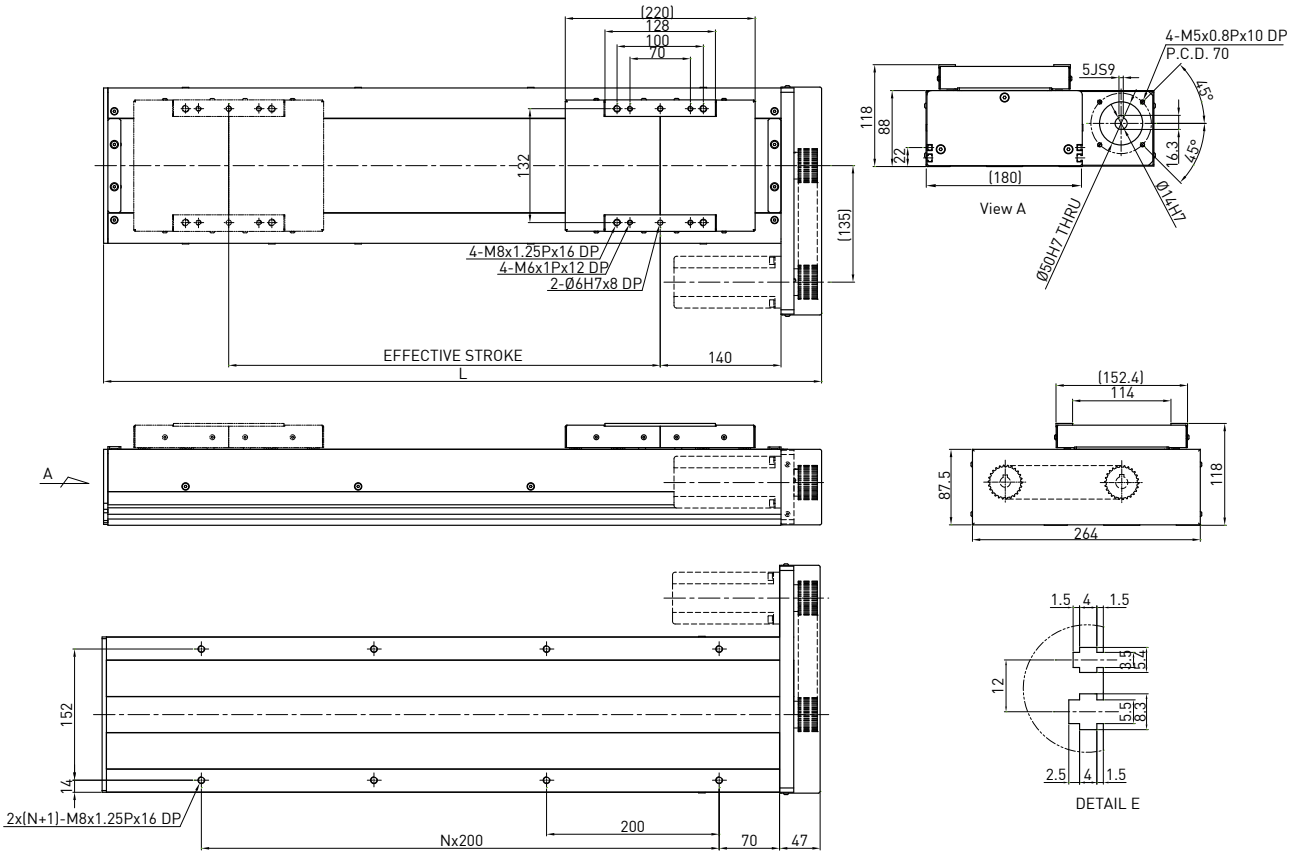
AC motor output		W	400	
Drive			Ballscrew C7(normal)	
Lead		mm	10	20
Rated RPM		RPM	3000	3000
Max linear speed*		mm/sec	500	1000
Rated thrust		N	560	280
Repeatability		mm	±0.02	
Effective stroke		mm	200~1200	
Max load (H)		kg	110	50
Rated dynamic load**	Fyd	N	50	50
	Fzd	N	1100	500
	Mxd	N-m	60	65
	Myd	N-m	45	53
	Mzd	N-m	45	53
Permitted load condition***	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads			



* Vibration might occur when the effective stroke is longer than 800mm.
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 the vertical axis or in a special condition, please contact HIWIN.

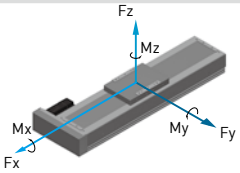
Model Number for KS180-FL

KS180	-20	P	-1200	A	FL	S2	M401
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	10mm 20mm	P: Precision C: Normal		A: Standard	FL: Left	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. catalof P.167 M:customer specified None:Without Motor



Effective stroke (mm)	L	N	Weight (kg)
200	532	1	11.3
300	632	2	12.3
400	732	2	13.3
500	832	3	14.3
600	932	3	15.3
700	1032	4	16.3
800	1132	4	17.3
900	1232	5	18.3
1000	1332	5	19.3
1100	1432	6	20.3
1200	1532	6	21.3

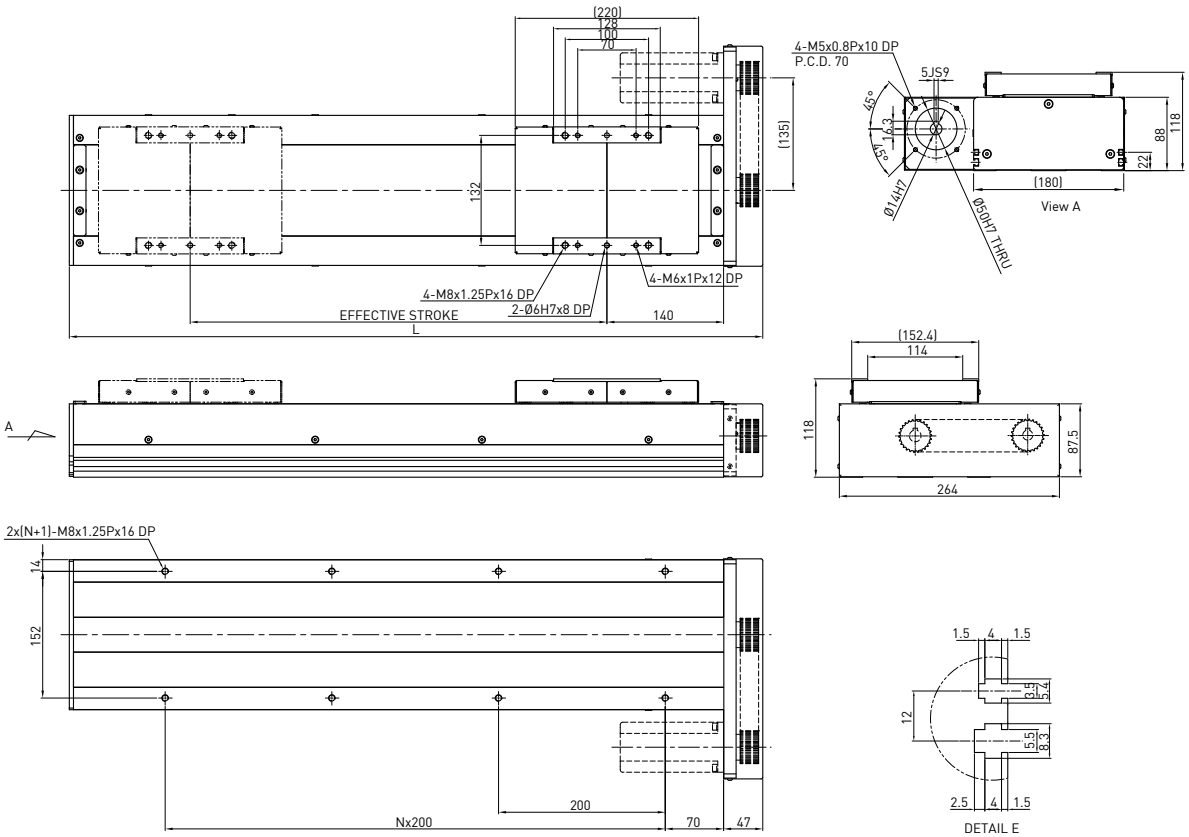
AC motor output		W	400	
Drive			Ballscrew C7(normal)	
Lead		mm	10	20
Rated RPM		RPM	3000	3000
Max linear speed*		mm/sec	500	1000
Rated thrust		N	560	280
Repeatability		mm	±0.02	
Effective stroke		mm	200~1200	
Max load (H)		kg	110	50
Rated dynamic load**	Fyd	N	50	50
	Fzd	N	1100	500
	Mxd	N-m	60	65
	Myd	N-m	45	53
	Mzd	N-m	45	53
Permitted load condition***	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads			



* Vibration might occur when the effective stroke is longer than 800mm.
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 the vertical axis or in a special condition, please contact HIWIN.

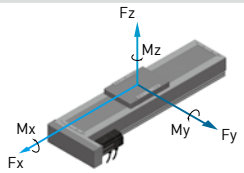
Model Number for KS180-FR

KS180	-20	P	-1200	A	FR	S2	M401
Model	Lead	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
	10mm 20mm	P: Precision C: Normal		A: Standard	FR: Right	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. catalof P.167 M:customer specified None:Without Motor



Effective stroke (mm)	L	N	Weight (kg)
200	532	1	11.3
300	632	2	12.3
400	732	2	13.3
500	832	3	14.3
600	932	3	15.3
700	1032	4	16.3
800	1132	4	17.3
900	1232	5	18.3
1000	1332	5	19.3
1100	1432	6	20.3
1200	1532	6	21.3

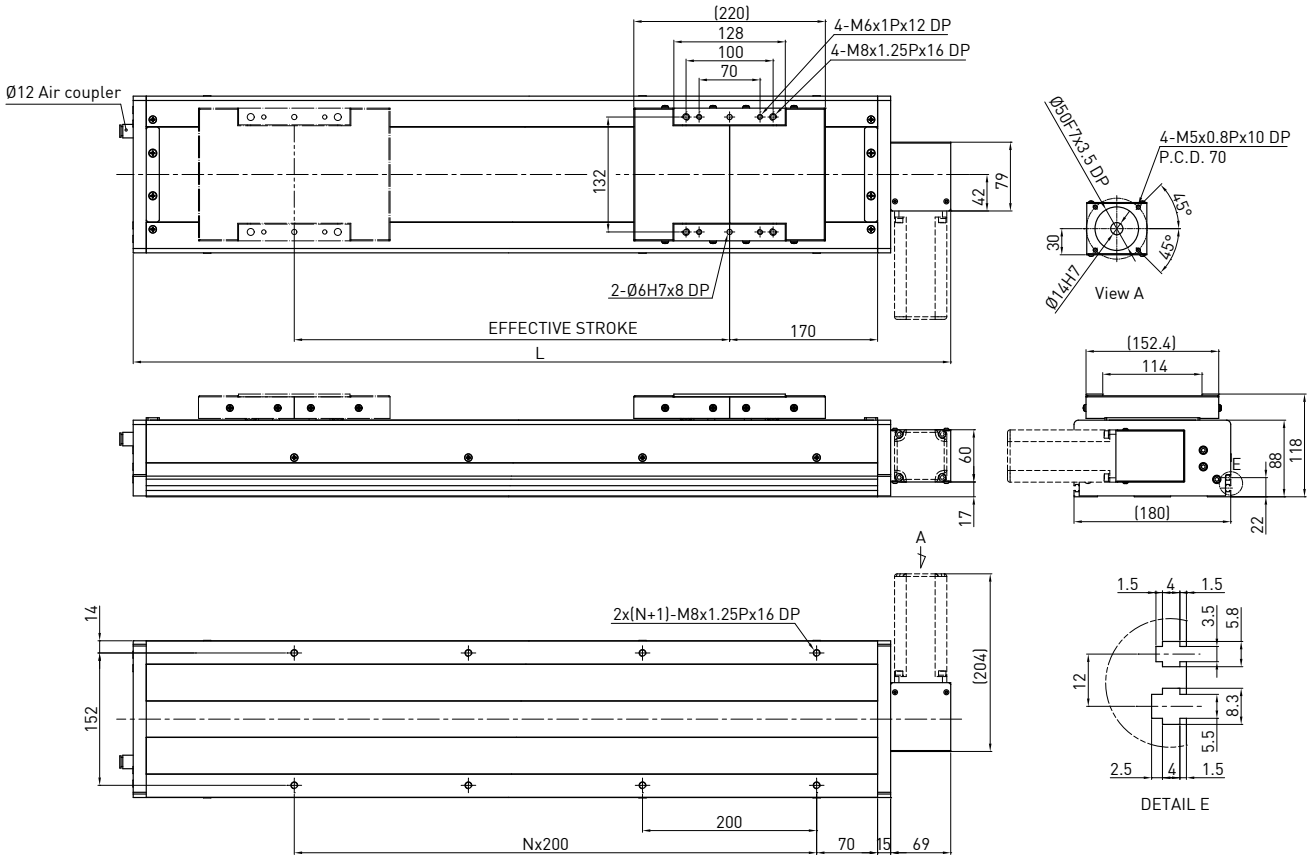
AC motor output		W	400	
Drive			Ballscrew C7(normal)	
Lead		mm	10	20
Rated RPM		RPM	3000	3000
Max linear speed*		mm/sec	500	1000
Rated thrust		N	560	280
Repeatability		mm	±0.02	
Effective stroke		mm	200~1200	
Max load (H)		kg	110	50
Rated dynamic load**	Fyd	N	50	50
	Fzd	N	1100	500
	Mxd	N-m	60	65
	Myd	N-m	45	53
	Mzd	N-m	45	53
Permitted load condition***	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads			



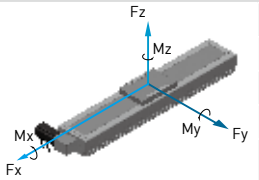
* Vibration might occur when the effective stroke is longer than 800mm.
The maximum speed should be decreased by 15% for every 100mm of increased stroke.
** The load condition is based on 10,000km operation.
*** If used on the vertical axis or in a special condition, please contact HIWIN.

Model Number for KS180B-FL

KS180	B	-120	C	-3000	A	FL	S2	M401
Model	Timing Belt	Pulley Perimeter	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
			C: Normal		A: Standard	FL: Left	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. catalof P.167 M:customer specified None:Without Motor



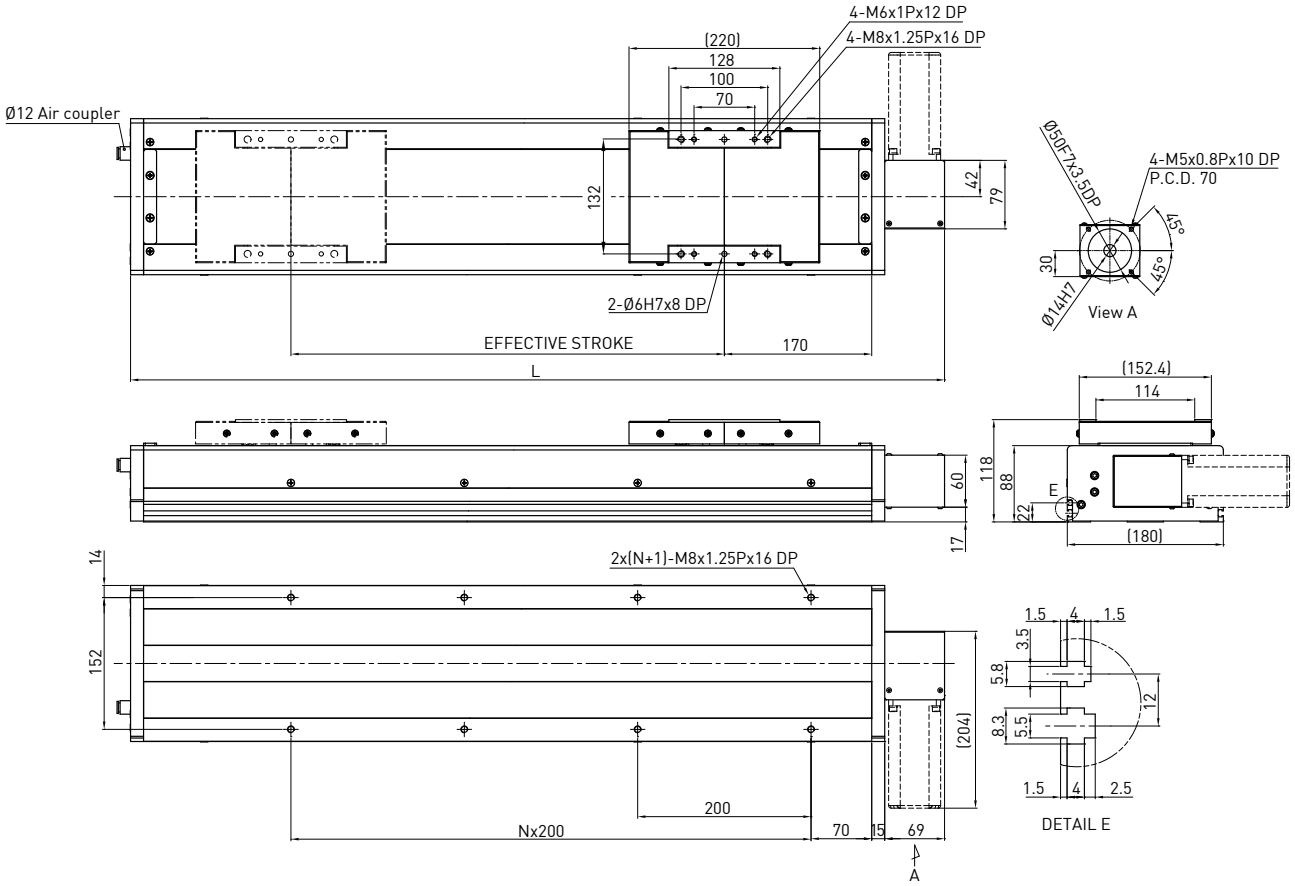
Effective stroke (mm)	L	N	Weight (kg)
200	639	2	14.2
400	839	3	17.0
600	1039	4	19.8
800	1239	5	22.6
1000	1439	6	25.4
1200	1639	7	28.2
1400	1839	8	31.0
1600	2039	9	33.8
1800	2239	10	36.6
2000	2439	11	39.4
2200	2639	12	42.2
2400	2839	13	45.0
2600	3039	14	47.8
2800	3239	15	50.6
3000	3439	16	53.4

AC motor output		W	400
Drive			Timing Belt
Pulley Perimeter		mm	120
Pulley RPM		RPM	900
Max linear speed		mm/sec	1800
Rated thrust		N	133
Repeatability		mm	±0.1
Effective stroke		mm	200~3000
Max load (H)		kg	30
Rated dynamic load*		Fyd	N	50
		Fzd	N	300
		Mxd	N-m	70
		Myd	N-m	55
		Mzd	N-m	55
Permitted load condition**	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads		

*The load condition is based on 10,000km operation.
**For horizontal applications only. If used in a special condition, please contact HIWIN.

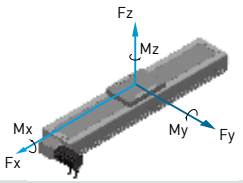
Model Number for KS180B-FR

KS180	B	-120	C	-3000	A	FR	S2	M401
Model	Timing Belt	Pulley Perimeter	Precision Grade	Effective Stroke	Slider Type	Motor Flange	Limit Switch	Motor
			C: Normal		A: Standard	FR: Right	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. catalof P.167 M:customer specified None:Without Motor



Effective stroke (mm)	L	N	Weight (kg)
200	639	2	14.2
400	839	3	17.0
600	1039	4	19.8
800	1239	5	22.6
1000	1439	6	25.4
1200	1639	7	28.2
1400	1839	8	31.0
1600	2039	9	33.8
1800	2239	10	36.6
2000	2439	11	39.4
2200	2639	12	42.2
2400	2839	13	45.0
2600	3039	14	47.8
2800	3239	15	50.6
3000	3439	16	53.4

AC motor output		W	400
Drive			Timing Belt
Pulley Perimeter		mm	120
Pulley RPM		RPM	900
Max linear speed		mm/sec	1800
Rated thrust		N	133
Repeatability		mm	±0.1
Effective stroke		mm	200~3000
Max load (H)		kg	30
Rated dynamic load*	Fyd	N	50
	Fzd	N	300
	Mxd	N-m	70
	Myd	N-m	55
	Mzd	N-m	55
Permitted load condition**	$\frac{Fy}{Fyd}+\frac{Fz}{Fzd}+\frac{Mx}{Mxd}+\frac{My}{Myd}+\frac{Mz}{Mzd}\leq 1$ Fy, Fz, Mx, My, Mz are working loads		

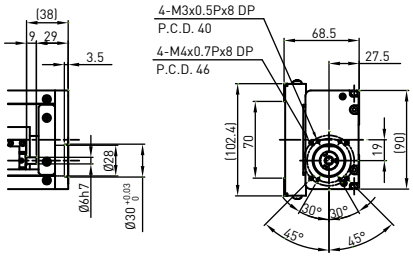


*The load condition is based on 10,000km operation.
**For horizontal applications only. If used in a special condition, please contact HIWIN.

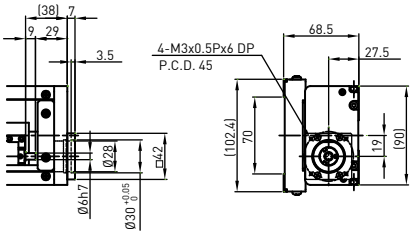
6.4 Motor Adaptor Flange List

KS90

Motor Adaptor Flange F0

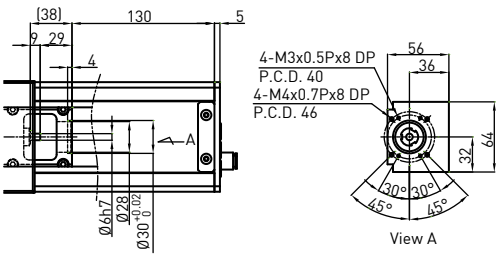


Motor Adaptor Flange F1

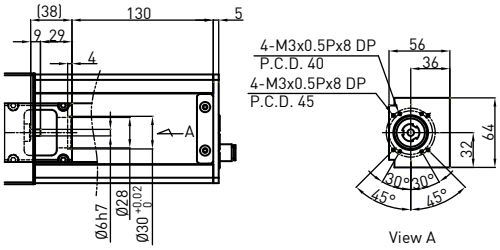


KS100

Motor Adaptor Flange FI

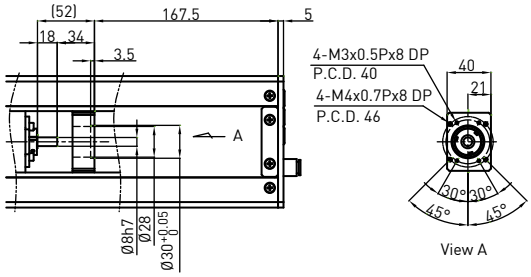


Motor Adaptor Flange F1



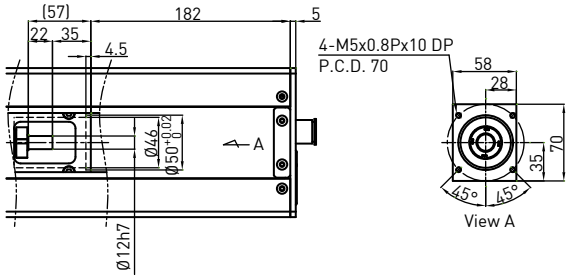
KS120

Motor Adaptor Flange FI



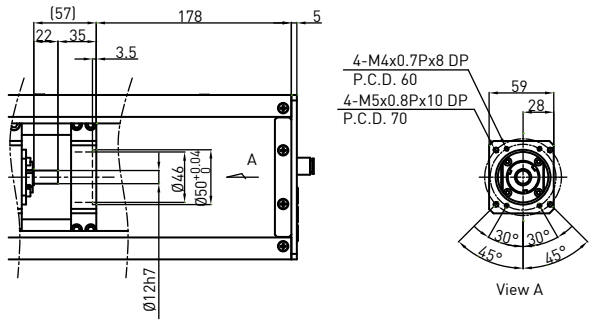
KS140

Motor Adaptor Flange FI



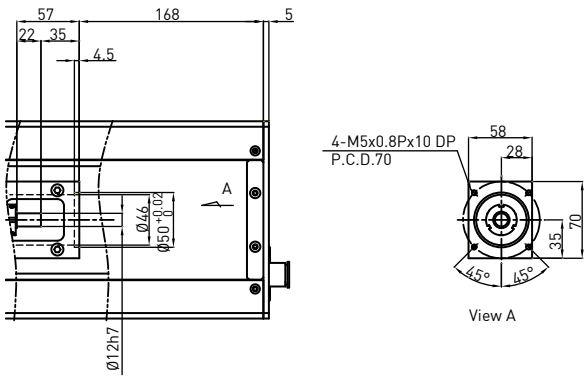
KS150

Motor Adaptor Flange FI



KS180

Motor Adaptor Flange FI



6.5 Motor Housing and Motor Adaptor Flange(KS Series)

HIWIN Mikrosystem Servo Motor

Motor Output	Motor	Flange Selection						Drive	Remarks
		KS90	KS100	KS120	KS140	KS150	KS180		
50W	FRLS052□□A4□	F1	F1	F1	-	-	-	D2T-0123-S-A□	220V
100W	FRLS102□□A4□	F1	F1	F1	-	-	-		220V
200W	FRLS202□□06□	-	-	-	FI	FI	FI	D2T-0423-S-B□	220V
400W	FRLS402□□06□	-	-	-	FI	FI	FI		220V
750W	FRMS752□□08□	-	-	-	-	-	-	D2-T1023-S-C□	220V

Mitsubishi Servo Motor

Motor Output	Motor	Flange Selection						Drive	Remarks
		KS90	KS100	KS120	KS140	KS150	KS180		
50W	HF-KP053	F0	FI	FI	-	-	-	MR-J3S-10A	220V
100W	HF-KP13	F0	FI	FI	-	-	-	MR-J3S-10A	220V
200W	HF-KP23	-	-	-	FI	FI	FI	MR-J3S-20A	220V
400W	HF-KP43	-	-	-	FI	FI	FI	MR-J3S-40A	220V
750W	HF-KP73	-	-	-	-	-	-	MR-J3S-70A	220V

Panasonic Servo Motor

Motor Output	Motor	Flange Selection						Drive	Remarks
		KS90	KS100	KS120	KS140	KS150	KS180		
50W	MSMD5AZP1	F1	F1	F1	-	-	-	MADDT1105	110V
50W	MSMD5AZP1	F1	F1	F1	-	-	-	MADDT1205	220V
100W	MSMD011P1	F1	F1	F1	-	-	-	MADDT1107	110V
100W	MSMD012P1	F1	F1	F1	-	-	-	MADDT1205	220V
200W	MSMD021P1	-	-	-	-	-	-	MADDT2110	110V
200W	MSMD022P1	-	-	-	-	-	-	MADDT1207	220V
400W	MSMD041P1	-	-	-	-	-	-	MADDT3120	110V
400W	MSMD042P1	-	-	-	-	-	-	MADDT2210	220V
750W	MSMD082S1	-	-	-	-	-	-	MADDT3520	220V

Yasukawa Servo Motor

Motor Output	Motor	Flange Selection						Drive	Remarks
		KS90	KS100	KS120	KS140	KS150	KS180		
50W	SGMAV-A5ADA61	F0	FI	FI	-	-	-	SGDV-R70A01A	with key
50W	SGMAV-A5ADA2C	F0	FI	FI	-	-	-	SGDV-R70A01A	no key
50W	SGMAV-A5ADA21	F0	FI	FI	-	-	-	SGDV-R70A01A	no key
100W	SGMAV-01ADA21	F0	FI	F0	-	-	-	SGDV-R90A01A	
200W	SGMAV-02ADA21	-	-	-	FI	FI	FI	SGDV-1R6A01A	
400W	SGMAV-04ADA21	-	-	-	FI	FI	FI	SGDV-2R8A01A	
750W	SGMAV-08ADA21	-	-	-	-	-	-	SGDV-5R5A01A	