

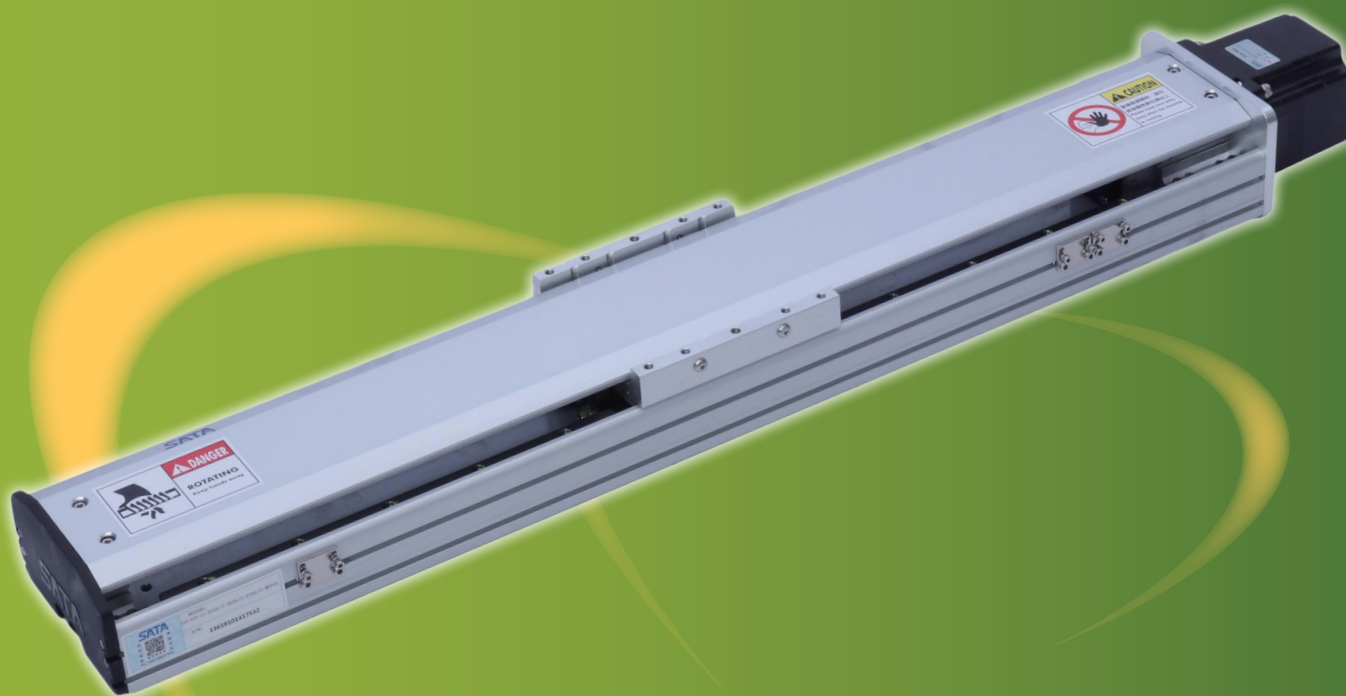
SATA

自帶馬達螺桿

Ball Screw Type With Motor

Series

General



M50D- YL10- S100- M2 - TM 42

型號
Model

孔型與導程
Hole type and lead

行程
Stroke

馬達方向
Motor direction

驅動器規格
Driver model

馬達規格
Motor spec

Y 底部牙孔
Thread hole

TO:T OPEN 驅動器
T OPEN Driver
TM:T STEP 驅動器
T STEP Driver
TS:T SERVO 驅動器
T SERVO Driver

M2 馬達外置
M3 馬達外置右側
M4 馬達外置左側
M5 馬達外置上方
M6 馬達外置下方

Motor outside position
Motor outside ,rightward position
Motor outside ,rightward position
Motor outside ,upper position
Motor outside ,lower position

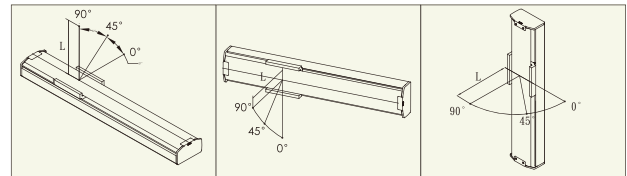
M50D規格表(M50D Specification)

馬達出力 Step motor output		42步進	
重複定位精度 Repeatability(mm)		±0.01	
滾珠絲桿外徑 B.S(Ø)		Ø12	
滾珠螺桿導程 Lead(mm)		5	10
最快速度 Maximum speed(mm/sec)		100	200
最大載重 Maximum payload(kg)	水平使用 (H)	9	4.6
	垂直使用 (V)	2.5	1.2
額定推力 Rated thrus(N)		156	75
行程 Stroke(mm)		100-800 50間隔 (interval)	

"此款型號不建議當多軸負載軸"

This model suggest not be used as load axis of multi axes.

線性滑軌 24x8.5-1 支

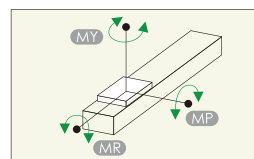


水平安裝應用: 單位Unit:mm Horizontal use					牆面安裝應用: 單位Unit:mm Wall installation use					垂直安裝應用: 單位Unit:mm During vertical use				
導程 Lead	荷重 Payload	0°	45°	90°	導程 Lead	荷重 Payload	0°	45°	90°	導程 Lead	荷重 Payload	0°	45°	90°
Lead 0	1.4kg	276	136	483	Lead 0	1.4kg	472	233	148	Lead 0	1.2kg	202	80	202
	3.0kg	150	96	336		6.0kg	324	145	100					
	4.6kg	80	72	221		4.6kg	193	76	72					
Lead 5	3.0kg	270	130	432	Lead 5	6.0kg	496	242	151	Lead 5	2.5kg	117	43	117
	6.0kg	148	90	310		6.0kg	306	123	81					
	9.0kg	79	69	213		9.0kg	133	38	47					

*滑塊表面中心到搬送物重心的距離(僅供參考)

Distance center of slider top to center of gravity of object being transported (For reference only)

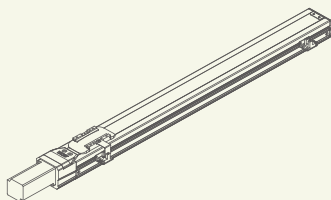
靜態容許負載慣量
Static Loading Moment



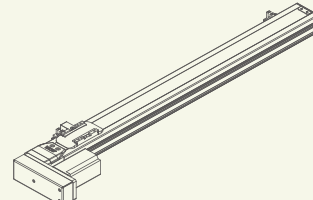
(單位:N.m) (Unit:N.m)

水平使用時 Static Loading Moment

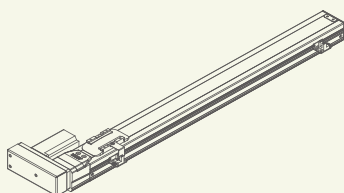
MY	60
MP	65
MR	62



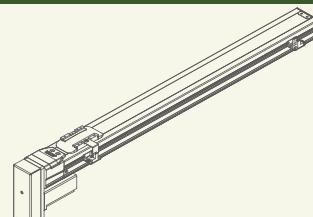
M2



M3

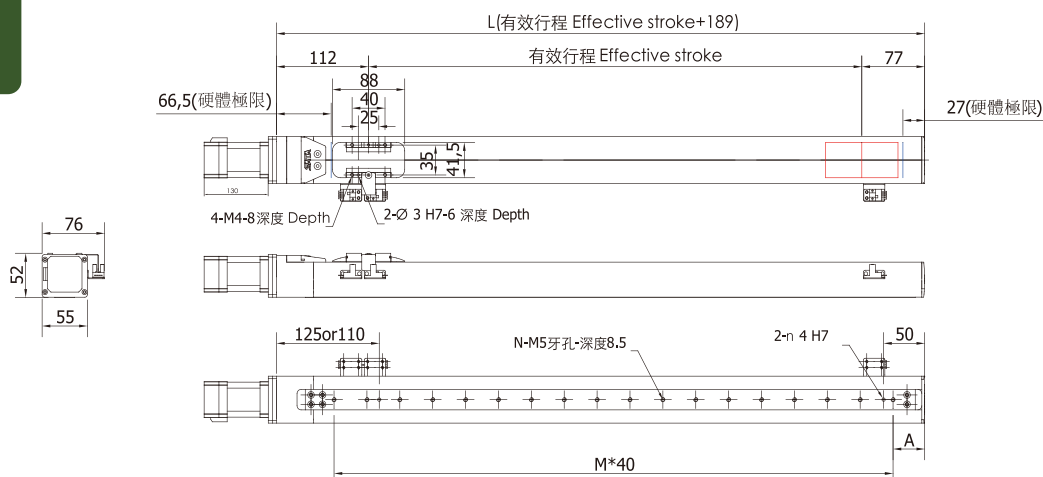


M4



M6

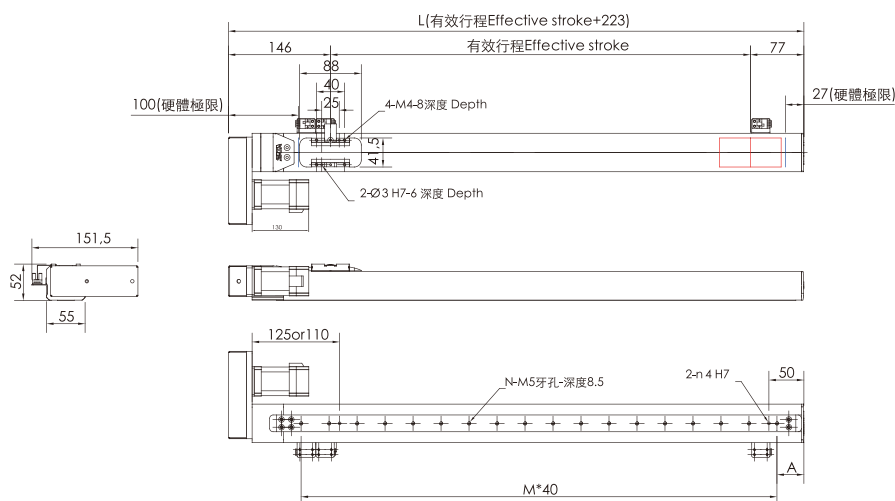
M2



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	289	339	389	439	489	539	589	639	689	739	789	839	889	939	989
A	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5
M	4	6	7	8	9	11	12	13	14	16	17	18	19	21	22
N	5	7	8	9	10	12	13	14	15	17	18	19	20	22	23
重量(kg)	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

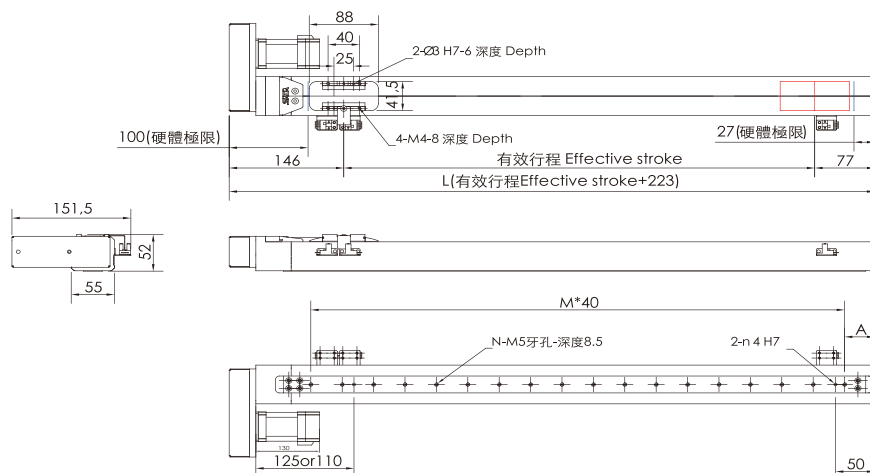
M3



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	323	373	423	473	523	573	623	673	723	773	823	873	923	973	1023
A	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5
M	4	6	7	8	9	11	12	13	14	16	17	18	19	21	22
N	5	7	8	9	10	12	13	14	15	17	18	19	20	22	23
重量(kg)	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice. "此款型號不得當多軸負載軸"

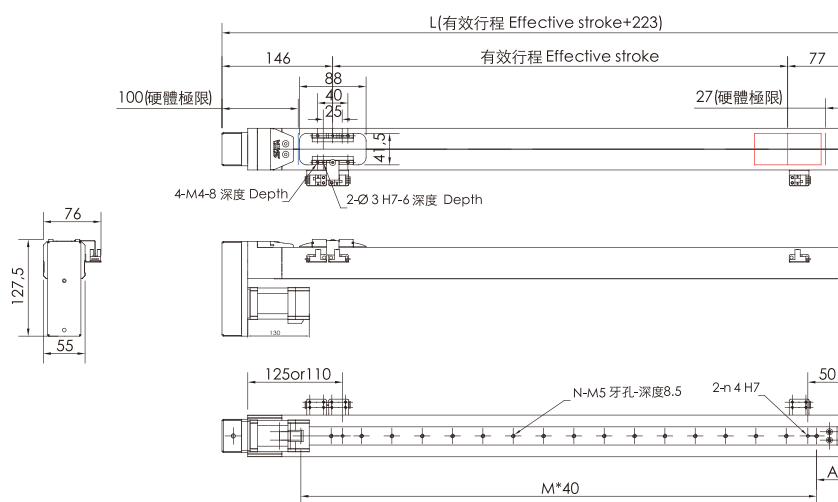
M4



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	323	373	423	473	523	573	623	673	723	773	823	873	923	973	1023
A	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5
M	4	6	7	8	9	11	12	13	14	16	17	18	19	21	22
N	5	7	8	9	10	12	13	14	15	17	18	19	20	22	23
重量(kg)	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

M6



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	323	373	423	473	523	573	623	673	723	773	823	873	923	973	1023
A	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5	28.5	38.5
M	4	6	7	8	9	11	12	13	14	16	17	18	19	21	22
N	5	7	8	9	10	12	13	14	15	17	18	19	20	22	23
重量(kg)	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

M60D - YL10- S100- M2- TM 42

型號
Model

孔型與導程
Hole type and lead

行程
Stroke

馬達方向
Motor direction

驅動器規格
Driver model

馬達規格
Motor spec

T 底部通孔
Through hole

Y 底部牙孔
Thread hole

M2 馬達外置

M3 馬達外置右側

M4 馬達外置左側

M5 馬達外置上方

M6 馬達外置下方

Motor outside position

Motor outside ,rightward position

Motor outside ,rightward position

Motor outside ,upper position

Motor outside ,lower position

TO:T OPEN驅動器

T OPEN Driver

TM:T STEP驅動器

T STEP Driver

TS:T SERVO驅動器

T SERVO Driver

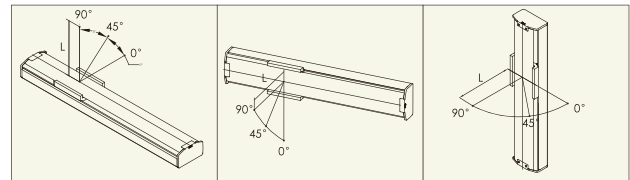
M60D規格表(M60D Specification)

馬達出力 Step motor output		42步進	
重複定位精度 Repeatability(mm)		±0.01	
滾珠絲桿外徑 B.S(Ø)		Ø12	
滾珠螺桿導程 Lead(mm)		5	10
最快速度 Maximun speed(mm/sec)		100	200
最大載重 Maximun payload(kg)	水平使用 (H)	13	6.5
	垂直使用 (v)	5	2.5
額定推力 Rated thrus(N)		156	75
行程 Stroke(mm)		100-800 50間隔 (interval)	

"此款型號不建議當多軸負載軸"

This model suggest not be used as load axis of multi axes.

線性滑軌 42x9.5-1 支

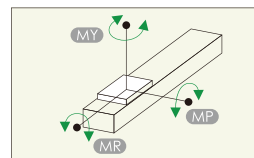


水平安裝應用:單位Unit:mm Horizontal Use				牆面安裝應用:單位Unit:mm Wall Installation Use				垂直安裝應用:單位Unit:mm During vertical Use			
導程 Lead	荷重 Payload	0°	45°	90°	導程 Lead	荷重 Payload	0°	45°	90°	導程 Lead	荷重 Payload
10	4.0kg	276	136	483	10	4.0kg	472	233	148	10	2.5kg
	5.3kg	150	96	336		5.3kg	324	145	100		213
	6.5kg	80	72	221		6.5kg	193	76	72		130
	7.0kg	270	130	432		7.0kg	496	242	151		78
100	10kg	148	90	310	100	10kg	306	123	81	100	163
	13kg	79	69	213		13kg	133	38	47		153

*滑塊表面中心到搬送物重心的距離(僅供參考)

Distance center of slider top to center of gravity of object being transported (For reference only)

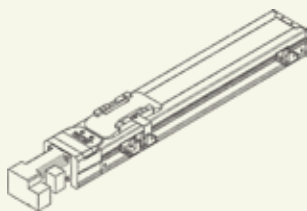
靜態容許負載慣量
Stdc Loading Moment



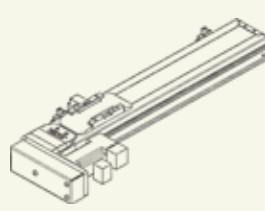
(單位:N.m) (Unit:N.m)

水平使用時 Static Loading Moment

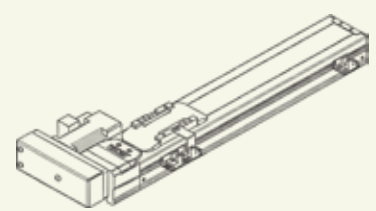
MY	60
MP	65
MR	62



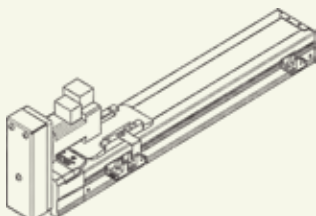
M2



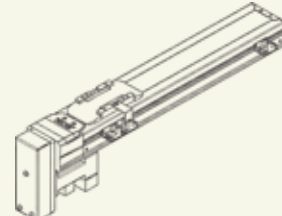
M3



M4



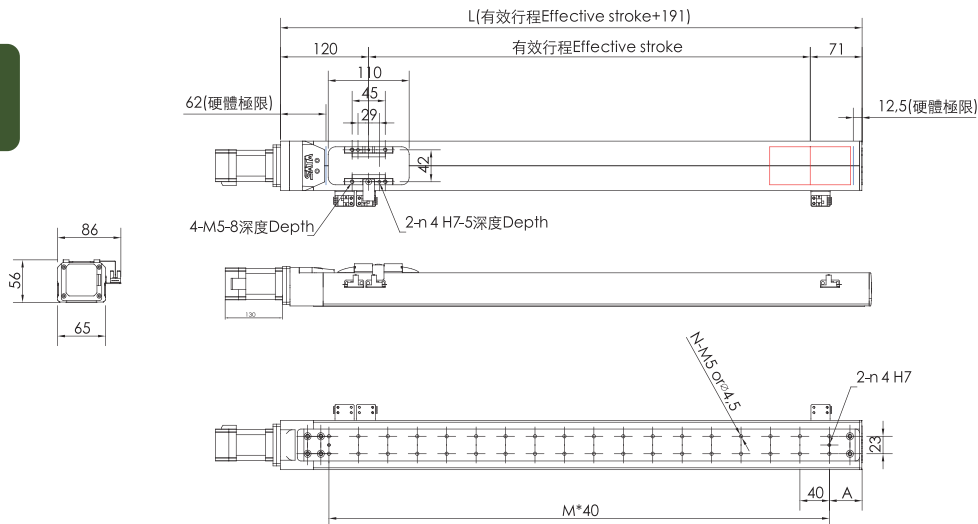
M5



M6



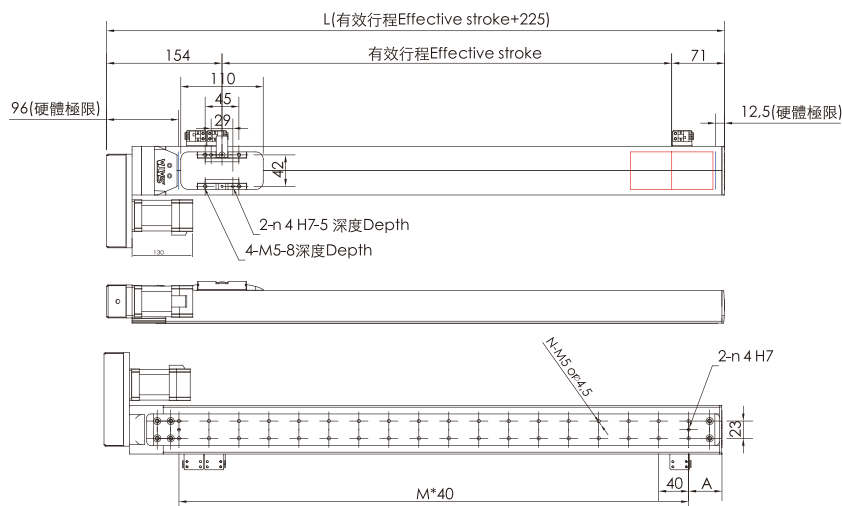
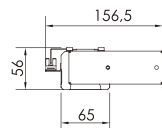
M2



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	291	341	391	441	491	541	591	641	691	741	791	841	891	941	991
A	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5
M	4	6	7	8	9	11	12	13	14	16	17	18	19	21	22
N	10	14	16	18	20	24	26	28	30	34	36	38	40	44	46
重量(kg)	2.4	2.6	2.8	2.8	3	3.2	3.4	3.6	3.8	4	4.2	4.4	4.6	4.8	5.2

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

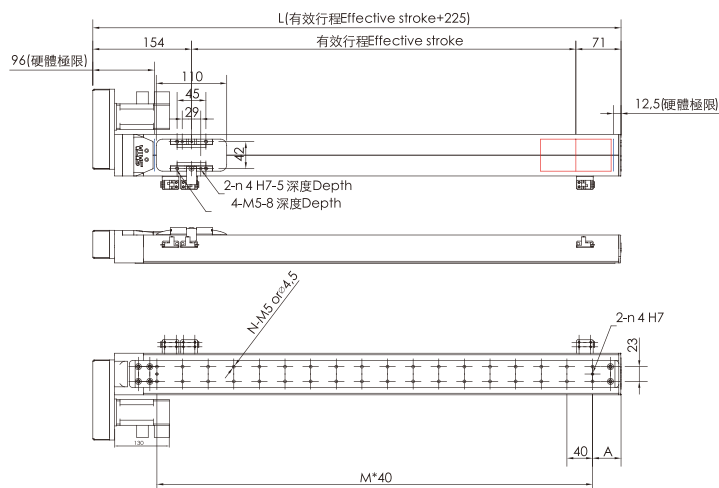
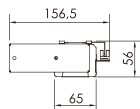
M3



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	325	325	375	425	475	525	575	625	675	725	775	825	875	925	975
A	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5
M	4	6	7	8	9	11	12	13	14	16	17	18	19	21	22
N	10	14	16	18	20	24	26	28	30	34	36	38	40	44	46
重量(kg)	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

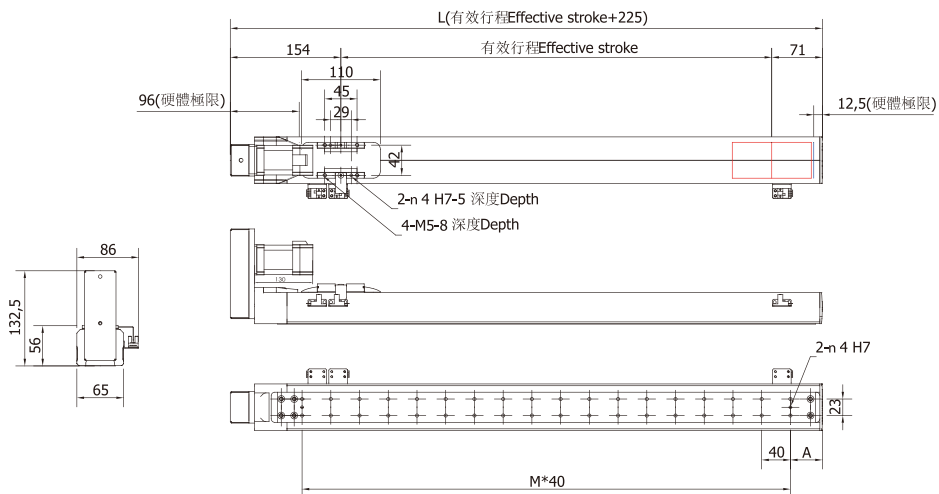
M4



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	325	325	375	425	475	525	575	625	675	725	775	825	875	925	975
A	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5
M	4	6	7	8	9	11	12	13	14	16	17	18	19	21	22
N	10	14	16	18	20	24	26	28	30	34	36	38	40	44	46
重量(kg)	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

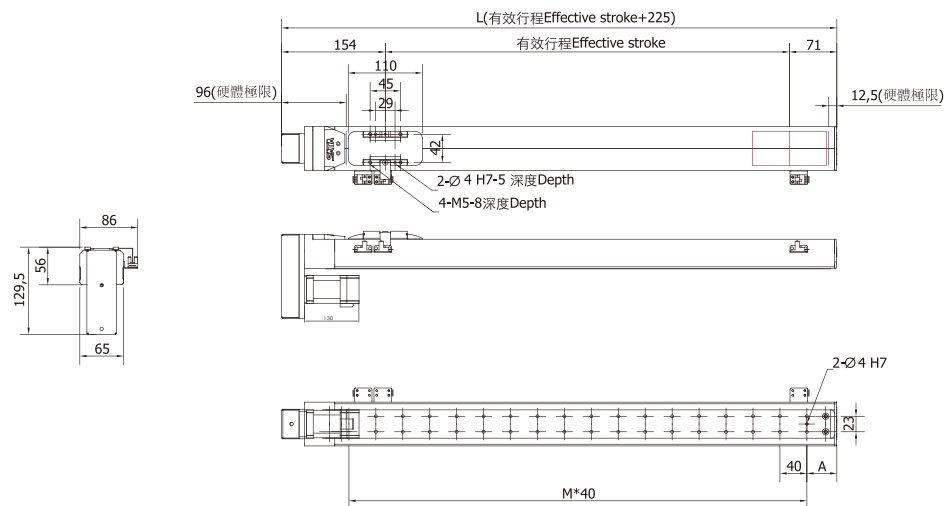
M5



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	325	325	375	425	475	525	575	625	675	725	775	825	875	925	975
A	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5
M	4	6	7	8	9	11	12	13	14	16	17	18	19	21	22
N	10	14	16	18	20	24	26	28	30	34	36	38	40	44	46
重量(kg)	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

M6



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800
L	325	325	375	425	475	525	575	625	675	725	775	825	875	925	975
A	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5	34.5	44.5
M	4	6	7	8	9	11	12	13	14	16	17	18	19	21	22
N	10	14	16	18	20	24	26	28	30	34	36	38	40	44	46
重量(kg)	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

M80D-YL10- S100 - M2 - TM 42

型號 Model 孔型與導程 Hole type and lead 行程 Stroke 馬達方向 Motor direction 驅動器規格 Driver model 馬達規格 Motor spec

T 底部通孔
Through hole

Y 底部牙孔
Thread hole

TO:T OPEN驅動器
T OPEN Driver

TM:T STEP驅動器
T STEP Driver

TS:T SERVO驅動器
T SERVO Driver

M2 馬達外置

Motor outside position

M3 馬達外置右側

Motor outside ,rightward position

M4 馬達外置左側

Motor outside ,rightward position

M5 馬達外置上方

Motor outside ,upper position

M6 馬達外置下方

Motor outside ,lower position

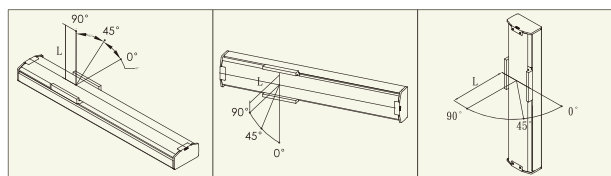
M80D規格表(M80D Specification)

馬達出力 Step motor output	42步進			
重複定位精度 Repeatability(mm)	±0.01			
滾珠絲桿外徑 B.S(Ø)	Ø16			
滾珠絲桿導程 Lead(mm)	5	10	16	20
最快速度 Maximum speed(mm/sec)	100	100	160	200
最大載重 Maximum payload(kg)	水平使用 (H)	28	14	10
	垂直使用 (V)	9.4	5.6	3.6
額定推力 Rated thrus(N)	580	270	130	72
行程 Stroke(mm)	100-950 50間隔 (interval)			

"此款型號不建議當多軸負載軸"

This model suggest not be used as load axis of multi axes.

線性滑軌 15x12.5-1 支



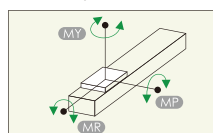
水平安裝應用: 單位Unit:mm Horizontal use					牆面安裝應用: 單位Unit:mm Wall installation use					垂直安裝應用: 單位Unit:mm During vertical use				
導程 Lead	荷重 Payload	0°	45°	90°	導程 Lead	荷重 Payload	0°	45°	90°	導程 Lead	荷重 Payload	0°	45°	90°
Lead20	4.5kg	276	136	483	Lead20	4.5kg	462	223	146	Lead20	2.8kg	320	140	310
	6kg	150	96	336		6kg	334	140	96					
Lead16	7.5kg	80	72	221	Lead16	7.5kg	213	76	73	Lead16	3.6kg	325	112	322
	6kg	270	130	432		6kg	481	242	150					
Lead10	8kg	148	90	310	Lead10	8kg	306	123	80	Lead10	5.6kg	309	108	301
	10kg	79	69	213		10kg	136	36	42					
Lead5	8kg	276	136	483	Lead5	8kg	524	166	83	Lead5	9.4kg	296	100	299
	10kg	150	96	336		10kg	382	96	13					
Lead5	14kg	80	72	221	Lead5	14kg	121	6	0	Lead5				
	16kg	270	130	432		16kg	623	41	36					
Lead5	20kg	148	90	310	Lead5	20kg	362	12	7					
	28kg	79	69	1220		28kg	80	0	0					

*滑塊表面中心到搬送物重心的距離(僅供參考)

Distance center of slider top to center of gravity of object being transported (For reference only)

靜態容許負載慣量

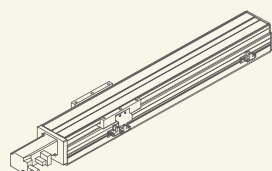
Static Loading Moment



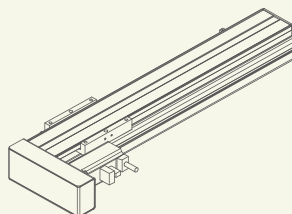
(單位:N.m) (Unit:N.m)

水平使用時 Static Loading Moment

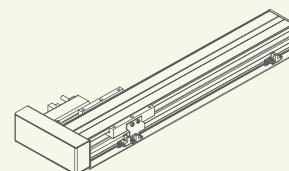
MY	60
MP	65
MR	62



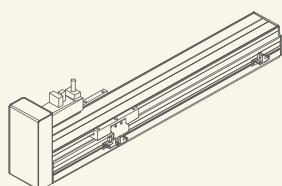
M2



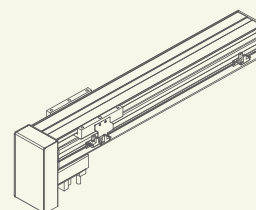
M3



M4



M5

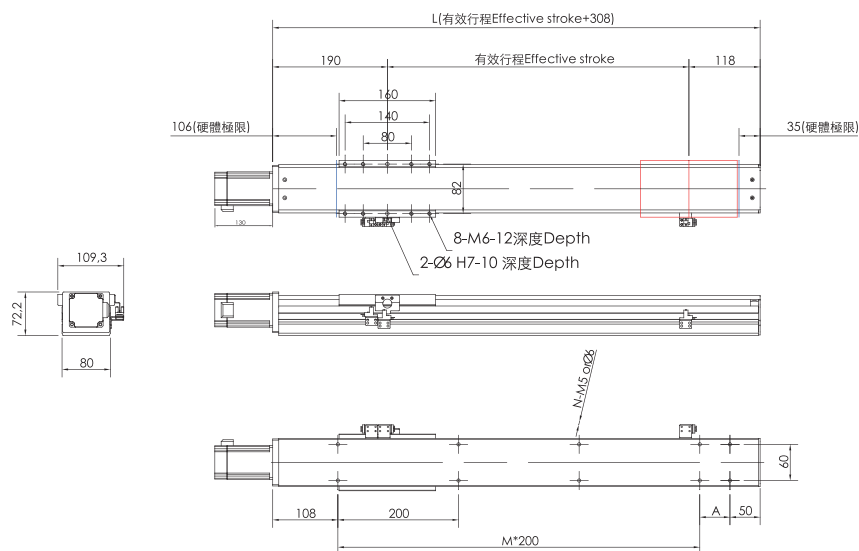


M6

M80D

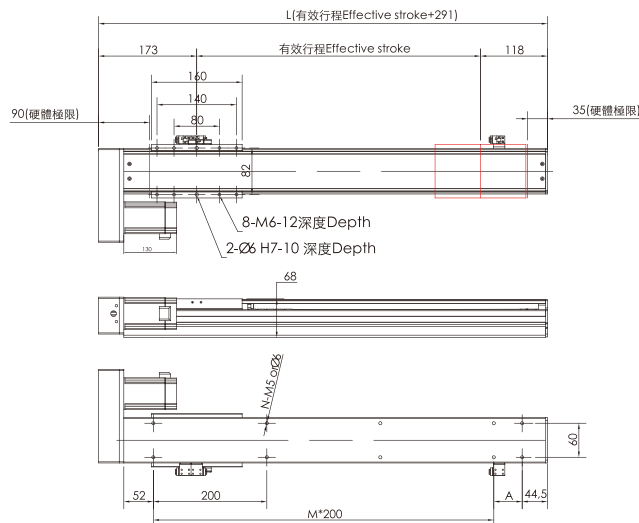
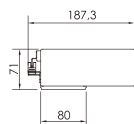


M2



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
L	408	458	508	558	608	658	708	758	808	858	908	958	1008	1058	1108	1158	1208	1258
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
重量(kg)	4.8	5.1	5.4	5.7	6.0	6.3	6.6	6.9	7.2	7.5	7.8	8.1	8.4	8.7	9.0	9.3	9.6	9.9

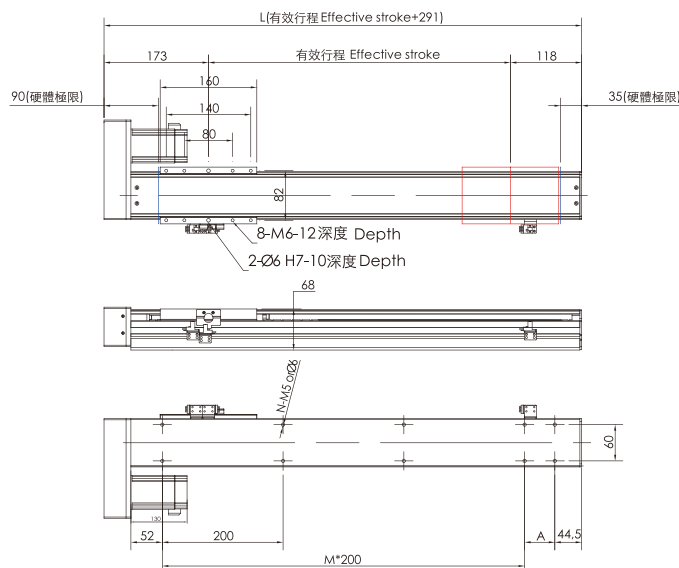
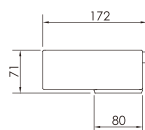
M3



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
L	391	441	491	541	591	641	691	741	791	841	891	941	991	1041	1091	1141	1191	1241
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
重量(kg)	5.4	5.7	6.0	6.3	6.6	6.9	7.2	7.5	7.8	8.1	8.4	8.7	9.0	9.3	9.6	9.9	10.2	10.5

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

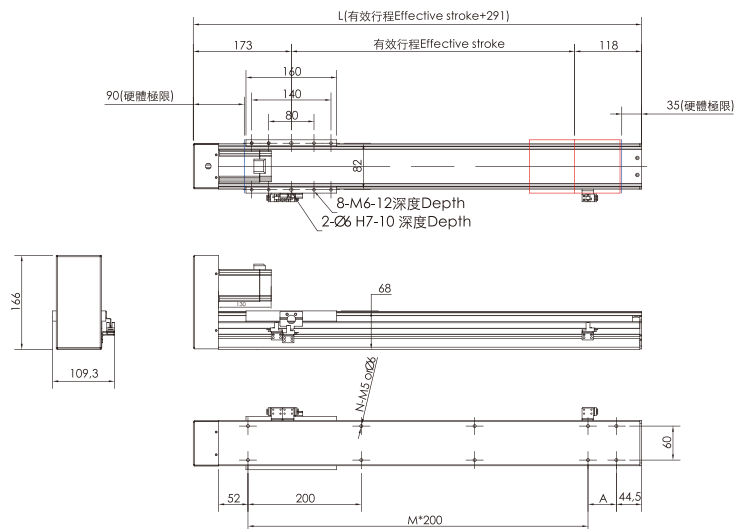
M4



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
L	391	441	491	541	591	641	691	741	791	841	891	941	991	1041	1091	1141	1191	1241
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
重量(kg)	5.4	5.7	6.0	6.3	6.6	6.9	7.2	7.5	7.8	8.1	8.4	8.7	9.0	9.3	9.6	9.9	10.2	10.5

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

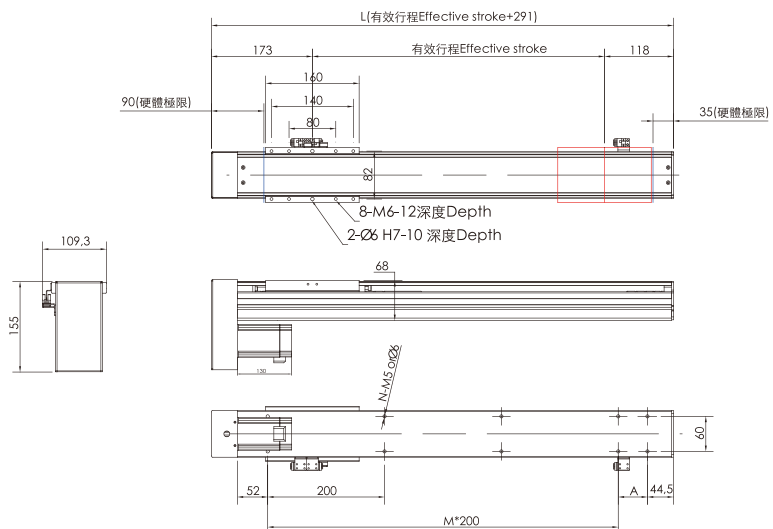
M5



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
L	391	441	491	541	591	641	691	741	791	841	891	941	991	1041	1091	1141	1191	1241
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
重量(kg)	5.4	5.7	6.0	6.3	6.6	6.9	7.2	7.5	7.8	8.1	8.4	8.7	9.0	9.3	9.6	9.9	10.2	10.5

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

M6



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
L	391	441	491	541	591	641	691	741	791	841	891	941	991	1041	1091	1141	1191	1241
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
重量(kg)	5.4	5.7	6.0	6.3	6.6	6.9	7.2	7.5	7.8	8.1	8.4	8.7	9.0	9.3	9.6	9.9	10.2	10.5

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

M100D -YL10- S100 - M2- TM 57

型號 Model 孔型與導程 Hole type and lead 行程 Stroke 馬達方向 Motor direction 驅動器規格 Driver model 馬達規格 Motor spec

T 底部通孔
Through hole

Y 底部牙孔
Thread hole

M2 馬達外置

M3 馬達外置右側

M4 馬達外置左側

M5 馬達外置上方

M6 馬達外置下方

Motor outside position

Motor outside ,rightward position

Motor outside ,rightward position

Motor outside ,upper position

Motor outside ,lower position

TO:T OPEN驅動器

T OPEN Driver

TM:T STEP驅動器

T STEP Driver

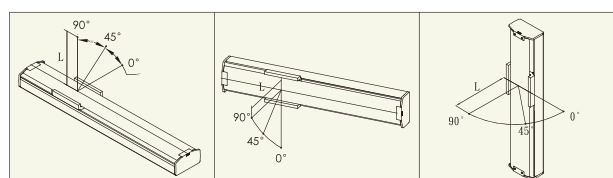
TS:T SERVO驅動器

T SERVO Driver

M100D規格表(M100D Specification)

馬達出力 Step motor output	57步進			
重複定位精度 Repeatability(mm)	±0.01			
滾珠絲桿外徑 B.S(Ø)	Ø16			
滾珠螺桿導程 Lead(mm)	5	10	16	20
最快速度 Maximum speed(mm/sec)	100	200	320	400
最大載重 Maximum payload(kg)	水平使用 (H)	40	20	14
	垂直使用 (V)	16	8	6
額定推力 Rated thrus(N)	600	300	150	80
行程 Stroke(mm)	100-1050 50間隔 (interval)			

線性滑軌 12x8-2 支

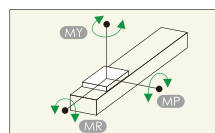


水平安裝應用: 單位Unit:mm Horizontal use					垂直安裝應用: 單位Unit:mm Wall installation use					垂直安裝應用: 單位Unit:mm during vertical use				
導程 Lead	荷重 Payload	0°	45°	90°	導程 Lead	荷重 Payload	0°	45°	90°	導程 Lead	荷重 Payload	0°	45°	90°
100/20	5kg	276	136	483	100/20	5kg	462	223	146	100/20	3.5kg	380	160	370
	7kg	150	96	336		7kg	334	140	96		6.0kg	345	112	342
	10kg	80	72	221		10kg	213	76	73		8.0kg	320	108	220
	8kg	270	130	432		8kg	481	242	150		16kg	330	120	310
160/30	11kg	148	90	310	160/30	11kg	306	123	80	160/30	16kg	330	120	310
	14kg	79	69	213		14kg	136	36	42					
	8kg	276	136	483		8kg	524	166	83					
	15kg	150	96	336		15kg	382	96	13					
200/40	20kg	80	72	221	200/40	20kg	121	6	0	200/40				
	20kg	270	130	432		20kg	623	41	36					
	30kg	148	90	310		30kg	362	12	7					
	40kg	79	69	1220		40kg	0	0	0					

*滑塊表面中心到搬送物重心的距離(僅供參考)

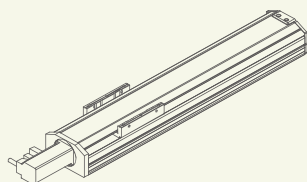
Distance center of slider top to center of gravity of object being transported (For reference only)

靜態容許負載慣量
Static Loading Moment

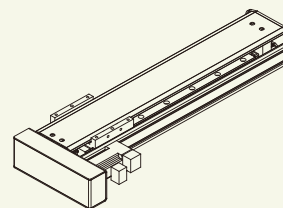


(單位:N.m) (Unit:N.m)
水平使用時 Static Loading Moment

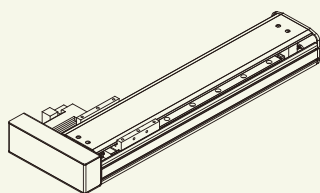
MY	480
MP	476
MR	444



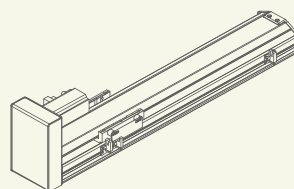
M2



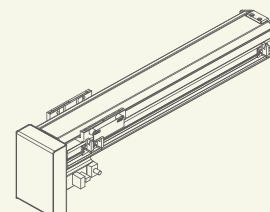
M3



M4



M5

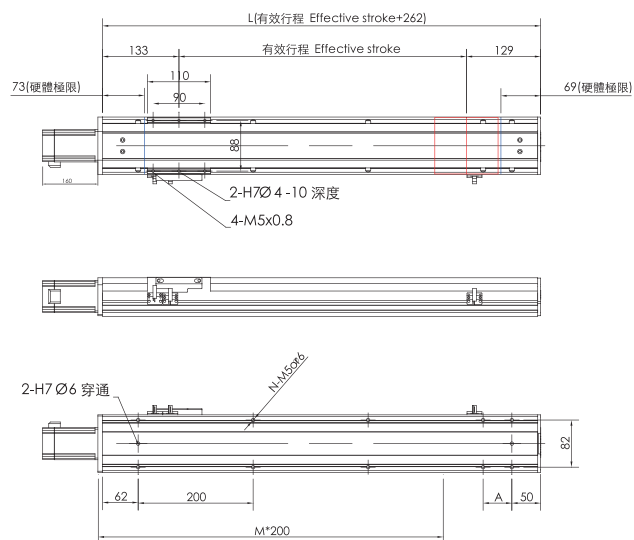


M6

M100D



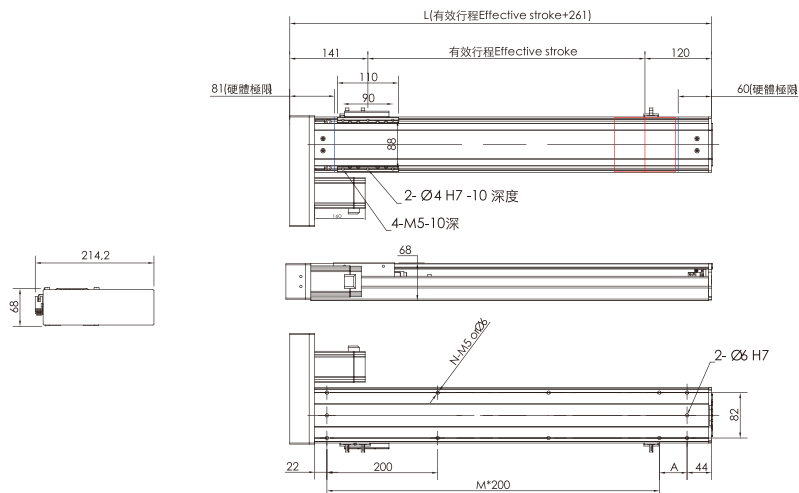
M2



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
L	362	412	462	512	562	612	662	712	762	812	862	912	962	1012	1062	1112	1162	1212
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
重量(kg)	4.2	4.6	5.0	5.4	5.8	6.2	6.6	7.0	7.4	7.8	8.2	8.6	9.0	9.4	9.8	10.2	10.6	11.8

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

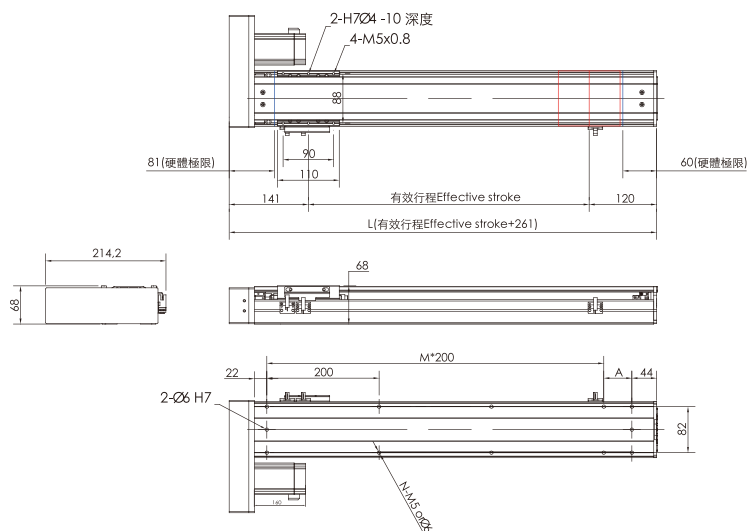
M3



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
L	361	411	461	511	561	611	661	711	761	811	861	911	961	1011	1061	1111	1161	1211
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
重量(kg)	5.5	5.9	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.1	9.5	9.9	10.3	11.7	11.1	11.5	11.9	12.3

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

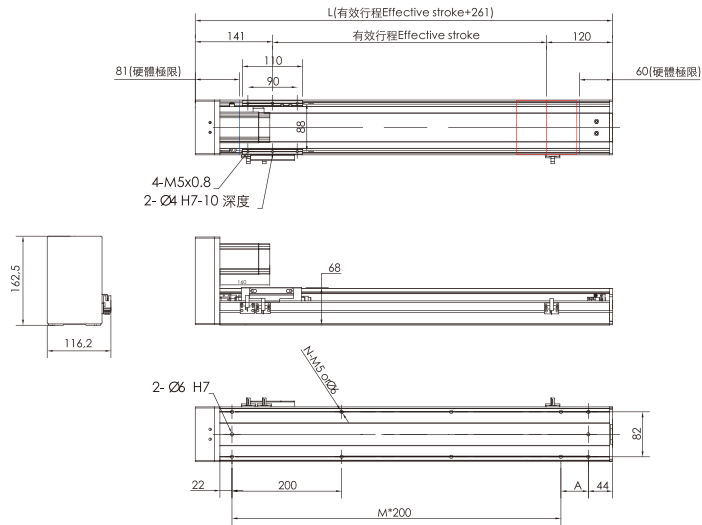
M4



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
L	361	411	461	511	561	611	661	711	761	811	861	911	961	1011	1061	1111	1161	1211
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
重量(kg)	5.5	5.9	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.1	9.5	9.9	10.3	11.7	11.1	11.5	11.9	12.3

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

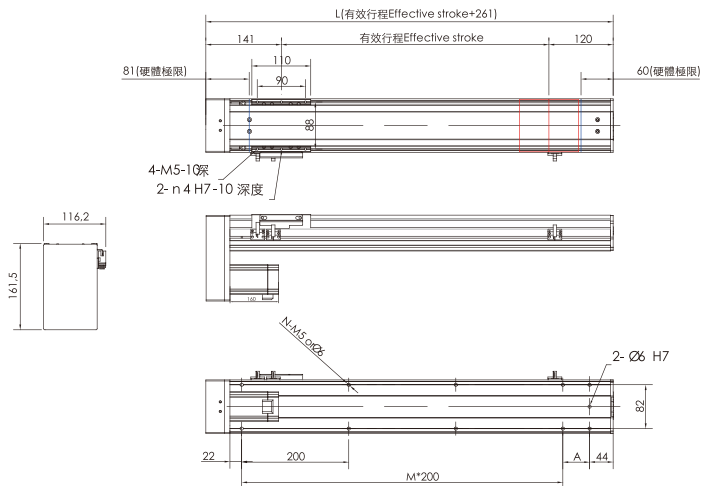
M5



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
L	361	411	461	511	561	611	661	711	761	811	861	911	961	1011	1061	1111	1161	1211
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
重量(kg)	5.5	5.9	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.1	9.5	9.9	10.3	11.7	11.1	11.5	11.9	12.3

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

M6



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
L	361	411	461	511	561	611	661	711	761	811	861	911	961	1011	1061	1111	1161	1211
A	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100	50	100
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14
重量(kg)	5.5	5.9	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.1	9.5	9.9	10.3	11.7	11.1	11.5	11.9	12.3

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

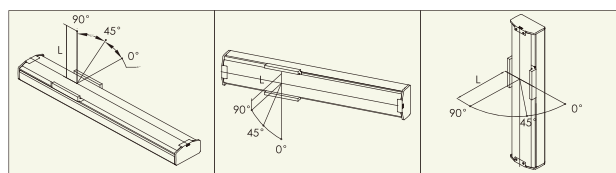
M136D-YL10- S100- M2- TM 57

型號 Model	孔型與導程 Hole type and lead	行程 Stroke	馬達方向 Motor direction	驅動器規格 Driver model	馬達規格 Motor spec
	T 底部通孔 Through hole Y 底部牙孔 Thread hole			TO:T OPEN驅動器 T OPEN Driver TM:T STEP驅動器 T STEP Driver TS:T SERVO驅動器 T SERVO Driver	
	M2 馬達外置 M3 馬達外置右側 M4 馬達外置左側 M5 馬達外置上方 M6 馬達外置下方	Motor outside position Motor outside ,rightward position Motor outside ,rightward position Motor outside ,upper position Motor outside ,lower position			

M136D規格表(M136D Specification)

馬達出力 Step motor output	57步進			
重複定位精度 Repeatability(mm)	±0.01			
滾珠絲桿外徑 B.S(Φ)	Ø16		Ø20	
滾珠螺桿導程 Lead(mm)	5	10	16	20
最快速度 Maximum speed(mm/sec)	100	200	320	400
最大載重 Maximum payload(kg)	水平使用 (H)	50	26	18
	垂直使用 (V)	18	9	6
額定推力 Rated thrus(N)	600	300	150	80
行程 Stroke(mm)	100-1050 50間隔 (interval)			

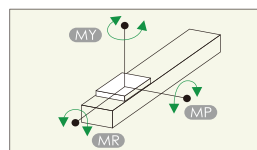
線性滑軌 12x8-2 支



水平安裝應用: 單位Unit:mm Horizontal use					牆面安裝應用: 單位Unit:mm Wall installation use					垂直安裝應用: 單位Unit:mm During vertical use				
導程 Lead	荷重 Payload	0°	45°	90°	導程 Lead	荷重 Payload	0°	45°	90°	導程 Lead	荷重 Payload	0°	45°	90°
Lead20	6kg	276	136	483	Lead20	6kg	462	223	146	Lead20	4kg	380	160	370
	9kg	150	96	336		9kg	334	140	96					
	12kg	80	72	221		12kg	213	76	73					
	18kg	270	130	432		18kg	481	242	150					
Lead16	10kg	148	90	310	Lead16	10kg	306	123	80	Lead16	6.0kg	345	112	342
	14kg	79	69	213		14kg	136	36	42					
	18kg	276	136	483		18kg	524	166	83					
	18kg	150	96	336		18kg	382	96	13					
Lead10	26kg	80	72	221	Lead10	26kg	121	6	0	Lead10	9.0kg	320	108	220
	30kg	270	130	432		30kg	623	41	36					
	40kg	148	90	310		40kg	362	12	7					
	50kg	79	69	1220		50kg	0	0	0		18kg	330	120	310

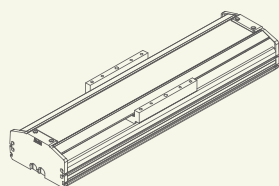
*滑塊表面中心到搬送物重心的距離(僅供參考)
Distance center of slider top to center of gravity of object being transported (For reference only)

靜態容許負載慣量
Static Loading Moment

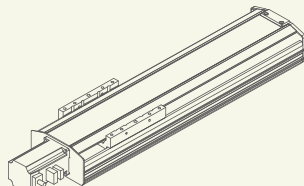


(單位:N.m) (Unit:N.m)
水平使用時 Static Loading Moment

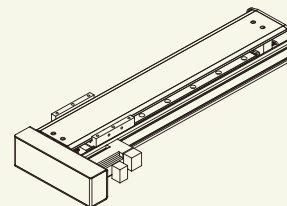
MY	480
MP	476
MR	444



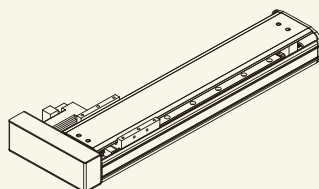
M1



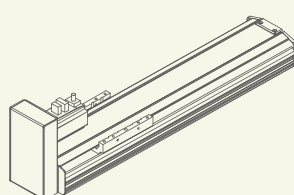
M2



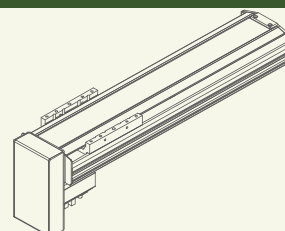
M3



M4

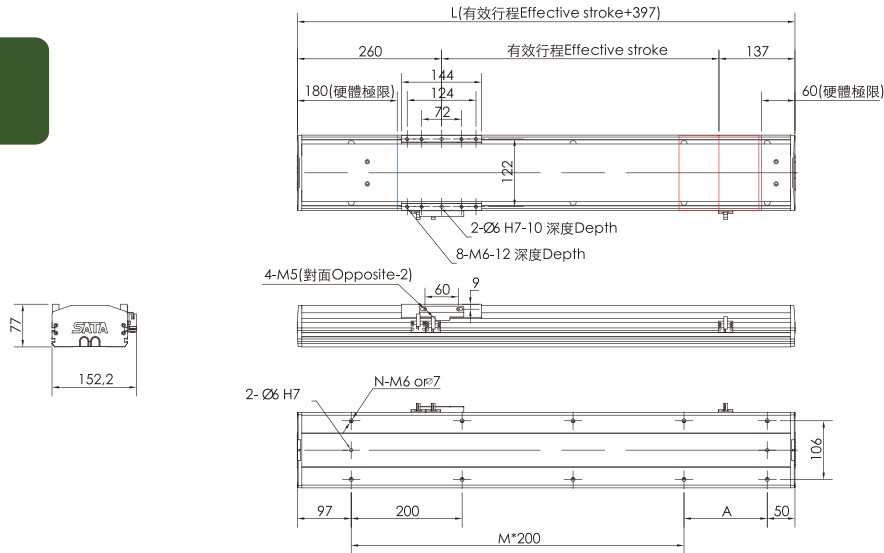


M5



M6

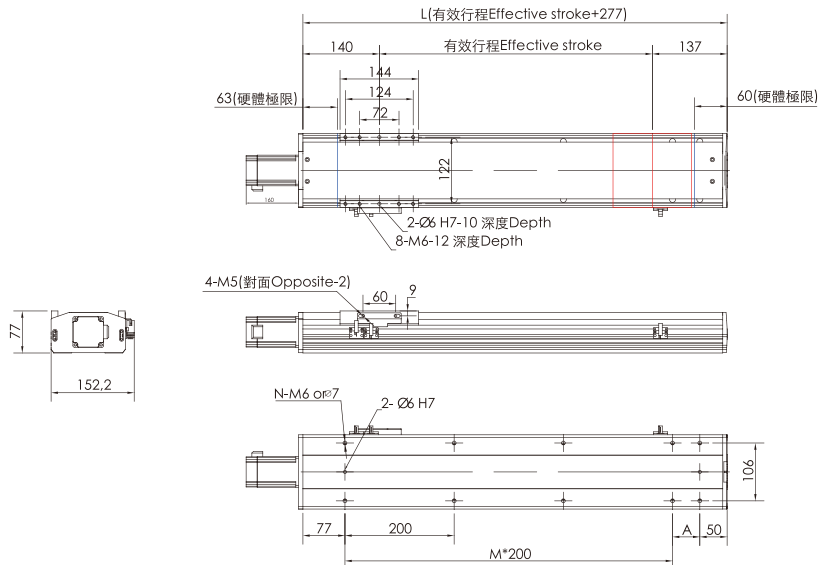
M1



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	497	547	597	647	697	747	797	847	897	947	997	1047	1097	1147	1197	1247	1297	1347	1397	1447
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6
N	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14	16	16
重量(kg)	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice

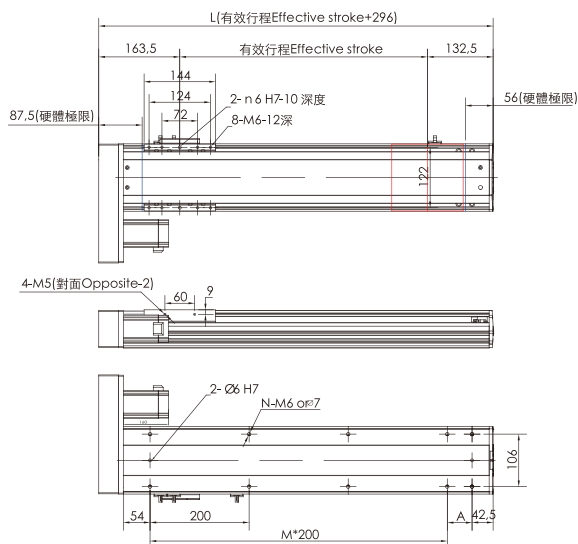
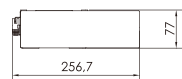
M2



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	377	427	477	527	577	627	677	727	777	827	877	927	977	1027	1077	1127	1177	1227	1277	1327
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
重量(kg)	6.6	7.1	7.6	8.1	8.6	9.1	9.6	10.1	10.6	11.1	11.6	12.1	12.6	13.1	13.6	14.1	14.6	15.1	15.6	16.1

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

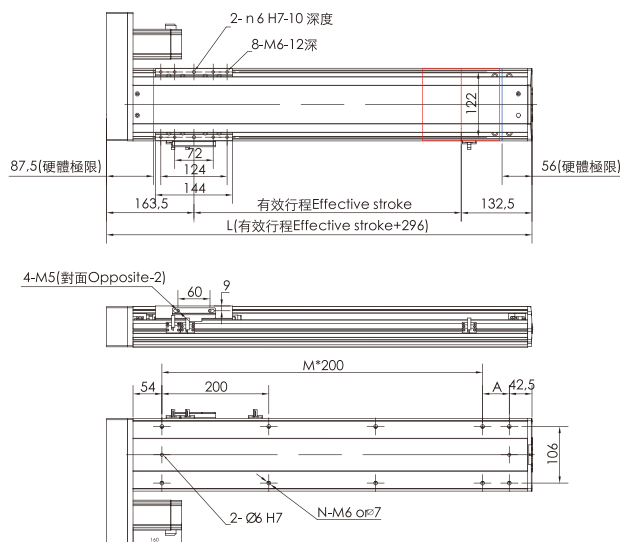
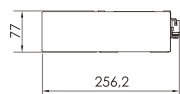
M3



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	396	446	496	546	596	646	696	746	796	846	896	946	996	1046	1096	1146	1196	1246	1296	1346
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
重量(kg)	8.9	9.3	9.8	10.3	10.8	11.3	11.8	12.3	12.8	13.3	13.8	14.3	14.8	15.3	15.8	16.3	16.8	17.3	17.8	18.3

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice

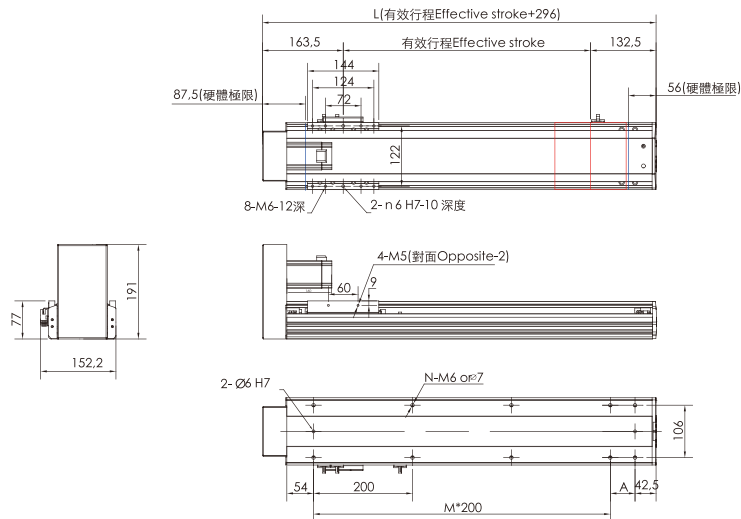
M4



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	396	446	496	546	596	646	696	746	796	846	896	946	996	1046	1096	1146	1196	1246	1296	1346
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
重量(kg)	8.9	9.3	9.8	10.3	10.8	11.3	11.8	12.3	12.8	13.3	13.8	14.3	14.8	15.3	15.8	16.3	16.8	17.3	17.8	18.3

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

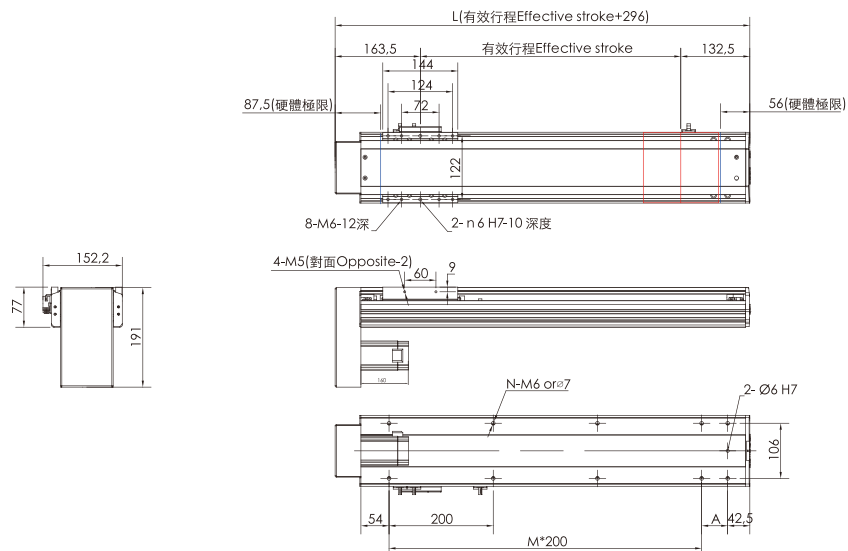
M5



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	396	446	496	546	596	646	696	746	796	846	896	946	996	1046	1096	1146	1196	1246	1296	1346
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
重量(kg)	8.9	9.3	9.8	10.3	10.8	11.3	11.8	12.3	12.8	13.3	13.8	14.3	14.8	15.3	15.8	16.3	16.8	17.3	17.8	18.3

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

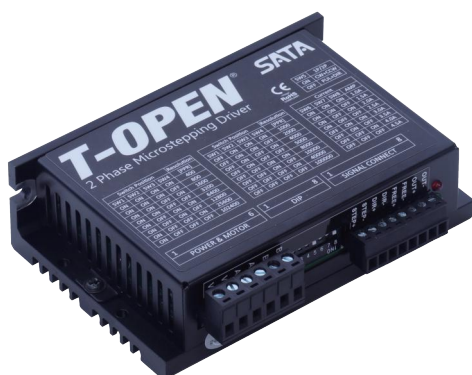
M6



行程	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
L	396	446	496	546	596	646	696	746	796	846	896	946	996	1046	1096	1146	1196	1246	1296	1346
A	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200	50	100	150	200
M	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5
N	6	6	6	6	8	8	8	8	10	10	10	10	12	12	12	12	14	14	14	14
重量(kg)	8.9	9.3	9.8	10.3	10.8	11.3	11.8	12.3	12.8	13.3	13.8	14.3	14.8	15.3	15.8	16.3	16.8	17.3	17.8	18.3

※本公司享有變更規格之權益，恕不另行通知 ※Drawings and specifications are subject to change without prior notice.

驅動器(Driver) T-OPEN



*功能特點 (Features)

- 輸入電源: DC 24V - 48V
Input power: DC 24v-48v
- 八檔電流選擇
Eight current selection
- PWM 恒流雙極性細分驅動
PWM constant current bipolar subdivision drive
- 十六檔細分選擇
16 subdivision options
- 單/雙排脈衝選擇
Single/double pulse selection
- 光電隔離輸入功能, 5-24VDC 相容輸入
Photoelectric isolation input function, 5-24vdc compatible input
- 馬達短路保護功能
Motor short circuit protection function
- 試運行功能,設計精巧、噪音低、振動小,具有離線功能
The function of test run is compact design, low noise and low vibration with offline function

T-OPEN 混合式步進馬達驅動器, 能與多種步進馬達配接。廣泛應用於各種數控機床、包裝機械、紡織機械、工藝繡品機械、印刷機械、鐳射雕刻、切割機等工業自動化控制領域。我公司獨立生產製造的驅動器精巧實用、輸出扭矩高、適應性寬、靈活性大、性價比高, 受到廣大用戶的青睞。

T-OPEN hybrid stepper motor driver, which can be connected with a variety of stepper motors. Widely used in a variety of CNC machine tools, packaging machinery, textile machinery, process embroidery machinery, printing machinery, laser engraving, cutting machines and other industrial automation control areas.

The drive manufactured by our company is exquisite and practical, with high output torque, wide adaptability, great flexibility and high cost performance.

*技術參數 Specification

驅動器型號 Driver model		T-OPEN
適配馬達 Adaptation motor		適配兩相混合式步進馬達, T-OPEN最大適配4.5A Suitable for two-phase hybrid stepping motor, SD244 with A maximum fit of 4.5a
電源供電 Power supply		24-48V DC
輸出電流 Power supply		T-OPEN: 1.0A-4.5A/相
驅動方式 Drive method		全橋雙極性PWM驅動 Full bridge bipolar PWM drive
輸入信號 The input signal	脈衝信號 The pulse signal	光耦輸入電壓 H=3.5-26V,L=0-0.8V 導通電流 6-15mA The optocoupler input voltage H= 3.5-26v,L= 0-0.8v Conduction current 6-15 ma
	離線信號 Off-line signal	
	方向信號 The direction of the signal	
尺寸 size		118 x 78 x 34mm
重量 weight		約 300 克 About 300 grams
使用環境 environment	使用場合 Use occasions	避免粉塵, 油霧及腐蝕性氣體 Avoid dust, oil mist and corrosive gases
	濕度 humidity	< 85%RH, 無凝露 < 85% RH, no condensation
	溫度 temperature	0° C - +40° C
	散熱 Heat dissipation	安裝在通風環境中 Installed in a ventilated environment

驅動器(Driver)T-STEP

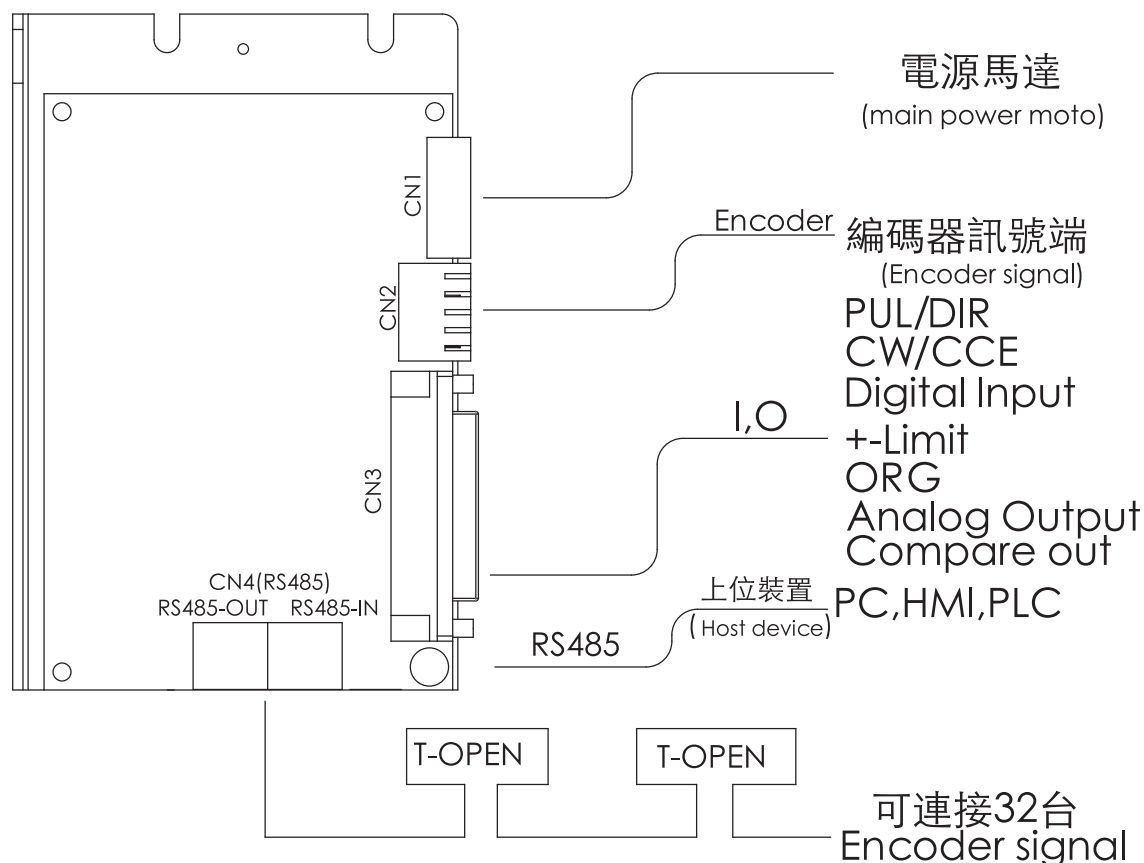


*產品特點(Features)

- 最高脈衝響應頻率可達500KHZ
The best impulse response frequency can reach 500KHZ
- 力矩衰減小，轉速可達3000rpm
Torque reduce is small, speed can reach at 3000rpm
- 內置到位和輸出報警，方便監測和控制
Built-in in place and output alarm, convenient monitoring and control
- 智能調節電流，減少震動，噪聲和發熱，效率提高30%
Intelligently adjust the current, reduce vibration, noise, heat and increase efficiency by 30%
- 具有單雙脈衝選擇功能，出廠默認值為：脈衝+方向控制
The default value is: pulse + direction control
- 優異的高速性能和剛性，完美的融合伺服和步進電機的優點於一身
Excellent high speed performance and rigidity, perfect integration of advantages of servo and stepper motor
- 具有內部位置控制模式，單驅動可以進行定位運行
With internal position control mode, single drive can be positioned for operation
- 輸入電壓：24V~48V
Input voltage
- 寬電壓輸入：24V~48V
Wide voltage input
- Rs458通訊
Rs458 communication

T-STEP驅動器帶有閉環驅功能，高速力矩的效率相對於傳統產品會大幅度提升，有效降低電機發熱和震動從而提升機器的加工效率和精度。該驅動器採用基於負載的電流控制技術，可以有效降低電機發熱，延長電機使用壽命，驅動器內置的到位和報警輸出信號，方便上位機進行監測和控制保證了加工設備安全運行。

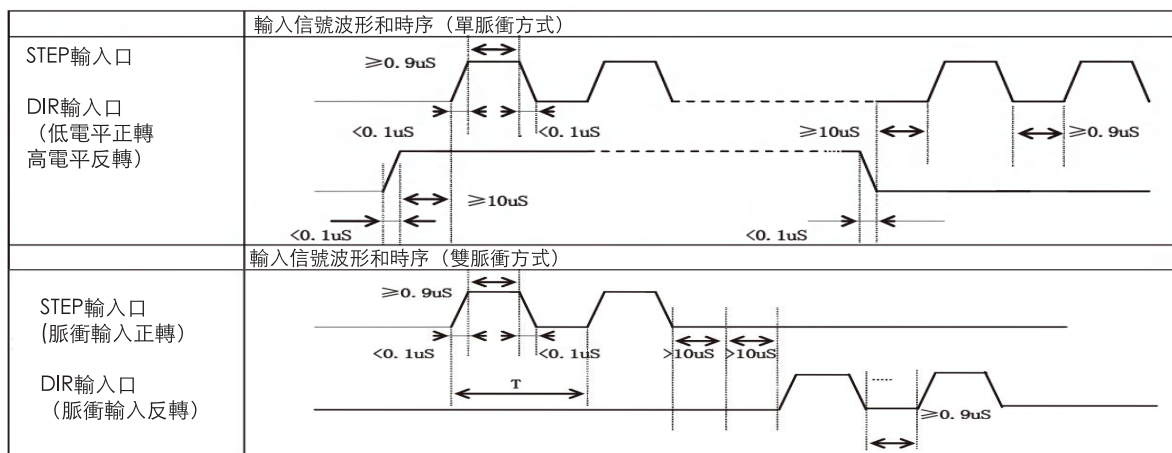
T-STEP With the function of closed loop, the efficiency of high-speed torque will be greatly improved compared with the traditional product, effectively reducing the heating and vibration of the motor, thus improving the machining efficiency and accuracy of the machine. It is convenient for the upper computer to check and control the operation safety.



*規格參數 Specifications

項目(tems)	內容 (content)	備註 (Remarks)
型號 Model	T-STEP	
輸入電源電壓 Input voltage	DC 24V ± 10%	T-STEP額定3A,最大6A
	DC 48V ± 10%	T-STEP額定1.5A,最大4.5A
額定輸出電流 Rated Current	T-STEP 3A (0-peak)	
最大輸出電流 maximum current	T-STEP 4.5A (0-peak)	
控制對象電機 controlled object	附編碼器2相步進電機 Encoder 2 phase stepper motor is attached	
驅動方式 Drive	PWM恆流驅動 utoff wave driven	
介面 interface	輸入：脈衝，方向（可配置為數位輸入）數位輸入 5個，編碼器輸入（A,B,Z） Input: pulse, direction (can be configured as digital input) 5 digital input, encoder input (A,B,Z) 輸出：數位輸出4個，編碼信號輸出（差動A,B,Z） Output: 4 digital output, coded signal output (differential A,B,Z)	除了編碼器輸出為固定，其餘的輸入輸出均可通過通訊自由設置 In addition to the encoder output fixed, the rest of the input, output can be set freely through communication
數位輸入內容 Input content	/SV ON(Servo On) /RESET(報警復位)-ann reset /START(馬達啟動/停止)-The motor starts and stops /JOG(馬達點動)-Motor points to move /HOME(回零點)-go home	
數位輸出內容 var OutPut	IN POTISION,ALARM	
LED顯示 Display	狀態，故障 State, fault	2種 Form two
通訊I/F Communication	RS485，最多16節點	MODBUS協定速率19200bps MODBUS Agreement rate 19200bps
控制方式 Control	位置控制方式 Position control mode	依指令脈衝定位 Position by command pulse
	速度控制方式 speed controlling mod	數位指令 digit unallowable instruction
適合負載慣量 inertia	電機慣量8倍以下 Motor inertia is less than 15 times	位置控制，速度控制時 Position control, speed control
基本外形尺寸 measure	W77*D134*H34	
動作溫度，溼度 humidity	0-45℃，85%RH以下	防置冷凝 prevent condensation
保存溫度 Storage temperature	-20-85℃，85%RH以下	防置冷凝 prevent condensation
環境氣體 Ambient Air	防止腐蝕性氣體 Prevent corrosive gases	

* 信號波形和時序圖



驅動器(Driver) T FORCE AD



*產品特點(Features)

- 扭力型閉環步進控制器，扭力模式和位置下壓模式供選擇
Torque-type closed-loop step controller, Torque mode and position down-pressure mode for choice
- 相容脈衝型控制，可搭配控制卡進行脈衝定位控制
Compatible pulse control, can be used with the control card for pulse positioning control
- 內置即時扭力動態圖，方便客戶實際觀察力矩
Built-in real-time torque dynamic diagram, convenient for customers to observe the actual torque
- 支持修改設定正反推力的百分比
Support for changing the percentage of positive and negative thrust settings
- 可進行扭力回零
Can carry out torque back to zero
- 支持RS485通訊定位
Support RS485 communication positioning

T FORCE AD驅動器搭配高精度閉環步進電機，可以依據不同設備的工況，設定最佳工作力矩；驅動器內置多段程式可以按需運行；採用PWM恒流驅動方式，大幅度提升電機動態性能

T FORCE AD driver with high-precision closed-loop stepping motor, according to the working conditions of different equipment, can set the best working torque; the driver built-in multi-segment program can be run on demand; PWM constant current drive mode, greatly improve the dynamic performance of motor.

技術參數 Technical parameters

項目(tems)	內容(content)	備註(content)
型號 Models	T FORCE AD	
輸入電源電壓 Input power supply voltage	DC 24V~48V	
額定輸出電流 Rated output current	T FORCE AD 4.5A(0 -peak)	連續電流 Continuous current
最大控制電流 Maximum control current	T FORCE AD 4.5A(0 -peak)	瞬間電流 Instantaneous current
控制對象電機 Control Object Motor	附編碼器2相雙機性步進電機 With encoder 2-phase dual-machine stepping motor	
驅動方式 Drive mode	PWM恒流驅動 PWM current drive	
通訊界面 Communication interface	輸入 Inputting	除了編碼器輸出為固定，其餘的輸入/輸出均可通過通訊自由配置 Except the encoder output is fixed, the rest of the input/output can be configured freely through communication
	脈衝，方向輸入（可配置為電機輸入） Pulse, direction input (can be configured as motor input)	
	數字輸入5個 Enter 5 numbers	
	編碼器輸入（A, B, Z） Encoder input (A, B, Z)	
	輸出 Output	
	數字輸出4個 Digital Output 4	
數字輸入詳細內容 Digital input details	編碼型號輸入（差動A, B, Z） Code type input (Differential A, B, Z)	
	/SV ON(Servo On)	
	/RESET（報警復位） /RESET (alarm RESET)	
	/START（電機啟動/停止） /START (motor starts/stops)	
	/JOG（電機點動） /JOG (motor clicks)	
數字輸出詳細內容 Digital output details	/HOME（回零點） /HOME (back to zero)	
	/IN POTISION /ALARM	
LED指示 LED indication	狀態，故障 State, fault	2個指示燈 2 lights
通訊I/F Communications I/F	RS485，最多32節點 RS485, up to 32 nodes	MODBUS RTU 協議，波特率： Modbus RTU protocol, baud rate: 19200bps（預設）或根據約定 19200bps (default) or as agreed
控制方法 Control method	位置控制模式 Position Control Mode	根據脈衝定位，根據RS485通訊定位 Position by command pulse, According to RS485 communication location
	扭力控制模式 Torque control mode	
外形尺寸 External dimensions	W77 X D134 X H34	不含接線粒子 No connecting particles
重量 Weight	約350g TAabout 350g	不含接線端子 No terminal is included
動作溫度/濕度 Action temperature/humidity	0~45℃，85 %RH以下	防止冷凝 prevent condensation
保存溫度 Storage temperature	0~45℃，85 %以下	防止冷凝 prevent condensation
環境氣體 Ambient Air	防止腐蝕性氣體 Prevent corrosive gases	

驅動器 (Driver) T-FORCE

*產品特點 (Features)



具有Ethercat 通訊協議，可適配多種控制器高速輸數據

With EtherCAT communication protocol, it can adapt to a variety of controllers for high-speed data transmission

扭矩輸出動態調節，電運動過程中可調節

Torque output can be adjusted dynamically and can be adjusted during electric movement

限定扭矩到位功能，遇限位（預設阻力值）自動保持力矩輸出以完成定位

Limit torque in place function, automatically maintain torque output in case of limit (preset resistance value) to complete positioning

內置扭力到達輸出信號，可實時監測

The built-in torque reaches the output signal, which can be monitored in real time

可用於開環，及閉環的步進電機控制器

Stepper motor controller for open loop and closed loop

採用全橋雙極性PWM控制，運行平穩

Full bridge bipolar PWM control is adopted for smooth operation

T-Force驅動器適用於閉環步進電機，適配Ethercat通訊協議，能與多種帶有Ethercat通訊協議控制卡、PLC達到完美兼容；更具有扭力控制模式，能動態調節步進電機輸出扭矩，進而大幅度提升電機的工作效率；該驅動器採用全橋雙極性PWM驅動方式，電機動態運行性能得到大幅度提升。

T force driver is suitable for closed-loop stepper motor and is suitable for EtherCAT communication protocol. It can be perfectly compatible with a variety of control cards and PLC with EtherCAT communication protocol; More torque control mode, It can dynamically adjust the output torque of the stepping motor, so as to greatly improve the working efficiency of the motor; The driver adopts full bridge bipolar PWM driving mode, and the dynamic operation performance of the motor is greatly improved.

技術參數 Technical parameters

驅動器型號 Drive model	T-FORCE
適配器 Adapter	適配兩相混合式步進電達，最大適配4.5A (蜂值) Adaptive two-phase hybrid stepping motor, maximum adaptation 4.5a (bee value)
電源供電 Power supply	DC24V 或 DC48V
輸出電流 Output current	0.4A~4.5/相 phase （峰值）(peak)
驅動方式 Driving mode	全橋變極性 PWM 驅動 Full bridge variable polarity PWM drive
設備初始化時間 Device initialization time	2S

技術參數 Technical parameters

輸入 信號 Input Signal	2路高速輸入 信號 2-way high-speed input signal	光耦輸入電壓：H=3.5-26v,L=0-08V Optocoupler input voltage: H=3.5-26v,L=0-08V	導通電流：5~8mA Conduction current: 5~8mA
	5路通用輸入 信號 5-way high-speed input signal	光耦輸入電壓：H=24V,L=0-0.8V Optocoupler input voltage: H=24V,L=0-0.8V	導通電流：3~6mA Conduction current: 3~6mA
輸出 信號 Output Signal	3路通用輸入 信號 3-way high-speed input signal	光電隔離輸出，最高承受電壓30VDC ,最大飽合電流50mA Photoelectric isolation output, maximum withstand voltage 30VDC, maximum saturation current 50mA	
	1路煞車輸出 1-way brake output	煞車供電由 COM (IN) 和 COM (OUT) 埠提供，最大輸出電流500mA The brake power supply is provided by com (in) and com (out) ports, and the maximum output current is 500mA	
尺寸 size		146X87X29毫米Howe	
重量 weight		約(About)350克 (gram)	
使用 環境 use Environment	使用場合 Use occasion	避免粉塵，油霧及腐蝕性氣體 Avoid dust, oil mist and corrosive gas	
	濕度 Humidity	<85% RH,無疑露 (Undoubtedly exposed)	
	溫度 Temperature	0°C- +40°C	
	散熱 Heat dissipation	安裝在通風環境中 Installed in a ventilated environment	

驅動器(Driver)T-SERVO

*產品特點(Features)



可支援各種閉迴路補償，雙模驅動模式停止不抖動

Closed loop compensation, dual-drive mode stop non-jitter

不需外部機器，可偵測正負極限及原點

No external machine is needed to detect positive and negative limit and origin

可編寫程序，自動檢出行程

Can be programmed to automatically check out the itinerary

高速位置截取及比較輸出

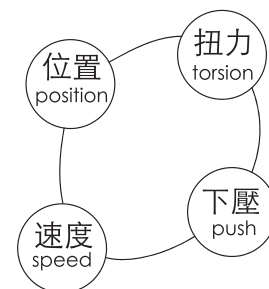
High-speed position interception and comparison output

直線補間功能：標準可連32軸

Linear compensation function, standard can connect 32 axis

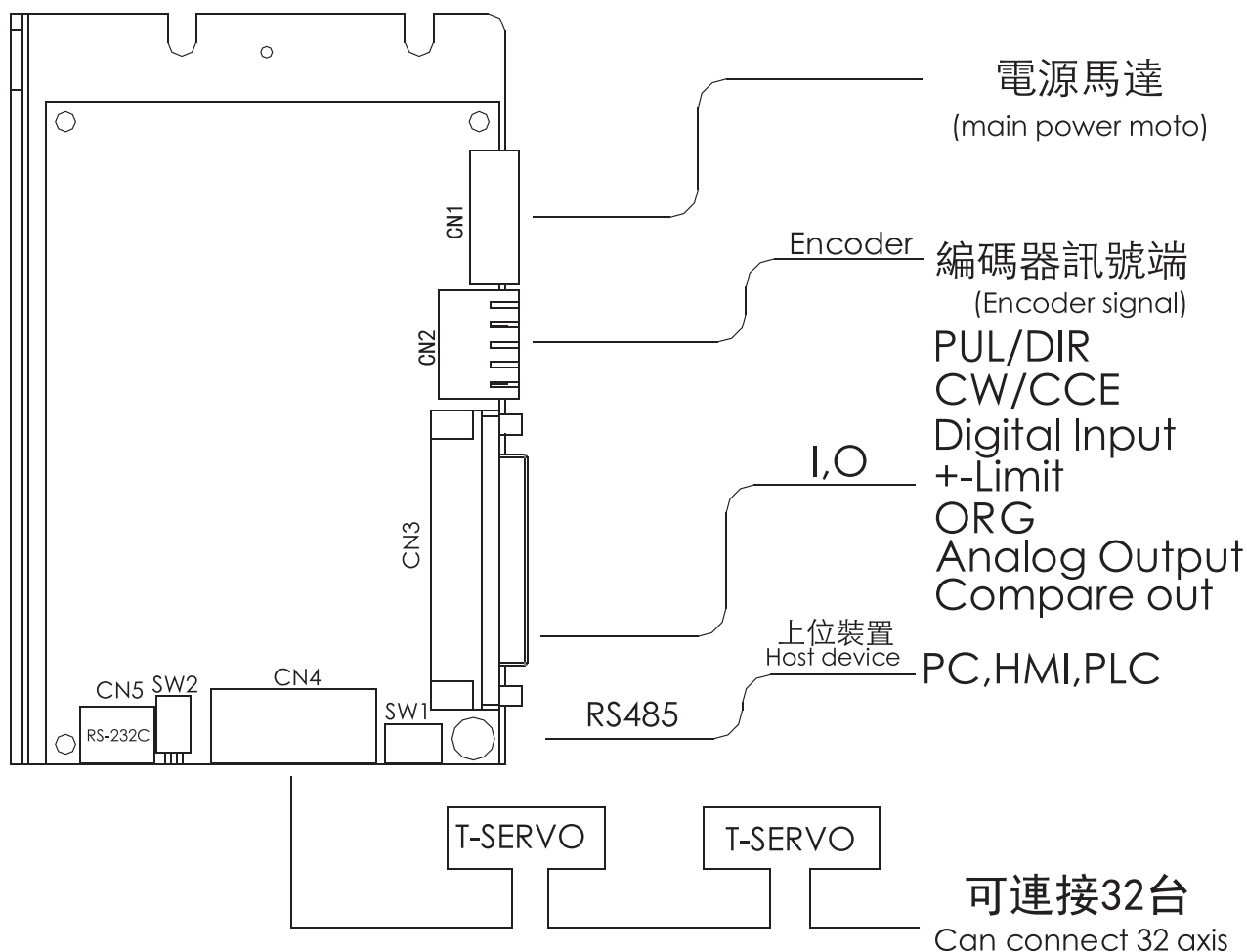
適用於各種電動夾爪

Suitable for all kinds of electric gripper



T-SERVO驅動器結合國內和日本工程師合作開發，採用閉迴路步進伺服馬達系統最大特點可以作多樣化的扭力控制及高精度定位，模式切換不會有一般伺服馬達的震動問題。

T-SERVO driver combined with domestic and Japanese engineers to develop using closed loop step servo motor system, the biggest feature can be diversified torque control and high-precision positioning, mode switching will not have the general servo motor vibration problems



T-SERVO

系列(series)

-ST

ST:基本型(Basic)
P:脈衝(Pulse)

-42

電機規格
rating of machine

產品規格(product)	馬達型號(Model)	驅動器型號(Drive)
T-SERVO-ST-42	TM-42	T-SERVO-ST-42
T-SERVO-ST-57	TM-57	T-SERVO-ST-57

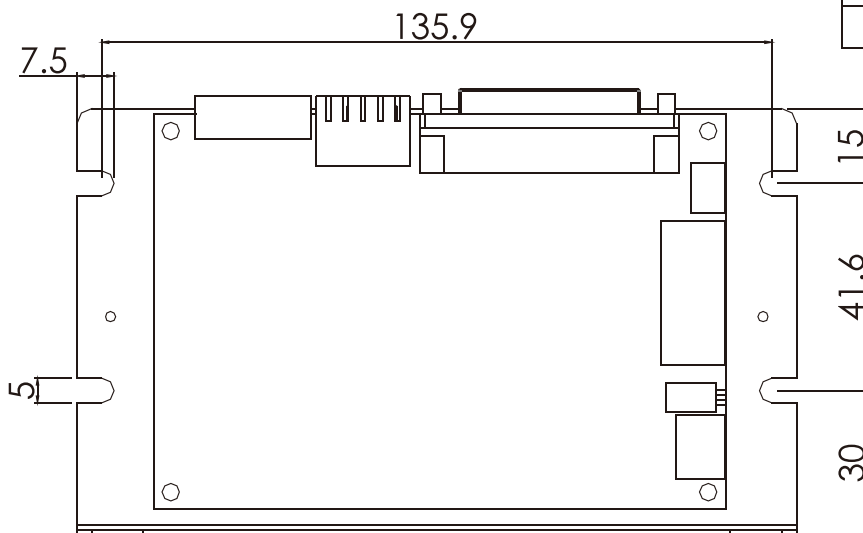
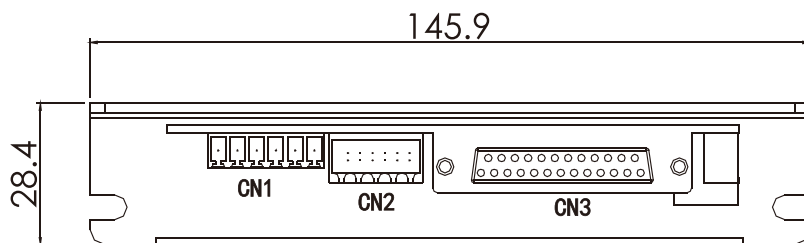
可選擇線材(wire)

標準(Length): 1.2.3.5米

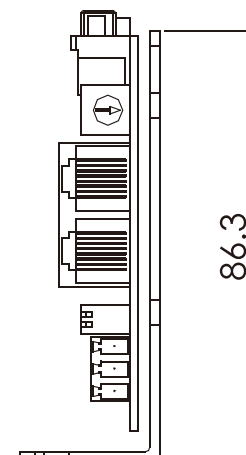
馬達線型號motor	長度Length
TS-M-42	☐ ☐
TS-M-57	☐ ☐

編碼器型號Encoder	長度 Length
TS-E-42	☐ ☐
TS-E-57	☐ ☐

TS-M-42



零件號碼	用途 behoof
CN1	電源與馬達用接頭 Battery plug
CN2	編碼器用接頭 Encoder joint
CN3	介面用接頭 interface plug
CN4	RS485用接頭 plug
CN5	RS232C用接頭 plug
SW1	設定節點ID用開關 Node
SW2	連接終端電阻開關 resistance switch
LED1	電源顯示LED power on light
LED2	警報顯示LED alarm
LED3	馬達作動中顯示LED motor displacement



*規格參數 Specifications

項目 (Items)	內容 (Content)	備註 (Remarks)
型號 Model	T-SERVO	
輸入電源電壓 Input voltage	DC 24V ± 10%	T-SERVO 額定 4A, 最大 8A
	DC 48V ± 10%	T-SERVO 額定 2A, 最大 6A
額定輸出電流 Rated Current	T-SERVO-ST-4A	
最大輸出電流 maximum current	T-SERVO-ST-6A	
控制對象電機 controlled object	附編碼器 2 相步進電機 Encoder 2 phase stepper motor is attached	
驅動方式 Drive	PWM 截波驅動 ultra wave driven	
控制象限 fire control quadrant	四象限 quadrant	
介面 interface	輸入: 數位輸入 5, 機械傳感 器輸入 (+LM, -LM, ORG) 類 比輸入 1, 編碼器輸入 (A, B, Z) 輸出: 數位輸出 4	數位輸出, 輸入自由指定 Digital output output free specification
數位輸入內容 Input content	SERVO ON-Servo On RESET 警報重置 START 電機啓 動或停止, CONT MODE 切換控制模式 SELECT PROGRAM (4bit)	
數位輸出內容 var. OutPut	IN POSITION, ALARM, TORQUE LIMIT	
LED 顯示 Display	電源, 警報, 電機迴轉中 Power supply, alarm, motor turning	3 種 classified into three
通訊 I/F Communication	RS485, 最多 16 節點, RS232C	MODBUS 協定 速率 19200bps MODBUS Agreement rate 19200bps
控制方式 Control	位置控制方式 Position control mode	依指令脈衝定位 Position by command pulse
	速度控制方式 speed controlling mod	數位指令 digit unallowable instruction
	扭力控制方式 torion controlling mod	數位指令 digit unallowable instruction
	下壓控制方式 Pressure control mode	位置, 速度, 扭力限制控制 Position, speed, torque limit control
適合負載慣量 inertia	電機慣量 20 倍以下 Motor inertia is less than 20 times	位置控制, 速度控制時 Position control, speed control
基本外形尺寸 measure	W80*D116*H20	
動作溫度, 溼度 humidity	0-50°C, 85%RH 以下	防置冷凝 prevent condensation
保存溫度 Storage Temperature	-20-85°C, 85%RH 以下	防置冷凝 prevent condensation
環境氣體 Ambient Air	防止腐蝕性氣體 Prevent corrosive gases	
位置控制規格 position control		
位置模式 location model	伺服模式 Full Time Closed Mode	Open 時為微步 The position accuracy of 進電機故編碼器 the resolution of the encoder 解析度之位置精 will not be compensated for 度不會被補償 the step motor
	雙模式 Set below speed Open, Set below speed Closed	
	分進模式 Full Time Open Mode	
	開回路 Stepping Closed Loop Mode	
位置精度 positional accuracy	編碼器解析度 ±1 Pulse Encoder resolution ±1 Pulse	
指令最大頻率 frequency	900 (KHz)	
電子齒輪 gear	A=1-10000 B=1-10000	Dual 模式下不可設定 Cannot be set in mode
定位完成範圍 orientation range	0 ± 1000	
最大計數異常範圍 abnormal	± 1-2147483647	
速度控制規格 (Speed control specification)		
速度指令 speed command	數位值 (pps) digital value	迴轉數會依據編碼器解析度有差異 The resolution position accuracy will not be compensated

*規格參數（續上表）

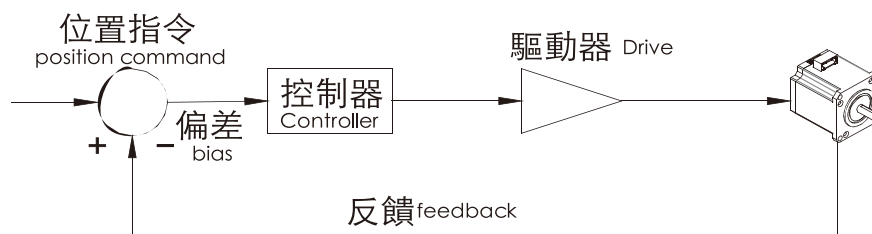
Specifications

速度控制規格 Speed control specification		
速度控制比 Speed control ratio	500:1 以上 500:1 Above	
指令迴轉方向 Instruction turning direction	數位輸入 (DIR) Digital Input	
啟動, 停止 Start, stop	數位輸入 (START) Digital Input	
加減速功能 acceleration and deceleration	$n \times \text{MAXrpm} \times 0.125\text{ms}$	$n=0$ 時無加減速 $n=0$, No deceleration
扭力控制規格 Torque control specification		
扭力指令 Torque command	數位值pps digital value	迴轉數會依據編碼器解析度有差異 The resolution position accuracy will not be compensated
可變扭矩範圍 Variable torque range	0-100%	0-100%為電機額定扭力 0-100% Rated torque of motor
速度限制 speed limit	數位值(RPM) digital value	
指令迴轉方向 Instruction turning direction	數位輸入 (DIR) Digital Input	
啟動, 停止 Start, stop	數位輸入 (START) Digital Input	

*高信賴度系統 (High trust system)

搭載光學式編碼器，不失步步進伺服系統

Equipped with optical encoder, the motor servo system without losing step by step



*高轉速，高扭矩 (High speed, high torque)

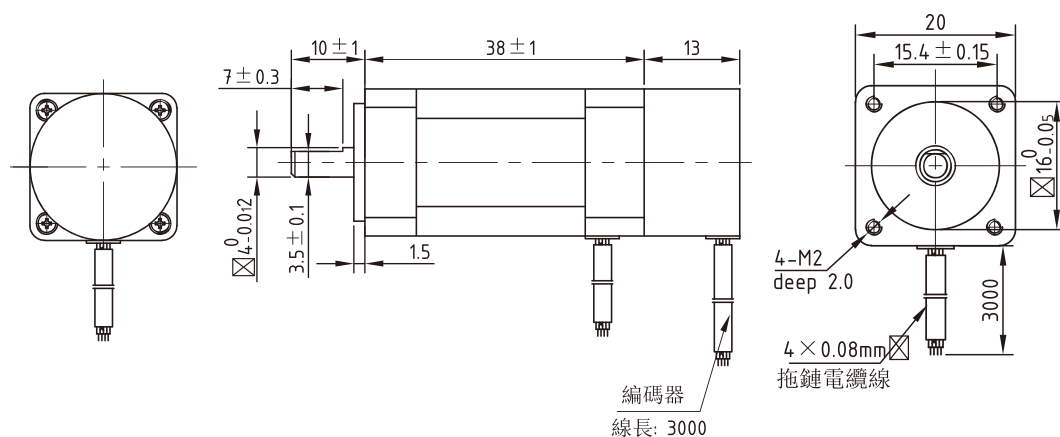
利用新開發的智演算法 (Smart algorithm)能夠最大限度地發揮出電機特性，使高轉速，高扭矩得以實現

By using the newly developed intelligent algorithm, the performance of the motor can be maximized to achieve high rotation and high torque

*規格參數 Specifications

步進電機 TM-20L

*外形尺寸



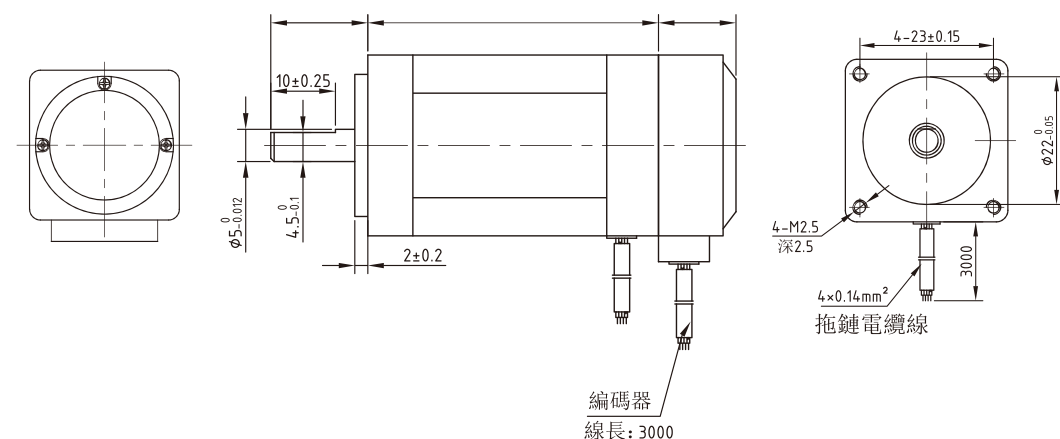
1000PPS編碼器接線	
線色	信號
綠	A+
棕	A-
灰	B+
白	B-
黃	Z+
藍	Z-
紅	+5V DC
黑	GND

*數據尺寸

型號	步距角	額定電壓	電機總長度	保持轉矩	額定電流	絕緣抵抗	角度誤差	轉子慣量	電機重量
Model	Step Angle (°)	Voltage (V)	Length L(mm)	Holding torque (N.m)	Current (A/phase)	Resistance (MΩ)	angular (°)	Rotor Jn (g.cm ²)	Winght (kg)
TM-20L	1.8	2.4	61	0.02	0.5	100	$\leq \pm 0.09$	3.3	0.08

步進電機 TM-28L

*外形尺寸



1000PPS編碼器接線	
線色	信號
綠	A+
棕	A-
灰	B+
白	B-
黃	Z+
藍	Z-
紅	+5V DC
黑	GND

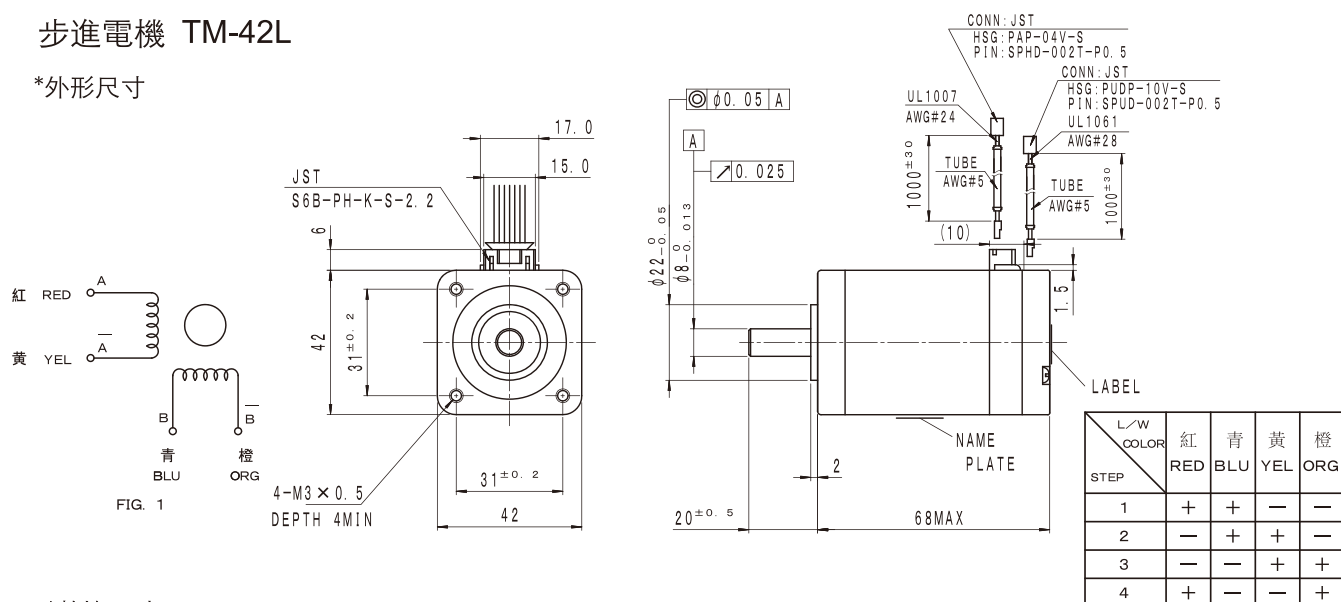
*數據尺寸

型號	步距角	額定電壓	電機總長度	保持轉矩	額定電流	絕緣抵抗	角度誤差	轉子慣量	電機重量
Model	Step Angle (°)	Voltage (V)	Length L(mm)	Holding torque (N.m)	Current (A/phase)	Resistance (MΩ)	angular (°)	Rotor Jn (g.cm ²)	Winght (kg)
TM-28L	1.8	3	72	0.12	0.5	100	$\leq \pm 0.09$	18	0.2

*規格參數 Specifications

步進電機 TM-42L

*外形尺寸



*數據尺寸

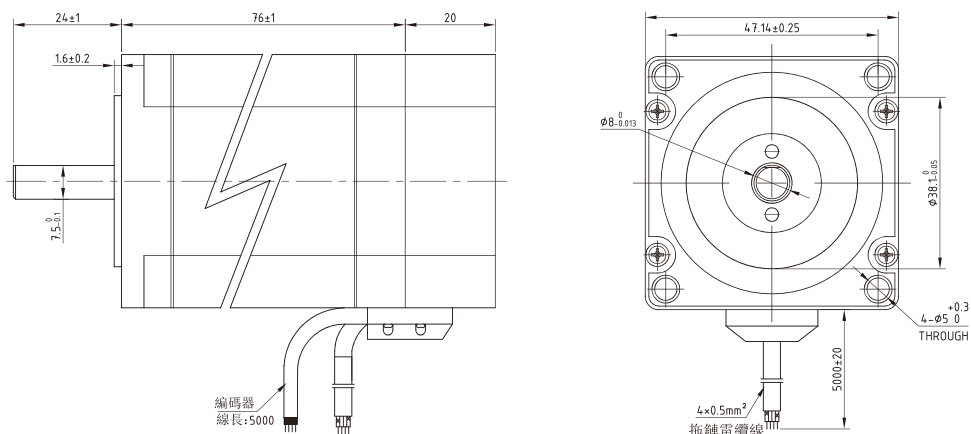
型號	步距角	額定電壓	電機總長度	保持轉矩	額定電流	絕緣抵抗	角度誤差	轉子慣量	電機重量
Model	Step Angle (°)	Voltage (V)	Length L(mm)	Holding torque (N.m)	Current (A/phase)	Resistance (MΩ)	angular (°)	Rotor J (g.cm²)	Weight (kg)
TM-42L	1.8	3	90	0.43	1.68	100	≤ ±0.09	68	0.35

步進電機 TM-57L

*外形尺寸

GX16-8芯

序號	顏色	信號
1	綠	A+
2	棕	A-
3	白	B+
4	灰	B-
5	黃	Z+
6	藍	Z-
7	紅	+5V DC
8	黑	GND



*數據尺寸

型號	步距角	額定電壓	電機總長度	保持轉矩	額定電流	絕緣抵抗	角度誤差	轉子慣量	電機重量
Model	Step Angle (°)	Voltage (V)	Length L(mm)	Holding torque (N.m)	Current (A/phase)	Resistance (MΩ)	angular (°)	Rotor J (g.cm²)	Weight (kg)
TM-57L	1.8	3	120	2.0	2	100	≤ ±0.09	480	1.1