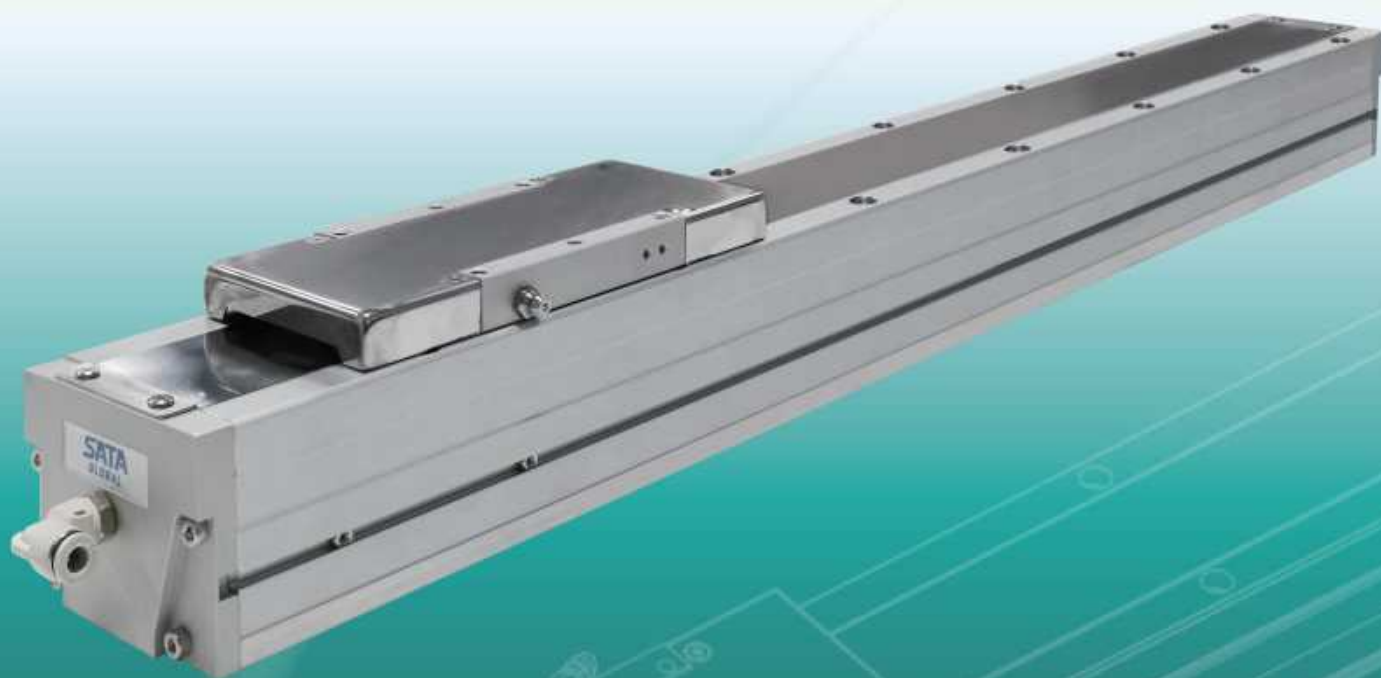


SATA

內嵌式直線電機

Built-in LM Guide Liner Motor Series



NKM5 - S100 - MR - 10 - 05 - R1 - S

型號
Model

行程
Stroke

編碼器
Encoder

解析度
Resolution

線長
Wire length

馬達規格
Motor specifications

驅動器
Driver

OR 光學尺
MR 磁性尺

01: 0.1um
05: 0.5um
10: 1um

03-3m
05-5m
08-8m

*標配 3m
*Standard: 3m

C 科普利 - Copley
D 台達 - Delta
K 科爾摩根 - Kollmorgen
P 松下 - Panasonic
S 高創 - Servotronics

NKM5-R1規格表 (NKM5-R1 Specification):

型號參數 model	NKM5-R1
分辨率(um) Resolution (um)	1
最大速度(m/s) Maximum speed (m/s)	1.5
峰值推力(N) Peak thrust (N)	96
連續推力(N) Continuous thrust (N)	48
連續電流(Arms) Continuous current (Arms)	2.5
峰值電流(Arms) Peak current (Arms)	7
推力常數(N/Arms) Thrust constant (N/Arms)	20
反電動勢(V/m/s) Back electromotive force (V/m/s)	16.5
電機常數(Nm/√w) Motor constant (Nm/√w)	7.05
電感(mH) Inductance (mH)	8
電阻(Ω) Resistance (Ω)	3.4
電磁吸力(KN) Electromagnetic suction (KN)	0.22
直線度Straightness	± 5um / 300mm
運動部分質量(kg) Mass of the moving part (kg)	0.5
重複定位精度Repeatability (mm)	± 0.003磁柵編碼器 以客戶需求編碼器為主 (magnetic ruler, depends on encoder)
極距Pole distance	20mm

註: 直線電機選型需要根據模組運行時具體參數進行選擇, 爲了更好的適用您的方案, 請務必與我司工程進行確認選型。

Note: the selection of linear motor shall be based on the specific parameters of the module operation. In order to better apply your scheme, please be sure to confirm the selection with our engineer.

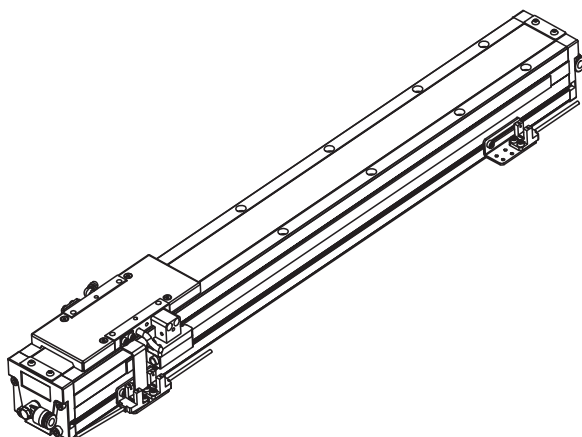
如: 負載, 停頓時間, (加速度, 速度, 行程運行時間, 任意一種), 安裝方式, 配光柵還是磁柵精度若有其他要求請註明

Such as: load, pause time, (acceleration, speed, travel time, any kind), installation method, with optical or magnetic scale, if there are other requirements, please specify

負載計算公式: $m_{load} = (F_{max} - U m_{slip}) / a - m_{slip}$ 僅做參考 m_{slip} -負載, F_{max} -最大推力, U -摩擦係數, m_{slip} -總質量, a -加速度, m_{slip} -滑座質量

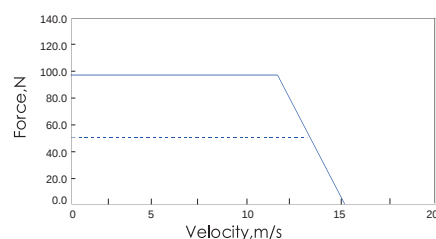
Load formula: $m_{load} = (F_{max} - U m_{slip}) / a - m_{slip}$ Just for reference

m_{load} -load, F_{max} -Peak thrust, U -Coefficient of friction, m_{total} -Total mass, a -Acceleration, m_{slip} -Sliding mass



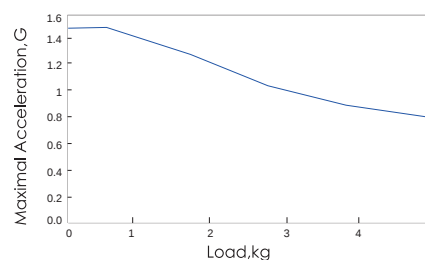
F-V曲線

F-V Curve
-Acc Force-Cont. Force

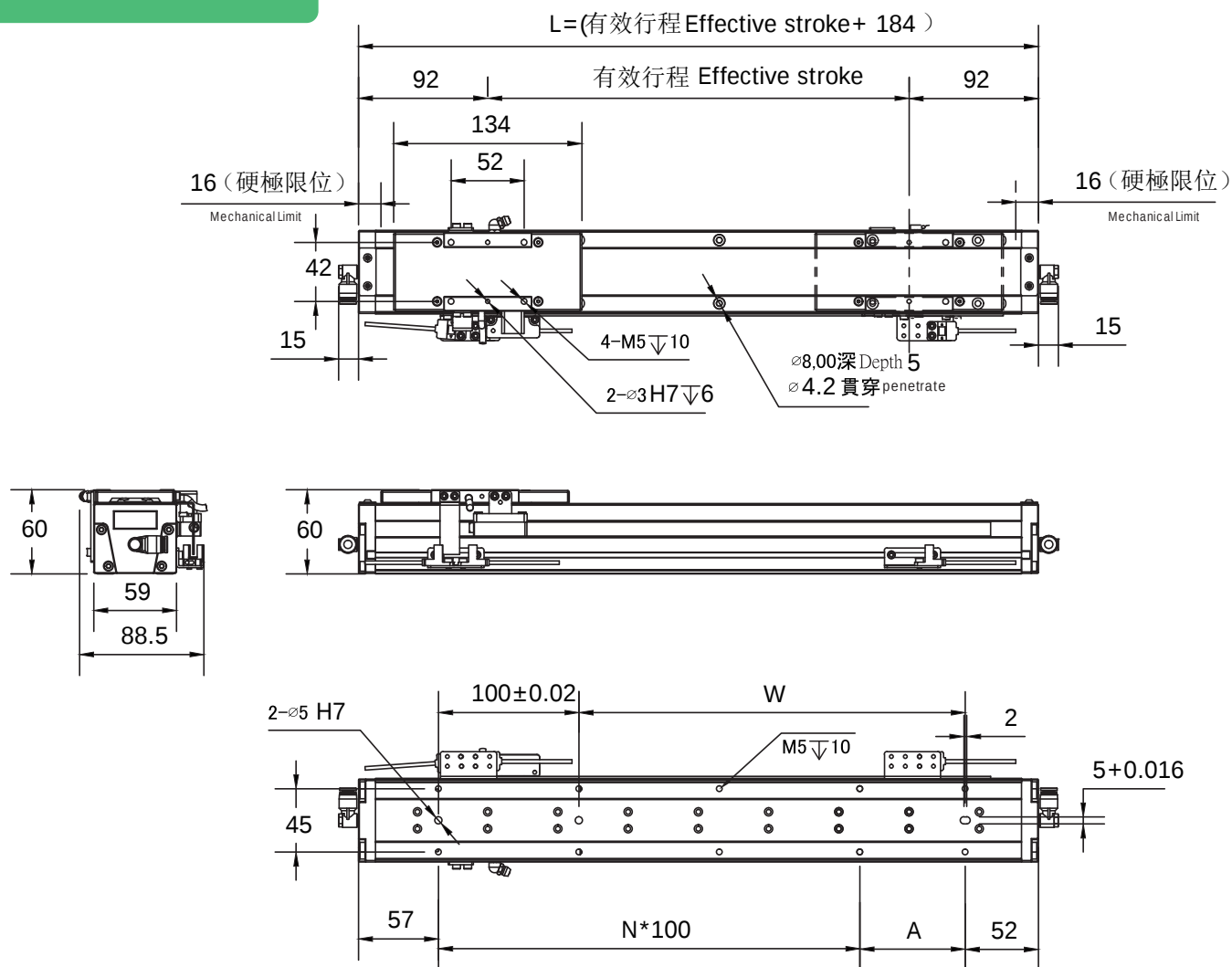


最大加速度與載荷 (停留時間1S)

A-L Curve



NKM5-R1



行程 Stroke	50	100	150	200	250	300	350	400	450	500	550	600	650
L	234	284	334	384	434	4684	534	584	634	684	734	784	834
A	25	75	25	75	25	75	25	75	25	75	25	75	25
N	1	1	2	2	3	3	4	4	5	5	6	6	7
W	25	75	125	175	225	275	315	375	415	475	515	575	615
總长mm	234	284	334	384	434	484	534	584	634	684	734	784	834
重量kg	1.3	1.7	2.1	2.5	2.9	3.3	3.7	4.1	4.5	4.9	5.3	5.7	6.1

行程 Stroke	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300
L	884	934	984	1034	1084	1134	1184	1234	1284	1334	1384	1434	1484
A	75	25	75	25	75	25	75	25	75	25	75	25	75
N	7	8	8	9	9	10	10	11	11	12	12	13	13
W	675	715	775	815	875	915	975	1015	1075	1115	1175	1215	1275
總长mm	884	934	984	1034	1084	1134	1184	1234	1284	1334	1384	1434	1484
重量kg	6.5	6.9	7.3	7.7	8.1	8.5	8.9	9.3	9.7	10.1	10.5	10.9	11.3

NKM8 - S135 - MR - 10 - 05 - R1 - S

型號
Model

行程
Stroke

編碼器
Encoder

解析度
Resolution

線長
Wire length

馬達規格
Motor specifications

驅動器
Driver

OR 光學尺
Optical ruler
MR 磁性尺
Magnetic ruler

01 : 0.1um
05 : 0.5um
10 : 1um

03 - 3m
05 - 5m
08 - 8m
*標配 3m
*standard: 3m

C 科普利 - Copley
D 台達 - Delta
K 科爾摩根 - Kollmorgen
P 松下 - Panasonic
S 高創 - Servotronics

NKM8-R1規格表 (NKM8-R1 Specification):

型號參數 model	NKM8-R1
分辨率(um) Resolution (um)	1
最大速度(m/s) Maximum speed (m/s)	2
峰值推力(N) Peak thrust (N)	316
連續推力(N) Continuous thrust (N)	108
連續電流(Arms) Continuous current (Arms)	2.5
峰值電流(Arms) Peak current (Arms)	11.5
推力常數(N/Arms) Thrust constant (N/Arms)	38.5
反電動勢(V/m/s) Back electromotive force (V/m/s)	31.6
電機常數(Nm/√w) Motor constant (Nm/√w)	8.1
電感(mH) Inductance (mH)	17
電阻(Ω) Resistance (Ω)	6.1
電磁吸力(KN) Electromagnetic suction (KN)	0.93
直線度 Straightness	± 5um / 300mm
運動部分質量(kg) Mass of the moving part (kg)	1.5
重複定位精度 Repeatability (mm)	± 0.003 磁柵編碼器 以客戶需求編碼器為主 (magnetic ruler, depends on encoder)
極距 Pole distance	20mm

註:直線電機選型需要根據模組運行時具體參數進行選擇,爲了更好的適用您的方案,請務必與我司工程進行確認選型。

Note: the selection of linear motor shall be based on the specific parameters of the module operation. In order to better apply your scheme, please be sure to confirm the selection with our engineer.

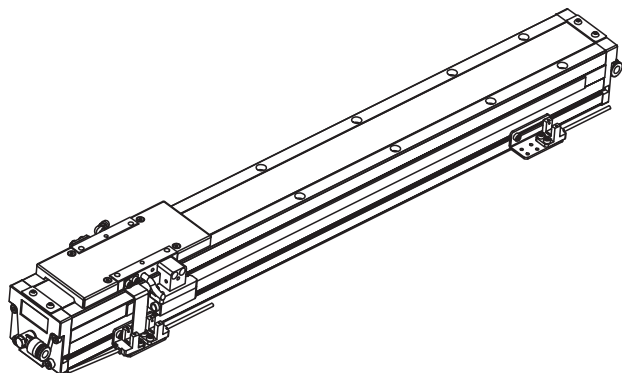
如: 負載, 停頓時間, (加速度, 速度, 行程運行時間, 任意一種), 安裝方式, 配光柵還是磁柵精度若有其他要求請註明

Such as: load, pause time, (acceleration, speed, travel time, any kind), installation method, with optical or magnetic scale, if there are other requirements, please specify

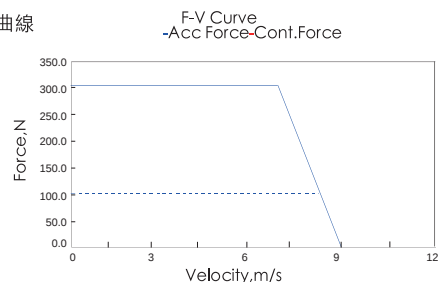
負載計算公式: $m_{load} = (F_{max} - U m_{slip}) / a - m_{slip}$ 僅做參考 m_{load} -負載, F_{max} -最大推力, U -摩擦係數, m_{slip} -總質量, a -加速度, m_{slip} -滑座質量

Load formula: $m_{load} = (F_{max} - U m_{slip}) / a - m_{slip}$ Just for reference

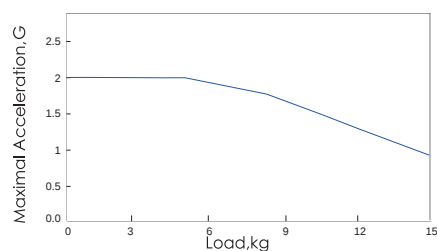
m_{load} -load, F_{max} -Peak thrust, U -Coefficient of friction, m_{total} -Total mass, a -Acceleration, m_{slip} -Sliding mass



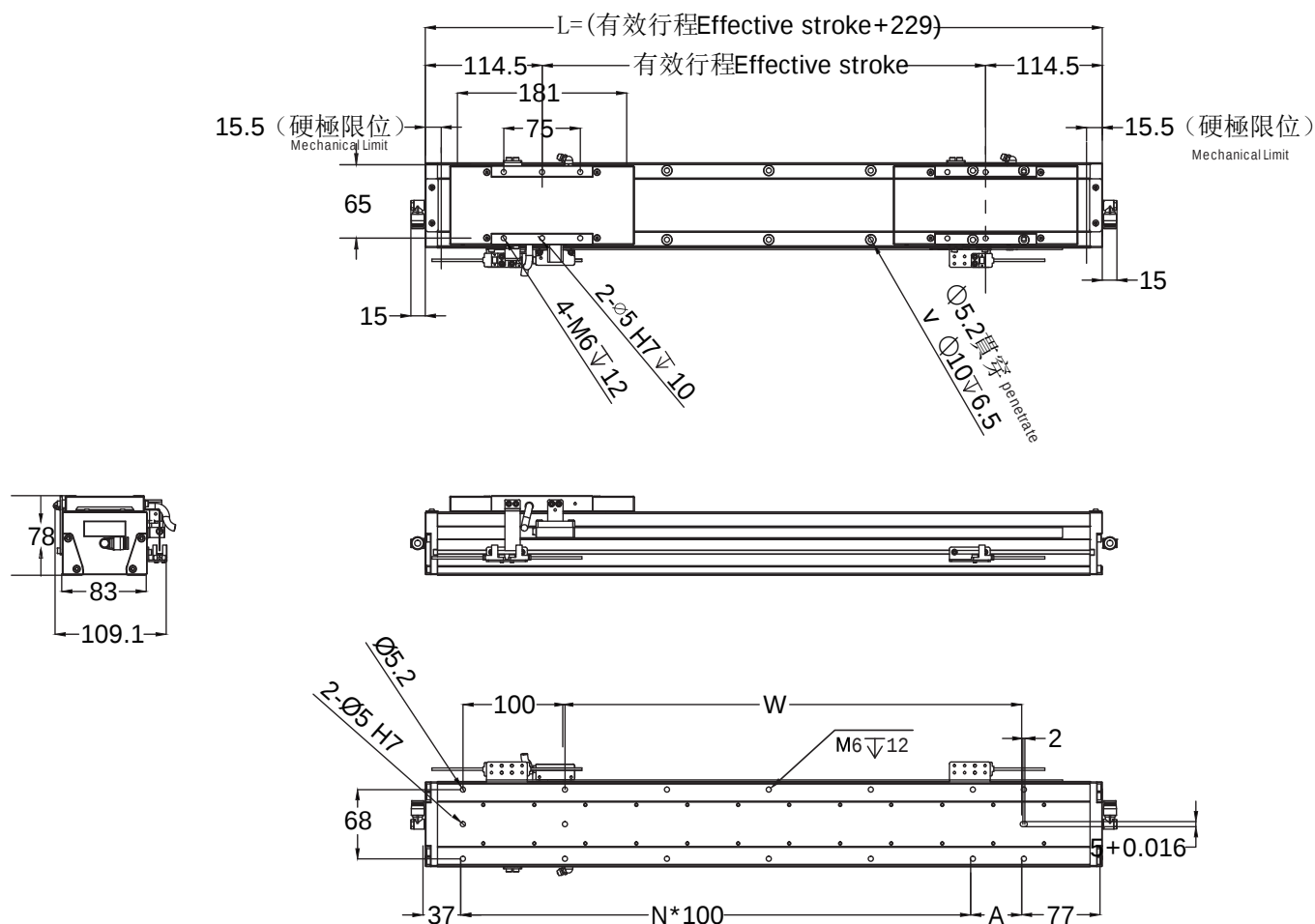
F-V曲線



最大加速度與載荷 (停留時間1S)
A-L Curve



NKM8-R1



行程 Stroke	35	85	135	185	235	285	335	385	435	485	535	585	635
L	264	314	364	414	464	514	564	614	664	714	764	814	864
A	50	100	50	100	50	100	50	100	50	100	50	100	50
N	1	1	2	2	3	3	4	4	5	5	6	6	7
W	50	100	150	200	250	300	350	400	450	500	550	600	650
總長mm	264	314	364	414	464	514	564	614	664	714	764	814	864
重量kg	3.5	4.2	4.9	5.6	6.3	7	7.7	8.4	9.1	9.8	10.5	11.2	11.9

行程 Stroke	685	735	785	835	885	935	985	1035	1085	1135	1185	1235	1285
L	914	964	1014	1064	1114	1164	1214	1264	1314	1364	1414	1464	1514
A	50	100	50	100	50	100	50	100	50	100	50	100	50
N	7	8	8	9	9	10	10	11	11	12	12	13	13
W	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300
總長mm	914	964	1014	1064	1114	1164	1214	1264	1314	1364	1414	1464	1514
重量kg	12.6	13.3	14	14.7	15.4	16.1	16.8	17.5	18.2	18.9	19.6	20.3	21

NKM12 - S100 - MR - 10 - 05 - R1 - S

型號
Model

行程
Stroke

編碼器
Encoder

解析度
Resolution

線長
Wire length

馬達規格
Motor specifications

驅動器
Driver

OR 光學尺
MR 磁性尺

01: 0.1um
05: 0.5um
10: 1um

03-3m
05-5m
08-8m
*標配 3m
*Standard: 3m

C 科普利 - Copley
D 台達 - Delta
K 科爾摩根 - Kollmorgen
P 松下 - Panasonic
S 高創 - Servotronics

NKM12-R1規格表 (NKM12-R1 Specification):

型號參數 model	NKM12-R1
分辨率(um) Resolution (um)	1
最大速度(m/s) Maximum speed (m/s)	2
峰值推力(N) Peak thrust (N)	310
連續推力(N) Continuous thrust (N)	150
連續電流(Arms) Continuous current (Arms)	4
峰值電流(Arms) Peak current (Arms)	13.8
推力常數(N/Arms) Thrust constant (N/Arms)	38
反電動勢(V/m/s) Back electromotive force (V/m/s)	31
電機常數(Nm/√w) Motor constant (Nm/√w)	7.8
電感(mH) Inductance (mH)	26
電阻(Ω) Resistance (Ω)	4.2
電磁吸力(KN) Electromagnetic suction (KN)	0.65
直線度Straightness	± 5um / 300mm
運動部分質量(kg) Mass of the moving part (kg)	2.3
重複定位精度Repeatability (mm)	± 0.003磁柵編碼器 以客戶需求編碼器為主 (magnetic ruler, depends on encoder)
極距Pole distance	20mm

註: 直線電機選型需要根據模組運行時具體參數進行選擇, 爲了更好的適用您的方案, 請務必與我司工程進行確認選型。

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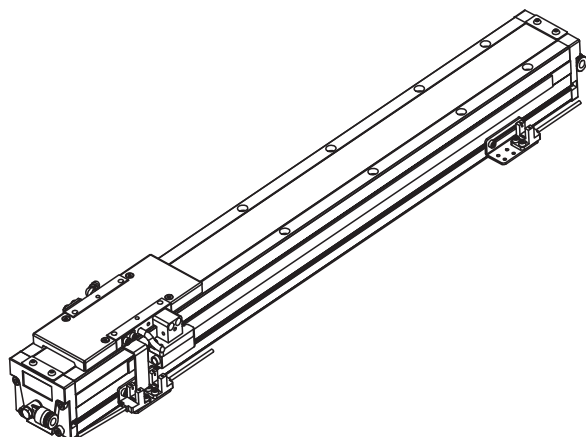
如: 負載, 停頓時間, (加速度, 速度, 行程運行時間, 任意一種), 安裝方式, 配光柵還是磁柵精度若有其他要求請註明

Such as: load, pause time, (acceleration, speed, travel time, any kind), installation method, with optical or magnetic scale, if there are other requirements, please specify

負載計算公式: $m_{load} = (F_{max} - U m_{total}) / a - m_{slip}$ 僅做參考 m_{slip} -負載, F_{max} -最大推力, U -摩擦係數, m_{total} -總質量, a -加速度, m_{slip} -滑座質量

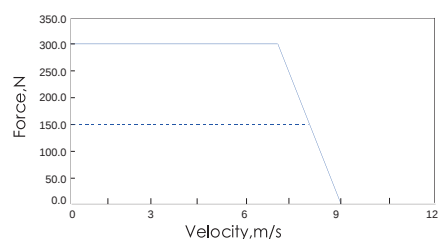
Load formula: $m_{load} = (F_{max} - U m_{total}) / a - m_{slip}$ Just for reference

m_{load} -load, F_{max} -Peak thrust, U -Coefficient of friction, m_{total} -Total mass, a -Acceleration, m_{slip} -Sliding mass



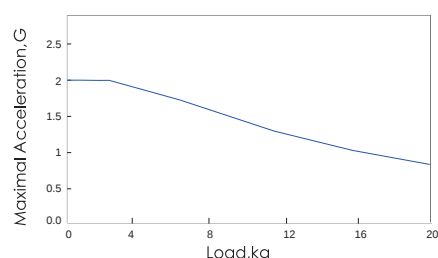
F-V曲線

F-V Curve
-Acc Force-Cont. Force

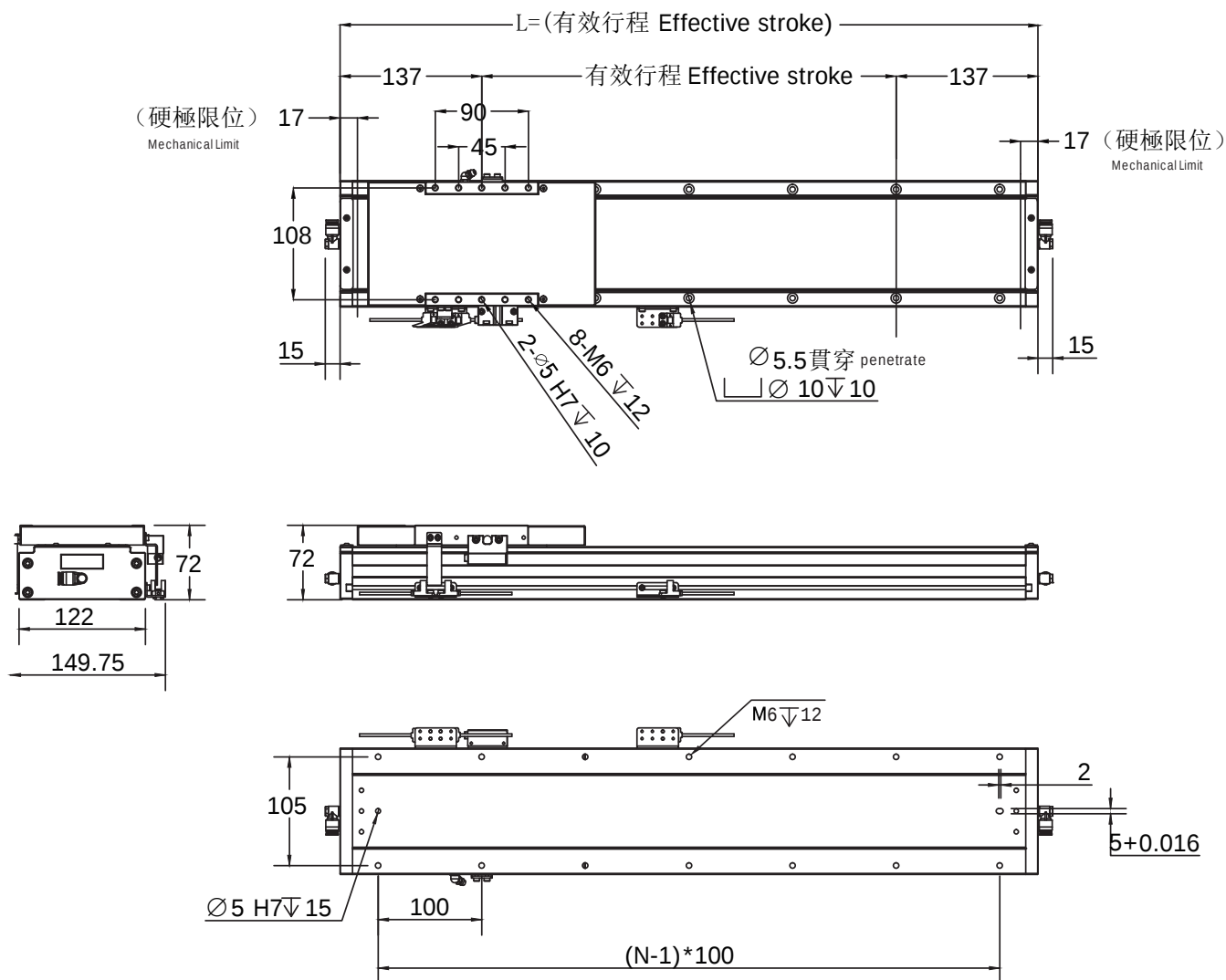


最大加速度與載荷 (停頓時間1S)

A-L Curve



NKM12-R1



行程 Stroke	50	100	150	200	250	300	350	400	450	500	550	600
L	324	374	424	474	524	574	624	674	724	774	824	874
N	3	4	4	5	5	6	6	7	7	8	8	9
總長mm	324	374	424	474	524	574	624	674	724	774	824	874
重量kg	3.2	3.9	4.6	5.3	6	6.7	7.4	8.1	8.8	9.5	10.2	10.9

行程 Stroke	650	700	750	800	850	900	950	1000	1050	1100	1150	1200
L	924	974	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474
N	9	10	10	11	11	12	12	13	13	14	14	15
總長mm	924	974	1024	1074	1124	1174	1224	1274	1324	1374	1424	1474
重量kg	11.6	12.3	13	13.7	14.4	15.1	15.8	16.5	17.2	17.9	18.6	19.3

※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.

