

# MicNano

Micro to Nano

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## M L A Servo Motor Linear Actuators

# 伺服線性制動器系列

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- 行程：~ 200 mm
- 推力：25 ~ 300 N
- 速度：~ 300 mm/sec
- 重複定位精度：~± 1  $\mu$ m

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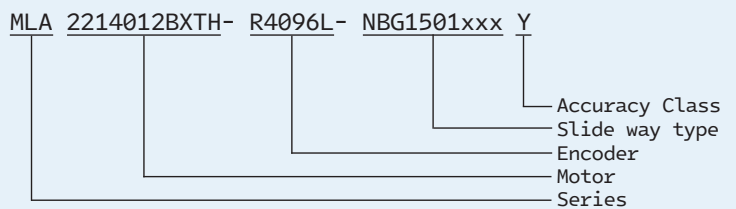
搭配組合 **Faulhaber** 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性  
完成高加減速，高速，高精度定位

搭配控制器做閉迴路力量，速度與位置控制  
同時具備多種通訊界面供選擇

線軌模組主力搭配日本 **Nippon Bearing** 和 **THK**  
達高剛性、高穩定性與高重現性之特性

另可選配更高解析度，絕對型編碼器及煞車器

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## MLA Series | Servo Motor Linear Actuators |

MLA2214012BXTH - R4096L - NBG1501xxxY	24 - 25
MLA2214012BXTH - R4096L - TKR1501xxxY	26 - 27
MLA2214012BXTH - R4096L - NBG1502xxxY	28 - 29
MLA2214012BXTH - R4096L - TKR1502xxxY	30 - 31
MLA2214012BXTH - R4096L - NBG2001xxxY	32 - 33
MLA2214012BXTH - R4096L - TKR2001xxxY	34 - 35
MLA2214012BXTH - R4096L - NBG2005xxxY	36 - 37
MLA2214012BXTH - R4096L - TKR2006xxxY	38 - 39
MLA3216012BXTH - R4096L - NBG2001xxxY	40 - 41
MLA3216012BXTH - R4096L - TKR2001xxxY	42 - 43
MLA3216012BXTH - R4096L - NBG2005xxxY	44 - 45
MLA3216012BXTH - R4096L - TKR2006xxxY	46 - 47
MLA3216012BXTH - R4096L - NBG2602xxxY	48 - 49
MLA3216012BXTH - R4096L - TKR2602xxxY	50 - 51
MLA3216012BXTH - R4096L - NBG2605xxxY	52 - 53
MLA3216012BXTH - R4096L - TKR2606xxxY	54 - 55
MLA4221024BXTH - R4096L - NBG2602xxxY	56 - 57
MLA4221024BXTH - R4096L - TKR2602xxxY	58 - 59
MLA4221024BXTH - R4096L - NBG2605xxxY	60 - 61
MLA4221024BXTH - R4096L - TKR2606xxxY	62 - 63

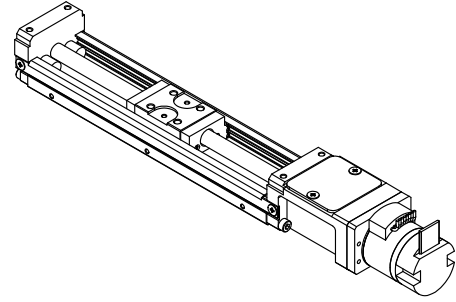
## MLA2214012BXTH-R4096L-NBG1501xxxY

推力 : 50 N

瞬間推力 : 300 N

解析度 : 0.244 μm

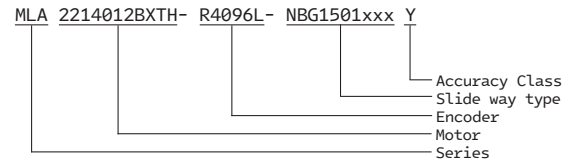
連續移動速度 : 50 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

日本 Nippon Bearing 特規線軌模組  
達高剛性、高穩定性與高重現性之特性

另可選配更高解析度，保護蓋，煞車器，極限開關



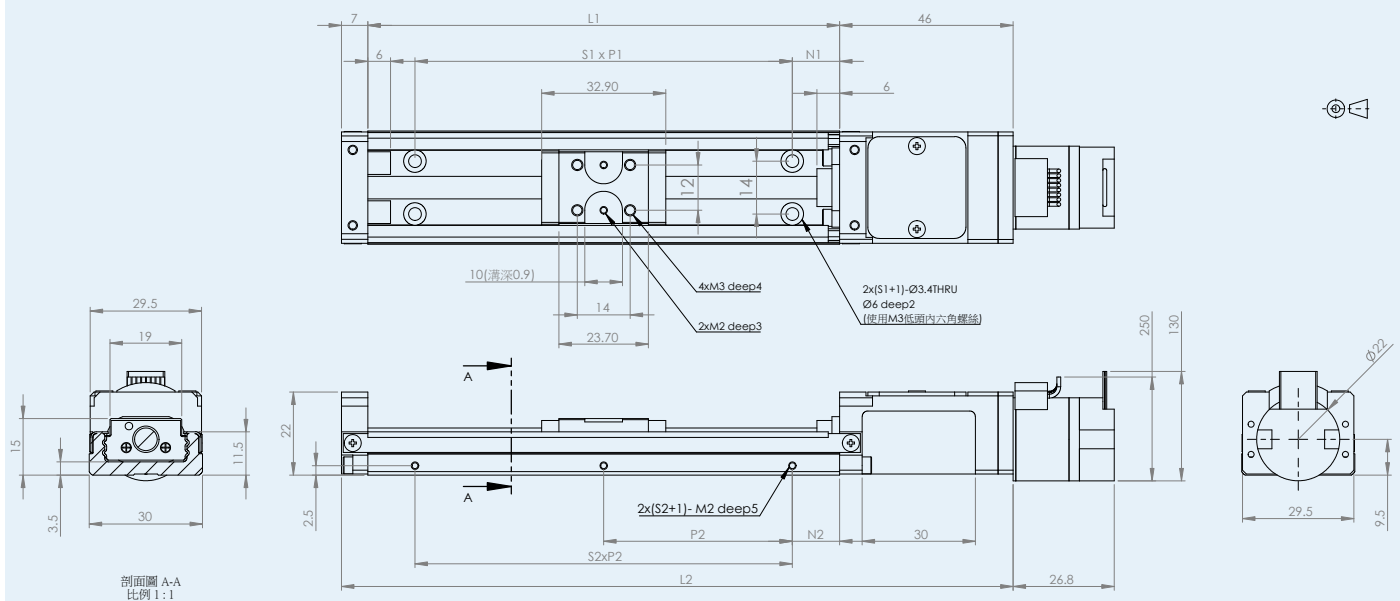
### Technical Specification

Nominal voltage	24		V
Nominal current	0.65		A
Terminal resistance	6.95		Ω
Ballscrew pitch	1		mm
Operation temperature range	-20 ... +80		°C
Continuous force	50		N
Peak force	300		N
Continuous output speed, max	50		mm/s
Encoder resolution	4096		CPR
Linear resolution	0.244		μm
Accuracy class	H	P	
Accuracy	40	20	μm
Repeatability	±3	±1	μm
Slide guide backlash	5	0	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
NBG1501030	30	75	128	12.5	1x50	12.5	1x50	0.27
NBG1501050	50	100	153	25	1x50	25	1x50	0.31
NBG1501080	80	125	177	12.5	2x50	12.5	2x50	0.34
NBG1501100	100	150	181	25	2x50	25	2x50	0.36
NBG1501130	130	175	227	12.5	3x50	12.5	3x50	0.42

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 3001 S RS/CO MC 3001 C RS/CO AEMT MC 3001 C PDIO MC 3001 C4 RS/CO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB26E-24V	延長連接線組, 耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

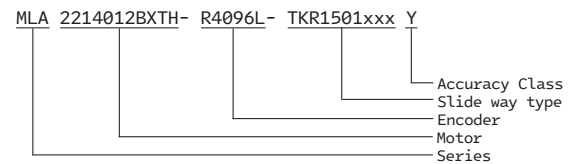
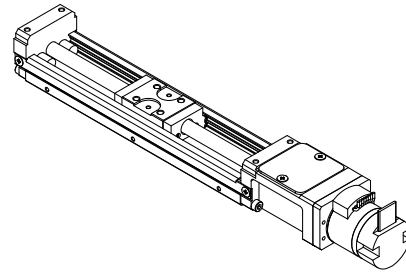
## MLA2214012BXTH-R4096L-TKR1501xxxY

推力 : 50 N

瞬間推力 : 300 N

解析度 : 0.244 μm

連續移動速度 : 50 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
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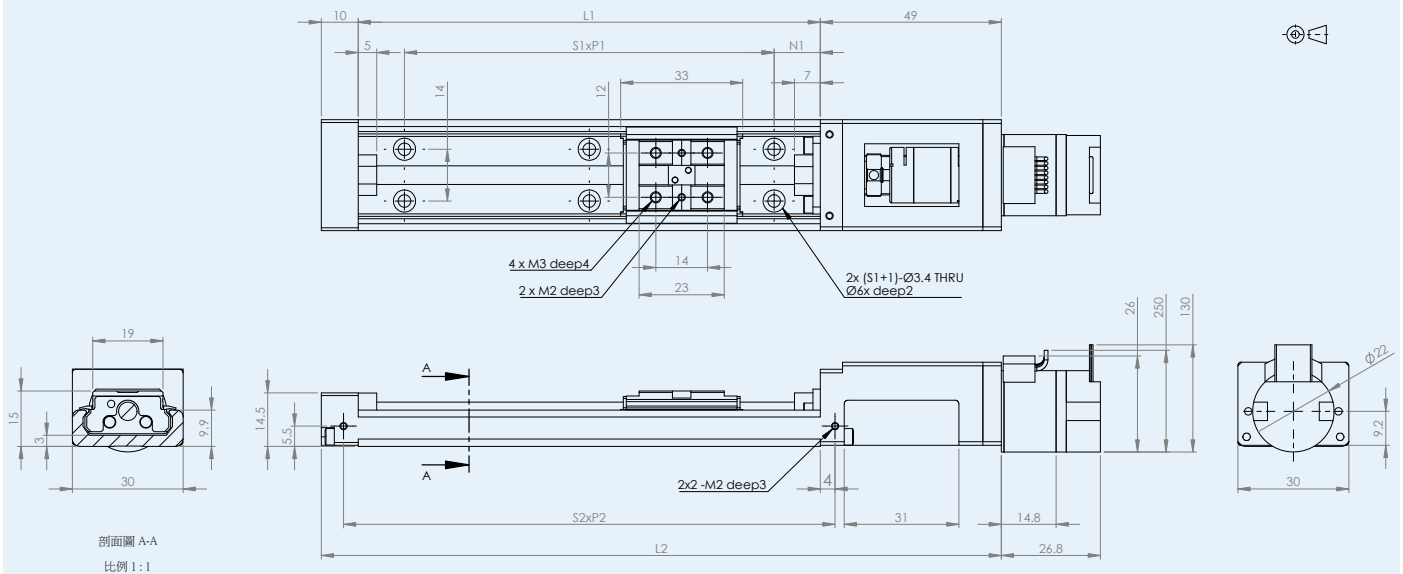
### Technical Specification

Nominal voltage	24		V
Nominal current	0.65		A
Terminal resistance	6.95		Ω
Ballscrew pitch	1		mm
Operation temperature range	-20 ... +80		°C
Continuous force	50		N
Peak force	300		N
Continuous output speed, max	50		mm/s
Encoder resolution	4096		CPR
Linear resolution	0.244		μm
Accuracy class	H	P	
Accuracy	40	20	μm
Repeatability	±4	±3	μm
Slide guide backlash	10	2	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
TKR1501025	25	75	134	12.5	1x50	-	1x50	0.27
TKR1501050	50	100	159	25	1x50	-	1x50	0.30
TKR1501075	75	125	184	12.5	2x50	-	2x50	0.33
TKR1501100	100	150	209	25	2x50	-	2x50	0.36
TKR1501125	125	175	234	12.5	3x50	-	3x50	0.39
TKR1501150	150	200	259	25	3x50	-	3x50	0.42

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 3001 S RS/CO MC 3001 C RS/CO AEMT MC 3001 C PDIO MC 3001 C4 RS/CO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB26E-24V	延長連接線組，耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

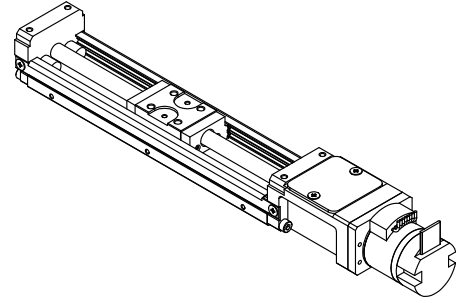
## MLA2214012BXTH-R4096L-NBG1502xxxY

推力 : 25 N

瞬間推力 : 150 N

解析度 : 0.488 μm

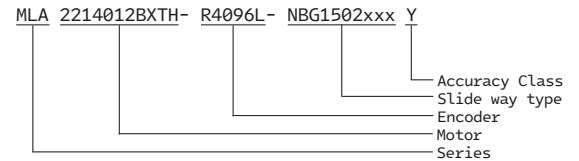
連續移動速度 : 100 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
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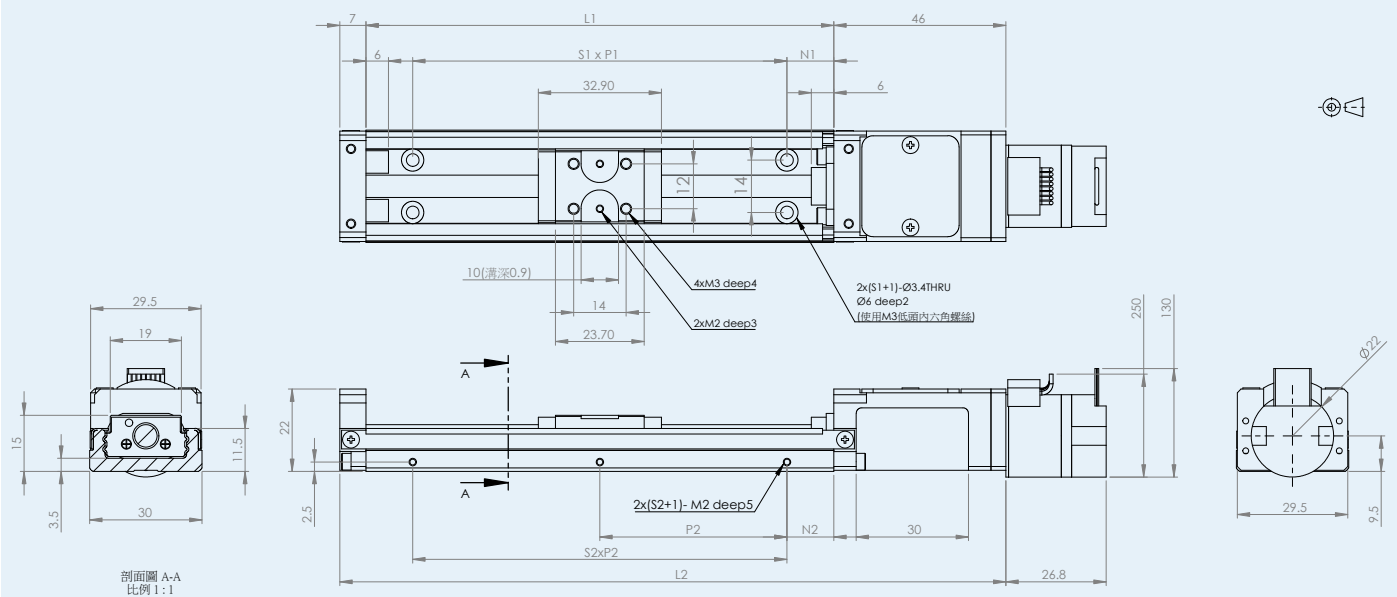
### Technical Specification

Nominal voltage	24		V
Nominal current	0.65		A
Terminal resistance	6.95		Ω
Ballscrew pitch	2		mm
Operation temperature range	-20 ... +80		°C
Continuous force	25		N
Peak force	150		N
Continuous output speed, max	100		mm/s
Encoder resolution	4096		CPR
Linear resolution	0.488		μm
Accuracy class	H	P	
Accuracy	40	20	μm
Repeatability	±3	±1	μm
Slide guide backlash	5	0	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
NBG1502030	30	75	128	12.5	1x50	12.5	1x50	0.27
NBG1502050	50	100	153	25	1x50	25	1x50	0.31
NBG1502080	80	125	177	12.5	2x50	12.5	2x50	0.34
NBG1502100	100	150	181	25	2x50	25	2x50	0.36
NBG1502130	130	175	227	12.5	3x50	12.5	3x50	0.42

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 3001 S RS/CO MC 3001 C RS/CO AEMT MC 3001 C PDIO MC 3001 C4 RS/CO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB26E-24V	延長連接線組，耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

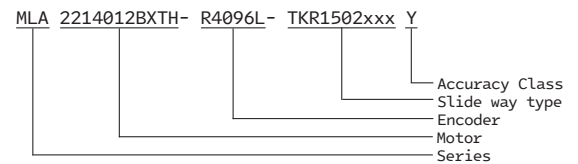
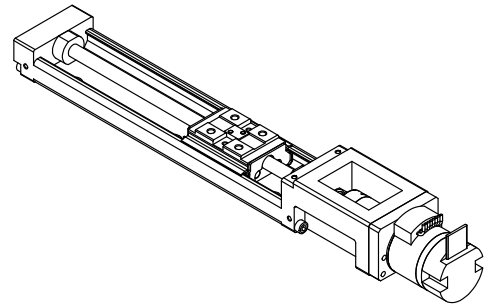
## MLA2214012BXTH-R4096L-TKR1502xxxY

推力 : 25 N

瞬間推力 : 150 N

解析度 : 0.488 μm

連續移動速度 : 100 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

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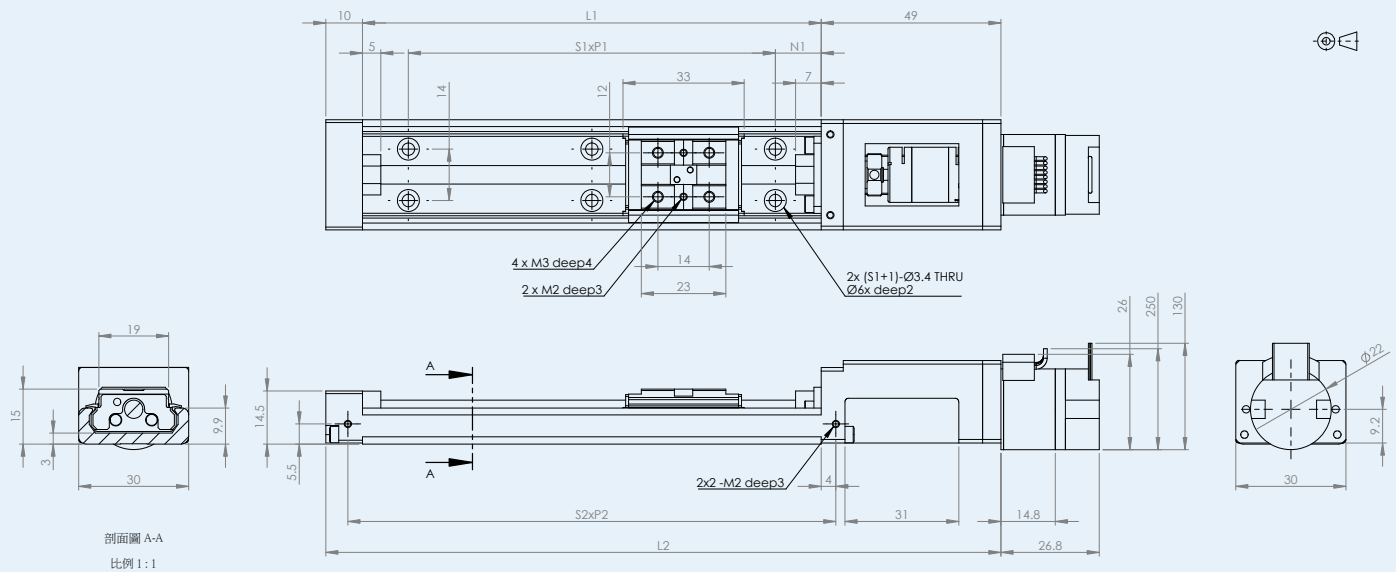
### Technical Specification

Nominal voltage	24		V
Nominal current	0.65		A
Terminal resistance	6.95		Ω
Ballscrew pitch	2		mm
Operation temperature range	-20 ... +80		°C
Continuous force	25		N
Peak force	150		N
Continuous output speed, max	100		mm/s
Encoder resolution	4096		CPR
Linear resolution	0.488		μm
Accuracy class	H	P	
Accuracy	40	20	μm
Repeatability	±4	±3	μm
Slide guide backlash	10	2	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
TKR1502025	25	75	134	12.5	1x50	-	1x83	0.27
TKR1502050	50	100	159	25	1x50	-	1x108	0.30
TKR1502075	75	125	184	12.5	2x50	-	1x133	0.33
TKR1502100	100	150	209	25	2x50	-	1x158	0.36
TKR1502125	125	175	234	12.5	3x50	-	1x183	0.39
TKR1502150	150	200	259	25	3x50	-	1x208	0.42

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 3001 S RS/CO MC 3001 C RS/CO AEMT MC 3001 C PDIO MC 3001 C4 RS/CO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB26E-24V	延長連接線組, 耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

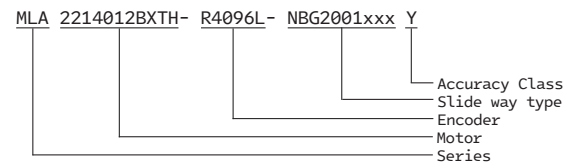
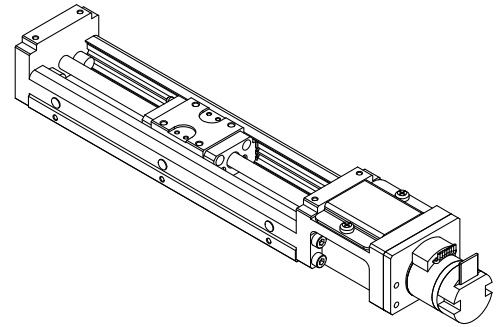
## MLA2214012BXTH-R4096L-NBG2001xxxY

推力 : 50 N

瞬間推力 : 300 N

解析度 : 0.244 μm

連續移動速度 : 50 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
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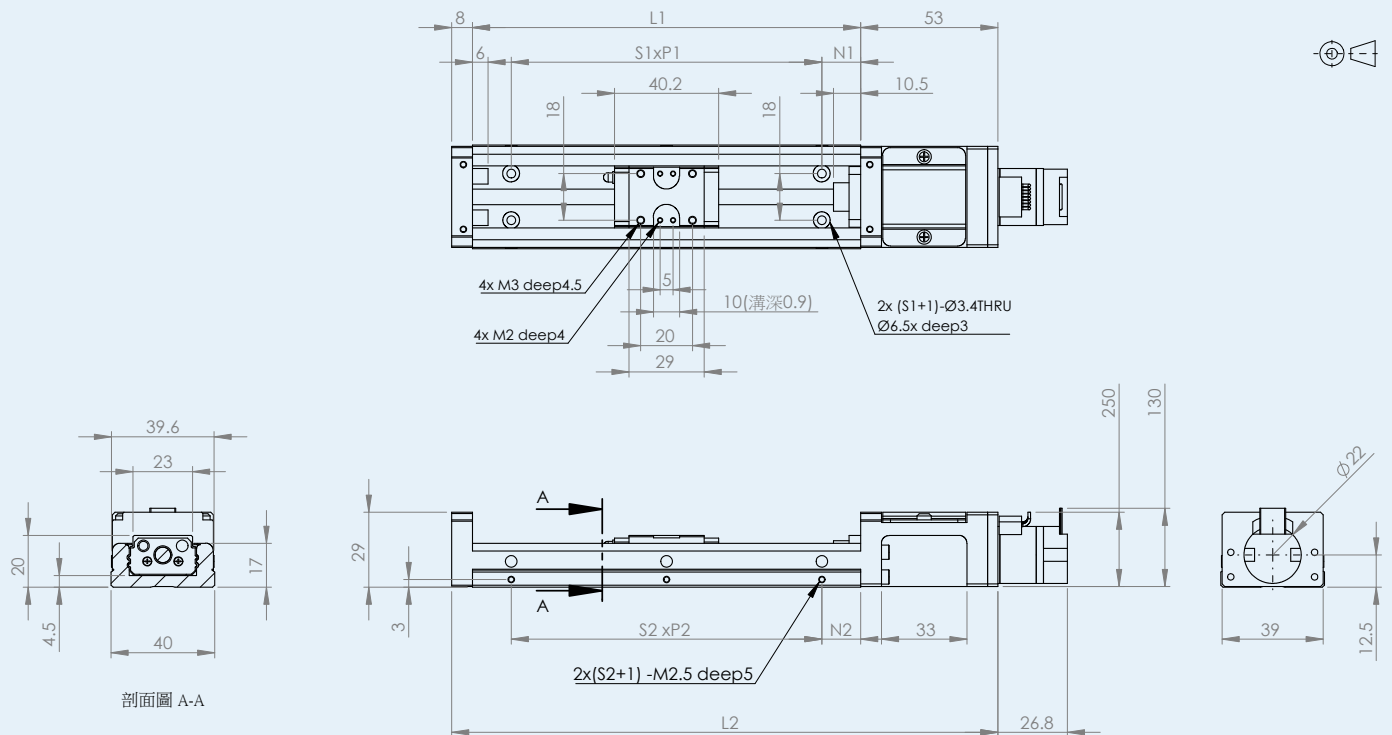
### Technical Specification

Nominal voltage	24		V
Nominal current	0.65		A
Terminal resistance	6.95		Ω
Ballscrew pitch	1		mm
Operation temperature range	-20 ... +80		°C
Continuous force	50		N
Peak force	300		N
Continuous output speed, max	50		mm/s
Encoder resolution	4096		CPR
Linear resolution	0.244		μm
Accuracy class	H	P	
Accuracy	50	20	μm
Repeatability	±3	±1	μm
Slide guide backlash	5	0	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
NBG2001040	40	100	161	20	1x60	20	1x60	0.52
NBG2001090	90	150	211	15	2x60	15	2x60	0.65
NBG2001140	140	200	261	40	2x60	40	2x60	0.78

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
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Grey	Hall sensor C
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			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

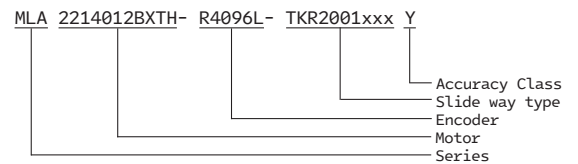
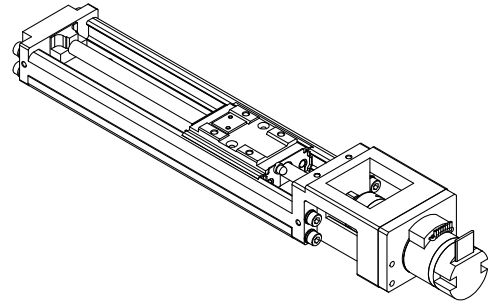
## MLA2214012BXTH-R4096L-TKR2001xxxY

推力 : 50 N

瞬間推力 : 300 N

解析度 : 0.244 μm

連續移動速度 : 50 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
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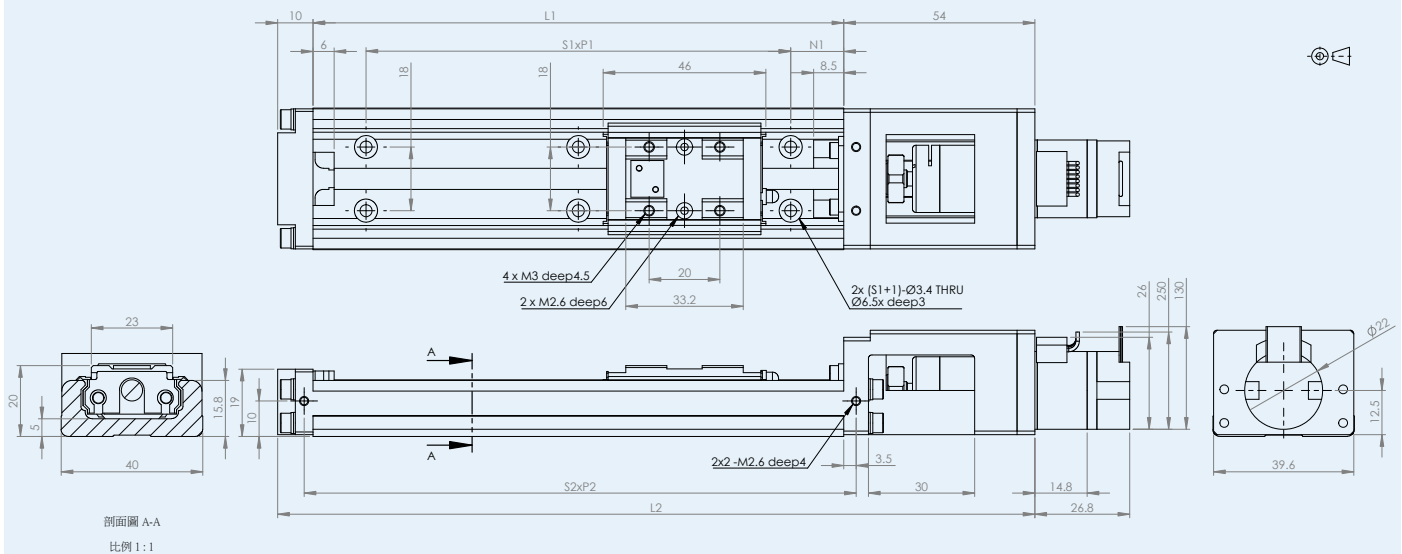
### Technical Specification

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Nominal current	0.65		A
Terminal resistance	6.95		Ω
Ballscrew pitch	1		mm
Operation temperature range	-20 ... +80		°C
Continuous force	50		N
Peak force	300		N
Continuous output speed, max	50		mm/s
Encoder resolution	4096		CPR
Linear resolution	0.244		μm
Accuracy class	H	P	
Accuracy	60	20	μm
Repeatability	±5	±3	μm
Slide guide backlash	10	3	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
TKR2001030	30	100	164	20	1x60	-	1x106	0.55
TKR2001080	80	150	214	15	2x60	-	1x156	0.68
TKR2001130	130	200	264	40	2x60	-	1x206	0.82

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 3001 S RS/CO MC 3001 C RS/CO AEMT MC 3001 C PDIO MC 3001 C4 RS/CO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB26E-24V	延長連接線組, 耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

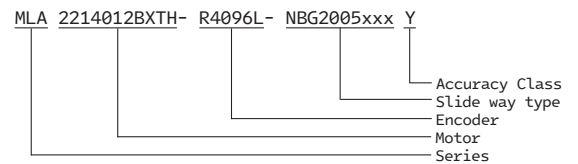
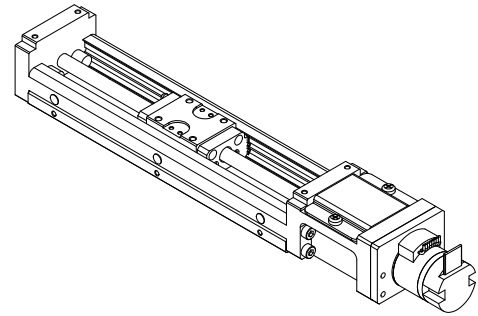
## MLA2214012BXTH-R4096L-NBG2005xxxY

推力 : 10 N

瞬間推力 : 50 N

解析度 : 1.22  $\mu\text{m}$

連續移動速度 : 250 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

日本 Nippon Bearing 特規線軌模組  
達高剛性、高穩定性與高重現性之特性

另可選配更高解析度，保護蓋，煞車器與極限開關

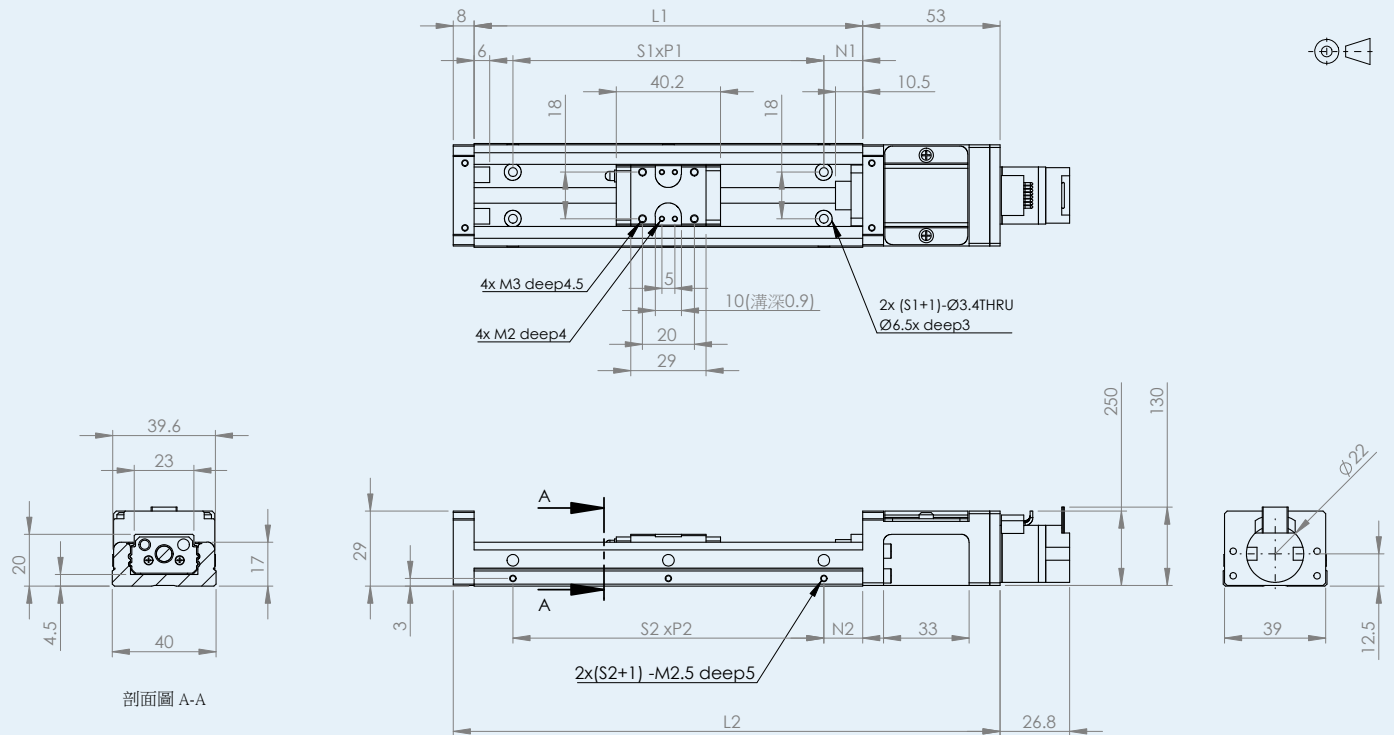
### Technical Specification

Nominal voltage	24		V
Nominal current	0.65		A
Terminal resistance	6.95		$\Omega$
Ballscrew pitch	5		mm
Operation temperature range	-20 ... +80		$^{\circ}\text{C}$
Continuous force	10		N
Peak force	50		N
Continuous output speed, max	250		mm/s
Encoder resolution	4096		CPR
Linear resolution	1.22		$\mu\text{m}$
Accuracy class	H	P	
Accuracy	50	20	$\mu\text{m}$
Repeatability	$\pm 3$	$\pm 1$	$\mu\text{m}$
Slide guide backlash	5	0	$\mu\text{m}$

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
NBG2005040	40	100	161	20	1x60	20	1x60	0.52
NBG2005090	90	150	211	15	2x60	15	2x60	0.65
NBG2005140	140	200	261	40	2x60	40	2x60	0.78

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 3001 S RS/CO MC 3001 C RS/CO AEMT MC 3001 C PDIO MC 3001 C4 RS/CO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB26E-24V	延長連接線組, 耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

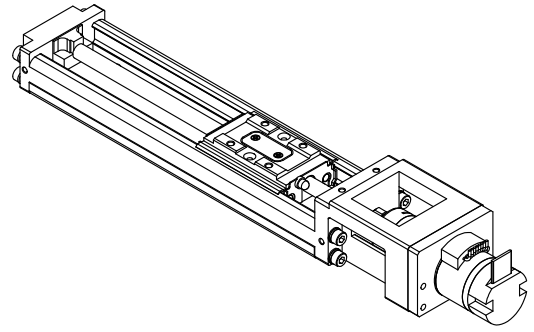
## MLA2214012BXTH-R4096L-TKR2006xxxY

推力：8 N

瞬間推力：48 N

解析度：1.464 μm

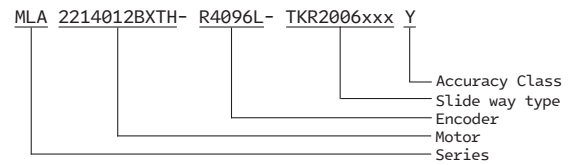
連續移動速度：300 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

日本 THK 特規線軌模組  
達高剛性、高穩定性與高重現性之特性

另可選配更高解析度，保護蓋，煞車器與極限開關



### Technical Specification

Nominal voltage	24		V
Nominal current	0.65		A
Terminal resistance	6.95		Ω
Ballscrew pitch	6		mm
Operation temperature range	-20 ... +80		°C
Continuous force	8		N
Peak force	48		N
Continuous output speed, max	300		mm/s
Encoder resolution	4096		CPR
Linear resolution	1.464		μm
Accuracy class	H	P	
Accuracy	60	20	μm
Repeatability	±5	±3	μm
Slide guide backlash	10	3	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
TKR2006030	30	100	164	20	1x60	-	1x106	0.55
TKR2006080	80	150	214	15	2x60	-	1x156	0.68
TKR2006130	130	200	264	40	2x60	-	1x206	0.82



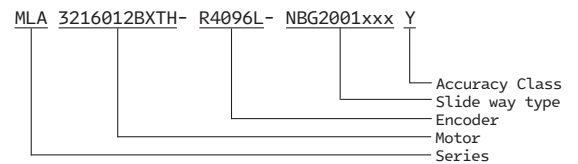
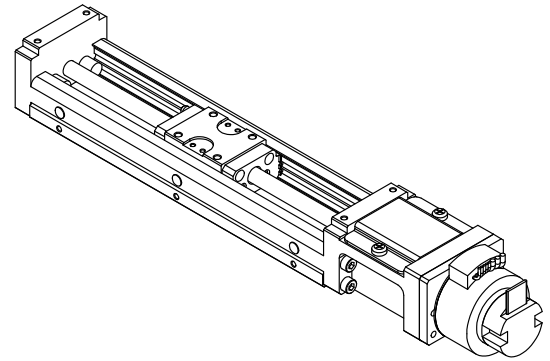
# MLA3216012BXTH-R4096L-NBG2001xxxY

推力 : 200 N

瞬間推力 : 1200 N

解析度 : 0.244  $\mu\text{m}$

連續移動速度 : 50 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

日本 Nippon Bearing 特規線軌模組  
達高剛性、高穩定性與高重現性之特性

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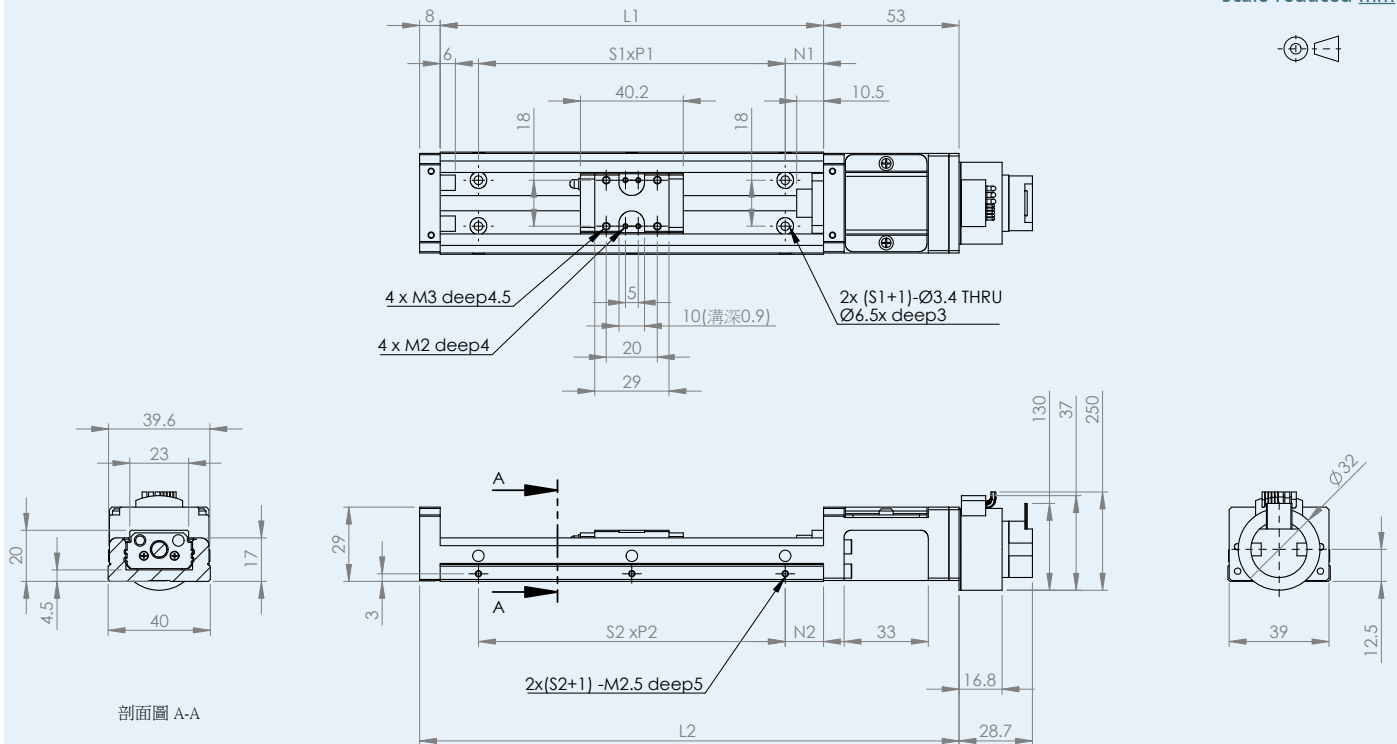
## Technical Specification

Nominal voltage	24		V
Nominal current	2.18		A
Terminal resistance	0.88		$\Omega$
Ballscrew pitch	1		mm
Operation temperature range	-20 ... +80		$^{\circ}\text{C}$
Continuous force	200		N
Peak force	1200		N
Continuous output speed, max	50		mm/s
Encoder resolution	4096		CPR
Linear resolution	0.244		$\mu\text{m}$
Accuracy class	H	P	
Accuracy	50	20	$\mu\text{m}$
Repeatability	$\pm 3$	$\pm 1$	$\mu\text{m}$
Slide guide backlash	5	0	$\mu\text{m}$

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
NBG2001040	40	100	161	20	1x60	20	1x60	0.56
NBG2001090	90	150	211	15	2x60	15	2x60	0.69
NBG2001140	140	200	261	40	2x60	40	2x60	0.82

### Dimensional drawing

Scale reduced mm



#### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

#### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

#### Option

Controller	Encoder	Brake	Cable
MC 5004 C RS/CO MC 5004 C RS/CO AEMT MC 5004 C PDIO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB26E-24V PFB29E-24V	延長連接線組，耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

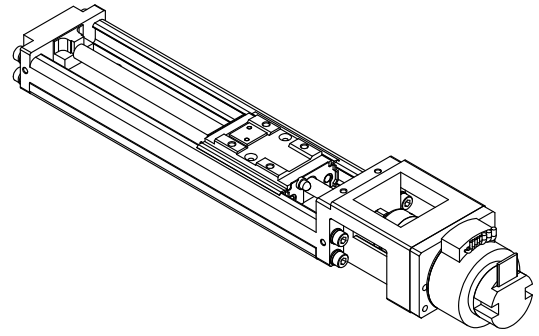
# MLA3216012BXTH-R4096L-TKR2001xxxY

推力 : 200 N

瞬間推力 : 1200 N

解析度 : 0.244  $\mu\text{m}$

連續移動速度 : 50 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

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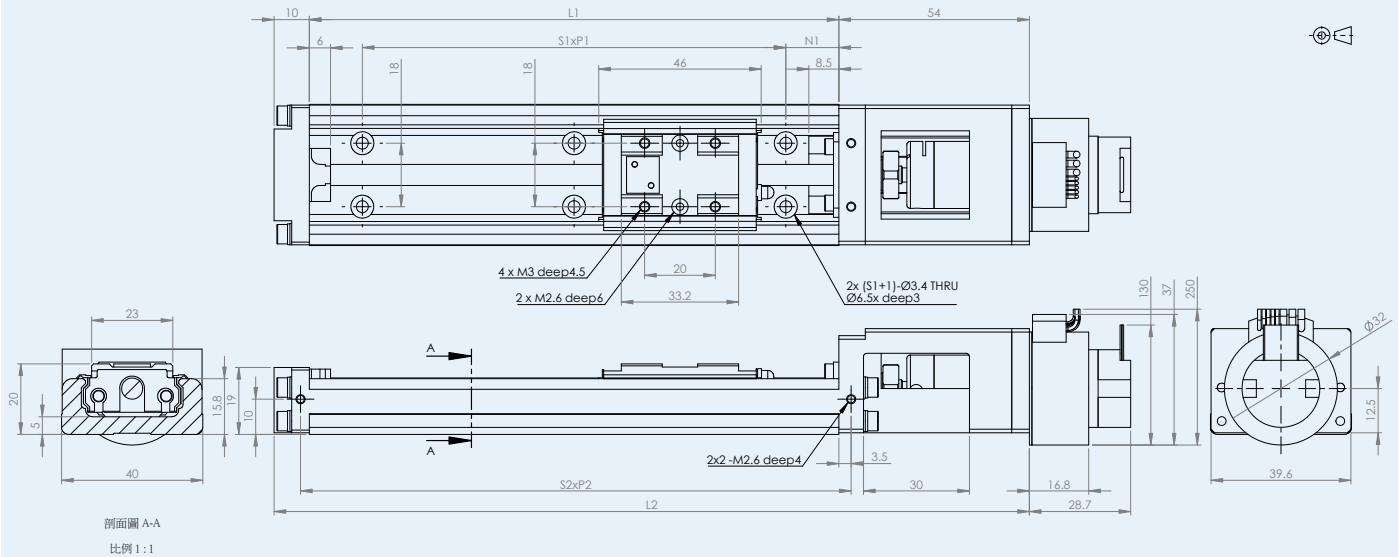
## Technical Specification

Nominal voltage	24		V
Nominal current	2.18		A
Terminal resistance	0.88		$\Omega$
Ballscrew pitch	1		mm
Operation temperature range	-20 ... +80		$^{\circ}\text{C}$
Continuous force	200		N
Peak force	1200		N
Continuous output speed, max	50		mm/s
Encoder resolution	4096		CPR
Linear resolution	0.244		$\mu\text{m}$
Accuracy class	H	P	
Accuracy	60	20	$\mu\text{m}$
Repeatability	$\pm 5$	$\pm 3$	$\mu\text{m}$
Slide guide backlash	10	3	$\mu\text{m}$

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
TKR2001030	30	100	164	20	1x60	-	1x106	0.59
TKR2001080	80	150	214	15	2x60	-	1x156	0.72
TKR2001130	130	200	264	40	2x60	-	1x206	0.86

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 5004 C RS/CO MC 5004 C RS/CO AEMT MC 5004 C PDIO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB26E-24V PFB29E-24V	延長連接線組, 耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

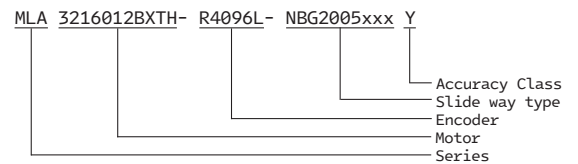
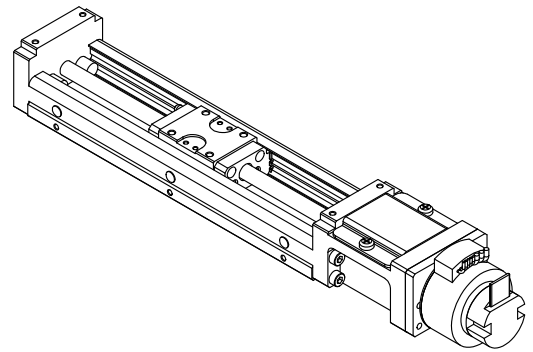
## MLA3216012BXTH-R4096L-NBG2005xxxY

推力 : 40 N

瞬間推力 : 240 N

解析度 : 1.22 μm

連續移動速度 : 250 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

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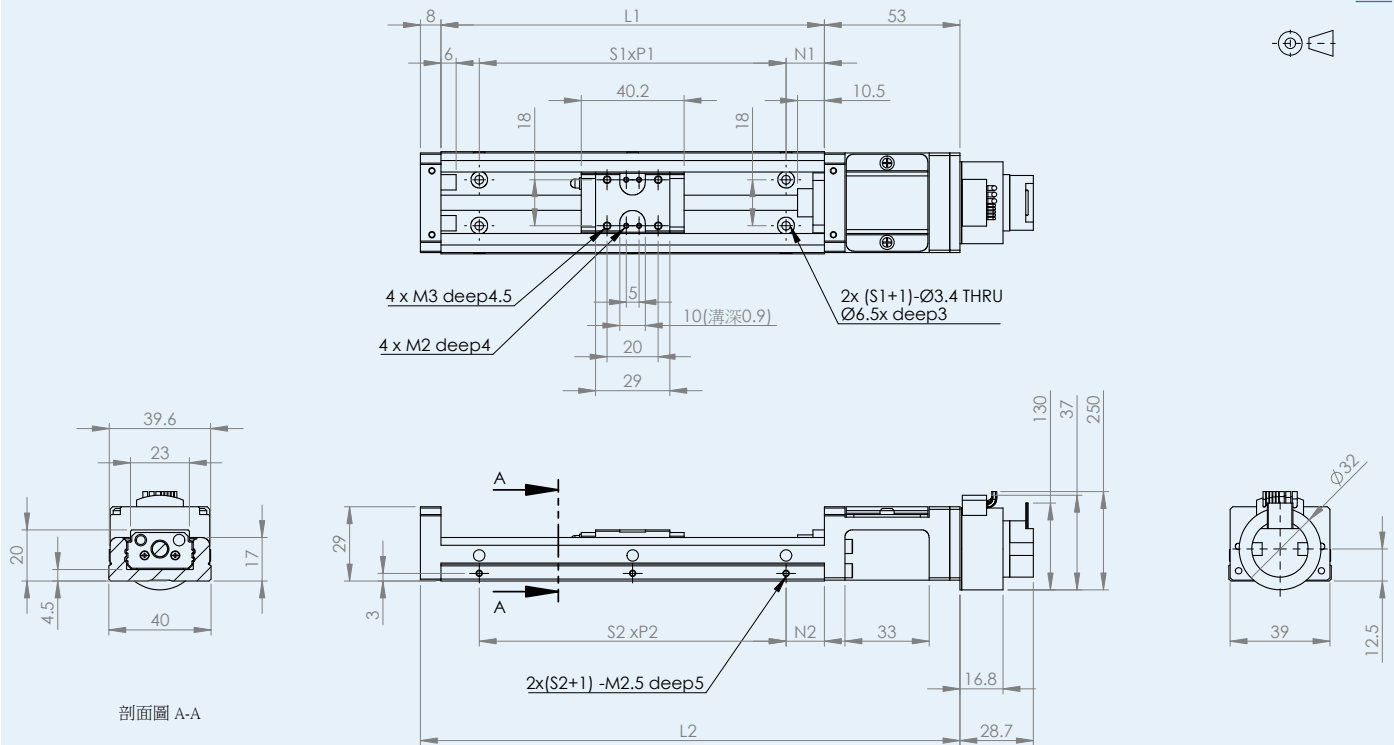
### Technical Specification

Nominal voltage	24		V
Nominal current	2.18		A
Terminal resistance	0.88		Ω
Ballscrew pitch	5		mm
Operation temperature range	-20 ... +80		°C
Continuous force	40		N
Peak force	240		N
Continuous output speed, max	250		mm/s
Encoder resolution	4096		CPR
Linear resolution	1.22		μm
Accuracy class	H	P	
Accuracy	50	20	μm
Repeatability	±3	±1	μm
Slide guide backlash	5	0	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
NBG2005040	40	100	161	20	1x60	20	1x60	0.56
NBG2005090	90	150	211	15	2x60	15	2x60	0.69
NBG2005140	140	200	261	40	2x60	40	2x60	0.82

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 5004 C RS/CO MC 5004 C RS/CO AEMT MC 5004 C PDIO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB26E-24V PFB29E-24V	延長連接線組，耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

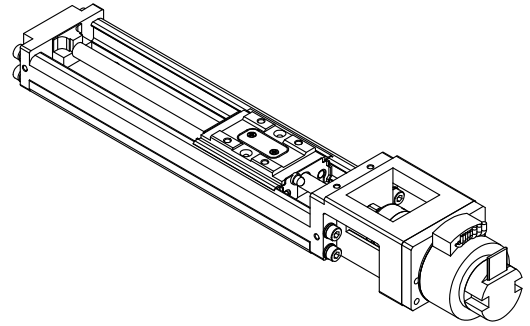
## MLA3216012BXTH-R4096L-TKR2006xxxY

推力 : 30 N

瞬間推力 : 180 N

解析度 : 1.464 μm

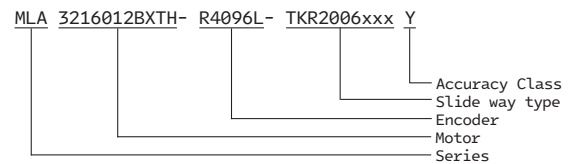
連續移動速度 : 300 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

日本 THK 特規線軌模組  
達高剛性、高穩定性與高重現性之特性

另可選配更高解析度，保護蓋，煞車器與極限開關



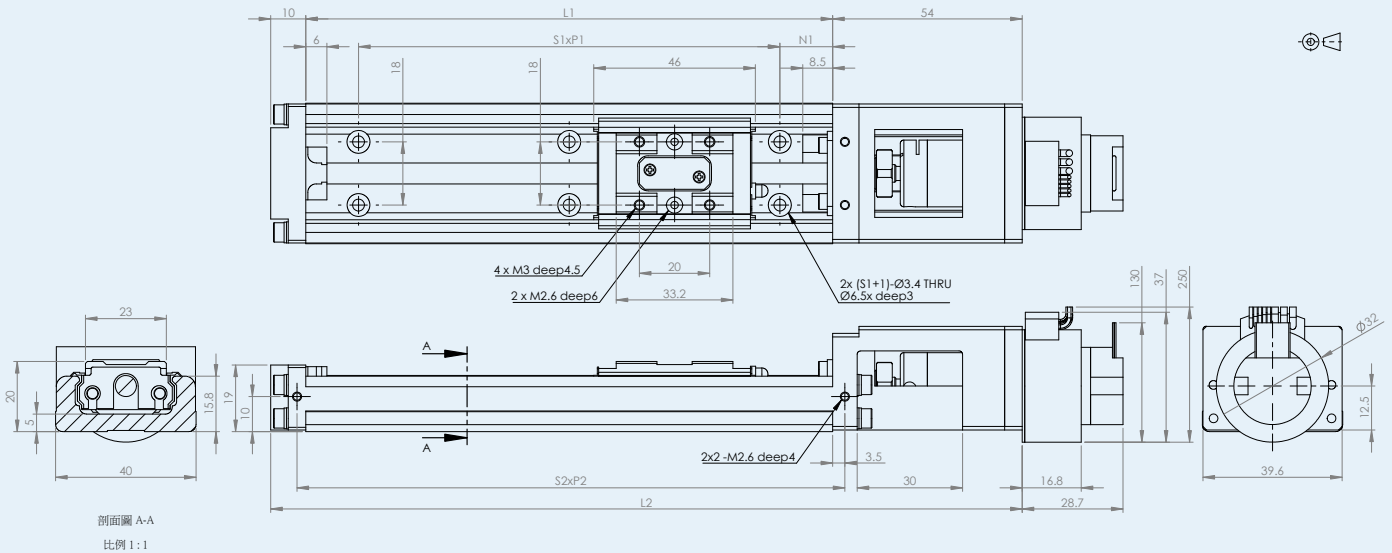
### Technical Specification

Nominal voltage	24		V
Nominal current	2.18		A
Terminal resistance	0.88		Ω
Ballscrew pitch	6		mm
Operation temperature range	-20 ... +80		°C
Continuous force	30		N
Peak force	180		N
Continuous output speed, max	300		mm/s
Encoder resolution	4096		CPR
Linear resolution	1.464		μm
Accuracy class	H	P	
Accuracy	60	20	μm
Repeatability	±5	±3	μm
Slide guide backlash	10	3	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
TKR2006030	30	100	164	20	1x60	-	1x106	0.59
TKR2006080	80	150	214	15	2x60	-	1x156	0.72
TKR2006130	130	200	264	40	2x60	-	1x206	0.86

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 5004 C RS/CO MC 5004 C RS/CO AEMT MC 5004 C PDIO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB26E-24V PFB29E-24V	延長連接線組, 耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

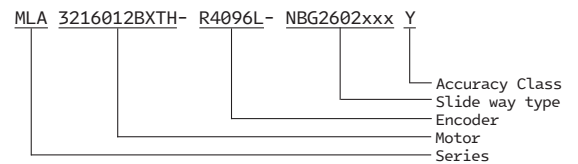
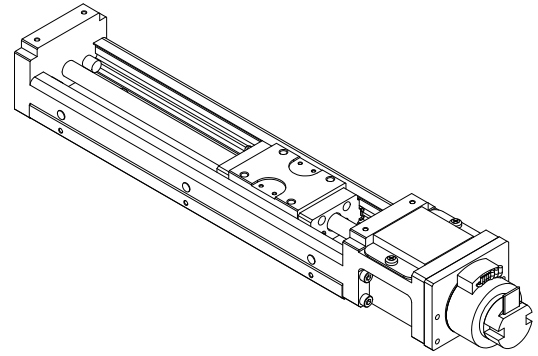
## MLA3216012BXTH-R4096L-NBG2602xxxY

推力 : 100 N

瞬間推力 : 600 N

解析度 : 0.488 μm

連續移動速度 : 100 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

日本 Nippon Bearing 特規線軌模組  
達高剛性、高穩定性與高重現性之特性

另可選配更高解析度，保護蓋，煞車器與極限開關

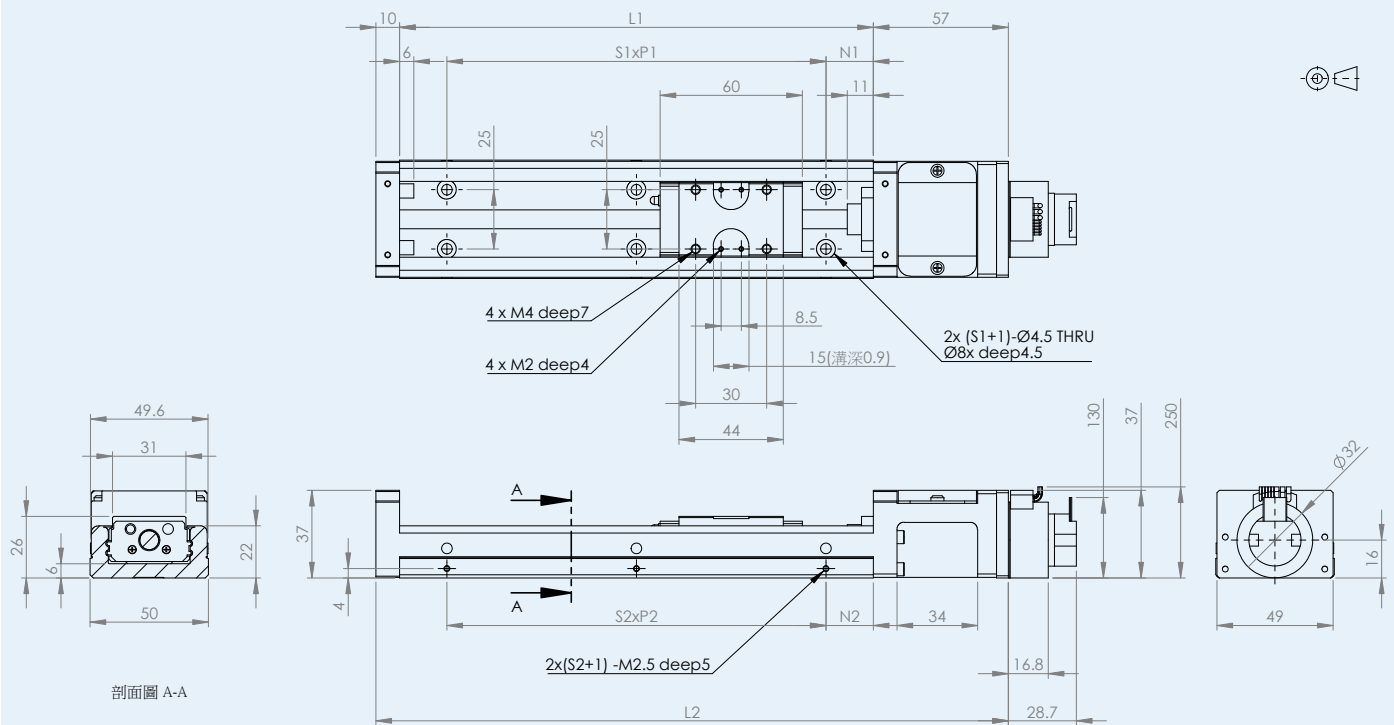
### Technical Specification

Nominal voltage	24		V
Nominal current	2.18		A
Terminal resistance	0.88		Ω
Ballscrew pitch	2		mm
Operation temperature range	-20 ... +80		°C
Continuous force	100		N
Peak force	600		N
Continuous output speed, max	100		mm/s
Encoder resolution	4096		CPR
Linear resolution	0.488		μm
Accuracy class	H	P	
Accuracy	50	20	μm
Repeatability	±3	±1	μm
Slide guide backlash	5	0	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
NBG2602070	70	150	217	35	1x80	35	1x80	1.04
NBG2602120	120	200	267	20	2x80	20	2x80	1.25
NBG2602170	170	250	317	45	2x80	45	2x80	1.47
NBG2602220	220	300	367	30	3x80	30	3x80	1.68

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 5004 C RS/CO MC 5004 C RS/CO AEMT MC 5004 C PDIO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB26E-24V PFB29E-24V	延長連接線組, 耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

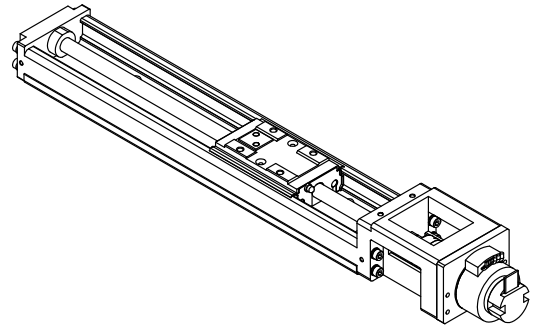
## MLA3216012BXTH-R4096L-TKR2602xxxY

推力 : 100 N

瞬間推力 : 600 N

解析度 : 0.488 μm

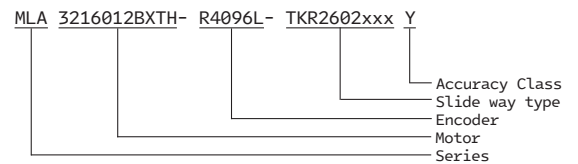
連續移動速度 : 100 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

日本 THK 特規線軌模組  
達高剛性、高穩定性與高重現性之特性

另可選配更高解析度，保護蓋，煞車器與極限開關



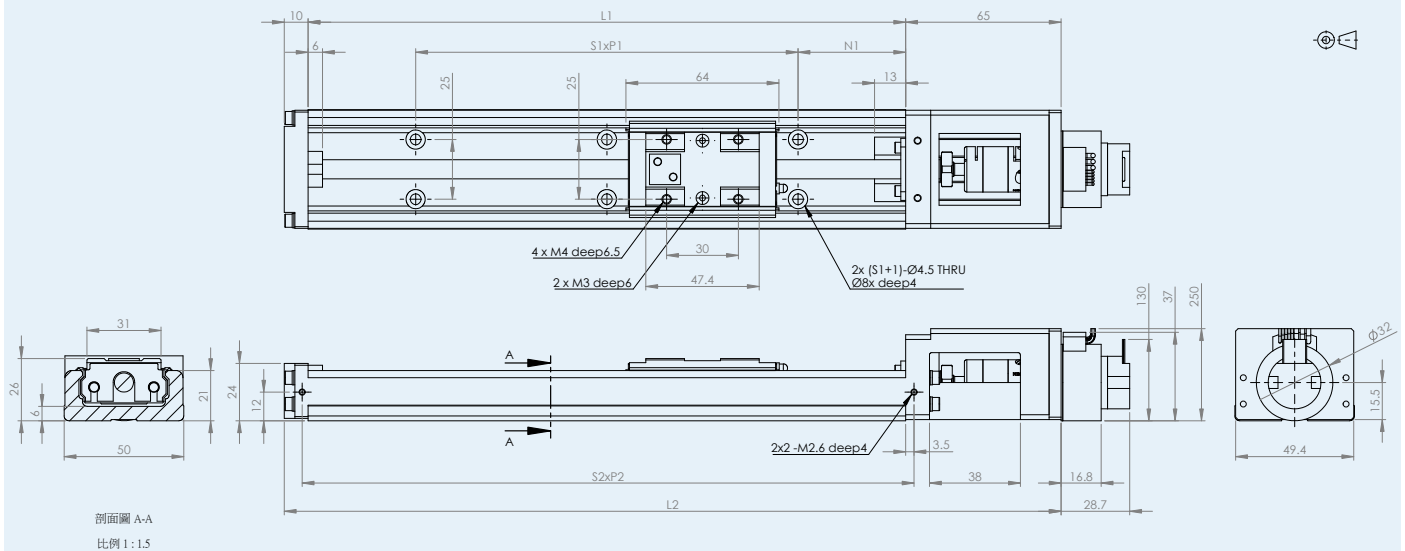
### Technical Specification

Nominal voltage	24		V
Nominal current	2.18		A
Terminal resistance	0.88		Ω
Ballscrew pitch	2		mm
Operation temperature range	-20 ... +80		°C
Continuous force	100		N
Peak force	600		N
Continuous output speed, max	100		mm/s
Encoder resolution	4096		CPR
Linear resolution	0.488		μm
Accuracy class	H	P	
Accuracy	60	20	μm
Repeatability	±5	±3	μm
Slide guide backlash	10	3	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
TKR2602060	60	150	225	35	1x80	-	1x156	1.15
TKR2602110	110	200	200	20	2x80	-	1x206	1.36
TKR2602160	160	250	250	45	2x80	-	1x256	1.57
TKR2602210	210	300	300	30	3x80	-	1x306	1.78

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 5004 C RS/CO MC 5004 C RS/CO AEMT MC 5004 C PDIO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB26E-24V PFB29E-24V	延長連接線組, 耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

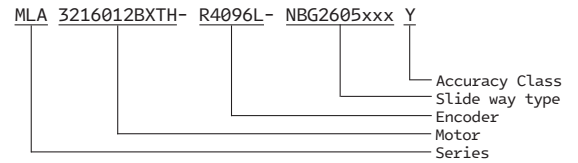
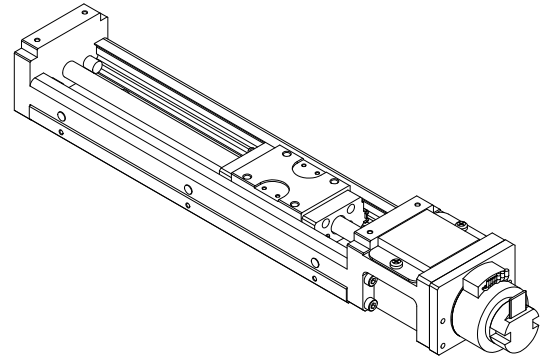
## MLA3216012BXTH-R4096L-NBG2605xxxY

推力 : 40 N

瞬間推力 : 240 N

解析度 : 1.22 μm

連續移動速度 : 250 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

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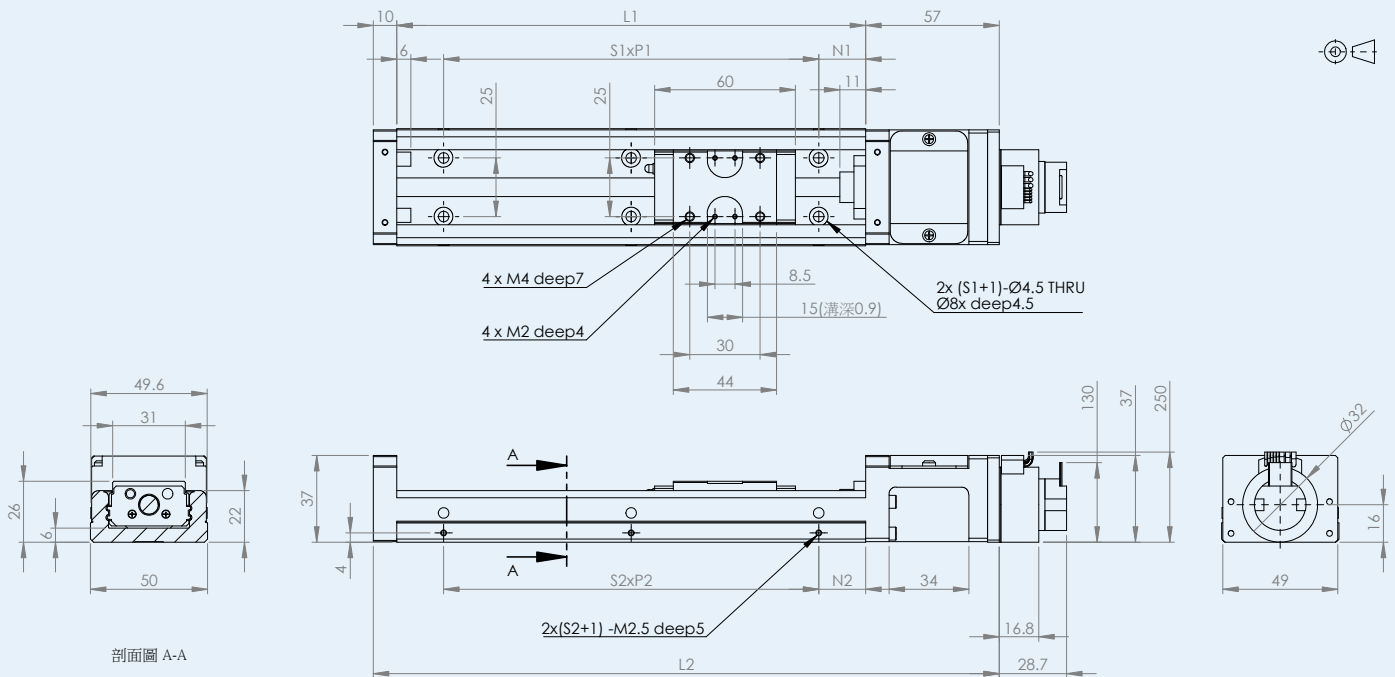
### Technical Specification

Nominal voltage	24		V
Nominal current	2.18		A
Terminal resistance	0.88		Ω
Ballscrew pitch	5		mm
Operation temperature range	-20 ... +80		°C
Continuous force	40		N
Peak force	240		N
Continuous output speed, max	250		mm/s
Encoder resolution	4096		CPR
Linear resolution	1.22		μm
Accuracy class	H	P	
Accuracy	50	20	μm
Repeatability	±3	±1	μm
Slide guide backlash	5	0	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
NBG2605070	70	150	217	35	1x80	35	1x80	1.04
NBG2605120	120	200	267	20	2x80	20	2x80	1.25
NBG2605170	170	250	317	45	2x80	45	2x80	1.47
NBG2605220	220	300	367	30	3x80	30	3x80	1.68

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 5004 C RS/CO MC 5004 C RS/CO AEMT MC 5004 C PDIO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB26E-24V PFB29E-24V	延長連接線組，耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

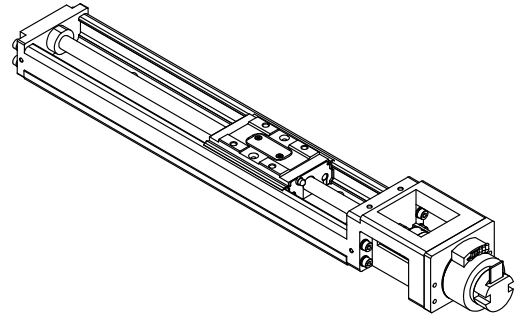
## MLA3216012BXTH-R4096L-TKR2606xxxY

推力 : 30 N

瞬間推力 : 180 N

解析度 : 1.464 μm

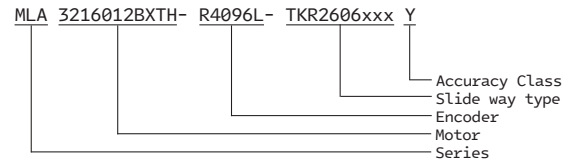
連續移動速度 : 300 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

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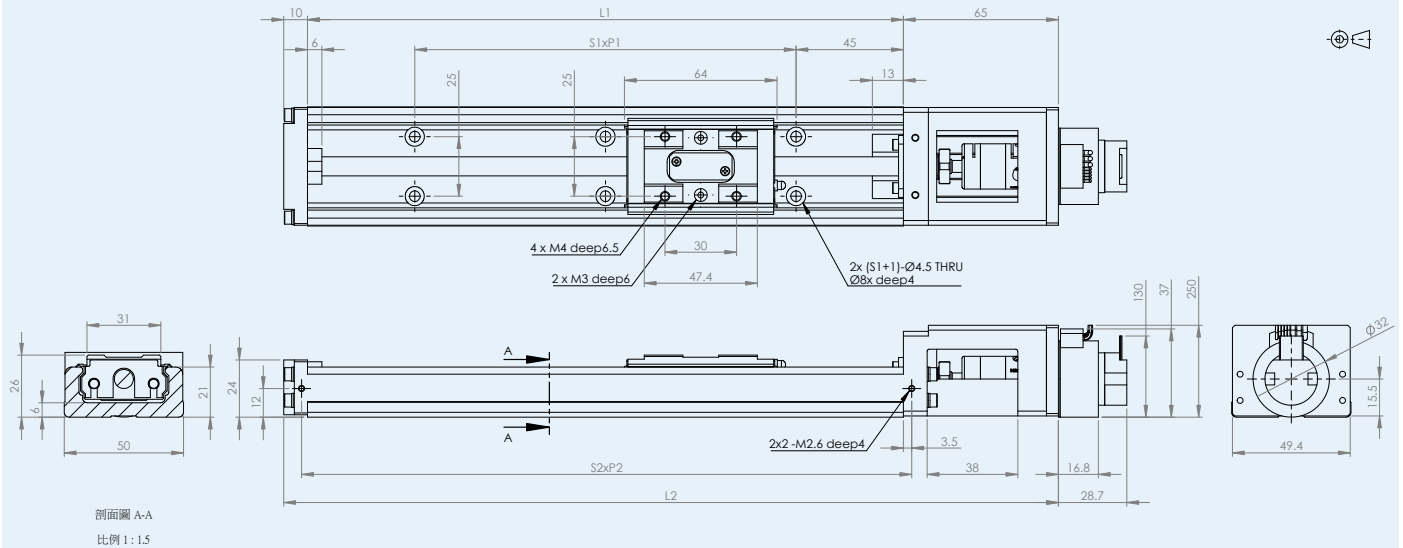
### Technical Specification

Nominal voltage	24		V
Nominal current	2.18		A
Terminal resistance	0.88		Ω
Ballscrew pitch	5		mm
Operation temperature range	-20 ... +80		°C
Continuous force	30		N
Peak force	180		N
Continuous output speed, max	300		mm/s
Encoder resolution	4096		CPR
Linear resolution	1.464		μm
Accuracy class	H	P	
Accuracy	60	20	μm
Repeatability	±5	±3	μm
Slide guide backlash	10	3	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
TKR2606060	60	150	225	35	1x80	-	1x156	1.15
TKR2606110	110	200	275	20	2x80	-	1x206	1.36
TKR2606160	160	250	325	45	2x80	-	1x256	1.57
TKR2606210	210	300	375	30	3x80	-	1x306	1.78

### Dimensional drawing

Scale reduced mm



#### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

#### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

#### Option

##### Controller

MC 5004 C RS/CO  
MC 5004 C RS/CO AEMT  
MC 5004 C PDIO  
MC 5004 C ET  
MC 5004 C ET AEMT

##### Encoder

IE3-1024L  
IEF3-4096L  
IER3-10000L  
AEMT-12/16 L

##### Brake

PFB26E-24V  
PFB29E-24V

##### Cable

延長連接線組, 耐繞曲線組  
請諮詢服務業務

##### Others

保護蓋、雙滑塊、極限開關選配

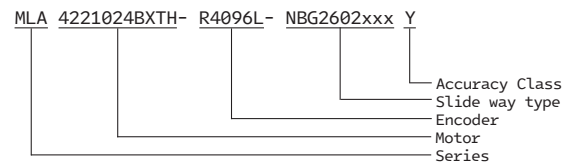
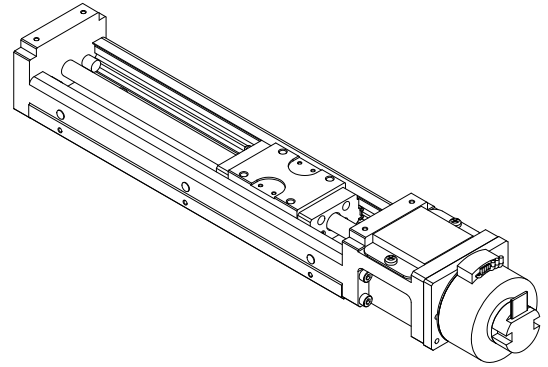
## MLA4221024BXTH-R4096L-NBG2602xxxY

推力 : 298 N

瞬間推力 : 1788 N

解析度 : 0.488 μm

連續移動速度 : 100 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

日本 Nippon Bearing 特規線軌模組  
達高剛性、高穩定性與高重現性之特性

另可選配更高解析度，保護蓋，煞車器與極限開關

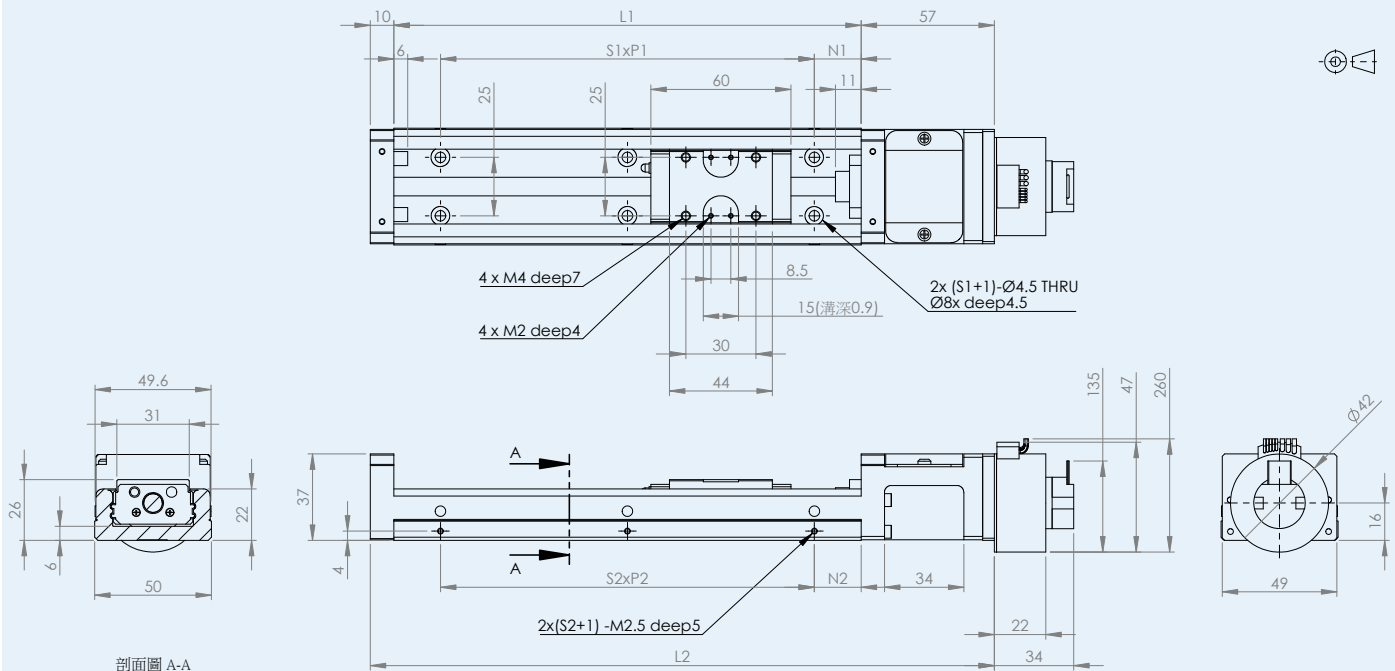
### Technical Specification

Nominal voltage	24		V
Nominal current	2.87		A
Terminal resistance	0.74		Ω
Ballscrew pitch	2		mm
Operation temperature range	-20 ... +80		°C
Continuous force	298		N
Peak force	1788		N
Continuous output speed, max	100		mm/s
Encoder resolution	4096		CPR
Linear resolution	0.488		μm
Accuracy class	H	P	
Accuracy	50	20	μm
Repeatability	±3	±1	μm
Slide guide backlash	5	0	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
NBG2602070	70	150	217	35	1x80	35	1x80	1.12
NBG2602120	120	200	267	20	2x80	20	2x80	1.33
NBG2602170	170	250	317	45	2x80	45	2x80	1.55
NBG2602220	220	300	367	30	3x80	30	3x80	1.76

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 5004 C RS/CO MC 5004 C RS/CO AEMT MC 5004 C PDIO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB29E-24V	延長連接線組, 耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

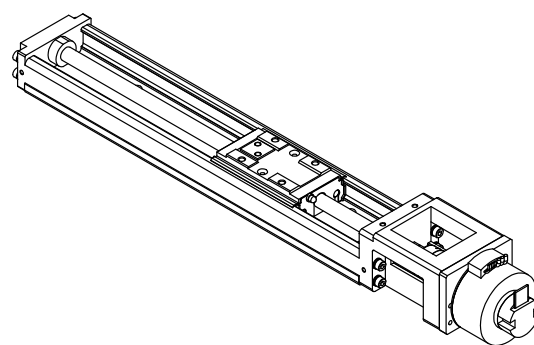
# MLA4221024BXTH-R4096L-TKR2602xxxY

推力 : 298 N

瞬間推力 : 1788 N

解析度 : 0.488  $\mu\text{m}$

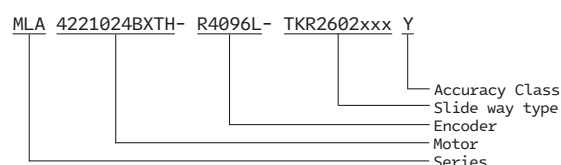
連續移動速度 : 100 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

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達高剛性、高穩定性與高重現性之特性

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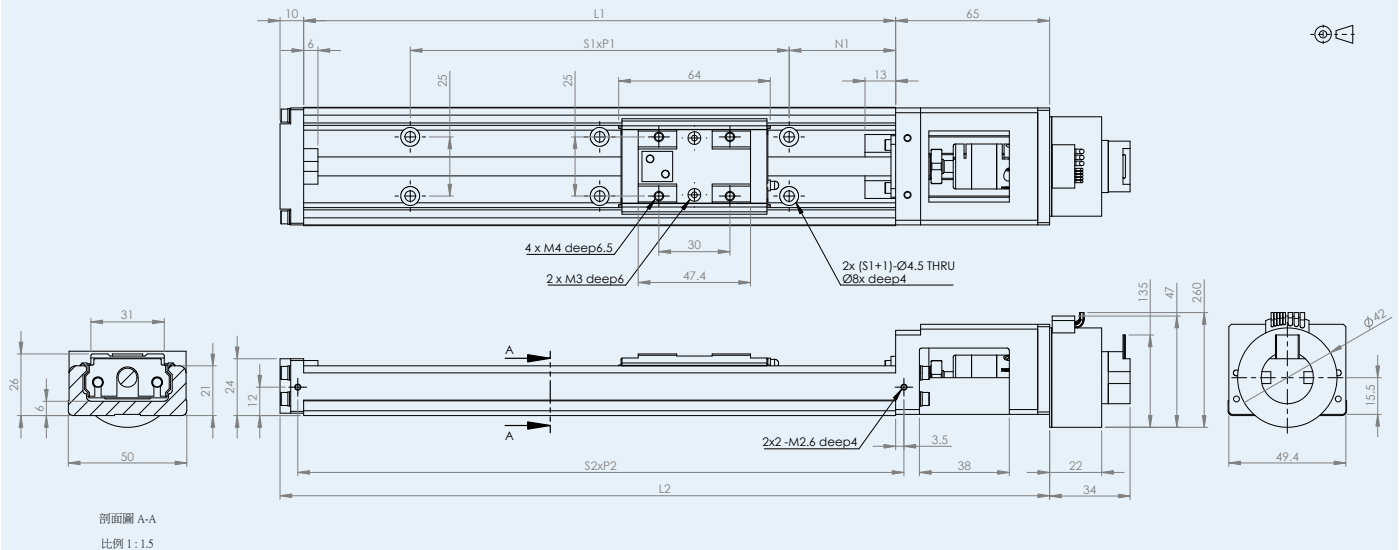
## Technical Specification

Nominal voltage	24		V
Nominal current	2.87		A
Terminal resistance	0.74		$\Omega$
Ballscrew pitch	2		mm
Operation temperature range	-20 ... +80		$^{\circ}\text{C}$
Continuous force	298		N
Peak force	1788		N
Continuous output speed, max	100		mm/s
Encoder resolution	4096		CPR
Linear resolution	0.488		$\mu\text{m}$
Accuracy class	H	P	
Accuracy	60	20	$\mu\text{m}$
Repeatability	$\pm 5$	$\pm 3$	$\mu\text{m}$
Slide guide backlash	10	3	$\mu\text{m}$

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
TKR2602060	60	150	225	35	1x80	-	1x156	1.23
TKR2602110	110	200	275	20	2x80	-	1x206	1.44
TKR2602160	160	250	325	45	2x80	-	1x256	1.65
TKR2602210	210	300	375	30	3x80	-	1x306	1.86

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 5004 C RS/CO MC 5004 C RS/CO AEMT MC 5004 C PDIO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB29E-24V	延長連接線組，耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

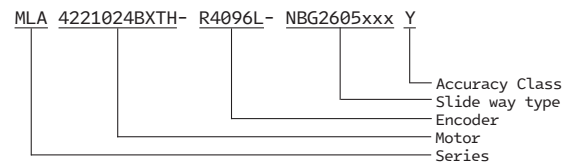
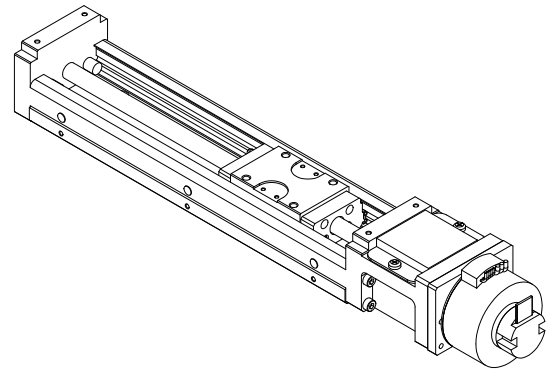
## MLA4221024BXTH-R4096L-NBG2605xxxY

推力 : 119 N

瞬間推力 : 714 N

解析度 : 1.22 μm

連續移動速度 : 250 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

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達高剛性、高穩定性與高重現性之特性

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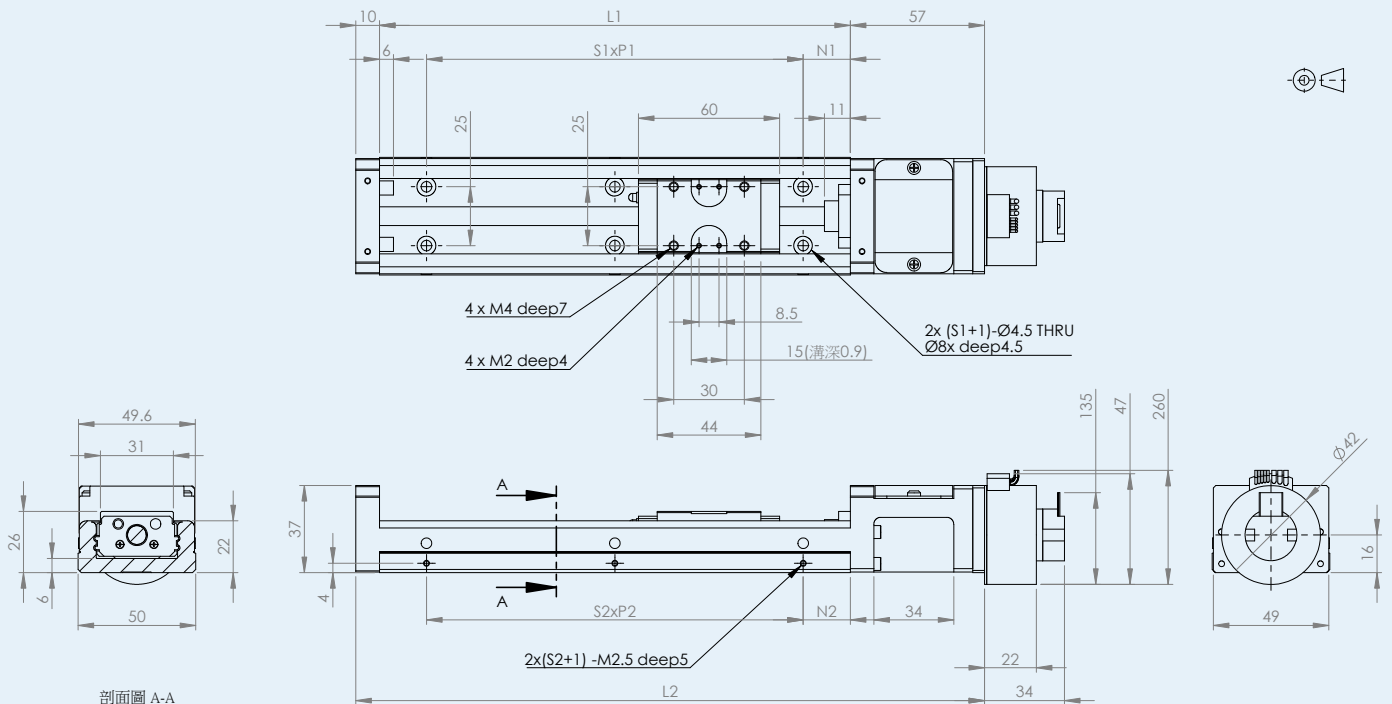
### Technical Specification

Nominal voltage	24		V
Nominal current	2.87		A
Terminal resistance	0.74		Ω
Ballscrew pitch	2		mm
Operation temperature range	-20 ... +80		°C
Continuous force	298		N
Peak force	1788		N
Continuous output speed, max	100		mm/s
Encoder resolution	4096		CPR
Linear resolution	0.488		μm
Accuracy class	H	P	
Accuracy	50	20	μm
Repeatability	±3	±1	μm
Slide guide backlash	5	0	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
NBG2605070	70	150	217	35	1x80	35	1x80	1.12
NBG2605120	120	200	267	20	2x80	20	2x80	1.33
NBG2605170	170	250	317	45	2x80	45	2x80	1.55
NBG2605220	220	300	367	30	3x80	30	3x80	1.76

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 5004 C RS/CO MC 5004 C RS/CO AEMT MC 5004 C PDIO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB29E-24V	延長連接線組, 耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配

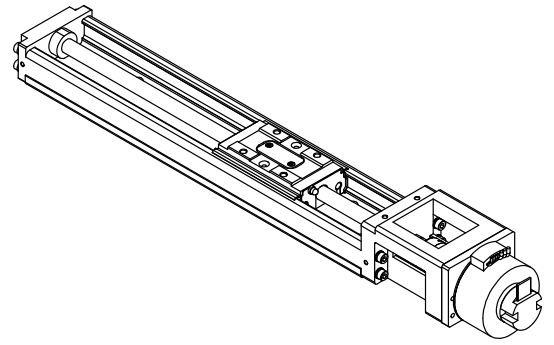
## MLA4221024BXTH-R4096L-TKR2606xxxY

推力 : 99 N

瞬間推力 : 594 N

解析度 : 1.464 μm

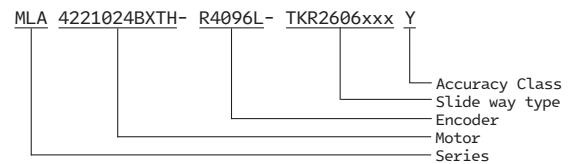
連續移動速度 : 300 mm/s



搭配組合 Faulhaber 微型直流伺服馬達與高剛性線軌模組  
最緊湊體積下充分發揮空心杯馬達特性，完成高加減速，高速，高精度定位  
搭配控制器做閉迴路力量，速度與位置控制，同時具備多種通訊界面供選擇

日本 THK 特規線軌模組  
達高剛性、高穩定性與高重現性之特性

另可選配更高解析度，保護蓋，煞車器與極限開關



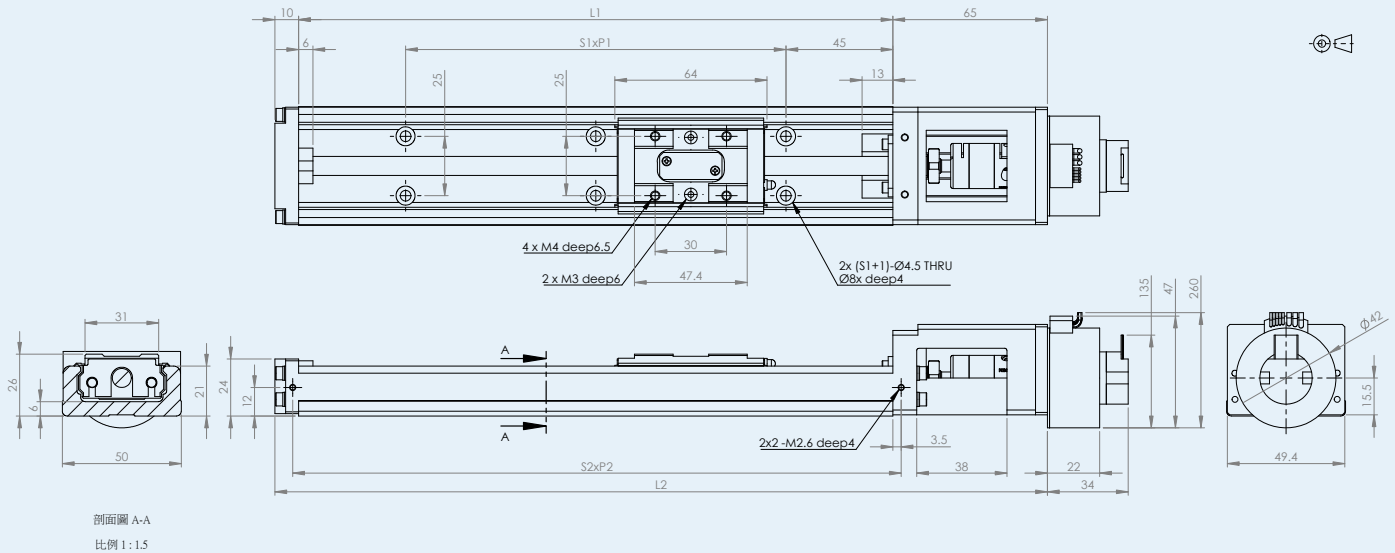
### Technical Specification

Nominal voltage	24		V
Nominal current	2.87		A
Terminal resistance	0.74		Ω
Ballscrew pitch	6		mm
Operation temperature range	-20 ... +80		°C
Continuous force	99		N
Peak force	594		N
Continuous output speed, max	300		mm/s
Encoder resolution	4096		CPR
Linear resolution	1.464		μm
Accuracy class	H	P	
Accuracy	60	20	μm
Repeatability	±5	±3	μm
Slide guide backlash	10	3	μm

Slide way type	Stroke(mm)	L1 (mm)	L2 (mm)	N1 (mm)	S1xP1	N2 (mm)	S2xP2	Mass (kg)
TKR2606060	60	150	225	35	1x80	-	1x156	1.23
TKR2606110	110	200	275	20	2x80	-	1x206	1.44
TKR2606160	160	250	325	45	2x80	-	1x256	1.65
TKR2606210	210	300	375	30	3x80	-	1x306	1.86

## Dimensional drawing

Scale reduced mm



### Motor Pin Assignment

Connector Type : MOLEX 43025-0800

Yellow	Phase C
Orange	Phase B
Brown	Phase A
Black	GND
Red	Um(+5V)
Grey	Hall sensor C
Blue	Hall sensor B
Green	Hall sensor A

### Encoder Pin Assignment

Connector Type : DIN-41651

Pin 1	N.C.
Pin 2	UE
Pin 3	GND
Pin 4	N.C.
Pin 5	Ch A-
Pin 6	Ch A+
Pin 7	Ch B-
Pin 8	Ch B+
Pin 9	Ch I-
Pin 10	Ch I+

### Option

Controller	Encoder	Brake	Cable
MC 5004 C RS/CO MC 5004 C RS/CO AEMT MC 5004 C PDIO MC 5004 C ET MC 5004 C ET AEMT	IE3-1024L IEF3-4096L IER3-10000L AEMT-12/16 L	PFB29E-24V	延長連接線組, 耐繞曲線組 請諮詢服務業務
			<b>Others</b> 保護蓋、雙滑塊、極限開關選配