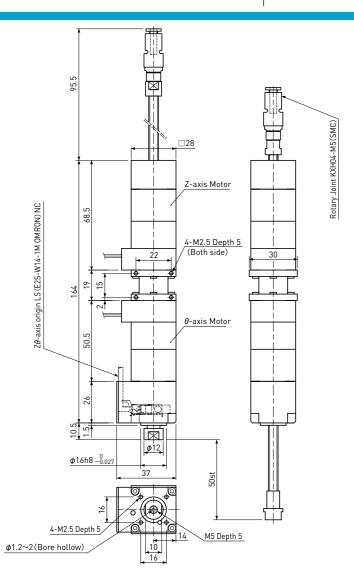
DDA VZ 28 - G 06 050 TW N

☐ 28 2-phase Stepping Motor Lead 6mm Travel 50mm



Parts List	
Motor	□28 Hollow Stepping Motor 0.67A/phase
Drive Screw	Ball Screw ϕ 6 (Lead 6mm)
Sliding Guide	Ball Spline ø6mm
Sensor (Linear,Rotary)	Proximity Sensor E2S-W14-1M (OMRON)

Motor(Z, θ -axis)		
Α	Black	
Ā	Green	
В	Red	
B	Blue	
UI 10	61 AWG24 (310mm	

Sensor(Z, θ-axis)		
+12~24V	Brown	
LS	Black	
GND	Blue	

Specifications *The numbers in table below are reference. Detail dimmensions will be provided by drawing.

Items	Z Axis	heta Axis
Movable Range	50mm	± 360°
Repeatability	±0.010mm	±0.03°
Resolution	30μm (Full Step)	1.8° (Full Step)
Maximum Speed	72mm / sec	1080° / sec
Acceleration & Deceleration time	Min. 0.12sec	Min. 0.04sec
Reference Thrust Force	7N	_
Maximun Permissible Moment	-	0.15×10 ⁻⁴ kg·m² (※)
Mass	54	0g
Operating Temperature	0~40°C (No C	ondensation)

Di	_				
U	d.	Aluminum	Steel		
φ2	0mm	340mm(300g)	120mm(300g)		
φ3	0mm	65mm(130g)	25mm(130g)		
φ4	0mm	20mm(75g) 7.5mm(75g)			
Precautions 1) The Z-axis does not have brake device. Please be careful when the power supply is switched off in case Z-axis may free-fall. 2) Reference of Moment of Inertia table shows the theoretical values.					

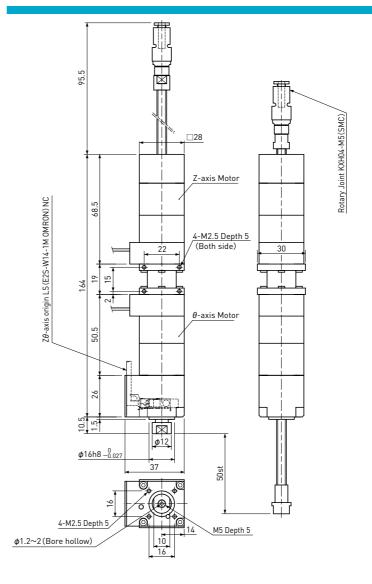
Reference of Moment of Inertia

KSS recommends that you should apply actual moment to the machine and confirm the safety operation before use.

* For the Maximum Permissible Moment, see "Reference of Moment of Inertia" table above.

DDA VZ 28 - G 10 050 TW N

☐28 2-phase Stepping Motor Lead 10mm Travel 50mm



Parts List	
Motor	□28 Hollow Stepping Motor 0.67A/phase
Drive Screw	Ball Screw ϕ 6 (Lead 10mm)
Sliding Guide	Ball Spline ϕ 6mm
Sensor (Linear,Rotary)	Proximity Sensor E2S-W14-1M(OMRON)

Motor(Z, θ -axis)		
Α	Black	
Ā	Green	
B Red		
B Blue		
UL1061,AWG24 (310mm)		

Sensor(Ζ, θ -axis)		
+12~24V	Brown	
LS	Black	
GND	Blue	
1000mm		

ItemsZ Axis θ AxisMovable Range 50mm $\pm 360^{\circ}$ Repeatability $\pm 0.010 \text{mm}$ $\pm 0.03^{\circ}$ Resolution $50 \mu \text{m}$ (Full Step) 1.8° (Full Step)Maximum Speed 120mm / sec 1080° / secAcceleration & Deceleration timeMin. 0.12sec Min. 0.04sec Reference Thrust Force 5N $-$ Maximun Permissible Moment $ 0.15 \times 10^{-4} \text{kg} \cdot \text{m}^2$ ($\frac{1}{8}$)Mass 540g Operating Temperature $0 \sim 40 ^{\circ}\text{C}$ (No Condensation)	Specifications ** The numbers in	table below are reference. Detail	dimmensions will be provided b
Repeatability ±0.010mm ±0.03° Resolution 50 μ m (Full Step) 1.8° (Full Step) Maximum Speed 120mm / sec 1080° / sec Acceleration & Deceleration time Min. 0.12sec Min. 0.04sec Reference Thrust Force 5N — Maximum Permissible Moment — 0.15 × 10 ⁻⁴ kg·m² (※) Mass 540g	Items	Z Axis	heta Axis
Resolution So µ m (Full Step) (Full Step) (Full Step) Maximum Speed 120mm / sec 1080° / sec	Movable Range	50mm	± 360°
Resolution (Full Step) (Full Step) Maximum Speed 120mm / sec 1080° / sec Acceleration & Deceleration time Min. 0.12sec Min. 0.04sec Reference Thrust Force 5N — Maximum Permissible Moment — 0.15×10 ⁻⁴ kg·m² (※) Mass 540g	Repeatability	±0.010mm	±0.03°
Acceleration & Deceleration time Min. 0.12sec Min. 0.04sec Reference Thrust Force 5N Maximun Permissible Moment Mass 540g	Resolution	· ·	· · ·
Reference Thrust Force 5N — Maximun Permissible Moment — 0.15×10 ⁻⁴ kg·m² (※) Mass 540g	Maximum Speed	120mm / sec	1080° / sec
Maximun Permissible Moment − 0.15×10 ⁻⁴ kg·m² (※) Mass 540g	Acceleration & Deceleration time	Min. 0.12sec	Min. 0.04sec
Mass 540g	Reference Thrust Force	5N	_
	Maximun Permissible Moment	-	0.15×10 ⁻⁴ kg·m ² (**)
Operating Temperature 0~40°C (No Condensation)	Mass	54	0g
	Operating Temperature	0~40℃(No C	condensation)

For the Maximum	n Permissible Moment	see "Reference	of Moment	of Inertia" table above

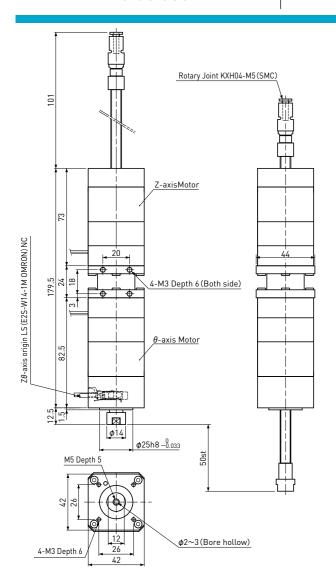
Refe	Reference of Moment of Inertia		
Dia.	Height		
DId.	Aluminum	Steel	
φ20mm	340mm (300g)	120mm(300g)	
φ30mm	65mm(130g)	25mm(130g)	
φ40mm	20mm (75g)	7.5mm (75g)	
D			

Precautions
1) The Z-axis does not have brake device.
Please be careful when the power supply is switched off in case Z-axis may free-fall.
2) Reference of Moment of Inertia table shows the theoretical values.
KSS recommends that you should apply actual moment to the machine and confirm the eafety operation before use the safety operation before use.

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DDA VZ 42 - G 05 050 TW N

☐ 42 2-phase Stepping Motor Lead 5mm Travel 50mm



Parts List	
Motor	□42 Hollow Stepping Motor 1.2A/phase
Drive Screw	Ball Screw Ø8 (Lead 5mm)
Sliding Guide	Ball Spline Ø8mm
Sensor (Linear, Rotary)	Proximity Sensor E2S-W14-1M(0MR0N)

Мо	Motor(Z, θ -axis)					
Α		Black				
Ā		Green				
E	3	Red				
Ē	3	Blue				
III 1041 AWG24 (310mm						

Sensor(Z, θ -axis)					
+12~24V	Brown				
LS	Black				
GND	Blue				

• Specifications **The numbers in table below are reference. Detail dimmensions will be provided by drawing.

ltems	Z Axis	heta Axis	
Movable Range	50mm	± 360°	
Repeatability	±0.010mm	±0.03°	
Resolution	25μm (Full Step)	1.8° (Full Step)	
Maximum Speed	100mm / sec	1080° / sec	
Acceleration & Deceleration time	Min. 0.2sec	Min. 0.04sec	
Reference Thrust Force	50N	-	
Maximun Permissible Moment	-	0.15×10 ⁻³ kg·m² (※)	
Mass	1120g		
Operating Temperature	0~40°C (No C	Condensation)	

Dia.	Height				
DId.	Aluminum	Steel			
φ30mm	670mm (1300g)	240mm(1300g)			
φ50mm	85mm (460g)	30mm(460g)			
φ100mm	5mm(110g)	1.5mm(90g)			

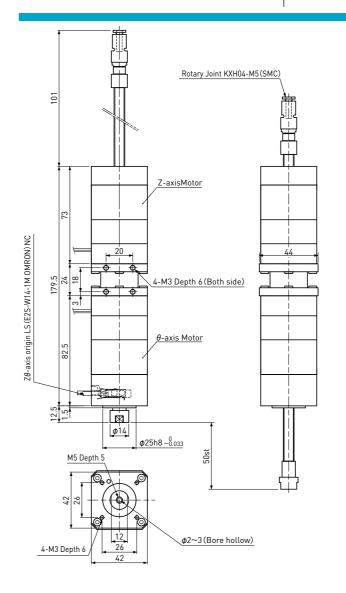
Reference of Moment of Inertia

The Z-axis does not have brake device. Please be careful when the power supply is switched off in case Z-axis may free-fall.
 Reference of Moment of Inertia table shows the theoretical values. KSS recommends that you should apply actual moment to the machine and confirm the safety operation before use.

* For the Maximum Permissible Moment, see "Reference of Moment of Inertia" table above.

DDA VZ 42 - G 10 050 TW N

☐42 2-phase Stepping Motor Lead 10mm Travel 50mm



Parts List				
Motor	□42 Hollow Stepping Motor 1.2A/phase			
Drive Screw	Ball Screw Ø8 (Lead 10mm)			
Sliding Guide	Ball Spline Ø8mm			
Sensor (Linear, Rotary)	Proximity Sensor E2S-W14-1M(0MR0N)			



Sensor(Z, θ -axis)					
+12~24V	Brown				
LS	Black				
GND	Blue				
1000mm					

Specifications **The numbers in table below are reference. Detail dimmensions will be provided by drawing.

Specifications wine numb	ers in	table below are reference. Detail	dimmensions will be provided by	
Items	Items		heta Axis	
Movable Ra	ange	50mm	± 360°	
Repeatab	bility	±0.010mm	±0.03°	
Resolu	ıtion	50μm (Full Step)	1.8° (Full Step)	
Maximum Sp	beed	200mm / sec	1080° / sec	
Acceleration & Deceleration	time	Min. 0.2sec	Min. 0.04sec	
Reference Thrust F	orce	25N	_	
Maximun Permissible Mon	nent	-	0.15×10 ⁻³ kg·m² (※)	
N	Mass		1120g	
Operating Tempera	iture	0~40℃(No C	condensation)	

For the	Maximum	Permissible	Moment.	see "R	eference	of Mo	ment of	f Inertia"	table at	nov

Refe	Reference of Moment of Inertia						
Dia.	Height						
Did.	Aluminum	Steel					
φ30mm	670mm(1300g)	240mm(1300g)					
φ50mm	85mm(460g)	30mm(460g)					
φ100mm	5mm(110g)	1.5mm (90g)					
Procautions							

Precautions

1) The Z-axis does not have brake device.
Please be careful when the power supply is switched off in case Z-axis may free-fall.

2) Reference of Moment of Inertia table shows the theoretical values.

KSS recommends that you should apply actual moment to the machine and confirm the active practice before use. the safety operation before use.

Multi-Functional VZ θ Actuator