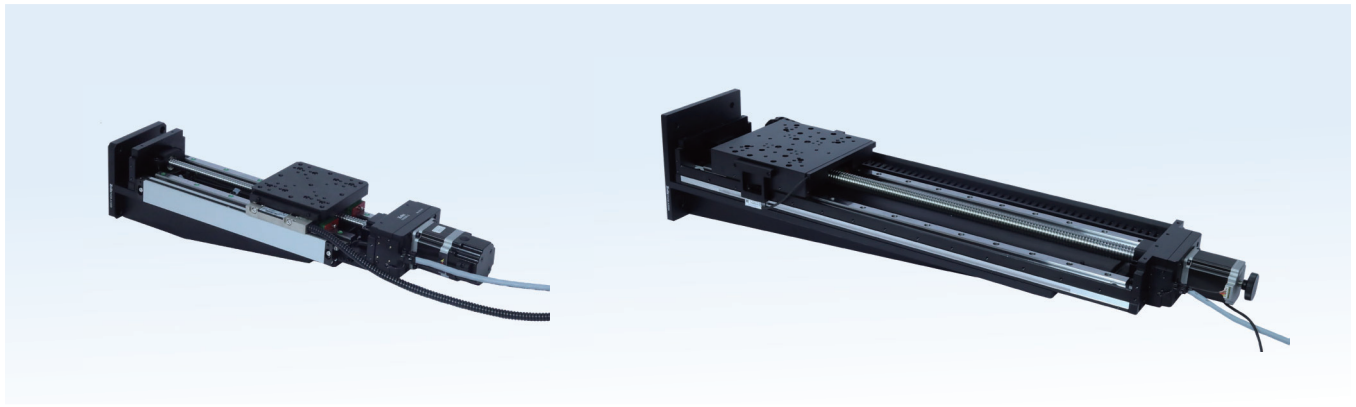


# KAxx-Z Series High-Precision Motorized Vertical-Motion Stages

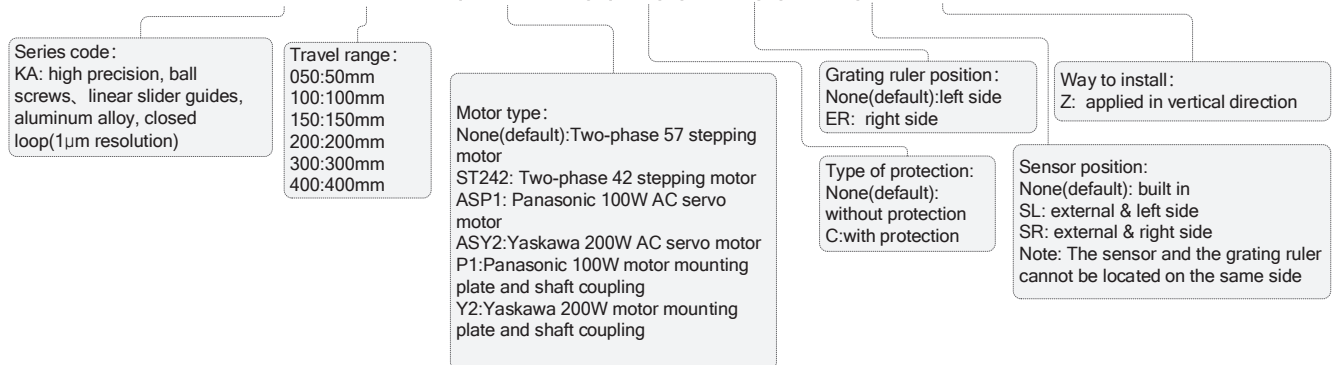


## Description:

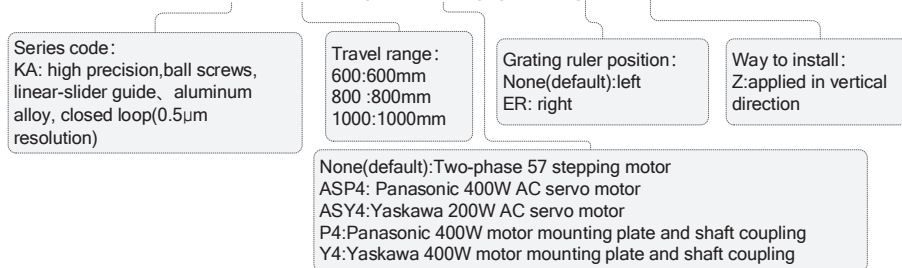
KAxx-Z series high-precision motorized vertical-motion stages are derivative models of Zolix's KA series products. An added right-angle fixing block and a set of power-failure protection unit ensure KAxx-Z series stages can be used as high-precision vertical-motion carriers. Except for motion direction and loading capability, other parameters are the same as those of standard KA products. KAxx-Z is used for fine adjustments in the Z-direction.

## Naming rules:

### KA 100-(ST242)(-C)(-ER)(-SR)-Z



### KA 600-(ASP4)(-ER)-Z



## Selection chart:

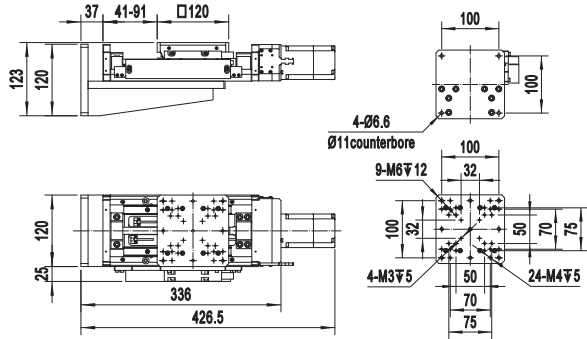
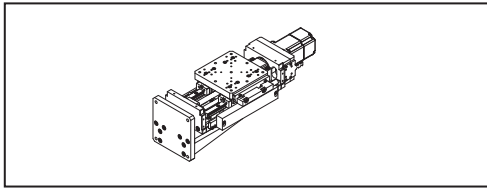
Model		KA050-Z	KA100-Z	KA150-Z	KA200-Z	KA300-Z	KA400-Z	KA600-Z	KA800-Z	KA1000-Z	
<b>Mechanical specifications</b>	Travel range(mm)	50	100	150	200	300	400	600	800	1000	
	Stage surface size(mm)	120×120				150X150		200X200			
	Transmission mechanism	precision ball screw φ 12×4				precision ball screw φ 16×5		precision ball screw φ 25×5			
	Guide mechanism	linear-slider guides									
	Main body material, surface treatment	Black anodized aluminum alloy									
	Weight(Kg)	8.4	8.8	9.6	10.3	13.3	14.9	30.3	36	41	
	Shaft coupling(OD - OD1-OD2)(mm)	30-6.35-8						34-8-12			
<b>Accuracy specifications</b>	Closed loop resolution(μm)	1						0.5			
	Open loop resolution under 20 subdivision(μm)	1				1.25					
	Highest speed(mm/s)*	40				50					
	Single-direction positioning accuracy	≤30						≤70μm			
	Repositioning accuracy(μm)**	≤±3						≤±5			
	Static clearance(μm)**	≤3									
	Backlash(μm)**	≤5									
	Static parallelism(μm)	≤0.1						≤0.12		≤0.1	
	Dynamic straightness(μm)	≤10				≤15		≤15/100mm			
	Dynamic parallelism(μm)	≤15				≤20		≤15/100mm			
	Yaw(")	≤30				≤40		/			
	Pitch(")	≤35				≤55		/			
<b>Electrical specifications</b>	Motor and its stepping angle(°)	Two-phase 57 stepping motor, 1.8									
	Brand and model number of motor	Shinano, SST59D3201						Shinano, SST59D5301-SD			
	Working current(A)	2.0						3.0			
	Holding torque of motor(N·m)	1.3						1.57			
	Brand and model number of grating ruler	Fagor, MX or MKX series						LAMOTION			
	Brand and model number of stepping driver(optional)	Moons, SR4									
	Type of plug for stage	DB9(pin)									
	Type of cable for stage	High flexibility cable(Helukabel, Germany)									
	Length of connection cable(m)	0.2									
	Position-limit sensors(built-in)	2×PM-L25(SUNX, Japan)									
	Origin-point sensors(built-in)	1×PM-L25(SUNX, Japan)									
	Voltage of power supply for sensors(V)	DC5~24V ±10%									
	Current consumption(mA)	≤60mA									
	Control output	NPN open collector output DC5 ~ 24V 8mA or less Residual voltage 0.3V or less(when load current is 2mA)									
	Status of output ports	Position limit sensor: output ON when sensor is blocked; Origin-point sensor: output OFF when sensor is blocked;									
<b>Maximum load capacity</b>	Vertical direction-central(Kg)	15						30			

\*Note: Highest speed is measured under zero-load conditions with the motor running at 600 RPM.

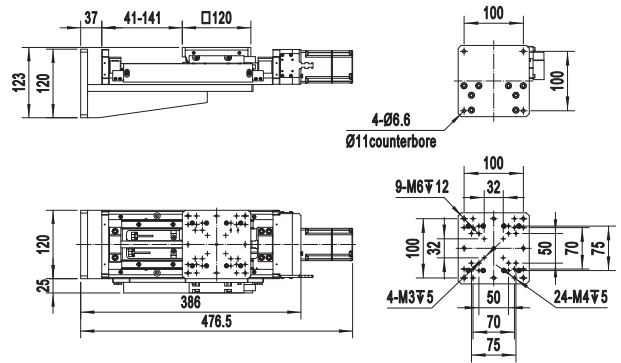
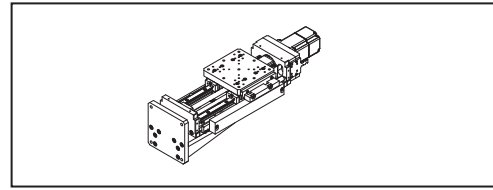
\*\*Note: Run in open loop mode.

# Dimensions:

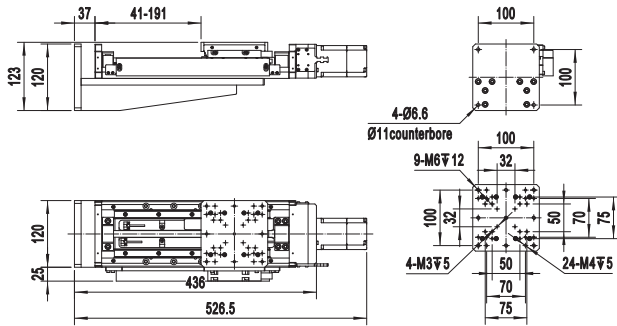
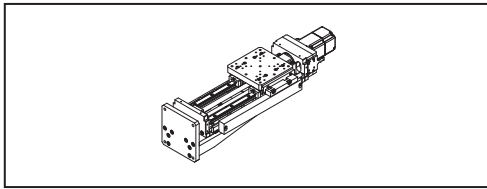
KA050-Z



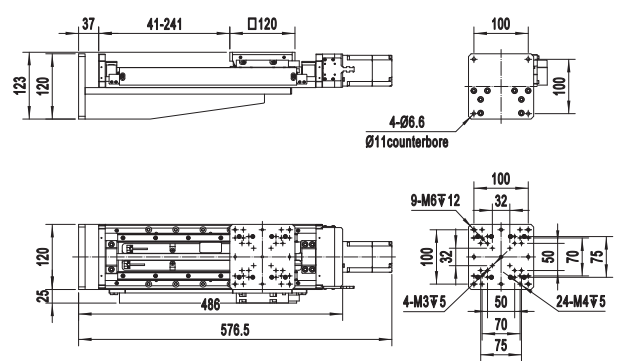
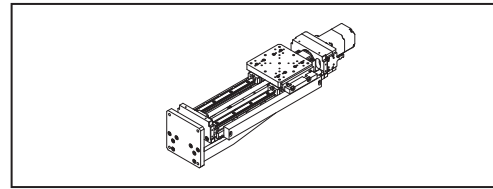
KA100-Z



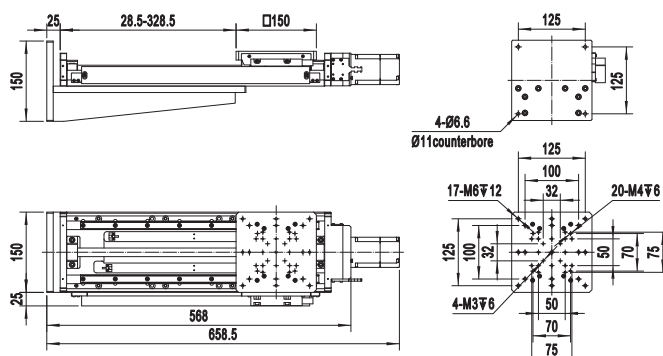
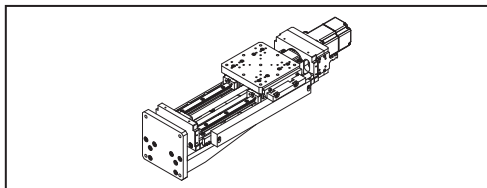
KA150-Z



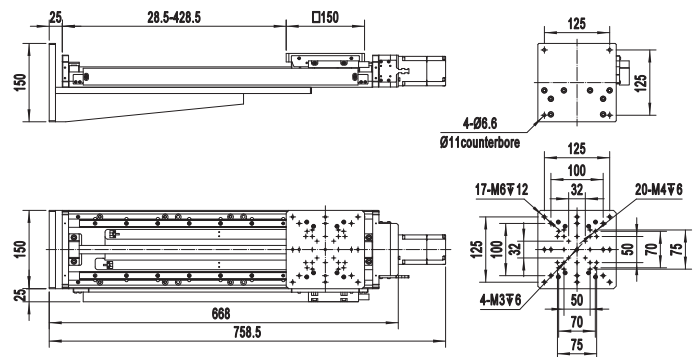
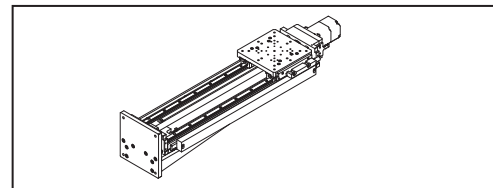
KA200-Z



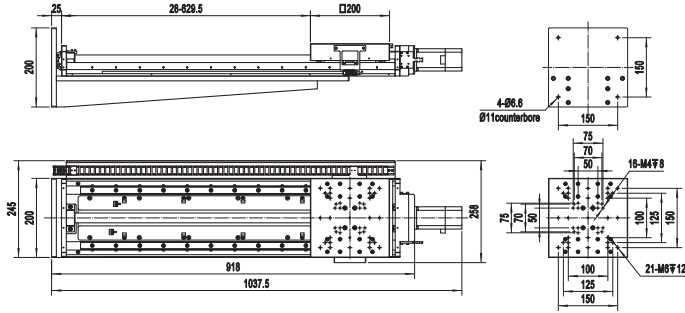
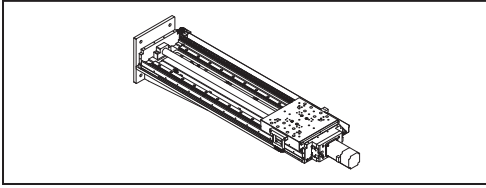
KA300-Z



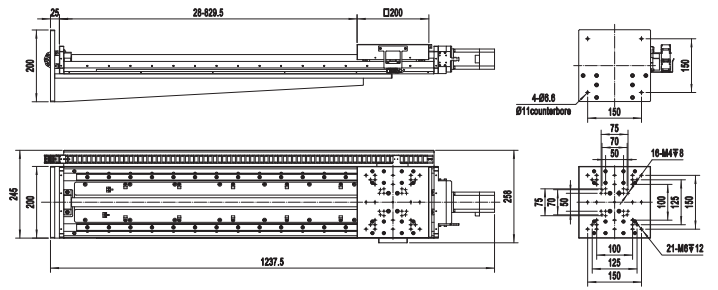
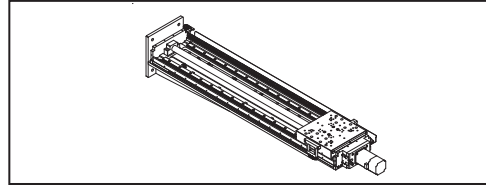
KA400-Z



KA600-Z



KA800-Z



KA1000-Z

