Iron Core Linear Motor

- Iron Core Technology
- Ultra-low Cogging Force
- High Thrust
- High Rigidity

Linear Motion | Horizontal Plane 2 | Angular | Rotary | Vertical & Rotary

• Mover Model Number Designation System

MK	1	A
Series	Mover Width	Mover Length
MK	56mm	1:118mm 2:223mm 3:328mm

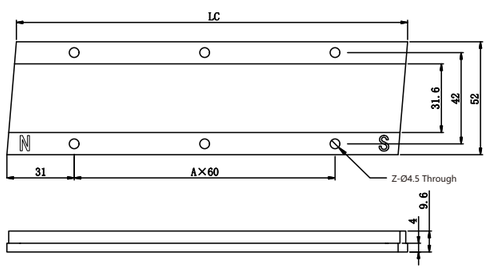
• Stator Model Number Designation System

DMK	52	-	L120
Series	Stator Width		Stator Length
MK	52mm		L120mm L180mm L300mm

Stator Model	Length LC	Width	Height	A	Z	Pole Pitch	Weight
Unit	mm	mm	mm	PCS	PCS	mm	Kg/m
MK1-120	120	52	9.6	1	4	30	2.56
MK1-180	180	52	9.6	2	6	30	2.56
MK1-300	300	52	9.6	4	10	30	2.56

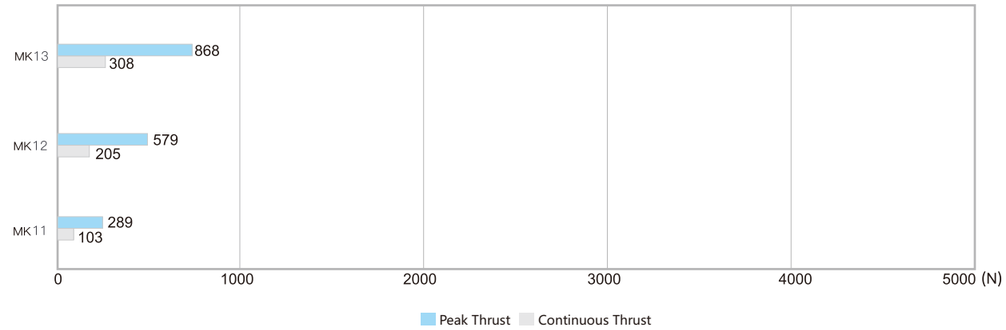
The coils of the MK1 series can be freely paired with MK1-120, MK1-180, or MK1-300.

• Stator Size



* For special length requirements, please consult our sales team.

Thrust Graph

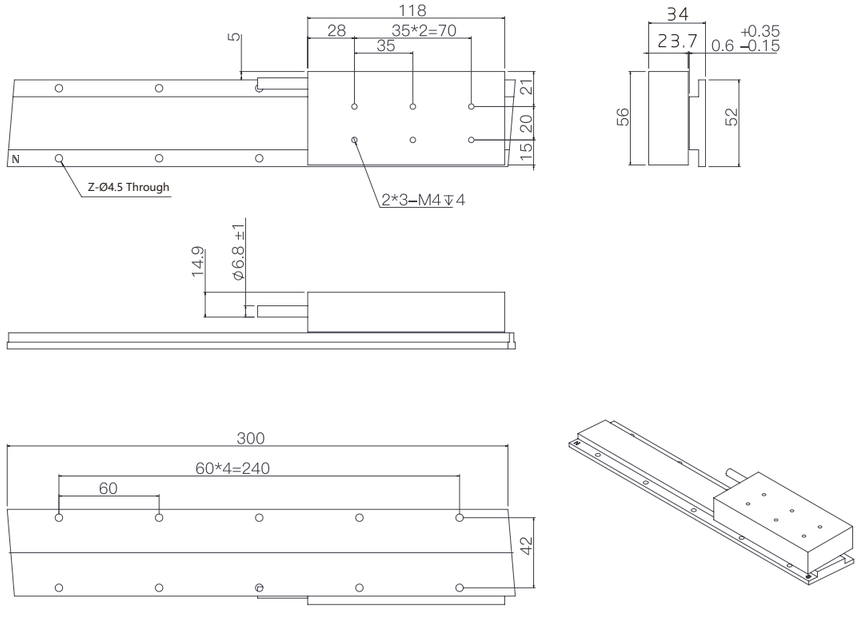


Specification Parameters

	Symbol	Unit	MK11	MK12	MK13
Continuous Thrust	F_c	N	103	205	308
Continuous Current	I_c	A_{rms}	2.1	4.2	6.3
Peak Thrust [1s]	F_p	N	289	579	868
Peak Current [1s]	I_p	A_{rms}	6.3	12.7	19.0
Limiting Thrust [0.5s]	F_u	N	379	759	1138
Limiting Current [0.5s]	I_u	A_{rms}	10.6	21.1	31.7
Thrust Constant	K_f	N/A_{rms}	48.6	48.6	48.6
Attractive Force Between Mover & Stator	F_a	N	481	963	1444
Max. Coil Temperature	T_{max}	℃		120	
Electrical Time Constant	K_e	ms	4.4	4.5	4.4
Resistance [Line-to-Line, 25°C]	R_{25}	Ω	8.4	4.1	2.8
Resistance [Line-to-Line, 120°C]	R_{120}	Ω	11.6	5.7	3.9
Inductance [Line-to-Line]	L	mH	37.1	18.5	12.4
Pole Pitch	2τ	mm		30	
Motor Cable Bend Radius	R_{bend}	mm		69	
Back EMF Constant [Line-to-Line]	K_v	$V_{rms}/[m/s]$	28.1	28.1	28.1
Motor Constant [25°C]	K_m	$N/\sqrt{W}$	13.7	19.6	23.7
Thermal Resistance	R_{TH}	℃/W	1.23	0.63	0.41
Thermal Time Constant	t_{TH}	s	1830	2720	4210
Thermal Sensor Switch	–	–		3 PNC SNM120 In Series	
Max. Operating Voltage	–	V_{DC}		600	
Mover Mass	M_f	kg	0.7	1.4	2.1
Stator Unit Mass	M_s	kg/m	2.56	2.56	2.56
Total Installation Height	H	mm	34	34	34

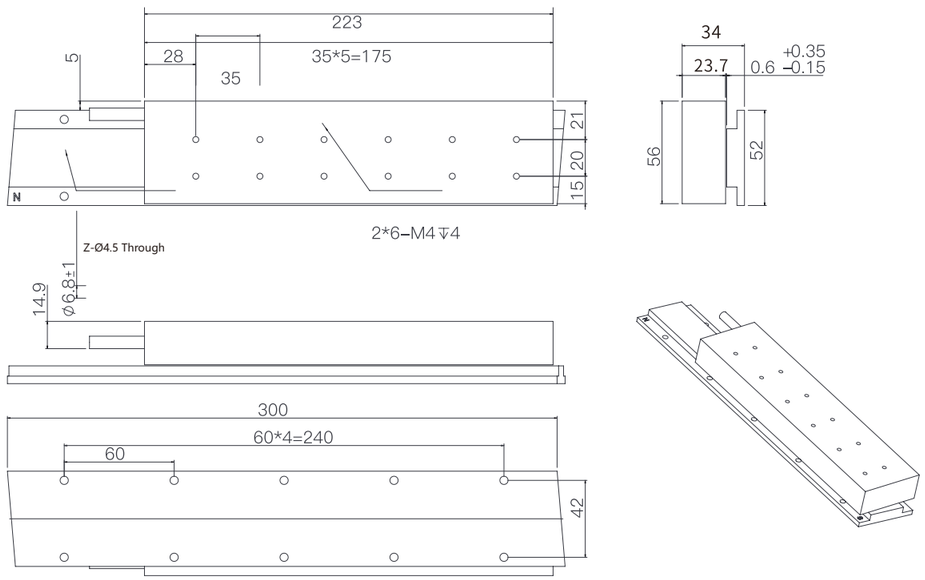
• MK11 Series: Dimensions

In Stock Lead Time: 7 Days
* The lead time is subject to change during special periods. Please consult our sales team.



• MK12 Series: Dimensions

In Stock Lead Time: 7 Days
* The lead time is subject to change during special periods. Please consult our sales team.



• MK13 Series: Dimensions

In Stock Lead Time: 7 Days
* The lead time is subject to change during special periods. Please consult our sales team.