


Iron Core Linear Motor

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



Linear Motion

Horizontal/Vertical

Angular

Rotary

Vertical & Rotary

Mover Model Number Designation System

MK	2	A
Series	Mover Width	Mover Length
MK	86mm	1: 118mm 2: 223mm 3: 328mm 4: 433mm

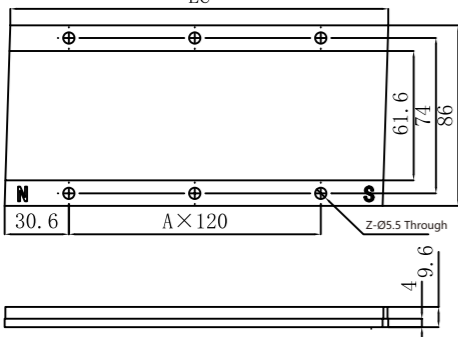
Stator Model Number Designation System


DMK	86	-	L120
Series	Stator Width	Stator Length	
MK	86mm	L120mm L180mm L300mm	

Stator Model	Length LC	Width	Height	A	Z	Pole Pitch	Weight
Unit	mm	mm	mm	PCS	PCS	mm	Kg/m
MK2-120	120	86	9.6	1	4	30	4.58
MK2-180	180	86	9.6	2	6	30	4.58
MK2-300	300	86	9.6	4	10	30	4.58

The coils of the MK2 series can be freely paired with MK2-120, MK2-180, or MK2-300.

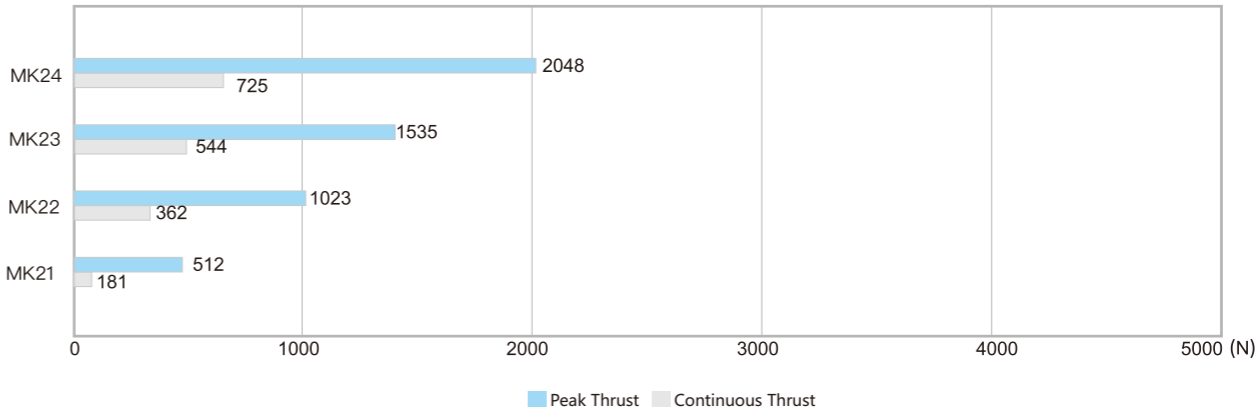
Stator Size





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

Thrust Graph

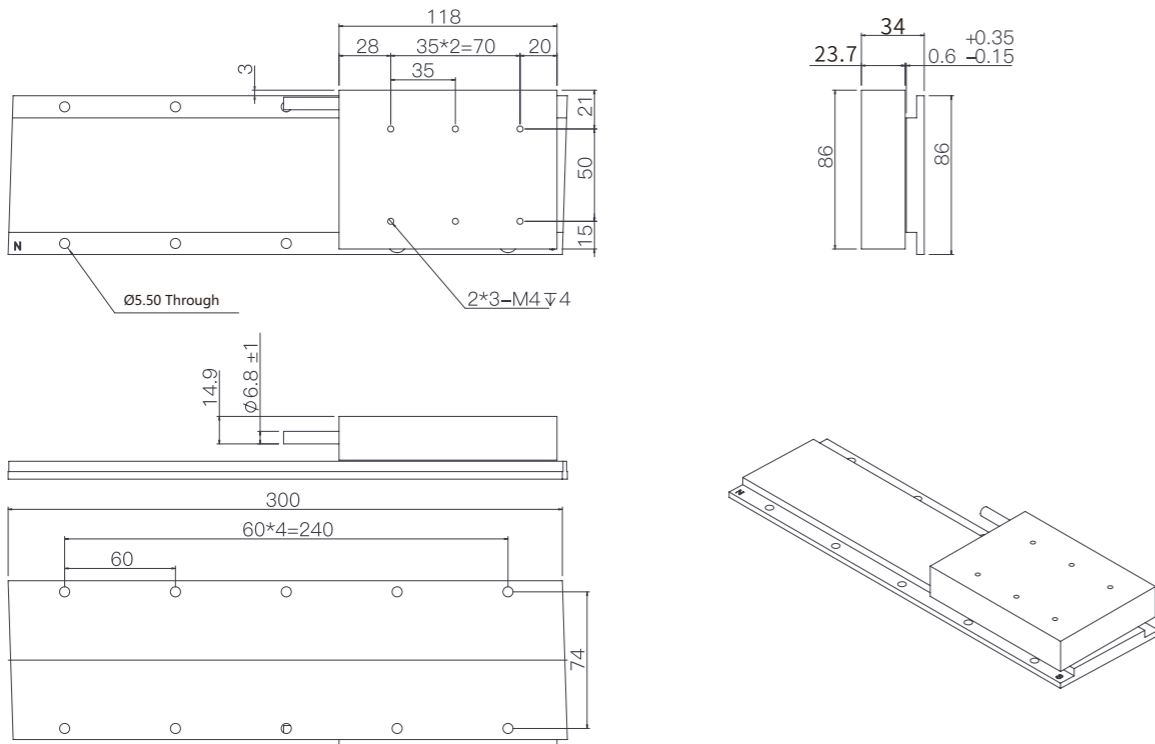


Specification Parameters

	Symbol	Unit	MK21	MK22	MK23	MK24
Continuous Thrust	F_c	N	181	362	544	725
Continuous Current	I_c	A_{rms}	2.0	3.9	5.9	7.8
Peak Thrust [1s]	F_p	N	512	1023	1535	2048
Peak Current [1s]	I_p	A_{rms}	5.9	11.8	17.6	23.5
Limiting Thrust [0.5s]	F_u	N	670	1341	2011	2682
Limiting Current [0.5s]	I_u	A_{rms}	9.8	19.6	29.4	39.2
Thrust Constant	K_t	N/A_{rms}	92.5	92.5	92.5	92.5
Attractive Force Between Mover & Stator	F_a	N	963	1926	2888	3851
Max. Coil Temperature	T_{max}	$^{\circ}C$	120			
Electrical Time Constant	K_e	ms	4.6	4.9	4.9	4.6
Resistance [Line-to-Line, 25 $^{\circ}C$]	R_{25}	Ω	13.8	6.8	4.6	3.5
Resistance [Line-to-Line, 120 $^{\circ}C$]	R_{120}	Ω	19.0	9.4	6.3	4.8
Inductance [Line-to-Line]	L	mH	64.0	33.0	22.4	16.0
Pole Pitch	2τ	mm	30			
Motor Cable Bend Radius	R_{bend}	mm	69			
Back EMF Constant [Line-to-Line]	K_b	$V_{rms}/[m/s]$	53.4	53.4	53.4	53.4
Motor Constant [25 $^{\circ}C$]	K_m	N/\sqrt{W}	20.3	28.9	35.2	40.6
Thermal Resistance	R_{TH}	$^{\circ}C/W$	0.87	0.44	0.29	0.22
Thermal Time Constant	t_{TH}	s	2830	4060	5080	5080
Thermal Sensor Switch	—	—	3 PNC SNM120 In Series			
Max. Operating Voltage	—	V_{DC}	600			
Mover Mass	M_l	kg	1.1	2.2	3.3	1.9
Stator Unit Mass	M_s	kg/m	4.58	4.58	4.58	4.58
Total Installation Height	H	mm	34	34	34	34

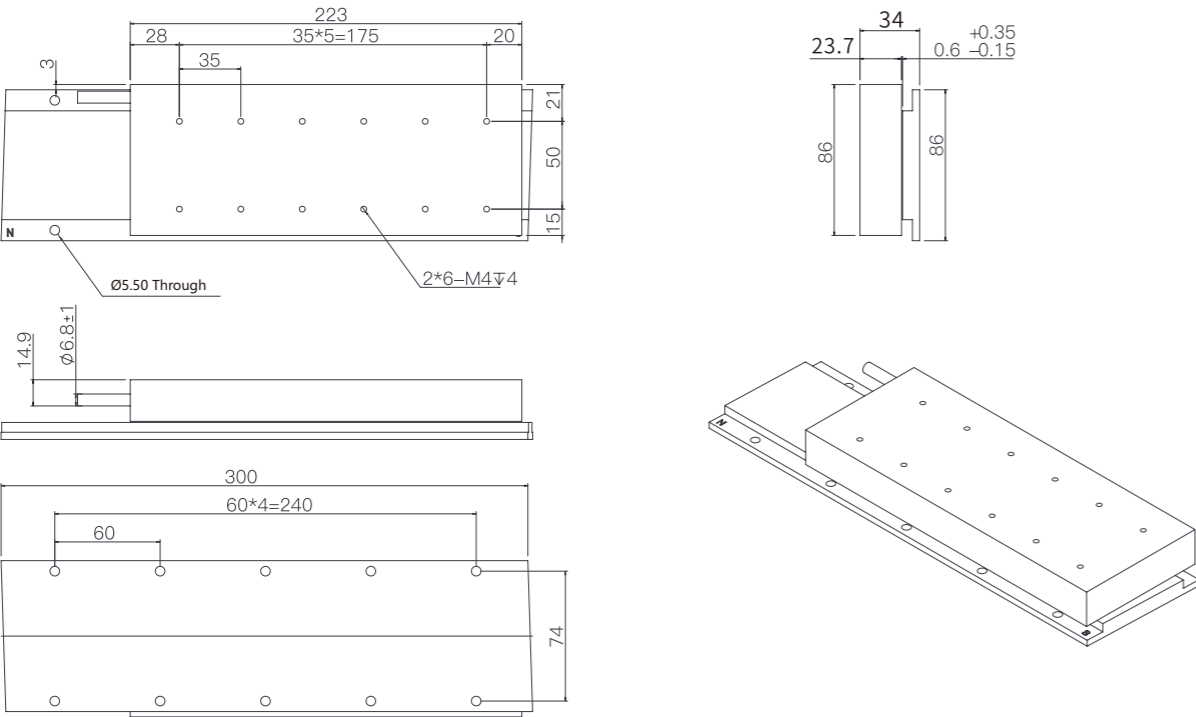
• MK21 Series: Dimensions

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



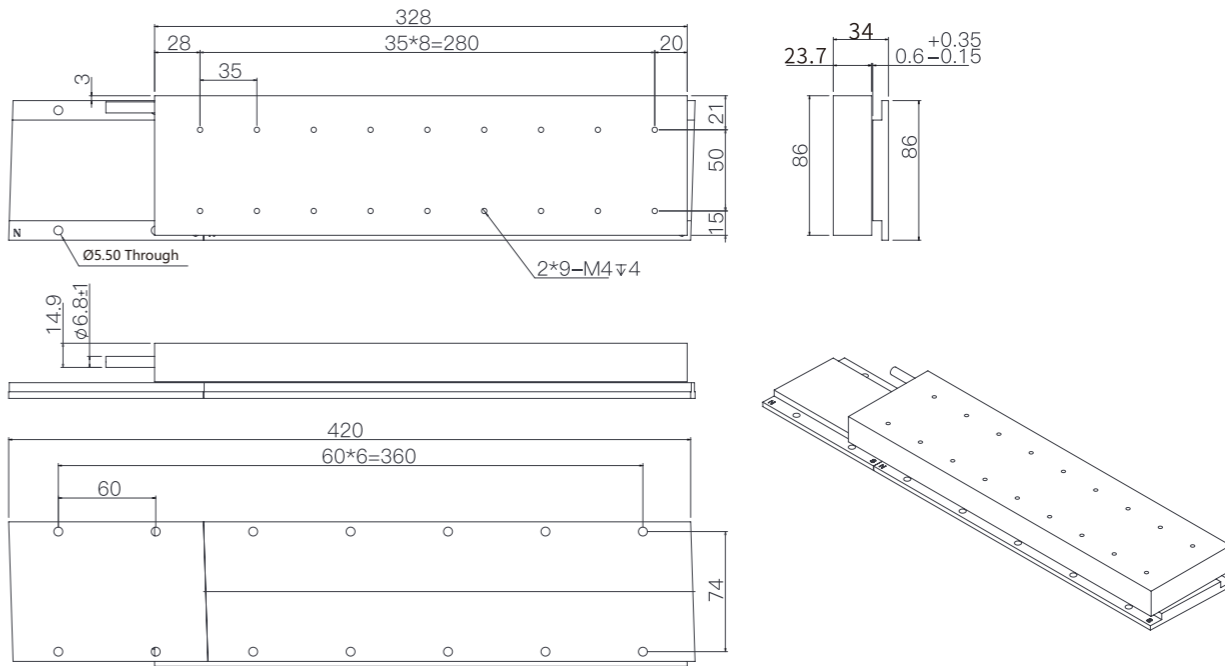
• MK22 Series: Dimensions

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



• MK23 Series: Dimensions

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



• MK24 Series: Dimensions

In Stock Lead Time: 7 Days
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