

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	3	A
Series	Mover Width	Mover Length
MK	116mm	1: 118mm 2: 223mm 3: 328mm 4: 433mm

Stator Model Number Designation System

DMK	116	-	L120
Series	Stator Width		Stator Length
MK	116mm		L120mm L180mm L300mm

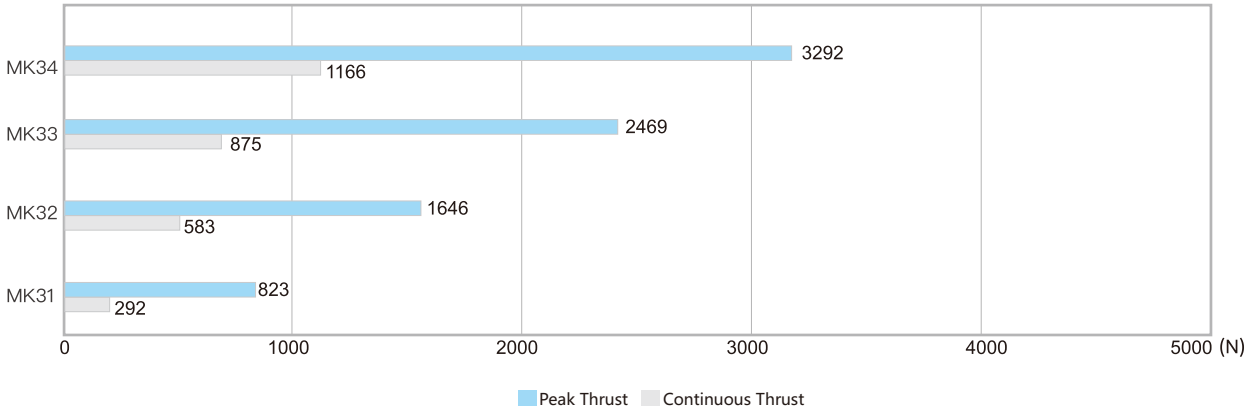
Stator Model	Length LC	Width	Height	A	Z	Pole Pitch	Weight
Unit	mm	mm	mm	PCS	PCS	mm	Kg/m
MK3 120	120	116	11.7	1	4	30	8.27
MK3 180	180	116	11.7	2	6	30	8.27
MK3 300	300	116	11.7	4	10	30	8.27

The coils of the MK3 series can be freely paired with MK3-120, MK3-180, or MK3-300.

Stator Size

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

Thrust Graph



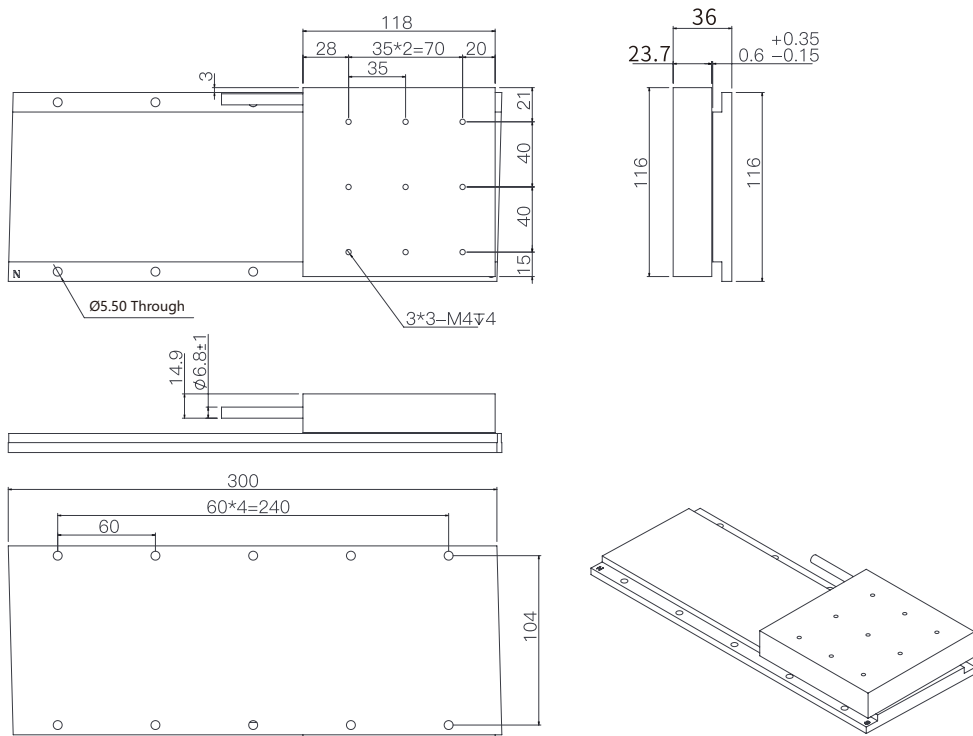
Specification Parameters

	Symbol	Unit	MK31	MK32	MK33	MK34
Continuous Thrust	F_c	N	292	583	875	1166
Continuous Current	I_c	A_{rms}	2.0	4.0	6.0	8.0
Peak Thrust [1s]	F_p	N	823	1646	2469	3292
Peak Current [1s]	I_p	A_{rms}	6.0	12.0	18.0	24
Limiting Thrust [0.5s]	F_u	N	1079	2157	3236	4314
Limiting Current [0.5s]	I_u	A_{rms}	10.0	20.0	30.0	40
Thrust Constant	K_f	N/A_{rms}	145.8	145.8	145.8	145.8
Attractive Force Between Mover & Stator	F_a	N	1444	2888	4333	5777
Max. Coil Temperature	T_{max}	$^{\circ}C$	120			
Electrical Time Constant	K_e	ms	4.9	4.9	4.9	4.9
Resistance [Line-to-Line, 25 $^{\circ}C$]	R_{25}	Ω	19.2	9.6	6.4	4.8
Resistance [Line-to-Line, 120 $^{\circ}C$]	R_{120}	Ω	26.5	13.2	8.8	6.6
Inductance [Line-to-Line]	L	mH	94.1	47.1	31.3	23.5
Pole Pitch	2τ	mm	30			
Motor Cable Bend Radius	R_{bend}	mm	69			
Back EMF Constant [Line-to-Line]	K_v	$V_{rms}/[m/s]$	84.2	84.2	84.2	84.2
Motor Constant [25 $^{\circ}C$]	K_m	N/\sqrt{W}	27.2	38.4	47.0	54.3
Thermal Resistance	R_{TH}	$^{\circ}C/W$	0.6	0.30	0.20	0.12
Thermal Time Constant	t_{TH}	s	4540	5740	5580	5580
Thermal Sensor Switch	—	—	3 PNC SNM120 In Series			
Max. Operating Voltage	—	V_{DC}	600			
Mover Mass	M_l	kg	1.9	3.8	5.7	7.6
Stator Unit Mass	M_s	kg/m	8.27	8.27	8.27	8.27
Total Installation Height	H	mm	36	36	36	36

• MK31 Series: Dimensions



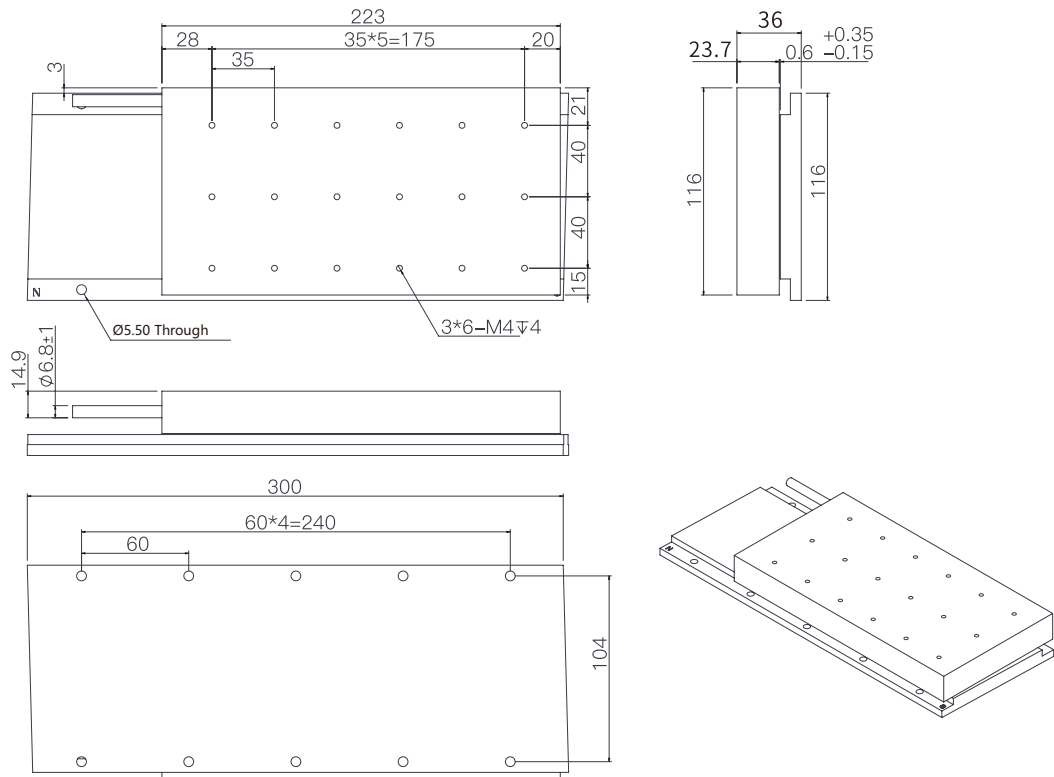
Lead Time: 7 Days
The lead time is subject to change during special periods. Please consult our sales team.



• MK32 Series: Dimensions



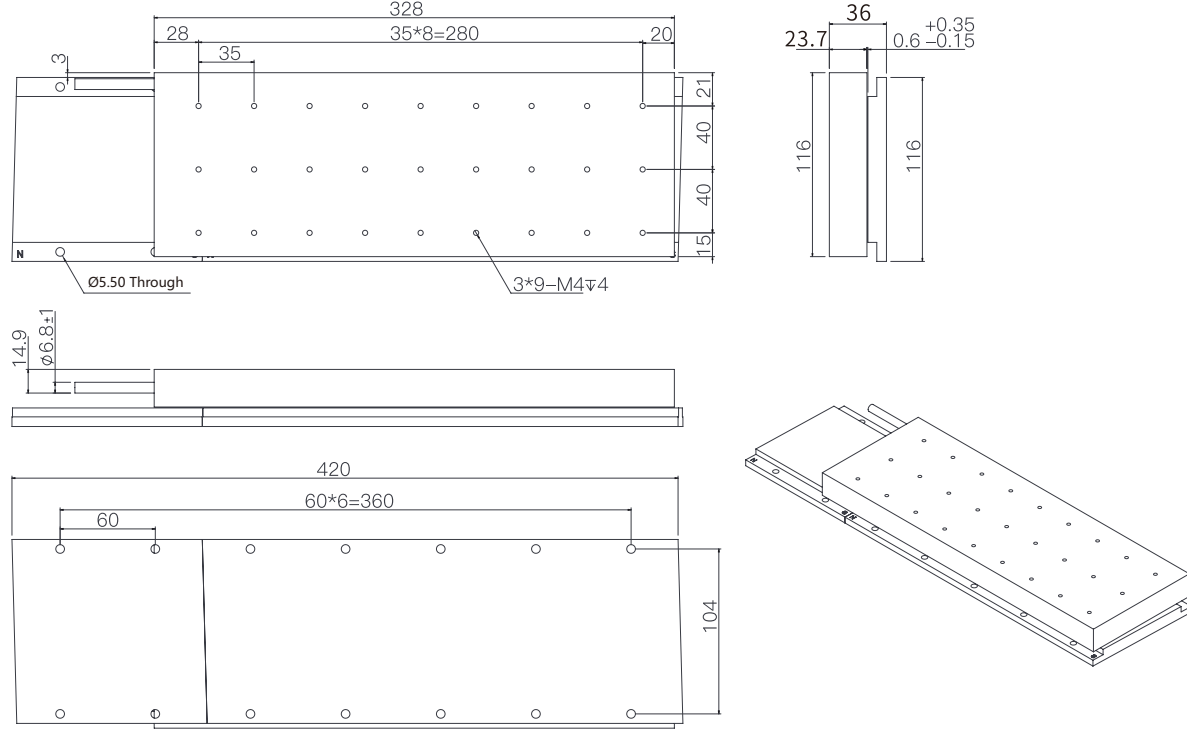
Lead Time: 7 Days
The lead time is subject to change during special periods. Please consult our sales team.



• MK33 Series: Dimensions



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



• MK34 Series: Dimensions



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

