

HTMKK · MKK50

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Read positioning, load and speed under the same lead and installation conditions. For vertical motion, include holding and brake requirements in the axis proposal.



MKK series illustration

Reviewed specifications

Parameter	Value	Applies to
Body width	50 mm	
Dynamic load	2136 / 1813 N	Lead 2 mm; Precision grade / Standard grade; MKK5002
Dynamic load	2050 / 1863 N	Lead 6 mm; MKK5006
Lead	2 mm	Lead 2 mm; Precision grade / Standard grade; MKK5002
Lead	6 mm	Lead 6 mm; MKK5006
Moment MP (A1/A2)	116 / 545 Nm	Lead 6 mm; MKK5006
Moment MP (A1/A2)	116 / 545 Nm	Lead 2 mm; Precision grade / Standard grade; MKK5002
Moment MR (A1/A2)	116 / 545 Nm	Lead 2 mm; Precision grade / Standard grade; MKK5002
Moment MR (A1/A2)	116 / 545 Nm	Lead 6 mm; MKK5006
Moment MR (A1/A2)	116 / 545 Nm	Lead 6 mm; MKK5006
Moment MR (A1/A2)	222 / 444 Nm	Lead 2 mm; Precision grade / Standard grade; MKK5002
Screw outer diameter	8 mm	Lead 2 mm; Precision grade / Standard grade; MKK5002

Parameter	Value	Applies to
Screw outer diameter	8 mm	Lead 6 mm; MKK5006
Slider A basic dynamic load rating	8007 N	Lead 6 mm; MKK5006
Slider A basic dynamic load rating	8007 N	Lead 2 mm; Precision grade / Standard grade; MKK5002
Static load	3489 / 2910 N	Lead 2 mm; Precision grade / Standard grade; MKK5002
Static load	2913 / 2619 N	Lead 6 mm; MKK5006
Maximum payload mass	31 kg	
Maximum stroke	220	
Section height H	26	
Section area moment I _x	9600 mm ⁴	
Section area moment I _y	134000 mm ⁴	

A unit is printed only where the source states one.

Installation drawings are in the separate dimension atlas.

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Engineering reference

Maximum-speed

Lead(mm)	Rail length L2(mm)	Precision P	General C
2	150	100 mm/s	100 mm/s
2	200	100 mm/s	100 mm/s
2	250	100 mm/s	100 mm/s
2	300	100 mm/s	100 mm/s
6	150	270 mm/s	270 mm/s
6	200	270 mm/s	270 mm/s
6	250	270 mm/s	270 mm/s
6	300	270 mm/s	270 mm/s

Rail length L2 is distinct from carriage travel;
 source values remain tied to their rail length,lead and grade.

Accuracy class

Rail length(mm)	Grade	Position repeatability	Position accuracy	Travel parallelism	Starting torque
150/200/250/300	P	±0.003 mm	0.020 mm	0.010 mm	4 N-cm
150/200/250/300	C	±0.01 mm	- mm	- mm	2 N-cm

The source explicitly labels positional units mm and starting torque N-cm. A dash is retained without a numerical rating.

Ball-screw ratings, MKK5002

Parameter/grade	Current source value
Nominal screw diameter	8 mm
Lead	2 mm
P ball-screw dynamic rating	2136 N
P ball-screw static rating	3489 N
C ball-screw dynamic rating	1813 N
C ball-screw static rating	2910 N

Guide ratings, MKK5002

Slide type	Dynamic rating	Static rating
A	8007 N	12916 N
S	- N	- N

Permissible static moments, MKK5002

Slide	Pitch MP	Yaw MY	Roll MR
A1	116 N-m	116 N-m	222 N-m
A2	545 N-m	545 N-m	444 N-m
S1	- N-m	- N-m	- N-m
S2	- N-m	- N-m	- N-m

Ball-screw ratings, MKK5006

Parameter/grade	Current source value
Nominal screw diameter	8 mm
Lead	6 mm
P ball-screw dynamic rating	2050 N
P ball-screw static rating	2913 N
C ball-screw dynamic rating	1863 N
C ball-screw static rating	2619 N

Guide ratings, MKK5006

Slide type	Dynamic rating	Static rating
A	8007 N	12916 N
S	- N	- N

Permissible static moments, MKK5006

Slide	Pitch MP	Yaw MY	Roll MR
A1	116 N-m	116 N-m	116 N-m
A2	545 N-m	545 N-m	545 N-m
S1	- N-m	- N-m	- N-m
S2	- N-m	- N-m	- N-m

Application notes

Application reference: The source describes a modular steel-base linear module integrating a ball screw and linear guide for common-environment equipment, with four-direction load support and a U-section rail.

Installation reference: The source provides HR/HL right/left motor mounting, standard/light slide variants and cover/bellows options. Choose mounting dimensions for that exact variant.

Lubrication source reference: Source grease guidance: replenish after 100km travel for speed not exceeding 60m/min. Interval $T = 100 \times 1000 / (V_e \times 60)$ hours, V_e in m/min. Source grease-nipple layouts distinguish single and double slides.

Rated-life source reference: Source formulas: guide $L = ((f_t/f_w) \times (C/P_n))^3 \times 50 \text{ km}$; screw/bearing $L = ((1/f_w) \times (C_a/P_a, n))^3 \times 10^6 \text{ rev}$. Guide ft: A1/S1=1.0, A2/S2=0.81. f_w : smooth/no impact, $V < 15 \text{ m/min}$: 1.0-1.5; normal $15 < V < 60$: 1.5-2.0; impact/vibration, $V > 60$: 2.0-3.5. Source module rated life takes the smaller guide/screw result.

Sensor ordering reference: S0: limit body only;
 S1: SX671;
 S2: SX674;
 S3: GX-F12A;
 S4: GX-F12A-P;
 no mark: none.

Ordering and specification differences: Ordering lists only 2mm lead; the speed/load tables also print 6mm lead. Keep both source references until the ordering availability is confirmed.

Ordering reference: MKK sizes 50/60/86;
 MKK50 ordering lead 2mm, body length 150/200/250/300mm;
 P: precision/C: general;
 A: standard/S: light slide;
 quantity 1/2. E denotes special machining;
 unmarked denotes standard. C: aluminum cover/B: bellows/unmarked: no cover. M: motor attached/unmarked: no motor.