

HTMKK · MKK60

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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	60 mm	
Dynamic load	3744 / 3377 N	Lead 5 mm; MKK6005
Dynamic load	2410 / 2107 N	Lead 10 mm; MKK6010
Lead	10 mm	Lead 10 mm; MKK6010
Lead	5 mm	Lead 5 mm; MKK6005
Moment MP (A1/A2)	72 / 367 Nm	Lead 5 mm; MKK6005
Moment MR (A1/A2)	152 / 760 Nm	Lead 5 mm; MKK6005
Moment MR (A1/A2)	419 / 838 Nm	Lead 5 mm; MKK6005
Moment MR (S1/S2)	241 / 482 Nm	Lead 5 mm; MKK6005
Screw outer diameter	12 mm	Lead 10 mm; MKK6010
Screw outer diameter	12 mm	Lead 5 mm; MKK6005
Slider A basic dynamic load rating	13230 N	Lead 5 mm; MKK6005
Slider A static load rating	21462 N	Lead 5 mm; MKK6005
Slider S basic dynamic load rating	7173 N	Lead 5 mm; MKK6005
Slider S static load rating	11574 N	Lead 5 mm; MKK6005
Static load	6243 / 5625 N	Lead 5 mm; MKK6005
Static load	3743 / 3234 N	Lead 10 mm; MKK6010
Maximum payload mass	42 kg	
Maximum stroke	500	
Ordering example (reference)	MKK60 10 P E-400 E A2 E-F0 C S0 M	
Section height H	33	
Section area moment Ix	20560 mm ⁴	
Section area moment Iy	280200 mm ⁴	



A unit is printed only where the source states one.

Installation drawings are in the separate dimension atlas.

emmy@htrobot.com www.htrobot.com

Engineering reference

Maximum-speed

Lead(mm)	Rail length L2(mm)	Precision P	General C
5	150	550 mm/s	390 mm/s
5	200	550 mm/s	390 mm/s
5	300	550 mm/s	390 mm/s
5	400	550 mm/s	390 mm/s
5	500	550 mm/s	390 mm/s
5	600	340 mm/s	340 mm/s
10	150	1100 mm/s	790 mm/s
10	200	1100 mm/s	790 mm/s
10	300	1100 mm/s	790 mm/s
10	400	1100 mm/s	790 mm/s
10	500	1100 mm/s	790 mm/s
10	600	670 mm/s	670 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
150/200/300/400	P	±0.003 mm	0.020 mm	0.010 mm	15 N-cm
150/200/300/400	C	±0.01 mm	- mm	- mm	7 N-cm
500/600	P	±0.003 mm	0.025 mm	0.015 mm	15 N-cm
500/600	C	±0.01 mm	- mm	- mm	7 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, MKK6005

Parameter/grade	Current source value
Nominal screw diameter	12 mm
Lead	5 mm
P ball-screw dynamic rating	3744 N
P ball-screw static rating	6243 N
C ball-screw dynamic rating	3377 N
C ball-screw static rating	5625 N

Guide ratings, MKK6005

Slide type	Dynamic rating	Static rating
A	13230 N	21462 N
S	7173 N	11574 N

Permissible static moments, MKK6005

Slide	Pitch MP	Yaw MY	Roll MR
A1	152 N-m	152 N-m	419 N-m

Slide	Pitch MP	Yaw MY	Roll MR
A2	760 N-m	760 N-m	838 N-m
S1	72 N-m	72 N-m	241 N-m
S2	367 N-m	367 N-m	482 N-m

Ball-screw ratings, MKK6010

Parameter/grade	Current source value
Nominal screw diameter	12 mm
Lead	10 mm
P ball-screw dynamic rating	2410 N
P ball-screw static rating	3743 N
C ball-screw dynamic rating	2107 N
C ball-screw static rating	3234 N

Guide ratings, MKK6010

Slide type	Dynamic rating	Static rating
A	13230 N	21462 N
S	7173 N	11574 N

Permissible static moments, MKK6010

Slide	Pitch MP	Yaw MY	Roll MR
A1	152 N-m	152 N-m	419 N-m
A2	760 N-m	760 N-m	838 N-m
S1	72 N-m	72 N-m	241 N-m
S2	367 N-m	367 N-m	482 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 f_t : 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 reference: MKK sizes 50/60/86;
MKK60 ordering lead 5/10mm, body length 150/200/300/400/500/600mm;
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.