

KK module series HTKK86

TKK86 · TKK module series

Use the dimensions and motion rows for the exact model. Keep load, speed and positioning conditions together when comparing candidates.



TKK series illustration

Reviewed specifications

Parameter	Value	Applies to
Maximum speed	1050 mm/s	Lead code 20; Standard grade
Maximum speed	430 mm/s	Lead code 10; Standard grade
Maximum speed	740 mm/s	Lead code 10; Precision grade
Maximum speed	1050 mm/s	Lead code 20; Standard grade
Maximum speed	1480 mm/s	Lead code 20; Precision grade
Maximum speed	520 mm/s	Lead code 10; Standard grade
Maximum speed	800	Lead code 20; Standard grade
Maximum speed	870 mm/s	Lead code 20; Standard grade
Maximum speed	1120	Lead code 20; Precision grade
Maximum speed	520 mm/s	Lead code 10; Standard grade
Maximum speed	1480 mm/s	Lead code 20; Precision grade
Maximum speed	520 mm/s	Lead code 10; Standard grade
Maximum speed	1050 mm/s	Lead code 20; Standard grade
Maximum speed	800	Lead code 20; Standard grade

Parameter	Value	Applies to
Maximum speed	740 mm/s	Lead code 10; Precision grade
Maximum speed	740 mm/s	Lead code 10; Precision grade
Maximum speed	610 mm/s	Lead code 10; Precision grade
Maximum speed	980	Lead code 20; Precision grade
Maximum speed	1480 mm/s	Lead code 20; Precision grade
Maximum speed	740 mm/s	Lead code 10; Precision grade
Maximum speed	1220 mm/s	Lead code 20; Precision grade
Maximum speed	740 mm/s	Lead code 10; Precision grade
Maximum speed	520 mm/s	Lead code 10; Standard grade
Maximum speed	520 mm/s	Lead code 10; Standard grade

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
10	340	740 mm/s	520 mm/s
10	440	740 mm/s	520 mm/s
10	540	740 mm/s	520 mm/s
10	640	740 mm/s	520 mm/s
10	740	740 mm/s	520 mm/s
10	940	610 mm/s	430 mm/s
20	340	1480 mm/s	1050 mm/s
20	440	1480 mm/s	1050 mm/s
20	540	1480 mm/s	1050 mm/s
20	640	1480 mm/s	1050 mm/s
20	740	1480 mm/s	1050 mm/s
20	940	1220 mm/s	870 mm/s

Rail length L2 is distinct from travel stroke. These values remain source references.

Accuracy class

Rail length(mm)	Grade P/C	Position characteristic(as printed)	Position accuracy(as printed)	Travel parallelism(as printed)	Starting torque
340/440/540/640	P	±0.003	0.025	0.015	15 N-cm
340/440/540/640	C	±0.01	-	-	10 N-cm
740	P	±0.003	0.030	0.020	17 N-cm
740	C	±0.01	-	-	10 N-cm
940	P	±0.003	0.040	0.030	25 N-cm
940	C	±0.01	-	-	10 N-cm

values and grade letters are retained.

Ball-screw ratings, TKK8610

Parameter	Current source value
Nominal diameter(as printed)	15
Lead	10 mm
Ball screw dynamic rating(pair as printed)	7144 / 6429 N
Ball screw static rating(pair as printed)	12642 / 11387 N

The paired screw-rating numbers remain in printed order; grade correspondence is not stated.

Guide ratings, TKK8610

Slide type	Dynamic rating	Static rating
A	31458 N	50764 N
S	21051 N	29475 N

Permissible static moments, TKK8610

Slide	Pitch MP	Yaw MY	Roll MR
A1	622 N-m	622 N-m	1507 N-m
A2	3050 N-m	3050 N-m	3014 N-m
S1	166 N-m	166 N-m	847 N-m
S2	1309 N-m	1309 N-m	1694 N-m

Ball-screw ratings, TTK8620

Parameter	Current source value
Nominal diameter(as printed)	15
Lead	20 mm
Ball screw dynamic rating(pair as printed)	4645 / 4175 N
Ball screw static rating(pair as printed)	7655 / 6889 N

The paired screw-rating numbers remain in printed order;
 grade correspondence is not stated.

Guide ratings, TTK8620

Slide type	Dynamic rating	Static rating
A	31458 N	50764 N
S	21051 N	29475 N

Permissible static moments, TTK8620

Slide	Pitch MP	Yaw MY	Roll MR
A1	622 N-m	622 N-m	1507 N-m
A2	3050 N-m	3050 N-m	3014 N-m
S1	166 N-m	166 N-m	847 N-m
S2	1309 N-m	1309 N-m	1694 N-m

Application notes

Application reference: The source family description integrates a ball screw with a U-shaped guide for compact linear motion, listing semiconductor, medical, automotive and automation equipment.

Installation reference: Source optional accessories:aluminum cover,bellows,motor-adaptor flange and limit switch.
 The chosen motor/flange fit requires its own source dimensions.

Sensor ordering reference: S0:limit rail only;

S1:Omron SX671;

S2:Omron SX674;

S3:SUNXGL-12F;

S4:SUNXGL-N12F-PX10;

no mark:no switch.

Ordering reference: Source sizes60/86/100;

TKK86 lead10/20mm;

ordering rail list340/440/540/640/740/940mm. P:precision/C:general;

A:standard slide/S:light slide;

slide quantity1/2.

Rail length: 340 /

440 /

540 /

640 /

740 /

940 mm