

## KK module series HTKK60

TTK60 · TTK module series

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



TTK series illustration

### Reviewed specifications

| Parameter                    | Value                          | Applies to                    |
|------------------------------|--------------------------------|-------------------------------|
| Ordering example (reference) | TKK60 10 P E .400 E A2 E F0 S0 |                               |
| Starting torque              | 15 / 7 N-cm                    |                               |
| Maximum speed                | 340 mm/s                       | Lead code 05; Standard grade  |
| Maximum speed                | 790 mm/s                       | Lead code 10; Standard grade  |
| Maximum speed                | 390 mm/s                       | Lead code 05; Standard grade  |
| Maximum speed                | 550 mm/s                       | Lead code 05; Precision grade |
| Maximum speed                | 1100 mm/s                      | Lead code 10; Precision grade |
| Maximum speed                | 390 mm/s                       | Lead code 05; Standard grade  |
| Maximum speed                | 790 mm/s                       | Lead code 10; Standard grade  |
| Maximum speed                | 550 mm/s                       | Lead code 05; Precision grade |
| Maximum speed                | 670 mm/s                       | Lead code 10; Precision grade |
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| Maximum speed                | 670 mm/s                       | Lead code 10; Standard grade  |
| Maximum speed                | 390 mm/s                       | Lead code 05; Standard grade  |
| Maximum speed                | 1100 mm/s                      | Lead code 10; Precision grade |

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| Maximum speed | 390 mm/s  | Lead code 05; Standard grade  |
| Maximum speed | 1100 mm/s | Lead code 10; Precision grade |
| Maximum speed | 550 mm/s  | Lead code 05; Precision grade |
| Maximum speed | 790 mm/s  | Lead code 10; Standard grade  |

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 |
|----------|--------------------|-------------|-----------|
| 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 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 |
|-----------------|-----------|-------------------------------------|-------------------------------|--------------------------------|-----------------|
| 150/200/300/400 | P         | ±0.003                              | 0.020                         | 0.010                          | 15 N-cm         |
| 150/200/300/400 | C         | ±0.01                               | -                             | -                              | 7 N-cm          |
| 500/600         | P         | ±0.003                              | 0.025                         | 0.015                          | 15 N-cm         |
| 500/600         | C         | ±0.01                               | -                             | -                              | 7 N-cm          |

values and grade letters are retained.

### Ball-screw ratings, TKK6005

| Parameter                                  | Current source value |
|--------------------------------------------|----------------------|
| Nominal diameter(as printed)               | 12                   |
| Lead                                       | 5 mm                 |
| Ball screw dynamic rating(pair as printed) | 3744 / 3377 N        |
| Ball screw static rating(pair as printed)  | 6243 / 5625 N        |

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

### Guide ratings, TKK6005

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

### Permissible static moments, TKK6005

| 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    | 348 N-m  | 348 N-m | 838 N-m |
| S1    | 72 N-m   | 72 N-m  | 241 N-m |
| S2    | 205 N-m  | 205 N-m | 482 N-m |

## Ball-screw ratings, TTK6010

| Parameter                                  | Current source value |
|--------------------------------------------|----------------------|
| Nominal diameter(as printed)               | 12                   |
| Lead                                       | 10 mm                |
| Ball screw dynamic rating(pair as printed) | 2410 / 2107 N        |
| Ball screw static rating(pair as printed)  | 3743 / 3234 N        |

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

## Guide ratings, TTK6010

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

## Permissible static moments, TTK6010

| Slide | Pitch MP | Yaw MY  | Roll MR |
|-------|----------|---------|---------|
| A1    | 152 N-m  | 152 N-m | 419 N-m |
| A2    | 348 N-m  | 348 N-m | 838 N-m |
| S1    | 72 N-m   | 72 N-m  | 241 N-m |
| S2    | 205 N-m  | 205 N-m | 482 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 and specification differences: The ordering rail list omits300mm, while the speed and accuracy tables include300mm.

Ordering reference: Source sizes60/86/100;

TKK60 lead5/10mm;

ordering rail list150/200/400/500/600mm. P:precision/C:general;

A:standard slide/S:light slide;

slide quantity1/2.

Rail length: 150 /

200 /

300 /

400 /

500 /

600 mm