

## Ball bearing freewheels

These sprag freewheels with integrated ball bearings in premium quality can be used as indexing freewheels, backstops or overrunning clutches. They are installed in housings provided by the customer.

**Verzia BB:** Standard freewheels without keyways. Sealed on the sprag side with a z-washer. On the bearing side, the freewheel closes with the bearing cage. The BB design has the same dimensions as ball bearing series 62.

**Verzia BB-2GD:** As design BB, but 5mm wider and with lip seal on both sides against dust and splash water.

**Forma 1KK:** With keyway on inner ring according to DIN 6885-3.

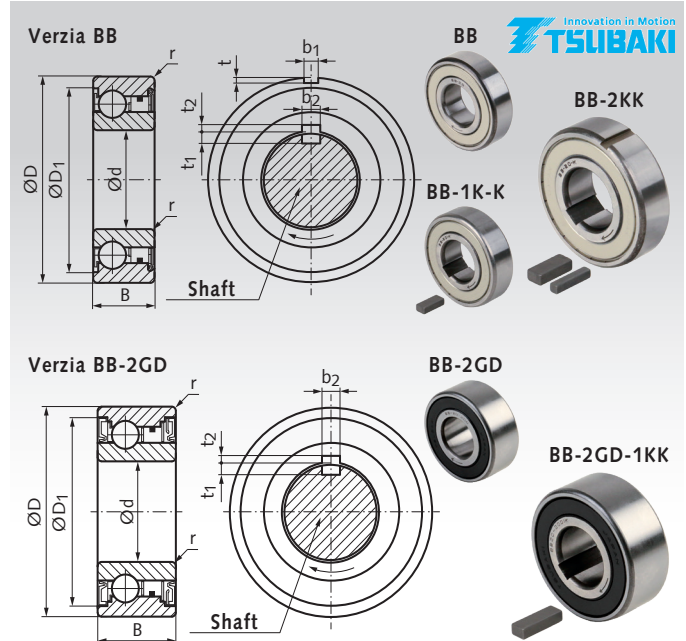
**Forma 2KK:** With keyway on inner ring according to DIN 6885-3. and additionally with groove on the outer ring.

The keys of the 1KK / 2KK versions are included in the delivery. Please refer to the footnotes for the keyways.

**Mazanie:** The freewheels are filled with grease for normal operating conditions and are maintenance-free. Do not use greases or lubricants with EP additives.

**Teplotná škála:** -30°C až + 100°C.

**Iné verzie na žiadosť.**



Informácie potrebné na objednanie: napr.: Produkt č., počet

| d<br>mm | Produkt č.<br>BB | Hmot.<br>Približne g | Produkt č.<br>BB-1KK | Hmot.<br>Približne g | Produkt č.<br>BB-2KK | Hmot.<br>Približne g | Produkt č.<br>BB-2GD | Hmot.<br>Približne g | Produkt č.<br>BB-2GD-1KK | Hmot.<br>Približne g |
|---------|------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------------|----------------------|
| 15      | BB15             | 50                   | BB15-1K-K            | 50                   | BB15-2K-K            | 50                   | BB15-2GD             | 70                   | BB15-2GD1K-K             | 70                   |
| 17      | BB17             | 80                   | BB17-1K-K            | 80                   | BB17-2K-K            | 80                   | BB17-2GD             | 100                  | BB17-2GD1K-K             | 100                  |
| 20      | BB20             | 120                  | BB20-1K-K            | 120                  | BB20-2K-K            | 120                  | BB20-2GD             | 150                  | BB20-2GD1K-K             | 150                  |
| 25      | BB25             | 150                  | BB25-1K-K            | 150                  | BB25-2K-K            | 150                  | BB25-2GD             | 200                  | BB25-2GD1K-K             | 200                  |
| 30      | BB30             | 230                  | BB30-1K-K            | 230                  | BB30-2K-K            | 230                  | BB30-2GD             | 280                  | BB30-2GD1K-K             | 280                  |
| 35      | BB35             | 320                  | BB35-1K-K            | 320                  | BB35-2K-K            | 320                  | BB35-2GD             | 410                  | BB35-2GD1K-K             | 410                  |
| 40      | BB40             | 400                  | BB40-1K-K            | 400                  | BB40-2K-K            | 400                  | BB40-2GD             | 600                  | BB40-2GD1K-K             | 600                  |

| d<br>mm | D<br>mm | Verzia BB            |                  | Verzia BB-2GD        |         | r<br>mm | b <sub>1</sub> <sup>J59</sup><br>mm | t<br>mm | b <sub>2</sub> <sup>J510</sup><br>mm | t <sub>1</sub><br>mm | t <sub>2</sub><br>mm | Keyway inner race<br>b x h x l <sup>(4)</sup><br>mm | Keyway outer race<br>b x h x l<br>mm |
|---------|---------|----------------------|------------------|----------------------|---------|---------|-------------------------------------|---------|--------------------------------------|----------------------|----------------------|---|--------------------------------------|
|         |         | D <sub>1</sub><br>mm | B<br>mm          | D <sub>1</sub><br>mm | B<br>mm |         |                                     |         |                                      |                      |                      |   |                                      |
| 15      | 35      | 32,6                 | 11               | 32,45                | 16      | 0,6     | 2                                   | 0,6     | 5                                    | 1,9                  | 1,2                  | 5 x 3 x 11 (16)                                     | 2 x 2 x 11                           |
| 17      | 40      | 36,1                 | 12               | 36,45                | 17      | 0,6     | 2                                   | 1,0     | 5                                    | 1,9                  | 1,2                  | 5 x 3 x 12 (17)                                     | 2 x 2 x 12                           |
| 20      | 47      | 41,7                 | 14               | 42,35                | 19      | 1,0     | 3                                   | 1,5     | 6                                    | 2,5                  | 1,6                  | 6 x 4 x 14 (19)                                     | 3 x 3 x 14                           |
| 25      | 52      | 47,1                 | 15               | 47,05                | 20      | 1,0     | 6                                   | 2,0     | 8                                    | 3,6 <sup>1)</sup>    | 1,5 <sup>1)</sup>    | 8 x 5 x 15 (20)                                     | 6 x 4 x 15                           |
| 30      | 62      | 56,6                 | 16               | 55,6                 | 21      | 1,0     | 6                                   | 2,0     | 8                                    | 3,1                  | 2,0                  | 8 x 5 x 16 (21)                                     | 6 x 4 x 16                           |
| 35      | 72      | 64,0                 | 17               | 64,6                 | 22      | 1,1     | 8                                   | 2,5     | 10                                   | 3,7                  | 2,4                  | 10 x 6 x 17 (22)                                    | 8 x 5 x 17                           |
| 40      | 80      | 71,0                 | 22 <sup>2)</sup> | 71,6                 | 27      | 1,1     | 10                                  | 3,0     | 12                                   | 5,0 <sup>3)</sup>    | 3,3 <sup>3)</sup>    | 12 x 8 x 22 (27)                                    | 10 x 6 x 22                          |

| d<br>mm | Krútiaci<br>moment<br>Nm | Ťahový moment   |                     | max. Overrunning                |                                 | Radiálne zaťaženie |                           |
|---------|--------------------------|-----------------|---------------------|---------------------------------|---------------------------------|--------------------|---------------------------|
|         |                          | Verzia BB<br>Nm | Verzia BB-2GD<br>Nm | Inner race<br>min <sup>-1</sup> | Outer race<br>min <sup>-1</sup> | dyn. C<br>N        | stat. C <sub>0</sub><br>N |
| 15      | 29                       | 0,010           | 0,040               | 3600                            | 2000                            | 5950               | 3230                      |
| 17      | 43                       | 0,010           | 0,050               | 3500                            | 1900                            | 7000               | 3700                      |
| 20      | 61                       | 0,014           | 0,055               | 3000                            | 1600                            | 8500               | 4900                      |
| 25      | 78                       | 0,017           | 0,055               | 2500                            | 1400                            | 10700              | 6300                      |
| 30      | 140                      | 0,030           | 0,058               | 2000                            | 1100                            | 11900              | 7900                      |
| 35      | 173                      | 0,034           | 0,060               | 1800                            | 1000                            | 13500              | 9700                      |
| 40      | 260                      | 0,040           | 0,080               | 1800                            | 900                             | 14500              | 11700                     |

<sup>1)</sup> The keyway depth t<sub>2</sub> is 0,5mm shallower than specified in DIN 6885-3. When using a DIN parallel keyway t<sub>1</sub> must be manufactured correspondingly deeper than specified in the DIN standard.

<sup>2)</sup> The dimension B does not correspond to the ball bearing 6208 with the dimensions 40 x 80 x 18mm.

<sup>3)</sup> Contrary to the above specifications, the keyway is according to DIN 6885-1.

<sup>4)</sup> Values in (): Length keyway Design BB-2GD.

## Montážne tolerancie

| Tolerancie hriadeľov |                 |               | Tolerancia diery |                     |           |
|----------------------|-----------------|---------------|------------------|---------------------|-----------|
| d<br>mm              | BB/BB-2GD<br>mm | 1KK/2KK<br>mm | D<br>mm          | BB/BB-2GD/1KK<br>mm | 2KK<br>mm |
| 15                   | +0,023          | -0,008        | 35               | -0,012              | -0,002    |
| 17                   | +0,012          | -0,028        | 40               | -0,028              | -0,018    |
| 20                   | +0,028          | -0,010        | 47               | -0,014              | -0,003    |
| 25                   |                 |               | -0,002           |                     |           |
| 30                   | +0,015          | -0,031        | 62               | -0,033              | -0,022    |
| 35                   | +0,033          | -0,012        | 72               |                     | -0,006    |
| 40                   | +0,017          | -0,037        | 80               | -0,025              |           |

## Poznámka

The ball bearing freewheels are designed for press fits. Make sure that the outer ring of the freewheel is pressed into a stable housing. Use suitable tools for installation.

The marking arrow on the inner ring indicates the direction of engagement.

The ball bearing freewheels are interchangeable with other fabricate makes of the same size.