



## SKF 2303 E-2RS1TN9

Self-aligning ball bearing with seals on both sides

Self-aligning ball bearings, with seals on both sides, have two rows of balls, a common sphered raceway in the outer ring and two deep uninterrupted raceway grooves in the inner ring. They are insensitive to angular misalignment of the shaft relative to the housing. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

### Technical specifications

|           |             |
|-----------|-------------|
| Bore type | Cylindrical |
|-----------|-------------|

| Dimensions                 |          |
|----------------------------|----------|
| Bore diameter              | 17 mm    |
| Outside diameter           | 47 mm    |
| Width                      | 19 mm    |
| Recess diameter inner ring | 25.5 mm  |
| Recess diameter outer ring | 41.23 mm |
| Chamfer dimension          | 1 mm     |

| Abutment dimensions       |         |
|---------------------------|---------|
| Abutment diameter shaft   | 22 mm   |
| Abutment diameter shaft   | 25.5 mm |
| Abutment diameter housing | 41.4 mm |
| Fillet radius             | 1 mm    |

| Calculation data                 |             |
|----------------------------------|-------------|
| Basic dynamic load rating        | 12.7 kN     |
| Basic static load rating         | 3.4 kN      |
| Fatigue load limit               | 0.176 kN    |
| Reference speed                  | 28000 r/min |
| Limiting speed                   | 10000 r/min |
| Permissible angular misalignment | 1.5 °       |
| Calculation factor               | 0.05        |
| Limiting value                   | 0.3         |
| Calculation factor               | 2.2         |
| Calculation factor               | 2.1         |
| Calculation factor               | 3.3         |

| Performance               |             |
|---------------------------|-------------|
| Basic dynamic load rating | 12.7 kN     |
| Basic static load rating  | 3.4 kN      |
| Reference speed           | 28000 r/min |
| Limiting speed            | 10000 r/min |

| Properties                           |                    |
|--------------------------------------|--------------------|
| Retaining feature, inner ring        | None               |
| Locating feature, bearing outer ring | Without            |
| Number of rows                       | 2                  |
| Bore type                            | Cylindrical        |
| Cage                                 | Non-metallic       |
| Radial internal clearance            | CN                 |
| Tolerance class                      | Normal             |
| Material, bearing                    | Bearing steel      |
| Coating                              | Without            |
| Sealing                              | Seal on both sides |
| Sealing type                         | Contact            |

|                                             |                           |
|---------------------------------------------|---------------------------|
| Lubricant                                   | Grease                    |
| Relubrication feature                       | Without                   |
| Indicative carbon footprint for new product | 0.56 kg CO <sub>2</sub> e |

| Logistics          |             |
|--------------------|-------------|
| Product net weight | 0.156 kg    |
| eClass code        | 23-05-08-06 |
| UNSPSC code        | 31171532    |

**SKF drawings**