



## SKF 638/8-2Z

### Deep groove ball bearing with seals or shields

Single row deep groove ball bearings with seals or shields are particularly versatile, have low friction and are optimized for low noise and low vibration, which enables high rotational speeds. They accommodate radial and axial loads in both directions, are easy to mount, and require less maintenance than many other bearing types. The integral sealing can significantly prolong bearing service life because it keeps lubricant in the bearings and contaminants out.

## Technical specifications

| Dimensions                                     |              |
|------------------------------------------------|--------------|
| Bore diameter                                  | 8 mm         |
| Deviation limits of mid-range bore diameter    | -0.008..0 mm |
| Outside diameter                               | 16 mm        |
| Deviation limits of mid-range outside diameter | -0.008..0 mm |
| Width                                          | 6 mm         |
| Deviation limits of ring width                 | -0.12..0 mm  |
| Recess diameter                                | 9.65 mm      |
| Recess diameter                                | 14.2 mm      |
| Chamfer dimension                              | 0.2 mm       |
| ISO tolerance class for dimensions             | Normal       |

| Abutment dimensions               |         |
|-----------------------------------|---------|
| Diameter of shaft abutment        | 9.4 mm  |
| Diameter of shaft abutment        | 9.5 mm  |
| Diameter of housing abutment      | 14.6 mm |
| Radius of shaft or housing fillet | 0.2 mm  |

| Calculation data          |             |
|---------------------------|-------------|
| Basic dynamic load rating | 0.819 kN    |
| Basic static load rating  | 0.3 kN      |
| Fatigue load limit        | 0.012 kN    |
| Reference speed           | 90000 r/min |
| Limiting speed            | 45000 r/min |
| Minimum load factor       | 0.02        |
| Calculation factor        | 7.5         |

| Tolerances of run-out                                      |        |
|------------------------------------------------------------|--------|
| Range of section height at inner ring of assembled bearing | 10 µm  |
| Range of section height at outer ring of assembled bearing | 15 µm  |
| ISO tolerance class for geometrical tolerances             | Normal |

| Performance               |             |
|---------------------------|-------------|
| Basic dynamic load rating | 0.819 kN    |
| Basic static load rating  | 0.3 kN      |
| Reference speed           | 90000 r/min |
| Limiting speed            | 45000 r/min |

| Properties                           |                      |
|--------------------------------------|----------------------|
| Filling slots                        | Without              |
| Number of rows                       | 1                    |
| Locating feature, bearing outer ring | Without              |
| Bore type                            | Cylindrical          |
| Matched arrangement                  | No                   |
| Radial internal clearance            | CN                   |
| Material, bearing                    | Bearing steel        |
| Coating                              | Without              |
| Sealing                              | Shield on both sides |

|                                             |                           |
|---------------------------------------------|---------------------------|
| Sealing type                                | Non-contact               |
| Lubricant                                   | Grease                    |
| Relubrication feature                       | Without                   |
| Indicative carbon footprint for new product | 0.02 kg CO <sub>2</sub> e |

| Logistics          |             |
|--------------------|-------------|
| Product net weight | 0.0044 kg   |
| eClass code        | 23-05-08-01 |
| UNSPSC code        | 31171504    |

**SKF drawings**