



## SKF 22224 E

### Spherical roller bearing with relubrication features

Spherical roller bearings can accommodate heavy loads in both directions. They are self-aligning and accommodate misalignment and shaft deflections, with virtually no increase in friction or temperature. The design includes features to facilitate relubrication. The bearings can be used in a modular system, including housings, sleeves and nuts.

## Technical specifications

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

| Dimensions                                     |             |
|------------------------------------------------|-------------|
| Bore diameter                                  | 120 mm      |
| Deviation limits of mid-range bore diameter    | -0.02..0 mm |
| Outside diameter                               | 215 mm      |
| Deviation limits of mid-range outside diameter | -0.03..0 mm |
| Width                                          | 58 mm       |
| Deviation limits of ring width                 | -0.08..0 mm |
| Shoulder diameter of inner ring                | 141 mm      |
| Shoulder/recess diameter of outer ring         | 189 mm      |
| Width of lubrication groove                    | 11.1 mm     |
| Diameter of lubrication hole                   | 6 mm        |
| Chamfer dimension                              | 2.1 mm      |
| ISO tolerance class for dimensions             | Normal      |

| Abutment dimensions          |        |
|------------------------------|--------|
| Diameter of shaft abutment   | 132 mm |
| Diameter of housing abutment | 203 mm |
| Radius of fillet             | 2 mm   |

| Calculation data          |              |
|---------------------------|--------------|
| SKF performance class     | SKF Explorer |
| Basic dynamic load rating | 652 kN       |
| Basic static load rating  | 780 kN       |
| Fatigue load limit        | 73.5 kN      |
| Reference speed           | 2800 r/min   |
| Limiting speed            | 3800 r/min   |
| Limiting value            | 0.26         |
| Calculation factor        | 2.6          |
| Calculation factor        | 3.9          |
| Calculation factor        | 2.5          |

| Tolerances of run-out                                      |        |
|------------------------------------------------------------|--------|
| Range of section height at inner ring of assembled bearing | 6 µm   |
| Maximum run-out of inner ring side face to the bore        | 9 µm   |
| Range of section height at outer ring of assembled bearing | 15 µm  |
| Perpendicularity of outer ring outside surface             | 5.5 µm |
| ISO tolerance class for geometrical tolerances             | P5     |

| Radial internal clearance |        |
|---------------------------|--------|
| Minimum initial clearance | 75 µm  |
| Maximum initial clearance | 120 µm |

| Performance               |        |
|---------------------------|--------|
| Basic dynamic load rating | 652 kN |
| Basic static load rating  | 780 kN |

|                       |              |
|-----------------------|--------------|
| Reference speed       | 2800 r/min   |
| Limiting speed        | 3800 r/min   |
| SKF performance class | SKF Explorer |

| Properties                                             |                           |
|--------------------------------------------------------|---------------------------|
| Number of rows                                         | 2                         |
| Locating feature, bearing outer ring                   | Without                   |
| Bore type                                              | Cylindrical               |
| Cage                                                   | Sheet metal               |
| Radial internal clearance                              | CN                        |
| Tolerance class for dimensions                         | Normal                    |
| Tolerance class for run-out                            | P5                        |
| Sealing                                                | Without                   |
| Lubricant                                              | None                      |
| Relubrication feature                                  | With                      |
| Candidate for remanufacturing                          | Yes                       |
| Indicative carbon footprint for new product            | 32.1 kg CO <sub>2</sub> e |
| Indicative carbon footprint for remanufactured product | 11.2 kg CO <sub>2</sub> e |

| Logistics          |             |
|--------------------|-------------|
| Product net weight | 8.92 kg     |
| eClass code        | 23-05-09-11 |
| UNSPSC code        | 31171510    |

SKF drawings

