



## SKF QJ 209 MA

### Four-point contact ball bearing

Four-point contact ball bearings can accommodate high axial loads in both directions and small radial loads. They can operate at very high speeds and are more suitable than deep groove ball bearings for supporting large axial forces. The outer ring, with ball and cage assembly, can be mounted separately from the two inner ring halves.

## Technical specifications

| Dimensions                                                  |         |
|-------------------------------------------------------------|---------|
| Bore diameter                                               | 45 mm   |
| Outside diameter                                            | 85 mm   |
| Width                                                       | 19 mm   |
| Shoulder diameter inner ring                                | 54.5 mm |
| Shoulder diameter outer ring/ inner diameter housing washer | 72 mm   |
| Distance pressure point(s)                                  | 46 mm   |
| Chamfer dimension inner ring                                | 1.1 mm  |
| Contact angle                                               | 35 °    |

| Abutment dimensions       |       |
|---------------------------|-------|
| Abutment diameter shaft   | 52 mm |
| Abutment diameter housing | 78 mm |
| Fillet radius             | 1 mm  |

| Calculation data          |              |
|---------------------------|--------------|
| SKF performance class     | SKF Explorer |
| Basic dynamic load rating | 63 kN        |
| Basic static load rating  | 56 kN        |
| Fatigue load limit        | 2.36 kN      |
| Limiting speed            | 14000 r/min  |
| Calculation factor        | 0.009        |
| Limiting value            | 0.95         |
| Calculation factor        | 0.6          |
| Calculation factor        | 0.58         |
| Calculation factor        | 0.66         |
| Calculation factor        | 1.1          |

| Performance               |              |
|---------------------------|--------------|
| Basic dynamic load rating | 63 kN        |
| Basic static load rating  | 56 kN        |
| Limiting speed            | 14000 r/min  |
| SKF performance class     | SKF Explorer |

| Properties                           |                                               |
|--------------------------------------|-----------------------------------------------|
| Contact type                         | Four-point contact                            |
| Number of rows                       | 1                                             |
| Locating feature, bearing outer ring | Without                                       |
| Ring type                            | Two-piece inner ring and one-piece outer ring |
| Cage                                 | Machined brass                                |
| Matched arrangement                  | No                                            |
| Universal matching bearing           | No                                            |
| Axial internal clearance             | CN                                            |
| Material, bearing                    | Bearing steel                                 |
| Coating                              | Without                                       |
| Sealing                              | Without                                       |
| Lubricant                            | None                                          |
| Relubrication feature                | Without                                       |

|                                             |                          |
|---------------------------------------------|--------------------------|
| Indicative carbon footprint for new product | 1.8 kg CO <sub>2</sub> e |
|---------------------------------------------|--------------------------|

| Logistics          |             |
|--------------------|-------------|
| Product net weight | 0.509 kg    |
| eClass code        | 23-05-08-05 |
| UNSPSC code        | 31171538    |

**SKF drawings**

