



## SKF 7218 ACDGA/P4A

Super-precision, high-capacity, universally matchable single row angular contact

These super-precision, high-capacity, single row angular contact ball bearings accommodate radial and axial loads acting simultaneously, where the axial load acts in one direction only. They are designed to accommodate heavy loads at relatively high speeds under low to moderate operating temperatures. Being universally matchable, they can be used together in arrangements to provide effective load sharing, within a predetermined preload range, without the use of shims or similar devices.

### Technical specifications

| General                       |  |
|-------------------------------|--|
| Universal matching bearing(s) | Yes, back-to-back (<>), face-to-face (><) or tandem (>>) |

| Dimensions  |          |
|---|----------|
| Bore diameter                                     | 90 mm    |
| Outside diameter                                  | 160 mm   |
| Width   | 30 mm    |
| Shoulder diameter of inner ring (large side face) | 111.6 mm |
| Shoulder diameter of inner ring (small side face) | 111.6 mm |
| Shoulder diameter of outer ring (large side face) | 138.4 mm |
| Chamfer dimension                                 | 2 mm     |
| Chamfer dimension                                 | 1 mm     |
| Distance from side face to pressure point         | 44.3 mm  |
| Contact angle                                     | 25 °     |

| Abutment dimensions          |          |
|------------------------------|----------|
| Diameter of shaft abutment   | 101 mm   |
| Diameter of shaft abutment   | 101 mm   |
| Diameter of housing abutment | 149 mm   |
| Diameter of housing abutment | 154.4 mm |
| Radius of fillet             | 2 mm     |
| Radius of fillet             | 1 mm     |
| Position of oil nozzle       | 117.5 mm |

| Calculation data                                       |  |
|--|--|
| Basic dynamic load rating                              | 121 kN   |
| Basic static load rating                               | 106 kN   |
| Fatigue load limit                                     | 4.05 kN  |
| Attainable speeds                                      | Refer to catalogue data or contact SKF for the attainable speeds |
| Contact angle  | 25 °   |
| Ball diameter  | 22.225 mm  |
| Number of rows   | 1  |
| Number of balls (per bearing)                          | 16   |
| Reference grease quantity (per bearing)                | 27.8 cm <sup>3</sup>   |
| Preload class  | A  |
| Preload when unmounted                                 | 750 N  |
| Axial stiffness  | 273 N/μm   |
| Correction factor dependent on bearing series and size | 1.1  |
| Correction factor dependent on contact angle           | 0.99   |
| Correction factor, preload class A                     | 1  |
| Correction factor for hybrid bearings                  | 1  |
| Limiting value   | 0.68   |
| Axial load factor (single, tandem)                     | 0  |
| Axial load factor (single, tandem)                     | 0.87   |
| Axial load factor (single, tandem)                     | 0.38   |
| Radial load factor (single, tandem)                    | 1  |

|   |      |
|---|------|
| Radial load factor (single, tandem)             | 0.41 |
| Radial load factor (single, tandem)             | 0.5  |
| Axial load factor (back-to-back, face-to-face)  | 0.92 |
| Axial load factor (back-to-back, face-to-face)  | 1.4  |
| Axial load factor (back-to-back, face-to-face)  | 0.76 |
| Radial load factor (back-to-back, face-to-face) | 1    |
| Radial load factor (back-to-back, face-to-face) | 0.67 |
| Radial load factor (back-to-back, face-to-face) | 1    |

| Performance               |  |
|---------------------------|--|
| Basic dynamic load rating | 121 kN   |
| Basic static load rating  | 106 kN   |
| Note                      | Refer to catalogue data or contact SKF for the attainable speeds |

| Properties                                   |  |
|--|--|
| Contact type                                 | Normal contact (two-point contact)                       |
| Number of rows                               | 1  |
| Ring type                                    | One-piece inner and outer rings                          |
| Design                                       | High-capacity D  |
| Universal matching bearing                   | Yes, back-to-back (<>), face-to-face (><) or tandem (>>) |
| Matched arrangement                          | No   |
| Matched condition (axial clearance/ preload) | Measuring load, class A                                  |
| Tolerance class                              | P4A  |
| Material, bearing                            | Bearing steel  |
| Coating                                      | Without  |
| Sealing                                      | Without  |
| Lubricant                                    | None   |
| Indicative carbon footprint for new product  | 8 kg CO <sub>2</sub> e                                   |

| Logistics          |             |
|--------------------|-------------|
| Product net weight | 2.22 kg     |
| eClass code        | 23-05-08-04 |
| UNSPSC code        | 31171531    |

**SKF drawings**



