



PRODUCT DATASHEET

Datasheet creation date: 2025/05/28 7:52 (UTC)



22209EAKE4

Spherical Roller Bearings

Boundary Dimensions

| | | | |
|----------|-----|----|-------------------|
| d | 45 | mm | Bore diameter |
| D | 85 | mm | Outside diameter |
| B | 23 | mm | Width |
| r (min.) | 1.1 | mm | Chamfer dimension |

Basic Load Ratings

| | | | |
|-----|--------|---|---------------------------|
| Cr | 118000 | N | Basic dynamic load rating |
| C0r | 111000 | N | Basic static load rating |

Speeds

| | | | |
|-------------------------------------|-------|-------|---|
| Thermal Speed Rating (Oil-bath) | 6300 | min-1 | Oil-bath lubrication subject to conditions outlined in ISO 15312 |
| Mechanical (forced-circulation oil) | 11000 | min-1 | Properly designed and controlled forced-circulation oil lubrication |
| Grease | 6000 | min-1 | Grease lubrication |
| Oil (Oil-bath) | 7500 | min-1 | Oil-bath lubrication |

Abutment and Fillet Dimensions

| | | | |
|-----------|----|----|-----------------------------------|
| da (min.) | 52 | mm | Diameter of shaft abutment |
| da (max.) | 55 | mm | Diameter of shaft abutment |
| Da (min.) | 75 | mm | Diameter of housing abutment |
| Da (max.) | 78 | mm | Diameter of housing abutment |
| ra (max.) | 1 | mm | Radius of shaft or housing fillet |

Calculation factors

| | | |
|----|------|--------------------|
| e | 0.26 | Constant |
| Y2 | 3.9 | Axial load Factors |
| Y3 | 2.7 | Axial load Factors |
| Y0 | 2.6 | Axial load Factors |

Mass

| | | | |
|--------------|------|----|--------------|
| Mass approx. | 0.55 | kg | Mass approx. |
|--------------|------|----|--------------|

