



# GEH 30 ES-2RS Radial spherical plain bearing, requiring maintenance, sealed, metric sizes

Radial spherical plain bearing, requiring maintenance, sealed, metric sizes

These radial spherical plain bearings have a steel/steel sliding contact surface combination and a double-lip contact seal on both sides. The bearings require maintenance and can be relubricated via lubrication holes and an annular groove in both rings. Compared to the GE series, they have a wider inner ring and a larger outside diameter, which enable higher load ratings and larger tilt angles.

- Designed for radial and combined radial and axial loads
- Long service life
- Minimal maintenance
- Suitable for heavy static, alternating or impact loads
- Enable larger tilt angles

## Overview

### Dimensions

|                   |       |
|-------------------|-------|
| Bore diameter     | 30 mm |
| Outside diameter  | 55 mm |
| Width, inner ring | 32 mm |
| Width, outer ring | 20 mm |

## Performance

|                           |        |
|---------------------------|--------|
| Basic dynamic load rating | 80 kN  |
| Basic static load rating  | 400 kN |

## Properties

|                                     |                        |
|-------------------------------------|------------------------|
| Sliding contact surface combination | Steel/steel, standard  |
| Material, inner ring                | Bearing steel          |
| Material, outer ring                | Bearing steel          |
| Maintenance                         | Relubrication required |
| Radial internal clearance           | CN                     |
| Sealing                             | Seal on both sides     |
| Sealing type                        | Double-lip             |
| Relubrication feature               | With                   |

## Technical Specification

|                                     |                        |
|-------------------------------------|------------------------|
| Maintenance                         | Relubrication required |
| Sliding contact surface combination | Steel/steel, standard  |
| Material, inner ring                | Bearing steel          |
| Material, outer ring                | Bearing steel          |
| Sealing                             | Seal on both sides     |
| Sealing type                        | Double-lip             |



## Dimensions

|          |             |  |
|----------|-------------|--|
| d        | 30 mm       | Bore diameter                                  |
| D        | 55 mm       | Outside diameter                               |
| B        | 32 mm       | Width  |
| C        | 20 mm       | Width outer ring                               |
| $\alpha$ | 17 °        | Angle of tilt                                  |
| $d_k$    | 47 mm       | Raceway diameter inner ring                    |
| b        | 3.8 mm      | Width annular lubrication groove at outer ring |
| $b_1$    | 4 mm        | Width annular lubrication groove at inner ring |
| M        | 2.5 mm      | Diameter lubrication hole (outer ring)         |
| $r_1$    | min. 0.6 mm | Chamfer dimension bore                         |
| $r_2$    | min. 1 mm   | Chamfer dimension outer ring                   |

## Abutment dimensions

|       |              |                           |
|-------|--------------|---------------------------|
| $d_a$ | min. 33.7 mm | Abutment diameter shaft   |
| $d_a$ | max. 34.4 mm | Abutment diameter shaft   |
| $D_a$ | min. 48.5 mm | Abutment diameter housing |
| $D_a$ | max. 50.9 mm | Abutment diameter housing |



|       |             |                       |
|-------|-------------|-----------------------|
| $r_a$ | max. 0.6 mm | Fillet radius shaft   |
| $r_b$ | max. 1 mm   | Fillet radius housing |

## Calculation data

|                              |       |                       |
|------------------------------|-------|-----------------------|
| Basic dynamic load rating    | C     | 80 kN                 |
| Basic static load rating     | $C_0$ | 400 kN                |
| Specific dynamic load factor | K     | 100 N/mm <sup>2</sup> |
| Specific static load factor  | $K_0$ | 500 N/mm <sup>2</sup> |
| Material constant            | $K_M$ | 330                   |

## Mass

|                    |         |
|--------------------|---------|
| Mass plain bearing | 0.35 kg |
|--------------------|---------|

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