



## GE 50 ES-2RS

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

Radial spherical plain bearings are designed to accommodate radial and combined radial and axial loads, and also misalignment. This specific design includes 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.

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

## Overview

#### **Dimensions**

Bore diameter	50 mm
Outside diameter	75 mm
Width, inner ring	35 mm
Width, outer ring Properties	28 mm
Material, inner ring	Bearing steel
Material, outer ring	Bearing steel
Radial internal clearance	CN
Relubrication feature	With
Sealing	Seal on both sides
Sliding material, contacting surfaces	Steel/Steel

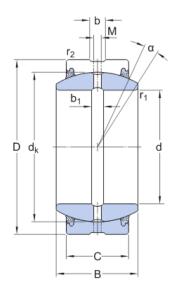
#### Performance

Basic dynamic load rating	156 kN
Basic static load rating	780 kN



# Technical Specification

Lubricant	Regular relubrication – grease
Design (sliding material, contacting surfaces)	Steel/steel
Material, inner ring	Bearing steel
Material, outer ring	Bearing steel
Sealing solution	Double-lip seals



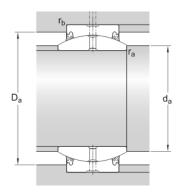
## Dimensions

$\begin{array}{cccccccccccccccccccccccccccccccccccc$			
B 35 mm Width C 28 mm Width outer ring α 6 ° Angle of tilt d <sub>k</sub> 66 mm Raceway diameter inner ring b 4.6 mm Width annular lubrication groove at outer ring b <sub>1</sub> 4.8 mm Width annular lubrication groove at inner ring M 3 mm Diameter lubrication hole (outer ring) r <sub>1</sub> min. 0.6 mm Chamfer dimension bore	Bore diameter	50 mm	d
C 28 mm Width outer ring  α 6 ° Angle of tilt  d <sub>k</sub> 66 mm Raceway diameter inner ring  b 4.6 mm Width annular lubrication groove at outer ring  b <sub>1</sub> 4.8 mm Width annular lubrication groove at inner ring  M 3 mm Diameter lubrication hole (outer ring)  r <sub>1</sub> min. 0.6 mm  Chamfer dimension bore	Outside diameter	75 mm	D
<ul> <li>α 6 ° Angle of tilt</li> <li>d<sub>k</sub> 66 mm Raceway diameter inner ring</li> <li>b 4.6 mm Width annular lubrication groove at outer ring</li> <li>b<sub>1</sub> 4.8 mm Width annular lubrication groove at inner ring</li> <li>M 3 mm Diameter lubrication hole (outer ring)</li> <li>r<sub>1</sub> min. 0.6 mm</li> </ul>	Width	35 mm	В
d <sub>k</sub> 66 mm Raceway diameter inner ring b 4.6 mm Width annular lubrication groove at outer ring b <sub>1</sub> 4.8 mm Width annular lubrication groove at inner ring M 3 mm Diameter lubrication hole (outer ring) r <sub>1</sub> min. 0.6 mm	Width outer ring	28 mm	С
b 4.6 mm Width annular lubrication groove at outer ring b <sub>1</sub> 4.8 mm Width annular lubrication groove at inner ring M 3 mm Diameter lubrication hole (outer ring) r <sub>1</sub> min. 0.6 mm	Angle of tilt	6 °	α
ring  b <sub>1</sub> 4.8 mm Width annular lubrication groove at inner ring  M 3 mm Diameter lubrication hole (outer ring)  r <sub>1</sub> min. 0.6 Chamfer dimension bore mm	Raceway diameter inner ring	66 mm	$d_k$
ring  M 3 mm Diameter lubrication hole (outer ring)  r <sub>1</sub> min. 0.6 Chamfer dimension bore mm		4.6 mm	b
r <sub>1</sub> min. 0.6 Chamfer dimension bore mm		4.8 mm	b <sub>1</sub>
mm	Diameter lubrication hole (outer ring)	3 mm	М
r <sub>2</sub> min. 1 mm Chamfer dimension outer ring	Chamfer dimension bore		$r_1$
	Chamfer dimension outer ring	min. 1 mm	$r_2$

## Abutment dimensions

d <sub>a</sub> min. 54.6 mm	Abutment diameter shaft
d <sub>a</sub> max. 56 mm	Abutment diameter shaft
D <sub>a</sub> min. 66.2 mm	Abutment diameter housing
D <sub>a</sub> max. 70.5 mm	Abutment diameter housing
r <sub>a</sub> max. 0.6 mm	Fillet radius shaft
r <sub>h</sub> max. 1 mm	Fillet radius housing





## Calculation data

Basic dynamic load rating	С	156 kN
Basic static load rating	$C_0$	780 kN
Specific dynamic load factor	K	100 N/mm
Specific static load factor	$K_0$	500 N/mm
Material constant	$K_{M}$	330

## Mass

Mass plain bearing	0.56 kg
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