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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 292-2023

Replacing GB/T 292-2007

**Rolling bearings-Angular contact ball bearings-Boundary
dimensions**

滚动轴承 角接触球轴承 外形尺寸

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Foreword

This document complies with the provisions of GB/T 1:1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting:

This document replaces GB/T 292-2007 "Outline Dimensions of Rolling Bearings Angular Contact Ball Bearings" and is consistent with GB/T 292-2007 In addition to structural adjustments and editorial changes, the main technical changes are as follows:

- a) Added "Terms and Definitions", "Structural Type" and "Code" (see Chapter 3, Chapter 5 and Chapter 6);
- b) The outer dimensions of the locking inner and outer ring type and locking outer ring type angular contact ball bearings of the 18 series when the contact angle is 25° are added (see Table 1);
- c) Expanded the size range of locking inner and outer ring type and locking outer ring type angular contact ball bearings (see Table 1 ~ Table 5,;2007 edition Table 1 ~ Table 5);
- d) Added the outer dimensions of 19 series locking inner ring angular contact ball bearings with contact angles of 15° and 25° (see Table 6);
- e) Expanded the size range of 10 series and 02 series locking inner ring type angular contact ball bearings when the contact angle is 15° and 25° (see Table 7, Table 8, Table 6 and Table 7 of the:2007 version);
- f) Added the outer dimensions of the 03 series locking inner ring type angular contact ball bearings with contact angles of 15°, 25° and 40° (see Table 9):

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This document is proposed by China Machinery Industry Federation:

This document is under the jurisdiction of the National Rolling Bearing Standardization Technical Committee (SAC/TC98):

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The previous versions of this document and the documents it replaces are as follows:

- First issued as GB 292-1964 in 1964, first revised in 1983;
- In the second revision in:1994, GB 293-1984 "Outline Dimensions of Angular Contact Ball Bearings with Lock on the Inner Ring" was incorporated (The previous versions of GB 293-1984 are: GB 293-1964), GB 295-1983 "Paired installation of radial bearings" The contents of "Outline Dimensions of Angular Contact Ball Bearings" (the previous versions of GB 295-1983 are: GB 295-1964);
- The third revision in:2007;
- This is the fourth revision:

Rolling bearing angular contact ball bearing dimensions

1 Scope

This document specifies the overall dimensions of non-separable single row angular contact ball bearings that comply with GB/T 273:3-2020:

This document is applicable to the design and user selection of angular contact ball bearings (hereinafter referred to as bearings) with nominal contact angles of 15°, 25°, and 40°. That For the external dimensions of single row angular contact ball bearings and separated single row angular contact ball bearings with nominal contact angles ($10^\circ \leq \alpha \leq 45^\circ$), please refer to this document: Provisions:

2 Normative reference documents

GB/T 272-2017

GB/T 274-2023

GB/T 6930

GB/T 7811-2015

3 Terms and definitions

The terms and definitions defined in GB/T 6930 apply to this document:

4 Symbols

The symbols given in GB/T 7811-2015 and the following are applicable to this document:

Unless otherwise stated, the symbols shown in Figures 1 to 3 and the values shown in Tables 1 to 9 represent nominal dimensions: B: Bearing width D: Bearing outer diameter d: Bearing inner diameter r: Bearing chamfer size r₁: chamfer size of the front (non-thrust end) of the bearing ring r_{min}: Minimum single chamfer size of r r_{1min}: minimum single chamfer size of r₁ alpha: Bearing contact angle

5 Structural type

The structural diagram of the bearing is shown in Figure 1 to Figure 3: There may be sealing rings or dust covers at both ends: