

ICS 21.100.20
CCS J 11



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

GB 7810-1987

Replacing GB/T 7810-1995

**Rolling bearings -- Insert bearing units -- Boundary dimensions
(English Translation)**

Issued on: May 12, 2017

Implemented on: December 1, 2017

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China, Standardization
Administration of the People's Republic of China**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces GB/T 7810-1995 "Rolling bearing with spherical outer spherical ball bearing dimensions", and GB/T 7810-1995 in contrast to the editorial changes, the main technical changes are as follows.

--- Added and revised some normative references (see Chapter 2, Chapter 2 of the 1995 edition);

--- Added "terms and definitions" and "code" (see Chapters 3 and 6);

--- Added the B3 size of the 2 series H3 series adapter sleeves with adapter sleeve outer spherical ball bearings (see Table 1, Table 3, Table 5, Table 7 and Table 8);

--- Revised the dimensions of some models of spherical ball bearings with seating (see Table 1 to Table 11, Tables 1 to 11 of the 1995 edition);

--- Expanded the size section of some types of spherical ball bearings with outer seat (see Table 1, Table 3, Table 5, Table 7, Table 8, Table 10, Table 12~) Table 15);

--- Increased boss height dimension L with boss circular seat bearing (see Table 7);

--- Modified the code with slider bearing (see Figure 13 ~ Figure 15, Table 8, Figure 13 ~ Figure 15, Table 8 of the 1995 version);

--- Increased the external dimensions of the F200 square seat bearing (see Appendix B);

--- Added the external dimensions of the FL200 diamond bearing (see Appendix C).

This standard was proposed by the China Machinery Industry Federation.

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

This standard was drafted. Luoyang Bearing Research Institute Co., Ltd., Dongguan TR Bearing Co., Ltd., Fanke Bearing Group Co., Ltd., Zhejiang Jiang Xinchang Peel Bearing Co., Ltd., Fujian Yongan Bearing Co., Ltd., Fujian Fushan Bearing Co., Ltd.

1 Scope

This standard specifies the external dimensions of commonly used spherical ball bearings (hereinafter referred to as mounted bearings).

This standard applies to vertical spherical ball bearings with flanges, spherical ball bearings with flanged seats, spherical ball bearings with slider seats and ring seats Outer spherical ball bearings.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 3882 rolling bearing outer spherical ball bearing and eccentric sleeve dimensions
GB/T 6930 rolling bearing vocabulary GB/T 7809 rolling bearing outer spherical ball bearing housing dimensions GB/T 7811 rolling bearing parameter symbol GB/T 27554 rolling bearing with seat ball bearing code method

3 Terms and definitions

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

4.1 General

The symbols given in GB/T 7811 and the following symbols apply to this document.

Unless otherwise stated, the symbols shown in Figures 1 to 25 and the values listed in Tables 1 to 15, Tables B.1 and C.1 all indicate nominal dimensions.

Note: Figures 1 to 25 are only schematic diagrams and do not show all the structural details. The position of the lubrication nozzle given in Figures 1 to 17 is only an example, and the manufacturer also Other locations can be used.

B. inner ring width of seated bearing B1. total width of inner ring bearing with eccentric sleeve B3. Adapter sleeve width d. seated bearing and eccentric sleeve inner diameter D0. adapter sleeve inner diameter S. the distance from the end face of the inner end of the fastening device to the center of the raceway 4.2 with vertical seat bearing A. seat bottom width (total width) H. the distance from the mounting plane to the center line of the spherical diameter of the bearing housing J. bolt hole center distance L. base length (total length) 4.3 with square seat bearing A. Height (total height) A2. Distance from the mounting plane to the centerline of the spherical diameter of the bearing housing J. bolt hole center distance L. length (total length) 4.4 with diamond seat bearing A. Height (total height) A2. Distance from the mounting plane to the centerline of the spherical diameter of the bearing housing H. flange length J. bolt hole center distance L. width (total width) 4.5 with bosses round seat bearings A. Width A2. Distance from the mounting plane to the centerline of the spherical diameter of the bearing housing D1. boss diameter D2. outer diameter of the seat J. bolt hole center distance L. boss height

4.6 Bearing with slider seat

A. width (total width) (connecting end) A1. Guide groove width H. height (total height) H1. the distance between the bottoms of the guide grooves L. length (total length) L1. distance from the end face of the coupling arm to the center line diameter of the spherical surface of the bearing housing

4.7 Bearing with ring seat

A. Width

D1. outer diameter of the seat

4.8 With stamping vertical seat bearing A. seat bottom width (total width) H. the distance from the mounting plane to the center line of the spherical diameter of the bearing housing J. bolt hole center distance L. base length (total length) 4.9 with stamped round seat bearing A. Height (total height) A1. flange thickness H. length J. bolt hole pitch diameter 4.10 with stamped triangular seat bearing A. Height (total height) A1. flange thickness H. length H1. the distance from the straight edge to the center line of the spherical diameter of the bearing housing J. bolt hole pitch diameter 4.11 with stamped diamond seat bearing A. Height (total height) A1. flange thickness H. length J. bolt hole center distance L. flange width (total width)

5 Type

The outer spherical ball bearings specified in GB/T 3882 and the outer spherical ball bearings specified in GB/T 7809 are given in this standard.

The combination is made up. See Appendix A for the matching relationship. The types are.

- With vertical seat bearing (see Figure 1 ~ Figure 3);
- With square seat bearing (including F200 square seat bearing) (see Figure 4 ~ Figure 6);
- With diamond seat bearing (including FL200 type diamond seat bearing) (see Figure 7 ~ Figure 9);
- With the boss circular bearing (see Figure 10 ~ Figure 12);
- With slider seat bearing (see Figure 13 ~ Figure 15);
- With ring seat bearing (see Figure 16, Figure 17);
- With stamping vertical seat bearing (see Figure 18, Figure 19);
- With stamped round seat bearings (see Figure 20, Figure 21);
- With stamped triangular seat bearing (see Figure 22, Figure 23);
- With stamped diamond seat bearings (see Figure 24, Figure 25).

6 Code

The code given in GB/T 27554 applies to this document.

8 Dimensions

8.1

The dimensions of the vertical seat bearing (see Figures 1 to 3) are shown in Table 1 and Table 2.

Figure 1 Vertical spherical outer spherical ball bearing (UCP type)

Figure 2 Eccentric spherical ball bearing with vertical seat (UELP type)

Figure 3 Outer spherical ball bearing with vertical seat sleeve (UKP H type)

Table 1 with vertical seat bearings - 2 series units in millimeters

Bearing type

UCP type	UKP type	UELP type	d	d0	Max B1	Max B3	Matching sleeve	H3 series	H23 series
UC type	UEL type	Max	Max	JH	UCP201S	- UELP201S	12 - 27.4	37.3 - -	11.5 13.9 129 39
96	30.2	UCP201	- UELP201	12 - 31.0	43.7 - -	12.7	17.1	129 39 96	30.2 UCP202S -