

Table 2.3

Bearing type	Type code	Dimension series code		Bearing number
		Width series	Diameter series	
Double row angular contact ball bearing	(0)	3	2	3200
	(0)	3	3	3300
Self-aligning ball bearing	1	(0)	2	1200
	(1)	2	2	2200
	1	(0)	3	1300
	(1)	2	3	2300
Spherical roller bearing	2	1	3	21300
	2	2	2	22200
	2	2	3	22300
	2	3	0	23000
	2	3	1	23100
	2	3	2	23200
	2	4	0	24000
	2	4	1	24100
Spherical thrust roller bearing	2	9	2	29200
	2	9	3	29300
	2	9	4	29400
Tapered roller bearing	3	0	2	30200
	3	0	3	30300
	3	1	3	31300
	3	2	0	32000
	3	2	2	32200
	3	2	3	32300
	3	2	9	32900
	3	3	0	33000
	3	3	1	33100
	3	3	2	33200
Double row deep groove ball bearing	4	(2)	2	4200
	4	(2)	3	4300
Thrust ball bearing	5	1	1	51100
	5	1	2	51200
	5	1	3	51300
	5	1	4	51400
Double direction thrust ball bearing	5	2	2	52200
	5	2	3	52300
	5	2	4	52400
Thrust ball bearing with spherical seat washer	5	1	2	53200 ¹⁾
	5	1	3	53300
	5	1	4	53400
Double direction thrust ball bearing with spherical seat washer	5	2	2	53200 ²⁾
	5	2	3	53300
	5	2	4	53400
Deep groove ball bearing	6	1	7	61700
	6	3	7	63700
	6	1	8	61800
	6	1	9	61900
	16	(0)	0	16000
	6	(1)	0	6000
	6	(0)	2	6200
	6	(0)	3	6300
6	(0)	4	6400	

Bearing type	Type code	Dimension series code		Bearing number
		Width series	Diameter series	
Angular contact ball bearing	7	1	9	71900
	7	(1)	0	7000
	7	(0)	2	7200
	7	(0)	3	7300
	7	(0)	4	7400
Cylindrical roller thrust bearing	8	1	1	81100
	8	1	2	81200
Cylindrical roller bearing without rib on inner ring	NU	1	0	NU 1000
	NU	(0)	2	NU 200
	NU	2	2	NU 2200
	NU	(0)	3	NU 300
	NU	2	3	NU 2300
	NU	(0)	4	NU 400
Cylindrical roller bearing with single rib on inner ring	NJ	(0)	2	NJ 200
	NJ	2	2	NJ 2200
	NJ	(0)	3	NJ 300
	NJ	2	3	NJ 2300
Cylindrical roller bearing with single rib on inner ring and loose rib	NUP	(0)	2	NUP 200
	NUP	2	2	NUP 2200
	NUP	(0)	3	NUP 300
	NUP	2	3	NUP 2300
Cylindrical roller bearing without rib on outer ring	N	1	0	N 1000
	N	(0)	2	N 200
	N	2	2	N 2200
	N	(0)	3	N 300
	N	2	3	N 2300
	N	(0)	4	N 400
Cylindrical roller bearing with single rib on outer ring	NF	(0)	2	NF 200
	NF	(0)	3	NF 300
	NF	2	3	NF 2300
Double row cylindrical roller bearing	NN	3	0	NN 3000
	NNU	4	9	NNU 4900
Ball bearing units set screw locking	UC	2		UC 200
	UC	3		UC 300
Ball bearing units with tapered bore	UK	2		UK 200
	UK	3		UK 300
Ball bearing units with eccentric collar	UEL	2		UEL 200
	UEL	3		UEL 300
Four-point contact ball bearing	QJ	(0)	2	QJ 200
	QJ	(0)	3	QJ 300
Needle roller bearing	NA	4	8	NA 4800
		4	9	NA 4900
		6	9	NA 6900

Note: The "()" in the table denotes that the number is omitted.
 1) Dimension series are respectively 12, 13, 14, expressed as 32, 33, 34.
 2) Dimension series are respectively 22, 23, 24, expressed as 42, 43, 44.

2) Dimension series

The bearing dimension series code consist of width (height) series and diameter series. See Table 2.4 for the dimension series of radial bearing and thrust bearing.

Table 2.4

Diameter series code	Radial bearing								Thrust Bearing			
	Width series code								Height series code			
	8	0	1	2	3	4	5	6	7	9	1	2
7	-	-	17	-	37	-	-	-	-	-	-	-
8	-	08	18	28	38	48	58	68	-	-	-	-
9	-	09	19	29	39	49	59	69	-	-	-	-
0	-	00	10	20	30	40	50	60	70	90	10	-
1	-	01	11	21	31	41	51	61	71	91	11	-
2	82	02	12	22	32	42	52	62	72	92	12	22
3	83	03	13	23	33	-	-	-	73	93	13	23
4	-	04	-	24	-	-	-	-	74	94	14	24
5	-	05	-	-	-	-	-	-	-	95	-	-

2.4 Inside diameter code

1) The dimension space of standard inner diameter is shown in Table 2.5.

Table 2.5 Dimension space

Bearing nominal inner diameter		Standard inner diameter mm	Base
d	mm		
Over	Up to		
—	1.0	0.6	-
1.0	3.0	1, 1.5, 2, 2.5	0.5 mm space
3.0	10	3, 4, ..., 9	1 mm space
10	20	10, 12, 15, 17	-
20	35	20, 22, 25, 28, 30, 32	Normal dimension R20 series
35	110	35, 40, 45, ..., 105	5 mm space
110	200	110, 120, 130, ..., 190	10 mm space
200	500	200, 220, 240, ..., 480	20 mm space
500	2500	500, 530, ..., 2500	Normal dimension R40 series

2) Inner diameter code

See Table 2.6 for the inner diameter code representing bearing nominal inner diameter.

Table 2.6 Inner diameter code

Bearing nominal inner diameter/mm	Inner diameter code	Example	
0.6 to 10 (non-integral)	Directly denoted by millimeter code of nominal inner diameter (units:mm) and separated from dimension series code with "/".	Deep groove ball bearing 619/2.5 d=2.5mm	
1 to 9 (integer)	Denoted by nominal bore inner diameter(units:mm) code , for deep groove ball bearings and angular contact ball bearings 7, 8, 9 diameter series, inner diameter and dimension series code are separated with "/"	Deep groove ball bearing 625, 619/5 d=5mm	
10 to 17	10	00	Deep groove ball bearing 6200 d=10mm
	12	01	
	15	02	
	17	03	
20 to 480 excluding (22 , 28 , 32)	Nominal inner diameter divided by 5 if the quotient is a single number, "0" need to be added on the left , such as 08	Spherical roller bearing 23208 d=40mm	
Greater than and equal to 500 and 22, 28, 32	Directly denoted by nominal inner diameter(units:mm) , dimension series are separated by "/"	Spherical roller bearing 230 / 500 D=500mm	

2.5 Prefix code

The prefix code of rolling bearings are represented by letters. See Table 2.7 for the number and their meanings.

Table 2.7

Code	Meaning	Example
L	Separable inner ring or outer ring of separable bearing	LNU 205
R	Bearing without separable inner and outer rings (only applied to NA type roller bearing)	RNU 205
K	Roller and cage component	K 81105
WS	Cylindrical thrust roller bearing shaft washer	WS 81105
GS	Cylindrical thrust roller bearing housing washer	GS 81105
F	Radial ball bearings with flanged outer ring. (only applied to d ≤ 10mm)	F 619/5
KOW-	Thrust bearing without shaft washer	KOW-51105
KIW-	Thrust bearing without housing washer	KIW-51106
LR	Bearings with separable inner ring or outer ring and rolling element	—

2.6 Suffix code

Suffix code are represented with letters (or add numbers).(Note: Compiling rules of suffix codes are in the following page)

1) Internal structure codes are shown in Table 2.8.

Table 2.8 inner structure code

Code	Meaning	Example
A, B C, D E	1)Represent internal structure change 2)Represent standard design. Its meanings change along with different types and structures.	B 1.Angular contact ball bearing Nominal contact angle a= 40° 7205 B 2.Tapered roller bearing contact angle increase 32305 B C 1.Angular contact ball bearing Nominal contact angle a=15° 7005 C 2.Spherical roller bearing C type 23122 C CA type 23022 CA/W 33 CC type 22205 CC E Reinforced type NU 207 E
AC D ZW	Angular contact ball bearing Nominal contact angle a= 25 ° Split bearing Needle roller cage component Double row	7210 AC K 50×55×20 D K 50×55×20 ZW

Note: E Improved type. internal structure design is improved and bearing's loading capacity is increased.

2) Seal, dust proof and outline change codes and meanings are shown in Table 2.9.

Table 2.9 Seal, dust proof and outline change

Code	Example	Code	Example
K	1210 K, self-aligning ball bearing with tapered bore	-Z	6210-Z, deep groove ball bearing with shield on one side
	23220 K, spherical roller bearing with tapered bore	-2Z	6210-2 Z, deep groove ball bearing with shield on both sides
K30	24122 K 30, spherical roller bearing with tapered bore (1:30)	-RSZ	6210- RSZ, deep groove ball bearing with frame rubber seals (contact type) on one side and shield on the other side
R	30307 R, tapered roller bearing with flanged outer ring	-RZZ	6210- RZZ, deep groove ball bearing with frame rubber seals (non-contact type) on one side and shield on the other side
N	6210 N, deep groove ball bearing with snap ring groove on outer ring	-ZN	6210-ZN, deep groove ball bearing with shield on one side and snap ring groove on the other side of the outer ring
NR	6210 NR, deep groove ball bearing with snap ring groove and snap ring on outer ring	-2ZN	6210-2 ZN, deep groove ball bearing with shields on both sides, and snap ring groove on the outer ring
-RS	6210- RS, deep groove ball bearing with frame rubber seals on one side (contact type)	-ZNR	6210-ZNR, deep groove ball bearing with shield on one side and snap ring (groove) on the other side of outer ring
-2RS	6210- 2RS, deep groove ball bearing with frame rubber seals on both sides (contact type)	-ZNB	6210-2 ZNB, deep groove ball bearing with shield and snap ring groove on the same side
-RZ	6210- RZ, deep groove ball bearing with frame rubber seals on one side (non-contact type)	U	53210 U, thrust ball bearing with spherical seat washer
-2RZ	6210-2 RZ, deep groove ball bearing with frame rubber seals on both sides (non-contact type)		