

 LVSSN GROUP



PRECISION ROLLING BEARINGS
精密滚动轴承
>>>

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—— 绿森 ——
LVSSN GROUP

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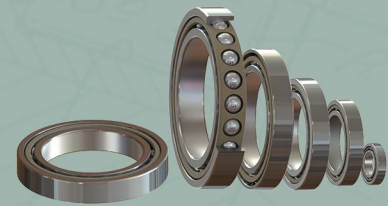
High-precision Ball Screw Support Bearings

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70 Series High-precision Angular Contact Ball Bearings



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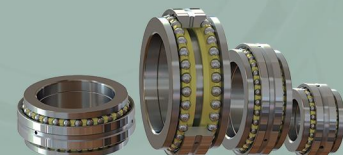
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B70 Series High-precision Angular Contact Ball Bearings



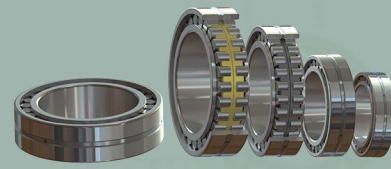
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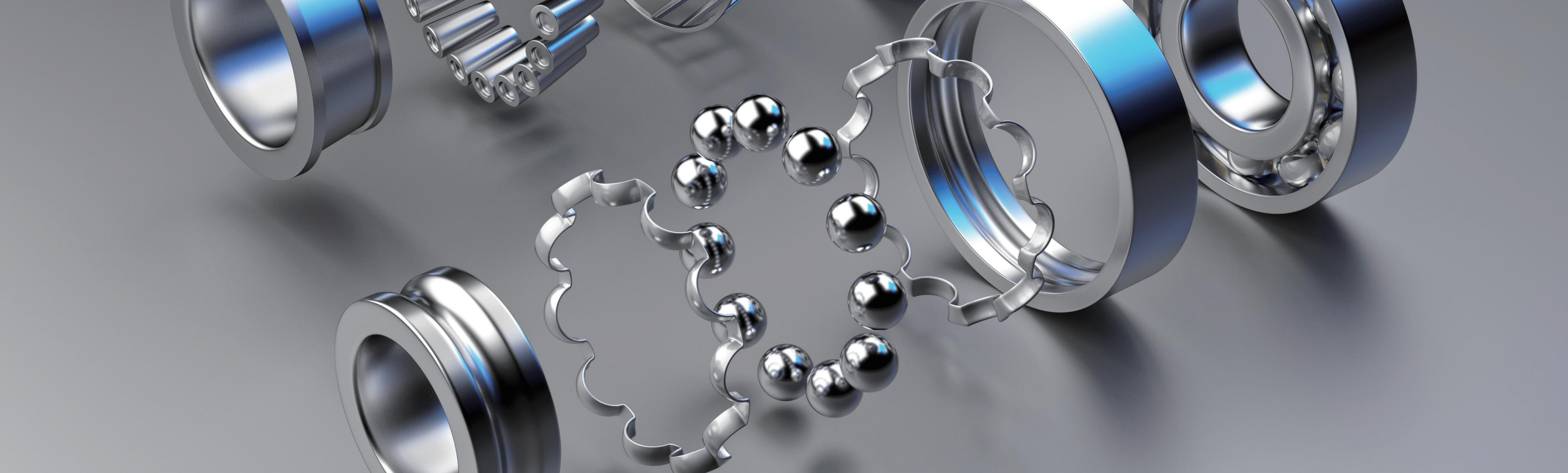
BS Series High-precision Ball Screw Support Bearings



H70 Series High-precision Angular Contact Ball Bearings



NN Series High-precision Cylindrical Roller Bearings



COMPANY BRIEF

LVSSN GROUP is a technology-driven company specializing in cross-border sales of industrial products and providing comprehensive service solutions focused on the Belt and Road Initiative, Russian-speaking countries, and the Latin American market.

LVSSN has been deeply involved in the building materials industry for many years and has extensive experience in industries such as cement, steel, mining, bearings, electrical, and refractory materials. We have established close partnerships with globally renowned manufacturing suppliers, allowing us to offer a wide range of product choices while ensuring strict quality control for stable and reliable performance. Leveraging our years of experience in engineering project management, we have a dedicated technical team that provides comprehensive after-sales service and professional solutions to our clients. The strength of LVSSN lies in its integrated approach of cross-border sales of industrial products, design and development, and engineering services, offering customers a one-stop procurement solution.

LVSSN's customer base extends to dozens of countries and regions in Southeast Asia, the Middle East, Central Africa, and Central Asia. We have established deep partnerships with over 10,000 international clients and maintain long-term cooperative relationships with over 20,000 domestic advanced manufacturing suppliers. Looking ahead, LVSSN will continue to focus on its strategic goals and position cross-border B2B e-commerce as a global strategy for the company. Leveraging our brand operations and design and development capabilities, we aim to further strengthen our position and industry advantage.

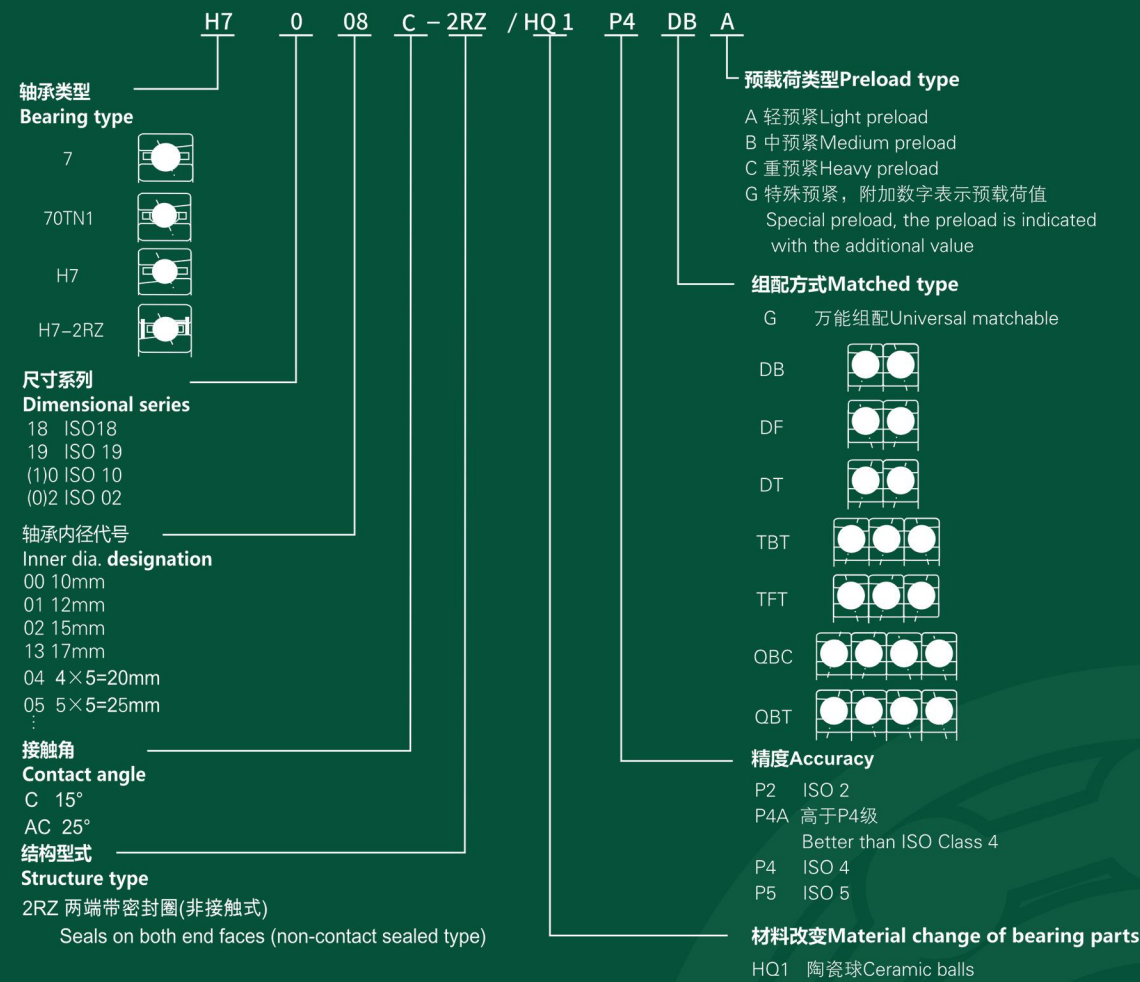
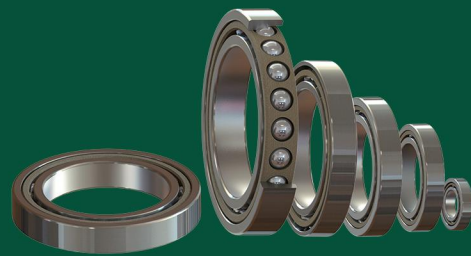
LVSSN GROUP, 一个以技术为驱动力, 专注一带一路、俄语系国家和拉美市场的工业品跨境销售与综合服务方案解决商。

LVSSN深耕于建材行业多年, 在水泥、钢铁、矿山、轴承、电气、耐火材料等行业有着丰富经验。我们与全球知名的制造业供应商建立了紧密的合作关系, 可以提供广泛的产品选择, 严格把关产品质量确保稳定可靠; 我们依托多年工程设计总包能力, 配备技术团队为客户提供全面的售后服务与专业的解决方案。LVSSN优势在于集工业品跨境销售、设计研发及工程服务为一体, 为客户提供一站式采购解决方案。

LVSSN的客户辐射东南亚、中东、中非、中亚等几十个国家和地区, 与超过10000家国外深度合作客户, 超过20000家国内先进制造业供应商保持长期合作关系; LVSSN将进一步聚焦战略目标, 将跨国B2B电子商务作为公司的全球战略, 结合自身品牌运作和设计研发能力进一步强化行业优势地位。

High-precision Angular Contact Ball Bearings

高精精密角接触球轴承 >>>

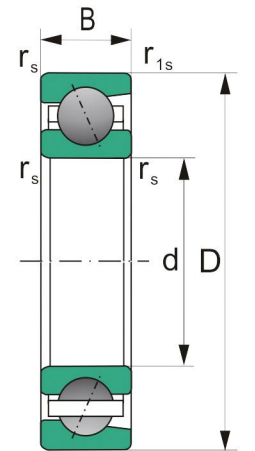


— Designation of angular contact ball bearings / 角接触球轴承代号示例 —

High Precision Standard Series

高精度标准系列

718 719 70 72



外形尺寸 Boundary dimensions					α=15°				α=25°				轴承代号 Bearing designations
					额定载荷 Load rating		极限转速 Limiting speed		额定载荷 Load rating		极限转速 Limiting speed		
d	D	B	r _{smin}	r _{1smin}	Cr	Cor	脂 Grease	油 Oil	Cr	Cor	脂 Grease	油 Oil	
mm					KN		r/min		KN		r/min		
8	19	6	0.30	0.10	2.5	1.5	75000	120000	2.3	1.3	67000	100000	719/8
22	7	0.30	0.15	3.0	1.6	70000	110000	2.8	1.5	63000	95000	708	
24	8	0.30	0.15	4.5	2.3	67000	100000	4.4	2.2	60000	90000	728	
10	19	5	0.30	0.10	1.8	1.1	75000	120000	1.7	1.1	70000	110000	71800
22	6	0.30	0.10	2.9	1.8	70000	110000	2.7	1.7	67000	100000	71900	
26	8	0.30	0.15	4.0	2.4	67000	100000	3.8	2.3	60000	90000	7000	
30	9	0.60	0.15	6.4	3.8	56000	85000	6.3	3.7	53000	80000	7200	
12	21	5	0.30	0.10	2.0	1.4	70000	110000	1.9	1.3	63000	95000	71801
24	6	0.30	0.10	3.2	2.2	63000	95000	3.1	2.1	56000	85000	71901	
28	8	0.30	0.15	5.0	3.0	60000	90000	4.8	2.8	56000	85000	7001	
32	10	0.60	0.15	7.2	4.5	53000	80000	6.9	4.3	48000	70000	7201	
15	24	5	0.30	0.10	2.2	1.8	60000	90000	2.1	1.7	53000	80000	71802
28	7	0.30	0.10	4.8	3.4	53000	80000	4.6	3.2	50000	75000	71902	
32	9	0.30	0.15	5.3	3.3	50000	75000	5.1	3.1	45000	67000	7002	
35	11	0.60	0.15	9.1	5.8	48000	70000	8.8	5.6	43000	63000	7202	
17	26	5	0.30	0.10	2.3	1.9	53000	80000	2.1	1.8	50000	75000	71803
30	7	0.30	0.10	5.1	3.8	50000	75000	4.8	3.6	45000	67000	71903	
35	10	0.30	0.15	6.7	4.9	45000	67000	6.4	4.7	40000	60000	7003	
40	12	0.60	0.30	11.3	7.4	40000	60000	10.9	7.1	38000	56000	7203	
20	32	7	0.30	0.10	3.9	3.4	45000	67000	3.7	3.2	40000	60000	71804
37	9	0.30	0.15	7.4	5.8	40000	60000	7.0	5.6	38000	56000	71904	
42	12	0.60	0.15	9.6	6.3	38000	56000	9.2	6.0	34000	50000	7004	
47	14	1.00	0.30	13.1	9.6	34000	50000	12.6	9.2	30000	45000	7204	
25	37	7	0.30	0.15	4.2	4.1	38000	56000	3.9	3.9	34000	50000	71805
42	9	0.30	0.15	7.6	6.5	34000	50000	7.2	6.2	30000	45000	71905	
47	12	0.60	0.15	12.9	8.7	34000	50000	12.3	8.3	30000	45000	7005	
52	15	1.00	0.30	16.8	13.1	30000	45000	16.1	12.5	26000	40000	7205	
30	42	7	0.30	0.15	4.4	4.8	32000	48000	4.1	4.5	28000	43000	71806
47	9	0.30	0.15	8.0	7.6	30000	45000	7.6	7.2	26000	40000	71906	
55	13	1.00	0.30	15.7	11.6	28000	43000	14.9	10.9	24000	38000	7006	
62	16	1.00	0.30	23.4	18.8	24000	38000	22.3	18.0	20000	34000	7206	
35	47	7	0.30	0.15	4.6	5.5	26000	40000	4.3	5.2	24000	38000	71807
55	10	0.60	0.15	11	10.9	26000	40000	10.4	10.3	20000	34000	71907	
62	14	1.00	0.30	19.3	17.5	20000	34000	18.3	16.6	19000	32000	7007	
72	17	1.10	0.60	25.8	22.9	18000	30000	24.5	21.9	17000	28000		

外形尺寸 Boundary dimensions					α=15°				α=25°				轴承代号 Bearing designations
					额定载荷 Load rating		极限转速 Limiting speed		额定载荷 Load rating		极限转速 Limiting speed		
d	D	B	r _{smin}	r _{1smin}	Cr	Cor	脂 Grease	油 Oil	Cr	Cor	脂 Grease	油 Oil	
mm					KN		r/min		KN		r/min		
40	52	7	0.30	0.15	4.8	6.2	24000	38000	4.5	5.8	20000	34000	71808
62	12	0.60	0.15	14	14.2	20000	34000	13.3	13.5	18000	30000	71908	
68	15	1.00	0.30	19.9	19.1	19000	32000	18.9	18.2	17000	28000	7008	
80	18	1.10	0.60	34.1	30.9	17000	28000	32.5	29.5	15000	24000	7208	
45	58	7	0.30	0.15	4.9	6.7	20000	34000	4.6	6.3	18000	30000	71809
68	12	0.60	0.15	14.7	16.1	18000	30000	13.9	15.2	17000	28000	71909	
75	16	1.00	0.30	26.7	25.3	17000	28000	25.4	24.1	16000	26000	7009	
85	19	1.10	0.60	33.5	33.8	16000	26000	33.8	32.3	14000	22000	7209	
50	65	7	0.30	0.15	7.4	10.0	18000	30000	6.9	9.5	16000	26000	71810
72	12	0.60	0.15	19.0	21.2	17000	28000	17.9	20.1	15000	24000	71910	
80	16	1.00	0.30	27.6	27.5	16000	26000	26.2	26.2	15000	24000	7010	
90	20	1.10	0.60	43.3	40.6	15000	24000	41.3	38.7	14000	22000	7210	
55	72	9	0.30	0.15	10.2	13.8	16000	26000	9.6	13.1	15000	24000	71811
80	13	1.00	0.30	23.7	27.4	15000	24000	22.4	26	14000	22000	71911	
90	18	1.10	0.60	36.7	37.1	14000	22000	34.8	35.3	13000	20000	7011	
100	21	1.50	0.60	53.6	51.1	14000	22000	51.1	48.8	13000	20000	7211	
60	78	10	0.30	0.15	13.4	18.0	15000	24000	12.6	17.0	14000	22000	71812
85	13	1.00	0.30	24.8	30.3	14000	22000	23.3	28.7	13000	20000	71912	
95	18	1.10	0.60	37.8	40.0	14000	22000	35.8	38	12000	19000	7012	
110	22	1.50	0.60	55.8	56.2	12000	19000	53.0	53.5	11000	18000	7212	
65	85	10	0.60	0.15	13.4	18.8	14000	22000	12.6	17.8	13000	20000	71813
90	13	1.00	0.30	25.1	31.9	13000	20000	23.6	30.2	12000	19000	71913	
100	18	1.10	0.60	38.9	42.9	13000	20000	36.8	40.7	11000	18000	7013	
120	23	1.50	0.60	67.5	69.0	11000	18000	64.2	65.8	9500	16000	7213	
70	90	10	0.60	0.15	13.8	20.3	13000	20000	13.0	19.1	12000	19000	71814
100	16	1.00	0.30	34.5	43.4	12000	19000	32.6	41.2	11000	18000	71914	
110	20	1.10	0.60	49.9	55.5	12000	19000	47.2	52.7	10000	17000	7014	
125	24	1.50	0.60	70.2	74.6	10000	17000	66.6	71.1	9000	15000	7214	
75	95	10	0.60	0.15	14.2	21.7	12000	19000	13.3	20.5	11000	18000	71815
105	16	1.00	0.30	25.0	45.6	11000	18000	33.0	43.2	9500	16000	71915	
115	20	1.10	0.60	51.3	59.2	11000	18000	48.5	56.2	9500	16000	7015	
130	25	1.50	0.60	72.7	80.2	9500	16000	68.9	76.3	8500	14000	7215	
80	100	10	0.60	0.15	14.5	23.1	11000	18000	13.6	21.8	9500	16000	71816
110	16	1.00	0.30	35.5	47.8	10000	17000	33.5	45.3	9000	15000	71916	
125	22	1.10	0.60	61.6	70.4	10000	17000	58.3	66.9	9000	15000	7016	
140	26	2.00	1.00	86.5	96.5	9000	15000	82.1	91.9	8000	13000	7216	
85	110	13	1.00	0.30	21.5	32.2	10000	17000	20.2	30.5	9000	15000	71817
120	18	1.10	0.60	46.5	61.9	9500	16000	43.8	58.6	8500	14000	71917	
130	22	1.10	0.60	63.3	75.0	9500	16000	59.9	71.3	8500	14000	7017	
150	28	2.00	1.00	97.4	107.5	8500	14000	92.5	102.4	7500	12000	7217	

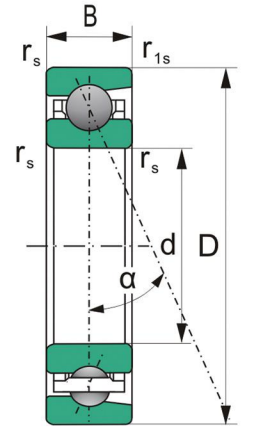
外形尺寸 Boundary dimensions					α=15°				α=25°				轴承代号 Bearing designations
					额定载荷 Load rating		极限转速 Limiting speed		额定载荷 Load rating		极限转速 Limiting speed		
d	D	B	r _{smin}	r _{1smin}	Cr	Cor	脂 Grease	油 Oil	Cr	Cor	脂 Grease	油 Oil	
mm					KN		r/min		KN		r/min		
90	115	13	1.00	0.30	21.7	33.5	9500	16000	20.4	31.6	8500	14000	71818
125	18	1.10	0.60	47.2	64.8	9000	15000	44.5	61.4	8000	13000	71918	
140	24	1.50	0.60	66.9	84	9000	15000	63.2	79.7	8000	13000	7018	
160	30	2.00	1.00	121.9	131.3	8000	13000	115.8	124.6	7000	11000	7218	
95	120	13	1.00	0.30	21.9	34.7	9000	15000	20.6	32.8	8500	14000	71819
130	18	1.10	0.60	47.9	67.8	9000	15000	45.2	64.1	8000	13000	71919	
145	24	1.50	0.60	79.1	97.6	8500	14000	74.8	92.7	7500	12000	7019	
170	32	2.10	1.10	128.9	145.1	7500	12000	122.5	138.3	6700	10000	7219	
100	125	13	1.00	0.30	22.5	37.0	8500	14000	21.2	34.9	8000	13000	71820
140	20	1.10	0.60	60.4	84.4	8500	14000	56.9	79.9	8000	13000	71920	
150	24	1.50	0.60	81.2	103.3	8000	13000	76.7	98	7000	11000	7020	
180	34	2.10	1.10	146.2	165.9	7000	11000	138.9	158.2	6700	10000	7220	
105	130	13	1.00	0.30	22.7	38.3	8500	14000	21.3	36.1	8000	13000	71821
145	20	1.10	0.60	61.4	88.2	8000	13000	57.8	83.5	7500	12000	71921	
160	26	2.00	1.00	93.9	118.2	7500	12000	88.8	112.2	7000	11000	7021	
190	36	2.10	1.10	164.3	188.2	7000	11000	156.3	179.5	6300	9500	7221	
110	140	16	1.00	0.30	31.8	51.6	8000	13000	29.9	48.7	7500	12000	71822
150	20	1.10	0.60	62.3	91.9	7500	12000	58.7	87	7000	11000	71922	
170	28	2.00	1.00	110.4	139.8	7000	11000	104.4	132.8	6700	10000	7022	
200	38	2.10	1.10	170.4	202.5	6700	10000	161.8	193.0	6000	9000	7222	
120	150	16	1.00	0.30	33.1	56.9	7000	11000	31.1	53.7	6700	10000	71824
165	22	1.10	0.60	73.7	107.6	7000	11000	69.5	101.9	6700	10000	71924	
180	28	2.00	1.00	112.7	148.7	7000	11000	106.5	141.1	6700	10000	7024	
215	40	2.10	1.10	175.4	218.4	6000	9000	166.3	207.9	5300	8000	7224	
130	165	18	1.10	0.60	38.7	67.6	6700	10000	36.3	63.8	6000	9000	71826
180	24	1.50	0.60	76.3	117.1	6700	10000	71.9	110.9	6000	9000	71926	
200	33	2.00	1.00	144.8	190.8	6700	10000	136.8	181.0	6000	9000	7026	
230	40	3.00	1.10	200.6	258.3	5600	8500	190.4	246.2	5000	7500	7226	
140	175	18	1.10	0.60	44.8	79.2	6000	9000	42.0	74.7	5600	8500	71828
190	24	1.50	0.60	78.9	126.4	6000	9000	74.4	119.7	5600	8500	71928	
210	33	2.00	1.00	148.7	202.6	6000	9000	140.4	192.2	5600	8500	7028	
250	42	3.00	1.10	223.6	306.6	5000	7500	212.3	292.2	4500	6700	7228	
150	190	20	1.10	0.60	51.2	92.0	5600	8500	48.0	86.8	5000	7500	71830
210	28	2.00	1.00	118.2	175.1	5600	8500	111.4	165.8	5000	7500	71930	
225	35	2.10	1.10	168.4	232.5	5600	8500	159.1	220.6	5000	7500	7030	
270	45	3.00	1.10	240.9	341.5	4500	6700	228.7	325.5	4000	6000	7230	
160	200	20	1.10	0.60	52.4	97.7	5000	7500	49.2	92.2	4800	7000	71832
220	28	2.00	1.00	123.6	191.2	5000	7500	116.5	181.1	4800	7000	71932	
240	38	2.10	1.10	189.1	264.5	5000	7500	178.6	251.0	4800	7000	7032	
290	48	3.00	1.10	248.6	365.8	4300	6300	236.1	348.6	3800	5600	7232	

外形尺寸 Boundary dimensions					$\alpha=15^\circ$				$\alpha=25^\circ$				轴承代号 Bearing designations
					额定载荷 Load rating		极限转速 Limiting speed		额定载荷 Load rating		极限转速 Limiting speed		
d	D	B	r _{smin}	r _{1smin}	Cr	Cor	脂 Grease	油 Oil	Cr	Cor	脂 Grease	油 Oil	
mm					KN		r/min		KN		r/min		
170	215	22	1.10	0.60	66.5	123.4	4800	7000	62.4	116.5	4300	6300	71834
230	28	2.00	1.00		125.7	200.0	4800	7000	118.5	189.4	4300	6300	71934
260	42	2.10	1.10		205.6	299.3	4800	7000	194.2	284.0	4300	6300	7034
310	52	4.00	1.50		300.2	459.2	3800	5600	285.0	437.6	3600	5300	7234
180	225	22	1.10	0.60	71.0	127.8	4500	6700	67.0	120.5	4000	6000	71836
250	33	2.00	1.00		159.7	249.1	4500	6700	150.6	235.9	4000	6000	71936
280	46	2.10	1.10		229.5	352.1	4500	6700	216.8	334.1	4000	5000	7036
320	52	4.00	1.50		311.2	490.8	3800	5600	295.5	467.7	3400	4800	7236
190	240	24	1.50	0.60	80.0	130.7	4300	6300	75.0	123.3	3800	5600	71838
260	33	2.00	1.00		162.8	260.8	4300	6300	153.5	247.0	3800	5600	71938
290	46	2.10	1.10		235.1	370.8	4300	6300	222.1	351.8	3800	5600	7038
340	55	4.00	1.50		321.3	524.8	3400	5000	305.1	500.1	3200	4800	7238
200	250	24	1.50	0.60	81.5	139.2	4000	6000	76.5	131.1	3600	5300	71840
280	38	2.10	1.00		198.4	311.4	3800	5600	187.1	294.9	3600	5300	71940
310	51	2.10	1.10		289.1	471.4	3800	5600	273.1	447.3	3600	5300	7040
360	58	4.00	1.50		330.9	558.6	3200	4800	314.2	532.3	3000	4000	7240
220	270	24	1.50	0.60	83.0	148.0	3800	5600	78.0	139.4	3400	4500	71844
300	38	2.00	1.00		206.6	341.1	3600	5300	194.8	323.0	3200	4500	71944
340	56	3.00	1.10		325.3	559.4	3600	5300	307.3	530.8	3200	4500	7044
400	65	4.00	1.50		405.9	730.5	2800	4300	385.4	696.2	2600	4500	7244
240	300	28	2.00	1.00	106.0	184.5	3400	5000	98.0	174.0	3000	5000	71848
320	38	2.10	1.00		219.2	384.2	3200	4800	206.7	363.8	3000	4500	71948
360	56	3.00	1.10		344.2	623.6	3200	4800	325.1	591.7	3000	4500	7048
260	320	28	2.00	1.10	107.0	191.9	3200	4800	100.0	180.5	3000	4500	71852
360	46	2.10	1.00		284.6	528.8	3000	4500	268.3	500.8	2600	4000	71952
280	350	33	2.00	1.10	132.0	235.6	3000	4500	124.0	222.3	2600	4000	71856
380	46	2.10	1.00		288.7	554.6	2600	4000	272.2	525.5	2200	3600	71956
300	380	38	2.10	1.00	171.0	300.2	2600	4000	161	285.0	2400	3800	71860
420	56	3.00	1.10		360.0	570	2400	3800	340	540	2200	3600	71960
320	400	38	2.10	1.00	175.0	321.1	2400	3800	165	302.1	2200	3600	71864
440	56	3.00	1.10		375.0	620	2200	3600	355	585	2000	3400	71964
340	420	38	2.10	1.00	179	340.1	2200	3600	169	321.1	2000	3400	71868
460	56	3.00	1.10		380	640	2200	3600	360	610	1900	3200	71968
360	440	38	2.10	1.00	183	359.1	2000	3400	173	338.2	1800	3000	71872
480	56	3.00	1.10		390	695	2000	3400	375	640	1800	3000	71972
380	520	65	4.00	1.50	460	810	1900	3200	430	770	1700	2800	71976
400	540	65	4.00	1.50	470	850	1800	3000	440	800	1600	2600	71980
420	560	65	4.00	1.50	480	890	1700	2800	450	840	1500	2400	71984
440	600	74	4.00	1.50	500	950	1600	2600	470	900	1500	2400	71988
460	620	74	4.00	1.50	510	1080	1500	2400	490	1000	1400	2200	71992
480	650	78	5.00	2.00	661	1116	1300	2000	622	1054	1200	1900	71996

Low Noise Series

低噪声系列

70TN1

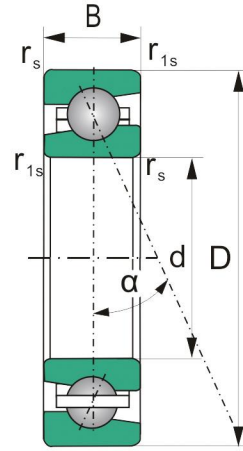


外形尺寸 Boundary dimensions					$\alpha=15^\circ$				$\alpha=25^\circ$				轴承代号 Bearing designations
					额定载荷 Load rating		极限转速 Limiting speed		额定载荷 Load rating		极限转速 Limiting speed		
d	D	B	r _{smin}	r _{1smin}	Cr	Cor	脂 Grease	油 Oil	Cr	Cor	脂 Grease	油 Oil	
mm					KN		r/min		KN		r/min		
6	17	6	0.30	0.10	2.76	0.86	73000	120000	2.67	0.83	63000	110000	706 TN1
8	22	7	0.30	0.15	3.49	1.57	60000	95000	3.38	1.51	50000	85000	708 TN1
10	26	8	0.30	0.15	4.85	2.26	50000	80000	4.68	2.18	43000	72000	7000 TN1
12	28	8	0.30	0.15	5.32	2.66	42000	70000	5.12	2.56	38000	63000	7001 TN1
15	32	9	0.30	0.15	6.13	3.44	35000	60000	5.85	3.30	32000	54000	7002TN1
17	35	10	0.30	0.15	8.09	4.60	32000	53500	7.74	4.41	27000	45000	7003 TN1
20	42	12	0.60	0.30	10.3	6.1	27000	45000	9.83	5.84	24000	40000	7004TN1
25	47	12	0.60	0.30	11.4	7.5	23000	39000	10.9	7.2	21000	35000	7005 TN1
30	55	13	1.00	0.30	19.2	10.4	20000	33000	18.2	9.9	18000	29000	7006 TN1
35	62	14	1.00	0.30	24.3	13.9	17500	29000	23.0	13.2	15000	25500	7007 TN1
40	68	15	1.00	0.30	26.0	16.1	16000	27000	24.6	15.3	14000	24000	7008 TN1
45	75	16	1.00	0.30	30.8	19.5	14000	23000	29.2	18.6	12000	20000	7009 TN1
50	80	16	1.00	0.30	32.8	22.2	13000	21500	31.0	21.1	11000	19000	7010 TN1
55	90	18	1.10	0.60	43.2	29.0	11500	19300	40.8	27.6	10200	17000	7011 TN1
60	95	18	1.10	0.60	44.3	31.1	10800	18000	41.8	29.5	9500	16000	7012 TN1
65	100	18	1.10	0.60	46.8	34.8	10000	17000	44.2	33.0	9000	15000	7013 TN1
70	110	20	1.10	0.60	59.2	43.6	9300	15000	55.9	41.4	8000	13200	7014 TN1
75	115	20	1.10	0.60	60.5	46.3	8800	14500	57.2	43.9	7800	13000	7015 TN1
80	125	22	1.10	0.60	74.1	56.1	8100	13500	70.0	53.2	7200	12000	7016 TN1
85	130	22	1.10	0.60	75.9	59.4	7800	13000	71.6	56.4	6800	11500	7017 TN1
90	140	24	1.50	0.60	92.2	68.5	7300	12000	87.3	65.1	6300	10500	7018 TN1
95	145	24	1.50	0.60	92.7	74.2	7000	11500	87.6	70.4	6000	10000	7019 TN1
100	150	24	1.50	0.60	94.9	78.3	6700	11200	89.5	74.3	5800	9800	7020 TN1
105	160	26	2.00	1.00	111.0	90.6	6300	10500	104.9	86.0	5500	9200	7021 TN1
110	170	28	2.00	1.00	132.3	106.9	6000	10000	125.0	101.5	5200	8800	7022 TN1
120	180	28	2.00	1.00	141.4	118.2	5600	9300	133.6	112.1	4910	8100	7024 TN1

High Speed Series (Sealed bearings are available)

高速系列 (可提供密封轴承)

H719H719/HQ1 H70 H70/HQ1



外形尺寸 Boundary dimensions					$\alpha=15^\circ$				$\alpha=25^\circ$				轴承代号 Bearing designations
					额定载荷 Load rating		极限转速 Limiting speed		额定载荷 Load rating		极限转速 Limiting speed		
d	D	B	r _{smin}	r _{1smin}	Cr	Cor	脂 Grease	油 Oil	Cr	Cor	脂 Grease	油 Oil	
mm					KN		r/min		KN		r/min		
10	22	6	0.30	0.10	2.1	0.9	85000	140000	2.0	0.9	75000	120000	H71900
22	6	0.30	0.10	2.1	0.9	95000	160000	2.0	0.9	85000	140000	H71900/HQ1	
26	8	0.30	0.15	3.4	1.5	80000	130000	3.3	1.4	67000	110000	H7000	
26	8	0.30	0.15	3.4	1.5	90000	150000	3.3	1.4	8000	130000	H7000/HQ1	
12	24	6	0.30	0.10	2.2	1.1	80000	130000	2.1	1.1	70000	110000	H71901
24	6	0.30	0.10	2.2	1.1	90000	150000	2.1	1.1	80000	130000	H71901/HQ1	
28	8	0.30	0.15	3.8	1.7	70000	110000	3.6	1.6	60000	90000	H7001	
28	8	0.30	0.15	3.8	1.7	80000	130000	3.6	1.6	70000	110000	H7001/HQ1	
15	28	7	0.30	0.10	3.2	1.7	70000	110000	3.1	1.6	60000	90000	H71902
28	7	0.30	0.10	3.2	1.7	80000	130000	3.1	1.6	70000	110000	H71902/HQ1	
32	9	0.30	0.15	4.4	2.2	67000	100000	4.2	2.1	56000	85000	H7002	
32	9	0.30	0.15	4.4	2.2	75000	120000	4.2	2.1	67000	100000	H7002/HQ1	
17	30	7	0.30	0.10	3.3	1.8	67000	100000	3.2	1.7	56000	85000	H71903
30	7	0.30	0.10	3.3	1.8	75000	120000	3.2	1.7	63000	95000	H71903/HQ1	
35	10	0.30	0.15	5.2	2.5	56000	85000	5.0	2.4	50000	75000	H7003	
35	10	0.30	0.15	5.2	2.5	63000	95000	5.0	2.4	60000	90000	H7003/HQ1	
20	37	9	0.30	0.15	5.0	2.9	53000	80000	4.8	2.7	45000	67000	H71904
37	9	0.30	0.15	5.0	2.9	63000	95000	4.8	2.7	53000	80000	H71904/HQ1	
42	12	0.60	0.15	7.4	3.9	50000	75000	7.0	3.8	43000	63000	H7004	
42	12	0.60	0.15	7.4	3.9	60000	90000	7.0	3.8	48000	70000	H7004/HQ1	
25	42	9	0.30	0.15	5.2	3.4	48000	70000	4.9	3.3	40000	60000	H71905
42	9	0.30	0.15	5.2	3.4	53000	80000	4.9	3.3	45000	67000	H71905/HQ1	
47	12	0.60	0.15	8.4	4.8	43000	63000	8.0	4.6	36000	53000	H7005	
47	12	0.60	0.15	8.4	4.8	48000	70000	8.0	4.6	43000	63000	H7005/HQ1	
30	47	9	0.30	0.15	5.8	3.8	43000	63000	5.4	3.6	36000	53000	H71906
47	9	0.30	0.15	5.8	3.8	48000	70000	5.4	3.6	40000	60000	H71906/HQ1	
55	13	1.00	0.30	9.5	6.2	38000	56000	9.0	5.9	34000	50000	H7006	
55	13	1.00	0.30	9.5	6.2	45000	67000	9.0	5.9	38000	56000	H7006/HQ1	
35	55	10	0.60	0.15	7.7	5.4	36000	53000	7.4	5.1	30000	45000	H71907
55	10	0.60	0.15	7.7	5.4	40000	60000	7.4	5.1	34000	50000	H71907/HQ1	
62	14	1.00	0.30	11.2	7.9	34000	50000	10.7	7.5	30000	45000	H7007	
62	14	1.00	0.30	11.2	7.9	38000	56000	10.7	7.5	34000	50000	H7007/HQ1	
40	62	12	0.60	0.15	9.8	7.0	30000	45000	9.3	6.6	26000	40000	H71908
62	12	0.60	0.15	9.8	7.0	34000	50000	9.3	6.6	28000	43000	H71908/HQ1	
68	15	1.00	0.30	12.5	9.1	28000	43000	11.1	8.6	24000	38000	H7008	
68	15	1.00	0.30	12.5	9.1	34000	50000	11.1	8.6	28000	43000	H7008/HQ1	

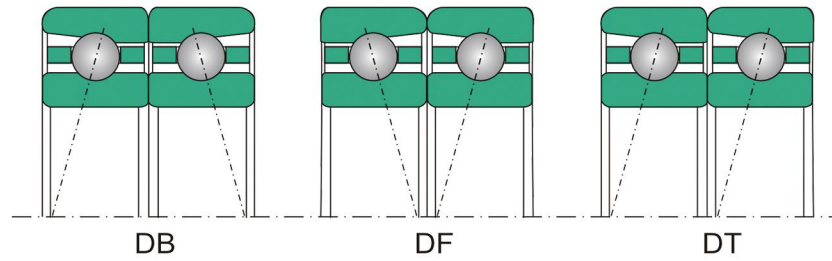
外形尺寸 Boundary dimensions					$\alpha=15^\circ$				$\alpha=25^\circ$				轴承代号 Bearing designations
					额定载荷 Load rating		极限转速 Limiting speed		额定载荷 Load rating		极限转速 Limiting speed		
d	D	B	r _{smin}	r _{1smin}	Cr	Cor	脂 Grease	油 Oil	Cr	Cor	脂 Grease	油 Oil	
mm					KN		r/min		KN		r/min		
45	68	12	0.60	0.15	10.3	7.7	26000	40000	9.7	7.3	22000	36000	H71909
68	12	0.60	0.15	10.3	7.7	28000	43000	9.7	7.3	26000	40000	H71909/HQ1	
75	16	1.00	0.30	13.1	10.2	24000	38000	12.5	9.7	22000	36000	H7009	
75	16	1.00	0.30	13.1	10.2	28000	43000	12.5	9.7	26000	40000	H7009/HQ1	
50	72	12	0.60	0.15	13.2	10.0	22000	36000	12.5	9.5	19000	32000	H71910
72	12	0.60	0.15	13.2	10.0	26000	40000	12.5	9.5	22000	36000	H71910/HQ1	
80	16	1.00	0.30	15.4	12.0	20000	34000	14.7	11.4	18000	30000	H7010	
80	16	1.00	0.30	15.4	12.0	24000	38000	14.7	11.4	20000	34000	H7010/HQ1	
55	80	13	1.00	0.30	16.0	12.6	19000	32000	15.0	11.9	16000	26000	H71911
80	13	1.00	0.30	16.0	12.6	22000	36000	15.0	11.9	19000	32000	H71911/HQ1	
90	18	1.10	0.60	17.0	14.5	19000	32000	16.0	13.7	17000	28000	H7011	
90	18	1.10	0.60	17.0	14.5	22000	36000	16.0	13.7	19000	32000	H7011/HQ1	
60	85	13	1.00	0.30	16.6	13.8	18000	30000	15.7	13.1	15000	24000	H71912
85	13	1.00	0.30	16.6	13.8	20000	34000	15.7	13.1	18000	30000	H71912/HQ1	
95	18	1.10	0.60	17.0	15.3	18000	30000	16.2	14.4	15000	24000	H7012	
95	18	1.10	0.60	17.0	15.3	20000	34000	16.2	14.4	18000	30000	H7012/HQ1	
65	90	13	1.00	0.30	16.8	14.5	17000	28000	16.0	13.7	15000	24000	H71913
90	13	1.00	0.30	16.8	14.5	19000	32000	16.0	13.7	17000	28000	H71913/HQ1	
100	18	1.10	0.60	20.2	18.6	16000	26000	19.0	17.6	13000	20000	H7013	
100	18	1.10	0.60	20.2	18.6	19000	32000	19.0	17.6	15000	24000	H7013/HQ1	
70	100	16	1.00	0.30	20.9	17.8	16000	26000	19.7	16.9	13000	20000	H71914
100	16	1.00	0.30	20.9	17.8	18000	30000	19.7	16.9	15000	24000	H71914/HQ1	
110	20	1.10	0.60	24.1	21.4	15000	24000	22.6	20.1	13000	20000	H7014	
110	20	1.10	0.60	24.1	21.4	18000	30000	22.6	20.1	15000	24000	H7014/HQ1	
75	105	16	1.00	0.30	21.7	19.3	15000	24000	20.5	18.2	13000	20000	H71915
105	16	1.00	0.30	21.7	19.3	17000	28000	20.5	18.2	15000	24000	H71915/HQ1	
115	20	1.10	0.60	26.2	25.5	14000	22000	24.7	24.2	12000	19000	H7015	
115	20	1.10	0.60	26.2	25.5	16000	26000	24.7	24.2	14000	22000	H7015/HQ1	
80	110	16	1.00	0.30	22.4	20.8	14000	22000	21.2	19.6	12000	19000	H71916
110	16	1.00	0.30	22.4	20.8	16000	26000	21.2	19.6	14000	20000	H71916/HQ1	
125	22	1.10	0.60	34.2	32.7	13000	20000	32.3	31.0	11000	18000	H7016	
125	22	1.10	0.60	34.2	32.7	15000	24000	32.3	31.0	13000	20000	H7016/HQ1	
85	120	18	1.10	0.60	26.1	24.2	13000	20000	24.7	22.9	11000	18000	H71917
120	18	1.10	0.60	26.1	24.2	15000	24000	24.7	22.9	13000	20000	H71917/HQ1	
130	22	1.10	0.60	35.0	35.2	12000	19000	33.0	33.4	10000	17000	H7017	
130	22	1.10	0.60	35.0	35.2	14000	22000	33.0	33.4	12000	19000	H7017/HQ1	

外形尺寸 Boundary dimensions					α=15°				α=25°				轴承代号 Bearing designations
					额定载荷 Load rating		极限转速 Limiting speed		额定载荷 Load rating		极限转速 Limiting speed		
d	D	B	r _{smin}	r _{1smin}	Cr	Cor	脂 Grease	油 Oil	Cr	Cor	脂 Grease	油 Oil	
mm					KN		r/min		KN		r/min		
90	125	18	1.10	0.60	27.0	26.0	13000	20000	25.5	24.6	11000	18000	H71918
	125	18	1.10	0.60	27.0	26.0	15000	24000	25.5	24.6	13000	20000	H71918/HQ1
	140	24	1.50	0.60	36.4	38.1	11000	18000	34.3	36.1	9500	16000	H7018
	140	24	1.50	0.60	36.4	38.1	13000	20000	34.3	36.1	11000	18000	H7018/HQ1
95	130	18	1.10	0.60	27.3	26.9	12000	19000	25.8	25.4	11000	18000	H71919
	130	18	1.10	0.60	27.3	26.9	14000	22000	25.8	25.4	13000	20000	H71919/HQ1
	145	24	1.50	0.60	44.4	45.2	10000	17000	41.9	42.9	8500	14000	H7019
	145	24	1.50	0.60	44.4	45.2	12000	19000	41.9	42.9	10000	17000	H7019/HQ1
100	140	20	1.10	0.60	40.1	37.6	11000	18000	37.9	35.5	9000	15000	H71920
	140	20	1.10	0.60	40.1	37.6	13000	20000	37.9	35.5	11000	18000	H71920/HQ1
	150	24	1.50	0.60	45.4	48.1	10000	17000	42.7	44.7	8500	14000	H7020
	150	24	1.50	0.60	45.4	48.1	12000	19000	42.7	44.7	10000	17000	H7020/HQ1
105	145	20	1.10	0.60	40.7	39.1	10000	17000	38.4	36.9	8500	14000	H71921
	145	20	1.10	0.60	40.7	39.1	12000	19000	38.4	36.9	10000	17000	H71921/HQ1
	160	26	2.00	1.00	46.1	49.2	9500	16000	43.3	46.6	8000	13000	H7021
	160	26	2.00	1.00	46.1	49.2	11000	18000	43.3	46.6	9000	15000	H7021/HQ1
110	150	20	1.10	0.60	41.3	40.5	9000	15000	39.0	38.3	7500	12000	H71922
	150	20	1.10	0.60	41.3	40.5	11000	18000	39.0	38.3	9500	16000	H71922/HQ1
	170	28	2.00	1.00	47.9	53.9	9500	16000	45.1	51.1	8000	13000	H7022
	170	28	2.00	1.00	47.9	53.9	11000	18000	45.1	51.1	9000	15000	H7022/HQ1
120	165	22	1.10	0.60	43.1	44.9	8500	14000	40.7	42.4	7500	12000	H71924
	165	22	1.10	0.60	43.1	44.9	10000	17000	40.7	42.4	9000	15000	H71924/HQ1
	180	28	2.00	1.00	58.3	64.9	8500	14000	54.8	61.5	7500	12000	H7024
	180	28	2.00	1.00	58.3	64.9	10000	17000	54.8	61.5	9000	15000	H7024/HQ1
130	180	24	1.50	0.60	53.1	56.6	8000	13000	50.1	53.4	7500	12000	H71926
	180	24	1.50	0.60	53.1	56.6	9000	15000	50.1	53.4	8500	14000	H71926/HQ1
	200	33	2.00	1.00	58.6	66.8	8000	13000	55.1	63.2	7000	11000	H7026
	200	33	2.00	1.00	58.6	66.8	9000	15000	55.1	63.2	8000	13000	H7026/HQ1
140	190	24	1.50	0.60	53.7	59.1	7000	11000	50.7	55.8	6700	10000	H71928
	190	24	1.50	0.60	53.7	59.1	8000	13000	50.7	55.8	7500	12000	H71928/HQ1
	210	33	2.00	1.00	60.7	72.5	7500	12000	57.1	68.7	6700	10000	H7028
	210	33	2.00	1.00	60.7	72.5	8500	14000	57.1	68.7	7500	12000	H7028/HQ1
150	210	28	2.00	1.00	65.2	72.8	6700	10000	61.5	68.7	6000	9000	H71930
	210	28	2.00	1.00	65.2	72.8	7500	12000	61.5	68.7	7000	11000	H71930/HQ1
	225	35	2.10	1.10	74.9	88.5	6700	10000	70.5	83.8	6300	9500	H7030
	225	35	2.10	1.10	74.9	88.5	7500	12000	70.5	83.8	7000	11000	H7030/HQ1
160	220	28	2.00	1.00	66.0	75.8	6000	9000	62.3	71.6	5600	8500	H71932
	220	28	2.00	1.00	66.0	75.8	7000	11000	62.3	71.6	6700	10000	H71932/HQ1
	240	38	2.10	1.10	76.2	94.5	6000	9000	71.6	89.5	5600	8500	H7032
	240	38	2.10	1.10	76.2	94.5	6700	10000	71.6	89.5	6300	9500	H7032/HQ1

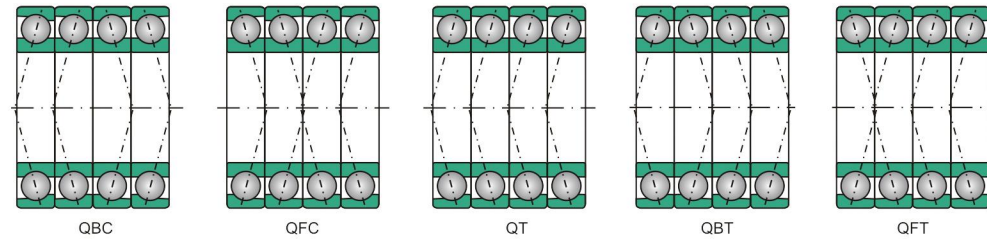
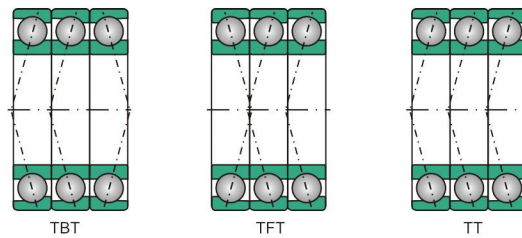
外形尺寸 Boundary dimensions					α=15°				α=25°				轴承代号 Bearing designations
					额定载荷 Load rating		极限转速 Limiting speed		额定载荷 Load rating		极限转速 Limiting speed		
d	D	B	r _{smin}	r _{1smin}	Cr	Cor	脂 Grease	油 Oil	Cr	Cor	脂 Grease	油 Oil	
mm					KN		r/min		KN		r/min		
170	230	28	2.00	1.00	66.7	78.7	5600	8500	63.0	74.3	5000	7500	H71934
	230	28	2.00	1.00	66.7	78.7	6700	10000	63.0	74.3	6000	9000	H71934/HQ1
	260	42	2.10	1.10	78.1	100.6	5600	8500	73.4	95.2	5000	7500	H7034
	260	42	2.10	1.10	78.1	100.6	6300	9500	73.4	95.2	5600	8500	H7034/HQ1
180	250	33	2.00	1.00	79.6	95.0	5000	7500	75.2	89.7	4800	7000	H71936
	250	33	2.00	1.00	79.6	95.0	6000	9000	75.2	89.7	5600	8500	H71936/HQ1
	280	46	2.10	1.10	79.8	106.7	5300	8000	75.0	101.0	4800	7000	H7036
	280	46	2.10	1.10	79.8	106.7	6000	9000	75.0	101.0	5300	8000	H7036/HQ1
190	260	33	2.00	1.00	80.6	98.6	4800	7000	76.1	93.1	4300	6300	H71938
	260	33	2.00	1.00	80.6	98.6	5600	8500	76.1	93.1	5000	7500	H71938/HQ1
	290	46	2.10	1.10	95.3	124.6	4800	7000	89.7	117.9	4300	6300	H7038
	290	46	2.10	1.10	95.3	124.6	5300	8000	89.7	117.9	4800	7000	H7038/HQ1
200	280	38	2.00	1.00	82.8	105.4	4500	6700	78.2	99.5	4000	6000	H71940
	280	38	2.00	1.00	82.8	105.4	5000	7500	78.2	99.5	4500	6700	H71940/HQ1
	310	51	2.10	1.10	96.5	132.0	4500	6700	90.8	124.9	4000	6000	H7040
	310	51	2.10	1.10	96.5	132.0	5000	7500	90.8	124.9	4500	6700	H7040/HQ1
220	300	38	2.00	1.00	96.9	125.4	4300	6300	91.5	118.4	3800	5600	H71944
	300	38	2.00	1.00	96.9	125.4	5000	7500	91.5	118.4	4300	6300	H71944/HQ1
	340	56	3.00	1.10	113.9	156.5	4000	6000	107.2	148.1	3800	5600	H7044
	340	56	3.00	1.10	113.9	156.5	4500	6700	107.2	148.1	4000	6000	H7044/HQ1

Bearing matching

轴承的组配



— Structures of duplex arrangement bearings / 轴承双联配置形式 —



— Multiple arrangement bearings / 常用多联组配轴承的配置形式 —

Speed adjustment factor of matched bearings

组配轴承转速调整系数

常用组配方式 Matched methods	预载等级 Preload level	公差等级 Tolerance class		
		2	4	5
DT	A	0.99	0.9	0.81
	B	0.88	0.8	0.72
	C	0.7	0.65	0.58
DB、DF	A	0.88	0.8	0.72
	B	0.77	0.7	0.63
TBT、TFT	A	0.77	0.7	0.63
	B	0.6	0.55	0.5
	C	0.38	0.35	0.31
QBC、QFC	A	0.83	0.75	0.68
	B	0.66	0.6	0.54
	C	0.50	0.45	0.41

— Speed adjustment factor / 转速调整系数 —

Fit tolerance of bearing and shaft housing

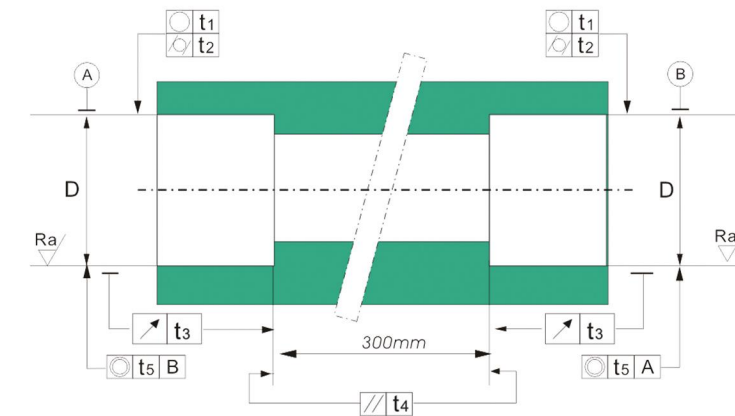
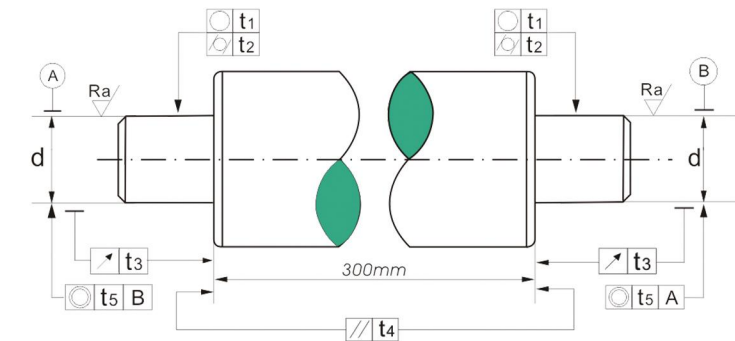
轴承与轴及轴承座的配合公差

轴径(mm) Shaft diameter		超过From 到up to	6 10	10 18	18 30	30 50	50 80	80 120	120 180	180 250	250 315
精度等级 AccuracyClass	P4、P4A	上偏差Upper deviation	0	0	0	0	0	+2	+3	+4	+5
	P2	下偏差Lower deviation	-4	-4	-4	-5	-5	-4	-5	-6	-7
配合目标过盈量 Magnitude of interference		最大Max.	2	2	2.5	2.5	3	4	4	5	6
		最小Min.	0	0	0	0	0	0	0	0	0

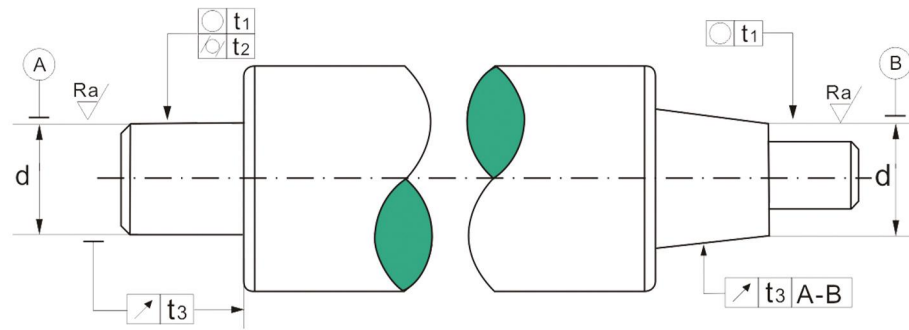
— Dimensional tolerance of fitting shaft for angular contact ball bearings (μm) / 角接触球轴承配合轴的尺寸公差 —

轴承座孔直径(mm) Housing diameter		超过From 到up to	10 18	18 30	30 50	50 80	80 120	120 180	180 250	250 315	315 400	
精度等级 AccuracyClass	P4、P4A P2	固定端 Fixed end	上偏差Upper deviation	+5	+6	+7	+8	+8	+9	+11	+13	+15
			下偏差Lower deviation	0	0	0	0	-3	-3	-3	-3	-3
		自由端 Free end	上偏差Upper deviation	+7	+8	+9	+10	+10	+12	+14	+16	+18
			下偏差Lower deviation	+2	+2	+2	+2	0	0	0	0	0
配合目标间隙量 Magnitude of interference		固定端 Fixed end	最大Max.	-	6	6	6	8	8	10	11	15
			最小Min.	-	2	2	2	3	3	5	5	6
		自由端 Free end	最大Max.	-	11	11	11	15	15	20	23	28
			最小Min.	-	6	6	6	9	9	13	15	18

— Dimensional tolerance of fitting housing for angular contact ball bearings (μm) / 角接触球轴承配合轴承座的尺寸公差 —



— Fitting shaft and housing / 配合轴和轴承座 —



— Fitting tapered shaft / 配合锥轴 —

公差符号 Tolerance symbols	配合轴公差 Tolerances of fitting shaft		配合轴承座公差 Tolerances of fitting housing	
	轴承精度 Bearing accuracy		轴承精度 Bearing accuracy	
	P4	P4A、P2	P4	P4A、P2
圆度 Roundness t1	$\frac{IT2}{2}$	$\frac{IT1}{2}$	$\frac{IT2}{2}$	$\frac{IT1}{2}$
圆柱度 cylindricity t2	$\frac{IT2}{2}$	$\frac{IT1}{2}$	$\frac{IT2}{2}$	$\frac{IT1}{2}$
跳动 Runout t3 t3	IT2	IT1	IT2	IT1
平行度 Parallelism t4	IT2	IT1	IT2	IT1
同轴度 Coaxiality t5	IT3	IT2	IT3	IT2
粗糙度 Roughness (μm)	0.4	0.2	0.4	0.4

— Tolerances of fitting shaft and housing / 配合轴和轴承座的公差 —

公称直径 Nominal diameter mm	超过From 到 up to	6 10	10 18	18 30	30 50	50 80	80 120	120 180	180 250	250 315	315 400
公差等级 Tolerance Class	IT1	1	1.2	1.5	1.5	2	2.5	3.5	4.5	6	7
	IT2	1.5	2	2.5	2.5	3	4	5	7	8	8
	IT3	2.5	3	4	4	5	6	8	10	12	13

— Limits of tolerance Class (μm) / 公差等级极限值 —

Bearing accuracy

轴承精度

符号 Symbol	含义 Meaning
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d	轴承公称内径 Nominal bore diameter
Δd_s	单一内孔直径偏差 Deviation of a single bore diameter
Δd_{mp}	单一平面平均内径偏差 Deviation of mean bore diameter from nominal dimension in a radial plane
V _{dsp}	单一平面内径变动量 Variation of bore diameter in one radial plane
V _{dmp}	平均内径变动量 (只适用于圆柱孔) Variation of mean bore diameters (only for cylindrical bore)

d	轴承公称外径 Nominal outside diameter
Δd_s	单一外径偏差 Deviation of a single outside diameter
Δd_{mp}	单一平面平均外径偏差 Deviation of mean outside diameter in a single plane
V _{dsp}	单一平面外径变动量 Variation of outside diameter in a single plane
V _{dmp}	平均外径变动量 Variation of mean outside diameter

ΔB_s	内圈单一宽度偏差 Deviation of a single inner ring width
V _{Bs}	内圈宽度变动量 Variation of inner ring width
ΔC_s	外圈单一宽度偏差 Deviation of a single outer ring width from nominal dimension
V _{Cs}	外圈宽度变动量 Variation of outer ring width

K _{ia}	成套轴承内圈的径向跳动 Radial runout of inner ring of assembled bearing
K _{ea}	成套轴承外圈的径向跳动 Radial runout of outer ring of assembled bearing
S _{ia}	成套轴承内圈端面对滚道的跳动 Axial runout of inner ring of assembled bearing to inner ring raceway
S _{ea}	成套轴承外圈端面对滚道的跳动 Axial runout of outer ring of assembled bearing to outer ring raceway
S _d	内圈基准端面对内孔的跳动 Side face runout of inner ring with reference to bore
S _D	外径表面母线对基准端面的倾斜度变动量 Variation in inclination of outside cylindrical surface to outer ring side face

— Symbols of bearing outside dimensions and running accuracy / 轴承外形尺寸和旋转精度符号 —

D (mm)		ΔD_{mp}		ΔD_s		V _{dsp}		V _{dmp}	K _{ia}	S _d	S _{ia}	ΔB_s			V _{BS}
超过 From	到 to	上偏差 Upper deviation	下偏差 Lower deviation	上偏差 Upper deviation	下偏差 Lower deviation	直径系列 Diameter series						全部 All	单套 Single	成组 Set	
						8、9	0、2	max	max	max	max				max
2.5	10	0	-4	0	-4	4	3	2	2.5	3	3	0	-40	-250	2.5
10	18	0	-4	0	-4	4	3	2	2.5	3	3	0	-80	-250	2.5
18	30	0	-5	0	-5	5	4	2.5	3	4	4	0	-120	-250	2.5
30	50	0	-6	0	-6	6	5	3	4	4	4	0	-120	-250	3
50	80	0	-7	0	-7	7	5	3.5	4	5	5	0	-150	-250	4
80	120	0	-8	0	-8	8	6	4	5	5	5	0	-200	-380	4
120	180	0	-10	0	-10	10	8	5	6	6	7	0	-250	-380	5
180	250	0	-12	0	-12	12	9	6	8	7	8	0	-300	-500	6

— Tolerances for the inner ring of angular contact ball bearings in P4 (μm) / 角接触球轴承4级公差内圈 —

D (mm)		ΔD_{mp}		ΔD_s		V _{dsp}	V _{dmp}	K _{ia}	S _d	S _{ia}	ΔB_s			V _{BS}
超过 From	到 to	上偏差 Upper deviation	下偏差 Lower deviation	上偏差 Upper deviation	下偏差 Lower deviation						全部 All	单套 Single	成组 Set	
						max	max	max	max	max				max
2.5	10	0	-4	0	-4	2.5	1.5	1.5	1.5	1.5	0	-40	-250	1.5
10	18	0	-4	0	-4	2.5	1.5	1.5	1.5	1.5	0	-80	-250	1.5
18	30	0	-5	0	-5	2.5	1.5	2.5	1.5	2.5	0	-120	-250	1.5
30	50	0	-6	0	-6	2.5	1.5	2.5	1.5	2.5	0	-120	-250	1.5
50	80	0	-7	0	-7	4	2	2.5	1.5	2.5	0	-150	-250	1.5
80	120	0	-8	0	-8	5	2.5	2.5	2.5	2.5	0	-200	-380	2.5
120	150	0	-10	0	-10	7	3.5	2.5	2.5	2.5	0	-250	-380	2.5
150	180	0	-10	0	-10	7	3.5	5	4	5	0	-250	-380	4
180	250	0	-12	0	-12	8	4	5	5	5	0	-300	-500	5

— Tolerances for the inner ring of angular contact ball bearings in P4A (μm) / 角接触球轴承4A级公差内圈 —

D (mm)		ΔD_{mp}		ΔD_s		V _{dsp}		V _{dmp}	K _{ea}	S _D	S _{ea}	ΔC_s		V _{CS}
超过 From	到 to	上偏差 Upper deviation	下偏差 Lower deviation	上偏差 Upper deviation	下偏差 Lower deviation	直径系列 Diameter series						全部 All	单套 Single	
						8、9	0、2	max	max	max	max			
6	18	0	-4	0	-4	4	3	2	3	4	5		2.5	
18	30	0	-5	0	-5	5	4	2.5	4	4	5		2.5	
30	50	0	-6	0	-6	6	5	3	5	4	5	与同一轴承内圈的	2.5	
50	80	0	-7	0	-7	7	5	3.5	5	4	5	ΔB_s 相同	3	
80	120	0	-8	0	-8	8	6	4	6	5	6	Width deviation ΔC_s	4	
120	150	0	-9	0	-9	9	7	5	7	5	7	is identical with ΔB_s	5	
150	180	0	-10	0	-10	10	8	5	8	5	8	of the corresponding	5	
180	250	0	-11	0	-11	11	8	6	10	7	10	inner ring.	7	
250	315	0	-13	0	-13	13	10	7	11	8	10		7	
315	400	0	-15	0	-15	15	11	8	13	10	13		8	

— Tolerances for the outer ring of angular contact ball bearings in P4 (μm) / 角接触球轴承4级公差外圈 —

D (mm)		ΔD_{mp}		ΔD_s		V _{dsp}	V _{dmp}	K _{ea}	S _D	S _{ea}	ΔC_s		V _{CS}
超过 From	到 to	上偏差 Upper deviation	下偏差 Lower deviation	上偏差 Upper deviation	下偏差 Lower deviation						全部 All	单套 Single	
						max	max	max	max	max			max
6	18	0	-4	0	-4	2.5	1.5	1.5	1.5	1.5		1.5	
18	30	0	-5	0	-5	4	2	2.5	1.5	2.5		1.5	
30	50	0	-6	0	-6	4	2	2.5	1.5	2.5	与同一轴承内圈的	1.5	
50	80	0	-7	0	-7	4	2	4	1.5	4	ΔB_s 相同	1.5	
80	120	0	-8	0	-8	5	2.5	5	2.5	5	Width deviation ΔC_s	2.5	
120	150	0	-9	0	-9	5	2.5	5	2.5	5	is identical with ΔB_s	2.5	
150	180	0	-10	0	-10	7	3.5	5	2.5	5	of the corresponding	2.5	
180	250	0	-11	0	-11	8	4	7	4	7	inner ring.	4	
250	315	0	-13	0	-13	8	4	7	5	7		5	
315	400	0	-15	0	-15	10	5	8	7	8		7	

— Tolerances for the outer ring of angular contact ball bearings in P4A (μm) / 角接触球轴承4A级公差外圈 —

D (mm)		△Dmp		△Ds		Vdsp	Vdmp	Kia	Sd	Sia	△Bs			VBS
超过 From	到 to	上偏差 Upper deviation	下偏差 Lower deviation	上偏差 Upper deviation	下偏差 Lower deviation	max	max	max	max	max	全部 All	单套 Single	成组 Set	max
2.5	10	0	-2.5	0	-2.5	2.5	1.5	1.5	1.5	1.5	0	-40	-250	1.5
10	18	0	-2.5	0	-2.5	2.5	1.5	1.5	1.5	1.5	0	-80	-250	1.5
18	30	0	-2.5	0	-2.5	2.5	1.5	2.5	1.5	2.5	0	-120	-250	1.5
30	50	0	-2.5	0	-2.5	2.5	1.5	2.5	1.5	2.5	0	-120	-250	1.5
50	80	0	-4	0	-4	4	2	2.5	1.5	2.5	0	-150	-250	1.5
80	120	0	-5	0	-5	5	2.5	2.5	2.5	2.5	0	-200	-380	2.5
120	150	0	-7	0	-7	7	3.5	2.5	2.5	2.5	0	-250	-380	2.5
150	180	0	-7	0	-7	7	3.5	5	4	5	0	-250	-380	4
180	250	0	-8	0	-8	8	4	5	5	5	0	-300	-500	5

— Tolerances for the inner ring of angular contact ball bearings in P2 (µm) / 角接触球轴承2级公差内圈 —

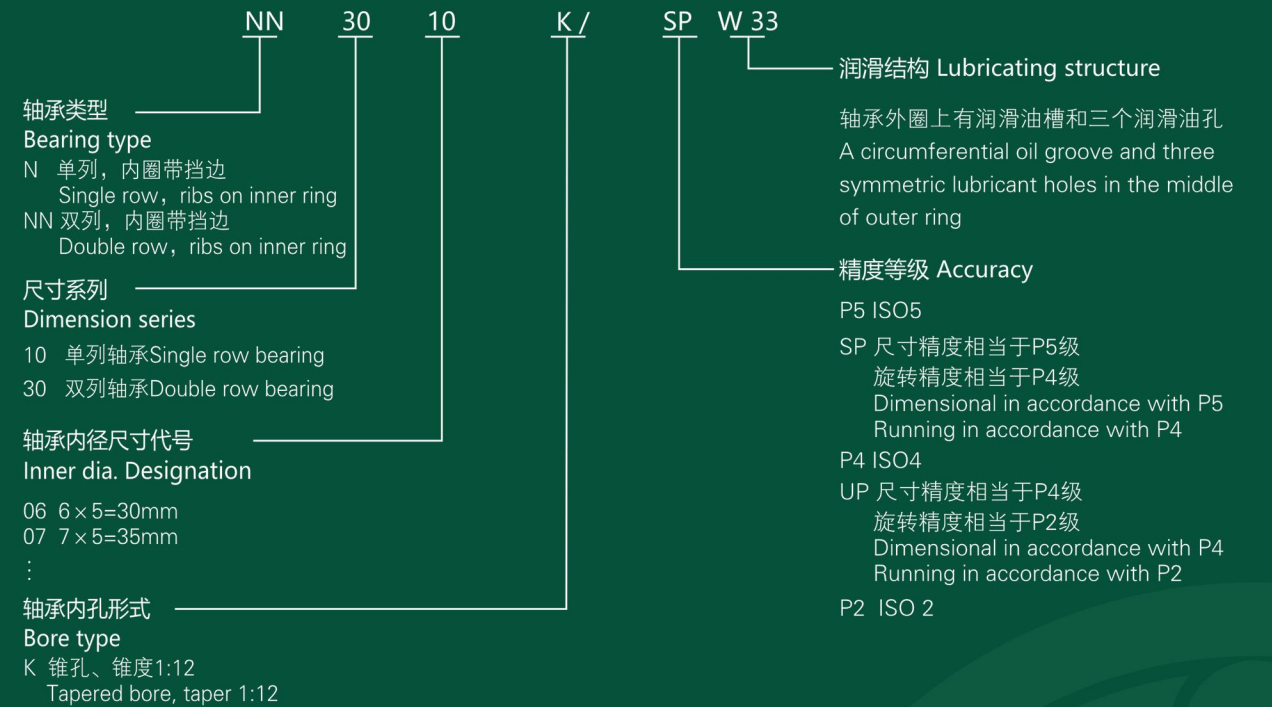
D (mm)		△Dmp		△Ds		Vdsp	Vdmp	Kea	Sd	Sea	△Cs			Vcs
超过 From	到 to	上偏差 Upper deviation	下偏差 Lower deviation	上偏差 Upper deviation	下偏差 Lower deviation	max	max	max	max	max	上偏差 Upper deviation	下偏差 Lower deviation	max	
6	18	0	-2.5	0	-2.5	2.5	1.5	1.5	1.5	1.5			1.5	
18	30	0	-4	0	-4	4	2	2.5	1.5	2.5			1.5	
30	50	0	-4	0	-4	4	2	2.5	1.5	2.5			1.5	
50	80	0	-4	0	-4	4	2	4	1.5	4			1.5	
80	120	0	-5	0	-5	5	2.5	5	2.5	5			2.5	
120	150	0	-5	0	-5	5	2.5	5	2.5	5			2.5	
150	180	0	-7	0	-7	7	3.5	5	2.5	5			2.5	
180	250	0	-8	0	-8	8	4	7	4	7			4	
250	315	0	-8	0	-8	8	4	7	5	7			5	
315	400	0	-10	0	-10	10	5	8	7	8			7	

— Tolerances for the outer ring of angular contact ball bearings in P2 (µm) / 角接触球轴承2级公差外圈 —

与同一轴承内圈的
△BS相同
Width deviation △Cs
is identical with △Bs
of the corresponding
inner ring.

High-precision Cylindrical Roller Bearings

高精精密圆柱滚子轴承

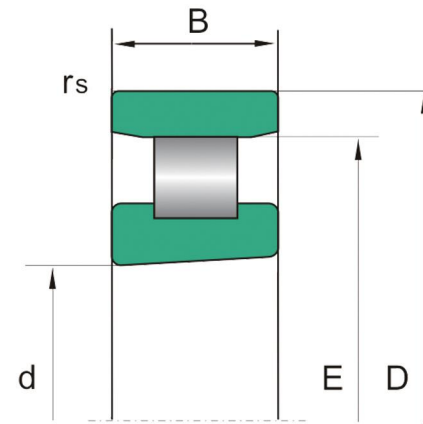


— Designation of cylindrical roller bearings / 圆柱滚子轴承代号示例 —

Single Row Cylindrical Roller Bearings

单列圆柱滚子

N10

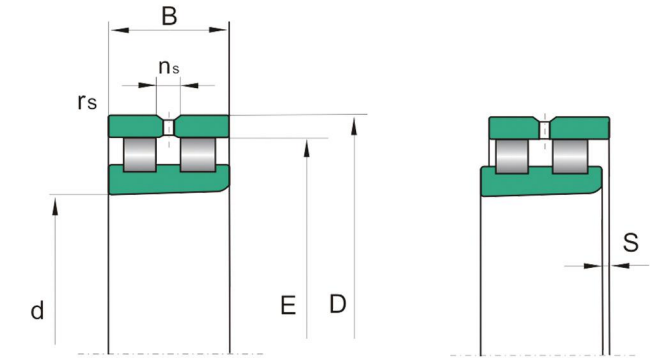


轴承代号 Bearing designations	外形尺寸 Boundary dimensions					额定载荷 Load rating		极限转速 Limiting speed	
	d	D	B	r _{smin}	E	Cr	Cor	脂 Grease	油 Oil
	mm					KN		r/min	
N1006	30	55	13	0.6	48.5	18.6	18	19000	22000
N1007	35	62	14	0.6	55	23.6	24.5	16000	18000
N1008	40	68	15	0.6	61	27.5	29	15000	17000
N1009	45	75	16	0.6	67.5	32.5	35.5	13000	15000
N1010	50	80	16	0.6	72.5	36	41.5	12000	14000
N1011	55	90	18	1.0	80.5	41.5	50	11000	13000
N1012	60	95	18	1.0	85.5	44	55	10000	12000
N1013	65	100	18	1.0	90.5	45	58.5	9500	11000
N1014	70	110	20	1.0	100	64	81	9000	10000
N1015	75	115	20	1.0	105	65.5	85	8500	9500
N1016	80	125	22	1.0	113.5	76.5	98	8000	9000
N1017	85	130	22	1.0	118.5	78	104	7500	8500
N1018	90	140	24	1.1	127	93	125	6700	7500
N1019	95	145	24	1.1	132	96.5	129	6300	7000
N1020	100	150	24	1.1	137	98	134	6000	6700
N1021	105	160	26	1.1	145.5	112	153	5600	6300
N1022	110	170	28	1.1	155	140	190	4800	6000
N1024	120	180	28	1.1	165	150	208	5000	5600
N1026	130	200	33	1.1	182	180	250	4300	4800
N1028	140	210	33	1.1	192	183	265	4000	4500
N1030	150	225	35	1.5	205.5	208	310	3800	4300
N1032	160	240	38	1.5	220	245	355	3400	3800
N1034	170	260	42	2.1	237	300	430	3200	3600
N1036	180	280	46	2.1	255	360	520	3000	3400
N1038	190	290	46	2.1	265	365	550	2800	3200
N1040	200	310	51	2.1	281	400	600	2600	3000
N1044	220	340	56	3.0	310	510	765	2400	2800
N1048	240	360	56	3.0	330	540	850	2200	2600
N1052	260	400	65	4.0	364	655	1020	1900	2200
N1056	280	420	65	4.0	384	680	1100	1800	2000

Double Row Cylindrical Roller Bearings

双列圆柱滚子

NN30



轴承代号 Bearing designations	外形尺寸 Boundary dimensions							额定载荷 Load rating		极限转速 Limiting speed	
	d	D	B	r _{smin}	E	n _s	S	Cr	Cor	脂 Grease	油 Oil
	mm							KN		r/min	
NN3006	30	55	19	1.0	48.5	4.8	1.4	29	34	19000	22000
NN3007	35	62	20	1.0	55	4.8	1.4	35.5	44	16000	18000
NN3008	40	68	21	1.0	61	4.8	1.4	45	58.5	15000	170
NN3009	45	75	23	1.0	67.5	4.8	1.7	54	72	13000	150
NN3010	50	80	23	1.0	72.5	4.8	1.7	57	80	12000	140
NN3011	55	90	26	1.1	80.5	4.8	1.9	72	100	11000	130
NN3012	60	95	26	1.1	85.5	4.8	1.9	75	110	10000	120
NN3013	65	100	26	1.1	90.5	4.8	1.9	76.5	116	9500	110
NN3014	70	110	30	1.1	100	6.5	2.3	98	150	9000	100
NN3015	75	115	30	1.1	105	6.5	2.3	100	156	8500	9500
NN3016	80	125	34	1.1	113.5	6.5	2.5	120	186	8000	9000
NN3017	85	130	34	1.1	118.5	6.5	2.5	125	200	7500	8500
NN3018	90	140	37	1.5	127	6.5	2.5	140	224	6700	7500
NN3019	95	145	37	1.5	132	6.5	2.5	143	236	6300	7000
NN3020	100	150	37	1.5	137	6.5	2.5	146	245	6000	6700
NN3021	105	160	41	2.0	145.5	6.5	2.6	190	310	5600	6300
NN3022	110	170	45	2.0	155	6.5	2.8	220	360	4800	6000
NN3024	120	180	46	2.0	165	6.5	3.1	232	390	5000	5600
NN3026	130	200	52	2.0	182	9.5	3.3	290	500	4300	4800
NN3028	140	210	53	2.0	192	9.5	3.3	300	520	4000	4500
NN3030	150	225	56	2.1	205.5	9.5	3.7	335	585	3800	4300
NN3032	160	240	60	2.1	220	9.5	4.2	375	670	3400	3800
NN3034	170	260	67	2.1	237	9.5	4.5	450	800	3200	3600
NN3036	180	280	74	2.1	255	12.2	4.8	570	1000	3000	3400
NN3038	190	290	75	2.1	265	12.2	4.8	585	1040	2800	3200
NN3040	200	310	82	2.1	281	12.2	5.3	655	1200	2600	3000
NN3044	220	340	90	3.0	310	15	5.5	800	1460	2400	2800
NN3048	240	360	92	3.0	330	15	6.0	850	1560	2200	2600
NN3052	260	400	104	4.0	364	15	6.5	1060	2000	1900	2200
NN3056	280	420	106	4.0	384	15	6.8	1080	2080	1800	2000

Fit tolerance of bearing and shaft, housing

轴承与轴及轴承座的配合公差

轴径(mm) Shaft diameter		超过From 到up to	18 30	30 50	50 80	80 120	120 180	180 250	250 315	315 400
精度等级 Accuracy Class	P5、SP	上偏差 Upper deviation	+3	+3.5	+4	+5	+6	+7	+8	+9
		下偏差 Lower deviation	-3	-3.5	-4	-5	-6	-7	-8	-9
	P4、UP、 P2	上偏差 Upper deviation	+2	+2	+2.5	+3	+4	+5	+6	+6.5
		下偏差 Lower deviation	-2	-2	-2.5	-3	-4	-5	-6	-6.5
配合目标过盈量 Magnitude of interference		最大 Max.	2.5	2.5	3	4	4	5	6	7
		最小 Min.	0	0	0	0	0	0	0	0

— Dimensional tolerance of fitting shaft for cylindrical roller bearings (cylindrical bore) (μm) / 圆柱孔圆柱滚子轴承配合轴的尺寸公差 —

轴径(mm) Shaft diameter		超过From 到up to	18 30	30 40	40 50	50 65	65 80	80 100	100 120	120 140	140 160	160 180	180 200	200 225	225 250	250 280
精度等级 Accuracy Class	上偏差 Upper deviation	+73	+91	+108	+135	+159	+193	+225	+266	+298	+328	+370	+405	+445	+498	
	下偏差 Lower deviation	+64	+80	+97	+122	+146	+178	+210	+248	+280	+310	+350	+385	+425	+475	

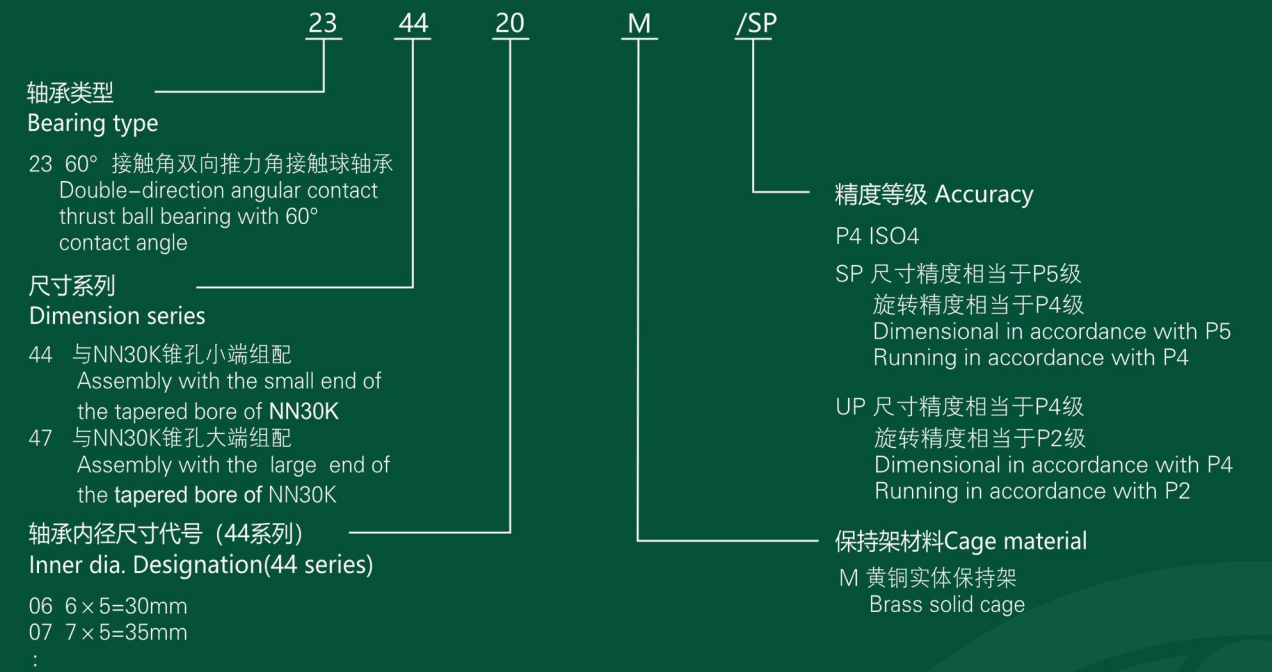
— Dimensional tolerance of fitting shaft for cylindrical roller bearings (tapered bore) (μm) / 圆锥孔圆柱滚子轴承配合轴的尺寸公差 —

轴承座孔直径(mm) Housing diameter		超过From 到up to	30 50	50 80	80 120	120 180	180 250	250 315	315 400	400 500
精度等级 Accuracy Class	P5、SP	上偏差 Upper deviation	+2	+3	+2	+3	+2	+3	+3	+2
		下偏差 Lower deviation	-9	-10	-13	-15	-18	-20	-22	-25
	P4、UP、 P2	上偏差 Upper deviation	+1	+1	+1	+1	0	0	0	0
		下偏差 Lower deviation	-6	-7	-9	-11	-14	-16	-17	-20
配合目标间隙量 Magnitude of clearance (or interference)		最大(间隙)Max. clearance	2	2	2	2	2	3	3	3
		最小(过盈)Min. interference	2	2	2	2	2	3	3	3

— Dimensional tolerance of fitting housing for cylindrical roller bearings (μm) / 圆柱滚子轴承配合轴承座的尺寸公差 —

Double-direction Angular Contact Thrust Ball Bearings

双向推力角接触球轴承

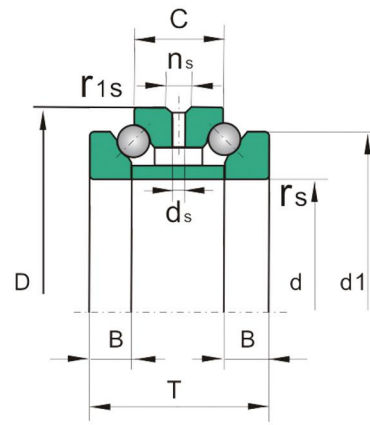


— Designation of double-direction angular contact thrust ball bearings / 双向推力角接触球轴承代号示例 —

Double-direction Angular Contact Thrust Ball Bearings

双向推力角接触球轴承

2344 2347 //



轴承代号 Bearing designations	外形尺寸 Boundary dimensions										额定载荷 Load rating		极限转速 Limiting speed	
	d	D	T	d _{1max}	C	B	r _{1smin}	r _{smin}	d _s	n _s	C _r	C _{or}	脂 Grease	油 Oil
	mm										KN		r/min	
234406M	30	55	32	47	16	8	1.0	0.15	3.2	4.8	15.3	36	11000	16000
234706M	32	55	32	47	16	8	1.0	0.15	3.2	4.8	15.3	36	11000	16000
234407M	35	62	34	53	17	8.5	1.0	0.15	3.2	4.8	18.9	47	9500	14000
234707M	37	62	34	53	17	8.5	1.0	0.15	3.2	4.8	18.9	47	9500	14000
234408M	40	68	36	58.5	18	9	1.0	0.15	3.2	4.8	22.9	59	8500	12000
234708M	42	68	36	58.5	18	9	1.0	0.15	3.2	4.8	22.9	59	8500	12000
234409M	45	75	38	65	19	9.5	1.0	0.15	3.2	4.8	25	67	7500	10000
234709M	47	75	38	65	19	9.5	1.0	0.15	3.2	4.8	25	67	7500	10000
234410M	50	80	38	70	19	9.5	1.0	0.15	3.2	4.8	26	72	7000	9500
234710M	52	80	38	70	19	9.5	1.0	0.15	3.2	4.8	26	72	7000	9500
234411M	55	90	44	78	22	11	1.1	0.3	3.2	6.5	36.5	99	6300	8500
234711M	57	90	44	78	22	11	1.1	0.3	3.2	6.5	36.5	99	6300	8500
234412M	60	95	44	83	22	11	1.1	0.3	3.2	6.5	36	98	6000	8000
234712M	62	95	44	83	22	11	1.1	0.3	3.2	6.5	36	98	6000	8000
234413M	65	100	44	88	22	11	1.1	0.3	3.2	6.5	38.5	111	5600	7500
234713M	67	100	44	88	22	11	1.1	0.3	3.2	6.5	38.5	111	5600	7500
234414M	70	110	48	97	24	12	1.1	0.3	3.2	6.5	46	134	5300	7000
234714M	73	110	48	97	24	12	1.1	0.3	3.2	6.5	46	134	5300	7000
234415M	75	115	48	102	24	12	1.1	0.3	3.2	6.5	47.5	144	5000	6700
234715M	78	115	48	102	24	12	1.1	0.3	3.2	6.5	47.5	144	5000	6700
234416M	80	125	54	110	27	13.5	1.1	0.3	3.2	6.5	56	175	4500	6000
234716M	83	125	54	110	27	13.5	1.1	0.3	3.2	6.5	56	175	4500	6000
234417M	85	130	54	115	27	13.5	1.1	0.3	4.8	9.5	57	181	4500	6000
234717M	88	130	54	115	27	13.5	1.1	0.3	4.8	9.5	57	181	4500	6000
234418M	90	140	60	123	30	15	1.5	0.3	4.8	9.5	66	213	4000	5300
234718M	93	140	60	123	30	15	1.5	0.3	4.8	9.5	66	213	4000	5300
234419M	95	145	60	128	30	15	1.5	0.3	4.8	9.5	66	219	4000	5300
234719M	98	145	60	128	30	15	1.5	0.3	4.8	9.5	66	219	4000	5300
234420M	100	150	60	133	30	15	1.5	0.3	4.8	9.5	67	226	3800	5000
234720M	103	150	60	133	30	15	1.5	0.3	4.8	9.5	67	226	3800	5000
234421M	105	160	66	142	33	16.5	2	0.6	4.8	9.5	74	250	3600	4800
234721M	109	160	66	142	33	16.5	2	0.6	4.8	9.5	74	250	3600	4800

轴承代号 Bearing designations	外形尺寸 Boundary dimensions										额定载荷 Load rating		极限转速 Limiting speed	
	d	D	T	d _{1max}	C	B	r _{1smin}	r _{smin}	d _s	n _s	C _r	C _{or}	脂 Grease	油 Oil
	mm										KN		r/min	
234422M	110	170	72	150	36	18	2	0.6	4.8	9.5	98	325	3400	4500
234722M	114	170	72	150	36	18	2	0.6	4.8	9.5	98	325	3400	4500
234424M	120	180	72	160	36	18	2	0.6	4.8	9.5	101	345	3200	4300
234724M	124	180	72	160	36	18	2	0.6	4.8	9.5	101	345	3200	4300
234426M	130	200	84	177	42	21	2	0.6	6.3	12.2	128	440	2800	3800
234726M	135	200	84	177	42	21	2	0.6	6.3	12.2	128	440	2800	3800
234428M	140	210	84	187	42	21	2.1	0.6	6.3	12.2	132	470	2600	3600
234728M	145	210	84	187	42	21	2.1	0.6	6.3	12.2	132	470	2600	3600
234430M	150	225	90	200	45	22.5	2.1	0.6	8	15	142	520	2600	3600
234730M	155	225	90	200	45	22.5	2.1	0.6	8	15	142	520	2600	3600
234432M	160	240	96	212	48	24	2.1	0.6	8	15	168	600	2400	3400
234732M	165	240	96	212	48	24	2.1	0.6	8	15	168	600	2400	3400
234434M	170	260	108	230	54	27	2.1	0.6	8	15	207	740	2200	3200
234734M	176	260	108	230	54	27	2.1	0.6	8	15	207	740	2200	3200
234436M	180	280	120	248	60	30	2.1	0.6	8	15	235	840	2000	3000
234736M	187	280	120	248	60	30	2.1	0.6	8	15	235	840	2000	3000
234438M	190	290	120	258	60	30	2.1	0.6	8	15	244	900	1900	2800
234738M	197	290	120	258	60	30	2.1	0.6	8	15	244	900	1900	2800
234440M	200	310	132	274	66	33	2.1	0.6	8	15	285	1060	1800	2600
234740M	207	310	132	274	66	33	2.1	0.6	8	15	285	1060	1800	2600
234444M	220	340	144	304	72	36	3	1.1	9.5	17.7	340	1330	1600	2200
234744M	228	340	144	304	72	36	3	1.1	9.5	17.7	340	1330	1600	2200
234448M	240	360	144	322	72	36	3	1.1	9.5	17.7	350	1420	1500	2000
234748M	248	360	144	322	72	36	3	1.1	9.5	17.7	350	1420	1500	2000
234452M	260	400	164	354	82	41	4	1.5	9.5	17.7	400	1680	1400	1900
234752M	269	400	164	354	82	41	4	1.5	9.5	17.7	400	1680	1400	1900
234456M	280	420	164	374	82	41	4	1.5	9.5	17.7	415	1790	1300	1800
234756M	289	420	164	374	82	41	4	1.5	9.5	17.7	415	1790	1300	1800
234460M	300	460	190	406	95	47.5	4	1.5	9.5	17.7	480	2170	1200	1700
234760M	310	460	190	406	95	47.5	4	1.5	9.5	17.7	480	2170	1200	1700
234464M	320	480	190	426	95	47.5	4	1.5	9.5	17.7	495	2310	1200	1700
234764M	330	480	190	426	95	47.5	4	1.5	9.5	17.7	495	2310	1200	1700
234468M	340	520	212	459	106	53	4	1.5	9.5	17.7	580	2850	1100	1600
234768M	350	520	212	459	106	53	4	1.5	9.5	17.7	580	2850	1100	1600
234472M	360	540	212	479	106	53	4	1.5	9.5	17.7	590	2950	1000	1500
234772M	370	540	212	479	106	53	4	1.5	9.5	17.7	590	2950	1000	1500
234476M	380	560	212	499	106	53	4	1.5	9.5	17.7	610	3150	1000	1500
234776M	390	560	212	499	106	53	4	1.5	9.5	17.7	610	3150	1000	1500
234480M	400	600	236	532	118	59	5	2.0	9.5	17.7	680	3650	900	1300
234780M	410	600	236	532	118	59	5	2.0	9.5	17.7	680	3650	900	1300

Fit tolerance of bearing and shaft, housing

轴承与轴及轴承座的配合公差

轴径(mm) Shaft diameter		超过From 到up to	18 30	30 50	50 80	80 120	120 180	180 250	250 315	315 400
精度等级 Accuracy Class	SP	上偏差 Upper deviation	0	0	0	0	0	0	0	0
		下偏差 Lower deviation	-6	-7	-8	-10	-12	-14	-16	-18
	P4、UP	上偏差 Upper deviation	0	0	0	0	0	0	0	0
		下偏差 Lower deviation	-4	-4	-5	-6	-8	-10	-12	-13
配合目标过盈量 Magnitude of interference		最大 Max.	2.5	2.5	3	4	4	5	6	7
		最小 Min.	0	0	0	0	0	0	0	0

— Dimensional tolerance of fitting shaft for Double-direction Angular Contact Thrust Ball Bearings (μm) / 双向推力角接触球轴承配合轴的尺寸公差 —

双向推力角接触球轴承与圆柱滚子轴承组合使用，轴承座的尺寸同圆柱滚子轴承。

The double-direction angular contact thrust ball bearings are matched with cylindrical roller bearings, the fitting between outer ring and housing is the same as that of cylindrical roller bearings.



High-speed Angular Contact Thrust Ball Bearings

高速推力角接触球轴承

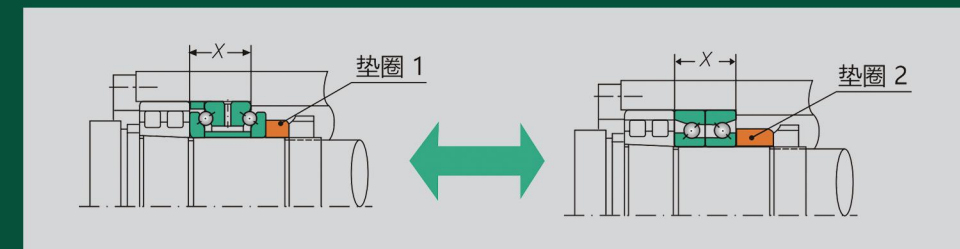
双向推力角接触球轴承无法满足的高速场合，使用高速推力角接触球轴承进行替代，它是由一对背靠背配对的接触角30°或40°的角接触球轴承组成。

In some high-speed conditions, double-direction angular contact thrust ball bearings can not meet the requirements, high-speed thrust angular contact ball bearings can be used instead, high-speed angular contact thrust ball bearings are composed of one pair of angular contact ball bearings with 30° or 40° contact angle and back-to-back arrangement.

双向推力角接触球轴承具有相同的外径公差，因此在外径与轴承座孔之间存在间隙，因此高速角接触推力球轴承不承受径向载荷。

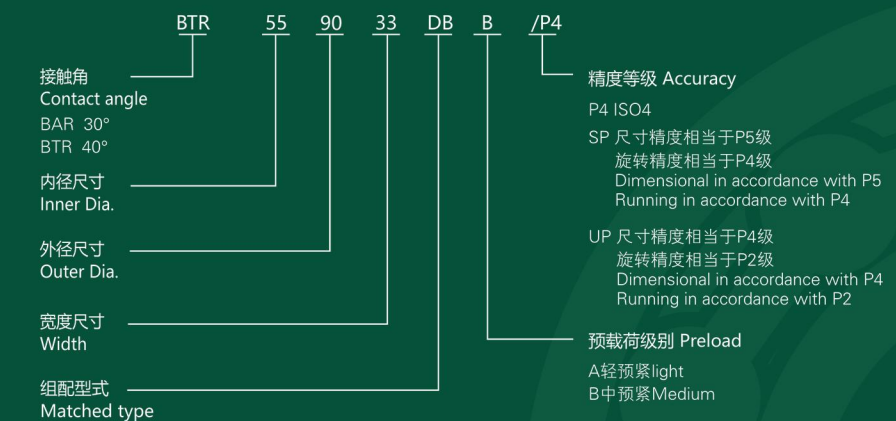
需要注意的是，高速推力角接触球轴承宽度特殊，替换双向推力角接触球轴承时，应更换轴上的垫圈，两个垫圈的宽度差为一个双向推力角接触球轴承座圈宽度（前节双向推力角接触球轴承尺寸表中的外形尺寸B）。

It should be noted that high-speed angular contact thrust ball bearings are adopted with a special width dimension, when the high-speed angular contact thrust ball bearings substitute double-direction angular contact thrust ball bearings, the washer on the shaft needs to be replaced, the width difference between the two washers is the width of one inner ring of double-direction angular contact thrust ball bearings. (Dimension B in the dimension table of double-direction angular contact thrust ball bearings which is mentioned in the previous section).



此外，高速推力角接触球轴承与配合轴和轴承座的公差与前节所述的双向推力角接触球轴承相同。

Furthermore, fit tolerance of high-speed angular contact thrust ball bearings and shaft, housing are same as the double-direction angular contact thrust ball bearings which is mentioned in the previous section.

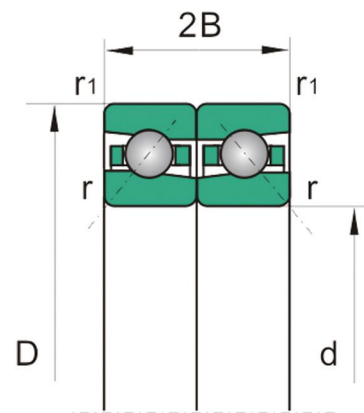


— Designation of high-speed angular contact thrust ball bearings / 高速推力角接触球轴承代号示例 —

High-speed Angular Contact Thrust Ball Bearings

高速推力角接触球轴承

BAR BTR //

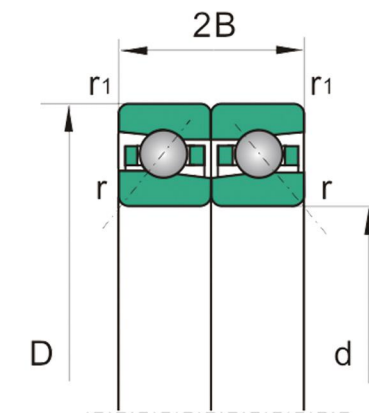


轴承代号 Bearing designations	外形尺寸 Boundary dimensions					额定载荷 Load rating		极限转速 Limiting speed	
	d	D	2B	r _{smin}	r _{1smin}	Ca	Coa	脂 Grease	油 Oil
	mm					KN		r/min	
BAR508028.5	50	80	28.5	1.0	0.6	19.2	42.5	10500	14000
BTR508028.5		80	28.5	1.0	0.6	22.3	48.5	9000	12000
BAR559033	55	90	33	1.1	0.6	23.8	54.0	9500	12500
BTR559033		90	33	1.1	0.6	28.2	61.5	8500	11000
BAR609533	60	95	33	1.1	0.6	24.7	59.0	9000	12000
BTR609533		95	33	1.1	0.6	29.3	67.0	8000	10000
BAR6510033	65	100	33	1.1	0.6	25.5	64.0	8500	11000
BTR6510033		100	33	1.1	0.6	30.5	72.5	7500	9500
BAR7011036	70	110	36	1.1	0.6	35.0	84.0	8000	10000
BTR7011036		110	36	1.1	0.6	41.5	95.5	7000	9000
BAR7511536	75	115	36	1.1	0.6	35.5	88.0	7000	9000
BTR7511536		115	36	1.1	0.6	42.0	100	6300	8500
BAR8012540.5	80	125	40.5	1.1	0.6	41.5	105	7000	9000
BTR8012540.5		125	40.5	1.1	0.6	49.5	119	6000	8000
BAR8513040.5	85	130	40.5	1.1	0.6	42.0	109	6300	8000
BTR8513040.5		130	40.5	1.1	0.6	50.0	124	5600	7500
BAR90140445	90	140	45	1.5	1.0	55.5	142	6000	7500
BTR90140445		140	45	1.5	1.0	65.5	161	5000	7000
BAR9514545	95	145	45	1.5	1.0	56.0	148	6000	7500
BTR9514545		145	45	1.5	1.0	66.5	168	4800	6300
BAR10015045	100	150	45	1.5	1.0	57.0	154	5300	7000
BTR10015045		150	45	1.5	1.0	67.5	175	4500	6000
BAR10516049.5	105	160	49.5	2.0	1.0	64.5	177	5000	6700
BTR10516049.5		160	49.5	2.0	1.0	76.5	201	4300	5600
BAR11017054	110	170	54	2.0	1.0	73.0	201	4800	6300
BTR11017054		170	54	2.0	1.0	86.5	228	4000	5300
BAR12018054	120	180	54	2.0	1.0	75.0	217	4500	6000
BTR12018054		180	54	2.0	1.0	89.0	246	3800	5000

High-speed Angular Contact Thrust Ball Bearings

高速推力角接触球轴承

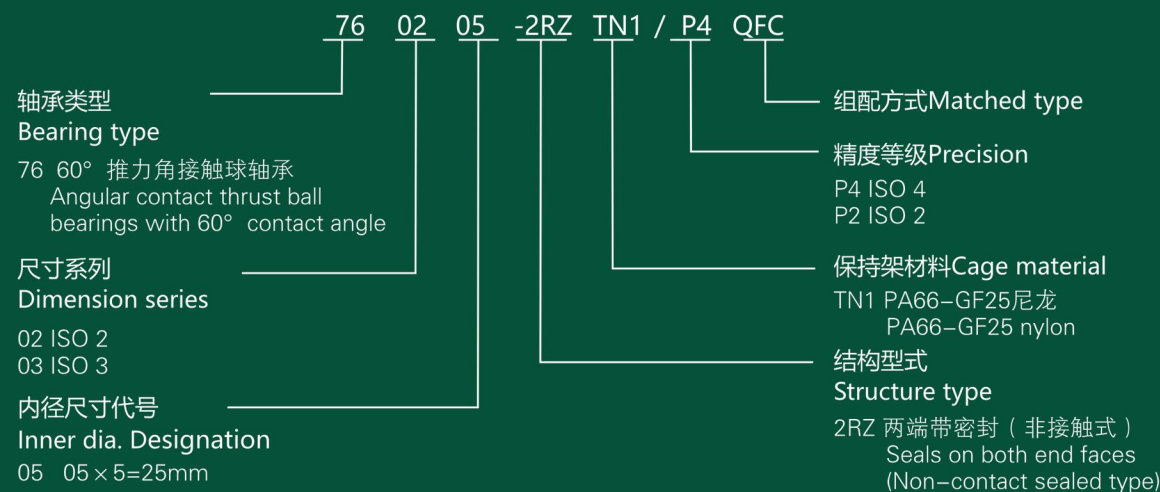
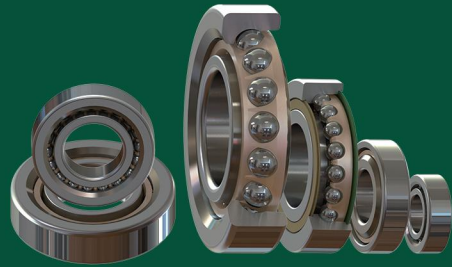
BAR BTR //



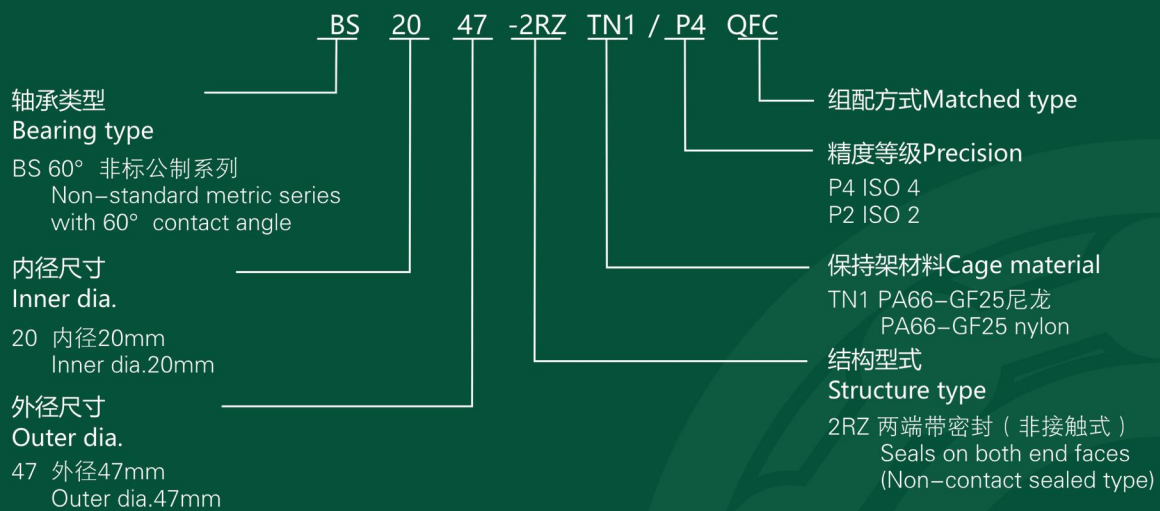
轴承代号 Bearing designations	外形尺寸 Boundary dimensions					额定载荷 Load rating		极限转速 Limiting speed	
	d	D	2B	r _{smin}	r _{1smin}	Ca	Coa	脂 Grease	油 Oil
	mm					KN		r/min	
BAR13020063	130	200	63	2.0	1.0	94.5	262	4000	5300
BTR13020063		200	63	2.0	1.0	112	299	3400	4500
BAR14021063	140	210	63	2.0	1.0	103	305	3800	5000
BTR14021063		210	63	2.0	1.0	122	345	3200	4300
BAR15022567.5	150	225	67.5	2.1	1.1	121	360	3800	5000
BTR15022567.5		225	67.5	2.1	1.1	143	410	3200	4300
BAR16024072	160	240	72	2.1	1.1	131	395	3600	4800
BTR16024072		240	72	2.1	1.1	155	450	3000	4000
BAR17026081	170	260	81	2.1	1.1	154	470	3400	4500
BTR17026081		260	81	2.1	1.1	182	535	2800	3800
BAR18028090	180	280	90	2.1	1.1	197	590	3200	4300
BTR18028090		280	90	2.1	1.1	234	670	2600	3600
BAR19029090	190	290	90	2.1	1.1	200	615	3000	4000
BTR19029090		290	90	2.1	1.1	238	700	2400	3200
BAR20031099	200	310	99	2.1	1.1	222	680	2600	3600
BTR20031099		310	99	2.1	1.1	263	770	2000	3000

High-Precision Ball Screw Support Bearings

高精度滚珠丝杠轴承 >>>



— Designation of standard metric series ball screw support bearings / 标准公制系列滚珠丝杠球轴承代号示例 —

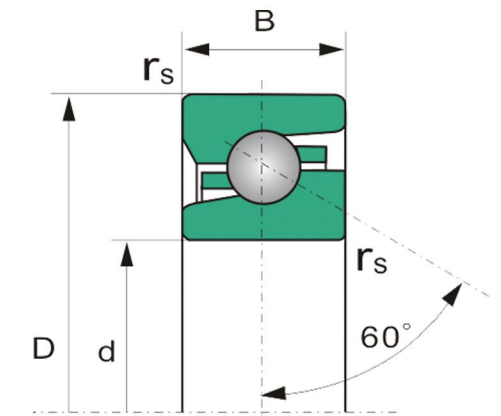


— Designation of non-standard metric series ball screw support bearings / 非标公制系列滚珠丝杠球轴承代号示例 —

Ball Screw Support Ball Bearings

滚珠丝杠球轴承

7602 7603 BS //

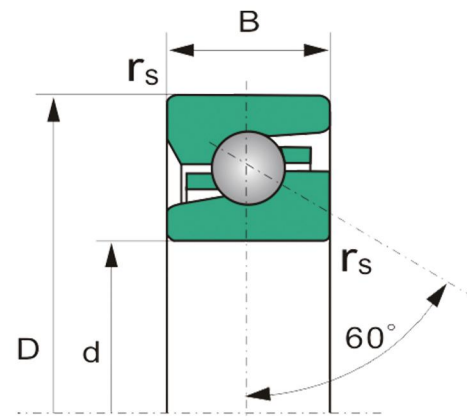


轴承代号 Bearing designations	外形尺寸 Boundary dimensions				额定载荷 Load rating		极限转速 Limiting speed
	d	D	B	r _{smin}	Ca	Coa	脂 Grease
	mm				KN		r/min
760201	12	32	10	0.6	11.6	12.5	17000
760202	15	35	11	0.6	12.5	15	15000
BS1547		47	15	1	21.5	27	12000
760203	17	40	12	0.6	16.6	20	13000
BS1747		47	15	1	21.5	27	12000
760204	20	47	14	1	19.3	25	12000
760304		52	15	1.1	24.5	32	11000
BS2047		47	15	1	19.3	25	12000
760205	25	52	15	1	22	30.5	11000
760305		62	17	1.1	28.5	41.5	9000
BS2562		62	15	1	28.5	41.5	9000
760206	30	62	16	1	26	39	9000
760306		72	19	1.1	34.5	55	8000
BS3062		62	15	1	26	39	9000
BS3072		72	15	1	31	54	8000
760207	35	72	17	1.1	30	50	8000
760307		80	21	1.5	36.5	61	7000
BS3572		72	15	1	30	50	8000
760208	40	80	18	1.1	37.5	64	7000
760308		90	23	1.5	50	83	6300
BS4072		72	15	1	28	49	8000
BS4090		90	20	1.5	50	83	6300
760209	45	85	19	1.1	38	68	6700
760309		100	25	1.5	58.5	104	5600
BS4575		75	15	1	28.5	52	7500
BS45100		100	20	1.5	58.8	104	5600
760210	50	90	20	1.1	39	75	6300
760310		110	27	2	69.5	127	5000
BS50100		100	20	1.5	58.5	104	5600
760211	55	100	21	1.5	40.5	81.5	6000
760311		120	29	2	78	146	4800
BS5590		90	15	1	32.5	65.5	6300
BS55100		100	20	1.5	40.5	81.5	6000
BS55120		120	20	1.5	60	116	5000

Ball Screw Support Ball Bearings

滚珠丝杠球轴承

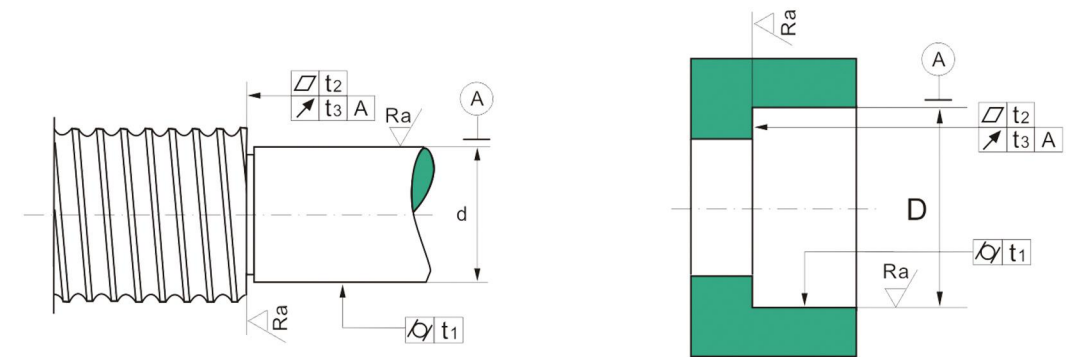
7602 7603 BS //



轴承代号 Bearing designations	外形尺寸 Boundary dimensions				额定载荷 Load rating		极限转速 Limiting speed
	d	D	B	rsmin	Ca	Coa	脂 Grease
	mm				KN		r/min
760212	60	110	22	1.5	56	112	5000
760312		130	31	2.1	88	166	4500
BS60120		120	20	1.5	61	120	4800
760213	65	120	23	1.5	57	122	4800
760313		140	33	2.1	100	196	4000
760214	70	125	24	1.5	65.5	137	4500
760314		150	35	2.1	110	220	3800
760215	75	130	25	1.5	67	150	4300
760315		160	37	2.1	125	255	3600
BS75110		110	15	1.5	35.5	83	5000
760216	80	140	26	2	76.5	175	4000
760316		170	39	2.1	137	285	3400
760217	85	150	28	2	86.5	196	3800
760317		180	41	3	160	325	3200
760218	90	160	30	2	98	224	3600
760318		190	43	3	163	345	3000
760219	95	170	32	2.1	110	255	3400
760319		200	45	3	163	360	3000
760220	100	180	34	2.1	122	285	3200
760320		215	47	3	193	430	2600
BS100150		150	22.5	2	69.5	173	3800
760222	110	200	38	2.1	146	355	2800
760322		240	50	3	250	560	2400
760224	120	215	40	2.1	176	425	2600
760324		260	55	3	265	620	2200
760226	130	230	40	3	180	455	2400
760326		280	58	3	290	695	2000

Tolerances of fitting parts for ball screw support bearings

滚珠丝杠轴承配合轴和轴承座的公差



轴径 Shaft diameter d(mm)	超过From 到up to	10 18	18 30	30 50	50 80	80 120	120 180	180 250	250 315
公差 Tolerance	上偏差 Upper deviation	0	0	0	0	0	0	0	0
	下偏差 Lower deviation	-8	-9	-11	-13	-15	-18	-20	-23
圆柱度 Cylindricity	t1	2	2.5	2.5	3	4	5	7	8
平面度 Flatness	t2	1.2	1.5	1.5	2	2.5	3.5	4.5	6
端面跳动 End face runout	t3	2	2.5	2.5	3	4	5	7	8
表面粗糙度 Roughness	Ra	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.8

— Tolerances of fitting shaft for ball screw support bearings (μm) / 滚珠丝杠球轴承配合轴推荐公差 —

轴径 Shaft diameter d(mm)	超过From 到up to	18 30	30 50	50 80	80 120	120 180	180 250	250 315	315 400
公差 Tolerance	上偏差 Upper deviation	+8	+10	+13	+16	+18	+22	+25	+29
	下偏差 Lower deviation	-5	-6	-6	-6	-7	-7	-7	-7
圆柱度 Cylindricity	t1	2.5	2.5	3	4	5	7	8	9
平面度 Flatness	t2	2.5	2.5	3	4	5	7	8	9
端面跳动 End face runout	t3	4	4	5	6	8	10	12	13
表面粗糙度 Roughness	Ra	0.8	0.8	0.8	0.8	0.8	0.8	1.6	1.6

— Tolerances of fitting housing for ball screw support bearings (μm) / 滚珠丝杠球轴承配合轴承座推荐公差 —

Cylindrical Roller Thrust Bearings

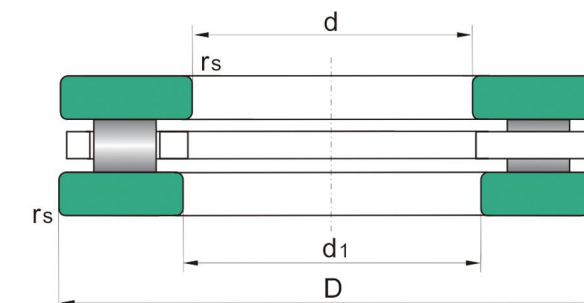
推力圆柱滚子轴承 >>>



Cylindrical Roller Thrust Bearings

推力圆柱滚子轴承

811 //



轴承代号 Bearing designations	外形尺寸 Boundary dimensions					额定载荷 Load rating		极限转速 Limiting speed	
	d	d1	D	T	r _{smin}	Ca	Coa	脂 Grease	油 Oil
	mm					KN		r/min	
81109	45	47	65	14	0.6	45	153	2200	4500
81110	50	52	70	14	0.6	47.5	166	2200	4300
81111	55	57	78	16	0.6	69.5	285	1900	3800
81112	60	62	85	17	1	80	300	1800	3600
81113	65	67	90	18	1	83	320	1700	3400
81114	70	72	95	18	1	86.5	345	1700	3400
81115	75	77	100	19	1	83	335	1600	3200
81116	80	82	105	19	1	81.5	335	1500	3000
81117	85	87	110	19	1	88	365	1500	3000
81118	90	92	120	22	1	110	450	1300	2600
81120	100	102	135	25	1	156	630	1200	2400
81122	110	112	145	25	1	163	680	1100	2200
81124	120	122	155	25	1	170	735	1100	2200
81126	130	132	170	30	1	200	880	950	1900
81128	140	142	180	31	1	208	930	900	1800
81130	150	152	190	31	1	212	1000	850	1700
81132	160	162	200	31	1	216	1020	850	1700
81134	170	172	215	34	1.1	285	1340	800	1600
81136	180	183	225	34	1.1	270	1270	750	1500
81138	190	193	240	37	1.1	310	1460	700	1400
81140	200	203	250	37	1.1	310	1500	700	1400
81144	220	223	270	37	1.1	335	1700	670	1300
81148	240	243	300	45	1.5	475	2450	560	1100
81152	260	263	320	45	1.5	490	2600	530	1100
81156	280	283	350	53	1.5	680	3550	480	950
81160	300	304	380	62	2	850	4400	430	850
81164	320	324	400	63	2	880	4650	400	800