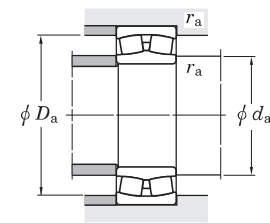
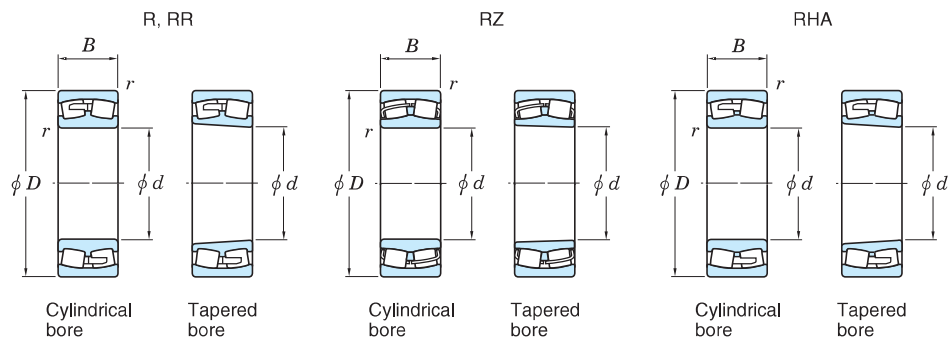


Spherical roller bearings

d 25 ~ 70 mm

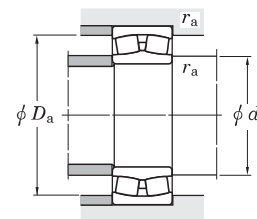
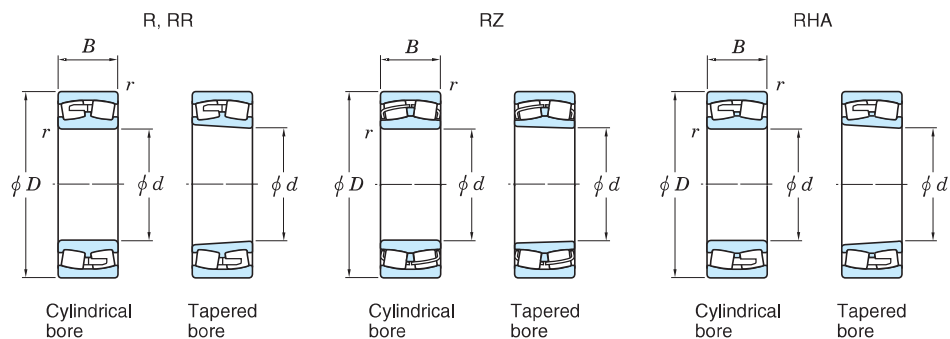


Boundary dimensions (mm)				Basic load ratings (kN)		Fatigue load limit (kN)	Limiting speeds (min ⁻¹)		Bearing No.		Mounting dimensions (mm)					Constant	Axial load factors			(Refer.) Mass (kg)		
d	D	B	r min.	C _r	C _{0r}	C _u	Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	d _a min.	d _a max.	D _a max.	d _a min.	r _a max.	e	Y ₁	Y ₂	Y ₀	Cylindrical bore	Tapered bore	
25	52	18	1	56.8	48.1	3.90	9 600	12 800	22205RZ	22205RZK	31	31	46	46	1	0.35	1.91	2.85	1.87	0.188	0.184	
30	62	20	1	76.6	65.9	5.30	8 100	10 900	22206RZ	22206RZK	36	36.5	56	55.5	1	0.33	2.04	3.04	2.00	0.296	0.290	
		72	19	1.1	74.2	62.7	4.80	7 200	9 600	21306RZ	21306RZK	37	41.5	65	61.5	1	0.27	2.49	3.71	2.43	0.430	0.424
35	72	23	1.1	100	88.7	7.75	6 900	9 200	22207RZ	22207RZK	42	42.5	65	64	1	0.32	2.09	3.11	2.04	0.459	0.449	
		80	21	1.5	86.8	75.8	5.90	6 200	8 300	21307RZ	21307RZK	43.5	46.5	71.5	68.5	1.5	0.27	2.49	3.71	2.43	0.572	0.564
40	80	23	1.1	114	102	9.55	6 200	8 300	22208RZ	22208RZK	47	49	73	72.5	1	0.28	2.37	3.53	2.32	0.602	0.591	
		90	23	1.5	105	95.5	7.55	5 600	7 600	21308RZ	21308RZK	48.5	53.5	81.5	77	1.5	0.26	2.55	3.80	2.50	0.781	0.770
		90	33	1.5	170	152	11.8	5 600	7 600	22308RZ	22308RZK	48.5	51	81.5	78.5	1.5	0.37	1.83	2.72	1.79	1.08	1.06
45	85	23	1.1	119	110	10.2	5 800	7 700	22209RZ	22209RZK	52	53.5	78	77.5	1	0.26	2.55	3.80	2.50	0.602	0.590	
		100	25	1.5	132	124	9.95	5 000	6 700	21309RZ	21309RZK	53.5	60	91.5	86	1.5	0.26	2.62	3.90	2.56	1.05	1.04
		100	36	1.5	208	183	13.8	5 100	6 700	22309RZ	22309RZK	53.5	55.5	91.5	87	1.5	0.37	1.83	2.72	1.79	1.42	1.39
50	90	23	1.1	128	122	12.7	5 400	7 200	22210RZ	22210RZK	57	58.5	83	82.5	1	0.24	2.79	4.15	2.73	0.648	0.634	
		110	27	2	157	151	12.0	4 500	6 100	21310RZ	21310RZK	60	67	100	94.5	2	0.25	2.71	4.04	2.65	1.37	1.35
		110	40	2	255	237	17.5	4 500	6 200	22310RZ	22310RZK	60	62.5	100	95.5	2	0.36	1.85	2.76	1.81	1.92	1.88
55	100	25	1.5	154	144	15.0	4 700	6 300	22211RZ	22211RZK	63.5	64	91.5	91.5	1.5	0.24	2.84	4.23	2.78	0.867	0.849	
		120	29	2	180	165	13.0	4 100	5 600	21311RZ	21311RZK	65	71.5	110	101.5	2	0.25	2.71	4.03	2.65	1.69	1.67
		120	43	2	296	264	21.1	4 100	5 500	22311RZ	22311RZK	65	66	110	104	2	0.36	1.85	2.76	1.81	2.40	2.35
60	110	28	1.5	190	181	18.7	4 300	5 800	22212RZ	22212RZK	68.5	70	101.5	100	1.5	0.25	2.74	4.08	2.68	1.19	1.17	
		130	31	2.1	210	193	15.1	3 900	5 100	21312RZ	21312RZK	72	77.5	118	110	2	0.24	2.78	4.14	2.72	2.11	2.08
		130	46	2.1	354	334	24.9	3 900	5 100	22312RZ	22312RZK	72	73.5	118	113	2	0.36	1.86	2.77	1.82	3.06	2.99
65	120	31	1.5	222	211	20.7	4 000	5 200	22213RZ	22213RZK	73.5	76	111.5	109	1.5	0.25	2.69	4.00	2.63	1.55	1.52	
		140	33	2.1	242	232	19.8	3 600	4 700	21313RZ	21313RZK	77	85.5	128	119	2	0.24	2.83	4.21	2.76	2.62	2.58
		140	48	2.1	382	360	30.8	3 600	4 700	22313RZ	22313RZK	77	79.5	128	122	2	0.34	1.98	2.94	1.93	3.66	3.58
70	125	31	1.5	233	222	24.4	3 700	5 000	22214RZ	22214RZK	78.5	80	116.5	114	1.5	0.24	2.87	4.27	2.80	1.64	1.61	
		150	35	2.1	268	260	21.6	3 300	4 400	21314RZ	21314RZK	82	91	138	126.5	2	0.24	2.84	4.23	2.78	3.19	3.15
		150	51	2.1	435	413	35.0	3 300	4 400	22314RZ	22314RZK	82	85.5	138	131	2	0.34	1.98	2.94	1.93	4.45	4.36

[Remark] Standard cage types used for the above bearings are shown in Table 5 earlier in this section.

Spherical roller bearings

d 75 ~ (110) mm

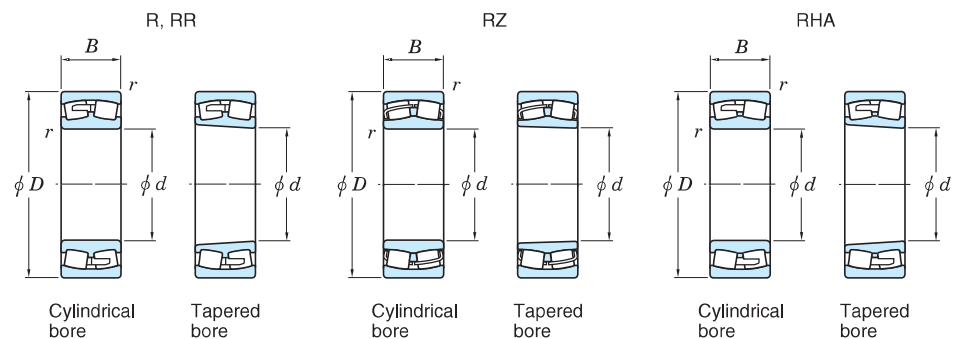


Boundary dimensions (mm)				Basic load ratings (kN)		Fatigue load limit (kN)	Limiting speeds (min ⁻¹)		Bearing No.		Mounting dimensions (mm)					Constant	Axial load factors			(Refer.) Mass (kg)	
d	D	B	r min.	C _r	C _{0r}	C _u	Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	d _a min.	d _a max.	D _a max.	D _a min.	r _a max.	e	Y ₁	Y ₂	Y ₀	Cylindrical bore	Tapered bore
75	130	31	1.5	241	236	28.2	3 600	4 700	22215RZ	22215RZK	83.5	85.5	121.5	119	1.5	0.22	3.07	4.57	3.00	1.73	1.69
	160	37	2.1	306	298	24.3	3 000	4 100	21315RZ	21315RZK	87	98	148	138	2	0.24	2.87	4.27	2.80	3.81	3.76
	160	55	2.1	492	473	38.4	3 000	4 100	22315RZ	22315RZK	87	91	148	139.5	2	0.35	1.95	2.90	1.91	5.45	5.33
80	140	33	2	271	271	30.5	3 300	4 400	22216RZ	22216RZK	90	92	130	128	2	0.22	3.07	4.57	3.00	2.17	2.13
	140	44.4	2	305	342	31.2	3 300	4 400	23216RZ	23216RZK	90	93	130	124	2	0.29	2.35	3.50	2.30	2.95	2.86
	170	39	2.1	344	339	27.5	2 900	3 900	21316RZ	21316RZK	92	104	158	146	2	0.23	2.88	4.29	2.82	4.53	4.47
	170	58	2.1	539	521	41.7	2 900	3 900	22316RZ	22316RZK	92	97	158	148	2	0.35	1.95	2.90	1.91	6.44	6.30
85	150	36	2	322	324	35.7	3 000	4 100	22217RZ	22217RZK	95	97	140	137	2	0.22	3.01	4.48	2.94	2.75	2.69
	150	49.2	2	358	410	36.2	3 000	4 100	23217RZ	23217RZK	95	99	140	134	2	0.30	2.25	3.34	2.20	3.78	3.67
	180	41	3	374	372	29.6	2 800	3 600	21317RZ	21317RZK	99	109	166	154	2.5	0.23	2.89	4.33	2.83	5.32	5.25
	180	60	3	601	586	47.8	2 800	3 600	22317RZ	22317RZK	99	103	166	157	2.5	0.33	2.02	3.00	1.97	7.47	7.31
90	160	40	2	372	381	39.2	2 900	3 900	22218RZ	22218RZK	100	104	150	145	2	0.24	2.79	4.15	2.73	3.50	3.43
	160	52.4	2	421	482	42.9	2 900	3 900	23218RZ	23218RZK	100	103	150	141	2	0.32	2.14	3.19	2.09	4.63	4.50
	190	43	3	413	416	32.9	2 600	3 400	21318RZ	21318RZK	104	116	176	162	2.5	0.23	2.91	4.30	2.84	6.20	6.11
	190	64	3	672	662	50.5	2 600	3 400	22318RZ	22318RZK	104	108	176	166	2.5	0.34	2.00	2.98	1.96	8.82	8.63
95	170	43	2.1	417	422	42.7	2 800	3 600	22219RZ	22219RZK	107	109	158	154	2	0.24	2.76	4.11	2.70	4.24	4.15
	170	55.6	2.1	457	516	43.9	2 800	3 600	23219RZ	23219RZK	107	110	158	150	2	0.30	2.25	3.34	2.20	5.50	5.35
	200	45	3	452	461	36.3	2 500	3 200	21319RZ	21319RZK	109	123	186	171	2.5	0.23	2.92	4.35	2.86	7.16	7.06
	200	67	3	733	726	55.6	2 500	3 200	22319RZ	22319RZK	109	114	186	174	2.5	0.33	2.02	3.00	1.97	10.2	9.98
100	150	37	1.5	262	332	33.7	2 900	3 900	23020RZ	23020RZK	109	110	141	138	1.5	0.22	3.01	4.48	2.94	2.34	2.27
	165	52	2	412	510	48.5	2 800	3 600	23120RZ	23120RZK	110	114	155	147	2	0.29	2.33	3.47	2.28	4.52	4.38
	180	46	2.1	470	481	47.6	2 600	3 400	22220RZ	22220RZK	112	115	168	163	2	0.25	2.74	4.08	2.68	5.11	5.00
	180	60.3	2.1	533	629	53.5	2 600	3 400	23220RZ	23220RZK	112	116	168	157	2	0.32	2.09	3.11	2.04	6.85	6.66
	215	47	3	519	524	40.2	2 200	3 000	21320RZ	21320RZK	114	131	201	184	2.5	0.22	3.02	4.49	2.95	8.79	8.68
	215	73	3	875	877	63.9	2 200	3 000	22320RZ	22320RZK	114	121	201	187	2.5	0.35	1.95	2.90	1.91	13.2	12.9
110	170	45	2	377	486	48.4	2 600	3 400	23022RZ	23022RZK	120	123	160	156	2	0.24	2.84	4.23	2.78	3.85	3.74

[Remark] Standard cage types used for the above bearings are shown in Table 5 earlier in this section.

Spherical roller bearings

d (110) ~ 140 mm

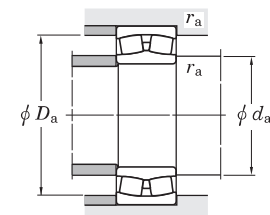
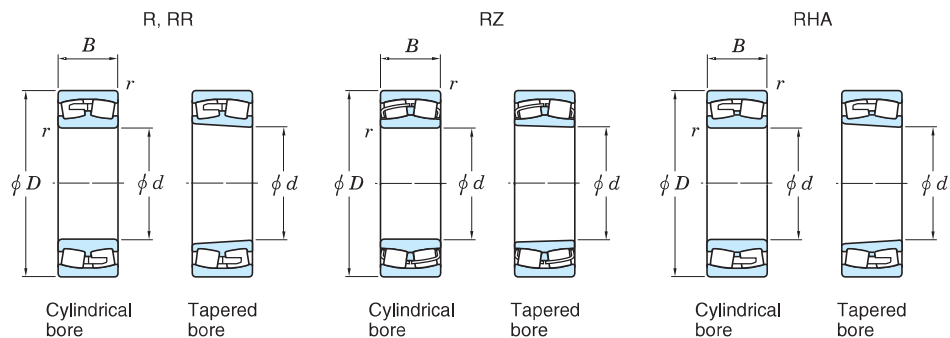


Boundary dimensions (mm)	Basic load ratings (kN)		Fatigue load limit (kN) C _u	Limiting speeds (min ⁻¹)		Bearing No.		Mounting dimensions (mm)					Con- stant e	Axial load factors			(Refer.) Mass (kg)				
	d	D		B	r min.	C _r	C _{0r}	Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	d _a min.		d _a max.	D _a max.	D _a min.	r _a max.	Y ₁	Y ₂	Y ₀	Cylindrical bore
110	170	60	2	472	647	58.6	2 600	3 600	24022RZ	24022RZK30	120	120	160	151	2	0.32	2.08	3.10	2.04	5.07	4.99
	180	56	2	484	605	53.7	2 500	3 300	23122RZ	23122RZK	120	125	170	161	2	0.29	2.36	3.51	2.31	5.72	5.54
	180	69	2	569	778	63.4	2 500	3 300	24122RZ	24122RZK30	120	120	170	154	2	0.37	1.84	2.74	1.80	6.98	6.87
	200	53	2.1	612	642	58.7	2 300	3 000	22222RZ	22222RZK	122	127	188	180	2	0.26	2.64	3.93	2.58	7.37	7.21
	200	69.8	2.1	672	792	65.4	2 300	3 000	23222RZ	23222RZK	122	127	188	173	2	0.34	1.99	2.96	1.94	9.76	9.48
	240	50	3	604	616	46.0	1 900	2 600	21322RZ	21322RZK	124	147	226	205	2.5	0.21	3.19	4.75	3.12	11.8	11.7
	240	80	3	1 040	1 040	77.7	1 900	2 600	22322RZ	22322RZK	124	136	226	208	2.5	0.33	2.03	3.02	1.98	18.1	17.7
120	180	46	2	394	524	51.6	2 300	3 200	23024RZ	23024RZK	130	132	170	165	2	0.23	2.95	4.40	2.89	4.20	4.07
	180	60	2	484	709	61.8	2 300	3 200	24024RZ	24024RZK30	130	130	170	160	2	0.30	2.23	3.32	2.18	5.43	5.34
	200	62	2	571	714	61.2	2 200	3 000	23124RZ	23124RZK	130	137	190	176	2	0.29	2.34	3.49	2.29	7.98	7.74
	200	80	2	733	1 020	78.6	2 200	3 000	24124RZ	24124RZK30	130	133	190	172	2	0.38	1.75	2.61	1.72	10.2	10.0
	215	58	2.1	706	764	67.2	2 100	2 800	22224RZ	22224RZK	132	138	203	193	2	0.26	2.60	3.87	2.54	9.31	9.10
	215	76	2.1	772	956	78.9	2 100	2 900	23224RZ	23224RZK	132	139	203	185	2	0.34	1.97	2.94	1.93	12.2	11.8
	260	86	3	1 120	1 130	87.2	1 800	2 500	22324RZ	22324RZK	134	149	246	228	2.5	0.33	2.03	3.02	1.98	22.8	22.3
130	200	52	2	509	674	63.6	2 200	2 900	23026RZ	23026RZK	140	145	190	182	2	0.24	2.87	4.27	2.80	6.15	5.97
	200	69	2	625	914	77.3	2 200	2 900	24026RZ	24026RZK30	140	143	190	177	2	0.32	2.14	3.18	2.09	8.03	7.90
	210	64	2	621	799	68.4	2 100	2 800	23126RZ	23126RZK	140	147	200	187	2	0.28	2.42	3.61	2.37	8.71	8.44
	210	80	2	754	1 080	91.8	2 100	2 800	24126RZ	24126RZK30	140	145	200	184	2	0.36	1.90	2.83	1.86	10.8	10.6
	230	64	3	821	914	74.4	1 900	2 600	22226RZ	22226RZK	144	148	216	206	2.5	0.26	2.55	3.80	2.50	11.6	11.3
	230	80	3	880	1 090	89.4	1 900	2 600	23226RZ	23226RZK	144	151	216	201	2.5	0.33	2.05	3.05	2.00	14.4	14.0
	280	93	4	1 310	1 340	98.6	1 700	2 200	22326RZ	22326RZK	148	160	262	245	3	0.33	2.03	3.02	1.98	28.5	27.9
140	210	53	2	530	723	67.9	2 100	2 800	23028RZ	23028RZK	150	155	200	192	2	0.23	2.98	4.44	2.92	6.62	6.42
	210	69	2	640	957	81.7	2 100	2 800	24028RZ	24028RZK30	150	153	200	188	2	0.30	2.28	3.39	2.23	8.49	8.35
	225	68	2.1	710	940	79.6	1 900	2 600	23128RZ	23128RZK	152	158	213	201	2	0.28	2.45	3.65	2.40	10.6	10.3
	225	85	2.1	853	1 170	90.7	1 900	2 600	24128RZ	24128RZK30	152	153	213	194	2	0.36	1.89	2.82	1.85	13.1	12.9
	250	68	3	947	1 030	85.2	1 800	2 300	22228RZ	22228RZK	154	158	236	224	2.5	0.26	2.60	3.87	2.54	14.5	14.2
	250	88	3	1 020	1 290	103	1 800	2 300	23228RZ	23228RZK	154	161	236	214	2.5	0.34	1.99	2.96	1.95	19.0	18.4
	300	102	4	1 470	1 570	105	1 500	2 100	22328RZ	22328RZK	158	172	282	255	3	0.35	1.95	2.90	1.90	35.7	34.9

[Remark] Standard cage types used for the above bearings are shown in Table 5 earlier in this section.

Spherical roller bearings

d 150 ~ (170) mm

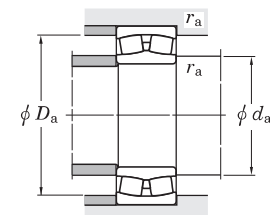
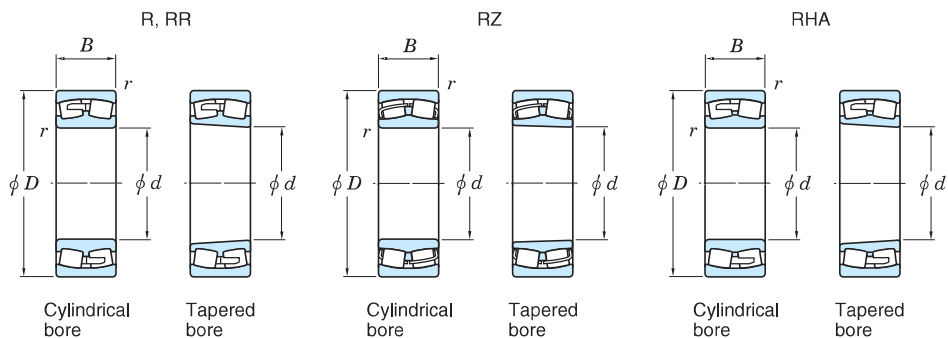


Boundary dimensions (mm)				Basic load ratings (kN)		Fatigue load limit (kN) Cu	Limiting speeds (min ⁻¹)		Bearing No.		Mounting dimensions (mm)					Constant e	Axial load factors			(Refer.) Mass (kg)	
d	D	B	r min.	Cr	Cor		Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	da min.	da max.	Da max.	da min.	ra max.		Y1	Y2	Y0	Cylindrical bore	Tapered bore
150	210	45	2	418	622	62.5	1 600	2 100	23930R	23930RK	160	170	200	195	2	0.20	3.44	5.12	3.36	5.09	4.93
	225	56	2.1	579	797	76.3	1 900	2 500	23030RZ	23030RZK	162	166	213	205	2	0.22	3.04	4.53	2.97	8.01	7.77
	225	75	2.1	724	1 100	90.3	1 900	2 500	24030RZ	24030RZK	162	163	213	199	2	0.30	2.23	3.32	2.18	10.6	10.4
	250	80	2.1	902	1 230	102	1 800	2 300	23130RZ	23130RZK	162	171	238	216	2	0.30	2.24	3.34	2.19	16.4	15.9
	250	100	2.1	1 110	1 590	116	1 800	2 300	24130RZ	24130RZK	162	166	238	213	2	0.38	1.77	2.64	1.73	19.9	19.6
	270	73	3	1 080	1 200	102	1 700	2 200	22230RZ	22230RZK	164	172	256	243	2.5	0.25	2.69	4.00	2.63	18.9	18.5
	270	96	3	1 200	1 540	121	1 700	2 200	23230RZ	23230RZK	164	173	256	230	2.5	0.34	1.96	2.93	1.92	24.5	23.8
	320	108	4	1 540	1 600	175	1 200	1 500	22330R	22330RK	168	195	302	273	3	0.38	1.78	2.64	1.74	43.6	42.7
	320	108	4	1 620	1 740	121	1 200	1 500	22330RHA	22330RHAK	168	196	302	273	3	0.35	1.93	2.87	1.88	40.3	39.4
160	220	45	2	426	649	65.4	1 500	2 000	23932R	23932RK	170	179	210	204	2	0.19	3.60	5.37	3.52	5.37	5.20
	240	60	2.1	667	924	86.0	1 800	2 300	23032RZ	23032RZK	172	177	228	219	2	0.22	3.01	4.48	2.94	9.74	9.44
	240	80	2.1	829	1 270	103	1 800	2 300	24032RZ	24032RZK30	172	175	228	215	2	0.30	2.24	3.34	2.19	12.9	12.7
	270	86	2.1	1 070	1 430	117	1 700	2 200	23132RZ	23132RZK	172	182	258	234	2	0.30	2.22	3.30	2.17	20.8	20.2
	270	109	2.1	1 270	1 720	145	1 300	1 700	24132RR	24132RRK30	172	188	258	230	2	0.39	1.72	2.56	1.68	25.9	25.5
	290	80	3	1 110	1 270	127	1 200	1 600	22232R	22232RK	174	199	276	257	2.5	0.28	2.40	3.57	2.35	23.4	22.9
	290	80	3	1 120	1 320	97.1	1 200	1 600	22232RHA	22232RHAK	174	200	276	257	2.5	0.27	2.49	3.71	2.44	21.9	21.4
	290	104	3	1 290	1 650	163	1 200	1 600	23232R	23232RK	174	194	276	245	2.5	0.38	1.79	2.66	1.75	31.0	30.1
	290	104	3	1 370	1 780	139	1 200	1 600	23232RHA	23232RHAK	174	193	276	245	2.5	0.36	1.87	2.78	1.83	29.4	28.5
	340	114	4	1 720	1 790	188	1 100	1 400	22332R	22332RK	178	207	322	290	3	0.38	1.76	2.62	1.72	51.9	51.0
	340	114	4	1 780	1 940	135	1 100	1 400	22332RHA	22332RHAK	178	210	322	290	3	0.35	1.94	2.89	1.90	48.0	47.1
	170	230	45	2	441	691	69.6	1 400	1 900	23934R	23934RK	180	189	220	214	2	0.18	3.78	5.63	3.70	5.67
260		67	2.1	795	1 090	97.9	1 700	2 200	23034RZ	23034RZK	182	189	248	236	2	0.23	2.90	4.31	2.83	13.2	12.8
260		90	2.1	1 010	1 540	120	1 700	2 200	24034RZ	24034RZK30	182	184	248	227	2	0.32	2.11	3.15	2.07	17.5	17.2
280		88	2.1	1 150	1 550	124	1 500	2 100	23134RZ	23134RZK	182	194	268	249	2	0.29	2.30	3.43	2.25	21.9	21.2
280		109	2.1	1 320	1 820	154	1 200	1 600	24134RR	24134RRK30	182	198	268	241	2	0.37	1.80	2.68	1.76	27.2	26.8
310		86	4	1 190	1 390	141	1 100	1 500	22234R	22234RK	188	212	292	271	3	0.29	2.29	3.41	2.24	29.0	28.4
310		86	4	1 260	1 490	109	1 100	1 500	22234RHA	22234RHAK	188	210	292	271	3	0.28	2.45	3.64	2.39	27.1	26.5
310		110	4	1 560	1 920	127	1 100	1 500	23234RR	23234RRK	188	209	292	268	3	0.37	1.85	2.75	1.80	37.2	36.1
310		110	4	1 520	1 940	147	1 100	1 500	23234RHA	23234RHAK	188	207	292	261	3	0.36	1.89	2.82	1.85	35.6	34.6

[Remark] Standard cage types used for the above bearings are shown in Table 5 earlier in this section.

Spherical roller bearings

d (170) ~ (190) mm

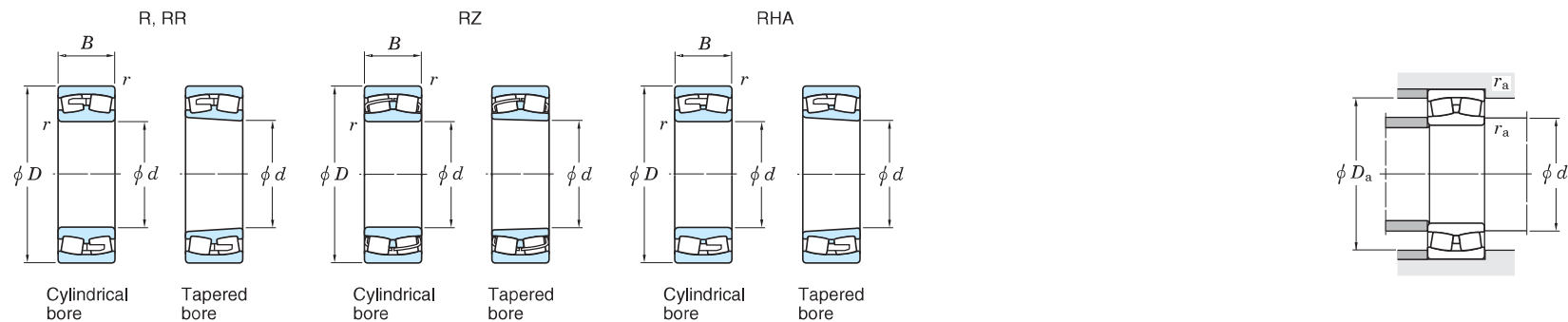


Boundary dimensions (mm)	Basic load ratings (kN)		Fatigue load limit (kN) C _u	Limiting speeds (min ⁻¹)		Bearing No.		Mounting dimensions (mm)					Con- stant e	Axial load factors			(Refer.) Mass (kg)					
	d	D		B	r min.	C _r	C _{0r}	Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	d _a min.		d _a max.	D _a max.	D _a min.	r _a max.	Y ₁	Y ₂	Y ₀	Cylindrical bore	Tapered bore
170	360	120	4	1 830	1 920	206	1 000	1 300	22334R	22334RK	188	221	342	307	3	0.38	1.77	2.64	1.73	62.0	60.8	
	360	120	4	1 990	2 200	150	1 000	1 300	22334RHA	22334RHAK	188	222	342	307	3	0.35	1.95	2.91	1.91	57.3	56.1	
180	250	52	2	599	939	88.9	1 300	1 700	23936R	23936RK	190	203	240	232	2	0.19	3.55	5.29	3.48	8.22	7.97	
	280	74	2.1	966	1 330	118	1 500	1 900	23036RZ	23036RZK	192	202	268	253	2	0.24	2.84	4.23	2.78	17.4	16.9	
	280	100	2.1	1 170	1 710	138	1 200	1 600	24036RR	24036RRK30	192	206	268	246	2	0.34	2.00	2.98	1.96	23.4	23.0	
	300	96	3	1 260	1 800	165	1 100	1 500	23136R	23136RK	194	214	286	259	2.5	0.33	2.04	3.04	2.00	28.4	27.5	
	300	96	3	1 330	1 790	139	1 100	1 500	23136RHA	23136RHAK	194	215	286	265	2.5	0.31	2.19	3.25	2.14	26.5	25.6	
	300	118	3	1 530	2 120	176	1 100	1 500	24136RR	24136RRK30	194	211	286	258	2.5	0.38	1.78	2.65	1.74	34.4	33.9	
	300	118	3	1 510	2 240	155	1 100	1 500	24136RHA	24136RHAK30	194	207	286	255	2.5	0.38	1.79	2.66	1.75	31.8	31.2	
	320	86	4	1 220	1 450	165	1 100	1 400	22236R	22236RK	198	222	302	281	3	0.28	2.37	3.53	2.32	30.5	29.8	
	320	86	4	1 320	1 610	118	1 100	1 400	22236RHA	22236RHAK	198	221	302	281	3	0.26	2.55	3.80	2.50	28.5	27.8	
	320	112	4	1 640	2 100	134	1 100	1 400	23236RR	23236RRK	198	219	302	279	3	0.36	1.87	2.78	1.83	39.8	38.6	
	320	112	4	1 660	2 170	166	1 100	1 400	23236RHA	23236RHAK	198	220	302	277	3	0.34	1.97	2.93	1.92	37.7	36.5	
	380	126	4	2 180	2 360	263	920	1 200	22336R	22336RK	198	237	362	327	3	0.36	1.89	2.81	1.84	71.4	69.9	
	380	126	4	2 180	2 410	163	930	1 200	22336RHA	22336RHAK	198	235	362	323	3	0.34	1.97	2.94	1.93	66.0	64.5	
	190	260	52	2	608	969	90.7	1 200	1 600	23938R	23938RK	200	212	250	241	2	0.18	3.69	5.50	3.61	8.40	8.10
		290	75	2.1	923	1 370	132	1 100	1 500	23038R	23038RK	202	221	278	260	2	0.25	2.67	3.97	2.61	18.8	18.2
290		75	2.1	992	1 430	115	1 100	1 500	23038RHA	23038RHAK	202	219	278	260	2	0.25	2.75	4.10	2.69	17.2	16.6	
290		100	2.1	1 240	1 840	161	1 100	1 500	24038RR	24038RRK30	202	215	278	257	2	0.33	2.06	3.07	2.02	24.5	24.1	
290		100	2.1	1 230	1 920	152	1 100	1 500	24038RHA	24038RHAK30	202	215	278	256	2	0.32	2.14	3.19	2.09	22.4	22.0	
320		104	3	1 370	2 000	162	1 000	1 400	23138R	23138RK	204	229	306	275	2.5	0.34	1.96	2.92	1.92	35.5	34.4	
320		104	3	1 520	2 080	161	1 000	1 400	23138RHA	23138RHAK	204	227	306	281	2.5	0.31	2.14	3.19	2.10	33.2	32.1	
320		128	3	1 750	2 470	198	1 000	1 400	24138RR	24138RRK30	204	223	306	272	2.5	0.39	1.74	2.59	1.70	43.0	42.4	
320		128	3	1 770	2 630	179	1 000	1 400	24138RHA	24138RHAK30	204	222	306	272	2.5	0.38	1.76	2.63	1.72	40.1	39.5	
340		92	4	1 390	1 730	172	1 000	1 300	22238R	22238RK	208	236	322	296	3	0.29	2.29	3.41	2.24	37.4	36.6	
340		92	4	1 420	1 770	128	1 000	1 300	22238RHA	22238RHAK	208	234	322	296	3	0.27	2.52	3.76	2.46	34.9	34.1	
340		120	4	1 830	2 370	160	1 000	1 300	23238RR	23238RRK	208	233	322	294	3	0.36	1.86	2.76	1.81	48.5	47.1	
340		120	4	1 870	2 470	185	990	1 300	23238RHA	23238RHAK	208	233	322	293	3	0.35	1.94	2.89	1.90	44.9	43.5	
400		132	5	2 380	2 610	258	880	1 200	22338R	22338RK	212	248	378	342	4	0.38	1.79	2.66	1.75	84.1	82.4	

[Remark] Standard cage types used for the above bearings are shown in Table 5 earlier in this section.

Spherical roller bearings

d (190) ~ (220) mm

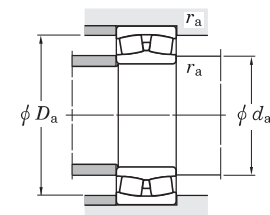
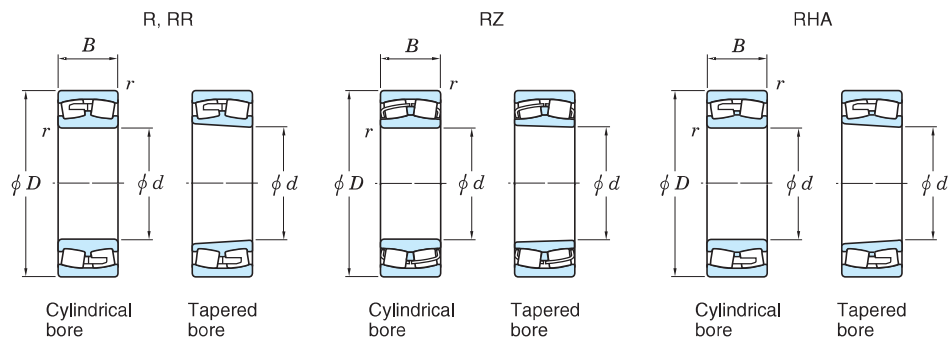


Boundary dimensions (mm)				Basic load ratings (kN)		Fatigue load limit (kN) C _u	Limiting speeds (min ⁻¹)		Bearing No.		Mounting dimensions (mm)					Constant e	Axial load factors			(Refer.) Mass (kg)	
d	D	B	r min.	C _r	C _{0r}		Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	d _a min.	d _a max.	D _a max.	D _a min.	r _a max.		Y ₁	Y ₂	Y ₀	Cylindrical bore	Tapered bore
190	400	132	5	2 430	2 810	192	870	1 200	22338RHA	22338RHAK	212	251	378	342	4	0,34	1,99	2,97	1,95	77,7	76,0
200	280	60	2,1	753	1 190	109	1 100	1 500	23940R	23940RK	212	226	268	259	2	0,20	3,44	5,13	3,37	12,0	11,6
	310	82	2,1	1 120	1 670	155	1 000	1 400	23040R	23040RK	212	235	298	278	2	0,26	2,62	3,90	2,56	24,1	23,4
	310	82	2,1	1 180	1 680	133	1 100	1 400	23040RHA	23040RHAK	212	231	298	278	2	0,25	2,68	3,99	2,62	22,0	21,3
	310	109	2,1	1 430	2 110	180	1 100	1 400	24040RR	24040RRK30	212	228	298	273	2	0,33	2,02	3,00	1,97	31,2	30,7
	310	109	2,1	1 440	2 230	173	1 100	1 400	24040RHA	24040RHAK30	212	227	298	272	2	0,33	2,06	3,07	2,02	28,5	28,0
	340	112	3	1 740	2 350	186	980	1 300	23140RR	23140RRK	214	241	326	298	2,5	0,33	2,04	3,03	1,99	43,3	42,0
	340	112	3	1 730	2 340	178	970	1 300	23140RHA	23140RHAK	214	239	326	297	2,5	0,32	2,10	3,13	2,06	40,8	39,5
	340	140	3	2 030	2 820	222	990	1 300	24140RR	24140RRK30	214	234	326	289	2,5	0,40	1,68	2,49	1,64	53,3	52,5
	340	140	3	2 000	2 970	196	990	1 300	24140RHA	24140RHAK30	214	232	326	286	2,5	0,41	1,65	2,46	1,62	49,5	48,7
	360	98	4	1 620	2 050	138	930	1 200	22240RR	22240RRK	218	252	342	316	3	0,30	2,26	3,36	2,21	45,0	44,0
	360	98	4	1 630	2 030	146	940	1 300	22240RHA	22240RHAK	218	247	342	316	3	0,27	2,50	3,72	2,45	42,0	41,0
	360	128	4	1 950	2 610	228	940	1 300	23240R	23240RK	218	244	342	306	3	0,38	1,79	2,67	1,75	58,1	56,4
	360	128	4	2 080	2 780	209	930	1 200	23240RHA	23240RHAK	218	245	342	309	3	0,35	1,92	2,86	1,88	55,1	53,4
	420	138	5	2 510	2 750	288	830	1 100	22340R	22340RK	222	260	398	359	4	0,38	1,80	2,68	1,76	95,4	93,5
	420	138	5	2 570	2 920	193	820	1 100	22340RHA	22340RHAK	222	262	398	356	4	0,34	1,99	2,97	1,95	88,1	86,2
220	300	60	2,1	792	1 300	119	1 000	1 400	23944R	23944RK	232	246	288	279	2	0,18	3,70	5,50	3,61	13,0	12,6
	340	90	3	1 230	1 890	173	940	1 300	23044R	23044RK	234	256	326	301	2,5	0,26	2,55	3,80	2,50	31,5	30,6
	340	90	3	1 370	1 950	148	940	1 200	23044RHA	23044RHAK	234	255	326	307	2,5	0,25	2,69	4,01	2,63	28,8	27,9
	340	118	3	1 660	2 480	208	950	1 300	24044RR	24044RRK30	234	251	326	300	2,5	0,33	2,04	3,04	2,00	40,5	39,8
	340	118	3	1 680	2 630	199	950	1 300	24044RHA	24044RHAK30	234	248	326	297	2,5	0,33	2,08	3,09	2,03	37,0	36,4
	370	120	4	1 810	2 700	205	880	1 200	23144R	23144RK	238	266	352	319	3	0,34	2,00	2,98	1,96	54,8	53,2
	370	120	4	2 000	2 790	208	870	1 200	23144RHA	23144RHAK	238	263	352	324	3	0,31	2,15	3,20	2,10	51,2	49,6
	370	150	4	2 360	3 390	258	880	1 200	24144RR	24144RRK30	238	258	352	315	3	0,39	1,71	2,55	1,67	67,3	66,2
	370	150	4	2 330	3 550	229	880	1 200	24144RHA	24144RHAK30	238	255	352	313	3	0,40	1,69	2,52	1,65	62,0	61,0
	400	108	4	2 000	2 410	257	820	1 100	22244RR	22244RRK	238	276	382	355	3	0,28	2,40	3,57	2,34	60,3	59,0
	400	108	4	1 980	2 440	168	820	1 100	22244RHA	22244RHAK	238	274	382	349	3	0,27	2,52	3,76	2,47	58,8	57,5
	400	144	4	2 350	3 200	259	830	1 100	23244R	23244RK	238	268	382	336	3	0,39	1,71	2,55	1,68	81,6	79,2
	400	144	4	2 520	3 350	239	810	1 100	23244RHA	23244RHAK	238	272	382	346	3	0,36	1,89	2,81	1,85	77,4	75,0

[Remark] Standard cage types used for the above bearings are shown in Table 5 earlier in this section.

Spherical roller bearings

d (220) ~ (260) mm

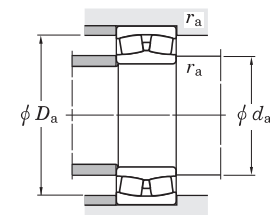
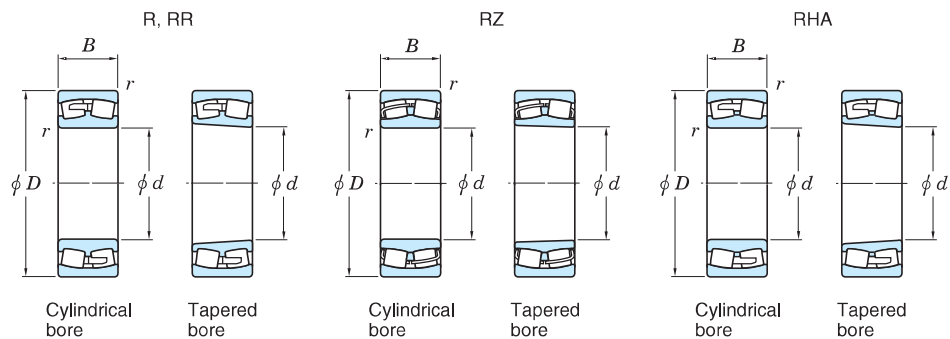


Boundary dimensions (mm)	Basic load ratings (kN)		Fatigue load limit (kN) C _u	Limiting speeds (min ⁻¹)		Bearing No.		Mounting dimensions (mm)					Con- stant e	Axial load factors			(Refer.) Mass (kg)				
	d	D		B	r min.	C _r	C _{0r}	Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	d _a min.		d _a max.	D _a max.	D _a min.	r _a max.	Y ₁	Y ₂	Y ₀	Cylindrical bore
220	460	145	5	2 980	3 380	359	720	960	22344R	22344RK	242	290	438	393	4	0.34	2.00	2.99	1.96	124	122
	460	145	5	2 960	3 470	226	730	970	22344RHA	22344RHAK	242	290	438	390	4	0.32	2.08	3.09	2.03	115	113
240	320	60	2.1	814	1 380	128	940	1 300	23948R	23948RK	252	265	308	298	2	0.17	3.95	5.88	3.86	14.0	13.5
	360	92	3	1 480	2 190	161	860	1 100	23048RR	23048RRK	254	276	346	327	2.5	0.25	2.73	4.07	2.67	33.9	32.9
	360	92	3	1 470	2 180	166	860	1 100	23048RHA	23048RHAK	254	275	346	327	2.5	0.24	2.83	4.21	2.77	31.9	30.9
	360	118	3	1 750	2 710	228	870	1 200	24048RR	24048RRK30	254	272	346	321	2.5	0.31	2.20	3.27	2.15	43.5	42.9
	360	118	3	1 750	2 840	215	870	1 200	24048RHA	24048RHAK30	254	269	346	321	2.5	0.30	2.24	3.33	2.19	39.6	39.0
	400	128	4	2 280	3 220	213	790	1 100	23148RR	23148RRK	258	287	382	353	3	0.32	2.11	3.14	2.06	67.2	65.1
	400	128	4	2 270	3 200	233	790	1 000	23148RHA	23148RHAK	258	286	382	353	3	0.31	2.19	3.25	2.14	63.1	61.1
	400	160	4	2 640	3 850	287	800	1 100	24148RR	24148RRK30	258	280	382	340	3	0.39	1.75	2.60	1.71	82.7	81.4
	400	160	4	2 670	4 130	262	800	1 100	24148RHA	24148RHAK30	258	278	382	340	3	0.39	1.72	2.56	1.68	76.6	75.3
	440	120	4	2 390	2 940	295	730	970	22248R	22248RK	258	299	422	384	3	0.29	2.35	3.50	2.30	85.0	83.2
	440	120	4	2 400	2 990	202	730	970	22248RHA	22248RHAK	258	299	422	384	3	0.27	2.49	3.71	2.43	79.4	77.6
	440	160	4	3 050	3 970	310	730	970	23248RR	23248RRK	258	295	422	376	3	0.38	1.78	2.64	1.74	110	107
	440	160	4	3 080	4 130	289	730	970	23248RHA	23248RHAK	258	295	422	376	3	0.36	1.87	2.78	1.83	104	101
	500	155	5	3 360	4 020	347	650	870	22348R	22348RK	262	320	478	420	4	0.35	1.94	2.89	1.90	157	154
	500	155	5	3 400	3 990	255	650	870	22348RHA	22348RHAK	262	315	478	426	4	0.32	2.12	3.16	2.07	145	142
	260	360	75	2.1	1 140	1 880	160	820	1 100	23952R	23952RK	272	292	348	333	2	0.19	3.54	5.27	3.46	24.0
400		104	4	1 670	2 570	212	760	1 000	23052R	23052RK	278	304	382	359	3	0.25	2.65	3.95	2.59	50.7	49.3
400		104	4	1 850	2 720	201	760	1 000	23052RHA	23052RHAK	278	302	382	359	3	0.25	2.75	4.10	2.69	46.3	44.9
400		140	4	2 280	3 570	282	770	1 000	24052RR	24052RRK30	278	296	382	352	3	0.33	2.02	3.01	1.98	66.3	65.2
400		140	4	2 270	3 670	265	770	1 000	24052RHA	24052RHAK30	278	292	382	347	3	0.33	2.06	3.07	2.02	60.3	59.4
440		144	4	2 760	3 850	231	710	940	23152RR	23152RRK	278	313	422	387	3	0.33	2.05	3.06	2.01	92.2	89.4
440		144	4	2 790	4 000	285	700	930	23152RHA	23152RHAK	278	311	422	384	3	0.32	2.12	3.16	2.08	87.4	84.6
440		180	4	3 250	4 700	345	720	950	24152RR	24152RRK30	278	304	422	374	3	0.40	1.69	2.51	1.65	114	112
440		180	4	3 210	4 950	309	720	950	24152RHA	24152RHAK30	278	299	422	368	3	0.41	1.66	2.47	1.62	106	105
480		130	5	2 800	3 460	347	650	870	22252R	22252RK	282	326	458	419	4	0.28	2.40	3.57	2.35	110	108
480		130	5	2 790	3 430	226	650	870	22252RHA	22252RHAK	282	324	458	418	4	0.27	2.50	3.72	2.44	103	101
480		174	5	3 440	4 640	326	640	860	23252R	23252RK	282	325	458	408	4	0.40	1.69	2.51	1.65	144	140

[Remark] Standard cage types used for the above bearings are shown in Table 5 earlier in this section.

Spherical roller bearings

d (260) ~ (300) mm

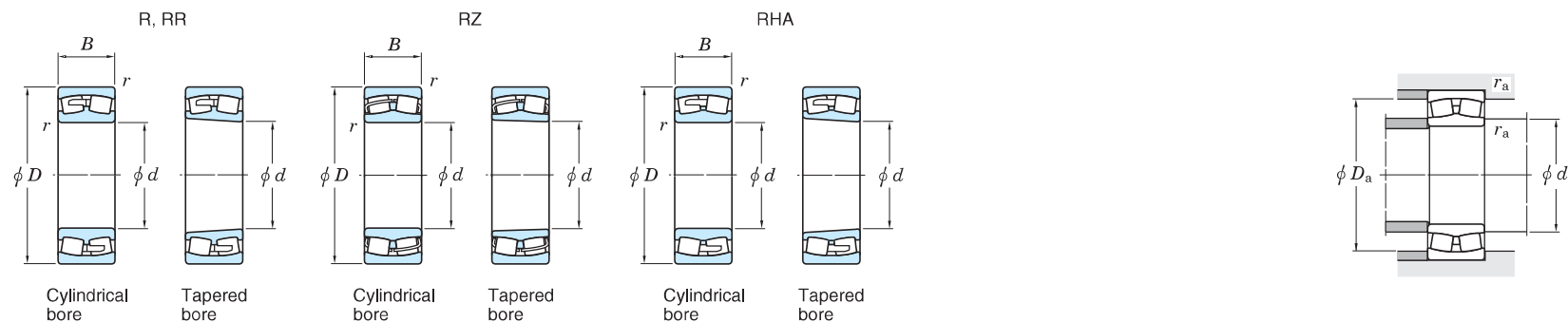


Boundary dimensions (mm)	Basic load ratings (kN)		Fatigue load limit (kN) C _u	Limiting speeds (min ⁻¹)		Bearing No.		Mounting dimensions (mm)					Con- stant e	Axial load factors			(Refer.) Mass (kg)				
	d	D		B	r min.	C _r	C _{0r}	Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	d _a min.		d _a max.	D _a max.	D _a min.	r _a max.	Y ₁	Y ₂	Y ₀	Cylindrical bore
260	480	174	5	3 590	4 900	280	650	860	23252RHA	23252RHAK	282	322	458	408	4	0.36	1.87	2.78	1.83	137	133
	540	165	6	3 540	4 380	363	590	780	22352R	22352RK	288	346	512	453	5	0.35	1.94	2.89	1.90	196	192
	540	165	6	3 900	4 620	290	580	780	22352RHA	22352RHAK	288	342	512	461	5	0.31	2.15	3.21	2.11	181	177
280	380	75	2.1	1 160	1 960	165	760	1 000	23956R	23956RK	292	312	368	353	2	0.18	3.74	5.57	3.66	26.0	25.2
	420	106	4	1 790	2 860	235	710	950	23056R	23056RK	298	322	402	377	3	0.25	2.74	4.08	2.68	54.5	52.9
	420	106	4	1 940	2 950	218	700	940	23056RHA	23056RHAK	298	322	402	380	3	0.24	2.87	4.27	2.80	49.8	48.2
	420	140	4	2 370	3 780	291	710	950	24056RR	24056RRK30	298	316	402	373	3	0.31	2.15	3.21	2.11	70.2	69.1
	420	140	4	2 390	4 000	287	710	950	24056RHA	24056RHAK30	298	314	402	372	3	0.31	2.20	3.28	2.15	64.0	62.9
	460	146	5	2 910	4 160	250	660	880	23156RR	23156RRK	302	332	438	407	4	0.32	2.14	3.18	2.09	98.8	95.7
	460	146	5	2 940	4 290	304	650	870	23156RHA	23156RHAK	302	331	438	406	4	0.30	2.22	3.30	2.17	93.4	90.3
	460	180	5	3 390	5 140	370	660	880	24156RR	24156RRK30	302	326	438	396	4	0.38	1.79	2.67	1.75	122	120
	460	180	5	3 320	5 240	322	660	880	24156RHA	24156RHAK30	302	321	438	390	4	0.38	1.76	2.62	1.72	113	112
	500	130	5	2 640	3 380	308	610	810	22256R	22256RK	302	347	478	438	4	0.28	2.42	3.60	2.37	114	112
	500	130	5	2 900	3 670	240	610	810	22256RHA	22256RHAK	302	346	478	440	4	0.26	2.64	3.93	2.58	106	104
	500	176	5	3 370	4 910	323	610	820	23256R	23256RK	302	345	478	421	4	0.37	1.83	2.72	1.79	153	149
	500	176	5	3 770	5 300	365	600	800	23256RHA	23256RHAK	302	343	478	430	4	0.35	1.95	2.91	1.91	145	141
	580	175	6	3 930	4 910	407	530	710	22356R	22356RK	308	372	552	486	5	0.34	1.98	2.95	1.93	229	225
	580	175	6	4 390	5 260	325	530	700	22356RHA	22356RHAK	308	367	552	495	5	0.31	2.19	3.25	2.14	212	208
300	420	90	3	1 610	2 610	220	680	910	23960R	23960RK	314	336	406	387	2.5	0.20	3.42	5.09	3.34	40.0	38.8
	460	118	4	2 190	3 480	286	630	840	23060R	23060RK	318	351	442	412	3	0.25	2.69	4.00	2.63	75.8	73.7
	460	118	4	2 370	3 700	255	630	840	23060RHA	23060RHAK	318	347	442	416	3	0.24	2.79	4.16	2.73	68.9	66.8
	460	160	4	2 950	4 690	354	640	850	24060RR	24060RRK30	318	342	442	406	3	0.33	2.04	3.04	2.00	99.5	97.9
	460	160	4	2 950	4 910	350	640	850	24060RHA	24060RHAK30	318	338	442	404	3	0.32	2.09	3.11	2.04	90.7	89.1
	500	160	5	3 450	5 030	351	590	790	23160RR	23160RRK	322	358	478	439	4	0.32	2.09	3.11	2.04	131	127
	500	160	5	3 430	4 970	345	580	780	23160RHA	23160RHAK	322	357	478	439	4	0.31	2.18	3.25	2.13	123	119
	500	200	5	4 160	6 280	433	590	790	24160RR	24160RRK30	322	349	478	425	4	0.40	1.67	2.49	1.63	162	160
	500	200	5	4 030	6 420	385	590	790	24160RHA	24160RHAK30	322	347	478	424	4	0.39	1.72	2.56	1.68	150	148
	540	140	5	3 360	4 330	412	550	740	22260R	22260RK	322	368	518	467	4	0.27	2.48	3.69	2.43	145	142
	540	140	5	3 320	4 360	284	550	740	22260RHA	22260RHAK	322	370	518	467	4	0.26	2.62	3.90	2.56	135	132

[Remark] Standard cage types used for the above bearings are shown in Table 5 earlier in this section.

Spherical roller bearings

d (300) ~ (360) mm

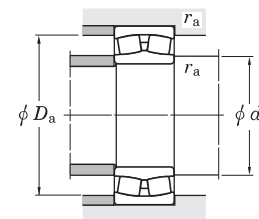
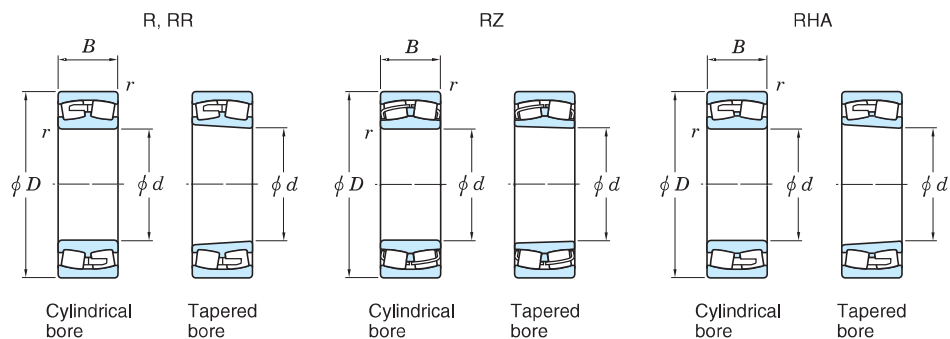


Boundary dimensions (mm)	Basic load ratings (kN)		Fatigue load limit (kN) C _u	Limiting speeds (min ⁻¹)		Bearing No.		Mounting dimensions (mm)					Con- stant e	Axial load factors			(Refer.) Mass (kg)				
	d	D		B	r min.	C _r	C _{0r}	Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	d _a min.		d _a max.	D _a max.	D _a min.	r _a max.	Y ₁	Y ₂	Y ₀	Cylindrical bore
300	540	192	5	4 300	5 910	401	540	720	23260R	23260RK	322	370	518	464	4	0.37	1.83	2.72	1.79	197	192
	540	192	5	4 440	6 310	429	540	720	23260RHA	23260RHAK	322	371	518	464	4	0.35	1.93	2.88	1.89	187	182
	620	185	7.5	4 890	5 430	555	470	630	22360R	22360RK	336	390	584	547	6	0.32	2.09	3.10	2.04	289	284
320	440	90	3	1 670	2 870	233	630	840	23964R	23964RK	334	358	426	408	2.5	0.19	3.61	5.38	3.53	43.0	41.7
	480	121	4	2 290	3 740	295	590	790	23064R	23064RK	338	369	462	431	3	0.24	2.76	4.11	2.70	81.2	78.8
	480	121	4	2 490	3 850	278	590	780	23064RHA	23064RHAK	338	367	462	436	3	0.24	2.87	4.27	2.80	74.5	72.1
	480	160	4	3 020	4 920	382	590	790	24064RR	24064RRK30	338	363	462	427	3	0.31	2.16	3.22	2.11	105	103
	480	160	4	3 060	5 230	363	590	790	24064RHA	24064RHAK30	338	360	462	425	3	0.31	2.21	3.29	2.16	93.4	91.4
	540	176	5	3 650	5 700	366	530	700	23164R	23164RK	342	389	518	467	4	0.33	2.04	3.04	2.00	171	166
	540	176	5	4 040	5 960	404	530	700	23164RHA	23164RHAK	342	383	518	472	4	0.32	2.13	3.17	2.08	160	155
	540	218	5	4 680	6 950	486	530	710	24164RR	24164RRK30	342	373	518	460	4	0.39	1.72	2.56	1.68	208	205
	540	218	5	4 550	7 190	429	530	710	24164RHA	24164RHAK30	342	371	518	458	4	0.40	1.70	2.52	1.66	199	196
	580	150	5	3 420	4 540	385	490	660	22264R	22264RK	342	402	558	504	4	0.28	2.41	3.59	2.35	175	171
	580	208	5	4 550	6 550	496	500	670	23264R	23264RK	342	394	558	488	4	0.38	1.76	2.62	1.72	249	242
	580	208	5	5 020	7 030	464	490	650	23264RHA	23264RHAK	342	392	558	495	4	0.36	1.90	2.83	1.86	236	229
340	460	90	3	1 680	2 980	242	590	790	23968R	23968RK	354	377	446	426	2.5	0.18	3.82	5.69	3.74	45.0	43.6
	520	133	5	2 670	4 330	353	530	710	23068R	23068RK	362	397	498	465	4	0.25	2.69	4.00	2.63	108	105
	520	133	5	2 930	4 470	312	530	710	23068RHA	23068RHAK	362	393	498	468	4	0.24	2.80	4.18	2.74	98.7	95.7
	520	180	5	3 680	5 970	432	530	710	24068RR	24068RRK30	362	387	498	460	4	0.33	2.06	3.06	2.01	142	140
	520	180	5	3 720	6 330	430	530	710	24068RHA	24068RHAK30	362	385	498	459	4	0.32	2.11	3.14	2.06	130	128
	580	190	5	4 130	6 430	472	480	640	23168R	23168RK	362	413	558	497	4	0.34	1.97	2.93	1.93	216	210
	580	190	5	4 620	6 720	449	480	640	23168RHA	23168RHAK	362	407	558	503	4	0.32	2.11	3.14	2.06	202	196
	580	243	5	5 570	8 400	564	490	650	24168RR	24168RRK30	362	396	558	490	4	0.41	1.64	2.45	1.61	270	266
	580	243	5	5 490	8 810	449	490	650	24168RHA	24168RHAK30	362	390	558	482	4	0.42	1.61	2.39	1.57	259	255
	620	165	6	4 430	5 430	551	440	590	22268R	22268RK	368	424	592	551	5	0.28	2.43	3.61	2.37	221	216
	620	224	6	5 130	7 560	526	450	600	23268R	23268RK	368	423	592	521	5	0.38	1.77	2.63	1.73	306	297
	620	224	6	5 690	8 030	517	440	590	23268RHA	23268RHAK	368	418	592	532	5	0.36	1.88	2.81	1.84	290	281
360	480	90	3	1 710	3 060	248	550	730	23972R	23972RK	374	399	466	447	2.5	0.17	3.95	5.88	3.86	46.5	45.0

[Remark] Standard cage types used for the above bearings are shown in Table 5 earlier in this section.

Spherical roller bearings

d (360) ~ (400) mm

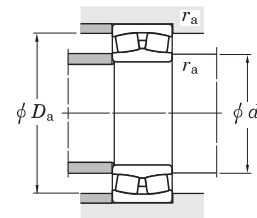
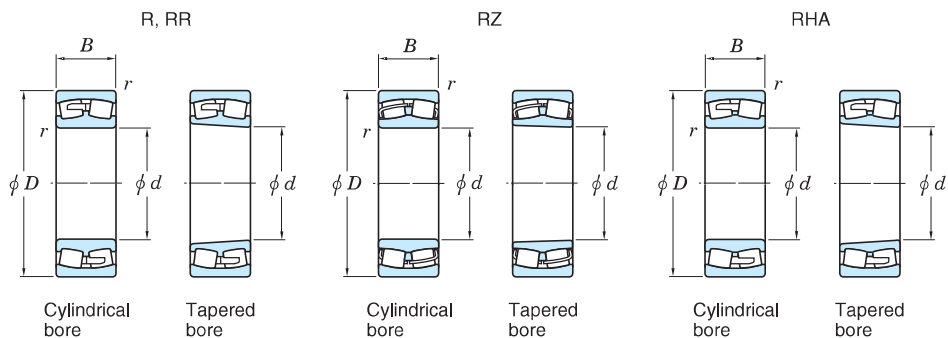


Boundary dimensions (mm)	Basic load ratings (kN)		Fatigue load limit (kN) C_u	Limiting speeds (min^{-1})		Bearing No.		Mounting dimensions (mm)					Constant e	Axial load factors			(Refer.) Mass (kg)				
	d	D		B	r_{min}	C_r	C_{0r}	Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	d_a min.		d_a max.	D_a max.	D_a min.	r_a max.	Y_1	Y_2	Y_0	Cylindrical bore
360	540	134	5	2 860	4 800	375	500	660	23072R	23072RK	382	416	518	484	4	0.24	2.76	4.11	2.70	115	111
	540	134	5	3 040	4 770	334	500	660	23072RHA	23072RHAK	382	414	518	489	4	0.23	2.92	4.34	2.85	105	101
	540	180	5	3 810	6 300	465	500	660	24072RR	24072RRK30	382	407	518	481	4	0.31	2.15	3.21	2.11	149	147
	540	180	5	3 810	6 620	446	500	660	24072RHA	24072RHAK30	382	406	518	480	4	0.30	2.22	3.30	2.17	135	133
	600	192	5	4 740	7 040	459	440	590	23172R	23172RK	382	431	578	527	4	0.33	2.07	3.09	2.03	228	221
	600	192	5	4 830	7 210	474	450	590	23172RHA	23172RHAK	382	429	578	527	4	0.31	2.19	3.25	2.14	213	206
	600	243	5	5 080	7 690	437	450	600	24172R	24172RK30	382	420	578	512	4	0.39	1.74	2.59	1.70	287	283
	600	243	5	5 580	9 180	517	460	610	24172RHA	24172RHAK30	382	413	578	505	4	0.40	1.69	2.51	1.65	274	270
	650	170	6	4 710	5 830	583	410	550	22272R	22272RK	388	447	622	579	5	0.27	2.47	3.68	2.42	248	243
	650	232	6	6 080	8 810	548	410	540	23272R	23272RK	388	446	622	555	5	0.37	1.83	2.72	1.79	346	336
	650	232	6	6 220	9 050	591	410	550	23272RHA	23272RHAK	388	442	622	558	5	0.35	1.92	2.85	1.87	328	318
	380	520	106	4	2 220	3 940	295	500	660	23976R	23976RK	398	425	502	481	3	0.19	3.62	5.39	3.54	70.0
560		135	5	2 910	4 970	355	470	630	23076R	23076RK	402	433	538	503	4	0.24	2.79	4.16	2.73	122	118
560		135	5	3 160	5 080	354	460	620	23076RHA	23076RHAK	402	434	538	512	4	0.22	3.03	4.51	2.96	112	108
560		180	5	3 900	6 590	486	470	620	24076RR	24076RRK30	402	428	538	502	4	0.30	2.26	3.36	2.21	156	154
560		180	5	3 900	6 910	454	470	620	24076RHA	24076RHAK30	402	426	538	502	4	0.29	2.32	3.45	2.27	142	139
620		194	5	4 520	7 320	442	420	560	23176R	23176RK	402	454	598	540	4	0.31	2.18	3.24	2.13	240	233
620		194	5	5 030	7 700	503	420	560	23176RHA	23176RHAK	402	450	598	547	4	0.30	2.26	3.36	2.21	224	217
620		243	5	5 300	8 220	467	430	570	24176R	24176RK30	402	439	598	529	4	0.38	1.78	2.65	1.74	302	297
620		243	5	5 870	9 840	561	420	560	24176RHA	24176RHAK30	402	438	598	534	4	0.38	1.78	2.65	1.74	288	283
680		240	6	6 510	9 500	590	380	500	23276R	23276RK	408	469	652	583	5	0.36	1.85	2.76	1.81	386	375
680		240	6	6 660	9 760	622	380	510	23276RHA	23276RHAK	408	466	652	586	5	0.35	1.94	2.89	1.90	365	354
400		540	106	4	2 350	4 300	320	470	620	23980R	23980RK	418	443	522	500	3	0.18	3.76	5.59	3.67	73.0
	600	148	5	3 390	5 790	408	420	560	23080R	23080RK	422	462	578	540	4	0.24	2.84	4.23	2.78	155	151
	600	148	5	3 690	5 860	398	420	560	23080RHA	23080RHAK	422	460	578	543	4	0.23	2.94	4.37	2.87	142	138
	600	200	5	4 820	8 110	444	430	570	24080R	24080RK30	422	450	578	531	4	0.32	2.09	3.12	2.05	206	203
	600	200	5	4 620	8 140	535	420	570	24080RHA	24080RHAK30	422	450	578	534	4	0.31	2.21	3.29	2.16	192	189
	650	200	6	4 730	7 780	521	390	520	23180R	23180RK	428	476	622	564	5	0.31	2.19	3.25	2.14	273	265

[Remark] Standard cage types used for the above bearings are shown in Table 5 earlier in this section.

Spherical roller bearings

d (400) ~ (460) mm

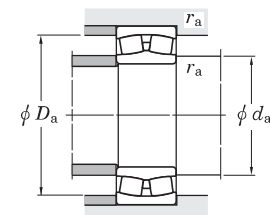
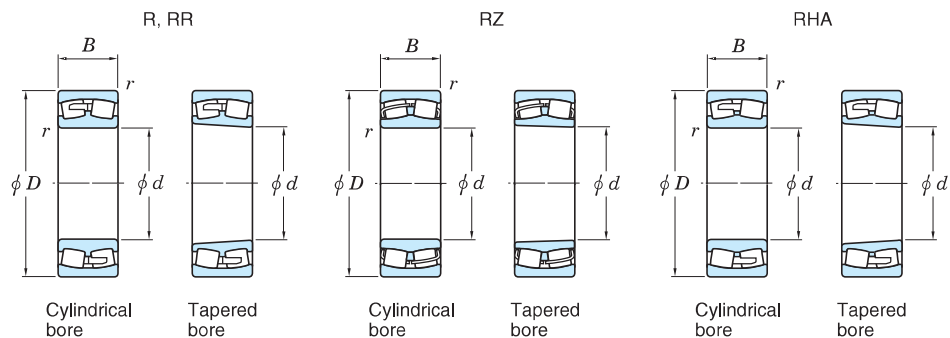


Boundary dimensions (mm)				Basic load ratings (kN)		Fatigue load limit (kN) C _u	Limiting speeds (min ⁻¹)		Bearing No.		Mounting dimensions (mm)					Constant e	Axial load factors			(Refer.) Mass (kg)	
d	D	B	r min.	C _r	C _{0r}		Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	d _a min.	d _a max.	D _a max.	r _a min.	r _a max.		Y ₁	Y ₂	Y ₀	Cylindrical bore	Tapered bore
400	650	200	6	5 410	8 300	542	390	520	23180RHA	23180RHAK	428	473	622	574	5	0.29	2.30	3.43	2.25	255	247
	650	250	6	5 840	9 140	499	390	530	24180R	24180RK30	428	461	622	558	5	0.37	1.82	2.70	1.78	338	333
	650	250	6	6 290	10 600	600	390	520	24180RHA	24180RHAK30	428	462	622	558	5	0.37	1.82	2.71	1.78	322	317
	720	256	6	6 540	9 850	590	350	470	23280R	23280RK	428	496	692	605	5	0.37	1.80	2.69	1.76	468	454
	720	256	6	7 320	10 600	665	350	460	23280RHA	23280RHAK	428	489	692	619	5	0.35	1.92	2.86	1.88	441	427
420	560	106	4	2 330	4 320	331	430	580	23984R	23984RK	438	465	542	522	3	0.17	3.91	5.82	3.82	76.0	73.6
	620	150	5	3 500	6 120	412	400	530	23084R	23084RK	442	483	598	560	4	0.23	2.90	4.31	2.83	164	159
	620	150	5	3 820	6 230	425	400	530	23084RHA	23084RHAK	442	480	598	563	4	0.22	3.02	4.49	2.95	150	145
	620	200	5	4 510	7 600	438	400	530	24084R	24084RK30	442	471	598	554	4	0.30	2.23	3.32	2.18	212	209
	620	200	5	4 730	8 490	555	400	530	24084RHA	24084RHAK30	442	471	598	554	4	0.29	2.31	3.44	2.26	198	195
	700	224	6	5 620	9 110	583	350	470	23184R	23184RK	448	506	672	604	5	0.33	2.03	3.02	1.98	363	352
	700	224	6	6 330	9 630	616	350	470	23184RHA	23184RHAK	448	500	672	615	5	0.31	2.19	3.25	2.14	339	328
	700	280	6	6 840	10 600	574	360	480	24184R	24184RK30	448	486	672	593	5	0.40	1.71	2.54	1.67	445	438
	700	280	6	7 420	12 400	685	350	470	24184RHA	24184RHAK30	448	486	672	596	5	0.39	1.72	2.56	1.68	425	418
	760	272	7.5	8 130	11 500	754	320	430	23284R	23284RK	456	514	724	652	6	0.37	1.84	2.74	1.80	556	540
760	272	7.5	8 230	11 900	735	320	430	23284RHA	23284RHAK	456	512	724	652	6	0.36	1.90	2.83	1.86	525	508	
440	600	118	4	2 910	5 330	387	400	530	23988R	23988RK	458	490	582	554	3	0.18	3.75	5.58	3.66	101	97.8
	650	157	6	3 790	6 540	455	370	500	23088R	23088RK	468	501	622	584	5	0.24	2.76	4.11	2.70	188	183
	650	157	6	4 230	6 910	465	370	490	23088RHA	23088RHAK	468	504	622	591	5	0.22	3.04	4.53	2.97	172	167
	650	212	6	4 910	8 320	475	370	490	24088R	24088RK30	468	494	622	579	5	0.29	2.35	3.50	2.30	247	243
	650	212	6	5 290	9 560	618	370	490	24088RHA	24088RHAK30	468	492	622	575	5	0.30	2.28	3.39	2.23	231	227
	720	226	6	5 800	9 600	591	330	440	23188R	23188RK	468	526	692	625	5	0.33	2.08	3.09	2.03	378	366
	720	226	6	6 590	10 300	655	330	440	23188RHA	23188RHAK	468	521	692	636	5	0.30	2.25	3.34	2.20	353	341
	720	280	6	7 080	11 200	589	340	450	24188R	24188RK30	468	507	692	615	5	0.38	1.76	2.62	1.72	460	453
	720	280	6	7 540	12 900	707	330	440	24188RHA	24188RHAK30	468	509	692	616	5	0.38	1.79	2.67	1.75	439	432
	790	280	7.5	8 580	12 300	793	300	400	23288R	23288RK	476	540	754	684	6	0.36	1.86	2.77	1.82	613	595
	790	280	7.5	8 670	12 700	776	300	390	23288RHA	23288RHAK	476	539	754	682	6	0.35	1.93	2.88	1.89	580	562
460	600	90	3	1 800	3 660	306	350	460	23896R	23896RK	476	519	586	568	2.5	0.13	5.06	7.53	4.95	60.4	58.4

[Remark] Standard cage types used for the above bearings are shown in Table 5 earlier in this section.

Spherical roller bearings

d (460) ~ 500 mm

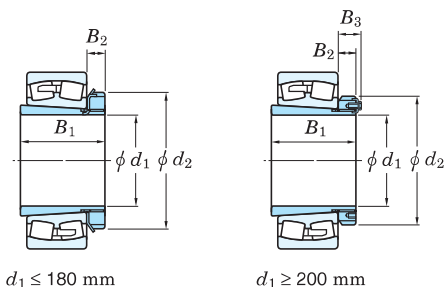


Boundary dimensions (mm)	Basic load ratings (kN)		Fatigue load limit (kN) Cu	Limiting speeds (min ⁻¹)		Bearing No.		Mounting dimensions (mm)					Con- stant e	Axial load factors			(Refer.) Mass (kg)				
	d	D		B	r min.	Cr	Co _r	Grease lub.	Oil lub.	Cylindrical bore	Tapered bore	da min.		Da max.	ra max.	Y ₁	Y ₂	Y ₀	Cylindrical bore	Tapered bore	
460	620	118	4	2 890	5 350	404	370	500	23992R	23992RK	478	512	602	577	3	0.17	3.89	5.79	3.80	107	104
	680	163	6	4 060	7 170	480	340	460	23092R	23092RK	488	529	652	613	5	0.23	2.92	4.34	2.85	215	209
	680	163	6	4 520	7 430	497	340	460	23092RHA	23092RHAK	488	527	652	618	5	0.22	3.04	4.53	2.97	197	191
	680	218	6	5 740	10 100	536	340	460	24092R	24092RK30	488	519	652	607	5	0.30	2.23	3.32	2.18	277	272
	680	218	6	5 660	10 300	656	340	460	24092RHA	24092RHAK30	488	518	652	604	5	0.29	2.33	3.46	2.27	259	254
	760	240	7.5	6 510	10 800	648	310	410	23192R	23192RK	496	552	724	656	6	0.33	2.07	3.09	2.03	450	436
	760	240	7.5	7 240	11 200	697	300	400	23192RHA	23192RHAK	496	546	724	669	6	0.30	2.22	3.31	2.17	420	406
	760	300	7.5	7 320	12 200	597	310	410	24192R	24192RK30	496	537	724	647	6	0.35	1.95	2.90	1.91	550	541
	760	300	7.5	8 390	14 200	746	310	410	24192RHA	24192RHAK30	496	535	724	651	6	0.38	1.75	2.61	1.72	525	516
	830	296	7.5	9 520	13 700	867	270	370	23292R	23292RK	496	567	794	718	6	0.36	1.85	2.76	1.81	720	699
	830	296	7.5	9 600	14 200	856	270	360	23292RHA	23292RHAK	496	564	794	714	6	0.35	1.92	2.85	1.87	679	658
	480	650	128	5	3 290	6 130	446	350	460	23996R	23996RK	502	534	628	603	4	0.18	3.75	5.59	3.67	123
700		165	6	4 190	7 540	505	320	430	23096R	23096RK	508	549	672	633	5	0.22	3.01	4.47	2.94	225	218
700		165	6	4 670	7 860	532	320	430	23096RHA	23096RHAK	508	548	672	639	5	0.22	3.12	4.64	3.05	206	199
700		218	6	5 540	9 650	514	320	430	24096R	24096RK30	508	539	672	626	5	0.29	2.32	3.45	2.26	287	282
700		218	6	5 800	10 700	492	320	430	24096RHA	24096RHAK30	508	537	672	626	5	0.28	2.41	3.59	2.35	268	263
790		248	7.5	6 840	11 500	698	280	380	23196R	23196RK	516	579	754	685	6	0.32	2.09	3.12	2.05	503	488
790		248	7.5	7 740	12 000	638	280	380	23196RHA	23196RHAK	516	570	754	697	6	0.30	2.24	3.34	2.19	470	455
790		308	7.5	8 730	14 800	707	280	380	24196R	24196RK30	516	560	754	678	6	0.39	1.74	2.59	1.70	606	597
790		308	7.5	9 880	15 900	792	290	380	24196RHA	24196RHAK30	516	553	754	684	6	0.38	1.78	2.65	1.74	580	568
870		310	7.5	10 500	15 100	953	250	340	23296R	23296RK	516	588	834	745	6	0.36	1.85	2.75	1.81	831	807
870		310	7.5	10 600	15 700	791	250	340	23296RHA	23296RHAK	516	589	834	748	6	0.35	1.91	2.85	1.87	785	761
500		670	128	5	3 330	6 310	447	330	440	239/500R	239/500RK	522	553	648	622	4	0.17	3.87	5.76	3.79	131
	720	167	6	4 490	8 090	561	310	410	230/500R	230/500RK	528	568	692	656	5	0.23	2.94	4.37	2.87	235	228
	720	218	6	5 620	10 300	545	310	410	240/500R	240/500RK30	528	561	692	647	5	0.28	2.39	3.56	2.34	297	292
	830	264	7.5	7 750	13 000	708	260	350	231/500R	231/500RK	536	601	794	714	6	0.33	2.05	3.05	2.00	595	577
	830	325	7.5	9 350	15 900	763	260	350	241/500R	241/500RK30	536	591	794	712	6	0.36	1.85	2.76	1.81	712	701
	920	336	7.5	11 000	16 700	908	230	310	232/500R	232/500RK	536	622	884	774	6	0.39	1.74	2.59	1.70	1 020	992

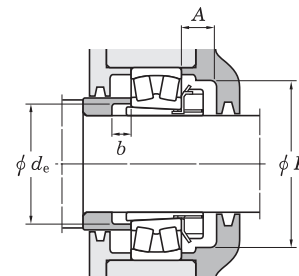
[Remark] Standard cage types used for the above bearings are shown in Table 5 earlier in this section.

Adapter assemblies for spherical roller bearings

d_1 20 ~ 65 mm



d_1 70 ~ 110 mm

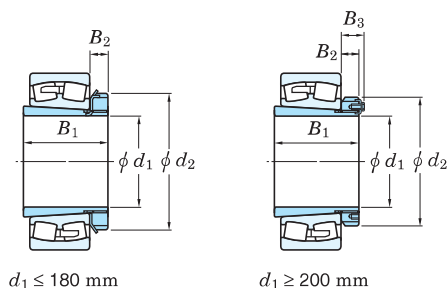


Boundary dimensions (mm)					Brg. bore d (mm)	Designations Bearing + adapter ass'y	Mounting dimensions (mm)				Mass Brg.+adapter ass'y (kg)	(Refer.)	
d_1	B_1	d_2	B_2	B_3			A min.	K min.	d_e min.	b min.		Adapter sleeve No.	Locknut No.
20	29	38	8	—	25	22205RZK+H305X	15	45	29	5	0.269	A305X	AN05
25	31	45	8	—	30	22206RZK+H306X	15	50	34	5	0.404	A306X	AN06
	31	45	8	—	30	21306RZK+H306X	15	50	34	6	0.538	A306X	AN06
30	35	52	9	—	35	22207RZK+H307X	17	58	39	5	0.610	A307X	AN07
	35	52	9	—	35	21307RZK+H307X	17	58	39	7	0.725	A307X	AN07
35	36	58	10	—	40	22208RZK+H308X	17	65	44	5	0.793	A308X	AN08
	36	58	10	—	40	21308RZK+H308X	17	65	44	5	0.972	A308X	AN08
	46	58	10	—	40	22308RZK+H2308X	17	65	45	5	1.30	A2308X	AN08
40	39	65	11	—	45	22209RZK+H309X	17	72	49	8	0.855	A309X	AN09
	39	65	11	—	45	21309RZK+H309X	17	72	49	5	1.31	A309X	AN09
	50	65	11	—	45	22309RZK+H2309X	17	72	50	5	1.70	A2309X	AN09
45	42	70	12	—	50	22210RZK+H310X	19	76	54	10	0.953	A310X	AN10
	42	70	12	—	50	21310RZK+H310X	19	76	54	5	1.67	A310X	AN10
	55	70	12	—	50	22310RZK+H2310X	19	76	56	5	2.26	A2310X	AN10
50	45	75	12	—	55	22211RZK+H311X	19	85	60	11	1.22	A311X	AN11
	45	75	12	—	55	21311RZK+H311X	19	85	60	6	2.04	A311X	AN11
	59	75	12	—	55	22311RZK+H2311X	19	85	61	6	2.80	A2311X	AN11
55	47	80	13	—	60	22212RZK+H312X	20	90	65	9	1.59	A312X	AN12
	47	80	13	—	60	21312RZK+H312X	20	90	65	5	2.50	A312X	AN12
	62	80	13	—	60	22312RZK+H2312X	20	90	66	5	3.50	A2312X	AN12
60	50	85	14	—	65	22213RZK+H313X	21	96	70	8	2.01	A313X	AN13
	50	85	14	—	65	21313RZK+H313X	21	96	70	5	3.07	A313X	AN13
	65	85	14	—	65	22313RZK+H2313X	21	96	72	5	4.17	A2313X	AN13
65	55	98	15	—	75	22215RZK+H315X	23	110	80	12	2.58	A315X	AN15
	55	98	15	—	75	21315RZK+H315X	23	110	80	5	4.65	A315X	AN15
	73	98	15	—	75	22315RZK+H2315X	23	110	82	5	6.44	A2315X	AN15

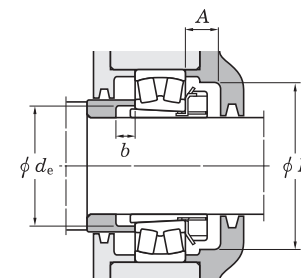
Boundary dimensions (mm)					Brg. bore d (mm)	Designations Bearing + adapter ass'y	Mounting dimensions (mm)				Mass Brg.+adapter ass'y (kg)	(Refer.)		
d_1	B_1	d_2	B_2	B_3			A min.	K min.	d_e min.	b min.		Adapter sleeve No.	Locknut No.	
70	59	105	17	—	80	22216RZK+H316X	25	120	86	12	3.22	A316X	AN16	
	59	105	17	—	80	21316RZK+H316X	25	120	86	5	5.56	A316X	AN16	
	78	105	17	—	80	22316RZK+H2316X	25	120	87	5	7.64	A2316X	AN16	
75	63	110	18	—	85	22217RZK+H317X	27	128	91	12	3.93	A317X	AN17	
	63	110	18	—	85	21317RZK+H317X	27	128	91	6	6.49	A317X	AN17	
	82	110	18	—	85	22317RZK+H2317X	27	128	94	6	8.83	A2317X	AN17	
80	65	120	18	—	90	22218RZK+H318X	28	139	96	10	4.88	A318X	AN18	
	86	120	18	—	90	23218RZK+H2318X	28	139	99	18	6.20	A2318X	AN18	
	65	120	18	—	90	21318RZK+H318X	28	139	96	6	7.56	A318X	AN18	
85	68	125	19	—	95	22219RZK+H319X	29	145	102	9	5.77	A319X	AN19	
	68	125	19	—	95	21319RZK+H319X	29	145	102	7	8.68	A319X	AN19	
	90	125	19	—	95	22319RZK+H2319X	29	145	105	7	12.0	A2319X	AN19	
90	71	130	20	—	100	22220RZK+H320X	30	150	107	8	6.80	A320X	AN20	
	97	130	20	—	100	23220RZK+H2320X	30	150	110	19	8.94	A2320X	AN20	
	71	130	20	—	100	21320RZK+H320X	30	150	107	7	10.5	A320X	AN20	
97	71	130	20	—	100	22320RZK+H2320X	30	150	110	7	15.2	A2320X	AN20	
	100	81	145	21	—	110	23122RZK+H3122X	32	170	117	7	7.91	A3122X	AN22
		77	145	21	—	110	22222RZK+H3222X	32	170	117	6	9.50	A322X	AN22
105		145	21	—	110	23222RZK+H2322X	32	170	121	17	12.4	A2322X	AN22	
77	77	145	21	—	110	21322RZK+H322X	32	170	117	9	14.0	A322X	AN22	
	105	145	21	—	110	22322RZK+H2322X	32	170	121	7	20.6	A2322X	AN22	
	110	72	145	22	—	120	23024RZK+H3024X	33	180	127	7	6.12	A3024	ANL24
88		155	22	—	120	23124RZK+H3124X	33	180	128	7	10.5	A3124	AN24	
88		155	22											

Adapter assemblies for spherical roller bearings

d_1 115 ~ (150) mm



d_1 (150) ~ (180) mm

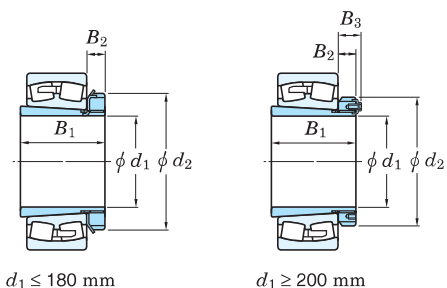


Boundary dimensions (mm)					Brg. bore d (mm)	Designations Bearing + adapter ass'y	Mounting dimensions (mm)				Mass Brg.+adapter ass'y (kg)	(Refer.)	
d_1	B_1	d_2	B_2	B_3			A min.	K min.	d_e min.	b min.		Adapter sleeve No.	Locknut No.
115	80	155	23	—	130	23026RZK+H3026	34	190	137	8	9.01	A3026	ANL26
	92	165	23	—	130	23126RZK+H3126	34	190	138	8	12.3	A3126	AN26
	92	165	23	—	130	22226RZK+H3126	34	190	138	8	15.1	A3126	AN26
	121	165	23	—	130	23226RZK+H2326	34	190	142	21	18.8	A2326	AN26
	121	165	23	—	130	22326RZK+H2326	34	190	142	8	32.7	A2326	AN26
	125	82	165	24	—	140	23028RZK+H3028	36	205	147	8	9.79	A3028
97		180	24	—	140	23128RZK+H3128	36	205	149	8	14.9	A3128	AN28
97		180	24	—	140	22228RZK+H3128	36	205	149	8	18.8	A3128	AN28
131		180	24	—	140	23228RZK+H2328	36	205	152	22	24.3	A2328	AN28
131		180	24	—	140	22328RZK+H2328	36	205	152	8	40.8	A2328	AN28
135		87	180	26	—	150	23030RZK+H3030	37	220	158	8	11.9	A3030
	111	195	26	—	150	23130RZK+H3130	37	220	160	8	21.7	A3130	AN30
	111	195	26	—	150	22230RZK+H3130	37	220	160	15	24.3	A3130	AN30
	139	195	26	—	150	23230RZK+H2330	37	220	163	20	30.8	A2330	AN30
	139	195	26	—	150	22330RK+H2330	37	220	163	8	49.7	A2330	AN30
	139	195	26	—	150	22330RHAK+H2330	37	220	163	8	46.4	A2330	AN30
140	93	190	28	—	160	23032RZK+H3032	39	230	168	8	15.0	A3032	ANL32
	119	210	28	—	160	23132RZK+H3132	39	230	170	8	27.9	A3132	AN32
	119	210	28	—	160	22232RK+H3132	39	230	170	14	30.6	A3132	AN32
	119	210	28	—	160	22232RHAK+H3132	39	230	170	14	29.1	A3132	AN32
	147	210	28	—	160	23232RK+H2332	39	230	174	18	39.6	A2332	AN32
	147	210	28	—	160	23232RHAK+H2332	39	230	174	18	38.0	A2332	AN32
	147	210	28	—	160	22332RK+H2332	39	230	174	8	60.5	A2332	AN32
	147	210	28	—	160	22332RHAK+H2332	39	230	174	8	56.6	A2332	AN32
	150	101	200	29	—	170	23034RZK+H3034	40	250	179	8	19.2	A3034
122		220	29	—	170	23134RZK+H3134	40	250	180	8	30.0	A3134	AN34
122		220	29	—	170	22234RK+H3134	40	250	180	10	37.2	A3134	AN34
122		220	29	—	170	22234RHAK+H3134	40	250	180	10	35.3	A3134	AN34

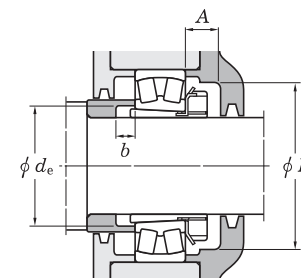
Boundary dimensions (mm)					Brg. bore d (mm)	Designations Bearing + adapter ass'y	Mounting dimensions (mm)				Mass Brg.+adapter ass'y (kg)	(Refer.)		
d_1	B_1	d_2	B_2	B_3			A min.	K min.	d_e min.	b min.		Adapter sleeve No.	Locknut No.	
150	154	220	29	—	170	23234RRK+H2334	40	250	185	18	47.2	A2334	AN34	
	154	220	29	—	170	23234RHAK+H2334	40	250	185	18	45.3	A2334	AN34	
	154	220	29	—	170	22334RK+H2334	40	250	185	8	71.5	A2334	AN34	
	154	220	29	—	170	22334RHAK+H2334	40	250	185	8	66.8	A2334	AN34	
160	109	210	30	—	180	23036RZK+H3036	41	260	189	8	24.2	A3036	ANL36	
	131	230	30	—	180	23136RK+H3136	41	260	191	8	37.1	A3136	AN36	
	131	230	30	—	180	23136RHAK+H3136	41	260	191	8	35.2	A3136	AN36	
	131	230	30	—	180	22236RK+H3136	41	260	191	18	39.4	A3136	AN36	
	131	230	30	—	180	22236RHAK+H3136	41	260	191	18	37.4	A3136	AN36	
	161	230	30	—	180	23236RRK+H2336	41	260	195	22	50.5	A2336	AN36	
	161	230	30	—	180	23236RHAK+H2336	41	260	195	22	48.4	A2336	AN36	
	161	230	30	—	180	22336RK+H2336	41	260	195	8	81.8	A2336	AN36	
	161	230	30	—	180	22336RHAK+H2336	41	260	195	8	76.4	A2336	AN36	
170	112	220	31	—	190	23038RK+H3038	43	270	199	9	26.1	A3038	ANL38	
	112	220	31	—	190	23038RHAK+H3038	43	270	199	9	24.5	A3038	ANL38	
	141	240	31	—	190	23138RK+H3138	43	270	202	9	45.3	A3138	AN38	
	141	240	31	—	190	23138RHAK+H3138	43	270	202	9	43.0	A3138	AN38	
	141	240	31	—	190	22238RK+H3138	43	270	202	21	47.5	A3138	AN38	
	141	240	31	—	190	22238RHAK+H3138	43	270	202	21	45.0	A3138	AN38	
	169	240	31	—	190	23238RRK+H2338	43	270	206	21	59.2	A2338	AN38	
	169	240	31	—	190	23238RHAK+H2338	43	270	206	21	56.7	A2338	AN38	
	169	240	31	—	190	22338RK+H2338	43	270	206	9	95.6	A2338	AN38	
	169	240	31	—	190	22338RHAK+H2338	43	270	206	9	89.2	A2338	AN38	
	180	120	240	32	—	200	23040RK+H3040	46	280	210	10	32.8	A3040	ANL40
		120	240	32	—	200	23040RHAK+H3040	46	280	210	10	30.7	A3040	ANL40
150		250	32	—	200	23140RRK+H3140	46	280	212	10	54.7	A3140	AN40	
150		250	32	—	200	23140RHAK+H3140	46	280	212	10	51.8	A3140	AN40	
150		250	32	—	200	22240RRK+H3140	46	280	212	24	56.3	A3140	AN40	

Adapter assemblies for spherical roller bearings

d_1 (180) ~ (240) mm



d_1 (240) ~ (300) mm



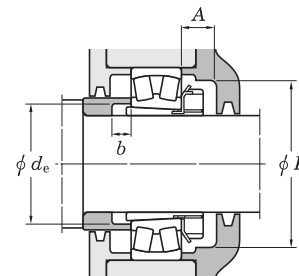
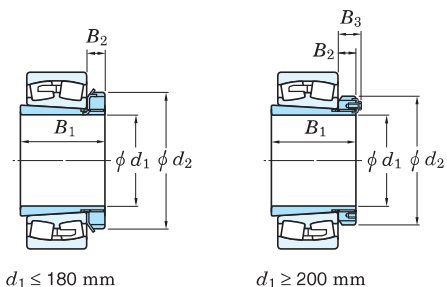
Boundary dimensions (mm)					Brg. bore d (mm)	Designations Bearing + adapter ass'y	Mounting dimensions (mm)				Mass Brg.+adapter ass'y (kg)	(Refer.)		
d_1	B_1	d_2	B_2	B_3			A min.	K min.	d_e min.	b min.		Adapter sleeve No.	Locknut No.	
180	150	250	32	—	200	22240RHAK+H3140	46	280	212	24	53.3	A3140	AN40	
	176	250	32	—	200	23240RK+H2340	46	280	216	20	71.0	A2340	AN40	
	176	250	32	—	200	23240RHAK+H2340	46	280	216	20	68.0	A2340	AN40	
	176	250	32	—	200	22340RK+H2340	46	280	216	10	108	A2340	AN40	
	176	250	32	—	200	22340RHAK+H2340	46	280	216	10	101	A2340	AN40	
	200	128	260	30	41	220	23044RK+H3044	—	—	231	12	41.4	A3044	ANL44
128		260	30	41	220	23044RHAK+H3044	—	—	231	12	38.7	A3044	ANL44	
158		280	32	44	220	23144RK+H3144	—	—	233	10	68.4	A3144	AN44	
158		280	32	44	220	23144RHAK+H3144	—	—	233	10	64.8	A3144	AN44	
158		280	32	44	220	22244RRK+H3144	—	—	233	22	76.9	A3144	AN44	
158		280	32	44	220	22244RHAK+H3144	—	—	233	22	72.7	A3144	AN44	
183		280	32	44	220	23244RK+H2344	—	—	236	11	96.5	A2344	AN44	
183		280	32	44	220	23244RHAK+H2344	—	—	236	11	92.3	A2344	AN44	
183		280	32	44	220	22344RK+H2344	—	—	236	10	139	A2344	AN44	
183		280	32	44	220	22344RHAK+H2344	—	—	236	10	130	A2344	AN44	
220		133	290	34	46	240	23048RRK+H3048	—	—	251	11	47.7	A3048	ANL48
		133	290	34	46	240	23048RHAK+H3048	—	—	251	11	44.8	A3048	ANL48
	169	300	34	46	240	23148RRK+H3148	—	—	254	11	83.6	A3148	AN48	
	169	300	34	46	240	23148RHAK+H3148	—	—	254	11	79.1	A3148	AN48	
	169	300	34	46	240	22248RK+H3148	—	—	254	19	101	A3148	AN48	
	169	300	34	46	240	22248RHAK+H3148	—	—	254	19	95.6	A3148	AN48	
	196	300	34	46	240	23248RRK+H2348	—	—	257	6	128	A2348	AN48	
	196	300	34	46	240	23248RHAK+H2348	—	—	257	6	122	A2348	AN48	
	196	300	34	46	240	22348RK+H2348	—	—	257	11	175	A2348	AN48	
	196	300	34	46	240	22348RHAK+H2348	—	—	257	11	163	A2348	AN48	
	240	147	310	34	46	260	23052RK+H3052	—	—	272	13	65.4	A3052	ANL52
		147	310	34	46	260	23052RHAK+H3052	—	—	272	13	61.0	A3052	ANL52
187		330	36	49	260	23152RRK+H3152	—	—	276	11	114	A3152	AN52	

Boundary dimensions (mm)					Brg. bore d (mm)	Designations Bearing + adapter ass'y	Mounting dimensions (mm)				Mass Brg.+adapter ass'y (kg)	(Refer.)		
d_1	B_1	d_2	B_2	B_3			A min.	K min.	d_e min.	b min.		Adapter sleeve No.	Locknut No.	
240	187	330	36	49	260	23152RHAK+H3152	—	—	276	11	108	A3152	AN52	
	187	330	36	49	260	22252RK+H3152	—	—	276	25	131	A3152	AN52	
	187	330	36	49	260	22252RHAK+H3152	—	—	276	25	124	A3152	AN52	
	208	330	36	49	260	23252RK+H2352	—	—	278	2	165	A2352	AN52	
	208	330	36	49	260	23252RHAK+H2352	—	—	278	2	158	A2352	AN52	
	208	330	36	49	260	22352RK+H2352	—	—	278	11	217	A2352	AN52	
	208	330	36	49	260	22352RHAK+H2352	—	—	278	11	202	A2352	AN52	
	260	152	330	38	50	280	23056RK+H3056	—	—	292	12	71.5	A3056	ANL56
		152	330	38	50	280	23056RHAK+H3056	—	—	292	12	66.8	A3056	ANL56
192		350	38	51	280	23156RRK+H3156	—	—	296	12	123	A3156	AN56	
192		350	38	51	280	23156RHAK+H3156	—	—	296	12	116	A3156	AN56	
192		350	38	51	280	22256RK+H3156	—	—	296	28	138	A3156	AN56	
192		350	38	51	280	22256RHAK+H3156	—	—	296	28	130	A3156	AN56	
221		350	38	51	280	23256RK+H2356	—	—	299	11	178	A2356	AN56	
221		350	38	51	280	23256RHAK+H2356	—	—	299	11	170	A2356	AN56	
221		350	38	51	280	22356RK+H2356	—	—	299	12	254	A2356	AN56	
221		350	38	51	280	22356RHAK+H2356	—	—	299	12	237	A2356	AN56	
280		168	360	42	54	300	23060RK+H3060	—	—	313	12	97.7	A3060	ANL60
		168	360	42	54	300	23060RHAK+H3060	—	—	313	12	90.8	A3060	ANL60
	208	380	40	53	300	23160RRK+H3160	—	—	317	12	159	A3160	AN60	
	208	380	40	53	300	23160RHAK+H3160	—	—	317	12	150	A3160	AN60	
	208	380	40	53	300	22260RK+H3160	—	—	317	32	173	A3160	AN60	
	208	380	40	53	300	22260RHAK+H3160	—	—	317	32	163	A3160	AN60	
	240	380	40	53	300	23260RK+H3260	—	—	321	12	227	A3260	AN60	
	240	380	40	53	300	23260RHAK+H3260	—	—	321	12	217	A3260	AN60	
	300	171	380	42	55	320	23064RK+H3064	—	—	334	13	105	A3064	ANL64
		171	380	42	55	320	23064RHAK+H3064	—	—	334	13	98.1	A3064	ANL64
		226	400	42	56	320	23164RK+H3164	—	—	339	13	202	A3164	AN64

Adapter assemblies for spherical roller bearings

d_1 (300) ~ 380 mm

d_1 400 ~ 470 mm



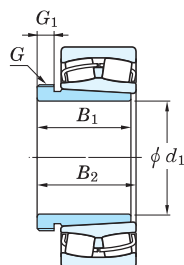
Boundary dimensions (mm)					Brg. bore d (mm)	Designations Bearing + adapter ass'y	Mounting dimensions (mm)				Mass Brg.+adapter ass'y (kg)	(Refer.)	
d_1	B_1	d_2	B_2	B_3			A min.	K min.	d_e min.	b min.		Adapter sleeve No.	Locknut No.
300	226	400	42	56	320	23164RHAK+H3164	—	—	339	13	191	A3164	AN64
	226	400	42	56	320	22264RK+H3164	—	—	339	39	207	A3164	AN64
	258	400	42	56	320	23264RK+H3264	—	—	343	13	283	A3264	AN64
	258	400	42	56	320	23264RHAK+H3264	—	—	343	13	270	A3264	AN64
320	187	400	45	58	340	23068RK+H3068	—	—	355	14	135	A3068	ANL68
	187	400	45	58	340	23068RHAK+H3068	—	—	355	14	126	A3068	ANL68
	254	440	55	72	340	23168RK+H3168	—	—	360	14	262	A3168	AN68
	254	440	55	72	340	23168RHAK+H3168	—	—	360	14	248	A3168	AN68
	288	440	55	72	340	23268RK+H3268	—	—	364	14	355	A3268	AN68
	288	440	55	72	340	23268RHAK+H3268	—	—	364	14	339	A3268	AN68
340	188	420	45	58	360	23072RK+H3072	—	—	375	14	143	A3072	ANL72
	188	420	45	58	360	23072RHAK+H3072	—	—	375	14	133	A3072	ANL72
	259	460	58	75	360	23172RK+H3172	—	—	380	14	278	A3172	AN72
	259	460	58	75	360	23172RHAK+H3172	—	—	380	14	263	A3172	AN72
	299	460	58	75	360	23272RK+H3272	—	—	385	14	400	A3272	AN72
	299	460	58	75	360	23272RHAK+H3272	—	—	385	14	382	A3272	AN72
360	193	450	48	62	380	23076RK+H3076	—	—	396	15	156	A3076	ANL76
	193	450	48	62	380	23076RHAK+H3076	—	—	396	15	146	A3076	ANL76
	264	490	60	77	380	23176RK+H3176	—	—	401	15	298	A3176	AN76
	264	490	60	77	380	23176RHAK+H3176	—	—	401	15	282	A3176	AN76
	310	490	60	77	380	23276RK+H3276	—	—	405	15	448	A3276	AN76
310	490	60	77	380	23276RHAK+H3276	—	—	405	15	427	A3276	AN76	
380	210	470	52	66	400	23080RK+H3080	—	—	417	15	195	A3080	ANL80
	210	470	52	66	400	23080RHAK+H3080	—	—	417	15	182	A3080	ANL80
	272	520	62	82	400	23180RK+H3180	—	—	421	15	339	A3180	AN80
	272	520	62	82	400	23180RHAK+H3180	—	—	421	15	321	A3180	AN80
	328	520	62	82	400	23280RK+H3280	—	—	427	15	539	A3280	AN80
	328	520	62	82	400	23280RHAK+H3280	—	—	427	15	512	A3280	AN80

Boundary dimensions (mm)					Brg. bore d (mm)	Designations Bearing + adapter ass'y	Mounting dimensions (mm)				Mass Brg.+adapter ass'y (kg)	(Refer.)	
d_1	B_1	d_2	B_2	B_3			A min.	K min.	d_e min.	b min.		Adapter sleeve No.	Locknut No.
400	212	490	52	66	420	23084RK+H3084	—	—	437	16	205	A3084	ANL84
	212	490	52	66	420	23084RHAK+H3084	—	—	437	16	191	A3084	ANL84
	304	540	70	90	420	23184RK+H3184	—	—	443	16	441	A3184	AN84
	304	540	70	90	420	23184RHAK+H3184	—	—	443	16	417	A3184	AN84
	352	540	70	90	420	23284RK+H3284	—	—	448	16	639	A3284	AN84
	352	540	70	90	420	23284RHAK+H3284	—	—	448	16	607	A3284	AN84
410	228	520	60	77	440	23088RK+H3088	—	—	458	17	252	A3088	ANL88
	228	520	60	77	440	23088RHAK+H3088	—	—	458	17	236	A3088	ANL88
	307	560	70	90	440	23188RK+H3188	—	—	464	17	474	A3188	AN88
	307	560	70	90	440	23188RHAK+H3188	—	—	464	17	449	A3188	AN88
	361	560	70	90	440	23288RK+H3288	—	—	469	17	718	A3288	AN88
	361	560	70	90	440	23288RHAK+H3288	—	—	469	17	685	A3288	AN88
430	234	540	60	77	460	23092RK+H3092	—	—	478	17	283	A3092	ANL92
	234	540	60	77	460	23092RHAK+H3092	—	—	478	17	265	A3092	ANL92
	326	580	75	95	460	23192RK+H3192	—	—	485	17	559	A3192	AN92
	326	580	75	95	460	23192RHAK+H3192	—	—	485	17	529	A3192	AN92
	382	580	75	95	460	23292RK+H3292	—	—	491	17	838	A3292	AN92
	382	580	75	95	460	23292RHAK+H3292	—	—	491	17	797	A3292	AN92
450	237	560	60	77	480	23096RK+H3096	—	—	499	18	295	A3096	ANL96
	237	560	60	77	480	23096RHAK+H3096	—	—	499	18	276	A3096	ANL96
	335	620	75	95	480	23196RK+H3196	—	—	505	18	628	A3196	AN96
	335	620	75	95	480	23196RHAK+H3196	—	—	505	18	595	A3196	AN96
	397	620	75	95	480	23296RK+H3296	—	—	512	18	966	A3296	AN96
	397	620	75	95	480	23296RHAK+H3296	—	—	512	18	920	A3296	AN96
470	247	580	68	85	500	230/500RK+H30/500	—	—	519	18	315	A30/500	ANL100
	356	630	80	100	500	231/500RK+H31/500	—	—	527	18	727	A31/500	AN100
	428	630	80	100	500	232/500RK+H32/500	—	—	534	18	1 167	A32/500	AN100

Withdrawal sleeves for spherical roller bearings

d_1 35 ~ (75) mm

d_1 (75) ~ (115) mm



d_1	Boundary dimensions (mm)			G_1	Brg. bore d (mm)	Designations Bearing + withdrawal sleeve	Mass Brg.+withdrawal sleeve (kg)	(Refer.) Applicable locknut No.
	B_1	B_2	$G^{1)}$ Screw size					
35	29	32	M45×1.5	6	40	22208RZK+AH308	0.681	AN09
	29	32	M45×1.5	6	40	21308RZK+AH308	0.860	AN09
	40	43	M45×1.5	7	40	22308RZK+AH2308	1.19	AN09
40	31	34	M50×1.5	6	45	22209RZK+AH309	0.699	AN10
	31	34	M50×1.5	6	45	21309RZK+AH309	1.14	AN10
	44	47	M50×1.5	7	45	22309RZK+AH2309	1.55	AN10
45	35	38	M55×2	7	50	22210RZK+AHX310	0.771	AN11
	35	38	M55×2	7	50	21310RZK+AHX310	1.49	AN11
	50	53	M55×2	9	50	22310RZK+AHX2310	2.09	AN11
50	37	40	M60×2	7	55	22211RZK+AHX311	1.01	AN12
	37	40	M60×2	7	55	21311RZK+AHX311	1.83	AN12
	54	57	M60×2	10	55	22311RZK+AHX2311	2.60	AN12
55	40	43	M65×2	8	60	22212RZK+AHX312	1.35	AN13
	40	43	M65×2	8	60	21312RZK+AHX312	2.27	AN13
	58	61	M65×2	11	60	22312RZK+AHX2312	3.29	AN13
60	42	45	M75×2	8	65	22213RZK+AH313	1.77	AN15
	42	45	M75×2	8	65	21313RZK+AH313	2.84	AN15
	61	64	M75×2	12	65	22313RZK+AH2313	3.98	AN15
65	43	47	M80×2	8	70	22214RZK+AH314	1.89	AN16
	43	47	M80×2	8	70	21314RZK+AH314	3.43	AN16
	64	68	M80×2	12	70	22314RZK+AHX2314	4.82	AN16
70	45	49	M85×2	8	75	22215RZK+AH315	2.01	AN17
	45	49	M85×2	8	75	21315RZK+AH315	4.07	AN17
	68	72	M85×2	12	75	22315RZK+AHX2315	5.87	AN17
75	48	52	M90×2	8	80	22216RZK+AH316	2.49	AN18
	48	52	M90×2	8	80	21316RZK+AH316	4.83	AN18

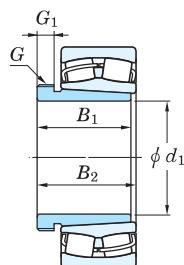
d_1	Boundary dimensions (mm)			G_1	Brg. bore d (mm)	Designations Bearing + withdrawal sleeve	Mass Brg.+withdrawal sleeve (kg)	(Refer.) Applicable locknut No.
	B_1	B_2	$G^{1)}$ Screw size					
75	71	75	M90×2	12	80	22316RZK+AHX2316	6.90	AN18
80	52	56	M95×2	9	85	22217RZK+AHX317	3.12	AN19
	52	56	M95×2	9	85	21317RZK+AHX317	5.68	AN19
	74	78	M95×2	13	85	22317RZK+AHX2317	7.98	AN19
85	53	57	M100×2	9	90	22218RZK+AHX318	3.89	AN20
	63	67	M100×2	10	90	23218RZK+AHX3218	5.08	AN20
	53	57	M100×2	9	90	21318RZK+AHX318	6.58	AN20
	79	83	M100×2	14	90	22318RZK+AHX2318	9.41	AN20
90	57	61	M105×2	10	95	22219RZK+AHX319	4.68	AN21
	57	61	M105×2	10	95	21319RZK+AHX319	7.59	AN21
	85	89	M105×2	16	95	22319RZK+AHX2319	10.9	AN21
95	59	63	M110×2	10	100	22220RZK+AHX320	5.58	AN22
	73	77	M110×2	11	100	23220RZK+AHX3220	7.43	AN22
	59	63	M110×2	10	100	21320RZK+AHX320	9.26	AN22
	90	94	M110×2	16	100	22320RZK+AHX2320	13.9	AN22
105	68	72	M120×2	11	110	23122RZK+AHX3122	6.30	AN24
	82	91	M115×2	13	110	24122RZK30+AH24122	7.60	AN23
	68	72	M120×2	11	110	22222RZK+AHX3122	7.97	AN24
	82	86	M125×2	11	110	23222RZK+AHX3222	10.5	AN25
	63	67	M120×2	12	110	21322RZK+AHX322	12.3	AN24
115	98	102	M125×2	16	110	22322RZK+AHX2322	19.1	AN25
	60	64	M130×2	13	120	23024RZK+AHX3024	4.82	AN26
	73	82	M125×2	13	120	24024RZK30+AH24024	5.99	AN25
	75	79	M130×2	12	120	23124RZK+AHX3124	8.69	AN26
	93	102	M130×2	13	120	24124RZK30+AH24124	11.0	AN26
75	79	M130×2	12	120	22224RZK+AHX3124	10.1	AN26	

[Note] 1) Basic profile and dimensions of screw thread identified by prefix M are in accordance with JIS B 0205.
Basic profile and dimensions of screw thread identified by prefix Tr are in accordance with JIS B 0216.

Withdrawal sleeves for spherical roller bearings

d_1 (115) ~ (150) mm

d_1 (150) ~ 170 mm



d_1	Boundary dimensions (mm)			G_1	Brg. bore d (mm)	Designations Bearing + withdrawal sleeve	Mass Brg.+withdrawal sleeve (kg)	(Refer.) Applicable locknut No.
	B_1	B_2	$G^{1)}$ Screw size					
115	90	94	M135×2	13	120	23224RZK+ AHX3224	13.1	AN27
	105	109	M135×2	17	120	22324RZK+ AHX2324	23.9	AN27
125	67	71	M140×2	14	130	23026RZK+ AHX3026	6.90	AN28
	83	93	M135×2	14	130	24026RZK30+ AH24026	8.74	AN27
	78	82	M140×2	12	130	23126RZK+ AHX3126	9.52	AN28
	94	104	M140×2	14	130	24126RZK30+ AH24126	11.7	AN28
	78	82	M140×2	12	130	22226RZK+ AHX3126	12.4	AN28
	98	102	M145×2	15	130	23226RZK+ AHX3226	15.6	AN29
	115	119	M145×2	19	130	22326RZK+ AHX2326	29.9	AN29
135	68	73	M150×2	14	140	23028RZK+ AHX3028	7.43	AN30
	83	93	M145×2	14	140	24028RZK30+ AH24028	9.26	AN29
	83	88	M150×2	14	140	23128RZK+ AHX3128	11.5	AN30
	99	109	M150×2	14	140	24128RZK30+ AH24128	14.1	AN30
	83	88	M150×2	14	140	22228RZK+ AHX3128	15.4	AN30
	104	109	M155×3	15	140	23228RZK+ AHX3228	20.3	AN31
	125	130	M155×3	20	140	22328RZK+ AHX2328	35.0	AN31
145	72	77	M160×3	15	150	23030RZK+ AHX3030	8.92	AN32
	90	101	M155×3	15	150	24030RZK30+ AH24030	11.4	AN31
	96	101	M165×3	15	150	23130RZK+ AHX3130	17.7	AN33
	115	126	M160×3	15	150	24130RZK30+ AH24130	21.2	AN32
	96	101	M165×3	15	150	22230RZK+ AHX3130	20.3	AN33
	114	119	M165×3	17	150	23230RZK+ AHX3230	26.0	AN33
	135	140	M165×3	24	150	22330RK+ AHX2330	45.5	AN33
150	77	82	M170×3	16	160	23032RZK+ AH3032	11.5	AN34
	95	106	M170×3	15	160	24032RZK30+ AH24032	15.0	AN34
	103	108	M180×3	16	160	23132RZK+ AH3132	23.4	AN36

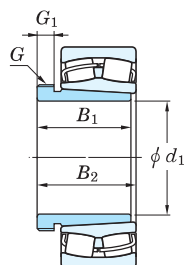
d_1	Boundary dimensions (mm)			G_1	Brg. bore d (mm)	Designations Bearing + withdrawal sleeve	Mass Brg.+withdrawal sleeve (kg)	(Refer.) Applicable locknut No.
	B_1	B_2	$G^{1)}$ Screw size					
150	103	108	M180×3	16	160	22232RK+ AH3132	26.1	AN36
	103	108	M180×3	16	160	22232RHAK+ AH3132	24.6	AN36
	124	130	M180×3	20	160	23232RK+ AH3232	35.1	AN36
	124	130	M180×3	20	160	23232RHAK+ AH3232	32.6	AN36
	140	146	M180×3	24	160	22332RK+ AH2332	55.7	AN36
	140	146	M180×3	24	160	22332RHAK+ AH2332	51.8	AN36
	140	146	M180×3	24	160	22332RHAK+ AH2332	51.8	AN36
160	85	90	M180×3	17	170	23034RZK+ AH3034	15.2	AN36
	106	117	M180×3	16	170	24034RZK30+ AH24034	20.0	AN36
	104	109	M190×3	16	170	23134RZK+ AH3134	24.6	AN38
	125	136	M180×3	16	170	24134RRK30+ AH24134	30.0	AN36
	104	109	M190×3	16	170	22234RK+ AH3134	31.8	AN38
	104	109	M190×3	16	170	22234RHAK+ AH3134	29.9	AN38
	134	140	M190×3	24	170	23234RRK+ AH3234	42.3	AN38
	134	140	M190×3	24	170	23234RHAK+ AH3234	39.4	AN38
	146	152	M190×3	24	170	22334RK+ AH2334	66.1	AN38
	146	152	M190×3	24	170	22334RHAK+ AH2334	61.4	AN38
170	92	98	M190×3	17	180	23036RZK+ AH3036	19.7	AN38
	116	127	M190×3	16	180	24036RRK30+ AH24036	26.1	AN38
	116	122	M200×3	19	180	23136RK+ AH3136	31.7	AN40
	116	122	M200×3	19	180	23136RHAK+ AH3136	29.8	AN40
	134	145	M190×3	16	180	24136RRK30+ AH24136	37.6	AN38
	134	145	M190×3	16	180	24136RHAK30+ AH24136	34.9	AN38
	105	110	M200×3	17	180	22236RK+ AH2236	33.5	AN40
	105	110	M200×3	17	180	22236RHAK+ AH2236	31.5	AN40
	140	146	M200×3	24	180	23236RRK+ AH3236	45.1	AN40
	140	146	M200×3	24	180	23236RHAK+ AH3236	41.8	AN40
	154	160	M200×3	24	180	22336RK+ AH2336	75.7	AN40
	154	160	M200×3	24	180	22336RHAK+ AH2336	70.3	AN40

[Note] 1) Basic profile and dimensions of screw thread identified by prefix M are in accordance with JIS B 0205.
Basic profile and dimensions of screw thread identified by prefix Tr are in accordance with JIS B 0216.

Withdrawal sleeves for spherical roller bearings

d_1 180 ~ 190 mm

d_1 200 ~ 220 mm



d_1	Boundary dimensions (mm)			G_1	Brg. bore d (mm)	Designations Bearing + withdrawal sleeve	Mass Brg.+withdrawal sleeve (kg)	(Refer.) Applicable locknut No.
	B_1	B_2	$G^{(1)}$ Screw size					
180	96	102	Tr205×4	18	190	23038RK+ AH3038	21.5	HNL41
	96	102	Tr205×4	18	190	23038RHAK+ AH3038	19.9	HNL41
	118	131	M200×3	18	190	24038RRK30+ AH24038	27.6	AN40
	118	131	M200×3	18	190	24038RHAK30+ AH24038	25.5	AN40
	125	131	Tr210×4	20	190	23138RK+ AH3138	39.3	HN42
	125	131	Tr210×4	20	190	23138RHAK+ AH3138	37.0	HN42
	146	159	M200×3	18	190	24138RRK30+ AH24138	46.7	AN40
	146	159	M200×3	18	190	24138RHAK30+ AH24138	43.8	AN40
	112	117	Tr210×4	18	190	22238RK+ AH2238	40.9	HN42
	112	117	Tr210×4	18	190	22238RHAK+ AH2238	38.4	HN42
	145	152	Tr210×4	25	190	23238RRK+ AH3238	53.3	HN42
	145	152	Tr210×4	25	190	23238RHAK+ AH3238	49.4	HN42
	160	167	Tr210×4	26	190	22338RK+ AH2338	89.0	HN42
	160	167	Tr210×4	26	190	22338RHAK+ AH2338	82.6	HN42
190	102	108	Tr215×4	19	200	23040RK+ AH3040	27.2	HNL43
	102	108	Tr215×4	19	200	23040RHAK+ AH3040	25.1	HNL43
	127	140	Tr210×4	18	200	24040RRK30+ AH24040	34.6	HN42
	127	140	Tr210×4	18	200	24040RHAK30+ AH24040	31.9	HN42
	134	140	Tr220×4	21	200	23140RRK+ AH3140	47.9	HN44
	134	140	Tr220×4	21	200	23140RHAK+ AH3140	45.0	HN44
	158	171	Tr210×4	18	200	24140RRK30+ AH24140	57.6	HN42
	158	171	Tr210×4	18	200	24140RHAK30+ AH24140	53.8	HN42
	118	123	Tr220×4	19	200	22240RRK+ AH2240	48.7	HN44
	118	123	Tr220×4	19	200	22240RHAK+ AH2240	45.7	HN44
	153	160	Tr220×4	25	200	23240RK+ AH3240	64.7	HN44
	153	160	Tr220×4	25	200	23240RHAK+ AH3240	60.1	HN44
	170	177	Tr220×4	26	200	22340RK+ AH2340	101	HN44
	170	177	Tr220×4	26	200	22340RHAK+ AH2340	93.4	HN44

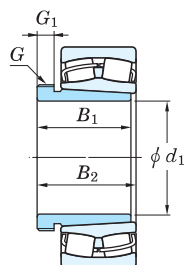
d_1	Boundary dimensions (mm)				Brg. bore d (mm)	Designations Bearing + withdrawal sleeve	Mass Brg.+withdrawal sleeve (kg)	(Refer.) Applicable locknut No.
	B_1	B_2	$G^{(1)}$ Screw size	G_1				
200	111	117	Tr235×4	20	220	23044RK+ AH3044	38.0	HNL47
	111	117	Tr235×4	20	220	23044RHAK+ AH3044	35.3	HNL47
	138	152	Tr230×4	20	220	24044RRK30+ AH24044	48.1	—
	138	152	Tr230×4	20	220	24044RHAK30+ AH24044	44.7	—
	145	151	Tr240×4	23	220	23144RK+ AH3144	63.6	HN48
	145	151	Tr240×4	23	220	23144RHAK+ AH3144	60.0	HN48
	170	184	Tr230×4	20	220	24144RRK30+ AH24144	76.4	—
	170	184	Tr230×4	20	220	24144RHAK30+ AH24144	71.2	—
	130	136	Tr240×4	20	220	22244RRK+ AH2244	70.8	HN48
	130	136	Tr240×4	20	220	22244RHAK+ AH2244	66.6	HN48
	181	189	Tr240×4	30	220	23244RK+ AH2344	95.1	HN48
	181	189	Tr240×4	30	220	23244RHAK+ AH2344	88.5	HN48
220	181	189	Tr240×4	30	220	22344RK+ AH2344	136	HN48
	181	189	Tr240×4	30	220	22344RHAK+ AH2344	127	HN48
	116	123	Tr260×4	21	240	23048RRK+ AH3048	42.6	HNL52
	116	123	Tr260×4	21	240	23048RHAK+ AH3048	39.7	HNL52
	138	153	Tr250×4	20	240	24048RRK30+ AH24048	51.9	—
	138	153	Tr250×4	20	240	24048RHAK30+ AH24048	48.0	—
	154	161	Tr260×4	25	240	23148RRK+ AH3148	77.6	HN52
	154	161	Tr260×4	25	240	23148RHAK+ AH3148	73.1	HN52
	180	195	Tr260×4	20	240	24148RRK30+ AH24148	94.0	HN52
	180	195	Tr260×4	20	240	24148RHAK30+ AH24148	87.9	HN52
144	150	Tr260×4	21	240	22248RK+ AH2248	94.3	HN52	
144	150	Tr260×4	21	240	22248RHAK+ AH2248	88.7	HN52	
189	197	Tr260×4	30	240	23248RRK+ AH2348	126	HN52	
189	197	Tr260×4	30	240	23248RHAK+ AH2348	117	HN52	
189	197	Tr260×4	30	240	22348RK+ AH2348	170	HN52	
189	197	Tr260×4	30	240	22348RHAK+ AH2348	158	HN52	

[Note] 1) Basic profile and dimensions of screw thread identified by prefix M are in accordance with JIS B 0205.
Basic profile and dimensions of screw thread identified by prefix Tr are in accordance with JIS B 0216.

Withdrawal sleeves for spherical roller bearings

d_1 240 ~ 260 mm

d_1 280 ~ (320) mm



d_1	Boundary dimensions (mm)			G_1	Brg. bore d (mm)	Designations Bearing + withdrawal sleeve	Mass Brg.+withdrawal sleeve (kg)	(Refer.) Applicable locknut No.
	B_1	B_2	$G^{1)}$ Screw size					
240	128	135	Tr280×4	23	260	23052RK+AH3052	60.0	HNL56
	128	135	Tr280×4	23	260	23052RHAK+AH3052	55.6	HNL56
	162	178	Tr270×4	22	260	24052RRK30+AH24052	77.0	—
	162	178	Tr270×4	22	260	24052RHAK30+AH24052	71.2	—
	172	179	Tr290×4	26	260	23152RK+AH3152	107	HN58
	172	179	Tr290×4	26	260	23152RHAK+AH3152	101	HN58
	202	218	Tr280×4	22	260	24152RRK30+AH24152	128	—
	202	218	Tr280×4	22	260	24152RHAK30+AH24152	120	—
	155	161	Tr290×4	23	260	22252RK+AH2252	122	HN58
	155	161	Tr290×4	23	260	22252RHAK+AH2252	115	HN58
	205	213	Tr290×4	30	260	23252RK+AH2352	164	HN58
	205	213	Tr290×4	30	260	23252RHAK+AH2352	153	HN58
	205	213	Tr290×4	30	260	22352RK+AH2352	212	HN58
	205	213	Tr290×4	30	260	22352RHAK+AH2352	197	HN58
260	131	139	Tr300×4	24	280	23056RK+AH3056	64.9	HNL60
	131	139	Tr300×4	24	280	23056RHAK+AH3056	60.2	HNL60
	162	179	Tr290×4	22	280	24056RRK30+AH24056	81.9	HN58
	162	179	Tr290×4	22	280	24056RHAK30+AH24056	75.7	HN58
	175	183	Tr310×5	28	280	23156RRK+AH3156	114	HN62
	175	183	Tr310×5	28	280	23156RHAK+AH3156	108	HN62
	202	219	Tr300×4	22	280	24156RRK30+AH24156	136	—
	202	219	Tr300×4	22	280	24156RHAK30+AH24156	128	—
	155	163	Tr310×5	24	280	22256RK+AH2256	127	HN62
	155	163	Tr310×5	24	280	22256RHAK+AH2256	119	HN62
	212	220	Tr310×5	30	280	23256RK+AH2356	175	HN62
	212	220	Tr310×5	30	280	23256RHAK+AH2356	163	HN62
	212	220	Tr310×5	30	280	22356RK+AH2356	247	HN62
	212	220	Tr310×5	30	280	22356RHAK+AH2356	230	HN62

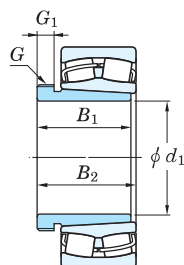
d_1	Boundary dimensions (mm)				Brg. bore d (mm)	Designations Bearing + withdrawal sleeve	Mass Brg.+withdrawal sleeve (kg)	(Refer.) Applicable locknut No.
	B_1	B_2	$G^{1)}$ Screw size	G_1				
280	145	153	Tr320×5	26	300	23060RK+AH3060	88.1	HNL64
	145	153	Tr320×5	26	300	23060RHAK+AH3060	81.2	HNL64
	184	202	Tr310×5	24	300	24060RRK30+AH24060	112	HN62
	184	202	Tr310×5	24	300	24060RHAK30+AH24060	105	HN62
	192	200	Tr330×5	30	300	23160RRK+AH3160	149	HN66
	192	200	Tr330×5	30	300	23160RHAK+AH3160	140	HN66
	224	242	Tr320×5	24	300	24160RRK30+AH24160	180	—
	224	242	Tr320×5	24	300	24160RHAK30+AH24160	168	—
	170	178	Tr330×5	26	300	22260RK+AH2260	160	HN66
	170	178	Tr330×5	26	300	22260RHAK+AH2260	150	HN66
300	228	236	Tr330×5	34	300	23260RK+AH3260	223	HN66
	228	236	Tr330×5	34	300	23260RHAK+AH3260	208	HN66
	149	157	Tr345×5	27	320	23064RK+AH3064	94.8	HNL69
	149	157	Tr345×5	27	320	23064RHAK+AH3064	88.1	HNL69
	184	202	Tr330×5	24	320	24064RRK30+AH24064	120	HN66
	184	202	Tr330×5	24	320	24064RHAK30+AH24064	108	HN66
	209	217	Tr350×5	31	320	23164RK+AH3164	191	HN70
	209	217	Tr350×5	31	320	23164RHAK+AH3164	180	HN70
	242	260	Tr340×5	24	320	24164RRK30+AH24164	226	—
	242	260	Tr340×5	24	320	24164RHAK30+AH24164	217	—
320	180	190	Tr350×5	27	320	22264RK+AH2264	191	HN70
	246	254	Tr350×5	36	320	23264RK+AH3264	280	HN70
	246	254	Tr350×5	36	320	23264RHAK+AH3264	260	HN70
	162	171	Tr365×5	28	340	23068RK+AH3068	125	HNL73
	162	171	Tr365×5	28	340	23068RHAK+AH3068	115	HNL73
	225	234	Tr370×5	33	340	23168RK+AH3168	239	HN74
340	225	234	Tr370×5	33	340	23168RHAK+AH3168	225	HN74
	269	288	Tr360×5	26	340	24168RRK30+AH24168	293	—

[Note] 1) Basic profile and dimensions of screw thread identified by prefix M are in accordance with JIS B 0205.
Basic profile and dimensions of screw thread identified by prefix Tr are in accordance with JIS B 0216.

Withdrawal sleeves for spherical roller bearings

d_1 (320) ~ 380 mm

d_1 400 ~ 480 mm



d_1	Boundary dimensions (mm)			G_1	Brg. bore d (mm)	Designations Bearing + withdrawal sleeve	Mass Brg.+withdrawal sleeve (kg)	(Refer.) Applicable locknut No.
	B_1	B_2	$G^{1)}$ Screw size					
320	269	288	Tr360×5	26	340	24168RHAK30+ AH24168	282	—
	264	273	Tr370×5	38	340	23268RK+ AH3268	342	HN74
	264	273	Tr370×5	38	340	23268RHAK+ AH3268	317	HN74
340	167	176	Tr385×5	30	360	23072RK+ AH3072	132	HNL77
	167	176	Tr385×5	30	360	23072RHAK+ AH3072	122	HNL77
	229	238	Tr400×5	35	360	23172RK+ AH3172	254	HN80
	232	238	Tr400×5	35	360	23172RHAK+ AH3172	239	HN80
	269	289	Tr380×5	26	360	24172RK30+ AH24172	313	—
	269	289	Tr380×5	26	360	24172RHAK30+ AH24172	300	—
	274	283	Tr400×5	40	360	23272RK+ AH3272	388	HN80
	274	283	Tr400×5	40	360	23272RHAK+ AH3272	360	HN80
	360	170	180	Tr410×5	31	380	23076RK+ AH3076	141
170		180	Tr410×5	31	380	23076RHAK+ AH3076	131	HNL82
232		242	Tr420×5	36	380	23176RK+ AH3176	269	HN84
240		242	Tr420×5	36	380	23176RHAK+ AH3176	253	HN84
271		291	Tr400×5	28	380	24176RK30+ AH24176	328	HN80
271		291	Tr400×5	28	380	24176RHAK30+ AH24176	314	HN80
284		294	Tr420×5	42	380	23276RK+ AH3276	432	HN84
284		294	Tr420×5	42	380	23276RHAK+ AH3276	400	HN84
380	183	193	Tr430×5	33	400	23080RK+ AH3080	178	HNL86
	183	193	Tr430×5	33	400	23080RHAK+ AH3080	165	HNL86
	240	250	Tr440×5	38	400	23180RK+ AH3180	305	HN88
	266	250	Tr440×5	38	400	23180RHAK+ AH3180	287	HN88
	278	298	Tr420×5	28	400	24180RK30+ AH24180	368	HN84
	278	298	Tr420×5	28	400	24180RHAK30+ AH24180	352	HN84
	302	312	Tr440×5	44	400	23280RK+ AH3280	521	HN88
	302	312	Tr440×5	44	400	23280RHAK+ AH3280	480	HN88

[Note] 1) Basic profile and dimensions of screw thread identified by prefix M are in accordance with JIS B 0205.
Basic profile and dimensions of screw thread identified by prefix Tr are in accordance with JIS B 0216.

d_1	Boundary dimensions (mm)			G_1	Brg. bore d (mm)	Designations Bearing + withdrawal sleeve	Mass Brg.+withdrawal sleeve (kg)	(Refer.) Applicable locknut No.
	B_1	B_2	$G^{1)}$ Screw size					
400	186	196	Tr450×5	34	420	23084RK+ AH3084	188	HNL90
	186	196	Tr450×5	34	420	23084RHAK+ AH3084	174	HNL90
	266	276	Tr460×5	40	420	23184RK+ AH3184	399	HN92
	270	276	Tr460×5	40	420	23184RHAK+ AH3184	375	HN92
	321	331	Tr460×5	46	420	23284RK+ AH3284	673	HN92
	321	331	Tr460×5	46	420	23284RHAK+ AH3284	568	HN92
420	194	205	Tr470×5	35	440	23088RK+ AHX3088	215	HNL94
	194	205	Tr470×5	35	440	23088RHAK+ AHX3088	199	HNL94
	270	281	Tr480×5	42	440	23188RK+ AHX3188	416	HN96
	285	281	Tr480×5	42	440	23188RHAK+ AHX3188	391	HN96
	330	341	Tr480×5	48	440	23288RK+ AHX3288	678	HN96
	330	341	Tr480×5	48	440	23288RHAK+ AHX3288	627	HN96
440	202	213	Tr490×5	37	460	23092RK+ AHX3092	244	HNL98
	202	213	Tr490×5	37	460	23092RHAK+ AHX3092	226	HNL98
	285	296	Tr510×6	43	460	23192RK+ AHX3192	494	HN102
	295	296	Tr510×6	43	460	23192RHAK+ AHX3192	464	HN102
	349	360	Tr510×6	50	460	23292RK+ AHX3292	795	HN102
	349	360	Tr510×6	50	460	23292RHAK+ AHX3292	733	HN102
460	205	217	Tr520×6	38	480	23096RK+ AHX3096	257	HNL104
	205	217	Tr520×6	38	480	23096RHAK+ AHX3096	238	HNL104
	295	307	Tr530×6	45	480	23196RK+ AHX3196	551	HN106
	313	307	Tr530×6	45	480	23196RHAK+ AHX3196	518	HN106
	364	376	Tr530×6	52	480	23296RK+ AHX3296	914	HN106
	364	376	Tr530×6	52	480	23296RHAK+ AHX3296	844	HN106
480	209	221	Tr540×6	40	500	230/500RK+ AHX30/500	271	HNL108
	313	325	Tr550×6	47	500	231/500RK+ AHX31/500	648	HN110
	393	405	Tr550×6	54	500	232/500RK+ AHX32/500	1 015	HN110