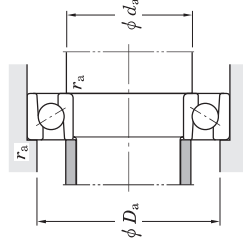
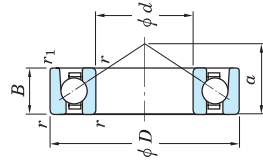


Single-row angular contact ball bearings

d 10 ~ (17) mm



With machined cage

With pressed cage

HAR

d	Boundary dimensions (mm)		Basic load ratings (kN)		Factor	Limiting speeds ¹⁾ (min ⁻¹)		Bearing No. ²⁾	Load center (mm) α	Mounting dimensions (mm)			(Refer.) Mass (kg)
	D	B	C _r	C _{0r}		Grease lub.	Oil lub.			d _a min.	D _a max.	r _a max.	
10	22	6	3.00	1.50	14.2	52 000	69 000	7900C	5.1	12.5	19.5	0.3	0.008
	26	8	5.00	2.35	—	34 000	42 000	7000	9.1	12.5	23.5	0.3	0.021
	26	8	4.65	2.15	—	25 000	33 000	7000B	11.6	12.5	23.5	0.3	0.021
	26	8	5.30	2.45	12.5	47 000	62 000	7000C	6.4	12.5	23.5	0.3	0.021
	30	9	4.65	2.20	2.75	29 000	37 000	7200	10.4	14.5	25.5	0.6	0.031
	30	9	4.30	2.00	2.50	22 000	29 000	7200B	13.1	14.5	25.5	0.6	0.031
	35	11	5.00	2.35	2.95	40 000	54 000	7200C	7.2	14.5	25.5	0.6	0.031
12	24	6	3.20	1.70	14.7	48 000	62 000	7901C	5.4	14.5	21.5	0.3	0.010
	28	8	5.40	2.75	—	29 000	37 000	7001	9.9	14.5	25.5	0.3	0.024
	28	8	4.95	2.50	—	22 000	29 000	7001B	12.6	14.5	25.5	0.3	0.024
	28	8	5.80	2.95	13.4	40 000	54 000	7001C	6.7	14.5	25.5	0.3	0.024
	32	10	7.45	3.65	4.05	27 000	34 000	7201	11.4	16.5	27.5	0.6	0.038
	32	10	6.95	3.40	3.75	20 000	27 000	7201B	14.2	16.5	27.5	0.6	0.038
	37	12	7.90	3.85	4.30	38 000	50 000	7201C	7.9	16.5	27.5	0.6	0.038
15	28	7	4.75	2.65	14.5	39 000	52 000	7902C	6.4	17.5	25.5	0.3	0.015
	32	9	6.10	3.45	—	26 000	32 000	7002	11.3	17.5	29.5	0.3	0.035
	32	9	5.55	3.15	—	19 000	25 000	7002B	14.6	17.5	29.5	0.3	0.035
	32	9	6.60	3.70	14.1	35 000	47 000	7002C	7.6	17.5	29.5	0.3	0.035
	35	11	8.10	4.25	4.25	24 000	29 000	7202	12.9	19.5	30.5	0.6	0.048
	35	11	7.45	3.95	3.95	18 000	24 000	7202B	16.2	19.5	30.5	0.6	0.048
	42	13	8.65	4.55	4.55	33 000	43 000	7202C	8.9	19.5	30.5	0.6	0.048
17	30	7	5.00	2.95	14.9	36 000	47 000	7903C	6.7	19.5	27.5	0.3	0.016
	35	10	6.75	4.15	—	23 000	28 000	7003	12.7	19.5	32.5	0.3	0.045
	42	13	12.5	6.45	7.20	20 000	25 000	7302C	15.0	20.5	36.5	1	0.088

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings.

Limiting speeds of pressed cage bearings should be kept to under 80% of this value.

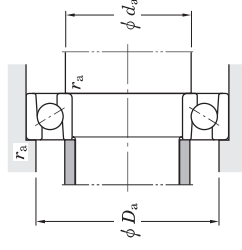
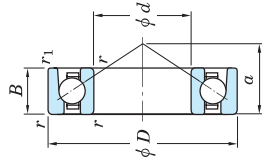
For bearings with 15° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.

2) B, C or no indication after the bearing number indicates nominal contact angle of 40°, 15° and 30° respectively.

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

Single-row angular contact ball bearings

d (17) ~ (25) mm



With machined cage

With pressed cage

HAR

d	Boundary dimensions (mm)		Basic load ratings (kN)		Factor	Limiting speeds ¹⁾ (min ⁻¹)		Bearing No. ²⁾	Load center (mm)	Mounting dimensions (mm)			(Refer.) Mass (kg)
	D	B	C _r	C _{0r}		Grease lub.	Oil lub.			d _a min.	D _a max.	r _a max.	
17	35	10	6.10	3.75	—	17 000	23 000	7003B	16.1	19.5	32.5	0.3	0.045
	35	10	7.30	4.45	14.6	31 000	41 000	7003C	8.6	19.5	32.5	0.3	0.045
	40	12	10.2	5.50	—	21 000	26 000	7203	14.4	21.5	35.5	0.6	0.070
	40	12	9.35	5.05	—	16 000	21 000	7203B	18.2	21.5	35.5	0.6	0.070
	40	12	10.9	5.90	13.4	29 000	38 000	7203C	9.9	21.5	35.5	0.6	0.070
	47	14	14.9	7.90	—	18 000	23 000	7303	16.5	22.5	41.5	1	0.120
	47	14	13.8	7.30	—	14 000	18 000	7303B	20.8	22.5	41.5	1	0.120
20	47	14	15.8	8.40	12.6	25 000	33 000	7303C	11.4	22.5	41.5	1	0.120
	37	9	7.30	4.55	14.9	30 000	39 000	7904C	8.3	22.5	34.5	0.3	0.035
	42	12	10.3	6.10	—	19 000	24 000	7004	15.1	24.5	37.5	0.6	0.079
	42	12	9.35	5.55	—	14 000	19 000	7004B	19.2	24.5	37.5	0.6	0.079
	42	12	11.1	6.60	14.1	26 000	35 000	7004C	10.2	24.5	37.5	0.6	0.079
	47	14	14.5	8.40	—	17 000	22 000	7204	17.0	25.5	41.5	1	0.112
	47	14	13.3	7.70	—	13 000	17 000	7204B	21.5	25.5	41.5	1	0.112
25	47	14	15.5	9.00	13.4	24 000	32 000	7204C	11.6	25.5	41.5	1	0.112
	52	15	17.4	9.40	—	17 000	21 000	7304	17.9	27	45	1	0.150
	52	15	16.2	8.70	—	13 000	17 000	7304B	22.6	27	45	1	0.150
	52	15	18.5	9.95	12.6	23 000	31 000	7304C	12.3	27	45	1	0.150
	72	19	35.6	19.1	—	9 600	13 000	7404	23.1	27	65	1	0.395
	72	19	33.5	17.9	—	8 500	12 000	7404B	29.2	27	65	1	0.395
	42	9	7.80	5.45	15.5	25 000	33 000	7905C	9.1	27.5	39.5	0.3	0.041
25	47	12	11.3	7.40	—	17 000	21 000	7005	16.4	29.5	42.5	0.6	0.091
	47	12	10.2	6.70	—	12 000	17 000	7005B	21.1	29.5	42.5	0.6	0.091
	47	12	12.3	8.00	14.7	23 000	30 000	7005C	10.8	29.5	42.5	0.6	0.091
	52	15	15.3	9.50	—	15 000	19 000	7205	18.8	30.5	46.5	1	0.135
	52	15	14.0	8.70	—	12 000	15 000	7205B	23.9	30.5	46.5	1	0.135
	52	15	16.6	10.2	14.0	21 000	28 000	7205C	12.7	30.5	46.5	1	0.135

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings.

Limiting speeds of pressed cage bearings should be kept to under 80% of this value.

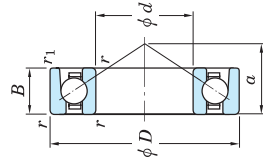
For bearings with 15° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.

2) B, C or no indication after the bearing number indicates nominal contact angle of 40°, 15° and 30° respectively.

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

Single-row angular contact ball bearings

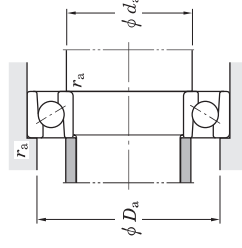
d (35) ~ (45) mm



With machined cage

With pressed cage

HAR



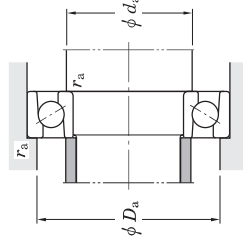
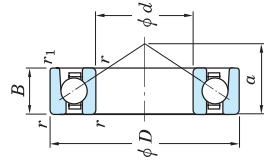
Boundary dimensions (mm)	Basic load ratings (kN)		Factor	Limiting speeds ¹⁾ (min ⁻¹)		Bearing No. ²⁾	Load center (mm)	Mounting dimensions (mm)			(Refer.) Mass (kg)	
	With machined cage	With pressed cage		Grease lub.	Oil lub.			d_a min.	D_a max.	r_a max.		
35	C_r	C_{0r}	f_0	Grease lub.	Oil lub.	7307B 7307C 7407 7407B	α	d_a min.	D_a max.	r_a max.	(kg)	
	32.5	20.2	—	7 700	10 000			35.0	43.5	71.5		1.5
	37.9	23.6	13.4	14 000	19 000			18.3	43.5	71.5		1.5
	60.4	37.0	—	6 500	8 600			32.6	43.5	91.5		1.5
100	25	1.5	—	5 700	7 900	41.7	43.5	91.5	1.5	0.950		
100	25	1.5	—	—	—	—	—	—	—	—	0.950	
40	C_r	C_{0r}	f_0	Grease lub.	Oil lub.	7908C HAR908C HAR008C 7008 7008B 7008C 7208 7208B 7208C 7308 7308B 7308C 7408 7408B	α	d_a min.	D_a max.	r_a max.	(kg)	
	15.7	12.4	15.7	17 000	22 000			12.8	44.5	57.5		0.6
	6.35	4.05	8.4	22 000	33 000			12.8	44.5	57.5		0.6
	9.70	6.20	8.2	20 000	31 000			14.7	45.5	62.5		1
	18.7	14.6	—	11 000	14 000			23.2	45.5	62.5		1
	16.8	13.2	—	8 300	11 000			30.2	45.5	62.5		1
	20.5	15.9	15.4	15 000	20 000			14.8	45.5	62.5		1
	33.6	23.3	—	10 000	12 000			26.3	47	73		1
	30.6	21.3	—	7 500	10 000			34.2	47	73		1
	36.4	26.2	14.2	14 000	18 000			17.0	47	73		1
	43.2	27.4	—	9 200	12 000			30.3	48.5	81.5		1.5
	39.7	25.2	—	6 900	9 200			38.8	48.5	81.5		1.5
46.3	29.4	13.4	13 000	17 000	20.2	48.5	81.5	1.5				
69.9	43.5	—	5 900	7 900	35.5	50	100	2				
64.9	40.4	—	5 200	7 200	45.4	50	100	2				
69.9	43.5	—	5 900	7 900	35.5	50	100	2				
64.9	40.4	—	5 200	7 200	45.4	50	100	2				
45	C_r	C_{0r}	f_0	Grease lub.	Oil lub.	7909C HAR909C HAR009C 7009 7009B 7009C 7209 7209B 7209C	α	d_a min.	D_a max.	r_a max.	(kg)	
	16.6	14.1	16.0	15 000	20 000			13.6	49.5	63.5		0.6
	6.80	4.70	8.5	19 000	30 000			13.6	49.5	63.5		0.6
	10.9	7.10	8.3	18 000	28 000			16.0	50.5	69.5		1
	22.2	17.7	—	10 000	12 000			25.3	50.5	69.5		1
	20.0	16.0	—	7 500	10 000			33.2	50.5	69.5		1
	24.4	19.3	15.4	14 000	18 000			16.0	50.5	69.5		1
	37.7	26.6	—	9 400	12 000			28.0	52	78		1
	34.3	24.3	—	7 000	9 400			36.4	52	78		1
	40.8	28.7	14.2	13 000	17 000			18.1	52	78		1

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings.
Limiting speeds of pressed cage bearings should be kept to under 80% of this value.
For bearings with 15° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.

2) B, C or no indication after the bearing number indicates nominal contact angle of 40°, 15° and 30° respectively.
[Remark] Standard cage types used for the above bearings are described earlier in this section.

Single-row angular contact ball bearings

d (45) ~ (55) mm



With machined cage

With pressed cage

HAR

Boundary dimensions (mm)		Basic load ratings (kN)			Factor	Limiting speeds ¹⁾ (min ⁻¹)		Bearing No. ²⁾	Mounting dimensions (mm)			(Refer.) Mass (kg)							
		With machined cage	With pressed cage			Grease lub.	Oil lub.		Load center (mm) α	d _a min.	D _a max.		r _a max.						
45	D	100	25	1.5	1	55.1	37.1	58.4	40.4	f ₀	—	8 200	10 000	7309	33.6	53.5	91.5	1.5	0.875
	D	100	25	1.5	1	50.6	34.1	53.6	37.2	—	—	6 200	8 200	7309B	43.1	53.5	91.5	1.5	0.875
	D	100	25	1.5	1	59.2	39.7	62.7	43.4	13.5	—	11 000	15 000	7309C	22.3	53.5	91.5	1.5	0.875
	D	120	29	2	1	84.9	53.8	91.1	59.8	—	—	5 400	7 100	7409	38.6	55	110	2	1.55
	D	120	29	2	1	78.9	50.0	84.7	55.5	—	—	4 800	6 600	7409B	49.5	55	110	2	1.55
	D	72	12	0.6	0.3	17.4	15.7	—	—	16.2	—	14 000	18 000	7910C	14.2	54.5	67.5	0.6	0.128
D	72	12	0.6	0.3	9.10	6.30	—	—	8.5	—	18 000	28 000	HAR910C	14.2	54.5	67.5	0.6	0.131	
D	80	16	1	0.6	11.4	7.85	—	—	8.4	—	17 000	26 000	HAR010C	16.7	55.5	74.5	1	0.273	
D	80	16	1	0.6	23.6	20.1	—	—	—	—	9 200	11 000	7010	26.9	55.5	74.5	1	0.290	
D	80	16	1	0.6	21.2	18.1	—	—	—	—	6 900	9 200	7010B	35.3	55.5	74.5	1	0.290	
D	80	16	1	0.6	26.0	21.9	—	—	15.7	—	13 000	17 000	7010C	16.8	55.5	74.5	1	0.290	
D	90	20	1.1	0.6	39.4	29.4	—	—	—	—	8 500	11 000	7210	30.4	57	83	1	0.485	
D	90	20	1.1	0.6	35.7	26.7	—	—	—	—	6 400	8 500	7210B	39.6	57	83	1	0.485	
D	90	20	1.1	0.6	42.8	31.8	—	—	14.6	—	12 000	16 000	7210C	19.4	57	83	1	0.485	
D	110	27	2	1	70.1	48.1	74.3	52.5	—	—	7 300	9 100	7310	37.2	60	100	2	1.14	
D	110	27	2	1	64.4	44.3	68.2	48.3	—	—	5 500	7 300	7310B	47.9	60	100	2	1.14	
D	110	27	2	1	75.1	51.6	79.6	56.2	13.4	—	10 000	13 000	7310C	24.5	60	100	2	1.14	
D	130	31	2.1	1.1	97.4	65.3	—	—	—	—	4 900	6 600	7410	41.6	62	118	2	1.92	
D	130	31	2.1	1.1	90.2	60.4	—	—	—	—	4 400	6 000	7410B	53.5	62	118	2	1.92	
55	D	80	13	1	0.6	19.7	18.5	—	—	16.3	—	13 000	17 000	7911C	15.5	60.5	74.5	1	0.178
	D	80	13	1	0.6	10.1	7.65	—	—	8.6	—	16 000	25 000	HAR911C	15.5	60.5	74.5	1	0.189
	D	90	18	1.1	0.6	14.1	9.90	—	—	8.4	—	15 000	23 000	HAR011C	18.7	62	83	1	0.403
	D	90	18	1.1	0.6	31.1	26.3	—	—	—	—	8 300	10 000	7011	29.9	62	83	1	0.420
	D	90	18	1.1	0.6	27.9	23.7	—	—	—	—	6 200	8 300	7011B	39.4	62	83	1	0.420
	D	90	18	1.1	0.6	34.1	28.6	—	—	15.5	—	11 000	15 000	7011C	18.7	62	83	1	0.420
D	100	21	1.5	1	48.7	37.1	51.0	39.8	—	—	7 600	9 500	7211	33.3	63.5	91.5	1.5	0.635	
D	100	21	1.5	1	44.1	33.8	46.2	36.2	—	—	5 700	7 600	7211B	43.6	63.5	91.5	1.5	0.635	

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings.

Limiting speeds of pressed cage bearings should be kept to under 80% of this value.

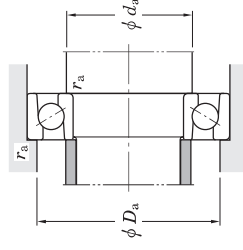
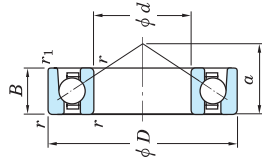
For bearings with 15° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.

2) B, C or no indication after the bearing number indicates nominal contact angle of 40°, 15° and 30° respectively.

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

Single-row angular contact ball bearings

d (55) ~ (65) mm



With machined cage

With pressed cage

HAR

Boundary dimensions (mm)	Basic load ratings (kN)		Factor	Limiting speeds ¹⁾ (min ⁻¹)		Bearing No. ²⁾	Load center (mm) α	Mounting dimensions (mm)			(Refer.) Mass (kg)							
	With machined cage	With pressed cage		Grease lub.	Oil lub.			da min.	Da max.	ra max.								
55	D	21	1.5	1	52.9	40.2	55.4	43.1	14.6	11 000	14 000	7211C	21.1	63.5	91.5	1.5	0.635	
	B	29	2	1	80.9	56.5	85.8	61.7	—	6 700	8 400	7311	40.2	65	110	2	1.45	
	D	29	2	1	74.3	56.7	78.7	56.7	—	5 000	6 700	7311B	51.8	65	110	2	1.45	
	B	29	2	1	86.8	60.6	91.9	66.1	13.4	9 300	12 000	7311C	26.4	65	110	2	1.45	
	D	33	2.1	1.1	118	82.4	—	—	—	4 500	6 000	7411	45.0	67	128	2	2.36	
	B	33	2.1	1.1	110	76.5	—	—	—	4 000	5 500	7411B	57.8	67	128	2	2.36	
60	D	85	13	0.6	23.2	21.8	—	—	16.3	12 000	16 000	7912C	16.3	65.5	79.5	1	0.187	
	B	85	13	0.6	9.95	7.75	—	—	8.6	15 000	23 000	HAR912C	16.2	65.5	79.5	1	0.202	
	D	95	18	1.1	0.6	14.7	10.8	—	8.5	14 000	22 000	HAR012C	19.4	67	88	1	0.433	
	B	95	18	1.1	0.6	31.9	28.1	—	—	7 700	9 700	7012	31.4	67	88	1	0.450	
	D	95	18	1.1	0.6	28.6	25.3	—	—	5 800	7 700	7012B	41.5	67	88	1	0.450	
	B	95	18	1.1	0.6	35.0	30.6	—	15.7	11 000	14 000	7012C	19.4	67	88	1	0.450	
	D	110	22	1.5	1	58.9	45.7	61.7	49.0	—	6 900	8 600	7212	36.1	68.5	101.5	1.5	0.820
	B	110	22	1.5	1	53.4	41.6	55.9	44.6	—	5 100	6 900	7212B	47.5	68.5	101.5	1.5	0.820
	D	110	22	1.5	1	64.0	49.5	67.0	53.0	14.5	9 500	13 000	7212C	22.7	68.5	101.5	1.5	0.820
	B	130	31	2.1	1.1	92.5	65.6	98.1	71.6	—	6 200	7 700	7312	43.2	72	118	2	1.81
	D	130	31	2.1	1.1	84.9	60.3	90.0	65.8	—	4 600	6 200	7312B	55.8	72	118	2	1.81
	B	130	31	2.1	1.1	99.2	70.3	105	76.7	13.4	8 600	11 000	7312C	28.4	72	118	2	1.81
65	D	150	35	2.1	1.1	129	93.6	—	—	4 100	5 500	7412	48.5	72	138	2	2.85	
	B	150	35	2.1	1.1	119	86.7	—	—	3 700	5 100	7412B	62.6	72	138	2	2.85	
	D	90	13	1	0.6	20.8	21.2	—	16.5	11 000	15 000	7913C	16.9	70.5	84.5	1	0.205	
	B	90	13	1	0.6	11.8	9.45	—	8.6	14 000	22 000	HAR913C	16.9	70.5	84.5	1	0.212	
	D	100	18	1.1	0.6	15.3	11.8	—	8.5	13 000	21 000	HAR013C	20.1	72	93	1	0.462	
	B	100	18	1.1	0.6	33.7	31.4	—	—	7 200	9 000	7013	33.0	72	93	1	0.470	
	D	100	18	1.1	0.6	30.1	28.3	—	—	5 400	7 200	7013B	43.8	72	93	1	0.470	
	B	100	18	1.1	0.6	37.1	34.3	—	15.9	10 000	13 000	7013C	20.1	72	93	1	0.470	
D	120	23	1.5	1	67.3	54.2	70.2	57.8	—	6 400	8 000	7213	38.2	73.5	111.5	1.5	1.02	

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings.

Limiting speeds of pressed cage bearings should be kept to under 80% of this value.

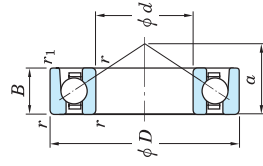
For bearings with 15° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.

2) B, C or no indication after the bearing number indicates nominal contact angle of 40°, 15° and 30° respectively.

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

Single-row angular contact ball bearings

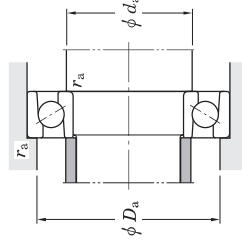
d (65) ~ (75) mm



With machined cage

With pressed cage

HAR



Boundary dimensions (mm)		Basic load ratings (kN)		Factor	Limiting speeds ¹⁾ (min ⁻¹)		Bearing No. ²⁾	Load center (mm)		Mounting dimensions (mm)		(Refer.) Mass (kg)						
d	D	B	r	r ₁	min.	max.		C _r	C _{0r}	f ₀	Grease lub.	Oil lub.	d _a	min.	D _a	max.	r _a	max.
65	120	23	1.5	1	60.9	49.3	63.6	52.6	—	4 800	6 400	50.3	73.5	111.5	1.5	1.02		
	120	23	1.5	1	73.1	58.7	76.3	62.6	14.6	8 900	12 000	23.9	73.5	111.5	1.5	1.02		
	140	33	2.1	1.1	105	75.3	111	82.2	—	5 800	7 200	46.3	77	128	2	2.22		
	140	33	2.1	1.1	96.1	69.3	102	75.6	—	4 300	5 800	59.7	77	128	2	2.22		
	140	33	2.1	1.1	112	80.7	119	88.1	13.4	8 000	11 000	30.3	77	128	2	2.22		
	160	37	2.1	1.1	139	104	—	—	—	3 900	5 200	51.4	77	148	2	3.41		
70	100	16	1	0.6	28.9	29.0	—	—	16.4	10 000	12 000	19.4	75.5	94.5	1	0.332		
	100	16	1	0.6	12.9	10.5	—	—	8.7	13 000	20 000	19.4	75.5	94.5	1	0.356		
	110	20	1.1	0.6	20.7	15.5	—	—	8.4	12 000	19 000	22.1	77	103	1	0.629		
	110	20	1.1	0.6	42.7	39.4	—	—	—	6 600	8 300	36.0	77	103	1	0.660		
	110	20	1.1	0.6	38.3	35.5	—	—	—	5 000	6 600	47.8	77	103	1	0.660		
	110	20	1.1	0.6	46.9	43.0	—	—	15.7	9 200	12 000	22.1	77	103	1	0.660		
	125	24	1.5	1	69.8	55.6	76.3	63.5	—	6 100	7 600	40.2	78.5	116.5	1.5	1.12		
	125	24	1.5	1	63.2	50.6	69.1	57.8	—	4 600	6 100	52.9	78.5	116.5	1.5	1.12		
	125	24	1.5	1	75.9	60.2	83.0	68.8	14.6	8 400	11 000	25.1	78.5	116.5	1.5	1.12		
	150	35	2.1	1.1	118	85.8	125	93.6	—	5 400	6 700	49.3	82	138	2	2.70		
	150	35	2.1	1.1	108	78.9	114	86.0	—	4 000	5 400	63.7	82	138	2	2.70		
	150	35	2.1	1.1	126	91.9	134	100	13.4	7 500	9 900	32.2	82	138	2	2.70		
75	180	42	3	1.1	149	115	—	—	—	3 500	4 600	57.6	84	166	2.5	4.99		
	180	42	3	1.1	148	119	—	—	—	3 100	4 300	74.2	84	166	2.5	4.99		
	105	16	1	0.6	29.4	30.5	—	—	16.5	9 300	12 000	20.1	80.5	99.5	1	0.350		
	105	16	1	0.6	13.3	11.2	—	—	8.7	12 000	19 000	20.1	80.5	99.5	1	0.370		
75	115	20	1.1	0.6	21.1	16.2	—	—	8.5	12 000	18 000	22.7	82	108	1	0.665		
	115	20	1.1	0.6	43.6	41.7	—	—	—	6 300	7 800	37.4	82	108	1	0.690		
	115	20	1.1	0.6	39.1	37.6	—	—	—	4 700	6 300	49.9	82	108	1	0.690		
	115	20	1.1	0.6	48.0	45.6	—	—	15.9	8 700	11 000	22.7	82	108	1	0.690		

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings.

Limiting speeds of pressed cage bearings should be kept to under 80% of this value.

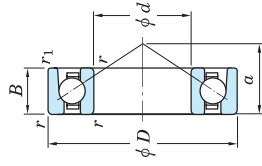
For bearings with 15° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.

2) B, C or no indication after the bearing number indicates nominal contact angle of 40°, 15° and 30° respectively.

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

Single-row angular contact ball bearings

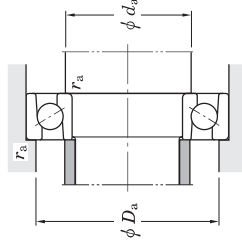
d (75) ~ (85) mm



With machined cage

With pressed cage

HAR



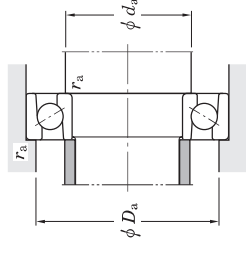
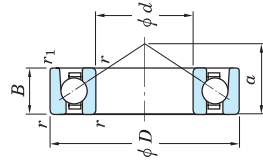
d	Boundary dimensions (mm)		Basic load ratings (kN)		Factor	Limiting speeds ¹⁾ (min ⁻¹)		Bearing No. ²⁾	Load center (mm)		Mounting dimensions (mm)		(Refer.) Mass (kg)	
	D	B	C _r	C _{0r}		Grease lub.	Oil lub.		d _a min.	D _a max.	r _a max.	r _a max.		d _a min.
75	130	25	79.2	65.2	—	5 800	7 200	7215	42.1	83.5	121.5	1.5	1.23	
	130	25	1.5	1	—	4 300	5 800	7215B	55.5	83.5	121.5	1.5	1.23	
	130	25	1.5	1	14.6	8 000	11 000	7215C	26.2	83.5	121.5	1.5	1.23	
	160	37	2.1	1.1	—	5 000	6 300	7315	52.4	87	148	2	3.15	
	160	37	2.1	1.1	—	3 800	5 000	7315B	67.8	87	148	2	3.15	
	160	37	2.1	1.1	13.4	7 000	9 200	7315C	34.2	87	148	2	3.15	
80	190	45	3	1.1	—	3 300	4 400	7415	61.3	89	176	2.5	5.90	
	190	45	3	1.1	—	2 900	4 000	7415B	78.9	89	176	2.5	5.90	
	110	16	1	0.6	16.5	8 800	11 000	7916C	20.7	85.5	104.5	1	0.368	
	110	16	1	0.6	8.8	12 000	18 000	HAR916C	20.7	85.5	104.5	1	0.398	
	125	22	1.1	0.6	8.4	10 000	16 000	HAR016C	24.7	87	118	1	0.903	
	125	22	1.1	0.6	—	5 800	7 200	7016	40.6	87	118	1	0.930	
85	125	22	1.1	0.6	—	4 300	5 800	7016B	54.0	87	118	1	0.930	
	125	22	1.1	0.6	15.7	8 000	11 000	7016C	24.7	87	118	1	0.930	
	140	26	2	1	—	5 400	6 700	7216	44.8	90	130	2	1.50	
	140	26	2	1	—	4 000	5 400	7216B	59.2	90	130	2	1.50	
	140	26	2	1	14.7	7 500	9 900	7216C	27.7	90	130	2	1.50	
	170	39	2.1	1.1	—	4 700	5 900	7316	55.6	92	158	2	3.85	
	170	39	2.1	1.1	—	3 500	4 700	7316B	71.9	92	158	2	3.85	
	170	39	2.1	1.1	13.5	6 500	8 600	7316C	36.2	92	158	2	3.85	
	200	48	3	1.1	—	3 100	4 100	7416	65.0	94	186	2.5	6.00	
	200	48	3	1.1	—	2 700	3 800	7416B	83.6	94	186	2.5	6.00	
	85	120	18	1.1	0.6	16.5	8 100	11 000	7917C	22.7	92	113	1	0.523
		120	18	1.1	0.6	8.7	10 000	16 000	HAR917C	22.7	92	113	1	0.570
130		22	1.1	0.6	8.5	9 700	15 000	HAR017C	25.4	92	123	1	0.947	
85	130	22	1.1	0.6	—	5 500	6 800	7017	42.3	92	123	1	0.970	
	130	22	1.1	0.6	—	4 100	5 500	7017B	56.5	92	123	1	0.970	

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings.
Limiting speeds of pressed cage bearings should be kept to under 80% of this value.
For bearings with 15° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.

2) B, C or no indication after the bearing number indicates nominal contact angle of 40°, 15° and 30° respectively.
[Remark] Standard cage types used for the above bearings are described earlier in this section.

Single-row angular contact ball bearings

d (85) ~ (95) mm



With machined cage

With pressed cage

HAR

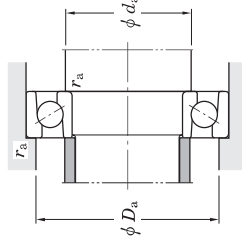
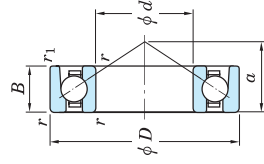
d	Boundary dimensions (mm)		Basic load ratings (kN)		Factor f_0	Limiting speeds ¹⁾ (min ⁻¹)		Load center (mm) α	Mounting dimensions (mm)			(Refer.) Mass (kg)
	D	B	C_r	C_{0r}		Grease lub.	Oil lub.		d_a min.	D_a max.	r_a max.	
85	130	22	60.1	58.7	15.9	7 600	10 000	25.5	92	123	1	0.970
	150	28	103	83.6	—	5 000	6 300	47.9	95	140	2	1.87
	150	28	89.2	76.0	—	3 800	5 000	63.3	95	140	2	1.87
	150	28	107	90.6	14.7	7 000	9 200	29.7	95	140	2	1.87
	180	41	150	122	—	4 400	5 500	58.8	99	166	2.5	4.53
	180	41	137	112	—	3 300	4 400	76.1	99	166	2.5	4.53
	180	41	161	130	13.5	6 100	8 100	38.3	99	166	2.5	4.53
	210	52	204	180	—	3 000	3 900	68.7	103	192	3	8.54
	210	52	189	167	—	2 600	3 600	88.1	103	192	3	8.54
	90	125	18	39.6	42.6	16.6	7 800	10 000	23.4	97	118	1
125		18	16.8	15.1	8.8	9 700	15 000	23.4	97	118	1	0.598
140		24	32.8	26.1	8.4	9 100	14 000	27.4	98.5	131.5	1.5	1.21
140		24	65.2	63.3	—	5 100	6 400	45.2	98.5	131.5	1.5	1.26
140		24	58.4	57.1	—	3 900	5 100	60.2	98.5	131.5	1.5	1.26
140		24	71.7	69.1	15.7	7 100	9 400	27.4	98.5	131.5	1.5	1.26
160		30	113	96.7	—	4 700	5 900	51.1	100	150	2	2.30
160		30	102	88.0	—	3 500	4 700	67.4	100	150	2	2.30
160		30	123	105	14.6	6 500	8 600	31.7	100	150	2	2.30
190		43	161	135	17.1	4 200	5 200	61.9	104	176	2.5	5.30
190	43	148	124	—	3 100	4 200	80.2	104	176	2.5	5.30	
190	43	173	145	13.5	5 800	7 700	40.3	104	176	2.5	5.30	
225	54	216	196	—	—	2 800	3 700	72.5	108	207	3	11.4
225	54	200	182	—	—	2 500	3 400	93.1	108	207	3	11.4
95	130	18	40.2	44.1	16.5	7 400	9 800	24.1	102	123	1	0.574
	130	18	17.3	16.0	8.8	9 300	14 000	24.1	102	123	1	0.626
	145	24	33.4	27.2	8.5	8 700	13 000	28.1	103.5	136.5	1.5	1.28
	145	24	66.6	67.1	—	4 800	6 000	47.2	103.5	136.5	1.5	1.32

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings. Limiting speeds of pressed cage bearings should be kept to under 80% of this value. For bearings with 15° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.

2) B, C or no indication after the bearing number indicates nominal contact angle of 40°, 15° and 30° respectively. [Remark] Standard cage types used for the above bearings are described earlier in this section.

Single-row angular contact ball bearings

d (95) ~ (105) mm



With machined cage

With pressed cage

HAR

Boundary dimensions (mm)		Basic load ratings (kN)			Factor	Limiting speeds ¹⁾ (min ⁻¹)		Bearing No. ²⁾	Mounting dimensions (mm)			(Refer.) Mass (kg)		
		With machined cage	With pressed cage			Grease lub.	Oil lub.		d _a min.	D _a max.	r _a max.			
d	D	C _r	C _{0r}	C _r	C _{0r}	f ₀			α					
95	145	24	1.5	1	59.6	60.5	—	—	63.2	103.5	136.5	1.5	1.32	
	145	24	1.5	1	73.4	73.4	15.9	4 800	28.3	103.5	136.5	1.5	1.32	
	170	32	2.1	1.1	122	103	—	6 700	54.3	107	158	2	2.78	
	170	32	2.1	1.1	111	101	—	4 400	71.6	107	158	2	2.78	
	170	32	2.1	1.1	133	120	14.6	4 400	33.8	107	158	2	2.78	
	200	45	3	1.1	172	149	—	6 100	65.1	109	186	2.5	6.12	
	200	45	3	1.1	158	137	—	4 000	84.4	109	186	2.5	6.12	
	200	45	3	1.1	185	160	13.5	5 500	42.3	109	186	2.5	6.12	
	100	140	20	1.1	0.6	55.6	58.5	16.3	7 000	26.1	107	133	1	0.773
		140	20	1.1	0.6	24.2	21.7	8.7	8 700	26.1	107	133	1	0.839
150		24	1.5	1	34.0	28.4	8.5	8 400	28.7	108.5	141.5	1.5	1.32	
150		24	1.5	1	68.4	70.6	—	4 700	48.1	108.5	141.5	1.5	1.37	
150		24	1.5	1	61.2	63.6	—	3 500	64.4	108.5	141.5	1.5	1.37	
150		24	1.5	1	75.3	77.2	16.0	6 500	28.7	108.5	141.5	1.5	1.37	
180		34	2.1	1.1	137	117	—	4 100	57.7	112	168	2	3.32	
180		34	2.1	1.1	124	107	—	3 100	76.2	112	168	2	3.32	
180		34	2.1	1.1	149	127	14.6	5 700	35.9	112	168	2	3.32	
215		47	3	1.1	184	161	—	3 600	69.4	114	201	2.5	7.53	
215	47	3	1.1	168	148	—	2 700	90.2	114	201	2.5	7.53		
215	47	3	1.1	197	173	13.4	5 000	44.8	114	201	2.5	7.53		
105	145	20	1.1	0.6	56.7	61.5	16.4	6 700	26.7	112	138	1	0.810	
	145	20	1.1	0.6	24.9	23.1	8.7	8 400	26.7	112	138	1	0.874	
	160	26	2	1	38.6	32.5	8.5	7 900	30.8	115	150	2	1.68	
	160	26	2	1	79.8	81.9	—	4 400	51.8	115	150	2	1.73	
	160	26	2	1	71.4	73.8	—	3 300	68.6	115	150	2	1.73	
	160	26	2	1	87.8	89.6	15.9	6 000	31.0	115	150	2	1.73	
	190	36	2.1	1.1	149	132	—	3 900	61.0	117	178	2	3.95	

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings.

Limiting speeds of pressed cage bearings should be kept to under 80% of this value.

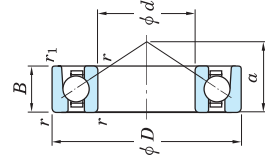
For bearings with 15° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.

2) B, C or no indication after the bearing number indicates nominal contact angle of 40°, 15° and 30° respectively.

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

Single-row angular contact ball bearings

d (120) ~ 140 mm



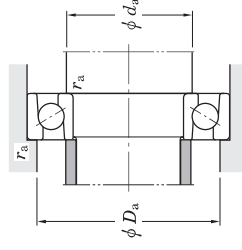
With machined cage



With pressed cage



HAR

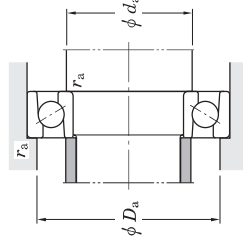
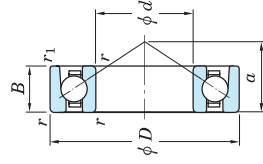


Boundary dimensions (mm)		Basic load ratings (kN)		Factor	Limiting speeds ¹⁾ (min ⁻¹)	Bearing No. ²⁾	Mounting dimensions (mm)			(Refer.) Mass (kg)
		With machined cage	With pressed cage				Load center (mm)	d_a min.	D_a max.	
120	D	260	260	—	Grease lub. 2 200 Oil lub. 4 100	7324B 7324C	107.2	134	246	2.5
	B	55	55	13.7	3 000 5 500		53.0	134	246	2.5
130	d	180	180	16.4	5 400	7926C HAR926C HAR026C 7026 7026B 7026C 7226 7226B 7226C 7326 7326B 7326C	32.8	138.5	171.5	1.5
	r_1 min.	1.5	1.5	8.8	6 700		32.8	138.5	171.5	1.5
	r min.	1.5	1.5	8.5	10 000		38.6	140	190	2
	B	24	24	—	6 300		64.1	140	190	2
	r	3	3	—	3 500		85.7	140	190	2
	r_1 min.	1	1	—	2 600		85.7	140	190	2
	r	1.5	1.5	15.9	3 500		38.6	140	190	2
	B	33	33	—	4 800		72.0	144	216	2.5
	r	2	2	—	3 200		95.5	144	216	2.5
	r_1 min.	1	1	14.7	2 400		44.1	144	216	2.5
140	d	280	280	16.6	5 100	7928C HAR928C HAR028C 7028 7028B 7028C 7228 7228B 7228C 7328 7328B 7328C	115.0	148	262	3
	r_1 min.	1.5	1.5	8.8	6 300		115.0	148	262	3
	r min.	1.5	1.5	8.5	9 800		56.5	148	262	3
	B	24	24	—	6 000		148.5	181.5	181.5	1.5
	r	3	3	—	3 300		34.1	148.5	181.5	1.5
	r_1 min.	1	1	—	2 500		39.9	150	200	2
	B	33	33	16.0	6 000		67.0	150	200	2
	r	2	2	—	4 100		89.9	150	200	2
	r_1 min.	1	1	—	3 300		39.9	150	200	2
	r	1.5	1.5	14.8	2 900		77.3	154	236	2.5
140	d	300	300	14.8	2 900	7928C HAR928C HAR028C 7028 7028B 7028C 7228 7228B 7228C 7328 7328B 7328C	123.3	158	282	3
	r_1 min.	1.5	1.5	8.8	6 300		123.3	158	282	3
	r min.	1.5	1.5	8.5	9 800		60.5	158	282	3
	B	24	24	—	6 000		148.5	181.5	181.5	1.5
	r	3	3	—	3 300		34.1	148.5	181.5	1.5
	r_1 min.	1	1	—	2 500		39.9	150	200	2
	B	33	33	16.0	6 000		67.0	150	200	2
	r	2	2	—	4 100		89.9	150	200	2
	r_1 min.	1	1	—	3 300		39.9	150	200	2
	r	1.5	1.5	14.8	2 900		77.3	154	236	2.5

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings. Limiting speeds of pressed cage bearings should be kept to under 80% of this value. For bearings with 1.5° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.
2) B, C or no indication after the bearing number indicates nominal contact angle of 40°, 15° and 30° respectively.
[Remark] Standard cage types used for the above bearings are described earlier in this section.

Single-row angular contact ball bearings

d 150 ~ (170) mm



With machined cage

With pressed cage

HAR

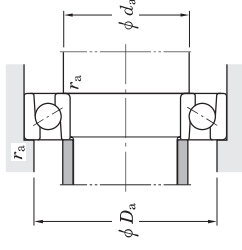
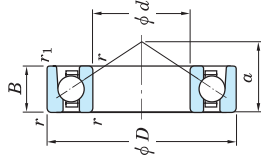
Boundary dimensions (mm)		Basic load ratings (kN)		Factor	Limiting speeds ¹⁾ (min ⁻¹)		Bearing No. ²⁾	Load center (mm)		Mounting dimensions (mm)			(Refer.) Mass (kg)					
		With machined cage	With pressed cage		Grease lub.	Oil lub.		α	d_a min.	D_a max.	r_a max.							
150	D	210	—	f_0	Grease lub.	Oil lub.	7930C	α	d_a min.	D_a max.	r_a max.	(kg)						
	D	210	—										6.200	2	2	2.47		
	B	28	—										4.700	160	200	2	2.68	
	r	2	—										5.800	38.1	160	200	2	4.36
	r ₁	1	—										5.300	42.6	160	215	2	—
	r	2	—										3.000	72.1	162	213	2	4.43
	r ₁	1.1	—										2.300	96.2	162	213	2	4.43
	r	2.1	—										4.200	42.8	162	213	2	4.43
	r ₁	1.1	—										2.700	83.1	164	256	2.5	9.75
	r	3	—										2.000	110.6	164	256	2.5	9.75
	r ₁	1.1	—										3.700	50.6	164	256	2.5	9.75
	r	3	—										2.900	100.3	168	302	3	22.4
r ₁	1.5	—	1.800	131.1	168	302	3	22.4										
r	4	—	3.200	64.0	168	302	3	22.4										
r ₁	1.5	—	—	—	—	—	—	—										
160	D	220	—	f_0	Grease lub.	Oil lub.	7932C	α	d_a min.	D_a max.	r_a max.	(kg)						
	D	220	—										5.800	2	2	2.60		
	B	28	—										4.400	39.5	170	210	2	2.83
	r	2	—										5.200	45.8	170	210	2	5.40
	r ₁	1.1	—										5.000	76.8	172	228	2	5.45
	r	2.1	—										2.800	102.9	172	228	2	5.45
	r ₁	1.1	—										2.100	45.8	172	228	2	5.45
	r	2.1	—										3.900	89.0	174	276	2.5	12.1
	r ₁	1.1	—										2.500	118.4	174	276	2.5	12.1
	r	3	—										1.800	54.1	174	276	2.5	12.1
	r ₁	1.1	—										3.400	106.2	178	322	3	26.4
	r	4	—										2.200	138.9	178	322	3	26.4
r ₁	1.5	—	1.600	67.5	168.5	322	3	26.4										
r	4	—	3.000	—	—	—	—	—										
170	D	230	—	f_0	Grease lub.	Oil lub.	7934C	α	d_a min.	D_a max.	r_a max.	(kg)						
	D	230	—										5.100	2	2	3.21		
	B	28	—										3.900	40.8	180	220	2	2.97
	r	2	—										5.000	49.8	180	220	2	7.32
	r ₁	1.1	—										4.600	—	—	—	—	—
	r	2	—										—	—	—	—	—	—

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings. Limiting speeds of pressed cage bearings should be kept to under 80% of this value. For bearings with 15° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.

2) B, C or no indication after the bearing number indicates nominal contact angle of 40°, 15° and 30° respectively. [Remark] Standard cage types used for the above bearings are described earlier in this section.

Single-row angular contact ball bearings

d (170) ~ 190 mm



With machined cage

With pressed cage

HAR

Boundary dimensions (mm)		Basic load ratings (kN)		Factor	Limiting speeds ¹⁾ (min ⁻¹)	Bearing No. ²⁾	Mounting dimensions (mm)			(Refer.) Mass (kg)
		With machined cage	With pressed cage				Load center (mm) α	da min.	Da max.	
170	D	260	—	—	Grease lub. 2 600	7034 7034B 7034C 7234 7234B 7234C 7334 7334B 7334C	182	248	2	7.58
	d	260	—	—	Oil lub. 3 200		83.1	248	2	7.77
	B	260	—	15.9	4 800		111.2	248	2	7.57
	r	310	—	—	2 300		49.8	248	2	—
	r1	310	—	—	2 800		95.3	292	3	15.1
	α	310	—	15.1	1 700		126.7	292	3	15.1
	α	310	—	—	3 100		58.2	292	3	15.1
180	D	360	—	—	2 000	7936C 7036 7036B 7036C 7236 7236B 7236C 7336 7336B	190	240	2	4.68
	d	360	—	—	Grease lub. 2 800		45.3	240	2	10.1
	B	360	—	16.4	4 700		89.4	268	2	10.2
	r	360	—	—	2 400		119.5	268	2	—
	r1	360	—	—	3 300		53.8	268	2	9.96
	α	360	—	15.7	2 200		98.2	302	3	15.7
	α	360	—	—	1 600		130.9	302	3	15.7
190	D	400	—	—	3 000	7938C 7038 7038B 7038C 7238 7238B 7238C 7338 7338B	200	250	2	4.88
	d	400	—	—	Oil lub. 1 400		46.6	250	2	10.8
	B	400	—	16.5	4 500		92.3	278	2	10.8
	r	400	—	—	2 300		123.7	278	2	—
	r1	400	—	—	3 100		55.2	278	2	10.8
	α	400	—	15.9	2 000		104.0	322	3	18.8
	α	400	—	—	1 500		138.7	322	3	18.8
200	D	400	—	—	2 800	7938C 7038 7038B 7038C 7238 7238B 7238C 7338 7338B	208	322	3	18.8
	d	400	—	—	Grease lub. 1 800		63.0	322	3	18.8
	B	400	—	15.1	3 700		124.2	378	4	45.5
	r	400	—	—	2 200		162.8	378	4	—
	r1	400	—	—	1 300		63.0	322	3	18.8
	α	400	—	15.1	1 800		124.2	378	4	45.5
	α	400	—	—	1 300		162.8	378	4	45.5

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings.

Limiting speeds of pressed cage bearings should be kept to under 80% of this value.

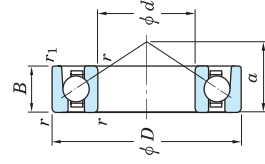
For bearings with 15° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.

2) B, C or no indication after the bearing number indicates nominal contact angle of 40°, 15° and 30° respectively.

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

Single-row angular contact ball bearings

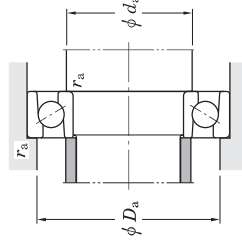
d 200 ~ (340) mm



With machined cage

With pressed cage

HAR



Boundary dimensions (mm)	Basic load ratings (kN)		Factor	Limiting speeds ¹⁾ (min ⁻¹)		Bearing No. ²⁾	Load center (mm)	Mounting dimensions (mm)			(Refer.) Mass (kg)			
	With machined cage	With pressed cage		Grease lub.	Oil lub.			d _a min.	D _a max.	r _a max.				
200	d	B	r	r ₁	min.									
280	38	2.1	1.1	204	255	16.3	3 100	4 100	7940C	51.2	212	268	2	6.85
310	51	2.1	1.1	244	309	—	2 100	2 600	7040	99.1	212	298	2	12.7
310	51	2.1	1.1	218	279	—	1 600	2 100	7040B	132.5	212	298	2	12.7
310	51	2.1	1.1	268	338	15.7	2 900	3 900	7040C	59.7	212	298	2	12.7
360	58	4	1.5	324	423	—	1 900	2 400	7240	109.8	218	342	3	22.4
360	58	4	1.5	292	384	—	1 400	1 900	7240B	146.5	218	342	3	22.4
360	58	4	1.5	354	460	15.1	2 600	3 500	7240C	66.5	218	342	3	22.4
420	80	5	2	474	658	—	1 700	2 100	7340	129.5	222	398	4	52.0
420	80	5	2	432	602	—	1 200	1 700	7340B	170.1	222	398	4	52.0
220	340	56	3	1.1	267	353	1 900	2 400	7044	108.9	234	326	2.5	18.5
340	56	3	1.1	239	318	—	1 400	1 900	7044B	145.5	234	326	2.5	18.9
240	360	56	3	1.1	273	375	1 700	2 200	7048	114.6	254	346	2.5	19.7
360	56	3	1.1	244	338	—	1 300	1 700	7048B	163.9	254	346	2.5	20.1
440	72	4	1.5	403	595	—	1 500	1 800	7248	134.2	258	422	3	51.8
440	72	4	1.5	363	539	—	1 100	1 500	7248B	178.6	258	422	3	52.8
260	400	65	4	1.5	325	478	1 500	1 900	7052	128.4	278	382	3	28.7
400	65	4	1.5	291	431	—	1 100	1 500	7052B	171.0	278	382	3	29.3
280	420	65	4	1.5	332	507	1 400	1 800	7056	133.5	298	402	3	30.4
420	65	4	1.5	297	453	—	1 100	1 400	7056B	179.3	298	402	3	31.0
300	460	74	4	1.5	426	680	1 300	1 600	7060	146.7	318	442	3	43.7
460	74	4	1.5	382	613	—	960	1 300	7060B	196.4	318	442	3	44.9
320	480	74	4	1.5	437	722	1 200	1 500	7064	152.5	338	462	3	46.0
480	74	4	1.5	391	651	—	890	1 200	7064B	204.8	338	462	3	47.2
340	520	82	5	2	502	861	1 100	1 300	7068	165.1	362	498	4	61.8

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings.

Limiting speeds of pressed cage bearings should be kept to under 80% of this value.

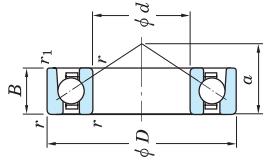
For bearings with 15° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.

2) B, C or no indication after the bearing number indicates nominal contact angle of 40°, 15° and 30° respectively.

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

Single-row angular contact ball bearings

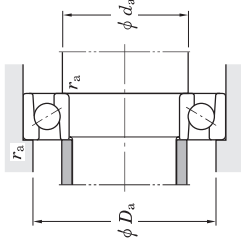
d (340) ~ 380 mm



With machined cage

With pressed cage

HAR



Boundary dimensions (mm)	Basic load ratings (kN)		Factor	Limiting speeds ¹⁾ (min ⁻¹)	Bearing No. ²⁾	Load center (mm) α	Mounting dimensions (mm)		(Refer.) Mass (kg)
	With machined cage C_r	With pressed cage C_{0r}					d_a min.	D_a max.	
340	82	5	2	450	777	—	—	—	—
360	82	5	2	515	913	—	—	—	—
	540	82	5	2	461	824	—	—	—
380	82	5	2	528	966	—	—	—	—
	560	82	5	2	472	870	—	—	—

[Notes] 1) Limiting speeds shown above are applicable to machined cage bearings.

Limiting speeds of pressed cage bearings should be kept to under 80% of this value.

For bearings with 15° contact angle, this figure is applied to the high precision bearings ranked higher than class 5, used with machined cage or molded cage.

2) B or no. indication after the bearing number indicates nominal contact angle of 15° and 30° respectively.

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