


Angular Contact Ball Bearings

Single / Double-Row Combination (Standard Class)

Angular Contact Ball Bearings – Single / Double Row Combination (Standard Class)



Single Row
B700_ B720_

Installation Diagram

Double Row Combination
B700_-DB B720_-DB

Double Row Combination
B700_-DF B720_-DF *Contact Angle 30°

Shipped with no grease applied. Please apply grease before using. **Material:** 52100 Bearing Steel **Bearing Accuracy** JIS B 1514 Class 0

Single Row kgf=Nx0.101972

Part Number	d	D	B	r (min)	r ₁ (min)	Basic Load Rating		Allowable Rotational Speed rpm (Reference)	Pressure Cone Apex a	Relative Dimensions			Mass (g) (Reference)
						Cr (Dynamic) kN	Cor (Static) kN			Ds (min.)	dh (max.)	R (max.)	
B7000	10	26	8	0.3	0.15	5.35	2.6	23200	9.2	12.5	23.5	0.3	23
B7200	10	30	9	0.6	0.3	5.4	2.71	22400	10.3	15	25	0.6	29
B7001	12	28	8	0.3	0.15	5.8	2.98	20800	9.8	14.5	25.5	0.3	25
B7201	12	32	10	0.6	0.3	8	4.05	20000	11.4	17	27	0.6	37
B7002	15	32	9	0.3	0.15	6.1	3.45	18400	11.3	17.5	29.5	0.3	35
B7202	15	35	11	0.6	0.3	8.65	4.65	17600	12.7	20	30	0.6	46
B7003	17	35	10	0.3	0.15	6.4	3.8	16800	12.5	19.5	32.5	0.3	46
B7203	17	40	12	0.6	0.3	10.8	6	15200	14.2	22	35	0.6	67
B7004	20	42	14	1	0.6	10.8	6.6	14400	14.9	25	37	1.0	80
B7204	20	47	14	1	0.6	14.5	8.3	13600	16.7	26	41	1.0	109
B7005	25	47	12	0.6	0.3	11.3	7.4	12800	16.4	30	42	0.6	93
B7205	25	52	15	0.6	0.3	16.2	10.3	11200	18.6	31	46	1.0	130
B7006	30	55	13	1	0.6	14.5	10.1	10400	18.8	36	49	1.0	135
B7206	30	62	16	1	0.6	22.5	14.8	9600	21.3	36	56	1.0	197
B7207	35	72	17	1.1	0.6	29.7	20.1	8000	23.9	42	65	1.0	287
B7208	40	80	18	1.1	0.6	35.5	25.1	7600	26.3	47	73	1.0	375
B7209	45	85	19	1.1	0.6	39.5	28.7	6800	28.3	52	78	1.0	411
B7210	50	90	20	1.1	0.6	41.5	31.5	6320	30.2	57	83	1.0	466

Double Row Combination

kgf=Nx0.101972

Part Number	d	D	B	r (min)	r ₁ (min)	Basic Load Rating		Allowable Rotational Speed rpm (Reference)	Pressure Cone Apex a		Relative Dimensions						Mass (g) (Reference)
						Cr (Dynamic) kN	Cor (Static) kN		DB	DF	Ds (min.)	dh (max.)	R (max.)	Ds (min.)	dh (max.)	R (max.)	
B7000	10	26	8	0.3	0.15	8.75	5.2	18400	18.4	2.4	12.5	24.8	0.3	11.2	23.5	0.15	46
B7200	10	30	9	0.6	0.3	8.8	5.4	17600	20.5	2.5	15	27.5	0.6	12.5	25	0.3	58
B7001	12	28	8	0.3	0.15	9.4	5.95	16800	19.5	3.5	14.5	26.8	0.3	13.2	25.5	0.15	50
B7201	12	32	10	0.6	0.3	13	8.05	16000	22.7	2.7	17	29.5	0.6	14.5	27	0.3	74
B7002	15	32	9	0.3	0.15	9.95	6.85	14400	22.6	4.6	17.5	30.8	0.3	16.2	29.5	0.15	70
B7202	15	35	11	0.6	0.3	14	9.3	13600	25.4	3.4	20	32.5	0.6	17.5	30	0.3	92
B7003	17	35	10	0.3	0.15	10.4	7.65	13600	25	5	19.5	33.8	0.3	18.2	32.5	0.15	92
B7203	17	40	12	0.6	0.3	17.6	12	12000	28.5	4.5	22	37.5	0.6	19.5	35	0.3	134
B7004	20	42	14	1	0.6	17.6	13.2	12000	29.9	5.9	25	39.5	0.6	22.5	37	0.3	160
B7204	20	47	14	1	0.6	23.5	16.6	10400	33.3	5.3	26	42	1	25	41	0.6	218
B7005	25	47	12	0.6	0.3	18.3	14.8	9600	32.8	8.8	30	44.5	0.6	27.5	42	0.3	186
B7205	25	52	15	0.6	0.3	26.3	20.5	8800	37.2	7.2	31	47	1	30	46	0.6	260
B7006	30	55	13	1	0.6	23.6	20.2	8800	37.5	11.5	6	50	1	35	49	0.6	270
B7206	30	62	16	1	0.6	36.5	29.5	7840	42.6	10.6	36	57	1	35	56	0.6	394
B7207	35	72	17	1.1	0.6	48.5	40	6800	47.9	—	42	67	1	—	—	—	574
B7208	40	80	18	1.1	0.6	57.5	50.5	6000	52.6	—	47	75	1	—	—	—	750
B7209	45	85	19	1.1	0.6	64.5	57.5	5520	56.5	—	52	80	1	—	—	—	822
B7210	50	90	20	1.1	0.6	67	63	5040	60.4	—	57	85	1	—	—	—	932

Part Number Example Part Number - Double Row Combination


Single Row B7000

Double Row Combination B7004 - DB

Angular Contact Ball Bearings / Grease Seal Rings

Universal Combination (Precision Grade)

Angular Contact Ball Bearings – Universal Combination (Precision Class)



B70_ _SU

Installation Diagram


Shipped with no grease applied. Please apply grease before using. **Material:** 52100 Bearing Steel **Bearing Accuracy** JIS B 1514 4 Class

kgf=Nx0.101972

Part Number	d	D	B	r (min)	r ₁ (min)	Basic Load Rating		Allowable Rotational Speed rpm (Reference)	Pressure Cone Apex a	Relative Dimensions			Mass (g) (Reference)
						Cr (Dynamic) kN	Cor (Static) kN			Ds (min.)	dh (max.)	R (max.)	
B7000SU	10	26	8	0.3	0.15	5.30	2.49	63900	6.4	12.5	23.5	0.3	19
B7001SU	12	28	8	0.3	0.15	5.80	2.90	57500	6.7	14.5	25.5	0.3	21
B7002SU	15	32	9	0.3	0.15	6.25	3.40	49000	7.6	17.5	29.5	0.3	30
B7003SU	17	35	10	0.3	0.15	6.60	3.80	44300	8.5	19.5	32.5	0.3	39
B7004SU	20	42	12	0.6	0.3	11.10	6.55	37100	10.1	25	37	0.6	67
B7005SU	25	47	12	0.6	0.3	11.70	7.40	32000	10.8	30	42	0.6	78
B7006SU	30	55	13	1.0	0.6	15.10	10.30	27100	12.2	36	49	1.0	114
B7007SU	35	62	14	1	0.6	19.10	13.70	23800	13.5	41	56	1.0	151
B7008SU	40	68	15	1	0.6	20.60	15.90	21300	14.7	46	62	1.0	189
B7009SU	45	75	16	1	0.6	24.40	19.30	19200	16.0	51	69	1.0	238
B7010SU	50	80	16	1	0.6	26.00	21.90	17700	16.7	56	74	1.0	259

Part Number Example Part Number B7001SU

Grease Seal Rings



GRSL

Material: 1018 Carbon Steel
Surface Treatment: Black Oxide

Application Example: GRSL704-35, GRSL704-42, Bearing Cover

ⓘ Rings prevent grease splash but have no sealing ability
ⓘ The parallelism is guaranteed within the range of Dimension H.
ⓘ Recommended for use at 5,000 rpm or less.

Part Number Type	No.	D	d	H	Applicable Angular Contact Bearings
		21			
		30			
	720	25	15		B7200
		30			
	701	28	12	15	B7001
		23			
	721	32	17	17	B7201
		26			
	702	32	15	19	B7002
		26			
	722	35	21		B7202
		30			
	703	30	17		B7003

Part Number Type	No.	D	d	H	Applicable Angular Contact Bearings
		32			
	704	42	20	26	B7004
		35			
	724	47	20	27	B7204
		40			
	705	47	25	31	B7005
		40			
	725	52	30	32	B7205
		46			
	706	55	30	37	B7006
		47			
	726	62	30	37	B7206
		56			

Part Number Example Part Number - D GRSL720 - 25

Features The width differences of front and back side are controlled so that designated preload can be obtained no matter how the same model bearings are combined. Outer ring is marked with a V mark to help obtain correct combination.

Preload clearance: 2f

Preload clearance: 2b

DB Combination Back side width difference x 2 = 2b(= 2f), and the designed preload is obtained.

DF Combination Front side width difference x 2 = 2f(= 2b), and the designed preload is obtained.

DT Combination Because of front side width difference f = back side difference b, DT clearance does not occur similar with the normal DT combination.

Inner & Outer Diameter Special Level Regulation (P4)

Inner Ring Bore Diameter Variation Unit: μm

More Than	Equal or Less Than		Over	Under
	10	30		
	0	0	0	-6

Outer Ring Outer Diameter Difference

Unit: μm

More Than	Equal or Less Than		Over	Under
	26	62		
	0	0	0	-7

In case of making up random matching combinations, it is recommended to observe the mutual diametral variations.

ⓘ Sold by pieces.
ⓘ When using multi-row combination, it is recommended to match inner and outer diameter.