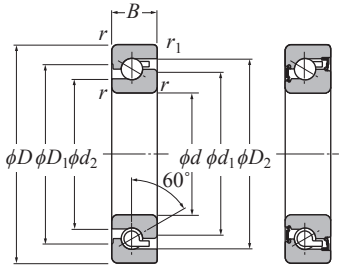
Dynamic equivalent axial load $P_a = XF_r + YF_a$

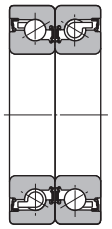
Number of rows in bearing arrangement		2		3			4			
Number of rows subjected to axial load		1	2	1	2	3	1	2	3	4
$F_a/F_r \le 2.17$	X	1.90	—	1.43	2.32	—	1.17	1.90	2.52	—
	Y	0.55	—	0.76	0.35	—	0.88	0.55	0.26	—
$F_a/F_r > 2.17$	X	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
	Y	1	1	1	1	1	1	1	1	1

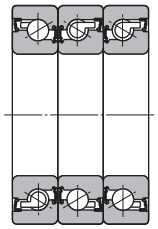
Static equivalent axial load
$P_{0a} = F_a + 3.98F_r$

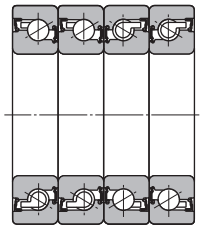


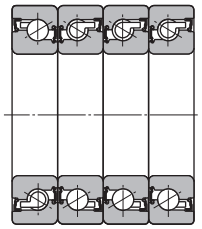
Open type

Contact sealed type


When one row bears axial load (DB)


When two rows bear axial load (DBT)


When two rows bear axial load (DTBT)


When three rows bear axial load (DBTT)

Contact angle 60° d 17–60 mm

Part number	Boundary dimensions mm					Basic dynamic rated load C_a [2] kN kgf			Basic static rated load C_{0a} [2] kN kgf			Dimensions mm				Internal free space cm³ Single-row (approx.)	Allowable axial load [2] (static) kN kgf			Allowable speed min⁻¹	
	d	D	B	$r_{s\,min}$ [1]	$r_{1s\,min}$ [1]	1-row	2-row	3-row	1-row	2-row	3-row	d_1	d_2	D_1	D_2		1-row	2-row	3-row	grease lubrication	oil lubrication
BST17X47-1B	17	47	15	1	0.6	24.3	39.5	52.5	37.5	75.0	113	29.9	27.1	37.1	40.7	4.4	25.7	51.5	77.0	6 500	10 000
BST17X47-1BLXL						2 470	4 000	5 350	3 850	7 650	11 500		25.7		41.2		2 620	5 250	7 850		—
BST20X47-1B	20	47	15	1	0.6	24.3	39.5	52.5	37.5	75.0	113	29.9	27.1	37.1	40.7	4.4	25.7	51.5	77.0	6 500	10 000
BST20X47-1BLXL						2 470	4 000	5 350	3 850	7 650	11 500		25.7		41.2		2 620	5 250	7 850		—
BST25X62-1B	25	62	15	1	0.6	29.2	47.5	63.0	59.0	118	177	44.4	41.6	51.6	55.2	5.9	40.0	80.5	121	4 600	7 000
BST25X62-1BLXL						2 980	4 850	6 450	6 050	12 100	18 100		40.2		55.7		4 100	8 200	12 300		—
BST30X62-1B	30	62	15	1	0.6	29.2	47.5	63.0	59.0	118	177	44.4	41.6	51.6	55.2	5.9	40.0	80.5	121	4 600	7 000
BST30X62-1BLXL						2 980	4 850	6 450	6 050	12 100	18 100		40.2		55.7		4 100	8 200	12 300		—
BST35X72-1B	35	72	15	1	0.6	31.0	50.5	67.0	70.0	140	210	52.4	49.6	59.6	63.2	6.7	47.5	95.0	143	3 900	6 000
BST35X72-1BLXL						3 150	5 150	6 850	7 150	14 300	21 400		48.2		63.7		4 850	9 700	14 600		—
BST40X72-1B	40	72	15	1	0.6	31.0	50.5	67.0	70.0	140	210	52.4	49.6	59.6	63.2	6.7	47.5	95.0	143	3 900	6 000
BST40X72-1BLXL						3 150	5 150	6 850	7 150	14 300	21 400		48.2		63.7		4 850	9 700	14 600		—
BST40X90-1B	40	90	20	1	0.6	58.5	95.0	126	130	261	390	64.8	60.7	75.2	80.4	15	88.5	177	265	3 100	5 400
BST40X90-1BLXL						6 000	9 700	12 900	13 300	26 600	40 000		59.1		81.6		9 000	18 000	27 000		—
BST45X75-1B	45	75	15	1	0.6	32.0	52.0	69.5	77.5	155	232	58.4	55.6	65.6	69.2	7.4	52.5	105	158	3 500	6 000
BST45X75-1BLXL						3 300	5 350	7 100	7 900	15 800	23 700		54.2		69.7		5 350	10 700	16 100		—
BST45X100-1B	45	100	20	1	0.6	62.0	101	134	153	305	460	75.8	71.7	86.2	91.4	18	104	208	315	2 700	4 400
BST45X100-1BLXL						6 350	10 300	13 700	15 600	31 000	47 000		70.1		92.6		10 600	21 200	32 000		—
BST50X100-1B	50	100	20	1	0.6	62.0	101	134	153	305	460	75.8	71.7	86.2	91.4	18	104	208	315	2 700	4 400
BST50X100-1BLXL						6 350	10 300	13 700	15 600	31 000	47 000		70.1		92.6		10 600	21 200	32 000		—
BST55X100-1B	55	100	20	1	0.6	62.0	101	134	153	305	460	75.8	71.7	86.2	91.4	18	104	208	315	2 700	4 400
BST55X100-1BLXL						6 350	10 300	13 700	15 600	31 000	47 000		70.1		92.6		10 600	21 200	32 000		—
BST55X120-1B	55	120	20	1	0.6	66.5	108	143	183	365	550	90.8	86.7	101.2	106.4	21	124	249	375	2 300	3 700
BST55X120-1BLXL						6 750	11 000	14 600	18 700	37 500	56 000		85.1		107.6		12 700	25 400	38 000		—
BST60X120-1B	60	120	20	1	0.6	66.5	108	143	183	365	550	90.8	86.7	101.2	106.4	21	124	249	375	2 300	3 700
BST60X120-1BLXL						6 750	11 000	14 600	18 700	37 500	56 000		85.1		107.6		12 700	25 400	38 000		—

1) Minimum allowable value for corner radius dimension r or r_1.

2) The number of rows means the number of bearings that bear the axial load.