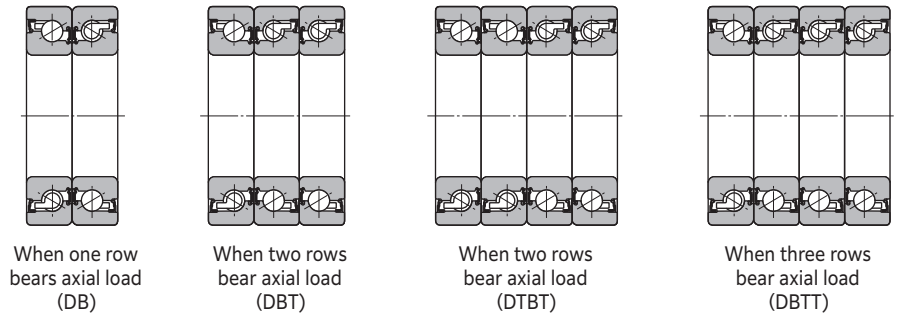
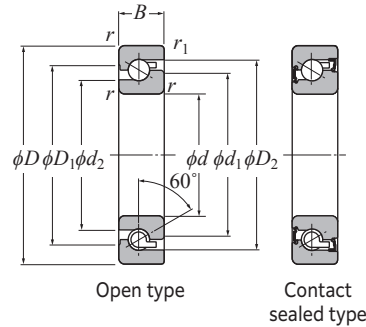


Dynamic equivalent axial load $P_a = XF_r + YF_a$

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	
$F_a / F_r \leq 2.17$	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

$P_{0a} = F_a + 3.98F_r$



Contact angle 60° d 17–60 mm

Part number	Boundary dimensions					Basic dynamic rated load $C_a^{(2)}$			Basic static rated load $C_{0a}^{(2)}$			Dimensions			Internal free space cm^2 Single-row (approx.)	Allowable axial load $^{(2)}$ (static)			Allowable speed	
	mm					kN			kN			mm				kN			min^{-1}	
	d	D	B	$r_{s \text{ min}^{-1}}$	$r_{ls \text{ min}^{-1}}$	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
2A-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	25.7	51.5	77.0	6 500	10 000
2A-BST17X47-1BLXL						2 470	4 000	5 350	3 850	7 650	11 500					2 620	5 250	7 850	—	—
2A-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	25.7	51.5	77.0	6 500	10 000
2A-BST20X47-1BLXL						2 470	4 000	5 350	3 850	7 650	11 500					2 620	5 250	7 850	—	—
2A-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	40.0	80.5	121	4 600	7 000
2A-BST25X62-1BLXL						2 980	4 850	6 450	6 050	12 100	18 100					4 100	8 200	12 300	—	—
2A-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	40.0	80.5	121	4 600	7 000
2A-BST30X62-1BLXL						2 980	4 850	6 450	6 050	12 100	18 100					4 100	8 200	12 300	—	—
2A-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	47.5	95.0	143	3 900	6 000
2A-BST35X72-1BLXL						3 150	5 150	6 850	7 150	14 300	21 400					4 850	9 700	14 600	—	—
2A-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	47.5	95.0	143	3 900	6 000
2A-BST40X72-1BLXL						3 150	5 150	6 850	7 150	14 300	21 400					4 850	9 700	14 600	—	—
2A-BST40X90-1B	40	90	20	1	0.6	58.5	95.0	126	130	261	390	64.8	60.7	75.2	80.4	88.5	177	265	3 100	5 400
2A-BST40X90-1BLXL						6 000	9 700	12 900	13 300	26 600	40 000					9 000	18 000	27 000	—	—
2A-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	52.5	105	158	3 500	6 000
2A-BST45X75-1BLXL						3 300	5 350	7 100	7 900	15 800	23 700					5 350	10 700	16 100	—	—
2A-BST45X100-1B	45	100	20	1	0.6	62.0	101	134	153	305	460	75.8	71.7	86.2	91.4	104	208	315	2 700	4 400
2A-BST45X100-1BLXL						6 350	10 300	13 700	15 600	31 000	47 000					10 600	21 200	32 000	—	—
2A-BST50X100-1B	50	100	20	1	0.6	62.0	101	134	153	305	460	75.8	71.7	86.2	91.4	104	208	315	2 700	4 400
2A-BST50X100-1BLXL						6 350	10 300	13 700	15 600	31 000	47 000					10 600	21 200	32 000	—	—
2A-BST55X100-1B	55	100	20	1	0.6	62.0	101	134	153	305	460	75.8	71.7	86.2	91.4	104	208	315	2 700	4 400
2A-BST55X100-1BLXL						6 350	10 300	13 700	15 600	31 000	47 000					10 600	21 200	32 000	—	—
2A-BST55X120-1B	55	120	20	1	0.6	66.5	108	143	183	365	550	90.8	86.7	101.2	106.4	124	249	375	2 300	3 700
2A-BST55X120-1BLXL						6 750	11 000	14 600	18 700	37 500	56 000					12 700	25 400	38 000	—	—
2A-BST60X120-1B	60	120	20	1	0.6	66.5	108	143	183	365	550	90.8	86.7	101.2	106.4	124	249	375	2 300	3 700
2A-BST60X120-1BLXL						6 750	11 000	14 600	18 700	37 500	56 000					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.

Ball Screw Support Bearings

Ball Screw Support Bearings

ULTAGE Angular contact thrust ball bearings **BST type, 2A-BST type**
Preload and axial rigidity

Contact angle 60° d 17–60 mm

Part number	Standard preload: -1B											
	Two-row (DF/DB types)				Three-row (DFT/DBT types)				Four-row (DTFT/DTBT types)			
	Preload		Axial rigidity		Preload		Axial rigidity		Preload		Axial rigidity	
	N	kgf	N/μm	kgf/μm	N	kgf	N/μm	kgf/μm	N	kgf	N/μm	kgf/μm
BST17X47 2A-BST17X47	2 060	210	635	65	2 840	290	930	95	4 100	420	1 270	130
BST20X47 2A-BST20X47	2 060	210	635	65	2 840	290	930	95	4 100	420	1 270	130
BST25X62 2A-BST25X62	3 250	330	980	100	4 400	450	1 370	140	6 450	660	1 960	200
BST30X62 2A-BST30X62	3 250	330	980	100	4 400	450	1 370	140	6 450	660	1 960	200
BST35X72 2A-BST35X72	3 800	390	1 130	115	5 200	530	1 620	165	7 650	780	2 260	230
BST40X72 2A-BST40X72	3 800	390	1 130	115	5 200	530	1 620	165	7 650	780	2 260	230
BST40X90 2A-BST40X90	7 050	720	1 470	150	9 600	980	2 110	215	14 100	1 440	2 940	300
BST45X75 2A-BST45X75	4 200	430	1 230	125	5 700	580	1 770	180	8 450	860	2 500	255
BST45X100 2A-BST45X100	8 250	840	1 720	175	11 200	1 140	2 450	250	16 500	1 680	3 450	350
BST50X100 2A-BST50X100	8 250	840	1 720	175	11 200	1 140	2 450	250	16 500	1 680	3 450	350
BST55X100 2A-BST55X100	8 250	840	1 720	175	11 200	1 140	2 450	250	16 500	1 680	3 450	350
BST55X120 2A-BST55X120	9 900	1 010	2 010	205	13 400	1 370	2 890	295	19 800	2 020	4 050	415
BST60X120 2A-BST60X120	9 900	1 010	2 010	205	13 400	1 370	2 890	295	19 800	2 020	4 050	415

Part number	Light preload: -11B											
	Two-row (DF/DB types)				Three-row (DFT/DBT types)				Four-row (DTFT/DTBT types)			
	Preload		Axial rigidity		Preload		Axial rigidity		Preload		Axial rigidity	
	N	kgf	N/μm	kgf/μm	N	kgf	N/μm	kgf/μm	N	kgf	N/μm	kgf/μm
BST17X47 2A-BST17X47	1 000	102	490	50	1 370	140	735	75	1 960	200	980	100
BST20X47 2A-BST20X47	1 000	102	490	50	1 370	140	735	75	1 960	200	980	100
BST25X62 2A-BST25X62	1 470	150	735	75	1 960	200	1 080	110	2 940	300	1 470	150
BST30X62 2A-BST30X62	1 560	159	735	75	2 160	220	1 080	110	3 150	320	1 470	150
BST35X72 2A-BST35X72	1 760	180	885	90	2 350	240	1 270	130	3 550	360	1 770	180
BST40X72 2A-BST40X72	1 860	190	885	90	2 550	260	1 270	130	3 700	380	1 770	180
BST40X90 2A-BST40X90	2 370	240	980	100	3 230	330	1 470	150	4 700	480	2 060	210
BST45X75 2A-BST45X75	2 000	200	980	100	2 650	270	1 370	140	3 900	400	1 960	200
BST45X100 2A-BST45X100	2 880	290	1 180	120	3 800	390	1 770	180	5 700	580	2 450	250
BST50X100 2A-BST50X100	3 010	310	1 180	120	4 100	420	1 770	180	6 100	620	2 450	250
BST55X100 2A-BST55X100	3 010	310	1 180	120	4 100	420	1 770	180	6 100	620	2 450	250
BST55X120 2A-BST55X120	3 520	360	1 370	140	4 800	490	2 060	210	7 050	720	2 840	290
BST60X120 2A-BST60X120	3 520	360	1 370	140	4 800	490	2 060	210	7 050	720	2 840	290

NOTE: 1. Preloads listed are indicative of bearing combination specified.
2. The axial rigidity indicated is in the axial direction under the specified preload.

Ball Screw Support Bearings

Ball Screw Support Bearings