

MACHINED TYPE NEEDLE ROLLER BEARINGS

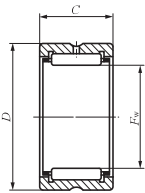
Without Inner Ring, Inch Series



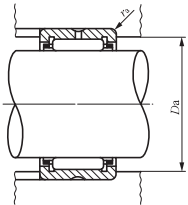
Shaft dia. 15.875 — 47.625mm

Shaft dia. mm (inch)	Identification number	Mass (Ref.) g	Boundary dimensions mm(inch)			Standard mounting dimensions mm	
			F_w	D	C	D_a Max.	$r_{as\ max}^{(1)}$
15.875 (5/8)	BR 101812	49	15.875 (5/8)	28.575 (1 1/8)	19.050 (3/4)	24.5	0.6
19.050 (3/4)	BR 122012	56	19.050 (3/4)	31.750 (1 1/4)	19.050 (3/4)	26.5	1
	BR 122016	75	19.050 (3/4)	31.750 (1 1/4)	25.400 (1)	26.5	1
22.225 (7/8)	BR 142212	63	22.225 (7/8)	34.925 (1 3/8)	19.050 (3/4)	29.7	1
	BR 142216	84.5	22.225 (7/8)	34.925 (1 3/8)	25.400 (1)	29.7	1
25.400 (1)	BR 162412	69	25.400 (1)	38.100 (1 1/2)	19.050 (3/4)	32.9	1
	BR 162416	92.5	25.400 (1)	38.100 (1 1/2)	25.400 (1)	32.9	1
28.575 (1 1/8)	BR 182616	102	28.575 (1 1/8)	41.275 (1 5/8)	25.400 (1)	36	1
	BR 182620	128	28.575 (1 1/8)	41.275 (1 5/8)	31.750 (1 1/4)	36	1
31.750 (1 1/4)	BR 202816	110	31.750 (1 1/4)	44.450 (1 3/4)	25.400 (1)	39.2	1
	BR 202820	138	31.750 (1 1/4)	44.450 (1 3/4)	31.750 (1 1/4)	39.2	1
34.925 (1 3/8)	BR 223016	119	34.925 (1 3/8)	47.625 (1 7/8)	25.400 (1)	42.4	1
	BR 223020	149	34.925 (1 3/8)	47.625 (1 7/8)	31.750 (1 1/4)	42.4	1
38.100 (1 1/2)	BR 243316	149	38.100 (1 1/2)	52.388 (2 1/16)	25.400 (1)	45.1	1.5
	BR 243320	187	38.100 (1 1/2)	52.388 (2 1/16)	31.750 (1 1/4)	45.1	1.5
41.275 (1 5/8)	BR 263516	158	41.275 (1 5/8)	55.562 (2 3/16)	25.400 (1)	48.3	1.5
	BR 263520	199	41.275 (1 5/8)	55.562 (2 3/16)	31.750 (1 1/4)	48.3	1.5
44.450 (1 3/4)	BR 283716	170	44.450 (1 3/4)	58.738 (2 3/16)	25.400 (1)	51.5	1.5
	BR 283720	215	44.450 (1 3/4)	58.738 (2 3/16)	31.750 (1 1/4)	51.5	1.5
	BR 283820	250	44.450 (1 3/4)	60.325 (2 3/8)	31.750 (1 1/4)	53.1	1.5
47.625 (1 7/8)	BR 303920	225	47.625 (1 7/8)	61.912 (2 1/16)	31.750 (1 1/4)	54.7	1.5

Notes⁽¹⁾ Maximum permissible corner radius of the housing
⁽²⁾ Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.
Remarks1. The outer ring has an oil groove and an oil hole.
2. No grease is prepacked. Perform proper lubrication.



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Basic dynamic load rating C N	Basic static load rating C_0 N	Allowable rotational speed ⁽²⁾ min ⁻¹
18 900	19 700	25 000
21 700	24 400	20 000
27 600	33 100	20 000
23 000	27 100	18 000
29 100	36 800	18 000
25 300	31 900	16 000
32 100	43 300	16 000
34 900	49 900	14 000
43 200	65 600	14 000
36 000	53 500	13 000
44 600	70 300	13 000
38 500	60 000	11 000
47 700	78 900	11 000
43 700	66 900	11 000
54 200	88 200	11 000
44 800	70 900	9 500
55 600	93 400	9 500
47 500	78 200	9 000
58 900	103 000	9 000
58 900	103 000	9 000
60 100	108 000	8 500

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MACHINED TYPE NEEDLE ROLLER BEARINGS

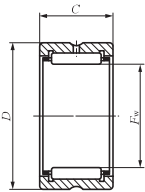
Without Inner Ring, Inch Series



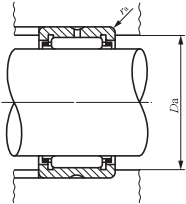
Shaft dia. 50.800 — 101.600mm

Shaft dia. mm (inch)	Identification number	Mass (Ref.) g	Boundary dimensions mm(inch)			Standard mounting dimensions mm	
			F_w	D	C	D_a Max.	$r_{as\ max}^{(1)}$
50.800 (2)	BR 324116 BR 324120	190	50.800 (2)	65.088 (2 9/16)	25.400 (1)	57.8	1.5
		240	50.800 (2)	65.088 (2 9/16)	31.750 (1 1/4)	57.8	1.5
57.150 (2 1/4)	BR 364824 BR 364828	435	57.150 (2 1/4)	76.200 (3)	38.100 (1 1/2)	69	1.5
		510	57.150 (2 1/4)	76.200 (3)	44.450 (1 3/4)	69	1.5
63.500 (2 1/2)	BR 405224 BR 405228	475	63.500 (2 1/2)	82.550 (3 1/4)	38.100 (1 1/2)	74.3	2
		555	63.500 (2 1/2)	82.550 (3 1/4)	44.450 (1 3/4)	74.3	2
69.850 (2 3/4)	BR 445624 BR 445628	510	69.850 (2 3/4)	88.900 (3 1/2)	38.100 (1 1/2)	80.7	2
		600	69.850 (2 3/4)	88.900 (3 1/2)	44.450 (1 3/4)	80.7	2
76.200 (3)	BR 486024 BR 486028	555	76.200 (3)	95.250 (3 3/4)	38.100 (1 1/2)	87	2
		650	76.200 (3)	95.250 (3 3/4)	44.450 (1 3/4)	87	2
82.550 (3 1/4)	BR 526828 BR 526832	990	82.550 (3 1/4)	107.950 (4 1/4)	44.450 (1 3/4)	99.7	2
		1 140	82.550 (3 1/4)	107.950 (4 1/4)	50.800 (2)	99.7	2
88.900 (3 1/2)	BR 567232	1 220	88.900 (3 1/2)	114.300 (4 1/2)	50.800 (2)	106.1	2
95.250 (3 3/4)	BR 607632	1 290	95.250 (3 3/4)	120.650 (4 3/4)	50.800 (2)	111.4	2.5
101.600 (4)	BR 648032	1 370	101.600 (4)	127.000 (5)	50.800 (2)	117.8	2.5

Notes⁽¹⁾ Maximum permissible corner radius of the housing
⁽²⁾ Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.
Remarks1. In bearings with a roller set bore diameter F_w of 69.850 mm or less, the outer ring has an oil groove and an oil hole. In others, the outer ring has an oil groove and two oil holes.
2. No grease is prepacked. Perform proper lubrication.



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Basic dynamic load rating C N	Basic static load rating C_0 N	Allowable rotational speed ⁽²⁾ min ⁻¹
51 000 63 200	89 400 118 000	8 000 8 000
90 300 105 000	158 000 191 000	7 000 7 000
94 600 110 000	174 000 210 000	6 500 6 500
98 700 114 000	189 000 228 000	5 500 5 500
105 000 122 000	211 000 255 000	5 500 5 500
141 000 154 000	259 000 290 000	5 000 5 000
162 000	316 000	4 500
169 000	342 000	4 000
176 000	368 000	4 000

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