

SHELL TYPE NEEDLE ROLLER BEARINGS

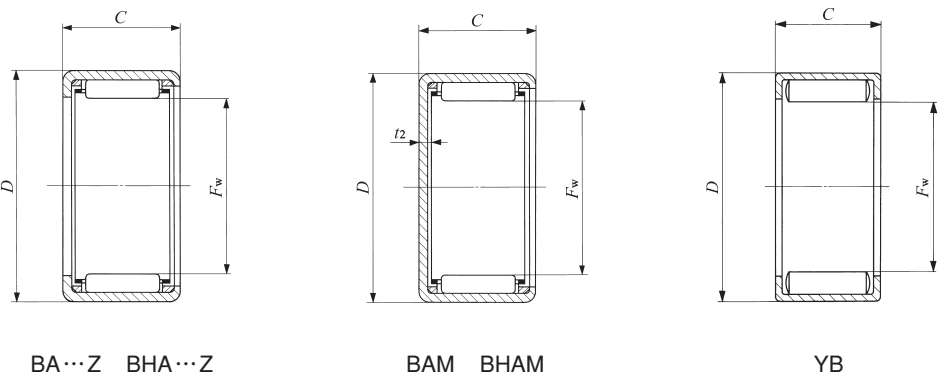
Inch Series



Shaft dia. 3.969 – 9.525mm

Shaft dia. mm (inch)	Identification number									
	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Grease retained	Mass (Ref.) g
3.969 (⁵ / ₃₂)	—	—	—	—	—	—	—	—	YB 2.5 2.5	0.64
	—	—	—	—	—	—	—	—	YB 2.5 4	0.96
4.762 (³ / ₁₆)	—	—	—	—	—	—	—	—	YB 34	1.6
6.350 (¹ / ₄)	BA 44	2.1	—	—	—	—	—	—	—	—
	BA 45 Z	2.5	BAM 45	2.7	—	—	—	—	—	—
	BA 47 Z	3.5	BAM 47	3.7	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YB 45	3.2
	—	—	—	—	—	—	—	—	YB 47	4.6
7.938 (⁵ / ₁₆)	BA 55 Z	3	BAM 55	3.3	—	—	—	—	—	—
	BA 56 Z	3.6	BAM 56	3.9	—	—	—	—	—	—
	BA 57 Z	4.3	BAM 57	4.6	—	—	—	—	—	—
	BA 59 Z	5.4	BAM 59	5.7	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YB 55	3.8
	—	—	—	—	BHA 57 Z	6.3	BHAM 57	6.6	—	—
	—	—	—	—	—	—	—	—	—	—
9.525 (³ / ₈)	BA 65 Z	3.5	BAM 65	3.9	—	—	—	—	—	—
	BA 66 Z	4.2	BAM 66	4.6	—	—	—	—	—	—
	BA 68 Z	5.7	BAM 68	6.1	—	—	—	—	—	—
	BA 69 Z	6.3	BAM 69	6.7	—	—	—	—	—	—
	BA 610 Z	7	BAM 610	7.4	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YB 64	3.4
	—	—	—	—	—	—	—	—	YB 66	5.3
	—	—	—	—	—	—	—	—	YB 68	7.2
	—	—	—	—	—	—	—	—	YB 610	9.1
	—	—	—	—	BHA 68 Z	8.2	BHAM 68	8.6	—	—

Note⁽¹⁾ Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.
Remark Shell Type Grease Retained Full Complement Needle Roller Bearings are provided with prepacked grease. Standard type and closed end type bearings are not provided with prepacked grease, so perform proper lubrication when using these types of bearings.



Boundary dimensions mm(inch)				Standard mounting dimensions mm				Basic dynamic load rating	Basic static load rating	Allowable rotational speed ⁽¹⁾	Assembled inner ring
F _w	D	C	t ₂ Max.	Shaft dia. h6		Housing bore dia. J7		C N	C ₀ N	rpm	
				Max.	Min.	Max.	Min.				
3.969 (⁵ / ₃₂)	7.144 (⁹ / ₃₂)	3.96(.156)	—	3.969	3.961	7.152	7.137	1 350	1 220	40 000	—
3.969 (⁵ / ₃₂)	7.144 (⁹ / ₃₂)	6.35(.250)	—	—	—	—	—	2 320	2 440	40 000	—
4.762 (³ / ₁₆)	8.731 (¹¹ / ₃₂)	6.35(.250)	—	4.762	4.754	8.739	8.724	2 770	2 700	30 000	—
6.350 (¹ / ₄)	11.112 (⁷ / ₁₆)	6.35(.250)	1	6.350	6.341	11.122	11.104	1 770	1 390	55 000	—
6.350 (¹ / ₄)	11.112 (⁷ / ₁₆)	7.92(.312)	1					1 510	1 120	55 000	—
6.350 (¹ / ₄)	11.112 (⁷ / ₁₆)	11.13(.438)	1					2 650	2 310	55 000	—
6.350 (¹ / ₄)	11.112 (⁷ / ₁₆)	7.92(.312)	—					4 450	4 870	25 000	—
6.350 (¹ / ₄)	11.112 (⁷ / ₁₆)	11.13(.438)	—					6 320	7 650	25 000	—
7.938 (⁵ / ₁₆)	12.700 (¹ / ₂)	7.92(.312)	1	7.938	7.929	12.710	12.692	1 880	1 560	45 000	—
7.938 (⁵ / ₁₆)	12.700 (¹ / ₂)	9.52(.375)	1					2 620	2 390	45 000	—
7.938 (⁵ / ₁₆)	12.700 (¹ / ₂)	11.13(.438)	1					3 310	3 220	45 000	—
7.938 (⁵ / ₁₆)	12.700 (¹ / ₂)	14.27(.562)	1					4 190	4 360	45 000	—
7.938 (⁵ / ₁₆)	12.700 (¹ / ₂)	7.92(.312)	—					5 110	6 090	20 000	—
7.938 (⁵ / ₁₆)	14.288 (⁹ / ₁₆)	11.13(.438)	1.3	7.938	7.929	14.298	14.280	4 150	3 730	45 000	—
9.525 (³ / ₈)	14.288 (⁹ / ₁₆)	7.92(.312)	1	9.525	9.516	14.298	14.280	2 220	2 010	40 000	—
9.525 (³ / ₈)	14.288 (⁹ / ₁₆)	9.52(.375)	1					3 090	3 080	40 000	—
9.525 (³ / ₈)	14.288 (⁹ / ₁₆)	12.70(.500)	1					4 190	4 560	40 000	—
9.525 (³ / ₈)	14.288 (⁹ / ₁₆)	14.27(.562)	1					4 940	5 630	40 000	—
9.525 (³ / ₈)	14.288 (⁹ / ₁₆)	15.88(.625)	1					5 660	6 700	40 000	—
9.525 (³ / ₈)	14.288 (⁹ / ₁₆)	6.35(.250)	—	9.525	9.516	14.298	14.280	4 470	5 360	16 000	—
9.525 (³ / ₈)	14.288 (⁹ / ₁₆)	9.52(.375)	—					6 920	9 410	16 000	—
9.525 (³ / ₈)	14.288 (⁹ / ₁₆)	12.70(.500)	—					9 210	13 600	16 000	—
9.525 (³ / ₈)	14.288 (⁹ / ₁₆)	15.88(.625)	—					11 300	17 800	16 000	—
9.525 (³ / ₈)	15.875 (⁵ / ₈)	12.70(.500)	1.3					4 880	4 740	40 000	—

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