

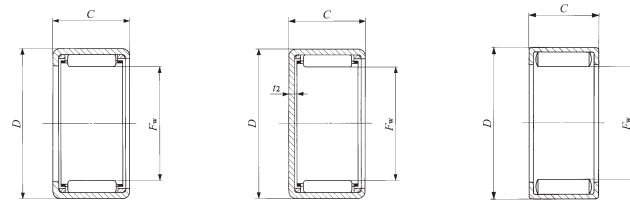
SHELL TYPE NEEDLE ROLLER BEARINGS



Shaft dia. 4 – 10mm

Shaft dia. mm	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
4	—	—	—	—	TLA 48 Z	1.54	TLAM 48	1.67	—	—
	—	—	—	—	—	—	—	—	YTL 48	1.73
5	—	—	—	—	TLA 59 Z	1.9	TLAM 59	2	—	—
	—	—	—	—	—	—	—	—	YTL 59	2.4
6	—	—	—	—	TLA 69 Z	2.2	TLAM 69	2.3	—	—
7	—	—	—	—	TLA 79 Z	2.5	TLAM 79	2.7	—	—
8	—	—	—	—	TLA 810 Z	3.1	TLAM 810	3.3	—	—
	TA 810 Z	6.7	TAM 810	7.1	—	—	—	—	—	—
	TA 815 Z	9.7	TAM 815	10.1	—	—	—	—	—	—
	TA 820 Z	12.9	TAM 820	13.3	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 810	7.7
9	—	—	—	—	TLA 910 Z	3.4	TLAM 910	3.6	—	—
	—	—	—	—	TLA 912 Z	4	TLAM 912	4.3	—	—
	TA 912 Z	8.7	TAM 912	9.2	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	YT 912	10.1
10	—	—	—	—	TLA 1010 Z	3.7	TLAM 1010	4	—	—
	—	—	—	—	TLA 1012 Z	4.4	TLAM 1012	4.8	—	—
	—	—	—	—	TLA 1015 Z	5.5	TLAM 1015	5.9	—	—
	TA 1010 Z	7.9	TAM 1010	8.5	—	—	—	—	—	—
	TA 1012 Z	9.3	TAM 1012	10	—	—	—	—	—	—
TA 1015 Z	11.5	TAM 1015	12.2	—	—	—	—	—	—	
TA 1020 Z	15.4	TAM 1020	16	—	—	—	—	—	—	

Note(*) 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.



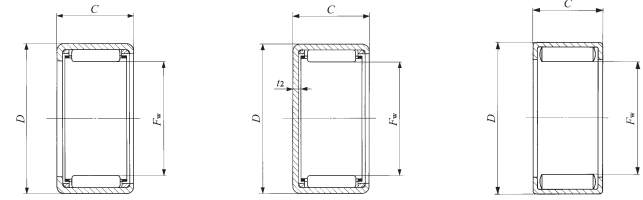
TA...Z TLA...Z

TAM TLAM

YT YTL

Boundary dimensions mm				Standard mounting dimensions mm						Basic dynamic load rating C	Basic static load rating C ₀	Allowable rotational speed ^(*) rpm	Assembled inner ring
F _w	D	C	t ₂ Max.	Shaft dia. h6		Housing bore dia. N7							
				Max.	Min.	Max.	Min.	Max.	Min.	N	N		
4	8	8	1	4.000	3.992	—	—	7.996	7.981	1 350	1 010	75 000	—
4	8	8	—	—	—	—	—	—	—	3 010	2 900	40 000	—
5	9	9	1	5.000	4.992	—	—	8.996	8.981	1 880	1 600	65 000	—
5	9	9	—	—	—	—	—	—	—	4 320	4 750	30 000	—
6	10	9	1	6.000	5.992	—	—	9.996	9.981	2 100	1 900	55 000	—
7	11	9	1	7.000	6.991	—	—	10.995	10.977	2 490	2 450	50 000	—
8	12	10	1	8.000	7.991	—	—	11.995	11.977	3 320	3 670	45 000	—
8	15	10	1.3	—	—	—	—	—	—	3 470	2 880	45 000	—
8	15	15	1.3	8.000	7.991	15.010	14.992	—	—	5 780	5 570	45 000	—
8	15	20	1.3	—	—	—	—	—	—	8 340	8 920	45 000	—
8	15	10	—	—	—	—	—	—	—	7 530	7 950	19 000	—
9	13	10	1	9.000	8.991	—	—	12.995	12.977	3 500	4 040	45 000	—
9	13	12	1	—	—	—	—	—	—	4 460	5 510	45 000	—
9	16	12	1.3	9.000	8.991	16.010	15.992	—	—	5 140	4 880	45 000	—
9	16	16	1.3	—	—	—	—	—	—	6 960	7 210	45 000	—
9	16	12	—	—	—	—	—	—	—	9 690	11 200	17 000	—
10	14	10	1	—	—	—	—	—	—	3 870	4 740	40 000	IRT 710
10	14	12	1	10.000	9.991	—	—	13.995	13.977	4 920	6 460	40 000	IRT 712
10	14	15	1	—	—	—	—	—	—	6 390	9 040	40 000	IRT 715
10	17	10	1.3	—	—	—	—	—	—	4 150	3 780	40 000	IRT 710
10	17	12	1.3	10.000	9.991	17.010	16.992	—	—	5 590	5 540	40 000	IRT 712
10	17	15	1.3	—	—	—	—	—	—	6 920	7 300	40 000	IRT 715
10	17	20	1.3	—	—	—	—	—	—	9 990	11 700	40 000	—

SHELL TYPE NEEDLE ROLLER BEARINGS



TA...Z TLA...Z

TAM TLAM

YT YTL

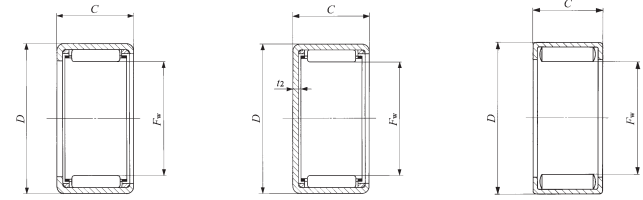
Shaft dia. 12 – 15 mm

Shaft dia. mm	Identification number									
	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Grease retained g	Mass (Ref.) g
12	—	—	—	—	TLA 1210 Z	4.3	TLAM 1210	4.7	—	—
	—	—	—	—	—	—	—	—	YTL 1210	5.1
	—	—	—	—	TLA 1212 Z	8.6	TLAM 1212	9.4	—	—
	TA 1212 Z	10.5	TAM 1212	11.5	—	—	—	—	—	—
	TA 1215 Z	13.1	TAM 1215	14	—	—	—	—	—	—
13	TA 1220 Z	17.3	TAM 1220	18.3	—	—	—	—	—	—
	TA 1225 Z	21.5	TAM 1225	22.5	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 1212	12.8
	—	—	—	—	TLA 1312 Z	9.2	TLAM 1312	10.1	—	—
	—	—	—	—	TLA 1412 Z	9.8	TLAM 1412	10.8	—	—
14	—	—	—	—	TLA 1416 Z	13.2	TLAM 1416	14.3	—	—
	TA 1416 Z	18.4	TAM 1416	19.6	—	—	—	—	—	—
	TA 1420 Z	23	TAM 1420	24	—	—	—	—	—	—
	—	—	—	—	TLA 1512 Z	10.4	TLAM 1512	11.5	—	—
	—	—	—	—	TLA 1516 Z	14	TLAM 1516	15.2	—	—
15	—	—	—	—	TLA 1522 Z	19.1	TLAM 1522	20.5	—	—
	TA 1510 Z	10.8	TAM 1510	12.3	—	—	—	—	—	—
	TA 1512 Z	12.9	TAM 1512	14.3	—	—	—	—	—	—
	TA 1515 Z	15.9	TAM 1515	17.3	—	—	—	—	—	—
	TA 1520 Z	21	TAM 1520	22.5	—	—	—	—	—	—
	TA 1525 Z	25	TAM 1525	26.5	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—

Note(*) 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.

F _w	Boundary dimensions mm			Standard mounting dimensions mm								Basic dynamic load rating C N	Basic static load rating C ₀ N	Allowable rotational speed ^(*) rpm	Assembled inner ring
	D	C	t ₂ Max.	Shaft dia. h6		Housing bore dia. N7									
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.							
12	16	10	1	12.000	11.989	—	—	15.995	15.977	4 350	5 810	35 000	IRT 810		
12	16	10	—	—	—	—	—	—	—	7 470	11 800	13 000	IRT 810		
12	18	12	1.3	12.000	11.989	—	—	17.995	17.977	6 420	7 490	35 000	IRT 812		
12	19	12	1.3	—	—	—	—	—	—	6 000	6 310	35 000	IRT 812		
12	19	15	1.3	—	—	—	—	—	—	7 440	8 320	35 000	IRT 815		
12	19	20	1.3	12.000	11.989	19.012	18.991	—	—	10 700	13 300	35 000	—		
12	19	25	1.3	—	—	—	—	—	—	13 800	18 300	35 000	—		
12	19	12	—	—	—	—	—	—	—	11 800	15 200	13 000	IRT 812		
13	19	12	1.3	13.000	12.989	—	—	18.993	18.972	6 760	8 170	30 000	IRT 1012		
14	20	12	1.3	14.000	13.989	—	—	19.993	19.972	7 080	8 840	30 000	IRT 1012-2		
14	20	16	1.3	—	—	—	—	—	—	8 950	12 000	30 000	IRT 1016-2		
14	22	16	1.3	14.000	13.989	22.012	21.991	—	—	10 500	12 000	30 000	IRT 1016-2		
14	22	20	1.3	—	—	—	—	—	—	13 900	17 200	30 000	IRT 1020-2		
15	21	12	1.3	—	—	—	—	—	—	7 380	9 520	25 000	IRT 1212		
15	21	16	1.3	15.000	14.989	—	—	20.993	20.972	9 330	12 900	25 000	IRT 1216		
15	21	22	1.3	—	—	—	—	—	—	13 600	20 900	25 000	IRT 1222		
15	22	10	1.3	—	—	—	—	—	—	5 290	5 680	25 000	IRT 1010-1		
15	22	12	1.3	—	—	—	—	—	—	7 120	8 310	25 000	IRT 1012-1		
15	22	15	1.3	15.000	14.989	22.012	21.991	—	—	8 830	11 000	25 000	IRT 1015-1		
15	22	20	1.3	—	—	—	—	—	—	12 700	17 600	25 000	IRT 1020-1		
15	22	25	1.3	—	—	—	—	—	—	16 300	24 200	25 000	IRT 1025-1		

SHELL TYPE NEEDLE ROLLER BEARINGS



TA...Z TLA...Z

TAM TLAM

YT

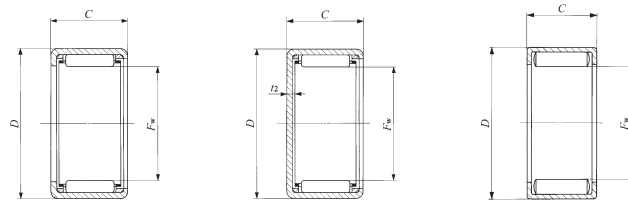
Shaft dia. 16 – 19mm

Shaft dia. mm	Identification number									
	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Grease retained g	Mass (Ref.) g
16	—	—	—	—	TLA 1612 Z	10.9	TLAM 1612	12.2	—	—
	—	—	—	—	TLA 1616 Z	14.8	TLAM 1616	16.1	—	—
	—	—	—	—	TLA 1622 Z	20	TLAM 1622	21.5	—	—
	TA 1616 Z	20	TAM 1616	22	—	—	—	—	—	—
	TA 1620 Z	25	TAM 1620	27	—	—	—	—	—	—
17	—	—	—	—	TLA 1712 Z	11.5	TLAM 1712	13	—	—
	TA 1715 Z	17.6	TAM 1715	19.5	—	—	—	—	—	—
	TA 1720 Z	23.5	TAM 1720	25	—	—	—	—	—	—
	TA 1725 Z	29	TAM 1725	31	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 1715	20.5
	—	—	—	—	—	—	—	—	YT 1725	35.5
18	—	—	—	—	TLA 1812 Z	12	TLAM 1812	13.7	—	—
	—	—	—	—	TLA 1816 Z	16.2	TLAM 1816	17.9	—	—
	TA 1813 Z	16.4	TAM 1813	18.5	—	—	—	—	—	—
	TA 1815 Z	18.5	TAM 1815	20.5	—	—	—	—	—	—
	TA 1817 Z	21	TAM 1817	23	—	—	—	—	—	—
	TA 1819 Z	23.5	TAM 1819	25.5	—	—	—	—	—	—
	TA 1820 Z	24.5	TAM 1820	26.5	—	—	—	—	—	—
	TA 1825 Z	30.5	TAM 1825	32.5	—	—	—	—	—	—
19	TA 1916 Z	23	TAM 1916	25.5	—	—	—	—	—	—
	TA 1920 Z	29	TAM 1920	31	—	—	—	—	—	—

Note(*) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.
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Boundary dimensions mm	Standard mounting dimensions mm										Basic dynamic load rating C	Basic static load rating C ₀	Allowable rotational speed ^(*) rpm	Assembled inner ring
	F _w	D	C	t ₂ Max.	Shaft dia. h6		Housing bore dia.							
					Max.	Min.	Max. J7	Min.	Max. N7	Min.				
16	22	12	1.3	—	16.000	15.989	—	—	21.993	21.972	7 670	10 200	25 000	IRT 1212-1
16	22	16	1.3	—	16.000	15.989	—	—	21.993	21.972	9 700	13 800	25 000	IRT 1216-1
16	22	22	1.3	—	16.000	15.989	—	—	21.993	21.972	14 200	22 400	25 000	IRT 1222-1
16	24	16	1.3	—	16.000	15.989	24.012	23.991	—	—	11 100	13 300	25 000	IRT 1216-1
16	24	20	1.3	—	16.000	15.989	24.012	23.991	—	—	14 700	19 100	25 000	IRT 1220-1
17	23	12	1.3	—	17.000	16.989	—	—	22.993	22.972	7 960	10 900	25 000	—
17	24	15	1.3	—	17.000	16.989	—	—	22.993	22.972	9 660	12 700	25 000	IRT 1215-2
17	24	20	1.3	—	17.000	16.989	—	—	22.993	22.972	13 900	20 400	25 000	IRT 1220-2
17	24	25	1.3	—	17.000	16.989	24.012	23.991	—	—	17 900	28 100	25 000	IRT 1225-2
17	24	15	—	—	—	—	—	—	—	—	16 600	26 000	9 000	IRT 1215-2
17	24	25	—	—	—	—	—	—	—	—	27 200	49 000	9 000	IRT 1225-2
18	24	12	1.3	—	18.000	17.989	—	—	23.993	23.972	8 230	11 500	20 000	IRT 1512
18	24	16	1.3	—	18.000	17.989	—	—	23.993	23.972	10 400	15 600	20 000	IRT 1516
18	25	13	1.3	—	18.000	17.989	—	—	23.993	23.972	9 100	12 000	20 000	IRT 1513
18	25	15	1.3	—	18.000	17.989	—	—	23.993	23.972	10 100	13 600	20 000	IRT 1515
18	25	17	1.3	—	18.000	17.989	25.012	24.991	—	—	11 900	16 900	20 000	IRT 1517
18	25	19	1.3	—	18.000	17.989	25.012	24.991	—	—	13 700	20 200	20 000	IRT 1519
18	25	20	1.3	—	18.000	17.989	25.012	24.991	—	—	14 500	21 800	20 000	IRT 1520
18	25	25	1.3	—	18.000	17.989	25.012	24.991	—	—	18 600	30 000	20 000	IRT 1525
19	27	16	1.3	—	19.000	18.987	27.012	26.991	—	—	12 200	15 700	20 000	IRT 1516-1
19	27	20	1.3	—	19.000	18.987	27.012	26.991	—	—	16 100	22 600	20 000	IRT 1520-1

SHELL TYPE NEEDLE ROLLER BEARINGS



TA...Z TLA...Z

TAM TLAM

YT

Shaft dia. 20 – 21mm

Shaft dia. mm	Identification number										
	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Grease retained g	Mass (Ref.) g	
20	—	—	—	—	TLA 2012 Z	13.2	TLAM 2012	15.2	—	—	
	—	—	—	—	TLA 2016 Z	17.8	TLAM 2016	19.9	—	—	
	—	—	—	—	TLA 2020 Z	22	TLAM 2020	24	—	—	
	—	—	—	—	TLA 2030 Z	33	TLAM 2030	35	—	—	
	TA 2015 Z	20	TAM 2015	22.5	—	—	—	—	—	—	
	TA 2020 Z	26.5	TAM 2020	29	—	—	—	—	—	—	
	TA 2025 Z	33	TAM 2025	35.5	—	—	—	—	—	—	
	TA 2030 Z	39.5	TAM 2030	42	—	—	—	—	—	—	
	—	—	—	—	—	—	—	—	YT 2015	23.5	
	—	—	—	—	—	—	—	—	YT 2025	41	
	TA 202820 Z	30	TAM 202820	32.5	—	—	—	—	—	—	
	—	—	—	—	—	—	—	—	YT 202820	37.5	
	21	TA 2116 Z	25	TAM 2116	28	—	—	—	—	—	—
		TA 2120 Z	31.5	TAM 2120	34.5	—	—	—	—	—	—
—		—	—	—	—	—	—	—	YT 2116	31	
—		—	—	—	—	—	—	—	YT 2120	39	
—		—	—	—	—	—	—	—	—	—	

Note(*) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.
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Boundary dimensions mm	Standard mounting dimensions mm										Basic dynamic load rating C N	Basic static load rating C ₀ N	Allowable rotational speed ^(*) rpm	Assembled inner ring
	F _w	D	C	t ₂ Max.	Shaft dia. h6		Housing bore dia. N7							
20	26	12	1.3	20.000	19.987	—	—	25.993	25.972	8 740	12 900	20 000	—	
20	26	16	1.3											
20	26	20	1.3											
20	26	30	1.3											
20	26	30	1.3											20.000
20	27	15	1.3											
20	27	20	1.3											
20	27	25	1.3											
20	27	30	1.3	20.000	19.987	27.012	26.991	—	—	15 000	23 400	20 000	IRT 1520-2	
20	27	15	1.3											
20	27	20	1.3											
20	27	25	1.3											
20	27	30	1.3											20.000
20	27	15	1.3											
20	27	20	1.3											
20	27	25	1.3											
20	27	30	1.3	20.000	19.987	27.012	26.991	—	—	23 100	41 000	20 000	IRT 1530-2	
20	27	15	1.3											
20	27	20	1.3											
20	27	25	1.3											
20	27	30	1.3											20.000
20	27	15	1.3											
20	27	20	1.3											
20	27	25	1.3											
20	27	30	1.3	20.000	19.987	27.012	26.991	—	—	16 900	24 300	20 000	IRT 1520-2	
20	28	20	1.3											
20	28	20	1.3											
20	28	20	1.3											
20	28	20	1.3											21.000
21	29	16	1.3											
21	29	20	1.3											
21	29	16	1.3											
21	29	20	1.3	21.000	20.987	29.012	28.991	—	—	17 600	25 900	19 000	IRT 1720-1	
21	29	16	1.3											
21	29	16	1.3											
21	29	16	1.3											
21	29	20	1.3											21.000
21	29	16	1.3											
21	29	16	1.3											
21	29	16	1.3											
21	29	20	1.3	21.000	20.987	29.012	28.991	—	—	27 500	46 800	7 000	IRT 1720-1	
21	29	16	1.3											
21	29	16	1.3											
21	29	16	1.3											
21	29	20	1.3											

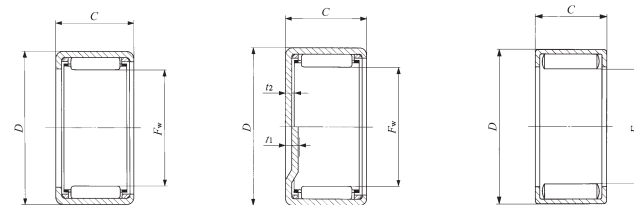
SHELL TYPE NEEDLE ROLLER BEARINGS



Shaft dia. 22 – 24mm

Shaft dia. mm	Identification number									
	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Grease retained g	Mass (Ref.) g
22	—	—	—	—	TLA 2212 Z	15.6	TLAM 2212	18.1	—	—
	—	—	—	—	TLA 2216 Z	21.5	TLAM 2216	24	—	—
	—	—	—	—	TLA 2220 Z	26.5	TLAM 2220	29	—	—
	TA 2210 Z	15	TAM 2210	18.1	—	—	—	—	—	—
	TA 2215 Z	21.5	TAM 2215	24.5	—	—	—	—	—	—
	TA 2220 Z	29	TAM 2220	32	—	—	—	—	—	—
	TA 2225 Z	35.5	TAM 2225	38.5	—	—	—	—	—	—
	TA 2230 Z	42.5	TAM 2230	45.5	—	—	—	—	—	—
	TA 223016 Z	26	TAM 223016	29	—	—	—	—	—	—
	TA 223020 Z	32.5	TAM 223020	35.5	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 223016	32
	—	—	—	—	—	—	—	—	YT 223020	40.5
24	TA 2420 Z	31	TAM 2420	35	—	—	—	—	—	—
	TA 2428 Z	43.5	TAM 2428	47	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 2428	54
	TA 243216 Z	28	TAM 243216	32	—	—	—	—	—	—
	TA 243220 Z	35.5	TAM 243220	39	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 243216	34.5
	—	—	—	—	—	—	—	—	YT 243220	43.5
	—	—	—	—	—	—	—	—	—	—

Note(*) 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.



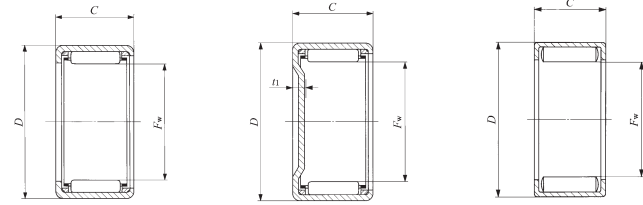
TA...Z TLA...Z

TAM TLAM
 $t_i (F_w \geq 24)$
 $t_i (F_w \leq 22)$

YT

Boundary dimensions mm	Standard mounting dimensions mm								Basic dynamic load rating C N	Basic static load rating C ₀ N	Allowable rotational speed ^(*) rpm	Assembled inner ring		
	F _w	D	C	t ₁ , t ₂ Max.	Shaft dia. h6		Housing bore dia. J7 N7							
22	28	12	1.3	—	22.000	21.987	—	—	27.993	27.972	9 230	14 300	18 000	—
22	28	16	1.3	—	22.000	21.987	—	—	27.993	27.972	11 700	19 300	18 000	IRT 1716-2
22	28	20	1.3	—	22.000	21.987	29.012	28.991	—	—	15 300	27 300	18 000	IRT 1720-2
22	29	10	1.3	—	—	—	—	—	—	—	6 650	8 500	18 000	IRT 1710-2
22	29	15	1.3	—	—	—	—	—	—	—	11 100	16 400	18 000	IRT 1715-2
22	29	20	1.3	—	22.000	21.987	29.012	28.991	—	—	16 000	26 300	18 000	IRT 1720-2
22	29	25	1.3	—	—	—	—	—	—	—	19 700	34 300	18 000	IRT 1725-2
22	29	30	1.3	—	—	—	—	—	—	—	23 800	43 700	18 000	IRT 1730-2
22	30	16	1.3	—	—	—	—	—	—	—	13 200	18 200	18 000	IRT 1716-2
22	30	20	1.3	—	22.000	21.987	30.012	29.991	—	—	17 500	26 100	18 000	IRT 1720-2
22	30	16	—	—	—	—	—	—	—	—	22 600	36 800	7 000	IRT 1716-2
22	30	20	—	—	—	—	—	—	—	—	28 200	48 900	7 000	IRT 1720-2
24	31	20	3.4	—	—	—	—	—	—	—	17 000	29 200	16 000	IRT 2020
24	31	28	3.4	—	24.000	23.987	31.014	30.989	—	—	24 500	46 700	16 000	IRT 2028
24	31	28	—	—	—	—	—	—	—	—	36 800	79 900	6 500	IRT 2028
24	32	16	3.4	—	—	—	—	—	—	—	14 200	20 500	16 000	IRT 2016
24	32	20	3.4	—	24.000	23.987	32.014	31.989	—	—	18 800	29 400	16 000	IRT 2020
24	32	16	—	—	—	—	—	—	—	—	23 700	40 100	6 500	IRT 2016
24	32	20	—	—	—	—	—	—	—	—	29 500	53 200	6 500	IRT 2020

SHELL TYPE NEEDLE ROLLER BEARINGS



TA...Z TLA...Z

TAM TLAM

YT YTL

Shaft dia. 25 – 28 mm

Shaft dia. mm	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
25	—	—	—	—	TLA 2512 Z	19.7	TLAM 2512	23.5	—	—
	—	—	—	—	TLA 2516 Z	26	TLAM 2516	29.5	—	—
	—	—	—	—	TLA 2520 Z	32	TLAM 2520	36	—	—
	—	—	—	—	TLA 2526 Z	41.5	TLAM 2526	45.5	—	—
	—	—	—	—	TLAW2538Z	58.5	TLAMW2538	62	—	—
	—	—	—	—	—	—	—	—	YTL 2526	51.5
	TA 2510 Z	19.1	TAM 2510	23	—	—	—	—	—	—
	TA 2515 Z	28.5	TAM 2515	32.5	—	—	—	—	—	—
	TA 2520 Z	36.5	TAM 2520	40.5	—	—	—	—	—	—
	TA 2525 Z	45.5	TAM 2525	49	—	—	—	—	—	—
	TA 2530 Z	54.5	TAM 2530	58.5	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 2510	22.5
	—	—	—	—	—	—	—	—	YT 2515	33
	—	—	—	—	—	—	—	—	YT 2520	45
	—	—	—	—	—	—	—	—	YT 2525	57
26	TA 2616 Z	30.5	TAM 2616	34.5	—	—	—	—	—	—
	TA 2620 Z	38	TAM 2620	42.5	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 2616	37
	—	—	—	—	—	—	—	—	YT 2620	46.5
	—	—	—	—	—	—	—	—	—	—
28	—	—	—	—	TLA 2816 Z	28.5	TLAM 2816	33.5	—	—
	—	—	—	—	TLA 2820 Z	35.5	TLAM 2820	40.5	—	—
	TA 2820 Z	45	TAM 2820	50	—	—	—	—	—	—
	TA 2830 Z	67.5	TAM 2830	72.5	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 2820	56.5
	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—

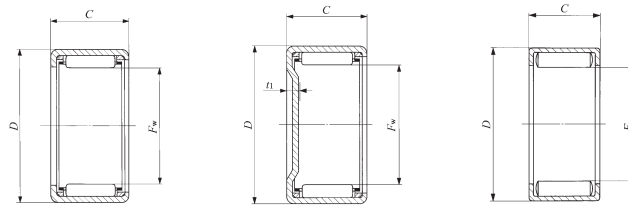
Note(1) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.

Remarks1. "W" in the identification number indicates that rolling elements are arranged in double rows.

2. 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	Standard mounting dimensions mm										Basic dynamic load rating C N	Basic static load rating C ₀ N	Allowable rotational speed(1) rpm	Assembled inner ring					
	F _w	D	C	t ₁ Max.	Shaft dia. h6		Housing bore dia. N7												
					Max.	Min.	Max.	Min.	Max.	Min.									
25	32	12	2.8	25.000	24.987	—	—	31.992	31.967	9 440	13 900	15 000	—						
25	32	16	2.8							12 800	20 500	15 000	—						
25	32	20	2.8							16 900	29 300	15 000	IRT 2020-1						
25	32	26	2.8							22 600	42 500	15 000	IRT 2026-1						
25	32	38	2.8							28 900	58 500	15 000	IRT 2038-1						
25	32	26	—							35 000	75 800	6 000	IRT 2026-1						
25	32	26	—							—	—	—	—	—	—	—	—	—	
25	33	10	3.4	25.000	24.987	33.014	32.989	—	—	7 990	9 900	15 000	IRT 2010-1						
25	33	15	3.4							13 400	19 300	15 000	IRT 2015-1						
25	33	20	3.4							19 500	31 100	15 000	IRT 2020-1						
25	33	25	3.4							24 100	40 800	15 000	IRT 2025-1						
25	33	30	3.4							29 100	52 000	15 000	IRT 2030-1						
25	33	10	—							25.000	24.987	33.014	32.989	—	—	15 500	23 600	6 000	IRT 2010-1
25	33	15	—													22 700	38 300	6 000	IRT 2015-1
25	33	20	—	30 200	55 400	6 000	IRT 2020-1												
25	33	25	—	37 200	72 500	6 000	IRT 2025-1												
26	34	16	3.4	26.000	25.987	34.014	33.989	—	—	15 200	22 900	15 000	IRT 2216						
26	34	20	3.4							20 100	32 800	15 000	IRT 2220						
26	34	16	—							24 700	43 300	6 000	IRT 2216						
26	34	20	—							30 800	57 500	6 000	IRT 2220						
28	35	16	2.8	28.000	27.987	—	—	34.992	34.967	13 800	23 500	13 000	—						
28	35	20	2.8							18 300	33 600	13 000	IRT 2220-1						
28	37	20	3.4	28.000	27.987	37.014	36.989	—	—	21 200	32 300	13 000	IRT 2220-1						
28	37	30	3.4							33 000	56 900	13 000	IRT 2230-1						
28	37	20	—							34 700	61 700	5 500	IRT 2220-1						

SHELL TYPE NEEDLE ROLLER BEARINGS



TA...Z TLA...Z

TAM TLAM

YT

Shaft dia. 29 – 35mm

Shaft dia. mm	Identification number									
	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Grease retained g	Mass (Ref.) g
29	TA 2920 Z	47	TAM 2920	52	—	—	—	—	—	—
	TA 2930 Z	70	TAM 2930	75.5	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 2920	58.5
30	—	—	—	—	TLA 3012 Z	23.5	TLAM 3012	29	—	—
	—	—	—	—	TLA 3016 Z	30.5	TLAM 3016	36	—	—
	—	—	—	—	TLA 3018 Z	34.5	TLAM 3018	40	—	—
	—	—	—	—	TLA 3020 Z	38	TLAM 3020	43.5	—	—
	—	—	—	—	TLA 3026 Z	49	TLAM 3026	54.5	—	—
	—	—	—	—	TLAW3038 Z	69	TLAMW3038	74.5	—	—
	TA 3013 Z	36.5	TAM 3013	42.5	—	—	—	—	—	—
	TA 3015 Z	42	TAM 3015	47.5	—	—	—	—	—	—
	TA 3020 Z	54.5	TAM 3020	60	—	—	—	—	—	—
	TA 3025 Z	68	TAM 3025	73.5	—	—	—	—	—	—
TA 3030 Z	80	TAM 3030	85.5	—	—	—	—	—	—	
32	TA 3220 Z	57.5	TAM 3220	63.5	—	—	—	—	—	—
	TA 3230 Z	86	TAM 3230	97.5	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 3220	71.5
35	—	—	—	—	TLA 3512 Z	27	TLAM 3512	34.5	—	—
	—	—	—	—	TLA 3516 Z	35	TLAM 3516	42.5	—	—
	—	—	—	—	TLA 3520 Z	43.5	TLAM 3520	51	—	—
	TA 3512 Z	38.5	TAM 3512	46	—	—	—	—	—	—
	TA 3515 Z	48	TAM 3515	56	—	—	—	—	—	—
	TA 3520 Z	62.5	TAM 3520	70	—	—	—	—	—	—
	TA 3525 Z	78	TAM 3525	85.5	—	—	—	—	—	—
TA 3530 Z	97	TAM 3530	105	—	—	—	—	—	—	

Note(1) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.

Remarks1. "W" in the identification number indicates that rolling elements are arranged in double rows.

2. 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	Standard mounting dimensions mm										Basic dynamic load rating C N	Basic static load rating C ₀ N	Allowable rotational speed(1) rpm	Assembled inner ring
	F _w	D	C	t ₁ Max.	Shaft dia. h6		Housing bore dia. N7							
					Max.	Min.	Max.	Min.	Max.	Min.				
29	38	20	3.4	—	29.000	28.987	38.014	37.989	—	—	22 000	34 200	13 000	IRT 2520
29	38	30	3.4	—	29.000	28.987	38.014	37.989	—	—	34 200	60 300	13 000	IRT 2530
29	38	20	—	—	—	—	—	—	—	—	35 500	64 100	5 000	IRT 2520
30	37	12	2.8	—	30.000	29.987	—	—	36.992	36.967	10 400	16 600	12 000	—
30	37	16	2.8	—	30.000	29.987	—	—	36.992	36.967	14 100	24 500	12 000	—
30	37	18	2.8	—	30.000	29.987	—	—	36.992	36.967	16 400	29 800	12 000	—
30	37	20	2.8	—	30.000	29.987	—	—	36.992	36.967	18 600	35 100	12 000	IRT 2520-1
30	37	26	2.8	—	30.000	29.987	—	—	36.992	36.967	24 800	50 900	12 000	IRT 2526-1
30	37	38	2.8	—	30.000	29.987	—	—	36.992	36.967	31 900	70 200	12 000	IRT 2538-1
30	40	13	3.4	—	30.000	29.987	40.014	39.989	—	—	13 500	16 800	12 000	—
30	40	15	3.4	—	30.000	29.987	40.014	39.989	—	—	16 800	22 400	12 000	IRT 2515-1
30	40	20	3.4	—	30.000	29.987	40.014	39.989	—	—	24 500	36 300	12 000	IRT 2520-1
30	40	25	3.4	—	30.000	29.987	40.014	39.989	—	—	31 600	50 300	12 000	IRT 2525-1
30	40	30	3.4	—	30.000	29.987	40.014	39.989	—	—	36 700	60 700	12 000	IRT 2530-1
32	42	20	3.4	—	32.000	31.984	42.014	41.989	—	—	25 400	38 600	11 000	IRT 2820
32	42	30	3.4	—	32.000	31.984	42.014	41.989	—	—	39 500	68 400	11 000	IRT 2830
32	42	20	—	—	—	—	—	—	—	—	39 900	70 100	4 500	IRT 2820
35	42	12	2.8	—	35.000	34.984	—	—	41.992	41.967	11 600	20 000	10 000	IRT 3012
35	42	16	2.8	—	35.000	34.984	—	—	41.992	41.967	15 700	29 600	10 000	—
35	42	20	2.8	—	35.000	34.984	—	—	41.992	41.967	20 700	42 300	10 000	IRT 3020
35	45	12	3.4	—	35.000	34.984	45.014	44.989	—	—	14 800	19 900	10 000	IRT 3012
35	45	15	3.4	—	35.000	34.984	45.014	44.989	—	—	18 500	26 500	10 000	IRT 3015
35	45	20	3.4	—	35.000	34.984	45.014	44.989	—	—	27 000	43 100	10 000	IRT 3020
35	45	25	3.4	—	35.000	34.984	45.014	44.989	—	—	34 800	59 700	10 000	IRT 3025
35	45	30	3.4	—	35.000	34.984	45.014	44.989	—	—	40 600	72 600	10 000	IRT 3030

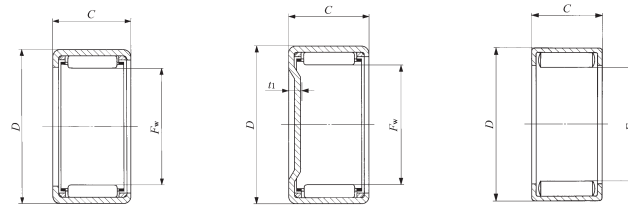
SHELL TYPE NEEDLE ROLLER BEARINGS



Shaft dia. 37 – 45mm

Shaft dia. mm	Identification number									
	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Grease retained g	Mass (Ref.) g
37	TA 3720 Z	64.5	TAM 3720	73	—	—	—	—	—	—
	TA 3730 Z	101	TAM 3730	110	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 3720	81
38	TA 3815 Z	51	TAM 3815	60	—	—	—	—	—	—
	TA 3820 Z	65.5	TAM 3820	74.5	—	—	—	—	—	—
	TA 3825 Z	82.5	TAM 3825	96	—	—	—	—	—	—
	TA 3830 Z	104	TAM 3830	114	—	—	—	—	—	—
	TAW 3845 Z	149	TAMW 3845	159	—	—	—	—	—	—
40	—	—	—	—	TLA 4012 Z	30	TLAM 4012	40	—	—
	—	—	—	—	TLA 4016 Z	39	TLAM 4016	49	—	—
	—	—	—	—	TLA 4020 Z	49	TLAM 4020	58.5	—	—
	TA 4015 Z	54	TAM 4015	63.5	—	—	—	—	—	—
	TA 4020 Z	69.5	TAM 4020	79	—	—	—	—	—	—
	TA 4025 Z	86.5	TAM 4025	102	—	—	—	—	—	—
	TA 4030 Z	110	TAM 4030	120	—	—	—	—	—	—
	TA 4040 Z	144	TAM 4040	154	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 4015	63.5
	—	—	—	—	—	—	—	—	YT 4025	109
45	—	—	—	—	TLA 4516 Z	43.5	TLAM 4516	56	—	—
	—	—	—	—	TLA 4520 Z	54.5	TLAM 4520	67	—	—
	TA 4520 Z	77	TAM 4520	90	—	—	—	—	—	—
	TA 4525 Z	102	TAM 4525	115	—	—	—	—	—	—
	TA 4530 Z	122	TAM 4530	135	—	—	—	—	—	—
	TA 4540 Z	161	TAM 4540	174	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	YT 4520	96
	—	—	—	—	—	—	—	—	YT 4525	122

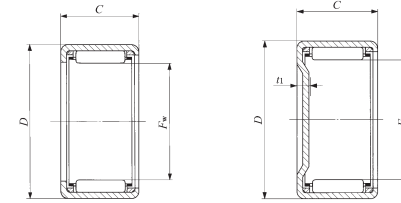
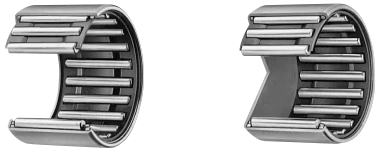
Note(1) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.
 Remarks1. "W" in the identification number indicates that rolling elements are arranged in double rows.
 2. Shell Type Grease Retained Full Complement Needle Roller Bearings 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.



TA...Z TLA...Z TAM TLAM YT

Boundary dimensions mm				Standard mounting dimensions mm						Basic dynamic load rating C N	Basic static load rating C ₀ N	Allowable rotational speed(1) rpm	Assembled inner ring
F _w	D	C	t ₁ Max.	Shaft dia. h6		Housing bore dia. J7		N7					
				Max.	Min.	Max.	Min.	Max.	Min.				
37	47	20	3.4	37.000	36.984	47.014	46.989	—	—	27 800	45 400	9 500	IRT 3220
37	47	30	3.4							41 800	76 700	9 500	IRT 3230
37	47	20	—							43 300	81 300	4 000	IRT 3220
38	48	15	3.4	38.000	37.984	48.014	47.989	—	—	19 000	28 000	9 000	IRT 3215-1
38	48	20	3.4							27 700	45 600	9 000	IRT 3220-1
38	48	25	3.4							35 600	63 100	9 000	IRT 3225-1
38	48	30	3.4							43 100	80 600	9 000	IRT 3230-1
38	48	45	3.4							55 700	112 000	9 000	IRT 3245-1
40	47	12	2.8	40.000	39.984	—	—	46.992	46.967	12 400	22 800	8 500	—
40	47	16	2.8							16 700	33 700	8 500	—
40	47	20	2.8							22 100	48 200	8 500	IRT 3520
40	50	15	3.4	40.000	39.984	50.014	49.989	—	—	19 500	29 400	8 500	IRT 3515
40	50	20	3.4							28 400	47 800	8 500	IRT 3520
40	50	25	3.4							36 600	66 200	8 500	IRT 3525
40	50	30	3.4							44 300	84 600	8 500	IRT 3530
40	50	40	3.4							56 700	116 000	8 500	IRT 3540
40	50	15	—							33 400	59 800	4 000	IRT 3515
40	50	25	—							55 300	114 000	4 000	IRT 3525
45	52	16	2.8							45.000	44.984	—	—
45	52	20	2.8	23 400	54 000	7 500	IRT 4020						
45	55	20	3.4	45.000	44.984	55.018	54.988	—	—	30 600	54 600	7 500	IRT 4020
45	55	25	3.4							39 400	75 600	7 500	IRT 4025
45	55	30	3.4							47 700	96 600	7 500	IRT 4030
45	55	40	3.4							61 300	133 000	7 500	IRT 4040
45	55	20	—							47 800	98 200	3 500	IRT 4020
45	55	25	—							59 100	129 000	3 500	IRT 4025

SHELL TYPE NEEDLE ROLLER BEARINGS



TA...Z TLA...Z

TAM TLAM

Shaft dia. 50 – 62mm

Shaft dia. mm	Identification number									
	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Standard	Mass (Ref.) g	Closed end	Mass (Ref.) g	Grease retained g	Mass (Ref.) g
50	—	—	—	—	TLA 5020 Z	69	TLAM 5020	84.5	—	—
	—	—	—	—	TLA 5025 Z	86	TLAM 5025	107	—	—
	TA 5012 Z	62.5	TAM 5012	78	—	—	—	—	—	—
	TA 5015 Z	78	TAM 5015	98.5	—	—	—	—	—	—
	TA 5020 Z	107	TAM 5020	123	—	—	—	—	—	—
	TA 5025 Z	134	TAM 5025	150	—	—	—	—	—	—
	TA 5030 Z	161	TAM 5030	178	—	—	—	—	—	—
	TA 5040 Z	210	TAM 5040	230	—	—	—	—	—	—
TAW 5045 Z	230	TAMW 5045	245	—	—	—	—	—	—	
55	—	—	—	—	TLA 5520 Z	75	TLAM 5520	98.5	—	—
	—	—	—	—	TLA 5525 Z	98.5	TLAM 5525	118	—	—
	TA 5520 Z	116	TAM 5520	136	—	—	—	—	—	—
	TA 5525 Z	145	TAM 5525	165	—	—	—	—	—	—
	TA 5530 Z	175	TAM 5530	195	—	—	—	—	—	—
	TA 5540 Z	230	TAM 5540	250	—	—	—	—	—	—
	TAW 5545 Z	250	TAMW 5545	270	—	—	—	—	—	—
	TAW 5550 Z	280	TAMW 5550	300	—	—	—	—	—	—
60	TA 6025 Z	158	TAM 6025	182	—	—	—	—	—	—
	TA 6030 Z	191	TAM 6030	215	—	—	—	—	—	—
	TA 6040 Z	250	TAM 6040	275	—	—	—	—	—	—
	TAW 6045 Z	270	TAMW 6045	295	—	—	—	—	—	—
	TAW 6050 Z	305	TAMW 6050	330	—	—	—	—	—	—
62	TA 6212 Z	78	TAM 6212	107	—	—	—	—	—	—

Note(1) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.
 Remarks1. "W" in the identification number indicates that rolling elements are arranged in double rows.
 2. 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				Standard mounting dimensions mm						Basic dynamic load rating C	Basic static load rating C ₀	Allowable rotational speed(1) rpm	Assembled inner ring
F _w	D	C	t ₁ Max.	Shaft dia. h6		Housing bore dia. J7		N7					
				Max.	Min.	Max.	Min.	Max.	Min.	N	N		
50	58	20	2.8	50.000	49.984	—	—	57.991	57.961	28 800	64 100	6 500	IRT 4520
50	58	25	2.8							36 900	88 400	6 500	IRT 4525
50	62	12	3.4	50.000	49.984	62.018	61.988	—	—	17 700	24 000	6 500	IRT 4512
50	62	15	3.4							25 800	39 000	6 500	IRT 4515
50	62	20	3.4							38 000	64 000	6 500	IRT 4520
50	62	25	3.4							49 100	89 000	6 500	IRT 4525
50	62	30	3.4							59 500	114 000	6 500	IRT 4530
50	62	40	3.4							76 500	157 000	6 500	IRT 4540
50	62	45	3.4							76 700	158 000	6 500	IRT 4545
55	63	20	2.8							55.000	54.981	—	—
55	63	25	2.8	38 300	95 700	5 500	IRT 5025-1						
55	67	20	3.4	55.000	54.981	67.018	66.988	—	—	39 600	69 700	5 500	IRT 5020-1
55	67	25	3.4							51 200	97 000	5 500	IRT 5025-1
55	67	30	3.4							62 000	124 000	5 500	IRT 5030-1
55	67	40	3.4							80 000	172 000	5 500	IRT 5040-1
55	67	45	3.4							79 900	172 000	5 500	IRT 5045-1
55	67	50	3.4							91 500	205 000	5 500	IRT 5050-1
60	72	25	3.4	60.000	59.981	72.018	71.988	—	—	54 700	108 000	5 000	IRT 5025
60	72	30	3.4							66 300	139 000	5 000	IRT 5030
60	72	40	3.4							85 700	193 000	5 000	IRT 5040
60	72	45	3.4							85 400	193 000	5 000	IRT 5045
60	72	50	3.4							97 800	229 000	5 000	IRT 5050
62	74	12	3.4	62.000	61.981	74.018	73.988	—	—	20 100	30 300	4 500	IRT 5212