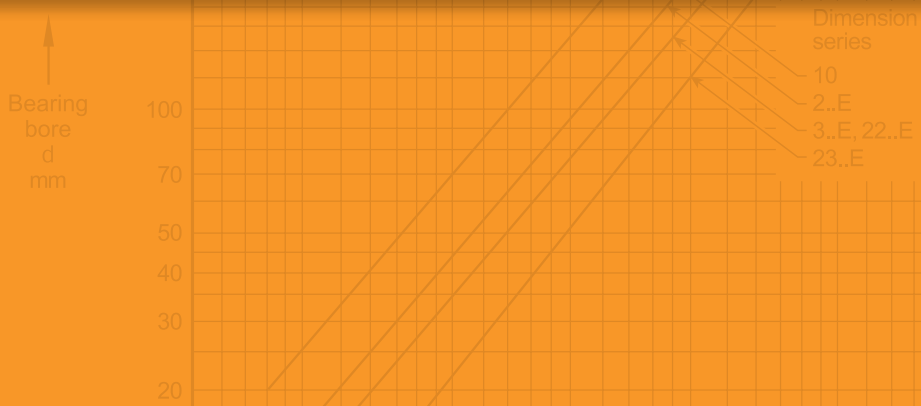


TIMKEN



TIMKEN SPHERICAL ROLLER BEARING CATALOG



SPHERICAL ROLLER BEARINGS – continued

- Shaft and housing fits, internal clearances, tolerances and other technical data for these bearings are found in the engineering section of this catalog and the Timken Engineering Manual (order no. 10424).
- Bearings are available with a tapered bore for adapter-type mounting. To order, add the suffix “K” to bearing number (e.g., 23120K).
- Consult your Timken sales engineer for up-to-date information about the availability of the bearings you have selected.

Continued from previous page.

Bearing Part Number	Bearing Dimensions			Load Ratings		Cage Type	Mounting Data			Equivalent Radial Load Factors ⁽²⁾				Geometry Factor ⁽³⁾ C _g	Speed Reference			Weight
	Bore d	O.D. D	Width B	Dynamic C	Static C _o		Fillet ⁽¹⁾ (Max.) R	Backing Diameter		Dynamic		Static	Thermal Reference Speed ⁽⁴⁾		Limiting Speed ⁽⁵⁾			
								Shaft d _a	Housing D _a	e	F _a ≤ e F _r X = 1 Y	F _a > e F _r X = 0.67 Y				In All Cases Y ₀		
											Oil	Grease						
	mm in.	mm in.	mm in.	kN lbf.	kN lbf.		mm in.	mm in.	mm in.						RPM	RPM	RPM	kg lbs.
24130	150 5.9055	250 9.8425	100 3.9370	1180 264000	1680 378000	EJ	2 0.08	169 6.7	227 8.9	0.36	1.86	2.77	1.82	0.087	1300	1200	2070	19.4 42.7
22230	150 5.9055	270 10.6299	73 2.8740	1000 225000	1230 276000	EJ	2.5 0.1	179 7.0	246 9.7	0.25	2.69	4.00	2.63	0.090	2400	2000	3250	17.5 39.2
22230	150 5.9055	270 10.6299	73 2.8740	1000 225000	1230 276000	EM	2.5 0.1	179 7.0	246 9.7	0.25	2.69	4.00	2.63	0.090	2400	2000	3600	17.8 39.2
23230	150 5.9055	270 10.6299	96 3.7795	1270 286000	1660 372000	EJ	2.5 0.1	178 7.0	247 9.7	0.32	2.08	3.10	2.04	0.090	1500	1400	2540	23.0 52.4
23230	150 5.9055	270 10.6299	96 3.7795	1270 286000	1660 372000	EM	2.5 0.1	178 7.0	247 9.7	0.32	2.08	3.10	2.04	0.090	1500	1400	2440	23.8 52.4
22330	150 5.9055	320 12.5984	108 4.2520	1620 365000	1890 424000	EJ	3 0.1	194 7.6	288 11.3	0.33	2.08	3.09	2.03	0.088	1600	1500	2200	40.6 94.6
22330	150 5.9055	320 12.5984	108 4.2520	1620 365000	1890 424000	EMB	3 0.1	194 7.6	288 11.3	0.33	2.08	3.09	2.03	0.088	1600	1500	1950	43.0 94.6
23330	150 5.9055	320 12.5984	128 5.0394	1780 400000	2130 479000	EMB	3 0.1	185 7.3	280 11.0	0.41	1.64	2.44	1.60	0.087	1100	1000	1630	50.4 111.0
23932	160 6.2992	220 8.6614	45 1.7717	421 94700	654 147000	EM	2 0.08	175 6.9	207 8.2	0.18	3.78	5.63	3.70	0.086	2500	2100	2970	4.9 10.8
23032	160 6.2992	240 9.4488	60 2.3622	705 159000	1040 235000	EJ	2 0.08	180 7.1	224 8.8	0.22	3.12	4.65	3.05	0.089	2400	2000	3080	9.3 20.4
23032	160 6.2992	240 9.4488	60 2.3622	705 159000	1040 235000	EM	2 0.08	180 7.1	224 8.8	0.22	3.12	4.65	3.05	0.089	2400	2000	3080	9.3 20.4
24032	160 6.2992	240 9.4488	80 3.1496	914 206000	1410 317000	EJ	2 0.08	176 6.9	223 8.8	0.29	2.32	3.45	2.27	0.089	1800	1500	2670	12.5 27.5
23132	160 6.2992	270 10.6299	86 3.3858	1160 261000	1580 354000	EJ	2 0.08	185 7.3	248 9.8	0.29	2.33	3.46	2.27	0.092	1700	1500	2520	19.7 43.3
23132	160 6.2992	270 10.6299	86 3.3858	1160 261000	1580 354000	EM	2 0.08	185 7.3	248 9.8	0.29	2.33	3.46	2.27	0.092	1700	1500	2710	20.2 44.4
24132	160 6.2992	270 10.6299	109 4.2913	1390 313000	2000 449000	EJ	2 0.08	181 7.1	245 9.7	0.37	1.84	2.74	1.80	0.091	1100	1000	1920	25.1 55.2
22232	160 6.2992	290 11.4173	80 3.1496	1120 253000	1370 309000	EJ	2.5 0.1	192 7.5	264 10.4	0.26	2.62	3.91	2.57	0.093	2200	1900	2980	21.9 50.6
22232	160 6.2992	290 11.4173	80 3.1496	1120 253000	1370 309000	EM	2.5 0.1	192 7.5	264 10.4	0.26	2.62	3.91	2.57	0.093	2200	1900	3380	23.0 50.6
23232	160 6.2992	290 11.4173	104 4.0945	1470 330000	1940 435000	EJ	2.5 0.1	190 7.5	264 10.4	0.33	2.06	3.06	2.01	0.094	1400	1200	2360	29.3 64.3

⁽¹⁾Maximum shaft or housing fillet radius that bearing corners will clear.

⁽²⁾These factors apply for both inch and metric calculations. See engineering section for instructions on use.

⁽³⁾Geometry constant for Lubrication Life Factor a31 is found in the Bearing Ratings section of the Engineering Manual (order no. 10424).

⁽⁴⁾See thermal reference speed in the Engineering Manual (order no. 10424) and on page 61.

⁽⁵⁾See limiting speed on page 61.

Continued on next page.

METRIC ACCESSORIES INDEX – continued

Bearing Bore mm	Bearing Part Number	Adapter Sleeve		Withdrawal Sleeve	
		Metric Shaft	Hydraulic Metric Shaft	Metric Shaft	Hydraulic Metric Shaft
120	22224K	H3124		AHX3124	
120	22324K	H2324		AHX2324G	
120	23024K	H3024		AHX3024	
120	23124K	H3124		AHX3124	
120	23224K	H2324		AHX3224G	
120	24024K			AH24024	
120	24124K			AH24124	
130	22226K	H3126		AHX3126	
130	22326K	H2326		AHX2326G	
130	23026K	H3026		AHX3026	
130	23126K	H3126		AHX3126	
130	23226K	H2326		AHX3226G	
130	23926K	H3926			
130	24026K			AH24026	
130	24126K			AH24126	
140	22228K	H3128		AHX3128	
140	22328K	H2328		AHX2328G	
140	23028K	H3028		AHX3028	
140	23128K	H3128		AHX3128	
140	23228K	H2328		AHX3228G	
140	23928K	H3928			
140	24028K			AH24028	
140	24128K			AH24128	
150	22230K	H3130		AHX3130G	
150	22330K	H2330		AHX2330G	
150	23030K	H3030		AHX3030	
150	23130K	H3130		AHX3130G	
150	23230K	H2330		AHX3230G	
150	23930K	H3930			
150	24030K			AH24030	
150	24130K			AH24130	
160	22232K	H3132	OH3132H	AH3132G	AOH3132G
160	22332K	H2332	OH2332H	AH2332G	AOH2332G
160	23032K	H3032	OH3032H	AH3032	
160	23132K	H3132	OH3132H	AH3132G	AOH3132G
160	23232K	H2332	OH2332H	AH3232G	AOH3232G
160	23932K	H3932	OH3932H		
160	24032K			AH24032	
160	24132K			AH24132	
170	22234K	H3134	OH3134H	AH3134G	AOH3134G
170	22334K	H2334	OH2334H	AH2334G	AOH2334G
170	23034K	H3034	OH3034H	AH3034	
170	23134K	H3134	OH3134H	AH3134G	AOH3134G
170	23234K	H2334	OH2334H	AH3234G	AOH3234G
170	23934K	H3934	OH3934H	AH3934	AOH3934
170	24034K			AH24034	
170	24134K			AH24134	
180	22236K	H3136	OH3136H	AH2236G	AOH2236G
180	22336K	H2336	OH2336H	AH2336G	AOH2336G
180	23036K	H3036	OH3036H	AH3036	AOH3036

Continued on next page.

Continued from previous page.

d ₁	Withdrawal Sleeve Part Number	L	L ₁ ⁽¹⁾	b	Thread ⁽²⁾⁽³⁾ D ₁	Weight	Appropriate Withdrawal Nut No.	Appropriate Hydraulic Nut
mm		mm	mm	mm	mm	kg		
150	AH3032	77	82	16	M 170x3	2.06	KM34	HMV34
150	AH24032	95	106	15	M 170x3	2.27	KM34	HMV34
150	AH3132G	103	108	16	M 170x3	2.90	KM34	HMV34
150	AH24132	124	135	15	M 170x3	3.00	KM34	HMV34
150	AH3232G	124	130	20	M 170x3	3.63	KM34	HMV34
160	AH3034	85	90	17	M 180x3	2.43	KM36	HMV36
160	AH3134G	104	109	16	M 180x3	3.04	KM36	HMV36
160	AH24034	106	117	16	M 180x3	2.80	KM36	HMV36
160	AH24134	125	136	16	M 180x3	3.21	KM36	HMV36
160	AH3234G	134	140	24	M 180x3	4.35	KM36	HMV36
170	AH3136G	116	122	19	M 190x3	3.77	KM38	HMV38
170	AH3236G	140	146	24	M 190x3	4.77	KM38	HMV38
180	AH3038G	96	102	18	M 200x3	3.16	KM40	HMV40
180	AH24038	118	131	18	M 200x3	3.46	KM40	HMV40
180	AH3138G	125	131	20	M 200x3	4.38	KM40	HMV40
180	AH3238G	145	152	25	M 200x3	5.30	KM40	HMV40
180	AH24138	146	159	18	M 200x3	4.28	KM40	HMV40
190	AH3040G	102	108	19	Tr 210x4	3.57	HM42T	HMV42
190	AH24040	127	140	18	Tr 210x4	3.93	HM42T	HMV42
190	AH3140	134	140	21	Tr 220x4	5.55	HM3044	HMV44
190	AH3240	153	160	25	Tr 220x4	6.59	HM3044	HMV44
190	AH24140	158	171	18	Tr 210x4	5.10	HM42T	HMV42
200	AH3044G	111	117	20	Tr 230x4	7.10	HM46T	HMV46
200	AH24044	138	152	20	Tr 230x4	8.25	HM46T	HMV46
200	AH3144	145	151	23	Tr 240x4	10.40	HM48	HMV48
200	AH24144	170	184	20	Tr 230x4	10.20	HM46	HMV46
220	AH3948	77	83	16	Tr 250x4	5.29	HM50	HMV50
220	AH3048	116	123	21	Tr 260x4	8.75	HML52	HMV52
220	AH24048	138	153	20	Tr 250x4	9.00	HM50	HMV50
220	AH3148	154	161	25	Tr 260x4	12.00	HM52	HMV52
220	AH24148	180	195	20	Tr 260x4	12.50	HM52	HMV52
240	AH3952	94	100	18	Tr 270x4	7.06	HM54	HMV54
240	AH3052	128	135	23	Tr 280x4	10.70	HML56	HMV56
240	AH3152G	172	179	26	Tr 280x4	15.10	HM56T	HMV56
240	AH24152	202	218	22	Tr 280x4	15.40	HM56	HMV56

⁽¹⁾Dimension L₁ decreases as the withdrawal sleeve is driven in during mounting.

⁽²⁾M means metric thread and the digits are major diameter of thread and pitch.

⁽³⁾Tr means 30°. Trapezoid thread and the digits are outside diameter of thread and pitch.

Continued on next page.