

NOMENCLATURE

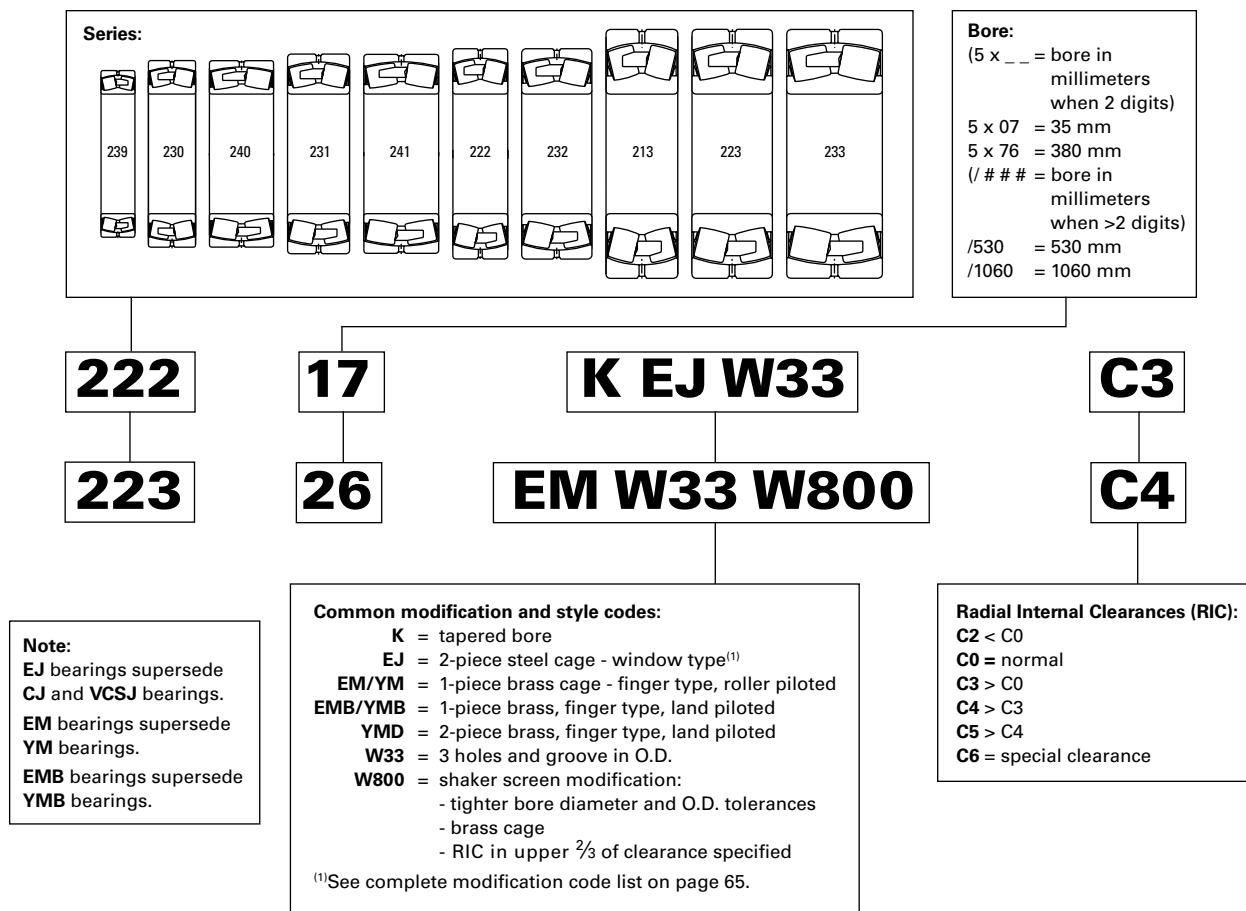


Fig. 23. Timken spherical roller bearing nomenclature.

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 ₀		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					
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.