



JVN®
BEARINGS

ISO 9001 CERTIFIED



SPHERICAL ROLLER & SPHERICAL PLAIN BEARINGS

JVN Bearings FZE



JVN BEARINGS FZE – Spherical Roller & Spherical Plain Bearings

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Note:

For Reference Purpose Only. Mentioned Speed Ratings are with Oil Lubrication. For Grease Lubrication, please use 75% of the indicated values.

Introduction

Spherical Roller Bearings

Spherical roller bearings are a type of rolling element bearing designed to accommodate high radial loads and moderate axial loads in both directions. They are characterized by their spherical outer ring raceway, which allows for misalignment between the shaft and housing, thereby compensating for shaft deflection or misalignment.

Here are some key points about spherical roller bearings:

- **Construction:** Spherical roller bearings consist of an inner ring with two rows of barrel-shaped rollers, an outer ring with a spherical raceway, and a cage that retains and guides the rollers. The design enables the bearing to operate at high speeds while handling heavy loads.
- **Load Capacity:** Spherical roller bearings can handle high radial loads and moderate axial loads in both directions. The design distributes the load evenly across the rollers, providing increased load-carrying capacity compared to other bearing types.
- **Misalignment Compensation:** The spherical shape of the outer ring raceway allows the bearing to accommodate misalignment between the shaft and housing. This feature is particularly useful in applications where shaft deflection or misalignment is expected, such as in heavy machinery or industrial equipment.
- **Variants:** Spherical roller bearings are available in various configurations, including straight bore and tapered bore options. Tapered bore bearings can be mounted directly onto a tapered shaft or using an adapter sleeve, providing flexibility in installation and removal.
- **Lubrication:** Spherical roller bearings are typically lubricated with grease or oil. Some designs incorporate lubrication grooves and holes in the outer ring to facilitate proper lubrication distribution.
- **Applications:** Spherical roller bearings find applications in a wide range of industries, including mining, construction, steel, pulp and paper, and power generation. They are commonly used in heavy-duty machinery, such as crushers, vibrating screens, and gearboxes, where high loads and misalignment occur.

Spherical Plain Bearings

Spherical plain bearings, also known as *spherical plain bushings* or spherical plain bearings, are self-aligning plain bearings designed to accommodate high radial loads and moderate axial loads in both directions. They consist of an inner ring and an outer ring with a sliding surface that allows for rotational movement.

Here are some key points about spherical plain bearings:

- **Construction:** Spherical plain bearings comprise an inner ring with a spherical sliding surface, an outer ring with a matching spherical sliding surface, and a fracture-resistant liner between the two rings. The liner reduces friction and wear between the sliding surfaces.
- **Load Capacity:** Spherical plain bearings can handle high radial loads and moderate axial loads in both directions. They are designed to distribute the load evenly over the sliding surfaces, ensuring efficient load transmission and reduced friction.

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JVN BEARINGS FZE – Spherical Roller & Spherical Plain Bearings

- *Misalignment Compensation:* Spherical plain bearings can accommodate misalignment between the shaft and housing, allowing for angular movement and axial displacement. This capability is beneficial in applications where shaft deflection or misalignment is present, such as in linkages or pivoting joints.
- *Lubrication:* Spherical plain bearings require lubrication to minimize friction and wear. They can be lubricated through various methods, including the application of grease, oil, or dry lubricants, depending on the specific operating conditions and requirements.
- *Applications:* Spherical plain bearings find applications in a wide range of industries, including automotive, aerospace, construction, and agriculture. They are commonly used in steering systems, suspension components, hydraulic cylinders, and articulating joints.

JVN can offer the following variants:

- Single Row type - 202 series (details available on request)
- Double Row type - 213, 222, 223, 230, 231, 232, 239, 240, 241
- Plain type – GE
- With C2, CN, C3 and C4 radial clearance
- Pressed Steel or machined Brass Cage (CC, CA, MB types)

JVN offers a comprehensive range of spherical roller bearings and spherical plain bearings to cater to diverse industrial applications. These bearings are available in various sizes, designs, and configurations to meet specific requirements. Additionally, JVN can provide specialized variants and custom solutions tailored to unique application needs. Whether it's heavy radial loads, misalignment compensation, high temperatures, or maintenance-free operation, JVN provides a comprehensive selection to meet diverse customer needs.

If you require technical information for bearings that are not currently in our production program, please feel free to request it. Our team is committed to providing tailored solutions and assisting with unique application requirements.

Nomenclature

JVN standard suffixes for JVN Spherical Roller Bearings:

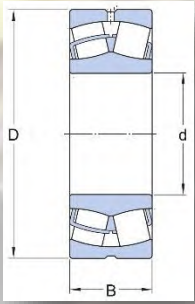
A	Modified internal design.
C2	Radial internal clearance less than normal.
CN	Normal radial internal clearance. Generally, no special suffix is used in JVN Bearings for normal radial internal clearance.
C3	Radial internal clearance higher than normal.
C4	Radial internal clearance higher than C3.
C	Pressed Steel Cage.
CA	Machined Brass Cage, one-piece Cage.
K	Tapered Bore, with taper of 1:12.
K30	Tapered Bore, with taper of 1:30.
MB	Machined Brass Cage, split type.
W33	Oil groove with oil holes in the Outer Ring.

Note: Subject to design or manufacturing limitations, the majority of the Bearings specified in the pages that follow in this chapter are available with the aforementioned suffixes.

Note:

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213 Series: Double Row Extra Thin Type

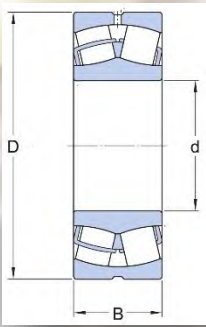


Principal dimensions				Basic Load Ratings		Speed ratings		Mass
mm				Dynamic	Static	Reference speed	Limiting speed	
Designation	d	D	B	N				r/min
				C	Co			
21304	20	52	15	40500	33500	15,000	10,100	0.160
21305	25	62	17	48000	41500	9,300	12,000	0.280
21306	30	72	19	64000	61000	8,200	10,000	0.410
21307	35	80	21	76500	72000	7,300	9,500	0.550
21308	40	90	23	104000	108000	7,000	9,500	0.750
21309	45	100	25	125000	127000	6,300	8,500	0.990
21310	50	110	27	156000	166000	5,600	7,500	1.350
21311	55	120	29	156000	166000	5,600	7,500	1.700
21312	60	130	31	212000	240000	4,800	6,300	2.100
21313	65	140	33	236000	270000	4,300	6,000	2.550
21314	70	150	35	285000	325000	4,000	5,600	3.100
21315	75	160	37	285000	325000	4,000	5,600	3.750
21316	80	170	39	325000	375000	3,800	5,300	4.450
21317	85	180	41	325000	375000	3,800	5,300	5.200
21318	90	190	43	380000	450000	3,600	4,800	6.100
21319	95	200	45	425000	490000	3,400	4,500	7.050
21320	100	215	47	425000	490000	3,400	4,500	8.600
21322	110	240	50	445500	553500	3200	4,200	11.200

Note:

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222 Series: Double Row Thin Type

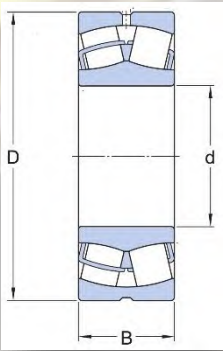


Principal dimensions				Basic Load Ratings		Speed ratings		Mass
Designation	mm			Dynamic	Static	Reference speed	Limiting speed	
	d	D	B	N				
				C	C0	r/min		kg
22205	25	52	18	49000	44000	13,000	17,000	0.260
22206	30	62	20	64000	60000	10,000	14,000	0.290
22207	35	72	23	86500	85000	9,000	12,000	0.450
22208	40	80	23	96500	90000	8,000	11,000	0.530
22209	45	85	23	102000	98000	7,500	10,000	0.580
22210	50	90	23	104000	108000	7,000	9,500	0.630
22211	55	100	25	125000	127000	6,300	8,500	0.840
22212	60	110	28	156000	166000	5,600	7,500	1.150
22213	65	120	31	193000	216000	5,000	7,000	1.550
22214	70	125	31	208000	228000	5,000	6,700	1.550
22215	75	130	31	212000	240000	4,800	6,300	1.700
22216	80	140	33	236000	270000	4,300	6,000	2.100
22217	85	150	36	285000	325000	4,000	5,600	2.700
22218	90	160	40	325000	375000	3,800	5,300	3.400
22219	95	170	43	380000	450000	3,600	4,800	4.150
22220	100	180	46	425000	490000	3,400	4,500	4.900
22222	110	200	53	560000	640000	3,000	4,000	7.000
22224	120	215	58	630000	765000	2,800	3,800	8.700
22226	130	230	64	735000	930000	2,600	3,600	11.000
22228	140	250	68	710000	900000	2,400	3,200	14.000
22230	150	270	73	850000	1080000	2,200	3,000	18.000
22232	160	290	80	1000000	1290000	2,000	2,800	22.500
22234	170	310	86	1120000	1460000	1,900	2,600	28.500
22236	180	320	86	1180000	1560000	1,800	2,600	29.500
22238	190	340	92	1270000	1700000	1,700	2,400	36.500
22240	200	360	98	1460000	1930000	1,600	2,200	43.500
22244	220	400	108	1760000	2360000	1,500	2,000	60.500
22248	240	440	120	2200000	3000000	1,300	1,800	83.000
22252	260	480	130	2650000	3550000	1,200	1,600	110.000
22256	280	500	130	2700000	3750000	1,100	1,500	115.000
22260	300	540	140	3150000	4250000	1,000	1,400	135.000

Note:

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223 Series: Double Row Thin Type

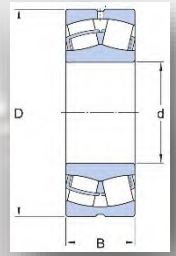


Principal dimensions				Basic Load Ratings		Speed ratings		Mass
Designation	mm			Dynamic	Static	Reference speed	Limiting speed	
	d	D	B	N				r/min
				C	C0		kg	
22308	40	90	33	150000	140000	6,000	8,000	1.050
22309	45	100	36	183000	183000	5,300	7,000	1.400
22310	50	110	40	220000	224000	4,800	6,300	1.900
22311	55	120	43	270000	280000	4,300	5,600	2.450
22312	60	130	46	310000	335000	4,000	5,300	3.100
22313	65	140	48	340000	360000	3,800	5,000	3.750
22314	70	150	51	400000	430000	3,400	4,500	4.550
22315	75	160	55	440000	475000	3,200	4,300	5.550
22316	80	170	58	490000	540000	3,000	4,000	6.600
22317	85	180	60	550000	620000	2,800	3,800	7.650
22318	90	190	64	610000	695000	2,600	3,600	9.050
22319	95	200	67	670000	765000	2,600	3,400	10.500
22320	100	215	73	815000	950000	2,400	3,000	13.500
22322	110	240	80	950000	1120000	2,000	2,800	18.500
22324	120	260	86	965000	1120000	2,000	2,600	23.000
22326	130	280	93	1120000	1320000	1,800	2,400	29.000
22328	140	300	102	1290000	1560000	1,700	2,200	36.500
22330	150	320	108	1460000	1760000	1,600	2,000	43.500
22332	160	340	114	1600000	1960000	1,500	1,900	52.000
22334	170	360	120	1760000	2160000	1,400	1,800	61.000
22336	180	380	126	2000000	2450000	1,300	1,700	71.500
22338	190	400	132	2120000	2650000	1,200	1,600	82.500
22340	200	420	138	2320000	2900000	1,200	1,500	95.000
22344	220	460	145	2700000	3450000	1,000	1,400	120.000
22348	240	500	155	3100000	4000000	950	1,300	155.000
22352	260	540	165	3550000	4550000	850	1,100	190.000
22356	280	580	175	4000000	5200000	800	1,100	235.000

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230 Series: Double Row Thin Type Bearings

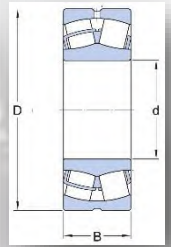


Principal dimensions			Basic Load Ratings		Speed ratings		Mass	
Designation	mm		Dynamic	Static	Reference speed	Limiting speed		
	d	D	B	N			C0	r/min
23022	110	170	45	310000	440000	3,400	4,300	3.800
23024	120	180	46	355000	510000	3,200	4,000	4.200
23026	130	200	52	430000	610000	2,800	3,600	6.000
23028	140	210	53	465000	680000	2,600	3,400	6.550
23030	150	225	56	510000	750000	2,400	3,200	7.950
23032	160	240	60	585000	880000	2,400	3,000	9.700
23034	170	260	67	710000	1060000	2,200	2,800	13.000
23036	180	280	74	830000	1250 000	2,000	2,600	17.000
23038	190	290	75	865000	1340000	1,900	2,400	18.000
23040	200	310	82	1000000	1530000	1,800	2,200	23.500
23044	220	340	90	1220000	1860000	1,600	2,000	30.500
23048	240	360	92	1290000	2080000	1,500	1,900	33.500
23052	260	400	104	1600000	2550000	1,300	1,700	48.500
23056	280	420	106	1730000	2850000	1,300	1,600	52.500
23060	300	460	118	2120000	3450000	1,200	1,500	71.500
23064	320	480	121	2240000	3800000	1,100	1,400	78.000
23068	340	520	133	2700000	4550000	1,000	1,300	105.000
23072	360	540	134	2750000	4800000	950	1,200	110.000
23076	380	560	135	2900000	5000000	900	1,200	115.000
23080	400	600	148	3400000	5850000	850	1,100	150.000
23084	420	620	150	3400000	6000000	600	1,100	155.000
23088	440	650	157	3650000	6550000	560	1,000	180.000
23092	460	680	163	3900000	6950000	560	950	205.000
23096	480	700	165	3900000	6800000	530	950	215.000
230/500	500	720	167	4150000	7800000	500	900	225.000
230/530	530	780	185	5100000	9300000	450	800	310.000
230/560	560	820	195	5600000	10200000	430	750	355.000
230/600	600	870	200	6000000	11400000	400	700	405.000
230/630	630	920	212	6700000	12500000	380	670	485.000
230/670	670	980	230	7650000	14600000	340	600	600.000
230/710	710	1030	236	8300000	16300000	300	560	670.000
230/750	750	1090	250	9650000	18600000	280	530	795.000
230/800	800	1150	258	10000000	20000000	260	480	895.000
230/850	850	1220	272	10800000	21600000	240	450	1,050.00
230/900	900	1280	280	11600000	23200000	220	400	1,200.00

Note:

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231 Series: Double Row Thin Type

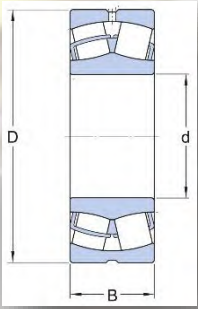


Principal dimensions			Basic Load Ratings		Speed ratings		Mass	
			Dynamic	Static	Reference speed	Limiting speed		
Designation	mm			N			r/min	kg
	d	D	B	C	C0			
23120	100	165	52	365000	490000	3,000	4,000	4.550
23122	110	180	56	430000	585000	2,800	3,600	5.750
23124	120	200	62	510000	695000	2,600	3,400	8.000
23126	130	210	64	560000	780000	2,400	3,200	8.800
23128	140	225	68	630000	900000	2,200	2,800	10.500
23130	150	250	80	830000	1200000	2,000	2,600	16.000
23132	160	270	86	980000	1370000	1,900	2,400	20.500
23134	170	280	88	1040000	1500000	1,800	2,400	22.000
23136	180	300	96	1200000	1760000	1,700	2,200	28.000
23138	190	320	104	1370000	2080000	1,500	2,000	35.000
23140	200	340	112	1600000	2360000	1,500	1,900	43.000
23144	220	370	120	1800000	2750000	1,300	1,700	53.500
23148	240	400	128	2080000	3200000	1,200	1,600	66.500
23152	260	440	144	2550000	3900000	1,100	1,400	90.500
23156	280	460	146	2650000	4250000	1,000	1,300	97.000
23160	300	500	160	3200000	5100000	950	1,200	125.000
23164	320	540	176	3750000	6000000	850	1,100	165.000
23168	340	580	190	4250000	6800000	800	1,000	210.000
23172	360	600	192	4300000	6950000	750	1,000	220.000
23176	380	620	194	4400000	7100000	560	1,000	230.000
23180	400	650	200	4650000	7650000	530	950	265.000
23184	420	700	224	5600000	9300000	480	900	350.000
23188	440	720	226	6000000	10000000	450	850	360.000
23192	460	760	240	6400000	10800000	430	800	440.000
23196	480	790	248	6950000	12000000	400	750	485.000
231/500	500	830	264	7650000	12900000	380	700	580.000
231/530	530	870	272	8150000	14000000	360	670	645.000
231/560	560	920	280	9150000	16000000	340	630	740.000
231/600	600	980	300	10200000	18000000	320	560	895.000
231/630	630	1030	315	12000000	20800000	260	530	1050.000
231/670	670	1090	336	12500000	22400000	240	500	1250.000
231/710	710	1150	345	14000000	26000000	240	450	1450.000
231/750	750	1220	365	15600000	29000000	220	430	1700.000
231/800	800	1280	375	17300000	31500000	200	400	1920.000
231/850	850	1360	400	18300000	34500000	180	360	2200.000

Note:

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232 Series: Double Row Thin Type

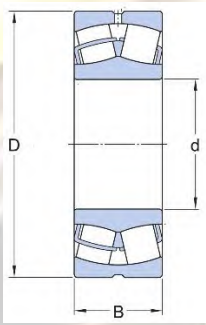


Principal dimensions			Basic Load Ratings		Speed ratings		Mass	
Designation	mm		Dynamic	Static	Reference speed	Limiting speed		
	d	D	B	N			C0	r/min
23218	90	160	52,4	355000	440000	2,800	3,800	4.650
23220	100	180	60,3	475000	600000	2,400	3,400	6.850
23222	110	200	69,8	600000	765000	2,200	3,200	9.850
23224	120	215	76	695000	930000	2,000	2,800	12.000
23226	130	230	80	780000	1060000	1,900	2,600	14.500
23228	140	250	88	915000	1250000	1,700	2,400	19.000
23230	150	270	96	1080000	1460000	1,600	2,200	24.500
23232	160	290	104	1220000	1660000	1,500	2,200	31.000
23234	170	310	110	1400000	1930000	1,400	2,000	37.500
23236	180	320	112	1500000	2120000	1,300	1,900	39.500
23238	190	340	120	1660000	2400000	1,300	1,800	48.000
23240	200	360	128	1860000	2700000	1,200	1,700	58.000
23244	220	400	144	2360000	3450000	1,100	1,500	81.500
23248	240	440	160	2900000	4300000	950	1,300	110.000
23252	260	480	174	3250000	4750000	850	1,200	140.000
23256	280	500	176	3250000	4900000	800	1,100	150.000
23260	300	540	192	3900000	5850000	750	1,000	190.000
23264	320	580	208	4400000	6700000	700	950	240.000
23268	340	620	224	5100000	7800000	560	800	295.000
23272	360	650	232	5400000	8300000	530	750	335.000
23276	380	680	240	5850000	9150000	500	750	375.000
23280	400	720	256	6550000	10400000	480	670	450.000
23284	420	760	272	7350000	11600000	450	630	535.000
23288	440	790	280	7800000	12500000	430	600	590.000
23292	460	830	296	8500000	13700000	400	560	695.000
23296	480	870	310	9300000	15000000	380	530	800.000
232/500	500	920	336	10600000	17300000	360	500	985.000

Note:

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239 Series: Double Row Thin Type

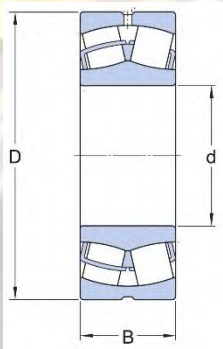


Principal dimensions			Basic Load Ratings		Speed ratings		Mass	
Designation	mm		Dynamic	Static	Reference speed	Limiting speed		
	d	D	B	N			r/min	kg
			C	Co				
23936	180	250	52	490000	830000	2,600	2,800	7.900
23938	190	260	52	475000	800000	2,400	2,600	8.300
23940	200	280	60	620000	1040000	2,200	2,400	11.500
23944	220	300	60	630000	1080000	2,000	2,200	12.500
23948	240	320	60	655000	1160000	1,900	2,000	13.500
23952	260	360	75	1000000	1800000	1,700	1,900	23.500
23956	280	380	75	965000	1760000	1,600	1,700	25.000
23960	300	420	90	1370000	2500000	1,400	1,600	39.500
23964	320	440	90	1430000	2700000	1,400	1,500	42.000
23968	340	460	90	1460000	2800000	1,300	1,400	45.500
23972	360	480	90	1400000	2750000	1,200	1,300	46.000
23976	380	520	106	1960000	3800000	1,100	1,200	69.000
23980	400	540	106	2000000	3900000	1,100	1,200	71.000
23984	420	560	106	2040000	4150000	1,000	1,100	74.500
23988	440	600	118	2450000	4900000	950	1,000	99.500
23992	460	620	118	2500000	5000000	600	1,000	105.000
23996	480	650	128	2900000	5700000	560	1,000	125.000
239/500	500	670	128	2900000	6000000	530	950	130.000
239/530	530	710	136	3200000	6700000	500	900	155.000
239/560	560	750	140	3450000	7200000	450	850	175.000
239/600	600	800	150	3900000	8300000	430	750	220.000
239/630	630	850	165	4650000	9800000	400	700	280.000
239/670	670	900	170	5000000	10800000	360	670	315.000
239/710	710	950	180	5600000	12000000	340	600	365.000
239/750	750	1000	185	6000000	13200000	320	560	420.000
239/800	800	1060	195	6400000	14300000	280	530	470.000
239/850	850	1120	200	6950000	15600000	260	480	560.000
239/900	900	1180	206	7500000	17000000	240	450	605.000

Note:

For Reference Purpose Only. Mentioned Speed Ratings are with Oil Lubrication. For Grease Lubrication, please use 75% of the indicated values.

240 Series: Double Row Thin Type

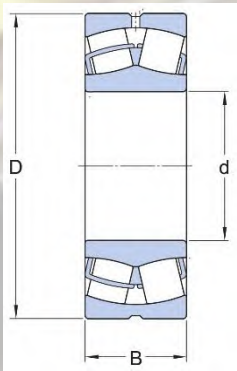


Principal dimensions				Basic Load Ratings		Speed ratings		Mass
Designation	mm			Dynamic	Static	Reference speed	Limiting speed	
	d	D	B	N				r/min
	C	C0	kg					
24024	120	180	60	430000	670000	2,400	3,400	5.450
24026	130	200	69	540000	815000	2,000	3,000	8.050
24028	140	210	69	570000	900000	2,000	2,800	8.550
24030	150	225	75	655000	1040000	1,800	2,600	10.500
24032	160	240	80	750000	1200000	1,700	2,400	13.000
24034	170	260	90	930000	1460000	1,600	2,400	17.500
24036	180	280	100	1080000	1730000	1,500	2,200	23.000
24038	190	290	100	1120000	1800000	1,400	2,000	24.500
24040	200	310	109	1290000	2120000	1,300	1,900	31.000
24044	220	340	118	1560000	2600000	1,200	1,700	40.000
24048	240	360	118	1600000	2700000	1,100	1,600	43.000
24052	260	400	140	2040000	3450000	1,000	1,400	65.500
24056	280	420	140	2160000	3800000	950	1,400	69.500
24060	300	460	160	2700000	4750000	850	1,200	97.000
24064	320	480	160	2850000	5100000	800	1,200	100.000
24068	340	520	180	3450000	6200000	750	1,100	140.000
24072	360	540	180	3550000	6550000	700	1,000	145.000
24076	380	560	180	3600000	6800000	670	950	150.000
24080	400	600	200	4300000	8000000	630	900	205.000
24084	420	620	200	4400000	8300000	530	900	210.000
24088	440	650	212	4800000	9150000	500	850	245.000
24092	460	680	218	5200000	10000000	480	800	275.000
24096	480	700	218	5300000	10400000	450	750	285.000
240/500	500	720	218	5500000	11000000	430	700	295.000
240/530	530	780	250	6700000	13200000	400	670	410.000
240/560	560	820	258	7350000	14600000	380	630	465.000
240/600	600	870	272	8150000	17000000	340	560	520.000

Note:

For Reference Purpose Only. Mentioned Speed Ratings are with Oil Lubrication. For Grease Lubrication, please use 75% of the indicated values.

241 Series: Double Row Thin Type

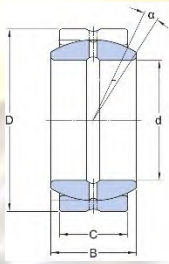


Principal dimensions				Basic Load Ratings		Speed ratings		Mass
Designation	mm			Dynamic	Static	Reference speed	Limiting speed	
	d	D	B	N				r/min
				C	C0			kg
24120	100	165	65	455000	640000	2,400	3,200	5.650
24122	110	180	69	520000	750000	2,000	3,000	7.100
24124	120	200	80	655000	950000	1,900	2,600	10.500
24126	130	210	80	680000	1000000	1,700	2,400	11.000
24128	140	225	85	765000	1160000	1,600	2,200	13.500
24130	150	250	100	1200000	1530000	1,400	2,000	20.000
24132	160	270	109	1180000	1760000	1,300	1,900	25.000
24134	170	280	109	1220000	1860000	1,200	1,800	27.500
24136	180	300	118	1400000	2160000	1,100	1,600	34.500
24138	190	320	128	1600000	2500000	1,100	1,500	43.000
24140	200	340	140	1800000	2800000	1,000	1,400	53.500
24144	220	370	150	2120000	3350000	850	1,200	67.000
24148	240	400	160	2400000	3900000	750	1,100	83.000
24152	260	440	180	3000000	4800000	670	950	110.000
24156	280	460	180	3100000	5100000	630	900	120.000
24160	300	500	200	3750000	6300000	560	800	160.000
24164	320	540	218	4250000	7100000	500	700	210.000
24168	340	580	243	5300000	8650000	430	630	280.000
24172	360	600	243	5600000	9300000	400	600	280.000
24176	380	620	243	5700000	9800000	360	530	300.000
24180	400	650	250	6200000	10600000	340	500	340.000
24184	420	700	280	7350000	12600000	320	480	445.000
24188	440	720	280	7500000	13200000	300	450	460.000
24192	460	760	300	8300000	14600000	280	430	560.000
24196	480	790	308	9000000	15600000	260	400	605.000
241/500	500	830	325	9800000	17000000	260	380	700.000

Note:

For Reference Purpose Only. Mentioned Speed Ratings are with Oil Lubrication. For Grease Lubrication, please use 75% of the indicated values.

GE...E Series: Plain Type

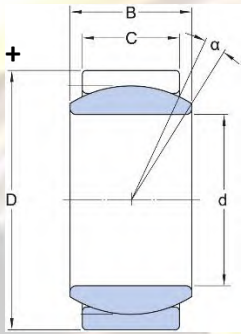


Designation	Principal dimensions					Basic Load Ratings		$\alpha \approx$	Mass
	mm					Dynamic	Static		
	d	D	B	C	d1min	C	C0		kg
GE20E	20	35	16	12		30000	146000	9	0.065
GE25E	25	42	20	16		48000	240000	7	0.115
GE30E	30	47	22	18		62000	310000	6	0.160
GE35E	35	55	25	20		80000	400000	6	0.258
GE40E	40	62	28	22		100000	500000	7	0.315
GE45E	45	68	32	25		127000	640000	7	0.413
GE50E	50	75	35	28		156000	780000	6	0.560
GE60E	60	90	44	36		245000	1220000	6	1.100
GE70E	70	105	49	40		315000	1560000	6	1.540
GE80E	80	120	55	45		400000	2000000	6	2.160
GE90E	90	130	60	50		490000	2450000	5	3.020

Note:

For Reference Purpose Only. Mentioned Speed Ratings are with Oil Lubrication. For Grease Lubrication, please use 75% of the indicated values.

GE...ES Series: Plain Type

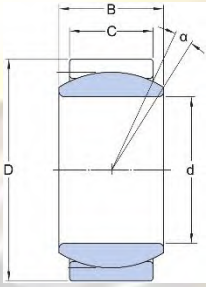


Designation	Principal dimensions					Basic Load Ratings		α° ≈	Mass	
	mm					Dynamic	Static			
	d	D	B	C	d1min	C	C0			kg
GE4E		4	12	5	3	6	2000	10000	16	0.003
GE5E		5	14	6	4	7	3400	17000	13	0.004
GE6E		6	14	6	4	8	3400	17000	13	0.004
GE8E		8	16	8	5	10	5500	27000	15	0.008
GE10E		10	19	9	6	13	8100	40000	12	0.011
GE12E		12	22	10	7	15	10000	54000	10	0.015
GE15ES	GE15ES-2RS	15	26	12	9	18	17000	85000	8	0.027
GE17ES	GE17ES-2RS	17	30	14	10	20	21000	106000	10	0.041
GE20ES	GE20ES-2RS	20	35	16	12	24	30000	146000	9	0.066
GE25ES	GE25ES-2RS	25	42	20	16	29	48000	240000	7	0.119
GE30ES	GE30ES-2RS	30	47	22	18	34	62000	310000	6	0.153
GE35ES	GE35ES-2RS	35	55	25	20	39	80000	400000	6	0.233
GE40ES	GE40ES-2RS	40	62	28	22	45	100000	500000	7	0.306
GE45ES	GE45ES-2RS	45	68	32	25	50	127000	640000	7	0.427
GE50ES	GE50ES-2RS	50	75	35	28	55	156000	780000	6	0.546
GE60ES	GE60ES-2RS	60	90	44	36	66	245000	1220000	6	1.045
GE70ES	GE70ES-2RS	70	105	49	40	77	315000	1560000	6	1.550
GE80ES	GE80ES-2RS	80	120	55	45	88	400000	2000000	6	2.310
GE90ES	GE90ES-2RS	90	130	60	50	98	490000	2450000	5	2.750
GE100ES	GE100ES-2RS	100	150	70	55	109	610000	3050000	7	4.450
GE110ES	GE110ES-2RS	110	160	70	55	120	655000	3250000	6	4.820
GE120ES	GE120ES-2RS	120	180	85	70	130	950000	4750000	6	8.050
GE140ES	GE140ES-2RS	140	210	90	70	150	1080000	5400000	7	11.020
GE160ES	GE160ES-2RS	160	230	105	80	170	1370000	6800000	8	14.010
GE180ES	GE180ES-2RS	180	260	105	80	192	1530000	7650000	6	18.650
GE200ES	GE200ES-2RS	200	290	130	100	212	2120000	10600000	7	28.030

Note:

For Reference Purpose Only. Mentioned Speed Ratings are with Oil Lubrication. For Grease Lubrication, please use 75% of the indicated values.

GEG..ES Series: Plain Type

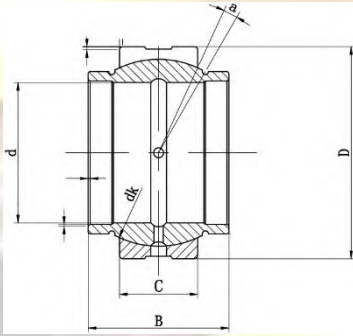


Designation		Principal dimensions					Basic Load Ratings		$\alpha \approx$	Mass
		mm					Dynamic	Static		
		d	D	B	C	d1min	C	C0		
GEG4E		4	14	7	4	7	3400	17000	20	0.005
GEG5E		5	16	9	5	8	5500	27000	21	0.007
GEG6E		6	16	9	5	9	5500	27000	21	0.008
GEG8E		8	19	11	6	11	8100	40000	21	0.014
GEG10E		10	22	12	7	13	10000	54000	18	0.021
GEG12E		12	26	15	9	16	17000	85000	18	0.033
GEG15ES	GEG15ES-2RS	15	30	16	10	19	21000	106000	16	0.049
GEG17ES	GEG17ES-2RS	17	35	20	12	21	30000	146000	19	0.083
GEG20ES	GEG20ES-2RS	20	42	25	16	24	48000	240000	17	0.153
GEG25ES	GEG25ES-2RS	25	47	28	18	29	62000	310000	17	0.203
GEG30ES	GEG30ES-2RS	30	55	32	20	34	80000	400000	17	0.304
GEG35ES	GEG35ES-2RS	35	62	35	22	39	100000	500000	16	0.408
GEG40ES	GEG40ES-2RS	40	68	40	25	44	127000	640000	17	0.542
GEG45ES	GEG45ES-2RS	45	75	43	28	50	156000	780000	15	0.713
GEG50ES	GEG50ES-2RS	50	90	56	36	57	245000	1220000	17	1.440
GEG60ES	GEG60ES-2RS	60	105	63	40	67	315000	1560000	17	1.600
GEG70ES	GEG70ES-2RS	70	120	70	45	77	400000	2000000	16	3.010
GEG80ES	GEG80ES-2RS	80	130	75	50	87	490000	2450000	14	3.640
GEG90ES	GEG90ES-2RS	90	150	85	55	98	610000	3050000	15	5.220
GEG100ES	GEG100ES-2RS	100	160	85	55	110	655000	3250000	14	6.050
GEG110ES	GEG110ES-2RS	110	180	100	70	122	950000	4750000	12	9.680
GEG120ES	GEG120ES-2RS	120	210	115	70	132	1080000	5400000	16	14.720
GEG140ES	GEG140ES-2RS	140	230	130	80	151	1370000	6800000	16	19.010
GEG160ES	GEG160ES-2RS	160	260	135	80	176	1530000	7650000	16	20.020
GEG180ES	GEG160ES-2RS	180	290	155	100	196	2120000	10600000	14	32.210
GEG200ES	GEG200ES-2RS	200	320	165	100	220	2320000	11600000	15	45.280

Note:

For Reference Purpose Only. Mentioned Speed Ratings are with Oil Lubrication. For Grease Lubrication, please use 75% of the indicated values.

GEEW..ES Series: Plain Type

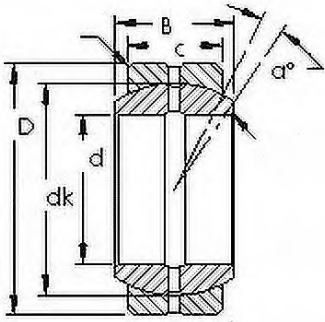


Designation		Principal dimensions					Basic Load Ratings		$\alpha^{\circ} \approx$	Mass
		mm					Dynamic C	Static C0		
		d	D	B	C	d1 mi n				
GEEW12ES	GEEW12ES-2RS	12	22	12	7	15.5	10000	54000	4	0.022
GEEW15ES	GEEW15ES-2RS	15	26	15	9	18.5	17000	85000	5	0.030
GEEW16ES	GEEW16ES-2RS	16	28	16	9	20	17000	85000	4	0.035
GEEW17ES	GEEW17ES-2RS	17	30	17	10	21	21000	106000	7	0.044
GEEW20ES	GEEW20ES-2RS	20	35	20	12	25	30000	146000	4	0.071
GEEW25ES	GEEW25ES-2RS	25	42	25	16	30.5	48000	240000	4	0.131
GEEW30ES	GEEW30ES-2RS	30	47	30	18	34	62000	310000	4	0.168
GEEW32ES	GEEW32ES-2RS	32	52	32	18	37	62000	310000	4	0.182
GEEW35ES	GEEW35ES-2RS	35	55	35	20	40	80000	400000	4	0.253
GEEW40ES	GEEW40ES-2RS	40	62	40	22	46	100000	500000	4	0.338
GEEW45ES	GEEW45ES-2RS	45	68	45	25	52	127000	640000	4	0.481
GEEW50ES	GEEW50ES-2RS	50	75	50	28	57	156000	780000	4	0.558
GEEW60ES	GEEW60ES-2RS	60	90	60	36	68	245000	1220000	3	1.150
GEEW63ES	GEEW63ES-2RS	63	95	63	36	71.5	245000	1220000	4	1.230
GEEW70ES	GEEW70ES-2RS	70	105	70	40	78	315000	1560000	4	1.710
GEEW80ES	GEEW80ES-2RS	80	120	80	45	91	400000	2000000	4	2.390
GEEW100ES	GEEW100ES-2RS	100	150	100	55	113	610000	3050000	4	4.800
GEEW125ES	GEEW125ES-2RS	125	180	125	70	138	950000	4750000	4	8.500

Note:

For Reference Purpose Only. Mentioned Speed Ratings are with Oil Lubrication. For Grease Lubrication, please use 75% of the indicated values.

GEEZ...ES Series: Plain Type

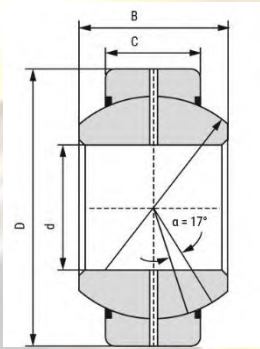


Designation	Principal dimensions					Basic Load Ratings		$\alpha \approx$	Mass	
	mm					Dynamic	Static			
	d	D	B	C	d1min	C	C0			kg
GEZ12ES		13	22.225	11.1	9.525	14.1	13700	41500	6	0.022
GEZ15ES		16	26.988	13.894	11.913	18.3	22000	65500	6	0.036
GEZ19ES		19	31.75	16.662	14.275	21.8	31500	95000	6	0.053
GEZ22ES		22	36.513	19.431	16.662	25.4	42500	127000	6	0.085
GEZ25ES	GEZ25ES-2RS	25	41.275	22.225	19.05	27.6	56000	166000	6	0.121
GEZ31ES	GEZ31ES-2RS	32	50.8	27.762	23.8	36	86500	260000	6	0.232
GEZ34ES	GEZ34ES-2RS	35	55.563	30.15	26.187	38.6	102000	310000	6	0.351
GEZ38ES	GEZ38ES-2RS	38	61.913	33.325	28.575	41.2	125000	375000	6	0.422
GEZ44ES	GEZ44ES-2RS	44	71.438	38.887	33.325	50.7	170000	510000	6	0.641
GEZ50ES	GEZ50ES-2RS	51	80.963	44.45	38.1	57.9	224000	670000	6	0.932
GEZ57ES	GEZ57ES-2RS	57	90.488	50.013	42.85	64.9	280000	850000	6	1.330
GEZ63ES	GEZ63ES-2RS	64	100.013	55.55	47.625	73.3	355000	1060000	6	1.850
GEZ69ES	GEZ69ES-2RS	70	111.125	61.112	52.375	79.1	415000	1250000	6	2.420
GEZ76ES	GEZ76ES-2RS	76	120.65	66.675	57.15	86.8	500000	1500000	6	3.100
GEZ82ES	GEZ82ES-2RS	83	130.175	72.238	61.9	94.5	585000	1760000	6	3.820
GEZ88ES	GEZ88ES-2RS	89	139.7	77.775	66.675	101.6	680000	2040000	6	4.790
GEZ95ES	GEZ95ES-2RS	95	149.225	83.337	71.425	108.7	780000	2360000	6	5.780
GEZ101ES	GEZ101ES-2RS	102	158.75	88.9	76.2	115.8	900000	2650000	6	6.990
GEZ107ES	GEZ107ES-2RS	108	168.275	94.463	80.95	122.8	1000000	3000000	6	8.410
GEZ114ES	GEZ114ES-2RS	114	177.8	100.013	85.725	130.6	1120000	3400000	6	9.790
GEZ120ES	GEZ120ES-2RS	121	187.325	105.562	90.475	137.6	1250000	3750000	6	11.500
GEZ127ES	GEZ127ES-2RS	127	196.85	111.125	95.25	145.3	1400000	4150000	6	13.500
GEZ152ES	GEZ152ES-2RS	152	222.25	120.65	104.775	168.2	1730000	5200000	6	17.500

Note:

For Reference Purpose Only. Mentioned Speed Ratings are with Oil Lubrication. For Grease Lubrication, please use 75% of the indicated values.

GEG...ET2RS Series: Plain Type



Designation	Principal dimensions					Basic Load Ratings		$\alpha \approx$	Mass
	mm					Dynamic	Static		
	d	D	B	C	d1min	C	C0		kg
GEG30ET-2RS	30	55	32	20	34	1,10,000	220000	17	0.300
GEG35ET-2RS	35	62	35	22	39	1,40,000	280000	17	0.350
GEG40ET-2RS	40	68	40	25	44	1,80,000	350000	15	0.500
GEG45ET-2RS	45	75	43	28	50	2,20,000	430000	15	0.600
GEG50ET-2RS	50	90	56	36	57	3,40,000	680000	15	1.400
GEG60ET-2RS	60	105	63	40	67	4,30,000	850000	15	2.000
GEG70ET-2RS	70	120	70	45	77	5,50,000	1100000	16	2.800
GEG80ET-2RS	80	130	75	50	87	6,80,000	1350000	14	3.400
GEG90ET-2RS	90	150	85	55	98	8,50,000	1700000	15	5.000
GEG100ET-2RS	100	160	85	55	110	9,00,000	1800000	14	5.500
GEG110ET-2RS	110	180	100	70	122	13,00,000	2700000	12	9.000
GEG120ET-2RS	120	210	115	70	132	15,00,000	300000	15	14.500
GEG140ET-2RS	140	230	130	80	151	19,00,000	350000	15	18.200

Note:

For Reference Purpose Only. Mentioned Speed Ratings are with Oil Lubrication. For Grease Lubrication, please use 75% of the indicated values.