

Groove radial ball bearings – metric

GRW-designation	Main dimensions in [mm] [inch]		Bearing without closure in [mm] [inch]				Bearing with closure in [mm] [inch]				Chamfer in [mm] [inch]	Modification dimensions acc. to DIN 5418 [mm] [inch]		Load ratings acc. to DIN ISO (2) (max)		Closure variants (3)		Max. limiting speed (5) [mm ⁻¹]	
	d	D	Width without closure	Width with extended inner ring without closure	Flange dimensions without closure		Width with extended inner ring with closure	Width with extended inner ring with closure	Flange dimensions with closure			r _{s min} (1)	Shaft diameter d _{a min}	Housing diameter D _{a max}	C _r [N]	C _{0r} [N]	Shield (4)	Seal (4)	with closure or with shield
Basic symbols			B	B ₁	Flange diameter FD	Flange width FB	B ₂	B ₃	Flange diameter FD ₁	Flange width FB ₁									
677	7.00 .2756	11.00 .4331	2.50 .0984	-	12.20 .4803	0.60 .0236	-	-	-	-	0.10 .004	7.60 .299	10.40 .409	461	206	-	-	50,000	-
677/003	7.00 .2756	11.00 .4331	3.00 .1181	-	-	-	3.00 .1181	-	12.20 .4803	0.60 .0236	0.10 .004	7.60 .299	10.40 .409	461	206	X	-	50,000	-
688A/1322	7.00 .2756	13.00 .5118	3.00 .1181	-	14.20 .5591	0.60 .0236	4.00 .1575	-	14.60 .5748	0.80 .0315	0.15 .006	8.40 .331	11.60 .457	541	276	X	X	48,000	30,000
688/1322	7.00 .2756	13.00 .5118	-	-	-	-	4.00 .1575	-	-	-	0.20 .008	8.40 .331	11.60 .457	335	152	X	-	35,000	-
687	7.00 .2756	14.00 .5512	3.50 .1307	-	16.00 .6299	1.00 .0394	5.00 .1969	-	16.00 .6299	1.10 .0433	0.15 .006	7.80 .307	13.20 .520	1186	505	X	X	50,000	31,000
697	7.00 .2756	17.00 .6693	5.00 .1969	-	19.00 .7480	1.20 .0472	5.00 .1969	-	19.00 .7480	1.20 .0472	0.30 .012	9.00 .354	15.00 .591	1795	776	X	X	39,000	28,000
607	7.00 .2756	19.00 .7480	6.00 .2362	-	22.00 .8661	1.50 .0591	6.00 .2362	-	22.00 .8661	1.50 .0591	0.30 .012	9.00 .350	17.00 .669	3400	1057	X	X	43,000	22,000
627	7.00 .2756	22.00 .8661	7.00 .2756	-	25.00 .9843	1.50 .0591	7.00 .2756	-	25.00 .9843	1.50 .0591	0.30 .012	9.40 .370	19.60 .772	3369	1363	X	X	35,000	21,000
627/28	7.00 .2756	28.00 1.1024	7.00 .2756	7.80 .3071	-	-	7.00 .2756	7.80 .3071	-	-	0.30 .012	9.40 .370	25.80 1.016	3369	1363	X	-	40,000	-
678	8.00 .3150	12.00 .4724	2.50 .0984	-	13.20 .5197	0.60 .0236	-	-	-	-	0.10 .004	8.60 .339	11.40 .449	540	275	-	-	48,000	-
678/003	8.00 .3150	12.00 .4724	-	-	-	-	3.50 .1307	-	13.60 .5354	0.80 .0315	0.10 .004	8.60 .339	11.40 .449	540	275	X	-	48,000	-
688A/144	8.00 .3150	14.00 .5512	3.50 .1307	-	15.60 .6142	0.80 .0315	-	-	-	-	0.15 .006	8.80 .346	13.20 .520	817	386	-	-	45,000	-
688A/142	8.00 .3150	14.00 .5512	-	-	-	-	4.00 .1575	-	15.60 .6142	0.80 .0315	0.20 .008	9.40 .370	12.60 .496	817	386	X	-	47,000	-
688	8.00 .3150	16.00 .6299	4.00 .1575	-	18.00 .7087	1.00 .0394	6.00 .2362	-	18.00 .7087	1.30 .0512	0.20 .008	9.40 .370	14.60 .575	1795	776	X	X	48,000	28,000
688/002	8.00 .3150	16.00 .6299	-	-	-	-	4.00 .1575	-	-	-	0.20 .008	9.40 .370	14.60 .575	1795	776	X	-	48,000	-
688/003	8.00 .3150	16.00 .6299	5.00 .1969	-	18.00 .7087	1.10 .0433	5.00 .1969	-	18.00 .7087	1.10 .0433	0.20 .008	9.40 .370	14.60 .575	1795	776	X	X	43,000	28,000
698	8.00 .3150	19.00 .7480	6.00 .2362	-	22.00 .8661	1.50 .0591	6.00 .2362	-	22.00 .8661	1.50 .0591	0.30 .012	10.00 .394	17.00 .669	2240	917	X	X	43,000	27,000
688/20	8.00 .3150	20.00 .7874	4.00 .1575	4.80 .1890	-	-	-	-	-	-	0.20 .008	9.40 .370	18.60 .732	1795	776	-	-	45,000	-

Note:

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(3) Different shields or seals available.

(4) Bearings also available with 1 or 2 shields/seals.

(5) Limiting speed also depends on seal material and the respective ball set.

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	d	D	Width without closure	Width with extended inner ring without closure	Flange dimensions without closure		Width with extended inner ring with closure	Width with extended inner ring with closure	Flange dimensions with closure			r _{s min} (1)	Shaft diameter d _{a min}	Housing diameter D _{a max}	C _r [N]	C _{0r} [N]	Shield (4)	Seal (4)	with closure or with shield
Basic symbols			B	B ₁	Flange diameter FD	Flange width FB	B ₂	B ₃	Flange diameter FD ₁	Flange width FB ₁									
608/003	8.00 .3150	22.00 .8661	6.00 .2362	-	-	-	-	-	-	-	0.30 .012	10.00 .394	20.00 .787	3369	1363	-	-	38,000	-
608	8.00 .3150	22.00 .8661	7.00 .2756	-	25.00 .9843	1.50 .0591	7.00 .2756	-	25.00 .9843	1.50 .0591	0.30 .012	10.00 .394	20.00 .787	3369	1363	X	X	38,000	21,000
608/005	8.00 .3150	22.00 .8661	10.00 .3937	-	-	-	10.00 .3937	-	-	-	0.30 .012	10.00 .394	20.00 .787	3369	1363	X	-	43,000	-
608/006	8.00 .3150	22.00 .8661	10.31 .4059	-	-	-	10.31 .4059	-	-	-	0.30 .012	10.00 .394	20.00 .787	3369	1363	X	X	43,000	29,000
608/007	8.00 .3150	22.00 .8661	11.00 .4331	-	-	-	11.00 .4331	-	-	-	0.30 .012	10.00 .394	20.00 .787	3369	1363	X	X	43,000	29,000
628	8.00 .3150	24.00 .9449	8.00 .3150	-	-	-	8.00 .3150	-	-	-	0.30 .012	10.40 .409	21.60 .850	3360	1430	X	X	38,000	21,000
6000/0001	8.00 .3150	26.00 1.0236	8.00 .3150	-	-	-	8.00 .3150	-	-	-	0.30 .012	10.40 .409	24.00 .945	4698	1982	X	-	35,000	-
638	8.00 .3150	28.00 1.1024	9.00 .3543	-	-	-	9.00 .3543	-	-	-	0.30 .012	10.40 .409	25.60 1.008	4563	1982	X	-	34,000	-
679	9.00 .3543	14.00 .5512	3.00 .1181	-	15.50 .6102	0.80 .0315	-	-	-	-	0.10 .004	9.60 .378	13.40 .528	919	468	-	-	42,000	-
679/003	9.00 .3543	14.00 .5512	4.50 .1772	-	15.50 .6102	0.80 .0315	4.50 .1772	-	15.50 .6102	0.80 .0315	0.10 .004	9.60 .378	13.40 .528	919	468	X	X	42,000	25,000
689	9.00 .3543	17.00 .6693	4.00 .1575	4.80 .1890	19.00 .7480	1.00 .0394	6.00 .2362	-	19.00 .7480	1.30 .0512	0.20 .008	10.40 .409	15.60 .614	1798	797	X	X	44,000	27,000
689/003	9.00 .3543	17.00 .6693	5.00 .1969	-	-	-	5.00 .1969	-	-	-	0.20 .008	10.40 .409	15.60 .614	1798	797	X	-	44,000	-
699	9.00 .3543	20.00 .7874	6.00 .2362	6.80 .2677	23.00 .9055	1.50 .0591	6.00 .2362	6.80 .2677	23.00 .9055	1.50 .0591	0.30 .012	11.00 .433	18.00 .709	2467	1081	X	X	40,000	25,000
609	9.00 .3543	24.00 .9449	7.00 .2756	-	27.00 1.0630	1.50 .0591	7.00 .2756	-	27.00 1.0630	1.50 .0591	0.30 .012	11.00 .433	22.00 .866	3435	1430	X	X	33,000	20,000
629	9.00 .3543	26.00 1.0236	8.00 .3150	8.80 .3465	28.00 1.1024	2.00 .0787	8.00 .3150	8.80 .3465	28.00 1.1024	2.00 .0787	0.30 .012	11.40 .449	23.60 .929	4698	1982	X	X	34,000	19,000
6700	10.00 .3937	15.00 .5906	3.00 .1181	-	16.50 .6496	0.80 .0315	-	-	16.50 .6496	0.80 .0315	0.15 .006	10.80 .425	14.20 .559	855	435	-	-	17,000	-
6700/003	10.00 .3937	15.00 .5906	4.00 .1575	-	16.50 .6496	0.80 .0315	4.00 .1575	-	16.50 .6496	0.80 .0315	0.15 .006	10.80 .425	14.20 .559	855	435	X	X	17,000	10,000
6800 (4)	10.00 .3937	19.00 .7480	5.00 .1969	5.80 .2283	21.00 .8268	1.00 .0394	7.00 .2756	7.80 .3071	21.00 .8268	1.50 .0591	0.30 .012	12.00 .472	17.00 .669	1922	915	X	X	42,000	25,000

Note:

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	d	D	Width without closure	Width with extended inner ring without closure	Flange dimensions without closure		Width with extended inner ring with closure	Width with extended inner ring with closure	Flange dimensions with closure			r _{s min} (1)	Shaft diameter d _{a min}	Housing diameter D _{a max}	C _r [N]	C _{0r} [N]	Shield (4)	Seal (4)	with closure or with shield
Basic symbols			B	B ₁	Flange diameter FD	Flange width FB	B ₂	B ₃	Flange diameter FD ₁	Flange width FB ₁									
6800/002	10.00 .3937	19.00 .7480	–	–	–	–	5.00 .1969	–	21.00 .8268	1.00 .0394	0.30 .012	12.00 .472	17.00 .669	1922	915	X	–	34,000	–
6800/003	10.00 .3937	19.00 .7480	6.00 .2362	–	–	–	6.00 .2362	–	–	–	0.30 .012	12.00 .472	17.00 .669	1922	915	X	–	35,000	–
6800/202	10.00 .3937	20.00 .7874	–	–	–	–	5.00 .1969	–	–	–	0.30 .012	12.00 .472	18.00 .709	1922	915	X	–	34,000	–
6900	10.00 .3937	22.00 .8661	6.00 .2362	–	25.00 .9843	1.50 .0591	6.00 .2362	–	25.00 .9843	1.50 .0591	0.30 .012	12.00 .472	20.00 .787	2695	1273	X	X	41,000	24,000
6000	10.00 .3937	26.00 1.0236	8.00 .3150	8.80 .3465	28.00 1.1024	2.00 .0787	8.00 .3150	8.80 .3465	28.00 1.1024	2.00 .0787	0.30 .012	12.40 .488	23.60 .929	4698	1982	X	X	35,000	19,000
6000/003	10.00 .3937	26.00 1.0236	10.00 .3937	–	–	–	10.00 .3937	–	–	–	0.30 .012	12.40 .488	23.60 .929	4149	1388	X	–	38,000	–
16100	10.00 .3937	28.00 1.1024	8.00 .3150	–	–	–	8.00 .3150	–	–	–	0.30 .012	14.20 .559	23.80 .937	4620	1960	X	–	37,000	–
6200	10.00 .3937	30.00 1.1811	9.00 .3543	–	–	–	9.00 .3543	–	–	–	0.60 .024	14.20 .559	25.80 1.016	4340	1920	X	X	27,000	18,000
6300	10.00 .3937	35.00 1.3780	11.00 .4331	–	–	–	11.00 .4331	–	–	–	0.60 .024	14.20 .559	20.80 .819	6870	2750	X	X	27,000	18,000
6701	12.00 .4724	18.00 .7087	4.00 .1575	–	19.50 .7677	0.80 .0315	4.00 .1575	–	19.50 .7677	0.80 .0315	0.20 .008	13.40 .528	16.60 .654	926	530	X	X	15,000	10,000
6801	12.00 .4724	21.00 .8268	5.00 .1969	–	–	–	5.00 .1969	–	–	–	0.30 .012	14.00 .551	19.00 .748	1930	900	X	–	30,000	–
6801/003	12.00 .4724	21.00 .8268	6.00 .2362	–	–	–	6.00 .2362	–	–	–	0.30 .012	14.00 .551	19.00 .748	1720	840	X	–	32,000	–
6801/004	12.00 .4724	21.00 .8268	7.00 .2756	–	23.00 .9055	1.50 .0591	7.00 .2756	–	23.00 .9055	1.50 .0591	0.30 .012	14.00 .551	19.00 .748	1915	1041	X	X	39,000	24,000
6901	12.00 .4724	24.00 .9449	6.00 .2362	–	–	–	6.00 .2362	–	–	–	0.30 .012	14.00 .551	22.00 .866	2971	1460	X	–	32,000	–
16001	12.00 .4724	28.00 1.1024	7.00 .2756	–	–	–	7.00 .2756	–	–	–	0.30 .012	14.00 .551	26.00 1.024	5100	2370	–	–	32,000	–
6001	12.00 .4724	28.00 1.1024	8.00 .3150	–	30.00 1.1811	2.00 .0787	8.00 .3150	–	30.00 1.1811	2.00 .0787	0.30 .012	14.00 .551	26.00 1.024	5237	2370	X	X	31,000	17,000
6001/003	12.00 .4724	28.00 1.1024	11.00 .4331	–	–	–	11.00 .4331	–	–	–	0.30 .012	14.00 .551	26.00 1.024	5237	2359	X	–	31,000	–
63001	12.00 .4724	28.00 1.1024	12.00 .4724	–	–	–	12.00 .4724	–	–	–	0.50 .020	14.00 .551	26.00 1.024	5100	2370	X	X	30,000	16,000

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	d	D	Width without closure	Width with extended inner ring without closure	Flange dimensions without closure		Width with extended inner ring with closure	Width with extended inner ring with closure	Flange dimensions with closure			r _{s min} (1)	Shaft diameter d _{a min}	Housing diameter D _{a max}	C _r [N]	C _{0r} [N]	Shield (4)	Seal (4)	with closure or with shield
Basic symbols			B	B ₁	Flange diameter FD	Flange width FB	B ₂	B ₃	Flange diameter FD ₁	Flange width FB ₁									
16101	12.00 .4724	30.00 1.1811	8.00 .3150	-	-	-	8.00 .3150	-	-	-	0.50 .020	14.40 .567	27.60 1.087	5070	2360	X	X	28,000	16,000
6201	12.00 .4724	32.00 1.2598	10.00 .3937	-	-	-	10.00 .3937	-	-	-	0.60 .024	16.20 .638	27.80 1.094	5770	2450	X	X	26,000	15,000
62201	12.00 .4724	32.00 1.2598	14.00 .5512	-	-	-	14.00 .5512	-	-	-	0.60 .024	16.20 .638	27.80 1.094	6890	3100	X	X	25,000	15,000
6301	12.00 .4724	37.00 1.4567	12.00 .4724	-	-	-	12.00 .4724	-	-	-	1.00 .039	17.60 .693	31.40 1.236	8240	3360	X	X	25,000	14,000
62301	12.00 .4724	37.00 1.4567	17.00 .6693	-	-	-	17.00 .6693	-	-	-	1.00 .039	17.60 .693	31.40 1.236	8240	3360	-	X	27,000	14,000
6702	15.00 .5906	21.00 .8268	4.00 .1575	-	-	-	4.00 .1575	-	-	-	0.20 .008	16.40 .646	19.60 .772	937	582	X	X	13,000	9000
6802	15.00 .5906	24.00 .9449	5.00 .1969	-	-	-	5.00 .1969	-	-	-	0.30 .012	17.00 .669	22.00 .866	2080	1100	X	X	25,000	15,000
6802/003	15.00 .5906	24.00 .9449	7.00 .2756	-	26.00 1.0236	1.50 .0591	7.00 .2756	-	26.00 1.0236	1.50 .0591	0.30 .012	17.00 .669	22.00 .866	2073	1253	X	X	33,000	18,000
6902	15.00 .5906	28.00 1.1024	7.00 .2756	-	-	-	7.00 .2756	-	-	-	0.30 .012	17.00 .669	26.00 1.024	4445	2268	X	X	24,000	16,000
16002	15.00 .5906	32.00 1.2598	8.00 .3150	-	-	-	8.00 .3150	-	-	-	0.50 .020	17.00 .669	30.00 1.181	5600	2830	X	X	26,000	14,000
6002	15.00 .5906	32.00 1.2598	9.00 .3543	-	-	-	9.00 .3543	-	-	-	0.30 .012	17.00 .669	30.00 1.181	5676	2819	X	-	25,000	-
6202	15.00 .5906	35.00 1.3780	11.00 .4331	-	-	-	11.00 .4331	-	-	-	0.60 .024	19.20 .756	30.80 1.213	6490	3000	X	X	24,000	16,000
62202	15.00 .5906	35.00 1.3780	14.00 .5512	-	-	-	14.00 .5512	-	-	-	0.60 .024	19.20 .756	30.80 1.213	7650	3750	X	X	23,000	13,000
6302	15.00 .5906	42.00 1.6535	13.00 .5118	-	-	-	13.00 .5118	-	-	-	1.50 .059	24.00 .945	33.00 1.299	11400	5450	X	X	21,000	11,000
6703	17.00 .6693	23.00 .9055	4.00 .1575	-	24.50 .9646	0.80 .0315	4.00 .1575	-	24.50 .9646	0.80 .0315	0.20 .008	18.40 .724	21.60 .850	1000	658	X	X	11,000	7,000
6803	17.00 .6693	26.00 1.0236	5.00 .1969	-	-	-	5.00 .1969	-	-	-	0.30 .012	19.00 .748	24.00 .945	2240	1270	X	-	22,000	-
6903	17.00 .6693	30.00 1.1811	7.00 .2756	-	-	-	7.00 .2756	-	-	-	0.30 .012	19.00 .748	28.00 1.102	4723	2547	X	-	21,000	-
16003	17.00 .6693	35.00 1.378	8.00 .3150	-	-	-	8.00 .3150	-	-	-	0.30 .012	19.00 .748	33.00 1.299	6000	3250	X	-	23,500	-

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GRW-designation	Main dimensions in [mm] [inch]		Bearing without closure in [mm] [inch]				Bearing with closure in [mm] [inch]				Chamfer in [mm] [inch]	Modification dimensions acc. to DIN 5418 [mm] [inch]		Load ratings acc. to DIN ISO (2) (max)		Closure variants (3)		Max. limiting speed (5) [mm ⁻¹]		
	Basic symbols	d	D	Width without closure	Width with extended inner ring without closure	Flange dimensions without closure		Width with extended inner ring with closure	Width with extended inner ring with closure	Flange dimensions with closure		r _{s min} (1)	Shaft diameter d _{a min}	Housing diameter D _{a max}	C _r [N]	C _{0r} [N]	Shield (4)	Seal (4)	with closure or with shield	with seal
			B	B ₁	Flange diameter FD	Flange width FB	B ₂	B ₃	Flange diameter FD ₁	Flange width FB ₁										
6003	17.00 .6693	35.00 1.3780	10.00 .3937	-	-	-	10.00 .3937	-	-	-	0.30 .012	19.00 .748	33.00 1.299	5090	2630	X	X	23,000	18,000	
6203	17.00 .6693	40.00 1.5748	12.00 .4724	-	-	-	12.00 .4724	-	-	-	0.60 .024	21.20 .835	35.80 1.409	8130	3850	X	X	20,000	15,000	
62203	17.00 .6693	40.00 1.5748	16.00 .6299	-	-	-	16.00 .6299	-	-	-	0.60 .024	21.20 .835	35.80 1.409	9560	4750	X	-	21,000	-	
6303	17.00 .6693	47.00 1.8504	14.00 .5512	-	-	-	14.00 .5512	-	-	-	1.00 .039	22.60 .890	41.40 1.630	11550	5330	X	X	18,000	14,000	
6704	20.00 .7874	27.00 1.0630	4.00 .1575	-	28.50 1.122	0.80 .0315	4.00 .1575	-	28.50 1.122	0.80 .0315	0.20 .008	5.40 .213	25.60 1.008	1402	729	X	X	10,000	7,000	
6804	20.00 .7874	32.00 1.2598	7.00 .2756	-	35.00 1.378	1.50 .0591	7.00 .2756	-	35.00 1.378	1.50 .0591	0.30 .012	22.00 .866	30.00 1.181	4015	2462	X	X	25,000	13,000	
6904	20.00 .7874	37.00 1.4567	9.00 .3543	-	40.00 1.5748	2.00 .0787	9.00 .3543	2.00 .0787	40.00 1.5748	2.00 .0787	0.30 .012	22.00 .866	35.00 1.378	6381	3682	X	X	23,000	12,000	
16004	20.00 .7874	42.00 1.6535	8.00 .3150	-	-	-	8.00 .3150	-	-	-	0.30 .012	22.00 .866	40.00 1.575	6940	4100	X	-	21,000	-	
6004	20.00 .7874	42.00 1.6535	12.00 .4724	-	-	-	12.00 .4724	-	-	-	1.00 .039	24.60 .969	37.40 1.472	7900	4250	X	X	21,000	11,000	
6204	20.00 .7874	47.00 1.8504	14.00 .5512	-	-	-	14.00 .5512	-	-	-	1.00 .039	25.60 1.008	41.40 1.630	10910	5360	X	X	17,000	10,000	
6705	25.00 .9843	32.00 1.2598	4.00 .1575	-	-	-	4.00 .1575	-	34.00 1.3386	1.00 .0394	0.20 .008	5.40 .213	30.60 1.205	1091	838	-	X	12,000	8,000	
6805	25.00 .9843	37.00 1.4567	7.00 .2756	-	40.00 1.5748	1.50 .0591	7.00 .2756	-	40.00 1.5748	1.50 .0591	0.30 .012	27.00 1.063	35.00 1.378	4303	2932	X	-	21,000	-	
6905	25.00 .9843	42.00 1.6535	9.00 .3543	-	45.00 1.7717	2.00 .0787	9.00 .3543	-	45.00 1.7717	2.00 .0787	0.30 .012	27.00 1.063	40.00 1.575	7001	4540	X	X	19,000	10,000	
16005	25.00 .9843	47.00 1.8504	8.00 .3150	-	-	-	8.00 .3150	-	-	-	0.60 .024	27.00 1.063	45.00 1.772	8550	4690	X	-	17,000	-	
6005	25.00 .9843	47.00 1.8504	12.00 .4724	-	-	-	12.00 .4724	-	-	-	0.60 .024	28.20 1.110	43.80 1.724	8550	4690	X	X	18,000	9,500	
6706	30.00 1.1811	37.00 1.4567	4.00 .1575	-	39.00 1.5354	1.00 .0394	4.00 .1575	-	39.00 1.5354	1.00 .0394	0.20 .008	5.40 .213	35.60 1.402	1143	947	X	-	17,000	-	
6806	30.00 1.1811	42.00 1.6535	7.00 .2756	-	45.00 1.7717	1.50 .0591	7.00 .2756	-	45.00 1.7717	1.50 .0591	0.30 .012	32.00 1.260	40.00 1.575	4538	3402	X	X	18,000	9,000	
6906	30.00 1.1811	47.00 1.8504	9.00 .3543	-	50.00 1.9685	2.00 .0787	9.00 .3543	-	50.00 1.9685	2.00 .0787	0.30 .012	32.00 1.260	45.00 1.772	7242	5003	X	X	17,000	8,500	

Note:

(1) r_{s min} = minimum single bearing chamfer or maximum permissible shaft or housing fillet radius.

(2) Other load ratings are possible due to different ball sets with use of a non-standard retainer.

(3) Different shields or seals available.

(4) Bearings also available with 1 or 2 shields/seals.

(5) Limiting speed also depends on seal material and the respective ball set.

• Ball bearings without shields or seals are also available with recesses.

• Please discuss your desired design in terms of flange, extended inner ring width, shield, seal, and material with our Technical Application Consultants to find out about availability.

• Subject to change due to technical improvement.

Groove radial ball bearings – metric

GRW-designation	Main dimensions in [mm] [inch]		Bearing without closure in [mm] [inch]			Bearing with closure in [mm] [inch]			Chamfer in [mm] [inch]	Modification dimensions acc. to DIN 5418 [mm] [inch]		Load ratings acc. to DIN ISO (2) (max)		Closure variants (3)		Max. limiting speed (5) [mm ⁻¹]	
	d	D	Width without closure	Width with extended inner ring without closure	Flange dimensions without closure	Width with extended inner ring with closure	Width with extended inner ring with closure	Flange dimensions with closure		Shaft diameter	Housing diameter	C _r [N]	C _{0r} [N]	Shield (4)	Seal (4)	with closure or with shield	with seal
Basic symbols			B	B ₁	Flange diameter FD Flange width FB	B ₂	B ₃	Flange diameter FD ₁ Flange width FB ₁	r _{s min} (1)	d _{a min}	D _{a max}						
6807	35.00 1.3780	47.00 1.8504	7.00 .2756	-	50.00 1.9685 1.50 .0591	7.00 .2756	-	50.00 1.9685 1.50 .0591	0.30 .012	37.00 1.457	45.00 1.772	4729	3821	X	X	16,000	8,000

Your Notes

Note:

(1) r_{s min} = minimum single bearing chamfer or maximum permissible shaft or housing fillet radius.

(2) Other load ratings are possible due to different ball sets with use of a non-standard retainer.

(3) Different shields or seals available.

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