



Deep groove radial ball bearings – inch

GRW designation		Main dimensions in [mm] [inch]		ng without clos	nch]	Ве	aring with clos	ure in [mm] [i l	nch]	Chamfer in [mm]	Mounting of	limensions acc. BMA Std. 12.2 in	Load ratings acc. to DIN ISO ⁽²⁾ (max)		Closure options ⁽³⁾		Max. limiting speed ⁽⁵⁾ [mm ⁻¹]		
				Width with extended	Flange di without	imensions closure	Width with closure	Width with extended	Flange dimensions with closure		[inch]		[mm] [inch]						, · · · /
			closure	inner ring without closure				inner ring with closure				Shaft Housing diameter diameter							
Basic symbol	d	D	В	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}	C [N]	C _{or} [N]	Shield ⁽⁴⁾	Seal ⁽⁴⁾	without closure or with shield	with seal
1016	1.016	3.175	1.191	-	-	-	-	-	-	-	0.08	1.50	2.65	106	28	-	-	150000	-
	.0400	.1250	.0469	0.001	5.157	0.000					.003	.059	.104	7.40				100000	
1191	1.191	3.967	1.588	2.381	5.156	0.330	_	_	_	_	0.08	1.80	3.35	163	44	-	_	129000	_
1207	.0469	.1562	.0625	.0937	.2030	.0130	0.770		E 0.4.4	0.707	.003	.071	.132	220	47	V		114000	
1397	1.397 .0550	4.763 .1875	1.984 .0781	_	_	_	2.779 .1 094	_	5.944 .2340	0.787 .03100	0.08 .003	2.00 .079	4.15 .163	239	67	Х	_	114000	_
5/64	1.984	6.350	2.380	3.175	7.518	0.584	3.571	4.366	7.518	0.787	0.08	2.60	5.75	286	90	Х	_	95000	_
3/04	.0781	.2500	.0937	.1250	.2960	.0230	.1406	.1719	.2960	.0310	.003	.102	.226	200	70	^		73000	
2380	2.380	4.763	1.588	2.380	5.944	0.457	2.380	3.175	5.944	0.787	0.08	2.90	4.25	192	59	Х	_	94000	_
2000	.0937	.1875	.0625	.0937	.2340	.0180	.0937	.1250	.2340	.0310	.003	.114	.167	172	37	Λ.		74000	
3175/0002	2.380	6.350	2.779	-	7.518	0.787	2.779	-	7.518	0.787	0.08	2.95	5.75	292	97	X	_	82000	_
0.7.0,0002	.0937	.2500	.1094		.2960	.0310	.1094		.2960	.0310	.003	.116	.226					02000	
3/32	2.380	7.938	2.779	3.571	9.119	0.584	3.571	4.366	9.119	0.787	0.08	3.10	7.25	644	215	Х	Х	62000	51000
	.0937	.3125	.1094	.1406	.3590	.0230	.1406	.1719	.3590	.0310	.003	.122	.285	-					
3175/002	3.175	6.350	_	-	-	-	2.380	_	7.518	0.584	0.08	3.75	5.75	311	109	Х	_	80000	_
	.1250	.2500					.0937		.2960	.0230	.003	.148	.226						
3175	3.175	6.350	2.380	3.175	7.518	0.584	2.779	3.571	7.518	0.787	0.08	3.75	5.75	292	97	Х	Х	80000	53000
	.1250	.2500	.0937	.1250	.2960	.0230	.1094	.1406	.2960	.0310	.003	.148	.226						
31 <i>75</i> A	3.175	6.350	2.380	-	7.518	0.584	2.779	-	7.518	0.787	0.08	3.75	5.75	311	109	Χ	_	80000	-
	.1250	.2500	.0937		.2960	.0230	.1094		.2960	.0310	.003	.148	.226						
1/8A	3.175	7.938	2.779	3.571	9.119	0.584	3.571	4.366	9.119	0.787	0.08	3.90	7.20	644	215	X	Χ	65000	51000
	.1250	.3125	.1094	.1406	.3590	.0230	.1406	.1719	.3590	.0310	.003	.154	.283						
3175/061	3.175	9.525	2.779	-	-	-	2.779	-	-	-	0.08	3.90	8.80	292	97	Х	_	80000	-
	.1250	.3750	.1094				.1094				.003	.154	.346						
3175/6	3.175	9.525	_	_	-	_	2.779	_	_	-	0.08	3.90	8.80	292	97	X	- Th	80000	Land Control
	.1250	.3750					.1094				.003	.154	.346						
1/8A/6	3.175	9.525	_	_	-	_	3.571	4.366	10.719	0.787	0.08	3.90	8.80	644	215	Χ	Х	82000	51000
1 /00	.1250	.3750	0.017	4 7 . 0	11.77	0.710	.1406	.1719	.4220	.0310	.003	.154	.346	700 12	1 010	.,			VI N. Jac Br
1/8B	3.175	9.525	3.967	4.763	11.176	0.762	3.967	4.763	11.176	0.762	0.30	4.55	8.25	720	260	X	X	61000	44000
0175/550	.1250	.3750	.1562	.1875	.4400	.0300	.1562	.1875	.4400	.0300	.012	.179	.325	600	07		1123		
3175/552	3.175	10.414	_	_	_	_	2.380	_	_	_	0.08	3.75	8.40	292	97	Х	_	80000	_
0175/0	.1250	.4100					.0937	0.571			.003	.148	.331	000	07		SULVI THE	00000	
3175/8	3.175	12.700	_	_	_	_	2.779	3.571	_	_	0.08	4.55	11.35	292	97	X	CLL+NO	80000	_
1 /00 /000	.1250	.5000	1 244				.1094	.1406			.003	.179	.447	705	245	V	ANDER	74000	
1/8B/083	3.175	12.700	4.366	_	_	_	4.366	_	_	_	0.30	4.55	11.35	725	265	Х	_	74000	-
	.1250	.5000	.1719				.1719				.012	.179	.447						

⁽¹⁾ f_{s min} = minimum single bearing chamfer or maximum permissible shaft or housing fillet radius (2) Other load ratings are possible with different ball complements and non standard retainers (3) Different shields and seals are available

⁽⁴⁾ Bearings also available with 1 or 2 shields/seals
⁽⁵⁾ Limiting speed also depends on seal, material and the respective ball complement

[•] Bearings without shields or retainers are also available with recesses.

Please discuss your desired design in terms of flange, extended inner ring width, shield, lubrication, and material with our Technical Application Consultants to check availability.

[•] Subject to change.

Almost all bearing types can also be enhanced with GRW XTRA. Detailed information you can find on page 79 and following.





Deep groove radial ball bearings – inch

GRW designation	[n	Main dimensions in [mm] [inch]		ing without clos	ure in [mm] [i i	nch]	Bearing with closure in [mm] [inch]				Chamfer in [mm]		limensions acc. BMA Std. 12.2 in	Load ratings acc. to DIN ISO ⁽²⁾ (max)		Closure options ⁽³⁾		Max. limiting speed (5) [mm ⁻¹]		
Ü				Width with extended inner ring		Flange dimensions without closure		Width with extended inner ring	Flange dimensions with closure		[inch]	[mm] [inch]								
			closure	without closure				with closure				Shaft diameter	Housing diameter							
Basic symbol	d	D	В	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}	C [N]	C _{Or} [N]	Shield ⁽⁴⁾	Seal ⁽⁴⁾	without closure or with shield	with seal	
3967/002	3.967	7.938	-	-	_	-	2.779	-	-	-	0.08	4.55	7.30	391	165	Χ	-	65000	-	
	.1562	.3125					.1094				.003	.179	.287							
3967	3.967	7.938	2.779	3.571	9.119	0.584	3.175	3.967	9.119	0.914	0.08	4.55	7.30	391	165	X	X	68000	42000	
	.1562	.3125	.1094	.1406	.3590	.0230	.1250	.1562	.3590	.0360	.003	.179	.287							
4763A/002	4.763	7.938	_	-	-	_	2.779	-	-	_	0.08	5.35	7.30	391	165	Х	_	61000	_	
	.1875	.3125					.1094				.003	.211	.287							
4763A	4.763	7.938	2.779	3.571	9.119	0.584	3.175	3.967	9.119	0.914	0.08	5.35	7.30	391	165	Х	X	65000	42000	
15- 579	.1875	.3125	.1094	.1406	.3590	.0230	.1250	.1562	.3590	.0360	.003	.211	.287							
4763A/062	4.763	9.525	2.779	-	_	_	2.779	_	_	_	0.08	5.35	7.30	391	165	Х	X	65000	42000	
	.1875	.3750	.1094			/	.1094				.003	.211	.287							
4763B	4.763	9.525	3.175	3.967	10.719	0.584	3.175	3.967	10.719	0.787	0.08	5.50	8.80	730	271	Χ	X	56000	41000	
47/04/000	.1875	.3750	.1250	.1562	.4220	.0230	.1250	.1562	.4220	.0310	.003	.217	.346	001	1/5			70000		
4763A/082	4.763	12.700 .5000	_	_	_	_	2.779	3.571	_	_	0.08 .003	5.35	8.80	391	165	Χ	_	70000	_	
4763B/083	.1875	12.700	3.967		_		.1094 3.967	.1406			0.08	.211 6.20	.346	730	271	Χ		56000	_	
47 03b/ 003	.1875	.5000	.1562		_		.1562		_		.003	.244	.447	730	2/ 1	^		30000		
3/16/002	4.763	12.700	-	_	_	_	3.967	_	_	_	0.30	6.20	11.35	1339	488	Χ	_	50000		
0/ 10/ 002	.1875	.5000					.1562				.012	.244	.447	1007	400	,		30000		
3/16	4.763	12.700	3.967	4.763	14.351	1.067	4.978	5.771	14.351	1.067	0.30	6.20	11.35	1339	488	Х	X	50000	37000	
-,	.1875	.5000	.1562	.1875	.5000	.0420	.1960	.2272	.5000	.0420	.012	.244	.447							
4763B/084	4.763	12.700	2.779				5.558				0.30	6.20	11.35	730	271	- /- //		43000	A -	
	.1875	.5000	.1094				.2188				.012	.244	.447						A SALES	
1/4A/0001	4.763	15.875	4.978	-	17.526	1.067	4.978	-	17.526	1.067	0.30	6.20	14.35	1651	670	Χ	Х	41000	31000	
	.1875	.6250	.1960		.6900	.0420	.196		.6900	.0420	.012	.244	.565							
6350A	6.350	9.525	3.175	3.967	10.719	0.584	3.175	3.967	10.719	0.914	0.08	6.90	8.95	391	165	X	X	54000	35000	
	.2500	.3750	.1250	.1562	.4220	.02300	.1250	.1562	.4220	.0360	.003	.272	.352					1		
6350B	6.350	12.700	3.175	3.967	13.894	0.584	4.763	5.558	13.894	1.143	0.13	7.20	11.85	730	271	Χ	X	38000	33000	
	.2500	.5000	.1250	.1562	.5000	.02300	.1875	.2188	.5000	.0450	.005	.283	.467						S/1 10 /2/	
1/4A	6.350	15.875	4.978	5.771	17.526	1.067	4.978	5.771	17.526	1.067	0.30	7.85	14.35	1651	670	X	X	43000	31000	
	.2500	.6250	.1960	.2272	.6900	.0420	.1960	.2272	.6900	.0420	.012	.309	.565	161			165	MAKIY		
1/4/002	6.350	19.050	-	-	-	_	5.558	-	_	-	0.41	8.20	17.20	2522	1057	Χ	X	35000	28000	
2 / 4	.2500	.7500					.2188				.016	.323	.677				XIIX/\ \T	0.5555	00777	
1/4	6.350	19.050	5.558	_	_	_	7.142	_	_	_	0.41	8.20	17.20	2522	1057	X	XXX	35000	28000	
7020	.2500	.7500	.2188	17/0	12.004	0.707	.2812	4.7/0	12.004	0.707	.016	.323	.677	500	070	//2	MILE	45000	20000	
7938	7.938	12.700	3.967	4.763	13.894	0.787	3.967	4.763	13.894	0.787	0.13	8.80	11.85	539	279	Х	X	45000	30000	
	.3125	.5000	.1562	.1875	.5000	.03100	.1562	.1875	.5000	.0310	.005	.346	.467							

⁽¹⁾ $r_{s,min}$ = minimum single bearing chamfer or maximum permissible shaft or housing fillet radius (2) Other load ratings are possible with different ball complements and non standard retainers (3) Different shields and seals are available

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 Limiting speed also depends on seal, material and the respective ball complement

[•] Bearings without shields or retainers are also available with recesses.

Please discuss your desired design in terms of flange, extended inner ring width, shield, lubrication, and material with our Technical Application Consultants to check availability.

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Almost all bearing types can also be enhanced with GRW XTRA. Detailed information you can find on page 79 and following.





Deep groove radial ball bearings – inch

GRW designation	Main dimensions in [mm] [inch]		Bearing without clos Wldth Width with without extended closure inner ring without closure		osure in [mm] [inch] Flange dimensions without closure			Width with extended inner ring with closure	nded with closure		Chamfer in [mm] [inch]	Mounting dimensions acc. to ANSI/AFBMA Std. 12.2 in [mm] [inch] Shaft Housing diameter diameter		Load ratings acc. to DIN ISO ^[2] (max)		Closure options ⁽³⁾		Max. limiting speed ⁽⁵⁾ [mm ⁻¹]	
Basic symbol	d	D	В	B ₁	Flange diameter FD	Flange width FB	B ₂	В ₃	Flange diameter FD ₁	Flange width FB ₁	r _{s min} (1)	d _{a min}	D _{a max}	C [N]	C _{Or} [N]	Shield ⁽⁴⁾	Seal ⁽⁴⁾	without closure or with shield	with seal
9525	9.525	15.875	3.967	-	-	-	3.967	-	-	_	0.25	11.05	14.35	856	435	Χ	-	35000	_
	.3750	.6250	.1562				.1562				.010	.435	.565						
3/8/002	9.525	22.225	_	_	-	_	5.558	-	-	-	0.41	11.45	20.30	2555	1129	X	_	30000	_
K .	.3750	.8750					.2188				.016	.451	.799						
3/8	9.525	22.225	5.558	_	24.613	1.575	7.142	_	24.613	1.575	0.41	11.45	20.30	2555	1129	Χ	Χ	30000	24000
	.3750	.8750	.2188		.9690	.0620	.2812		.9690	.0620	.016	.451	.799						
12700A/002	12.700	19.050	-	_	-	_	3.967	-	-	-	0.25	14.20	17.55	918	542	X	Χ	28000	20000
	.5000	.7500					.1562				.010	.500	.691						
12700B	12.700	22.225	7.142	_	-	_	7.142	-	-	_	0.41	14.20	20.30	1972	1144	Χ	_	28000	-
	.5000	.8750	.2812				.2812				.016	.500	.799						
1/2	12.700	28.575	6.350	_	31.115	1.575	7.938	-	31.115	1.575	0.41	15.90	26.05	5108	2413	X	Χ	32000	21000
	.5000	1.1250	.2500		1.2250	.0620	.3125		1.2250	.0620	.016	.626	1.026						
15875A	15.875	22.225	3.967	_	-	_	3.967	_	_	_	0.25	19.05	20.30	1133	801	Χ	_	25000	_
	.6250	.8750	.1562				.1562				.010	.750	.799						
5/8	15.875	34.925	7.142	-	-	-	8.733	-	37.846	1.745	0.80	19.05	31.75	5999	3265	Х	_	25000	-
	.6250	1.3750	.2812				.3438		1.4900	.0687	.031	.750	1.250						

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