Spindle ball bearings

GRW designation	Main dimensions in **[mm]** [inch]			Load ratings acc. to DIN ISO		Ball set		Limiting speeds*		Preload		
Basic symbols	d	D	B	C_{0r} [N]	C_r [N]	Z	Dw **[mm]** [inch]	Oil [min⁻¹]	Grease [min⁻¹]	(L) light [N]	(M) medium [N]	(S) heavy [N]
AC bearings, open, metric												
SV723 C TA	**3.00** .1181	**10.00** .3937	**4.00** .1575	170	506	8	**1.588** .0625	254,000	209,000	5	8	16
HYSV723 C TA	**3.00** .1181	**10.00** .3937	**4.00** .1575	119	506	8	**1.588** .0625	373,000	269,000	5	8	16
SV774 C TA	**4.00** .1575	**7.00** .2756	**2.00** .0787	77	223	10	**1.000** .0394	309,000	255,000	5	7	10
HYSV774 C TA	**4.00** .1575	**7.00** .2756	**2.00** .0787	54	223	10	**1.000** .0394	455,000	327,000	5	7	10
SV724 C TA	**4.00** .1575	**13.00** .5118	**5.00** .1969	364	1037	8	**2.381** .0937	195,000	161,000	5	16	32
HYSV724 C TA	**4.00** .1575	**13.00** .5118	**5.00** .1969	255	1037	8	**2.381** .0937	287,000	206,000	5	16	32
SV734 C TA	**4.00** .1575	**16.00** .6299	**5.00** .1969	721	1594	9	**2.500** .0984	157,000	130,000	8	24	49
HYSV734 C TA	**4.00** .1575	**16.00** .6299	**5.00** .1969	504	1594	9	**2.500** .0984	231,000	167,000	8	24	49
SV725 C TA	**5.00** .1969	**16.00** .6299	**5.00** .1969	721	1594	9	**2.500** .0984	157,000	130,000	8	24	49
HYSV725 C TA	**5.00** .1969	**16.00** .6299	**5.00** .1969	504	1594	9	**2.500** .0984	231,000	167,000	8	24	49
SV735 C TA	**5.00** .1969	**19.00** .7480	**6.00** .2362	1277	2612	10	**3.175** .1250	127,000	105,000	13	40	80
HYSV735 C TA	**5.00** .1969	**19.00** .7480	**6.00** .2362	894	2612	10	**3.175** .1250	187,000	135,000	13	40	80
SV786 C TA	**6.00** .2362	**13.00** .5118	**3.50** .1378	354	895	10	**1.984** .0781	175,000	144,000	5	14	28
HYSV786 C TA	**6.00** .2362	**13** .5118	**3.50** .1378	247	895	10	**1.984** .0781	258,000	186,000	5	14	28
SV786 E TA	**6.00** .2362	**13.00** .5118	**3.50** .1378	332	856	10	**1.984** .0781	149,000	123,000	5	14	28
HYSV786 E TA	**6.00** .2362	**13.00** .5118	**3.50** .1378	232	856	10	**1.984** .0781	219,000	158,000	5	14	28
SV786/001 C TA	**6.00** .2362	**13.00** .5118	**5.00** .1969	354	895	10	**1.984** .0781	175,000	144,000	5	14	28
HYSV786/001 C TA	**6.00** .2362	**13.00** .5118	**5.00** .1969	247	895	10	**1.984** .0781	258,000	186,000	5	14	28
SV726 C TA	**6.00** .2362	**19.00** .7480	**6.00** .2362	1277	2612	10	**3.175** .1250	127,000	105,000	13	40	80
HYSV726 C TA	**6.00** .2362	**19.00** .7480	**6.00** .2362	894	2612	10	**3.175** .1250	187,000	135,000	13	40	80
SV707 C TA	**7.00** .2756	**19.00** .7480	**6.00** .2362	1277	2612	10	**3.175** .1250	127,000	105,000	13	40	80
HYSV707 C TA	**7.00** .2756	**19.00** .7480	**6.00** .2362	894	2612	10	**3.175** .1250	187,000	135,000	13	40	80
SV727 C TA	**7.00** .2756	**22.00** .8661	**7.00** .2756	1693	3511	9	**3.969** .1563	116,000	95,000	18	54	108
HYSV727 C TA	**7.00** .2756	**22.00** .8661	**7.00** .2756	1185	3511	9	**3.969** .1563	170,000	122,000	18	54	108
SV788 C TA	**8.00** .3150	**16.00** .6299	**4.00** .1575	569	1377	10	**2.500** .0984	142,000	117,000	7	21	42

HIGH-PRECISION BALL BEARINGS

GRW designation	Main dimensions in **[mm]** [inch]			Load ratings acc. to DIN ISO		Ball set		Limiting speeds*		Preload		
Basic symbols	d	D	B	C_{0r} [N]	C_r [N]	Z	Dw **[mm]** [inch]	Oil [min⁻¹]	Grease [min⁻¹]	(L) light [N]	(M) medium [N]	(S) heavy [N]
AC bearings, open, metric												
HYSV788 C TA	**8.00** .3150	**16.00** .6299	**4.00** .1575	398	1377	10	**2.500** .0984	208,000	150,000	7	21	42
SV788 E TA	**8.00** .3150	**16.00** .6299	**4.00** .1575	534	1317	10	**2.500** .0984	120,000	99,000	7	21	42
HYSV788 E TA	**8.00** .3150	**16.00** .6299	**4.00** .1575	374	1317	10	**2.500** .0984	177,000	128,000	7	21	42
SV708 C TA	**8.00** .3150	**22.00** .8661	**7.00** .2756	1693	3511	9	**3.969** .1563	116,000	95,000	18	54	108
HYSV708 C TA	**8.00** .3150	**22.00** .8661	**7.00** .2756	1185	3511	9	**3.969** .1563	170,000	122,000	18	54	108
SV708 E TA	**8.00** .3150	**22.00** .8661	**7.00** .2756	1589	3358	9	**3.969** .1563	98,000	81,000	18	54	108
HYSV708 E TA	**8.00** .3150	**22.00** .8661	**7.00** .2756	1112	3358	9	**3.969** .1563	145,000	104,000	18	54	108
SV789 C TA	**9.00** .3543	**17.00** .6693	**4.00** .1575	642	1471	11	**2.500** .0984	131,000	108,000	8	23	45
HYSV789 C TA	**9.00** .3543	**17.00** .6693	**4.00** .1575	450	1471	11	**2.500** .0984	192,000	138,000	8	23	45
SV709 C TA	**9.00** .3543	**24.00** .9449	**7.00** .2756	1974	3844	10	**3.969** .1563	105,000	86,000	20	59	118
HYSV709 C TA	**9.00** .3543	**24.00** .9449	**7.00** .2756	1382	3844	10	**3.969** .1563	154,000	111,000	20	59	118
SV729 C TA	**9.00** .3543	**26.00** 1.0236	**8.00** .3150	2737	5137	10	**4.763** .1875	94,000	78,000	26	79	158
HYSV729 C TA	**9.00** .3543	**26.00** 1.0236	**8.00** .3150	1916	5137	10	**4.763** .1875	139,000	10,000	26	79	158
SV7800 C TA	**10.00** .3937	**19.00** .7480	**5.00** .1969	724	1556	12	**2.500** .0984	117,000	97,000	8	24	48
HYSV7800 C TA	**10.00** .3937	**19.00** .7480	**5.00** .1969	507	1556	12	**2.500** .0984	172,000	124,000	8	24	48
SV7800 E TA	**10.00** .3937	**19.00** .7480	**5.00** .1969	680	1488	12	**2.500** .0984	10,0000	82,000	8	24	48
HYSV7800 E TA	**10.00** .3937	**19.00** .7480	**5.00** .1969	476	1488	12	**2.500** .0984	147,000	106,000	8	24	48
SV7900 C TA	**10.00** .3937	**22.00** .8661	**6.00** .2362	1500	2824	11	**3.175** .1250	107,000	88,000	15	44	88
HYSV7900 C TA	**10.00** .3937	**22.00** .8661	**6.00** .2362	1050	2824	11	**3.175** .1250	157,000	113,000	15	44	88
SV7900A E TA	**10.00** .3937	**22.00** .8661	**6.00** .2362	1407	2700	11	**3.175** .1250	90,000	74,000	15	44	88
HYSV7900A E TA	**10.00** .3937	**22.00** .8661	**6.00** .2362	985	2700	11	**3.175** .1250	133,000	96,000	15	44	88
SV7000 C TA	**10.00** .3937	**26.00** 1.0236	**8.00** .3150	2737	5137	10	**4.763** .1875	94,000	78,000	26	79	158
HYSV7000 C TA	**10.00** .3937	**26.00** 1.0236	**8.00** .3150	1916	5137	10	**4.763** .1875	139,000	10,000	26	79	158

* The indicated speed limits are guide values for spring-loaded single bearings with low load; depending on the respective application, higher or lower speed limits may apply in practice.

** For use with oil lubrication, these bearings are also available without shields.

Subject to change due to technical improvement.

Spindle ball bearings

GRW designation	Main dimensions in **[mm]** [inch]			Load ratings acc. to DIN ISO		Ball set		Limiting speeds*		Preload		
Basic symbols	d	D	B	C_{0r} [N]	C_r [N]	Z	Dw **[mm]** [inch]	Oil [min⁻¹]	Grease [min⁻¹]	(L) light [N]	(M) medium [N]	(S) heavy [N]
AC bearings, open, metric												
SV7000 E TA	**10.00** .3937	**26.00** 1.0236	**8.00** .3150	2568	4913	10	**4.763** .1875	80,000	66,000	26	79	158
HYSV7000 E TA	**10.00** .3937	**26.00** 1.0236	**8.00** .3150	1798	4913	10	**4.763** .1875	118,000	85,000	26	79	158
SV7200 C TA	**10.00** .3937	**30.00** 1.1811	**9.00** .3543	3192	5597	11	**4.763** .1875	83,000	68,000	29	86	172
HYSV7200 C TA	**10.00** .3937	**30.00** 1.1811	**9.00** .3543	2235	5597	11	**4.763** .1875	122,000	88,000	29	86	172
SV7200 E TA	**10.00** .3937	**30.00** 1.1811	**9.00** .3543	2995	5353	11	**4.763** .1875	71,000	58,000	29	86	172
HYSV7200 E TA	**10.00** .3937	**30.00** 1.1811	**9.00** .3543	2097	5353	11	**4.763** .1875	104,000	75,000	29	86	172
SV7801 C TA	**12.00** .4724	**21.00** .8268	**5.00** .1969	794	1543	14	**2.381** .0937	103,000	84,000	8	24	48
HYSV7801 C TA	**12.00** .4724	**21.00** .8268	**5.00** .1969	556	1543	14	**2.381** .0937	151,000	109,000	8	24	48
SV7801 E TA	**12.00** .4724	**21.00** .8268	**5.00** .1969	745	1476	14	**2.381** .0937	87,000	72,000	8	24	48
HYSV7801 E TA	**12.00** .4724	**21.00** .8268	**5.00** .1969	521	1476	14	**2.381** .0937	128,000	92,000	8	24	48
SV7901 C TA	**12.00** .4724	**24.00** .9449	**6.00** .2362	1700	2992	12	**3.175** .1250	94,000	78,000	15	46	92
HYSV7901 C TA	**12.00** .4724	**24.00** .9449	**6.00** .2362	1190	2992	12	**3.175** .1250	139,000	10,000	15	46	92
SV7901 E TA	**12.00** .4724	**24.00** .9449	**6.00** .2362	1595	2861	12	**3.175** .1250	80,000	66,000	15	46	92
HYSV7901 E TA	**12.00** .4724	**24.00** .9449	**6.00** .2362	1117	2861	12	**3.175** .1250	118,000	85,000	15	46	92
SV7001 C TA	**12.00** .4724	**28.00** 1.1024	**8.00** .3150	2590	4423	12	**3.969** .1563	82,000	68,000	23	68	136
HYSV7001 C TA	**12.00** .4724	**28.00** 1.1024	**8.00** .3150	1813	4423	12	**3.969** .1563	121,000	87,000	23	68	136
SV7001 E TA	**12.00** .4724	**28.00** 1.1024	**8.00** .3150	2430	4230	12	**3.969** .1563	70,000	58,000	23	68	136
HYSV7001 E TA	**12.00** .4724	**28.00** 1.1024	**8.00** .3150	1701	4230	12	**3.969** .1563	103,000	74,000	23	68	136
SV7201C C TA	**12.00** .4724	**32.00** 1.2598	**10.00** .3937	3806	7652	9	**5.953** .2344	77,000	64,000	39	118	235
HYSV7201C C TA	**12.00** .4724	**32.00** 1.2598	**10.00** .3937	2664	7652	9	**5.953** .2344	114,000	82,000	39	118	235
SV7201C E TA	**12.00** .4724	**32.00** 1.2598	**10.00** .3937	3571	7318	9	**5.953** .2344	66,000	54,000	39	118	235
HYSV7201C E TA	**12.00** .4724	**32.00** 1.2598	**10.00** .3937	2500	7318	9	**5.953** .2344	97,000	70,000	39	118	235
SV7802 C TA	**15.00** .5906	**24.00** .9449	**5.00** .1969	1054	1784	18	**2.381** .0937	87,000	72,000	9	27	55
HYSV7802 C TA	**15.00** .5906	**24.00** .9449	**5.00** .1969	738	1784	18	**2.381** .0937	128,000	92,000	9	27	55
SV7802 E TA	**15.00** .5906	**24.00** .9449	**5.00** .1969	989	1706	18	**2.381** .0937	74,000	61,000	9	27	55

HIGH-PRECISION BALL BEARINGS

GRW designation	Main dimensions in **[mm]** [inch]			Load ratings acc. to DIN ISO		Ball set		Limiting speeds*		Preload		
Basic symbols	d	D	B	C_{0r} [N]	C_r [N]	Z	Dw **[mm]** [inch]	Oil [min⁻¹]	Grease [min⁻¹]	(L) light [N]	(M) medium [N]	(S) heavy [N]
AC bearings, open, metric												
HYSV7802 E TA	**15.00** .5906	**24.00** .9449	**5.00** .1969	692	1706	18	**2.381** .0937	109,000	78,000	9	27	55
SV7902 C TA	**15.00** .5906	**28.00** 1.1024	**7.00** .2756	2841	4666	13	**3.969** .1563	79,000	65,000	24	72	143
HYSV7902 C TA	**15.00** .5906	**28.00** 1.1024	**7.00** .2756	1989	4666	13	**3.969** .1563	116,000	84,000	24	72	143
SV7902 E TA	**15.00** .5906	**28.00** 1.1024	**7.00** .2756	2665	4463	13	**3.969** .1563	67,000	55,000	24	72	143
HYSV7902 E TA	**15.00** .5906	**28.00** 1.1024	**7.00** .2756	1866	4463	13	**3.969** .1563	99,000	71,000	24	72	143
SV7002 C TA	**15.00** .5906	**32.00** 1.2598	**9.00** .3543	3970	6327	13	**4.763** .1875	72,000	60,000	32	97	194
HYSV7002 C TA	**15.00** .5906	**32.00** 1.2598	**9.00** .3543	2779	6327	13	**4.763** .1875	106,000	77,000	32	97	194
SV7002 E TA	**15.00** .5906	**32.00** 1.2598	**9.00** .3543	3725	6051	13	**4.763** .1875	62,000	51,000	32	97	194
HYSV7002 E TA	**15.00** .5906	**32.00** 1.2598	**9.00** .3543	2607	6051	13	**4.763** .1875	90,000	65,000	32	97	194
SV7202 C TA	**15.00** .5906	**35.00** 1.3780	**11.00** .4331	4090	6970	13	**4.763** .1875	97,000	63,000	30	60	120
SV7202 E TA	**15.00** .5906	**35.00** 1.3780	**11.00** .4331	3930	6650	13	**4.763** .1875	85,000	55,000	45	90	180
SV7803 C TA	**17.00** .6693	**26.00** 1.0236	**5.00** .1969	1071	1754	18	**2.381** .0937	79,000	65,000	9	27	54
HYSV7803 C TA	**17.00** .6693	**26.00** 1.0236	**5.00** .1969	750	1754	18	**2.381** .0937	116,000	84,000	9	27	54
SV7803 E TA	**17.00** .6693	**26.00** 1.0236	**5.00** .1969	1005	1677	18	**2.381** .0937	67,000	55,000	9	27	54
HYSV7803 E TA	**17.00** .6693	**26.00** 1.0236	**5.00** .1969	704	1677	18	**2.381** .0937	99,000	71,000	9	27	54
SV7903 C TA	**17.00** .6693	**30.00** 1.1811	**7.00** .2756	3137	4888	14	**3.969** .1563	72,000	6,0000	25	75	150
HYSV7903 C TA	**17.00** .6693	**30.00** 1.1811	**7.00** .2756	2196	4888	14	**3.969** .1563	106,000	77,000	25	75	150
SV7903 E TA	**17.00** .6693	**30.00** 1.1811	**7.00** .2756	2944	4675	14	**3.969** .1563	61,000	51,000	25	75	150
HYSV7903 E TA	**17.00** .6693	**30.00** 1.1811	**7.00** .2756	2061	4675	14	**3.969** .1563	90,000	65,000	25	75	150
SV7003 C TA	**17.00** .6693	**35.00** 1.3780	**10.00** .3937	4571	6817	14	**4.763** .1875	65,000	54,000	34	102	205
HYSV7003 C TA	**17.00** .6693	**35.00** 1.3780	**10.00** .3937	3200	6817	14	**4.763** .1875	96,000	69,000	34	102	205
SV7003 E TA	**17.00** .6693	**35.00** 1.3780	**10.00** .3937	4571	6817	14	**4.763** .1875	56,000	46,000	34	102	205
HYSV7003 E TA	**17.00** .6693	**35.00** 1.3780	**10.00** .3937	3200	6817	14	**4.763** .1875	82,000	59,000	34	102	205

* The indicated speed limits are guide values for spring-loaded single bearings with low load; depending on the respective application, higher or lower speed limits may apply in practice.

** For use with oil lubrication, these bearings are also available without shields.

Subject to change due to technical improvement.

Spindle ball bearings

GRW designation	Main dimensions in **[mm]** [inch]			Load ratings acc. to DIN ISO		Ball set		Limiting speeds*		Preload		
Basic symbols	d	D	B	C_{0r} [N]	C_r [N]	Z	Dw **[mm]** [inch]	Oil [min⁻¹]	Grease [min⁻¹]	(L) light [N]	(M) medium [N]	(S) heavy [N]
AC bearings, open, metric												
SV7203 C TA	**17.00** .6693	**40.00** 1.5748	**12.00** .4724	5090	8730	12	**5.556** .2187	85,000	55,000	35	70	140
SV7203 E TA	**17.00** .6693	**40.00** 1.5748	**12.00** .4724	4860	8340	12	**5.556** .2187	75,000	49,000	60	120	240
SV7804 C TA	**20.00** .7874	**32.00** 1.2598	**7.00** .2756	2772	3772	18	**3.175** .1250	65,000	54,000	19	58	115
HYSV7804 C TA	**20.00** .7874	**32.00** 1.2598	**7.00** .2756	1941	3772	18	**3.175** .1250	96,000	69,000	19	58	115
SV7804 E TA	**20.00** .7874	**32.00** 1.2598	**7.00** .2756	2870	3865	18	**3.175** .1250	56,000	46,000	19	58	115
HYSV7804 E TA	**20.00** .7874	**32.00** 1.2598	**7.00** .2756	2009	3772	18	**3.175** .1250	82,000	59,000	19	58	115
SV7904 C TA	**20.00** .7874	**37.00** 1.4567	**9.00** .3543	4854	7543	15	**4.763** .1875	6,0000	49,000	39	116	232
HYSV7904 C TA	**20.00** .7874	**37.00** 1.4567	**9.00** .3543	3398	7543	15	**4.763** .1875	88,000	63,000	39	116	232
SV7904 E TA	**20.00** .7874	**37.00** 1.4567	**9.00** .3543	4554	7214	15	**4.763** .1875	51,000	42,000	39	116	232
HYSV7904 E TA	**20.00** .7874	**37.00** 1.4567	**9.00** .3543	3188	7214	15	**4.763** .1875	75,000	54,000	39	116	232
SV7004 C TA	**20.00** .7874	**42.00** 1.6535	**12.00** .4724	6090	9660	14	**5.556** .2187	75,000	49,000	35	70	140
SV7004 E TA	**20.00** .7874	**42.00** 1.6535	**12.00** .4724	5810	9210	14	**5.556** .2187	66,000	43,000	55	110	220
SV7204 C TA	**20.00** .7874	**47.00** 1.8504	**14.00** .5512	7320	11700	13	**6.350** .2500	72,000	47,000	45	90	180
SV7204 E TA	**20.00** .7874	**47.00** 1.8504	**14.00** .5512	7010	11100	13	**6.350** .2500	63,000	41,000	70	140	280
SV7805 C TA	**25.00** .9843	**37.00** 1.4567	**7.00** .2756	2335	3397	19	**3.175** .1250	55,000	45,000	17	52	104
HYSV7805 C TA	**25.00** .9843	**37.00** 1.4567	**7.00** .2756	1634	3397	19	**3.175** .1250	81,000	58,000	17	52	104
SV7005 C TA	**25.00** .9843	**47.00** 1.8504	**12.00** .4724	6918	11769	12	**6.747** .2656	47,000	39,000	59	177	353
HYSV7005 C TA	**25.00** .9843	**47.00** 1.8504	**12.00** .4724	4843	11769	12	**6.747** .2656	69,000	5,0000	59	177	353
SV7005 E TA	**25.00** .9843	**47.00** 1.8504	**12.00** .4724	6890	9920	16	**5.556** .2187	57,000	37,000	55	110	220
(SV)7205 C TA	**25.00** .9843	**52.00** 2.0472	**15.00** .5906	8710	12800	15	**6.350** .2500	63,000	41,000	50	100	200
(SV)7205 E TA	**25.00** .9843	**52.00** 2.0472	**15.00** .5906	8330	12100	15	**6.350** .2500	55,000	36,000	80	160	320
(SV)7006 C TA	**30.00** 1.1811	**55.00** 2.1654	**13.00** .5118	9010	12100	17	**5.953** .2344	55,000	36,000	40	80	160
(SV)7006 E TA	**30.00** 1.1811	**55.00** 2.1654	**13.00** .5118	8560	11500	17	**5.953** .2344	48,000	31,000	65	130	260