



# Miniature Groove Ball Bearing

Engineered for compactness, light weight, and reliable performance  
in applications demanding high speed and low noise

Designation			Dimensions (mm)					Rated Load (KN)		Limiting Speed (rpm)	
Open	Shield	Seal	d	D	B	B1	rsmin.	Cr	Cor	Grease	Oil
692	692-ZZ	692-2RS	2	6	2.3	3	0.15	0.28	0.09	67000	79000
602	602-ZZ	602-2RS		7	2.8	3.5	0.15	0.38	0.13	62000	73000
693	693-ZZ	693-2RS	3	8	3	4	0.15	0.56	0.18	54000	63000
603	603-ZZ	603-2RS		9	3	5	0.15	0.64	0.22	50000	59000
623	623-ZZ	623-2RS	4	10	4	4	0.15	0.64	0.22	50000	58000
684	684-ZZ	684-2RS		9	2.5	4	0.15	0.64	0.22	49000	57000
694	694-ZZ	694-2RS		11	4	4	0.15	0.72	0.28	45000	52000
604	604-ZZ	604-2RS		12	4	4	0.2	0.97	0.36	43000	51000
624	624-ZZ	624-2RS		13	5	5	0.2	1.31	0.49	42000	49000
634	634-ZZ	634-2RS		16	5	5	0.3	1.76	0.68	37000	44000
685	685-ZZ	685-2RS	5	11	3	5	0.15	0.72	0.28	43000	51000
695	695-ZZ	695-2RS		13	4	4	0.2	1.08	0.43	40000	47000
605	605-ZZ	605-2RS		14	5	5	0.2	1.33	0.51	39000	46000
625	625-ZZ	625-2RS		16	5	5	0.3	1.76	0.68	37000	44000
635	635-ZZ	635-2RS	6	19	6	6	0.3	2.34	0.89	34000	40000
686	686-ZZ	686-2RS		13	3.5	5	0.15	1.08	0.44	39000	46000
696	696-ZZ	696-2RS		15	5	5	0.2	1.35	0.53	37000	44000
606	606-ZZ	606-2RS		17	6	6	0.3	2.19	0.865	35000	42000
626	626-ZZ	626-2RS	7	19	6	6	0.3	2.34	0.885	34000	40000
687	687-ZZ	687-2RS		14	3.5	5	0.15	1.17	0.505	37000	44000
697	697-ZZ	697-2RS		17	5	5	0.3	1.61	0.715	35000	41000
607	607-ZZ	607-2RS		19	6	6	0.3	2.24	0.91	34000	40000
627	627-ZZ	627-2RS	8	22	7	7	0.3	3.35	1.4	32000	37000
688	688-ZZ	688-2RS		16	4	5	0.2	1.61	0.715	35000	41000
698	698-ZZ	698-2RS		19	6	6	0.3	1.99	0.865	33000	39000
608	608-ZZ	608-2RS		22	7	7	0.3	3.35	1.4	33000	39000
628	628-ZZ	628-2RS	9	24	8	8	0.3	4	1.59	31000	36000
679	679-ZZ	679-2RS		14	3	4.5	0.1	0.92	0.465	36000	42000
689	689-ZZ	689-2RS		17	4	5	0.2	1.72	0.82	33000	39000
699	699-ZZ	699-2RS		20	6	6	0.3	3.48	1.09	32000	38000
609	609-ZZ	609-2RS		24	7	7	0.3	3.4	1.45	31000	36000
629	629-ZZ	629-2RS	9	26	8	8	0.6	4.55	1.96	30000	35000

Note: Open type width is B, closed type width is B1.

**Ideal for use in:** Precision Instruments, Small Motors & Drones, Consumer Electronics (HDD Fans), Robotics & Automation, Automotive Auxiliary Systems

**Types:** Open, Shielded (ZZ), or Sealed (2RS)

**Material:** High-Carbon Chrome Bearing Steel

**Cage:** Stamped Steel or Engineering Plastic (standard)

**Standards:** Conforms to international dimension and precision standards.



# Single-row Deep Groove Ball Bearings

They feature a low friction coefficient, high limiting speed, wide size range, and their manufacturing accuracy can reach Class P5.

Designation			Dimensions (mm)				Rated Load (KN)		Limiting Speed (rpm)			
Open	Shield	Seal	d	D	B	r <sub>smin.</sub>	Cr	Cor	Grease		Oil	
									Non contact	contact	Light-contact	Open
61700	61700-ZZ	61700-2RS	10	15	3	0.1	0.86	0.44	10,000	-	-	12000
61800	61800-ZZ	61800-2RS		19	5	0.3	1.83	0.93	32,000	24,000	-	38000
61900	61900-ZZ	61900-2RS		22	6	0.3	2.70	1.27	30,000	21,000	-	36,000
6000	6000-ZZ	6000-2RS		26	8	0.3	4.55	1.97	29000	21000	25000	34000
6200	6200-ZZ	6200-2RS		30	9	0.6	5.1	2.39	25000	18000	21000	30000
6300	6300-ZZ	6300-2RS		35	11	0.6	8.10	3.45	23,000	16,000	20,000	27,000
61701	61701-ZZ	61701-2RS		12	18	4	0.2	1.10	0.70	8,300	-	-
61801	61801-ZZ	61801-2RS	21		5	0.3	1.92	1.04	29,000	20,000	-	35000
61901	61901-ZZ	61901-2RS	24		6	0.3	2.89	1.46	27,000	19,000	-	32,000
16001	16001-ZZ	16001-2RS	28		7	0.3	5.1	2.37	26000	-	-	30000
6001	6001-ZZ	6001-2RS	28		8	0.3	5.1	2.37	26000	18000	21000	30000
6201	6201-ZZ	6201-2RS	32		10	0.6	6.82	3.06	22000	16000	20000	26000
6301	6301-ZZ	6301-2RS	37		12	1	9.70	4.20	20,000	15,000	19,000	24,000
61702	61702-ZZ	61702-2RS	15	21	4	0.2	0.94	0.58	6,600	-	-	7,600
61802	61802-ZZ	61802-2RS		24	5	0.3	2.10	1.25	26,000	17,000	-	31,000
61902	61902-ZZ	61902-2RS		28	7	0.3	4.30	2.30	24,000	16,000	-	28,000
16002	16002-ZZ	16002-2RS		32	8	0.3	5.60	2.84	24,000	-	-	26000
6002	6002-ZZ	6002-2RS		32	9	0.3	5.60	2.84	22,000	15,000	18,000	26000
6202	6202-ZZ	6202-2RS		35	11	0.6	7.60	3.70	19,000	15,000	18,000	23000
6302	6302-ZZ	6302-2RS		42	13	1	11.40	5.43	17,000	12,000	15,000	21,000
61703	61703-ZZ	61703-2RS	17	23	4	0.2	1.00	0.66	5,000	-	-	6,700
61803	61803-ZZ	61803-2RS		26	5	0.3	2.20	1.50	24,000	15,000	-	28,000
61903	61903-ZZ	61903-2RS		30	7	0.3	4.60	2.60	22,000	14,000	-	26,000
16003	16003-ZZ	16003-2RS		35	8	0.3	6.00	3.25	20,000	-	-	24,000
6003	6003-ZZ	6003-2RS		35	10	0.3	6.00	3.25	20,000	14,000	16,000	24,000
6203	6203-ZZ	6203-2RS		40	12	0.6	9.57	4.80	18,000	12,000	15,000	21,000
6303	6303-ZZ	6303-2RS		47	14	1	13.6	6.6	16000	11000	14,000-	19000
6403	6403-ZZ	6403-2RS	62	17	1.1	28.8	10.6	14000	-	-	16000	
6704	6704-ZZ	6704-2RS	20	27	4	0.2	1.04	0.73	5,000	-	-	5,700
61804	61804-ZZ	61804-2RS		32	1	0.3	3.50	2.20	21,000	13,000	-	25,000
61904	61904-ZZ	61904-2RS		37	9	0.3	6.40	3.70	19,000	12,000	-	23,000
16004	16004-ZZ	16004-2RS		42	8	0.3	6.30	3.80	18,000	-	-	21,000
6004	6004-ZZ	6004-2RS		42	12	0.6	9.38	5.03	18,000	11,000	13,000	21,000
6204	6204-ZZ	6204-2RS		47	14	1	12.80	6.60	16,000	10,000	12,000	18,000
6304	6304-ZZ	6304-2RS		52	15	1.1	15.90	7.80	14,000	10,000	12,000	17,000
6404	6404-ZZ	6404-2RS	72	19	1.1	28.50	13.90	12,000	-	-	14,000	

**Ideal for use in:** It is suitable for small and medium-sized equipment such as small motors, consumer electronics and precision instruments, featuring the advantages of compactness, low noise and high rotational speed.

**Types:** Open, Shielded (ZZ), or Sealed (2RS)

**Material:** High-Carbon Chrome Bearing Steel

**Cage:** Stamped Steel or Engineering Plastic (standard)

**Standards:** Conforms to international dimension and precision standards.



# Single-row Deep Groove Ball Bearings

They feature a low friction coefficient, high limiting speed, wide size range, and their manufacturing accuracy can reach Class P5.

Designation			Dimensions (mm)				Rated Load (KN)		Limiting Speed (rpm)			
Open	Shield	Seal	d	D	B	r <sub>smin.</sub>	Cr	Cor	Grease		Oil	
									Non contact	contact	Light-contact	Open
60/22	60/22-ZZ	60/22-2RS	22	44	12	0.6	9.40	5.05	17,000	10,000	13,000	20,000
62/22	62/22-ZZ	62/22-2RS		50	14	1	12.90	6.80	14,000	9,700	12,000	17,000
63/22	63/22-ZZ	63/22-2RS		56	16	1.1	18.40	9.25	13,000	9,200	11,000	15,000
6705	6705-ZZ	6705-2RS	25	32	4	0.2	1.89	1.50	4,000	-	-	4,600
61805	61805-ZZ	61805-2RS		37	7	0.3	4.30	2.95	18,000	10,000	-	21,000
61905	61905-ZZ	61905-2RS		42	9	0.3	7.02	4.53	16,000	9,800	-	19,000
16005	16005-ZZ	16005-2RS		47	8	0.3	7.00	4.60	15,000	-	-	18,000
6005	6005-ZZ	6005-2RS		47	12	0.6	10.07	5.82	15,000	9,400	11,000	18,000
6205	6205-ZZ	6205-2RS		52	15	1	14.00	7.88	13,900	8,900	11,000	15,000
6305	6305-ZZ	6305-2RS		62	17	1.1	20.60	11.20	12,000	8,100	9,700	14,000
6405	6405-ZZ	6405-2RS		80	21	1.5	34.50	17.50	11,000	-	-	12,000
60/28	60/28-ZZ	60/28-2RS	28	52	12	0.6	12.50	7.40	14,000	8,400	10,000	16,000
62/28	62/28-ZZ	62/28-2RS		58	16	1	17.90	9.75	12,000	8,100	9,700	14,000
63/28	63/28-ZZ	63/28-2RS		68	18	1.1	26.70	14.00	11,000	7,400	8,900	13,000
6706	6706-ZZ	6706-2RS	30	37	4	0.2	1.14	0.95	3,300	-	-	3,800
61806	61806-ZZ	61806-2RS		42	7	0.3	4.96	3.62	15,000	8,800	-	18,000
61906	61906-ZZ	61906-2RS		47	9	0.3	7.24	5.00	14,000	8,400	-	17,000
16006	16006-ZZ	16006-2RS		55	9	0.3	9.20	6.30	13,000	-	-	15,000
6006	6006-ZZ	6006-2RS		55	13	1	13.20	8.27	13,000	7,700	9,200	15,000
6206	6206-ZZ	6206-2RS		62	16	1	19.50	11.30	11,000	7,300	8,800	13,000
6306	6306-ZZ	6306-2RS		72	19	1.1	26.70	15.00	10,000	6,600	7,900	12,000
6406	6406-ZZ	6406-2RS		90	23	1.5	43.50	23.90	8,800	-	-	10,000
61807	61807-ZZ	61807-2RS	35	47	1	0.3	4.20	3.50	13,000	7,600	-	16,000
61907	61907-ZZ	61907-2RS		55	10	0.6	9.60	6.80	12,000	7,100	-	15,000
16007	16007-ZZ	16007-2RS		62	9	0.3	12.20	8.80	12,000	-	-	14,000
6007	6007-ZZ	6007-2RS		62	14	1	15.90	10.30	12,000	6,800	8,200	14,000
6207	6207-ZZ	6207-2RS		72	17	1.1	25.70	15.30	9,800	6,300	7,600	11,000
6307	6307-ZZ	6307-2RS		80	21	1.5	33.50	19.20	8,800	6,000	7,300	10,000
6407	6407-ZZ	6407-2RS		100	25	1.5	55.00	31.00	7,800	-	-	9,100
61808	61808-ZZ	61808-2RS	40	52	7	0.3	5.07	4.37	12,000	6,700	-	14,000
61908	61908-ZZ	61908-2RS		62	12	0.6	13.70	9.90	11,000	6,300	-	13,000
16008	16008-ZZ	16008-2RS		68	9	0.3	12.60	9.65	10,000	-	-	12,000
6008	6008-ZZ	6008-2RS		68	15	1	16.80	11.50	10,000	6,100	7,300	12,000
6208	6208-ZZ	6208-2RS		80	18	1.1	30.80	19.80	8,700	5,600	6,700	10,000
6308	6308-ZZ	6308-2RS		90	23	1.5	40.70	24.00	7,800	5,300	6,400	9,200
6408	6408-ZZ	6408-2RS		110	27	2	52.50	30.2	7,000	-	-	8,200

**Ideal for use in:** Small and medium-sized motors, conveyor rollers, auxiliary parts of small construction machinery, and other medium-load and medium-speed equipment

**Types:** Open, Shielded (ZZ), or Sealed (2RS)

**Material:** High-Carbon Chrome Bearing Steel

**Cage:** Stamped Steel or Engineering Plastic (standard)

**Standards:** Conforms to international dimension and precision standards.



# Single-row Deep Groove Ball Bearings

They feature a low friction coefficient, high limiting speed, wide size range, and their manufacturing accuracy can reach Class P5.

Designation			Dimensions (mm)				Rated Load (KN)		Limiting Speed (rpm)			
Open	Shield	Seal	d	D	B	r <sub>smin.</sub>	Cr	Cor	Grease		Oil	
									Non contact	contact	Light-contact	Open
61809	61809-ZZ	61809-2RS	45	58	7	0.3	5.35	4.95	11,000	5,900	-	12,000
61909	61909-ZZ	61909-2RS		68	12	0.6	14.10	10.90	9,800	5,600	-	12,000
16009	16009-ZZ	16009-2RS		75	10	0.6	15.60	12.20	9,200	-	-	11,000
6009	6009-ZZ	6009-2RS		75	16	1	19.90	14.00	9,200	5,400	6,500	11,000
6209	6209-ZZ	6209-2RS		85	19	1.1	31.20	20.30	7,800	5,200	6,200	9,200
6309	6309-ZZ	6309-2RS		100	25	S	52.80	31.80	7,000	4,700	5,600	8,200
6409	6409-ZZ	6409-2RS		120	29	2	77.40	45.06	6,300	-	-	7,400
61810	61810-ZZ	61810-2RS	50	65	7	0.3	6.58	6.08	9,600	5,300	-	11,000
61910	61910-ZZ	61910-2RS		72	12	0.6	16.10	13.10	9,000	5,300	-	11,000
16010	16010-ZZ	16010-2RS		80	10	0.6	16.10	13.10	8,500	-	-	10,000
6010	6010-ZZ	6010-2RS		80	16	1	21.80	16.60	8,500	4,800	6,000	10,000
6210	6210-ZZ	6210-2RS		90	20	1.1	35.00	23.20	7,100	4,700	5,700	8,300
6310	6310-ZZ	6310-2RS		110	27	2	62.00	38.50	6,400	4,200	5,000	7,500
6410	6410-ZZ	6410-2RS		130	31	2.1	83.00	49.50	5,700	-	-	6,700
61811	61811-ZZ	61811-2RS	55	72	9	0.3	9.10	8.50	8,700	4,800	-	10,000
61911	61911-ZZ	61911-2RS		80	13	1	15.96	13.25	8,200	4,300	-	9,600
16011	16011-ZZ	16011-2RS		90	11	0.6	19.40	16.30	7,700	-	-	9,000
6011	6011-ZZ	6011-2RS		90	18	1.1	30.90	22.40	7,700	4,500	-	9,000
6211	6211-ZZ	6211-2RS		100	21	1.5	43.40	29.20	6,400	4,300	-	7,600
6311	6311-ZZ	6311-2RS		120	29	2	71.50	44.60	5,800	3,900	-	6,800
6411	6411-ZZ	6411-2RS		140	33	2.1	100.70	62.50	5,200	-	-	6,100
61812	61812-ZZ	61812-2RS	60	78	10	0.3	9.10	8.70	8,000	4,400	-	9,400
61912	61912-ZZ	61912-2RS		85	13	1	28.70	17.20	7,600	4,300	-	8,900
16012	16012-ZZ	16012-2RS		95	11	0.6	19.90	17.50	7,000	-	-	8,300
6012	6012-ZZ	6012-2RS		95	18	1.1	30.70	22.70	7,000	4,100	-	8,300
6212	6212-ZZ	6212-2RS		110	22	1.5	52.40	35.90	6,000	3,800	-	7,000
6312	6312-ZZ	6312-2RS		130	31	2.1	81.80	51.80	5,400	3,600	-	6,300
6412	6412-ZZ	6412-2RS		150	35	2.1	102.00	64.50	4,800	-	-	5,700

**Ideal for use in:** Industrial drive motors, construction machinery accessories, main drives of large home appliances, and other medium-load, medium-high speed scenarios.

**Types:** Open, Shielded (ZZ), or Sealed (2RS)

**Material:** High-Carbon Chrome Bearing Steel

**Cage:** Stamped Steel or Engineering Plastic (standard)

**Standards:** Conforms to international dimension and precision standards.