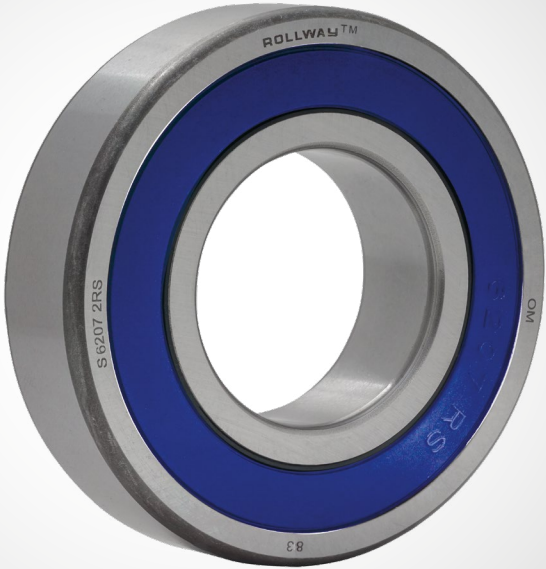




PRODUCT CATALOG

DEEP GROOVE BALL BEARING STAINLESS STEEL

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Deep Groove Ball Bearing

STAINLESS STEEL

DESIGN | CHARACTERISTICS | APPLICATIONS

The stainless steel single row deep groove ball bearing is a variant of the standard bearing. Hence, the bearing is made from special stainless steel AISI 412. This steel grade assures good hardenability and a good resistance against corrosion.

The stainless steel version can be identified with a prefix S and is only available with 2 seals suffix 2RS.

This stainless steel bearing is specially made to operate in humid or wet environments, like agriculture, food processing, sea-side applications. The lubrication is similar to the standard deep groove ball bearing. For food processing application, a food grade grease is required. Contact Regal Rexnord for more details.



S6205 2RS

ANGULAR MISALIGNMENT

The following is an approximate guide to the misalignment that can be accommodated in the use of a single row ball bearing:

0.0010 radians

ISO SPECIFICATIONS

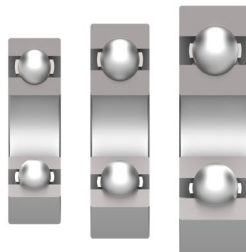
- Dimensions in accordance with ISO 15 (latest version)
- Precision class in accordance with ISO 492 (latest version)
- Radial clearance in accordance with ISO 5753 (latest version)

SERIES

Standard series are S 6000 | S 6200 | S 6300.

Other series are available on special request.

Contact Regal Rexnord for more details.



S6000

S6200

S6300

NOMENCLATURE

Prefixes:

S : Stainless steel bearing, sealed and lubricated for life time

Suffixes:

2RS : 2 NBR seals, filled with Lithium base grease

Peak operating temperature is 100°C

C2 - C3 : Radial clearance class

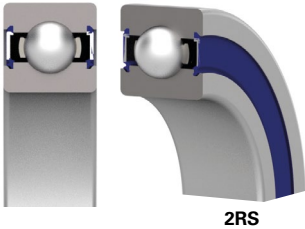
P0 : Precision class

V2 : Noise level class whereas V3 is quieter than V2

EQUIVALENT LOAD EQUATIONS

Refer to the deep groove ball bearing paragraph for the equivalent load calculation methods.

SEALS



The contact seals (2RS) are made from NBR - Nitril Butadiene Rubber. The rubber withstands operating temperatures of 100°C max. They are reinforced with a stainless steel washer inside.

Sealed bearings have a lower maximum speed due to the contact between the seal lips and the inner ring. This contact will generate heat which will reduce the speed limit of -20% compared to an open or shielded bearing.

LUBRICATION

Standard sealed bearings are lubricated with Lithium based grease and with a fill rate of 30%. The viscosity is 120 ISO VG. For food grade applications, a dedicated food grade grease is used.

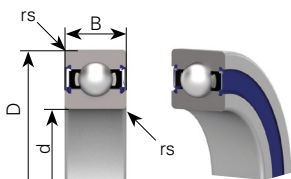
RADIAL CLEARANCE TABLE

Bore diameter		Clearance class			
d (mm)		CN (µm)		C3 (µm)	
over	up to	min.	max.	min.	max.
2,5	10	2	13	8	23
10	18	3	18	11	25
18	24	5	20	13	28
24	30	5	20	13	28
30	40	6	20	15	33
40	50	6	23	18	36
50	65	8	28	23	43
65	80	10	30	25	51
80	100	12	36	30	58
100	120	15	41	36	66



Deep Groove Ball Bearing

DATA TABLE - STAINLESS STEEL



2RS

Part number	Principal dimensions			Load ratings			Speed limits		Weight	Radius
	d	D	B	Dynamic	Static	Fatigue	Grease	Oil		
	mm			Cr	Cor	Pu	rpm		Kg	rs min mm
S685 2RS	5	11	3	0,72	0,28	0,01	43000		0,0011	0,15
S695 2RS	5	13	4	1,08	0,43	0,02	40000		0,0024	0,20
S605 2RS	5	14	5	1,33	0,51	0,02	39000		0,0035	0,20
S625 2RS	5	16	5	1,76	0,68	0,03	37000		0,0048	0,30
S635 2RS	5	19	6	2,34	0,89	0,04	34000		0,0080	0,30
S686 2RS	6	13	4	1,08	0,44	0,02	39000		0,0019	0,15
S696 2RS	6	15	5	1,35	0,53	0,02	37000		0,0038	0,20
S606 2RS	6	17	6	2,19	0,87	0,04	35000		0,0060	0,30
S626 2RS	6	19	6	2,34	0,89	0,04	34000		0,0080	0,30
S636 2RS	6	22	7	3,30	1,35	0,06	31000		0,0130	0,30
S687 2RS	7	14	4	1,17	0,51	0,02	37000		0,0021	0,15
S697 2RS	7	17	5	1,61	0,72	0,03	35000		0,0052	0,30
S607 2RS	7	19	6	2,24	0,91	0,04	34000		0,0080	0,30
S627 2RS	7	22	7	3,35	1,40	0,06	32000		0,0130	0,30
S637 2RS	7	26	9	4,55	1,95	0,09	26000		0,0240	0,30
S688 2RS	8	16	4	1,26	0,59	0,03	35000		0,0031	0,20
S698 2RS	8	19	6	1,99	0,87	0,04	33000		0,0073	0,30
S608 2RS	8	22	7	3,35	1,40	0,06	32000		0,0120	0,30
S628 2RS	8	24	8	4,00	1,59	0,07	31000		0,0170	0,30
S638 2RS	8	28	9	4,55	1,95	0,09	26000		0,0290	0,30
S689 2RS	9	17	4	1,72	0,82	0,04	33000		0,0032	0,20
S699 2RS	9	20	6	2,48	1,09	0,05	32000		0,0082	0,30
S609 2RS	9	24	7	3,40	1,45	0,07	31000		0,0140	0,30
S629 2RS	9	26	8	4,55	1,96	0,09	30000		0,0200	0,30
S639 2RS	9	30	10	6,00	2,65	0,12	24000		0,0350	0,30
S6800 2RS	10	19	5	1,83	0,93	0,04	32000		0,0050	0,30
S6900 2RS	10	22	6	2,70	1,27	0,06	30000		0,0090	0,30
S6000 2RS	10	26	8	4,55	1,96	0,09	29000		0,0190	0,30
S6200 2RS	10	30	9	5,10	2,39	0,11	25000		0,0320	0,60
S6300 2RS	10	35	11	8,20	3,50	0,16	23000		0,0530	0,60
S6801 2RS	12	21	5	1,92	1,04	0,05	29000		0,0060	0,30
S6901 2RS	12	24	6	2,89	1,46	0,07	27000		0,0110	0,30
S6001 2RS	12	28	8	5,10	2,39	0,11	26000		0,0210	0,30
S6201 2RS	12	32	10	6,10	2,75	0,13	22000		0,0370	0,60
S6301 2RS	12	37	12	9,70	4,20	0,19	20000		0,0600	1,00

Deep Groove Ball Bearing

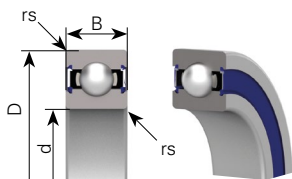
DATA TABLE - STAINLESS STEEL



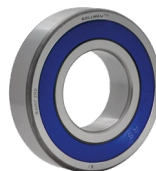
Part number	Principal dimensions			Load ratings			Speed limits		Weight	Radius
	d	D	B	Dynamic	Static	Fatigue	Grease	Oil		
				Cr	Cor	Pu	rpm		rs min	
	mm			kN			1 min ⁻¹		Kg	mm
S6802 2RS	15	24	5	2,08	1,26	0,06	26000		0,0070	0,30
S6902 2RS	15	28	7	4,10	2,06	0,09	24000		0,0160	0,30
S6002 2RS	15	32	9	5,60	2,84	0,13	22000		0,0300	0,30
S6202 2RS	15	35	11	7,75	3,60	0,16	19000		0,0450	0,60
S6302 2RS	15	42	13	11,40	5,45	0,25	17000		0,0820	1,00
S6803 2RS	17	26	5	2,81	1,72	0,08	24000		0,0080	0,30
S6903 2RS	17	30	7	4,65	2,58	0,12	22000		0,0180	0,30
S6003 2RS	17	35	10	6,80	3,35	0,15	20000		0,0390	0,30
S6203 2RS	17	40	12	9,60	4,60	0,21	18000		0,0660	0,60
S6303 2RS	17	47	14	13,50	6,55	0,30	16000		0,1150	1,00
S6804 2RS	20	32	7	4,00	2,47	0,11	21000		0,0190	0,30
S6904 2RS	20	37	9	6,40	3,70	0,17	19000		0,0360	0,30
S6004 2RS	20	42	12	9,40	5,05	0,23	18000		0,0690	0,60
S6204 2RS	20	47	14	12,80	6,65	0,30	16000		0,1106	1,00
S6304 2RS	20	52	15	15,90	7,90	0,36	14000		0,1440	1,10
S6805 2RS	25	37	7	4,30	2,95	0,13	18000		0,0220	0,30
S6905 2RS	25	42	9	7,05	4,55	0,21	16000		0,0420	0,30
S6005 2RS	25	47	12	10,10	5,85	0,27	15000		0,0800	0,60
S6205 2RS	25	52	15	14,00	7,85	0,36	13000		0,1280	1,00
S6305 2RS	25	62	17	21,20	10,90	0,50	12000		0,2320	1,10
S6806 2RS	30	42	7	4,70	3,65	0,17	15000		0,0260	0,30
S6906 2RS	30	47	9	7,25	5,00	0,23	14000		0,0480	0,30
S6006 2RS	30	55	13	13,20	8,30	0,38	13000		0,1160	1,00
S6206 2RS	30	62	16	19,50	11,30	0,51	11000		0,1990	1,00
S6306 2RS	30	72	19	26,70	15,00	0,68	10000		0,3500	1,10
S6807 2RS	35	47	7	4,90	4,05	0,18	13000		0,0290	0,30
S6907 2RS	35	55	10	11,20	7,45	0,34	12000		0,0740	0,60
S6007 2RS	35	62	14	16,00	10,30	0,47	12000		0,1550	1,00
S6207 2RS	35	72	17	25,70	15,30	0,70	9800		0,2880	1,10
S6307 2RS	35	80	21	33,50	19,10	0,87	8800		0,4570	1,50
S6808 2RS	40	52	7	5,10	4,40	0,20	12000		0,0330	0,30
S6908 2RS	40	62	12	14,60	10,20	0,46	11000		0,1100	0,60
S6008 2RS	40	68	15	16,80	11,50	0,52	10000		0,1900	1,00
S6208 2RS	40	80	18	29,10	17,80	0,81	8700		0,3366	1,10
S6308 2RS	40	90	23	40,50	24,00	1,09	7800		0,6300	1,50

Deep Groove Ball Bearing

DATA TABLE - STAINLESS STEEL



2RS



Part number	Principal dimensions			Load ratings			Speed limits		Weight	Radius
	d	D	B	Dynamic	Static	Fatigue	Grease	Oil		
	mm			Cr	Cor	Pu	rpm		Kg	rs min mm
				kN			1 min ⁻¹			
S6809 2RS	45	58	7	6,40	5,65	0,26	11000		0,0400	0,30
S6909 2RS	45	68	12	15,10	11,20	0,51	9800		0,1280	0,60
S6009 2RS	45	75	16	21,00	15,10	0,69	9200		0,2370	1,00
S6209 2RS	45	85	19	32,50	20,40	0,93	7800		0,3980	1,10
S6309 2RS	45	100	25	53,00	32,00	1,45	7000		0,8140	1,50
S6810 2RS	50	65	7	6,60	6,10	0,28	9600		0,0520	0,30
S6910 2RS	50	72	12	15,60	12,20	0,55	8900		0,1320	0,60
S6010 2RS	50	80	16	21,80	16,60	0,75	8400		0,2610	1,00
S6210 2RS	50	90	20	35,00	23,20	1,05	7100		0,4540	1,10
S6310 2RS	50	110	27	62,00	38,50	1,75	6400		1,0700	2,00
S6811 2RS	55	72	9	8,80	8,10	0,37	8700		0,0830	0,30
S6911 2RS	55	80	13	16,00	13,30	0,60	8200		0,1800	1,00
S6011 2RS	55	90	18	28,30	21,20	0,96	7700		0,3880	1,10
S6211 2RS	55	100	21	43,50	29,20	1,33	6400		0,6010	1,50
S6311 2RS	55	120	29	71,50	45,00	2,05	5800		1,3700	2,00
S6812 2RS	60	78	10	11,50	10,60	0,48	8000		0,1060	0,30
S6912 2RS	60	85	13	16,40	14,30	0,65	7600		0,1930	1,00
S6012 2RS	60	95	18	31,60	24,20	1,10	7000		0,4140	1,10
S6212 2RS	60	110	22	52,50	36,00	1,64	6000		0,7830	1,50
S6913 2RS	65	90	13	17,40	16,10	0,73	7000		0,2060	1,00
S6813 2RS	65	85	10	11,60	11,00	0,50	7400		0,1280	0,60
S6013 2RS	65	100	18	30,50	25,20	1,15	6500		0,4210	1,10
S6213 2RS	65	120	23	57,50	40,00	1,82	5500		0,9900	1,50
S6814 2RS	70	90	10	12,10	11,90	0,54	6900		0,1370	0,60
S6914 2RS	70	100	16	23,70	21,20	0,96	6500		0,3340	1,00
S6014 2RS	70	110	20	38,00	31,00	1,41	6100		0,6040	1,10
S6815 2RS	75	95	10	12,50	12,90	0,59	6400		0,1450	0,60
S6915 2RS	75	105	16	24,40	22,60	1,03	6100		0,3530	1,00
S6816 2RS	80	100	10	12,70	13,30	0,60	6000		0,1540	0,60
S6916 2RS	80	110	16	24,90	24,00	1,09	5700		0,3730	1,00