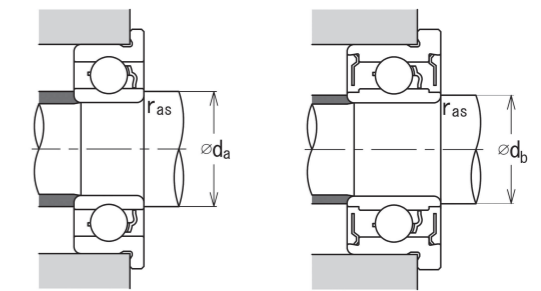
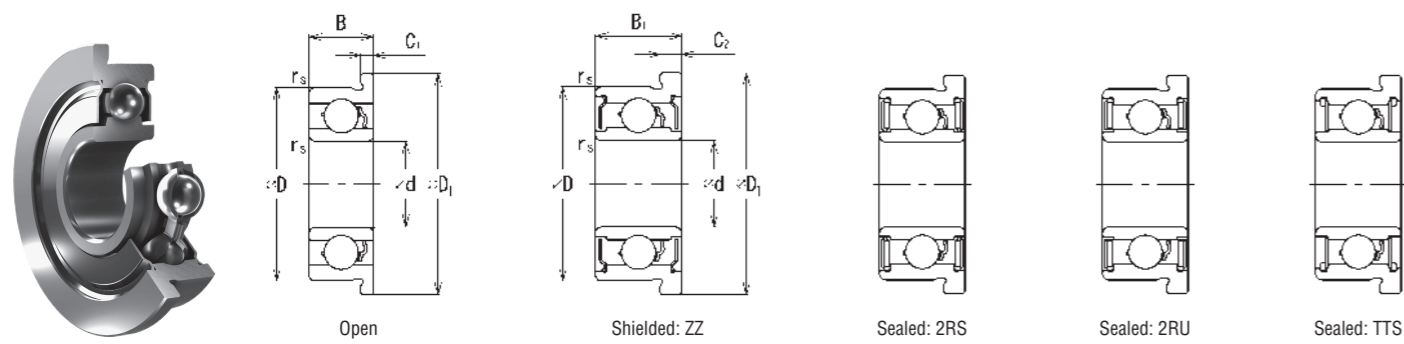


Flanged extra-miniature/miniature/small bearings [Stainless-steel]



Abutment and fillet

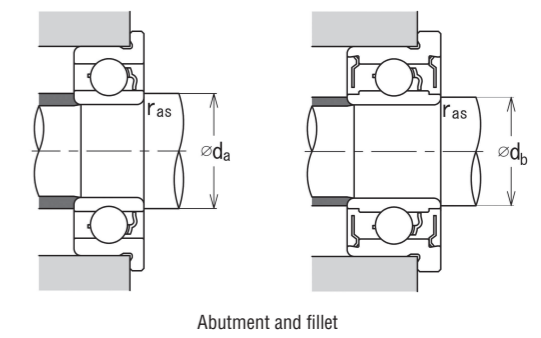
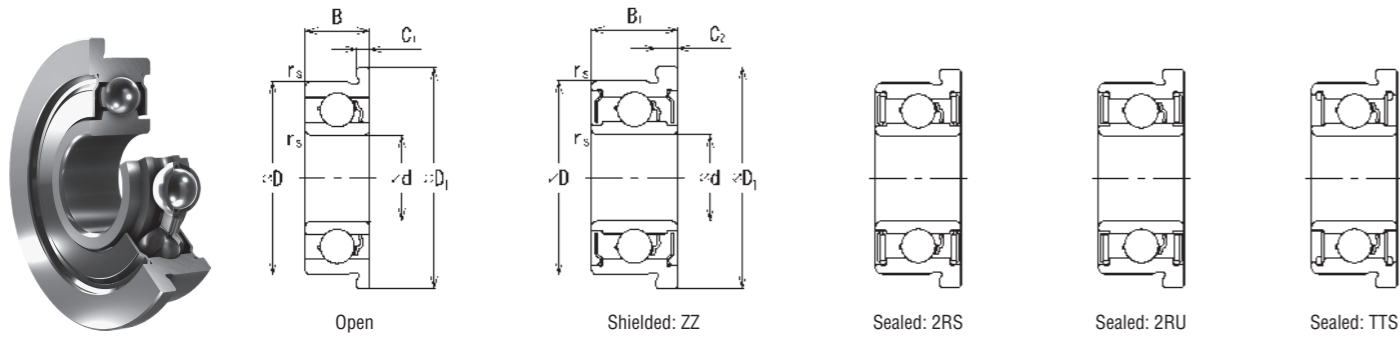
Dimension

Flanged extra-miniature/miniature/small bearings [Stainless-steel]

Bore diameter d	Outer diameter D	Width				Flange outer diameter				Flange width				Chamfer r _s (min)					
		Open B		Shielded, Sealed B ₁		Open D ₁		Shielded, Sealed D ₂		Open C ₁		Shielded, Sealed C ₂							
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch				
1	0.0394	3	0.1181	1	0.0394	—	—	3.8	0.1496	—	—	0.3	0.0118	—	—	0.05	0.002		
		4	0.1575	1.6	0.063	—	—	5	0.1969	—	—	0.5	0.0197	—	—	0.10	0.0039		
1.5	0.0591	4	0.1575	1.2	0.0472	2	0.0787	5	0.1969	5	0.1969	0.4	0.0157	0.6	0.0236	0.05	0.002		
		5	0.1969	2	0.0787	2.6	0.1024	6.5	0.2559	6.5	0.2559	0.6	0.0236	0.8	0.0315	0.15	0.0059		
		6	0.2362	—	—	3	0.1181	—	—	7.5	0.2953	—	—	0.8	0.0315	0.15	0.0059		
2	0.0787	5	0.1969	1.5	0.0591	2.3	0.0906	6.1	0.2402	6.1	0.2402	0.5	0.0197	0.6	0.0236	0.08	0.0031		
		5	0.1969	2	0.0787	2.5	0.0984	6.2	0.2441	6.2	0.2441	0.6	0.0236	0.6	0.0236	0.10	0.0039		
		6	0.2362	2.3	0.0906	3	0.1181	7.5	0.2953	7.5	0.2953	0.6	0.0236	0.8	0.0315	0.15	0.0059		
		6	0.2362	—	—	3	0.1181	—	—	7.5	0.2953	—	—	0.8	0.0315	0.15	0.0059		
		6	0.2362	2.5	0.0984	—	—	7.2	0.2835	—	—	0.6	0.0236	—	—	0.15	0.0059		
		7	0.2756	—	—	3	0.1181	—	—	8.2	0.3228	—	—	0.6	0.0236	0.15	0.0059		
2.5	0.0984	6	0.2362	1.8	0.0709	2.6	0.1024	7.1	0.2795	7.1	0.2795	0.5	0.0197	0.8	0.0315	0.08	0.0031		
		7	0.2756	—	—	3.5	0.1378	—	—	8.5	0.3346	—	—	0.9	0.0354	0.15	0.0059		
		8	0.3150	2.8	0.1102	4	0.1575	9.5	0.3740	9.5	0.374	0.7	0.0276	0.9	0.0354	0.15	0.0059		
		7	0.2756	2	0.0787	3	0.1181	8.1	0.3189	8.1	0.3189	0.5	0.0197	0.8	0.0315	0.10	0.0039		
3	0.1181	8	0.3150	2.5	0.0984	—	—	9.2	0.3622	—	—	0.6	0.0236	—	—	0.15	0.0059		
		8	0.3150	—	—	3	0.1181	—	—	9.2	0.3622	—	—	0.6	0.0236	0.10	0.0039		
		8	0.3150	3	0.1181	4	0.1575	9.5	0.3740	9.5	0.374	0.7	0.0276	0.9	0.0354	0.15	0.0059		
		9	0.3543	2.5	0.0984	—	—	10.2	0.4016	—	—	0.6	0.0236	—	—	0.20	0.0079		
		9	0.3543	—	—	4	0.1575	—	—	10.6	0.4173	—	—	0.8	0.0315	0.15	0.0059		
		9	0.3543	3	0.1181	5	0.1969	10.5	0.4134	10.5	0.4134	0.7	0.0276	1.0	0.0394	0.15	0.0059		
		10	0.3937	4	0.1575	4	0.1575	11.5	0.4528	11.5	0.4528	1.0	0.0394	1.0	0.0394	0.15	0.0059		
		7	0.2756	2	0.0787	—	—	8.2	0.3228	—	—	0.6	0.0236	—	—	0.10	0.0039		
		7	0.2756	—	—	2.5	0.0984	—	—	8.2	0.3228	—	—	0.6	0.0236	0.10	0.0039		
4	0.1575	8	0.3150	2	0.0787	—	—	9.2	0.3622	—	—	0.6	0.0236	—	—	0.15	0.0059		
		8	0.3150	—	—	3	0.1181	—	—	9.2	0.3622	—	—	0.6	0.0236	0.10	0.0039		
		9	0.3543	2.5	0.0984	4	0.1575	10.3	0.4055	10.3	0.4055	0.6	0.0236	1.0	0.0394	0.10	0.0039		
		10	0.3937	3	0.1181	4	0.1575	11.2	0.4409	11.6	0.4567	0.6	0.0236	0.8	0.0315	0.20	0.0079		
		11	0.4331	4	0.1575	4	0.1575	12.5	0.4921	12.5	0.4921	1.0	0.0394	1.0	0.0394	0.15	0.0059		
		12	0.4724	4	0.1575	4	0.1575	13.5	0.5315	13.5	0.5315	1.0	0.0394	1.0	0.0394	0.20	0.0079		
		13	0.5118	5	0.1969	5	0.1969	15	0.5906	15	0.5906	1.0	0.0394	1.0	0.0394	0.20	0.0079		
		16	0.6299	5	0.1969	5	0.1969	18	0.7087	18	0.7087	1.0	0.0394	1.0	0.0394	0.30	0.0118		
		8	0.3150	—	—	2.5	0.0984	—	—	9.2	0.3622	—	—	0.6	0.0236	—	—	0.10	0.0039
		8	0.3150	—	—	3	0.1181	—	—	9.2	0.3622	—	—	0.6	0.0236	0.10	0.0039		
		9	0.3543	2.5	0.0984	3	0.1181	10.2	0.4016	10.2	0.4016	0.6	0.0236	0.6	0.0236	0.15	0.0059		
5	0.1969	10	0.3937	3	0.1181	4	0.1575	11.2	0.4409	11.6	0.4567	0.6	0.0236	0.8	0.0315	0.15	0.0059		
		11	0.4331	4	0.1575	4	0.1575	12.6	0.4961	12.6	0.4961	0.8	0.0315	0.8	0.0315	0.15	0.0059		

Bearing number		Load rating		Limiting speed ⁽³⁾		Cage type ⁽⁴⁾	Ball		Abutment and fillet dimensions				Mass (Ref.)					
Open	2 Shields ⁽²⁾	2 Seals ⁽²⁾		Cr	Cor		Grease	Oil	Size	Qty.	Open		Shielded, Sealed		r _{as} (max)	Open	2 Shields	
		2RS	2RU			TTS					d _a (min)	d _a (max)	d _b (min)	d _b (max)				g
		N		min ⁻¹						mm		mm						
F681H	—	—	—	—	81	20	117 000	139 000	W	0.600	6	1.40	1.50	—	—	0.05	0.04	—
F691H	—	—	—	—	120	29	105 000	124 000	W	0.800	5	1.80	1.90	—	—	0.10	0.12	—
F681XH	F681XHZZ	—	—	—	96	27	105 000	124 000	W	0.600	7	1.90	2.10	1.90	2.10	0.05	0.09	0.13
F691XH	F691XHZZ	—	—	—	202	55	94 000	111 000	W	1.000	6	2.40	2.40	2.40	2.40	0.15	0.23	0.29
—	F601XHZZ	—	—	—	281	79	86 000	101 000	W	1.200	6	—	—	2.70	2.90	0.15	—	0.46
F682H	F682HZZ	—	—	—	144	40	94 000	111 000	W	0.800	6	2.50	2.60	2.50	2.60	0.08	0.16	0.22
SMF52	SMF52ZZ	—	—	—	144	40	94 000	111 000	W	0.800	6	2.60	2.60	2.60	2.60	0.10	0.21	0.23
F692H	F692HZZ	—	—	—	281	79	86 000	101 000	W	1.200	6	2.90	2.90	2.90	2.90	0.15	0.35	0.43
—	—	—	—	TTS	281	79	86 000	95 000	J	1.200	6	—	—	2.90	2.90	0.15	—	0.43
SMF62	—	—	—	—	281	79	86 000	101 000	W	1.200	6	2.90	2.90	—	—	0.15	0.35	—
—	SMF72ZZS	—	—	—	328	102	76 000	90 000	W	1.200	7	—	—	3.00	3.10	0.15	—	0.57
—	F602HZZS	—	—	—	328	102	76 000	90 000	W	1.200	7	—	—	3.00	3.10	0.15	—	0.69
F682XH	F682XHZZ	—	—	—	177	58	81 000	96 000	W	0.800	8	3.10	3.60	3.10	3.60	0.08	0.26	0.37
—	F692XHZZS	—	—	—	328	102	76 000	90 000	W	1.200	7	—	—	3.70	3.80	0.15	—	0.68
F602XH	F602XHZZ	—	—	—	469	140	72 000	85 000	W	1.588	6	3.70	4.00	3.70	4.00	0.15	0.74	0.98
SMF63	SMF63ZZ	—	—	—	177	58	81 000	96 000	W	0.800	8	3.60	3.60	3.60	3.60	0.10	0.26	0.30
F683H	F683HZZ	2RS	—	—	265	90	74 000	88 000	W	1.000	8	3.80	4.20	3.70	3.80	0.10	0.37	0.51
SMF83	—	—	—	—	336	112	67 000	79 000	J	1.200	7	4.20	4.90	—	—	0.15	0.62	—
—	SMF83ZZ	—	—	—	336	112	67 000	79 000	J	1.200	7	—	—	4.20	4.90	0.10	—	0.70
F693H	F693HZZ	2RS	—	—	475	143	70 000	82 000	J	1.588	6	3.90	4.30	3.90	4.30	0.15	0.70	0.90
SMF93	—	—	—	—	486	150	66 000	78 000	W	1.588	6	4.60	4.80	—	—	0.20	0.78	—
—	SMF93ZZ	—	—	—	486	150	66 000	78 000	W	1.588	6	—	—	3.90	4.30	0.15	—	1.22
F603H	F603HZZ	—	—	—	486	150	66 000	78 000	W	1.588	6	4.20	4.80	3.90	4.30	0.15	0.96	1.50
F623H ⁽¹⁾	F623HZZ	2RS	2RU	—	538	175	66 000	78 000	J	1.588	7	3.90	4.30	3.90	4.30	0.15	1.66	1.74
SMF74	—	—	—	—	265	92	70 000	82 000	W	1.000	8	4.60	4.70	—	—	0.10	0.28	—
—	SMF74ZZ	—	—	—	217	86	71 000	83 000	W	0.800	11	—	—	4.60	4.70	0.10	—	0.36
SMF84	—	—	—	—	336	112	67 000	79 000	J	1.200	7	4.90	4.90	—	—	0.15	0.43	

Flanged extra-miniature/miniature/small bearings [Stainless-steel]



Dimension

Flanged extra-miniature/miniature/small bearings [Stainless-steel]

Bore diameter d		Outer diameter D		Width				Flange outer diameter				Flange width				Chamfer r _s (min)				
				Open B		Shielded, Sealed B ₁		Open D ₁		Shielded, Sealed D ₂		Open C ₁		Shielded, Sealed C ₂						
mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch			
5	0.1969	11	0.4331	3	0.1181	5	0.1969	12.5	0.4921	12.5	0.4921	0.8	0.0315	1.0	0.0394	0.15	0.0059			
			0.5118	4	0.1575	4	0.1575	15	0.5906	15	0.5906	1.0	0.0394	1.0	0.0394	0.20	0.0079			
			0.5512	5	0.1969	5	0.1969	16	0.6299	16	0.6299	1.0	0.0394	1.0	0.0394	0.20	0.0079			
			0.6299	5	0.1969	5	0.1969	18	0.7087	18	0.7087	1.0	0.0394	1.0	0.0394	0.30	0.0118			
			0.7480	6	0.2362	6	0.2362	22	0.8661	22	0.8661	1.5	0.0591	1.5	0.0591	0.30	0.0118			
6	0.2362	10	0.3937	2.5	0.0984	—	—	11.2	0.4409	—	—	0.6	0.0236	—	—	0.15	0.0059			
			0.3937	—	—	3	0.1181	—	—	11.2	0.4409	—	—	0.6	0.0236	0.10	0.0039			
			0.3937	3	0.1181	3	0.1181	11.2	0.4409	11.2	0.4409	0.6	0.0236	0.6	0.0236	0.10	0.0039			
			0.4724	3	0.1181	4	0.1575	13.2	0.5197	13.6	0.5354	0.6	0.0236	0.8	0.0315	0.20	0.0079			
			0.5118	3.5	0.1378	5	0.1969	15	0.5906	15	0.5906	1.0	0.0394	1.1	0.0433	0.15	0.0059			
			0.5906	5	0.1969	5	0.1969	17	0.6693	17	0.6693	1.2	0.0472	1.2	0.0472	0.20	0.0079			
			0.6693	6	0.2362	6	0.2362	19	0.7480	19	0.7480	1.2	0.0472	1.2	0.0472	0.30	0.0118			
			0.7480	6	0.2362	6	0.2362	22	0.8661	22	0.8661	1.5	0.0591	1.5	0.0591	0.30	0.0118			
			0.8661	7	0.2756	7	0.2756	25	0.9843	25	0.9843	1.5	0.0591	1.5	0.0591	0.30	0.0118			
7	0.2756	11	0.4331	2.5	0.0984	3	0.1181	12.2	0.4803	12.2	0.4803	0.6	0.0236	0.6	0.0236	0.15	0.0059			
			0.5118	3	0.1181	—	—	14.2	0.5591	—	—	0.6	0.0236	—	—	0.20	0.0079			
			0.5118	—	—	4	0.1575	—	—	14.6	0.5748	—	—	0.8	0.0315	0.15	0.0059			
			0.5512	3.5	0.1378	5	0.1969	16	0.6299	16	0.6299	1.0	0.0394	1.1	0.0433	0.15	0.0059			
			0.6693	5	0.1969	5	0.1969	19	0.7480	19	0.7480	1.2	0.0472	1.2	0.0472	0.30	0.0118			
			0.7480	6	0.2362	6	0.2362	22	0.8661	22	0.8661	1.5	0.0591	1.5	0.0591	0.30	0.0118			
			0.8661	7	0.2756	7	0.2756	25	0.9843	25	0.9843	1.5	0.0591	1.5	0.0591	0.30	0.0118			
			8	0.3150	12	0.4724	2.5	0.0984	—	—	13.2	0.5197	—	—	0.6	0.0236	—	—	0.15	0.0059
						0.4724	—	—	3.5	0.1378	—	—	13.6	0.5354	—	—	0.8	0.0315	0.10	0.0039
0.4724	—	—				3.5	0.1378	—	—	13.6	0.5354	—	—	0.8	0.0315	0.10	0.0039			
0.5512	3.5	0.1378				—	—	15.6	0.6142	—	—	0.8	0.0315	—	—	0.20	0.0079			
0.5512	—	—				4	0.1575	—	—	15.6	0.6142	—	—	0.8	0.0315	0.15	0.0059			
9	0.3543	17	0.6693	4	0.1575	5	0.1969	18	0.7087	18	0.7087	1.0	0.0394	1.1	0.0433	0.20	0.0079			
			0.7480	6	0.2362	6	0.2362	22	0.8661	22	0.8661	1.5	0.0591	1.5	0.0591	0.30	0.0118			
			0.8661	7	0.2756	7	0.2756	25	0.9843	25	0.9843	1.5	0.0591	1.5	0.0591	0.30	0.0118			
			0.7874	6	0.2362	6	0.2362	23	0.9055	23	0.9055	1.5	0.0591	1.5	0.0591	0.30	0.0118			
			0.9449	7	0.2756	7	0.2756	27	1.0630	27	1.0630	1.5	0.0591	1.5	0.0591	0.30	0.0118			

Bearing number		Load rating		Limiting speed ⁽³⁾		Cage type ⁽⁴⁾	Ball		Abutment and fillet dimensions				Mass (Ref.)					
									Open		Shielded, Sealed		r _{as} (max)	Open	2 Shields			
Open	2 Shields ⁽²⁾	2 Seals ⁽²⁾		Cr	Cor	Grease	Oil	Size	Qty.	d _a (min)	d _a (max)	d _b (min)				d _b (max)	mm	g
		2RS	2RU							TTS	N	min ⁻¹	mm	pcs.	mm	mm		
F685H	F685HZZ	2RS	—	—	609	226	54 000	64 000	J	1.588	8	6.20	6.70	5.90	6.10	0.15	1.33	2.01
F695H ⁽¹⁾	F695HZZ	2RS	—	—	916	344	50 000	59 000	J	2.000	8	6.30	6.50	6.30	6.50	0.20	2.44	2.59
F605H ⁽¹⁾	F605HZZ	2RS	—	—	1 130	405	48 000	56 000	J	2.381	7	6.60	6.80	6.60	6.80	0.20	3.47	3.74
F625H ⁽¹⁾	F625HZZ	2RS	—	—	1 470	536	44 000	52 000	J	2.778	7	7.00	7.40	7.00	7.40	0.30	4.88	5.21
F635H ⁽¹⁾	F635HZZ	2RS	—	—	1 990	711	38 000	45 000	J	3.500	6	7.00	8.40	7.00	8.40	0.30	8.57	9.10
SMF106	—	—	—	—	422	175	54 000	64 000	W	1.200	10	6.90	6.90	—	—	0.15	0.66	—
—	SMF106ZZ	—	—	—	423	174	55 000	64 000	W	1.200	10	—	—	6.80	6.90	0.10	—	0.77
F676H ⁽¹⁾	—	—	—	TTS	317	138	55 000	65 000	W	1.000	11	6.80	7.00	6.80	7.00	0.10	0.80	0.83
SMF126	SMF126ZZ	2RS	—	—	608	234	50 000	59 000	J	1.588	8	7.30	7.60	7.10	7.10	0.20	1.33	1.75
F686H	F686HZZ	2RS	2RU	TTS	920	350	48 000	56 000	J	2.000	8	7.20	7.90	7.20	7.30	0.15	2.15	2.83
F696H ⁽¹⁾	F696HZZ	2RS	2RU	—	1 140	414	46 000	54 000	J	2.381	7	7.30	7.40	7.30	7.40	0.20	3.93	4.23
F606H ⁽¹⁾	F606HZZ	2RS	2RU	—	1 920	670	42 000	49 000	J	3.500	6	7.70	8.10	7.70	8.10	0.30	5.90	6.40
F626H ⁽¹⁾	F626HZZ	2RS	2RU	—	1 990	711	38 000	45 000	J	3.500	6	8.00	8.40	8.00	8.40	0.30	8.22	8.74
SMF117	SMF117ZZ	—	—	—	388	161	50 000	59 000	W	1.200	9	7.90	7.90	7.90	7.90	0.15	0.69	0.83
SMF137	—	—	—	—	460	221	45 000	53 000	W	1.200	12	8.60	9.30	—	—	0.20	1.65	—
—	SMF137ZZ	—	—	—	460	221	45 000	53 000	W	1.200	12	—	—	8.20	8.90	0.15	—	2.18
F687H	F687HZZ	2RS	—	—	999	409	44 000	52 000	J	2.000	9	8.20	8.90	8.20	8.40	0.15	2.36	3.11
F697H ⁽¹⁾	F697HZZ	2RS	—	—	1 370	573	40 000	47 000	J	2.381	9	8.70	9.10	8.70	9.10	0.30	5.28	5.50
F607H ⁽¹⁾	F607HZZ	2RS	2RU	—	1 990	711	38 000	45 000	J	3.500	6	8.70	8.90	8.70	8.90	0.30	7.80	8.31
F627H ⁽¹⁾	F627HZZ	2RS	2RU	—	2 800	1 090	33 000	39 000	J	3.969	7	9.00	10.40	9.00	10.40	0.30	12.8	13.4
SMF128	—	—	—	—	462	220	46 000	54 000	W	1.200	12	9.00	9.00	—	—	0.15	0.79	—
—	SMF128ZZ	2RS	—	—	463	219	46 000	54 000	W	1.200	12	—	—	8.60	8.90	0.10	—	1.18
—	—	—	—	TTS	462	220	31 000	31 000	W	1.200	12	—	—	8.80	9.00	0.10	—	1.12
SMF148	—	—	—	—	696	309	42 000	50 000	J	1.588	10	9.60	9.80	—	—	0.20	1.99	—
—	SMF148ZZ	2RS	—	—	696	309	42 000	50 000	J	1.588	10	—	—	8.90	9.20	0.15	—	2.20
F688H	F688HZZ	2RS	2RU	TTS	1 070	472	40 000	47 000	J	2.000	10	9.60	10.40	9.50	9.60	0.20	3.52	4.20
F698H ⁽¹⁾	F698HZZ	2RS	2RU	—	1 900	729	37 000	44 000	J	3.175	7	9.70	9.70	9.70	9.70	0.30	7.25	7.76
F608H ⁽¹⁾	F608HZZ	2RS	2RU	—	2 800	1 090	33 000	39 000	J	3.969	7	10.00	10.40	10.00	10.40	0.30	12.1	12.8
F689H	F689HZZ	2RS	—	—	1 130	531	37 000	44 000	J	2.000	11	10.60	11.40	10.30	10.60	0.20	3.82	4.52
F699H ⁽¹⁾	F699HZZ	2RS	2RU	—	2 100	855	35 000	42 000	J	3.175	8	11.00	11.50	11.00	11.50	0.30	8.17	8.67
F609H ⁽¹⁾	F609HZZ	—	—	—	2 850	1 150	30 000	36 000	J	3.969	7	11.00	12.00	11.00	12.00	0.30	14.5	15.3

(1) Open bearings have shield/seal grooves.
 (2) Single-shielded/single-sealed bearings are also available; suffix Z, RS, RU or TS. (shielded/sealed at flanged side unless otherwise requested)
 (3) Applicable only for open, single Z, ZZ, single RU and 2RU types in inner ring rotating conditions. Limiting speeds for the contact rubber seal(s) types can be lower than the above-mentioned values