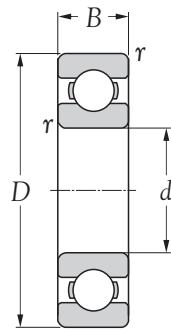


# R / KLNJ EXTRA LIGHT SERIES IMPERIAL BALL BEARINGS



Open type



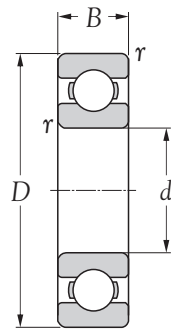
Shielded type  
(ZZ)



Sealed type  
(2RS)

Boundary dimensions				Basic load ratings		Limiting speeds		Bearing numbers			Mass
mm		inch		dynamic	static	grease	oil	open	with shields	with seals	kg.
<i>d</i>	<i>D</i>	<i>B</i>	$r_s \text{ min}^0$	<i>C<sub>r</sub></i>	<i>C<sub>or</sub></i>	rpm					(approx.)
3.175	9.525	3.967 5/32	0.3	630	218	56000	67000	R 2			0.0012
1/8	3/8	3.967 5/32									
3.175	12.700	4.366 11/64	0.3	630	218	56000	6700	R 2 A			0.0010
1/8	1/2	4.366 11/64									
4.762	12.700	3.967 5/32	0.3	1310	490	41000	48000	R 3			0.0022
3/16	1/2	4.978									
4.762	15.875	4.978 0.196	0.3	1310	490	41000	48000	R 3 A			0.0020
3/16	5/8	4.978 0.196									
6.350	15.875	4.978 0.196	0.4	1480	615	36000	43000	R 4			0.0040
1/4	5/8	4.978 0.196									
6.350	19.050	5.556 7/32	0.4	1480	615	36000	43000	R 4 A			0.0040
1/4	3/4	7.142 0.281									
9.525	22.225	5.556 7/32	1.0	3300	1400	31000	37000	R 6			0.0136
2/8	7/8	7.142 0.281									
12.700	28.575	6.350 1/4	1.0	3950	2250	26000	31000	R 8			0.0165
1/2	1-1/8	7.938 5/16									
15.875	34.925	7.140 9/32	1.0	4600	2800	21000	25000	R 10			0.0340
5/8	1-3/8	8.730 1/32									
19.050	41.275	7.938 5/16	1.0	7250	4450	16000	21000	R 12			0.0440
3/4	1-5/8	11.112 7/16									
22.225	47.625	9.525 3/8	1.0	7250	4950	12000	16000	R 14			0.0700
7/8	1-7/8	12.700 1/2									

# R / KLNJ EXTRA LIGHT SERIES IMPERIAL BALL BEARINGS



Open type



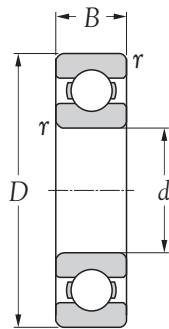
Shielded type  
(ZZ)



Sealed type  
(2RS)

Boundary dimensions				Basic load ratings		Limiting speeds		Bearing numbers			Mass
mm inch				dynamic	static	grease	oil	open	with shields	with seals	kg.
$d$	$D$	$B$	$r_s \text{ min}^0$	$C_r$	$C_{or}$	rpm					(approx.)
25.400	50.800	9.525 3/8	1.0	8250	5450	11000	15000	<b>R 16</b>			0.0810
2	3	12.700 1/2						<b>R 16 ZZ</b>	<b>R 16 2RS</b>	0.0850	
25.797	53.975	9.525 3/8	1.0	9600	6260	10000	13000	<b>R 18</b>			0.0860
1-1/64	2-1/8	12.700 1/2						<b>R 18 ZZ</b>	<b>R 18 2RS</b>	0.0900	
31.750	57.150	9.525 3/8	1.0	10800	7520	9000	11000	<b>R 20</b>			0.0900
1-1/4	2-1/4	12.700 1/2						<b>R 20 ZZ</b>	<b>R 20 2RS</b>	0.0950	
34.925	63.500	11.112 7/16	1.0	12280	8500	7000	8500	<b>R 22</b>			0.1010
1-3/8	2-1/2	14.288 9/16						<b>R 22 ZZ</b>	<b>R 22 2RS</b>	0.1050	
38.100	66.675	11.112 7/16	1.0	13150	9450	6000	7500	<b>R 24</b>			0.1360
1-1/2	2-5/8	14.288 9/16						<b>R 24 ZZ</b>	<b>R 24 2RS</b>	0.1400	

# RLS / LJ LIGHT SERIES IMPERIAL BALL BEARINGS



Open type



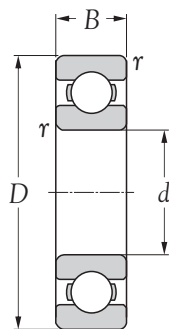
Shielded type  
(ZZ)



Sealed type  
(2RS)

Boundary dimensions			Basic load ratings		Limiting speeds		Bearing numbers			Mass
mm inch			dynamic	static	grease	oil				kg.
<i>d</i>	<i>D</i>	<i>B</i>	<i>C<sub>r</sub></i>	<i>C<sub>0r</sub></i>	rpm	rpm				(approx.)
12.700 1/2	33.338 1-5/16	9.525 3/8	5162	3026	21000	28500	<b>RLS 4</b>	<b>RLS 4 ZZ</b>	<b>RLS 4 2RS</b>	0.037
15.875 5/8	39.688 1-9/16	11.112 7/16	7387	4361	18000	24000	<b>RLS 5</b>	<b>RLS 5 ZZ</b>	<b>RLS 5 2RS</b>	0.059
19.050 3/4	47.625 1-7/8	14.288 9/16	10547	6542	15500	21000	<b>RLS 6</b>	<b>RLS 6 ZZ</b>	<b>RLS 6 2RS</b>	0.109
22.225 7/8	50.800 2	14.288 9/16	10725	6542	14300	19500	<b>RLS 7</b>	<b>RLS 7 ZZ</b>	<b>RLS 7 2RS</b>	0.116
25.400 1	57.150 2-1/4	15.875 5/8	13795	8900	12700	17000	<b>RLS 8</b>	<b>RLS 8 ZZ</b>	<b>RLS 8 2RS</b>	0.169
28.575 1-1/8	63.500 2-1/2	15.875 5/8	14997	10013	11700	15500	<b>RLS 9</b>	<b>RLS 9 ZZ</b>	<b>RLS 9 2RS</b>	0.220
31.750 1-1/4	69.850 2-3/4	17.463 11/16	20470	13929	10600	14400	<b>RLS 10</b>	<b>RLS 10 ZZ</b>	<b>RLS 10 2RS</b>	0.276
34.925 1-3/8	76.200 3	17.463 11/16	23051	15842	9800	13200	<b>RLS 11</b>	<b>RLS 11 ZZ</b>	<b>RLS 11 2RS</b>	0.333
38.100 1-1/2	82.550 3-1/4	19.050 3/4	25810	17889	9000	12200	<b>RLS 12</b>	<b>RLS 12 ZZ</b>	<b>RLS 12 2RS</b>	0.418
41.275 1-5/8	88.900 3-1/2	19.050 3/4	28658	20070	8400	11300	<b>RLS 13</b>	<b>RLS 13 ZZ</b>	<b>RLS 13 2RS</b>	0.481
44.450 1-3/4	95.250 3-3/4	20.638 13/16	31595	22339	7800	10600	<b>RLS 14</b>	<b>RLS 14 ZZ</b>	<b>RLS 14 2RS</b>	0.594
47.625 1-7/8	101.600 4	20.638 13/16	37380	27857	7200	9800	<b>RLS 15</b>	<b>RLS 15 ZZ</b>	<b>RLS 15 2RS</b>	0.708

# RLS / LJ LIGHT SERIES IMPERIAL BALL BEARINGS



Open type



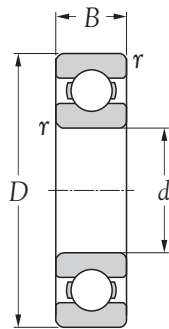
Shielded type  
(ZZ)



Sealed type  
(2RS)

Boundary dimensions			Basic load ratings		Limiting speeds		Bearing numbers			Mass
mm inch			dynamic	static	grease	oil				kg(s).
<i>d</i>	<i>D</i>	<i>B</i>	<i>C<sub>r</sub></i>	<i>C<sub>or</sub></i>	rpm	rpm				(approx.)
50.800	101.600	20.638	37558	27857	7200	9800	<b>RLS 16</b>	<b>RLS 16 ZZ</b>	<b>RLS 16 2RS</b>	0.667
2	4	13/16								
57.150	114.300	22.225	44500	32752	6400	8600	<b>RLS 18</b>	<b>RLS 18 ZZ</b>	<b>RLS 18 2RS</b>	0.885
2-1/4	4-1/2	7/8								
63.500	127.000	23.813	48505	36846	5700	7700	<b>RLS 20</b>	<b>RLS 20 ZZ</b>	<b>RLS 20 2RS</b>	1.220
2-1/2	5	15/16								
69.850	133.350	23.813	51620	40940	5300	7200	<b>RLS 22</b>	<b>RLS 22 ZZ</b>	<b>RLS 22 2RS</b>	1.334
2-3/4	5-1/4	15/16								
76.200	146.050	26.988	60075	48505	4800	6500	<b>RLS 24</b>	<b>RLS 24 ZZ</b>	<b>RLS 24 2RS</b>	1.814
3	5-3/4	1-1/16								

# RMS / MJ MEDIUM SERIES IMPERIAL BALL BEARINGS



Open type



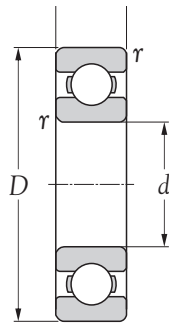
Shielded type  
(ZZ)



Sealed type  
(2RS)

Boundary dimensions			Basic load ratings		Limiting speeds		Bearing numbers			Mass
mm inch			dynamic	static	grease	oil				kg(s).
<i>d</i>	<i>D</i>	<i>B</i>	<i>C<sub>r</sub></i>	<i>C<sub>or</sub></i>	rpm	rpm				(approx.)
12.700 1/2	41.275 1-5/8	15.875 5/8	9034	5607	18500	25000	<b>RMS 4</b>	<b>RMS 4 ZZ</b>	<b>RMS 4 2RS</b>	0.096
15.875 5/8	46.038 1-13/16	15.875 5/8	9345	5607	16500	22000	<b>RMS 5</b>	<b>RMS 5 ZZ</b>	<b>RMS 5 2RS</b>	0.117
19.050 3/4	50.800 2	17.463 11/16	12193	7788	14700	20000	<b>RMS 6</b>	<b>RMS 6 ZZ</b>	<b>RMS 6 2RS</b>	0.156
22.225 7/8	57.150 2-1/4	17.463 11/16	14196	9123	13300	18000	<b>RMS 7</b>	<b>RMS 7 ZZ</b>	<b>RMS 7 2RS</b>	0.197
25.400 1	63.500 2-1/2	19.050 3/4	16332	10547	12200	16500	<b>RMS 8</b>	<b>RMS 8 ZZ</b>	<b>RMS 8 2RS</b>	0.262
28.575 1-1/8	71.438 2-13/16	20.638 13/16	22695	15842	10800	14500	<b>RMS 9</b>	<b>RMS 9 ZZ</b>	<b>RMS 9 2RS</b>	0.347
31.750 1-1/4	79.375 3-1/8	22.225 7/8	27902	19536	9800	13200	<b>RMS 10</b>	<b>RMS 10 ZZ</b>	<b>RMS 10 2RS</b>	0.476
34.925 1-3/8	88.900 3-1/2	22.225 7/8	33598	23852	8800	11900	<b>RMS 11</b>	<b>RMS 11 ZZ</b>	<b>RMS 11 2RS</b>	0.608
38.100 1-1/2	95.250 3-3/4	23.813 15/16	36490	26211	8200	11000	<b>RMS 12</b>	<b>RMS 12 ZZ</b>	<b>RMS 12 2RS</b>	0.753
41.275 1-5/8	101.600 4	23.813 15/16	40495	30038	7700	10300	<b>RMS 13</b>	<b>RMS 13 ZZ</b>	<b>RMS 13 2RS</b>	0.857
44.450 1-3/4	107.950 4-1/4	26.988 1-1/16	43254	31195	7100	9600	<b>RMS 14</b>	<b>RMS 14 ZZ</b>	<b>RMS 14 2RS</b>	1.061
47.625 1-7/8	114.300 4-1/2	26.988 1-1/16	51175	38715	6600	8900	<b>RMS 15</b>	<b>RMS 15 ZZ</b>	<b>RMS 15 2RS</b>	1.220

# RMS / MJ MEDIUM SERIES IMPERIAL BALL BEARINGS



Open type



Shielded type  
(ZZ)



Sealed type  
(2RS)

Boundary dimensions			Basic load ratings		Limiting speeds		Bearing numbers			Mass
mm inch			dynamic	static	grease	oil				kg(s).
<i>d</i>	<i>D</i>	<i>B</i>	<i>C<sub>r</sub></i>	<i>C<sub>or</sub></i>	rpm	rpm				(approx.)
50.800	114.300	26.988	51175	38715	5900	8000	<b>RMS 16</b>	<b>RMS 16 ZZ</b>	<b>RMS 16 2RS</b>	1.175
2	4-1/2	1-1/16								
57.150	127.000	31.750	62745	48505	4600	6200	<b>RMS 18</b>	<b>RMS 18 ZZ</b>	<b>RMS 18 2RS</b>	1.601
2-1/4	5	1-1/4								
63.500	139.700	31.750	71200	55625	4000	5400	<b>RMS 20</b>	<b>RMS 20 ZZ</b>	<b>RMS 20 2RS</b>	2.041
2-1/2	5-1/2	1-1/4								
69.850	158.750	34.925	87220	71200	3800	5100	<b>RMS 22</b>	<b>RMS 22 ZZ</b>	<b>RMS 22 2RS</b>	2.894
2-3/4	6-1/4	1-3/8								

## Imperial Ball Bearings Interchange for Common sizes

Our Reference	Alternative	Our Reference	Alternative	Our Reference	Alternative
R2	KLNJ1/8	R2-2RS	KLNJ1/8-2RS	R2-ZZ	KLNJ1/8-ZZ
R3	KLNJ3/16	R3-2RS	KLNJ3/16-2RS	R3-ZZ	KLNJ3/16-ZZ
R4A	KLNJ1/4	R4A-2RS	KLNJ1/4-2RS	R4A-ZZ	KLNJ1/4-ZZ
R6	KLNJ3/8	R6-2RS	KLNJ3/8-2RS	R6-ZZ	KLNJ3/8-ZZ
R8	KLNJ1/2	R8-2RS	KLNJ1/2-2RS	R8-ZZ	KLNJ1/2-ZZ
R10	KLNJ5/8	R10-2RS	KLNJ5/8-2RS	R10-ZZ	KLNJ5/8-ZZ
R12	KLNJ3/4	R12-2RS	KLNJ3/4-2RS	R12-ZZ	KLNJ3/4-ZZ
R14	KLNJ7/8	R14-2RS	KLNJ7/8-2RS	R14-ZZ	KLNJ7/8-ZZ
R16	KLNJ1	R16-2RS	KLNJ1-2RS	R16-ZZ	KLNJ1-ZZ
R18	KLNJ1.1/8	R18-2RS	KLNJ1.1/8-2RS	R18-ZZ	KLNJ1.1/8-ZZ
R20	KLNJ1.1/4	R20-2RS	KLNJ1.1/4-2RS	R20-ZZ	KLNJ1.1/4-ZZ
R22	KLNJ1.3/8	R22-2RS	KLNJ1.3/8-2RS	R22-ZZ	KLNJ1.3/8-ZZ
R24	KLNJ1.1/2	R24-2RS	KLNJ1.1/2-2RS	R24-ZZ	KLNJ1.1/2-ZZ
RLS4	LJ1/2	RLS4-2RS	LJ1/2-2RS	RLS4-ZZ	LJ1/2-ZZ
RLS5	LJ5/8	RLS5-2RS	LJ5/8-2RS	RLS5-ZZ	LJ5/8-ZZ
RLS6	LJ3/4	RLS6-2RS	LJ3/4-2RS	RLS6-ZZ	LJ3/4-ZZ
RLS7	LJ7/8	RLS7-2RS	LJ7/8-2RS	RLS7-ZZ	LJ7/8-ZZ
RLS8	LJ1	RLS8-2RS	LJ1-2RS	RLS8-ZZ	LJ1-ZZ
RLS9	LJ1.1/8	RLS9-2RS	LJ1.1/8-2RS	RLS9-ZZ	LJ1.1/8-ZZ
RLS10	LJ1.1/4	RLS10-2RS	LJ1.1/4-2RS	RLS10-ZZ	LJ1.1/4-ZZ
RLS11	LJ1.3/8	RLS11-2RS	LJ1.3/8-2RS	RLS11-ZZ	LJ1.3/8-ZZ
RLS12	LJ1.1/2	RLS12-2RS	LJ1.1/2-2RS	RLS12-ZZ	LJ1.1/2-ZZ
RLS13	LJ1.5/8	RLS13-2RS	LJ1.5/8-2RS	RLS13-ZZ	LJ1.5/8-ZZ
RLS14	LJ1.3/4	RLS14-2RS	LJ1.3/4-2RS	RLS14-ZZ	LJ1.3/4-ZZ
RLS15	LJ1.7/8				
RLS16	LJ2	RLS16-2RS	LJ2-2RS	RLS16-ZZ	LJ2-ZZ
RLS18	LJ2.1/4	RLS18-2RS	LJ2.1/4-2RS		
RLS20	LJ2.1/2				
RLS22	LJ2.3/4				
RLS24	LJ3				
RMS4	MJ1/2	RMS4-2RS	MJ1/2-2RS	RMS4-ZZ	MJ1/2-ZZ
RMS5	MJ5/8	RMS5-2RS	MJ5/8-2RS	RMS5-ZZ	MJ5/8-ZZ
RMS6	MJ3/4	RMS6-2RS	MJ3/4-2RS	RMS6-ZZ	MJ3/4-ZZ
RMS7	MJ7/8	RMS7-2RS	MJ7/8-2RS	RMS7-ZZ	MJ7/8-ZZ
RMS8	MJ1	RMS8-2RS	MJ1-2RS	RMS8-ZZ	MJ1-ZZ
RMS9	MJ1.1/8	RMS9-2RS	MJ1.1/8-2RS	RMS9-ZZ	MJ1.1/8-ZZ
RMS10	MJ1.1/4	RMS10-2RS	MJ1.1/4-2RS	RMS10-ZZ	MJ1.1/4-ZZ
RMS11	MJ1.3/8	RMS11-2RS	MJ1.3/8-2RS	RMS11-ZZ	MJ1.3/8-ZZ
RMS12	MJ1.1/2	RMS12-2RS	MJ1.1/2-2RS	RMS12-ZZ	MJ1.1/2-ZZ
RMS13	MJ1.5/8	RMS13-2RS	MJ1.5/8-2RS		
RMS14	MJ1.3/4				
RMS15	MJ1.7/8	RMS15-2RS	MJ1.7/8-2RS		
RMS16	MJ2	RMS16-2RS	MJ2-2RS		
RMS18	MJ2.1/4				
RMS20	MJ2.1/2				
RMS22	MJ2.3/4				
RMS24	MJ3				