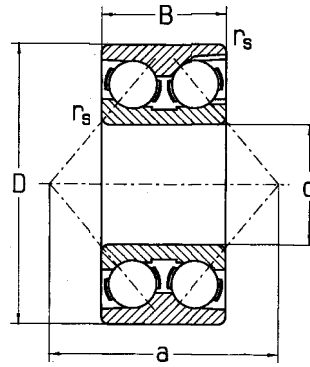


# Double Row Angular Contact Ball Bearings

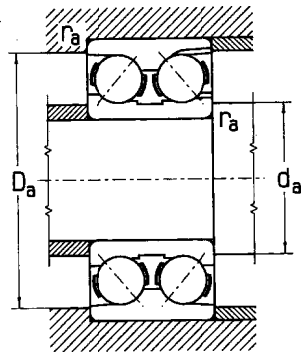
Sizes 10 mm – 50 mm



D

Dimensions					Basic Load Rating		Limiting Speed for Lubricating by		Bearing Designation
d	D	B	$r_s$ min	a	Dynamic $C_r$	Static $C_{or}$	Grease	Oil	
mm					kN <i>lbf</i>		$\text{min}^{-1}$		
<b>10</b>	30	14.3	0.6	20	<b>8.41</b> <i>1,880</i>	<b>5.84</b> <i>1,310</i>	16,000	19,000	<b>3200</b>
<b>12</b>	32	15.9	0.6	22	<b>10</b> <i>2,240</i>	<b>7.08</b> <i>1,580</i>	14,000	17,000	<b>3201</b>
<b>15</b>	35	15.9	0.6	23	<b>9.44</b> <i>2,110</i>	<b>7.5</b> <i>1,680</i>	13,000	16,000	<b>3202</b>
	42	19	1	27	<b>15.8</b> <i>3,550</i>	<b>11.9</b> <i>2,660</i>	10,000	12,600	<b>3302</b>
<b>17</b>	40	17.5	0.6	27	<b>13.1</b> <i>2,930</i>	<b>10.6</b> <i>2,370</i>	11,000	13,000	<b>3203</b>
	47	22.2	1	31	<b>21.5</b> <i>4,820</i>	<b>16.2</b> <i>3,620</i>	9,400	11,000	<b>3303</b>
<b>20</b>	47	20.6	1	31	<b>18.1</b> <i>4,060</i>	<b>15</b> <i>3,350</i>	9,400	11,000	<b>3204</b>
	52	22.2	1.1	34	<b>21.5</b> <i>4,820</i>	<b>18.5</b> <i>4,140</i>	8,400	10,000	<b>3304</b>
<b>25</b>	52	20.6	1	35	<b>19.6</b> <i>4,380</i>	<b>18.1</b> <i>4,065</i>	8,400	10,000	<b>3205</b>
	62	25.4	1.1	40	<b>29.9</b> <i>6,680</i>	<b>26.6</b> <i>5,900</i>	7,100	8,400	<b>3305</b>
<b>30</b>	62	23.8	1	41	<b>28.2</b> <i>6,810</i>	<b>27.1</b> <i>6,070</i>	7,100	8,400	<b>3206</b>
	72	30.2	1.1	47	<b>39.8</b> <i>8,910</i>	<b>36.2</b> <i>8,100</i>	6,000	7,100	<b>3306</b>
<b>35</b>	72	27	1.1	47	<b>38.3</b> <i>8,580</i>	<b>37.6</b> <i>8,410</i>	6,000	7,100	<b>3207</b>
	80	34.9	1.5	54	<b>51.1</b> <i>11,400</i>	<b>47.3</b> <i>10,600</i>	5,300	6,300	<b>3307</b>
<b>40</b>	80	30.2	1.1	52	<b>43.8</b> <i>9,810</i>	<b>43.8</b> <i>9,810</i>	5,300	6,300	<b>3208</b>
	90	36.5	1.5	58	<b>54</b> <i>12,100</i>	<b>59.6</b> <i>13,300</i>	4,700	5,600	<b>3308</b>
<b>45</b>	85	30.2	1.1	56	<b>47.3</b> <i>10,600</i>	<b>51.1</b> <i>11,400</i>	5,000	6,000	<b>3209</b>
	100	39.7	1.5	64	<b>75</b> <i>16,800</i>	<b>73.6</b> <i>16,500</i>	4,200	5,000	<b>3309</b>
<b>50</b>	90	30.2	1.1	59	<b>54.1</b> <i>12,100</i>	<b>58.4</b> <i>13,100</i>	4,500	5,300	<b>3210</b>
	110	44.4	2	73	<b>90.9</b> <i>20,300</i>	<b>96.2</b> <i>21,500</i>	3,800	4,500	<b>3310</b>

Bearing designations printed in bold face type are currently in our manufacturing schedule. Those shown in normal face type are made to order.

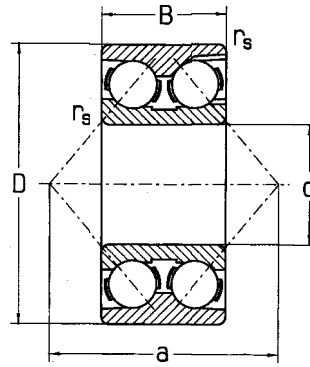


D

Abutment and Fillet Dimensions				Weight
d	d <sub>a</sub> min	D <sub>a</sub> max	r <sub>a</sub> max	~
mm				kg lbs
<b>10</b>	14	25	0.6	0.050 0.110
<b>12</b>	16	27	0.6	0.060 0.132
<b>15</b>	19	30	0.6	0.070 0.154
	21	36	1	0.130 0.286
<b>17</b>	21	35	0.6	0.100 0.202
	23	41	1	0.190 0.418
<b>20</b>	25	42	1	0.170 0.374
	27	45	1	0.230 0.506
<b>25</b>	30	46	1	0.190 0.418
	32	55	1	0.370 0.815
<b>30</b>	35	56	1	0.310 0.683
	37	65	1	0.580 1.277
<b>35</b>	41	65	1	0.480 1.057
	44	71	1.5	0.780 1.718
<b>40</b>	46	73	1	0.650 1.431
	49	81	1.5	1.05 2.31
<b>45</b>	51	78	1	0.700 1.541
	54	91	1.5	1.41 3.10
<b>50</b>	56	83	1	0.740 1.629
	60	100	2	1.90 4.18

# Double Row Angular Contact Ball Bearings

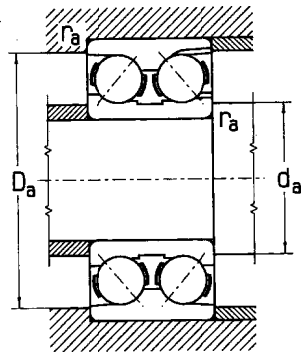
Sizes 55 mm – 75 mm



Dimensions					Basic Load Rating		Limiting Speed for Lubricating by		Bearing Designation
d	D	B	r <sub>s</sub> min	a	Dynamic C <sub>r</sub>	Static C <sub>0r</sub>	Grease	Oil	
mm					kN lbf		min <sup>-1</sup>		
<b>55</b>	100	33.3	1.5	64	<b>60.7</b> <i>13,600</i>	<b>66.8</b> <i>15,000</i>	4,200	5,000	<b>3211</b>
	120	49.2	2	80	100 <i>22,400</i>	108 <i>24,200</i>	3,300	4,000	3311
<b>60</b>	110	36.5	1.5	71	<b>75</b> <i>16,800</i>	<b>85.8</b> <i>19,200</i>	3,800	4,500	<b>3212</b>
	130	54	2.1	86	117 <i>26,100</i>	128 <i>28,700</i>	3,200	3,800	3312
<b>65</b>	120	38.1	1.5	76	<b>82.5</b> <i>18,500</i>	<b>94.4</b> <i>21,100</i>	3,500	4,200	<b>3213</b>
	140	58.7	2.1	94	133 <i>29,900</i>	147 <i>32,900</i>	3,000	3,500	3313
<b>70</b>	125	39.7	1.5	81	<b>79.4</b> <i>17,800</i>	<b>98.1</b> <i>22,000</i>	3,200	3,800	<b>3214</b>
<b>75</b>	130	41.3	1.5	84	<b>87.4</b> <i>19,600</i>	<b>110</b> <i>24,600</i>	3,200	3,800	<b>3215</b>

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D



Abutment and Fillet Dimensions				Weight
d	d <sub>a</sub> min	D <sub>a</sub> max	r <sub>a</sub> max	~
mm				kg lbs
<b>55</b>	62	91	1.5	1.05 2.31
	65	110	2	2.48 5.46
<b>60</b>	67	101	1.5	1.36 2.99
	72	118	2	3.17 6.98
<b>65</b>	72	111	1.5	1.76 3.88
	77	128	2	4.01 8.83
<b>70</b>	77	116	1.5	1.93 4.25
<b>75</b>	82	121	1.5	2.08 4.58

D