

Equivalent Radial Load

Table A: Factors X, V and Y

BEARING TYPE	$\frac{F_a}{ZD^2}$ UNITS LBS., IN	IN RELATION TO THE LOAD THE INNER RING IS:		SINGLE ROW BEARINGS $\frac{F_a}{VFr} > e$		e
		ROTATING V	STATIONARY V			
				X	Y	
Radial deep groove ball bearings	25	1	1.2	.056	2.30	0.19
	50				1.99	0.22
	100				1.71	0.26
	150				1.55	0.28
	200				1.45	0.30
	300				1.31	0.34
	500				1.15	0.38
	750				1.04	0.42
1,000	1.00	0.44				
Angular contact ball bearings with contact angle: 5°	25	1	1.2	0.56	2.30	0.23
	50				1.99	0.26
	100				1.71	0.30
	150				1.55	0.34
	200				1.45	0.36
	300				1.31	0.40
	500				1.15	0.45
	750				1.04	0.50
1,000	1.00	0.52				
10°	25	1	1.2	0.46	1.88	0.29
	50				1.71	0.32
	100				1.52	0.36
	150				1.41	0.38
	200				1.34	0.40
	300				1.23	0.44
	500				1.10	0.49
	750				1.01	0.54
1,000	1.00	0.54				
15°	25	1	1.2	0.44	1.47	0.38
	50				1.40	0.40
	100				1.30	0.43
	150				1.23	0.46
	200				1.19	0.47
	300				1.12	0.50
	500				1.02	0.55
	750				1.00	0.56
1,000	1.00	0.56				
20°	1	1.2	0.43	1.00	0.57	
25°	1	1.2	0.41	0.87	0.68	
30°	1	1.2	0.39	0.76	0.80	
35°	1	1.2	0.37	0.66	0.95	
40°	1	1.2	0.35	0.57	1.14	

Additional nomenclature is as follows:

- Z is the number of balls
- D is the ball diameter in inches

Values of X, Y and e for load or contact angle other than shown are obtained by linear interpolation.