

# NEEDLE ROLLER AND CAGE ASSEMBLIES

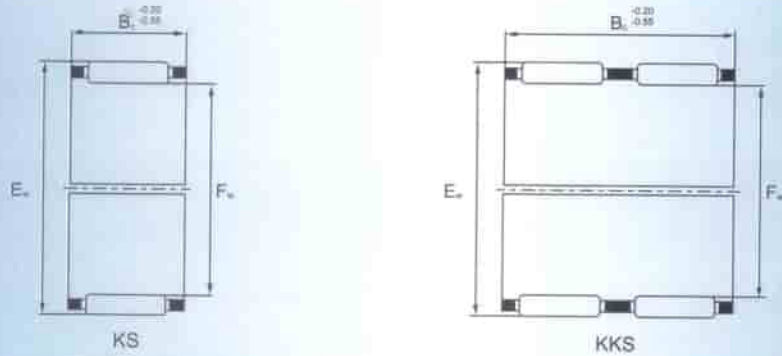


**A. products range**

Series	Structure description
K	Needle roller and cage assembly, single or double row
KBK	Needle roller and cage assembly used for cranks
KZK	Needle roller and cage assembly used for pistons
KNL	Long roller and cage assembly

**B. mark methods**

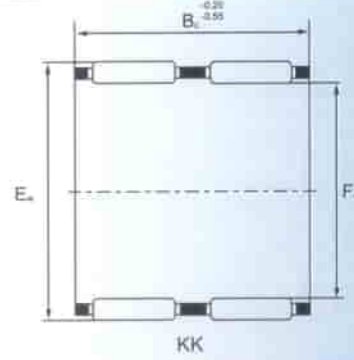
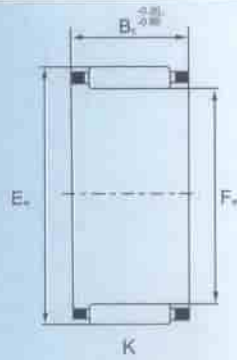
structure	Code (GB5846-85)	Code (GB/T272-93)
Single row	K	K
Double row	KK	K
Part single row	KS	K...D
Part double row	KKS	K...ZWD



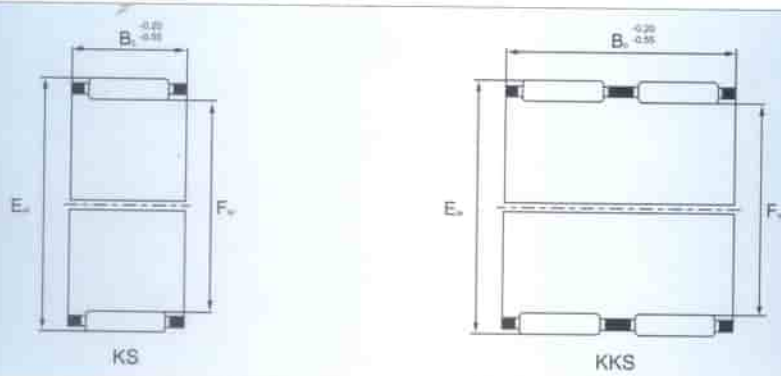
Shaft Diameter mm	Bearing Designation		Mass Approx g	Boundary Dimensions			Basic Load Rating		Limiting Speed Oil rpm
	Current	Substituted		F <sub>w</sub>	E <sub>w</sub>	B <sub>c</sub>	C <sub>r</sub> Dynamic	C <sub>r</sub> Static	
5	K 5×8×8 TN	29241/5	0.7	5	8	8	2 300	1 880	37 000
	K 5×8×10 TN	39241/5	0.9	5	8	10	2 800	2 450	37 000
6	K 6×9×8 TN	29241/6	0.8	6	9	8	2 560	2 240	35 000
	K 6×9×10 TN	39241/6	1	6	9	10	3 300	3 100	35 000
	K 6×10×13 TN	49241/6	1.3	6	10	13	3 500	2 800	33 000
7	K 7×10×8 TN	29241/7	0.9	7	10	8	2 750	2 550	32 000
	K 7×10×10 TN	39241/7	1.1	7	10	10	3 350	3 400	32 000
8	K 8×11×8 TN	29241/8	1.1	8	11	8	3 000	2 900	30 000
	K 8×11×10 TN	39241/8	1.7	8	11	10	3 830	3 950	30 000
	K 8×11×13 TN	49241/8	1.8	8	11	13	5 000	5 700	30 000
	K 8×12×10 TN	29242/8	1.3	8	12	10	4 900	4 600	30 000
9	K 9×12×10 TN	39241/9	1.5	9	12	10	4 200	4 700	30 000
	K 9×12×13 TN	49241/9	1.9	9	12	13	5 500	6 700	30 000
10	K 10×13×10 TN	39241/10	1.6	10	13	10	4 500	5 250	27 000
	K 10×13×13 TN	49241/10	2.1	10	13	13	6 000	7 600	27 000
	K 10×13×16 TN	-	2.2	10	13	16	6 300	7 800	27 000
	K 10×14×10 TN	29242/10	2.9	10	14	10	7 000	7 900	27 000
	K 10×14×13 TN	39242/10	4.3	10	14	13	8 000	9 100	26 000
	K 10×16×12 TN	19244/10	3.7	10	16	12	7 000	9 300	27 000
12	K 12×15×9 TN	-	2.7	12	15	9	4 120	5 210	25 000
	K 12×15×10 TN	39241/12	1.9	12	15	10	4 320	5 730	25 000
	K 12×15×13 TN	49241/12	2.4	12	15	13	6 000	8 100	25 000
	K 12×16×8 TN	19242/12	2.9	12	16	8	4 200	4 700	25 000
	K 12×16×10 TN	29242/12	3.8	12	16	10	6 000	6 900	25 000
	K 12×16×13 TN	39242/12	3.4	12	16	13	7 900	9 200	25 000
	K 12×17×13 TN	59242/12	4.4	12	17	13	9 300	10 000	24 000
	K 12×18×12 TN	19244/12	5	12	18	12	9 800	8 000	24 000
	KK 12×15×20 TN	K 12×15×20 TN	3.8	12	15	20	8 200	12 000	25 000
14	K 14×17×10	-	4	14	17	10	5 100	6 800	23 000
	K 14×17×17	-	6.8	14	17	17	9 300	14 000	23 000
	K 14×18×10	29241/14	4.8	14	18	10	6 800	8 300	23 000
	K 14×18×13	39241/14	6.3	14	18	13	8 100	9 800	23 000
	K 14×18×14	-	6.8	14	18	14	9 200	12 000	23 000
	K 14×18×15	49241/14	7.3	14	18	15	10 000	13 000	23 000
	K 14×18×17	59241/14	8.1	14	18	17	10 500	13 900	23 000
	K 14×20×12	19243/14	8.6	14	20	12	9 900	10 500	22 000
15	K 15×18×14	-	5.3	15	18	14	7 500	11 000	23 000
	K 15×18×17	-	6.4	15	18	17	9 600	15 900	23 000
	K 15×19×10	29241/15	5.1	15	19	10	7 200	9 000	22 000
	K 15×19×13	39241/15	7	15	19	13	8 300	9 800	22 000

TN = plastic cage, permissible operating temperature: 120°C (Continuous operation).

Limiting speed for oil lubrication. For grease lubrication, 60% of the values given in the table is permissible.



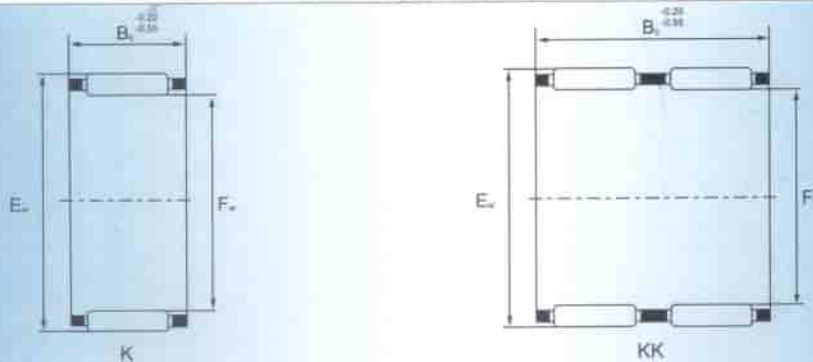
Shaft Diameter	Bearing Designation		Mass Approx	Boundary Dimensions			Basic Load Rating		Limiting Speed
	Current	Substituted		F <sub>w</sub>	E <sub>w</sub>	B <sub>r</sub>	C <sub>d</sub> Dynamic	C <sub>s</sub> Static	
			mm				N		Oil rpm
15	K 15×19×17	59241/15	8.8	15	19	17	10 300	15 000	22 000
	KK 15×19×24	79241/15	10.5	15	19	24	12 800	20 100	22 000
	K 15×20×13	29242/15	8.9	15	20	13	9 700	11 000	22 000
	K 15×21×12	19243/15	10	15	21	12	10 000	13 000	22 000
	K 15×21×15	39242/15	13	15	21	15	13 800	16 000	22 000
	K 15×21×21	-	18.2	15	21	21	18 000	24 000	22 000
16	K 16×20×10	29241/16	5.7	16	20	10	7 600	9 700	22 000
	K 16×20×13	39241/16	7.1	16	20	13	8 700	11 300	22 000
	K 16×20×17	59241/16	9.2	16	20	17	11 200	16 300	22 000
	K 16×21×10	19242/16	6.7	16	21	10	9 000	12 000	22 000
	K 16×22×12	19243/16	10.4	16	22	12	11 000	12 000	21 000
	K 16×22×13	-	11.9	16	22	13	12 000	13 400	21 000
	K 16×22×16	-	13.7	16	22	16	14 300	17 000	21 000
	K 16×22×20	49243/16	16.7	16	22	20	18 000	22 300	21 000
	K 16×23×14	19244/16	20	16	23	14	19 000	21 000	19 000
	K 16×24×20	19245/16	24.9	26	24	20	21 100	23 000	20 000
17	K 17×21×10	29241/17	5.6	17	21	10	7 900	10 100	21 000
	K 17×21×13	39241/17	7.5	17	21	13	10 000	14 100	21 000
	K 17×21×17	59241/17	9.5	17	21	17	12 000	17 400	21 000
	K 17×23×14	29243/17	11.5	17	23	14	11 000	15 000	21 000
18	K 18×22×10	29241/18	6.1	18	22	10	8 200	9 900	20 000
	K 18×22×13	39241/18	7.7	18	22	13	9 000	12 100	20 000
	K 18×22×17	59241/18	10.8	18	22	17	11 900	17 600	20 000
	K 18×24×12	19243/18	11.6	18	24	12	11 200	12 900	20 000
	K 18×24×13	-	12.6	18	24	13	12 900	14 900	20 000
	K 18×24×13.5	-	13	18	24	13.5	12 900	14 900	20 000
	K 18×24×20	49243/18	19	18	24	20	20 000	26 500	20 000
	K 18×25×14	-	14.9	18	25	14	16 500	18 800	20 000
	K 18×25×22	-	24.3	18	25	22	22 900	28 400	20 000
	K 18×26×14	-	19	18	26	14	18 000	20 000	18 000
19	K 18×28×16	19244/18	24	18	28	16	19 000	18 400	19 000
	K 19×23×13	-	8.2	19	23	13	9 300	13 000	20 000
20	K 19×23×17	-	11.1	19	23	17	12 000	18 600	20 000
	K 20×24×10	29241/20	6.5	20	24	10	8 700	12 100	19 000
20	K 20×24×12	-	8	20	24	12	9 600	13 800	19 000
	K 20×24×13	39241/20	8.9	20	24	13	9 600	13 800	19 000
	K 20×24×17	59241/20	11.2	20	24	17	12 400	20 000	19 000
	K 20×26×12	19243/20	13.2	20	26	12	13 100	15 700	19 000
	K 20×26×13	-	14.3	20	26	13	14 100	17 400	19 000
	K 20×26×14	-	15	20	26	14	15 000	18 000	20 000



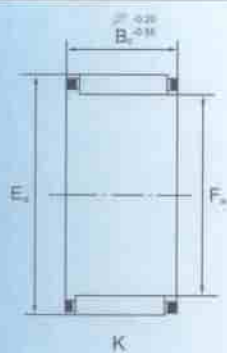
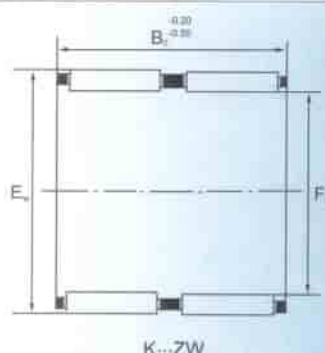
Shaft Diameter mm	Bearing Designation		Mass Approx g	Boundary Dimensions			Basic Load Rating		Limiting Speed Oil rpm
	Current	Substituted		F <sub>w</sub>	E <sub>e</sub>	B <sub>e</sub>	C <sub>d</sub> Dynamic	C <sub>s</sub> Static	
							N		
20	K 20×26×16	K 9249/20	17.5	20	26	16	18 000	25 000	18 500
	K 20×26×17	39243/20	18.2	20	26	17	18 700	25 500	19 000
	K 20×26×20	49243/20	22	20	26	20	20 600	28 500	19 000
	K 20×28×20	19245/20	26.8	20	28	20	23 400	28 000	18 000
	K 20×28×25	29245/20	36.2	20	28	25	30 000	28 500	18 000
	K 20×30×30	39245/20	56	20	30	30	35 000	41 000	18 000
21	K 21×25×13	-	9	21	25	13	9 600	14 500	19 000
	K 21×25×17	-	12	21	25	17	12 800	21 000	19 000
22	K 22×26×10	29241/22	7.1	22	26	10	8 700	12 900	18 000
	K 22×26×13	39241/22	9.4	22	26	13	10 000	15 400	18 000
	K 22×26×17	59241/22	12.1	22	26	17	13 100	22 100	18 000
	K 22×27×13	29242/22	10.8	22	27	13	14 000	23 000	18 000
	K 22×28×17	39243/22	19.7	22	28	17	19 000	26 500	18 000
	K 22×28×23	59243/22	26	22	28	23	20 000	27 000	19 000
	K 22×29×16	19244/22	22.2	22	29	16	19 500	25 000	17 000
	K 22×30×15 TN	-	14.4	22	30	15	19 600	22 900	17 000
	K 22×30×20	19245/22	28	22	30	20	21 000	23 500	18 900
	K 22×32×24	-	43.4	22	32	24	33 500	39 500	16 000
23	K 23×25×16 TN	-	30	23	35	16	24 000	23 400	15 000
24	K 24×28×10	-	8.1	24	28	10	9 400	14 300	17 000
	K 24×28×13	-	10.1	24	28	13	10 500	17 000	17 000
	K 24×28×17	9243/24	13.2	24	28	17	14 000	24 500	17 000
	K 24×29×13	-	13.5	24	29	13	13 100	19 100	16 000
	K 24×30×17	-	21.5	24	30	17	19 000	27 000	16 000
	KK 24×30×31	-	39.1	24	30	31	27 000	43 000	16 000
25	K 25×29×10	29241/25	8.3	25	29	10	9 700	14 900	16 000
	K 25×29×13	39241/25	10.4	25	29	13	10 800	17 900	16 000
	K 25×29×17	59241/25	13.7	25	29	17	14 500	25 500	16 000
	K 25×30×13	29242/25	12.9	25	30	13	14 100	21 300	16 000
	K 25×30×20	59242/25	20.5	25	30	20	21 100	28 000	16 000
	K 25×30×25	-	21	25	30	25	21 700	40 400	15 000
	K 25×30×26	SZ-436	21.6	25	30	26	20 100	26 500	15 000
	K 25×31×17	39243/25	21.8	25	31	17	19 000	28 000	16 000
	K 25×31×21	39243/25	26.2	25	31	21	24 100	37 500	16 000
	K 25×32×16	19244/25	24.5	25	32	16	20 500	27 500	15 000
	K 25×33×20	19245/25	32	25	33	20	28 000	37 500	15 000
	K 25×33×24	29245/25	38.7	25	33	24	33 900	46 500	15 000
	K 25×34×18	-	32	25	34	18	48 000	67 000	15 000
	K 25×35×30	39245/25	65.5	25	35	30	46 500	61 500	14 000
KK 25×30×26	-	27	25	30	26	21 000	35 000	14 000	

TN = plastic cage, permissible operating temperature: 120°C (Continuous operation).

Limiting speed for oil lubrication. For grease lubrication, 60% of the values given in the table is permissible.



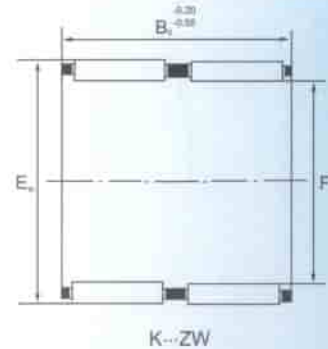
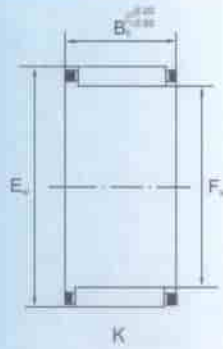
Shaft Diameter mm	Bearing Designation		Mass Approx g	Boundary Dimensions			Basic Load Rating		Limiting Speed rpm
	Current	Substituted		F <sub>w</sub>	E <sub>w</sub>	B <sub>c</sub>	C <sub>r</sub> Dynamic	C <sub>s</sub> Static	
				mm			N		
26	K 26×30×10	-	9	26	30	10	9 500	15 500	16 000
	K 26×30×13	-	11.4	26	30	13	11 100	18 700	16 000
	K 26×30×17	-	15	26	30	17	14 700	27 000	16 000
	K 26×31×13	-	9.9	26	31	13	12 400	18 400	15 000
	K 26×30×22	-	12.3	26	30	22	15 200	28 000	16 000
27	K 27×32×17	-	29	27	32	17	16 000	34 000	17 000
28	K 28×32×16.5	-	16	28	32	16.5	15 000	32 400	14 000
	K 28×32×17	9242/28	18.2	28	32	17	15 000	32 400	14 000
	K 28×33×13	29241/28	15.2	28	33	13	14 800	23 600	14 000
	K 28×32×17	49241/28	19.5	28	32	17	19 100	33 000	14 000
	K 28×33×27 TN	79241/28	19	28	33	27	22 800	40 500	14 000
	K 28×34×17	39242/28	24.2	28	34	17	21 300	35 000	14 000
	K 28×35×16	19243/28	26	28	35	16	21 000	29 000	14 000
	K 28×35×18	-	31	28	35	18	23 500	33 500	14 000
	K 28×35×20	29243/28	35	28	35	20	24 000	34 000	14 000
	K 28×35×27	-	47	28	35	27	34 500	54 500	14 000
	K 28×36×16	-	40	28	36	16	31 000	47 000	11 000
	K 28×40×18	-	50	28	40	18	33 000	36 500	12 000
	K 28×40×25	-	71	28	40	25	45 000	54 500	12 000
30	K 30×34×13	-	14.6	30	34	13	11 800	21 200	13 000
	K 30×35×13	29241/30	16.3	30	35	13	15 100	25 000	13 000
	K 30×35×17	49241/30	21.3	30	35	17	19 100	33 500	13 000
	K 30×35×27	19241/30	33.3	30	35	27	30 000	58 500	13 000
	K 30×37×16	19243/30	26.4	30	37	16	22 500	33 000	13 000
	K 30×37×18	-	34	30	37	18	25 500	38 000	13 000
	K 30×38×25	29244/30	43	30	38	25	26 000	39 000	13 000
	K 30×40×18	-	44	30	40	18	31 500	39 500	12 000
	K 30×40×30	49243/30	78	30	40	30	48 500	68 500	13 000
	K 30×35×26	-	32	30	35	26	23 500	43 500	12 000
32	K 32×37×13	29241/32	18.3	32	37	13	15 000	25 000	12 000
	K 32×37×17	49241/32	22.4	32	37	17	19 400	35 000	12 000
	K 32×37×27	19241/32	36.7	32	37	27	29 500	59 500	12 000
	K 32×37×28 TN	-	22.3	32	37	28	23 100	43 000	12 000
	K 32×38×16	-	25	32	38	16	21 000	34 000	12 000
	K 32×38×20	49242/32	31	32	38	20	26 000	44 500	12 000
	K 32×38×26 TN	-	25.2	32	38	26	27 000	46 500	12 000
	K 32×39×16	19243/32	36.7	32	39	16	23 500	35 000	12 000
	K 32×39×18	-	37.2	32	39	18	26 000	40 500	12 000
	K 32×40×20	19244/32	48	32	40	20	37 000	40 500	12 000
	K 32×40×25	29244/32	54	32	40	25	37 000	57 500	12 000


**K**

**K...ZW**

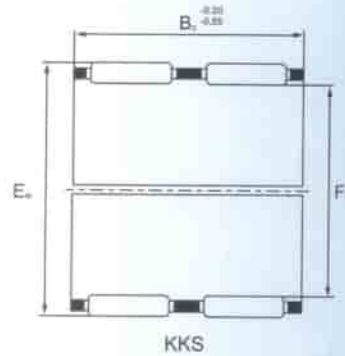
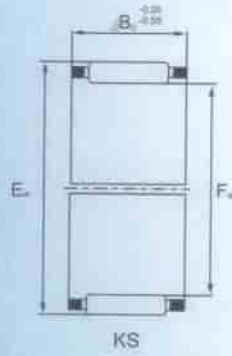
Shaft Diameter	Bearing Designation		Mass Approx g	Boundary Dimensions			Basic Load Rating		Limiting Speed
	Current	Substituted		F <sub>0</sub>	E <sub>0</sub>	B <sub>0</sub>	C <sub>r</sub> Dynamic	C <sub>s</sub> Static	Oil
							N		rpm
mm			mm						
32	K 32×40×36	-	73	32	40	36	53 500	91 500	12 000
	K 32×46×32	-	119	32	46	32	65 500	82 500	11 000
	K 32×40×42 TN	-	77.1	32	40	42	49 500	83 500	12 000
35	K 35×40×13	29241/35	18.8	35	40	13	15 800	27 500	11 000
	K 35×40×17	49241/35	25.3	35	40	17	20 300	38 000	11 000
	K 35×40×25	29244/35	31	35	40	25	29 000	59 500	11 000
	K 35×40×27 TN	19241/35	23.4	35	40	27	24 500	48 000	11 000
	K 35×40×27	79241/35	28	35	40	27	27 800	62 100	11 000
	K 35×40×30	39244/35	43	35	40	30	25 000	49 500	11 000
	K 35×42×16	19243/35	34	35	42	16	23 900	37 000	11 000
	K 35×42×18	-	39.2	35	42	18	27 000	42 500	11 000
	K 35×42×30	49243/35	62.4	35	42	30	38 500	67 500	11 000
	K 35×43×18	-	38	35	43	18	28 000	41 500	11 000
	K 35×45×20	-	55.5	35	45	20	36 500	49 500	10 000
	K 35×45×30	29245/35	80	35	45	30	52 500	78 500	10 000
	K 35×45×49	-	120	35	45	49	81 500	13 400	10 000
K 35×40×30	-	48	35	40	30	31 500	65 500	11 000	
K 35×42×20	29243/35	41	35	42	20	29 500	48 500	11 000	
36	K 36×41×30	-	52	36	41	30	23 000	43 000	11 000
	K 36×42×16	-	50	36	42	16	24 000	42 000	11 000
37	K 37×42×17	-	25.8	37	42	17	21 900	42 500	10 000
	K 37×42×27	-	40.7	37	42	27	31 500	67 500	10 000
	K 37×45×26	-	60.5	37	45	26	43 500	73 500	10 000
38	K 38×43×17	49241/38	26.9	38	43	17	20 000	38 000	10 000
	K 38×43×27	79241/38	43.2	38	43	27	31 000	67 500	10 000
	K 38×46×20	19244/38	46	38	46	20	35 000	56 500	10 000
	K 38×46×32	-	72.7	38	46	32	54 500	98 500	10 000
39	K 39×44×24	-	38	39	44	24	28 000	58 500	10 000
	K 39×44×26	-	29.5	39	44	26	27 000	55 500	10 000
40	K 40×44×13	-	20	40	44	13	13 500	28 000	10 000
	K 40×45×13	29241/40	21.5	40	45	13	17 100	32 000	10 000
	K 40×45×17	49241/40	27.4	40	45	17	20 900	41 000	10 000
	K 40×45×21	-	36.5	40	45	21	24 400	49 500	10 000
	K 40×45×27	19241/40	46	40	45	27	32 500	72 500	10 000
	K 40×46×17	39242/40	30	40	46	17	24 500	44 500	9 000
	K 40×47×18	-	45.2	40	47	18	29 000	49 500	9 000
	K 40×47×20	29243/40	42	40	47	20	32 000	56 500	9 000
40	K 40×48×20	19244/40	57.7	40	48	20	35 500	58 500	9 000
	K 40×45×30	-	48	40	45	30	26 000	53 500	9 000
42	K 42×47×13	29241/42	22.5	42	47	13	17 300	33 000	9 000

TN = plastic cage, permissible operating temperature: 120°C (Continuous operation).

Limiting speed for oil lubrication. For grease lubrication, 60% of the values given in the table is permissible.

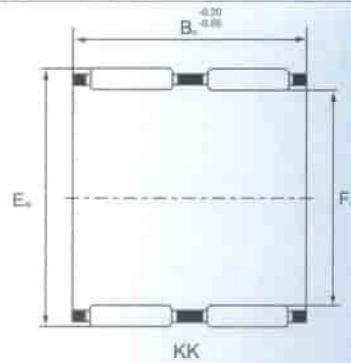
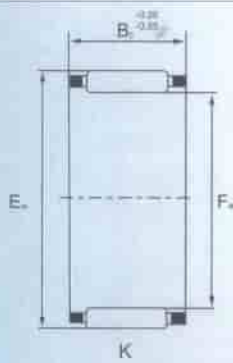


Shaft Diameter mm	Bearing Designation		Mass Approx g	Boundary Dimensions			Basic Load Rating		Limiting Speed Oil rpm
	Current	Substituted		$F_w$	$E_w$	$B_c$	$C_d$ Dynamic	$C_s$ Static	
				mm			N		
42	K 42×47×17	49241/42	31.1	42	47	17	21 100	42 500	9 000
	K 42×47×25 TN	-	25.4	42	47	25	27 000	57 500	9 000
	K 42×47×27	79241/42	46.6	42	47	27	33 000	74 500	9 000
	K 42×48×35	79242/42	60	42	48	35	35 000	76 000	9 000
	K 42×50×18	-	53	42	50	18	31 000	49 500	9 000
	K 42×50×20	19244/42	54	42	50	20	34 500	56 500	9 000
	K 42×47×30	-	54	42	47	30	31 000	75 500	9 000
43	K 43×48×17	-	29.3	43	48	17	21 000	42 500	9 000
	K 43×48×27	-	45.7	43	48	27	33 000	74 500	9 000
	K 43×50×18	9249/43	48.5	43	50	18	30 500	53 500	9 000
45	K 45×49×19	-	27	45	49	19	17 500	4 000	8 000
	K 45×50×17	49241/45	25.5	45	50	17	22 000	45 000	8 000
	K 45×50×27	19241/45	50	45	50	27	34 000	79 500	8 000
	K 45×50×32 TN	-	45	45	50	32	38 000	90 500	8 000
	K 45×52×18	-	51	45	52	18	31 000	56 500	8 000
	K 45×52×21 TN	-	32.9	45	52	21	39 500	57 500	8 000
	K 45×53×20	19244/45	62.2	45	53	20	38 500	66 500	8 000
	K 45×53×21	-	65	45	53	21	38 000	66 500	8 000
	K 45×53×22	-	68.4	45	53	22	42 000	66 500	8 000
	K 45×53×28	-	78	45	53	28	51 500	97 500	8 000
	K 45×59×18 TN	-	60.5	45	59	18	43 500	53 500	7 000
	K 45×59×32	-	145.5	45	59	32	72 500	101 500	7 000
	K 45×59×36	-	195	45	59	36	75 500	108 500	7 000
	K 45×51×36	-	85	45	51	36	44 500	98 500	7 000
47	K 47×52×17	-	32	47	52	17	22 800	48 500	8 000
	K 47×52×27	-	50.7	47	52	27	34 500	82 500	8 000
	K 47×53×25	-	53	47	53	25	38 000	81 500	8 000
	K 47×55×28	-	62.4	47	55	28	52 500	99 500	7 500
48	K 48×54×19	39242/48	44	48	54	19	30 000	60 500	7 500
	K 48×54×25	59242/48	55	48	54	25	31 000	91 000	7 500
50	K 50×55×13.5	-	31	50	55	13.5	17 500	36 000	7 500
	K 50×55×17	49241/50	35	50	55	17	21 400	46 500	7 500
	K 50×55×20	59241/50	39.4	50	55	20	26 000	59 500	7 500
	K 50×55×30	9243/50	59.4	50	55	30	38 500	96 500	7 500
	K 50×57×18	-	53.4	50	57	18	33 000	62 500	7 000
	K 50×58×20	19244/50	64.9	50	58	20	35 000	61 500	7 000
	K 50×58×25	29244/50	81	50	58	25	43 500	80 500	7 000
52	K 52×57×12	-	24	52	57	12	17 500	36 000	7 000
55	K 55×60×20	-	43.4	55	60	20	28 000	65 500	6 500
	K 55×60×27	-	60.5	55	60	27	37 500	96 500	6 500

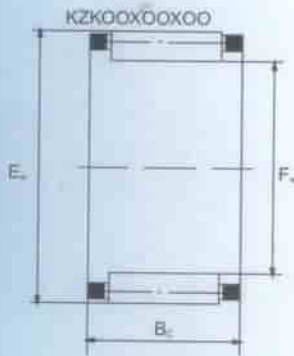


Shaft Diameter mm	Bearing Designation		Mass Approx g	Boundary Dimensions			Basic Load Rating		Limiting Speed Oil rpm
	Current	Substituted		F <sub>s</sub>	E <sub>s</sub>	B <sub>s</sub>	C <sub>r</sub> Dynamic	C <sub>s</sub> Static	
				mm			N		
55	K 55×60×30	-	68.6	55	60	30	40 500	10 300	6 500
	K 55×61×20	49241/55	56	55	61	20	41 000	11 000	6 500
	K 55×62×18	-	58.4	55	62	18	35 000	69 500	6 500
	K 55×63×15	-	53	55	63	15	24 500	40 500	6 500
	K 55×63×18	-	53	55	63	18	24 500	40 500	6 500
	K 55×63×20	19243/55	73.3	55	63	20	39 500	73 500	6 500
	K 55×63×25	29243/55	88	55	63	25	49 500	99 500	6 500
	K 55×63×32	-	117	55	63	32	61 500	129 500	6 500
	K 55×60×40	-	96.5	55	60	40	48 000	132 000	6 500
56	K 56×61×20	-	45	56	61	20	27 000	64 500	6 500
58	K 58×63×17	-	42	58	63	17	21 500	63 500	6 000
	K 58×64×19	-	53	58	64	19	24 500	77 500	6 000
	K 58×65×18	-	52	58	65	18	34 500	69 500	6 000
	KK 58×65×38	-	106	58	65	38	48 500	106 500	6 000
60	K 60×65×20	49241/60	50.5	60	65	20	29 000	71 500	6 000
	K 60×65×30	69241/60	71.5	60	65	30	42 000	115 500	6 000
	K 60×68×20	19243/60	79	60	68	20	43 000	84 500	5 500
	K 60×68×23	-	94	60	68	23	49 000	100 500	5 500
	K 60×68×25	29243/60	97	60	68	25	52 500	110 500	5 500
	K 60×68×27	-	98	60	68	27	59 000	120 500	6 000
	K 60×66×30	-	136	60	68	30	44 000	87 500	4 500
	K 60×66×34	-	140	60	68	34	47 500	95 500	4 500
	KK 60×66×33	K 60×66×33 ZW	104	60	66	33	45 500	111 500	6 000
	KK 60×66×40	K 60×66×40 ZW	116	60	66	40	57 500	150 500	5 500
	K 60×75×42	-	240	60	75	42	11 300	19 200	5 500
	K 60×66×30 ZW	-	136	60	68	30	44 000	87 500	4500
	K 60×66×34 ZW	-	140	60	68	34	47 500	95 500	4500
	KK 60×68×30	K 60×68×30 ZW	136	60	68	30	44 000	87 500	5 500
	KK 60×68×34	K 60×68×34 ZW	140	60	68	34	47 500	95 500	5 500
62	KK 62×70×40	-	147.5	62	70	40	65 500	145 500	5 500
63	K 63×70×21	K 63×70×21	75	63	70	21	45 000	100 500	5 500
64	K 64×70×16	K 64×70×16	53	64	70	16	27 500	59 500	5 500
65	K 65×70×20	49241/65	49	65	70	20	30 000	76 500	5 500
	K 65×70×30	-	83	65	70	30	43 500	123 500	5 500
	K 65×73×23	-	100	65	73	23	45 500	93 500	5 000
	K 65×73×30	39243/65	126	65	73	30	56 500	122 500	5 000
68	K 68×74×20	49241/68	65	68	74	20	35 000	83 500	5 000
	K 68×74×30	69241/68	97	68	74	30	46 000	117 500	5 000
	KK 68×74×35	79241/68	116	68	74	35	48 000	124 500	5 000
	K 68×75×20	-	120	68	75	20	53 500	127 500	4 500
	KK 68×75×32	-	120	68	75	32	53 500	127 500	4 500
70	K 70×76×20	49241/70	70	70	76	20	35 500	85 500	4 500
	K 70×76×30	69241/70	100	70	76	30	51 500	138 500	4 500
	K 70×78×25	29243/70	115	70	78	25	51 500	111 500	4 500
	K 70×78×30	39243/701	136	70	78	30	59 500	134 500	4 500
	K 70×80×30	29244/70	150	70	80	30	72 500	147 500	4 500

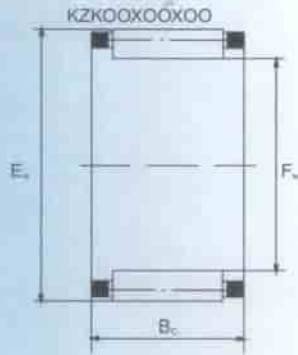
Limiting speed for oil lubrication. For grease lubrication, 60% of the values given in the table is permissible.



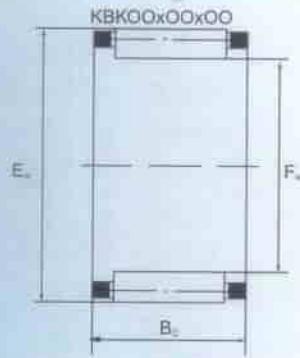
Shaft Diameter mm	Bearing Designation		Mass Approx g	Boundary Dimensions			Basic Load Rating		Limiting Speed Oil rpm
	Current	Substituted		F <sub>s</sub>	E <sub>s</sub>	B <sub>s</sub>	C <sub>d</sub> Dynamic	C <sub>s</sub> Static	
				mm			N		
70	KK 70×78×46	K 70×78×46 ZW	230	70	78	46	77 500	18 800	4 500
72	K 72×80×20	19243/72	94	72	80	20	41 000	84 500	4 500
73	K 73×79×20	-	69	73	79	20	36 500	99 500	4 500
75	K 75×81×20	49241/75	72	75	81	20	37 000	93 500	4 500
	K 75×81×30	69241/75	106	75	81	30	51 500	142 000	4 500
	K 75×83×23	-	113	75	83	23	49 500	108 000	4 000
	K 75×83×30	39243/75	147	75	83	30	61 500	142 000	4 000
	KK 75×83×35	49243/75	165	75	83	35	62 500	146 000	4 000
	KK 75×83×40	59243/75	190	75	83	40	72 500	176 500	4 000
	80	K 80×86×20	49241/80	76	80	86	20	38 000	97 500
80	K 80×86×30	69241/80	114	80	86	30	55 500	158 500	4 000
	K 80×88×30	39243/80	141	80	88	30	71 500	178 500	4 000
	KK 80×88×40	59243/80	204	80	88	40	75 500	191 500	4 000
	KK 80×88×46	69243/80	235	80	88	46	87 500	23 000	4 000
	85	K 85×92×20	29241/85	96	85	92	20	44 000	107 500
90	K 90×97×20	29241/90	103	90	97	20	44 500	112 500	3 000
	K 90×98×27	-	150	90	98	27	60 500	149 500	3 000
	K 90×98×30	39242/90	172	90	98	30	67 500	171 500	3 000
95	K 95×102×20	29241/95	110	95	102	20	45 500	122 500	2 900
	K 95×103×30	39242/95	177	95	103	30	68 500	179 500	2 900
	KK 95×103×40	59242/95	250	95	103	40	82 500	227 500	2 900
100	K 100×107×21	-	120	100	107	21	47 500	126 500	2 700
	K 100×108×27	-	176	100	108	27	56 500	142 500	2 700
	K 100×108×30	39242/100	190	100	108	30	70 500	187 500	2 700
105	K 105×112×21	-	123	105	112	21	47 000	126 500	2 500
	K 105×113×30	39242/105	198	105	113	30	71 500	196 500	2 500
110	K 110×117×24	-	146	110	117	24	55 500	157 500	2 300
	K 110×118×30	39242/110	217	110	118	30	77 500	218 500	2 300



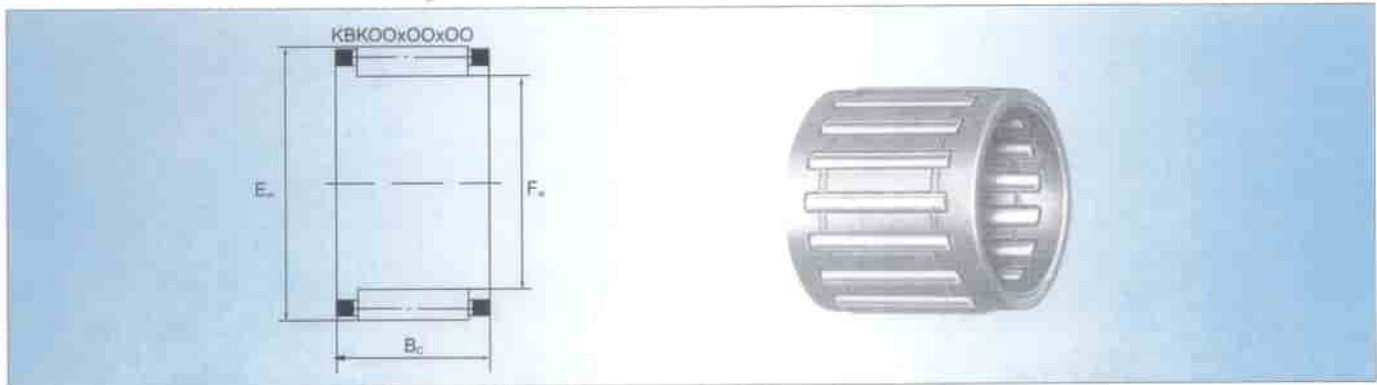
Shaft Diameter mm	Bearing Designation		Mass Approx. g	Boundary Dimensions			Basic Load Rating	
	Current	Substituted		$F_w$	$E_s$	$B_c$	$C_r$ Dynamic	$C_s$ Static
				mm			N	
8	KZK8×12×8	19242/8	1.9	8	12	8	4 700	4 580
10	KZK10×14×10	29242/10	3.3	10	14	10	5 000	5 160
12	KZK12×15×13	49241/12	3.6	12	15	13	5 300	7 400
	KZK12×16×10	29242/12	3.5	12	16	10	6 100	6 900
	KZK12×16×11		3.7	12	16	11	6 200	7 100
	KZK12×17×10	19243/12	5	12	17	10	7 020	7 020
	KZK12×18×10	19242/12	7.8	12	18	10	7 400	7 200
14	KZK14×18×10	29241/14	4	14	18	10	7 100	8 500
	KZK14×19×10	19242/14	5.5	14	19	10	7 300	7 600
	KZK14×19×12		7.5	14	19	12	74 600	7 950
	KZK14.4×20.4×10		6.5	14.4	20.4	10	8 100	7 800
15	KZK15×19×9		5	15	19	9	6 800	7 100
	KZK15×19×10	29241/15	6	15	19	10	7 200	8 400
	KZK15×20×10	19242/15	7.5	15	20	10	7 800	9 100
	KZK15×21×10		8.5	15	21	10	8 400	10 500
	KZK15×21×11		9.5	15	21	11	8 500	10 700
	KZK15.2×22.2×12		11.5	15.2	22.2	12	8 600	11 100
16	KZK16×20×10	29241/16	5.8	16	20	10	8 200	9 200
	KZK16×20×24	79241/16	6.3	16	20	24	8 700	9 400
	KZK16×21×10	19242/16	5.8	16	21	10	8 800	9 800
	KZK16×22×12	19243/16	9.5	16	22	12	11 000	11 900
	KZK16×22×14		11	16	22	14	13 200	13 930
17	KZK17×21×10	29241/17	6.7	17	21	10	7 600	9 000
	KZK17×23×11		9.5	17	23	11	8 100	11 300
18	KZK18×22×10	29241/18	6.9	18	22	10	7 600	9 800
	KZK18×22×24		7.2	18	22	24	10 100	17 200
	KZK18×24×11.6	19243/18	10	18	24	11.6	11 600	13 100
	KZK18×24×12	19243/18	10	18	24	12	11 600	13 100
	KZK18×24×13.3		12.4	18	24	13.3	9 000	10 700
	KZK18×24×13.5		12.4	18	24	13.5	9 000	10 700
	KZK18×24×15	29243/18	14	18	24	15	13 200	15 500
19	KZK19×25×16	19244/19K	13.9	19	25	16	12 100	15 500
	KZK19×28×14		20	19	28	14	12 100	15 000
20	KZK20×25×16		12	20	25	16	9 900	12 300
	KZK20×26×12	19243/20	9.6	20	26	12	10 100	12 500
	KZK20×26×14		12	20	26	14	12 600	16 700
	KZK20×26×17	9246/20	17	20	26	17	12 700	17 600
22	KZK22×28×13		15	22	28	13	11 900	16 500
	KZK22×28×14		16	22	28	14	12 600	16 800
	KZK22×28×15	29242/22	16.7	22	28	15	13 500	18 500



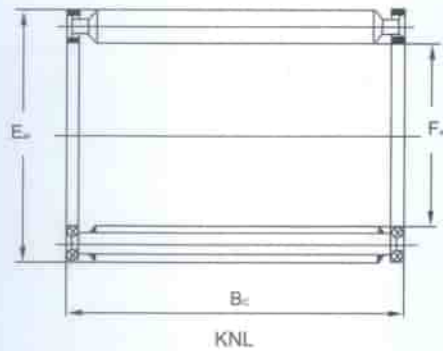
Shaft Diameter mm	Bearing Designation		Mass Approx g	Boundary Dimensions			Basic Load Rating	
	Current	Substituted		F <sub>w</sub>	E <sub>w</sub>	B <sub>c</sub>	C <sub>r</sub> Dynamic	C <sub>r</sub> Static
				mm			N	
22	KZK22×28×16	29243/22K	18	22	28	16	14 400	20 100
	KZK22×29×15		15.2	22	29	15	17 800	21 800
	KZK22×29×16	19244/22	19	22	29	16	17 800	21 800
	KZK22×30×16	SZ-432	25.7	22	30	16	18 700	22 300
23	KZK23×29×13		12	23	29	13	10 000	11 300
	KZK23×30×14		19.4	23	30	14	9 350	10 100
	KZK23×30×16		22	23	30	16	9 780	11 800
23.1	KZK23.1×28.1×14	29242/23.1	12.9	23.1	28.1	14	10 600	15 800
24	KZK24×30×16		17	24	30	15	11 200	13 700
	KZK24×30×28		18	24	30	16	11 200	13 700
25	KZK25×30×28	69245/25	24	25	30	28	13 300	15 200
	KZK25×31×12	19243/25K	16	25	31	12	8 700	8 800
	KZK25×31×17	39243/25	23	25	31	17	9 200	9 750
	KZK25×31×20	49243/25	26	25	31	20	9 700	10 600
	KZK25×32×16	19244/25	22.7	25	32	16	18 200	23 100
25.1	KZK25.1×30.1×14		14.1	25.1	30.1	14	13 700	19 000
26	KZK26×34×16	9248/26	25	26	34	16	11 700	17 500
28	KZK28×33×14		15.7	28	33	14	13 200	21 900
	KZK28×34×14		20	28	34	14	16 500	20 700
	KZK28×35×15		25	28	35	15	18 000	22 000
	KZK28×35×16	19243/28	27	28	35	16	18 900	23 000
	KZK28×36×16		29.1	28	36	16	19 500	27 000
	KZK28×38×13.6		40	28	38	13.6	17 300	20 300
30	KZK30×36×16		28.5	30	36	16	18 900	22 800
	KZK30×37×16	19243/30	29	30	37	16	21 500	30 500
	KZK30×38×16		34.4	30	38	16	22 700	32 600
	KZK30×38×18		38.8	30	38	18	26 200	39 600
32	KZK32×40×22	19244/32K	50	32	40	22	27 800	39 300
	KZK32×42×20		54	32	42	20	29 000	41 000
35	KZK35×42×20	29243/35	10	35	42	20	26 000	40 200
38	KZK38×46×20	19244/38	50	38	46	20	31 100	43 000
40	KZK40×48×17		50	40	48	17	29 000	39 000
	KZK40×48×20	19244/40	54	40	48	20	32 500	51 000



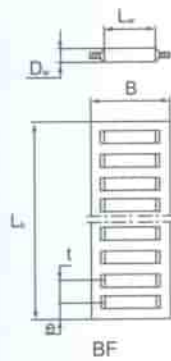
Shaft Diameter mm	Bearing Designation		Mass Approx g	Boundary Dimensions			Basic Load Rating	
	Current	Substituted		F <sub>w</sub>	E <sub>w</sub>	B <sub>e</sub>	C <sub>d</sub> Dynamic	C <sub>s</sub> Static
				mm			N	
8	KBK 8×11×10	39241/8	1.85	8	11	10	3 500	4 000
	KBK 8×12×10	29242/8	2	8	12	10	3 700	4 100
9	KBK 9×12×11.5	-	2.4	9	12	11.5	4 200	4 800
	KBK 9×12×13	49241/8	2.75	9	12	13	4 600	5 800
	KBK 9×12×14	-	3.5	9	12	14	4 700	5 900
	KBK 9×13×12	39242/9	4.1	9	13	12	5 300	5 700
	KBK 9×13×12.5	-	4.9	9	13	12.5	5 300	5 700
	KBK 9×13×13	39242/9	5.1	9	13	13	5 350	5 600
10	KBK 10×13×8	29241/10	2	10	13	8	4 000	5 000
	KBK 10×13×10	39241/10	2.4	10	13	10	4 200	5 200
	KBK 10×13×14.5	59241/10	5.1	10	13	14.5	5 400	6 600
	KBK 10×13×16	-	5.7	10	13	16	6 800	7 700
	KBK 10×14×10	29242/10	3.4	10	14	10	4 400	4 600
	KBK 10×14×11	-	4	10	14	11	5 200	5 700
	KBK 10×14×12	-	4.5	10	14	12	5 400	6 000
	KBK 10×14×12.5	-	4.85	10	14	12.5	5 600	6 200
	KBK 10×14×13	39242/10	5.4	10	14	13	5 600	6 200
11	KBK 11×15×17	-	5	11	15	17	5 200	7 000
12	KBK 12×15×13	49241/12	4.6	12	15	13	5 500	7 300
	KBK 12×15×14.3	-	5.4	12	15	14.3	5 800	7 700
	KBK 12×15×15	59241/12	5.6	12	15	15	5 900	7 800
	KBK 12×15×16.6	-	6.2	12	15	16.6	6 800	9 900
	KBK 12×15×17	69241/12	6.3	12	15	17	7 000	10 000
	KBK 12×15×17.5	-	6.5	12	15	17.5	7 000	10 000
	KBK 12×16×13	39242/12	6.7	12	16	13	6 300	7 600
	KBK 12×16×15	49242/12KY	7.9	12	16	15	7 500	9 000
	KBK 12×16×15.5	-	8.3	12	16	15.5	7 600	10 000
	KBK 12×16×16	59241/12	8.5	12	16	16	7 800	9 300
	KBK 12×16×17	59242/12	9.2	12	16	17	7 900	9 400
	KBK 12×17×14	-	8	12	17	14	8 000	9 500
	KBK 12×17×14.3	-	8.4	12	17	14.3	8 000	9 500
KBK 12×17×14.8	-	8.8	12	17	14.8	8 300	9 800	
13	KBK 13×17×14.5	-	7.1	13	17	14.5	8 300	10 200
	KBK 13×17×17.5	-	8.6	13	17	17.5	9 500	12 100
14	KBK 14×18×10	29241/14	4.6	14	18	10	6 260	7 400
	KBK 14×18×12	-	6.6	14	18	12	6 380	7 570
	KBK 14×18×13	39241/14	7.6	14	18	13	7 300	8 700
	KBK 14×18×14	-	6.33	14	18	14	7 400	8 800
	KBK 14×18×14.5	-	8	14	18	14.5	7 400	8 800
KBK 14×18×15	49241/14	8.3	14	18	15	7 600	8 990	



Shaft Diameter mm	Bearing Designation		Mass Approx g	Boundary Dimensions			Basic Load Rating	
	Current	Substituted		F <sub>w</sub>	E <sub>w</sub>	B <sub>c</sub>	C <sub>Dynamic</sub>	C <sub>Static</sub>
				mm			N	
14	KBK 14×18×16.5	-	9.6	14	18	16.5	8 800	9 700
	KBK 14×18×17	59241/14	10.1	14	18	17	8 900	9 800
	KBK 14×18×20	69241/14	12	14	18	20	9 000	10 100
	KBK 14×18×21	-	13	14	18	21	10 500	12 400
	KBK 14×18×22	-	14	14	18	22	11 100	13 100
	KBK 14×19×17	49242/14K	10.3	14	19	17	11 100	13 100
15	KBK 15×19×10	29241/15Y	5	15	19	10	650	8 600
	KBK 15×19×18	-	11	15	19	18	9 900	11 300
	KBK 15×19×19	-	12	15	19	19	10 100	12 800
	KBK 15×19×20	69241/15	12.9	15	19	20	11 300	15 500
	KBK 15×20×24	SZ-433	18.6	15	20	24	14 100	20 000
16	KBK 16×20×19	-	12	16	20	19	11 700	16 800
	KBK 16×20×20	69241/16Y	13.4	16	20	20	12 900	17 600
	KBK 16×20×21	-	14	16	20	21	12 900	17 600
	KBK 16×20×22	-	15	16	20	22	13 000	18 700
	KBK 16×21×19	59242/16	16	16	21	19	13 000	18 700
	KBK 17.5×22×16	-	9.3	17.5	22	16	11 000	16 300
18	KBK 18×22×22	-	16.9	18	22	22	11 500	17 700
	KBK 18×22×23.5	-	18	18	22	23.5	11 900	19 000
	KBK 18×22×24	-	18.4	18	22	24	12 000	20 000
	KBK 18×22×25	-	19.1	18	22	25	12 700	20 100
	KBK 18×23×21	-	18	18	23	21	9 900	10 100
	KBK 18×23×23	69242/18	20	18	23	23	10 500	12 000
	KBK 18×24×20	49243/18	20	18	24	20	20 000	25 000
	KBK 20×24×30	-	22.1	20	24	30	14 900	25 500
20	KBK 20×25×22	-	19.5	20	25	22	15 200	22 300
	KBK 20×25×25	-	23	20	25	25	17 100	24 000



Shaft Diameter	Bearing Designation		Mass Approx	Boundary Dimensions		
	Current	Substituted		F <sub>w</sub>	E <sub>w</sub>	B <sub>c</sub>
mm			g	mm		
19.051	KNL 19.05×28.588×36.75	64903	70	19.051	28.588	36.75
19.051	KNL 19.051×28.588×36.75	64904	80	19.051	28.588	43.25
20	KNL 20×30.2×18	64704	40	20	30.2	18
20.612	KNL 20.612×33.325×35	864904	96	20.612	33.325	35
20.638	KNL 20.638×33.338×35	64705	92	20.638	33.338	36.75
25	KNL 25×38×24.7	64805	82	25	38	24.7
25.4	KNL 25.4×41.2×60.4	64905	265	25.4	41.2	60.4
27.71	KNL 27.71×42.825×44.1	64906	183	27.71	42.825	44.1
28.575	KNL 28.575×41.275×34.925	64806	122	28.575	41.275	34.925
28.578	KNL 28.575×41.275×40	94626	155	28.578	41.275	40
29.975	KNL 29.975×42×44.1	64706	160	29.975	42	44.1
29.975	KNL 29.975×42×31	9148/30	81	29.975	42	31
31.75	KNL 31.75×44.45×31.75	864807	115.88	31.75	44.45	31.75
31.9	KNL 31.9×41.46×32	31.9×41.46×32	95	31.9	41.46	32
32	KNL 32×50×45	30643/32	272	32	50	45
32	KNL 32×52×49	64907	329	32	52	49
37.96	KNL 37.96×53.9×36	37.96×53.9×36	208.3	37.96	53.9	36
40	KNL 40×60×30	10643/40	248	40	60	30
52.412	KNL 52.412×71.425×42.3	864911	441	52.412	71.425	42.3
65	KNL 65×89×58.9	864913	943	65	89	58.9
74	KNL 74×106×57.9	864915	1563	74	106	57.9



Dim.table/Unit:mm

Bearing Designation	Weight kg	Dimensions						Basic Load Rating (10pcs rollers)		Fixing dimensions		
		B	L <sub>r</sub>	t	e	D <sub>w</sub>	L <sub>w</sub>	C <sub>r</sub> Dynamic	C <sub>or</sub> Static	E	E <sub>min</sub>	H <sub>1,2</sub>
BF 3020	0.342	20	Max. Length of cage	6	4.5	3	15.8	39 500	102 000	20.4 <sup>+0.2</sup>	16	2.7
BF 5015	0.375	15		8	5.5	5	11.8	60 000	123 000	15.4 <sup>+0.2</sup>	12	4.6
BF 5023	0.530	23		8	5.5	5	19.8	91 000	211 000	23.4 <sup>+0.2</sup>	20	4.6
BF 5032	0.722	32		8	5.5	5	27.8	119 000	300 000	32.5 <sup>+0.3</sup>	28	4.6
BF 7028	0.875	28		11	7.5	7	24	165 000	365 000	28.4 <sup>+0.2</sup>	24	6.5
BF 7035	1.080	35		11	7.5	7	30	197 000	455 000	35.6 <sup>+0.3</sup>	30	6.5
BF 12022	1.220	22		16	10	12	18	260 000	460 000	22.4 <sup>+0.2</sup>	18	11
BF 12040	1.970	40		16	10	12	36	455 000	930 000	40.5 <sup>+0.3</sup>	36	11