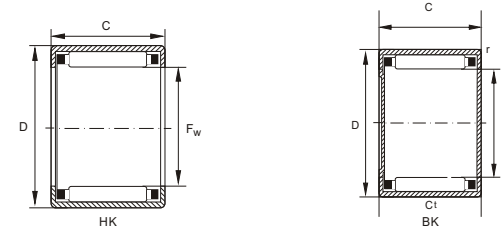


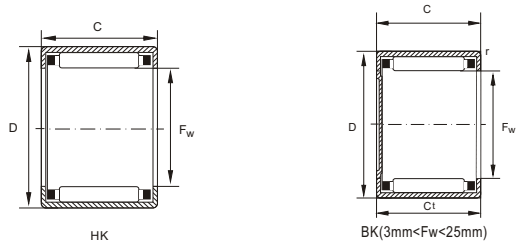
## SHELL TYPE NEEDLE ROLLER BEARINGS, OPEN END DESIGN



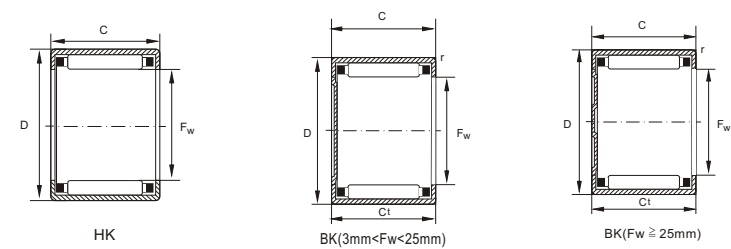
Shaft Diameter (mm)	Principal dimensions (mm)					Open end design		Closed end design	
	F <sub>w</sub>	D	C	C <sub>t</sub> min	r min	Bearing Number	Weight g	Bearing Number	Weight g
3	3	6.5	6	5.2	0.3	*HK 0306 TN	1.0	*BK 0306 TN	1.0
4	4	8	8	6.4	0.3	*HK 0408	2.0	*BK 0408	2.1
5	5	9	9	7.4	0.4	*HK 0509	2.0	*BK 0509	2.1
6	6	10	8	-	0.4	*HK 0608	2.1	-	-
	6	10	9	7.4	0.4	HK 0609	2.5	BK 0609	2.6
7	7	11	9	7.4	0.4	HK 0709	2.6	BK 0709	2.9
8	8	12	8	6.4	0.4	HK 0808	2.7	BK 0808	3.0
	8	12	10	8.4	0.4	HK 0810	3.0	BK 0810	3.4
9	9	13	8	-	0.4	HK 0908	3.0	-	-
	9	13	10	8.4	0.4	HK 0910	4.0	BK 0910	4.3
	9	13	12	10.4	0.4	HK 0912	4.6	BK 0912	4.9
10	10	14	10	8.4	0.4	HK 1010	4.1	BK 1010	4.3
	10	14	12	10.4	0.4	HK 1012	4.8	BK 1012	5.0
	10	14	15	13.4	0.4	HK 1015	6.0	BK 1015	6.2
12	12	16	10	8.4	0.4	HK 1210	4.6	BK 1210	5.2
	12	16	12	9.3	0.8	HK 1212	9.0	BK 1212	10.0
13	13	19	12	9.3	0.8	HK 1312	10.0	BK 1312	11.0
14	14	20	12	9.3	0.8	HK 1412	10.5	BK 1412	12.0
15	15	21	12	9.3	0.8	HK 1512	11.0	BK 1512	13.0
	15	21	16	13.3	0.8	HK 1516	15.0	BK 1516	17.0
	15	22	22	-	0.8	°HK 1522	20.0	-	-
16	16	22	12	9.3	0.8	HK 1612	12.0	BK 1612	14.0
	16	22	16	13.3	0.8	HK 1616	16.0	BK 1616	18.0
	16	23	22	19.3	0.8	°HK 1622	22.0	°BK 1622	24.0
17	17	24	12	-	0.8	HK 1712	12.0	-	-
18	18	24	12	9.3	0.8	HK 1812	13.0	BK 1812	15.0
	18	26	16	13.3	0.8	HK 1816	18.0	BK 1816	20.0
20	20	26	10	-	0.8	HK 2010	12.0	-	-
	20	26	12	-	0.8	HK 2012	14.0	-	-
	20	26	16	13.3	0.8	HK 2016	19.0	BK 2016	22.0
	20	26	20	17.3	0.8	HK 2020	24.0	BK 2020	27.0
	20	26	30	-	0.8	°HK 2030	35.0	-	-
22	22	28	10	-	0.8	HK 2210	13.0	-	-
	22	28	12	9.3	0.8	HK 2212	15.0	BK 2212	18.0
	22	28	16	13.3	0.8	HK 2216	21.0	BK 2216	24.0
	22	28	20	-	0.8	HK 2220	26.0	-	-

TN = Plastic cage, Limiting working temperature: +120°C (Continuous working)  
 +Without oil hole  
 ° With double-row oil holes are of standard type



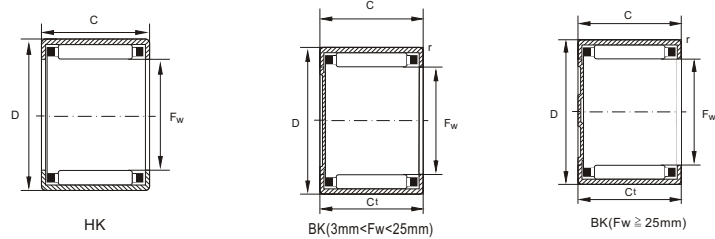


Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min	Shaft Diameter (mm)
Dynamic C	Static Co			
1.23	0.84	46000	65000	3
1.78	1.31	41000	50000	4
2.40	1.99	38000	42000	5
2.03	1.65	35000	36000	6
2.85	2.60	35000	35000	7
3.10	2.95	31000	31000	
2.75	2.60	28000	27000	8
3.80	3.95	28000	27000	9
3.55	3.75	25000	23000	
4.25	4.65	25000	24000	10
5.30	6.30	25000	23000	
4.40	5.10	23000	22000	11
5.50	6.80	23000	21000	
6.80	8.80	23000	21000	12
4.95	6.20	20000	18000	
6.50	7.30	19000	18000	13
6.80	7.90	18000	17000	
7.10	8.50	16000	16000	14
7.90	9.40	16000	14000	15
10.50	14.40	16000	14000	
13.40	19.50	16000	14000	16
7.60	9.70	15000	14000	
10.90	15.30	15000	13000	17
13.10	19.40	15000	14000	
7.90	10.30	14000	13000	18
8.10	10.90	13000	12000	
11.60	17.30	13000	12000	19
6.40	8.20	12000	12000	
8.60	12.10	12000	11000	20
12.70	20.10	12000	11000	
15.70	26.00	12000	11000	21
21.80	40.00	12000	11000	
7.50	10.50	11000	10000	22
9.10	13.40	11000	10000	
13.40	22.10	11000	10000	23
16.50	29.00	11000	10000	

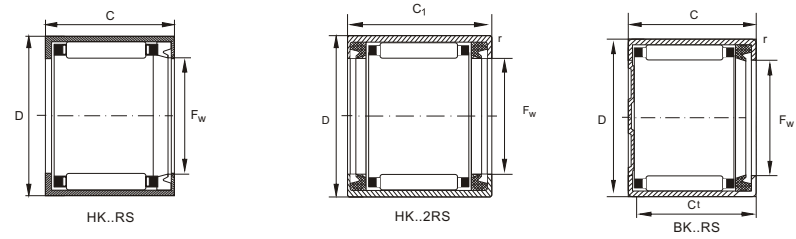


Shaft Diameter (mm)	Principal dimensions (mm)					Open end design		Closed end design	
	Fw	D	C	Ct min	r min	Bearing Number	Weight g	Bearing Number	Weight g
25	25	32	12	-	0.8	HK 2512	20	-	-
	25	32	16	-	0.8	HK 2516	27	-	-
	25	32	20	17.3	0.8	HK 2520	33	BK 2520	38
28	25	32	26	23.3	0.8	HK 2526	44	BK 2526	48
	25	32	38	35.3	0.8	° HK 2538	64	° BK 2538	68
	28	35	16	-	0.8	HK 2816	29	-	-
30	28	35	20	-	0.8	HK 2820	36	-	-
	30	37	12	9.3	0.8	HK 3012	23	BK 3012	28
	30	37	16	13.3	0.8	HK 3016	31	BK 3016	38
35	30	37	20	17.3	0.8	HK 3020	39	BK 3020	47
	30	37	26	23.3	0.8	HK 3026	51	BK 3026	58
	30	37	38	35.3	0.8	° HK 3038	76	° BK 3038	84
40	35	42	12	-	0.8	HK 3512	27	-	-
	35	42	16	-	0.8	HK 3516	36	-	-
	35	42	20	17.3	0.8	HK 3520	44	BK 3520	53
45	40	47	12	-	0.8	HK 4012	30	-	-
	40	47	16	-	0.8	HK 4016	39	-	-
	40	47	20	17.3	0.8	HK 4020	54	BK 4020	62
50	45	52	12	-	0.8	HK 4512	33	-	-
	45	52	16	-	0.8	HK 4516	46	-	-
	45	52	20	17.3	0.8	HK 4520	56	BK 4520	72
55	50	58	20	-	0.8	HK 5020	70	-	-
	50	58	25	-	0.8	HK 5025	90	-	-
60	55	63	20	-	0.8	HK 5520	74	-	-
	55	63	28	-	0.8	HK 5528	105	-	-
65	60	68	12	-	0.8	HK 6012	49	-	-
	60	68	20	-	0.8	HK 6020	81	-	-
	60	68	32	-	0.8	HK 6032	136	-	-

TN = Plasticcage, Limiting working temperature: +120 °C (Continuous working)  
+Without oil hole  
° With double-row oil holes are of standard type



Basic Load Rating (kN)		Limiting Speed r/min	Rotating Speed r/min	Shaft Diameter (mm)	
Dynamic C	Static Co				
11.0	15.2	10000	9000	25	
15.6	24.0	10000	9000		
19.9	33.0	10000	8500		
25.5	45.0	10000	8500		
34.0	66.0	10000	8500		
16.4	26.5	9000	8000	28	
20.9	36.0	9000	8000		
12.1	18.2	8500	7500		
17.2	29.0	8500	7500	30	
22.0	39.5	8500	7500		
28.0	54.0	8500	7500		
37.5	79.0	8500	7500		
13.1	21.3	7500	6600		35
18.7	33.5	7500	6500		
23.8	46.0	7500	6500		
14.0	24.3	6500	6000	40	
20.0	38.5	6500	6000		
25.5	52.0	6500	5500		
14.9	27.5	6000	5500		45
21.3	43.0	6000	5500		
27.0	59.0	6000	5000		
31.0	63.0	5000	4700	50	
38.5	84.0	5000	4700		
31.5	67.0	4700	4400		55
44.0	103.0	4700	4300		
17.4	32.0	4400	4300	60	
33.5	75.0	4400	4100		
53.0	135.0	4400	4000		



Shaft Diameter (mm)	Principal dimensions (mm)						Open end design				Closed end design	
	Fw	D	C	C1	C1 min	r min	One side seal number	Weight g	Two sides seals	Weight g	One side seal number	Weight g
8	8	12	10	12	-	0.4	HK 0810 RS	3	HK 0812.2 RS	3.3	-	-
10	10	14	12	14	-	0.4	HK 1012 RS	4.2	HK 1014.2 RS	4.6	-	-
12	12	18	14	16	-	0.8	HK 1214 RS	10	HK 1216.2 RS	11	-	-
14	14	20	14	16	11.3	0.8	HK 1414 RS	12	HK 1416.2 RS	13	BK 1414 RS	13
15	15	21	14	16	-	0.8	HK 1514 RS	12	HK 1516.2 RS	15	-	-
	15	21	18	20	-	0.8	HK 1518 RS	16	HK 1520.2 RS	18	-	-
16	16	22	14	16	11.3	0.8	HK 1614 RS	13	HK 1616.2 RS	14	BK 1614 RS	15
	16	22	-	20	-	0.8	-	-	HK 1620.2 RS	18	-	-
18	18	24	14	16	-	0.8	HK 1814 RS	14	HK 1816.2 RS	15	-	-
20	20	26	-	16	-	0.8	-	-	HK 2016.2 RS	18	-	-
	20	26	18	20	15.3	0.8	HK 2018 RS	21	HK 2020.2 RS	23	BK 2018 RS	24
22	22	28	14	16	-	0.8	HK 2214 RS	16	HK 2216.2 RS	18	-	-
	22	28	18	20	-	0.8	HK 2218 RS	24	HK 2220.2 RS	26	-	-
25	25	32	-	16	-	0.8	-	-	HK 2516.2 RS	27	-	-
	25	32	18	20	15.3	0.8	HK 2518 RS	29	HK 2520.2 RS	31	BK 2518 RS	34
	25	32	-	24	-	0.8	-	-	HK 2524.2 RS	40	-	-
	25	32	-	30	-	0.8	-	-	HK 2530.2 RS	47	-	-
28	28	35	18	20	-	0.8	HK 2818 RS	31	HK 2820.2 RS	34	-	-
30	30	37	-	16	-	0.8	-	-	HK 3016.2 RS	31	-	-
	30	37	18	20	-	0.8	HK 3018 RS	37	HK 3020.2 RS	36	-	-
	30	37	-	24	-	0.8	-	-	HK 3024.2 RS	44	-	-
35	35	42	-	16	-	0.8	-	-	HK 3516.2 RS	32	-	-
	35	42	18	20	-	0.8	HK 3518 RS	39	HK 3520.2 RS	41	-	-
40	40	47	-	16	-	0.8	-	-	HK 4016.2 RS	37	-	-
	40	47	18	20	-	0.8	HK 4018 RS	45	HK 4020.2 RS	48	-	-
45	45	52	18	20	-	0.8	HK 4518 RS	50	HK 4520.2 RS	54	-	-
50	50	58	22	24	-	0.8	HK 5022 RS	76	HK 5024.2 RS	81	-	-

<sup>1)</sup> Limiting speed with grease lubrication