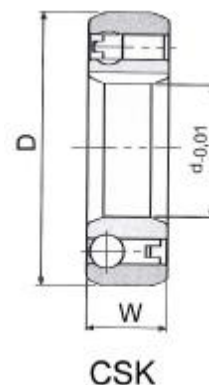


# ONE-WAY CLUTCH BEARINGS— CSK Series



Model **CSK** is a sprag type clutch (freewheel) integrated into a 6200 series ball bearing (except sizes 8 and 40). It is bearing supported, shipped grease lubricated and protected against dust larger than 0.3mm diameter. Torque



transmission is ensured by a press fit assembly into a rigid outer housing with N6 tolerance, and onto a shaft with n6 tolerance. The initial bearing radial clearance is set at C5, and is reduced if using the press fit as specified. Operating temperature range: -20°C to +100°C. Peaks up to +120°C are acceptable for short periods.



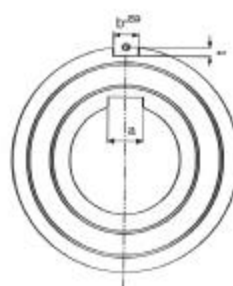
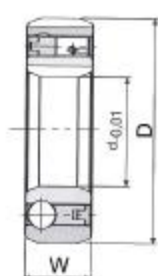
Bearing Number	Bore d(mm)	OD D(mm)	Width W(mm)	Torque (Nm)	Max. overrunning Speed (RPM)	Bearing loads		Single Weight (kg)
						Dynamic kN	Static kN	
CSK8	8	22	9	3.5	15,000	3.28	0.86	0.015
CSK12	12	32	10	12	10,000	6.10	2.77	0.05
CSK15	15	35	11	20	8,400	7.40	3.42	0.06
CSK17	17	40	12	40	7,350	7.90	3.80	0.07
CSK20	20	47	14	68	6,000	9.40	4.46	0.11
CSK25	25	52	15	105	5,200	10.7	5.46	0.14
CSK30	30	62	16	180	4,200	11.7	6.45	0.22
CSK35	35	72	17	240	3,600	12.6	7.28	0.33
CSK40	40	80	22	385	3,000	15.54	12.25	0.50

**CSK—P** and **CSK—PP** series are available upon request. CSK--P has the same construction and outside dimensions as type CSK, but has a keyway on the inner race; CSK--PP features a keyway in both the inner and outer race.



The Model CSK—P clutches must be secured to the shaft by customer supplied snap ring, set collar, spacer, etc.

The outer race is secured with a press fit to a N6 tolerance. The Model CSK—PP clutches have a keyway on both races and must be secured by customer supplied snap ring, set collar, spacer, etc.



Model	Keyway(a)
CSK12	4 x 1.2
CSK15	5 x 1.2
CSK17	6 x 1.6
CSK20	6 x 1.6
CSK25	8 x 2
CSK30	8 x 2
CSK35	10 x 2.4
CSK40	10 x 2.4



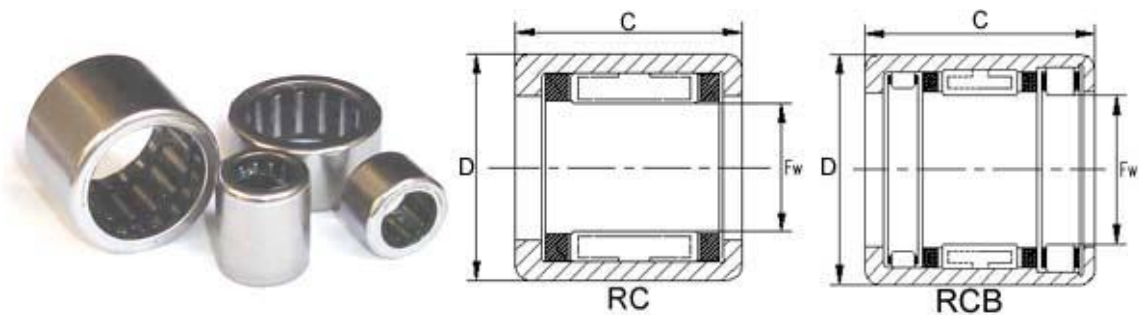
Drawn cup needle roller clutches are suitable for transmitting high torque. They are normally used for converters, non-return devices and transcendental clutches. HF series is composed of thin-walled drawn outer ring and plastic cage.

There are a series of ramps on its inside diameter and steel springs in the plastic cage. Needle rollers, which are retained and guided by a plastic cage, form the clamping elements. HFL series has two integral radial bearings arranged on both sides of needle roller clutch. RC,RCB are inch series.

Shaft Diameter (mm)	Clutch Designation Plastic Springs    Steel Springs		Single Weight (g)	Boundary Dimensions			Torque (Nm)	Limiting Speed		Suitable Drawn Cup Bearings
				Fw	D	C		Rotating Shaft Min-1	Rotating Outer Ring Min-1	
	(mm)			(Rpm)						
3	HF0306KF	--	0.9	3	6.5	6	0.2	36000	7000	HK0306TN
4	HF0406KF	--	1	4	8	6	0.34	34000	8000	HK0408TN
	HF0406KFR	--	1	4	8	6	0.10	34000	8000	HK0408TN
6	HF0608KF	--	2.8	6	10	8	1.50	20000	11000	HK0608
	HF0612KF	HF0612	3	6	10	12	1.76	23000	13000	HK0608
	HF0612KFR	HF0612R	3	6	10	12	0.50	23000	13000	HK0608
	--	HF061210	3.5	6	12	10	3.00	20000	13000	HK061208
8	HF0812KF	HF0812	3.5	8	12	12	3.15	17000	12000	HK0808
	HF0812KFR	HF0812R	3.5	8	12	12	4.00	17000	12000	HK0808
	--	HF061210	3.2	8	12	10	3.00	16000	12000	HK0808
	--	HF081410	3.6	8	14	10	4.60	15000	11000	HK081410
	--	HF081610	4.1	8	16	10	5.50	15000	11000	HK081610
10	--	HF081412	4.0	8	14	12	5.00	16000	12000	HK081410
	HF1012KF	HF1012	4.0	10	14	12	5.30	14000	11000	HK1010
	HF1012KFR	HF1012R	4.0	10	14	12	1.50	14000	11000	HK1010
12	--	HF1216	11	12	18	16	12.2	11000	8000	HK1212
14	--	HF1416	13	14	20	16	17.3	9500	8000	HK1412
16	--	HF1616	14	16	22	16	20.5	8500	7500	HK1612
18	--	HF1816	16	18	24	16	24.1	7500	7500	HK1812
20	--	HF2016	17	20	26	16	28.5	7000	6500	HK2010
25	--	HF2520	30	25	32	20	66	5500	5500	HK2512
30	--	HF3020	36	30	37	20	90	4500	4500	HK3012
35	--	HF3520	40	35	42	20	121	3900	3900	HK3512

**NOTE:** HFL series are available upon request.

# DRAWN CUP ROLLER CLUTCHES — RC,RCB Series



Bearing number	Single weight (g)	Boundary dimensions (mm)			Torque (Nm)
		Fw	D	C	
RC040708	3.5	6.35	11.112	12.7	1.9
RC040708-FS	3.5	6.35	11.112	12.7	1.9
RC061008	4.7	9.525	15.875	12.7	4.83
RC061008-FC	4.7	9.525	15.875	12.7	4.83
RC081208	9.2	12.7	19.05	12.7	7.9
RC081208-FS	9.2	12.7	19.05	12.7	7.9
RC101410	14.5	15.875	22.225	15.88	15.4
RC101410-FC	14.5	15.875	22.225	15.88	15.4
RC121610	17	19.05	25.4	15.88	20.9
RC121610-FS	17	19.05	25.4	15.88	20.9
RC162110	16.2	25.4	33.338	15.88	45
RC162110-FC	16.2	25.4	33.338	15.88	45
RCB061014	12	9.525	15.875	22.22	4.83
RCB061014-FS	12	9.525	15.875	22.22	4.83
RCB081214	16	12.7	19.05	22.22	7.9
RCB081214-FC	16	12.7	19.05	22.22	7.9
RCB101416	21.3	15.875	22.225	25.4	15.4
RCB101416-FS	21.3	15.875	22.225	25.4	15.4
RCB121616	26.5	19.05	25.4	25.4	20.9
RCB121616-FC	26.5	19.05	25.4	25.4	20.9
RCB162117	44.8	25.4	33.338	26.99	45
RCB162117-FS	44.8	25.4	33.338	26.99	45

## NOTES:

1. HF-----Drawn cup roller clutch with steel springs
2. HF—KF-----Drawn cup roller clutch with plastic springs
3. HF—R-----Drawn cup roller clutch with steel springs and partially knurled outer ring
4. HF—KFR-----Drawn cup roller clutch with plastic springs and partially knurled outer ring
5. HFL-----Drawn cup roller clutch with bearing assemblies with steel springs, plain or rolling bearings
6. HFL—KFR-----Drawn cup roller clutch and bearing assemblies with plastic springs, partially knurled outer ring
7. HFL—R ----Drawn cup roller clutch and plain bearing assemblies with steel springs, partially knurled outer ring
8. HFL—KFR-----Drawn cup roller clutch and plain bearing assemblies with plastic springs, partially knurled outer ring
9. HFL—K -----Metabolic configuration