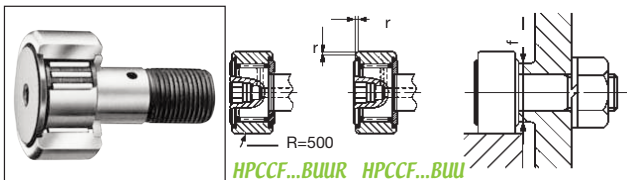


# Shafts & Bearings

## Standard, Cam Followers Sealed



HPCCF...BUUR HPCCF...BUU

Stud Diameter 6 to 30 mm

Note(1): Stud Diameter 6-10mm have no oil holes

Material: carbon Steel

Seals: Rubber

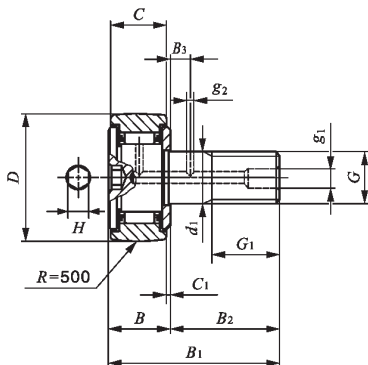
Allen key for mounting

Stud designed to fit housing

PART NUMBER		h7	+0.00	Boundary dimensions mm									
Crowned outer ring	Cylindrical outer ring	d1	-0.12	Stud Dia.	Mass (Ref.)	D	C	d1	G	G1	B	B1	B2
		mm	g	mm	g						max	max	
HPCCF6BUUR	HPCCF6BUU	6	18.5	16	11	6	M 6x1.00	8	12.2 max	28.2 max	16		
HPCCF8BUUR	HPCCF8BUU	8	28.5	19	11	8	M 8x1.25	10	12.2 max	32.2 max	20		
HPCCF10BUUR	HPCCF10BUU	10	45	22	12	10	M 10x1.25	12	13.2 max	36.2 max	23		
HPCCF10-1BUUR	HPCCF10-1BUU	10	60	26	12	10	M 10x1.25	12	13.2 max	36.2 max	23		
HPCCF12BUUR	HPCCF12BUU	12	95	30	14	12	M 12x1.5	13	15.2 max	40.2 max	25		
HPCCF12-1BUUR	HPCCF12-1BUU	12	105	32	14	12	M 12x1.5	13	15.2 max	40.2 max	25		
HPCCF16BUUR	HPCCF16BUU	16	170	35	18	16	M 16x1.5	17	19.6 max	52.1 max	32.5		
HPCCF18BUUR	HPCCF18BUU	18	250	40	20	18	M 18x1.5	19	21.6 max	58.1 max	36.5		

# Shafts & Bearings

## Standard, Cam Followers Sealed



Note(2): Minimum allowable value of chamfer "r".

### DISCOUNTS

1 - 19	List Price
20+	-8.5%

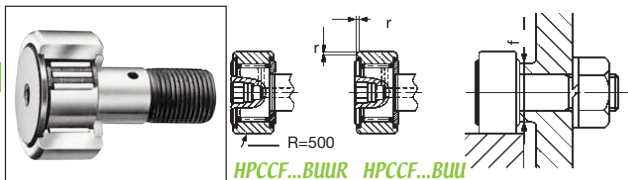
Boundary dimensions mm						Mounting dimens. f Min. mm	Max. tighte. torque N.m	Basic dyna. load rating C N	Basic static load rating Co N	Max. allow. load N	PRICE	PRICE
B3	C1	g1	g2	H	r <sub>min</sub> <sup>(3)</sup>						1-19	1-19
-	0.6	-	-	3	0.3	11	2.7	3660	3650	1950	£18.11	£16.61
-	0.6	-	-	4	0.3	13	6.5	4250	4740	4620	£18.11	£16.85
-	0.6	-	-	4	0.3	16	13.8	5430	6890	6890	£18.51	£16.85
-	0.6	-	-	4	0.3	16	13.8	5430	6890	6890	£19.54	£18.11
6	0.6	4	3	6	0.6	21	21.9	7910	9790	9790	£25.42	£21.17
6	0.6	4	3	6	0.6	21	21.9	7910	9790	9790	£26.88	£22.48
8	0.8	4	3	6	0.6	26	58.5	12000	18300	18300	£28.38	£23.64
8	0.8	6	3	8	1	29	86.2	14800	25200	25200	£30.77	£28.38

Shafts & Bearings Cam Followers Standard Sealed



# Shafts & Bearings

## Standard, Cam Followers Sealed



HPCCF...BUUR HPCCF...BUU

Stud Diameter 6 to 30 mm

Note(1): stud Diameter 6-10mm have no oil holes

Material: carbon Steel

Seals: Rubber

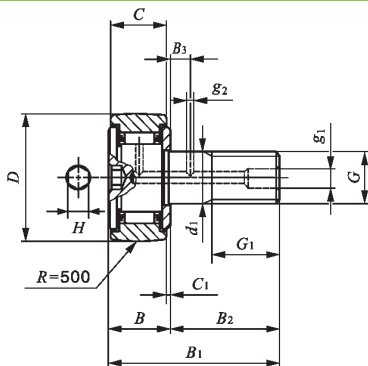
Allen key for mounting

Stud designed to fit housing

PART NUMBER		Stud Dia. mm	Mass (Ref.) g	Boundary dimensions mm							
Crowned outer ring	Cylindrical outer ring			D	C	d1	G	G1	B	B1	B2
HPCCF20BUUR	HPCCF20BUU	20	460	52	24	20	M 20x1.5	21	25.6 max	66.1 max	40.5
HPCCF20-1BUUR	HPCCF20-1BUU	20	385	47	24	20	M 20x1.5	21	25.6 max	66.1 max	40.5
HPCCF24BUUR	HPCCF24BUU	24	815	62	29	24	M 24x1.5	25	30.6 max	80.1 max	49.5
HPCCF24-1BUUR	HPCCF24-1BUU	24	1140	72	29	24	M 24x1.5	25	30.6 max	80.1 max	49.5
HPCCF30BUUR	HPCCF30BUU	30	1870	80	35	30	M 30x1.5	32	37 max	100 max	63
HPCCF30-1BUUR	HPCCF30-1BUU	30	2030	85	35	30	M 30x1.5	32	37 max	100 max	63
HPCCF30-2BUUR	HPCCF30-2BUU	30	2220	90	35	30	M 30x1.5	32	37 max	100 max	63

# Shafts & Bearings

## Standard, Cam Followers Sealed



Note(2): Minimum allowable value of chamfer "r".

### DISCOUNTS

1 - 19	List Price
20+	-8.5%

Boundary dimensions mm						Mounting dimens. f Min. mm	Max. tighte. torque N.m	Basic dyna. load rating C N	Basic static load rating Co N	Max. allow. load N	PRICE EACH 1-19	PRICE EACH 1-19
B3	C1	g1	g2	H	(3) r <sub>smin</sub>						Crown. outer ring	Cylind. outer ring
9	0.8	6	4	8	1	34	119	20700	34600	34600	£40.65	£37.57
9	0.8	6	4	8	1	34	119	20700	34600	34600	£40.65	£36.29
11	0.8	6	4	12	1	40	215	30500	52600	52000	£65.89	£60.83
11	0.8	6	4	12	1	40	215	30500	52600	52000	£39.47	£64.58
15	1	6	4	17	1	49	438	45400	85100	85100	£84.05	£78.96
15	1	6	4	17	1	49	438	45400	85100	85100	£99.16	£91.38
15	1	6	4	17	1	49	438	45400	85100	85100	£108.01	£101.19



# Shafts & Bearings

## Standard, Cam Followers Sealed

### Accuracy

The accuracy of Cam Followers is shown in Table 2, Table 3.1, and Table 3.2. Cam Followers with special accuracy are also available.

Table 2 Tolerances

Dimensions and symbols	Crowned outer ring	Cylindrical outer ring
Outside dia. of outer ring D	0 ~ -50	See Table 3.1
Stud dia. d1	h7	
Width of outer ring C	0 ~ -120	

Table 3.1 Tolerances and allowable values of outer rings

unit:  $\mu\text{m}$

D Nominal outside dia. of outer ring mm		$\Delta_{Dmp}$ Single plane mean outside dia. deviation		$\Delta_{Dp}$ outside diameter variation in a single radial plane (Max.)	$\Delta_{Dmp}$ Mean outside dia. variation (Max.)	$K_{ea}$ Radial runout of assembled bearing outer ring (Max.)
Over	Incl.	High	low			
6	18	0	-8	10	6	15
18	30	0	-9	12	7	15
30	50	0	-11	14	8	20
50	80	0	-13	16	10	25
80	120	0	-15	19	11	35

# Shafts & Bearings

## Standard, Cam Followers Sealed

### Clearance

The radial internal clearances of Cam Followers are shown in table 4.

**Table 4 Radial internal clearance**

Metric HPCCF series	Radial internal clearance	
	Min.	Max.
CF 6	5	20
CF 8 ~ CF12-1	5	25
CF16 ~ CF20-1	10	30
CF24 ~ CF30-2	10	40

### Fit

Tables 5 and 6 show recommended tolerances of mounting holes for Cam Follower studs. Since the Cam Follower is supported in a cantilever position, the mounting hole diameter should be prepared without play between the stud and the hole especially when heavy shock loads are applied.

**Table 5 Recommended fit**

Type	Tolerance class of mounting hole for stud
Metric HPCCF series	H7

**Table 6 Dimensional tolerances of mounting hole**

unit:  $\mu\text{m}$

Nominal outside diameter of stud mm		H7	
Over	Incl.	High	low
6	10	+ 15	0
10	18	+18	0
18	30	+21	0
30	40	+25	0
40	50		