

CFH SERIES PERFORMANCE

Precision Planetary Gearbox



MODEL NO.		STAGES	RATIO (1)	CFH 060	CFH 075	CFH 100	CFH 140	CFH 180	CFH 210	CFH 240
Nominal Output Torque T(2N)	Nm	1	3	85	150	415	630	1,485	2,255	4,090
			4	95	195	350	600	1,290	1,960	3,715
			5	80	165	305	525	1,145	1,745	3,285
			7	60	130	250	435	980	1,495	2,525
			10	24	55	160	305	700	1,070	1,810
		2	16	95	195	360	615	1,320	2,000	3,785
			20	95	200	360	615	1,320	2,000	3,800
			25	80	165	310	535	1,165	1,770	3,330
			28	60	200	360	615	1,325	2,000	3,800
			35	70	170	310	535	1,165	1,775	3,335
			40	40	96	220	615	1,215	2,000	3,805
			50	50	120	275	535	1,170	1,775	3,340
			70	60	130	250	440	990	1,510	2,550
			100	24	55	160	295	660	1,005	1,700
Emergency Stop Torque T(2NOT)	Nm	1,2	3~100	3 times T(2N)						
Max. Acceleration Torque T(2B)	Nm	1,2	3~100	1,5 times T(2N)						
No Load Running Torque(2)	Nm	1	3~10	0.3	0.6	1.4	2.5	5	7	11
		2	16~100	0.2	0.3	0.5	1.2	1.7	3	4
Backlash(3)	arcmin	1	3~10	≤ 2	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1
		2	16~100	≤ 3	≤ 2	≤ 2	≤ 2	≤ 2	≤ 2	≤ 2
Torsional Rigidity	Nm/arcmin	1,2	3~100	4.6	10	30	55	175	400	550
Nominal Input Speed n(1N)	rpm	1	3~10	5,000	3,600	3,600	3,000	2,700	2,400	2,100
		2	16~100	5,000	4,600	4,600	4,000	3,700	3,400	3,100
Max. Input Speed n(1B)	rpm	1	3~10	7,000	6,000	6,000	5,000	4,500	4,000	3,500
		2	16~100	7,000	7,000	7,000	6,000	5,500	5,000	4,500
Max. Radial Load F(2r) (4)	N	1,2	3~100	3,000	4,500	6,700	10,000	15,000	22,000	30,000
Max. Axial Load F(2aB)(4)	N	1,2	3~100	1,500	2,250	3,350	5,000	7,500	11,000	15,000
Max Tilting Moment M(2k) (4)	Nm	1,2	3~100	160	270	550	1,050	1,740	3,350	5,420
Service Life(5)	hr	1,2	3~100	20,000						
Operating Temp	°C	1,2	3~100	-10°C~ +90°C						
Degree of Gearbox Protection		1,2	3~100	IP65						
Lubrication		1,2	3~100	Synthetic lubrication grease						
Mounting Position		1,2	3~100	All directions						
Running Noise(6)	dB(A)	1	3~10	≤ 58	≤ 59	≤ 64	≤ 65	≤ 66	≤ 66	≤ 66
		2	16~100	≤ 58	≤ 59	≤ 60	≤ 63	≤ 66	≤ 66	≤ 66
Efficiency η	%	1	3~10	≥ 97%						
		2	16~100	≥ 94%						

(1) Ratio ($i=N[in]/N[out]$) (2) These values are measured by gearbox with ratio 10 (1-stage) or ratio 100 (2-stage) at 3,000 rpm without load. (3) Backlash is measured at 2% of Nominal Output Torque T_{2N} . (4) Applied to the output shaft center at 100 rpm. (5) Continuous operation not recommended. (6) These values are measured by gearbox with ratio 10 (1-stage) or ratio 100 (2-stage) at 3,000 rpm without loading. By lower ratio and/or higher rpm, the noise level could be 3 to 5 dB higher.