

CAP SERIES PERFORMANCE

Precision Planetary Gearbox



PERFORMANCE RATINGS		STAGES	RATIO (1)	CAP 110 CAPC 110	CAP 140 CAPC 140	CAP 200 CAPC 200	CAP 255 CAPC 255	CAP 285 CAPC 285	CAP 355 CAPC 355	CAP 450 CAPC 450
Nominal Output Torque T(2N)	Nm	1	5.5	370	645	1,430	2,175	4,060	-	-
			22	375	650	1,445	2,200	4,100	6,995	13,810
		2	27.5	375	655	1,445	2,200	4,105	7,000	13,825
			38.5	375	655	1,450	2,200	4,110	7,010	13,845
			55	315	655	1,450	2,205	4,110	7,020	13,855
		3	88	380	655	1,450	2,205	4,115	7,025	13,865
			110	380	655	1,450	2,205	4,115	7,025	13,870
			154	380	655	1,450	2,205	4,120	7,030	13,875
		220	380	655	1,450	2,205	4,120	7,030	13,875	
Emergency Stop Torque T(2NOT)	Nm	1,2,3	5.5~220	2 times T(2N)						
Max. Acceleration Torque T(2B)	Nm	1,2,3	5.5~220	1,5 times T(2N)						
No Load Running Torque(2)	Nm	1	5.5	2.5	7.1	14	22	28	-	-
		2	22~55	1.1	3.7	8	12	18	17	26
		3	88~220	0.7	1.6	4	4.5	6.5	6	12
Backlash(3)	arcmin	1,2,3	5.5~220	≤ 1						
Torsional Rigidity	Nm/arcmin	1,2,3	5.5~220	95	205	650	1,200	1,800	2,850	5,700
Nominal Input Speed n(1N)	rpm	1	5.5	3,600	3,000	2,700	2,400	2,100	-	-
		2	22~55	4,600	4,000	3,700	3,400	3,100	2,500	2,000
		3	88~220	5,000	4,600	4,000	3,700	3,400	3,100	2,500
Max. Input Speed n(1B)	rpm	1	5.5	6,000	5,000	4,500	4,000	3,500	-	-
		2	22~55	7,000	6,000	5,500	5,000	4,500	4,000	3,500
		3	88~220	7,000	7,000	6,000	5,500	5,000	4,500	4,000
Max. Axial Load F(2a)(4)	N	1,2,3	5.5~220	4,070	8,530	17,000	26,900	39,200	101,500	143,700
Max. Tilting Moment M(2k) (4)	Nm	1,2,3	5.5~220	480	1,310	3,530	5,920	9,230	29,100	63,300
Service Life(5)	hr	1,2,3	5.5~220	20,000						
Operating Temp	°C	1,2,3	5.5~220	-10°C~ +90°C						
Degree of Gearbox Protection		1,2,3	5.5~220	IP65						
Lubrication		1,2,3	5.5~220	Synthetic lubrication grease						
Mounting Position		1,2,3	5.5~220	All directions						
Running Noise(2)	dB(A)	1	5.5	≤ 64	≤ 66	≤ 66	≤ 68	≤ 68	-	-
		2	22~55	≤ 62	≤ 64	≤ 66	≤ 67	≤ 67	≤ 68	≤ 70
		3	88~220	≤ 62	≤ 64	≤ 66	≤ 66	≤ 67	≤ 67	≤ 68
Efficiency η	%	1	5.5	≥ 97%						
		2	22~55	≥ 94%						
		3	88~220	≥ 92%						

(1) Ratio ($i=N[in]/N[out]$) (2) These values are measured by gearbox with ratio = 5.5 (1-stage), 55 (2-stage) or 220 (3-stage) at 3,000 rpm without load. (3) Backlash is measured at 2% of Nominal Output Torque T(2N). (4) Applied to the output flange/curvic center at 100 rpm. (5) Continuous operation not recommended.