AT Flange Type Series

Specifications

Gearbox Performance

Model No.		Stage	Ratio[1]	AT065 FL AT065 FL1 AT065 FH AT065 FC AT065 FR1	AT075 FL AT075 FL1 AT075 FH AT075 FC AT075 FR1	AT090 FL AT090 FL1 AT090 FH AT090 FC AT090 FR1	AT110 FL AT110 FL1 AT110 FH AT110 FC AT110 FR1	AT140 FL AT140 FL1 AT140 FH AT140 FC AT140 FR1	AT170 FL AT170 FL1 AT170 FH AT170 FC AT170 FR1	AT210 FL AT210 FL1 AT210 FH AT210 FC AT210 FR1	AT240 FL AT240 FL1 AT240 FH AT240 FC AT240 FR1	AT280 FL AT280 FL1 AT280 FH AT280 FC AT280 FR1
Nominal Output Torque T_{2N}	Nm	1	1	25	45	78	150	360	585	1,300	2,150	3,200
			1.5	25	45	78	150	360	585	1,300	2,150	3,200
			2	24	42	68	150	330	544	1,220	2,010	3,050
			3	18	33	54	120	270	450	1,020	1,650	2,850
			4	13	28	48	100	224	376	860	1,410	2,300
			5	12	25	40	85	196	320	740	1,210	2,000
		2	7	12	12	33	91	91	91	195	358	358
			10	24	28	68	150	208	208	430	846	846
			15	18	33	54	120	270	312	645	1,269	1,269
			20	13	28	48	100	224	376	860	1,410	1,692
			25	12	25	40	85	196	320	740	1,210	2,000
			35	12	25	40	85	196	320	740	1,210	1,790
			50	12	25	40	85	196	320	740	1,210	1,465
		3	75	-	-	-	120	210	312	585	1,269	1,269
			100	-	-	-	100	224	376	780	1,410	1,692
			125	-	-	-	85	196	320	740	1,210	2,000
			150	-	-	-	120	135	312	390	975	975
			200	-	-	-	100	180	376	520	1,300	1,300
			250	-	-	-	85	196	320	650	1,210	1,625
			350	-	-	-	85	196	320	740	1,210	1,790
			500	-	-	-	85	196	320	740	1,210	1,465
Max. Acceleration Torque T_{2B}	Nm	1,2,3	1~500	1.5 times of Nominal Output Torque								
Max. Acceleration Input Speed n_{1B}	rpm	1	1~5	7,500	6,500	5,500	4,500	3,500	3,000	2,200	2,000	1,700
		2	7~50	8,000	8,000	6,000	6,000	6,000	6,000	4,800	3,600	3,600
		3	75~500	-	-	-	8,000	8,000	6,000	6,000	6,000	6,000
Standard Backlash*	arcmin	1	1~5	≤6	≤6	≤6	≤6	≤6	≤6	≤6	≤6	≤6
		2	7~50	≤8	≤8	≤8	≤8	≤8	≤8	≤8	≤8	≤8
		3	75~500	-	-	-	≤10	≤10	≤10	≤10	≤10	≤10
Max. Radial Load F_{2rB}[2] Output d2	N	1,2,3	1~500	900	1,100	1,700	2,700	4,800	6,600	11,500	16,000	18,000
Max. Axial Load F_{2aB}[2] Output d2	N	1,2,3	1~500	450	550	850	1,350	2,400	3,300	5,750	8,500	9,000
Service Life	hr	1,2,3	1~500	20,000*								
Efficiency η	%	1	1~5	≥98%								
		2,3	7~500	≥94%								
Operating Temp	°C	1,2,3	1~500	-10°C ~ 90°C								
Lubrication				Synthetic lubrication oils								
Noise Level (n_1=1500rpm, No Load)	dB (A)	1,2,3	1~500	≤71	≤72	≤76	≤77	≤78	≤79	≤81	≤83	≤84

1. Ratio ($i=N_{in}/N_{out}$)
2. Apply to the output shaft center @ n_{1B}
* S1 service life 10,000 hrs
* Backlash is measured at 2% Nominal Output Torque T_{2N}

AT Flange Type Series
Specifications

Gearbox Inertia

Model No.		Stage	Ratio[1]	AT065 FL AT065 FL1 AT065 FH AT065 FC AT065 FR1	AT075 FL AT075 FL1 AT075 FH AT075 FC AT075 FR1	AT090 FL AT090 FL1 AT090 FH AT090 FC AT090 FR1	AT110 FL AT110 FL1 AT110 FH AT110 FC AT110 FR1	AT140 FL AT140 FL1 AT140 FH AT140 FC AT140 FR1	AT170 FL AT170 FL1 AT170 FH AT170 FC AT170 FR1	AT210 FL AT210 FL1 AT210 FH AT210 FC AT210 FR1	AT240 FL AT240 FL1 AT240 FH AT240 FC AT240 FR1	AT280 FL AT280 FL1 AT280 FH AT280 FC AT280 FR1
Mass Moments of Inertia J_1	kg · cm^2	1	1	0.51	1.30	3.14	7.62	23.54	59.09	195.96	365.38	787.63
			1.5	0.46	1.15	2.80	6.65	19.34	49.38	156.02	279.62	584.28
			2	0.44	1.10	2.68	6.23	17.72	45.44	140.80	245.78	500.26
			3	0.43	1.09	2.64	6.08	17.16	44.11	135.51	233.75	471.56
			4	0.43	1.08	2.63	6.05	17.03	43.79	134.14	230.77	464.76
			5	0.43	1.08	2.63	6.04	16.99	43.69	133.71	229.71	462.08
		2	7	0.15	0.15	0.50	2.79	2.79	2.79	9.91	29.26	29.26
			10	0.15	0.15	0.50	2.80	2.80	2.80	9.96	29.43	29.43
			15	0.15	0.15	0.50	2.80	2.80	2.80	9.96	29.43	29.43
			20	0.15	0.15	0.50	2.80	2.80	2.80	9.96	29.43	29.43
			25	0.15	0.15	0.50	2.80	2.80	2.80	9.96	29.43	29.43
			35	0.15	0.15	0.50	2.79	2.79	2.79	9.91	29.26	29.26
			50	0.15	0.15	0.50	2.79	2.79	2.79	9.89	29.20	29.20
		3	75	-	-	-	2.80	2.80	2.80	9.96	29.43	29.43
			100	-	-	-	2.80	2.80	2.80	9.96	29.43	29.43
			125	-	-	-	2.80	2.80	2.80	9.96	29.43	29.43
			150	-	-	-	2.79	2.79	2.79	9.89	29.20	29.20
			200	-	-	-	2.79	2.79	2.79	9.89	29.20	29.20
			250	-	-	-	2.79	2.79	2.79	9.89	29.20	29.20
			350	-	-	-	2.79	2.79	2.79	9.89	29.20	29.20
			500	-	-	-	2.79	2.79	2.79	9.89	29.20	29.20

Weight

Model No.		Stage	Ratio[1]	AT065	AT075	AT090	AT110	AT140	AT170	AT210	AT240	AT280
FL Series	kg	1	1~5	2.8	4.4	7.1	12.1	20.9	36.1	69.4	101.2	158.3
		2	7~50	3.2	4.8	8.1	14.3	24.2	38.5	74.1	112.4	171.0
		3	75~500	-	-	-	13.9	23.7	38.8	73.4	110.2	168.7
FL1 Series		1	1~5	2.7	4.3	7.1	11.9	20.3	35.5	68.3	99.6	156.0
		2	7~50	3.2	4.8	8.0	14.2	23.9	37.9	73.0	110.8	168.6
		3	75~500	-	-	-	13.8	23.4	38.2	72.3	108.6	166.4
FH Series		1	1~5	2.6	4.1	6.7	11.4	18.9	32.9	63.2	92.5	146.0
		2	7~50	3.1	4.6	7.7	13.6	22.4	35.3	67.9	103.7	158.7
		3	75~500	-	-	-	13.3	21.9	35.6	67.2	101.5	156.5
FC Series		1	1~5	2.9	4.4	7.2	11.8	20.4	35.0	66.5	96.0	151.7
		2	7~50	3.3	4.9	8.2	14.1	24.1	37.4	71.2	107.2	164.4
		3	75~500	-	-	-	13.7	23.5	37.5	70.5	105.0	162.2
FR1 Series		1	1~5	2.7	4.3	7.1	11.9	20.3	35.5	68.3	99.6	156.0
		2	7~50	3.2	4.8	8.0	14.2	23.9	37.9	73.0	110.8	168.6
		3	75~500	-	-	-	13.8	23.4	38.2	72.3	108.6	166.4