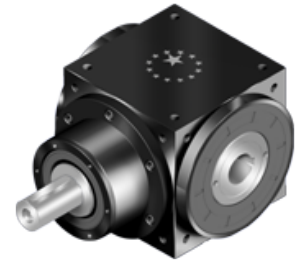


ATB-H series

Overview



- Spiral bevel gearbox with one input shaft. Output is hollow shaft thru with keyway.
- Steel housing, black oxidized
- Steel input shaft with or without key
- Stainless steel hollow output shaft thru with keyway
- Nominal torques:
 - T_{2N} : 12 Nm – 3.200 Nm
- Ratios
 - 1-stage : 1 / 1,5 / 2 / 3 / 4 / 5
- Low backlash
 - 1-stage : ≤ 6 arcmin
- high efficiency
 - 1-stage : $\geq 98\%$
- Easy mount
- Low Noise
- Compact structure
- Sizes available: ATB065H / ATB075H / ATB090H / ATB110H / ATB140H / ATB170H / ATB210H / ATB240H / ATB280H

Specifications

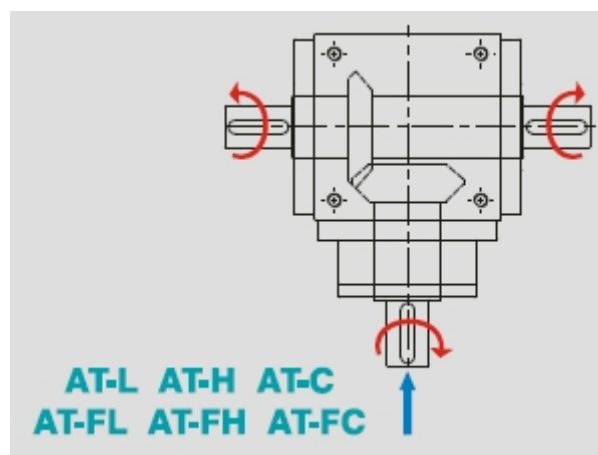
Model No.		Stage Ratio ¹	ATB065HATB075HATB090HATB110HATB140HATB170HATB210HATB240HATB280H										
Nominal Output Torque T_{2N}	Nm	1	1	25	45	78	150	360	585	1,300	2,150	3,200	
			1.5	25	45	78	150	360	585	1,300	2,150	3,200	
			2	24	42	68	150	330	544	1,220	2,010	3,050	
			3	18	33	54	120	270	450	1,020	1,650	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	
Max Acceleration Torque T_{2B}	Nm	1	1~5	1.5 times Nominal Output Torque T_{2N}									
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	
Backlash*	arcmin	1	1~5	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6	≤ 6	
Max. Radial Load F_{1rB2} Inputg d1	N	1	1~5	700	950	1,450	2,100	2,700	3,800	7,800	9,600	10,500	
Max. Radial Load F_{2rB3} Output d2	N	1	1~5	900	1,100	1,700	2,700	4,800	6,600	11,500	16,000	18,000	
Max. Axial Load F_{1aB2} Input d1	N	1	1~5	350	425	725	1,050	1,350	1,900	3,900	4,800	5,250	
Max. Axial Load F_{2aB3} Output d2	N	1	1~5	450	550	850	1,350	2,400	3,300	5,750	8,500	9,000	
Service Life	hr	1	1~5	20,000*									
Efficiency	%	1	1~5	≥ 98 %									
Weight	kg	1	1~5	2.5	3.9	6.4	11.0	18.1	31.6	60.0	89.4	143.4	
Operating Temp	°C	1	1~5	-10°C~+90°C									
Lubrication		1	1~5	Synthetic lubrication oils, ISO VG 150									
Noise Level ($n_1=1500$ rpm, No Load)	dB(A)	1	1~5	≤68	≤70	≤74	≤76	≤77	≤78	≤80	≤82	≤83	

1. Ratio ($i=N$ in / N out)
2. Apply to the input shaft center @ 100 rpm
3. Apply to the output shaft center @ 100 rpm

* S1 service life 10,000 hrs.

* Backlash is measured at 2% Nominal Output Torque T_{2N}

Rotation Direction



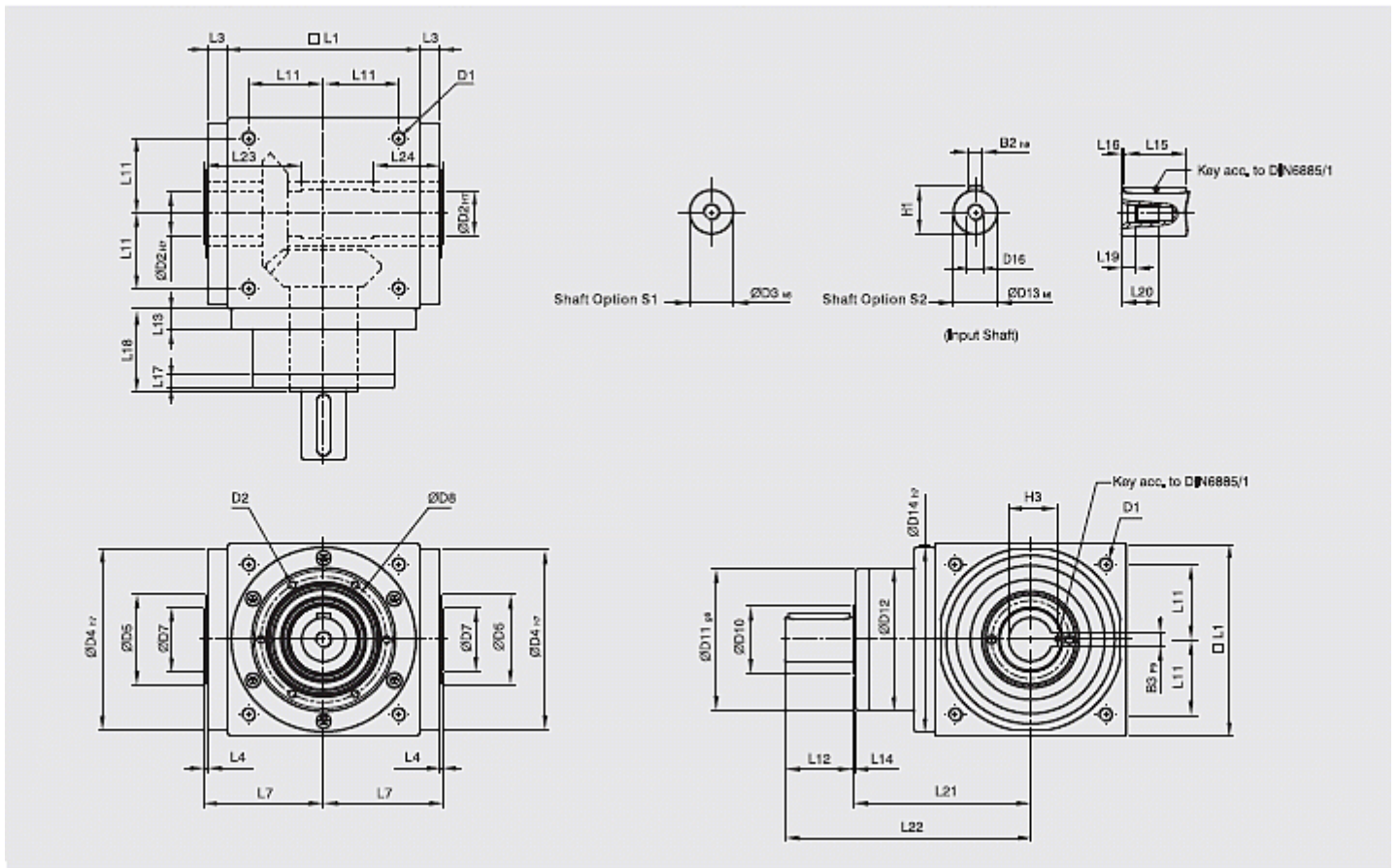
Inertia

Model No.	Stage	Ratio ¹	ATB 065H	ATB 075H	ATB 090H	ATB 110H	ATB 140H	ATB 170H	ATB 210H	ATB 240H	ATB 280H
Massa Moments of inertia J _i	1	1	0.51	1.30	3.16	7.70	23.57	58.99	195.40	369.34	799.12
		1.5	0.64	1.16	2.82	6.74	19.37	49.28	155.45	283.58	595.78
		2	0.44	1.11	2.70	6.31	17.75	45.35	140.24	249.74	511.76
		3	0.43	1.09	2.66	6.17	17.18	44.01	134.95	237.71	483.06
		4	0.43	1.09	2.65	6.13	17.06	43.70	133.58	234.72	476.26
		5	0.43	1.09	2.65	6.12	17.02	43.60	133.14	233.67	473.58

kg*cm²

Sizes

ATB-H series 1-stage



	ATB065H	ATB075H	ATB090H	ATB110H	ATB140H	ATB170H	ATB210H	ATB240H	ATB280H
D1	M4	M6	M6	M8	M10	M12	M16	M16	M16
D2 _{H7}	13	14	18	22	32	40	50	55	60
D4 _{H7}	63	73	88	108	135	165	205	235	275
D5	31	35	43	53	68	83	104	124	144
D7	21	22	28	33	47	55	75	85	110
D8	53	62	76	95	92	114	142	160	176
D9	4xM4xL7	4xM5xL8	4xM5xL8	6xM6xL10	6xM6xL10	6xM8xL12.5	6xM8xL12.5	6xM8xL12.5	6xM10xL15
D10	15.4	20.4	25.8	35.8	49.8	59.3	79.3	92.3	102.3
D11 _{G6}	62.9	72.9	87	107	103	127	158	178	198
D12	62	72	86	106	104	128	160	180	200
D13 _{K6}	13	16	18	22	32	40	50	55	60
D14 _{H7}	63	73	88	108	135	165	205	235	275
D16	M4	M5	M5	M8	M12	M16	M16	M16	M20
L1	65	75	90	110	140	170	210	240	280
L3	13	14.5	15	15	15	15	20	25	25
L4	2	2	2	2	2	2	2	2	2
L7	47.5	54	62	72	87	102	127	147	167
L11	27	30	36	44	55	67	85	95	110

L12	19.5	30	35	40	50	60	75	85	110
L13	13	15	15	15	15	15	20	25	25
L14	2	2	2	2	2	2	2	2	2
L15	16	25	28	32	45	50	70	80	100
L16	2	2.5	3.5	4	2.5	5	2.5	2.5	5
L17	6	8	8	8	10	10	10	10	10
L18	43	52.5	55	60	60	70	90	105	120
L19	4.5	4.8	4.8	7.2	10	12	12	12	15
L20	10	12.5	12.5	19	28	36	36	36	42
L21	75.5	90	100	115	130	155	195	225	260
L22	95	120	135	155	180	215	270	310	370
L23	40	47	55	60	70	80	95	115	130
L24	30	32	35	40	50	55	65	80	80
B2 _{hg}	5	5	6	6	10	12	14	16	18
B3 _{pg}	5	5	6	6	10	12	14	16	18
H2	15	18	20.5	24.5	35	43	53.5	59	64
H3	15.3	16.3	20.8	24.8	35.3	43.3	53.8	59.3	64.4