纽星机电 NIUXINGJIDIAN

NEWSTART®

AE Series

HIGH PRECISION PLANETARY GEARBOXES

AE SERIES
Specifications

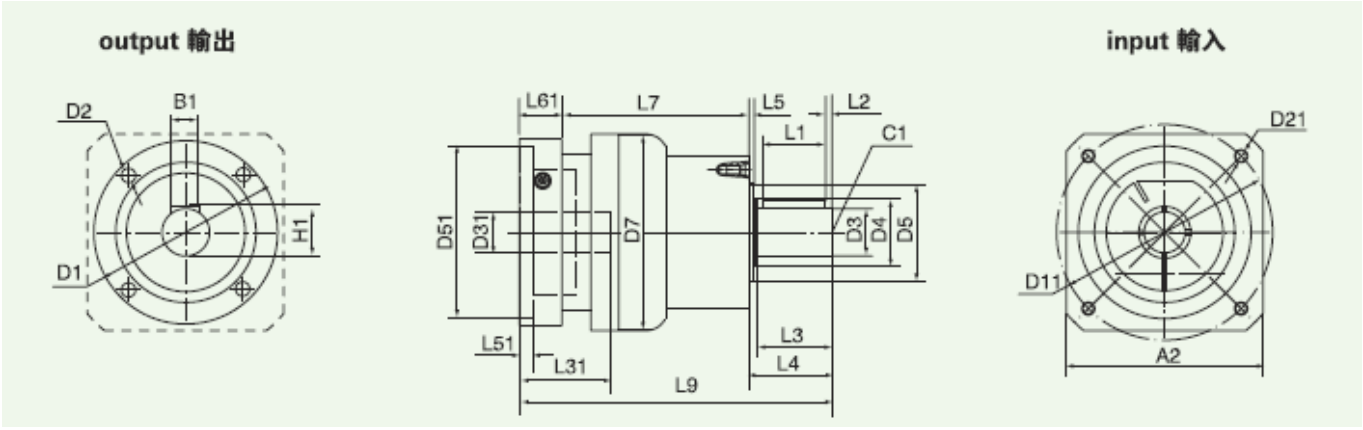
Gearbox Performance

Model Number		Stage	Ratio	AE50	AE70	AE90	AE120	AE155	AE205	AE235
Nominal Output Torque T2N	Nm	1	3	19	50	130	208	342	588	1140
			4	20	55	140	290	542	1050	1700
			5	22	60	160	330	650	1200	2000
			8	17	45	120	260	500	1000	1600
			10	14	40	100	230	450	900	1500
		2	15	20	55	130	290	542	1050	1700
			16	22	60	140	330	650	1200	2000
			20	22	60	160	330	650	1200	2000
			25	22	60	160	330	650	1200	2000
			32	19	50	140	290	542	1050	1700
			40	17	45	120	260	500	1000	1600
			64	17	45	120	260	500	1000	1600
			100	14	40	100	230	450	900	1500
Max. Output Torque	Nm	1,2		1.6 times of Nominal Torque						
Emergency Stop Torque T 2NOT	Nm	1,2	3~100	3 times of Nominal Torque						
Nominal Input Speed n1N	rpm	1,2	3~100	4000	4000	3500	3000	2500	2500	2000
Max. Input Speed n1B	rpm	1,2	3~100	6000	6000	4500	4500	4500	4000	4000
Micro Backlash P0	arcmin	1	3~10		2	2	2	2	2	2
		2	9~100		4	4	4	4	4	4
Reduced Backlash P1	arcmin	1	3~10	5	4	4	4	4	4	4
		2	9~100	7	6	6	6	6	6	6
Standard Backlash P2	arcmin	1	3~10	8	6	6	6	6	6	6
		2	9~100	12	8	8	8	8	8	8
Torsional Rigidity	Nm/arcmin	1,2	3~100	3	7	14	25	50	145	225
Max. Radial Load F2rB	N	1,2	3~100	702	1377	2985	6100	8460	13050	8700
Max. Axial Load F2aB	N	1,2	3~100	350	630	1300	2400	4000	6200	4800
Service Life	hr	1,2	3~100	25000						
EfficIERncy η	%	1	3~10	≥96%						
		2	9~100	≥94%						
Weight	kg	1	3~10	0.6	1.4	3.3	6.9	13	31	63
		2	9~100	0.9	1.6	4.7	8.7	17	35	66
Operating Temp	℃	1,2	3~100	-10 ℃ ~90 ℃						
Lubrication		1,2	3~100	Synthetic lubrication Grease						
Degree of Gearbox Protection		1,2	3~100	IP64						
Mounting Position		1,2	3~100	All Directions						
Noise Level	dB(A)	1,2	3~100	56	58	60	65	70	70	75

Gearbox Inertial

Model Number		Stage	Ratio	AE50	AE70	AE90	AE120	AE155	AE205	AE235
Mass Moments of Inertia J	kg·cm²	1	3	0.03	0.16	0.51	3.25	28.98	28.98	69.61
			4	0.03	0.14	0.48	2.74	23.67	23.67	54.37
			5	0.03	0.13	0.47	2.71	23.29	23.29	53.27
			8	0.03	0.13	0.44	2.56	22.59	22.59	50.84
			10	0.03	0.13	0.44	2.57	22.51	22.51	50.56
		2	12	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			15	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			16	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			20	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			25	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			32	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			40	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			64	0.03	0.03	0.13	0.44	7.03	7.03	23.51
			100	0.03	0.03	0.13	0.44	7.03	7.03	23.51

Dimensions



Model			AE50	AE70	AE90	AE120	AE155	AE205	AE235
OUTPUT	B1		4	5	6	10	12	16	20
	C1		M4x8	M5x12	M8X19	M12X28	M16X36	M20x42	M20x42
	H1		14	18	24.5	35	43	59	79.5
	D1	Ø	44	62	80	108	140	184	210
	D2	4-	M4x8	M5x12	M6X15	M8X19	M10X28	M12X28	M16X36
	D3	Øh7	12	16	22	32	40	55	75
	D4		22	22	30	40	75	95	115
	D5	Øh7	35	52	68	90	120	160	180
	D7		53	70	104	130	162	205	260
	L1		15	25	30	40	65	70	90
	L2		2	2	4	5	5	6	7
	L3		19.5	28.5	36.5	61	79	82	108
	L4		24.5	36	46	70	97	100	126
	L5		4	6.5	8.5	17.5	15	15	18
	L7	1stage	47	62	80.5	97	119.5	159	175.5
		2stage	74	87.5	113.5	138.5	176	214.5	260
	L9	1stage	91	117	143.5	186.5	239	288	364.5
		2stage	118	143	178.5	225.5	292.5	337	415
INPUT	A2	(BASE ON MOTOR DIMENSIONS)	50	70	90	115	150	200	220
	D11		46	70	100	130	165	215	235
	D21		M4x10	M5x12	M6x15	M8x20	M12x25	M12x25	M12x25
	D31		10	14	19	32	35	45	55
	D51		30	50	80	110	130	180	200
	L31		25	30	40	55	60	80	110
	L51		3.5	8	4	5	6	6	6
	L61		29	22	17	20	25	29	63

AER SERIES
Specifications

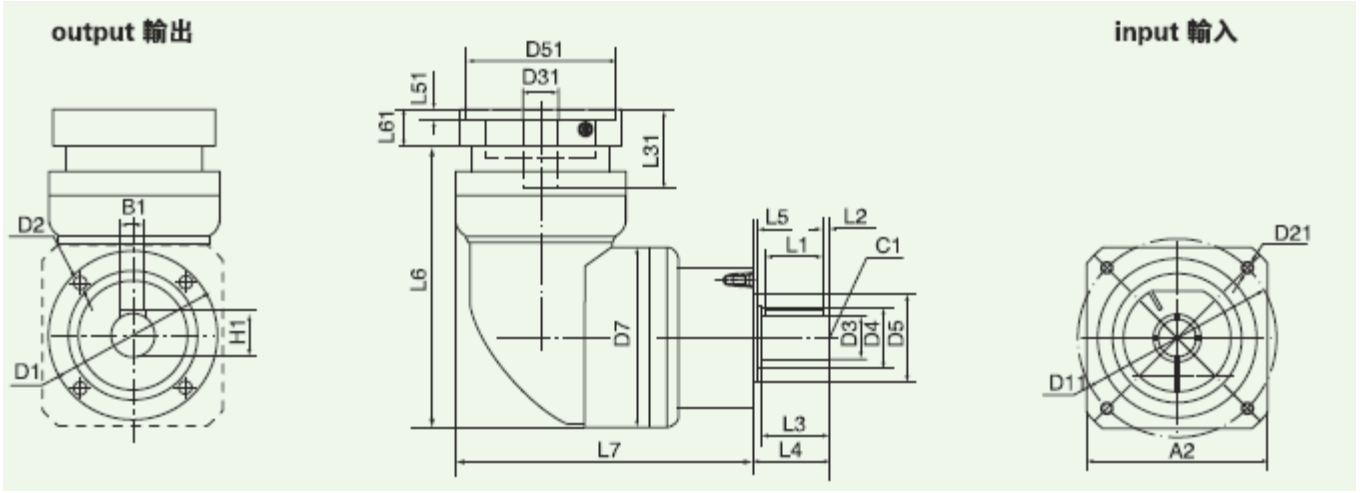
Gearbox Performance

Model Number		Stage	Ratio	AER50	AER70	AER90	AER120	AER155	AER205	AER235
Nominal Output Torque T2N	Nm	1	3	19	50	130	208	342	588	1140
			4	20	55	140	290	542	1050	1700
			5	22	60	160	330	650	1200	2000
			8	17	45	120	260	500	1000	1600
			10	14	40	100	230	450	900	1500
		2	15	20	55	130	290	542	1050	1700
			16	22	60	140	330	650	1200	2000
			20	22	60	160	330	650	1200	2000
			25	22	60	160	330	650	1200	2000
			32	19	50	140	290	542	1050	1700
			40	17	45	120	260	500	1000	1600
			64	17	45	120	260	500	1000	1600
			100	14	40	100	230	450	900	1500
Max. Output Torque	Nm	1,2		1.6 times of Nominal Torque						
Emergency Stop Torque T 2NOT	Nm	1,2	3~100	3 times of Nominal Torque						
Nominal Input Speed n1N	rpm	1,2	3~100	4000	4000	3500	3000	2500	2500	2000
Max. Input Speed n1B	rpm	1,2	3~100	6000	6000	4500	4500	4500	4000	4000
Micro Backlash P0	arcmin	1	3~10		2	2	2	2	2	2
		2	9~100		4	4	4	4	4	4
Reduced Backlash P1	arcmin	1	3~10	5	5	5	5	5	5	5
		2	9~100	7	7	7	7	7	7	7
Standard Backlash P2	arcmin	1	3~10	10	10	10	10	10	10	10
		2	9~100	14	14	14	14	14	14	14
Torsional Rigidity	Nm/arcmin	1,2	3~100	3	7	14	25	50	145	225
Max. Radial Load F2rB	N	1,2	3~100	702	1377	2985	6100	8460	13050	8700
Max. Axial Load F2aB	N	1,2	3~100	350	630	1300	2400	4000	6200	4800
Service Life	hr	1,2	3~100	25000						
EfficIERncy η	%	1	3~10	≥96%						
		2	9~100	≥94%						
Weight	kg	1	3~10	1.0	2.0	4.6	11.1	21.8	43.8	78.0
		2	9~100	1.3	2.3	5.8	12.3	23.4	46.8	81.9
Operating Temp	℃	1,2	3~100	-10 ℃ ~90 ℃						
Lubrication		1,2	3~100	Synthetic lubrication Grease						
Degree of Gearbox Protection		1,2	3~100	IP64						
Mounting Position		1,2	3~100	All Directions						
Noise Level	dB(A)	1,2	3~100	61	63	65	68	70	75	75

Gearbox Inertial

Model Number		Stage	Ratio	AER50	AER70	AER90	AER120	AER155	AER205	AER235
Mass Moments of Inertia J	kg·cm²	1	3	0.03	0.16	0.51	3.25	28.98	28.98	69.61
			4	0.03	0.14	0.48	2.74	23.67	23.67	54.37
			5	0.03	0.13	0.47	2.71	23.29	23.29	53.27
			8	0.03	0.13	0.44	2.56	22.59	22.59	50.84
			10	0.03	0.13	0.44	2.57	22.51	22.51	50.56
		2	12	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			15	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			16	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			20	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			25	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			32	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			40	0.03	0.03	0.13	0.47	7.42	7.42	23.29
			64	0.03	0.03	0.13	0.44	7.03	7.03	23.51
			100	0.03	0.03	0.13	0.44	7.03	7.03	23.51

Dimensions



Model			AER50	AER70	AER90	AER120	AER155	AER205	AER235
OUTPUT	B1		4	5	6	10	12	16	20
	C1		M4x8	M5x12	M8X19	M12X28	M16X36	M20x42	M20x42
	H1		14	18	24.5	35	43	59	79.5
	D1	Ø	44	62	80	108	140	184	210
	D2	4-	M4x8	M5x12	M6X15	M8X19	M10X28	M12X28	M16X36
	D3	Øh7	12	16	22	32	40	55	75
	D4		22	22	30	40	75	95	115
	D5	Øh7	35	52	68	90	120	160	180
	D7		53	70	104	130	162	205	260
	L1		15	25	30	40	65	70	90
	L2		2	2	4	5	5	6	7
	L3		19.5	28.5	36.5	61	79	82	108
	L4		24.5	36	46	70	97	100	126
	L5		4	6.5	8.5	17.5	15	15	18
	L6	1stage	81	88.5	114.5	155.5	195.5	244.5	314.5
		2stage	81	97.5	142.5	179.5	223	287	335.5
	L7	1stage	91	110	155	182	227.5	288	364.5
		2stage	112	131.5	161.5	213	2261	337	415
INPUT	A2	(BASE ON MOTOR DIMENSIONS)	50	70	90	115	150	200	220
	D11		46	70	100	130	165	215	235
	D21		M4x10	M5x12	M6x15	M8x20	M12x25	M12x25	M12x25
	D31		10	14	19	32	35	45	55
	D51		30	50	80	110	130	180	200
	L31		25	30	40	55	60	80	110
	L51		3.5	8	4	5	6	6	6
	L61		29	22	17	20	25	29	63