



纽星机电  
NIUXINGJIDIAN



NEWSTART<sup>®</sup>

# AD Series

HIGH PRECISION PLANETARY GEARBOXES





# AD SERIES Specifications



## Gearbox Performance

Model Number		Stage	Ratio	AD47	AD64	AD90	AD110	AD140	AD200	AD255
Nominal Output Torque T <sub>2N</sub>	Nm	1	3	20	55	130	208	342	588	1140
			4	19	50	140	290	542	1050	1700
			5	22	60	160	330	650	1200	2000
			8	17	45	120	260	500	1000	1600
			10	10	20	70	130	350	650	1500
		2	15	20	55	130	208	342	588	1140
			16	19	50	140	330	650	1200	2000
			20	20	55	130	208	342	588	1140
			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	10	20	70	130	350	650	1500
			Max. Output Torque	Nm	1,2		1.6 times of Nominal Torque			
Emergency Stop Torque T <sub>2NOT</sub>	Nm	1,2	3-100	3 times of Nominal Torque						
Nominal Input Speed n <sub>1N</sub>	rpm	1,2	3-100	4000	4000	3500	3000	2500	2000	
Max. Input Speed n <sub>1B</sub>	rpm	1,2	3-100	6000	6000	4500	4500	4500	4000	4000
Micro Backlash P <sub>0</sub>	arcmin	1	3-10		2	2	2	2	2	2
		2	9-100		4	4	4	4	4	4
Reduced Backlash P <sub>1</sub>	arcmin	1	3-10	5	3	3	3	3	3	3
		2	9-100	7	5	5	5	5	5	5
Standard Backlash P <sub>2</sub>	arcmin	1	3-10	7	5	5	5	5	5	5
		2	9-100	9	7	7	7	7	7	7
Torsional RigADity	Nm/arcmin	1,2	3-100	7	13	31	82	150	440	1006
Max. Bending Moment	N.m	1,2	3-100	40	118	230	420	1250	3000	5800
Max. Axial Load F <sub>2aB</sub>	N	1,2	3-100	1080	2110	2310	4800	6200	5450	10600
Service Life	hr	1,2	3-100	25000						
Efficiency 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	°C	1,2	3-100	-10 °C ~90 °C						
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	60	62	64	65	70	72	74

## Gearbox Inertial

Model Number		Stage	Ratio	AD47	AD64	AD90	AD110	AD140	AD200	AD225
Mass Moments of Inertia J	kg·cm <sup>2</sup>	1	3	0.03	0.14	0.51	2.87	7.54	25.03	58.31
			4	0.03	0.13	0.48	2.71	7.42	23.29	53.27
			5	0.03	0.13	0.47	2.62	7.14	22.48	50.97
			8	0.03	0.13	0.44	2.57	7.03	22.51	50.56
			10	0.03	0.13	0.44	0.47	2.71	7.42	23.29
		2	12	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			15	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			16	0.03	0.03	0.13	0.47	2.57	7.03	22.51
			20	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			25	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			32	0.03	0.03	0.13	0.47	2.57	7.03	22.51
			40	0.03	0.03	0.13	0.47	2.57	7.03	22.51
			64	0.03	0.03	0.13	0.44	2.57	7.03	22.51
			100	0.03	0.03	0.13	0.44	2.71	7.03	22.51

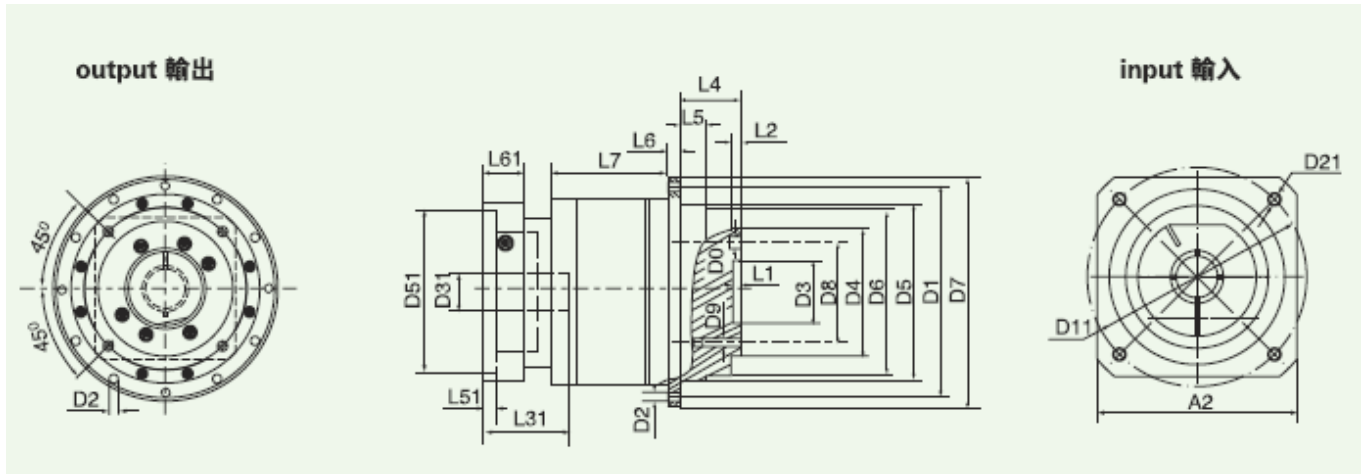


# AD SERIES

## Specifications



### Dimensions



Model			AD47	AD64	AD90	AD110	AD140	AD200	AD225
OUTPUT	D1	Ø	67	79	109	135	168	233	280
	D2	ηX Ø	8XØ3.4	8XØ4.5 Ø4.5	8X Ø5.5	8X Ø5.5	12X Ø6.6	12X Ø9	16X Ø13.5
	D3	H7	12	20	31.5	40	50	80	100
	D4	h 7	28	40	63	80	100	160	180
	D5	h 7	47	64	90	110	140	200	255
	D6		46.2	63.2	89.2	109.2	139.2	199.2	254.2
	D7		72	86	118	145	179	247	300
	D8	Ø	20	31.5	50	63	80	125	140
	D9	n-	4-M3X6	7-M5X8	7-M6X13.5	11-M6X13.5	11-M8X17	11-M10X22.5	12-M16X30.5
	D0	H7	3	5	6	6	8	10	12
	L1		4	8	12	12	12	16	20
	L2		3	3	6	6	6	8	12
	L4		19.5	19.5	30	29	38	50	66
	L5		7	7	10	10	14.6	15	20
L6		4	4	7	8	10	12	18	
L7	1stage	18.5	28.5	27	37	62	69.5	82	
	2stage	54.5	65	60	87.5	110	132.5	148	
INPUT	A2	(BASE ON MOTOR DIMENSIONS)	48	60	90	115	142	190	220
	D11		46	70	100	130	165	215	235
	D21		M4X8	M5x12	M6x15	M8x20	M12x25	M12x25	M12x25
	D31		10	14	19	22	35	35	42
	D51		30	50	80	110	130	180	200
	L31		20	30	40	55	79	80	80
	L51		3	4	5	5	6	6	8
	L61		20	22	32	41	25	63	78



# ADR SERIES Specifications



## Gearbox Performance

Model Number		Stage	Ratio	ADR47	ADR64	ADR90	ADR110	ADR140	ADR200	ADR255
Nominal Output Torque T2N	Nm	1	3	20	55	130	208	342	588	1140
			4	19	50	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	208	342	588	1140
			16	19	50	140	330	650	1200	2000
			20	20	55	130	208	342	588	1140
			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 nIN	rpm	1,2	3-100	4000	4000	3500	3000	2500	2500	2000
Max. Input Speed nIB	rpm	1,2	3-100	6000	6000	4500	4500	4500	4000	4000
Micro Backlash P0	arcmin	1	3-10		4	4	4	4	4	4
		2	9-100		6	6	6	6	6	6
Reduced Backlash P1	arcmin	1	3-10	6	6	6	6	6	6	6
		2	9-100	8	8	8	8	8	8	8
Standard Backlash P2	arcmin	1	3-10	8	8	8	8	8	8	8
		2	9-100	10	10	10	10	10	10	10
Torsional RigADity	Nm/arcmin	1,2	3-100	7	13	31	82	150	440	1006
Max. Axial Load F2aB	N	1,2	3-100	1080	2110	2310	4800	6200	5450	10600
Service Life	hr	1,2	3-100	25000						
Efficiency η	%	1	3-10	>95%						
		2	9-100	>93%						
Weight	kg	1	3-10	1.0	2.0	4.6	11.1	21.8	43.8	78.1
		2	9-100	1.3	2.1	5.8	11.2	22.4	46.8	81.9
Operating Temp	°C	1,2	3-100	-10 °C ~90 °C						
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	60	63	64	68	70	75	75

## Gearbox Inertial

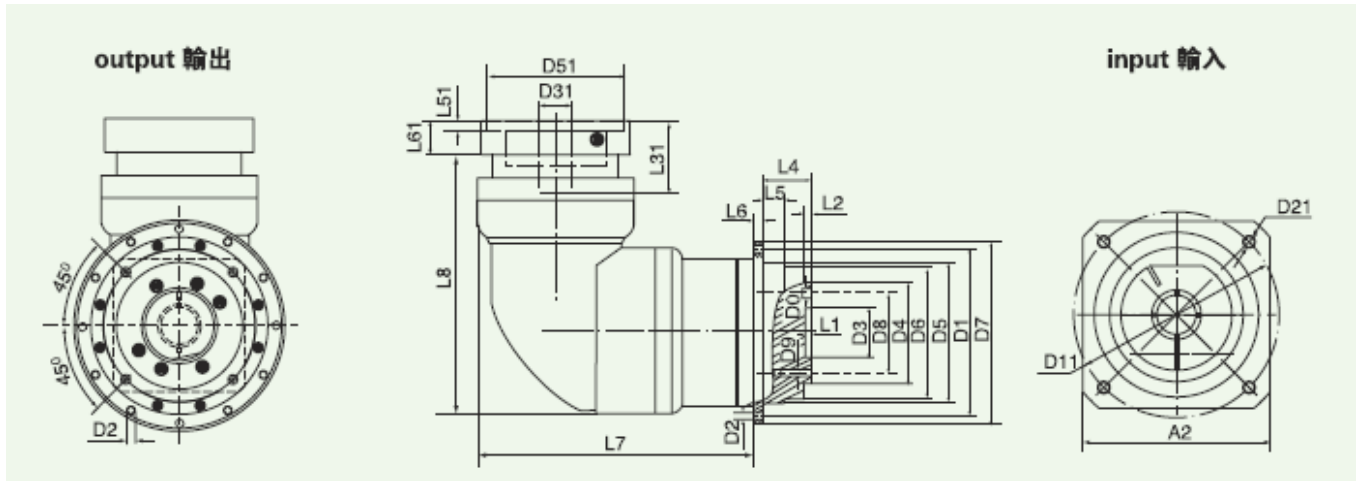
Model Number		Stage	Ratio	ADR47	ADR64	ADR90	ADR110	ADR140	ADR200	ADR225
Mass Moments of Inertia J	kg·cm <sup>2</sup>	1	3	0.09	0.35	2.25	6.84	23.4	68.9	135.4
			4	0.09	0.35	2.25	6.84	23.4	68.9	135.4
			5	0.09	0.35	2.25	6.84	23.4	68.9	135.4
			8	0.09	0.35	2.25	6.84	23.4	68.9	135.4
			10	0.09	0.35	2.25	6.84	23.4	68.9	135.4
		2	12	0.09	0.09	0.35	2.25	6.84	23.4	68.9
			15	0.09	0.09	0.35	2.25	6.84	23.4	68.9
			16	0.09	0.09	0.35	2.25	6.84	23.4	68.9
			20	0.09	0.09	0.35	2.25	6.84	23.4	68.9
			25	0.09	0.09	0.35	2.25	6.84	23.4	68.9
			32	0.09	0.09	0.35	2.25	6.84	23.4	68.9
			40	0.09	0.09	0.35	2.25	6.84	23.4	68.9
			64	0.09	0.09	0.35	2.25	6.84	23.4	68.9
			100	0.09	0.09	0.35	2.25	6.84	23.4	68.9



# ADR SERIES Specifications



## Dimensions



Model			ADR47	ADR64	ADR90	ADR110	ADR140	ADR200	ADR225
OUTPUT	D1	Ø	67	79	109	135	168	233	280
	D2	ηX Ø	8XØ3.4	8XØ4.5 Ø4.5	8X Ø5.5	8X Ø5.5	12X Ø6.6	12X Ø9	16X Ø13.5
	D3	H7	12	20	31.5	40	50	80	100
	D4	h 7	28	40	63	80	100	160	180
	D5	h 7	47	64	90	110	140	200	255
	D6		46.2	63.2	89.2	109.2	139.2	199.2	254.2
	D7		72	86	118	145	179	247	300
	D8	Ø	20	31.5	50	63	80	125	140
	D9	n-	4-M3X6	7-M5X8	7-M6X13.5	11-M6X13.5	11-M8X17	11-M10X22.5	12-M16X30.5
	D0	H7	3	5	6	6	8	10	12
	L1		4	8	12	12	12	16	20
	L2		3	3	6	6	6	8	12
	L4		19.5	19.5	30	29	38	50	66
	L5		7	7	10	10	14.6	15	20
	L6		4	4	7	8	10	12	18
L7	1stage	84	102.5	126	164	215.5	271.5	308	
	2stage	98.5	109	135.5	180.5	221.5	272.5	319	
L8		84.75	100.5	142.5	179.5	223.5	287	335.5	
		83.75	88.75	109.25	149.6	189.5	247	311	
INPUT	A2	(BASE ON MOTOR DIMENSIONS)	48	60	90	115	142	190	220
	D11		46	70	100	130	165	215	235
	D21		M4X8	M5x12	M6x15	M8x20	M12x25	M12x25	M12x25
	D31		10	14	19	22	35	35	42
	D51		30	50	80	110	130	180	200
	L31		20	30	40	55	79	80	80
	L51		3	4	5	5	6	6	8
	L61		20	22	32	41	25	63	78