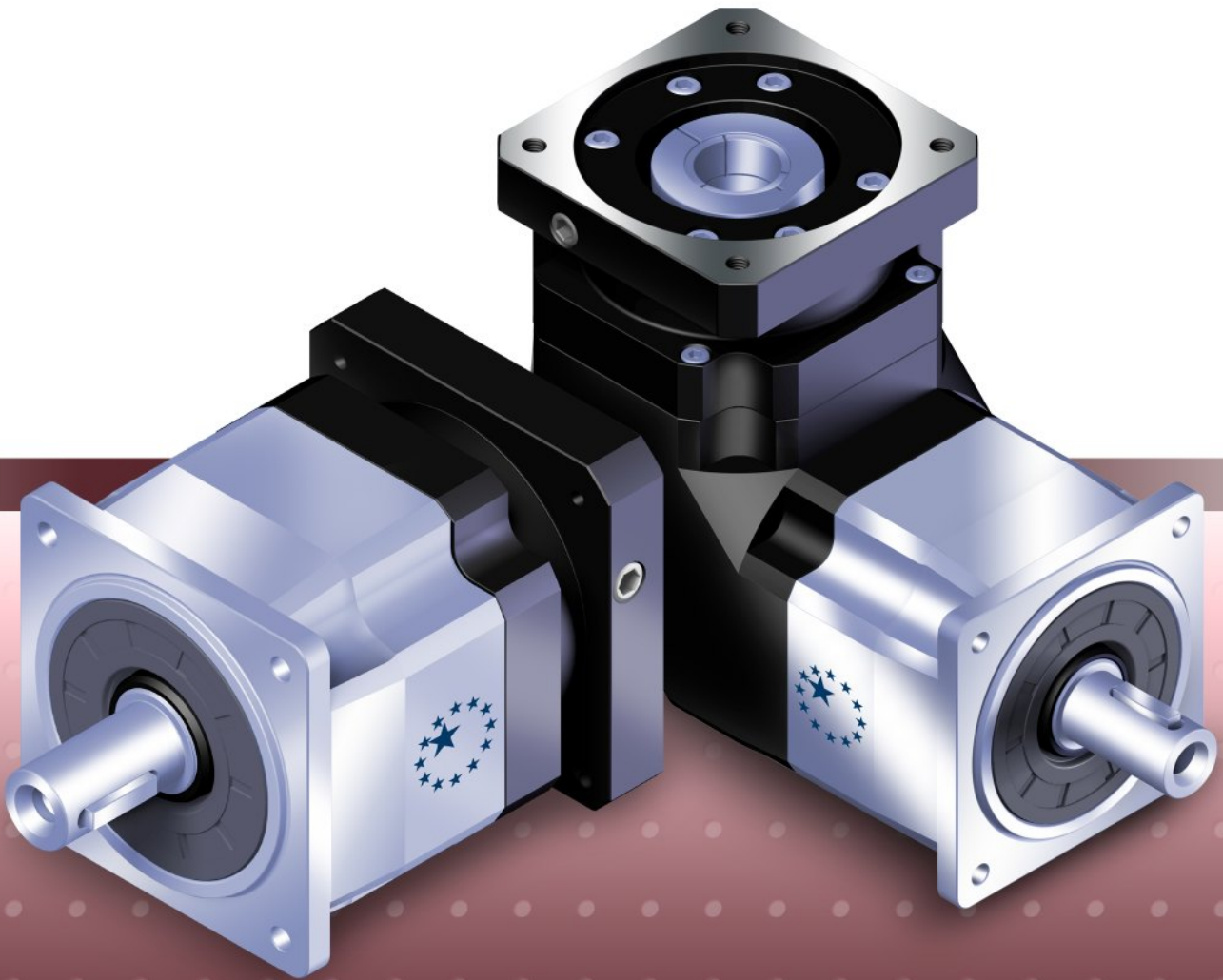




**APEX DYNAMICS, USA**

# **AN / ANR Series**

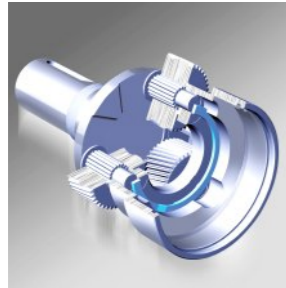
*Nema Planetary Gearboxes  
High Precision  
High Speed*



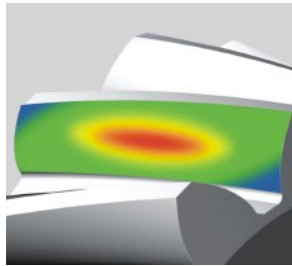
**Stainless**

# AN / ANR Series

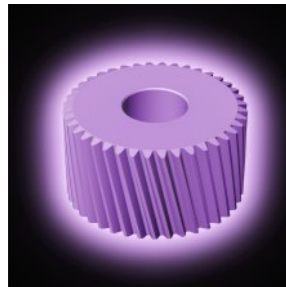
## Characteristic Highlights



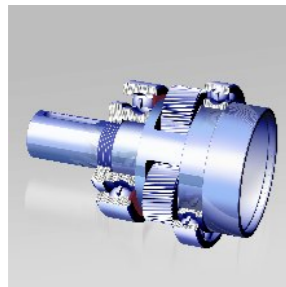
Planet gears rotate on **solid uncaged needle roller bearings** for increased stiffness and the maximum number of contact points. Hardened thrust washers allow the precise control of clearances in order to eliminate backlash.



Industry-leading gear performance is attained with our **HeliTopo technology**. **Ease off of the tooth profile and lead crowning** optimizes the gear mesh under load and achieves maximum tooth surface contact.



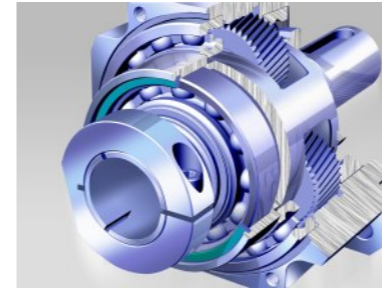
Our **In-house plasma nitriding** treatment process allows the hardness of the gear flanks to reach over 900Hv for superior wear resistance and still maintain a core hardness of 30HRc for toughness and resistance to shock loading.



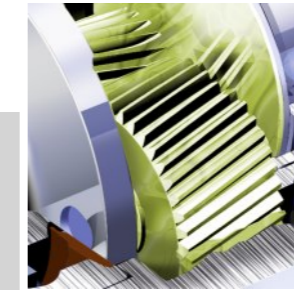
**One-piece carrier** and output housing ensure 100% concentricity and alignment of all the rotating components. One-piece construction increases strength, rigidity and system reliability.



**Helical gear design.** Helical gearing increases the tooth to tooth contact ratio by as much as 33%. Benefits include increased torque capacity, ultimate smoothness, lower backlash and decreased noise. The helix angle is carefully chosen to gain these advantages while not producing excessive axial forces.



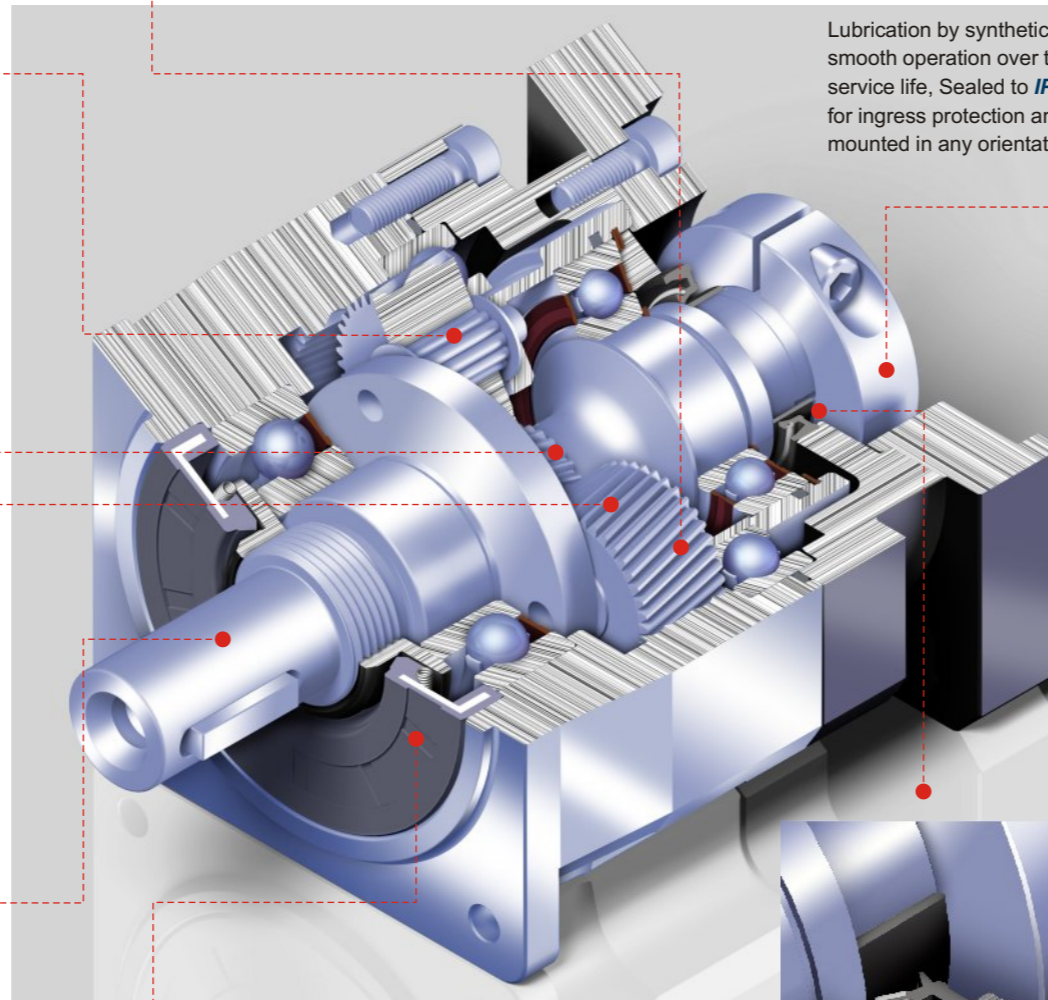
**Patented planet carrier design** mounts the sun gear bearing directly into the planet carrier in order to eliminate misalignment. This exclusive design offers great advantages in decreased noise, vibration and transmission errors and losses.



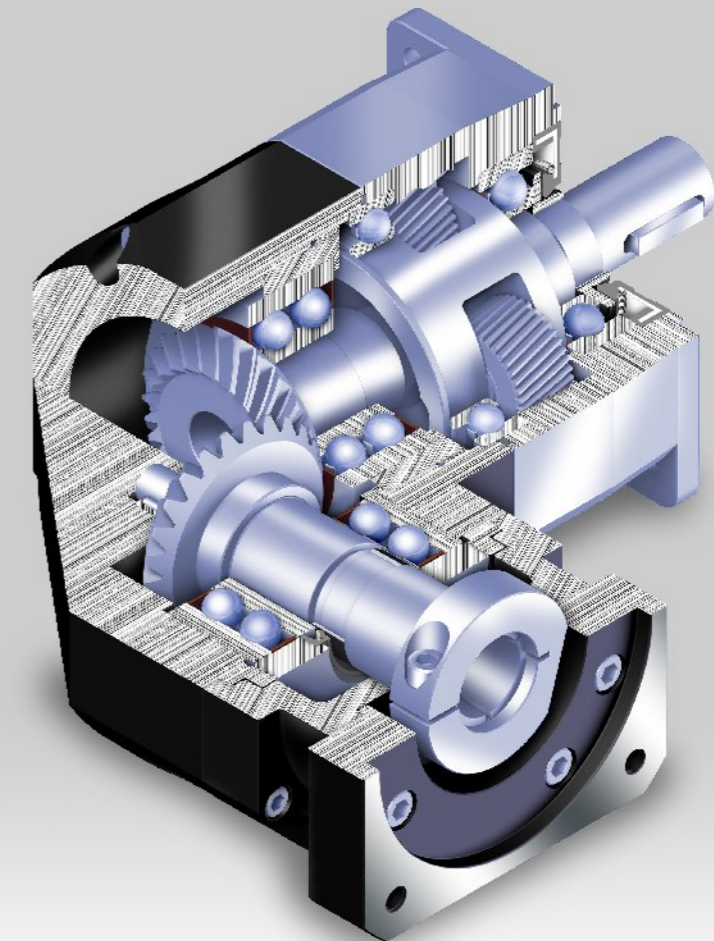
**Triple split collet with dynamic balanced set collar clamping system** provides backlash free power transmission and eliminates slippage. 100% concentricity allows for smooth rotation and higher input speed capability.



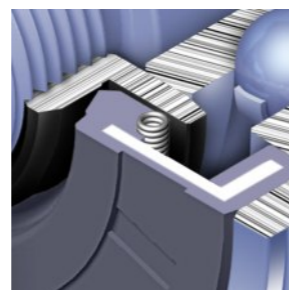
Lubrication by synthetic grease for smooth operation over the whole service life. Sealed to **IP65** standard for ingress protection and can be mounted in any orientation.



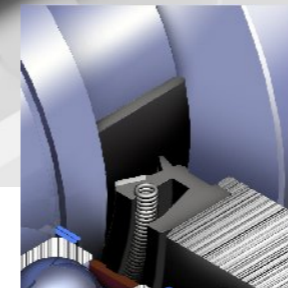
## ANR Series



**ANR version** with 90° input via spiral bevel gear. Featuring an extremely short, rigid housing with full compatibility to any motor.



**NEW - Patented output sealing systems design** eliminates friction and heat generation which is accomplished by applying our hi-tech coating to all output contact surfaces. This coating reaches a hardness of **3700Hv** and is ground to  $R_a 0.2 \mu m$  finish to ensure sealing.



**NEW - Patented input sealing system design** eliminates break away torque and decreases friction/heat. The hi-tech coating bushing (**3700 Hv**,  $R_a 0.2 \mu m$  finish) interfaces with our proprietary seal which decreases wear and erosion of both sealing surfaces. This new patent prevents leakage and has a service life of over 20,000 hours.

# AN Series

## Specifications

### Gearbox Performance

Model No.	Stage	Ratio <sup>1</sup>	AN023	AN023A	AN023B	AN023C	AN034	AN034A	AN034B	AN034C	
Nominal Output Torque $T_{2N}$	1	5	60	-	60	-	160	-	160	-	
		10	40	-	40	-	100	-	100	-	
	2	25	60	60	60	60	160	160	160	160	
		50	60	60	60	60	160	160	160	160	
		100	40	40	40	40	100	100	100	100	
Emergency Stop Torque $T_{2NOT}$ <sup>2</sup>	Nm	1,2	5~100	3 times of Nominal Output Torque							
Nominal Input Speed $n_{iN}$	rpm	1,2	5~100	5,000	5,000	5,000	5,000	4,000	4,000	4,000	4,000
Max. Input Speed $n_{iB}$	rpm	1,2	5~100	10,000	10,000	10,000	10,000	8,000	8,000	8,000	8,000
Micro Backlash $P_0$		1	5~10	-	-	-	-	≤1	-	≤1	-
		2	25~100	-	-	-	-	-	-	-	-
Reduced Backlash $P_1$	arcmin	1	5~10	≤3	-	≤3	-	≤3	-	≤3	-
		2	25~100	≤5	≤5	≤5	≤5	≤5	≤5	≤5	≤5
Standard Backlash $P_2$	arcmin	1	5~10	≤5	-	≤5	-	≤5	-	≤5	-
		2	25~100	≤7	≤7	≤7	≤7	≤7	≤7	≤7	≤7
Torsional Rigidity	Nm/arcmin	1,2	5~100	2.6	2.6	1.7	1.7	9.5	9.5	3.2	3.2
Max. Radial Load $F_{2B}$ <sup>3</sup>	N	1,2	5~100	950	950	1,000	1,000	2,450	2,450	2,550	2,550
Max. Axial Load $F_{2aB}$ <sup>3</sup>	N	1,2	5~100	475	475	500	500	1,225	1,225	1,275	1,275
Service Life	hr	1,2	5~100	20,000*							
Efficiency $\eta$	%	1	5~10	≥97%							
		2	25~100	≥94%							
Weight	kg	1	5~10	1.2	-	1.2	-	3.4	-	3.4	-
		2	25~100	1.4	1.9	1.4	1.9	4	5.3	4	5.3
Operating Temperature	°C	1,2	5~100	-10°C~90°C							
Lubrication				Synthetic lubrication oils							
Degree of Gearbox Protection		1,2	5~100	IP65							
Mounting Position		1,2	5~100	all directions							
Noise Level ( $n_i=3000$ rpm, No Load)	dB(A)	1,2	5~100	≤58	≤60	≤58	≤60	≤60	≤63	≤60	≤63

### Gearbox Inertia

Model No.	Stage	Ratio <sup>1</sup>	AN023	AN023A	AN023B	AN023C	AN034	AN034A	AN034B	AN034C
Mass Moments of Inertia $J_1$	1	5	0.13	-	0.13	-	0.47	-	0.47	-
		10	0.13	-	0.13	-	0.44	-	0.44	-
	2	25	0.03	0.13	0.03	0.13	0.13	0.47	0.13	0.47
		50	0.03	0.13	0.03	0.13	0.13	0.44	0.13	0.44
		100	0.03	0.13	0.03	0.13	0.13	0.44	0.13	0.44

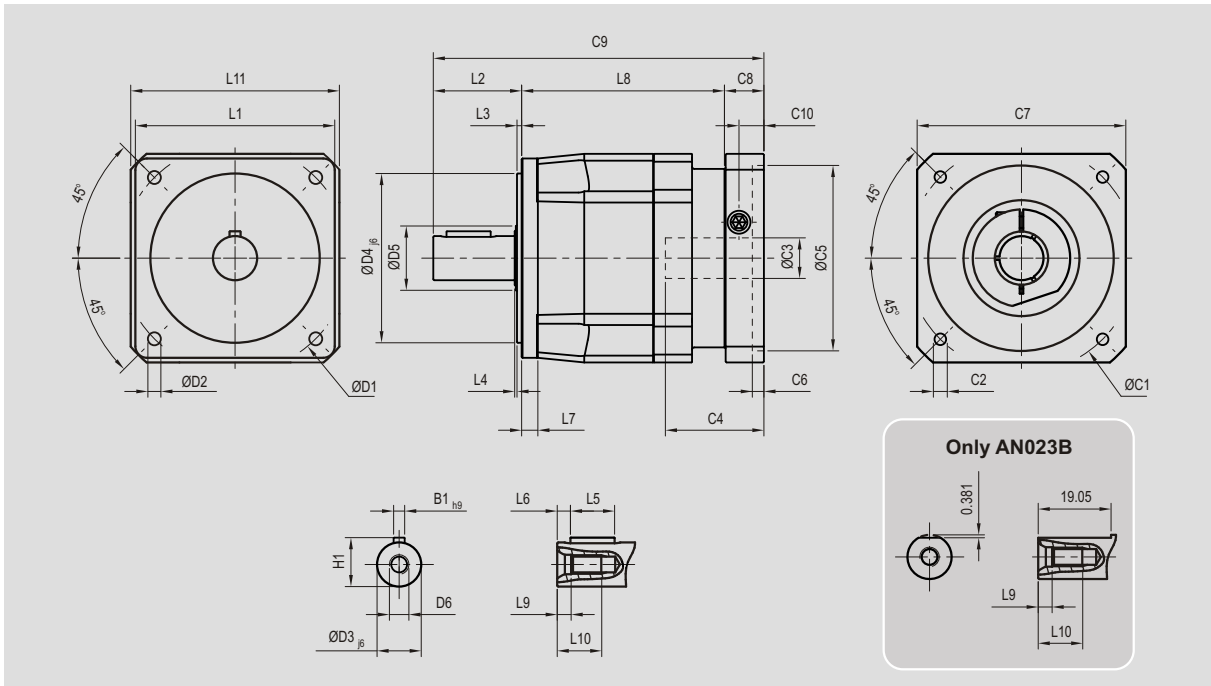
1. Ratio ( $i=N_{in}/N_{out}$ )

2.  $T_{2B} = 60\%$  of  $T_{2NOT}$

3. Applied to the output shaft center @ 100 rpm

\*S1 service life 10,000 hrs (Consult us)

# Dimensions (1-stage, Ratio i=5~10)



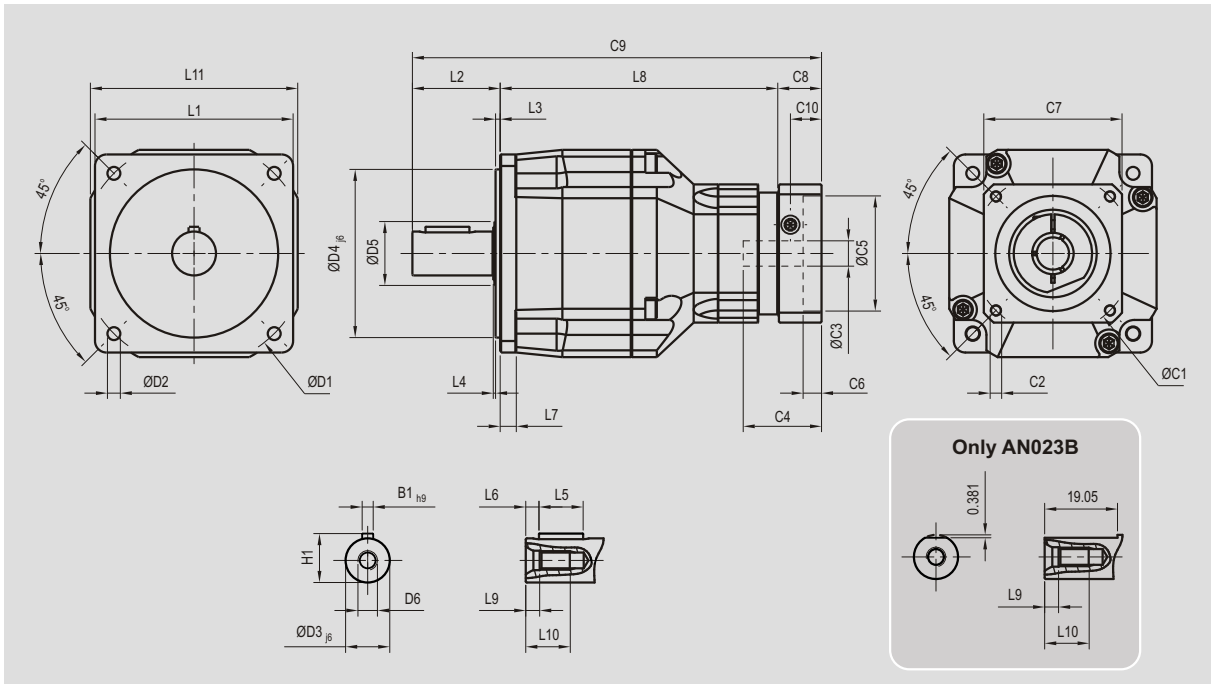
Unit: mm (inch)

Dimension	AN023	AN023B	AN034	AN034B
D1	66.675 (2.625)	66.675 (2.625)	98.425 (3.875)	98.425 (3.875)
D2	5.6	5.6	5.6	5.6
D3 <sub>j6</sub>	12.7 (0.50)	9.525 (0.375)	19.05 (0.750)	12.7 (0.50)
D4 <sub>j6</sub>	38.1 (1.50)	38.1 (1.50)	73.025 (2.875)	73.025 (2.875)
D5	22	22	30	30
D6	M5 x 0.8P	M4 x 0.7P	M8 x 1.25P	M5 x 0.8P
L1	60	60	86	86
L2	31.8 (1.252)	25.4 (1.00)	38.1 (1.50)	31.8 (1.252)
L3	2	2	2	2
L4	1	1	1	1
L5	19.05 (0.750)	-	19.05 (0.750)	19.05 (0.750)
L6	3.8 (0.150)	-	5.7 (0.224)	3.8 (0.150)
L7	6	6	7	7
L8	64.5	64.5	87.5	87.5
L9	4.8	4.5	7.2	4.8
L10	12.5	10	19	12.5
L11	60	60	90	90
C1 <sup>4</sup>	66.675 (2.625)	66.675 (2.625)	98.425 (3.875)	98.425 (3.875)
C2 <sup>4</sup>	M5 x 0.8P	M5 x 0.8P	M5 x 0.8P	M5 x 0.8P
C3 <sup>4</sup>	≤14 / ≤16	≤14 / ≤16	≤19 / ≤24	≤19 / ≤24
C4 <sup>4</sup>	40 (1.575)	40 (1.575)	40 (1.575)	40 (1.575)
C5 <sup>4</sup>	38.15 (1.502)	38.15 (1.502)	73.08 (2.877)	73.08 (2.877)
C6 <sup>4</sup>	4 (0.157)	4 (0.157)	4 (0.157)	4 (0.157)
C7 <sup>4</sup>	58 (2.283)	58 (2.283)	85 (3.346)	85 (3.346)
C8 <sup>4</sup>	25 (0.984)	25 (0.984)	17 (0.669)	17 (0.669)
C9 <sup>4</sup>	121.3 (4.776)	114.9 (4.524)	142.6 (5.614)	136.3 (5.366)
C10 <sup>4</sup>	19.5 (0.768)	19.5 (0.768)	10.75 (0.423)	10.75 (0.423)
B1 <sub>h9</sub>	3.175 (0.125)	-	4.763 (0.188)	3.175 (0.125)
H1	14.125 (0.556)	-	21.113 (0.831)	14.125 (0.556)

4. C1-C10 are motor specific dimensions (nema std shown). Refer to Apexdyna.com and design Tool to view your specific motor mounting system.

# AN Series

## Dimensions (2-stage, Ratio $i=25,50,100$ )



Unit: mm (inch)

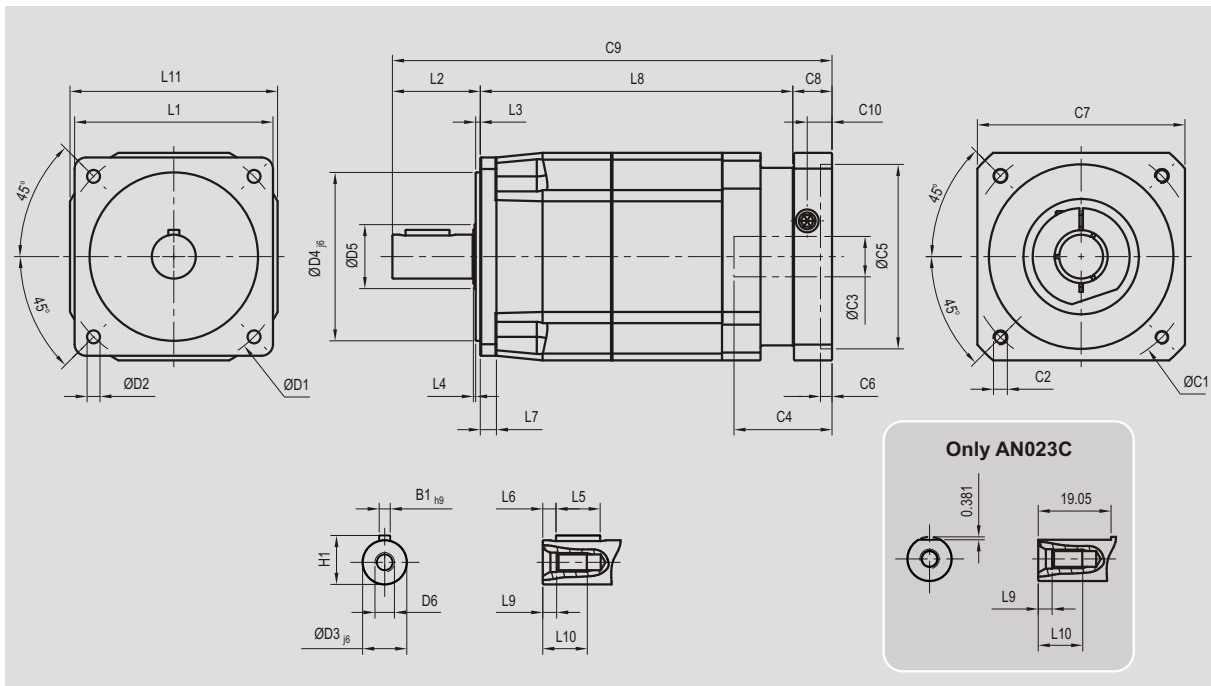
Dimension	AN023	AN023B	AN034	AN034B
D1	66.675 (2.625)	66.675 (2.625)	98.425 (3.875)	98.425 (3.875)
D2	5.6	5.6	5.6	5.6
D3 <sub>j6</sub>	12.7 (0.50)	9.525 (0.375)	19.05 (0.750)	12.7 (0.50)
D4 <sub>j6</sub>	38.1 (1.50)	38.1 (1.50)	73.025 (2.875)	73.025 (2.875)
D5	22	22	30	30
D6	M5 x 0.8P	M4 x 0.7P	M8 x 1.25P	M5 x 0.8P
L1	60	60	86	86
L2	31.8 (1.252)	25.4 (1.00)	38.1 (1.50)	31.8 (1.252)
L3	2	2	2	2
L4	1	1	1	1
L5	19.05 (0.750)	-	19.05 (0.750)	19.05 (0.750)
L6	3.8 (0.150)	-	5.7 (0.224)	3.8 (0.150)
L7	6	6	7	7
L8	75.5	75.5	120.5	120.5
L9	4.8	4.5	7.2	4.8
L10	12.5	10	19	12.5
L11	60	60	90	90
C1 <sup>5</sup>	66.675 (2.625)	66.675 (2.625)	66.675 (2.625)	66.675 (2.625)
C2 <sup>5</sup>	M5 x 0.8P	M5 x 0.8P	M5 x 0.8P	M5 x 0.8P
C3 <sup>5</sup>	≤11 / ≤12	≤11 / ≤12	≤14 / ≤16	≤14 / ≤16
C4 <sup>5</sup>	32 (1.260)	32 (1.260)	40 (1.575)	40 (1.575)
C5 <sup>5</sup>	38.15 (1.502)	38.15 (1.502)	38.15 (1.502)	38.15 (1.502)
C6 <sup>5</sup>	3.5 (0.138)	3.5 (0.138)	4 (0.157)	4 (0.157)
C7 <sup>5</sup>	55 (2.165)	55 (2.165)	58 (2.283)	58 (2.283)
C8 <sup>5</sup>	36.5 (1.437)	36.5 (1.437)	25 (0.984)	25 (0.984)
C9 <sup>5</sup>	143.8 (5.661)	137.4 (5.409)	183.6 (7.228)	177.3 (6.980)
C10 <sup>5</sup>	15.75 (0.620)	15.75 (0.620)	19.5 (0.768)	19.5 (0.768)
B1 <sub>h9</sub>	3.175 (0.125)	-	4.763 (0.188)	3.175 (0.125)
H1	14.125 (0.556)	-	21.113 (0.831)	14.125 (0.556)

5. C1-C10 are motor specific dimensions (nema std shown). Refer to Apexdyna.com and design Tool to view your specific motor mounting system.

# AN Series

## Dimensions (2-stage, Ratio $i=25,50,100$ )

For motor with large shaft diameters



Unit: mm (inch)

Dimension	AN023A	AN023C	AN034A	AN034C
D1	66.675 (2.625)	66.675 (2.625)	98.425 (3.875)	98.425 (3.875)
D2	5.6	5.6	5.6	5.6
D3 <sub>j6</sub>	12.7 (0.50)	9.525 (0.375)	19.05 (0.750)	12.7 (0.50)
D4 <sub>j6</sub>	38.1 (1.50)	38.1 (1.50)	73.025 (2.875)	73.025 (2.875)
D5	22	22	30	30
D6	M5 x 0.8P	M4 x 0.7P	M8 x 1.25P	M5 x 0.8P
L1	60	60	86	86
L2	31.8 (1.252)	25.4 (1.00)	38.1 (1.50)	31.8 (1.252)
L3	2	2	2	2
L4	1	1	1	1
L5	19.05 (0.750)	-	19.05 (0.750)	19.05 (0.750)
L6	3.8 (0.150)	-	5.7 (0.224)	3.8 (0.150)
L7	6	6	7	7
L8	101.5	101.5	135.5	135.5
L9	4.8	4.5	7.2	4.8
L10	12.5	10	19	12.5
L11	60	60	90	90
C1 <sup>6</sup>	66.675 (2.625)	66.675 (2.625)	98.425 (3.875)	98.425 (3.875)
C2 <sup>6</sup>	M5 x 0.8P	M5 x 0.8P	M5 x 0.8P	M5 x 0.8P
C3 <sup>6</sup>	≤14 / ≤16	≤14 / ≤16	≤19 / ≤24	≤19 / ≤24
C4 <sup>6</sup>	40 (1.575)	40 (1.575)	40 (1.575)	40 (1.575)
C5 <sup>6</sup>	38.15 (1.502)	38.15 (1.502)	73.08 (2.877)	73.08 (2.877)
C6 <sup>6</sup>	4 (0.157)	4 (0.157)	4 (0.157)	4 (0.157)
C7 <sup>6</sup>	58 (2.283)	58 (2.283)	85 (3.346)	85 (3.346)
C8 <sup>6</sup>	25 (0.984)	25 (0.984)	17 (0.669)	17 (0.669)
C9 <sup>6</sup>	158.3 (6.232)	151.9 (5.980)	190.6 (7.504)	184.3 (7.256)
C10 <sup>6</sup>	19.5 (0.768)	19.5 (0.768)	10.75 (0.423)	10.75 (0.423)
B1 <sub>h9</sub>	3.175 (0.125)	-	4.763(0.188)	3.175 (0.125)
H1	14.125 (0.556)	-	21.113(0.831)	14.125 (0.556)

6. C1-C10 are motor specific dimensions (nema std shown). Refer to Apexdyna.com and design Tool to view your specific motor mounting system.

# ANR Series

## Specifications

### Gearbox Performance

Model No.	Stage	Ratio <sup>1</sup>	ANR023	ANR023A	ANR023B	ANR023C	ANR034	ANR034A	ANR034B	ANR034C	
Nominal Output Torque $T_{2N}$	Nm	1	5	60	-	60	-	150	-	150	-
			10	40	-	40	-	100	-	100	-
			20	40	-	40	-	100	-	100	-
	Nm	2	25	60	60	60	60	150	150	150	150
			50	60	60	60	60	100	100	100	100
			100	40	40	40	40	100	100	100	100
		200	-	40	-	40	100	100	100	100	
Emergency Stop Torque $T_{2NOT}$ <sup>2</sup>	Nm	1,2	5~200	3 times of Nominal Output Torque							
Nominal Input Speed $n_{1N}$	rpm	1,2	5~200	5,000	5,000	5,000	5,000	4,000	4,000	4,000	4,000
Max. Input Speed $n_{1B}$	rpm	1,2	5~200	10,000	10,000	10,000	10,000	8,000	8,000	8,000	8,000
Micro Backlash $P_0$		1	5~20	-	-	-	-	≤2	-	≤2	-
		2	25~200	-	-	-	-	≤4	≤4	≤4	≤4
Reduced Backlash $P_1$	arcmin	1	5~20	≤4	-	≤4	-	≤4	-	≤4	-
		2	25~200	7	≤7	≤7	≤7	≤7	≤7	≤7	≤7
Standard Backlash $P_2$	arcmin	1	5~20	≤6	-	≤6	-	≤6	-	≤6	-
		2	25~200	≤9	≤9	≤9	≤9	≤9	≤9	≤9	≤9
Torsional Rigidity	Nm/arcmin	1,2	5~200	2.6	2.6	1.7	1.7	9.5	9.5	3.2	3.2
Max. Radial Load $F_{2rB}$ <sup>3</sup>	N	1,2	5~200	950	950	1,000	1,000	2,450	2,450	2,550	2,550
Max. Axial Load $F_{2aB}$ <sup>3</sup>	N	1,2	5~200	475	475	500	500	1,225	1,225	1,275	1,275
Service Life	hr	1,2	5~200	20,000*							
Efficiency $\eta$	%	1	5~20	≥95%							
		2	25~200	≥92%							
Weight	kg	1	5~20	2	-	2	-	6	-	6	-
		2	25~200	1.8	2.6	1.8	2.6	4.8	8	4.7	7.9
Operating Temperature	°C	1,2	5~200	-10°C~90°C							
Lubrication				Synthetic lubrication oils							
Degree of Gearbox Protection		1,2	5~200	IP65							
Mounting Position		1,2	5~200	all directions							
Noise Level ( $n_1=3000$ rpm, No Load)	dB(A)	1,2	5~200	≤63	≤65	≤63	≤65	≤65	≤68	≤65	≤68

### Gearbox Inertia

Model No.	Stage	Ratio <sup>1</sup>	ANR023	ANR023A	ANR023B	ANR023C	ANR034	ANR034A	ANR034B	ANR034C	
Mass Moments of Inertia $J_1$	kg · cm <sup>2</sup>	1	5~10	0.35	-	0.35	-	2.25	-	2.25	-
			20	0.07	-	0.07	-	1.87	-	1.87	-
	kg · cm <sup>2</sup>	2	25~100	0.09	0.35	0.09	0.35	0.35	2.25	0.35	2.25
			120~200	-	0.07	-	0.07	0.31	1.87	0.31	1.87

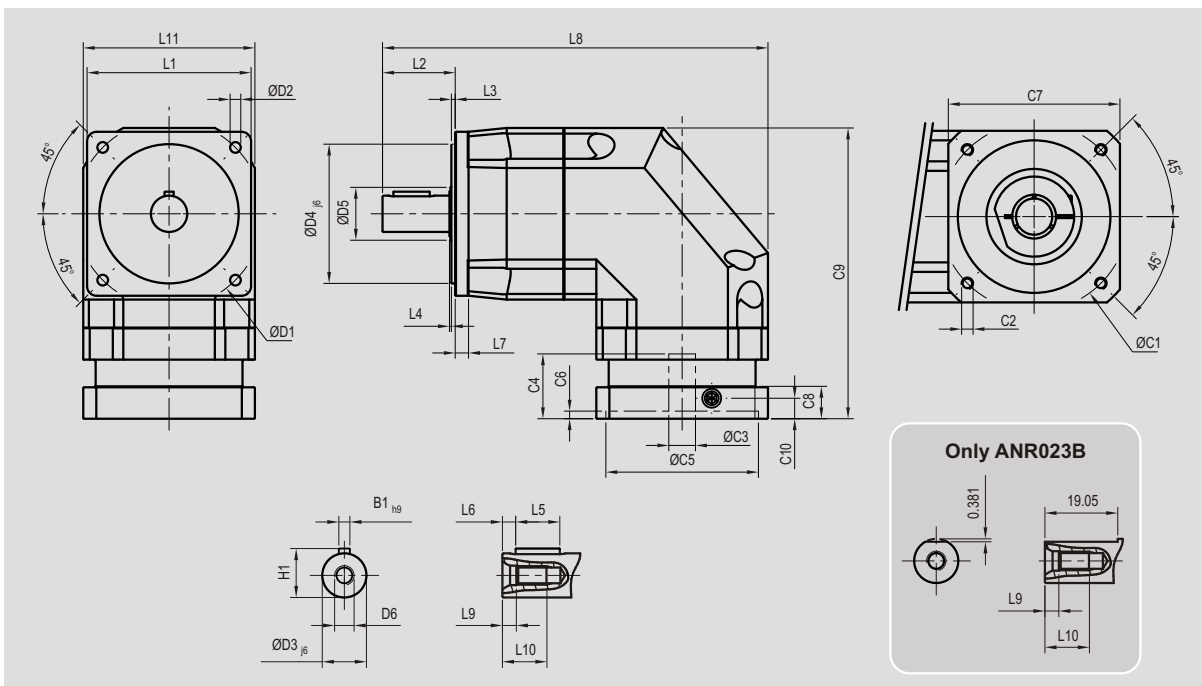
1. Ratio ( $i=N_{in}/N_{out}$ )

2.  $T_{2B} = 60\%$  of  $T_{2NOT}$

3. Applied to the output shaft center @ 100 rpm

\* S1 service life 10,000 hrs (Consult us)

# Dimensions (1-stage, Ratio i=5~20)



Unit: mm (inch)

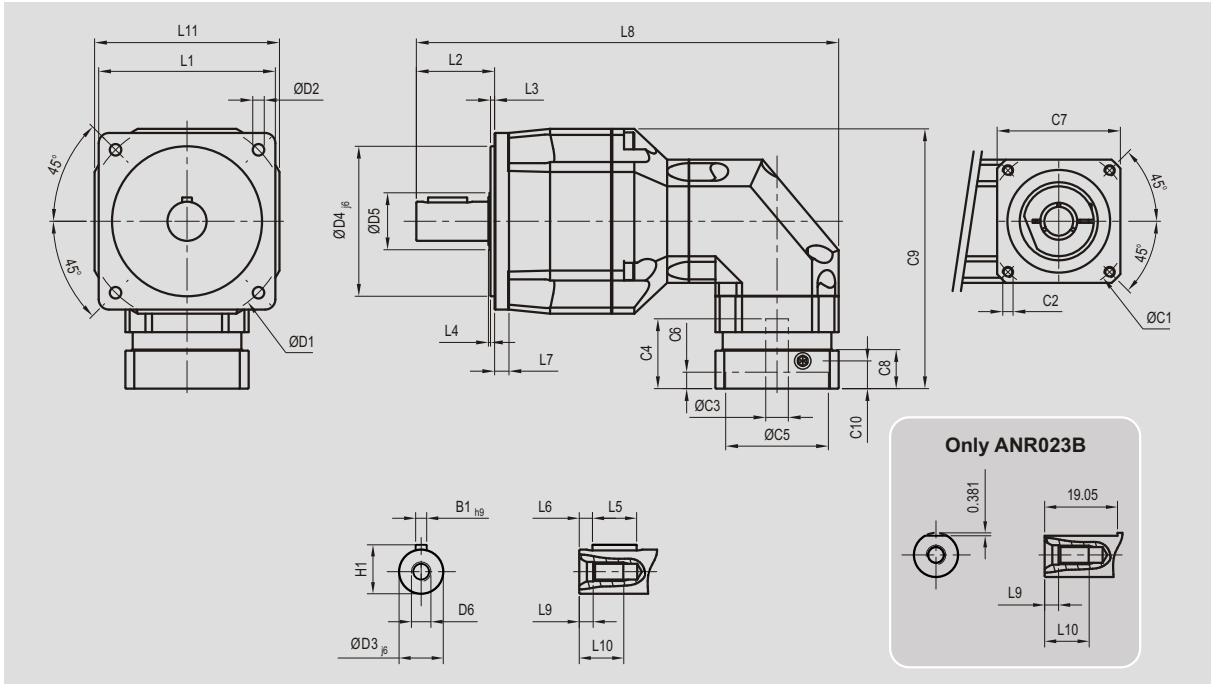
Dimension	ANR023	ANR023B	ANR034	ANR034B
D1	66.675 (2.625)	66.675 (2.625)	98.425 (3.875)	98.425 (3.875)
D2	5.6	5.6	5.6	5.6
D3 <sub>j6</sub>	12.7 (0.50)	9.525 (0.375)	19.05 (0.750)	12.7 (0.50)
D4 <sub>j6</sub>	38.1 (1.50)	38.1 (1.50)	73.025 (2.875)	73.025 (2.875)
D5	22	22	30	30
D6	M5 x 0.8P	M4 x 0.7P	M8 x 1.25P	M5 x 0.8P
L1	60	60	86	86
L2	31.8 (1.252)	25.4 (1.00)	38.1 (1.50)	31.8 (1.252)
L3	2	2	2	2
L4	1	1	1	1
L5	19.05 (0.750)	-	19.05 (0.750)	19.05 (0.750)
L6	3.8 (0.150)	-	5.7 (0.224)	3.8 (0.150)
L7	6	6	7	7
L8	143.3	136.9	202.1	195.8
L9	4.8	4.5	7.2	4.8
L10	12.5	10	19	12.5
L11	60	60	90	90
C1 <sup>4</sup>	66.675 (2.625)	66.675 (2.625)	98.425 (3.875)	98.425 (3.875)
C2 <sup>4</sup>	M5 x 0.8P	M5 x 0.8P	M5 x 0.8P	M5 x 0.8P
C3 <sup>4</sup>	≤14 / ≤16	≤14 / ≤16	≤19 / ≤24	≤19 / ≤24
C4 <sup>4</sup>	40 (1.575)	40 (1.575)	40 (1.575)	40 (1.575)
C5 <sup>4</sup>	38.15 (1.502)	38.15 (1.502)	73.08 (2.877)	73.08 (2.877)
C6 <sup>4</sup>	4 (0.157)	4 (0.157)	4 (0.157)	4 (0.157)
C7 <sup>4</sup>	58 (2.283)	58 (2.283)	85 (3.346)	85 (3.346)
C8 <sup>4</sup>	25 (0.984)	25 (0.984)	17 (0.669)	17 (0.669)
C9 <sup>4</sup>	117.5 (4.626)	117.5 (4.626)	152.5 (6.004)	152.5 (6.004)
C10 <sup>4</sup>	19.5 (0.768)	19.5 (0.768)	10.75 (0.423)	10.75 (0.423)
B1 <sub>h9</sub>	3.175 (0.125)	-	4.763 (0.188)	3.175 (0.125)
H1	14.125 (0.556)	-	21.113 (0.831)	14.125 (0.556)

4. C1-C10 are motor specific dimensions (nema std shown). Refer to Apexdyna.com and design Tool to view your specific motor mounting system.



# ANR Series

## Dimensions (2-stage, Ratio i=25,50,100,200)

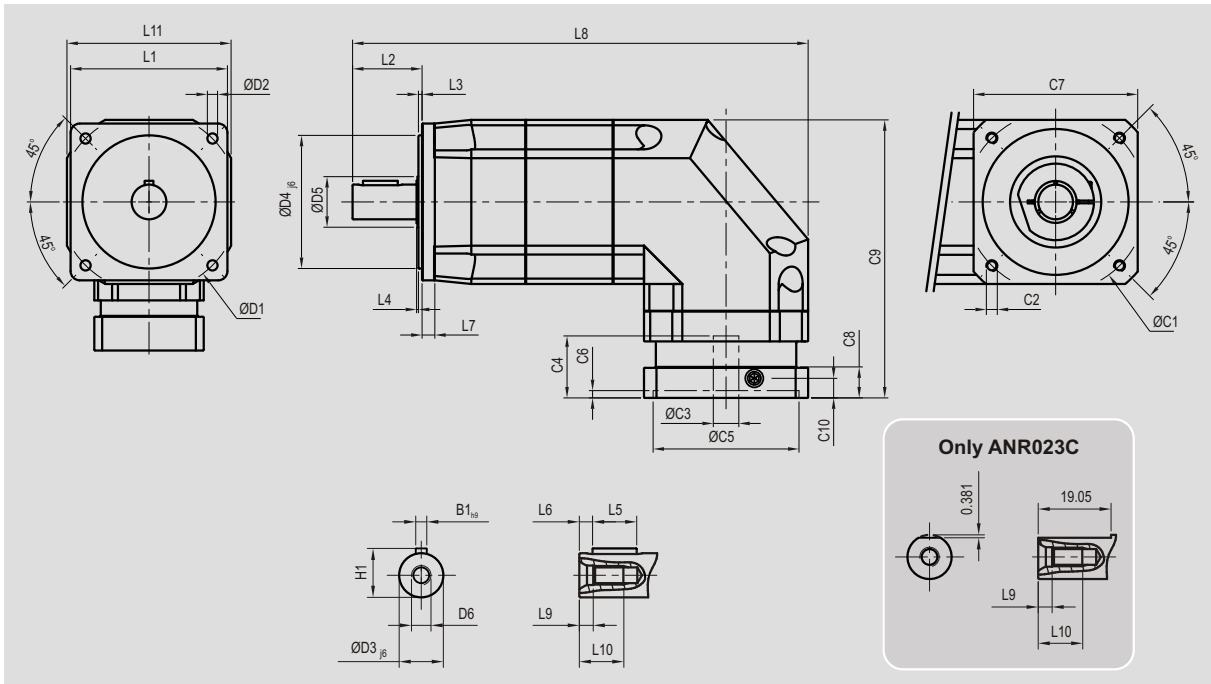


Unit: mm (inch)

Dimension	ANR023	ANR023B	ANR034	ANR034B
D1	66.675 (2.625)	66.675 (2.625)	98.425 (3.875)	98.425 (3.875)
D2	5.6	5.6	5.6	5.6
D3 <sub>j6</sub>	12.7 (0.50)	9.525 (0.375)	19.05 (0.750)	12.7 (0.50)
D4 <sub>j6</sub>	38.1 (1.50)	38.1 (1.50)	73.025 (2.875)	73.025 (2.875)
D5	22	22	30	30
D6	M5 x 0.8P	M4 x 0.7P	M8 x 1.25P	M5 x 0.8P
L1	60	60	86	86
L2	31.8 (1.252)	25.4 (1.00)	38.1 (1.50)	31.8 (1.252)
L3	2	2	2	2
L4	1	1	1	1
L5	19.05 (0.750)	-	19.05 (0.750)	19.05 (0.750)
L6	3.8 (0.150)	-	5.7 (0.224)	3.8 (0.150)
L7	6	6	7	7
L8	161.8	155.4	205.6	199.3
L9	4.8	4.5	7.2	4.8
L10	12.5	10	19	12.5
L11	60	60	90	90
C1 <sup>5</sup>	66.675 (2.625)	66.675 (2.625)	66.675 (2.625)	66.675 (2.625)
C2 <sup>5</sup>	M5 x 0.8P	M5 x 0.8P	M5 x 0.8P	M5 x 0.8P
C3 <sup>5</sup>	≤11 / ≤12	≤11 / ≤12	≤14 / ≤16	≤14 / ≤16
C4 <sup>5</sup>	32 (1.260)	32 (1.260)	40 (1.575)	40 (1.575)
C5 <sup>5</sup>	38.15 (1.502)	38.15 (1.502)	38.15 (1.502)	38.15 (1.502)
C6 <sup>5</sup>	3.5 (0.138)	3.5 (0.138)	4 (0.157)	4 (0.157)
C7 <sup>5</sup>	55 (2.165)	55 (2.165)	58 (2.283)	58 (2.283)
C8 <sup>5</sup>	36.5 (1.437)	36.5 (1.437)	25 (0.984)	25 (0.984)
C9 <sup>5</sup>	106.5 (4.193)	106.5 (4.193)	132.5 (5.217)	132.5 (5.217)
C10 <sup>5</sup>	15.75 (0.620)	15.75 (0.620)	19.5 (0.768)	19.5 (0.768)
B1 <sub>h9</sub>	3.175 (0.125)	-	4.763 (0.188)	3.175 (0.125)
H1	14.125 (0.556)	-	21.113 (0.831)	14.125 (0.556)

5. C1-C10 are motor specific dimensions (nema std shown). Refer to Apexdyna.com and design Tool to view your specific motor mounting system.

# Dimensions (2-stage, Ratio i=25,50,100,200)



Unit: mm (inch)

Dimension	ANR023A	ANR023C	ANR034A	ANR034C
D1	66.675 (2.625)	66.675 (2.625)	98.425 (3.875)	98.425 (3.875)
D2	5.6	5.6	5.6	5.6
D3 <sub>j6</sub>	12.7 (0.50)	9.525 (0.375)	19.05 (0.750)	12.7 (0.50)
D4 <sub>j6</sub>	38.1 (1.50)	38.1 (1.50)	73.025 (2.875)	73.025 (2.875)
D5	22	22	30	30
D6	M5 x 0.8P	M4 x 0.7P	M8 x 1.25P	M5 x 0.8P
L1	60	60	86	86
L2	31.8 (1.252)	25.4 (1.00)	38.1 (1.50)	31.8 (1.252)
L3	2	2	2	2
L4	1	1	1	1
L5	19.05 (0.750)	-	19.05 (0.750)	19.05 (0.750)
L6	3.8 (0.150)	-	5.7 (0.224)	3.8 (0.150)
L7	6	6	7	7
L8	180.3	173.9	205.1	243.8
L9	4.8	4.5	7.2	4.8
L10	12.5	10	19	12.5
L11	60	60	90	90
C1 <sup>6</sup>	66.675 (2.625)	66.675 (2.625)	98.425 (3.875)	98.425 (3.875)
C2 <sup>6</sup>	M5 x 0.8P	M5 x 0.8P	M5 x 0.8P	M5 x 0.8P
C3 <sup>6</sup>	≤14 / ≤16	≤14 / ≤16	≤19 / ≤24	≤19 / ≤24
C4 <sup>6</sup>	40 (1.575)	40 (1.575)	40 (1.575)	40 (1.575)
C5 <sup>6</sup>	38.15 (1.502)	38.15 (1.502)	73.08 (2.877)	73.08 (2.877)
C6 <sup>6</sup>	4 (0.157)	4 (0.157)	4 (0.157)	4 (0.157)
C7 <sup>6</sup>	58 (2.283)	58 (2.283)	85 (3.346)	85 (3.346)
C8 <sup>6</sup>	25 (0.984)	25 (0.984)	17 (0.669)	17 (0.669)
C9 <sup>6</sup>	117.5 (4.626)	117.5 (4.626)	152.5 (6.004)	152.5 (6.004)
C10 <sup>6</sup>	19.5 (0.768)	19.5 (0.768)	10.75 (0.423)	10.75 (0.423)
B1 <sub>h9</sub>	3.175 (0.125)	-	4.763 (0.188)	3.175 (0.125)
H1	14.125 (0.556)	-	21.113 (0.831)	14.125 (0.556)

6. C1-C10 are motor specific dimensions (nema std shown). Refer to Apexdyna.com and design Tool to view your specific motor mounting system.

# Ordering Code

## AN Series

**AN023**

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**025**

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**P2**

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**MOTOR**

Ratio:	1 Stage:	2 Stage:
AN023:	5, 10	25, 50, 100
AN023A:		25, 50, 100
AN023B:	5, 10	25, 50, 100
AN023C:		25, 50, 100
AN034:	5, 10	25, 50, 100
AN034A:		25, 50, 100
AN034B:	5, 10	25, 50, 100
AN034C:		25, 50, 100

Backlash:
P0: Micro Backlash
P1: Reduced Backlash
P2: Standard Backlash

**Motor Designation:**  
Manufacturer Type  
And Model

### OUTPUT SHAFT DIMENSIONS:

All 3/8" Diameter are 1" Long with FLAT  
All 1/2" Diameter are 1.25" Long with Key  
All 3/4" Diameter are 1.5" Long with Key

### Gearbox Size / Shaft / Input Option:

AN023 : 1/2" output, 14/16mm input single, 11/12mm Double Stage	AN034 : 3/4" output 19/24mm input single, 14/16mm Double Stage
AN023A : 1/2" output, 14/16mm Double Stage	AN034A : 3/4" output, 19/24mm Double Stage
AN023B : 3/8" output w / flat, 14/16mm input single, 11/12mm Double Stage	AN034B : 1/2" output 19/24mm input single, 14/16mm Double Stage
AN023C : 3/8" output w / flat, 14/16mm Double Stage	AN034C : 1/2" output, 19/24mm input Double

## ANR Series

**ANR023**

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**025**

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**P2**

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**MOTOR**

Ratio:	1 Stage:	2 Stage:
ANR023:	5, 10, 20	25, 50, 100
ANR023A:		25, 50, 100, 200
ANR023B:	5, 10, 20	25, 50, 100
ANR023C:		25, 50, 100, 200
ANR034:	5, 10, 20	25, 50, 100, 200
ANR034A:		25, 50, 100, 200
ANR034B:	5, 10, 20	25, 50, 100, 200
ANR034C:		25, 50, 100, 200

Backlash:
P0: Micro Backlash
P1: Reduced Backlash
P2: Standard Backlash

**Motor Designation:**  
Manufacturer Type  
And Model

### OUTPUT SHAFT DIMENSIONS:

All 3/8" Diameter are 1" Long with FLAT  
All 1/2" Diameter are 1.25" Long with Key  
All 3/4" Diameter are 1.5" Long with Key

### Gearbox Size / Shaft / Input Option:

ANR023 : 1/2" output, 14/16mm input single, 11/12mm Double Stage	ANR034 : 3/4" output 19/24mm input single, 14/16mm Double Stage
ANR023A : 1/2" output, 14/16mm Double Stage	ANR034A : 3/4" output, 19/24mm Double Stage
ANR023B : 3/8" output w / flat, 14/16mm input single, 11/12mm Double Stage	ANR034B : 1/2" output 19/24mm input single, 14/16mm Double Stage
ANR023C : 3/8" output w / flat, 14/16mm Double Stage	ANR034C : 1/2" output, 19/24mm input Double

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APEX-2011-12-AN / ANR-2.0E-3.2V



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