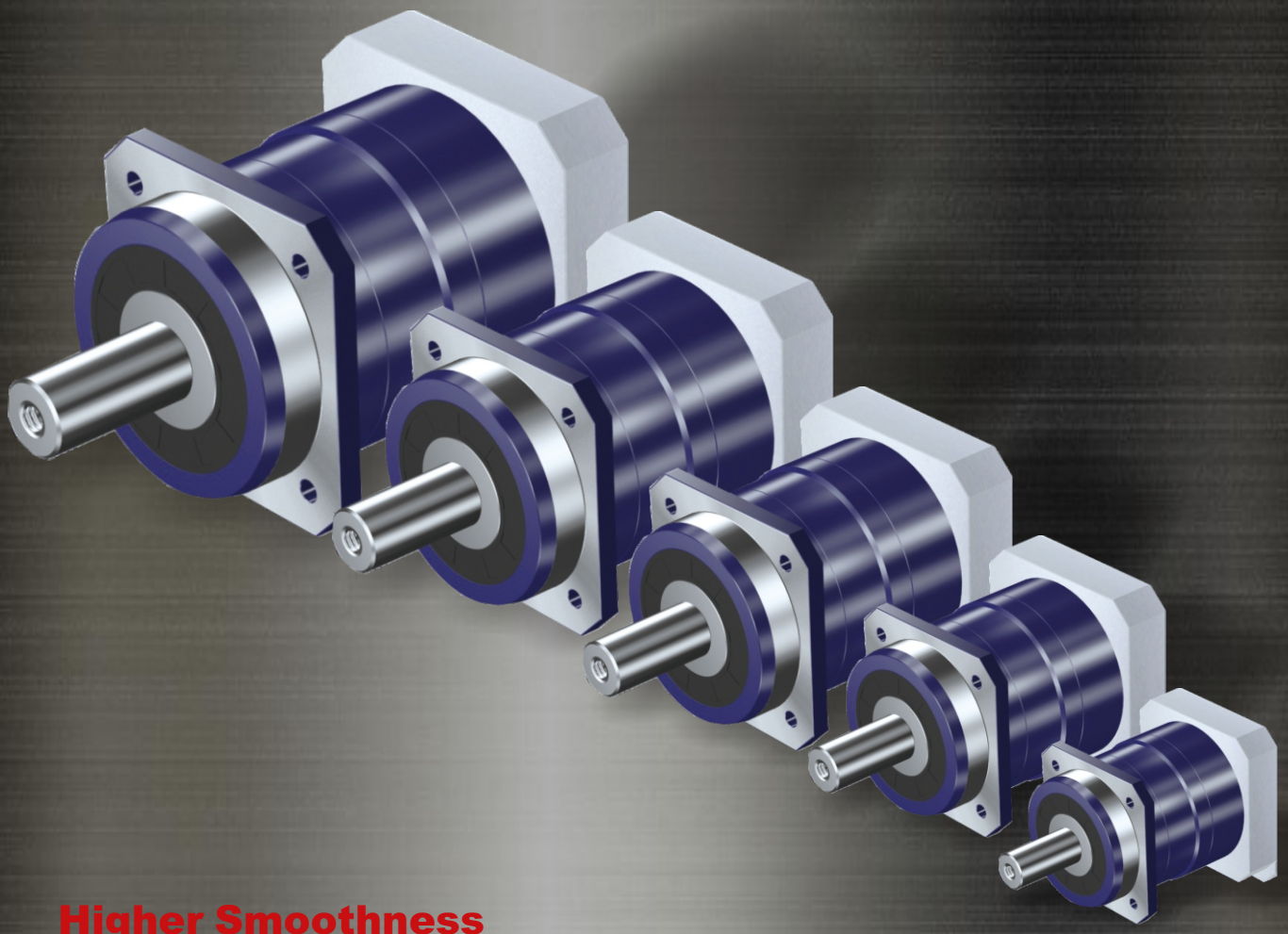
AF Series Highlights Overview



Higher Smoothness
Enhanced smoothness and lower noise due to adoption of Helical Gears.

Higher Precision
Fairly high precision enabled by backlash as 3arcmin.

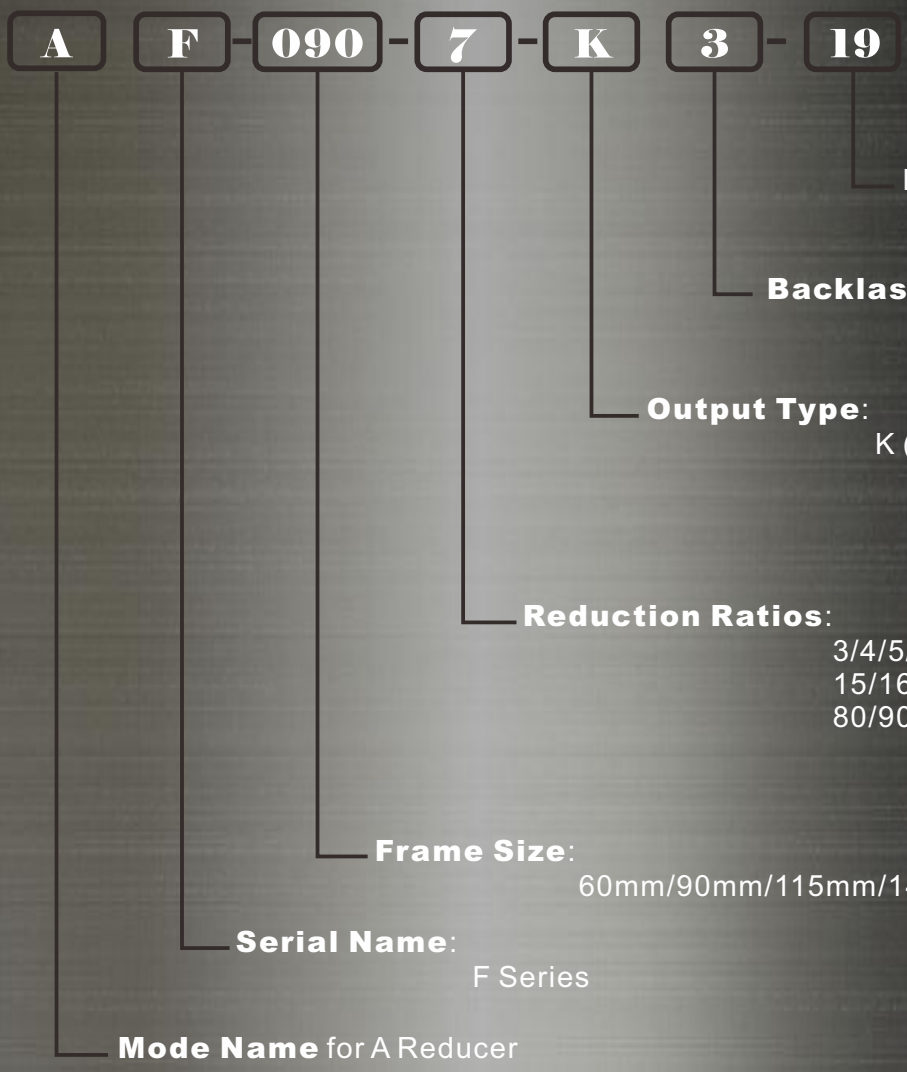
Higher Rigidity and Torque
Due to adoption of uncaged needle roller bearings.

Flexible Motor Integration
Can be integrated with any motor in the world.

Free of Maintenance
No need to replace the grease for lifelong time and maintenance of any part.

No Grease Leakage
Usage of high viscosity and anti-seperation lifetime grease.

AF Series Naming Rules



AF-060 Series Load Performance Table

Frame size	Stage	Ratio	※1 Norminal output torque [Nm]	※2 Maximum output torque [Nm]	※3 Emergency stop torque [Nm]	※4 Norminal input speed [rpm]	※5 Maximum input speed [rpm]	※6 Permitted radial load [N]	※7 Permitted axial load [N]
060	1	3	18	35	80	3000	6000	430	310
		4	27	50	100	3000	6000	470	360
		5	27	50	100	3000	6000	510	390
		6	27	50	100	3000	6000	540	430
		7	27	50	100	3000	6000	570	460
		8	27	50	100	3000	6000	600	480
		9	18	35	80	3000	6000	620	510
		10	18	35	80	3000	6000	640	530
	2	15	18	35	80	3000	6000	740	630
		16	27	50	100	3000	6000	750	650
		20	27	50	100	3000	6000	810	720
		25	27	50	100	3000	6000	870	790
		28	27	50	100	3000	6000	910	830
		30	18	35	80	3000	6000	930	860
		35	27	50	100	3000	6000	980	920
		40	27	50	100	3000	6000	1000	970
		45	18	35	80	3000	6000	1100	1000
		50	27	50	100	3000	6000	1100	1100
		60	27	50	100	3000	6000	1200	1100
		70	27	50	100	3000	6000	1200	1100
		80	27	50	100	3000	6000	1200	1100
		90	18	35	80	3000	6000	1200	1100
		100	18	35	80	3000	6000	1200	1100

Frame size	Stage	Ratio	※8 Maximum radial load [N]	※9 Maximum axial load [N]	※10 Weight [kg]	Moment of inertia (≤Φ8) [kgcm²]	Moment of inertia (≤Φ14) [kgcm²]	Moment of inertia (≤Φ19) [kgcm²]	
060	1	3	1200	1100	1.4	0.14	0.22	0.43	
		4	1200	1100		0.095	0.17	0.38	
		5	1200	1100		0.077	0.16	0.36	
		6	1200	1100		0.068	0.15	0.36	
		7	1200	1100		0.062	0.14	0.35	
		8	1200	1100		0.059	0.14	0.35	
		9	1200	1100		0.057	0.14	0.34	
		10	1200	1100		0.056	0.14	0.34	
	2	15	1200	1100	1.6	0.055	0.14	-	
		16	1200	1100		0.057	0.14	-	
		20	1200	1100		0.054	0.13	-	
		25	1200	1100		0.053	0.13	-	
		28	1200	1100		0.055	0.14	-	
		30	1200	1100		0.049	0.13	-	
		35	1200	1100		0.053	0.13	-	
		40	1200	1100		0.049	0.13	-	
		45	1200	1100		0.053	0.13	-	
		50	1200	1100		0.049	0.13	-	
		60	1200	1100		0.049	0.13	-	
		70	1200	1100		0.049	0.13	-	
		80	1200	1100		0.049	0.13	-	
		90	1200	1100		0.049	0.13	-	
		100	1200	1100		0.049	0.13	-	

※ 1 With nominal input speed,servic life is 20,000 hours
※ 2 The maximun torque when starting and stopping
※ 3 The maximun torque when it receives shock (up to 1000times)
※ 4 The maximum average input speed.
※ 5 The maximum momentary input speed.
※ 6 With this load and nominal input speed.service life will be 20,000 hours (Applied to the output shaft center,at axial load 0)
※ 7 With this load and nominal input speed.service life will be 20,000 hours (Applied to the output side bearing,at radial load 0)
※ 8 The maximum radial load the reducer can accept
※ 9 The maximum axial load the reducer can accept
※ 10 The weight may vary slightly model to model.

AF-090 Series Load Performance Table

Frame size	Stage	Ratio	※1 Norminal output torque [Nm]	※2 Maximum output torque [Nm]	※3 Emergency stop torque [Nm]	※4 Norminal input speed [rpm]	※5 Maximum input speed [rpm]	※6 Permitted radial load [N]	※7 Permitted axial load [N]
090	1	3	50	80	200	3000	6000	810	930
		4	75	125	250	3000	6000	890	1100
		5	75	125	250	3000	6000	960	1200
		6	75	125	250	3000	6000	1000	1300
		7	75	125	250	3000	6000	1100	1300
		8	75	125	250	3000	6000	1100	1400
		9	50	80	200	3000	6000	1200	1500
		10	50	80	200	3000	6000	1200	1600
	2	15	.50	80	200	3000	6000	1400	1900
		16	75	125	250	3000	6000	1400	1900
		20	75	125	250	3000	6000	1500	2100
		25	75	125	250	3000	6000	1600	2200
		28	75	125	250	3000	6000	1700	2200
		30	50	80	200	3000	6000	1700	2200
		35	75	125	250	3000	6000	1800	2200
		40	75	125	250	3000	6000	1900	2200
		45	50	80	200	3000	6000	2000	2200
		50	75	125	250	3000	6000	2100	2200
		60	75	125	250	3000	6000	2200	2200
		70	75	125	250	3000	6000	2300	2200
		80	75	125	250	3000	6000	2400	2200
		90	50	80	200	3000	6000	2400	2200
		100	50	80	200	3000	6000	2400	2200

Frame size	Stage	Ratio	※8 Maximum radial load [N]	※9 Maximum axial load [N]	※10 Weight [kg]	Moment of inertia (≤Φ8) [kgcm²]	Moment of inertia (≤Φ14) [kgcm²]	Moment of inertia (≤Φ19) [kgcm²]	Moment of inertia (≤Φ28) [kgcm²]
090	1	3	2400	2200	3.7	-	0.72	1.2	3.2
		4	2400	2200		-	0.49	0.95	3.0
		5	2400	2200		-	0.40	0.86	2.9
		6	2400	2200		-	0.36	0.82	2.8
		7	2400	2200		-	0.32	0.79	2.8
		8	2400	2200		-	0.31	0.77	2.8
		9	2400	2200		-	0.29	0.76	2.8
		10	2400	2200		-	0.29	0.75	2.8
	2	15	2400	2200	4.2	0.13	0.28	0.72	-
		16	2400	2200		0.15	0.30	0.74	-
		20	2400	2200		0.13	0.28	0.72	-
		25	2400	2200		0.12	0.28	0.71	-
		28	2400	2200		0.14	0.29	0.73	-
		30	2400	2200		0.10	0.25	0.70	-
		35	2400	2200		0.12	0.27	0.71	-
		40	2400	2200		0.099	0.25	0.70	-
		45	2400	2200		0.12	0.27	0.71	-
		50	2400	2200		0.098	0.25	0.69	-
		60	2400	2200		0.098	0.25	0.69	-
		70	2400	2200		0.097	0.25	0.69	-
		80	2400	2200		0.097	0.25	0.69	-
		90	2400	2200		0.097	0.25	0.69	-
		100	2400	2200		0.097	0.25	0.69	-

※ 1 With nominal input speed,servic life is 20,000 hours
※ 2 The maximun torque when starting and stopping
※ 3 The maximun torque when it receives shock (up to 1000times)
※ 4 The maximum average input speed.
※ 5 The maximum momentary input speed.
※ 6 With this load and nominal input speed.service life will be 20,000 hours (Applied to the output shaft center,at axial load 0)
※ 7 With this load and nominal input speed.service life will be 20,000 hours (Applied to the output side bearing,at radial load 0)
※ 8 The maximum radial load the reducer can accept
※ 9 The maximum axial load the reducer can accept
※ 10 The weight may vary slightly model to model.

AF-115 Series Load Performance Table

Frame size	Stage	Ratio	※1 Norminal output torque [Nm]	※2 Maximum output torque [Nm]	※3 Emergency stop torque [Nm]	※4 Norminal input speed [rpm]	※5 Maximum input speed [rpm]	※6 Permitted radial load [N]	※7 Permitted axial load [N]
115	1	3	120	225	500	3000	6000	1300	1500
		4	120	330	625	3000	6000	1500	1700
		5	180	330	625	3000	6000	1600	1900
		6	180	330	625	3000	6000	1700	2000
		7	180	330	625	3000	6000	1800	2100
		8	180	330	625	3000	6000	1900	2300
		9	120	225	500	3000	6000	1900	2400
		10	120	225	500	3000	6000	2000	2500
	2	15	120	225	500	3000	6000	2300	3000
		16	180	330	625	3000	6000	2300	3100
		20	180	330	625	3000	6000	2500	3400
		25	180	330	625	3000	6000	2700	3700
		28	180	330	625	3000	6000	2800	3900
		30	120	225	500	3000	6000	2900	3900
		35	180	330	625	3000	6000	3000	3900
		40	180	330	625	3000	6000	3200	3900
		45	120	225	500	3000	6000	3300	3900
		50	180	330	625	3000	6000	3400	3900
		60	180	330	625	3000	6000	3600	3900
		70	180	330	625	3000	6000	3800	3900
		80	180	330	625	3000	6000	4000	3900
		90	120	225	500	3000	6000	4200	3900
		100	120	225	500	3000	6000	4300	3900

Frame size	Stage	Ratio	※8 Maximum radial load [N]	※9 Maximum axial load [N]	※10 Weight [kg]	Moment of inertia (≤Φ14) [kgcm²]	Moment of inertia (≤Φ19) [kgcm²]	Moment of inertia (≤Φ28) [kgcm²]	Moment of inertia (≤Φ38) [kgcm²]
115	1	3	4300	3900	8	-	3.3	5.3	13
		4	4300	3900		-	2.0	4.1	12
		5	4300	3900		-	1.6	3.6	11
		6	4300	3900		-	1.3	3.3	11
		7	4300	3900		-	1.1	3.2	11
		8	4300	3900		-	1.0	3.2	11
		9	4300	3900		-	0. 98	3.0	11
		10	4300	3900		-	0.95	3.0	11
	2	15	4300	3900	8.9	0.43	0.86	2.8	-
		16	4300	3900		0.48	0.92	2.9	-
		20	4300	3900		0.40	0.83	2.8	-
		25	4300	3900		0.38	0.82	2.8	-
		28	4300	3900		0.44	0.88	2.8	-
		30	4300	3900		0.29	0.74	2.7	-
		35	4300	3900		0.37	0.81	2.7	-
		40	4300	3900		0.28	0.73	2.7	-
		45	4300	3900		0.37	0.80	2.7	-
		50	4300	3900		0.28	0.73	2.7	-
		60	4300	3900		0.28	0.73	2.7	-
		70	4300	3900		0.28	0.73	2.7	-
		80	4300	3900		0.28	0.73	2.7	-
		90	4300	3900		0.27	0.73	2.7	-
		100	4300	3900		0.27	0.73	2.7	-

※ 1 With nominal input speed,servic life is 20,000 hours
※ 2 The maximun torque when starting and stopping
※ 3 The maximun torque when it receives shock (up to 1000times)
※ 4 The maximum average input speed.
※ 5 The maximum momentary input speed.
※ 6 With this load and nominal input speed.service life will be 20,000 hours (Applied to the output shaft center,at axial load 0)
※ 7 With this load and nominal input speed.service life will be 20,000 hours (Applied to the output side bearing,at radial load 0)
※ 8 The maximum radial load the reducer can accept
※ 9 The maximum axial load the reducer can accept
※ 10 The weight may vary slightly model to model.

AF-140 Series Load Performance Table

Frame size	Stage	Ratio	※1 Norminal output torque [Nm]	※2 Maximum output torque [Nm]	※3 Emergency stop torque [Nm]	※4 Norminal input speed [rpm]	※5 Maximum input speed [rpm]	※6 Permitted radial load [N]	※7 Permitted axial load [N]
140	1	3	240	470	1000	2000	4000	3200	2400
		4	240	700	1250	2000	4000	3500	2700
		5	360	700	1250	2000	4000	3800	3000
		6	360	700	1250	2000	4000	4000	3300
		7	360	700	1250	2000	4000	4200	3500
		8	360	700	1250	2000	4000	4400	3700
		9	240	470	1000	2000	4000	4600	3900
		10	240	470	1000	2000	4000	4700	4100
	2	15	240	470	1000	2000	4000	5400	4900
		16	360	700	1250	2000	4000	5500	5000
		20	360	700	1250	2000	4000	6000	5500
		25	360	700	1250	2000	4000	6400	6100
		28	360	700	1250	2000	4000	6700	6400
		30	240	470	1000	2000	4000	6800	6600
		35	360	700	1250	2000	4000	7200	7000
		40	360	700	1250	2000	4000	7500	7500
		45	240	470	1000	2000	4000	7800	7900
		50	360	700	1250	2000	4000	8100	8200
		60	360	700	1250	2000	4000	8600	8200
		70	360	700	1250	2000	4000	9100	8200
		80	360	700	1250	2000	4000	9100	8200
		90	240	470	1000	2000	4000	9100	8200
		100	240	470	1000	2000	4000	9100	8200

Frame size	Stage	Ratio	※8 Maximum radial load [N]	※9 Maximum axial load [N]	※10 Weight [kg]	Moment of inertia (≤Φ19) [kgcm²]	Moment of inertia (≤Φ28) [kgcm²]	Moment of inertia (≤Φ38) [kgcm²]	Moment of inertia (≤Φ48) [kgcm²]
140	1	3	9100	8200	16	-	12	20	42
		4	9100	8200		-	7.5	15	37
		5	9100	8200		-	5.8	14	36
		6	9100	8200		-	4.9	13	35
		7	9100	8200		-	4.1	12	34
		8	9100	8200		-	3.8	12	34
		9	9100	8200		-	3.6	11	34
		10	9100	8200		-	3.5	11	34
	2	15	9100	8200	17	1.3	3.2	11	-
		16	9100	8200		1.5	3.5	11	-
		20	9100	8200		1.2	3.1	11	-
		25	9100	8200		1.1	3.1	11	-
		28	9100	8200		1.4	3.3	11	-
		30	9100	8200		0.85	2.8	10	-
		35	9100	8200		1.1	3.1	11	-
		40	9100	8200		0.83	2.8	10	-
		45	9100	8200		1.1	3.0	11	-
		50	9100	8200		0.81	2.8	10	-
		60	9100	8200		0.81	2.8	10	-
		70	9100	8200		0.80	2.8	10	-
		80	9100	8200		0.80	2.8	10	-
		90	9100	8200		0.80	2.8	10	-
		100	9100	8200		0.80	2.8	10	-

※ 1 With nominal input speed,servic life is 20,000 hours
※ 2 The maximun torque when starting and stopping
※ 3 The maximun torque when it receives shock (up to 1000times)
※ 4 The maximum average input speed.
※ 5 The maximum momentary input speed.
※ 6 With this load and nominal input speed.service life will be 20,000 hours (Applied to the output shaft center,at axial load 0)
※ 7 With this load and nominal input speed.service life will be 20,000 hours (Applied to the output side bearing,at radial load 0)
※ 8 The maximum radial load the reducer can accept
※ 9 The maximum axial load the reducer can accept
※ 10 The weight may vary slightly model to model.

AF-180 Series Load Performance Table

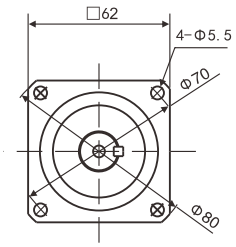
Frame size	Stage	Ratio	※1 Norminal output torque [Nm]	※2 Maximum output torque [Nm]	※3 Emergency stop torque [Nm]	※4 Norminal input speed [rpm]	※5 Maximum input speed [rpm]	※6 Permitted radial load [N]	※7 Permitted axial load [N]
180	1	3	500	970	2200	1500	3000	5600	4300
		4	750	1400	2750	1500	3000	6200	4900
		5	750	1400	2750	1500	3000	6700	5400
		6	750	1400	2750	1500	3000	7100	5800
		7	750	1400	2750	1500	3000	7400	6300
		8	750	1400	2750	1500	3000	7800	6600
		9	500	970	2200	1500	3000	8100	7000
		10	500	970	2200	1500	3000	8400	7300
	2	15	500	970	2200	1500	3000	9600	8700
		16	750	1400	2750	1500	3000	9800	8900
		20	750	1400	2750	1500	3000	11000	9900
		25	750	1400	2750	1500	3000	11000	11000
		28	750	1400	2750	1500	3000	12000	11000
		30	500	970	2200	1500	3000	12000	12000
		35	750	1400	2750	1500	3000	13000	13000
		40	750	1400	2750	1500	3000	13000	13000
		45	500	970	2200	1500	3000	14000	14000
		50	750	1400	2750	1500	3000	14000	14000
		60	750	1400	2750	1500	3000	15000	14000
		70	750	1400	2750	1500	3000	15000	14000
		80	750	1400	2750	1500	3000	15000	14000
		90	500	970	2200	1500	3000	15000	14000
		100	500	970	2200	1500	3000	15000	14000

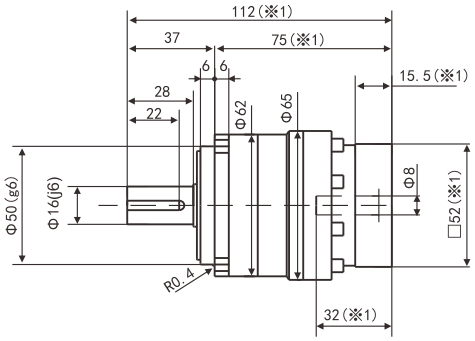
Frame size	Stage	Ratio	※8 Maximum radial load [N]	※9 Maximum axial load [N]	※10 Weight [kg]	Moment of inertia (≤Φ28) [kgcm²]	Moment of inertia (≤Φ38) [kgcm²]	Moment of inertia (≤Φ48) [kgcm²]	Moment of inertia (≤Φ65) [kgcm²]
180	1	3	15000	14000	36	-	44	20	130
		4	15000	14000		-	28	15	110
		5	15000	14000		-	22	14	100
		6	15000	14000		-	18	13	100
		7	15000	14000		-	16	12	99
		8	15000	14000		-	15	12	97
		9	15000	14000		-	14	11	97
		10	15000	14000		-	14	11	96
	2	15	15000	14000	37	4.7	12	11	-
		16	15000	14000		5.4	13	11	-
		20	15000	14000		4.4	12	11	-
		25	15000	14000		4.2	12	11	-
		28	15000	14000		4.9	13	11	-
		30	15000	14000		3.2	11	10	-
		35	15000	14000		4.1	12	11	-
		40	15000	14000		3.2	11	10	-
		45	15000	14000		4.0	12	11	-
		50	15000	14000		3.1	11	10	-
		60	15000	14000		3.1	11	10	-
		70	15000	14000		3.1	11	10	-
		80	15000	14000		3.1	11	10	-
		90	15000	14000		3.1	11	10	-
		100	15000	14000		3.1	11	10	-

※ 1 With nominal input speed,servic life is 20,000 hours
※ 2 The maximun torque when starting and stopping
※ 3 The maximun torque when it receives shock (up to 1000times)
※ 4 The maximum average input speed.
※ 5 The maximum momentary input speed.
※ 6 With this load and nominal input speed.service life will be 20,000 hours (Applied to the output shaft center,at axial load 0)
※ 7 With this load and nominal input speed.service life will be 20,000 hours (Applied to the output side bearing,at radial load 0)
※ 8 The maximum radial load the reducer can accept
※ 9 The maximum axial load the reducer can accept
※ 10 The weight may vary slightly model to model.

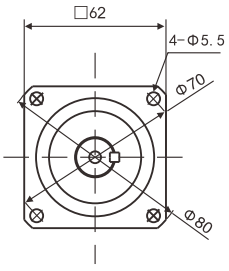
AF-060 1-Stage Series Mechanical Dimensions

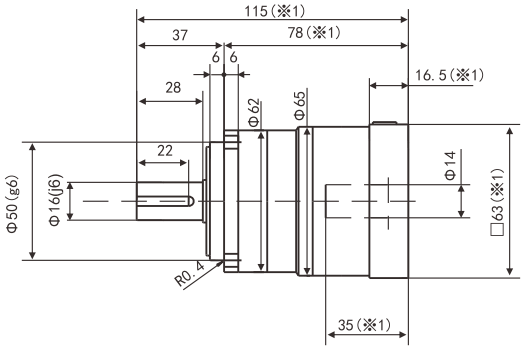
Input Shaft Diameter ≤ Φ8 (in mm)



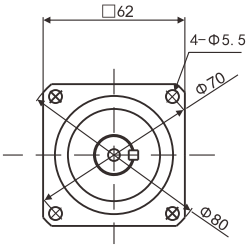


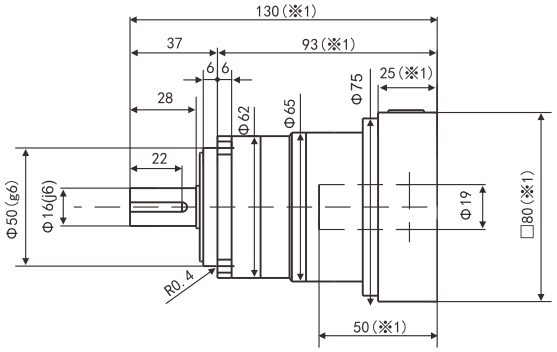
Input Shaft Diameter ≤ Φ14 (in mm)



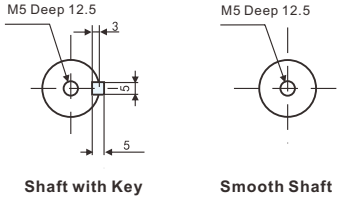


Input Shaft Diameter ≤ Φ19 (in mm)





Output Shaft Type (in mm)

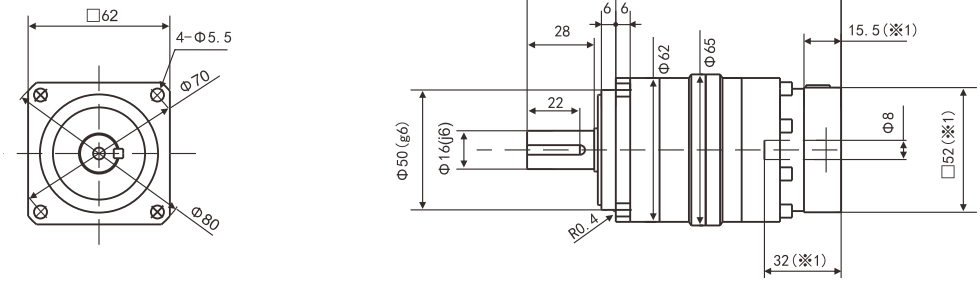


Shaft with Key **Smooth Shaft**

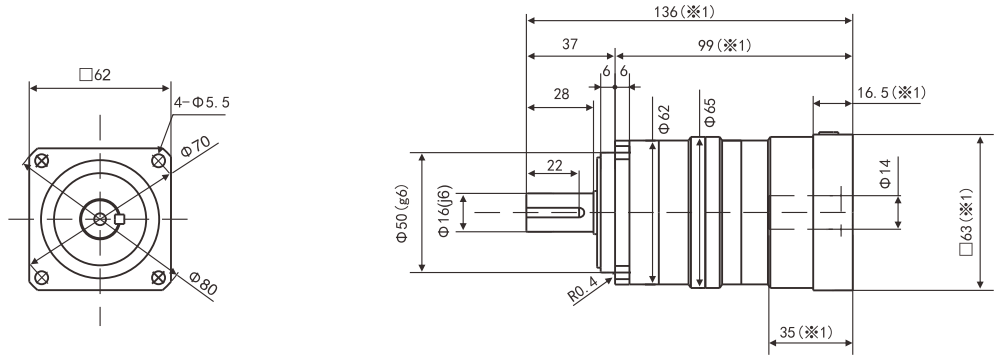
※1 Length may change for different motors.
※1 Adaptors available to match different input shaft diameters.

AF-060 2-Stage Series Mechanical Dimensions

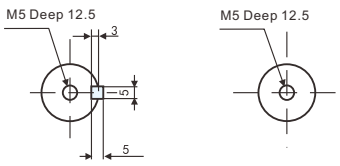
Input Shaft Diameter ≤ Φ8 (in mm)



Input Shaft Diameter ≤ Φ14 (in mm)



Output Shaft Type (in mm)

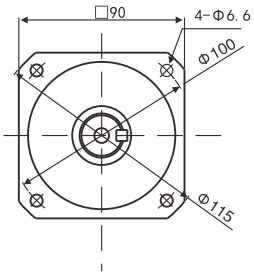


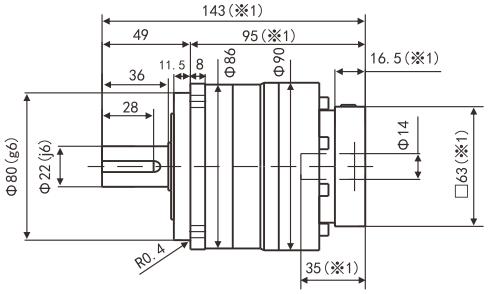
Shaft with Key **Smooth Shaft**

※1 Length may change for different motors.
※1 Adaptors available to match different input shaft diameters.

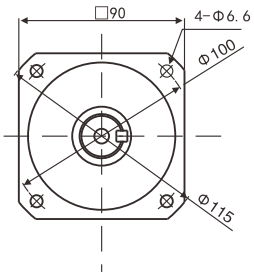
AF-090 1-Stage Series Mechanical Dimensions

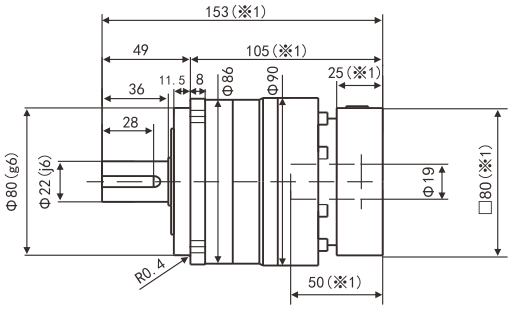
Input Shaft Diameter ≤ ϕ14 (in mm)



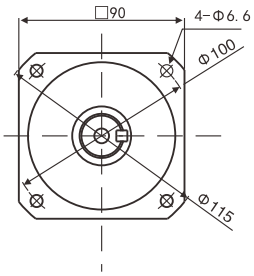


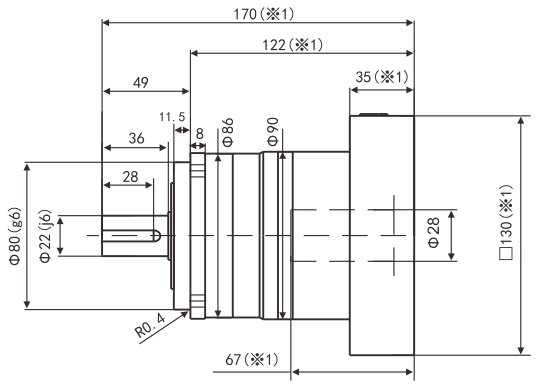
Input Shaft Diameter ≤ ϕ19 (in mm)



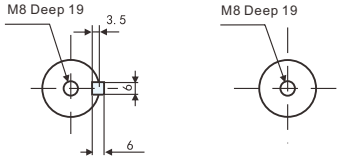


Input Shaft Diameter ≤ ϕ28 (in mm)





Output Shaft Type (in mm)

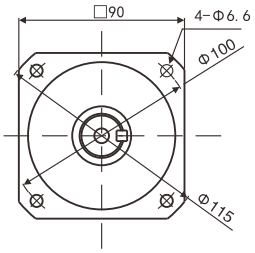


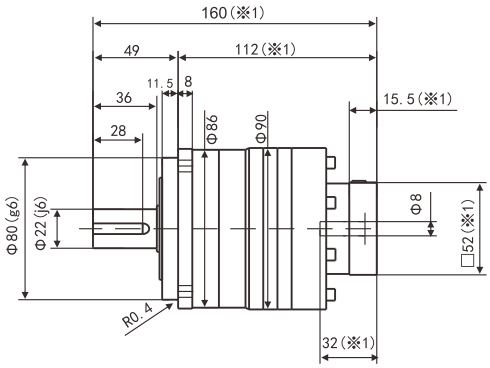
Shaft with Key **Smooth Shaft**

※1 Length may change for different motors.
※1 Adaptors available to match different input shaft diameters.

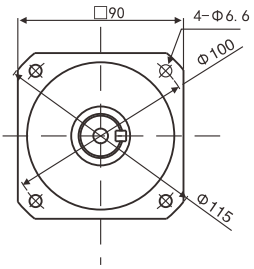
AF-090 2-Stage Series Mechanical Dimensions

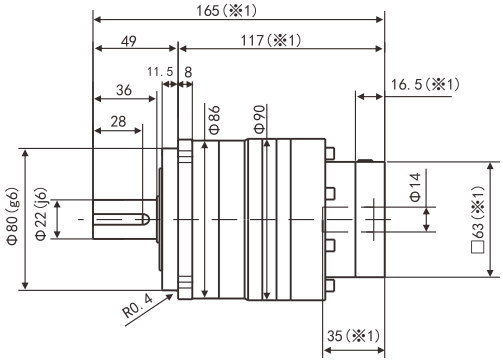
Input Shaft Diameter ≤ Φ8 (in mm)



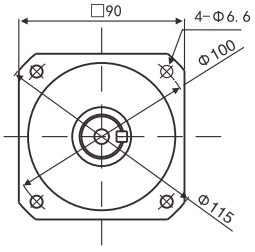


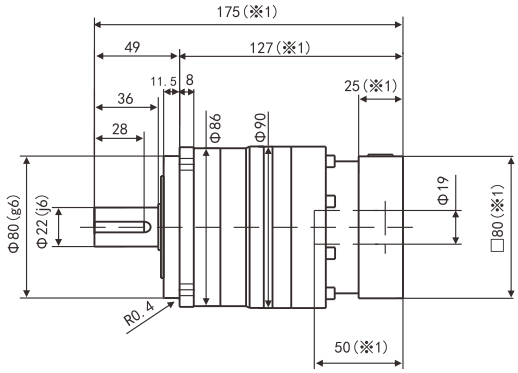
Input Shaft Diameter ≤ Φ14 (in mm)



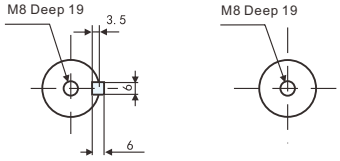


Input Shaft Diameter ≤ Φ19 (in mm)





Output Shaft Type (in mm)

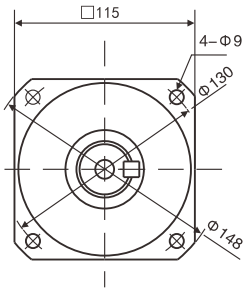


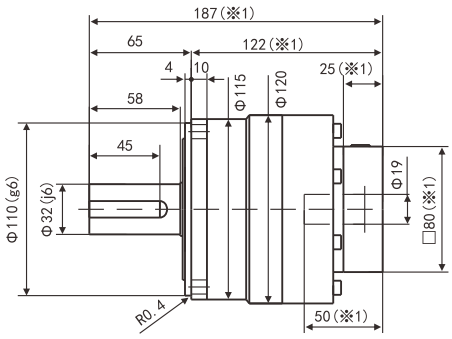
Shaft with Key **Smooth Shaft**

※1 Length may change for different motors.
※1 Adaptors available to match different input shaft diameters.

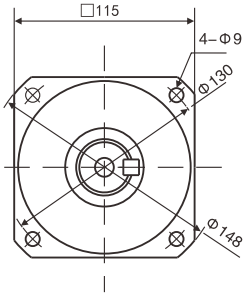
AF-115 1-Stage Series Mechanical Dimensions

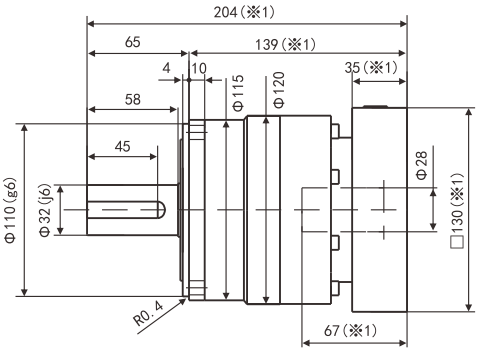
Input Shaft Diameter ≤ Φ19 (in mm)



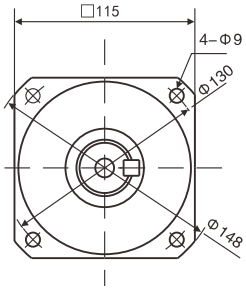


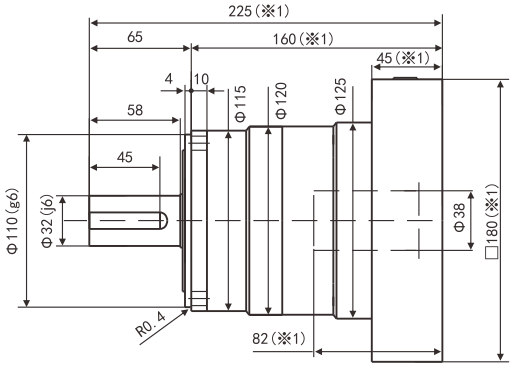
Input Shaft Diameter ≤ Φ28 (in mm)



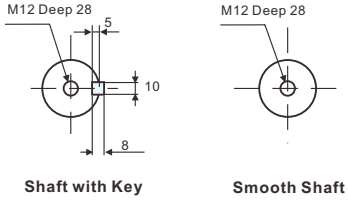


Input Shaft Diameter ≤ Φ38 (in mm)





Output Shaft Type (in mm)

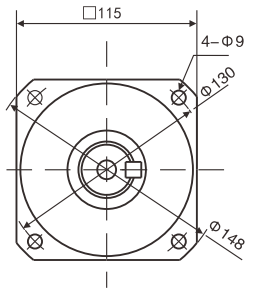


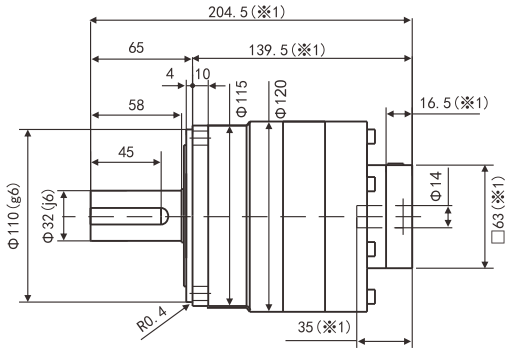
Shaft with Key **Smooth Shaft**

※1 Length may change for different motors.
※1 Adaptors available to match different input shaft diameters.

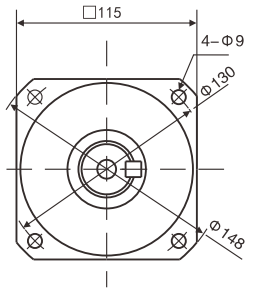
AF-115 2-Stage Series Mechanical Dimensions

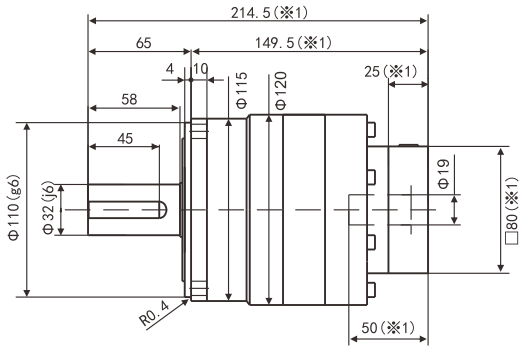
Input Shaft Diameter ≤ ϕ14 (in mm)



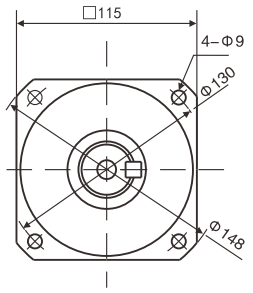


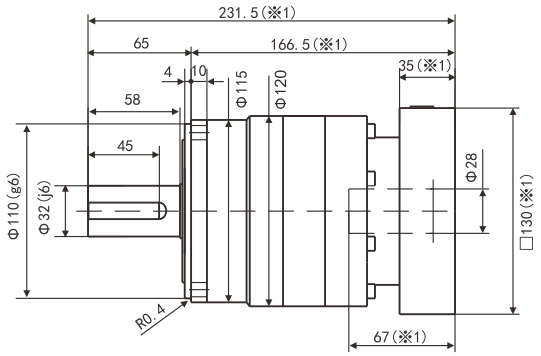
Input Shaft Diameter ≤ ϕ19 (in mm)



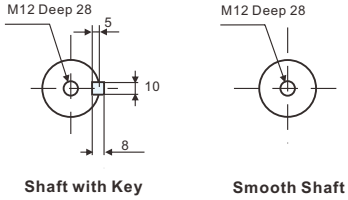


Input Shaft Diameter ≤ ϕ28 (in mm)





Output Shaft Type (in mm)

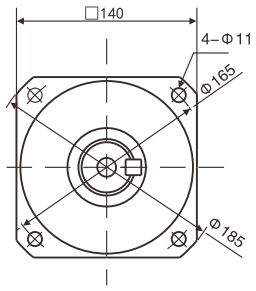


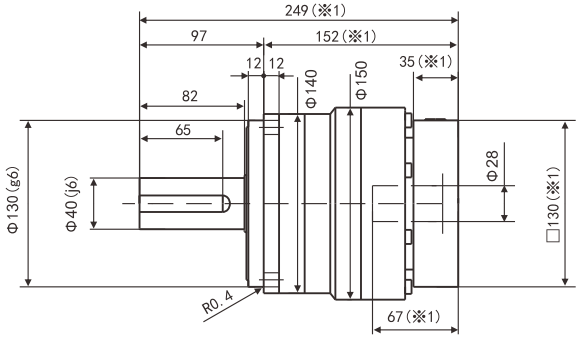
Shaft with Key **Smooth Shaft**

※1 Length may change for different motors.
※1 Adaptors available to match different input shaft diameters.

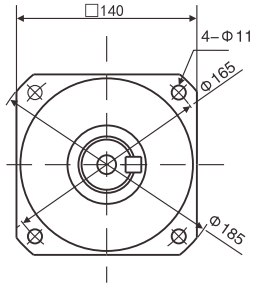
AF-140 1-Stage Series Mechanical Dimensions

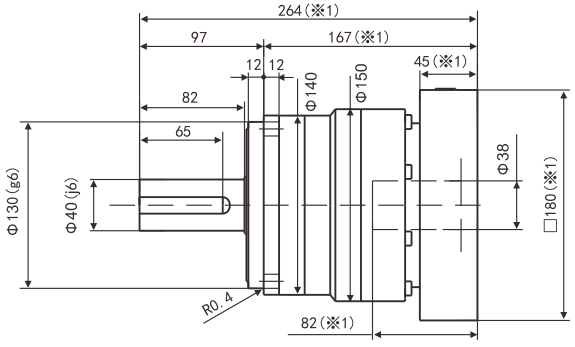
Input Shaft Diameter ≤ Φ28 (in mm)



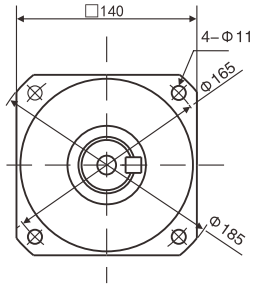


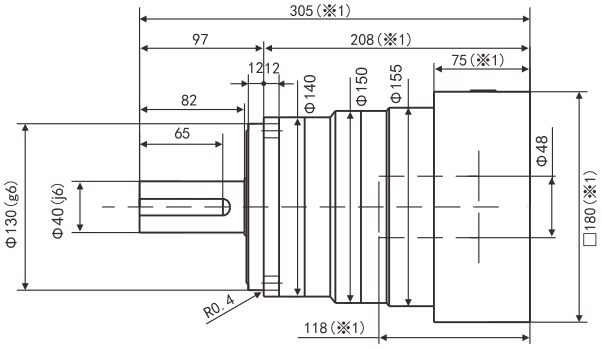
Input Shaft Diameter ≤ Φ38 (in mm)



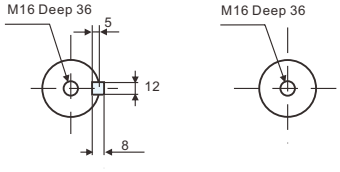


Input Shaft Diameter ≤ Φ48 (in mm)





Output Shaft Type (in mm)

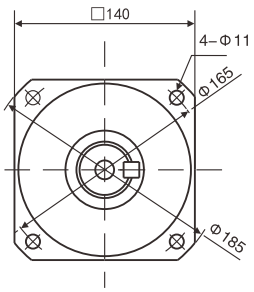


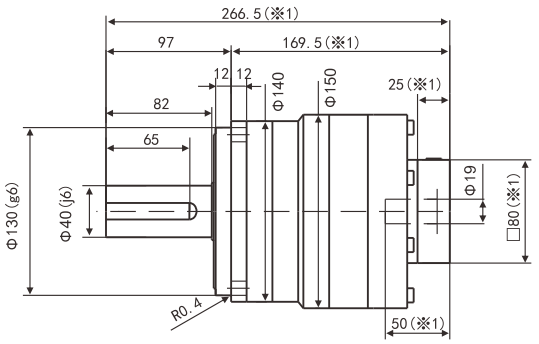
Shaft with Key **Smooth Shaft**

※1 Length may change for different motors.
※1 Adaptors available to match different input shaft diameters.

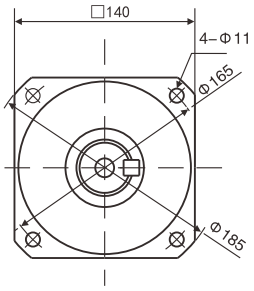
AF-140 2-Stage Series Mechanical Dimensions

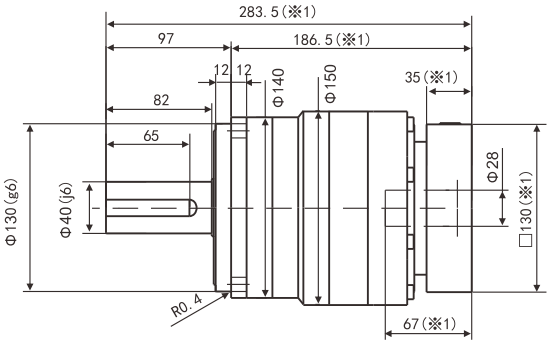
Input Shaft Diameter ≤ Φ19 (in mm)



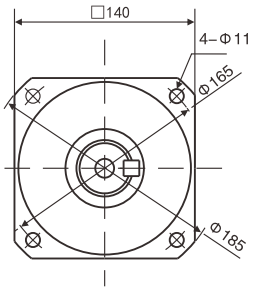


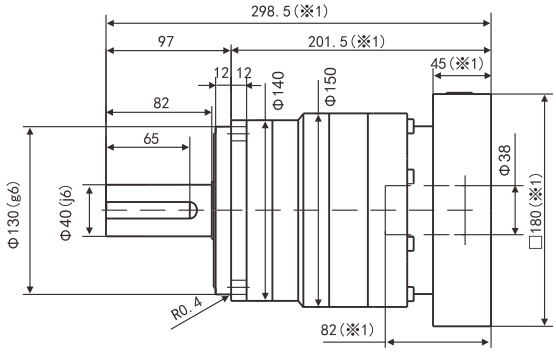
Input Shaft Diameter ≤ Φ28 (in mm)



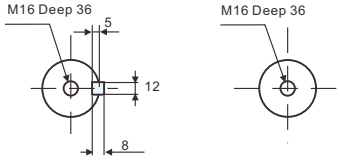


Input Shaft Diameter ≤ Φ38 (in mm)





Output Shaft Type (in mm)

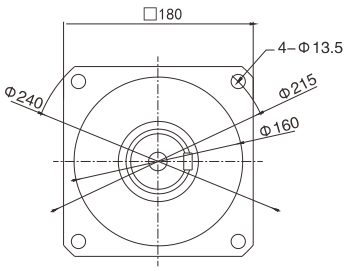


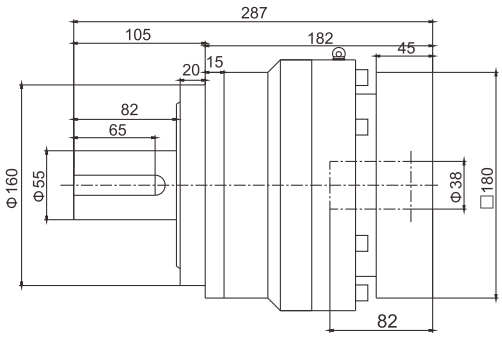
Shaft with Key **Smooth Shaft**

※1 Length may change for different motors.
※1 Adaptors available to match different input shaft diameters.

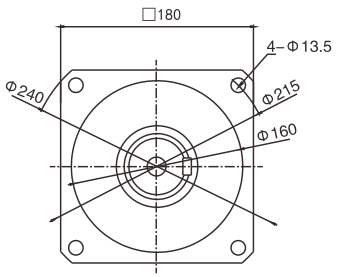
AF-180 1-Stage Series Mechanical Dimensions

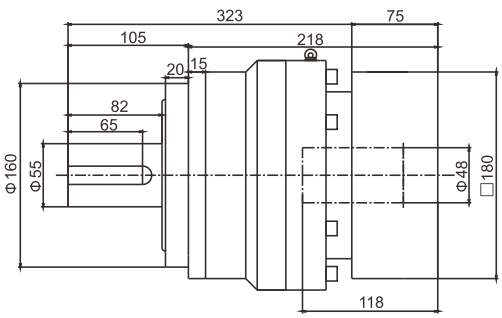
Input Shaft Diameter ⩽ Φ38 (in mm)



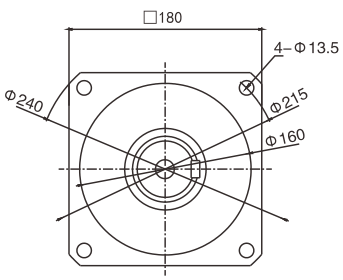


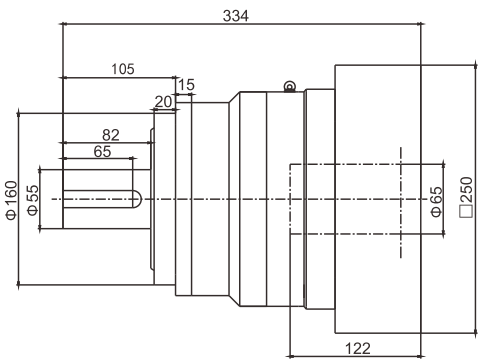
Input Shaft Diameter ⩽ Φ48 (in mm)



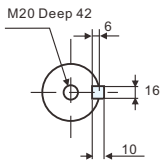


Input Shaft Diameter ⩽ Φ65 (in mm)

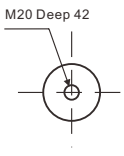




Output Shaft Type (in mm)



Shaft with Key

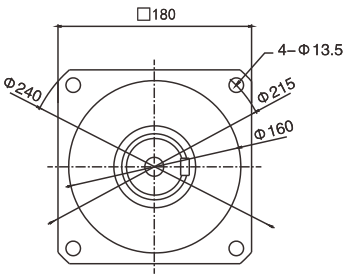


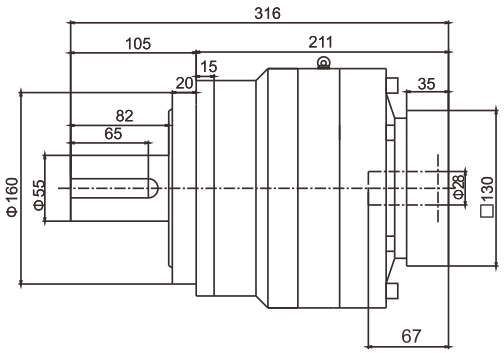
Smooth Shaft

※1 Length may change for different motors.
※1 Adaptors available to match different input shaft diameters.

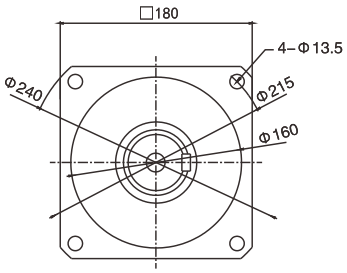
AF-180 2-Stage Series Mechanical Dimensions

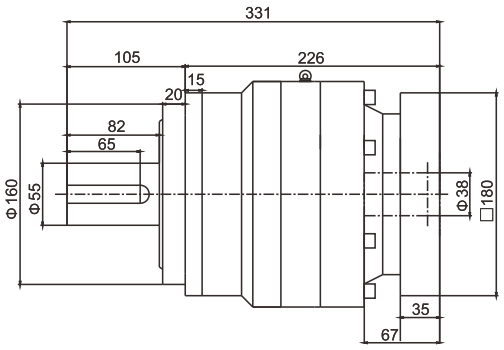
Input Shaft Diameter ≤ Φ28 (in mm)



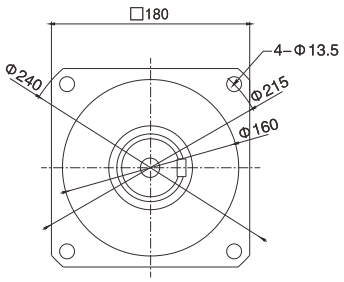


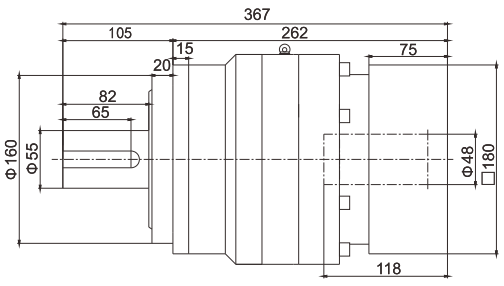
Input Shaft Diameter ≤ Φ38 (in mm)



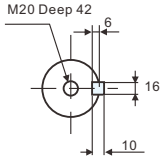


Input Shaft Diameter ≤ Φ48 (in mm)

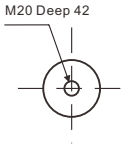




Output Shaft Type (in mm)



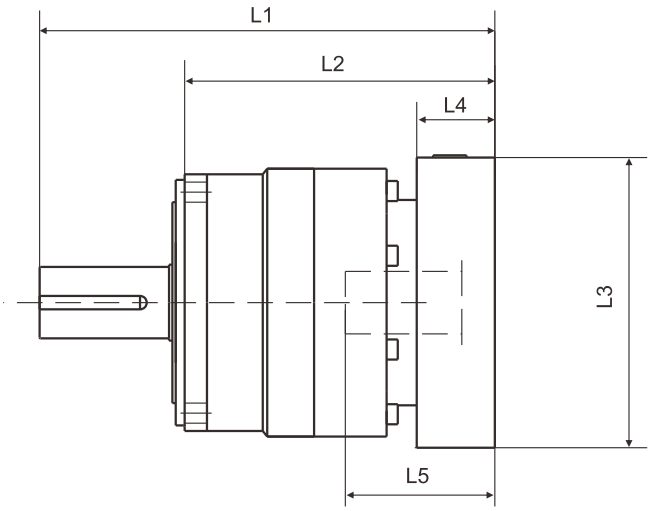
Shaft with Key



Smooth Shaft

※1 Length may change for different motors.
※1 Adaptors available to match different input shaft diameters.

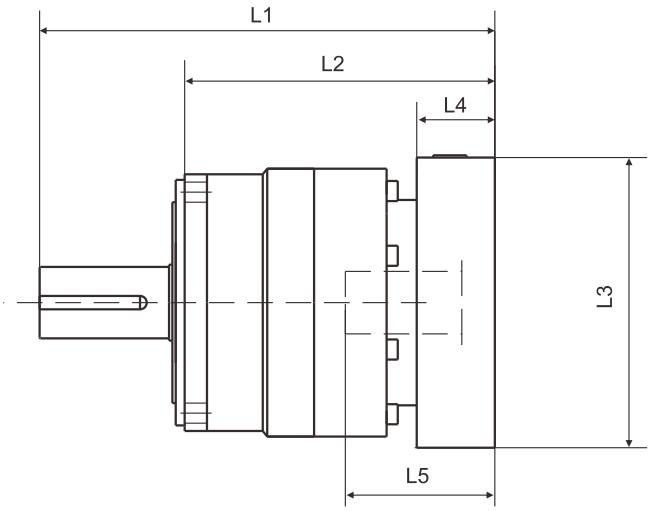
AF-060 Input Shaft Adaptors



Model number	**: Adapter code	1 Stage					2 Stage				
		L1	L2	L3	L4	L5	L1	L2	L3	L4	L5
AF-060-[ ]-[ ]-8** Input Shaft Dia. ⩽ ϕ8	AA・AC・AD・AF・AG	112	75	□52	15.5	32	131	94	□52	15.5	32
	AB・AE・AH・AJ・AK	117	80	□52	20.5	37	136	99	□52	20.5	37
	BA・BB・BD・BE	112	75	□60	15.5	32	131	94	□60	15.5	32
	BC・BF	117	80	□60	20.5	37	136	99	□60	20.5	37
	CA	117	80	□70	20.5	37	136	99	□70	20.5	37
AF-060-[ ]-[ ]-14** Input Shaft Dia. ⩽ ϕ14	BA・BB・BD・BE・BF・BG・BJ・BK	115	78	□65	16.5	35	136	99	□65	16.5	35
	BC・BH・BM	120	83	□65	21.5	40	141	104	□65	21.5	40
	BL	125	88	□65	26.5	45	146	109	□65	26.5	45
	CA	115	78	□70	16.5	35	136	99	□70	16.5	35
	CB	120	83	□70	21.5	40	141	104	□70	21.5	40
	DA・DB・DC・DD・DF・DH	115	78	□80	16.5	35	136	99	□80	16.5	35
	DE	120	83	□80	21.5	40	141	104	□80	21.5	40
	DG	125	88	□80	26.5	45	146	109	□80	26.5	45
	EA・EB・EC	115	78	□90	16.5	35	136	99	□90	16.5	35
	ED	125	88	□90	26.5	45	146	109	□90	26.5	45
	FA	115	78	□100	16.5	35	136	99	□100	16.5	35
	GA	115	78	□115	16.5	35	136	99	□115	16.5	35
AF-060-[ ]-[ ]-19** Input Shaft Dia. ⩽ ϕ19	DA・DB・DC	130	93	□80	25	50	-	-	-	-	-
	DD	140	103	□80	35	60	-	-	-	-	-
	DE	135	98	□80	30	55	-	-	-	-	-
	EA	135	98	□90	30	55	-	-	-	-	-
	EB	130	93	□90	25	50	-	-	-	-	-
	EC	140	103	□90	35	60	-	-	-	-	-
	FA	130	93	□100	25	50	-	-	-	-	-
	FB	140	103	□100	35	60	-	-	-	-	-
	GA・GC	135	98	□115	30	55	-	-	-	-	-
	GB・GD	130	93	□115	25	50	-	-	-	-	-
	HA	130	93	□130	25	50	-	-	-	-	-
	HB	145	108	□130	40	65	-	-	-	-	-
	HC・HD・HE	135	98	□130	30	55	-	-	-	-	-

※1 1-stage reduction ratios 3 to 10, 2-stages reduction ratios 15 to 100
※2 Adaptors available to match different input shaft diameters.

AF-090 Input Shaft Adaptors

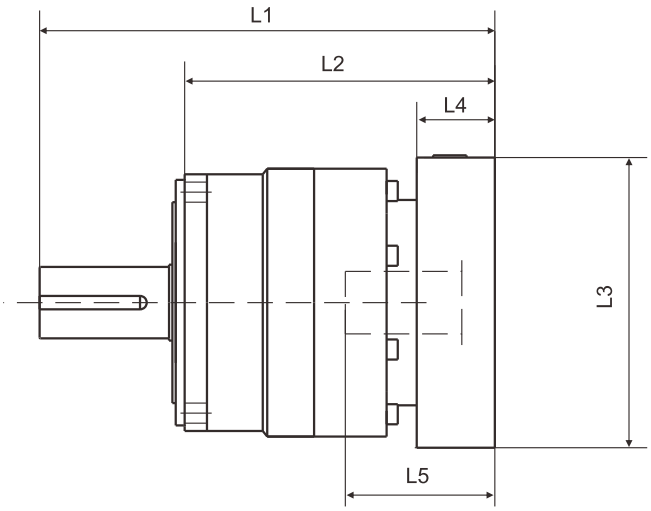


Model number	**: Adapter code	1 Stage					2 Stage				
		L1	L2	L3	L4	L5	L1	L2	L3	L4	L5
AF-090-[ ]-[ ]-8** Input Shaft Dia. ≤ ϕ8	AA・AC・AD・AF・AG	-	-	–	-	-	160	112	□52	15.5	32
	AB・AE・AH・AJ・AK	-	-	–	-	-	165	117	□52	20.5	37
	BA・BB・BD・BE	-	-	–	-	-	160	112	□60	15.5	32
	BC・BF	-	-	–	-	-	165	117	□60	20.5	37
	CA	-	-	–	-	-	165	117	□70	20.5	37
AF-090-[ ]-[ ]-14** Input Shaft Dia. ≤ ϕ14	BA・BB・BD・BE・BF・BG・BJ・BK	143	95	□65	16.5	35	165	117	□65	16.5	35
	BC・BH・BM	148	100	□65	21.5	40	170	122	□65	21.5	40
	BL	153	105	□65	26.5	45	175	127	□65	26.5	45
	CA	143	95	□70	16.5	35	165	117	□70	16.5	35
	CB	148	100	□70	21.5	40	170	122	□70	21.5	40
	DA・DB・DC・DD・DF・DH	143	95	□80	16.5	35	165	117	□80	16.5	35
	DE	148	100	□80	21.5	40	170	122	□80	21.5	40
	DG	153	105	□80	26.5	45	175	127	□80	26.5	45
	EA・EB・EC	143	95	□90	16.5	35	165	117	□90	16.5	35
	ED	153	105	□90	26.5	45	175	127	□90	26.5	45
	FA	143	95	□100	16.5	35	165	117	□100	16.5	35
	GA	143	95	□115	16.5	35	165	117	□115	16.5	35
AF-090-[ ]-[ ]-19** Input Shaft Dia. ≤ ϕ19	DA・DB・DC	153	105	□80	25	50	175	127	□80	25	50
	DD	163	115	□80	35	60	185	137	□80	35	60
	DE	158	110	□80	30	55	180	132	□80	30	55
	EA	158	110	□90	30	55	180	132	□90	30	55
	EB	153	105	□90	25	50	751	127	□90	25	50
	EC	163	115	□90	35	60	185	137	□90	35	60
	FA	153	105	□100	25	50	175	127	□100	25	50
	FB	163	115	□100	35	60	185	137	□100	35	60
	GA・GC	158	110	□115	30	55	180	132	□115	30	55
	GB・GD	153	105	□115	25	50	175	127	□115	25	50
	HA	153	105	□130	25	50	175	127	□130	25	50
	HB	168	120	□130	40	65	190	142	□130	40	65
	HC・HD・HE	158	110	□130	30	55	180	132	□130	30	55
AF-090-[ ]-[ ]-28** Input Shaft Dia. ≤ ϕ28	FA・FB・FC	170	122	□100	35	67	-	-	–	-	-
	GA・GB・GC・GD・GE・GF・GG	170	122	□115	35	67	-	-	–	-	-
	HA・HC・HD	170	122	□130	35	67	-	-	–	-	-
	HB	180	132	□130	45	77	-	-	–	-	-
	JA・JB・JC	170	122	□150	35	67	-	-	–	-	-
	KA・KB	170	122	□180	35	67	-	-	–	-	-
	KD	180	132	□180	45	77	-	-	–	-	-
	LA	170	122	□200	35	67	-	-	–	-	-
	MA	170	122	□220	35	67	-	-	–	-	-

※1 1-stage reduction ratios 3 to 10, 2-stages reduction ratios 15 to 100

※2 Adaptors available to match different input shaft diameters.

AF-115 Input Shaft Adaptors

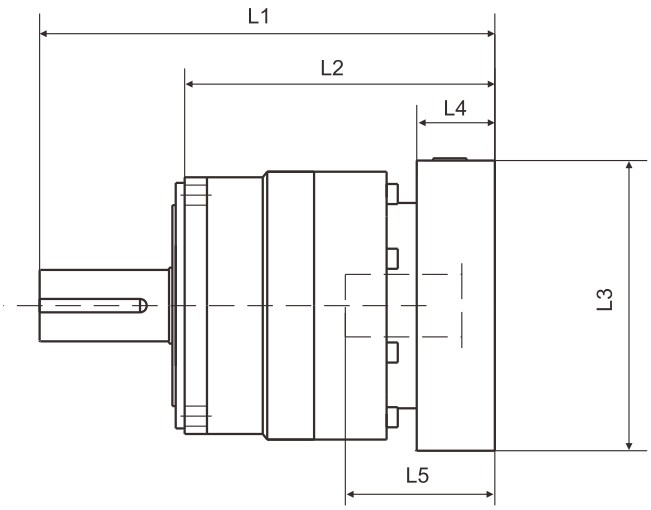


Model number	**: Adapter code	1 Stage					2 Stage				
		L1	L2	L3	L4	L5	L1	L2	L3	L4	L5
AF-115-[ ]-[ ]-14** Input Shaft Dia. ≤ ϕ14	BA・BB・BD・BE・BF・BG・BJ・BK	-	-	–	-	-	204.5	139.5	□65	16.5	35
	BC・BH・BM	-	-	–	-	-	209.5	144.5	□65	21.5	40
	BL	-	-	–	-	-	214.5	149.5	□65	26.5	45
	CA	-	-	–	-	-	204.5	139.5	□70	16.5	35
	CB	-	-	–	-	-	209.5	144.5	□70	21.5	40
	DA・DB・DC・DD・DF・DH	-	-	–	-	-	204.5	139.5	□80	16.5	35
	DE	-	-	–	-	-	209.5	144.5	□80	21.5	40
	DG	-	-	–	-	-	214.5	149.5	□80	26.5	45
	EA・EB・EC	-	-	–	-	-	204.5	139.5	□90	16.5	35
	ED	-	-	–	-	-	214.5	149.5	□90	26.5	45
	FA	-	-	–	-	-	204.5	139.5	□100	16.5	35
	GA	-	-	–	-	-	204.5	139.5	□115	16.5	35
AF-115-[ ]-[ ]-19** Input Shaft Dia. ≤ ϕ19	DA・DB・DC	187	122	□80	25	50	214.5	149.5	□80	25	50
	DD	197	132	□80	35	60	224.5	159.5	□80	35	60
	DE	192	127	□80	30	55	219.5	154.5	□80	30	55
	EA	192	127	□90	30	55	219.5	154.5	□90	30	55
	EB	187	122	□90	25	50	214.5	149.5	□90	25	50
	EC	197	132	□90	35	60	224.5	159.5	□90	35	60
	FA	187	122	□100	25	50	214.5	149.5	□100	25	50
	FB	197	132	□100	35	60	224.5	159.5	□100	35	60
	GA・GC	192	127	□115	30	55	219.5	154.5	□115	30	55
	GB・GD	187	122	□115	25	50	214.5	149.5	□115	25	50
	HA	187	122	□130	25	50	214.5	149.5	□130	25	50
	HB	202	137	□130	40	65	229.5	164.5	□130	40	65
	HC・HD・HE	192	127	□130	30	55	219.5	154.5	□130	30	55
AF-115-[ ]-[ ]-28** Input Shaft Dia. ≤ ϕ28	FA・FB・FC	204	139	□100	35	67	231.5	166.5	□100	35	67
	GA・GB・GC・GD・GE・GF・GG	204	139	□115	35	67	231.5	166.5	□115	35	67
	HA・HC・HD	204	139	□130	35	67	231.5	166.5	□130	35	67
	HB	214	149	□130	45	77	241.5	175.5	□130	45	77
	JA・JB・JC	204	139	□150	35	67	231.5	166.5	□150	35	67
	KA・KB	204	139	□180	35	67	231.5	166.5	□180	35	67
	KD	214	149	□180	45	77	241.5	176.5	□180	45	77
	LA	204	139	□200	35	67	231.5	166.5	□200	35	67
	MA	204	139	□220	35	67	231.5	166.5	□220	35	67
AF-115-[ ]-[ ]-38** Input Shaft Dia. ≤ ϕ38	HA	225	160	□130	45	82	-	-	–	-	-
	HB	220	155	□130	40	77	-	-	–	-	-
	JA	225	160	□150	45	82	-	-	–	-	-
	KA・KB・KC	225	160	□180	45	82	-	-	–	-	-
	LA	225	160	□200	45	82	-	-	–	-	-
	LB	235	170	□200	55	92	-	-	–	-	-
	MA・MB	225	160	□220	45	82	-	-	–	-	-
	NA	225	160	□250	45	82	-	-	–	-	-

※1 1-stage reduction ratios 3 to 10, 2-stages reduction ratios 15 to 100

※2 Adaptors available to match different input shaft diameters.

AF-140 Input Shaft Adaptors

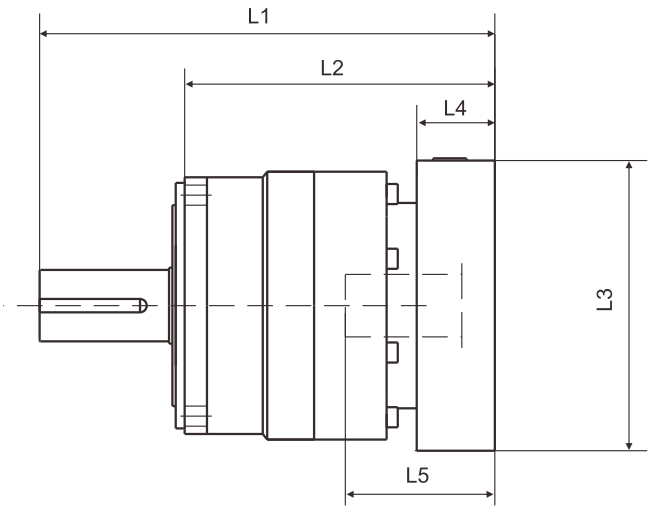


Model number	**: Adapter code	1 Stage					2 Stage				
		L1	L2	L3	L4	L5	L1	L2	L3	L4	L5
AF-140-[ ]-[ ]-19** Input Shaft Dia. ≤ ϕ19	DA・DB・DC	-	-	–	-	-	266.5	169.5	□80	25	50
	DD	-	-	–	-	-	276.5	179.5	□80	35	60
	DE	-	-	–	-	-	271.5	174.5	□80	30	55
	EA	-	-	–	-	-	271.5	174.5	□90	30	55
	EB	-	-	–	-	-	266.5	169.5	□90	25	50
	EC	-	-	–	-	-	276.5	179.5	□90	35	60
	FA	-	-	–	-	-	266.5	169.5	□100	25	50
	FB	-	-	–	-	-	276.5	179.5	□100	35	60
	GA・GC	-	-	–	-	-	271.5	174.5	□115	30	55
	GB・GD	-	-	–	-	-	266.5	169.5	□115	25	50
	HA	-	-	–	-	-	266.5	169.5	□130	25	50
	HB	-	–	–	-	-	281.5	184.5	□130	40	65
	HC・HD・HE	-	-	–	-	-	271.5	174.5	□130	30	55
AF-140-[ ]-[ ]-28** Input Shaft Dia. ≤ ϕ28	FA・FB・FC	249	152	□100	35	67	283.5	186.5	□100	35	67
	GA・GB・GC・GD・GE・GF・GG	249	152	□115	35	67	283.5	186.5	□115	35	67
	HA・HC・HD	249	152	□130	35	67	283.5	186.5	□130	35	67
	HB	259	162	□130	45	77	293.5	196.5	□130	45	77
	JA・JB・JC	249	152	□150	35	67	283.5	186.5	□150	35	67
	KA・KB	249	152	□180	35	67	283.5	186.5	□180	35	67
	KD	259	162	□180	45	77	293.5	196.5	□180	45	77
	LA	249	152	□200	35	67	283.5	186.5	□200	35	67
	MA	249	152	□220	35	67	283.5	186.5	□220	35	67
AF-140-[ ]-[ ]-38** Input Shaft Dia. ≤ ϕ38	HA	264	167	□130	45	82	298.5	201.5	□130	45	82
	HB	259	162	□130	40	77	293.5	196.5	□130	40	77
	JA	264	167	□150	45	82	298.5	201.5	□150	45	82
	KA・KB・KC	264	167	□180	45	82	298.5	201.5	□180	45	82
	LA	264	167	□200	45	82	298.5	201.5	□200	45	82
	LB	274	177	□200	55	92	308.5	211.5	□200	55	92
	MA・MB	264	167	□220	45	82	298.5	201.5	□220	45	82
	NA	264	167	□250	45	82	298.5	201.5	□250	45	82
AF-140-[ ]-[ ]-48** Input Shaft Dia. ≤ ϕ48	KB・KC	285	188	□180	55	98	-	-	–	-	
	KA	305	208	□180	75	118	-	-	–	-	
	LA	285	188	□200	55	98	-	-	–	-	
	MA	285	188	□220	55	98	-	-	–	-	
	MB	305	208	□220	75	118	-	-	–	-	
	NA	305	208	□250	75	118	-	-	–	-	
	PA	305	208	□280	75	118	-	-	–	-	

※1 1-stage reduction ratios 3 to 10, 2-stages reduction ratios 15 to 100

※2 Adaptors available to match different input shaft diameters.

AF-180 Input Shaft Adaptors



Model number	**: Adapter code	1 Stage					2 Stage				
		L1	L2	L3	L4	L5	L1	L2	L3	L4	L5
AF-180-[ ]-[ ]-28** Input Shaft Dia. ≤ ϕ28	FA·FB·FC	-	-	-	-	-	316	211	□100	35	67
	GA·GB·GC·GD·GE·GF·GG	-	-	-	-	-	316	211	□115	35	67
	HA·HC·HD	-	-	-	-	-	316	211	□130	35	67
	HB	-	-	-	-	-	326	221	□130	45	77
	JA·JB·JC	-	-	-	-	-	316	211	□150	35	67
	KA·KB	-	-	-	-	-	316	211	□180	35	67
	KD	-	-	-	-	-	326	221	□180	45	77
	LA	-	-	-	-	-	316	211	□200	35	67
	MA	-	-	-	-	-	316	211	□220	35	67
AF-180-[ ]-[ ]-38** Input Shaft Dia. ≤ ϕ38	HA	286.5	181.5	□130	45	82	331	226	□130	45	82
	HB	281.5	176.5	□130	40	77	326	221	□130	40	77
	JA	286.5	181.5	□150	45	82	331	226	□150	45	82
	KA·KB·KC	286.5	181.5	□180	45	82	331	226	□180	45	82
	LA	286.5	181.5	□200	45	82	331	226	□200	45	82
	LB	296.5	191.5	□200	55	98	341	236	□200	55	92
	MA·MB	286.5	181.5	□220	45	82	331	226	□220	45	82
	NA	286.5	181.5	□250	45	82	331	226	□250	45	82
AF-180-[ ]-[ ]-48** Input Shaft Dia. ≤ ϕ48	KB·KC	302.5	197.5	□180	55	98	347	242	□180	55	98
	KA	322.5	217.5	□180	75	118	367	262	□180	75	118
	LA	302.5	197.5	□200	55	98	347	242	□200	55	98
	MA	302.5	197.5	□220	55	98	347	242	□220	55	98
	MB	322.5	217.5	□220	75	118	367	262	□220	75	118
	NA	322.5	217.5	□250	75	118	367	262	□250	75	118
	PA	322.5	217.5	□280	75	118	367	262	□280	75	118
AF-180-[ ]-[ ]-65** Input Shaft Dia. ≤ ϕ65	MA·MB·MC·MD	334	229	□220	80	122	-	-	-	-	-
	NA	334	229	□250	80	122	-	-	-	-	-
	PA	334	249	□280	100	142	-	-	-	-	-
	PB	334	259	□280	110	152	-	-	-	-	-
	QA	334	249	□320	100	142	-	-	-	-	-

※1 1-stage reduction ratios 3 to 10, 2-stages reduction ratios 15 to 100
※2 Adaptors available to match different input shaft diameters.