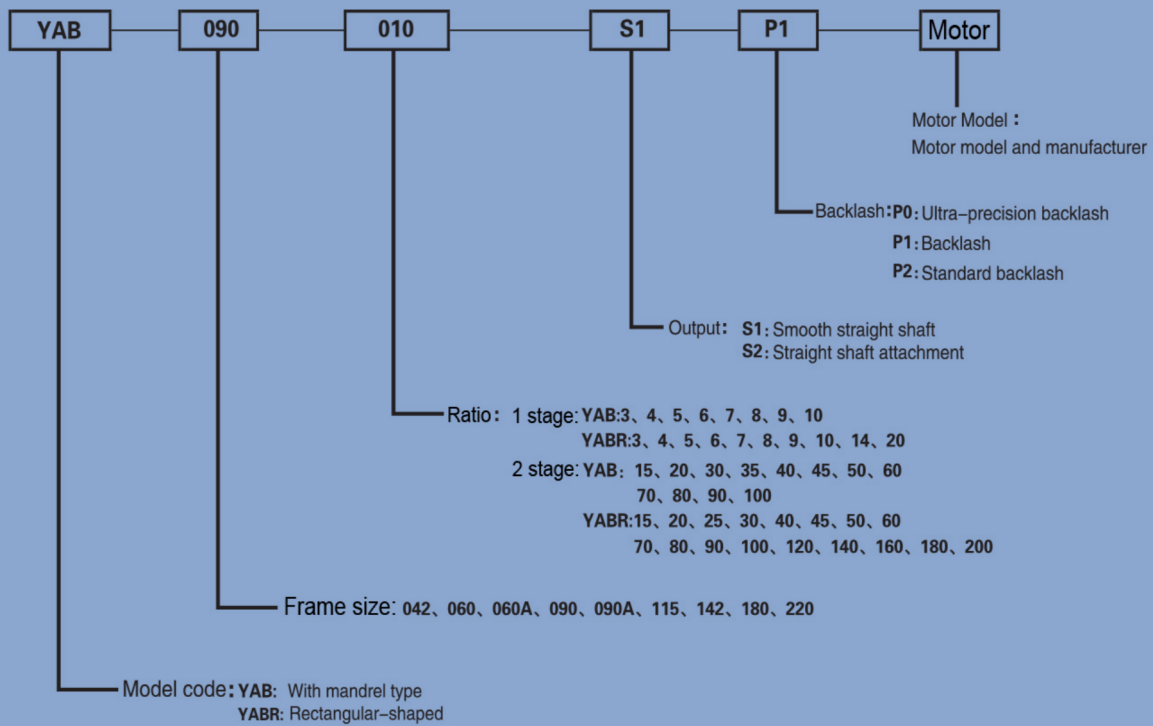




YAB Series



Model Type mark



Reducer performance data

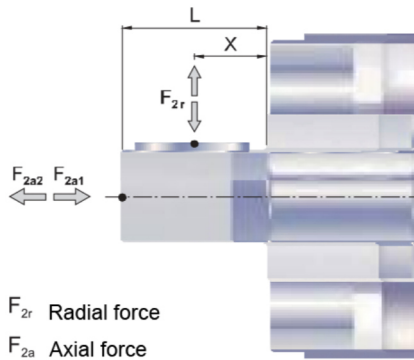
Specification	Stage	Ratio	YAB042	YAB060	YAB090	YAB115	YAB142	YAB180	YAB220	
Rated output torque T_{2N}	1	3	20	55	130	208	342	588	1,140	
		4	19	50	140	290	542	1,050	1,700	
		5	22	60	160	330	650	1,200	2,000	
		6	20	55	150	310	600	1,100	1,900	
		7	19	35	140	300	550	1,100	1,800	
		8	17	35	120	260	500	1,000	1,600	
		10	14	23	48	140	370	520	1,220	
		12	20	55	130	208	342	588	1,140	
		15	20	55	130	208	342	588	1,140	
		20	19	50	140	290	542	1,050	1,700	
	2	25	22	60	160	330	650	1,200	2,000	
		30	22	60	160	330	650	1,200	2,000	
		35	22	60	160	330	650	1,200	2,000	
		40	22	60	160	330	650	1,200	2,000	
		50	22	60	160	330	650	1,200	2,000	
		60	20	55	150	310	600	1,100	1,900	
		70	19	35	140	300	550	1,100	1,800	
		80	17	35	120	260	500	1,000	1,600	
		100	14	23	48	140	370	520	1,220	
The maximum output torque T_{2B}	Nm	1,2	3~100	Three times than rated output torque						
Rated input speed n_{1N}	rpm	1,2	3~100	5,000	5,000	4,000	4,000	3,000	2,000	
Max. input speed n_{1B}	rpm	1,2	3~100	10,000	10,000	8,000	8,000	6,000	4,000	
Ultra-precision backlash PO	arcmin	1	3~10	—	—	≤1	≤1	≤1	≤1	
		2	3~100	—	—	≤3	≤3	≤3	≤3	
Precision Backlash P1	arcmin	1	3~10	≤3	≤3	≤3	≤3	≤3	≤3	
		2	12~100	≤5	≤5	≤5	≤5	≤5	≤5	
Standard Backlash P2	arcmin	1	3~10	≤3	≤3	≤3	≤3	≤3	≤3	
		2	12~100	≤5	≤5	≤5	≤5	≤5	≤5	
Torsional stiffness	Nm/arcmin	1,2	3~100	3	7	14	25	50	145	
Permissible radial force F_{2B}^2	N	1,2	3~100	780	1,530	3,250	6,700	9,400	14,500	
Permissible axial force F_{2aB}^2	N	1,2	3~100	350	630	1,300	3,000	4,000	6,200	
Permissible axial force F_{2aB}^2	N	1,2	3~100	390	765	1,625	3,350	4,700	7,250	
Lifetime	hr	1,2	3~100	20,000*						
Efficiency η	%	1	3~10	≥97%						
		2	12~100	≥94%						
Weight	kg	1	3~10	0.5	1.3	3.7	7.8	14.5	29	48
		2	12~100	0.8	1.9	4.1	9	17.5	33	60
Temperature	°C	1,2	3~100	-10°C~+90°C						
Lubricating		1,2	3~100	(NYOGEL 792D)						
Protection class		1,2	3~100	IP65						
Mounting Direction		1,2	3~100	Any direction						
Noise level ($n_1=3,000$ rpm)	dB	1,2	3~100	≤56	≤58	≤60	≤63	≤65	≤67	≤70

Specification	Stage	Ratio	YAB042	YAB060	YAB090	YAB115	YAB142	YAB180	YAB220
Moment of inertia J_1 kg·cm ²	1	3	0.03	0.16	0.61	3.25	9.21	28.98	69.61
		4	0.03	0.14	0.48	2.74	7.54	23.67	54.37
		5	0.03	0.13	0.47	2.71	7.42	23.29	53.27
		6	0.03	0.13	0.45	2.65	7.25	22.75	51.72
		7	0.03	0.13	0.45	2.62	7.14	22.48	50.97
		8	0.03	0.13	0.44	2.58	7.07	22.59	50.84
		10	0.03	0.13	0.44	2.57	7.03	22.51	50.56
		12	0.03	0.13	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
		20	0.03	0.03	0.13	0.47	2.71	7.42	23.29
	2	25	0.03	0.03	0.13	0.47	2.71	7.42	23.29
		30	0.03	0.03	0.13	0.47	2.71	7.42	23.29
		35	0.03	0.03	0.13	0.47	2.71	7.42	23.29
		40	0.03	0.03	0.13	0.47	2.71	7.42	23.29
		50	0.03	0.03	0.13	0.44	2.57	7.03	22.51
		60	0.03	0.03	0.13	0.44	2.57	7.03	22.51
		70	0.03	0.03	0.13	0.44	2.57	7.03	22.51
		80	0.03	0.03	0.13	0.44	2.57	7.03	22.51
		100	0.03	0.03	0.13	0.44	2.57	7.03	22.51



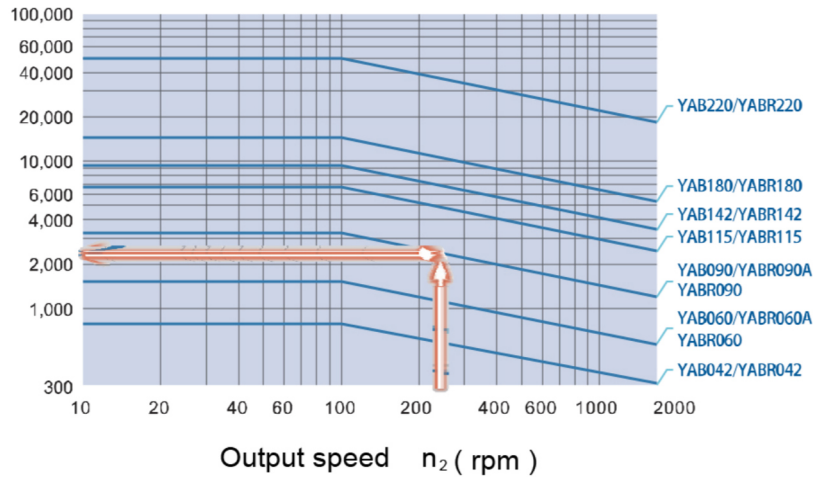
減速機輸出軸之容許徑向力及軸向力

Reducer output shaft of the permissible radial force and axial force

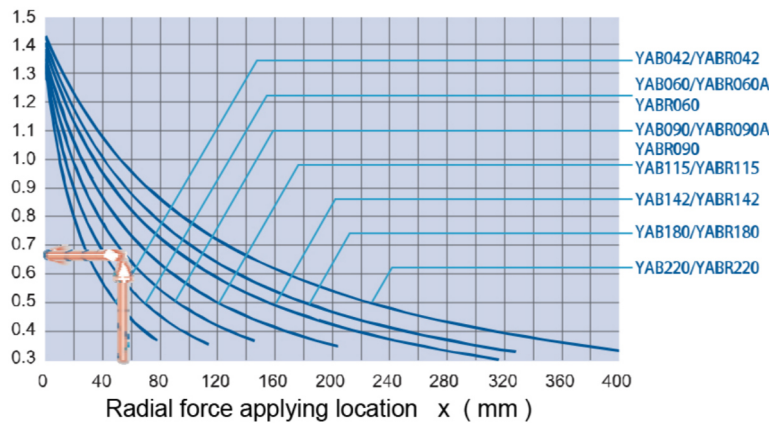


The maximum radial force of the output shaft of the speed reducer can bear and axial force, depending on the internal-branch Bearing design, design of reducer used bearing large size and large span, It can bear a greater radial and axial load.

Allowable radial force F_{2rB} (N) Force on the shaft center position



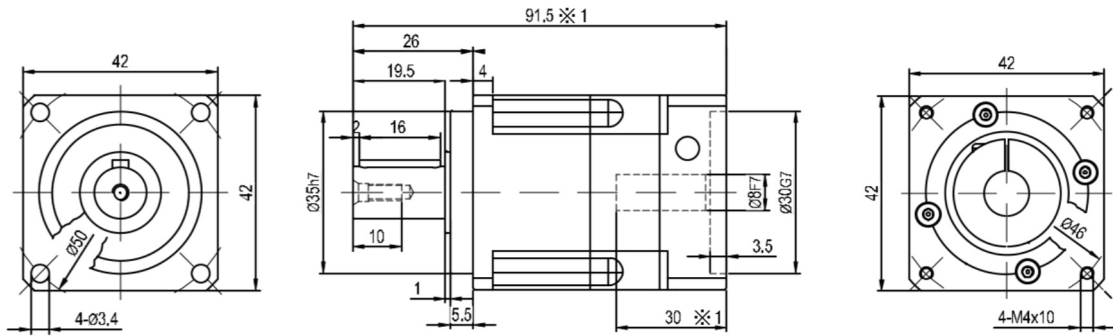
Position load factor K_b



* Lifetime will be half if continuous running

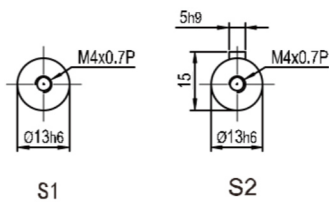
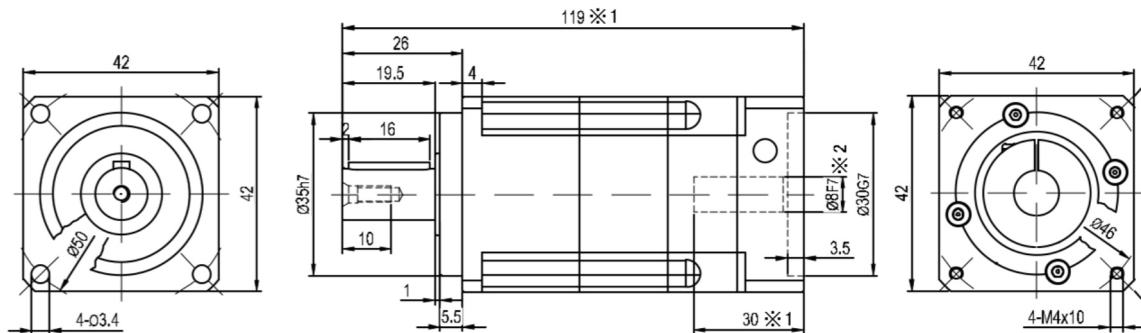
YAB-042-L1

输入轴内径 Input shaft bore $\leq \phi 8$



YAB-042-L2

输入轴内径 Input shaft bore $\leq \phi 8$



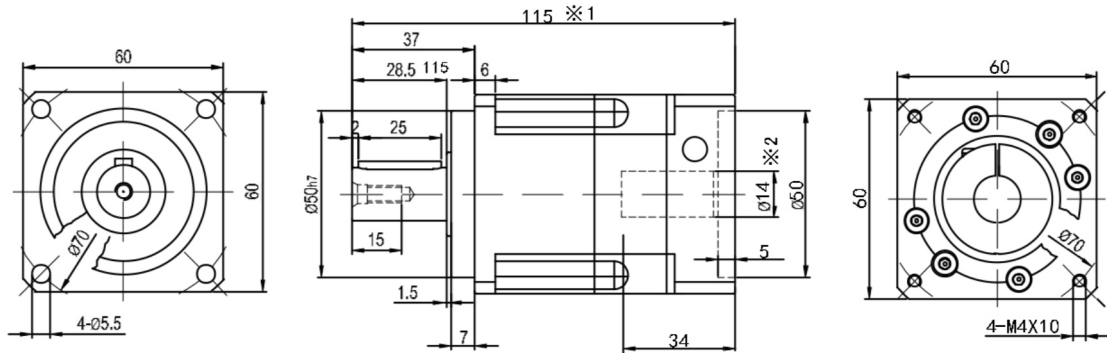
- ※1 随安装马达的不同而有所差异。
- ※2 马达轴径与输入轴径不同时,可插入轴套。
- ※1 Length will vary depending on motor.
- ※2 Bushing will be inserted to adapt to motor shaft.



YAB 外形尺寸图表 / OUTLINE DIMENSION SHEET

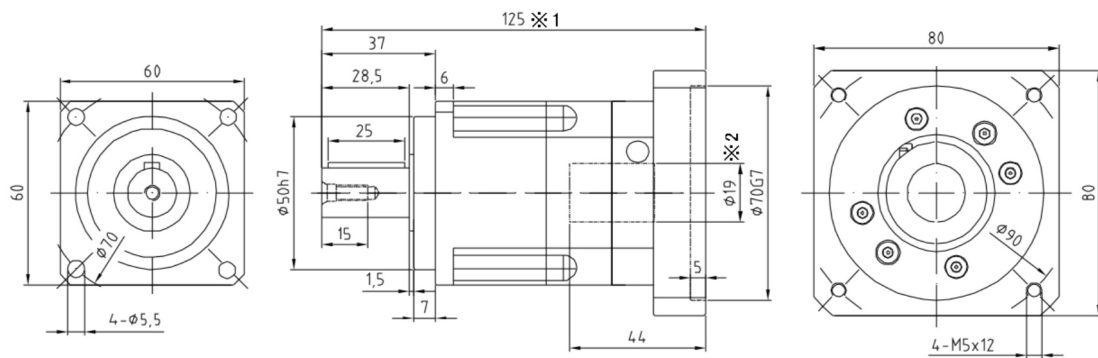
YAB-060-L1

输入轴内径 Input shaft bore $\leq \phi 14$



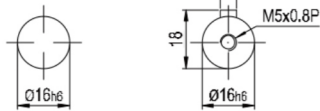
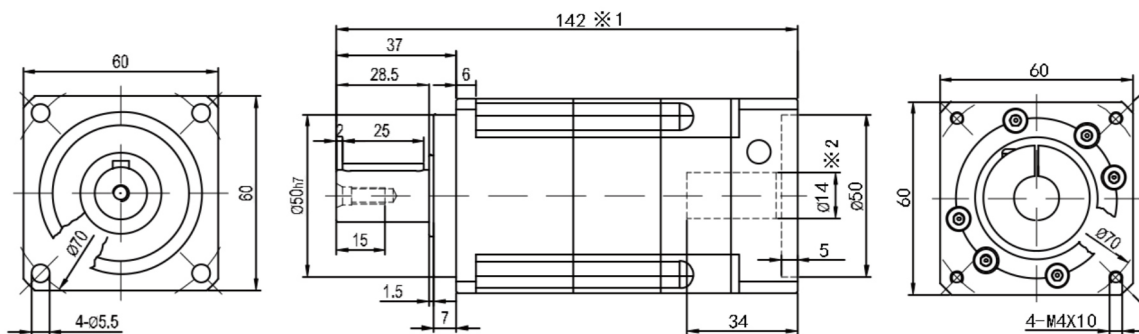
YAB-060-L1

输入轴内径 Input shaft bore $\leq \phi 19$



YAB-060-L2

输入轴内径 Input shaft bore $\leq \phi 14$



S1

S2

※1 视安装马达的不同而有所差异。

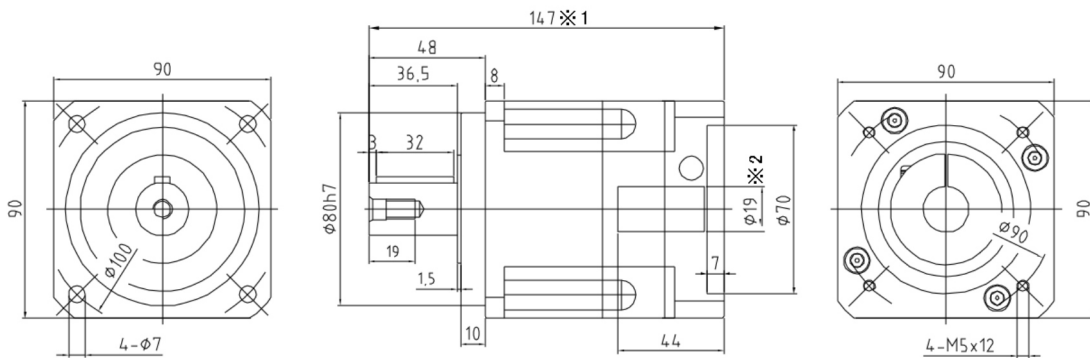
※2 马达轴径与输入轴径不同时, 可插入轴套。

※1 Length will vary depending on motor.

※2 Bushing will be inserted to adapt to motor shaft.

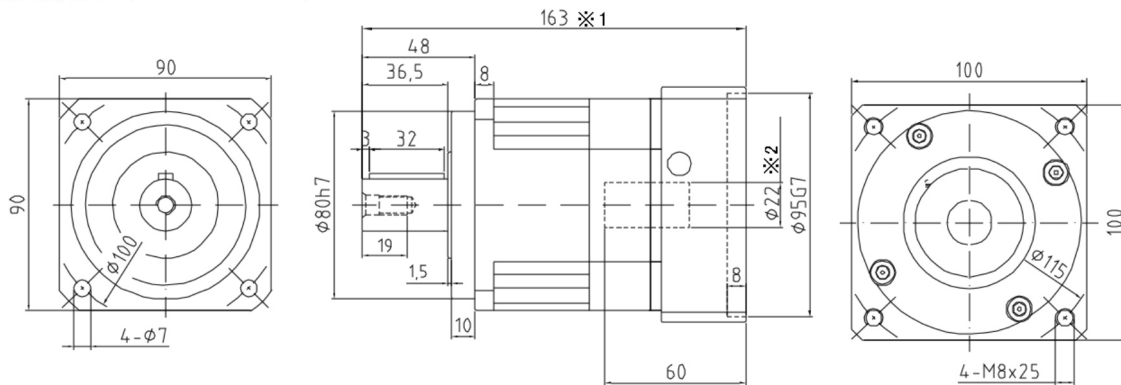
YAB-090-L1

输入轴内径 Input shaft bore $\leq \phi 19$



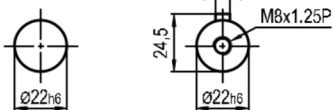
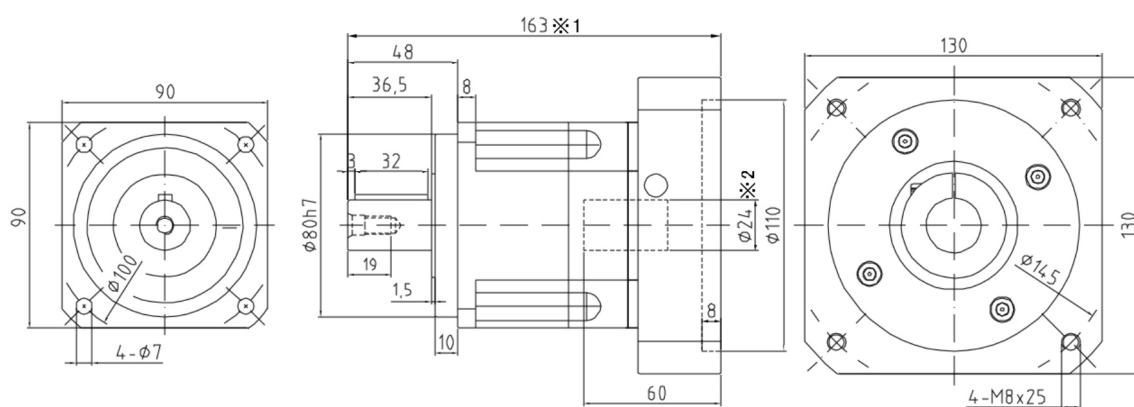
YAB-090-L1

输入轴内径 Input shaft bore $\leq \phi 22$



YAB-090-L1

输入轴内径 Input shaft bore $\leq \phi 24$



S1

S2

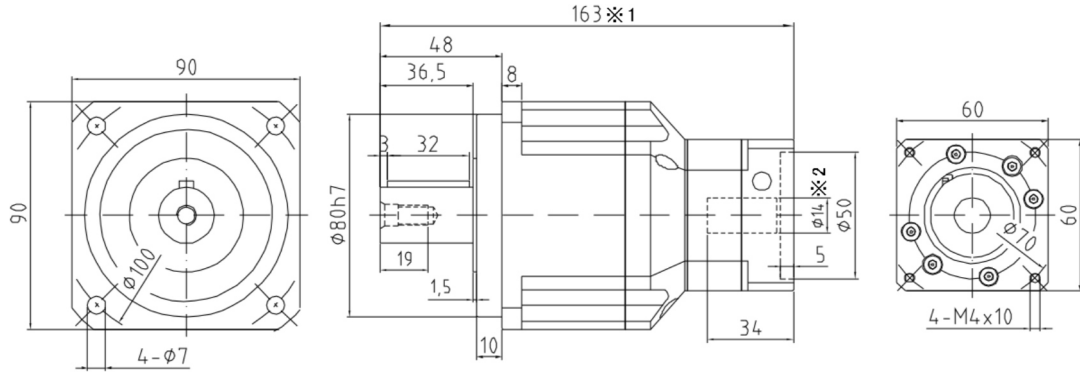
- ※1 视安装马达的不同而有所差异。
- ※2 马达轴径与输入轴径不同时, 可插入轴套。
- ※1 Length will vary depending on motor.
- ※2 Bushing will be inserted to adapt to motor shaft.



YAB 外形尺寸图表 / OUTLINE DIMENSION SHEET

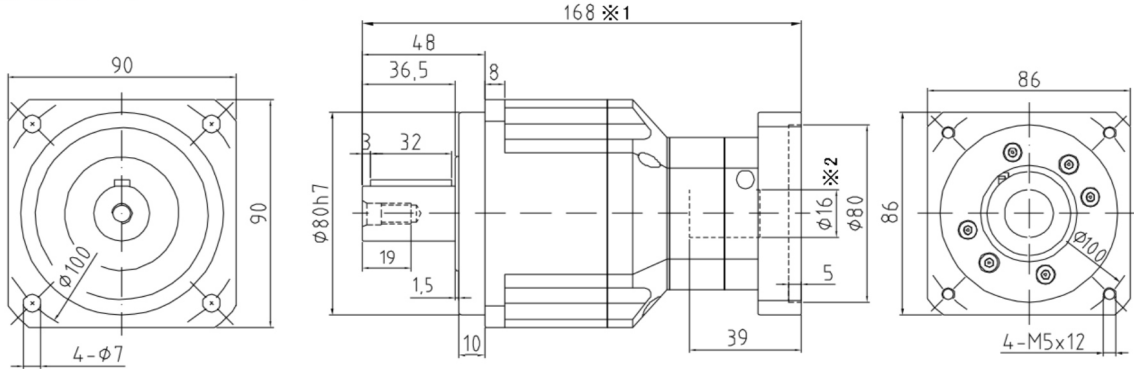
YAB-090-L2

输入轴内径 Input shaft bore $\leq \phi 14$



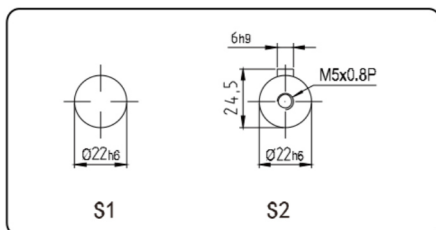
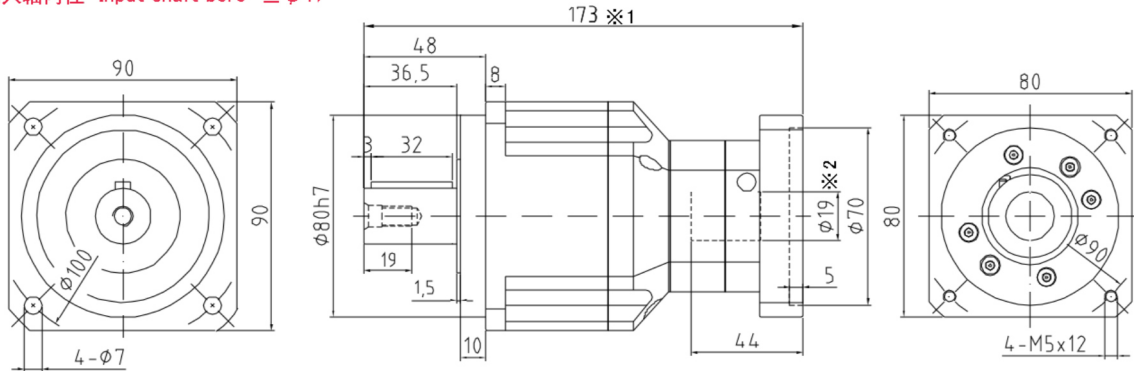
YAB-090-L2

输入轴内径 Input shaft bore $\leq \phi 16$



YAB-090-L2

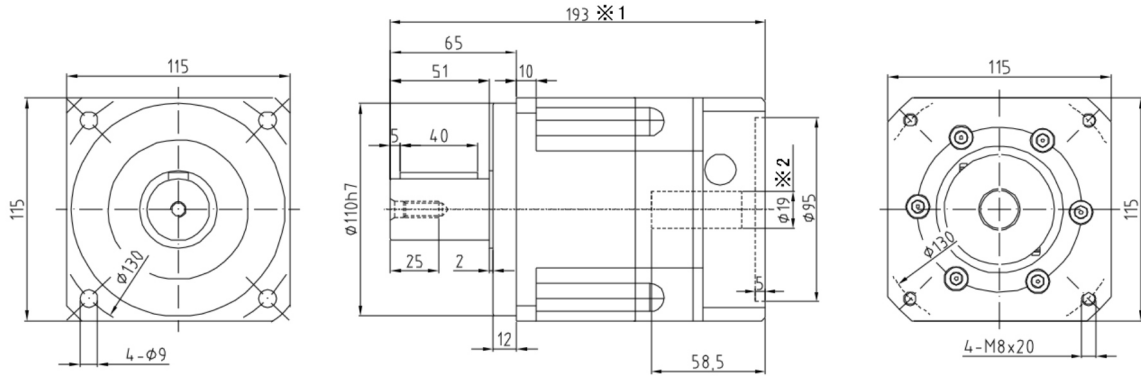
输入轴内径 Input shaft bore $\leq \phi 19$



- ※1 视安装马达的不同而有所差异。
※2 马达轴径与输入轴径不同时, 可插入轴套。
- ※1 Length will vary depending on motor.
※2 Bushing will be inserted to adapt to motor shaft.

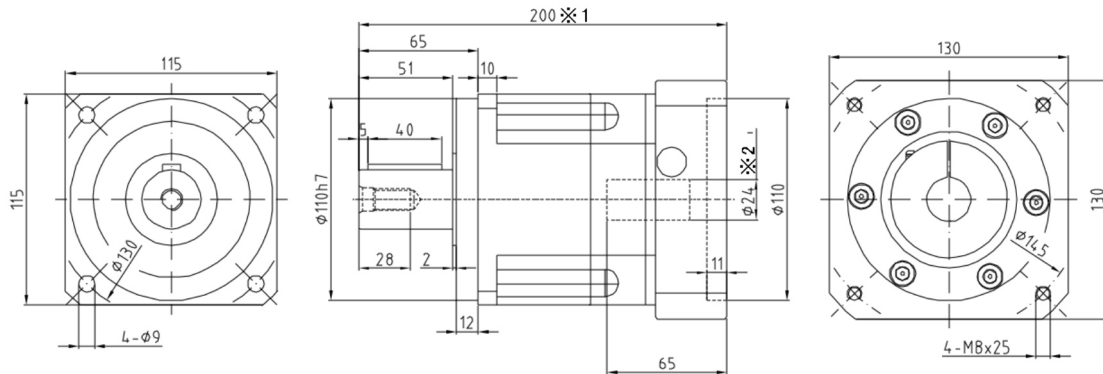
YAB-115-L1

输入轴内径 Input shaft bore $\leq \phi 19$



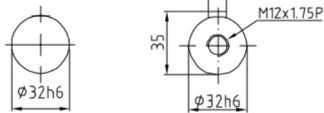
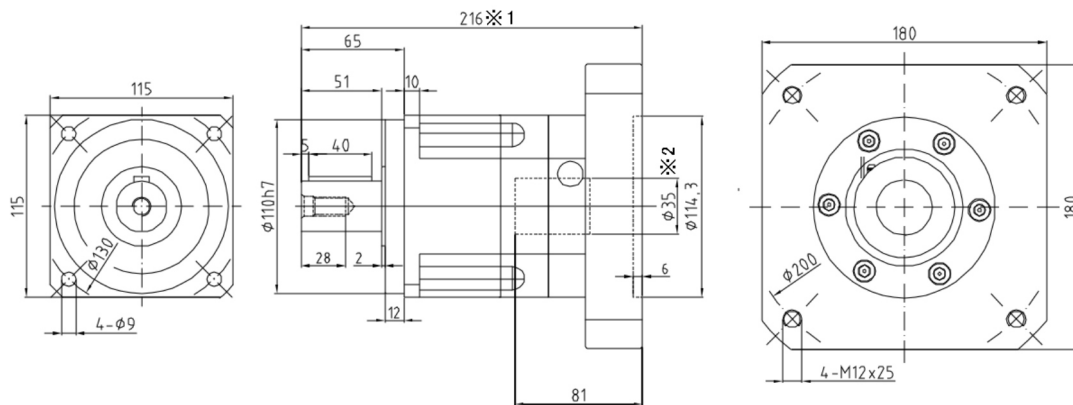
YAB-115-L1

输入轴内径 Input shaft bore $\leq \phi 24$



YAB-115-L1

输入轴内径 Input shaft bore $\leq \phi 35$



S1

S2

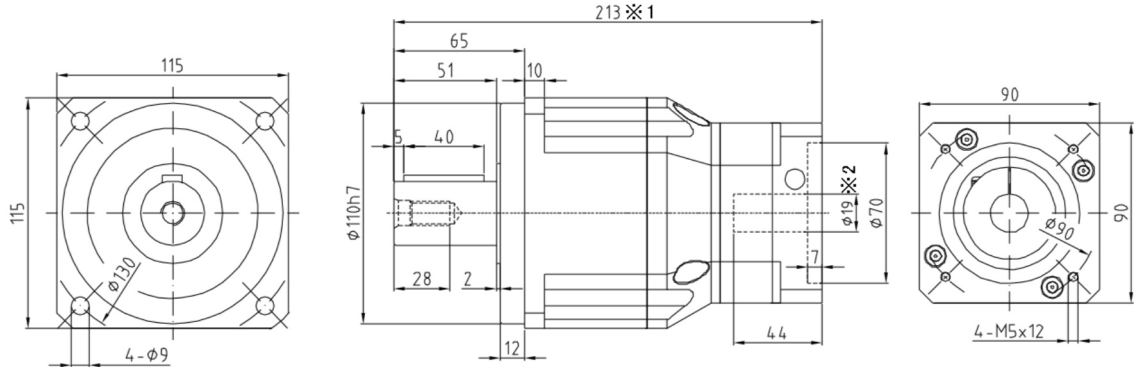
- ※1 视安装马达的不同而有所差异。
- ※2 马达轴径与输入轴径不同时, 可插入轴套。
- ※1 Length will vary depending on motor.
- ※2 Bushing will be inserted to adapt to motor shaft.



YAB 外形尺寸图表 / OUTLINE DIMENSION SHEET

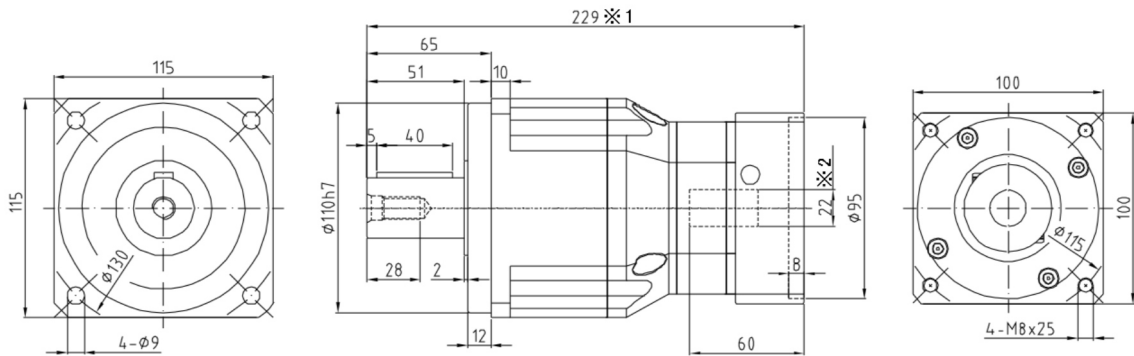
YAB-115-L2

输入轴内径 Input shaft bore $\leq \phi 19$



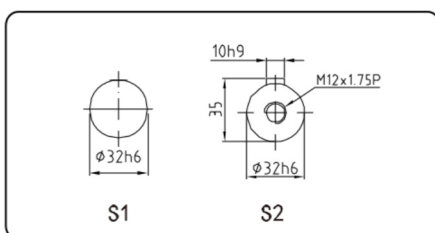
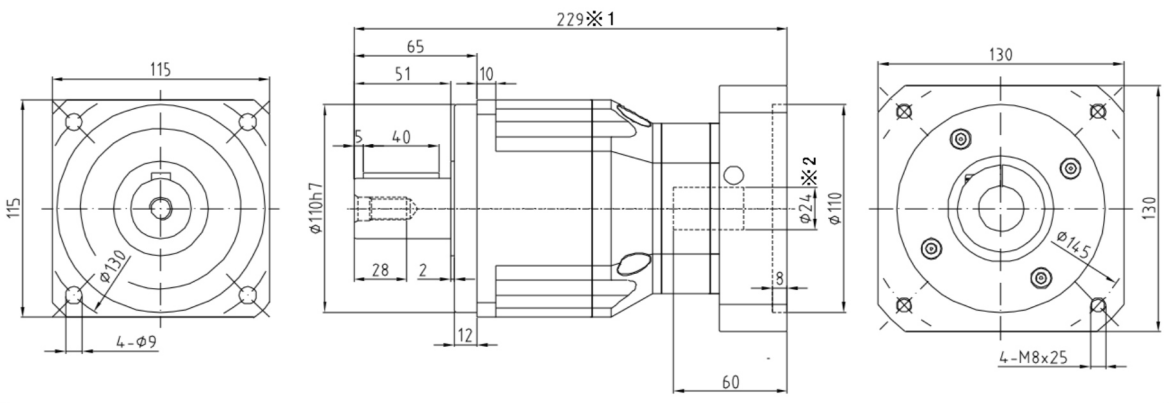
YAB-115-L2

输入轴内径 Input shaft bore $\leq \phi 22$



YAB-115-L2

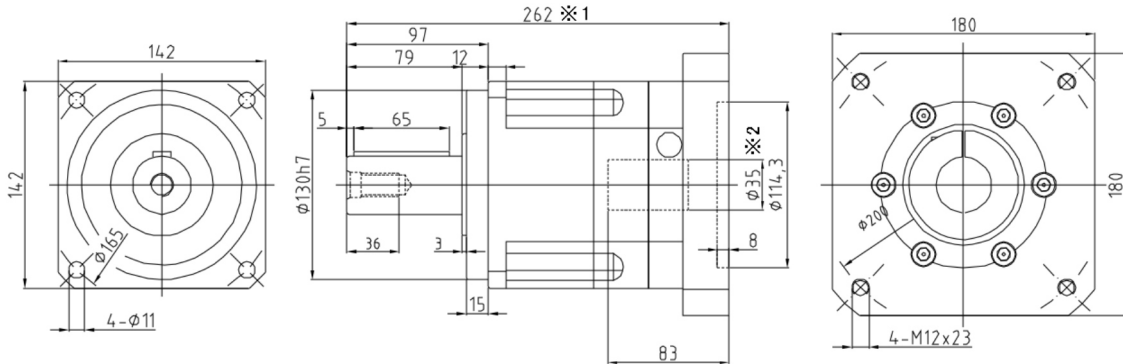
输入轴内径 Input shaft bore $\leq \phi 24$



- ※1 视安装马达的不同而有所差异。
- ※2 马达轴径与输入轴径不同时, 可插入轴套。
- ※1 Length will vary depending on motor.
- ※2 Bushing will be inserted to adapt to motor shaft.

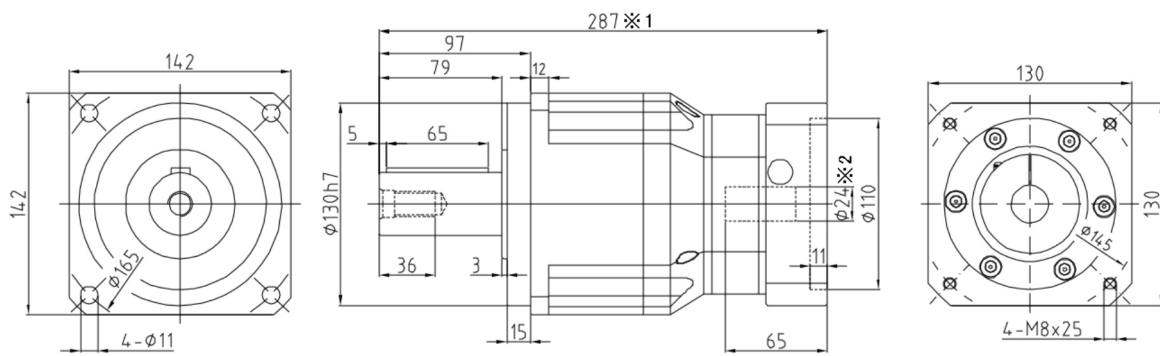
YAB-142-L1

输入轴内径 Input shaft bore $\leq \phi 35$



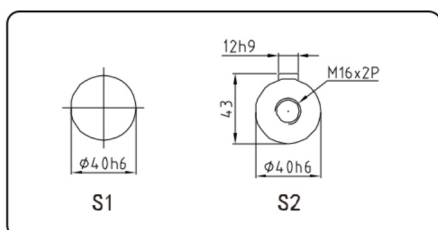
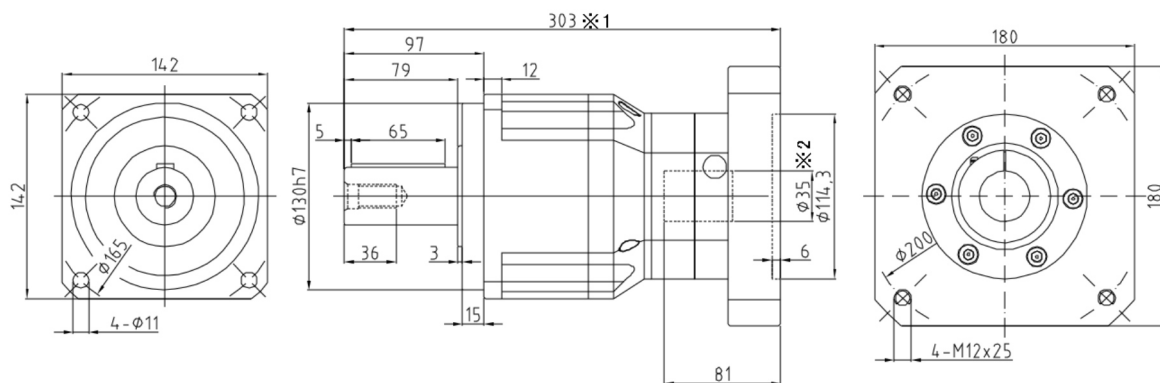
YAB-142-L2

输入轴内径 Input shaft bore $\leq \phi 24$



YAB-142-L2

输入轴内径 Input shaft bore $\leq \phi 35$



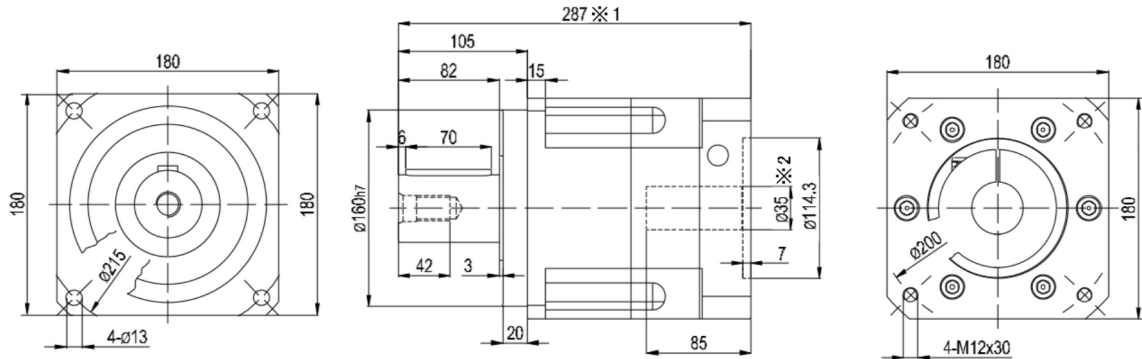
- ※1 视安装马达的不同而有所差异。
- ※2 马达轴径与输入轴径不同时, 可插入轴套。
- ※1 Length will vary depending on motor.
- ※2 Bushing will be inserted to adapt to motor shaft.



YAB 外形尺寸图表 / OUTLINE DIMENSION SHEET

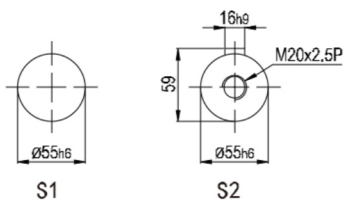
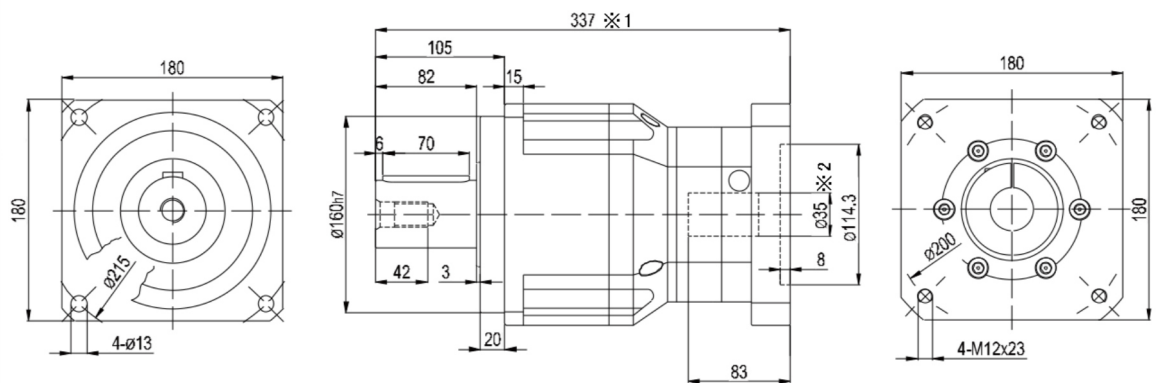
YAB-180-L1

输入轴内径 Input shaft bore $\leq \phi 35$



YAB-180-L2

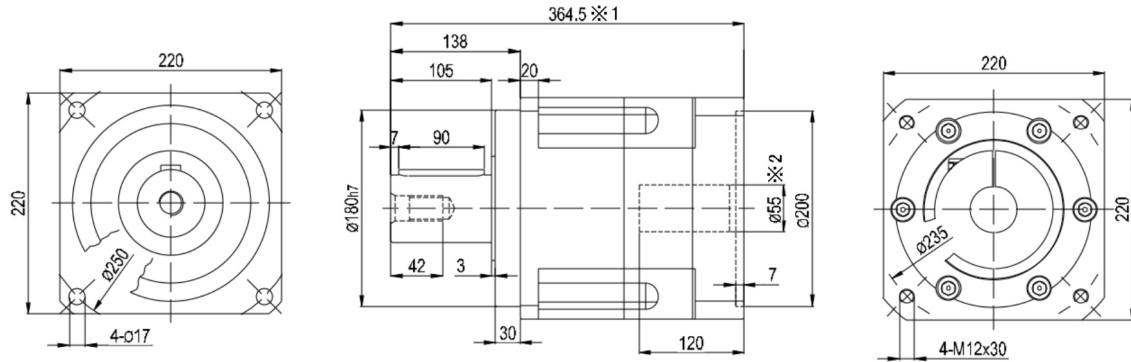
输入轴内径 Input shaft bore $\leq \phi 35$



- ※1 视安装马达的不同而有所差异。
- ※2 马达轴径与输入轴径不同时, 可插入轴套。
- ※1 Length will vary depending on motor.
- ※2 Bushing will be inserted to adapt to motor shaft.

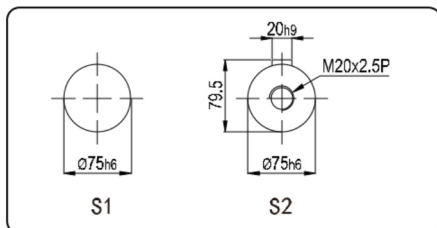
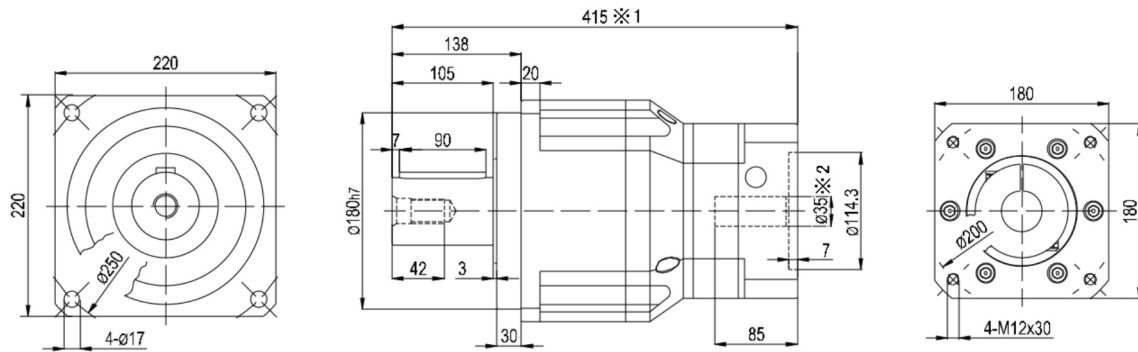
YAB-220-L1

输入轴内径 Input shaft bore $\leq \phi 55$



YAB-220-L2

输入轴内径 Input shaft bore $\leq \phi 35$



- ※1 视安装马达的不同而有所差异。
- ※2 马达轴径与输入轴径不同时, 可插入轴套。
- ※1 Length will vary depending on motor.
- ※2 Bushing will be inserted to adapt to motor shaft.