

Gearbox for a Changing World

# **Planetary Gearbox**

## **ABR Precision Series**

## ABR Series Compatible Motor Table

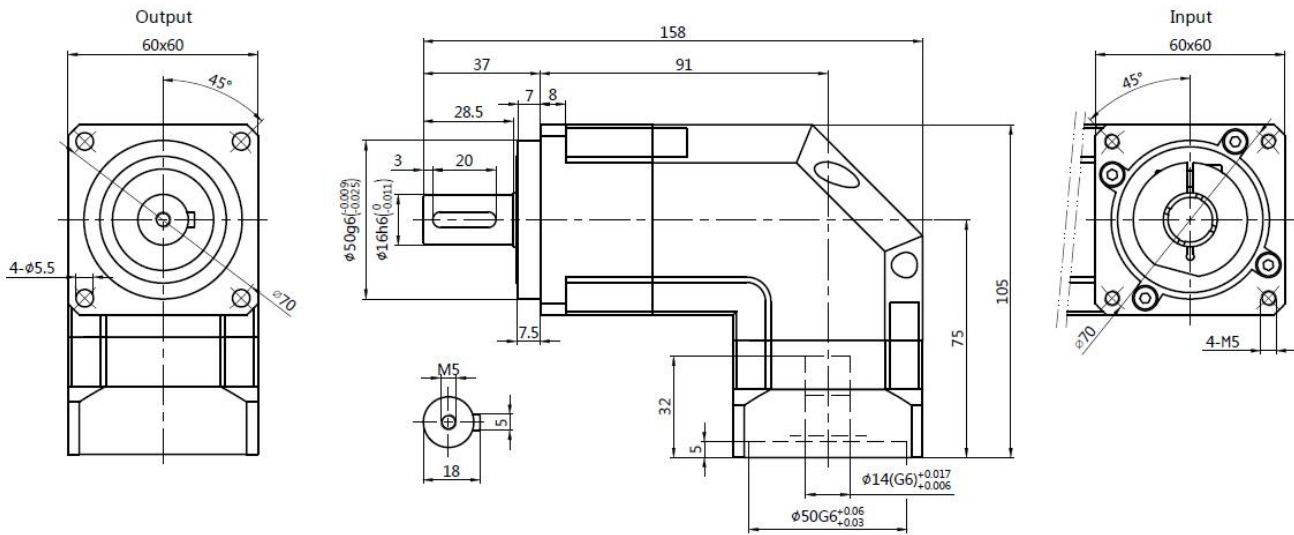
Type	Motor Frame Code	Power Rating	Output Shaft Diameter (S) & Length (LR) (mm)	Stage	Ratio	Backlash Class	Compatible Gearbox Model No.
ABR060	F60	200W, 400W	Φ14 / 30	1-stage	3, 4, 5, 7, 10		ABR060-C10604RS
ABR090	F80	750W	Φ19 / 35	1-stage	3, 4, 5, 7, 10		ABR090-C10807RS
ABR090	F100	1kW, 2kW	Φ22 / 45	1-stage	3, 4, 5, 7, 10		ABR090-C11010RS
ABR090	F130	300W, 500W, 600W, 800W, 900W 1kW, 1.3kW, 1.5kW, 1.8kW, 2kW	Φ22 / 55	1-stage	3, 4, 5, 7, 10		ABR090-E11310RS ABR090-E11315RS ABR090-E11320RS
ABR115	F130	3kW	Φ22 / 55	1-stage	3, 4, 5, 7, 10		ABR115-E11310RS ABR115-E11315RS ABR115-E11320RS
ABR142	F160	3kW		1-stage	3, 4, 5, 7, 10		ABR142-L11830RS ABR142-L11845RS
ABR060	F60	200W, 400W	Φ14 / 30	2-stage	12, 16, 20, 25, 35, 40,50,70,100		ABR060-C10604RS
ABR090	F80	750W	Φ19 / 35	2-stage	12, 16, 20, 25, 35, 40,50,70,100		ABR090-C10807RS
ABR090	F100	1kW, 2kW	Φ22 / 45	2-stage	12, 16, 20, 25, 35, 40,50,70,100		ABR090-C11010RS
ABR090	F130	300W, 500W, 600W, 800W, 900W 1kW, 1.3kW, 1.5kW, 1.8kW, 2kW	Φ22 / 55	2-stage	12, 16, 20, 25, 35, 40,50,70,100		ABR090-E11310RS ABR090-E11315RS ABR090-E11320RS
ABR115	F130	3kW	Φ22 / 55	2-stage	12, 16, 20, 25, 35, 40,50,70,100		ABR115-E11310RS ABR115-E11315RS ABR115-E11320RS
ABR142	F160	3kW,4.5KW	Φ35	2-stage	12, 16, 20, 25, 35, 40,50,70,100		ABR142-L11830RS ABR142-L11845RS

# Specifications

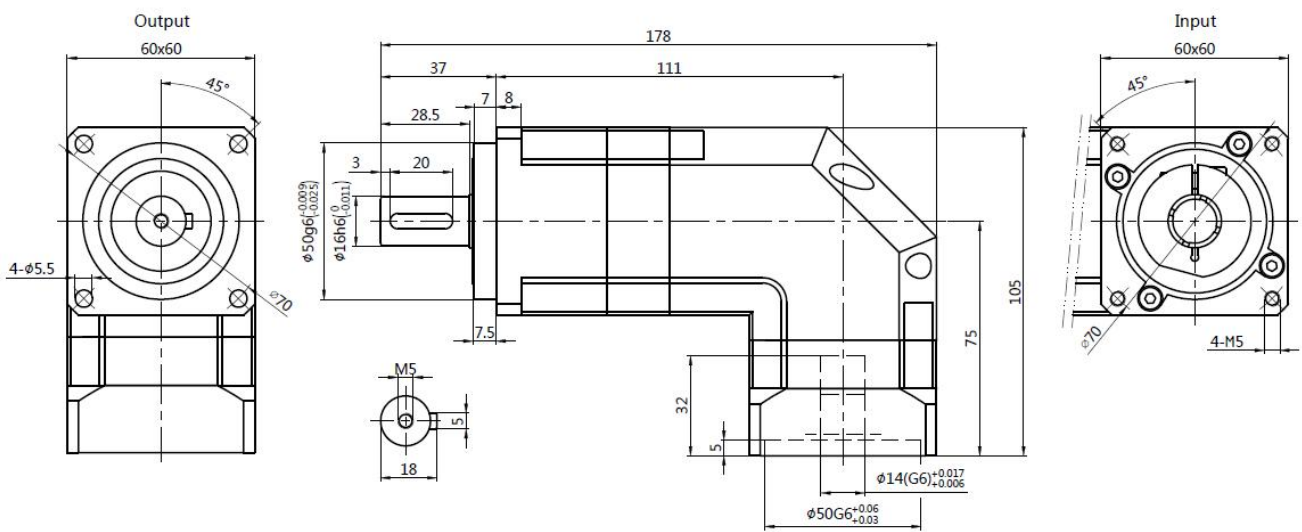
Items	Unit	Stage	Ratio	60	90	115		142
Rated Output Torque	N-m	1	3	55	130	208		342
			4	50	140	290		542
			5	60	160	330		650
			7	50	140	300		550
			10	40	100	230		450
		2	16	55	130	208		342
			20	50	140	290		542
			25	60	160	330		650
			35	50	140	300		550
			40	50	140	290		542
			50	60	160	330		650
			70	50	140	300		550
			100	40	100	230		450
Max. Acceleration Torque	N-m	1,2	3 ~ 100					
Max. Output Torque	N-m	1,2	3 ~ 100	2.5 times the Rated Output Torque				
Rated Input Speed	rpm	1,2	3 ~ 100	4,000	4,000	4,000		3,000
Max. Input Speed	rpm	1,2	3 ~ 100	8,000	8,000	8,000		5,000
Backlash	arcmin	1	3 ~ 10	10-12				
	arcmin	2	16 ~ 100	12-15				
Torsional Rigidity	N-m/arcmin	1,2	3 ~ 100	7	14	25		50
Max. Radial Force	N	1,2	3 ~ 100	1530	3250	6700		9400
Max. Axial Force	N	1,2	3 ~ 100	630	1300	3000		4700
Service Life	hr	1,2	3 ~ 100	>20,000				
Effeciency	%	1	3 ~ 10	93	93	93		93
		2	16 ~ 100	90	90	90		90
Operating Temperature		1,2	3 ~ 100	- 10 °C ~ +90 °C				
Lubrication		1,2	3 ~ 100	Synthetic Grease				
Protection Class		1,2	3 ~ 100	IP65				
Mounting Position		1,2	3 ~ 100	Any				
Noise Level	dB	1	3 ~ 10	≤70	≤70	≤72		≤75
		2	16 ~ 100	≤70	≤70	≤72		≤75
Weight ±2%	kg	1						
		2						
Mass Moment of Inertia	kg.cm2	1	3	0.16	0.61	3.25		9.21
			4	0.14	0.48	2.74		7.54
			5	0.13	0.47	2.71		7.42
			7	0.13	0.45	2.62		7.14
			10	0.13	0.44	2.57		7.03
		2	16	0.13	0.47	2.71		7.42
			20~40	0.13	0.47	2.71		7.42
			50~100	0.13	0.13	0.44		2.57

# Dimensions

ABR060 1-stage: Motor: ECMA- C10604RS

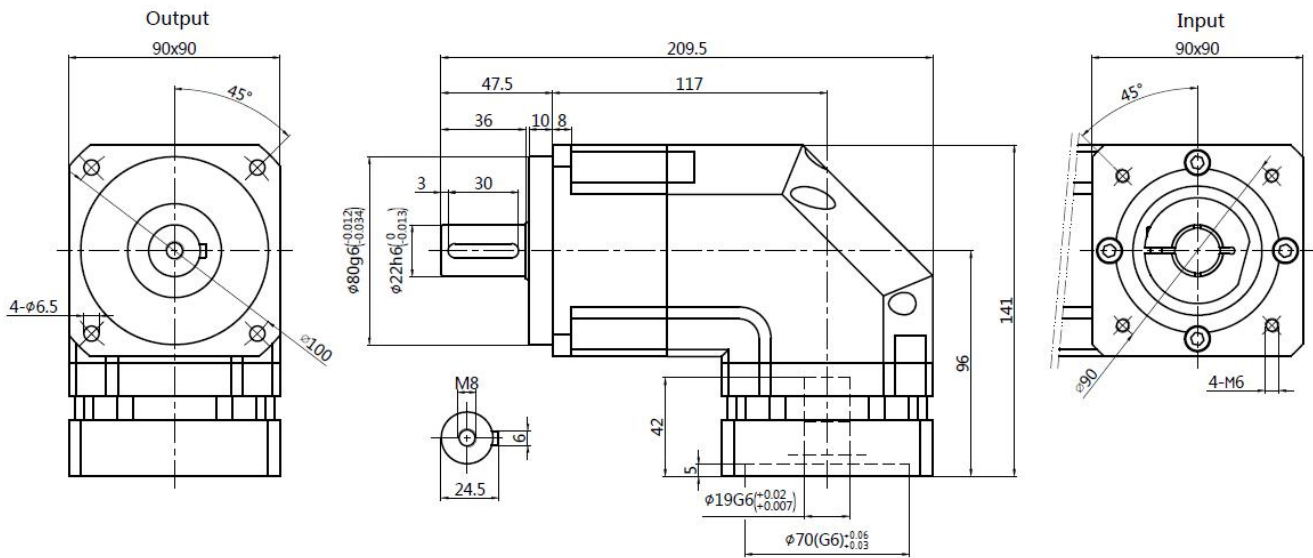


ABR060 2-stage: Motor: ECMA- C10604RS

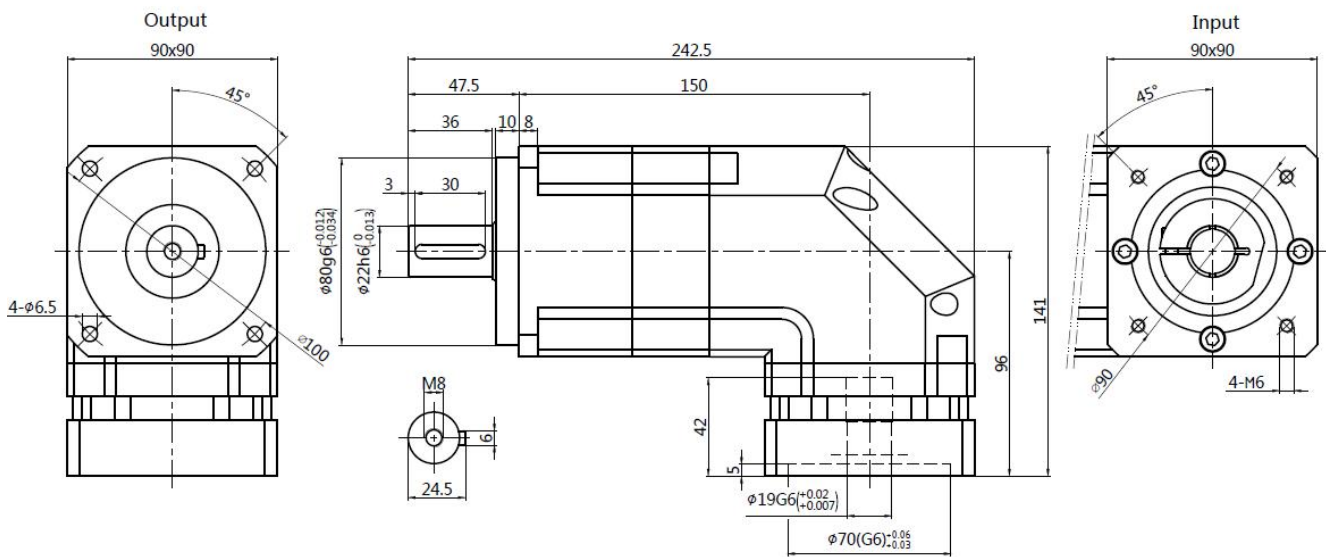


# Dimensions

ABR090 1-stage: Motor: ECMA-C10807RS

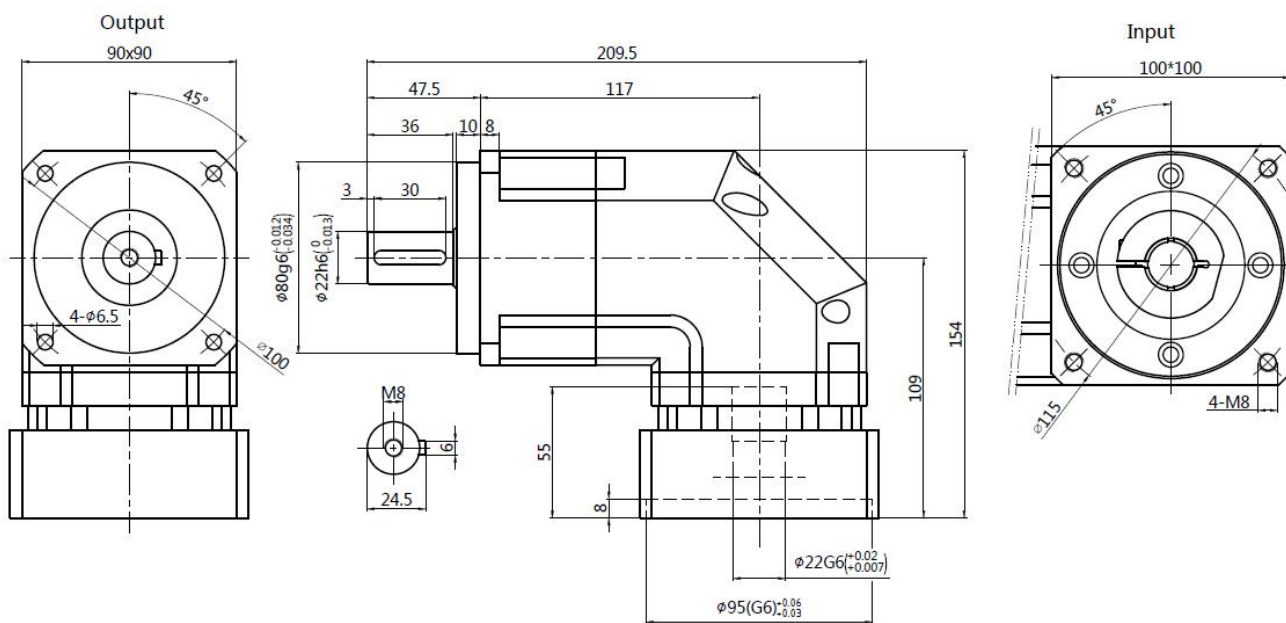


ABR090 2-stage: ECMA-C10807RS

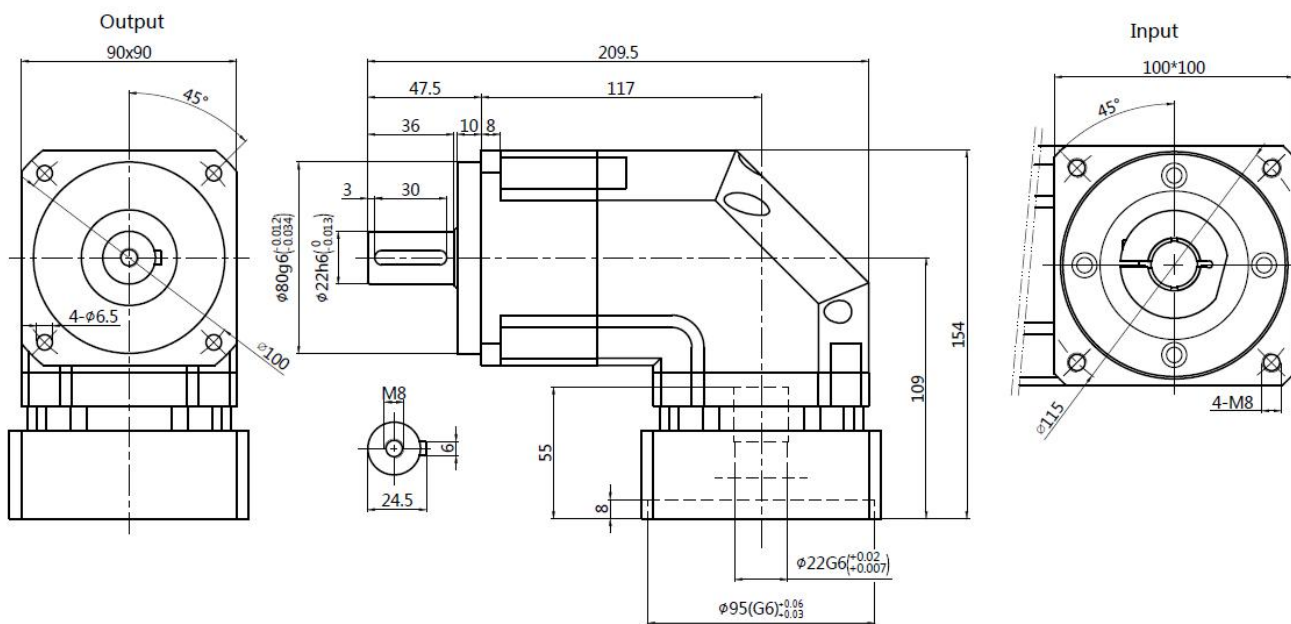


# Dimensions

## ABR090 1-stage:ECMA-C11010RS

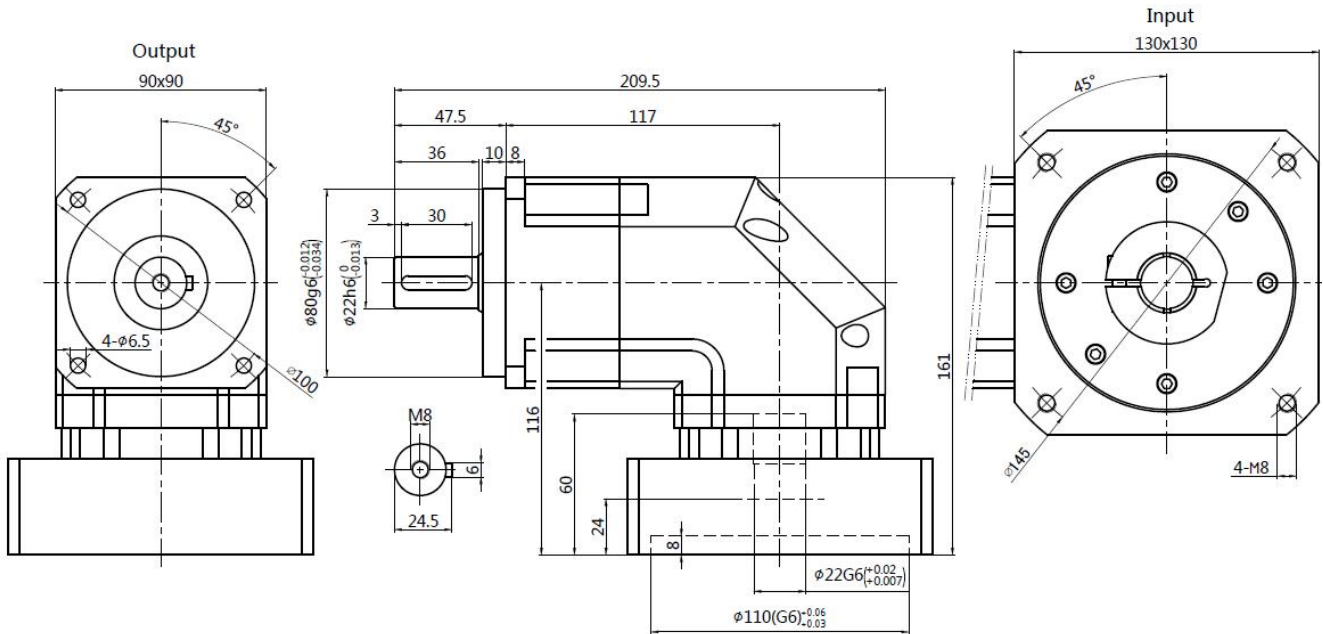


## ABR090 2-stage:ECMA-C11010RS

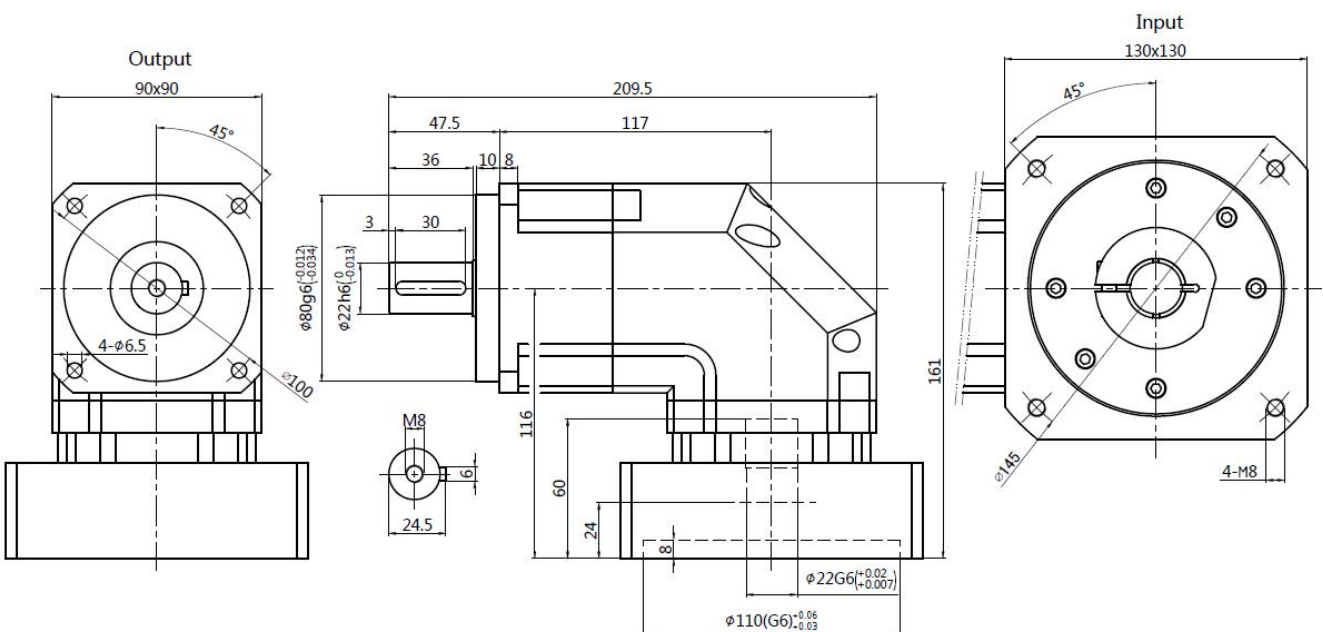


# Dimensions

ABR090 1-stage:Motor:ECMA-E11310RS, ECMA-E11315RS, ECMA-E11320RS

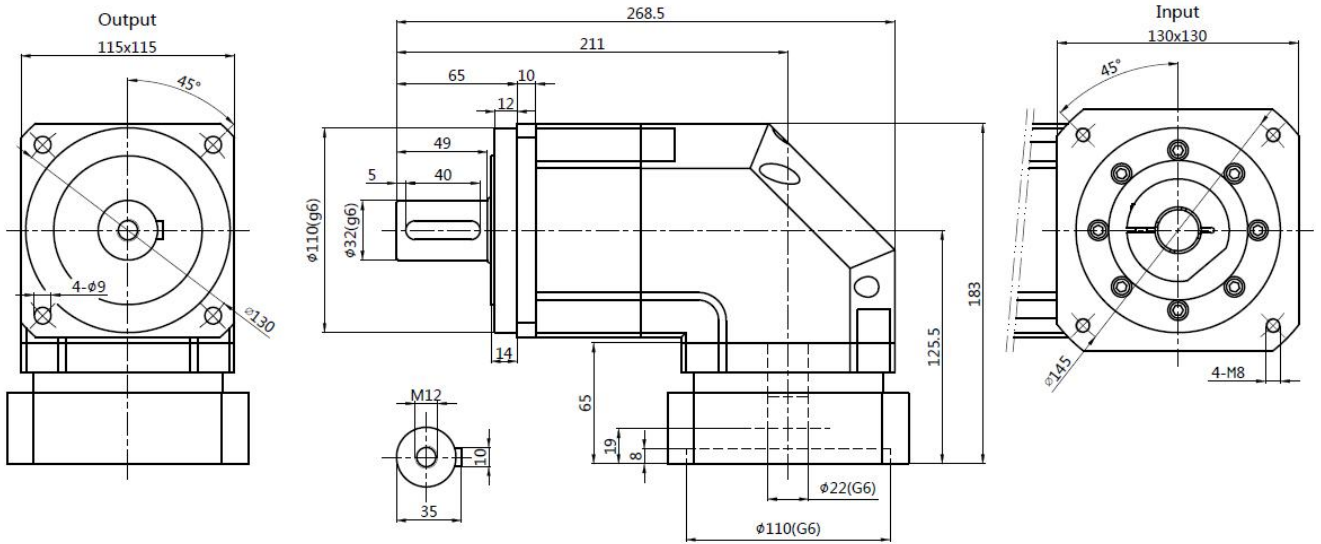


ABR090 2-stage:Motor:ECMA-E11310RS, ECMA-E11315RS, ECMA-E11320RS

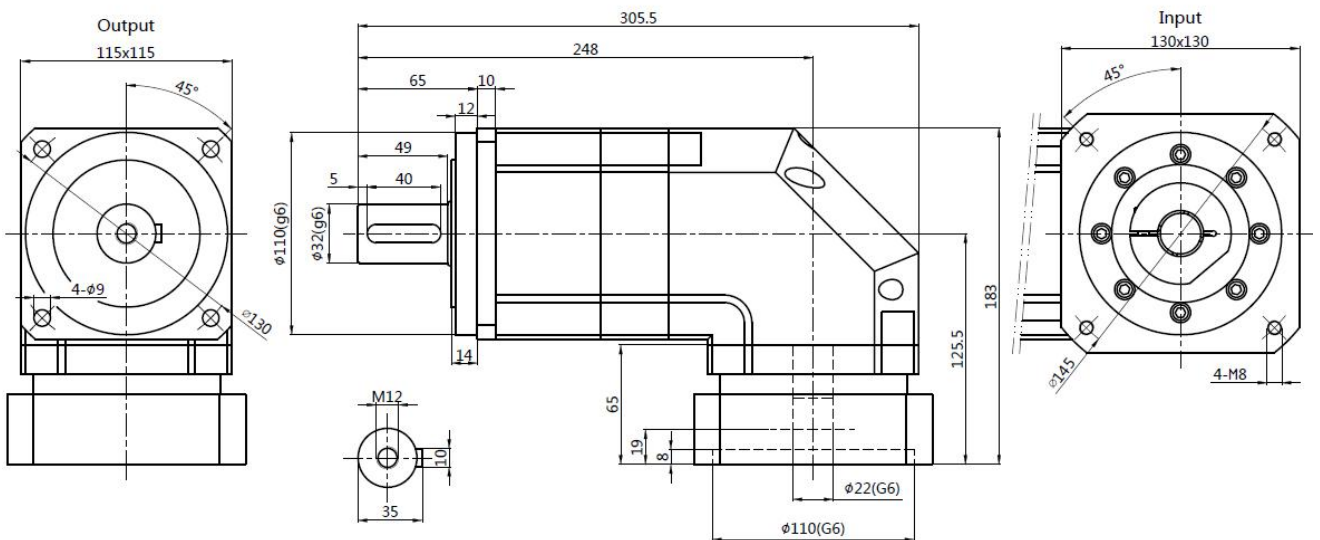


# Dimensions

ABR115 1-stage:Motor:ECMA-E11310RS, ECMA-E11315RS, ECMA-E11320RS



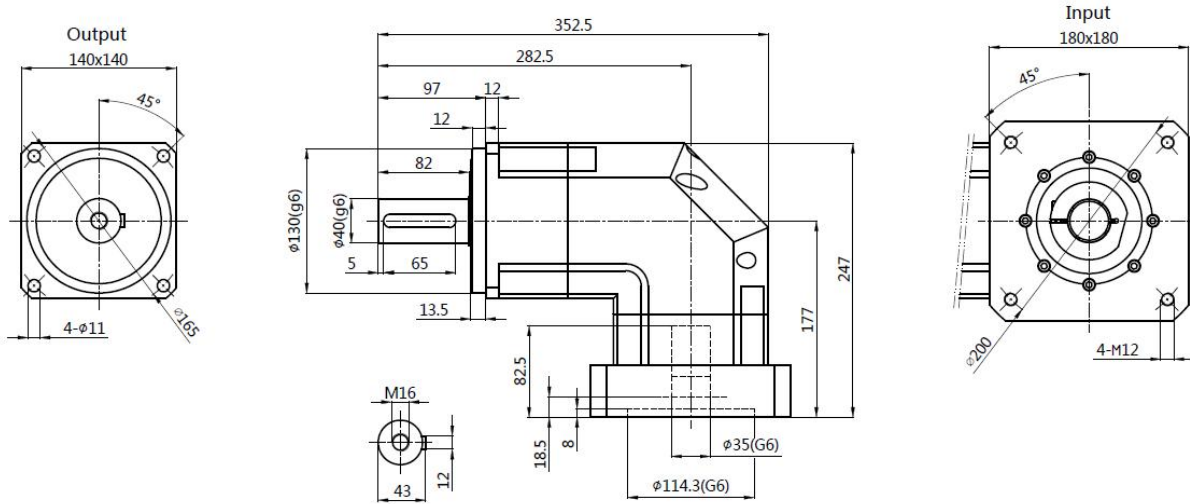
ABR115 2-stage:Motor:ECMA-E11310RS, ECMA-E11315RS, ECMA-E11320RS





# Dimensions

ABR142 1-stage:Motor:ECMA-L11830RS, ECMA-L11845RS



ABR142 2-stage:Motor:ECMA-L11830RS, ECMA-L11845RS

