

Gearbox for a Changing World

# **Planetary Gearbox**

## **ZER Precision Series**

## ZER Series Compatible Motor Table

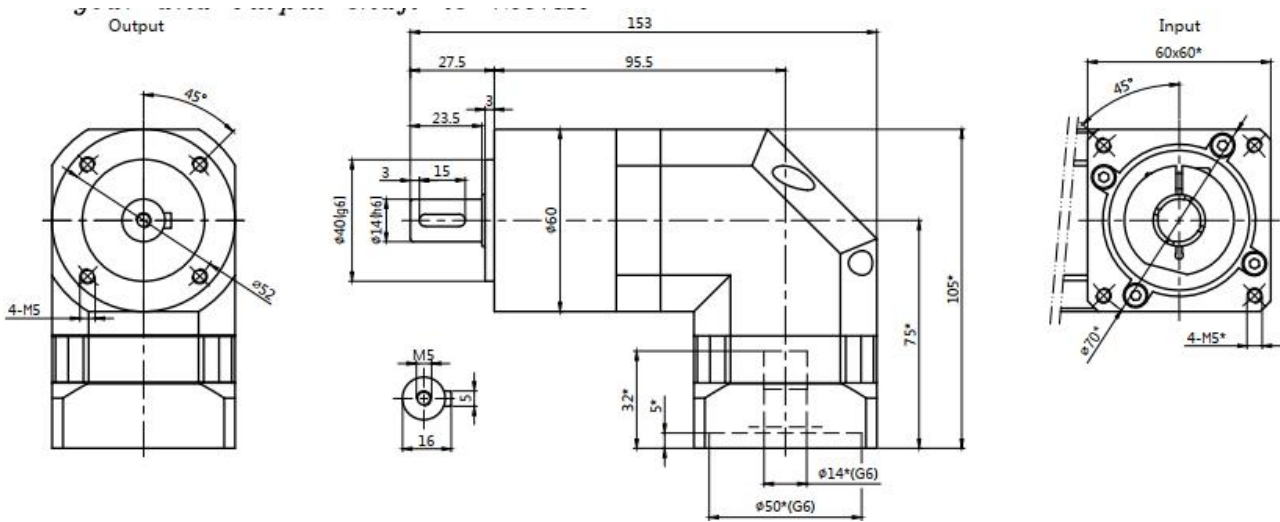
Type	Motor Frame Code	Power Rating	Output Shaft Diameter (S) & Length (LR) (mm)	Stage	Ratio	Backlash Class	Compatible Gearbox Model No.
ZER060	F60	200W, 400W	Φ14 / 30	1-stage	3, 4, 5, 7, 10	8	ZER060-C10604RS
ZER090	F80	750W	Φ19 / 35	1-stage	3, 4, 5, 7, 10	8	ZRE090-C10807RS
ZER090	F100	1kW, 2kW	Φ22 / 45	1-stage	3, 4, 5, 7, 10	8	ZER090-C11010RS
ZER090	F130	300W, 500W, 600W, 800W, 900W 1kW, 1.3kW, 1.5kW, 1.8kW, 2kW	Φ22 / 55	1-stage	3, 4, 5, 7, 10	8	ZER090-E11310RS ZER090-E11315RS ZER090-E11320RS
ZER120	F130	3kW	Φ22 / 55	1-stage	3, 4, 5, 7, 10	8	ZER120-E11310RS ZER120-E11315RS ZER120-E11320RS
ZER140	F160	3kW		1-stage	3, 4, 5, 7, 10	8	ZER140-L11830RS
ZER060	F60	200W, 400W	Φ14 / 30	2-stage	15, 20, 25, 30, 35, 40,50,70,100	10	ZER060-C10604RS
ZER090	F80	750W	Φ19 / 35	2-stage	15, 20, 25, 30, 35, 40,50,70,100	10	ZER090-C10807RS
ZER090	F100	1kW, 2kW	Φ22 / 45	2-stage	15, 20, 25, 30, 35, 40,50,70,100	10	ZER090-C11010RS
ZER090	F130	300W, 500W, 600W, 800W, 900W 1kW, 1.3kW, 1.5kW,	Φ22 / 55	2-stage	15, 20, 25, 30, 35, 40,50,70,100	10	ZER090-E11310RS ZER090-E11315RS
ZER120	F130	3kW	Φ22 / 55	2-stage	15, 20, 25, 30, 35, 40,50,70,100	10	ZER120-E11310RS ZER120-E11315RS ZER120-E11320RS
ZER140	F160	3kW		2-stage	15, 20, 25, 30, 35, 40,50,70,100	10	ZER140-L11830RS

# Specifications

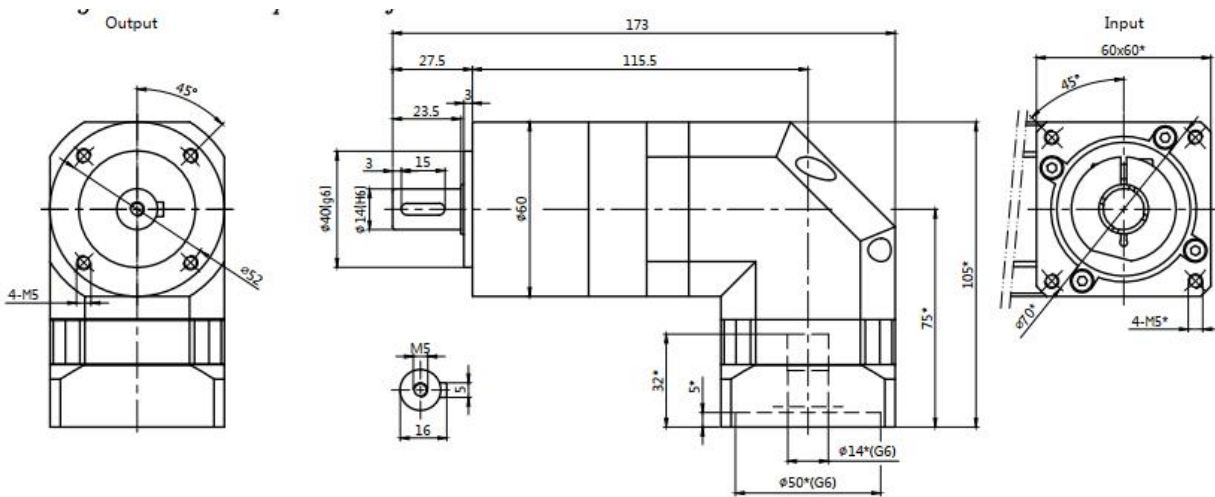
Items	Unit	Stage	Ratio		60	90	120	140
Rated Output Torque	N-m	1	3		40	130	208	342
			4		50	140	290	542
			5		60	160	330	650
			7		50	140	300	550
			10		40	100	230	450
		2	15		40	130	208	342
			20		50	140	290	542
			25		60	160	330	650
			30		55	150	310	600
			35		50	140	290	550
			40		50	140	290	542
			50		60	160	330	650
			70		50	140	300	550
			100		40	100	230	450
Max. Acceleration Torque	N-m	1,2	3 ~ 100	2 times the Rated Output Torque				
Max. Output Torque	N-m	1,2	3 ~ 100	3 times the Rated Output Torque				
Rated Input Speed	rpm	1,2	3 ~ 100	5,000	4,000	4,000	3,000	
Max. Input Speed	rpm	1,2	3 ~ 100	10,000	8,000	8,000	5,000	
Backlash	arcmin	1	3 ~ 10	8				
	arcmin	2	15 ~ 100	10				
Torsional Rigidity	N-m/arcmin	1,2	3 ~ 100	5	11	18	50	
Max. Radial Force	N	1,2	3 ~ 100	1,530	3,250	6,700	9,400	
Max. Axial Force	N	1,2	3 ~ 100	630	1,300	3,000	4,700	
Service Life	hr	1,2	3 ~ 100	>20,000				
Efficiency	%	1	3 ~ 10	93	93	93	93	
		2	15 ~ 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	15~ 100	≤70	≤70	≤72	≤75	
Weight ±2%	kg	1	3 ~ 10	4	5	9	15	
		2	15 ~ 100	6	7	11	19	
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	15		0.13	0.47	2.71	7.42
			20~40		0.13	0.44	2.57	7.14
			50~100		0.13	0.13	0.44	2.57

# Dimensions

ZER060 1-stage: Motor: ECMA- C10604RS

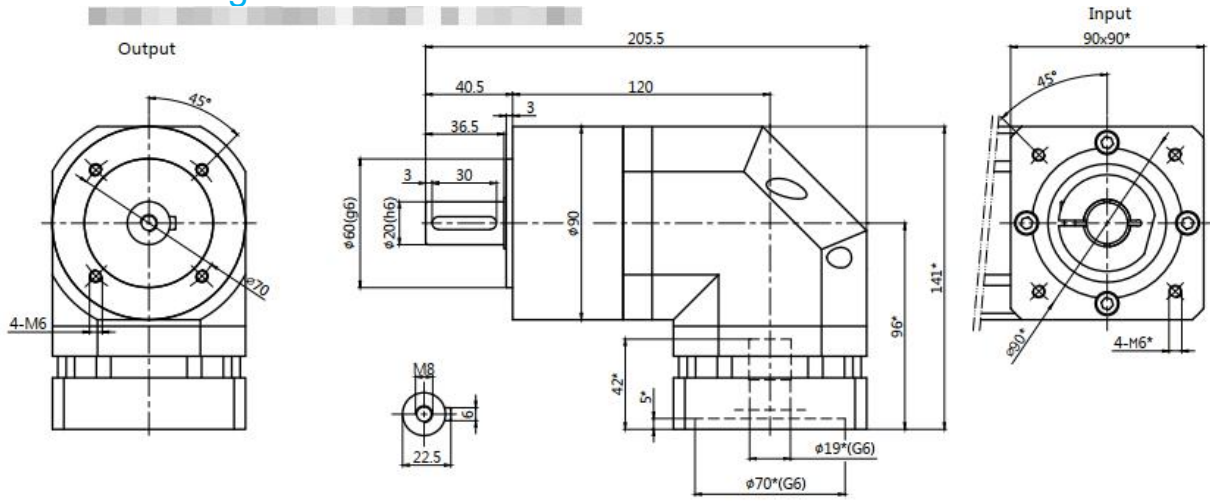


ZER060 2-stage: Motor: ECMA- C10604RS

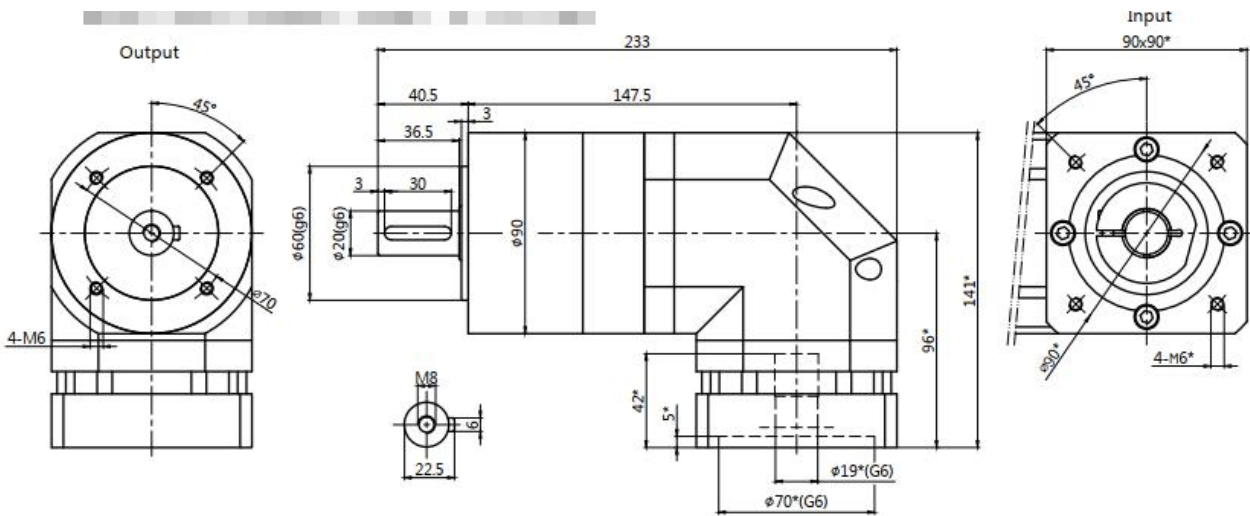


# Dimensions

ZER090 1-stage: Motor: ECMA-C10807RS

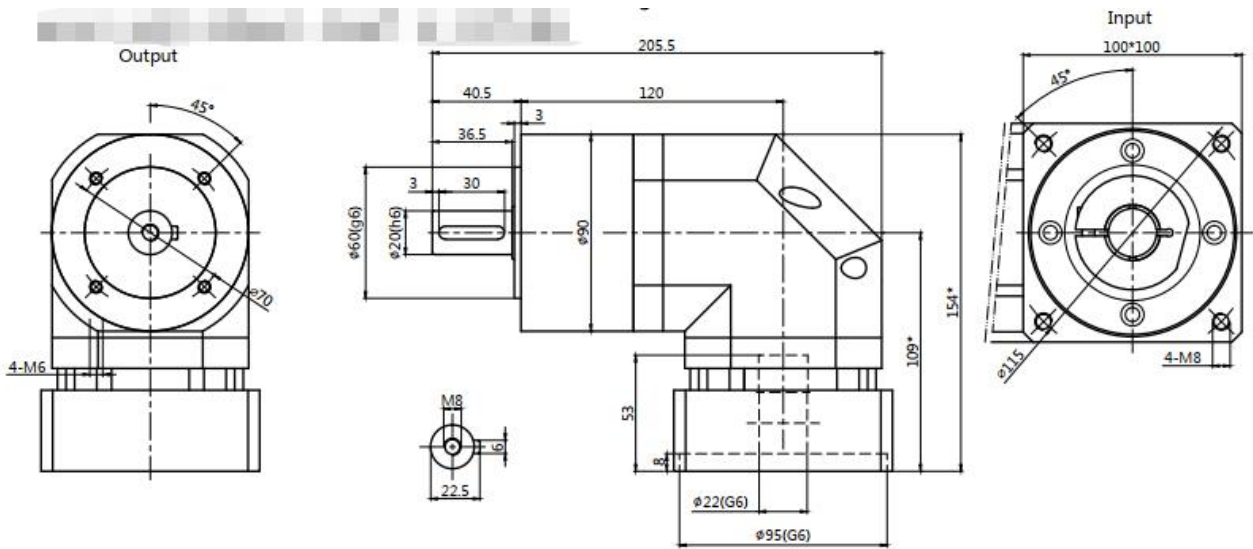


ZER090 2-stage: ECMA-C10807RS

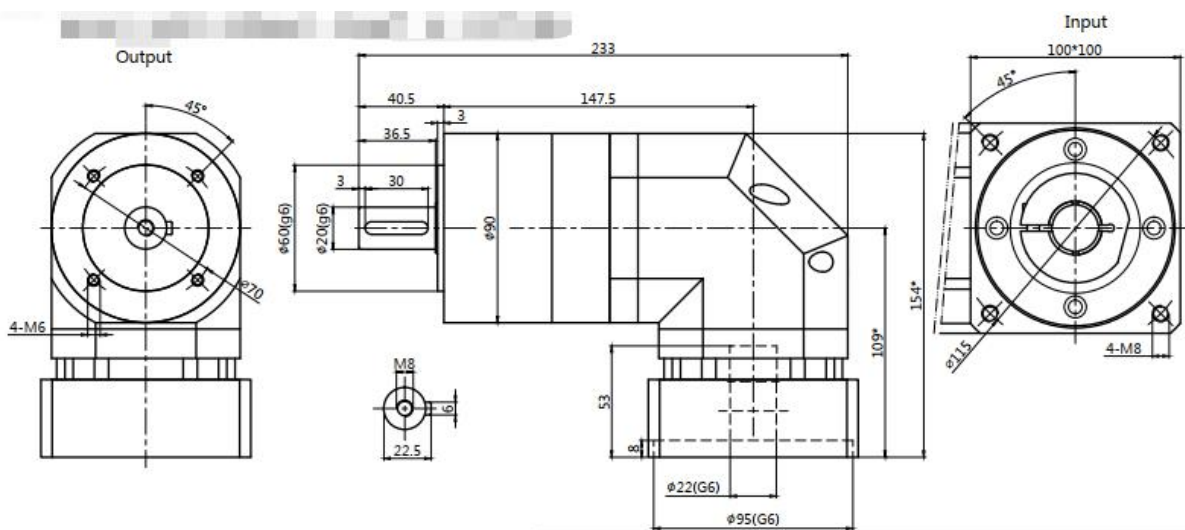


# Dimensions

ZER090 1-stage:ECMA-C11010RS :

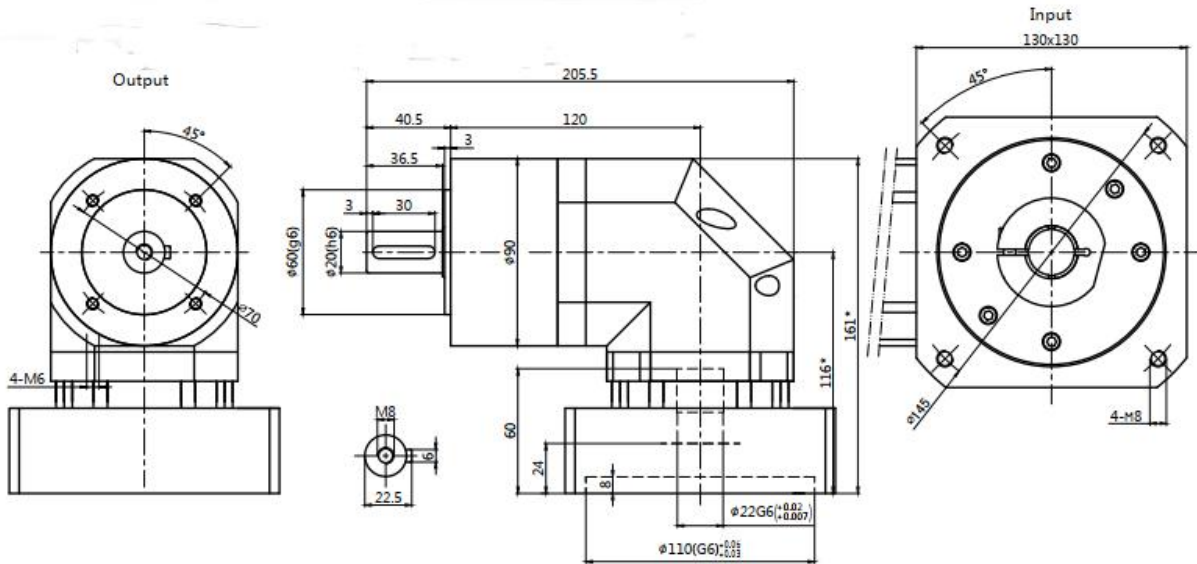


ZER090 2-stage:ECMA-C11010RS

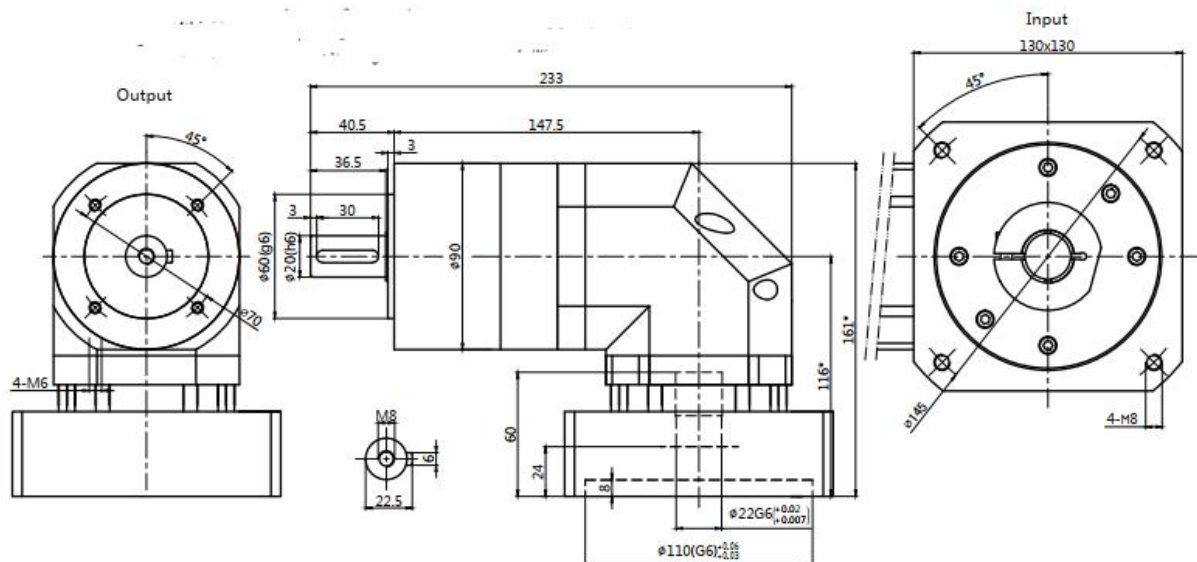


# Dimensions

ZER090 1-stage:Motor:ECMA-E11310RS, ECMA-E11315RS, ECMA-E11320RS

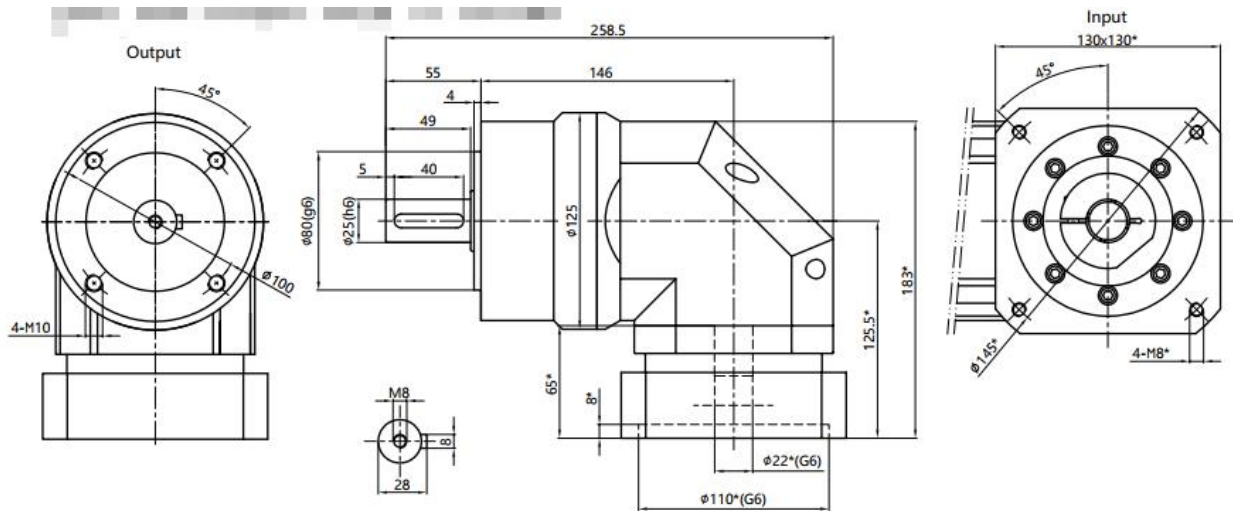


ZER090 2-stage:Motor:ECMA-E11310RS, ECMA-E11315RS, ECMA-E11320RS

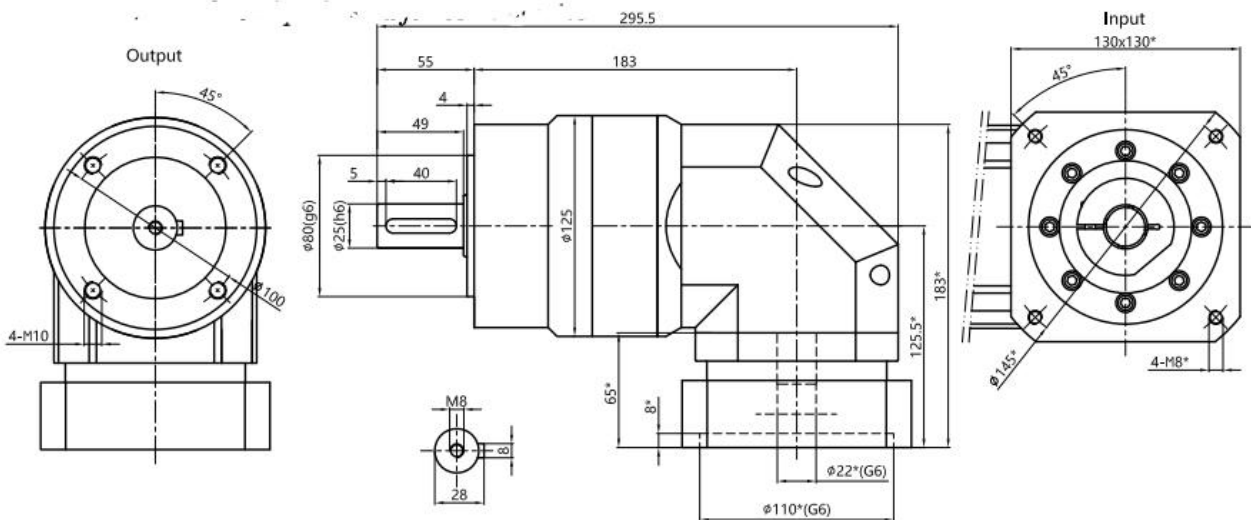


# Dimensions

ZER120 1-stage:Motor:ECMA-E11310RS, ECMA-E11315RS, ECMA-E11320RS



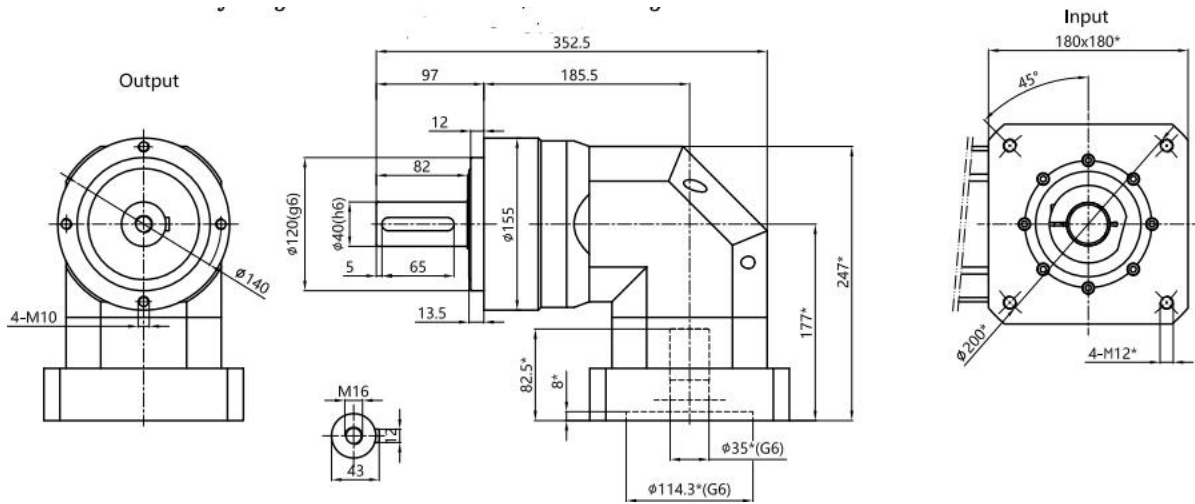
ZER120 2-stage:Motor:ECMA-E11310RS, ECMA-E11315RS, ECMA-E11320RS





# Dimensions

ZER140 1-stage:Motor:ECMA-L11830RS,



ZER140 2-stage:Motor:ECMA-L11830RS

