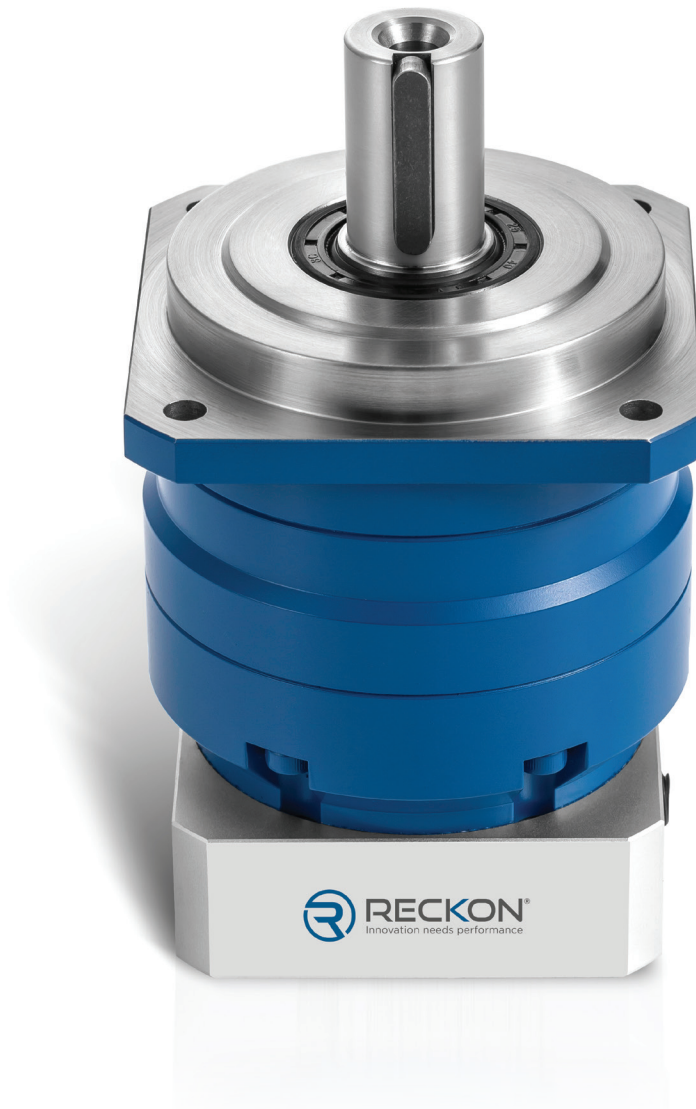


LIVELY-SQ

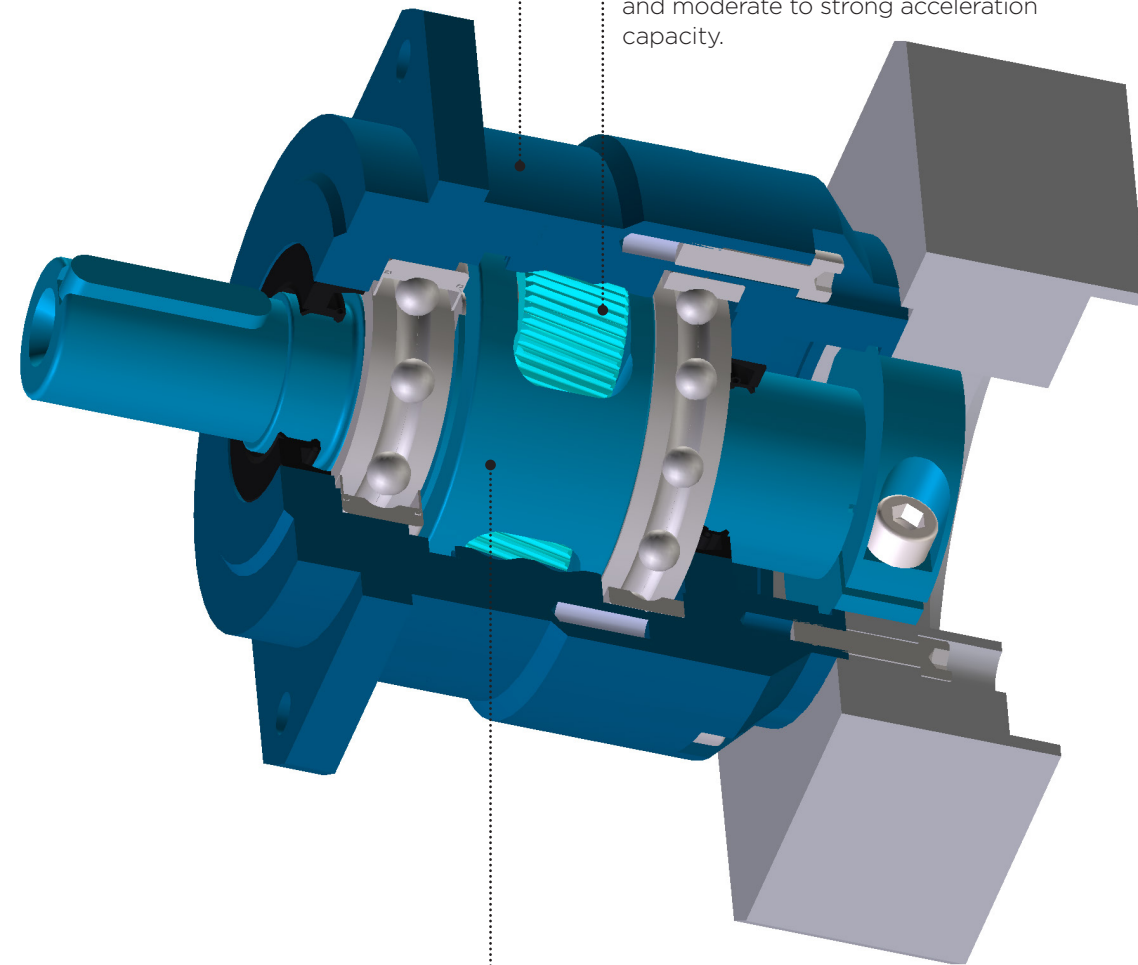


Acceleration capacity	+++
Fast reversals	+++
Radial efforts	++
Axial efforts	+
Stiffness	+++
Precision	++++
Economy	++++

LIVELY-SQ-ST_ Internal construction

Lively's ring gear is monobloc with the external housing, to provide greater rigidity and allow dynamic changes of torque and moderate reversals.

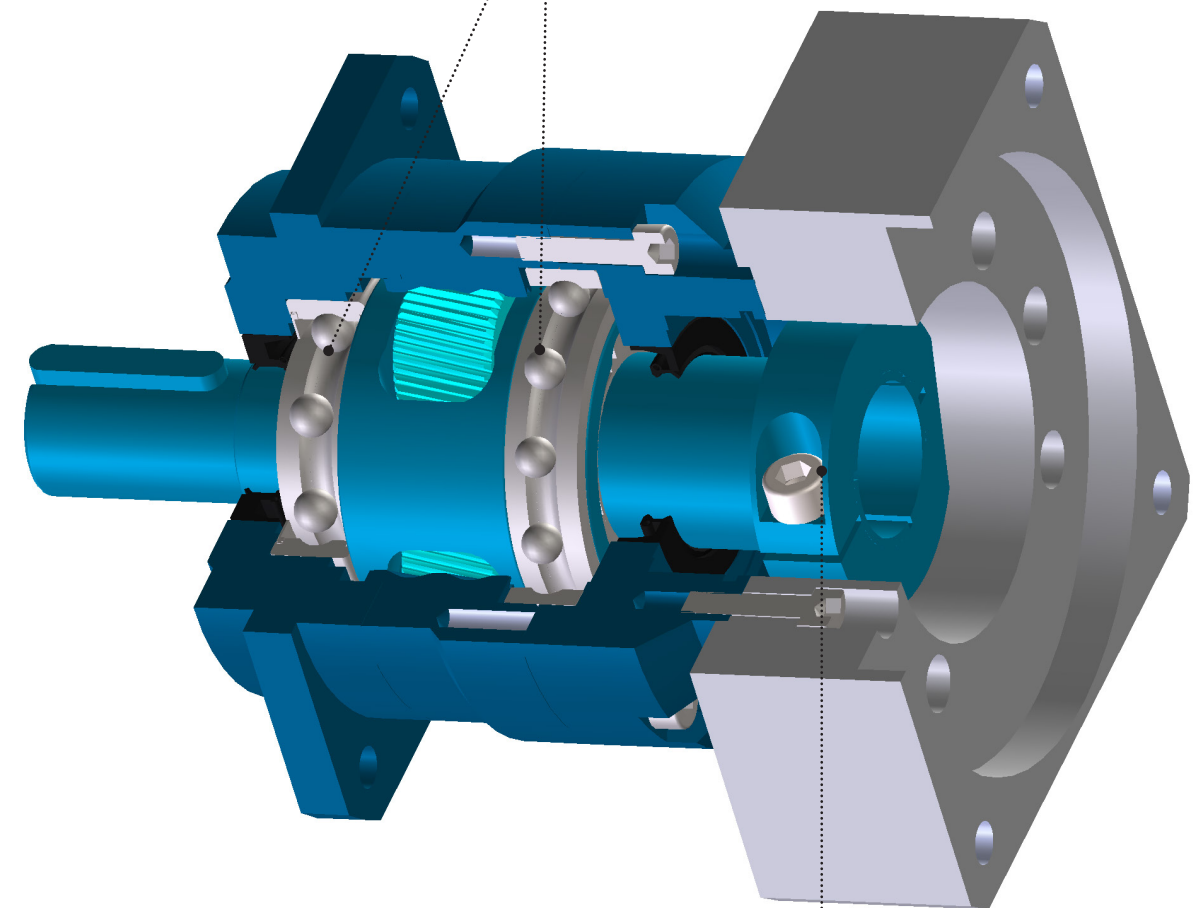
Carburized and quenched helical teeth enable quiet operation, reliability and moderate to strong acceleration capacity.



The caged planet carrier provides stiffness, reliability and acceleration capacity to the gearbox.

The caged planet carrier prevents the planets from tilting.

The planet carrier is dual-supported by radial ball bearings. This configuration guarantees the perfect alignment of gears during operation.



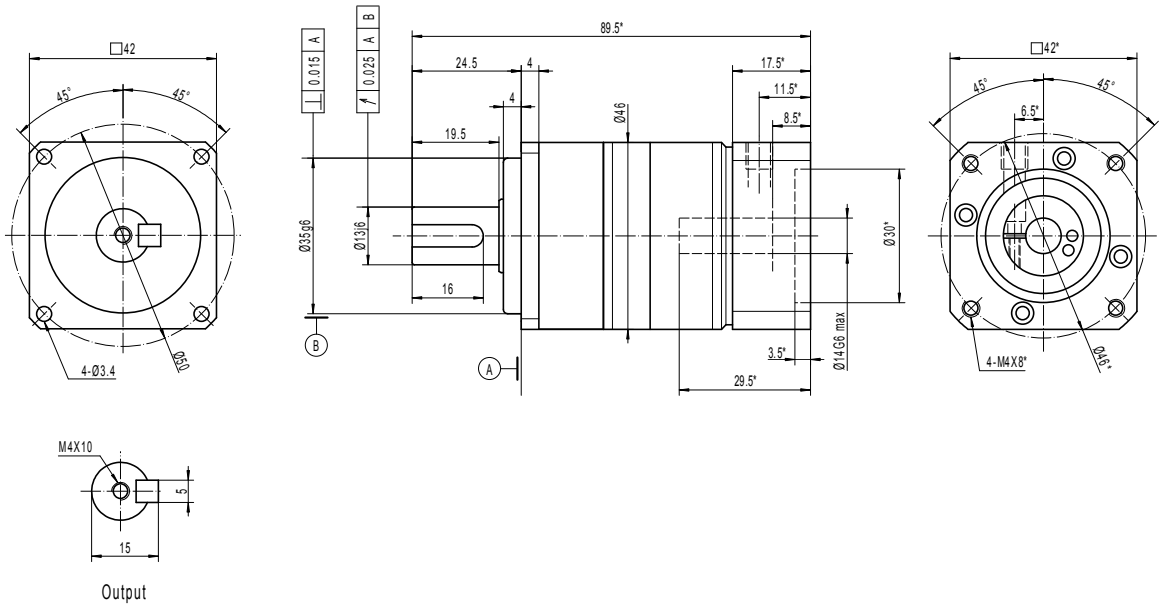
The balanced coupling limits vibration and reduces loads on your motor shaft bearings.

	Ratio**	LIVELY-SQ-ST											
		040-P*	060-P*	090-R*	090-P*	120-R*	120-P*	140-R*	140-P*	180-R*	180-P*	220-R*	220-P*
Nominal torque ¹ T _{2N} (Nm)	3	5	18	70		200		384		840		1370	
	4	8	37	129		214		407		1180		1888	
	5	11	29	100		167		438		925		1475	
	6	-	27	81		179		440		927		1480	
	7	8	24	71		178		465		983		1570	
	8	-	18	55		164		408		945		1468	
	9	-	16	47		-		353		818		1280	
	10	5	14	42		110		308		727		1140	
	12	5	18	65	70	200	200	283	384	549	840	1370	1370
	15	5	18	68	70	183	200	295	384	788	840	1370	1370
	16	8	37	86	129	214	214	377	407	732	1180	1888	1888
	20	8	37	90	129	214	214	393	407	1051	1180	1888	1888
	21	5	18	51	70	137	200	269	384	715	840	1370	1370
	25	11	29	100	100	167	167	438	438	925	925	1475	1475
	28	8	37	68	129	183	214	359	407	953	1180	1888	1888
	30	-	27	81	81	179	179	440	440	927	927	1480	1480
	35	11	29	85	100	167	167	438	438	925	925	1475	1475
	40	8	37	40	113	113	214	218	407	571	1180	1384	1888
	42	-	27	81	81	179	179	440	440	927	927	1480	1480
	49	8	24	71	71	178	178	465	465	983	983	1570	1570
	50	11	29	49	100	141	167	273	438	714	925	1475	1475
Peak torque ² T _{max} (Nm)	60	-	27	59	81	170	179	327	440	857	927	1480	1480
	70	8	24	69	71	178	178	382	465	983	983	1570	1570
	80	-	18	55	55	164	164	408	408	945	945	1468	1468
	90	-	16	47	47	-	-	353	353	818	818	1280	1280
	100	5	14	42	42	110	110	308	308	727	727	1440	1440
	3	15	55	169		378		628		1,338		2,635	
	4	14	49	160		415		810		1,786		3,515	
	5	14	40	112		300		870		1,843		2,945	
	6	-	38	114		327		815		1,770		2,700	
	7	14	38	115		279		804		1,760		2,695	
	8	-	37	111		322		765		1,670		2,550	
	9	-	36	104		-		728		1,589		2,450	
	10	13	36	107		260		715		1,580		2,445	
	12	15	55	92	169	242	378	502	628	1,096	1,338	2,635	2,635
	15	15	55	86	169	206	378	477	628	1,328	1,338	2,635	2,635
	16	14	49	122	160	322	415	669	810	1,462	1,786	3,515	3,515
	20	14	49	115	160	275	415	636	810	1,770	1,786	3,515	3,515
	21	15	55	85	169	212	378	457	628	1,230	1,338	2,635	2,635
	25	14	40	112	112	300	300	795	870	1,843	1,843	2,945	2,945
	28	14	49	113	160	282	415	609	810	1,640	1,786	3,515	3,515
	30	-	38	114	114	327	327	815	815	1,770	1,770	2,700	2,700
	35	14	40	112	112	300	300	762	870	1,843	1,843	2,945	2,945
	40	14	49	109	160	259	415	560	810	1,471	1,786	3,320	3,515
	42	-	38	114	114	327	327	815	815	1,770	1,770	2,700	2,700
	49	14	38	115	115	279	279	804	804	1,760	1,760	2,695	2,695
	50	14	40	112	112	300	300	700	870	1,839	1,843	2,945	2,945
	60	-	38	114	114	327	327	815	815	1,770	1,770	2,700	2,700
	70	14	38	115	115	279	279	804	804	1,760	1,760	2,695	2,695
	80	-	37	111	111	322	322	765	765	1,670	1,670	2,550	2,550
	90	-	36	104	104	-	-	728	728	1,589	1,589	2,450	2,450
	100	13	36	107	107	260	260	715	715	1,580	1,580	2,445	2,445
Emergency stop torque (Nm) ³		1,5 x T _{max}											
Max angular backlash (minutes)	1 stage 2 stages	Standard : ≤5 ; Option : ≤3		Standard : ≤3 ; Option : ≤1 Standard : ≤5 ; Option : ≤3									
Nominal input speed (rpm) ⁴		4,000	4,000	3,100	2,800	2,600	2,300	2,000					
Max input speed (rpm) ⁵		8,000	7,500	6,000	5,500	5,500	4,500	3,000					
Max radial load (N) ⁶		700	1,100	2,200	3,600	9,500	14,500	20,500					
Max axial load (N) ⁶		610	900	1,950	3,000	8,300	13,500	19,000					
Efficiency (%) ⁷	1 stage 2 stages	≥97 ≥94											
Torsional stiffness (Nm/min)		3	7	14	33	63	180	410					
Life (h) ⁸		20,000											
Min / max ambient temperature ⁹		-15 / +45											
Max temperature of the body (°C)		90											
Protection class		IP 65											
Noise level (dB) ¹⁰		≤59	≤61	≤63	≤64	≤66	≤68	≤71					
Lubrication		Lifetime lubrication (grease)											
Coating color		Capri blue (RAL 5019)											
Input flange		Anodized aluminum											

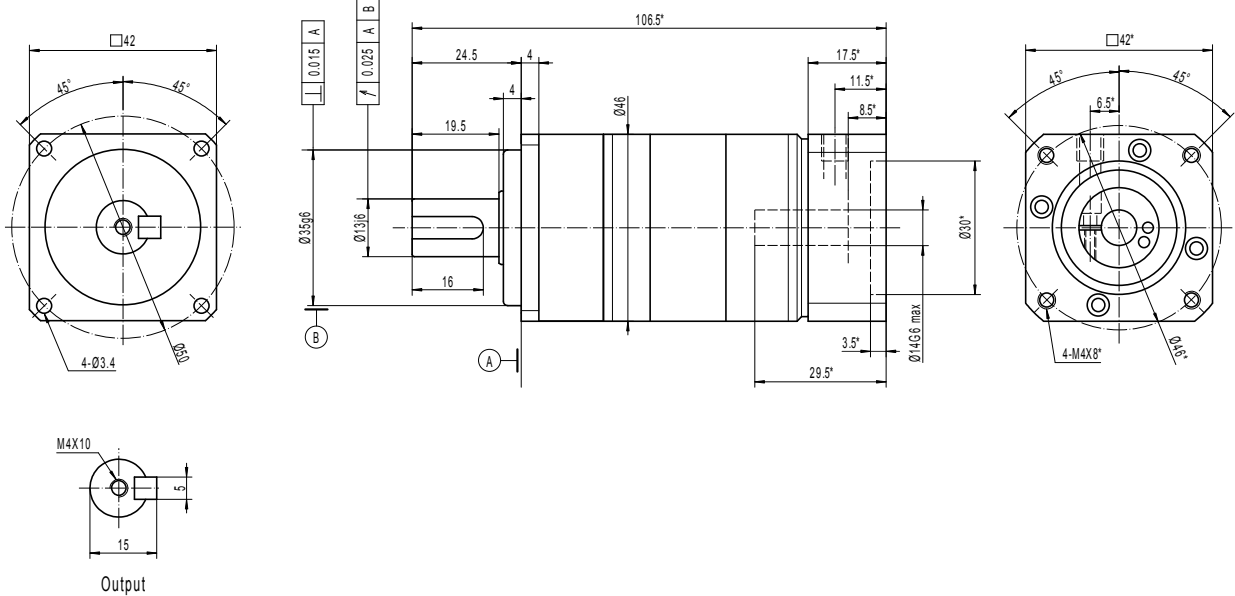
* 2 stage-gearboxes, can be equipped with a light, space-saving, low inertia input stage (R) or with a larger input stage (P), offering more power (as a paying option).
** Others ratios are available upon request.

1: Calculation based on the ISO 6336-2 standard (life = 20,000 h, speed = nominal speed, internal temperature = 60°C, Application Factor = 1,25).
Using max 10% of the max radial load. Torque capacity decreases when the radial load increases. Please refer to the website for more information.
2: Calculation based on the ISO 6336-2 standard (life = 2,000 h, speed = nominal speed, internal temperature = 60°C, Safety Factor = 1,4).
This rating will not provide a 2 000 hours life if used at max speed. Contact us to get an estimation of the product lifetime in your application.
Using a torque higher than the rated torque may affect the gearbox precision.
3: 1 000 occurrences maximum.
4: Speed at which the nominal torque is applicable 20,000 hours.
5: Peak speed only.
6: Applied at the middle of the output shaft at 100 rpm.
7: Measured at full load and at 25°C
8: Lifetime at nominal torque and speed. Consult us to obtain a free estimation of lifetime in your working conditions
9: Room temperature. Refer to temperature factors in dedicated section.
10: Ratio 10 at nominal speed, measured at 1m.

LIVELY-SQ-ST-040-1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT ≤ Ø14

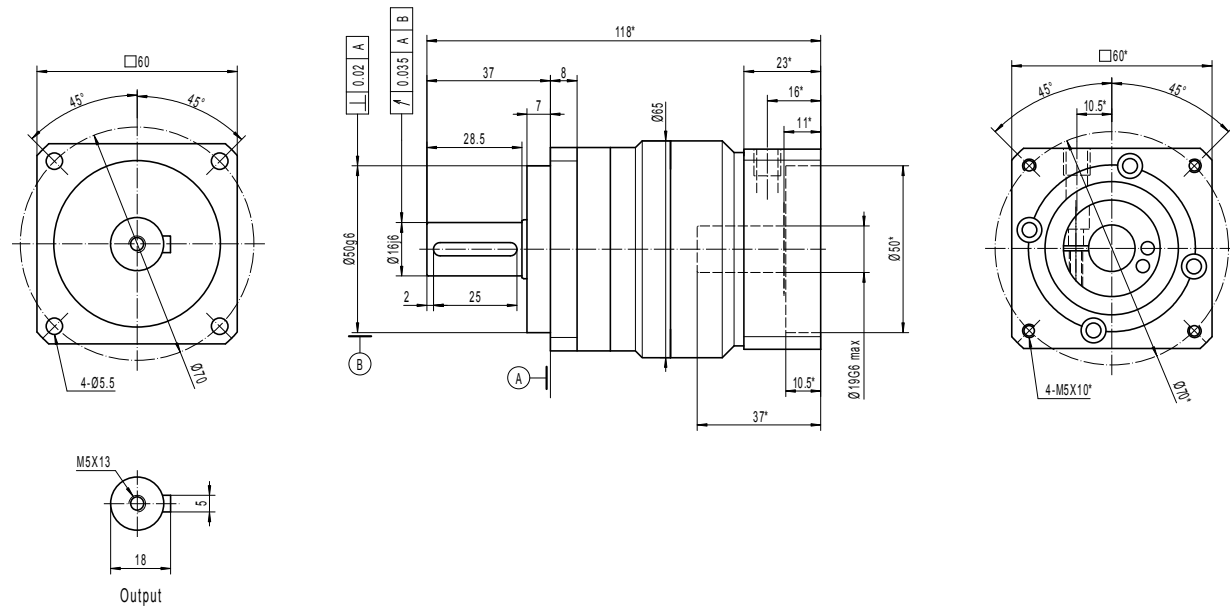


LIVELY-SQ-ST-040- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT ≤ Ø14

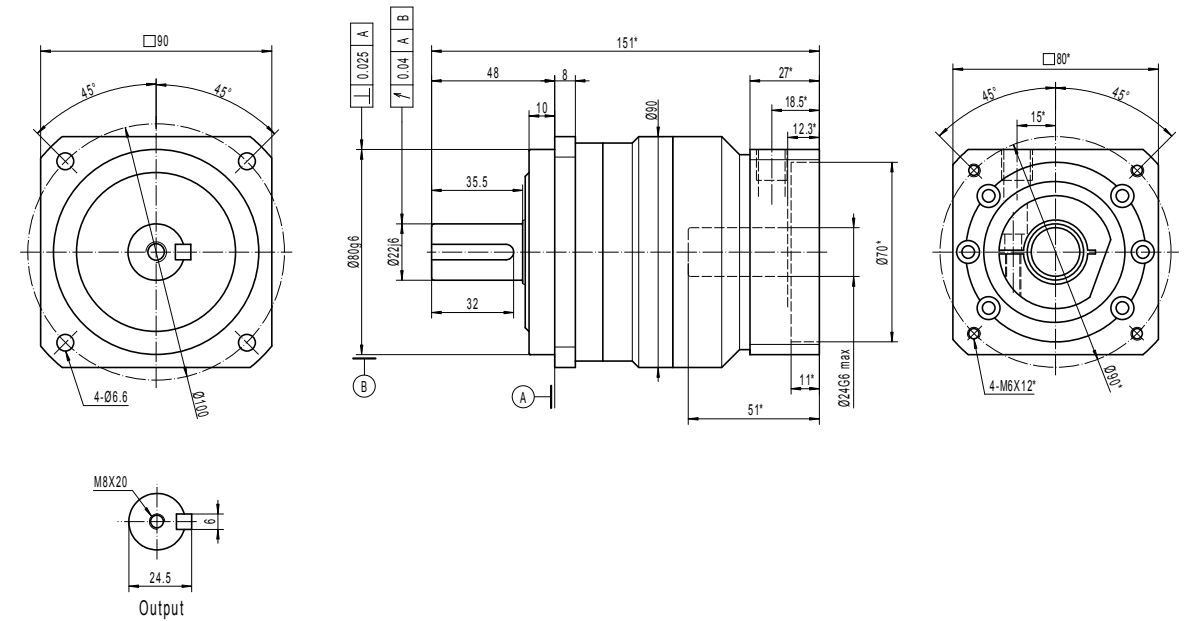


*VARIES WITH YOUR MOTOR DIMENSIONS

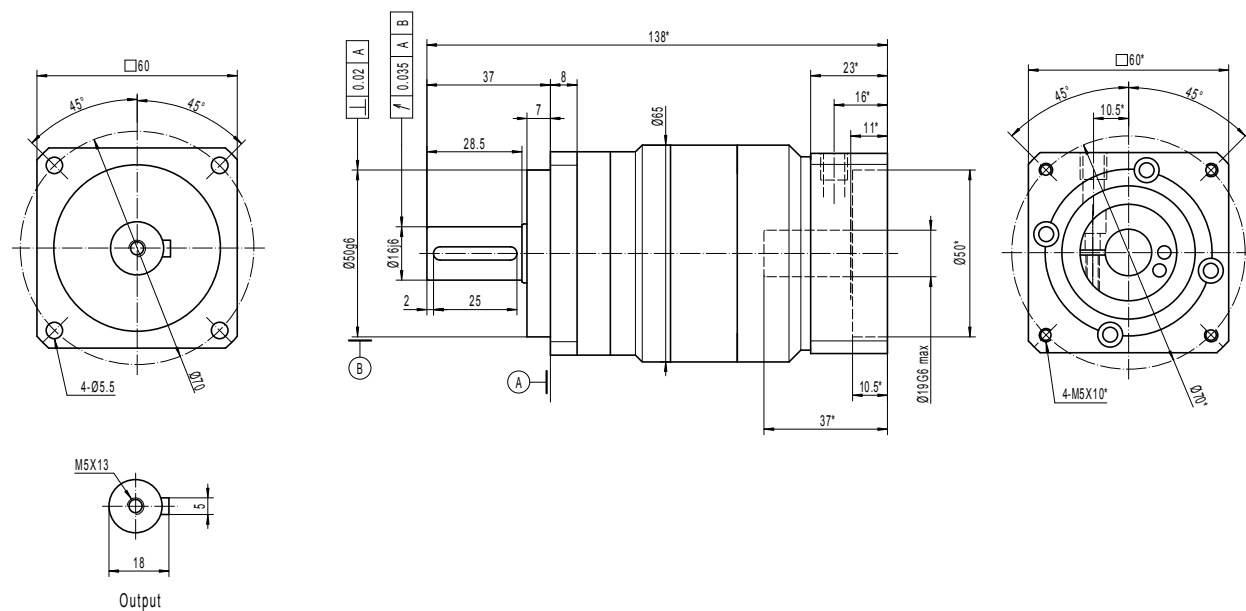
LIVELY-SQ-ST-060-1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 19$



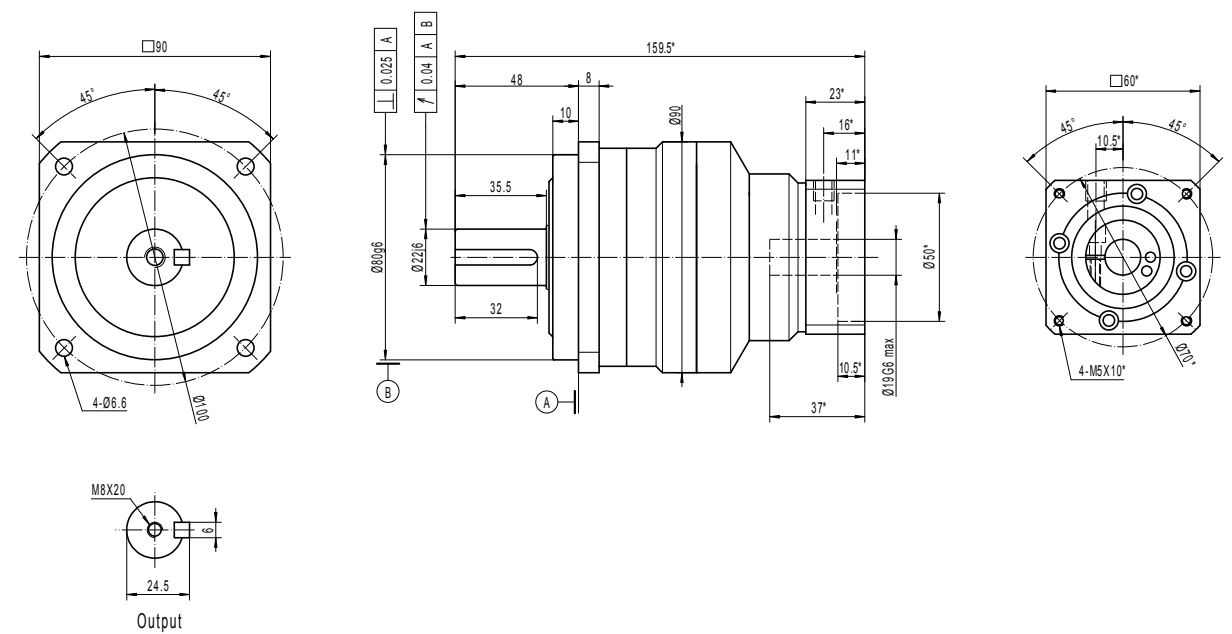
LIVELY-SQ-ST-090-1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 24$



LIVELY-SQ-ST-060-2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 19$



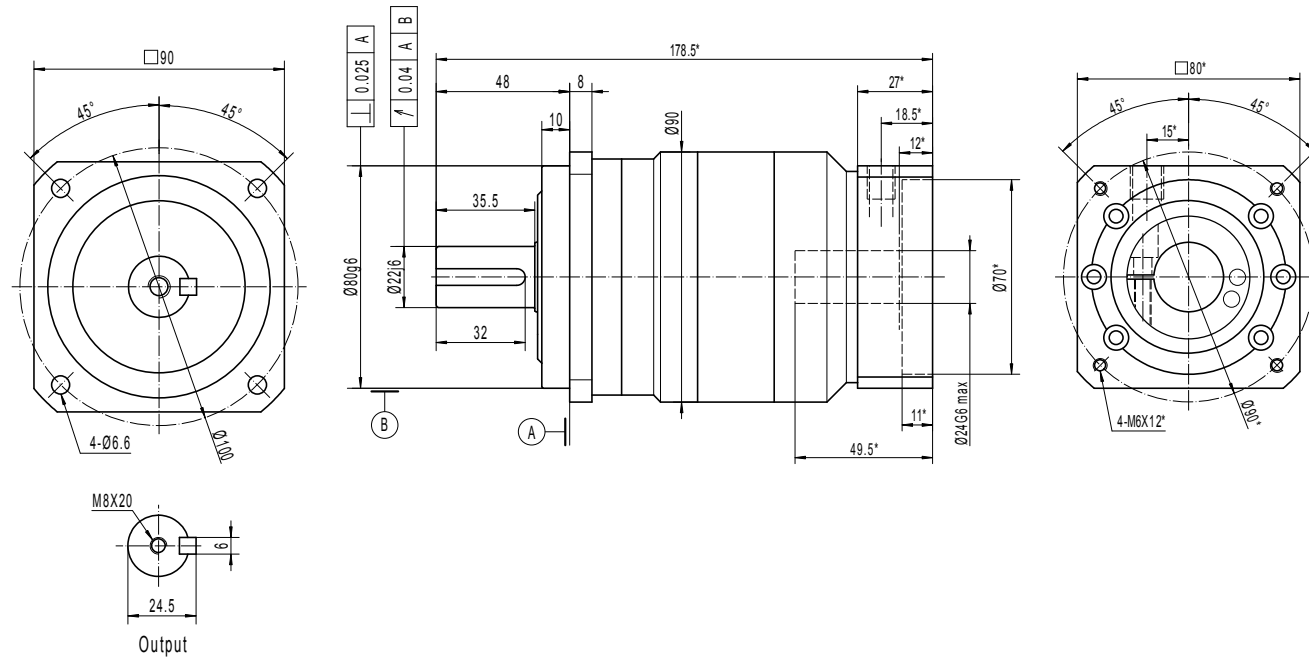
LIVELY-SQ-ST-090-2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 19$



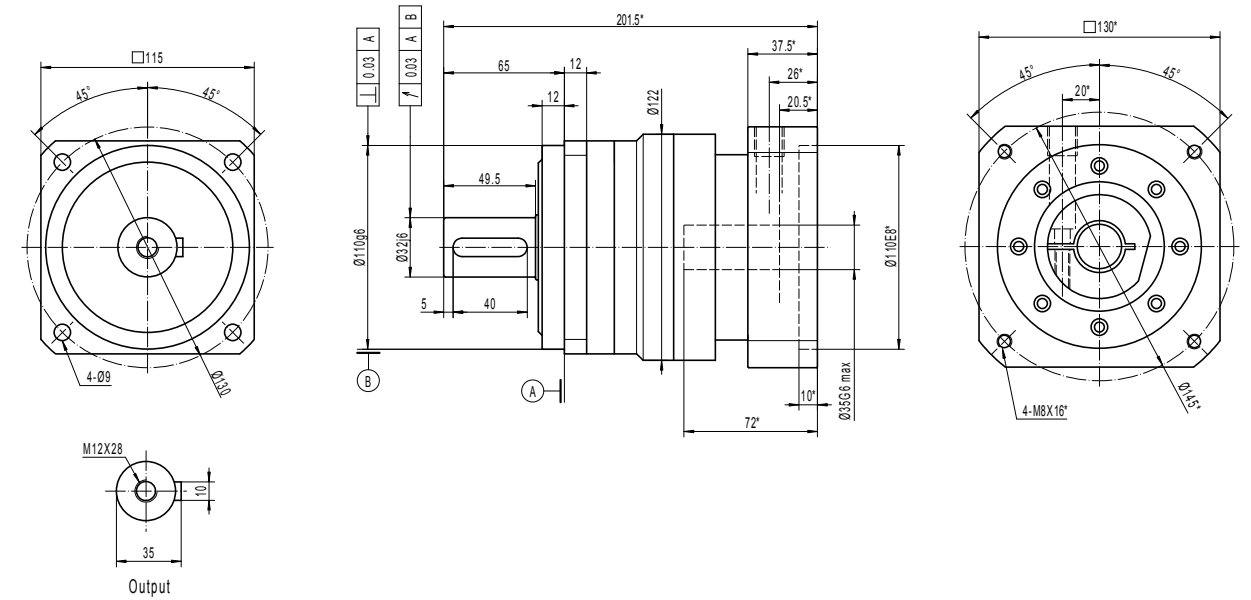
*VARIES WITH YOUR MOTOR DIMENSIONS

*VARIES WITH YOUR MOTOR DIMENSIONS

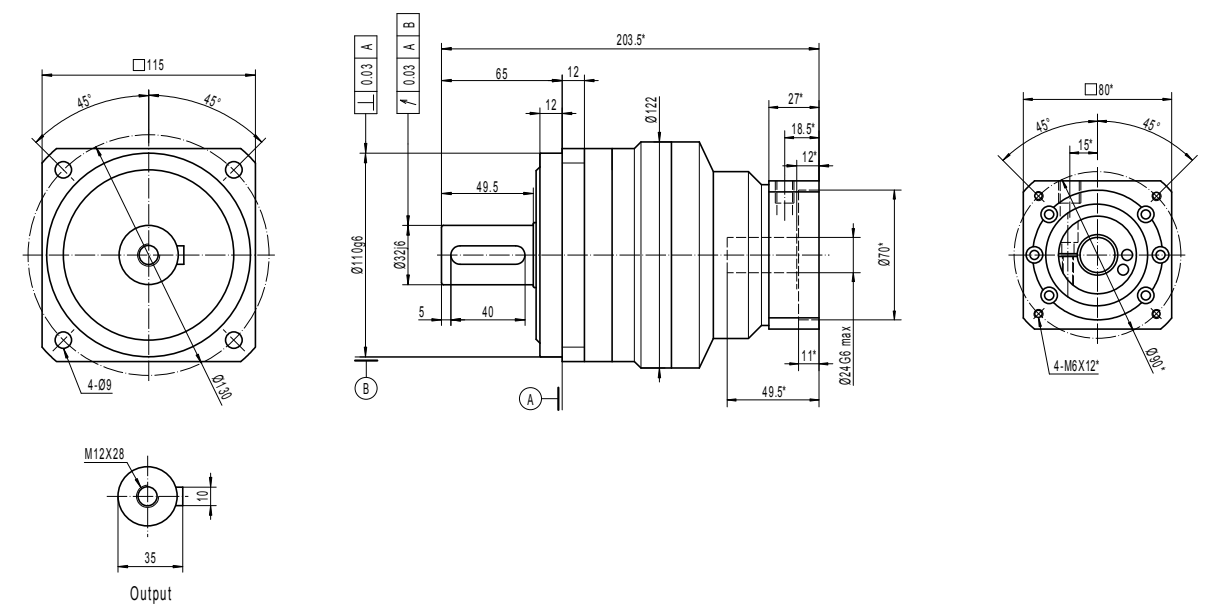
LIVELY-SQ-ST-090- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 24$



LIVELY-SQ-ST-120- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 35$



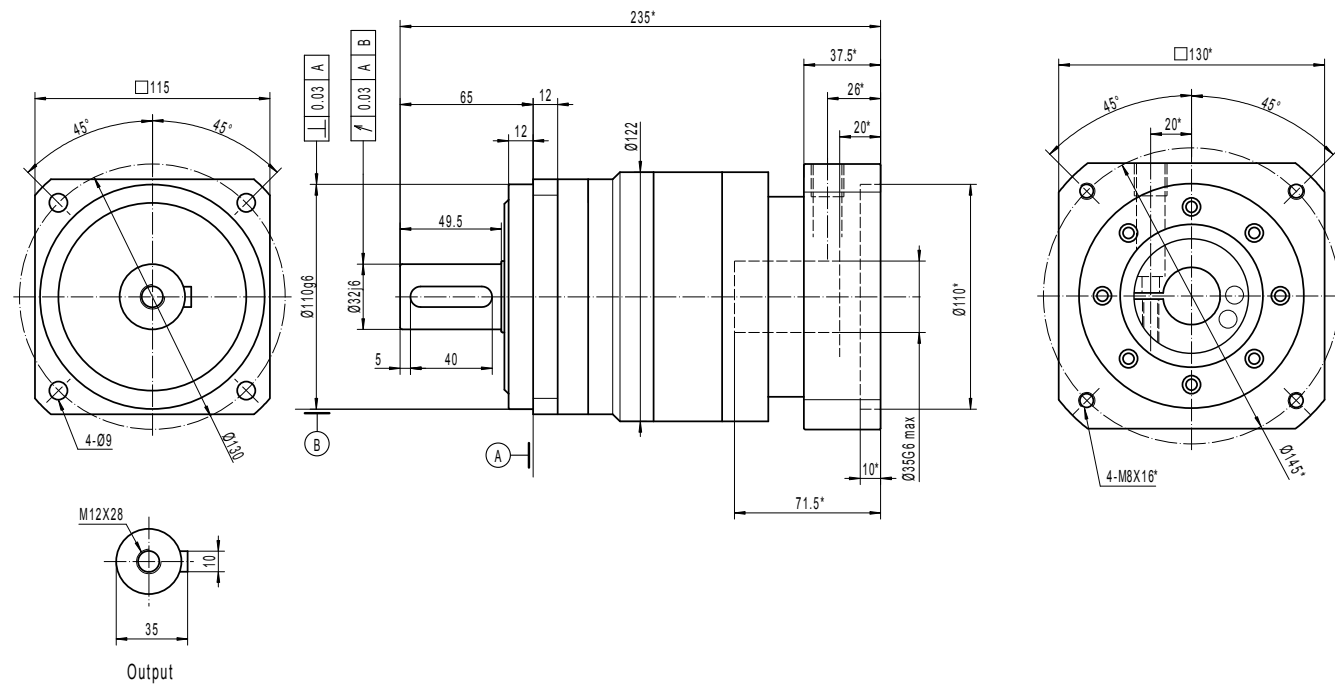
LIVELY-SQ-ST-120- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 24$



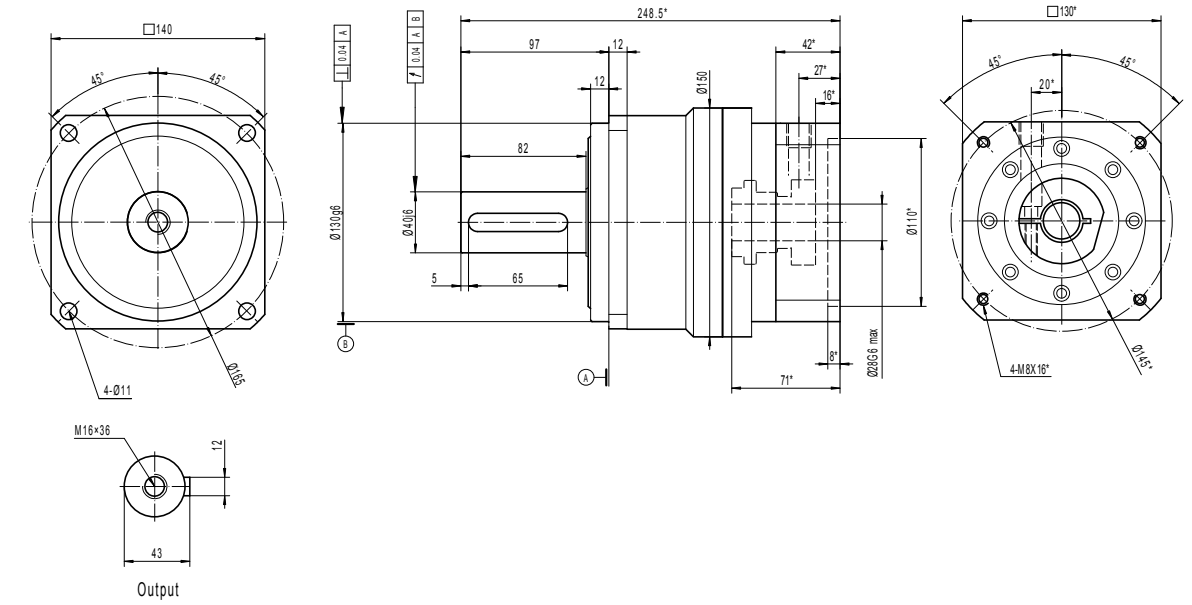
*VARIES WITH YOUR MOTOR DIMENSIONS

*VARIES WITH YOUR MOTOR DIMENSIONS

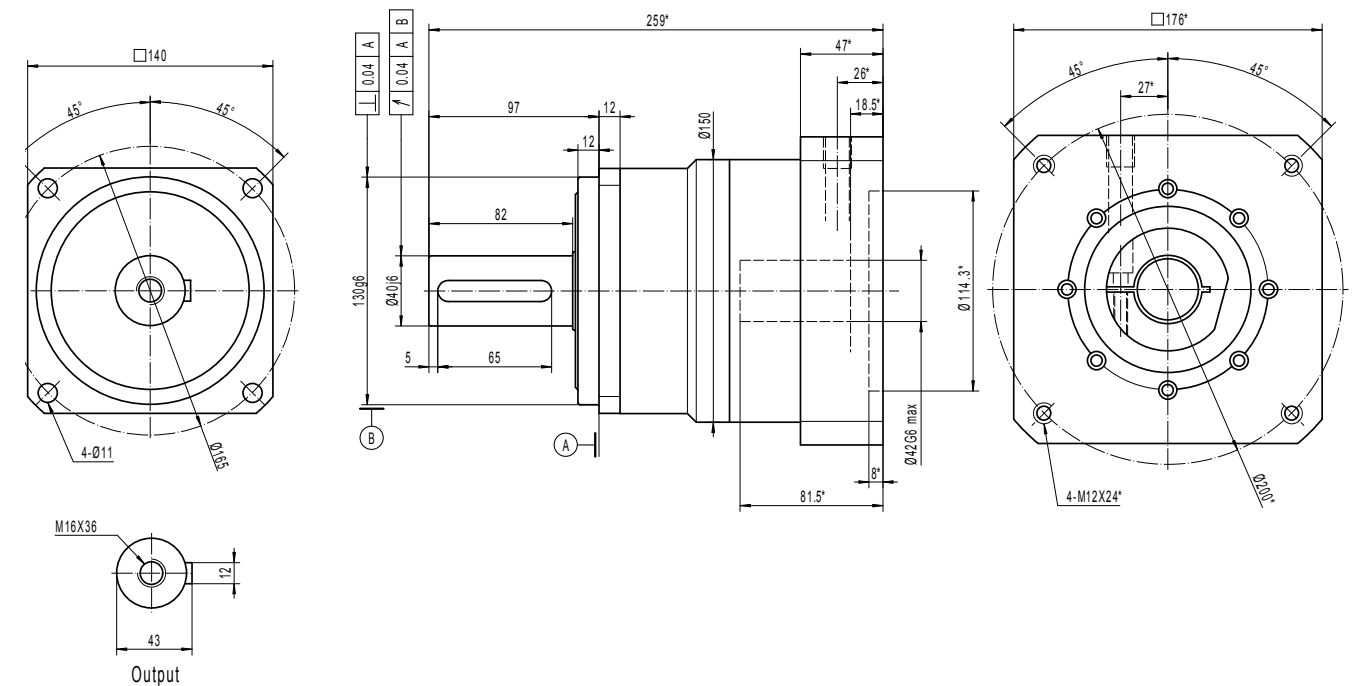
LIVELY-SQ-ST-120- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 35$



LIVELY-SQ-ST-140- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 28$



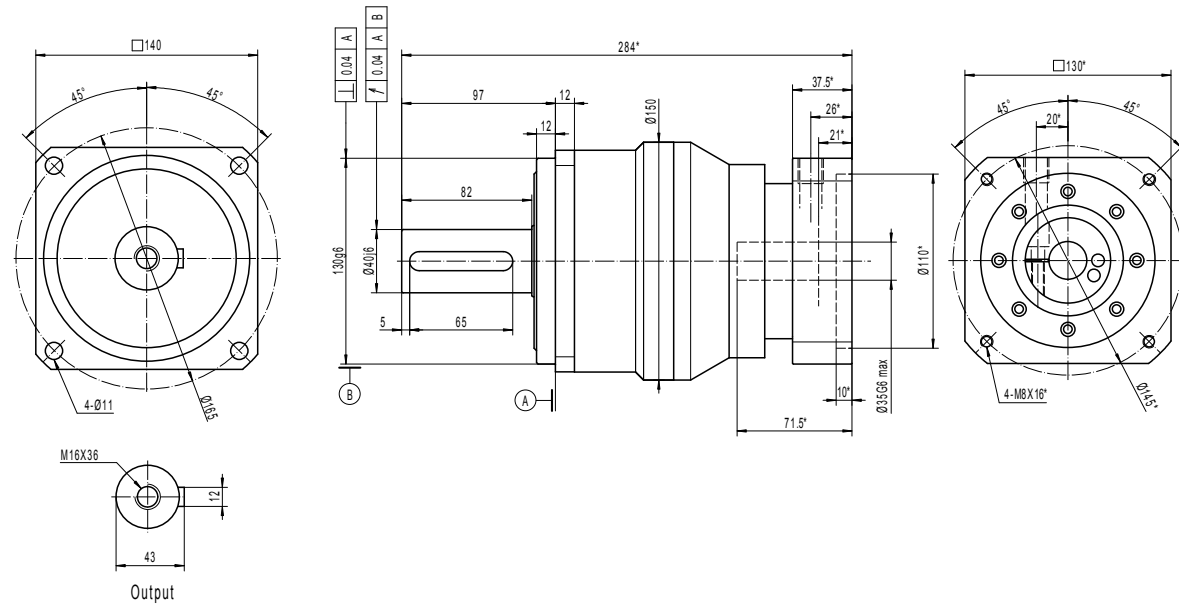
LIVELY-SQ-ST-140- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 42$



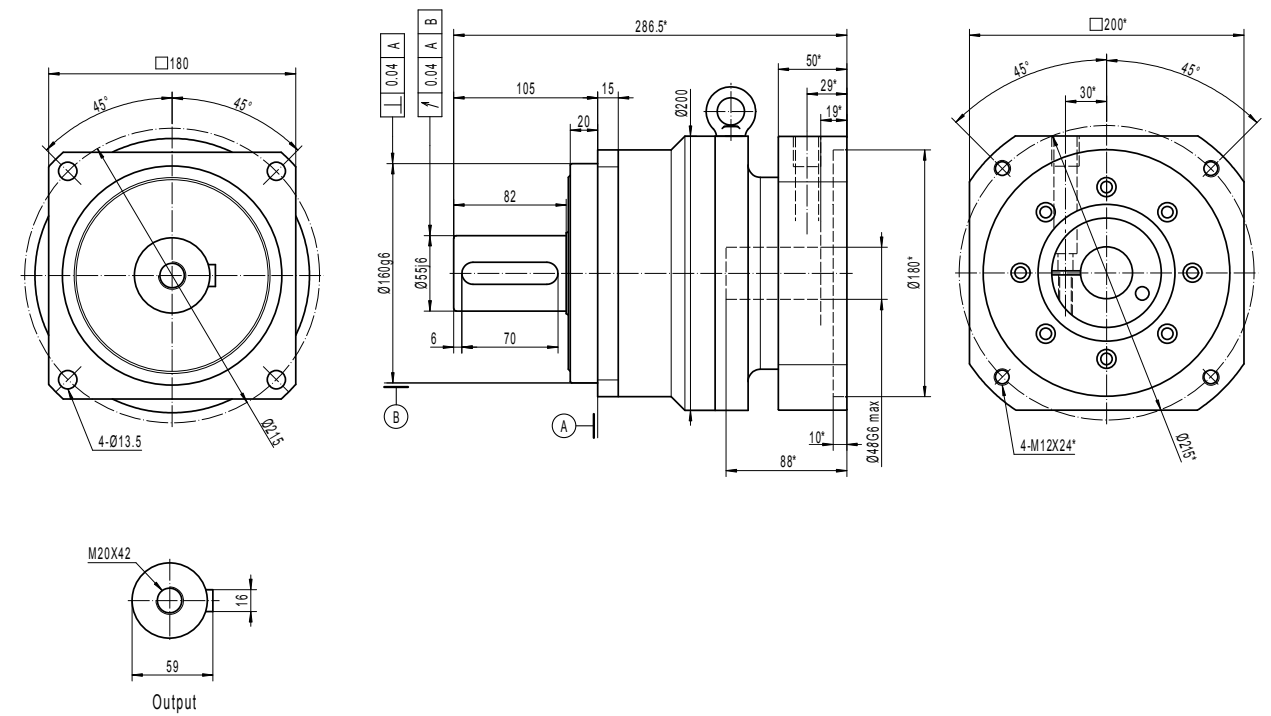
*VARIES WITH YOUR MOTOR DIMENSIONS

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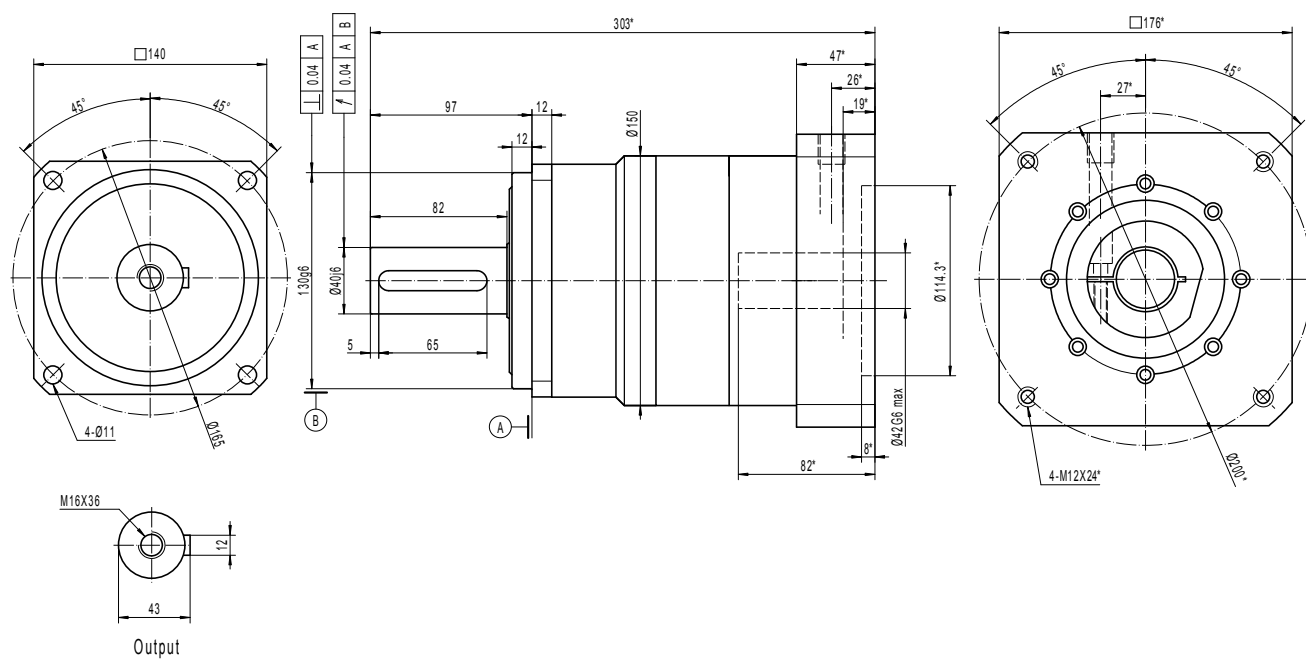
LIVELY-SQ-ST-140- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 35$



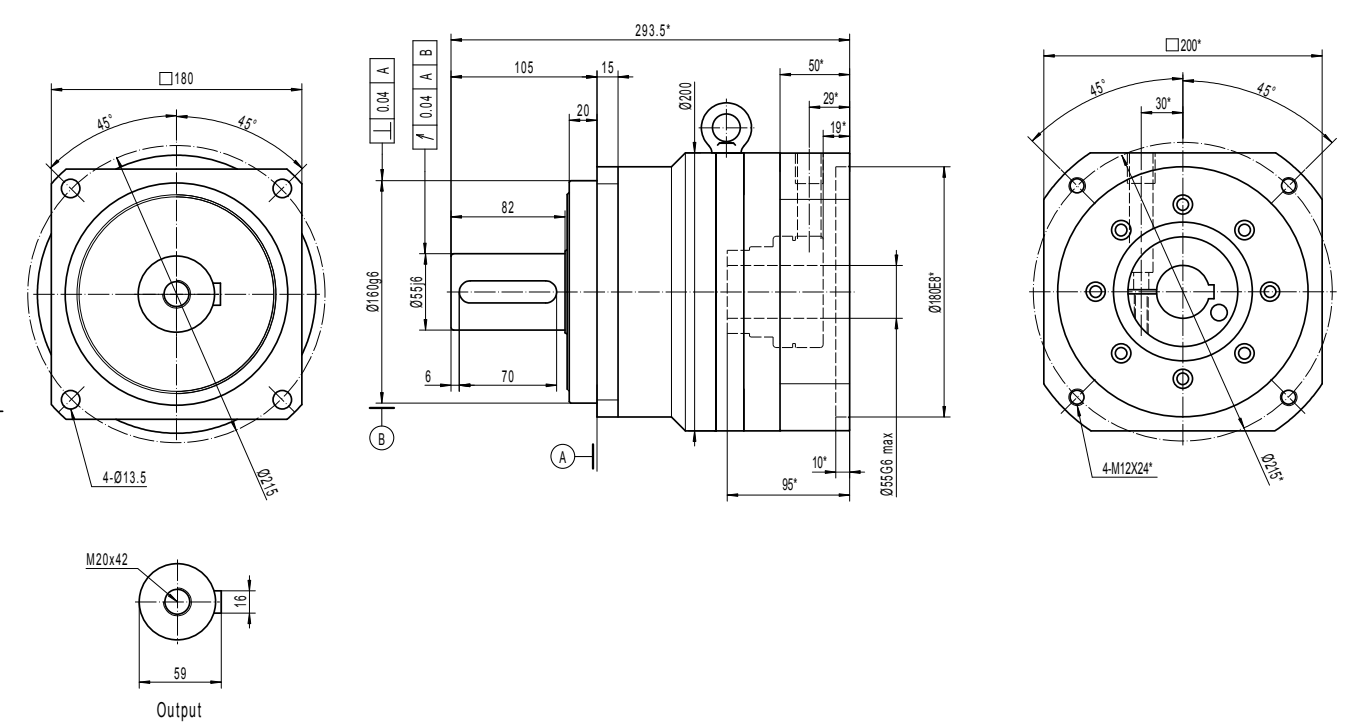
LIVELY-SQ-ST-180- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 48$



LIVELY-SQ-ST-140- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 42$



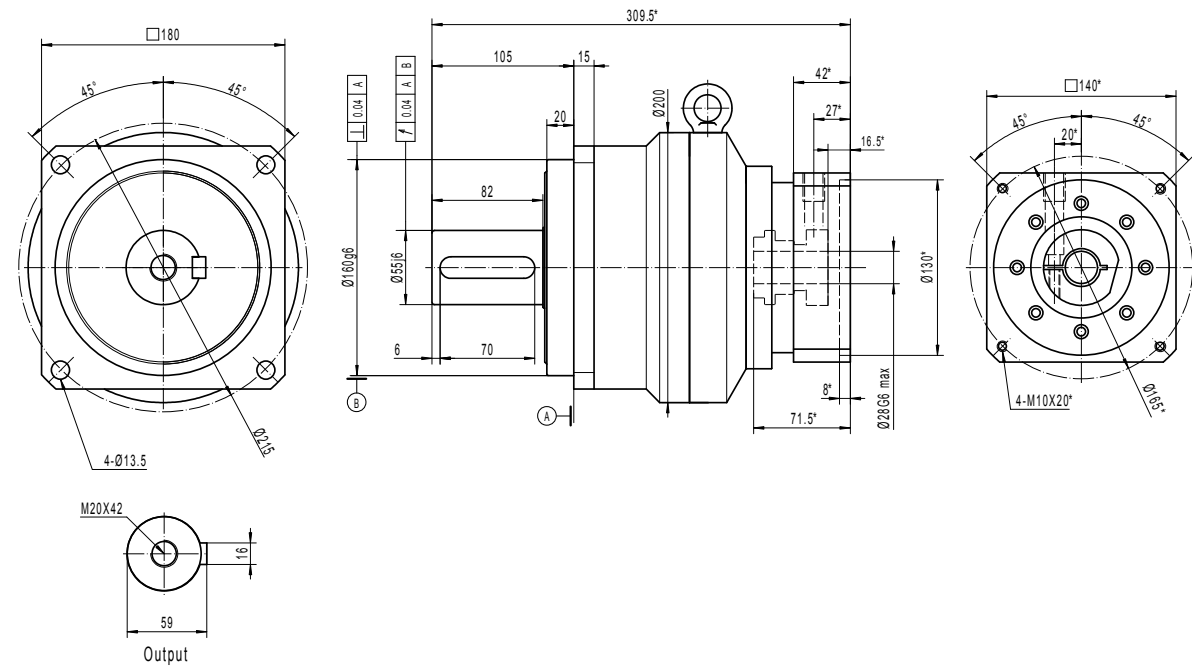
LIVELY-SQ-ST-180- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 55$



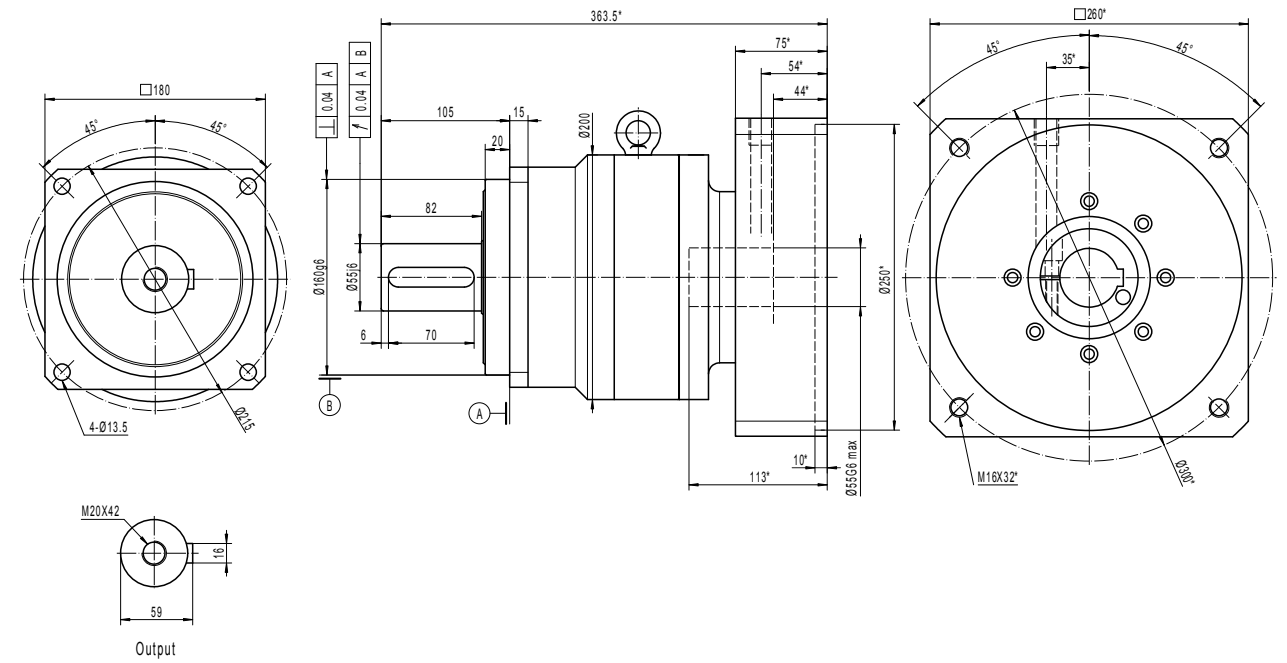
*VARIES WITH YOUR MOTOR DIMENSIONS

*VARIES WITH YOUR MOTOR DIMENSIONS

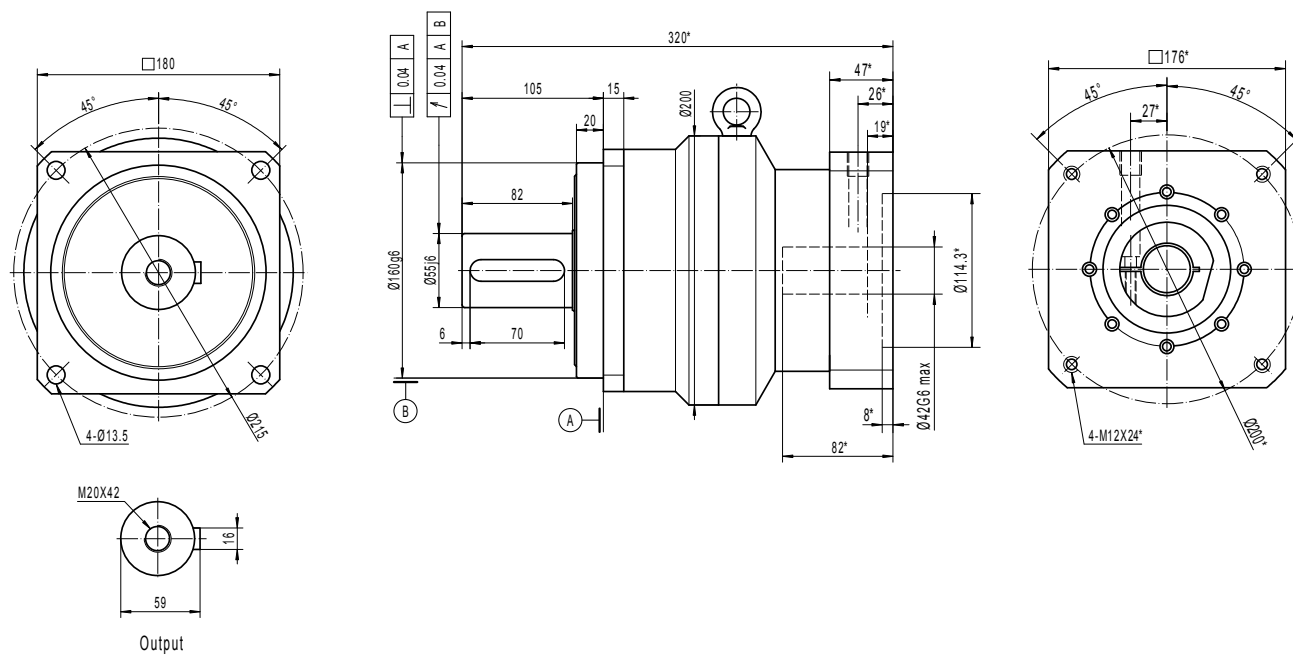
LIVELY-SQ-ST-180- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 28$



LIVELY-SQ-ST-180- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 55$



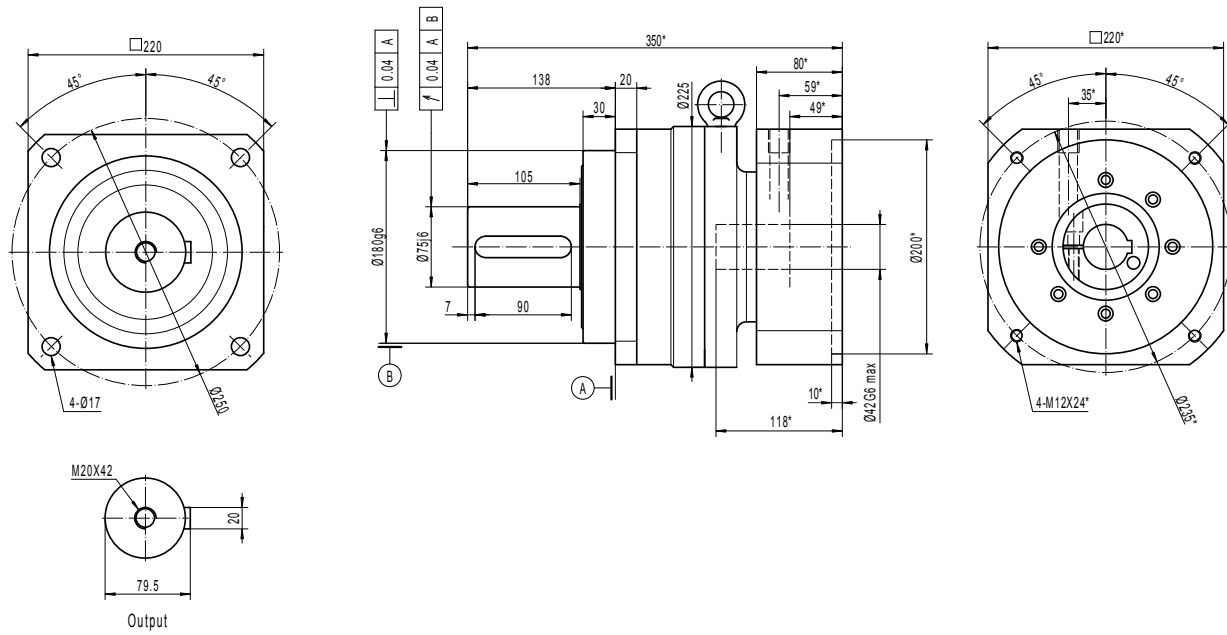
LIVELY-SQ-ST-180- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 42$



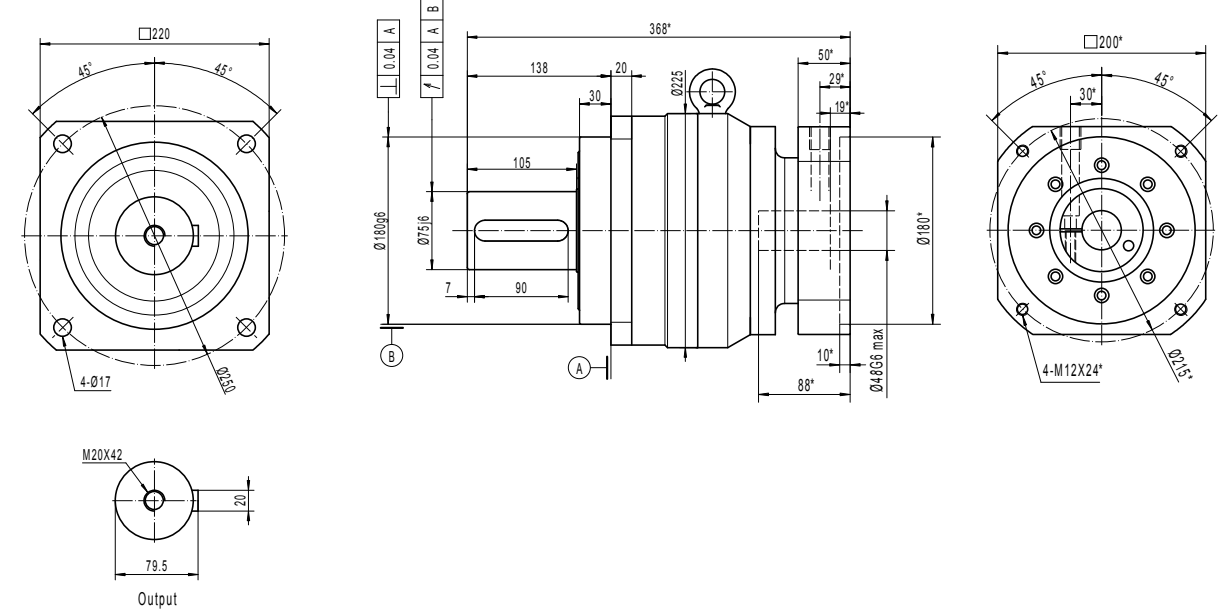
*VARIES WITH YOUR MOTOR DIMENSIONS

*VARIES WITH YOUR MOTOR DIMENSIONS

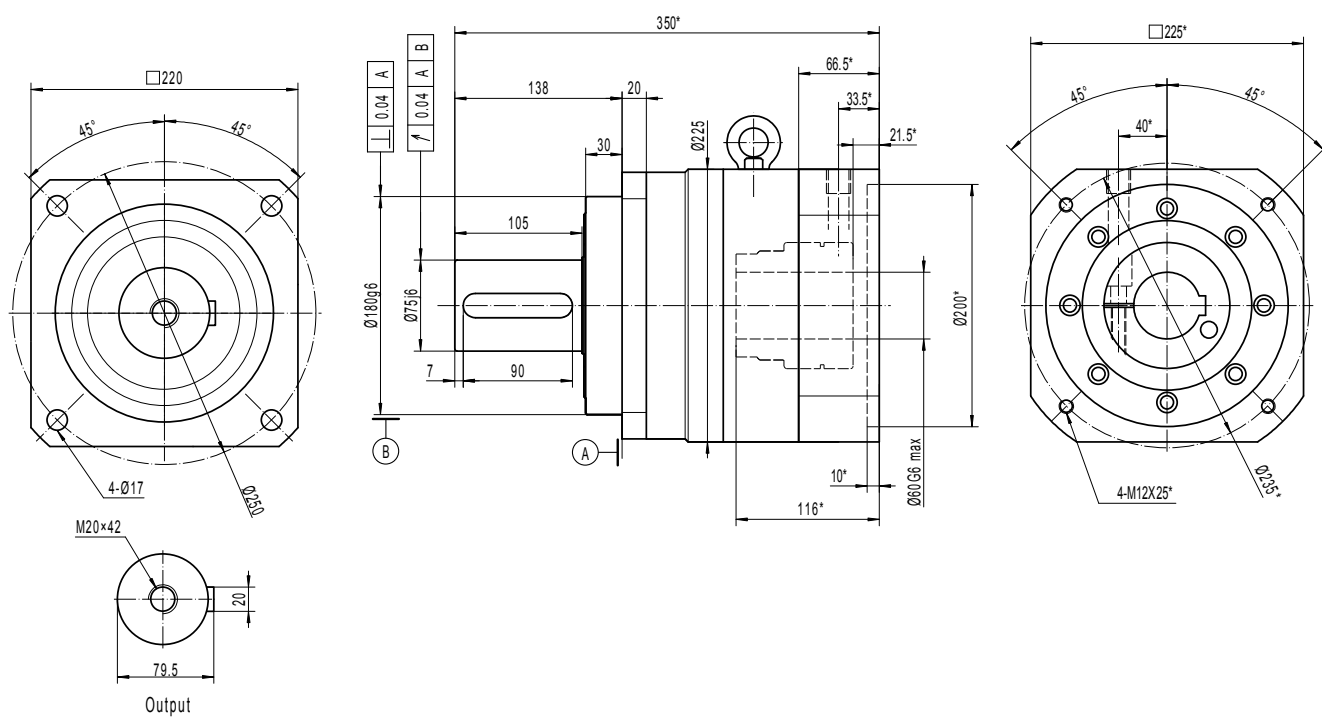
LIVELY-SQ-ST-220- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 42$



LIVELY-SQ-ST-220- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 48$

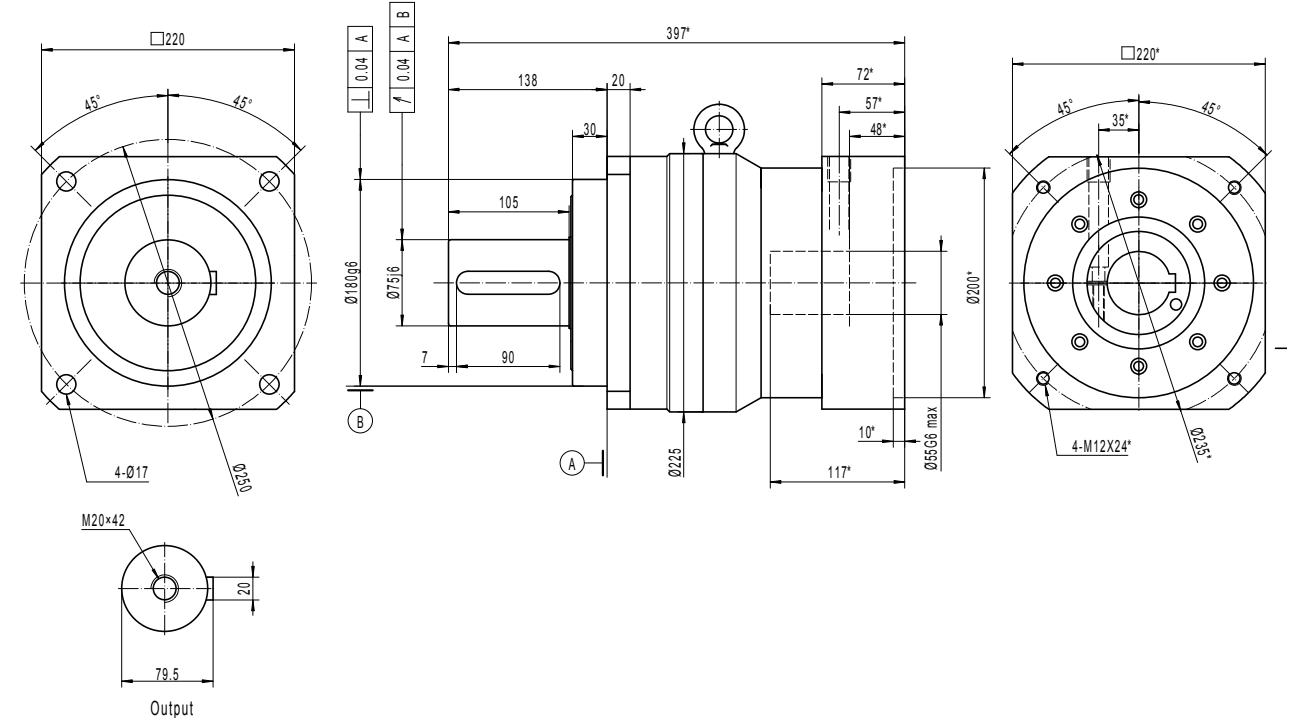


LIVELY-SQ-ST-220- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 60$



*VARIES WITH YOUR MOTOR DIMENSIONS

LIVELY-SQ-ST-220- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 55$



*VARIES WITH YOUR MOTOR DIMENSIONS

*VARIES WITH YOUR MOTOR DIMENSIONS

