

## Servo Planetary Gearbox

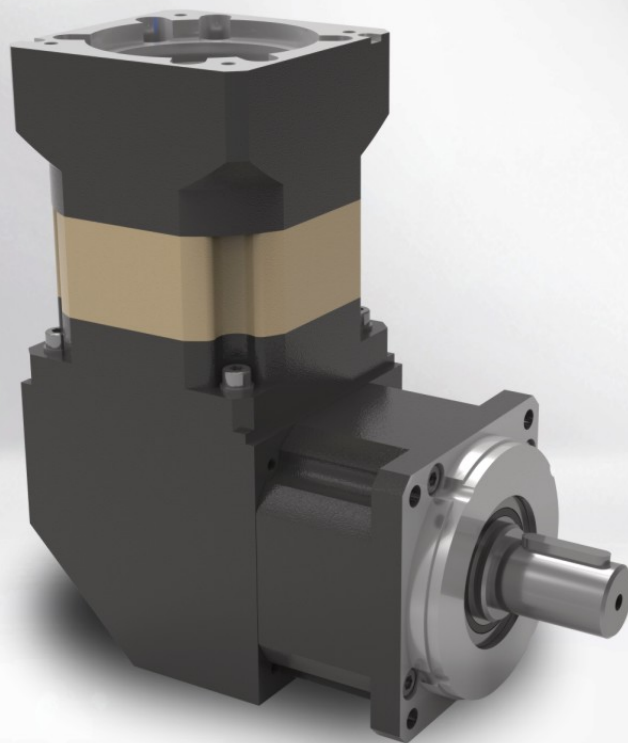


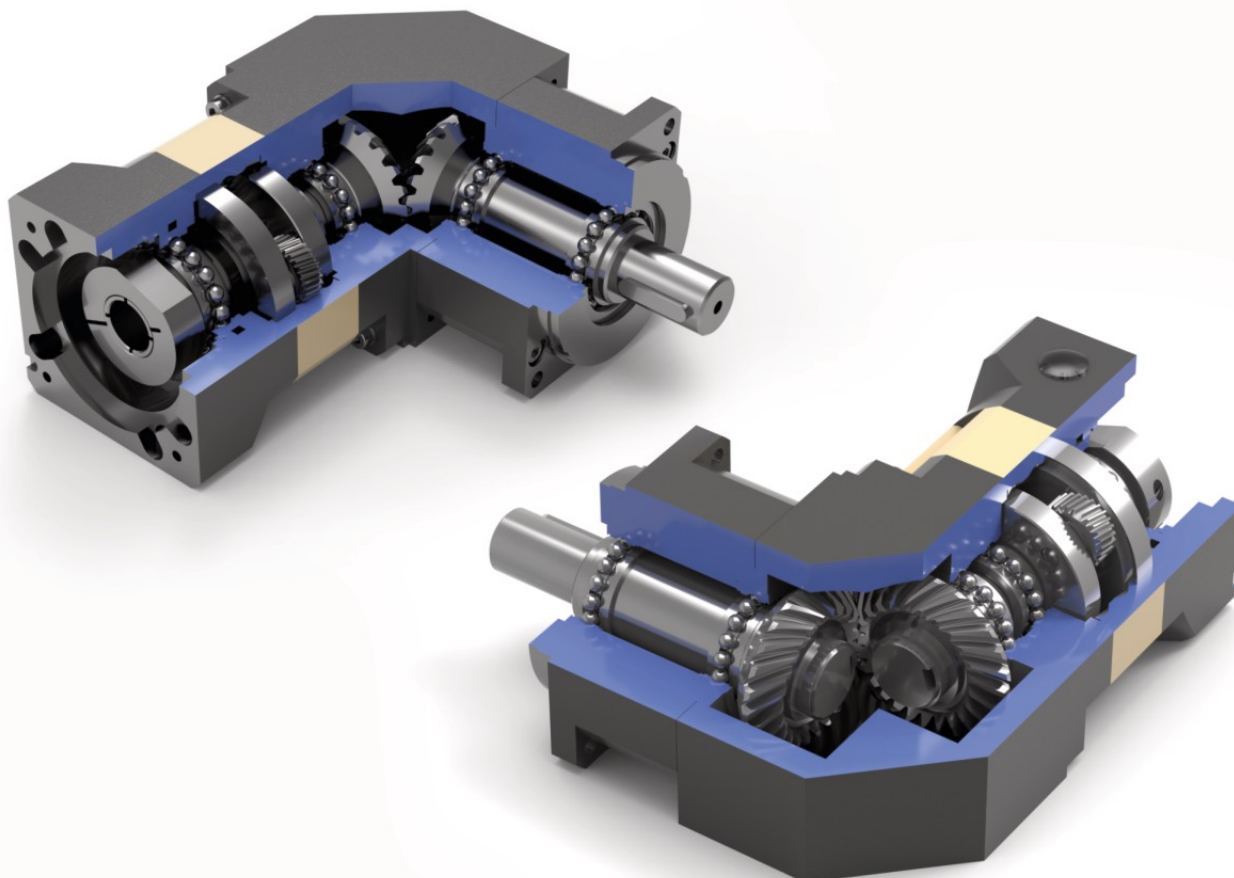
*The Perpetual Motion  
to Drive the World*

# SVX

Powerful. Precision. Reliable

- ▶ Servo Planetary Gearbox  
Valued Gearbox Solution





## Gearbox Features

- Economy precision gearbox line
- Helical gear for gearing system
- Cantilever con-structure design
- Gear grinding technology
- Lifetime grease lubrication
- Maintenance free for service lifetime

## SVX Technical Data

Model		SVX065	SVX085	SVX115	SVX142	SVX180	SVX220	Ratio	Stage	
Nominal Output Torque	Nm	35	100	190	440	600	1000	3	1	
		42	110	240	544	1050	1600	4		
		44	115	245	585	1000	1850	5		
		40*	105*	240*	500*	800*	1650*	6		
		40*	100	235*	480	800	1550*	7		
		38	95	210	450	800	1350	8		
		36	90	200	415	710	1300*	9		
		32	81	196	400	710	1300	10		
		37	100	210	450	650	1000	12		
		37	100	210	450	650	1000	15		
	44	110	230	450	1050	1600	16	2		
	44	110	230	564	1000	1850	20			
	44	110	255	608	1000	1850	25			
	44	110	255	608/35	1050/35	1800	32			
	44	110	250	608	1000	1850	40			
	38	95	210	450/63	800/63	1350	64			
	45	120	255	580	1000	1850	80			
	45	120	255	580	1000	1850	100			
	45	120	255	580	1000	1850	125			
	45	120	255	580	1000/140	1850/140	160			
45	120	255	608	1000/180	1850/180	200	3			
45	120	255	608/224	1000/252	1850/252	256				
45	120	255	580/280	1000/315	1850/315	320				
38	95	210	450/504	800/441	1350/504	512				
Emergency Stop Torque	Nm	Double Rated Output Torque								
Max Radial Force <sup>1</sup>	N	550	1020	2070	7300	12000		14000		
Max Axial Force <sup>1</sup>	N	375	570	970	6400	6800	7800			
Operating Temperature	°C	-25--90								
Mouting Position		Any Directions								
Lubrication		Synthetic Lubrication Grease								
Protection Class		IP65								
Efficiency at full load	%	95							1	
		92							2	
		89							3	
Service Lifetime	h	20,000 (Continuous Operation)								
Unit Weight	kg	2	4.4	10	16	38	55	1		
		2.3	5.4	12	23	45	68	2		
		2.8	6.8	15	31	50	78	3		

1. Values based on the output shaft speed n<sub>2</sub>=100 RPM

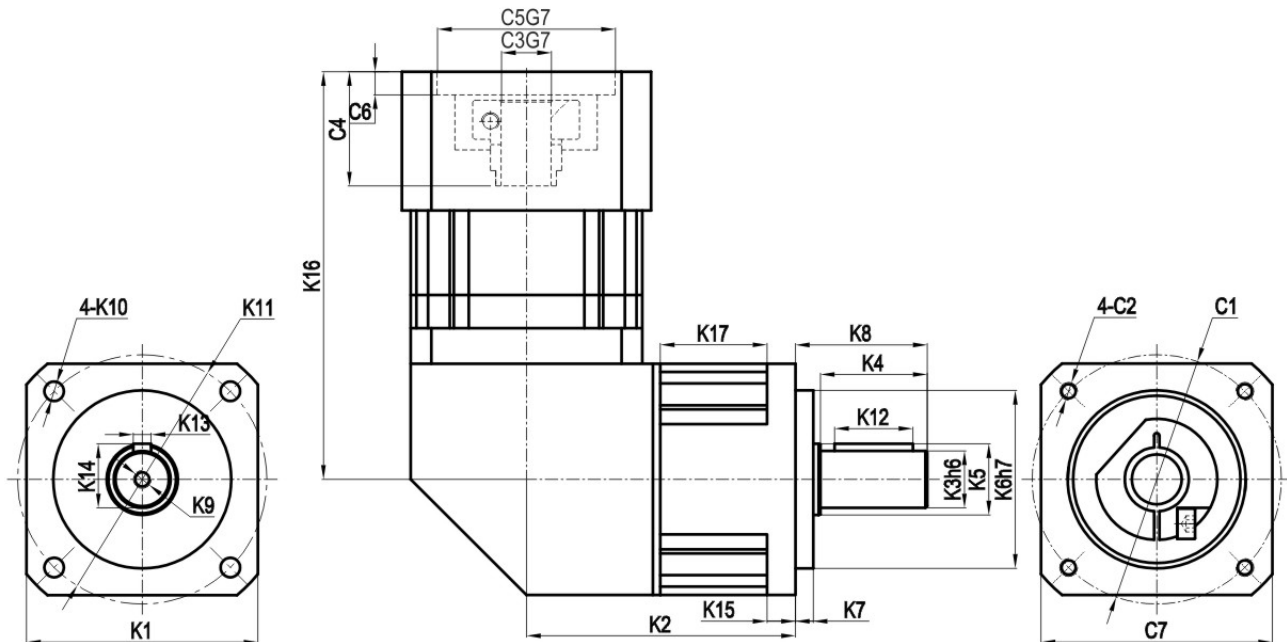


## SVX Technical Data

Model		SVX065	SVX085	SVX115	SVX142	SVX180	SVX220	Ratio	Stage
Mass Moment of Inertia	kgcm <sup>2</sup>	0.135	0.77	2.63	12.1	28.98	69.61	3	1
		0.093	0.52	1.79	7.75	23.67	54.37	4	
		0.078	0.45	1.53	6	22.75	53.27	5	
		0.07	0.42	1.5	5.52	22.48	50.84	6	
		0.069	0.4	1.4	5.1	22.48	50.84	7	
		0.065	0.39	1.32	3.74	22.59	50.84	8	
		0.065	0.39	1.32	3.62	22.59	50.84	9	
		0.065	0.39	1.32	3.62	22.55	50.56	10	
		0.105	0.67	1.63	10.1	18.98	59.61	12	2
		0.095	0.51	1.67	8.1	16.98	48.61	15	
		0.088	0.5	1.75	7.47	7.54	23.67	16	
		0.075	0.44	1.53	6.65	7.42	22.75	20	
		0.075	0.44	1.49	5.81	7.54	22.75	25	
		0.064	0.39	1.32	6.34	7.14	22.59	32	
		0.064	0.39	1.32	5.36	7.14	22.59	40	
		0.064	0.39	1.32	4.08	7.54	22.59	64	
		0.075	0.5	1.53	7.4	7.54	22.75	80	3
		0.064	0.44	1.49	7.3	7.42	22.59	100	
		0.064	0.7	2.57	7.3	7.42	22.75	125	
		0.064	0.39	1.3	6.5	7.14	22.75	160	
0.064	0.39	1.3	6.5	7.14	22.75	200			
0.064	0.39	1.3	6.5	7.14	22.75	256			
0.064	0.39	1.3	6.5	7.14	22.75	320			
0.064	0.39	1.3	6.5	7.14	22.59	512			
Backlash	arcmin	≤10	≤10	≤10	≤10	≤10	≤10	P2	1
		≤12	≤12	≤12	≤12	≤12	≤12	P2	2
		≤15	≤15	≤15	≤15	≤15	≤15	P2	3
Torsional Rigidity	Nm/arcmin	3	4.8	10	28.7	120	200		
Running Noise <sup>1</sup>	dB(A)	<58	<60	<62	<68	<70	<72		
Max Input Speed <sup>2</sup>	min <sup>-1</sup>	6000	6000	6000	6000	4000	3000		
Rated Input Speed <sup>2</sup>	min <sup>-1</sup>	4000	3000	3000	3000	2000	1500		

1. Measured on input running speed at n1=3000 RPM without loading, 1m distance.

## SVX Dimensions



Model	SVX065			SVX085			SVX115			SVX142			SVX180			SVX220											
Stage	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3									
K1	65			85			110			142			180			220											
K2	75.5	93	116.7	95	113.7	145	119.5	154	195.8	141	202	263	202	234	266.5	241	285.5	315									
K3	Φ 16			Φ 22			Φ 32			Φ 40			Φ 55			Φ 75											
K4	30			36			50			80			82			105											
K5	Φ 20			Φ 25			Φ 40			Φ 50			Φ 60			Φ 85											
K6	Φ 50			Φ 80			Φ 110			Φ 130			Φ 160			Φ 180											
K7	5			10			12			15			20			30											
K8	37			48			65			97			105			138											
K9	M5X12			M6X16			M10X22			M12X26			M20X40			M20X40											
K10	Φ 5.5			Φ 6.5			Φ 9			Φ 11			Φ 13			Φ 17											
K11	Φ 70			Φ 100			Φ 130			Φ 165			Φ 215			Φ 250											
K12	22			28			40			70			70			90											
K13	5			6			10			12			16			20											
K14	18			24.5			35			43			59			79.5											
K15	8			10			14			15			20			25											
K16	114.5			150			194			246.5			170			145			220			170			145		
K17	30	31	54.7	37.5	46.2	77.5	42.5	63	104.8	55	101	149.5	62.5	62.5	62.5	76	76	76									
C1	Φ 70			Φ 90			Φ 145			Φ 200			Φ 215			Φ 200			Φ 235			Φ 215			Φ 200		
C2	M5X12			M6X15			M8X20			M12X12			M12X25			M12X25			M12X25			M12X25			M12X25		
C3	Φ 14			Φ 19			Φ 24			Φ 35			Φ 42			Φ 35			Φ 55			Φ 42			Φ 35		
C4	32.1			41.3			61.3			81.3			82.5			81.3			116			82.5			81.3		
C5	Φ 50			Φ 70			Φ 110			Φ 114.3			Φ 180			Φ 114.3			Φ 200			Φ 180			Φ 114.3		
C6	6.5			6.5			8			6.5			8			8			8			8			8		
C7	65			85			120			175			190			175			220			190			175		

The dimensions modified as per the applied motor flange.

You can get the specific gearbox drawing solution by our KDP (Kofon Design Programme) online from our website: [www.kofon-motion.com](http://www.kofon-motion.com)



# Servo Planetary Gearbox

## Order Instructions

**Order Code: KPL — 120 — 2 — 15 — S1 — P0 — Servo Motor**



**KPL**

Gearbox Series: KPL



**120**

Gearbox Size



**2**

Gearbox Stage



**15**

Gearbox Ratio



**S1**

S1: Output shaft with key  
S2: Output shaft without key



**P0**

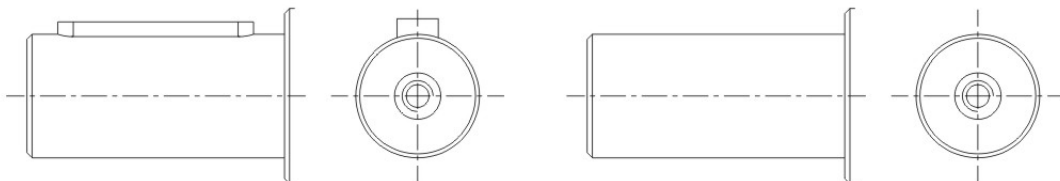
Gearbox Precision



**Servo Motor**

Motor Manufacturer and model

## Output Shaft Key Option



S1: Output shaft with key

S2: Output shaft without key

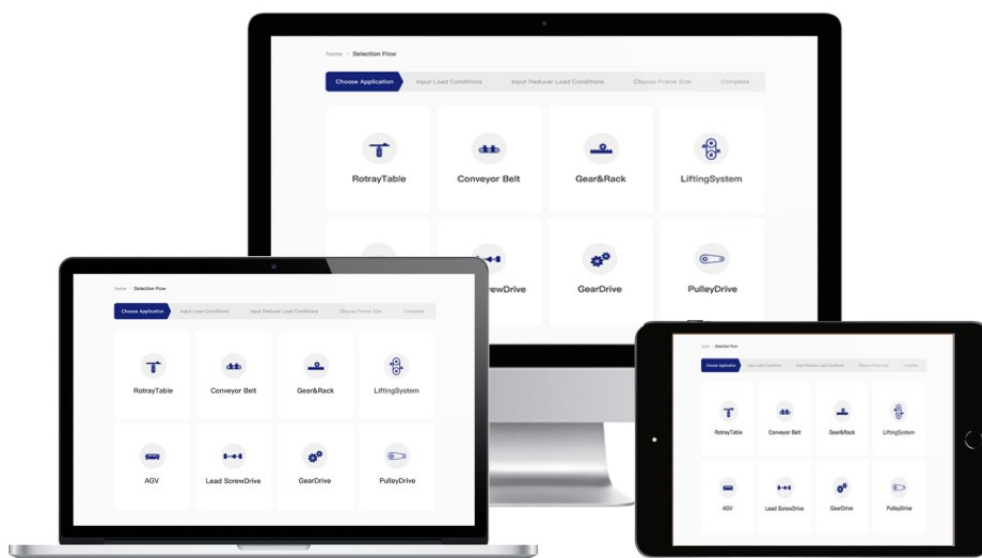
Ordering Example: KPL120-2-15-S1-P2-ABB-8M1230

If there is any question, please ask our engineering sales for solutions.



## Benefit with Powerful Gearbox Design Programme (KDP)

- The Kofon Design Programme (KDP) support you to realize the optimal portfolio of servo motor and gearbox by few steps.
- The KDP makes it available to get access to almost servo motors in the global market, and huge numbers of applications like pinions, spindles, belts, conveyors, rotary tables.
- You can also find the solutions by different industrial application sections from KDP online.
- The drawings could be download free from KDP online and the available drawing in format pdf, dwg and step.



# Servo Planetary Gearbox

## The Company

The **KOFON**<sup>®</sup> possesses expertise for the mastery of high precision motion control technologies. The company group established in 1998.

Now it employs over 650 staffs worldwide. We focus on the development, manufacturing and sales of the high precision planetary gearbox, spiral bevel gearbox and industrial automation integration solutions. Our reliable competence industry including high precision machine tools, intelligent logistic systems, robotics and new energy.

Kofon Motion aim to be dedicated to serve global customer with the reliable precision motion solution.



