

Servo Planetary Gearbox



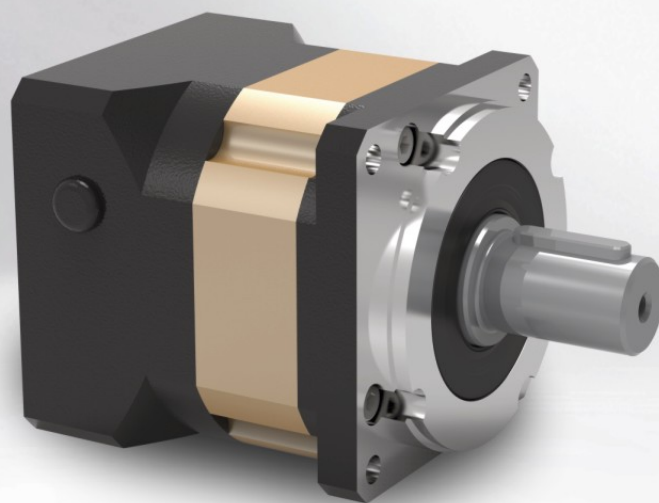
*The Perpetual Motion
to Drive the World*

KPX

Powerful. High Precision. Reliable

▶ Servo Planetary Gearbox

Advanced Gearbox Solution



KPX Technical Data

Model		KPX045	KPX065	KPX085	KPX115	KPX142	KPX180	KPX220	Ratio	Stage	
Nominal Output Torque	Nm	20	46	125	210	350	650	1200	3	1	
		21	52	145	300	550	1250	1800	4		
		21	55	155	320	650	1200	2050	5		
		20*	50*	145*	300*	610*	1000*	1850*	6		
		19	50*	135	290*	540	1000	1750*	7		
		18*	45	115	255	510*	1000*	1550	8		
		14	42	105*	220*	440	910	1500*	9		
		14	42	105	220	440	910	1500	10		
		20	56	125	310	500	650	1200	12		
		20	50	125	310	500	850	1200	15		
		21	52	145	300	550	1250	1800	16		
		21	55	145	300	650	1200	2050	20		
		21	55	155	320	650	1200	2050	25		
		--	52	145	305	550*	1250*	1800*	32	2	
		21	55*	155	320*	650	1200	2050	35		
		--	55	155	320	550*	1200*	2050*	40		
		21	55*	155	320*	650	1200	2050	45		
		21	55	155	320	650	1200	2050	50		
		18/63	45	115	255	510/63	1000/63	1550	64		
		21	52	155	320	650	1200	2050	80		
		21	52	155	320	650	1200	2050	100		
		21	52	155	320	650	1200	2050	125		
		21/140	52	155	320	650	1200/140	2050/140	160		3
		21/180	52	155	320	650	1200/180	2050/180	200		
		21/252	52	155	320	650/224	1200/252	2050/252	256		
		21/315	52	155	320	650/280	1200/315	2050/315	320		
		18/441	45	115	255	510/504	1000/441	1550/504	512		
		Emergency Stop Torque	Nm	Triple Rated Output Torque							
Max Radial Force ¹	N	770	1500	3200	6700	9600	14000	16000			
Max Axial Force ¹	N	380	760	1600	3300	4800	7000	8000			
Operating Temperature	°C	-25~90									
Mouting Position		Any Directions									
Lubrication		Synthetic Lubrication Grease									
Protection Class		IP65									
Efficiency at full load	%	97									1
		95									2
		93									3
Service Lifetime	h	20,000 (Continuous Operation)									
Unit Weight	kg	0.6	1.4	3.3	5.5	20	31	53		1	
		0.9	1.6	4.5	8	25	39	66		2	
		1.1	1.8	5.5	10	30	48	75		3	

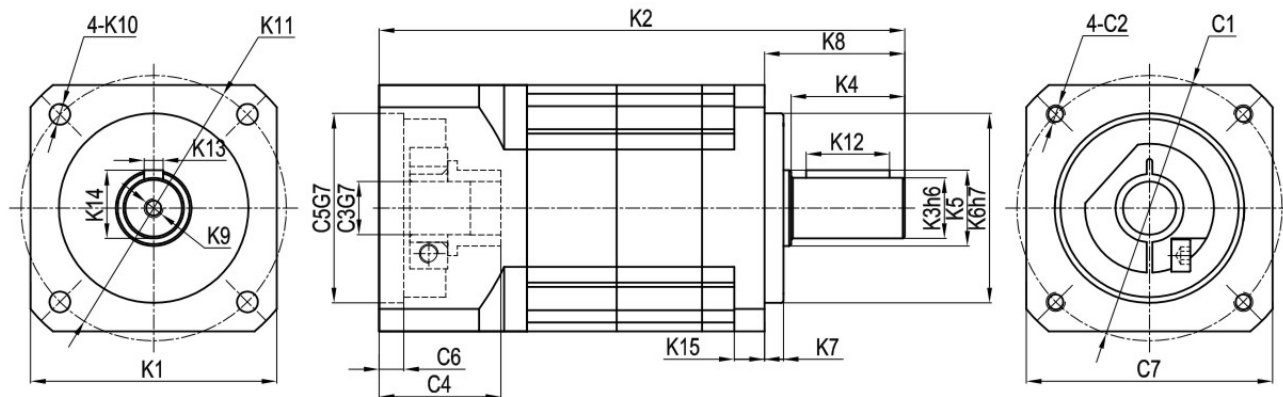
1. Values based on the output shaft speed n₂=100 RPM

KPX Technical Data

Model		KPX045	KPX065	KPX085	KPX115	KPX142	KPX180	KPX220	Ratio	Stage	
Mass Moment of Inertia	kgcm ²	0.031	0.16	0.61	3.25	12.31	28.98	69.61	3	1	
		0.022	0.14	0.48	2.74	7.54	23.67	54.37	4		
		0.019	0.13	0.47	2.71	7.42	22.75	53.27	5		
		0.017	0.13	0.47	2.62	7.25	22.48	50.84	6		
		0.017	0.13	0.47	2.62	7.25	22.48	50.84	7		
		0.017	0.13	0.45	2.62	7.14	22.59	50.84	8		
		0.017	0.13	0.44	2.62	7.14	22.59	50.84	9		
		0.017	0.13	0.44	2.57	7.14	22.55	50.56	10		
		0.029	0.127	0.44	2.56	12.35	12.35	28.98	12		
		0.027	0.124	0.44	2.58	12.35	12.30	28.92	15		
		0.022	0.12	0.43	1.75	7.47	7.54	23.67	16		
		0.019	0.075	0.44	1.5	6.65	7.42	22.75	20		
		0.017	0.075	0.44	1.49	5.81	7.54	22.75	25		
		--	0.064	0.39	1.3	6.34	7.14	22.59	32	2	
		0.016	0.064	0.39	1.3	5.36	7.14	22.59	35		
		--	0.064	0.39	1.3	4.08	7.14	22.59	40		
		0.016	0.064	0.39	1.3	5.36	7.14	22.59	45		
		0.016	0.064	0.39	1.3	4.08	7.14	22.59	50		
		0.016	0.075	0.39	1.5	7.5	7.54	22.59	64		
		0.019	0.075	0.44	1.49	7.4	7.54	22.75	80		
0.019	0.064	0.44	1.45	7.3	7.42	22.59	100				
0.019	0.064	0.44	1.3	7.3	7.42	22.75	125	3			
0.016	0.064	0.39	1.3	6.5	7.14	22.75	160				
0.016	0.064	0.39	1.3	6.2	7.14	22.75	200				
0.016	0.064	0.39	1.3	5.7	7.14	22.75	256				
0.016	0.064	0.39	1.3	5.4	7.14	22.75	320				
0.016	0.064	0.39	1.3	5.4	7.14	22.59	512				
Backlash	arcmin	-	≤3	≤3	≤3	≤3	≤3	≤3	P0	1	
		≤6	≤6	≤6	≤6	≤6	≤6	≤6	P1		
		-	≤5	≤5	≤5	≤5	≤5	≤5	≤5	P0	2
		≤8	≤8	≤8	≤8	≤8	≤8	≤8	≤8	P1	
		-	≤7	≤7	≤7	≤7	≤7	≤7	≤7	P0	3
		≤12	≤10	≤10	≤10	≤10	≤10	≤10	≤10	P1	
Torsional Rigidity	Nm/arcmin	3	7	14	25	50	140	220			
Running Noise ¹	dB(A)	<56	<58	<60	<63	<65	<67	<70			
Max Input Speed	min ⁻¹	8000	6000	6000	6000	6000	4000	4000			
Rated Input Speed	min ⁻¹	4000	3000	3000	3000	3000	3000	2000			

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

KPX Dimensions



Model	KPX045			KPX065			KPX085			KPX115			KPX142			KPX180			KPX220		
Stage	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
K1	45			65			85			110			142			180			220		
K2	88.5	103.5	118.8	115	138.7	162.4	138	169.3	200.6	198	239.8	248	275.5	336.5	356	288	348	409	358	402	462
K3	Φ 12			Φ 16			Φ 22			Φ 32			Φ 40			Φ 55			Φ 75		
K4	23			30			36			50			80			82			105		
K5	Φ 15			Φ 20			Φ 30			Φ 40			Φ 50			Φ 60			Φ 85		
K6	Φ 35			Φ 50			Φ 80			Φ 110			Φ 130			Φ 160			Φ 180		
K7	4			5			10			12			15			20			30		
K8	28			37			48			65			97			105			138		
K9	M3X9			M5X12			M6X16			M10X22			M12X25			M20X40			M20X40		
K101	M4X10			Φ 5.5			Φ 6.5			Φ 9			Φ 11			Φ 13			Φ 17		
K11	50			70			100			130			165			215			250		
K12	16			22			28			40			70			70			90		
K13	4			5			6			10			12			16			20		
K14	13.5			18			24.5			35			43			59			79.5		
K15	--			8			10			14			15			20			25		
C1	46			70			90			Φ 145	Φ 90	Φ 200	Φ 145	Φ 215	Φ 200	Φ 235	Φ 215	Φ 200			
C2	M4X10			M5X12			M6X15			M8X20	M6X15	M12X25	M8X20	M12X25	M12X25	M12X25	M12X25	M12X25			
C3	Φ 8			Φ 14			Φ 19			Φ 24	Φ 19	Φ 35	Φ 24	Φ 42	Φ 35	Φ 55	Φ 42	Φ 35			
C4	26.1			32.1			41.6			61.3	41.6	82	61.3	82.5	82	116	82.5	82			
C5	Φ 30			Φ 50			Φ 70			Φ 110	Φ 70	Φ 114.3	Φ 110	Φ 180	Φ 114.3	Φ 200	Φ 180	Φ 114.3			
C6	5			6.5			6.5			8	6.5	8	8	8	8	8	8	8			
C7	45			65			85			120	89	175	120	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

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

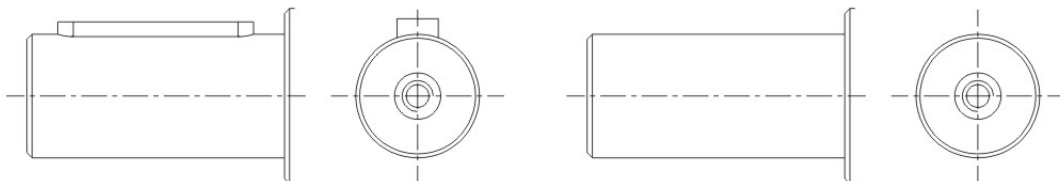
Gearbox Precision



Servo Motor

Motor Manufacturer and model

Output Shaft Key Option



S1: Output shaft with key

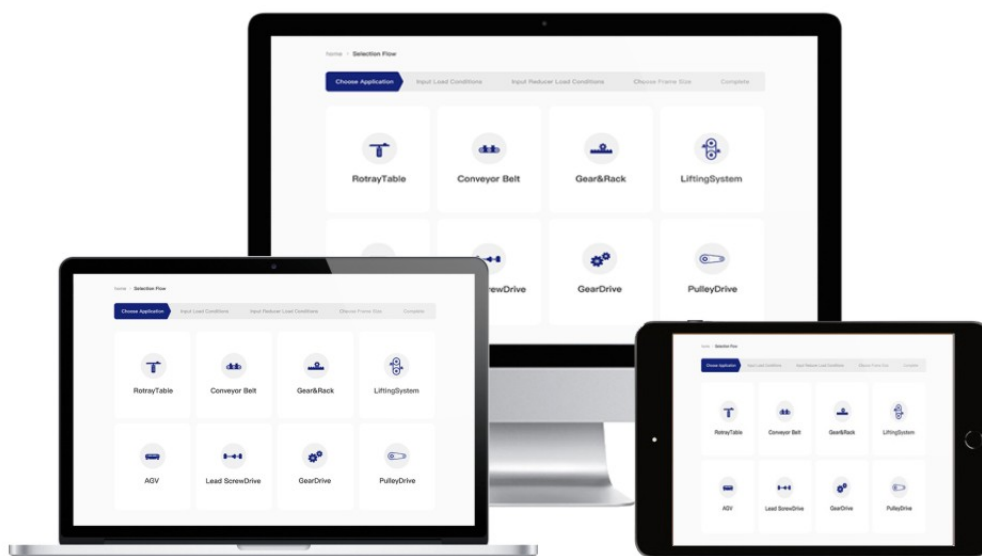
S2: Output shaft without key

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**[®] 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.



