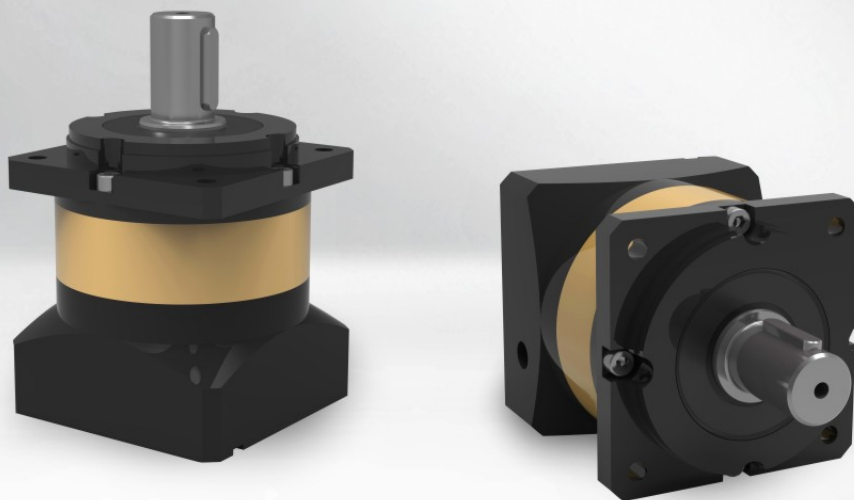


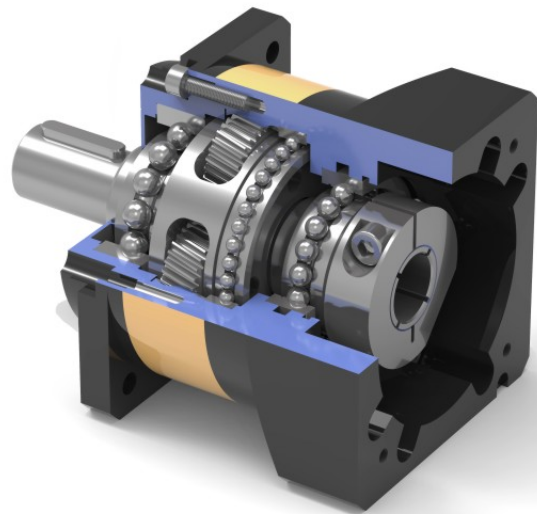
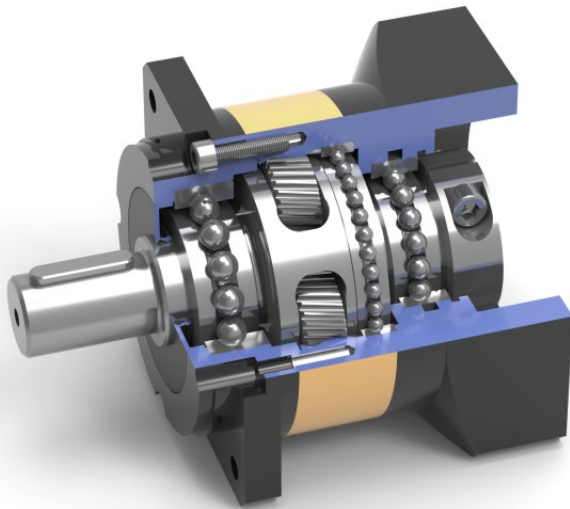
KPLF

Powerful. High Precision. Reliable

► Servo Planetary Gearbox

Advanced Gearbox Solution





Gearbox Features

- High precision gearbox line
- Helical gear for gearing system
- Full caged planetary carrier
- Super gear grinding technology
- Lifetime grease lubrication
- Maintenance free for service lifetime

KPLF Technical Data

Model		KPLF050	KPLF070	KPLF090	KPLF120	KPLF160	KPLF205	KPLF235	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	2	
		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		
		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		
		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	3	
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	℃	-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	

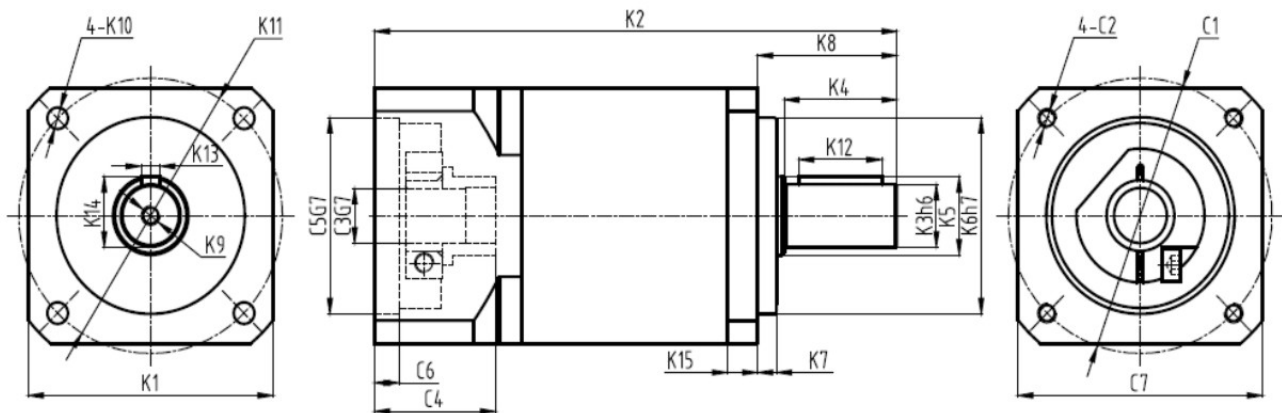
1. Values based on the output shaft speed n₂=100 RPM

KPLF Technical Data

Model		KPLF050	KPLF070	KPLF090	KPLF120	KPLF160	KPLF205	KPLF235	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	3
		0.019	0.064	0.44	1.3	7.3	7.42	22.75	125	
		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	P0	2
		<8	<8	<8	<8	<8	<8	<8	P1	
		--	<7	<7	<7	<7	<7	<7	P0	3
		<12	<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.

KPLF Dimensions



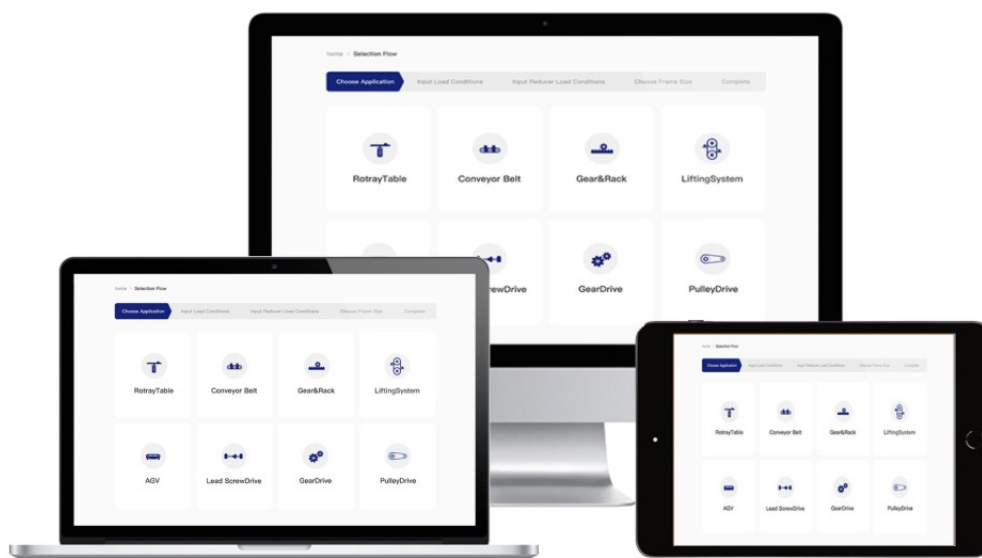
Model	KPLF050			KPLF070			KPLF090			KPLF120			KPLF160			KPLF205			KPLF235		
Stage	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
K1	52			70			89			120			175			210			240		
K2	88.5	103.5	118.8	115	138.7	162.4	138	169.3	200.6	198	239.8	248	275.5	336.5	356	288	348	409	358	402	462
K3	Φ12			Φ16			Φ22			Φ32			Φ40			Φ55			Φ75		
K4	23			30			36			50			80			82			105		
K5	Φ15			Φ20			Φ30			Φ40			Φ50			Φ60			Φ85		
K6	Φ40			Φ50			Φ80			Φ110			Φ130			Φ180			Φ235		
K7	4			5			10			12			15			15			18		
K8	28			37			48			65			97			105			126		
K9	M3X9			M5X12			M6X16			M10X22			M12X25			M20X40			M20X40		
K10	Φ4.5			Φ5.5			Φ6.5			Φ9			Φ11			Φ13			Φ17		
K11	Φ60			Φ85			Φ100			Φ130			Φ185			Φ230			Φ275		
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	5			8			10			14			15			18			18		
C1	Φ46			Φ70			Φ90			Φ145		Φ90	Φ200		Φ145	Φ215	Φ200		Φ235	Φ215	Φ200
C2	M4X10			M5X12			M6X15			M8X20		M6X15	M12X25		M8X20	M12X25	M12X25	M12X25	M12X25	M12X25	M12X25
C3	Φ8			Φ14			Φ19			Φ24		Φ19	Φ35		Φ24	Φ42	Φ35		Φ55	Φ42	Φ35
C4	26.1			32.1			41.6			61.3		41.6	82		61.3	82.5	82		116	82.5	82
C5	Φ30			Φ50			Φ70			Φ110		Φ70	Φ114.3		Φ110	Φ180	Φ114.3		Φ200	Φ180	Φ114.3
C6	5			6.5			6.5			8		6.5	8		8	8	8	8	8	8	8
C7	50			70			89			120		89	175		120	190	175		220	190	175

Technical Memo

This image shows a full page of blank graph paper. The grid consists of small, equal-sized squares formed by thin, light gray lines. There are no margins, text, or other markings on the page.

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.



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.

