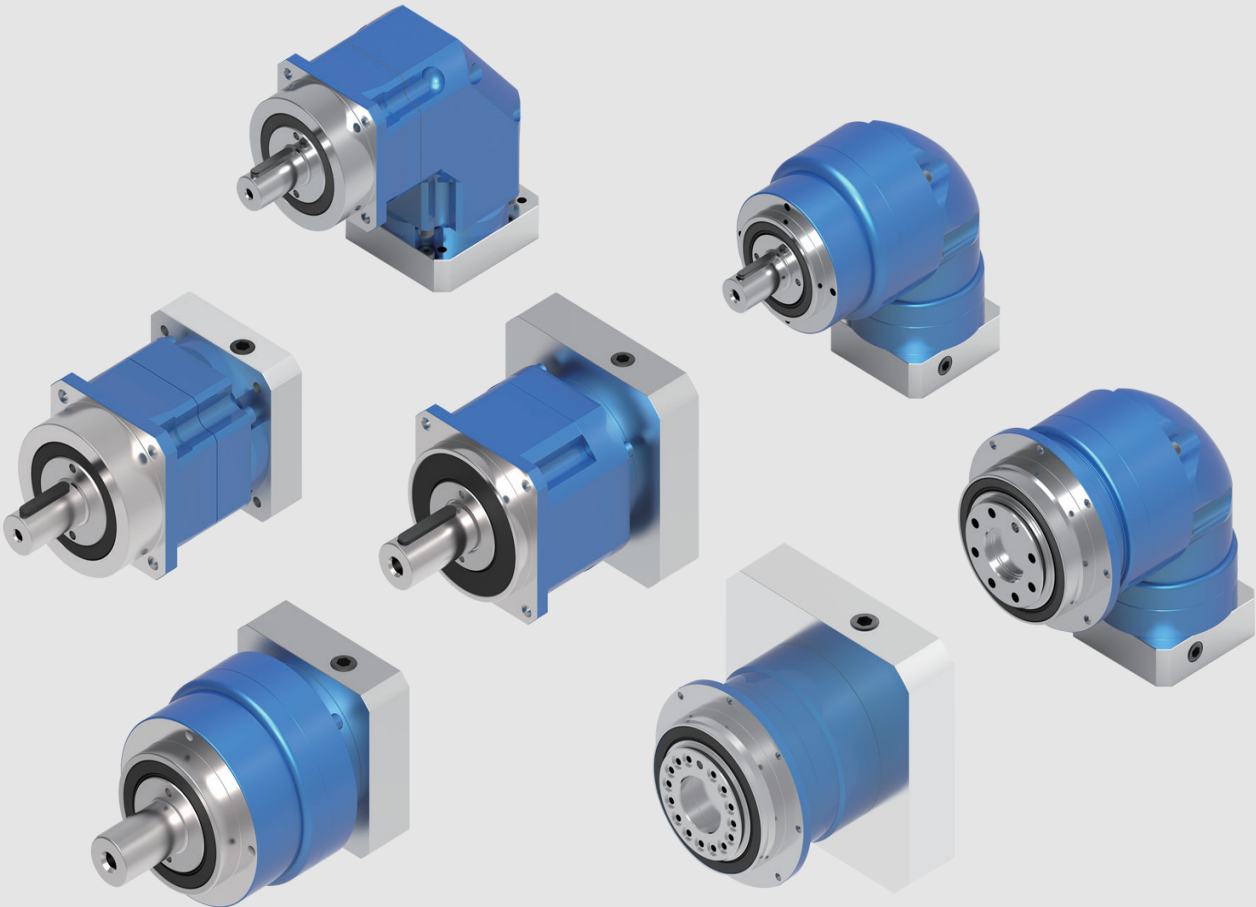
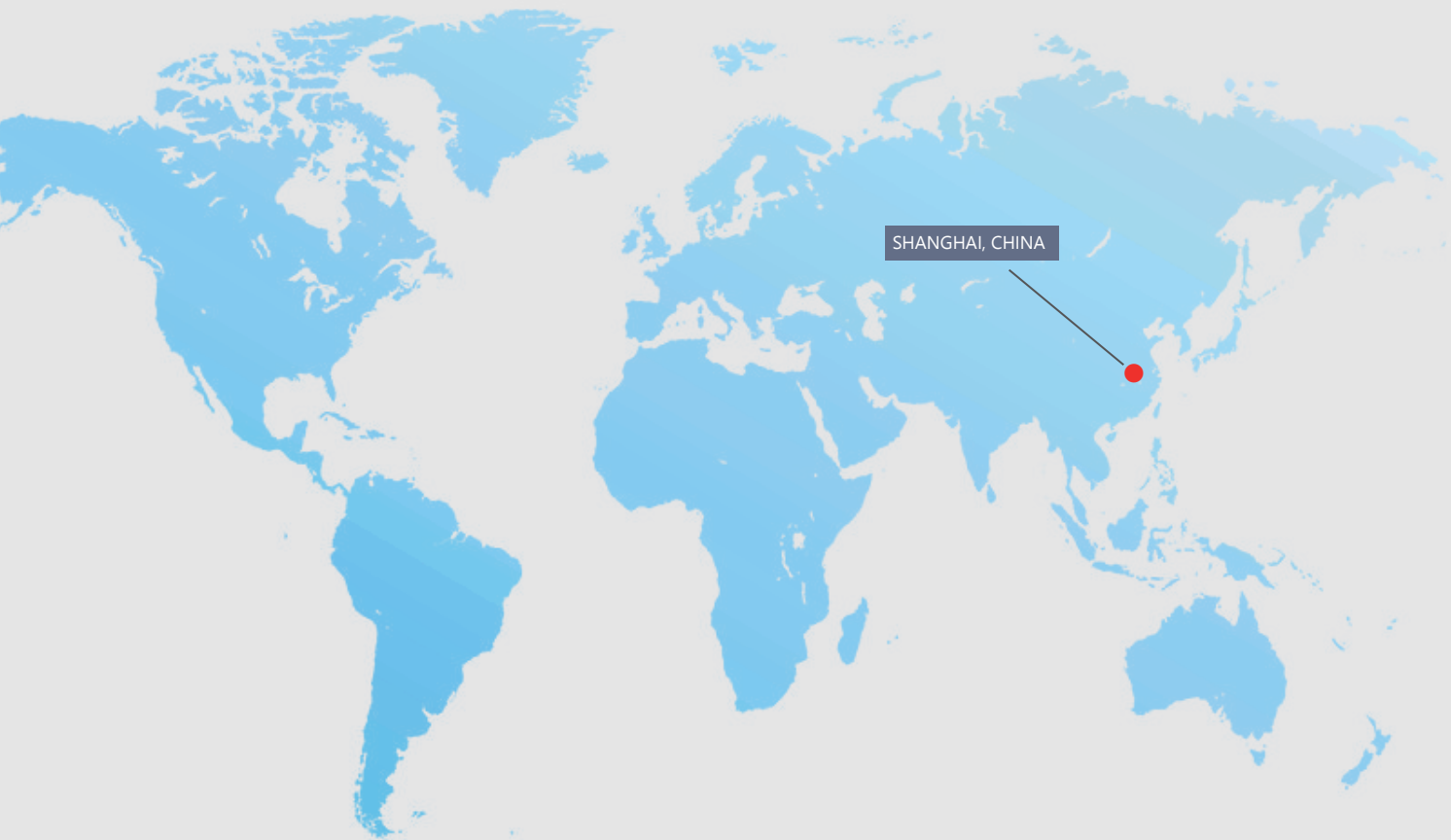


High Torque series



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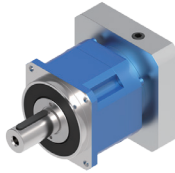


DISTRIBUTORS

High performance
Planetary gearboxes
Helical teeth type

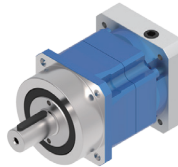
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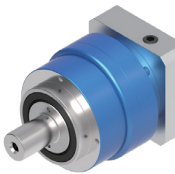
Frame: 042,060,090,115,142,180
Ratio: 1 stage 3~10
2 stages 12~100
Accuracy: Down to 1~3 arc-min

KHB series



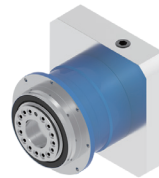
Frame: 042, 060, 075, 100, 140, 180
Ratio: 1 stage 3~10
2 stages 12~100
Accuracy: Down to 1~3 arc-min

KHS series



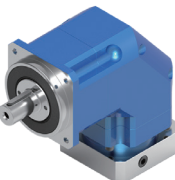
Frame: 50,70, 90, 120, 155,205,235
Ratio: 1 stage 3~10
2 stages 15~100
Accuracy: Down to 1~3 arc-min

KHL series



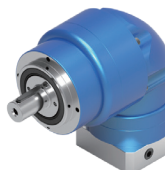
Frame: 47,64,90,110,140,200,255
Ratio: 1 stage 4~10
2 stages 20~100
Accuracy: Down to 1~3 arc-min

KHT series



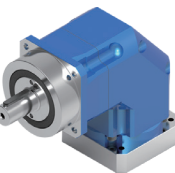
Frame: 042,060,090,115,142,180,220
Ratio: 2 stage 3~20
3 stages 12~200
Accuracy: 4 arc-min of 2 stages
7 arc-min of 3 stages

KBR series



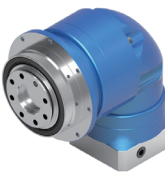
Frame: 50,70, 90, 120, 155,205,235
Ratio: 2 stage 3~20
3 stages 15~200
Accuracy: 4 arc-min of 2 stages
7 arc-min of 3 stages

KLR series



Frame: 042,060,075,100,142,180
Ratio: 2 stage 3~20
3 stages 12~200
Accuracy: 4 arc-min of 2 stages
7 arc-min of 3 stages

KSR series



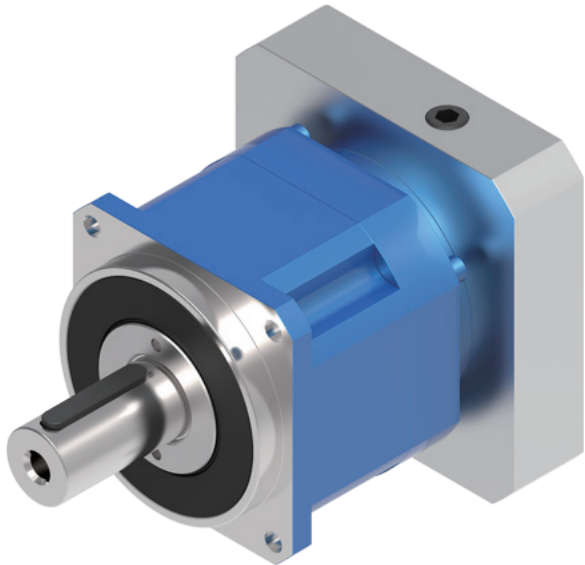
Frame: 47,64,90,110,140,200,255
Ratio: 2 stage 4~20
3 stages 25~200
Accuracy: 4 arc-min of 2 stages
7 arc-min of 3 stages

KTR series

KHB series

规格 Model No.		节数 Stage	减速比 Ratio	KHB042	KHB060	KHB060A	KHB090	KHB090A	KHB115	KHB115A	KHB142	KHB142A	KHB1180	KHB220
额定输出力矩 Nominal Output Torque	Nm	1	3	19	54	—	125	—	205	—	340	—	580	1130
			4	18	49	—	135	—	285	—	540	—	1040	1650
			5	21	59	—	155	—	325	—	640	—	1190	1900
			6	19	54	—	145	—	305	—	590	—	1090	1850
			7	18	49	—	135	—	295	—	540	—	1090	1750
			8	16	44	—	115	—	255	—	490	—	990	1650
			9	13	39	—	95	—	225	—	440	—	890	1450
		2	10	13	39	—	—	—	225	—	440	—	890	1450
			12	18	49	49	135	135	285	285	540	540	1040	1650
			15	19	54	54	125	125	205	205	340	340	580	1130
			16	18	49	49	135	135	285	285	540	540	1040	1650
			20	18	49	49	135	135	285	285	540	540	1040	1650
			25	21	59	59	155	155	325	325	645	645	1190	1900
			28	18	49	49	135	135	295	295	545	545	1090	1750
			30	19	54	54	145	145	305	305	595	595	1090	1850
			32	16	44	44	115	115	255	255	495	495	990	1650
			35	18	49	49	135	135	295	295	545	545	1090	1750
			40	16	44	44	115	115	255	255	495	495	990	1650
			45	13	39	39	95	95	225	225	445	445	890	1450
			50	21	59	59	155	155	315	315	645	645	1190	1900
60	19	54	54	145	145	305	305	595	595	1090	1850			
70	18	49	49	135	135	295	295	545	545	1090	1750			
80	16	44	44	115	115	255	255	495	495	990	1650			
90	13	39	39	95	95	225	225	445	445	890	1450			
100	13	39	39	95	95	225	225	445	445	890	1450			
急停力矩 ² Emergency Stop Torque	Nm	1, 2	3~100	3倍额定输出力矩 3 times of Nominal Output Torque										
额定输入转速 Nominal Input Speed	rpm	1, 2	3~100	5000	5000	5000	4000	4000	4000	4000	3000	3000	3000	2000
最大输入转速 Max. Input Speed	rpm	1, 2	3~100	10000	10000	10000	8000	8000	8000	8000	6000	6000	6000	4000
标准背隙 Micro Backlash	arcmin	1	3~10	≤3										
		2	12~100	≤3										
扭转刚性 Torsional Rigidity	Nm/arcmin	1, 2	3~100	3	7	7	14	14	25	25	50	50	145	225
容许径向力 ³ Max. Radial Load	N	1, 2	3~100	770	1520	1520	3200	3200	6650	6650	9350	9350	14400	49900
容许轴向力 ³ Max. Axial Load	N	1, 2	3~100	380	760	760	1600	1600	3300	3300	4600	4600	7200	24900
使用寿命 Service Life	hr	1, 2	3~100	20000*										
效率 Efficiency	%	1	3~10	≥97%										
		2	12~100	≥94%										
重量 Weight	Kg	1	3~10	0.6	1.3	—	3.7	—	7.8	—	14.5	—	29	48
		2	12~100	0.8	1.5	1.9	4.1	5.3	9	11.4	17.5	20.7	33	60
使用温度 Operating Temp	℃	1, 2	3~100	—10℃~+90℃										
润滑 Lubrication		1, 2	3~100	合成润滑油脂 Synthetic lubrication oils										
防护等级 Degree of Gearbox Protection		1, 2	3~100	IP65										
安装方向 Mounting Position		1, 2	3~100	任意方向 all directions										
噪音值 (n1=3000rpm) Noise	dB (A)	1, 2	3~100	≤56	≤58	≤60	≤60	≤63	≤63	≤65	≤65	≤67	≤67	≤70

KHB Series



Features

- 1

Frame:

042, 060, 090, 115, 142, 180
- 2

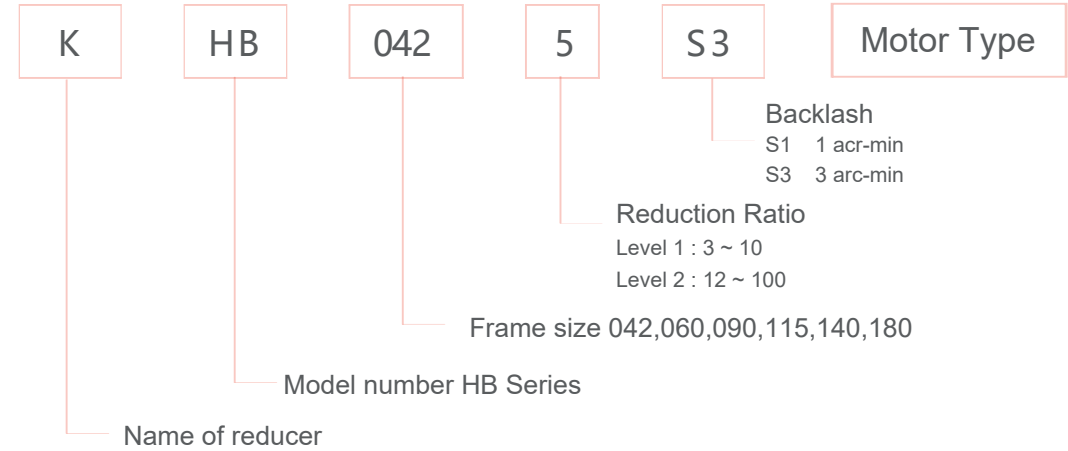
Ratio:

1 stage 3~10
2 stages 12~100
- 3

Accuracy:

Down to 1~3 arc-min

Model number



减速机转动惯量 Gearbox Inertia

规格 Model No.		节数 Stage	减速比 Ratio	KHB042	KHB060	KHB060A	KHB090	KHB090A	KHB115	KHB115A	KHB142	KHB142A	KHB1180	KHB220
转动惯 Mass Moments of Inertia	kg·cm ²	1	3	0.03	0.16	—	0.61	—	3.25	—	9.21	—	28.98	69.61
			4	0.03	0.14	—	0.48	—	2.74	—	7.45	—	23.67	54.37
			5	0.03	0.13	—	0.47	—	2.71	—	7.42	—	23.29	53.27
			6	0.03	0.13	—	0.45	—	2.65	—	7.25	—	22.75	51.72
			7	0.03	0.13	—	0.45	—	2.62	—	7.14	—	22.48	50.97
			8	0.03	0.13	—	0.44	—	2.58	—	7.07	—	22.59	50.84
			9	0.03	0.13	—	0.44	—	2.57	—	7.04	—	22.53	50.63
			10	0.03	0.13	—	0.44	—	2.57	—	7.03	—	22.51	50.56
		2	12	0.03	0.03	0.16	0.16	0.61	0.61	3.25	3.25	9.21	9.21	28.98
			15	0.03	0.03	0.13	0.13	0.47	0.47	3.25	3.25	7.42	7.42	23.29
			16	0.03	0.03	0.14	0.14	0.48	0.48	2.74	2.74	7.54	7.54	23.67
			20	0.03	0.03	0.13	0.13	0.47	0.47	2.74	2.74	7.42	7.42	23.29
			25	0.03	0.03	0.13	0.13	0.47	0.47	2.71	2.71	7.42	7.42	23.29
			28	0.03	0.03	0.14	0.14	0.48	0.48	2.74	2.74	7.54	7.54	23.67
			30	0.03	0.03	0.13	0.13	0.47	0.47	2.71	2.71	7.42	7.42	23.29
			32	0.03	0.03	0.14	0.14	0.48	0.48	2.74	2.74	7.54	7.54	23.67
			35	0.03	0.03	0.13	0.13	0.47	0.47	2.71	2.71	7.42	7.42	23.29
			40	0.03	0.03	0.13	0.13	0.47	0.47	2.71	2.71	7.42	7.42	23.29
			45	0.03	0.03	0.13	0.13	0.47	0.47	2.71	2.71	7.42	7.42	23.29
			50	0.03	0.03	0.13	0.13	0.44	0.44	2.57	2.57	7.03	7.03	22.51
			60	0.03	0.03	0.13	0.13	0.44	0.44	2.57	2.57	7.03	7.03	22.51
			70	0.03	0.03	0.13	0.13	0.44	0.44	2.57	2.57	7.03	7.03	22.51
			80	0.03	0.03	0.13	0.13	0.44	0.44	2.57	2.57	7.03	7.03	22.51
			90	0.03	0.03	0.13	0.13	0.44	0.44	2.57	2.57	7.03	7.03	22.51
			100	0.03	0.03	0.13	0.13	0.44	0.44	2.57	2.57	7.03	7.03	22.51

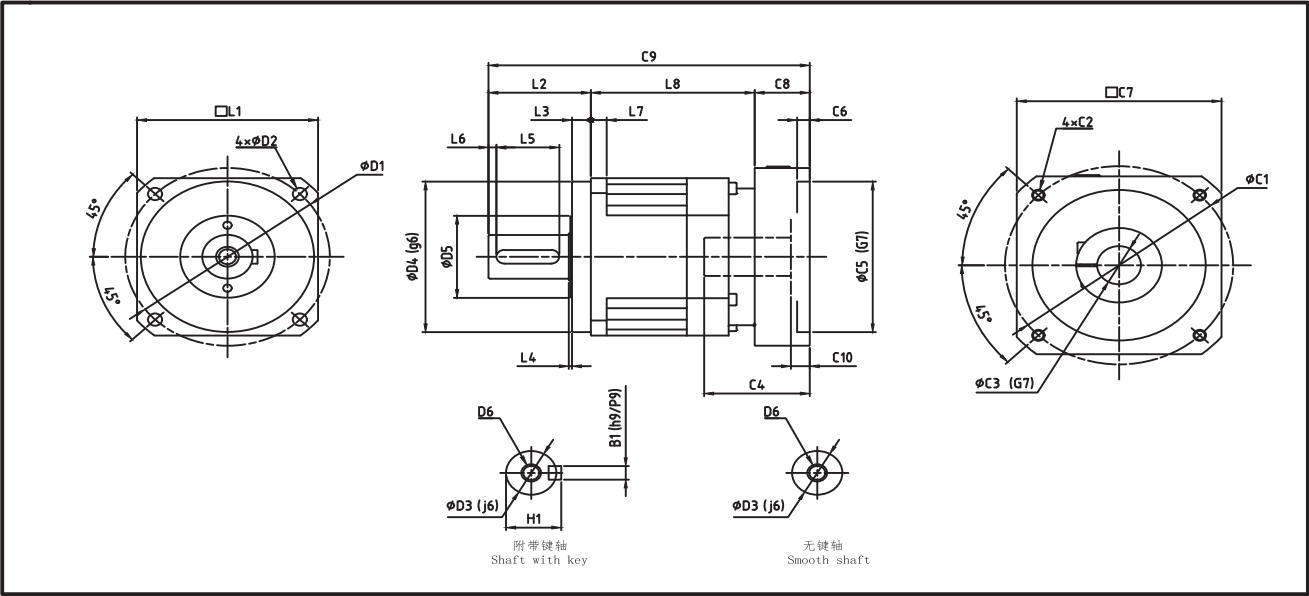
1减速比 (i=N_{in} / N_{out})
Reduction Ratio (i=N in / N out)

2最大加速力矩T_{2B} =60% of T_{2N0T}
Maximum acceleration torque T_{2B} =60% of T_{2N0T}

★连续运转，使用寿命为 10000 hrs
Continuous operation with service life of 10,000 hours

3输出转数 100 rpm 时，作用于输出轴中心位置。
Load acts at the center of the output shaft when output speed is 100 rpm.

Dimension of KHB series (1 stage i=3~10)



[单位/unit: mm]

Dimension	KHB042	KHB060	KHB090	KHB115	KHB142	KHB1180	KHB220
D1	50	70	100	130	165	215	250
D2	3. 4	5. 5	6. 6	9	11	13	17
D3 _(j6)	13	16	22	32	40	55	75
D4 _(g6)	35	50	80	110	130	160	180
D5	22	45	65	95	75	95	115
D6	M4×0. 7P	M5×0. 8P	M8×1. 25P	M12×1. 75P	M16×2P	M20×2. 5P	M20×2. 5P
L1	42	60	90	115	142	180	220
L2	26	37	48	65	97	105	138
L3	5. 5	7	10	12	15	20	30
L4	1	1. 5	1. 5	2	3	3	3
L5	16	25	32	40	63	70	90
L6	2	2	3	5	5	6	7
L7	4	6	8	10	15	15	20
L8	33	61. 5	80	104	119. 5	148	156. 5
C1 ¹	46	70	90	145	200	200	235
C2 ¹	M4×0. 7P	M5×0. 8P	M6×1P	M8×1. 25P	M12×1. 75P	M12×1. 75P	M12×1. 75P
C3 ¹	≤8/≤14	≤14/≤19	≤19/≤28	≤28/≤38	≤38/≤48	≤48/≤65	≤48/≤65
C4 ¹	32	35	50	77	82	118	122
C5 ¹	30	50	70	110	114. 3	114. 3	200
C6 ¹	5	5	6	8	8	8	8
C7 ¹	42	65	80	130	180	180	220
C8 ¹	15. 5	16. 5	25	45	45	75	80
C9 ¹	74. 5	115	153	214	261. 5	328	374. 5
C10 ¹	5	5	7	22	15	30	20
B1 _(h9/p9)	5	5	6	10	12	16	20
H1	15	18	24. 5	35	43	59	79. 5

1. C1~C11是机身尺寸随安装电机的不同而有所差异。

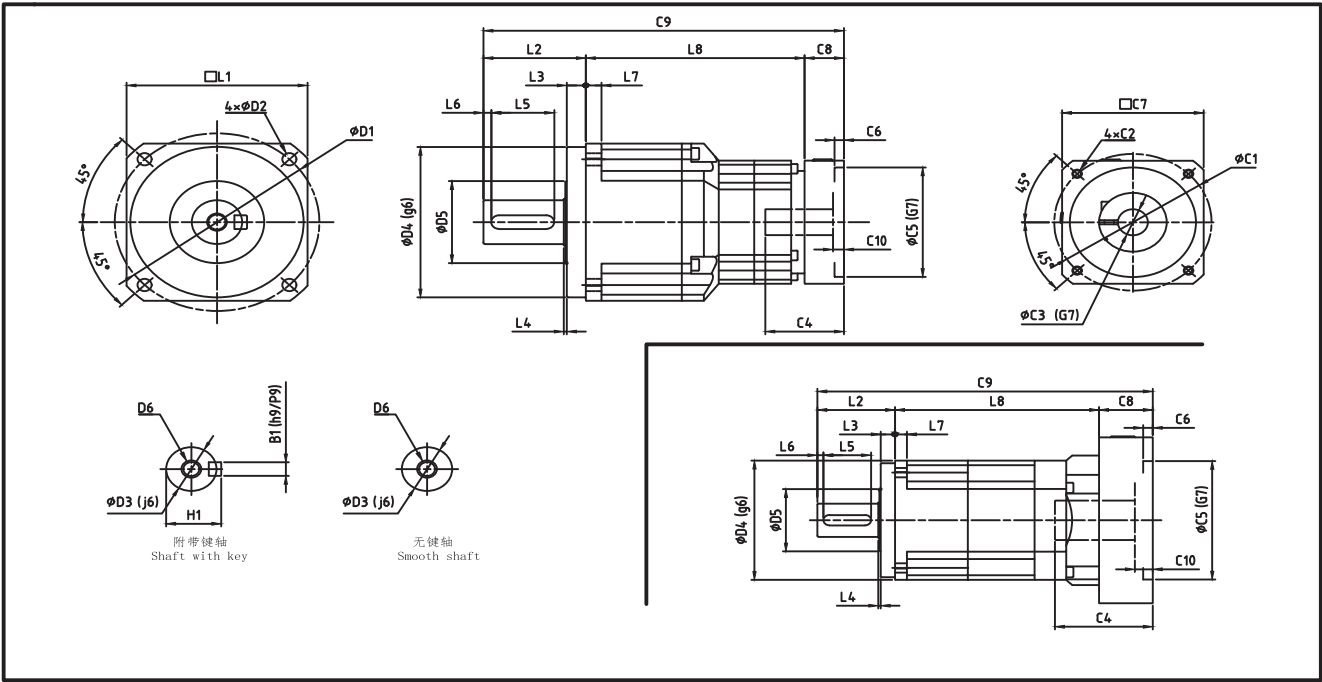
2. 电机轴径与C3输入轴径不同时，可插入轴套。

3. L8尺寸按照实际出图图纸为准。
1. C1~C11 is the size of the body varies with the motor installed.

2. Bushing will be inserted to adapt to motor shaft.

3. The size of L8 shall be subject to the actual drawing.

Dimension of KHB series (2 stage i=12~100)



[单位/unit: mm]

尺寸 Dimension	KHB042	KHB060	KHB060A	KHB090	KHB090A	KHB115	KHB115A	KHB142	KHB142A	KHB1180	KHB220
D1	50	70		100		130		165		215	250
D2	3. 4	5. 5		6. 6		9		11		13	17
D3 (j6)	13	16		22		32		40		55	75
D4 (g6)	35	50		80		110		130		160	180
D5	22	45		65		95		75		95	115
D6	M4×0. 7P	M5×0. 8P		M8×1. 25P		M12×1. 75P		M16×2P		M20×2. 5P	M20×2. 5P
L1	42	60		90		115		142		180	220
L2	26	37		48		65		97		105	138
L3	5. 5	7		10		12		15		20	30
L4	1	1. 5		1. 5		2		3		3	3
L5	16	25		32		40		63		70	90
L6	2	2		3		5		5		6	7
L7	4	6		8		10		15		15	20
L8	50. 5	72. 5	98. 5	113	128	145. 5	165	176	191	203	241
C1 ¹	46	46	90	90	145	145	200	200	200	200	200
C2 ¹	M4×0. 7P	M4×0. 7P	M6×1P	M6×1P	M8×1. 25P	M8×1. 25P	M12×1. 75P	M12×1. 75P	M12×1. 75P	M12×1. 75P	M12×1. 75P
C3 ¹	≤8/≤14	≤8/≤14	≤19	≤14/≤19	≤28	≤19/≤28	≤38	≤28/≤38	≤48	≤38≤48	≤48
C4 ¹	32	32	50	50	77	77	82	82	118	118	118
C5 ¹	30	30	70	70	110	110	114. 3	114. 3	114. 3	114. 3	114. 3
C6 ¹	5	5	6	6	8	8	8	8	8	8	8
C7 ¹	42	42	80	80	130	130	180	180	180	180	180
C8 ¹	15. 5	15. 5	25	25	45	45	45	45	75	75	75
C9 ¹	92	125	160. 5	186	221	255. 5	275	318	363	383	454
C10 ¹	5	5	7	7	22	22	15	15	30	30	30
B1 (h9/p9)	5	5		6		10		12		16	20
H1	15	18		24. 5		35		43		59	79. 5

1. C1~C10是机身尺寸随安装电机的不同而有所差异。

1. C1~C10 is the size of the body varies with the motor installed.

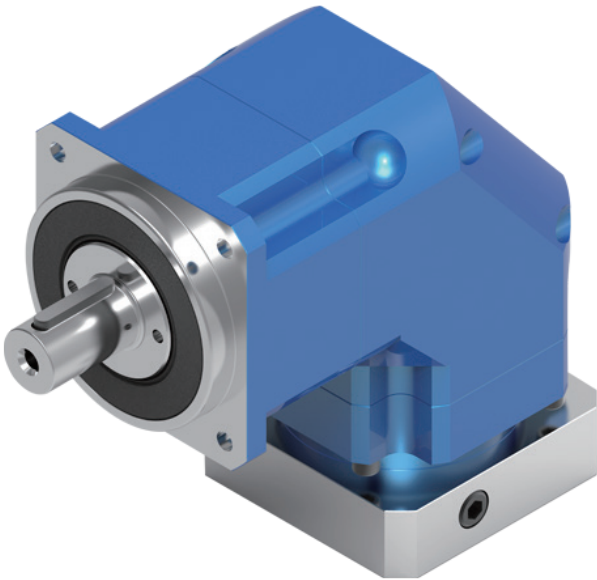
2. 电机轴径与C3输入轴径不同时，可插入轴套。

2. Bushing will be inserted to adapt to motor shaft.

3. L8尺寸按照实际出图图纸为准。

3. The size of L8 shall be subject to the actual drawing.

KBR Series



Features

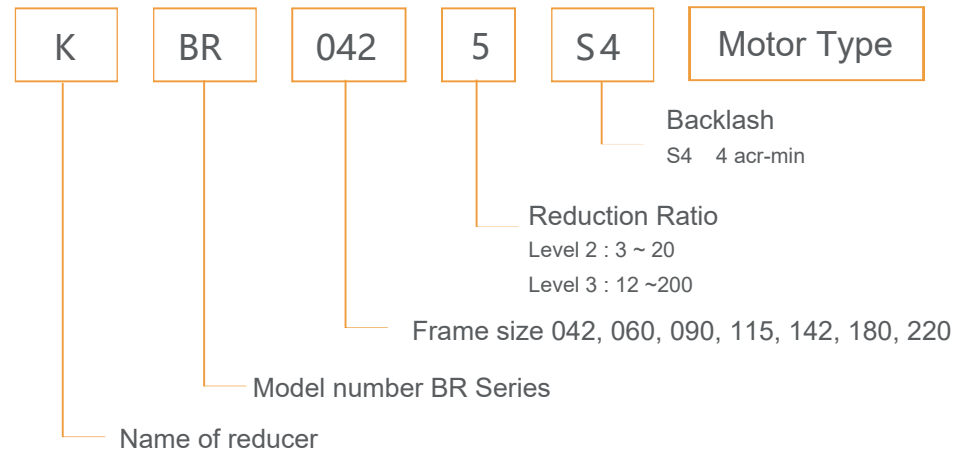
- 1

Frame: 042, 060, 090, 115, 142, 180, 220
- 2

Ratio: 2 stage 3~20
3 stages 12~200
- 3

Accuracy: 4 arc-min of 2 stage
7 arc-min of 3 stage

Model number



KBR series

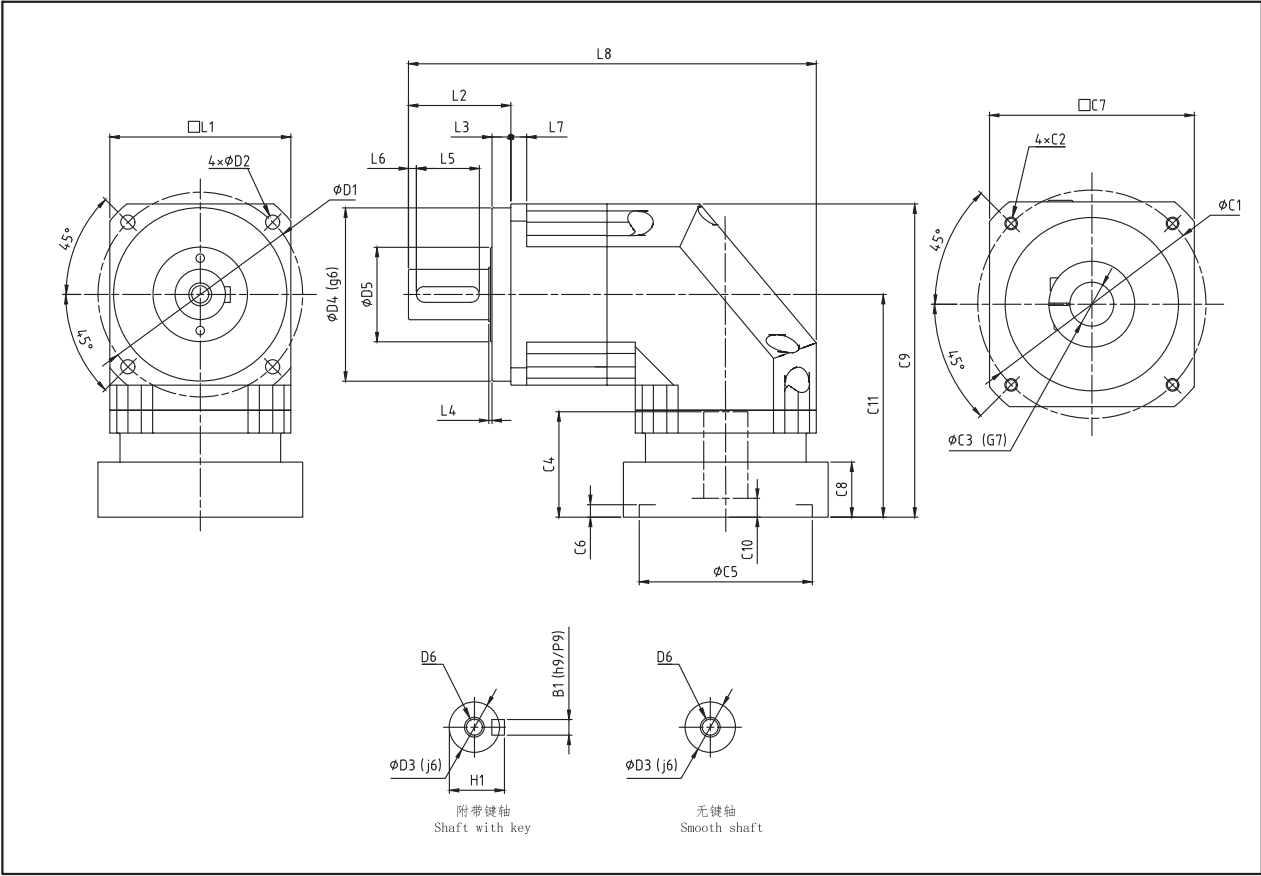
规格 Model No.	节数 Stage	减速比 Ratio	KBR042	KBR060	KBR060A	KBR090	KBR090A	KBR115	KBR115A	KBR142	KBR142A	KBR180	KBR220
额定出力矩 Nominal Output Torque	1	3	8	35	—	85	—	190	—	340	—	585	1130
		4	11	47	—	115	—	255	—	515	—	1030	1650
		5	14	59	—	145	—	320	—	645	—	1150	1900
		6	17	54	—	145	—	305	—	595	—	1050	1850
		7	18	49	—	135	—	295	—	545	—	1050	1750
		8	16	44	—	115	—	255	—	495	—	950	1650
		9	13	39	—	95	—	225	—	445	—	850	1450
		10	13	59	—	145	—	320	—	445	—	1150	1900
		12	—	54	—	145	—	305	—	590	—	1090	1850
		14	—	41	—	135	—	295	—	540	—	1090	1750
		16	—	44	—	115	—	255	—	490	—	990	1650
		20	—	39	—	95	—	225	—	440	—	890	1450
	2	12	11	—	—	—	—	—	—	—	—	—	—
		15	13	—	—	—	—	—	—	—	—	—	—
		16	14	—	—	—	—	—	—	—	—	—	—
		20	13	—	—	—	—	—	—	—	—	—	—
		25	14	59	59	145	145	320	320	645	645	1190	1900
		28	18	49	49	135	135	295	295	545	545	1090	1750
		30	19	54	54	145	145	305	305	595	595	1090	1850
		32	16	44	44	115	115	255	255	495	495	990	1650
		35	18	49	49	135	135	295	295	545	545	1090	1750
		40	16	44	44	115	115	255	255	495	495	990	1650
		45	13	39	39	95	95	225	225	445	445	890	1450
		50	13	59	59	145	145	315	315	645	645	1190	1850
		60	19	54	54	145	145	305	305	595	595	1090	1900
		70	18	49	49	135	135	295	295	545	545	1090	1650
		80	16	44	44	115	115	255	255	495	495	990	1750
		90	13	39	39	95	95	225	225	445	445	890	1450
		100	13	39	39	95	95	225	225	445	445	890	1900
		120	—	—	54	145	145	305	305	595	595	1090	1850
		140	—	—	49	135	135	295	295	545	545	1090	1750
		160	—	—	44	115	115	255	255	545	545	990	1650
		180	—	—	39	95	95	225	225	445	445	890	1450
		200	—	—	39	95	95	225	225	445	445	890	1450
急停力矩 ² Emergency Stop Torque	Nm	1, 2	3~200	3倍额定出力矩 3 times of Nominal Output Torque									
额定输入转速 Nominal Input Speed	rpm	1, 2	3~200	5000	5000	5000	4000	4000	4000	3000	3000	3000	2000
最大输入转速 Max. Input Speed	rpm	1, 2	3~200	10000	10000	10000	8000	8000	8000	6000	6000	6000	4000
标准背隙 Micro Backlash	arcmin	1	3~20	≤4									
		2	12~200	≤7									
扭转刚性 Torsional Rigidity	Nm/arcmin	1, 2	3~200	3	7	7	14	14	25	25	50	145	225
容许径向力 ³ Max. Radial Load	N	1, 2	3~200	770	1520	1520	3200	3200	6650	6650	9350	14400	49900
容许轴向力 ³ Max. Axial Load	N	1, 2	3~200	380	760	760	1600	1600	3300	3300	4600	7200	24900
使用寿命 Service Life	hr	1, 2	3~200	20000*									
效率 Efficiency	%	1	3~10	≥95%									
		2	12~200	≥92%									
重量 Weight	KG	1	3~20	0.9	2.1	—	6.4	—	13	—	24.5	—	83
		2	12~200	1.2	1.5	2.7	7.8	7.9	14.2	15.9	27.5	29.6	95
使用温度 Operating Temp	°C	1, 2	3~200	-10°C~-+90°C									
润滑 Lubrication		1, 2	3~200	合成润滑油脂 Synthetic lubrication oils									
防护等级 Degree of Protection		1, 2	3~200	IP65									
安装方向 Mounting Position		1, 2	3~200	任意方向 all directions									
噪音值 (n1=3000rpm) Noise	Db (A)	1, 2	3~200	≤61	≤63	≤65	≤65	≤68	≤68	≤70	≤70	≤72	≤74

减速机转动惯量 Gearbox Inertia

规格 Model No.	节数 Stage	减速比 Ratio	KBR042	KBR060	KBR060A	KBR090	KBR090A	KBR115	KBR115A	KBR142	KBR142A	KBR180	KBR220
转动惯 Mass Moments of Inertia	1	3~10	0.09	0.35	—	2.25	—	6.84	—	23.4	—	68.9	135.4
		12~20	—	0.07	—	1.87	—	6.25	—	21.8	—	65.6	119.8
		12~20	0.09	—	—	—	—	—	—	—	—	—	—
	2	25~90	0.09	0.09	0.35	0.35	2.25	2.25	6.84	6.84	23.4	23.4	68.9
		48.64	—	—	0.07	0.31	1.87	1.87	6.25	6.25	21.8	21.8	65.6
		100~200	—	—	0.07	0.31	1.87	1.87	6.25	6.25	21.8	21.8	65.6

- 1减速比 (i=N_{in}/N_{out})
Reduction Ratio (i=N in / N out)
★连续运转, 使用寿命为 10000 hrs
Continuous operation with service life of 10,000 hours
- 2最大加速力矩T_{2B} =60% of T_{2N0T}
Maximum acceleration torque T_{2B} =60% of T_{2N0T}
- 3输出转数 100 rpm 时, 作用于输出轴中心位置。
Load acts at the center of the output shaft when output speed is 100 rpm.

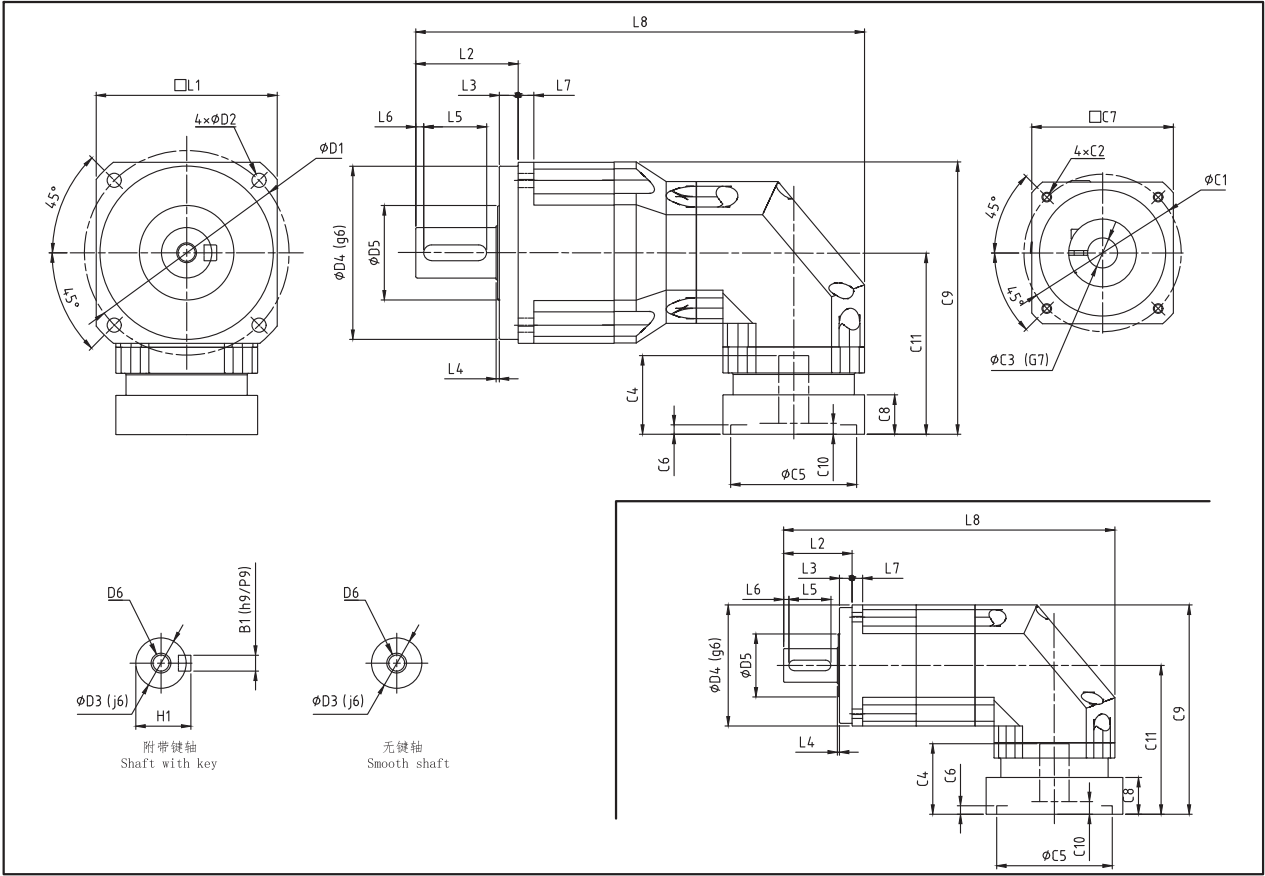
Dimension of KBR series (2 stage i=3~20)



尺寸 Dimension	KBR042	KBR060	KBR090	KBR115	KBR142	KBR180	KBR220
D1	50	70	100	130	165	215	250
D2	3.4	5.5	6.6	9	11	13	17
D3(j6)	13	16	22	32	40	55	75
D4(g6)	35	50	80	110	130	160	180
D5	22	45	65	95	75	95	115
D6	M4×0.7P	M5×0.8P	M8×1.25P	M12×1.75P	M16×2P	M20×2.5P	M20×2.5P
L1	42	60	90	115	142	180	220
L2	26	37	48	65	97	105	138
L3	5.5	7	10	12	15	20	30
L4	1	1.5	1.5	2	3	3	3
L5	16	25	32	40	63	70	90
L6	2	2	3	5	5	6	7
L7	4	6	8	10	15	15	20
L8	111.5	145	203	259	333	394	484
C1 ¹	46	70	90	145	200	200	235
C2 ¹	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M12×1.75P	M12×1.75P	M12×1.75P
C3 ¹	≤8/≤14	≤14/≤19	≤19/≤28	≤28/≤38	≤38/≤48	≤48/≤65	≤48/≤65
C4 ¹	32	35	50	77	82	118	122
C5 ¹	30	50	70	110	114.3	114.3	200
C6 ¹	5	5	6	8	8	8	8
C7 ¹	42	65	80	130	180	180	220
C8 ¹	15.5	16.5	25	45	45	75	80
C9 ¹	87.5	109	145.5	206	242	368	405.5
C10 ¹	5	5	7	22	15	30	20
C11 ¹	64.5	77.5	100	146	167	268	293
B1(h9/p9)	5	5	6	10	12	16	20
H1	15	18	24.5	35	43	59	79.5

1. C1~C11是机身尺寸随安装电机的不同而有所差异。
2. 电机轴径与C3输入轴径不同时, 可插入轴套。
3. L8尺寸按照实际出图图纸为准。
1. C1~C11 is the size of the body varies with the motor installed.
2. Bushing will be inserted to adapt to motor shaft.
3. The size of L8 shall be subject to the actual drawing.

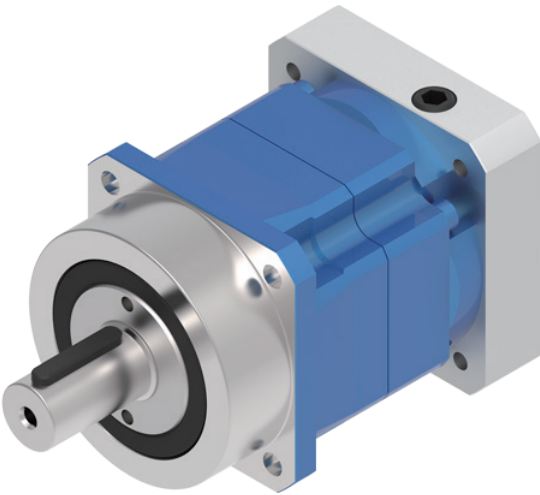
Dimension of KBR series (3 stage i=12~100)



[单位/unit: mm]											
尺寸 Dimension	KBR042	KBR060	KBR060A	KBR090	KBR090A	KBR115	KBR115A	KBR142	KBR142A	KBR180	KBR220
D1	50	70		100		130		165		215	250
D2	3.4	5.5		6.6		9		11		13	17
D3 (j6)	13	16		22		32		40		55	75
D4 (g6)	35	50		80		110		130		160	180
D5	22	45		65		95		75		95	115
D6	M4×0.7P	M5×0.8P		M8×1.25P		M12×1.75P		M16×2P		M20×2.5P	M20×2.5P
L1	42	60		90		115		142		180	220
L2	26	37		48		65		97		105	138
L3	5.5	7		10		12		15		20	30
L4	1	1.5		1.5		2		3		3	3
L5	16	25		32		40		63		70	90
L6	2	2		3		5		5		6	7
L7	4	6		8		10		15		15	20
L8	139	163.5	182	206.5	251	285	320	365	404.5	431	521
C1 ¹	46	46	90	90	145	145	200	200	200	200	200
C2 ¹	M4×0.7P	M4×0.7P	M6×1P	M6×1P	M8×1.25P	M8×1.25P	M12×1.75P	M12×1.75P	M12×1.75P	M12×1.75P	M12×1.75P
C3 ¹	≤8/≤14	≤8/≤14	≤19	≤14/≤19	≤28	≤19/≤28	≤38	≤28/≤38	≤48	≤38≤48	≤48
C4 ¹	32	32	50	50	77	77	82	82	118	118	118
C5 ¹	30	30	70	70	110	110	114.3	114.3	114.3	114.3	114.3
C6 ¹	5	5	6	6	8	8	8	8	8	8	8
C7 ¹	42	42	80	80	130	130	180	180	180	180	180
C8 ¹	45.5	45.5	25	25	45	45	45	75	75	75	75
C9 ¹	87.5	96	117.5	145.5	184.5	199	213	242	288	368	380.5
C10 ¹	5	5	7	7	22	22	15	15	30	30	30
C11 ¹	64.5	64.5	86	100	139	139	153	167	213	268	268
B1 (h9/p9)	5	5		6		10		12		16	20
H1	15	18		24.5		35		43		59	79.5

1. C1~C11是机身尺寸随安装电机的不同而有所差异。1. C1~C11 is the size of the body varies with the motor installed.
2. 电机轴径与C3输入轴径不同时，可插入轴套。2. Bushing will be inserted to adapt to motor shaft.
3. L8尺寸按照实际出图图纸为准。3. The size of L8 shall be subject to the actual drawing.

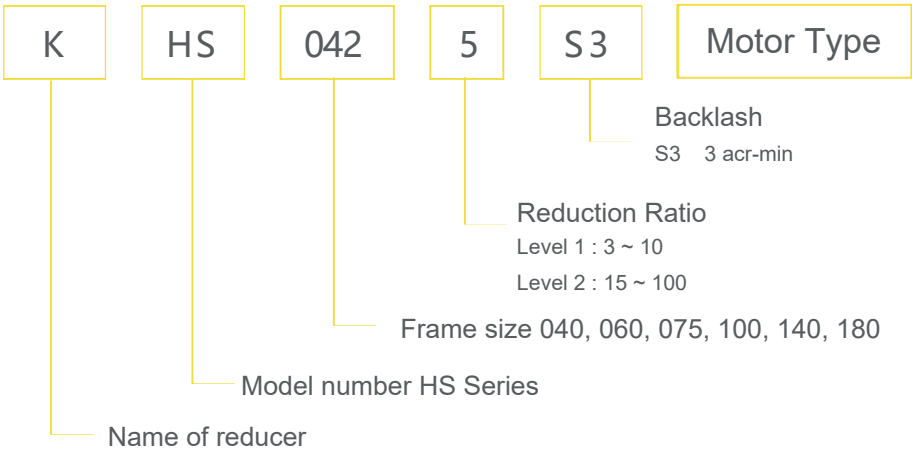
KHS Series



Features

- 1 Frame: 042, 060, 075, 100, 140, 180
- 2 Ratio: 1 stage 3~10
2 stages 12~200
- 3 Accuracy: Down to 3 arc-min

Model number



KHS series

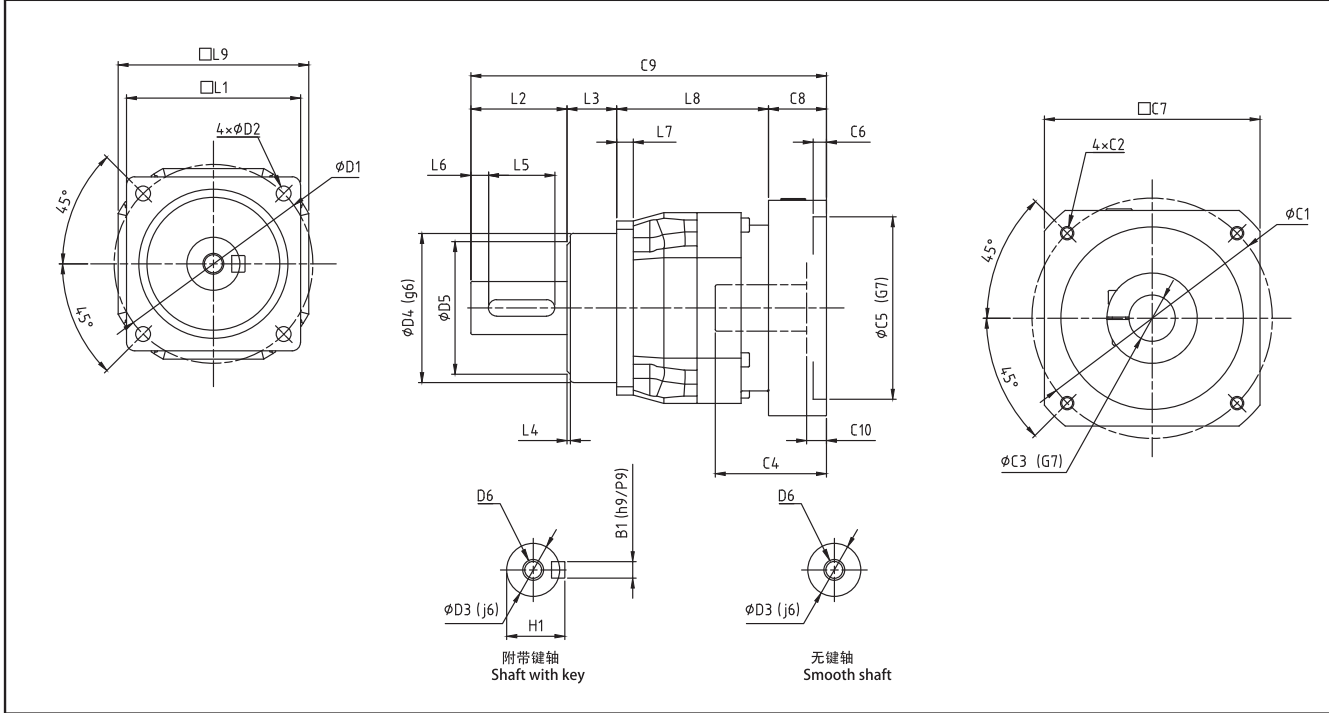
规格 Model No.		节数 Stage	减速比 Ratio	KHS042	KHS060	KHS060A	KHS075	KHS075A	KHS100	KHS100A	KHS140	KHS140A	KKHS180
额定输出力矩 Nominal Output Torque	Nm	1	3	19	54	—	125	—	205	—	340	—	580
			4	18	49	—	135	—	285	—	540	—	1040
			5	21	59	—	155	—	325	—	640	—	1190
			6	19	54	—	145	—	305	—	590	—	1090
			7	18	49	—	135	—	295	—	540	—	1090
			8	16	44	—	115	—	255	—	490	—	990
			9	13	39	—	95	—	225	—	440	—	890
			10	13	39	—	95	—	225	—	440	—	890
		2	12	18	49	49	135	135	285	285	540	540	1040
			15	19	54	54	125	125	205	205	340	340	580
			16	18	49	49	135	135	285	285	540	540	1040
			20	18	49	49	135	135	285	285	540	540	1040
			25	21	59	59	155	155	325	325	645	645	1190
			28	18	49	49	135	135	295	295	545	545	1090
			30	19	54	54	145	145	305	305	595	595	1090
			32	16	44	44	115	115	255		495	495	990
			35	18	49	49	135	135	295	295	545	545	1090
			40	16	44	44	115	115	255	255	495	495	990
			45	13	39	39	95	95	225	225	445	445	890
			50	21	59	59	155	155	315	315	645	645	1190
			60	19	54	54	145	145	305	305	595	595	1090
			70	18	49	49	135	135	295	295	545	545	1090
			80	16	44	44	115	115	255	255	495	495	990
			90	13	39	39	95	95	225	225	445	445	890
			100	13	39	39	95	95	225	225	445	445	890
急停力矩 Emergency Stop Torque	Nm	1, 2	3~100	3倍额定输出力矩 3 times of Nominal Output Torque									
额定输入转速 Nominal Input Speed	rpm	1, 2	3~100	5000	5000	5000	4000	4000	4000	4000	3000	3000	3000
最大输入转速 Max. Input Speed	rpm	1, 2	3~100	10000	10000	10000	8000	8000	8000	8000	6000	6000	6000
标准背隙 Micro Backlash	arcmin	1	3~10	≤3									
		2	12~100	≤3									
扭转刚性 Torsional Rigidity	Nm/arcmin	1, 2	3~100	3	7	7	14	14	25	25	50	50	145
容许径向力 ³ Max. Radial Load	N	1, 2	3~100	600	1350	1350	4050	4050	9150	9150	13900	13900	17900
容许轴向力 ³ Max. Axial Load	N	1, 2	3~100	310	1050	1050	3650	3650	5800	5800	11300	11300	19400
使用寿命 Service Life	hr	1, 2	3~100	20000									
效率 Efficiency	%	1	3~10	≥97%									
		2	12~100	≥94%									
重量 Weight	KG	1	3~10	0.6	1.7	1.5	3.5	4.1	7.4	11.3	15.8	22.5	32.7
		2	12~100	0.8	2	2	4	5.5	9	10.6	19.1	20.2	37.6
使用温度 Operating Temp	℃	1, 2	3~100	-10℃~+90℃									
润滑 Lubrication		1, 2	3~100	合成润滑油脂 Synthetic lubrication oils									
防护等级 Degree of Gearbox Protection		1, 2	3~100	IP65									
安装方向 Mounting Position		1, 2	3~100	任意方向 all directions									
噪音值 (n1=3000rpm) Noise	Db (A)	1, 2	3~100	≤56	≤58	≤60	≤60	≤63	≤63	≤65	≤65	≤67	≤67

减速机转动惯量 Gearbox Inertia

规格 Model No.		节数 Stage	减速比 Ratio	KHS042	KHS060	KHS060A	KHS075	KHS075A	KHS100	KHS100A	KHS140	KHS140A	KKHS180
转动惯 Mass Moments of Inertia	kg · cm ²	1	3	0.03	0.16	—	0.61	—	3.25	—	9.21	—	28.98
			4	0.03	0.14	—	0.48	—	2.74	—	7.45	—	23.67
			5	0.03	0.13	—	0.47	—	2.71	—	7.42	—	23.29
			6	0.03	0.13	—	0.45	—	2.65	—	7.25	—	22.75
			7	0.03	0.13	—	0.45	—	2.62	—	7.14	—	22.48
			8	0.03	0.13	—	0.44	—	2.58	—	7.07	—	22.59
			9	0.03	0.13	—	0.44	—	2.57	—	7.04	—	22.53
			10	0.03	0.13	—	0.44	—	2.57	—	7.03	—	22.51
		2	12	0.03	0.03	0.16	0.16	0.61	0.61	3.25	3.25	9.21	9.21
			15	0.03	0.03	0.13	0.13	0.47	0.47	3.25	3.25	7.42	7.42
			16	0.03	0.03	0.14	0.14	0.48	0.48	2.74	2.74	7.54	7.54
			20	0.03	0.03	0.13	0.13	0.47	0.47	2.74	2.74	7.42	7.42
			25	0.03	0.03	0.13	0.13	0.47	0.47	2.71	2.71	7.42	7.42
			28	0.03	0.03	0.14	0.14	0.48	0.48	2.74	2.74	7.54	7.54
			30	0.03	0.03	0.13	0.13	0.47	0.47	2.71	2.71	7.42	7.42
			32	0.03	0.03	0.14	0.14	0.48	0.48	2.74	2.74	7.54	7.54
			35	0.03	0.03	0.13	0.13	0.47	0.47	2.71	2.71	7.42	7.42
			40	0.03	0.03	0.13	0.13	0.47	0.47	2.71	2.71	7.42	7.42
			45	0.03	0.03	0.13	0.13	0.47	0.47	2.71	2.71	7.42	7.42
			50	0.03	0.03	0.13	0.13	0.44	0.44	2.57	2.57	7.03	7.03
			60	0.03	0.03	0.13	0.13	0.44	0.44	2.57	2.57	7.03	7.03
			70	0.03	0.03	0.13	0.13	0.44	0.44	2.57	2.57	7.03	7.03
			80	0.03	0.03	0.13	0.13	0.44	0.44	2.57	2.57	7.03	7.03
			90	0.03	0.03	0.13	0.13	0.44	0.44	2.57	2.57	7.03	7.03
			100	0.03	0.03	0.13	0.13	0.44	0.44	2.57	2.57	7.03	7.03

- 1减速比 (i=N_{in}/N_{out})
Reduction Ratio (i=N in / N out)
★连续运转, 使用寿命为 10000 hrs
- 2最大加速力矩T_{2B} =60% of T_{2NOT}
Maximum acceleration torque T_{2B} =60% of T_{2NOT}
- 3输出转数 100 rpm 时, 作用于输出轴中心位置。
Load acts at the center of the output shaft when output speed is 100 rpm.

Dimension of KHS series (1 stage i=3~10)

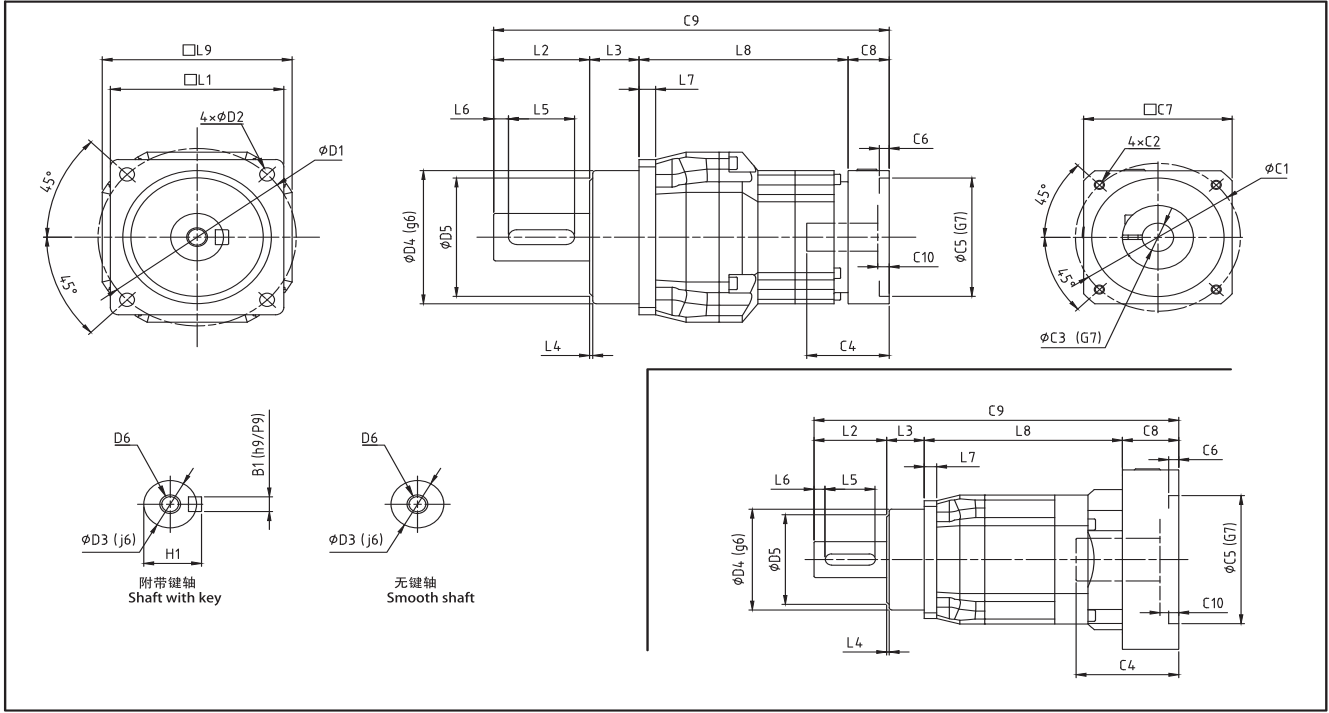


[单位/unit: mm]

尺寸 Dimension	KHS042	KHS060	KHS075	KHS100	KHS140	KHS180
D1	50	68	85	120	165	215
D2	3. 4	5. 5	6. 8	9	11	13
D3 (j6)	13	16	22	32	40	55
D4 (g6)	35	60	70	90	130	160
D5	22	45	60	80	75	95
D6	M4×0. 7P	M5×0. 8P	M8×1. 25P	M12×1. 75P	M16×2P	M20×2. 5P
L1	42	62	76	105	142	180
L2	19. 5	28. 5	36	58	82	82
L3	6. 5	20	20	30	30	30
L4	1	1. 5	2	2	3	3
L5	16	25	32	40	63	70
L6	2	2	3	5	5	6
L7	4	6	7	10	12	15
L8	31	62	84	103. 5	132	180. 5
L9	42	60	90	115	142	180
C1 ¹	46	70	90	145	200	200
C2 ¹	M4×0. 7P	M5×0. 8P	M6×1P	M8×1. 25P	M12×1. 75P	M12×1. 75P
C3 ¹	≤8/≤14	≤14/≤19	≤19/≤28	≤28/≤38	≤38/≤48	≤48/≤65
C4 ¹	32	35	50	77	82	118
C5 ¹	30	50	70	110	114. 3	114. 3
C6 ¹	5	5	6	8	8	8
C7 ¹	42	65	80	130	180	180
C8 ¹	15. 5	16. 5	25	45	45	75
C9 ¹	66	107	145	206. 5	259	337. 5
C10 ¹	5	5	7	22	15	30
B1 (h9/p9)	5	5	6	10	12	16
H1	15	18	24. 5	35	43	59

1. C1~C11是机身尺寸随安装电机的不同而有所差异。 1. C1~C11 is the size of the body varies with the motor installed.
2. 电机轴径与C3输入轴径不同时，可插入轴套。 2. Bushing will be inserted to adapt to motor shaft.
3. L8尺寸按照实际出图图纸为准。 3. The size of L8 shall be subject to the actual drawing.

Dimension of KHS series (2 stage i=12~100)

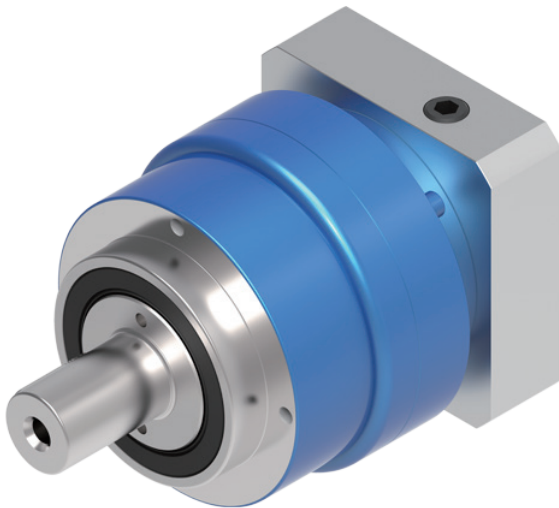


[单位/unit: mm]

尺寸 Dimension	KHS042	KHS060	KHS060A	KHS075	KHS075A	KHS100	KHS100A	KHS140	KHS140A	KHS180
D1	50	68		85		120		165		215
D2	3. 4	5. 5		6. 8		9		11		13
D3 (j6)	13	16		22		32		40		55
D4 (g6)	35	60		70		90		130		160
D5	22	45		60		80		75		95
D6	M4×0. 7P	M5×0. 8P		M8×1. 25P		M12×1. 75P		M16×2P		M20×2. 5P
L1	42	62		76		105		142		180
L2	19. 5	28. 5		36		58		82		82
L3	6. 5	20		20		30		30		30
L4	1	1. 5		2		2		3		3
L5	16	25		32		40		63		70
L6	2	2		3		5		5		6
L7	4	6		7		10		12		15
L8	58. 5	73	99	117	132	145	164. 5	188. 5	203. 5	236
L9	42	60		90		115		142		180
C1 ¹	46	46	90	90	145	145	200	200	200	200
C2 ¹	M4×0. 7P	M4×0. 7P	M6×1P	M6×1P	M8×1. 25P	M8×1. 25P	M12×1. 75P	M12×1. 75P	M12×1. 75P	M12×1. 75P
C3 ¹	≤8/≤14	≤8/≤14	≤19	≤14/≤19	≤28	≤19/≤28	≤38	≤28/≤38	≤48	≤38/≤48
C4 ¹	32	32	50	50	77	77	82	82	118	118
C5 ¹	30	30	70	70	110	110	114. 3	114. 3	114. 3	114. 3
C6 ¹	5	5	6	6	8	8	8	8	8	8
C7 ¹	42	42	80	80	130	130	180	180	180	180
C8 ¹	15. 5	15. 5	25	25	45	45	45	45	75	75
C9 ¹	93. 5	117	152. 5	178	213	248	267. 5	315. 5	360. 5	393
C10 ¹	5	5	7	7	22	22	15	15	30	30
B1 (h9/p9)	5	5		6		10		12		16
H1	15	18		24. 5		35		43		59

1. C1~C11是机身尺寸随安装电机的不同而有所差异。 1. C1~C11 is the size of the body varies with the motor installed.
2. 电机轴径与C3输入轴径不同时，可插入轴套。 2. Bushing will be inserted to adapt to motor shaft.
3. L8尺寸按照实际出图图纸为准。 3. The size of L8 shall be subject to the actual drawing.

KHL Series



Features

- 1 Frame: 050,070,090,120,155,205,235
- 2 Ratio: 1 stage 3~10
2 stages 15~100
- 3 Accuracy: 3 arc-min

Model number



KHL series

规格 Model No.		节数 Stage	减速比 Ratio	KHL050	KHL070	KHL090	KHL120	KHL155	KHL205	KHL235
额定输出力矩 Nominal Output Torque	Nm	1	3	19	54	128	205	340	585	1100
			4	18	49	138	288	540	1045	1690
			5	21	59	158	327	648	1195	1990
			6	19	54	148	305	597	1095	1890
			7	18	49	138	295	545	1090	1790
			8	16	44	118	255	495	990	1590
			9	13	39	98	225	445	890	1490
			10	13	39	98	225	445	890	1490
		2	15	19	54	128	205	340	585	1100
			20	18	49	138	288	540	1045	1690
			25	21	59	158	327	648	1195	1990
			30	19	54	148	305	597	1095	1890
			35	18	49	138	295	545	1090	1790
			40	16	44	118	255	495	990	1590
			45	13	39	98	225	445	890	1490
			50	21	59	158	327	648	1195	1990
			60	19	54	148	305	597	1095	1890
			70	18	49	138	295	545	1090	1790
			80	16	44	118	255	495	990	1590
			90	13	39	98	225	445	890	1490
			100	13	39	98	225	445	890	1490
急停力矩 ² Emergency Stop Torque	Nm	1, 2	3~100	3倍额定输出力矩 3 times of Nominal Output Torque						
额定输入转速 Nominal Input Speed	rpm	1, 2	3~100	5000	5000	4000	4000	3000	3000	2000
最大输入转速 Max. Input Speed	rpm	1, 2	3~100	10000	10000	8000	8000	6000	6000	4000
标准背隙 Micro Backlash	arcmin	1, 2	3~100	≤3						
扭转刚性 Torsional Rigidity	Nm/arcmin	1, 2	3~100	3	7	14	25	50	145	225
容许径向力 ³ Max. Radial Load	N	1, 2	3~100	700	1370	2980	6095	8450	13040	8690
容许轴向力 ³ Max. Axial Load	N	1, 2	3~100	385	760	1620	3345	4690	7200	5390
使用寿命 Service Life	hr	1, 2	3~100	20000						
效率 Efficiency	%	1	3~10	≥97%						
		2	15~100	≥94%						
重量 Weight	KG	1	3~10	0.6	1.3	3.3	6.9	13	31	53
		2	15~100	0.9	1.6	4.7	8.7	17	35	66
使用温度 Operating Temp	℃	1, 2	3~100	-10℃~+90℃						
润滑 Lubrication		1, 2	3~100	合成润滑油脂 Synthetic lubrication oils						
防护等级 Degree of Gearbox Protection		1, 2	3~100	IP65						
安装方向 Mounting Position		1, 2	3~100	任意方向 all directions						
噪音值 (n1=3000rpm) Noise	Db (A)	1, 2	3~100	≤56	≤58	≤60	≤63	≤65	≤67	≤70

减速机转动惯量 Gearbox Inertia

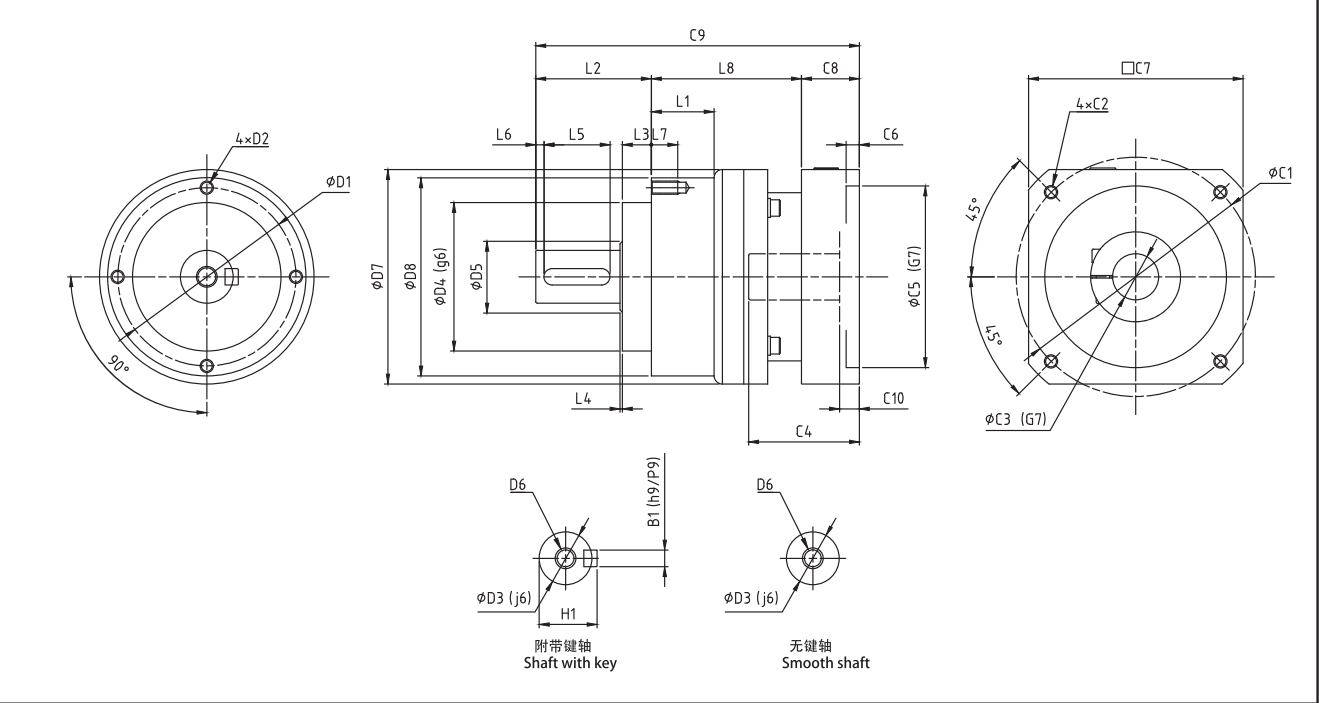
规格 Model No.		节数 Stage	减速比 Ratio	KHL050	KHL070	KHL090	KHL120	KHL155	KHL205	KHL235
转动惯 Mass Moments of Inertia	kg · cm ²	1	3	0.03	0.16	0.61	3.25	9.21	28.98	69.61
			4	0.03	0.14	0.48	2.74	7.54	23.67	54.37
			5	0.03	0.13	0.47	2.71	7.42	23.29	53.27
			6	0.03	0.13	0.45	2.65	7.25	22.75	51.72
			7	0.03	0.13	0.45	2.62	7.14	22.48	50.97
			8	0.03	0.13	0.44	2.58	7.07	22.59	50.84
			9	0.03	0.13	0.44	2.57	7.04	22.53	50.63
			10	0.03	0.13	0.44	2.57	7.03	22.51	50.56
		2	15	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			20	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			25	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			30	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			35	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			40	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			45	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			50	0.03	0.03	0.13	0.44	2.57	7.03	22.51
			60	0.03	0.03	0.13	0.44	2.57	7.03	22.51
			70	0.03	0.03	0.13	0.44	2.57	7.03	22.51
			80	0.03	0.03	0.13	0.44	2.57	7.03	22.51
			90	0.03	0.03	0.13	0.44	2.57	7.03	22.51
			100	0.03	0.03	0.13	0.44	2.57	7.03	22.51

1减速比 (i=N_{in} /N_{out})
Reduction Ratio (i=N in / N out)
★连续运转，使用寿命为 10000 hrs
Continuous operation with service life of 10,000 hours

2最大加速力矩T_{2B} =60% of T_{2NOT}
Maximum acceleration torque T_{2B} =60% of T_{2NOT}

3输出转速 100 rpm 时，作用于输出轴中心位置。
Load acts at the center of the output shaft when
output speed is 100 rpm.

Dimension of KHL series (1 stage i=3~10)



[单位/unit: mm]							
尺寸 Dimension	KHL050	KHL070	KHL090	KHL120	KHL155	KHL205	KHL235
D1	44	62	80	108	140	184	210
D2	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M10×1.5P	M12×1.75P	M16×2P
D3 _(j6)	12	16	22	32	40	55	75
D4 _(g6)	35	52	68	90	120	160	180
D5	22	22	30	40	75	95	115
D6	M4×0.7P	M5×0.8P	M8×1.25P	M12×1.75P	M16×2P	M20×2.5P	M20×2.5P
D7	53	70	104	130	162	205	260
D8	50	70	90	120	155	205	235
L1	—	—	33.5	38	50	—	70
L2	24.5	36	46	70	97	100	126
L3	4	6.5	8.5	17.5	15	15	18
L4	1	1	1	1.5	3	3	3
L5	14	25	32	40	63	70	90
L6	2	2	3	5	5	6	7
L7	8	10	12	16	20	22	28
L8	48.5	62.5	82	99	141.5	147.5	165.5
C1 ¹	46	70	90	145	200	200	235
C2 ¹	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M12×1.75P	M12×1.75P	M12×1.75P
C3 ¹	≤8/≤14	≤14/≤19	≤19/≤28	≤28/≤38	≤38/≤48	≤48/≤65	≤48/≤65
C4 ¹	32	35	50	77	82	118	122
C5 ¹	30	50	70	110	114.3	114.3	200
C6 ¹	5	5	6	8	8	8	8
C7 ¹	42	65	80	130	180	180	220
C8 ¹	15.5	16.5	25	45	45	75	80
C9 ¹	88.5	115	153	214	283.5	322.5	371.5
C10 ¹	5	5	7	22	15	30	20
B1 _(h9/p9)	5	5	6	10	12	16	20
H1	15	18	24.5	35	43	59	79.5

1. C1~C10是机身尺寸随安装电机的不同而有所差异。

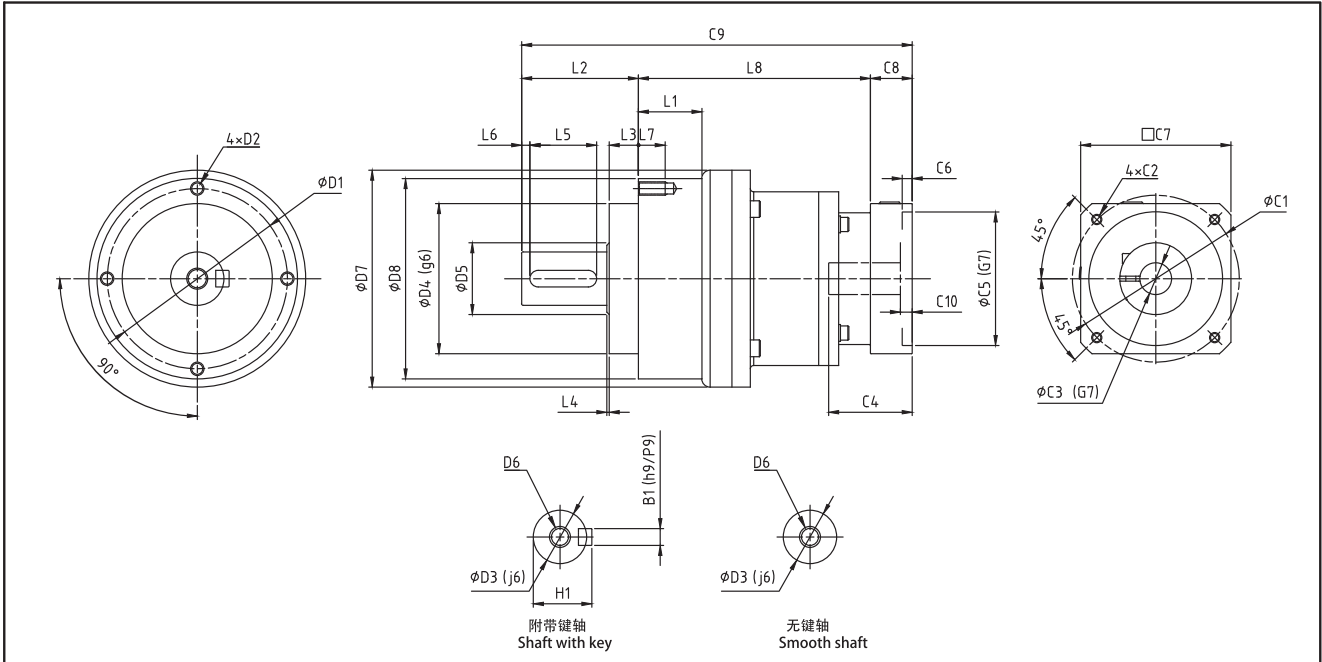
2. 电机轴径与C3输入轴径不同时，可插入轴套。

3. L8尺寸按照实际出图图纸为准。
1. C1~C10 is the size of the body varies with the mot

2. Bushing will be inserted to adapt to motor shaft.

3. The size of L8 shall be subject to the actual drawing.

Dimension of KHL series (2 stage i=15~100)

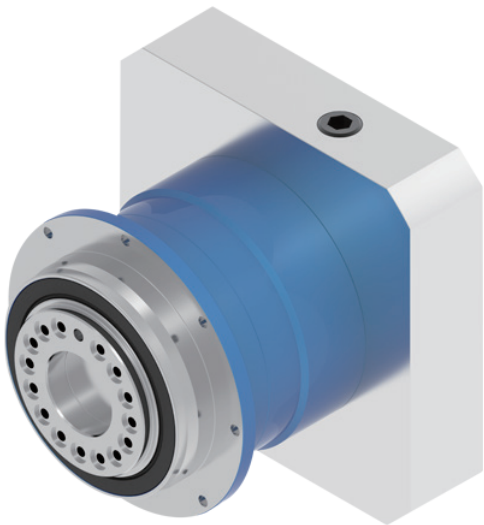


[单位/unit: mm]

尺寸 Dimension	KHL050	KHL070	KHL090	KHL120	KHL155	KHL205	KHL235
D1	44	62	80	108	140	180	210
D2	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M10×1.5P	M12×1.75P	M16×2P
D3 (j6)	12	16	22	32	40	55	75
D4 (g6)	35	52	68	90	120	160	180
D5	22	22	30	40	75	95	115
D6	M4×0.7P	M5×0.8P	M8×1.25P	M12×1.75P	M16×2P	M20×2.5P	M20×2.5P
D7	53	70	104	130	162	205	260
D8	50	70	90	120	155	205	235
L1	—	—	33.5	38	50	—	70
L2	24.5	36	46	70	97	100	126
L3	4	6.5	8.5	17.5	15	15	18
L4	1	1	1	1.5	3	3	3
L5	14	25	32	40	63	70	90
L6	2	2	3	5	5	6	7
L7	8	10	12	16	20	22	28
L8	65	83.5	104	126	156.5	192	201.5
C1 ¹	46	70	90	145	200	200	200
C2 ¹	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M12×1.75P	M12×1.75P	M12×1.75P
C3 ¹	≤8/≤14	≤8/≤14	≤14/≤19	≤19/≤28	≤28/≤38	≤38/≤48	≤38/≤48
C4 ¹	32	35	50	77	82	118	118
C5 ¹	30	50	70	110	114.3	114.3	114.3
C6 ¹	5	5	6	8	8	8	8
C7 ¹	42	65	80	130	180	180	180
C8 ¹	15.5	16.5	25	45	45	75	75
C9 ¹	105	136	175	241	298.5	375	402.5
C10 ¹	5	5	7	22	15	30	30
B1 (h9/p9)	5	5	6	10	12	16	20
H1	15	18	24.5	35	43	59	79.5

1. C1 C11是机身尺寸随安装电机的不同而有所差异。 1. C1 C11 is the size of the body varies with the motor
2. 电机轴径与C3输入轴径不同时，可插入轴套。 2. Bushing will be inserted to adapt to motor shaft.
3. L8尺寸按照实际出图图纸为准。 3. The size of L8 shall be subject to the actual drawing.

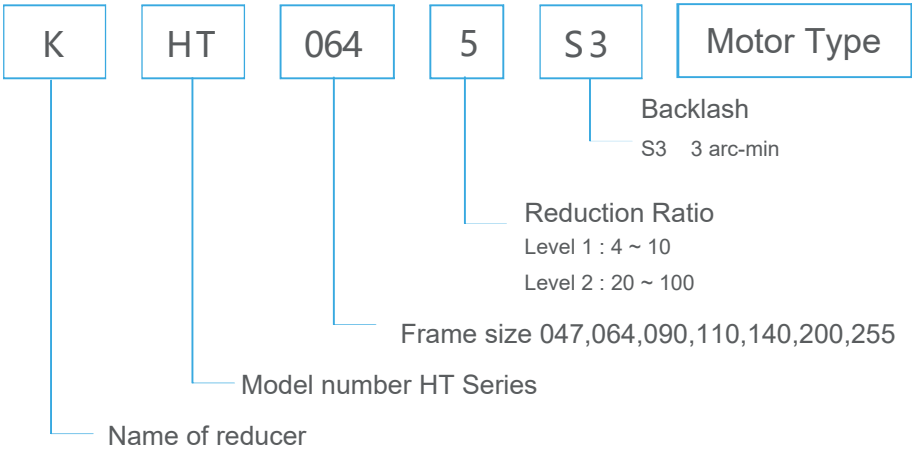
KHT Series



Features

- 1 Frame: 047,064,090,110,140,200,255
- 2 Ratio: 1 stage 4~10
2 stages 20~100
- 3 Accuracy: 3 arc-min

Model number



KHT series

规格 Model No.		节数 Stage	减速比 Ratio	KHT047	KHT064	KHT090	KHT110	KHT140	KHT200	KHT255
额定出力矩 Nominal Output Torque	Nm	1	4	18	46	125	260	550	1050	1600
			5	21	58	155	320	640	1150	1900
			7	18	48	135	290	540	1050	1700
			10	13	38	95	220	440	850	1400
		2	20	18	46	125	260	550	1050	1600
			25	21	58	155	320	640	1150	1900
			35	18	48	135	290	540	1050	1700
			40	18	46	125	260	550	1050	1600
			50	21	58	155	320	640	1150	1900
			70	18	48	135	290	540	1050	1700
			100	13	38	95	220	340	850	1400
急停力矩 ² Emergency Stop Torque	Nm	1, 2	4~100	3倍额定出力矩 3 times of Nominal Output Torque						
额定输入转速 Nominal Input Speed	rpm	1, 2	4~100	5000	5000	4000	4000	3000	3000	2000
最大输入转速 Max. Input Speed	rpm	1, 2	4~100	10000	10000	8000	8000	6000	6000	4000
标准背隙 Micro Backlash	arcmin	1, 2	4~100	≤3						
扭转刚性 Torsional Rigidity	Nm/arcmin	1, 2	4~100	7	13	31	82	151	440	1006
容许轴向力 ³ Max. Axial Load	N	1, 2	4~100	980	1000	2800	2950	10500	16600	29400
使用寿命 Service Life	hr	1, 2	4~100	30000						
效率 Efficiency	%	1	4~10	≥97%						
		2	20~100	≥94%						
重量 Weight	KG	1	4~10	0.7	1.2	3	5.6	11.9	31.6	56.1
			20~100	1	1.6	3.7	7.3	15.9	36.9	70.4
		2	16~91	1	1.4	3.5	6.5	15.5	34.2	67.2
使用温度 Operating Temp	℃	1, 2	4~100	-10℃~+90℃						
润滑 Lubrication		1, 2	4~100	合成润滑油脂 Synthetic lubrication oils						
防护等级 Degree of Gearbox Protection		1, 2	4~100	IP65						
安装方向 Mounting Position		1, 2	4~100	任意方向 all directions						
噪音值 (n1=3000rpm) Noise	Db (A)	1, 2	4~100	≤56	≤58	≤60	≤63	≤65	≤67	≤70

减速机转动惯量 Gearbox Inertia

规格 Model No.		节数 Stage	减速比 Ratio	KHT047	KHT064	KHT090	KHT110	KHT140	KHT200	KHT255
转动惯 Mass Moments of Inertia	kg · cm ²	1	4	0.03	0.14	0.51	2.87	7.54	25.03	58.31
			5	0.03	0.13	0.47	2.71	7.42	23.29	53.27
			7	0.03	0.13	0.45	2.62	7.14	22.48	50.97
			10	0.03	0.13	0.44	2.57	7.03	22.51	50.56
		2	20	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			25	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			35	0.03	0.03	0.13	0.47	2.71	7.42	23.29
			40	0.03	0.03	0.13	0.47	2.57	7.03	22.51
			50	0.03	0.03	0.13	0.47	2.57	7.03	22.51
			70	0.03	0.03	0.13	0.47	2.57	7.03	22.51
			100	0.03	0.03	0.13	0.44	2.57	7.03	22.51

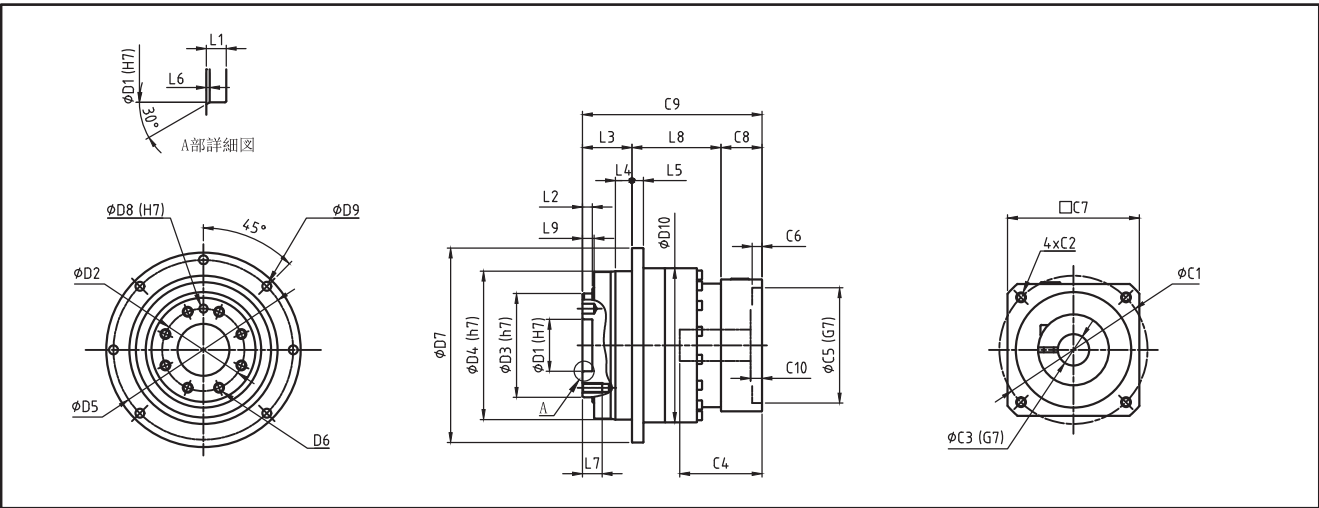
1减速比 (i=N_{in}/N_{out})
Reduction Ratio (i=N in / N out)

2最大加速力矩T_{2B} =60% of T_{2NOT}
Maximum acceleration torque T_{2B} =60% of T_{2NOT}

3输出转速 100 rpm 时，作用于输出轴中心位置。
Load acts at the center of the output shaft when output speed is 100 rpm.

★连续运转，使用寿命为 10000 hrs
Continuous operation with service life of 10,000 hours

Dimension of KHT series (1 stage i=4~10)



[单位/unit: mm]

尺寸 Dimension	KHT047	KHT064	KHT090	KHT110	KHT140	KHT200	KHT255
D1 _{H7}	12	20	31.5	40	50	80	100
D2	20	31.5	50	63	80	125	140
D3 _{H7}	28	40	63	80	100	160	180
D4 _{H7}	47	64	90	110	140	200	255
D5	67	79	109	135	168	233	280
D6	4×M3×0.5P	7×M5×0.8P	7×M6×1P	11×M6×1P	11×M8×1.25P	11×M10×1.5P	12×M16×2P
D7	72	86	118	145	179	247	300
D8 _{H7}	3	5	6	6	8	10	12
D9	8×3.4	8×4.5	8×5.5	8×5.5	12×6.6	12×9	16×13.5
D10	46	64	89	120	150	208	270
L1	4	4	6	8	10	16	20
L2	3	3	6	6	6	8	12
L3	19.5	19.5	30	29	38	50	66
L4	16.5	7	10	10	14	15	20
L5	4	4	7	8	10	12	18
L6 _{30°}	1	1	1	1	1	2	2
L7	6.5	10	12	12	16	20	25
L8	30	41	47	68	85	109	120
L9	4	6	7	7	7	10	10
C1 ¹	46	70	90	145	200	200	235
C2 ¹	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M12×1.75P	M12×1.75P	M12×1.75P
C3 ¹	≤8/≤14	≤14/≤19	≤19/≤28	≤28/≤38	≤38/≤48	≤48/≤65	≤65
C4 ¹	32	35	50	77	82	118	122
C5 ¹	30	50	70	110	114.3	114.3	200
C6 ¹	5	5	6	8	8	8	8
C7 ¹	42	65	80	130	180	180	220
C8 ¹	15.5	16.5	25	45	45	75	80
C9 ¹	65	77	102	142	168	234	266
C10 ¹	5	5	7	22	15	30	20

1. C1~C11是机身尺寸随安装电机的不同而有所差异。
2. 电机轴径与C3输入轴径不同时，可插入轴套。
3. L8尺寸按照实际出图图纸为准。

1. C1~C11 is the size of the body varies with the motor installed.
2. Bushing will be inserted to adapt to motor shaft.
3. The size of L8 shall be subject to the actual drawing.

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High Performance Planetary Reducer

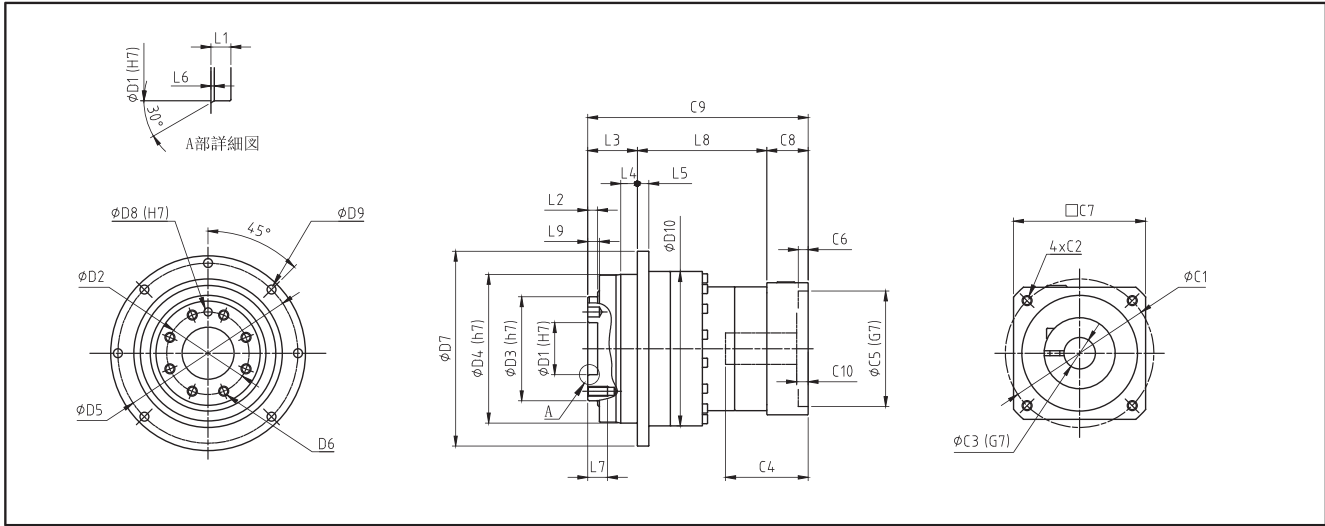
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High Performance Planetary Reducer

24

Dimension of KHT series (2 stage i=20~100)



[单位/unit: mm]

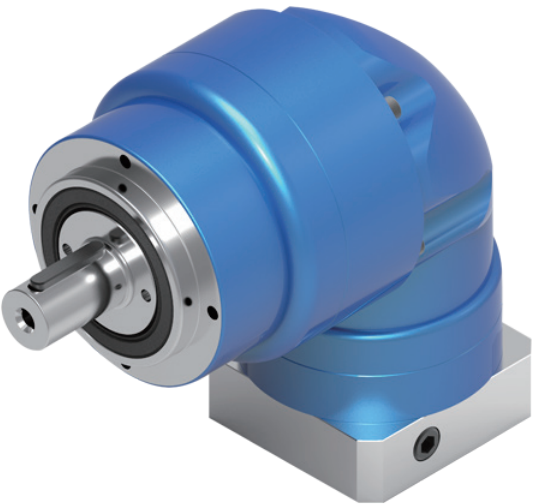
尺寸 Dimension	KHT047	KHT064	KHT090	KHT110	KHT140	KHT200	KHT255
D1 _{H7}	12	20	31.5	40	50	80	100
D2	20	31.5	50	63	80	125	140
D3 _{h7}	28	40	63	80	100	160	180
D4 _{h7}	47	64	90	110	140	200	255
D5	67	79	109	135	168	233	280
D6	4×M3×0.5P	7×M5×0.8P	7×M6×1P	11×M6×1P	11×M8×1.25P	11×M10×1.5P	12×M16×2P
D7	72	86	118	145	179	247	300
D8 _{H7}	3	5	6	6	8	10	12
D9	8×3.4	8×4.5	8×5.5	8×5.5	12×6.6	12×9	16×13.5
D10	46	64	89	120	150	208	270
L1	4	4	6	8	10	16	20
L2	3	3	6	6	6	8	12
L3	19.5	19.5	30	29	38	50	66
L4	16.5	7	10	10	14	15	20
L5	4	4	7	8	10	12	18
L6 _{30°}	1	1	1	1	1	2	2
L7	6.5	10	12	12	16	20	25
L8	57	65	78.5	106.5	136.5	163.5	198.5
L9	4	6	7	7	7	10	10
C1 ¹	46	70	90	145	200	200	200
C2 ¹	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M12×1.75P	M12×1.75P	M12×1.75P
C3 ¹	≤8/≤14	≤8/≤14	≤14/≤19	≤19/≤28	≤28/≤38	≤38/≤48	≤48
C4 ¹	32	35	50	77	82	118	118
C5 ¹	30	50	70	110	114.3	114.3	114.3
C6 ¹	5	5	6	8	8	8	8
C7 ¹	42	65	80	130	180	180	180
C8 ¹	15.5	16.5	25	45	45	75	75
C9 ¹	65	77	102	142	168	234	339.5
C10 ¹	5	5	7	22	15	30	30

1. C1~C10是机身尺寸随安装电机的不同而有所差异。1. C1~C10 is the size of the body varies with the mot

2. 电机轴径与C3输入轴径不同时，可插入轴套。2. Bushing will be inserted to adapt to motor shaft.

3. L8尺寸按照实际出图图纸为准。3. The size of L8 shall be subject to the actual drawing.

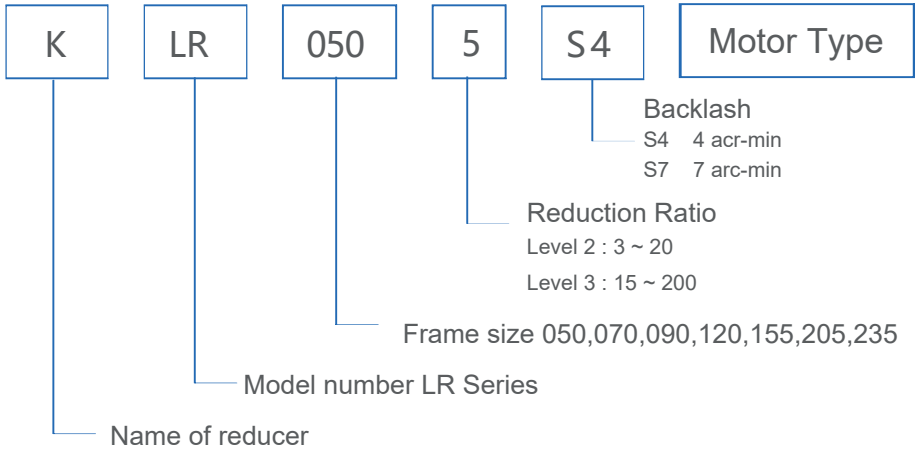
KLR Series



Features

- 1 Frame: 050,070,090,120,155,205,235
- 2 Ratio: 2 stage 3~20
3 stages 15~200
- 3 Accuracy: 4 arc-min of 2 stages
7 arc-min of 3 stages

Model number



KLR series

规格 Model No.		节数 Stage	减速比 Ratio	KLR050	KLR070	KLR090	KLR120	KLR155	KLR205	KLR235
额定输出力矩 Nominal Output Torque	Nm	2	3	8	35	85	190	340	585	1130
			4	11	47	115	255	515	1030	1670
			5	14	59	145	320	645	1150	1990
			6	17	54	145	305	595	1050	1890
			7	18	49	135	295	545	1050	1790
			8	16	44	115	255	495	950	1590
			9	13	39	95	225	445	850	1490
			10	13	59	145	320	645	1150	1990
			14	—	41	135	295	545	1090	1790
			20	—	39	95	225	445	890	1490
		3	15	13	—	—	—	—	—	—
			20	13	—	—	—	—	—	—
			25	14	59	145	320	640	1190	1990
			30	19	54	145	300	590	1090	1890
			35	18	49	135	290	540	1090	1690
			40	16	44	115	250	490	990	1590
			45	13	39	95	220	440	890	1490
			50	13	59	95	220	640	1190	1990
			60	19	54	145	300	590	1090	1890
			70	18	49	135	290	540	1090	1790
			80	16	44	115	250	490	990	1590
			90	14	39	95	220	440	890	1490
			100	14	39	95	220	440	890	1490
			120	—	—	145	300	590	1090	1890
			140	—	—	135	290	540	1090	1790
			160	—	—	115	250	540	990	1590
			180	—	—	95	220	440	890	1490
			200	—	—	95	220	440	890	1490
急停力矩 ² Emergency Stop Torque	Nm	2, 3	3~200	3倍额定输出力矩 3 times of Nominal Output Torque						
额定输入转速 Nominal Input Speed	rpm	2, 3	3~200	5000	5000	4000	4000	3000	3000	2000
最大输入转速 Max. Input Speed	rpm	2, 3	3~200	10000	10000	8000	8000	6000	6000	4000
标准背隙 Micro Backlash	arcmin	2	3~20	≤4						
		3	15~200	≤7						
扭转刚性 Torsional Rigidity	Nm/arcmin	2, 3	3~200	3	7	14	25	50	145	225
容许径向力 ³ Max: Radial Load	N	2, 3	3~200	700	1370	2980	6095	8450	13040	8690
容许轴向力 ³ Max: Radial Load	N	2, 3	3~200	385	760	1620	3345	4690	7200	5390
使用寿命 Service Life	hr	2, 3	3~200	20000						
效率 Efficiency	%	2	3~20	≥95%						
		3	15~200	≥92%						

KLR series

规格 Model No.		节数 Stage	减速比 Ratio	KLR050	KLR070	KLR090	KLR120	KLR155	KLR205	KLR235
重量 Weight	KG	2	3~20	1	2.1	5.8	11.2	22.4	46.8	78
		3	15~200	1.3	2	4.6	11.1	21.8	43.7	81.9
使用温度 Operating Temp	℃	2, 3	3~200	—10℃~+90℃						
润滑 Lubrication		2, 3	3~200	合成润滑油脂 Synthetic lubrication oils						
防护等级 Degree of Gearbox Protection		2, 3	3~200	IP65						
安装方向 Mounting Position		2, 3	3~200	任意方向 all directions						
噪音值 (n1=3000rpm) Noise	Db (A)	2, 3	3~200	≤61	≤63	≤65	≤68	≤70	≤72	≤74

减速机转动惯量 Gearbox Inertia

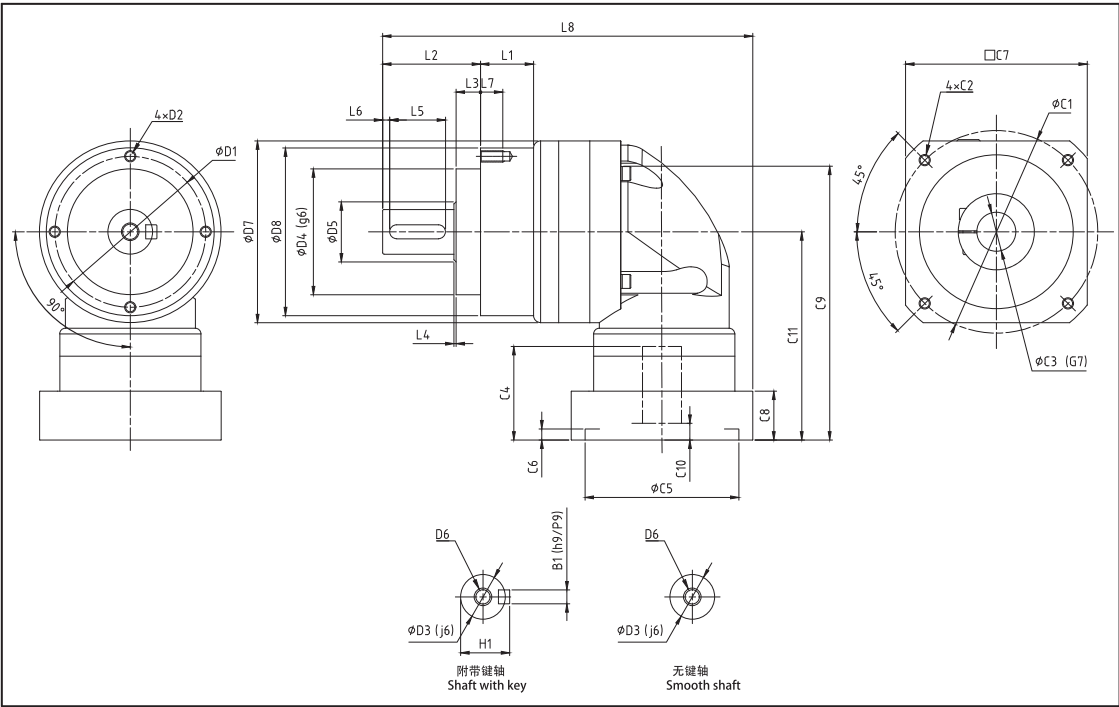
规格 Model No.		节数 Stage	减速比 Ratio	KLR050	KLR070	KLR090	KLR120	KLR155	KLR205	KLR235
转动惯 Mass Moments of Inertia	kg · cm ²	2	3~10	0.09	0.35	2.25	6.84	23.4	68.9	135.4
			14	—	0.07	1.87	6.25	21.8	65.6	119.8
			20	—	0.07	1.87	6.25	21.8	65.6	119.8
		3	15	0.09	—	—	—	—	—	—
			20	0.09	—	—	—	—	—	—
			25~100	0.09	0.09	0.35	2.25	6.84	23.4	68.9
			120~200	—	—	0.31	1.87	6.25	21.8	65.6

1 减速比 (i=N_{in} / N_{out})
Reduction Ratio (i=N in / N out)
★连续运转, 使用寿命为 10000 hrs
Continuous operation with service life of 10,000 hours

2 最大加速力矩 T_{2B} =60% of T_{2N0T}
Maximum acceleration torque T_{2B} =60% of T_{2N0T}

3 输出转数 100 rpm 时, 作用于输出轴中心位置。
Load acts at the center of the output shaft when output speed is 100 rpm.

Dimension of KLR series (2 stage i=3~20)

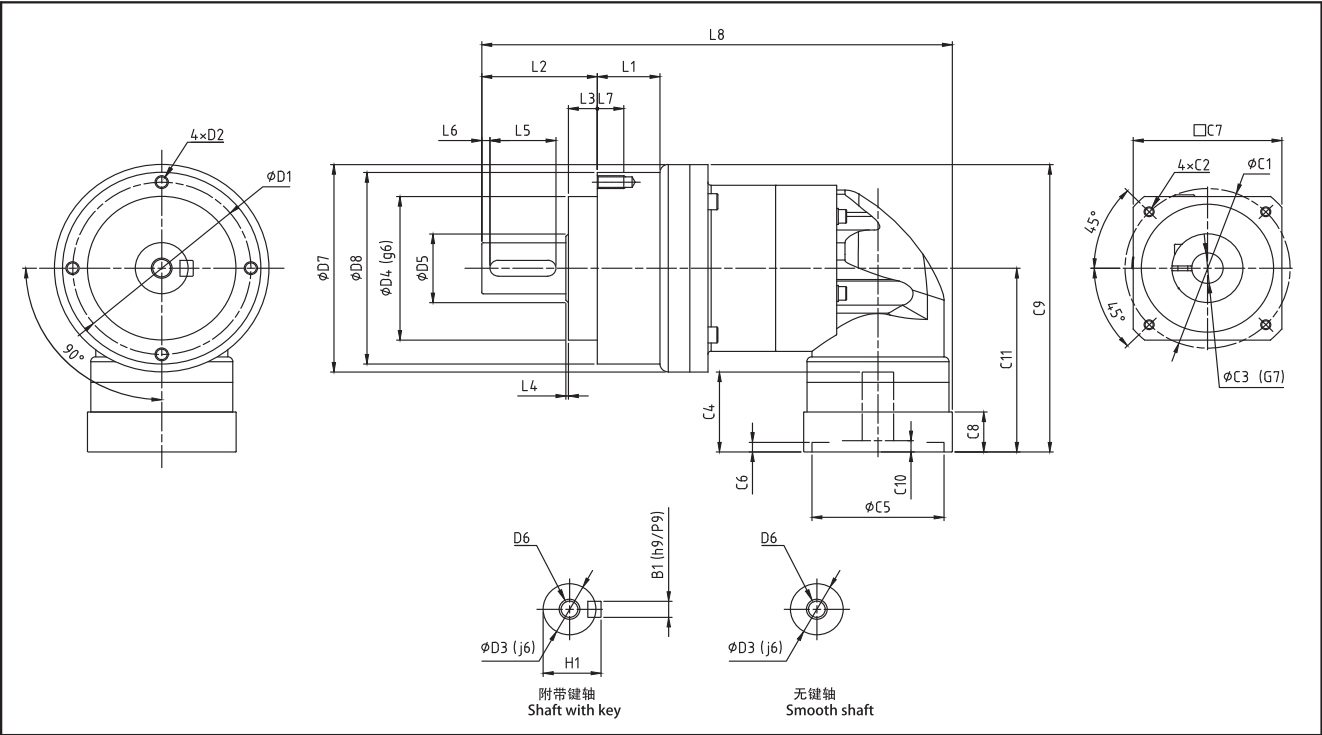


[单位/unit: mm]

尺寸 Dimension	KLR050	KLR070	KLR090	KLR120	KLR155	KLR205	KLR235
D1	44	62	80	108	140	184	210
D2	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M10×1.5P	M12×1.75P	M16×2P
D3 (j6)	12	16	22	32	40	55	75
D4 (g6)	35	52	68	90	120	160	180
D5	22	22	30	40	75	95	115
D6	M4×0.7P	M5×0.8P	M8×1.25P	M12×1.75P	M16×2P	M20×2.5P	M20×2.5P
D7	53	70	104	130	162	205	260
D8	50	70	90	120	155	205	235
L1	—	—	33.5	38	50	—	70
L2	24.5	36	46	70	97	100	126
L3	4	6.5	8.5	17.5	15	15	18
L4	1	1	1	1.5	3	3	3
L5	14	25	32	40	63	70	90
L6	2	2	3	5	5	6	7
L7	8	10	12	16	20	22	28
L8	115.5	146	201	252	324.5	379.5	461.5
C1 ¹	46	70	90	145	200	200	235
C2 ¹	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M12×1.75P	M12×1.75P	M12×1.75P
C3 ¹	≤8/≤14	≤14/≤19	≤19/≤28	≤28/≤38	≤38/≤48	≤48/≤65	≤48/≤65
C4 ¹	32	35	50	77	82	118	122
C5 ¹	30	50	70	110	114.3	114.3	200
C6 ¹	5	5	6	8	8	8	8
C7 ¹	42	65	80	130	180	180	220
C8 ¹	15.5	16.5	25	45	45	75	80
C9 ¹	91	112.5	152	211	248	370.5	423.5
C10 ¹	5	5	7	22	15	30	20
C11 ¹	64.5	77.5	100	146	167	268	293
B1 (h9/p9)	5	5	6	10	12	16	20
H1	15	18	24.5	35	43	59	79.5

1. C1~C11是机身尺寸随安装电机的不同而有所差异。1. C1~C11 is the size of the body varies with the motor
2. 电机轴径与C3输入轴径不同时，可插入轴套。2. Bushing will be inserted to adapt to motor shaft.
3. L8尺寸按照实际出图图纸为准。3. The size of L8 shall be subject to the actual drawing.

Dimension of KLR series (3 stage i=15~200)

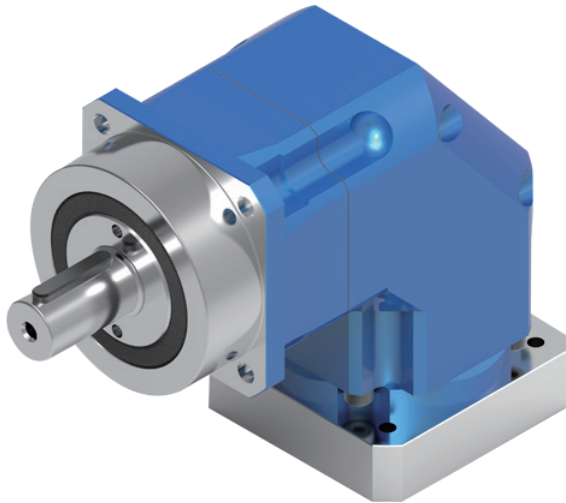


[单位/unit: mm]

尺寸 Dimension	KLR050	KLR070	KLR090	KLR120	KLR155	KLR205	KLR235
D1	44	62	80	108	140	184	210
D2	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M10×1.5P	M12×1.75P	M16×2P
D3 (j6)	12	16	22	32	40	55	75
D4 (g6)	35	52	68	90	120	160	180
D5	22	22	30	40	75	95	115
D6	M4×0.7P	M5×0.8P	M8×1.25P	M12×1.75P	M16×2P	M20×2.5P	M20×2.5P
D7	53	70	104	130	162	205	260
D8	50	70	90	120	155	205	235
L1	—	—	33.5	38	50	—	70
L2	24.5	36	46	70	97	100	126
L3	4	6.5	8.5	17.5	15	15	18
L4	1	1	1	1.5	3	3	3
L5	14	25	32	40	63	70	90
L6	2	2	3	5	5	6	7
L7	8	10	12	16	20	22	28
L8	142.5	167.5	207.5	283	358	422.5	506.5
C1 ¹	46	70	90	145	200	200	200
C2 ¹	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M12×1.75P	M12×1.75P	M12×1.75P
C3 ¹	≤8/≤14	≤8/≤14	≤14/≤19	≤19/≤28	≤28/≤38	≤38/≤48	≤38/≤48
C4 ¹	32	35	50	77	82	118	118
C5 ¹	30	50	70	110	114.3	114.3	114.3
C6 ¹	5	5	6	8	8	8	8
C7 ¹	42	65	80	130	180	180	180
C8 ¹	15.5	16.5	25	45	45	75	75
C9 ¹	91	99.5	129.5	165	227	269.5	398
C10 ¹	5	5	7	22	15	30	30
C11 ¹	64.5	64.5	77.5	100	146	167	268
B1 (h9/p9)	5	5	6	10	12	16	20
H1	15	18	24.5	35	43	59	79.5

1. C1~C11是机身尺寸随安装电机的不同而有所差异。1. C1~C11 is the size of the body varies with the motor
2. 电机轴径与C3输入轴径不同时，可插入轴套。2. Bushing will be inserted to adapt to motor shaft.
3. L8尺寸按照实际出图图纸为准。3. The size of L8 shall be subject to the actual drawing.

KSR Series



Features

- 1

Frame:

042,060,075,100,142,180
- 2

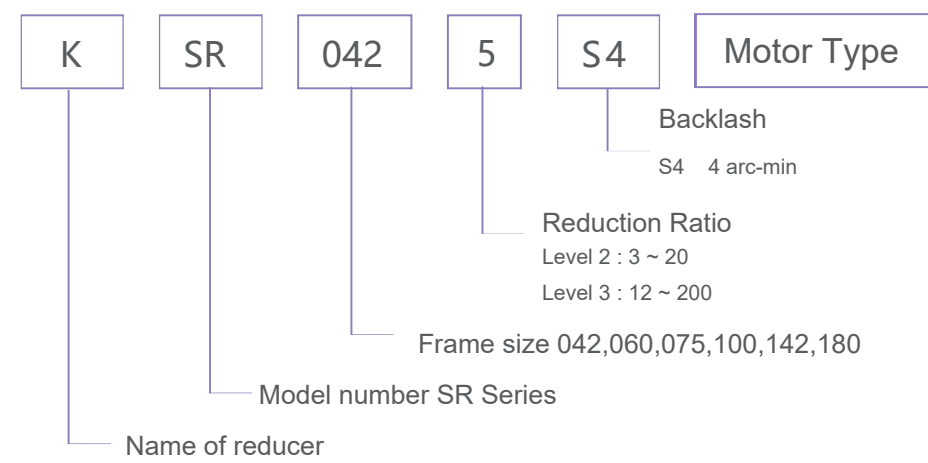
Ratio:

2 stage 3~20
3 stages 12~200
- 3

Accuracy:

4 arc-min of 2 stage
7 arc-min of 3 stage

Model number



KSR series

规格		节数	减速比	KSR042	KSR060	KSR060A	KSR075	KSR075A	KSR100	KSR100A	KSR140	KSR140A	KSR180	
额定输出力矩 Nominal Output Torque	Nm	2	3	8	35	—	85	—	190	—	340	—	585	
			4	11	47	—	115	—	255	—	515	—	1030	
			5	14	59	—	145	—	320	—	645	—	1150	
			6	17	54	—	145	—	305	—	595	—	1050	
			7	18	49	—	135	—	295	—	545	—	1050	
			8	16	44	—	115	—	255	—	495	—	950	
			9	13	39	—	95	—	225	—	445	—	850	
			10	13	59	—	145	—	320	—	445	—	1150	
			12	—	54	—	145	—	305	—	590	—	1090	
			14	—	41	—	135	—	295	—	540	—	1090	
		16	—	44	—	115	—	255	—	490	—	990		
		20	—	39	—	95	—	225	—	440	—	890		
		3	12	11	—	—	—	—	—	—	—	—	—	—
			15	13	—	—	—	—	—	—	—	—	—	—
			16	14	—	—	—	—	—	—	—	—	—	—
			20	13	—	—	—	—	—	—	—	—	—	—
			25	14	59	59	145	145	320	320	645	645	1190	
			28	18	49	49	135	135	295	295	545	545	1090	
			30	19	54	54	145	145	305	305	595	595	1090	
			32	16	44	44	115	115	255	255	495	495	990	
			35	18	49	49	135	135	295	295	545	545	1090	
			40	16	44	44	115	115	255	255	495	495	990	
	45		13	39	39	95	95	225	225	445	445	890		
	50		13	59	59	145	145	315	315	645	645	1190		
	60	19	54	54	145	145	305	305	595	595	1090			
	70	18	49	49	135	135	295	295	545	545	1090			
	80	16	44	44	115	115	255	255	495	495	990			
	90	13	39	39	95	95	225	225	445	445	890			
	100	13	39	59	95	95	225	225	445	445	890			
	120	—	—	54	145	145	305	305	595	595	1090			
	140	—	—	49	135	135	295	295	545	545	1090			
	160	—	—	44	115	115	255	255	545	545	990			
	180	—	—	39	95	95	225	225	445	445	890			
	200	—	—	39	95	95	225	225	445	445	890			
急停力矩 ² Emergency Stop Torque	Nm	2, 3	3~200	3倍额定输出力矩 3 times of Nominal Output Torque										
额定输入转速 Nominal Input Speed	rpm	2, 3	3~200	5000	5000	5000	4000	4000	4000	4000	3000	3000	3000	
最大输入转速 Max. Input Speed	rpm	2, 3	3~200	10000	10000	10000	8000	8000	8000	8000	6000	6000	6000	
标准背隙 Micro Backlash	arcmin	2	3~20	≤4										
		3	12~200	≤7										
扭转刚性 Torsional Rigidity	Nm/arcmin	2, 3	3~200	3	7	7	14	14	25	25	50	50	145	
容许径向力 ³ Max: Radial Load	N	2, 3	3~200	600	1350	1350	4050	4050	9150	9150	13900	13900	17900	
容许轴向力 ³ Max: Radial Load	N	2, 3	3~200	310	1050	1050	3650	3650	5800	5800	11300	11300	19400	
使用寿命 Service Life	hr	2, 3	3~200	20000										

KSR series

规格		节数	减速比	KSR042	KSR060	KSR060A	KSR075	KSR075A	KSR100	KSR100A	KSR140	KSR140A	KSR180
效率 Efficiency	%	2	3~20	≥95%									
		3	12~200	≥92%									
重量 Weight	KG	2	3~20	0.9	2.7	3.7	6.1	7.9	12.2	16	25.3	32	50.2
		3	12~200	1.2	2.4	2.8	4.8	8	11.6	15.1	24	29.2	47.4
使用温度 Operating Temp	℃	2, 3	3~200	-10℃~+90℃									
润滑 Lubrication		2, 3	3~200	合成润华油脂 Synthetic lubrication oils									
防护等级 Degree of Gearbox Protection		2, 3	3~200	IP65									
安装方向 Mounting Position		2, 3	3~200	任意方向 all directions									
噪音值 (n1=3000rpm) Noise	Db (A)	2, 3	3~200	≤61	≤63	≤65	≤65	≤68	≤68	≤70	≤70	≤72	≤72

减速机转动惯量 Gearbox Inertia

规格 Model No.		节数 Stage	减速比 Ratio	KSR042	KSR060	KSR060A	KSR075	KSR075A	KSR100	KSR100A	KSR140	KSR140A	KSR180
转动惯 Mass Moments of Inertia	kg · cm ²	2	3~10	0.09	0.35	—	2.25	—	6.84	—	23.4	—	68.9
			12~20	—	0.07	—	1.87	—	6.25	—	21.8	—	65.6
		3	12~20										
			15	0.09	—	—	—	—	—	—	—	—	—
			20	0.09	—	—	—	—	—	—	—	—	—
			25~100	0.09	0.09	0.35	0.35	2.25	2.25	6.84	6.84	23.4	23.4
			120~200	—	—	0.07	0.31	1.87	1.87	6.25	6.25	21.8	21.8

- 1 减速比 (i=N_{in}/N_{out})

Reduction Ratio (i=N in / N out)

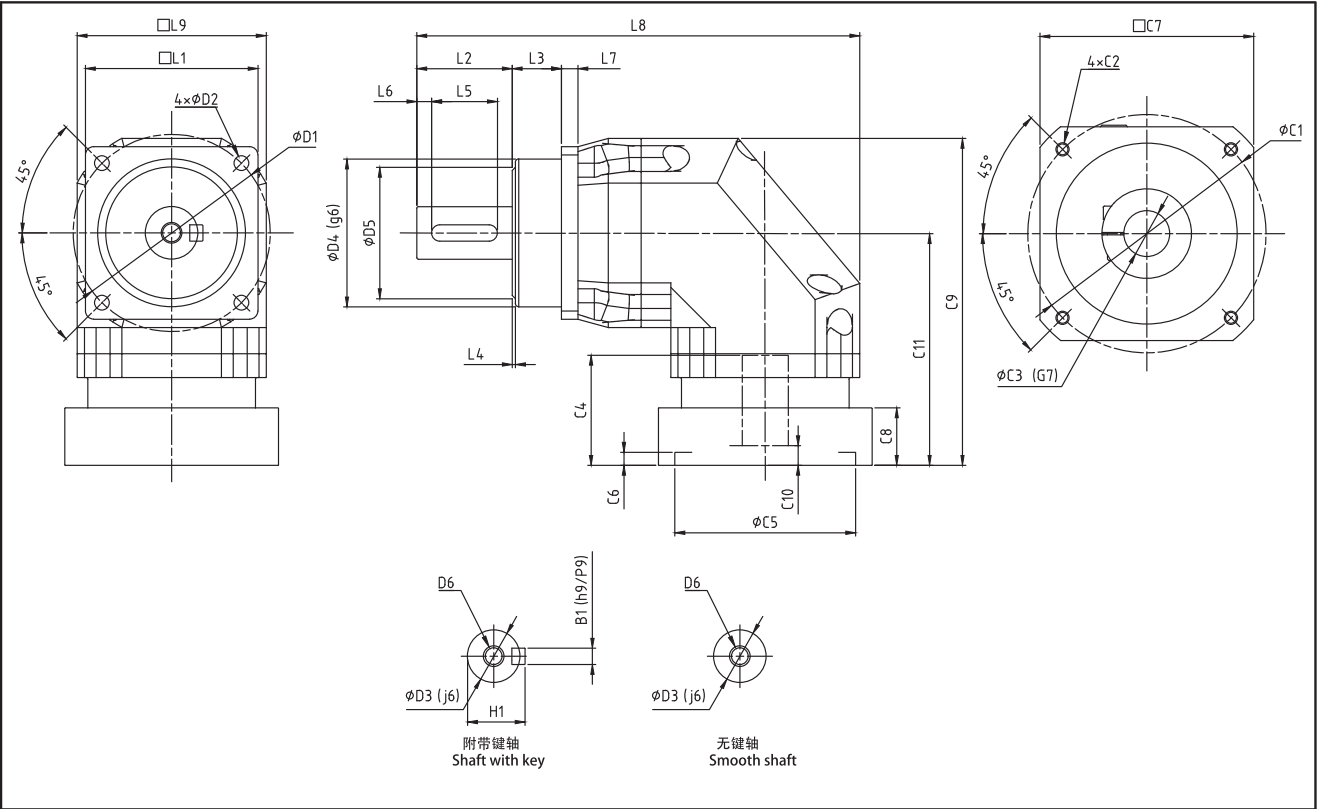
★连续运转, 使用寿命为 10000 hrs

Continuous operation with service life of 10,000 hours
- 2 最大加速力矩 T_{2B} =60% of T_{2N0T}

Maximum acceleration torque T_{2B} =60% of T_{2N0T}
- 3 输出转速 100 rpm 时, 作用于输出轴中心位置。

Load acts at the center of the output shaft when output speed is 100 rpm.

Dimension of KSR series (2 stage i=3~20)



[单位/unit: mm]						
尺寸 Dimension	KSR042	KSR060	KSR075	KSR100	KSR140	KSR180
D1	50	68	85	120	165	215
D2	3.4	5.5	6.8	9	11	13
D3 (j6)	13	16	22	32	40	55
D4 (g6)	35	60	70	90	130	160
D5	22	45	60	80	75	95
D6	M4×0.7P	M5×0.8P	M8×1.25P	M12×1.75P	M16×2P	M20×2.5P
L1	42	62	76	105	142	180
L2	19.5	28.5	36	58	82	82
L3	6.5	20	20	30	30	30
L4	1	1.5	2	2	3	3
L5	16	25	32	40	63	70
L6	2	2	3	5	5	6
L7	4	6	7	10	12	15
L8	111.5	171.5	216.5	283.5	360.5	427.5
L9	42	60	90	115	142	180
C1 ¹	46	70	90	145	200	200
C2 ¹	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M12×1.75P	M12×1.75P
C3 ¹	≤8/≤14	≤14/≤19	≤19/≤28	≤28/≤38	≤38/≤48	≤48/≤65
C4 ¹	32	35	50	77	82	118
C5 ¹	30	50	70	110	114.3	114.3
C6 ¹	5	5	6	8	8	8
C7 ¹	42	65	80	130	180	180
C8 ¹	15.5	16.5	25	45	45	75
C9 ¹	85.5	107.5	145	203.5	238	358
C10 ¹	5	5	7	22	15	30
C11 ¹	64.5	77.5	100	146	167	268
B1 (h9/p9)	5	5	6	10	12	16
H1	15	18	24.5	35	43	59

1. C1~C11是机身尺寸随安装电机的不同而有所差异。

1. C1~C11 is the size of the body varies with the motor

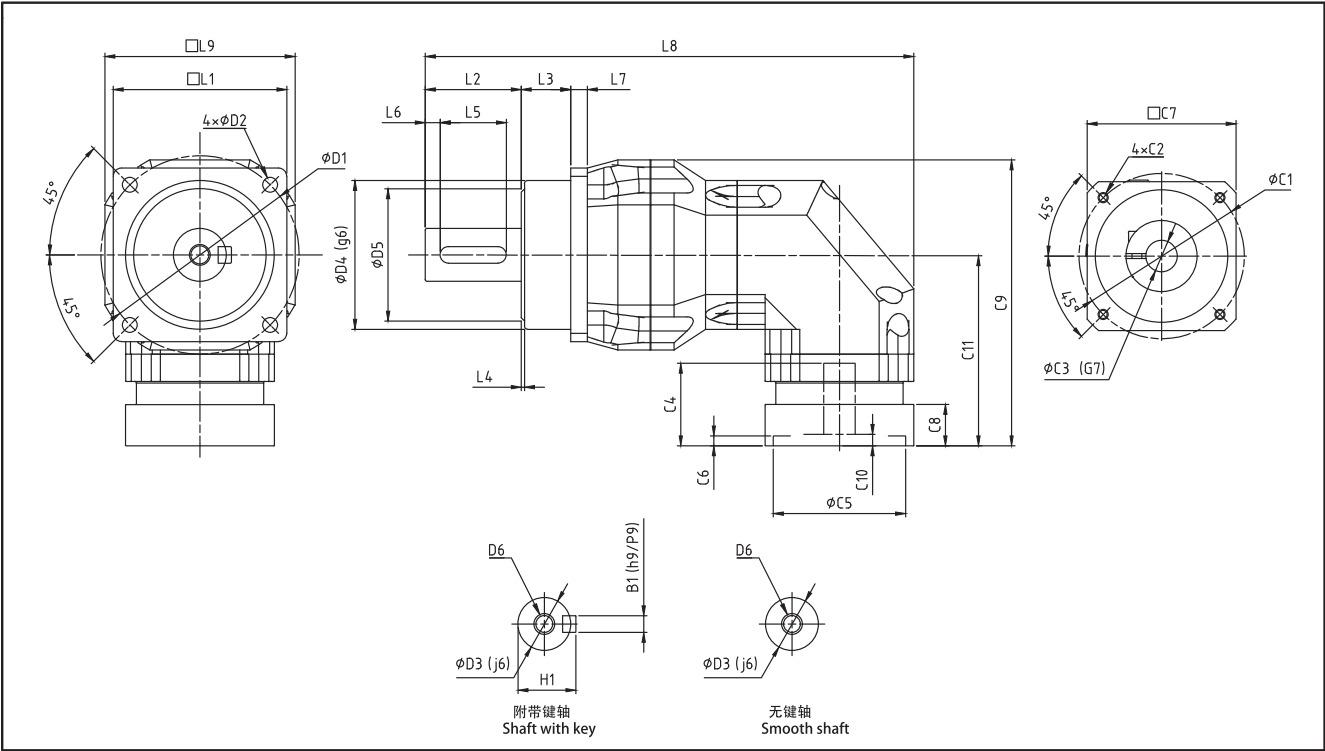
2. 电机轴径与C3输入轴径不同时, 可插入轴套。

2. Bushing will be inserted to adapt to motor shaft.

3. L8尺寸按照实际出图图纸为准。

3. The size of L8 shall be subject to the actual drawing.

Dimension of KSR series (3 stage i=12~200)



[单位/unit: mm]										
尺寸 Dimension	KSR042	KSR060	KSR060A	KSR075	KSR075A	KSR100	KSR100A	KSR140	KSR140A	KSR180
D1	50	68		85		120		165		215
D2	3.4	5.5		6.8		9		11		13
D3 (j6)	13	16		22		32		40		55
D4 (g6)	35	60		70		90		130		160
D5	22	45		60		80		75		95
D6	M4×0.7P	M5×0.8P		M8×1.25P		M12×1.75P		M16×2P		M20×2.5P
L1	42	62		76		105		142		180
L2	19.5	28.5		36		58		82		82
L3	6.5	20		20		30		30		30
L4	1	1.5		2		2		3		3
L5	16	25		32		40		63		70
L6	2	2		3		5		5		6
L7	4	6		7		10		12		15
L8	139	176	208.5	220	264.5	309.5	344.5	392.5	432	464.5
L9	42	60		90		115		142		180
C1 ¹	46	46	90	90	145	145	200	200	200	200
C2 ¹	M4×0.7P	M4×0.7P	M6×1P	M6×1P	M8×1.25P	M8×1.25P	M12×1.75P	M12×1.75P	M12×1.75P	M12×1.75P
C3 ¹	≤8/≤14	≤8/≤14	≤19	≤14/≤19	≤28	≤19/≤28	≤38	≤28/≤38	≤48	≤38/≤48
C4 ¹	32	32	50	50	77	77	82	82	118	118
C5 ¹	30	30	70	70	110	110	114.3	114.3	114.3	114.3
C6 ¹	5	5	6	6	8	8	8	8	8	8
C7 ¹	42	42	80	80	130	130	180	180	180	180
C8 ¹	45.5	45.5	25	25	45	45	45	45	75	75
C9 ¹	85.5	94.5	116	145	190	196.5	210.5	238	284	358
C10 ¹	5	5	7	7	22	22	15	15	30	30
C11 ¹	64.5	64.5	86	100	139	139	153	167	213	268
B1 (h9/p9)	5	5		6		10		12		16
H1	15	18		24.5		35		43		59

1. C1~C11是机身尺寸随安装电机的不同而有所差异。

2. 电机轴径与C3输入轴径不同时，可插入轴套。

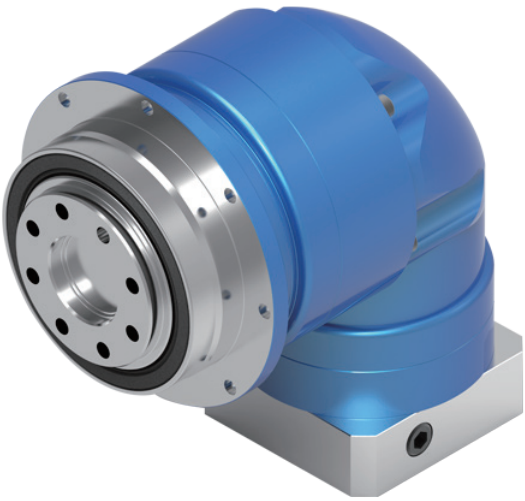
3. L8尺寸按照实际出图图纸为准。

1. C1~C11 is the size of the body varies with the motor installed.

2. Bushing will be inserted to adapt to motor shaft.

3. The size of L8 shall be subject to the actual drawing.

KTR Series



Features

- 1

Frame:

047,064,090,110,140,200,255
- 2

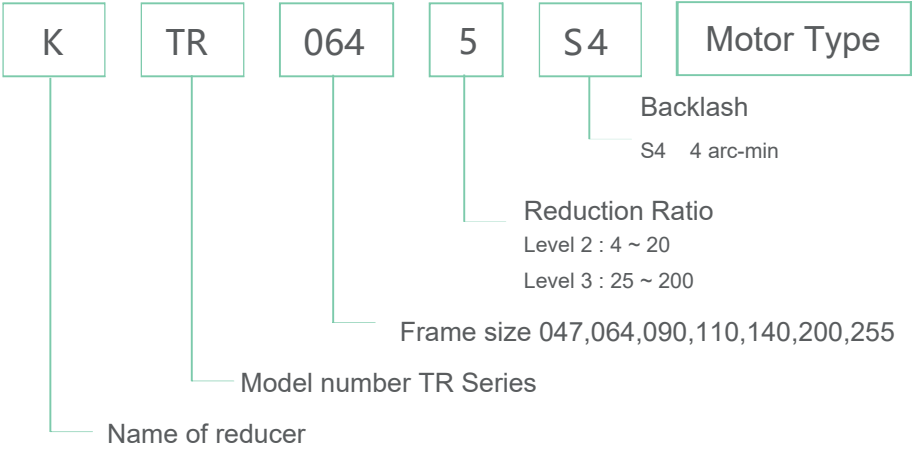
Ratio:

2 stage 4~20
3 stages 25~200
- 3

Accuracy:

4 arc-min of 2 stages
7 arc-min of 3 stages

Model number



KTR series

规格 Model No.		节数 Stage	减速比 Ratio	KTR047	KTR064	KTR090	KTR110	KTR140	KTR200	KTR255
额定输出力矩 Nominal Output Torque	Nm	2	4	18	46	125	260	550	1050	1600
			5	21	58	155	320	640	1150	1900
			7	18	48	135	290	540	1050	1700
			10	13	58	155	315	640	1150	1900
			14	—	40	135	290	540	850	1700
		3	20	—	38	95	220	440	850	1400
			20	18	—	—	—	—	—	—
			25	21	58	155	320	640	1150	1900
			35	18	48	135	290	540	1050	1700
			40	18	46	125	260	550	1050	1600
			50	21	58	155	320	640	1150	1900
			70	18	48	135	290	540	1050	1700
			100	13	38	95	220	440	850	1400
			140	—	—	135	290	540	850	1700
			200	—	—	95	220	440	850	1400
急停力矩 ² Emergency Stop Torque	Nm	2, 3	4~200	3倍额定输出力矩 3 times of Nominal Output Torque						
额定输入转速 Nominal Input Speed	rpm	2, 3	4~200	5000	5000	4000	4000	3000	3000	2000
最大输入转速 Max. Input Speed	rpm	2, 3	4~200	10000	10000	8000	8000	6000	6000	4000
标准背隙 Micro Backlash	arcmin	2	4~20	≤4						
	arcmin	3	25~200	≤7						
扭转刚性 Torsional Rigidity	Nm/arcmin	2, 3	4~200	7	13	31	82	151	440	1006
容许径向力 ³ Max. Radial Load	Nm	2, 3	4~200	42.5	125	235	430	1300	3064	5900
容许轴向力 ³ Max. Radial Load	N	2, 3	4~200	980	1000	2800	2950	10500	16600	29400
使用寿命 Service Life	hr	2, 3	4~200	30000						
效率 Efficiency	%	2	4~20	≥97%						
		3	25~100	≥94%						
重量 Weight	KG	2	4~20	1.1	2.1	5.9	10.5	21.9	50.9	85.4
		3	25~200	1.4	1.9	4.5	9.8	20.1	45.4	85.9
使用温度 Operating Temp	℃	2, 3	4~200	-10℃~+90℃						
润滑 Lubrication		2, 3	4~200	合成润华油脂 Synthetic lubrication oils						
防护等级 Degree of Gearbox Protection		2, 3	4~200	IP65						
安装方向 Mounting Position		2, 3	4~200	任意方向 all directions						
噪音值 (n1=3000rpm) Noise	Db (A)	2, 3	4~200	≤61	≤63	≤65	≤68	≤70	≤72	≤74

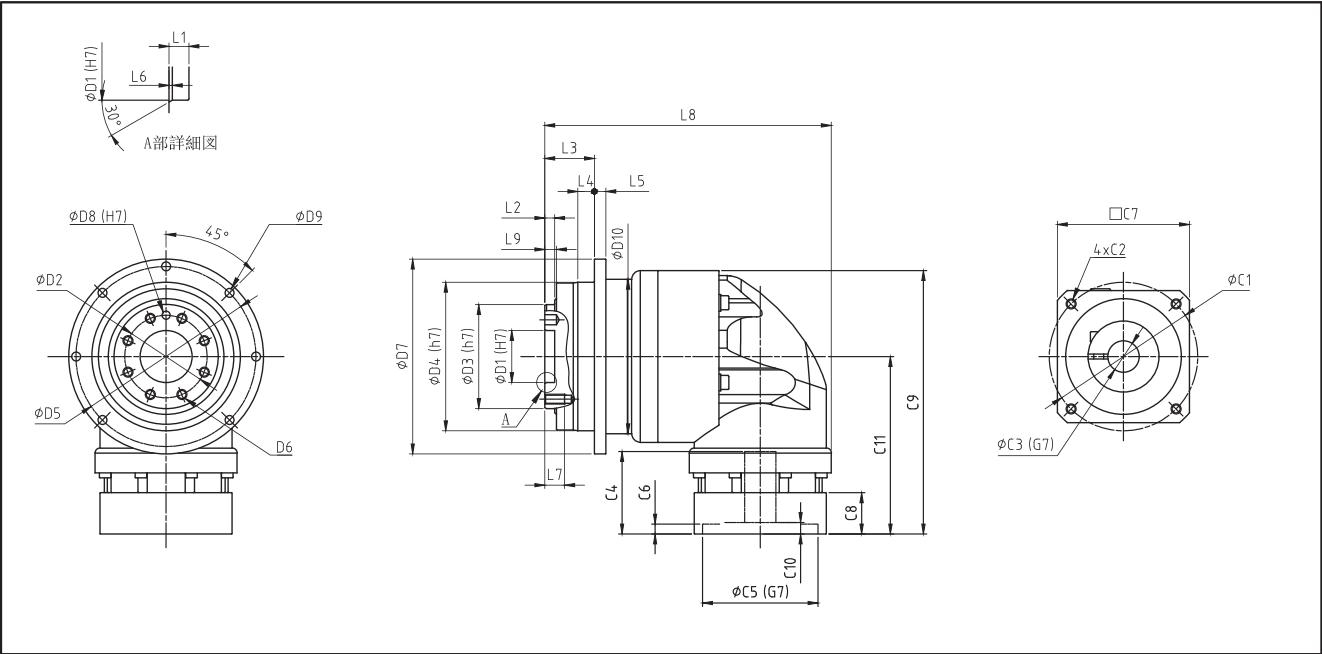
规格 Model No.		节数 Stage	减速比 Ratio	KTR047	KTR064	KTR090	KTR110	KTR140	KTR200	KTR255
转动惯 Mass Moments of Inertia	kg · cm ²	2	4~10	0.09	0.35	2.25	6.84	23.4	68.9	135.4
			14	—	0.07	1.87	6.25	21.8	65.6	119.8
			20	—	0.07	1.87	6.25	21.8	65.6	119.8
		3	20	0.09	—	—	—	—	—	—
			25~100	0.09	0.09	0.35	2.25	6.84	23.4	68.9
			140~200	—	—	0.31	1.87	6.25	21.8	65.6

1减速比 (i=N_{in}/N_{out})
Reduction Ratio (i=N in / N out)
★连续运转, 使用寿命为 10000 hrs
Continuous operation with service life of 10,000 hours

2最大加速力矩T_{2B} =60% of T_{2N0T}
Maximum acceleration torque T_{2B} =60% of T_{2N0T}

3输出转速 100 rpm 时, 作用于输出轴中心位置。
Load acts at the center of the output shaft when output speed is 100 rpm.

Dimension of KTR series (2 stage i=4~20)



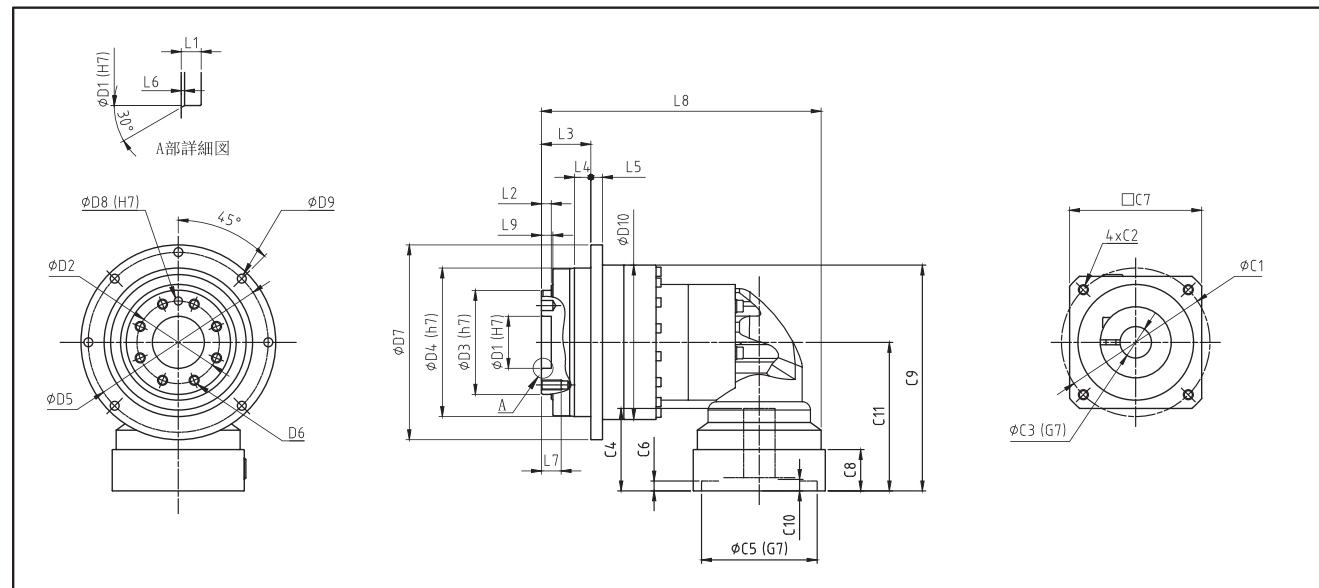
尺寸 Dimension	KTR047	KTR064	KTR090	KTR110	KTR140	KTR200	KTR255
D1 _{H7}	12	20	31.5	40	50	80	100
D2	20	31.5	50	63	80	125	140
D3 _{H7}	28	40	63	80	100	160	180
D4 _{H7}	47	64	90	110	140	200	255
D5	67	79	109	135	168	233	280
D6	4×M3×0.5P	7×M5×0.8P	7×M6×1P	11×M6×1P	11×M8×1.25P	11×M10×1.5P	12×M16×2P
D7	72	86	118	145	179	247	300
D8 _{H7}	3	5	6	6	8	10	12
D9	8×3.4	8×4.5	8×5.5	8×5.5	12×6.6	12×9	16×13.5
D10	46	64	89	120	150	208	270
L1	4	4	6	8	10	16	20
L2	3	3	6	6	6	8	12
L3	19.5	19.5	30	29	38	50	66
L4	16.5	7	10	10	14	15	20
L5	4	4	7	8	10	12	18
L6 _{30°}	1	1	1	1	1	2	2
L7	6.5	10	12	12	16	20	25
L8	80	104	132.5	178.5	243.5	287	347
L9	4	6	7	7	7	10	10
C1 ¹	46	70	90	145	200	200	235
C2 ¹	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M12×1.75P	M12×1.75P	M12×1.75P
C3 ¹	≤8/≤14	≤14/≤19	≤19/≤28	≤28/≤38	≤38/≤48	≤48/≤65	≤65
C4 ¹	32	35	50	77	82	118	122
C5 ¹	30	50	70	110	114.3	114.3	200
C6 ¹	5	5	6	8	8	8	8
C7 ¹	42	65	80	130	180	180	220
C8 ¹	15.5	16.5	25	45	45	75	80
C9 ¹	87.5	109.5	144.5	206	242	372	428
C10 ¹	5	5	7	22	15	30	20
C11 ¹	64.5	77.5	100	146	167	268	293

1. C1~C11是机身尺寸随安装电机的不同而有所差异。1. C1~C11 is the size of the body varies with the motor installed.

2. 电机轴径与C3输入轴径不同时, 可插入轴套。2. Bushing will be inserted to adapt to motor shaft.

3. L8尺寸按照实际出图图纸为准。3. The size of L8 shall be subject to the actual drawing.

Dimension of KTR series (3 stage i=12~200)



[单位/unit: mm]

尺寸 Dimension	KTR047	KTR064	KTR090	KTR110	KTR140	KTR200	KTR255
D1 _{H7}	12	20	31.5	40	50	80	100
D2	20	31.5	50	63	80	125	140
D3 _{h7}	28	40	63	80	100	160	180
D4 _{h7}	47	64	90	110	140	200	255
D5	67	79	109	135	168	233	280
D6	4×M3×0.5P	7×M5×0.8P	7×M6×1P	11×M6×1P	11×M8×1.25P	11×M10×1.5P	12×M16×2P
D7	72	86	118	145	179	247	300
D8 _{H7}	3	5	6	6	8	10	12
D9	8×3.4	8×4.5	8×5.5	8×5.5	12×6.6	12×9	16×13.5
D10	46	64	89	120	150	208	270
L1	4	4	6	8	10	16	20
L2	3	3	6	6	6	8	12
L3	19.5	19.5	30	29	38	50	66
L4	16.5	7	10	10	14	15	20
L5	4	4	7	8	10	12	18
L6 _{30°}	1	1	1	1	1	2	2
L7	6.5	10	12	12	16	20	25
L8	94.5	116.5	135	217.5	261	299	333.5
L9	4	6	7	7	7	10	10
C1 ¹	46	70	90	145	200	200	200
C2 ¹	M4×0.7P	M5×0.8P	M6×1P	M8×1.25P	M12×1.75P	M12×1.75P	M12×1.75P
C3 ¹	≤8/≤14	≤8/≤14	≤14/≤19	≤19/≤28	≤28/≤38	≤38/≤48	≤48
C4 ¹	32	35	50	77	82	118	118
C5 ¹	30	50	70	110	114.3	114.3	114.3
C6 ¹	5	5	6	8	8	8	8
C7 ¹	42	65	80	130	180	180	180
C8 ¹	15.5	16.5	25	45	45	75	75
C9 ¹	87.5	96.5	119	160	221	271	403
C10 ¹	5	5	7	22	15	30	30
C11 ¹	64.5	64.5	77.5	100	146	167	268

1. C1~C11是机身尺寸随安装电机的不同而有所差异。 1. C1~C11 is the size of the body varies with the motor
2. 电机轴径与C3输入轴径不同时，可插入轴套。 2. Bushing will be inserted to adapt to motor shaft.
3. L8尺寸按照实际出图图纸为准。 3. The size of L8 shall be subject to the actual drawing.

MEMO

[illegible]