

# WPF

Series planetary gearbox  
系列行星减速机

## FEATURES

### 产品特点

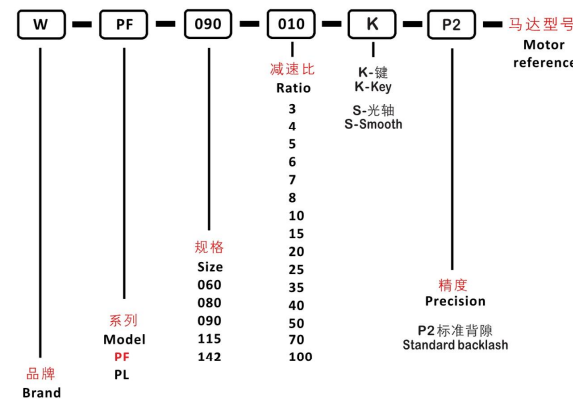
- » 行星臂架与输出轴采用一体式结构设计，确保最大的扭转刚性。
- » 行星轮采用满滚针设计，增加接触面积以提高结构刚性与输出扭矩。
- » 齿轮采用低碳钢表面渗碳淬火到HRC62，以获得最佳的耐磨及冲击韧性。
- » 齿形引用国外进口软件辅助设计，以获得最佳的齿形降低噪音。
- » 输入端与马达轴连接采用双边抱紧方式，以获取最大的夹紧力和零背隙的动力传递。
- » Planetary boom and output shaft are intergrated structure designed to ensure maximum torsional rigidity.
- » Planetary wheel with full needle design, increase the contact area to improve the rigidity and output torque.
- » The gears are carburized and quenched to the HRC62 with low carbon steel surface for optimum wear and impact toughness.
- » Gears refer to foreign imported software-assisted design to obtain the best tooth shape to reduce noise.
- » The input terminal is connected to the motor shaft in a double-tight manner to obtain the maximum clamping force and zero backlash power transmission.



INDICATION FOR MODEL

## SELECTION

- 机种型号表示



## GENERAL NOTICES

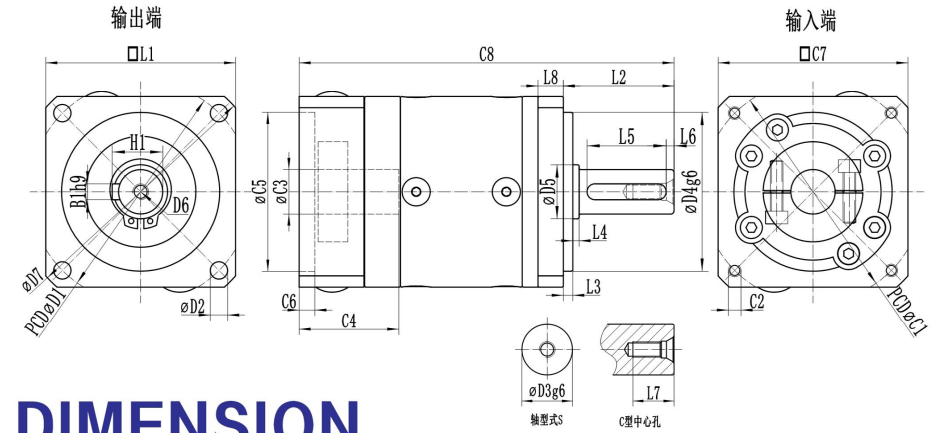
- 订货须知

- 机种、型号、扭矩
- 减速比或出力轴转速
- 工况及连接方式
- 数量及安装的机械名称
- 入力方式和入力转速
- 马达厂牌型号或法兰及马达轴尺寸
- Type, model and torque
- Ratio or output speed
- Working conditions and connection methods
- Quantity and installed machine name
- Input mode and input speed
- Motor brand model or flange and motor shaft size

# PLANETARY GEARBOX

## ● 减速机性能资料/Performance

规格 Specification	单位 Unit	节数 Stage	减速比 Ratio	WPF060	WPF080	WPF090	WPF115	WPF142
额定输出转矩 Rated output torque T <sub>2N</sub>	Nm	1	3	18	40	50	125	290
			4	36	90	110	230	460
			5	40	110	125	260	550
			6	20	40	50	90	340
			7	20	40	50	90	340
			8	12	22	32	70	210
			10	12	22	32	70	210
			12	36	90	110	230	460
			15	40	110	125	260	550
			16	36	90	110	230	460
		20	40	110	125	260	550	
		25	40	110	125	260	550	
		28	36	90	110	230	460	
		30	18	40	50	125	290	
		35	40	110	125	260	550	
		40	36	90	110	230	460	
		50	40	110	125	260	550	
		60	20	40	50	90	340	
		70	20	40	50	90	340	
		80	12	22	32	70	210	
100	12	22	32	70	210			
装置马达轴孔径/Motor shaft size	mm	1,2	3-100	6-14	14-19	14-19	16-24	19-35
最大输出扭矩/Maximum output torque	Nm	1,2	3-100	二倍额定输出转矩/Double rated output torque				
额定输入转速/Rated input speed P <sub>1N</sub>	rpm	1,2	3-100	4000	3500	3500	3500	2500
背隙/Backlash	arcmin	1	3-10	≤10	≤10	≤10	≤10	≤10
		2	12-100	≤12	≤12	≤12	≤12	≤12
扭转刚性/Torsional rigidity	Nm/arcmin	1,2	3-100	1.8	4.7	4.85	11	55
容许径向力/Allowable radial force F <sub>2aB</sub>	N	1,2	3-100	220	400	430	1000	4500
容许轴向力/Allowable axial force F <sub>2aB</sub>	N	1,2	3-100	240	420	450	1240	4800
使用寿命/Lifespan	hr	1,2	3-100	10000				
效率/Efficiency	%	1	3-10	≥96				
		2	12-100	≥93				
重量/Weight	kg	1	3-10	1.1	2.1	4.4	6.6	26.5
		2	12-100	1.4	3	5	8.2	29.6
使用温度/Working temperature	°C	1,2	3-100	-10°C~80°C				
防护等级/IP Grade		1,2	3-100	IP54				
润滑/Lubricating				合成润滑油脂/Synthetic lubricating grease				
安装方向/Installation direction		1,2	3-100	任意方向/In any direction				
噪音值(n1=3000rpm,无负载) Noise level (n1=3000rpm/off load)	dB(A)	1,2	3-100	≤61	≤63	≤63	≤68	≤75

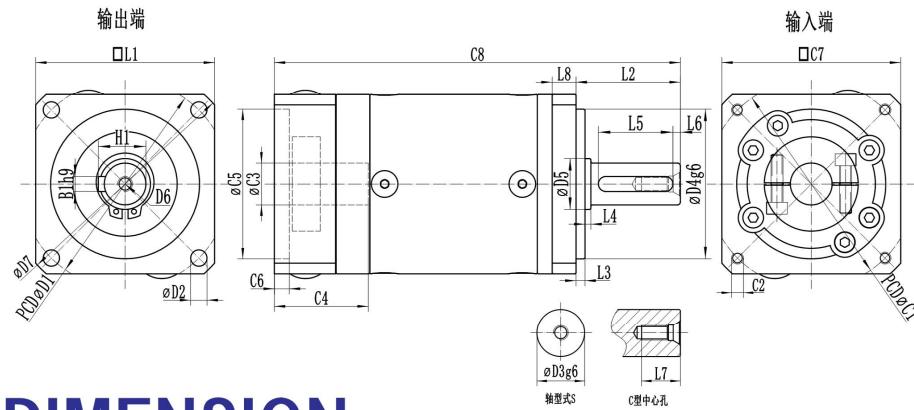


# DIMENSION SINGLE SECTION

## ● 尺寸 (单节, 减速比 i=3~10)

Dimension(single stage, Ratio i=3~10)

尺寸/Dimension	WPF060-L1	WPF080-L1	WPF090-L1	WPF115-L1	WPF142-L1
*D1	70	100	110	130	185
*D2	5.5	6.5	6.5	8.5	11
*D3	14	20	22	25	40
*D4	50	80	85	110	130
D5	17	25	30	35	55
D6	M5	M6	M6	M10	M12
D7	80	120	125	160	230
L1	60	90	92	120	176
*L2	35	40	46	55	87
*L3	3	3	5	4	5
L4	30	36	36	50	80
*L5	25	25	32	40	70
L6	2.5	5	2	5	5
L7	12.5	18	18	23	25
L8	8	10	10	14	15
*C1	70	90	90	145	200
*C2	M4	M5	M5	M8	M12
*C3	6-14	14-19	14-19	19-24	24-35
*C4	31.5	41	41	60	83
*C5	50	70	70	110	114.3
*C6	5	6	5	14	10
C7	60	80	80	130	180
C8	118.5	146.5	166	204.5	268.5
*B1	5	6	6	8	12
*H1	16	22.5	24.5	28	43



## DIMENSION

### DOUBLE SECTION

- 尺寸 (双节, 减速比  $i=15\sim 100$ )  
Dimension(double stage, Ratio  $i=15\sim 100$ )

尺寸/Dimension	WPF060-L2	WPF080-L2	WPF090-L2	WPF115-L2	WPF142-L2
*D1	70	100	110	130	185
*D2	5.5	6.5	6.5	8.5	11
*D3	14	20	22	25	40
*D4	50	80	85	110	130
D5	17	25	30	35	55
D6	M5	M6	M6	M10	M12
D7	80	120	125	160	230
L1	60	90	92	120	176
*L2	35	40	46	55	87
*L3	3	3	5	4	5
L4	30	36	36	50	80
*L5	25	25	32	40	70
L6	2.5	5	2	5	5
L7	12.5	18	18	23	25
L8	8	10	10	14	15
*C1	70	90	90	145	200
*C2	M4	M5	M5	M8	M12
*C3	6-14	14-19	14-19	19-24	24-35
*C4	31.5	41	41	60	83
*C5	50	70	70	110	114.3
*C6	5	6	5	14	10
C7	60	80	80	130	180
C8	136.2	169.6	190.5	237	313.5
*B1	5	6	6	8	12
*H1	16	22.5	24.5	28	43

## WPL

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