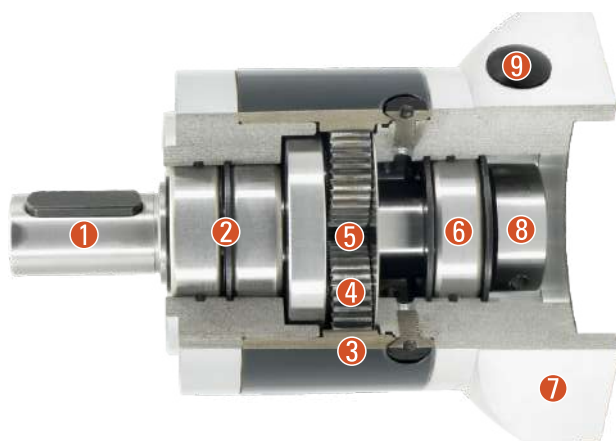


剖视图 Sectional Drawing



- ① 输出轴 Output shaft
- ② 输出轴轴承 Bearing for the output shaft
- ③ 内齿轮 Internal gear
- ④ 行星轮 Planetary gear
- ⑤ 太阳轮 Sunwheel
- ⑥ 太阳轮轴承 Bearing for the sunwheel
- ⑦ 适配电机法兰 Appropriate motor flange
- ⑧ 精密装夹系统 Precision clamping system
- ⑨ 装配孔 Mounting hole

系列号、机型标识说明 Type And Model Number

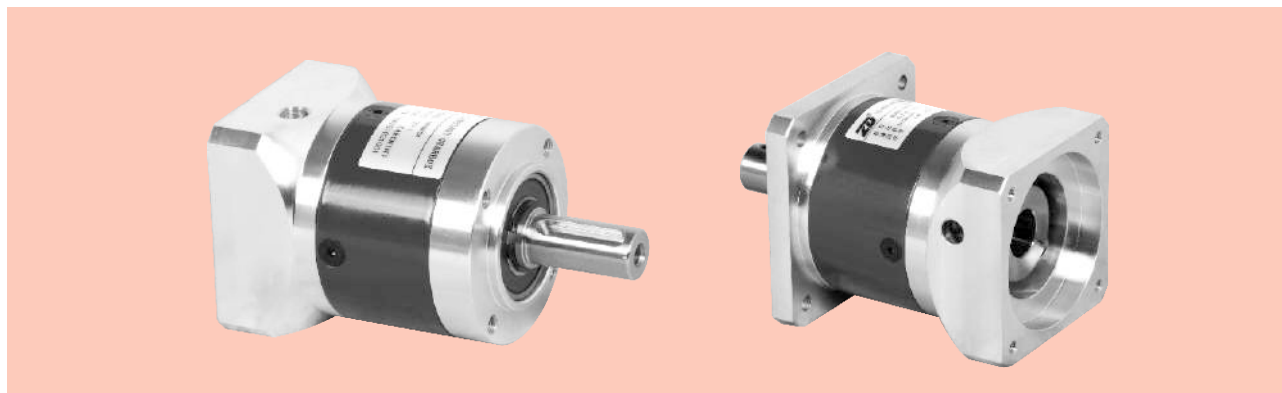
ZD系列减速机 ZD Series Gear Head					伺服电机 Servo Motor																																						
80	ZDE	20	()	(S)	-750	T1																																					
①	②	③	④	⑤	⑥	⑦																																					
① 减速机机座号:80 Gear head frame size:80																																											
② 减速机系列代号: ZDE:圆形安装法兰系列 ZDWE:直角输入圆形安装法兰系列 ZDF:方形安装法兰系列 ZDWF:直角输入方形安装法兰系列 ZDS:高刚性系列					Gear head series code: ZDE:Round mounting flange series ZDWE:Right angle input round mounting flange series ZDF:Square mounting flange series ZDWF:Right angle input square mounting flange series ZDS:High stiffness series																																						
③ 减速比: 单级3,4,5,8,10; 两级9,12,15,16,20,25,32,40,64; 三级60,80,100,120,160,200,256,320,516;					Gear Ratio: Single Stage 3,4,5,8,10; Two Stage 9,12,15,16,20,25,32,40,64; Three Stage 60,80,100,120,160,200,256,320,516;																																						
④ 精度 Amount of backlash 输出轴负荷量为容许输出扭矩的±3%时的值 Precision (The load of output shaft is ±3% of allowable output torque)					<table border="1"> <thead> <tr> <th>机座号 Reducer Type No.</th> <th>级数 Stage</th> <th>标准型(省略) Standard Type</th> </tr> </thead> <tbody> <tr> <td rowspan="3">40ZDE/F</td> <td>1</td> <td>12分arc-min</td> </tr> <tr> <td>2</td> <td>15分arc-min</td> </tr> <tr> <td>3</td> <td>18分arc-min</td> </tr> <tr> <td rowspan="4">60ZDE/F 80ZDE/F 120ZDE/F 160ZDE/F</td> <td>1</td> <td>8分arc-min</td> </tr> <tr> <td>2</td> <td>12分arc-min</td> </tr> <tr> <td>3</td> <td>15分arc-min</td> </tr> <tr> <td>115ZDS 142ZDS 190ZDS</td> <td>1</td> <td>8分arc-min</td> </tr> <tr> <td></td> <td>2</td> <td>12分arc-min</td> </tr> <tr> <td rowspan="3">60ZDW/F</td> <td>1</td> <td>30分arc-min</td> </tr> <tr> <td>2</td> <td>35分arc-min</td> </tr> <tr> <td>3</td> <td>40分arc-min</td> </tr> <tr> <td rowspan="3">80ZDW/F 120ZDW/F 160ZDW/F</td> <td>1</td> <td>25分arc-min</td> </tr> <tr> <td>2</td> <td>30分arc-min</td> </tr> <tr> <td>3</td> <td>35分arc-min</td> </tr> </tbody> </table>		机座号 Reducer Type No.	级数 Stage	标准型(省略) Standard Type	40ZDE/F	1	12分arc-min	2	15分arc-min	3	18分arc-min	60ZDE/F 80ZDE/F 120ZDE/F 160ZDE/F	1	8分arc-min	2	12分arc-min	3	15分arc-min	115ZDS 142ZDS 190ZDS	1	8分arc-min		2	12分arc-min	60ZDW/F	1	30分arc-min	2	35分arc-min	3	40分arc-min	80ZDW/F 120ZDW/F 160ZDW/F	1	25分arc-min	2	30分arc-min	3	35分arc-min
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⑤ 输入轴型式 S:整体锁紧(省略)(无论马达是否有键槽都可使用) S1:带锁紧环锁紧(无论马达是否有键槽都可使用) S2:带键槽锁紧(输入轴带键) K:带键槽 A:其他适配器(请与本公司联系)					Input shaft type S:Over locking (Omission) (Regardless whether the motor with keyway can use it.) S1:Locking with locking ring (Regardless whether the motor with keyway can use it.) S2:Locking with keyway (Input shaft with key) K:With keyway A:Other type (Please contact with us)																																						
⑥ 适用伺服马达功率(W)					Applicable servo motor power (W)																																						
⑦ 输入法兰与伺服电机对应尺寸表(P15)					Input flange and servo motor matching table (P15)																																						

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ZDE/ZDF系列精密行星减速机

ZDE/ZDF SERIES PRECISION PLANETARY GEAR MOTOR

产品图 Product Graph



技术资料 Technical Data

产品型号 Product type		40	60	80	120	160	减速比 Reduction ratio	级数 Number of stage
额定输出扭矩 Rated output torque	N.M	4.5	12	40	80	400	3	1
		6	16	50	110	450	4	
		6	16	50	110	450	5	
		5	15	45	100	400	8	
		4	12	40	80	305	10	
		/	40	100	210	/	9	2
		16.5	40	100	210	700	12	
		16.5	40	100	210	700	15	
		20	44	120	260	800	16	
		20	44	120	260	800	20	
		18	40	110	230	700	25	
		20	44	120	260	800	32	
		18	40	110	230	700	40	
		7.5	18	45	100	400	64	
		16.5	40	100	210	/	60	
		20	44	120	260	/	80	
		20	44	120	260	/	100	
		16.5	40	100	210	/	120	
		20	44	120	260	/	160	
18	40	110	230	/	200			
20	44	120	260	/	256			
18	40	110	230	/	320			
7.5	18	45	100	/	512			
寿命 Life	小时 Hour	20,000						
瞬间急停扭矩 Instant stop torque	N.M	2倍于额定输出扭矩 Two times of rated output torque						
产品型号 Product type		40	60	80	120	160	单位 Unit	级数 Number of stage
最大径向力 Max radial torque		160	450	900	2100	6000	N	
最大轴向力 Max axial torque		80	225	450	1050	3000	N	
满载效率 Full load efficiency		96					%	1
		94						2
		90						3
重量 Weight		0.4	0.9	2.1	6	18	Kg	1
		0.5	1.1	2.6	8	22		2
		0.6	1.3	3.1	9.5	/		3
工作温度 Operating temperature		-25~+90					°C	
保护等级 IP		IP54						
润滑方式 Lubrication type		终身润滑 Lifetime lubrication						
安装方式 Mounting type		任意 Any						

最大径向力与最大轴向力,输出100RPM时,作用于输出轴中心位置(L/2)处。

The max radial and axial torque work in the location of the center of output shaft when the out speed is 100RPM.

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ZDE/ZDF系列精密行星减速机

ZDE/ZDF SERIES PRECISION PLANETARY GEAR MOTOR

技术资料 Technical Data

产品型号 Product type		40	60	80	120	160	减速比 Reduction ratio
转动惯量 Moment of inertia	Kgcm ²	0.031	0.135	0.77	2.63	12.14	3
		0.022	0.093	0.52	1.79	7.78	4
		0.019	0.078	0.45	1.53	6.07	5
		0.017	0.065	0.39	1.32	4.63	8
		0.015	0.054	0.34	1.14	3.52	10
		/	0.131	0.74	2.62	/	9
		0.022	0.088	0.50	2.56	7.47	12
		0.019	0.077	0.44	1.79	6.65	15
		0.022	0.088	0.50	1.75	7.47	16
		0.019	0.075	0.44	1.50	6.65	20
		0.019	0.075	0.44	1.49	5.81	25
		0.017	0.064	0.39	1.30	4.50	32
		0.016	0.064	0.39	1.30	4.50	40
		0.016	0.064	0.39	1.30	4.50	64
		0.019	0.075	0.50	1.50	/	60
		0.019	0.075	0.50	1.50	/	80
		0.019	0.075	0.44	1.49	/	100
		0.016	0.064	0.39	1.30	/	120
0.016	0.064	0.39	1.30	/	160		
0.016	0.064	0.39	1.30	/	200		
0.016	0.064	0.39	1.30	/	256		
0.016	0.064	0.39	1.30	/	320		
0.016	0.064	0.39	1.30	/	512		

产品型号 Product type		40	60	80	120	160	级数 Number of stage
回程间隙 Backlash	arcmin 弧分	< 12	< 8	< 8	< 8	< 8	1
		< 15	< 12	< 12	< 12	< 12	2
		< 18	< 15	< 15	< 15	/	3

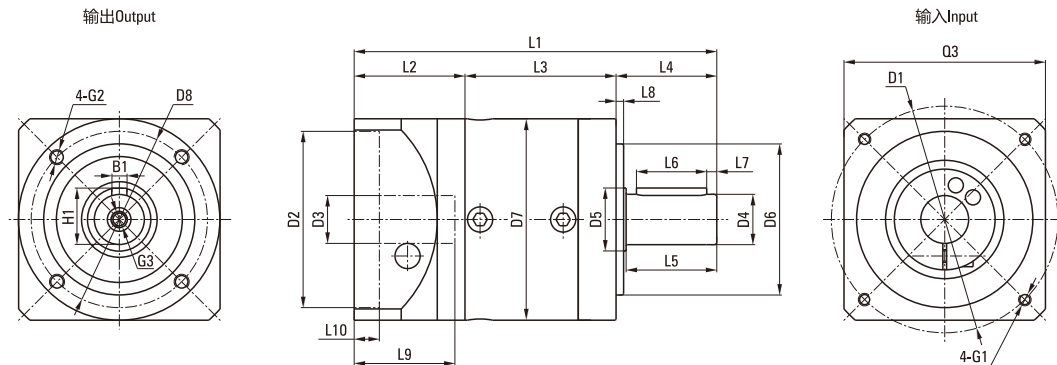
产品型号 Product type		40	60	80	120	160	
抗扭刚性 Torsional stiffness	N.M/arcmin	0.7	1.8	4.5	12	38	
噪声 Noise	dB(A)	55	58	60	65	70	
最高输入转速 Max input speed	min ⁻¹	4500	4500	4500	4500	4500	
推荐输入转速 Recommnd input speed	min ⁻¹	3000	3000	3000	3000	3000	

- 转动惯量与输入轴有关。The moment of inertia is related with input shaft.
- 噪声检测标准，距离1m，在输入转速3000转/分空载时测得。Noise test standard pressure level, distance 1m, measured on idle running with an input speed of 3000rpm.

ZDE系列精密行星减速机

ZDE SERIES PRECISION PLANETARY GEAR MOTOR

机械参数 Dimensions



单位 Unit: mm

产品型号 Product type	40ZDE			60ZDE			80ZDE			120ZDE			160ZDE	
级数 Number of stage	1	2	3	1	2	3	1	2	3	1	2	3	1	2
L1箱体总长 L1 overall length	93.5	106.5	119	113.5	126.5	139	144	162	179.5	195.2	223	250.5	291	340.5
L3箱体长度 L3 body length	39	52	64.5	46.5	59.5	72	60	78	95.5	73.7	101.5	129	104	153.5
输出端 Output														
L4出轴长度 L4 output shaft length	26			35			40			55			87	
L5出轴长至轴肩 L5 output length to the shaft shoulder	24			30.5			36			50			80	
L6键长度 L6 key length	16			25			28			40			70	
L7键至轴末端长 L7 key length to the shaft end	2.5			2.5			4			5			5	
L8定位凸台长度 L8 spigot length	2			3			3			4			5	
D4出轴直径 D4 output shaft diameter	Φ10h7			Φ14h7			Φ20h7			Φ25h7			Φ40h7	
D5轴肩直径 D5 shaft shoulder diameter	Φ12			Φ17			Φ25			Φ35			Φ55	
D6定位凸台直径 D6 spigot diameter	Φ26h7			Φ40h7			Φ60h7			Φ80h7			Φ130h7	
D7箱体直径 D7 body diameter	Φ40			Φ60			Φ80			Φ115			Φ160	
D8安装孔分布圆 D8 hole circle	Φ34			Φ52			Φ70			Φ100			Φ145	
B1键宽 B1 key width	3			5			6			8			12	
H1键高 H1 key height	11.2			16			22.5			28			43	
G2安装螺孔 G2 mounting screw hole	M4X6			M5X8			M6X10			M10X16			M12X20	
G3中心螺孔 G3 center screw hole	M3X9			M5X12			M6X16			M10X22			M12X25	
输入端 Input														
L2输入法兰长度 L2 input flange length	28.5			32			44			66.5			99	
L9电机轴长度 L9 motor shaft length	26			30			40			58			79	
L10定位凸台深 L10 spigot depth	6			10			10			10			10	
D1安装孔分布圆 D1 mounting hole distribution circle	Φ46			Φ70			Φ90			Φ145			Φ200	
D2定位凸台直径 D2 spigot diameter	Φ30G7			Φ50G7			Φ70G7			Φ110G7			Φ114.3G7	
D3输入轴轴径 D3 input shaft diameter	≤Φ8G7			≤Φ14G7			≤Φ19G7			≤Φ24G7			≤Φ35G7	
G1安装螺孔x深度 G1 mounting threads x depth	M4X10			M5X12			M6X15			M8X22			M12X25	
Q3输入法兰 Q3 input flange	□40			□60			□80			□130			□175	

※输入端尺寸可根据电机尺寸制作。

※Input size made according to motor size.