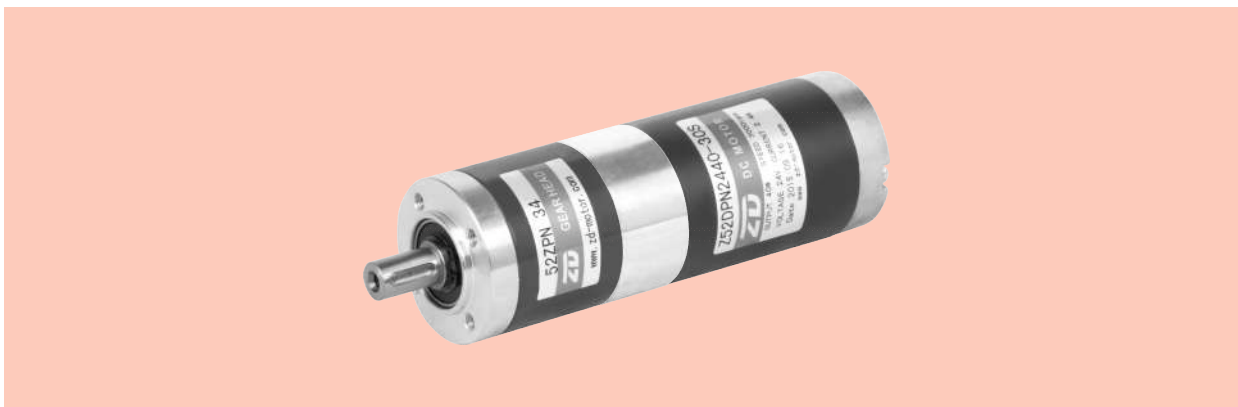
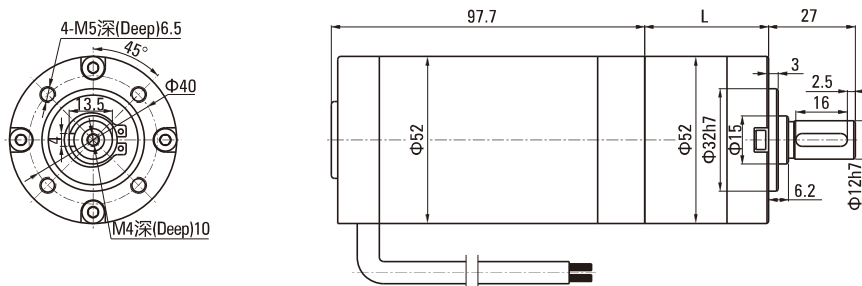


# ZPN系列 PLANETARY GEAR MOTOR

## ■ ZPNΦ52 BRUSH有刷

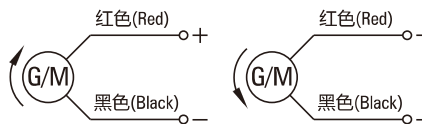


### ■ 外径52直流有刷行星减速电机外形图纸 Outside Diameter 52 DC Brush Motor



电机型号 Motor Type	减速箱型号 Gearbox Model	减速比 Gear Ratio	L尺寸(mm) Dimension
Z52DPN	5ZPN□	一级Stage1	3.65~8.63
		二级Stage2	14~58
		三级Stage3	67~393

电机接线图 Wiring Diagram



### ■ 有刷直流电机技术参数 BLDC Motor Technical Data

有刷电机型号 Motor Type	电压 Voltage	功率 Power	空载电流 No-load Current	空载转速 Rated Speed	额定电流 Rated Current	额定转速 Rated Speed	额定力矩 Rated Torque	电机寿命 Motor Life
Type	V	W	A	RPM	A	RPM	N.m	H
Z52DPN2440-30S	24	40	1.0	3500	2.5	3000	0.127	2000
Z52DPN2460-30S	24	60	1.2	3600	4.0	3000	0.191	2000

### ■ 有刷直流行星减速电机技术参数 Blush DC Planetary Gear Motor Technical Data-Z52DPN2440-30S

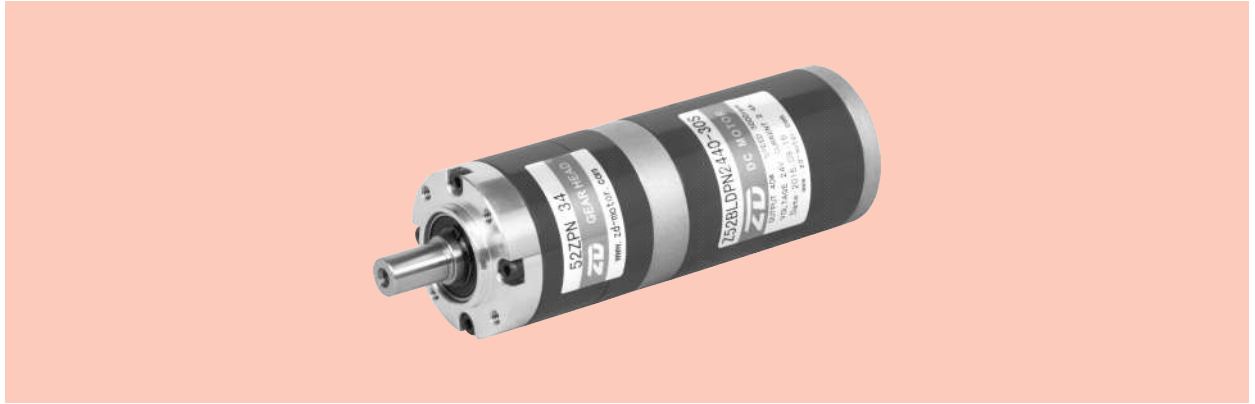
减速比 Ratio	3.65	5.36	6.55	8.63	14	19	25	28	34	45	58	67	81
输出轴转速 r/min Output shaft Speed	822	560	458	348	222	159	122	107	89	67	52	45	37
允许力矩 N.m Allowable Torque	0.42	0.61	0.75	0.99	1.44	1.96	2.58	2.89	3.51	4.64	5.98	6.23	7.53
减速级数 Reduction Stage	1	1	1	1	2	2	2	2	2	2	2	3	3

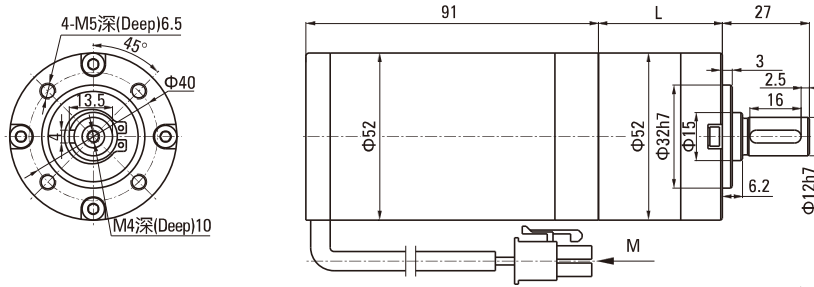
减速比 Ratio	91	103	119	128	146	165	192	232	302	393			
输出轴转速 r/min Output shaft Speed	33	29	25	24	21	18	16	13	9.9	7.6			
允许力矩 N.m Allowable Torque	8.46	9.57	11.06	11.90	13.57	15.34	17.85	21.57	25	25			
减速级数 Reduction Stage	3	3	3	3	3	3	3	3	3	3			

# ZPN系列 PLANETARY GEAR MOTOR

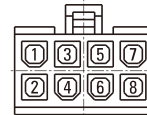
## ■ ZPNΦ52 BRUSHLESS无刷



### ■ 外径52直流无刷行星减速电机外形图纸 Outside Diameter 52 DC Brushless Motor



M向视图  
(View M)



1	2	3	4	5	6	7	8
U	V	W	GND	Hv	Hw	Hu	+Vcc

电机型号 Motor Type	减速箱型号 Gearbox Model	减速比 Gear Ratio		L尺寸(mm) Dimension
Z52BLDPN	52ZPN□	一级Stage1	3.65~8.63	38.6
		二级Stage2	14~58	54.2
		三级Stage3	67~393	69.8

### ■ 无刷直流电机技术参数 BLDC Motor Technical Data

有刷电机型号 Motor Type	电压 Voltage	功率 Power	空载电流 No-load Current	空载转速 Rated Speed	额定电流 Rated Current	额定转速 Rated Speed	额定力矩 Rated Torque	电机寿命 Motor Life
Type	V	W	A	RPM	A	RPM	N.m	H
Z52BLDPN2440-30S	24	40	0.8	4000	2.5	3000	0.127	5000
Z52BLDPN2460-30S	24	60	1.0	4200	4.0	3000	0.191	5000

### ■ 无刷直流行星减速电机技术参数 BLDC Planetary Gear Motor Technical Data-Z52BLDPN2440-30S

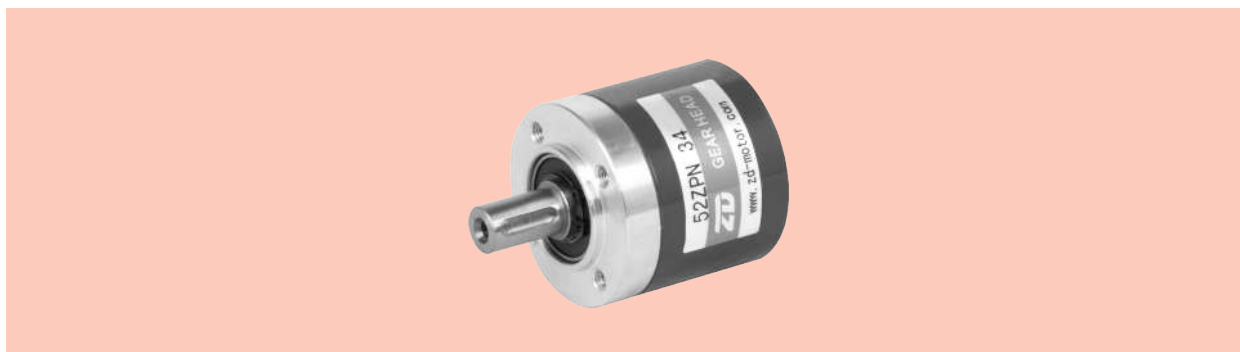
减速比 Ratio	3.65	5.36	6.55	8.63	14	19	25	28	34	45	58	67	81
输出轴转速 r/min Output shaft Speed	822	560	458	348	222	159	122	107	89	67	52	45	37
允许力矩 N.m Allowable Torque	0.42	0.61	0.75	0.99	1.44	1.96	2.58	2.89	3.51	4.64	5.98	6.23	7.53
减速级数 Reduction Stage	1	1	1	1	2	2	2	2	2	2	2	3	3

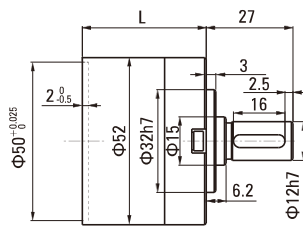
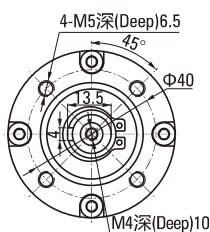
减速比 Ratio	91	103	119	128	146	165	192	232	302	393			
输出轴转速 r/min Output shaft Speed	33	29	25	24	21	18	16	13	9.9	7.6			
允许力矩 N.m Allowable Torque	8.46	9.57	11.06	11.90	13.57	15.34	17.85	21.57	25	25			
减速级数 Reduction Stage	3	3	3	3	3	3	3	3	3	3			

# ZPN系列 PLANETARY GEAR MOTOR

## ZPNΦ52



### 外径52行星减速器 Outdiameter 52mm Planetary Gearbox



减速箱型号 Gearbox Model	减速比 Gear Ratio	L尺寸(mm) Dimension
52ZPN□	一级Stage1	3.65~8.63
	二级Stage2	14~58
	三级Stage3	67~393

传动级数 Transmission Stage	一级 Stage 1	二级 Stage 2	三级 Stage 3
传动效率 Transmission Efficiency	90%	81%	73%
最大径向负载 Max radial load	450N	450N	450N
最大轴向负载 Max axial load	150N	150N	150N
额定扭矩 Rated Torque	4N.m	12N.m	25N.m
瞬间承受扭矩 Instant beared torque	2倍与额定扭矩 Two times of the rated torque		
工作温度 Operating temperature	-10°C ~ +80°C		
润滑方式 Lubrication type	终生润滑 Lifetime lubrication		
安装方式 Mounting type	任意安装 Any		
推荐输入转速 Recommend input speed	≤3000RPM		
输入与输出转向 Input and output direction	相同 Same direction		
噪音 Noise	< 60dB(A) (L=1m,3000rpm)		

#### 电机配合方案 Motor matching scheme

Da	一级速比 One stage of gear ratio	二级速比 Second stage of gear ratio	三级速比 Third stage of gear ratio
Φ8.88 <sup>-0.05</sup> <sub>-0.08</sub>	5.36	-	103
		-	119
Φ7.23 <sup>-0.05</sup> <sub>-0.08</sub>	6.55	28	146
		34	-
Φ8.63 <sup>-0.05</sup> <sub>-0.08</sub>	8.63	45	165
		58	192
		-	232
		-	302
		-	393
Φ13.42 <sup>-0.05</sup> <sub>-0.08</sub>	3.65	14	67
		19	81
		25	91
		-	128

