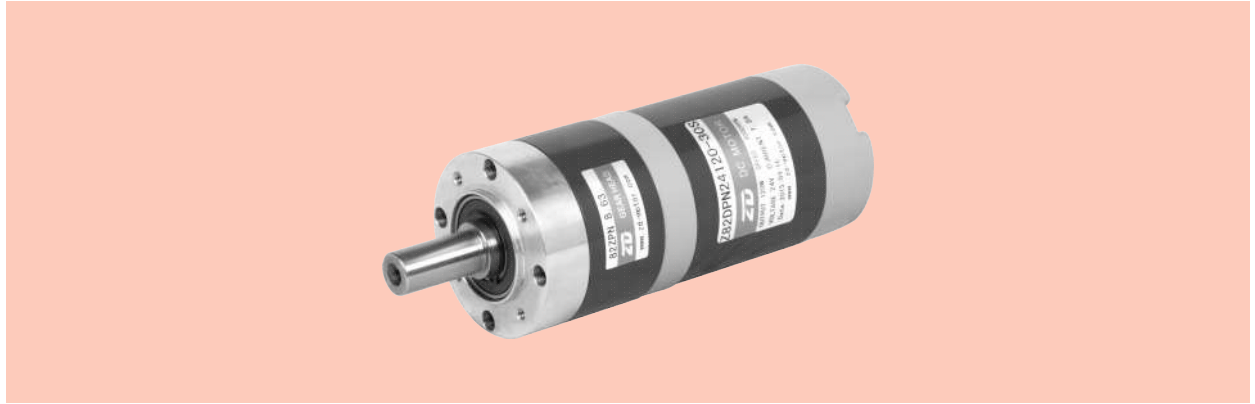
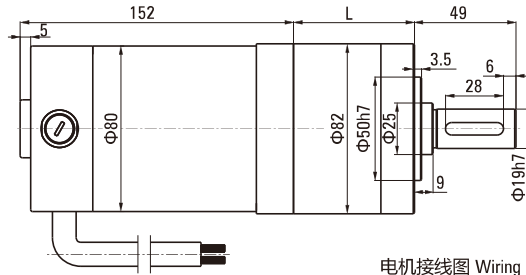
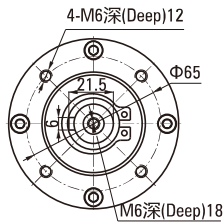


ZPN系列 PLANETARY GEAR MOTOR

■ ZPNΦ82 BRUSH有刷

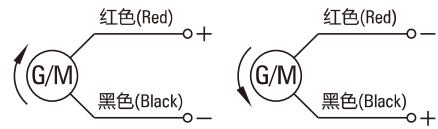


■ 外径82直流有刷行星减速电机外形图纸 Outside Diameter 82 DC Brush Motor



电机接线图 Wiring Diagram

| 电机型号 Motor Type | 减速箱型号 Gearbox Model | 减速比 Gear Ratio | | L尺寸(mm) Dimension |
|--------------------|------------------------|-------------------|-----------|----------------------|
| Z82DPN | 82ZPN□ | 一级Stage1 | 3.65~8.63 | 63.7 |
| | | 二级Stage2 | 14~58 | 80.5 |
| | | 三级Stage3 | 67~393 | 103.2 |



■ 有刷直流电机技术参数 Blush DC Motor Technical Data

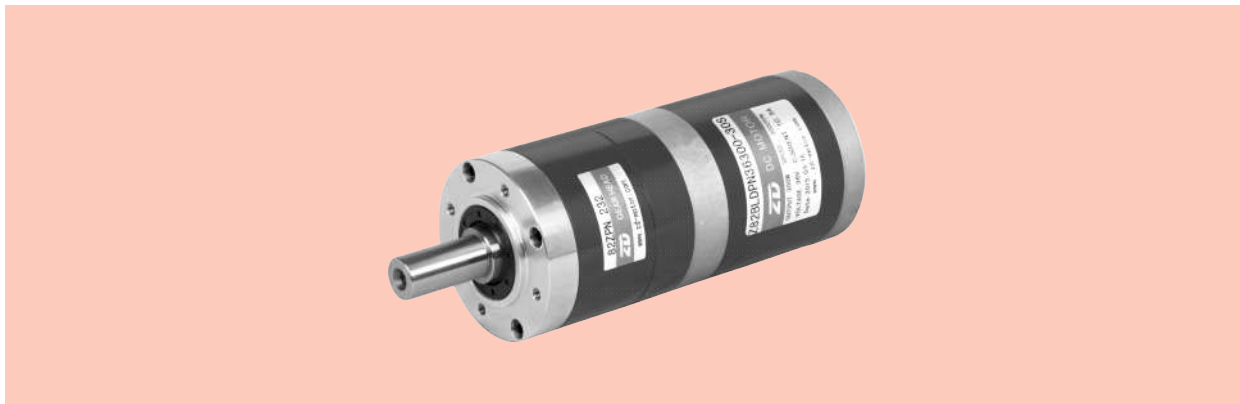
| 有刷电机型号 Motor Type | 电压 Voltage | 功率 Power | 空载电流 No-load Current | 空载转速 Rated Speed | 额定电流 Rated Current | 额定转速 Rated Speed | 额定力矩 Rated Torque | 电机寿命 Motor Life |
|----------------------|---------------|-------------|-------------------------|---------------------|-----------------------|---------------------|----------------------|--------------------|
| Type | V | W | A | RPM | A | RPM | N.m | H |
| Z82DPN1290-30S | 12 | 90 | 2.5 | 3500 | 10.5 | 3000 | 0.287 | 2000 |
| Z82DPN24120-30S | 24 | 120 | 2.0 | 3400 | 7.2 | 3000 | 0.382 | 2000 |
| Z82DPN48180-30S | 48 | 180 | 1.5 | 3400 | 5.5 | 3000 | 0.573 | 2000 |

■ 有刷直流行星减速电机技术参数 Blush DC Planetary Gear Motor Technical Data-Z82DPN24120-30S

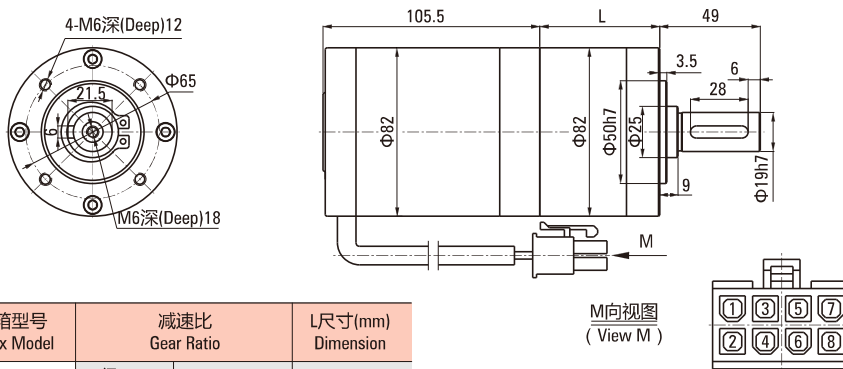
| | | | | | | | | | | | | | |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 减速比 Ratio | 3.65 | 5.36 | 6.55 | 8.63 | 14 | 19 | 25 | 28 | 34 | 45 | 58 | 67 | 81 |
| 输出轴转速 r/min Output shaft Speed | 822 | 560 | 458 | 348 | 222 | 159 | 122 | 107 | 89 | 67 | 52 | 45 | 37 |
| 允许力矩 N.m Allowable Torque | 1.25 | 1.84 | 2.25 | 2.97 | 4.33 | 5.88 | 7.74 | 8.66 | 10.52 | 13.92 | 17.95 | 18.68 | 22.59 |
| 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 | 25.38 | 28.72 | 33.18 | 35.69 | 40.71 | 46.01 | 53.54 | 64.70 | 84 | 84 | | | |
| 减速级数 Reduction Stage | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | |

ZPN系列 PLANETARY GEAR MOTOR

■ ZPNΦ82 BRUSHLESS无刷



■ 外径82直流无刷行星减速电机外形图纸 Outside Diameter 82 DC Brushless Motor



| 电机型号 Motor Type | 减速箱型号 Gearbox Model | 减速比 Gear Ratio | L尺寸(mm) Dimension |
|--------------------|------------------------|-------------------|----------------------|
| Z82BLDPN | 82ZPN□ | 一级Stage1 | 3.65~8.63 |
| | | 二级Stage2 | 14~58 |
| | | 三级Stage3 | 67~393 |

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

■ 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 |
| Z82BLDPN24200-30S | 24 | 200 | 1.2 | 3500 | 11.0 | 3000 | 0.637 | 5000 |
| Z82BLDPN36300-30S | 36 | 300 | 1.0 | 3300 | 10.5 | 3000 | 0.955 | 5000 |
| Z82BLDPN48300-30S | 48 | 300 | 0.8 | 3300 | 8.0 | 3000 | 0.955 | 5000 |

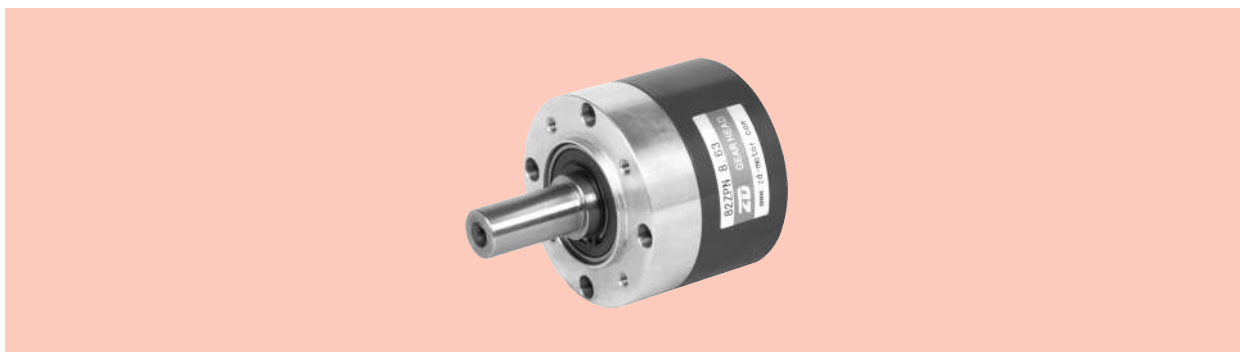
■ 无刷直行星减速电机技术参数 BLDC Planetary Gear Motor Technical Data-Z82BLDPN36300-30S

| 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 | 3.14 | 4.61 | 5.63 | 7.42 | 10.83 | 14.70 | 19.34 | 21.66 | 26.30 | 34.81 | 44.87 | 46.71 | 56.47 |
| 减速级数 Reduction Stage | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 |

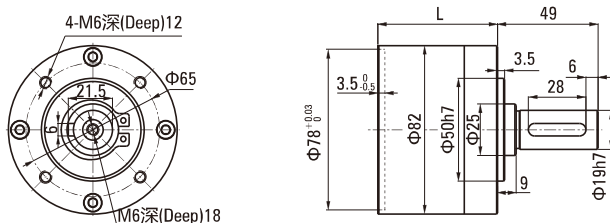
| 减速比 Ratio | 91 | 103 | 119 | 128 | 146 | 165 | 192 | 232 | 302 | 393 | | | |
|-----------------------------------|-------|-------|-------|-------|--------|--------|-----|-----|-----|-----|--|--|--|
| 输出轴转速 r/min Output shaft Speed | 33 | 29 | 25 | 24 | 21 | 18 | 16 | 13 | 9.9 | 7.6 | | | |
| 允许力矩 N.m Allowable Torque | 63.44 | 71.81 | 82.96 | 89.24 | 101.78 | 115.03 | 120 | 120 | 120 | 120 | | | |
| 减速级数 Reduction Stage | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | |

ZPN系列 PLANETARY GEAR MOTOR

■ ZPNΦ82



■ 外径82行星减速器 Outdiameter 82mm Planetary Gearbox



| 减速箱型号 Gearbox Model | 减速比 Gear Ratio | L尺寸(mm) Dimension |
|------------------------|-------------------|----------------------|
| 82ZPN□ | 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 | 1000N | 1000N | 1000N |
| 最大轴向负载 Max axial load | 200N | 200N | 200N |
| 额定扭矩 Rated Torque | 20N.m | 60N.m | 120N.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 |
|--|------------------------------------|---------------------------------------|--------------------------------------|
| Φ14.25 ^{+0.05} / _{-0.08} | 5.36 | - | 103 |
| | | - | 119 |
| Φ11.55 ^{+0.05} / _{-0.08} | 6.55 | 28 | 146 |
| | | 34 | - |
| Φ9.12 ^{-0.05} / _{-0.08} | 8.63 | 45 | 165 |
| | | 58 | 192 |
| | | - | 232 |
| | | - | 302 |
| | | - | 393 |
| Φ21.45 ^{+0.05} / _{-0.08} | 3.65 | 14 | 67 |
| | | 19 | 81 |
| | | 25 | 91 |
| | | - | 128 |