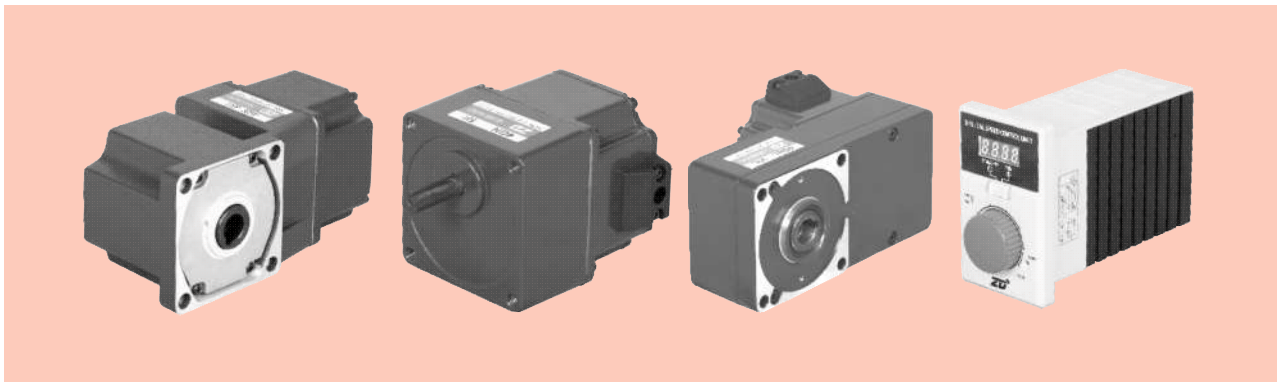


## 80系列直流无刷减速电机

### 80 SERIES OF BRUSHLESS DC MOTOR



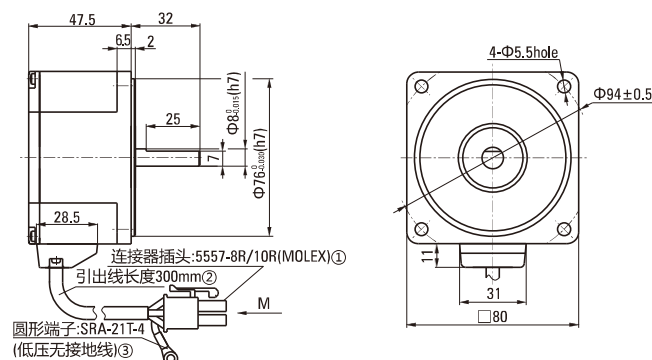
#### 电机基本特性 Basic Characteristics Of Motor

● 60W (DC电源时适用于24VDC/36VDC/48VDC) 60W (DC Power Supply When Applied To 24VDC/36VDC/48VDC)

|                                     |                                              |                                                                                                                                          |                     |                     |
|-------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|
| 额定功率(连续) Rated power (continuous)   | W                                            | 60 (40W/60W)                                                                                                                             |                     |                     |
| 额定转速 Rated speed                    | r/min                                        | 2500                                                                                                                                     |                     |                     |
| 额定转矩 Rated torque                   | N.m                                          | 0.230                                                                                                                                    |                     |                     |
| 瞬时最大转矩 Instantaneous maximum torque | N.m                                          | 0.345                                                                                                                                    |                     |                     |
| 转子转动惯量 Rotor moment of inertia      | J:×10 <sup>-4</sup> kg.m <sup>2</sup>        | 0.082                                                                                                                                    |                     |                     |
| 速度控制范围 Speed control range          | RPM                                          | 高压High pressure 200-2500RPM (低压Low pressure 200-3000RPM)                                                                                 |                     |                     |
| 速率变化率<br>Speed control range        | 对负载 On load                                  | ±1.0%以下: 条件 0~额定转矩、额定转速、额定电压、常温<br>Below ±1%: condition 0~rated torque, rated speed, rated voltage, room temperature                     |                     |                     |
|                                     | 对电压 On voltage                               | ±1.0%以下: 条件 额定电压±10%、额定转速、额定负载、常温<br>Below ±1%: condition rated voltage ±10%, rated speed, rated load, room temperature                  |                     |                     |
|                                     | 对温度 On temperature                           | ±1.0%以下: 条件 使用环境温度0~+40℃ 额定转速、额定负载、额定电压<br>Below ±1%: Conditions of ambient temperature 0~+40℃ rated voltage, rated load and rated speed |                     |                     |
| 电源输入<br>Power input                 | 额定电压 Rated voltage                           | V                                                                                                                                        | 单相Single phase 110V | 单相Single phase 220V |
|                                     | 电压容许范围 Voltage tolerance range               |                                                                                                                                          | ±10%                |                     |
|                                     | 频率 Frequency                                 | Hz                                                                                                                                       | 50/60               | /                   |
|                                     | 频率容许范围 Frequency tolerance range             |                                                                                                                                          | ±5%                 | /                   |
|                                     | 额定输入电流 Rated input current                   | A                                                                                                                                        | 1.7                 | 1.0                 |
|                                     | 瞬时最大输入电流 Instantaneous maximum input current | A                                                                                                                                        | 3.3                 | 1.9                 |
|                                     |                                              |                                                                                                                                          |                     | 3.7                 |
|                                     |                                              |                                                                                                                                          |                     | 5.6                 |

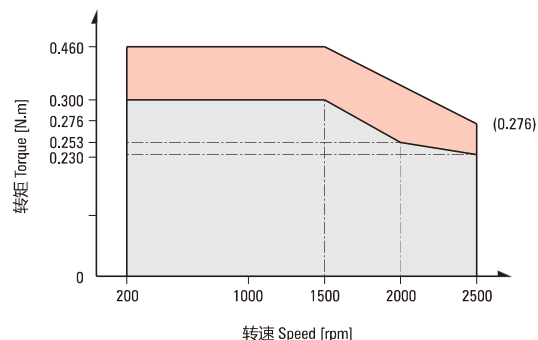
#### 圆轴型光电机 Circular Shaft Type Optical Motor

● Z4BLD60-□A-25S □—电压 Voltage 24/36/48/110/220



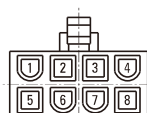
①Connector: 5557-8R/10R (MOLEX) ②The sheath length of lead line 300mm ③Round terminal: SRA-21T-4 (low ground)

● Z4BLD60-220A-25S 曲线图 Diagram (ZD标准驱动器 ZD Standard Drive)



● 低压电机接线插孔对应信号说明

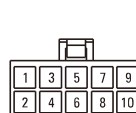
Low Voltage Wire Plughole Corresponding Signal Explanation



|          |   |     |    |     |
|----------|---|-----|----|-----|
| plughole | 1 | 2   | 3  | 4   |
| signal   | U | W   | Hz | Hu  |
| plughole | 5 | 6   | 7  | 8   |
| signal   | V | GND | Hw | Vcc |

● 高压电机接线插孔对应信号说明

High Voltage Wire Plughole Corresponding Signal Explanation



| 排线对应的意义 |       |       |       |       |       |   |      |        |       |
|---------|-------|-------|-------|-------|-------|---|------|--------|-------|
| 1       | 2     | 3     | 4     | 5     | 6     | 7 | 8    | 9      | 10    |
| 蓝 (粗)   | 黄 (细) | 灰 (粗) | 绿 (细) | 粉 (粗) | 棕 (细) |   | 金属丝网 | 橙 (细)  | 白 (粗) |
| W       | Hu    | U     | Hv    | V     | Hw    |   |      | Vcc+5V | GND   |



● Z4BLD40-□GNL-25S/4GN□LC整机容许力矩(单位: N.m) Z4BLD40-□GNL-25S/4GN□LC Machine Allowable Torque (Unit: N.m)

| 电机轴转速<br>Motor Speed | 5    | 10   | 15   | 20   | 30   | 50   | 100  | 200  |
|----------------------|------|------|------|------|------|------|------|------|
| 200~1500RPM          | 0.73 | 1.45 | 2.18 | 2.90 | 4.35 | 7.25 | 14.5 | 29.0 |
| 2000RPM              | 0.61 | 1.23 | 1.84 | 2.45 | 3.68 | 6.13 | 12.3 | 24.5 |
| 2500RPM              | 0.56 | 1.12 | 1.67 | 2.23 | 3.35 | 5.58 | 11.2 | 22.3 |

● Z4BLD60-□GNL-25S/4GN□LC整机容许力矩(单位: N.m) Z4BLD60-□GNL-25S/4GN□LC Machine Allowable Torque (Unit: N.m)

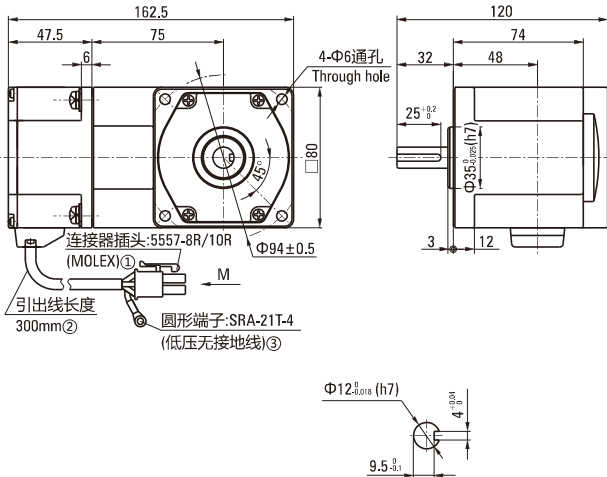
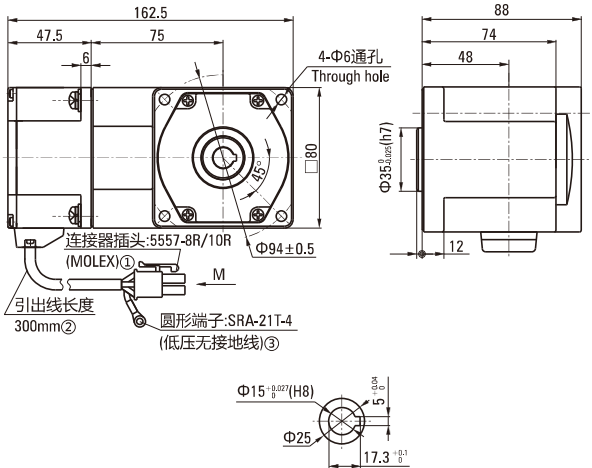
| 电机轴转速<br>Motor Speed | 5    | 10   | 15   | 20   | 30   | 50   | 100  | 200  |
|----------------------|------|------|------|------|------|------|------|------|
| 200~1500RPM          | 1.21 | 2.41 | 3.62 | 4.83 | 6.53 | 10.9 | 21.8 | 39.3 |
| 2000RPM              | 1.02 | 2.04 | 3.06 | 4.08 | 5.52 | 9.20 | 18.4 | 33.3 |
| 2500RPM              | 0.93 | 1.86 | 2.78 | 3.71 | 5.02 | 8.37 | 16.7 | 30.3 |

注Note: 表格中的所有速比旋转方向与电机转向相反。All gearbox output turn direction in form are opposite as motor turn direction.  
(不同转速及速比下的力矩为ZD标准驱动器下测试所得。The torque under different speed and speed ratio is obtained under the ZD standard.)

● 弧锥直角减速电机 Arc Cone Right Angle Speed Reducer Motor

Z4BLD60-□GN-25S/4GN□RC □—电压 Voltage 24/36/48/110/220  
□—速比数值 Velocity Ratio Value

Z4BLD60-□GN-25S/4GN□RT □—电压 Voltage 24/36/48/110/220  
□—速比数值 Velocity Ratio Value



①Connector: 5557-8R/10R (MOLEX) ②The sheath length of lead line 300mm ③Round terminal: SRA-21T-4 (low ground)

● Z4BLD40-□GN-25S/4GN□RC/RT整机容许力矩(单位: N.m) Z4BLD40-□GN-25S/4GN□RC/RT Machine Allowable Torque (Unit: N.m)

| 型号 Model    | 电机轴转速<br>Motor Speed | 7.5  | 9    | 10   | 12.5 | 15   | 18   | 20   | 25   | 30   | 36   | 50   | 60   | 75   | 90   | 100  | 120  | 150  | 180  |
|-------------|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Z4BLD40-□GN | 200~1500RPM          | 1.21 | 1.45 | 1.61 | 2.01 | 2.41 | 2.90 | 2.90 | 3.63 | 4.35 | 5.22 | 7.25 | 7.87 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |
|             | 2000RPM              | 1.02 | 1.23 | 1.36 | 1.70 | 2.04 | 2.45 | 2.45 | 3.07 | 3.68 | 4.42 | 6.13 | 6.66 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |
|             | 2500RPM              | 0.93 | 1.11 | 1.24 | 1.55 | 1.86 | 2.23 | 2.23 | 2.79 | 3.35 | 4.02 | 5.58 | 6.05 | 7.56 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |

● Z4BLD60-□GN-25S/4GN□RC/RT整机容许力矩(单位: N.m) Z4BLD60-□GN-25S/4GN□RC/RT Machine Allowable Torque (Unit: N.m)

| 型号 Model    | 电机轴转速<br>Motor Speed | 7.5  | 9    | 10   | 12.5 | 15   | 18   | 20   | 25   | 30   | 36   | 50   | 60   | 75   | 90   | 100  | 120  | 150  | 180  |
|-------------|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Z4BLD60-□GN | 200~1500RPM          | 1.81 | 2.17 | 2.41 | 3.02 | 3.62 | 4.34 | 4.35 | 5.44 | 6.53 | 7.83 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |
|             | 2000RPM              | 1.53 | 1.84 | 2.04 | 2.55 | 3.06 | 3.68 | 3.68 | 4.60 | 5.52 | 6.63 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |
|             | 2500RPM              | 1.39 | 1.67 | 1.86 | 2.32 | 2.78 | 3.34 | 3.35 | 4.18 | 5.02 | 6.02 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 | 8.00 |

注Note: 表格中的 (灰底部分) 表示旋转方向与电机转向一致。The (gray) in the table indicates that the rotation direction is consistent with the motor.  
(不同转速及速比下的力矩为ZD标准驱动器下测试所得。The torque under different speed and speed ratio is obtained under the ZD standard.)