

第 12 类 / 共 14 类

# 带刹车精密行星无刷减速电机

BRUSHLESS DC MOTOR WITH PRECISION  
PLANETARY GEARBOX & BRAKE

Ø 42 mm

Ø 57 mm

Ø 60 mm

Ø 86 mm

Ø 110 mm

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## 42mm BRUSHLESS DC MOTOR WITH PRECISION PLANETARY GEARBOX & BRAKE

# 外径57mm带刹车精密行星无刷减速电机

57mm BRUSHLESS DC MOTOR WITH PRECISION PLANETARY GEARBOX & BRAKE

## 产品实物 PRODUCT PHOTO

| 刹车参数         |           |
|--------------|-----------|
| 静摩擦转矩 (NM)   | 2.0       |
| 额定电压 (V)     | DC 24±10% |
| 额定功率 (W)     | 11.5      |
| 最高转速 (r/min) | 5000      |
| 绝缘等级         | B         |

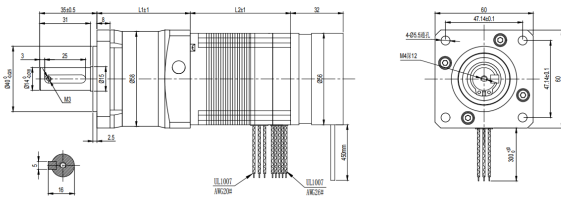
## 电气性能 ELECTRICAL PERFORMANCE

|                                     |                  |
|-------------------------------------|------------------|
| 绕组连接方式<br>Winding Type              | 星形Star           |
| 霍尔电位角度<br>Hall Effect angle         | 120°             |
| 绝缘等级<br>Insulation Class            | Class B          |
| 工作环境温度<br>Ambient Temperature Range | -20°C ~ +150°C   |
| 绝缘电阻<br>Insulation Resistance       | 100MΩMin 500VDC  |
| 介电强度<br>Dielectric Strength         | 700V AC 1 minute |

## 技术参数 TECHNICAL PARAMETERS

| 型号<br>Model                     | AW57BLF101-230 | AW57BLF122-430 | AW57BLF60-230 | AW57BLF80-230 | AW57BLY115-230 |
|---------------------------------|----------------|----------------|---------------|---------------|----------------|
| 极数<br>Number of Poles           | 8              |                |               |               | 4              |
| 相数<br>Number of Phases          | 3              |                |               |               |                |
| 额定电压 (VDC)<br>Nominal voltage   | 24             | 48             | 24            |               |                |
| 额定转速 (RPM)<br>Rated speed       | 3000 (±10%)    |                |               |               |                |
| 额定扭矩 (N·m)<br>Rated Torque      | 0.6            | 0.8            | 0.2           | 0.4           | 0.45           |
| 额定电流 (A)<br>Rated Current       | 11.5           | 6.6            | 3.9           | 7.5           | 7.7            |
| 输出功率 (W)<br>Output Power        | 188            | 250            | 62            | 125           | 140            |
| 峰值扭矩 (N·m)<br>Peak Torque       | 1.8            | 2.4            | 0.6           | 1.2           | 1.35           |
| 峰值电流 (A)<br>Peak Current        | 34.5           | 19.8           | 11.7          | 22.5          | 23.1           |
| 力矩常数 (N·m/A)<br>Torque constant | 0.057          | 0.107          | 0.048         | 0.047         | 0.061          |
| 反电势常数 (Vrms/k RPM)<br>Back EMF  | 4.71           | 9.04           | 4.36          | 4.08          | 4.68           |
| 转动惯量 (kg·cm²)<br>Rotor inertia  | 468            | 602            | 184           | 331           | 268            |
| 电机长度 (mm)<br>Body Length        | 101            | 122            | 61            | 80            | 115            |
| 重量 (kg)<br>Mass                 | 1.23           | 1.6            | 0.6           | 0.92          | 1.24           |

## 机械尺寸图 DIMENSIONS • unit = mm



## 接线图 WIRING DIAGRAM



## 57mm BRUSHLESS DC MOTOR WITH PRECISION PLANETARY GEARBOX & BRAKE

|                           |                  |
|---------------------------|------------------|
| 绕组连接方式                    | 星形Star           |
| Winding Type              |                  |
| 霍尔电位角度                    | 120°             |
| Hall Effect angle         |                  |
| 绝缘等级                      | Class B          |
| Insulation Class          |                  |
| 工作环境温度                    | -20℃ ~ +150℃     |
| Ambient Temperature Range |                  |
| 绝缘电阻                      | 100MΩMin 500VDC  |
| Insulation Resistance     |                  |
| 介电强度                      | 700V AC 1 minute |
| Dielectric Strength       |                  |

| 型号<br>Model                     | AW57BLY45-230 | AW57BLY55-230 | AW57BLY75-230 | AW57BLY95-230 |
|---------------------------------|---------------|---------------|---------------|---------------|
| 极数<br>Number of Poles           | 4             |               |               |               |
| 相数<br>Number of Phases          | 3             |               |               |               |
| 额定电压 (VDC)<br>Nominal voltage   | 24            |               |               |               |
| 额定转速 (RPM)<br>Rated speed       | 3000 (±10%)   |               |               |               |
| 额定扭矩 (N·m)<br>Rated Torque      | 0.055         | 0.11          | 0.22          | 0.33          |
| 额定电流 (A)<br>Rated Current       | 1.2           | 2.2           | 4.1           | 5.9           |
| 输出功率 (W)<br>Output Power        | 17            | 35            | 70            | 105           |
| 峰值扭矩 (N·m)<br>Peak Torque       | 0.165         | 0.33          | 0.66          | 0.99          |
| 峰值电流 (A)<br>Peak Current        | 3.6           | 6.6           | 12.3          | 17.7          |
| 力矩常数 (N·m/A)<br>Torque constant | 0.039         | 0.042         | 0.049         |               |
| 反电势常数 (Vrms/k RPM)<br>Back EMF  | 4.28          | 3.91          | 4.13          | 4.16          |
| 转动惯量 (kg·cm²)<br>Rotor inertia  | 68            | 84            | 145           | 209           |
| 电机长度 (mm)<br>Body Length        | 45            | 55            | 75            | 95            |
| 重量 (kg)<br>Mass                 | 0.4           | 0.5           | 0.72          | 1.0           |

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**ASPOSE**  
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# 外径60mm带刹车精密行星无刷减速电机

60mm BRUSHLESS DC MOTOR WITH PRECISION PLANETARY GEARBOX & BRAKE

## 产品实物 PRODUCT PHOTO

| 刹车参数         |           |
|--------------|-----------|
| 静摩擦转矩 (NM)   | 2.0       |
| 额定电压 (V)     | DC 24±10% |
| 额定功率 (W)     | 11.5      |
| 最高转速 (r/min) | 5000      |
| 绝缘等级         | B         |

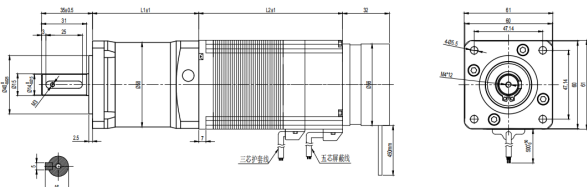
## 电气性能 ELECTRICAL PERFORMANCE

|                                     |                  |
|-------------------------------------|------------------|
| 绕组连接方式<br>Winding Type              | 星形Star           |
| 霍尔电位角度<br>Hall Effect angle         | 120°             |
| 绝缘等级<br>Insulation Class            | Class B          |
| 工作环境温度<br>Ambient Temperature Range | -20°C ~ +150°C   |
| 绝缘电阻<br>Insulation Resistance       | 100MΩMin 500VDC  |
| 介电强度<br>Dielectric Strength         | 700V AC 1 minute |

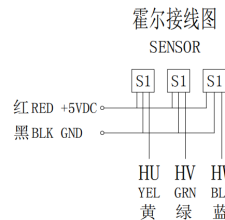
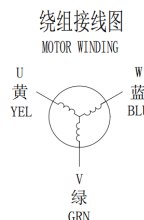
## 技术参数 TECHNICAL PARAMETERS

| 型号<br>Model                     | AW60BLFA120-430 | AW60BLFA141-430 | AW60BLFA78-430 | AW60BLFA99-430 |
|---------------------------------|-----------------|-----------------|----------------|----------------|
| 极数<br>Number of Poles           | 8               |                 |                |                |
| 相数<br>Number of Phases          | 3               |                 |                |                |
| 额定电压 (VDC)<br>Nominal voltage   | 48              |                 |                |                |
| 额定转速 (RPM)<br>Rated speed       | 3000 (±10%)     |                 |                |                |
| 额定扭矩 (N·m)<br>Rated Torque      | 0.95            | 1.28            | 0.32           | 0.65           |
| 额定电流 (A)<br>Rated Current       | 8.3             | 11.5            | 3.2            | 5.3            |
| 输出功率 (W)<br>Output Power        | 300             | 400             | 100            | 200            |
| 峰值扭矩 (N·m)<br>Peak Torque       | 2.85            | 3.84            | 0.96           | 1.95           |
| 峰值电流 (A)<br>Peak Current        | 24.9            | 34.5            | 9.6            | 15.9           |
| 力矩常数 (N·m/A)<br>Torque constant | 0.116           | 0.114           | 0.094          | 0.114          |
| 反电势常数 (Vrms/k RPM)<br>Back EMF  | 8.75            | 8.88            | 8.01           | 8.79           |
| 转动惯量 (kg·cm²)<br>Rotor inertia  | 0.79            | 1.01            | 0.31           | 0.58           |
| 电机长度 (mm)<br>Body Length        | 120             | 141             | 78             | 99             |
| 重量 (kg)<br>Mass                 | 1.7             | 2.1             | 0.85           | 1.25           |

## 机械尺寸图 DIMENSIONS • unit = mm



## 接线图 WIRING DIAGRAM



# 外径86mm带刹车精密行星无刷减速电机

86mm BRUSHLESS DC MOTOR WITH PRECISION PLANETARY GEARBOX & BRAKE

## 产品实物 PRODUCT PHOTO

| 刹车参数       |           |
|------------|-----------|
| 静摩擦转矩 (NM) | 4.0       |
| 额定电压 (V)   | DC 24±10% |
| 电流 (A)     | 0.385     |
| 功率 (W)     | 9.2       |
| 电阻 (ohm)   | 62.3      |
| 吸合电压 (V)   | 20Vmax    |

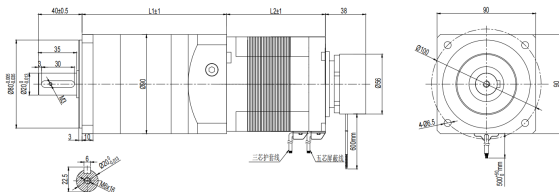
## 电气性能 ELECTRICAL PERFORMANCE

|                                     |                  |
|-------------------------------------|------------------|
| 绕组连接方式<br>Winding Type              | 星形Star           |
| 霍尔电位角度<br>Hall Effect angle         | 120°             |
| 绝缘等级<br>Insulation Class            | Class B          |
| 工作环境温度<br>Ambient Temperature Range | -20°C ~ +150°C   |
| 绝缘电阻<br>Insulation Resistance       | 100MΩMin 500VDC  |
| 介电强度<br>Dielectric Strength         | 700V AC 1 minute |

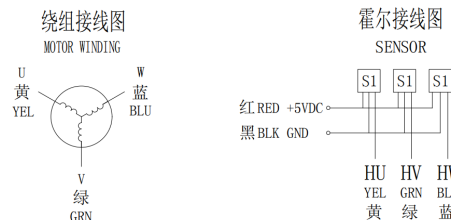
## 技术参数 TECHNICAL PARAMETERS

| 型号<br>Model                     | AW86BLF105-430 | AW86BLF115-430 | AW86BLF145-430 | AW86BLF75-430 | AW86BLF90-430 |
|---------------------------------|----------------|----------------|----------------|---------------|---------------|
| 极数<br>Number of Poles           | 8              |                |                |               |               |
| 相数<br>Number of Phases          | 3              |                |                |               |               |
| 额定电压 (VDC)<br>Nominal voltage   | 48             |                |                |               |               |
| 额定转速 (RPM)<br>Rated speed       | 3000 (±10%)    |                |                |               |               |
| 额定扭矩 (N·m)<br>Rated Torque      | 1.3            | 1.7            | 2.4            | 0.41          | 0.8           |
| 额定电流 (A)<br>Rated Current       | 11.3           | 14.5           | 19             | 3.7           | 6.8           |
| 输出功率 (W)<br>Output Power        | 400            | 500            | 750            | 130           | 250           |
| 峰值扭矩 (N·m)<br>Peak Torque       | 3.9            | 5.1            | 7.2            | 1.23          | 2.4           |
| 峰值电流 (A)<br>Peak Current        | 33.9           | 43.5           | 57             | 11.1          | 20.4          |
| 力矩常数 (N·m/A)<br>Torque constant | 0.115          | 0.117          | 0.114          | 0.108         | 0.111         |
| 反电势常数 (Vrms/k RPM)<br>Back EMF  | 9.66           | 9.53           | 8.49           | 8.38          | 9.58          |
| 转动惯量 (kg·cm²)<br>Rotor inertia  | 1.71           | 2.14           | 3.04           | 0.81          | 1.27          |
| 电机长度 (mm)<br>Body Length        | 105            | 115            | 145            | 75            | 90            |
| 重量 (kg)<br>Mass                 | 2.5            | 3              | 4              | 1.5           | 2.0           |

## 机械尺寸图 DIMENSIONS • unit = mm



## 接线图 WIRING DIAGRAM



# 外径86mm带刹车精密行星无刷减速电机

86mm BRUSHLESS DC MOTOR WITH PRECISION PLANETARY GEARBOX & BRAKE

## 产品实物 PRODUCT PHOTO

| 刹车参数       |                    |
|------------|--------------------|
| 静摩擦转矩 (NM) | 4.0                |
| 额定电压 (V)   | DC 24±10%          |
| 电流 (A)     | 0.385              |
| 功率 (W)     | 9.2                |
| 电阻 (ohm)   | 62.3               |
| 吸合电压 (V)   | 20V <sub>max</sub> |

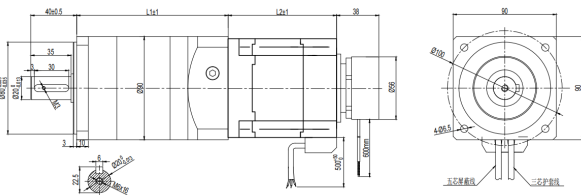
## 电气性能 ELECTRICAL PERFORMANCE

|                                     |                  |
|-------------------------------------|------------------|
| 绕组连接方式<br>Winding Type              | 星形Star           |
| 霍尔电位角度<br>Hall Effect angle         | 120°             |
| 绝缘等级<br>Insulation Class            | Class B          |
| 工作环境温度<br>Ambient Temperature Range | -20°C ~ +150°C   |
| 绝缘电阻<br>Insulation Resistance       | 100MΩMin 500VDC  |
| 介电强度<br>Dielectric Strength         | 700V AC 1 minute |

## 技术参数 TECHNICAL PARAMETERS

| 型号<br>Model                     | AW86BLW105-430 | AW86BLW115-430 | AW86BLW130-430 | AW86BLW70-430 | AW86BLW80-430 |
|---------------------------------|----------------|----------------|----------------|---------------|---------------|
| 极数<br>Number of Poles           | 8              |                |                |               |               |
| 相数<br>Number of Phases          | 3              |                |                |               |               |
| 额定电压 (VDC)<br>Nominal voltage   | 48             |                |                |               |               |
| 额定转速 (RPM)<br>Rated speed       | 3000 (±10%)    |                |                |               |               |
| 额定扭矩 (N·m)<br>Rated Torque      | 1.8            | 2.1            | 2.5            | 0.7           | 1.0           |
| 额定电流 (A)<br>Rated Current       | 14.5           | 17             | 19             | 6             | 7.8           |
| 输出功率 (W)<br>Output Power        | 565            | 659            | 785            | 220           | 314           |
| 峰值扭矩 (N·m)<br>Peak Torque       | 5.4            | 6.3            | 7.5            | 2.1           | 3             |
| 峰值电流 (A)<br>Peak Current        | 43.5           | 51             | 57             | 18            | 23.4          |
| 力矩常数 (N·m/A)<br>Torque constant | 0.124          |                | 0.134          | 0.119         | 0.129         |
| 反电势常数 (Vrms/k RPM)<br>Back EMF  | 10.5           |                | 10.7           | 9.4           | 11.7          |
| 转动惯量 (kg·cm²)<br>Rotor inertia  | 1.9            | 2.12           | 2.54           | 0.77          | 1.13          |
| 电机长度 (mm)<br>Body Length        | 105            | 115            | 130            | 70            | 80            |
| 重量 (kg)<br>Mass                 | 3              | 3.5            | 4.1            | 1.5           | 2             |

## 机械尺寸图 DIMENSIONS • unit = mm



## 接线图 WIRING DIAGRAM



# 外径110mm带刹车精密行星无刷减速电机

110mm BRUSHLESS DC MOTOR WITH PRECISION PLANETARY GEARBOX & BRAKE

## 产品实物 PRODUCT PHOTO

| 刹车参数         |           |
|--------------|-----------|
| 静摩擦转矩 (NM)   | 4.0       |
| 额定电压 (V)     | DC 48±10% |
| 功率 (W)       | 13        |
| 最高转速 (r/min) | 5000      |
| 重量 (Kg)      | 0.8       |

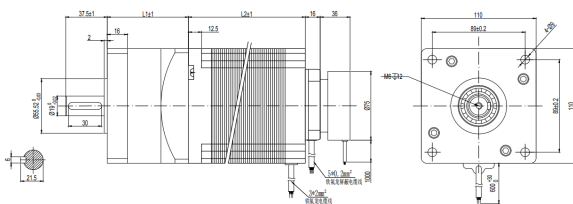
## 电气性能 ELECTRICAL PERFORMANCE

|                                     |                  |
|-------------------------------------|------------------|
| 绕组连接方式<br>Winding Type              | 星形Star           |
| 霍尔电位角度<br>Hall Effect angle         | 120°             |
| 绝缘等级<br>Insulation Class            | Class B          |
| 工作环境温度<br>Ambient Temperature Range | -20℃ ~ +80℃      |
| 绝缘电阻<br>Insulation Resistance       | 100MΩMin 500VDC  |
| 介电强度<br>Dielectric Strength         | 700V AC 1 minute |

## 技术参数 TECHNICAL PARAMETERS

| 型号<br>Model                     | AW110BLF110-630 | AW110BLF140-630 | AW110BLF170-630 | AW110BLF230-630 |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
| 极数<br>Number of Poles           | 8               |                 |                 |                 |
| 相数<br>Number of Phases          | 3               |                 |                 |                 |
| 额定电压 (VDC)<br>Nominal voltage   | 310             |                 |                 |                 |
| 额定转速 (RPM)<br>Rated speed       | 3000 (±10%)     |                 |                 |                 |
| 额定扭矩 (N·m)<br>Rated Torque      | 3.2             | 4.8             | 6.4             | 9.6             |
| 额定电流 (A)<br>Rated Current       | 4.2             | 6.3             | 8               | 13              |
| 输出功率 (W)<br>Output Power        | 1000            | 1500            | 2000            | 3000            |
| 峰值扭矩 (N·m)<br>Peak Torque       | 9.6             | 14.4            | 19.2            | 28.8            |
| 峰值电流 (A)<br>Peak Current        | 12.6            | 18.9            | 24              | 39              |
| 力矩常数 (N·m/A)<br>Torque constant | 0.64            |                 | 0.78            | 0.84            |
| 反电势常数 (Vrms/k RPM)<br>Back EMF  | 61.4            | -               | 57              | 63.2            |
| 转动惯量 (kg·cm²)<br>Rotor inertia  | 5.95            | 8.43            | 10.91           | 14.88           |
| 电机长度 (mm)<br>Body Length        | 110             | 140             | 170             | 230             |
| 重量 (kg)<br>Mass                 | 5.4             | -               | 9               | 12.7            |

## 机械尺寸图 DIMENSIONS • unit = mm



## 接线图 WIRING DIAGRAM

