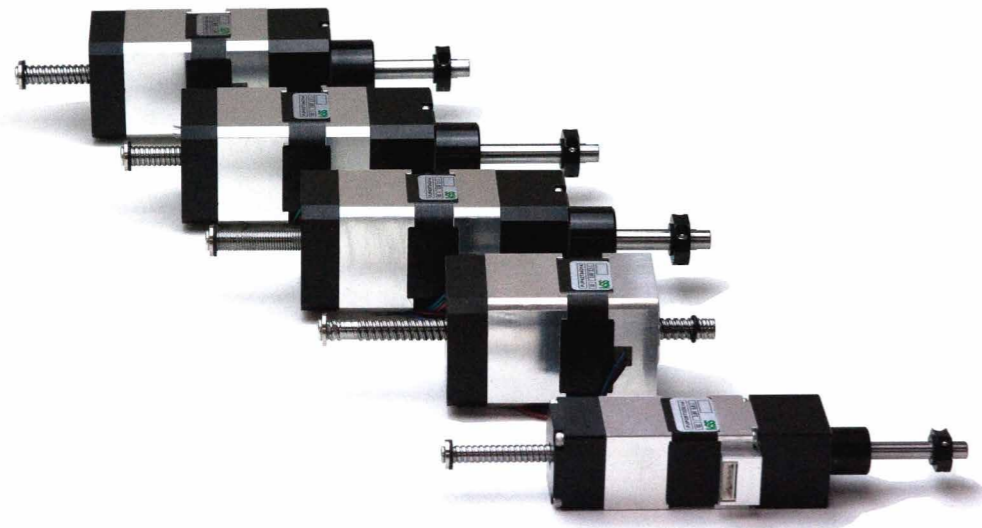


# 微型电动缸编 Miniature Electric cylinder

AR / CL 系列  
AR / CL Series

2相中空步进电机和滚珠丝杠一体化的紧凑型电动缸  
Compact Cylinder with 2-phase Hollow Stepping Motor integrated with Ball Screw or Ball Screw with Ball Spline (BSSP).



- **特征**
  - 电机尺寸有□28, □42 两种, 且每种电机都有止转结构内藏型 (AR系列) 和无止转结构型 (CL型)。
  - 按搭载的驱动丝杠种类和导程, 精度和推力选项丰富。

- **Features**
  - The new Cylinder type Actuator comes with 2 Motor sizes, □28 & □42. AR type with anti-rotating device or CL type without anti-rotating device can be selected in each Motor size as standard.
  - Variety of Shaft diameter & Lead combination allows wider selection of Accuracy and Thrust Force.

- **种类**
  - AR电动缸(Captive)**  
搭载KSS微型滚珠丝杠花键 (BSSP) 用于止转结构
  - CL电动缸(Non-Captive)**  
滚珠丝杠和中空电机相结合的简易结构, 实现了轻量且紧凑型外形。

- **Types**
  - AR Cylinder(Captive)**  
KSS miniature Ball Screw with Ball Spline (BSSP) is used for an anti-rotating device.
  - CL Cylinder(Non-Captive)**  
Simple combination of the Hollow Motor and the Ball Screw contributes to lightweight and compact body.

● **种类 / Variation**

Unit (单位): mm

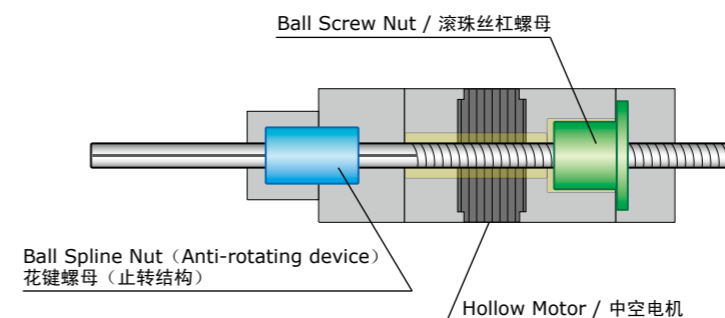
	Drive Screw 驱动丝杠	Notation 记号	NEMA11 (□28)		NEMA17 (□42)	
			Lead / 导程	Travel / 行程	Lead / 导程	Travel / 行程
<b>AR type</b> AR 系列	Precision Ball Screw 精密滚珠丝杠	G	1,2	40	2,5	50
<b>CL type</b> CL 系列	Precision Ball Screw 精密滚珠丝杠	G	1,2	40,80	2,5	50,100
	Rolled Ball Screw 轧制滚珠丝杠	R	1,2	40,80	2,5	50,100
	Resin Lead Screw 树脂螺母进给丝杠	Re	2,6	40,80	2,5	50,100

注) 如需上述以外的导程, 请垂询KSS。  
Note) If the Lead other than the above is required, please ask KSS representative.

取得实用新案 / Utility model resisterd

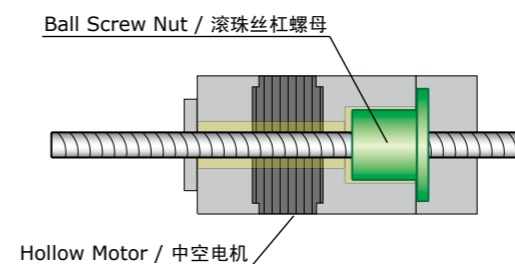
搭载BSSP, 花键螺母用于止转结构  
客户无需装配止转结构, 实现更加紧凑的外形尺寸。

● **结构 / Internal Structure**  
AR 电动缸 / AR Cylinder(Captive)



Ball Spline Nut in BSSP plays a role of anti-rotating device. No need to set up anti-rotating design outside the Actuator.  
Our unique BSSP enable a compact and slim body by using Ball Spline Nut as an anti-rotating device.

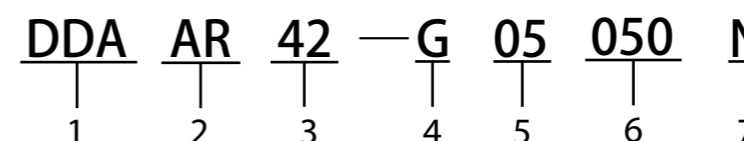
● **CL 电动缸 / CL Cylinder(Non-Captive)**



中空电机内藏驱动丝杠的简易结构  
客户使用时, 可利用轴端内螺纹装配止转结构

Simple design of Screw Shaft in Hollow Motor.  
External anti-rotating device should be set up when usage.

● **公称型号 / Model number notation**

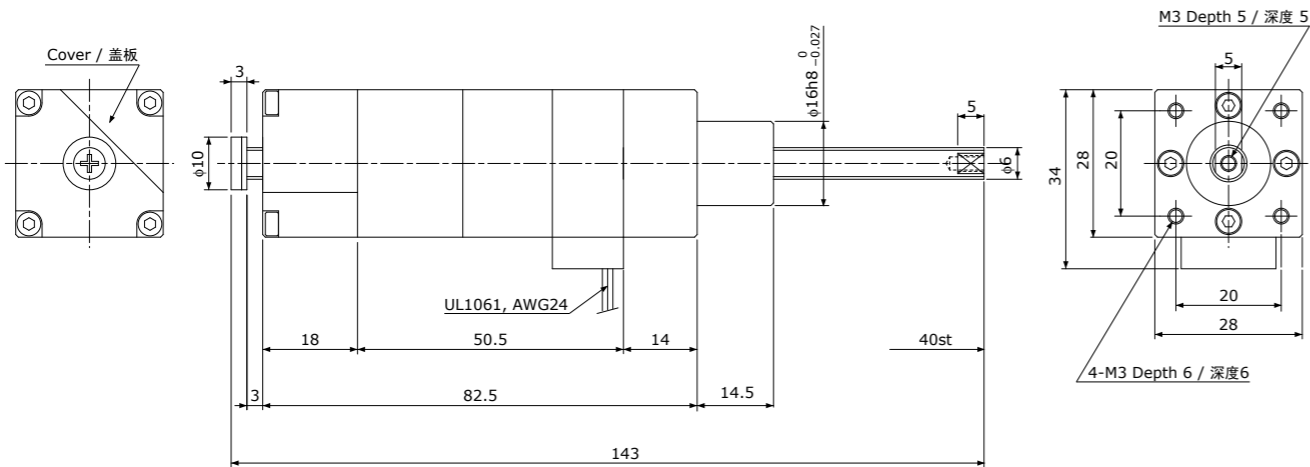


- 1 系列号  
DDA : 直接驱动执行器系列
- 2 电动缸型  
AR : Captive type(带止转结构)  
CL : Non-Captive type(无止转结构)
- 3 电机尺寸  
42 : 42角步进电机(NEMA17)  
28 : 28角步进电机(NEMA11)
- 4 驱动丝杠种类  
G : 精密滚珠丝杠  
R : 轧制滚珠丝杠  
Re : 树脂螺母进给丝杠
- 5 导程 / 节距 (mm) : 05表示5mm
- 6 行程 (mm) : 050表示50mm
- 7 连接器种类  
N : 散线  
E : EI连接器 (Tyco Electronics制)

- 1 Series No.  
DDA : Direct Drive Actuator Series
- 2 Cylinder type  
AR : Captive type(anti-rotating device)  
CL : Non-Captive type(without anti-rotating device)
- 3 Motor size  
42 : □42 Stepping Motor(NEMA17)  
28 : □28 Stepping Motor(NEMA11)
- 4 Lead Screw / Ball Screw type  
G : Precision Ball Screw  
R : Rolled Ball Screw  
Re : Resin Lead Screw
- 5 Lead / Pitch (mm) : 05 means 5mm
- 6 Travel (mm) : 050 means 50mm
- 7 Connector type  
N : No connector (Bare)  
E : EI connector (Tyco Electronics)

# DDAAR28-G01 040

Lead(导程) 1mm  
Travel(行程) 40mm

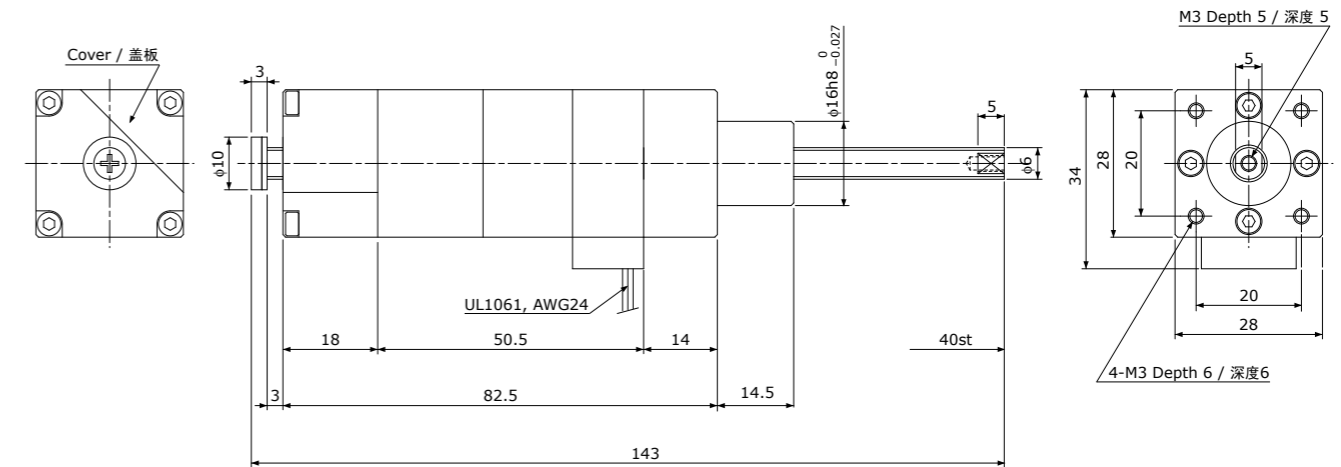


Motor lead wire /电机线(310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

# DDAAR28-G02 040

Lead(导程) 2mm  
Travel(行程) 40mm



Motor lead wire /电机线(310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA11 (□28)
Drive Screw type 驱动丝杠	Precision Ball Screw 精密滚珠丝杠
Screw Lead 丝杠导程	1mm
Travel 行程	40mm
Repeatability 重复定位精度	±0.005mm
Lost Motion 空转	0.010mm
Maximum Speed 最高速度	20mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.2sec 0.2sec以上
Thrust Force 推力	50N
Mass 重量	270g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	3.8V (DC)
Rated current 额定电流	0.67A/phase 0.67A/相
Winding resistance 绕线电阻	5.6Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

- 注意事项**
- AR型不能受径向负载
  - 上述规格为垂直状态且移动初期的参考值。
  - 标准规格没有装配传感器。如有需要，请垂询KSS。

- Precautions**
- Radial load is not able to apply on AR type
  - Specifications above are reference value measured in vertical position at virgin condition.
  - Sensor is not built in this standard design. Please ask KSS if necessary.

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA11 (□28)
Drive Screw type 驱动丝杠	Precision Ball Screw 精密滚珠丝杠
Screw Lead 丝杠导程	2mm
Travel 行程	40mm
Repeatability 重复定位精度	±0.005mm
Lost Motion 空转	0.010mm
Maximum Speed 最高速度	40mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.2sec 0.2sec以上
Thrust Force 推力	25N
Mass 重量	270g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

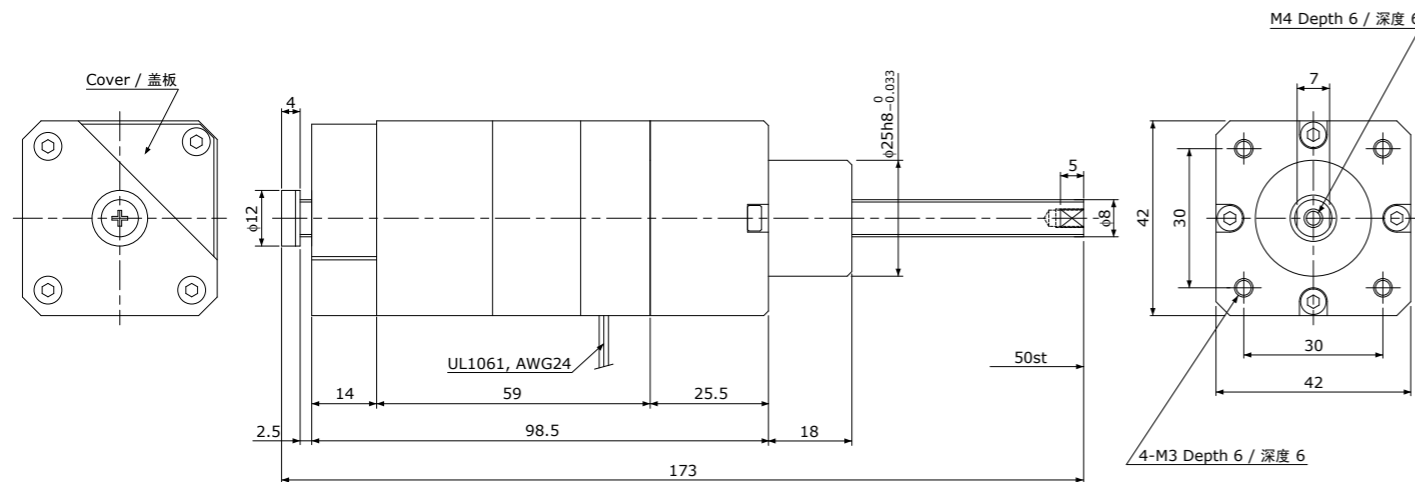
Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	3.8V (DC)
Rated current 额定电流	0.67A/phase 0.67A/相
Winding resistance 绕线电阻	5.6Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

- 注意事项**
- AR型不能受径向负载
  - 上述规格为垂直状态且移动初期的参考值。
  - 标准规格没有装配传感器。如有需要，请垂询KSS。

- Precautions**
- Radial load is not able to apply on AR type
  - Specifications above are reference value measured in vertical position at virgin condition.
  - Sensor is not built in this standard design. Please ask KSS if necessary.

# DDAAR42-G02 050

Lead (导程) 2mm  
Travel (行程) 50mm

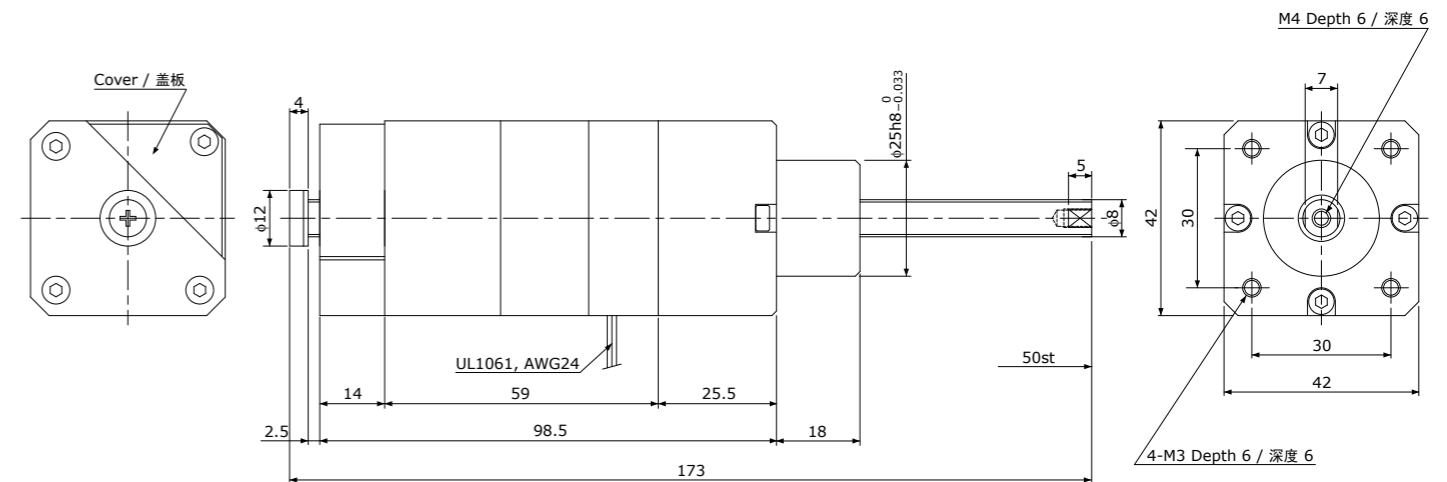


Motor lead wire / 电机线 (310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

# DDAAR42-G05 050

Lead (导程) 5mm  
Travel (行程) 50mm



Motor lead wire / 电机线 (310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA17 (□42)
Drive Screw type 驱动丝杠	Precision Ball Screw 精密滚珠丝杠
Screw Lead 丝杠导程	2mm
Travel 行程	50mm
Repeatability 重复定位精度	±0.005mm
Lost Motion 空转	0.010mm
Maximum Speed 最高速度	40mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.2sec 0.2sec以上
Thrust Force 推力	80N
Mass 重量	660g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	2.5V (DC)
Rated current 额定电流	1.2A/phase 1.2A/相
Winding resistance 绕线电阻	2.1Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

- 注意事项**
- AR型不能受径向负载
  - 上述规格为垂直状态且移动初期的参考值。
  - 标准规格没有装配传感器。如有需要，请垂询KSS。

- Precautions**
- Radial load is not able to apply on AR type
  - Specifications above are reference value measured in vertical position at virgin condition.
  - Sensor is not built in this standard design. Please ask KSS if necessary.

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA17 (□42)
Drive Screw type 驱动丝杠	Precision Ball Screw 精密滚珠丝杠
Screw Lead 丝杠导程	5mm
Travel 行程	50mm
Repeatability 重复定位精度	±0.005mm
Lost Motion 空转	0.010mm
Maximum Speed 最高速度	100mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.2sec 0.2sec以上
Thrust Force 推力	30N
Mass 重量	660g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

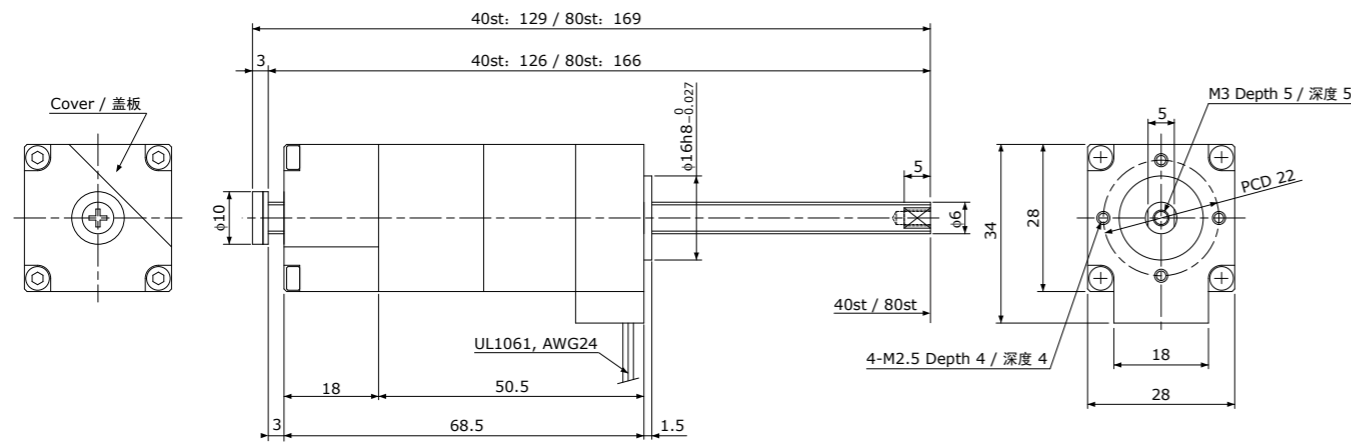
Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	2.5V (DC)
Rated current 额定电流	1.2A/phase 1.2A/相
Winding resistance 绕线电阻	2.1Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

- 注意事项**
- AR型不能受径向负载
  - 上述规格为垂直状态且移动初期的参考值。
  - 标准规格没有装配传感器。如有需要，请垂询KSS。

- Precautions**
- Radial load is not able to apply on AR type
  - Specifications above are reference value measured in vertical position at virgin condition.
  - Sensor is not built in this standard design. Please ask KSS if necessary.

# DDACL28-G01 040/080

Lead(导程) 1mm  
Travel(行程) 40/80mm

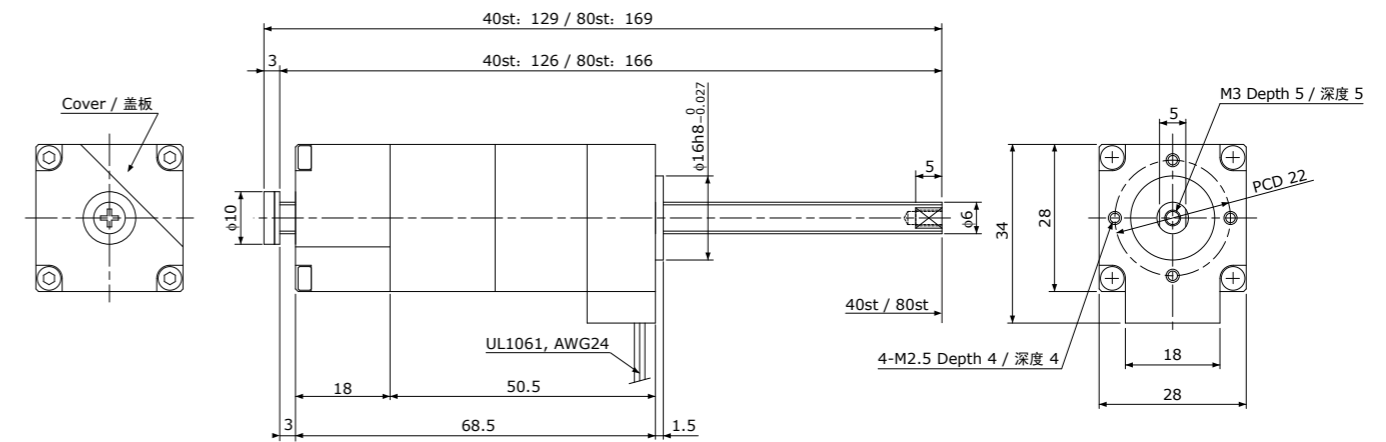


Motor lead wire /电机线(310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

# DDACL28-G02 040/080

Lead(导程) 2mm  
Travel(行程) 40/80mm



Motor lead wire /电机线(310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA11 (□28)
Drive Screw type 驱动丝杠	Precision Ball Screw 精密滚珠丝杠
Screw Lead 丝杠导程	1mm
Travel 行程	40mm / 80mm
Repeatability 重复定位精度	±0.005mm
Lost Motion 空转	0.010mm
Maximum Speed 最高速度	20mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.2sec 0.2sec以上
Thrust Force 推力	50N
Mass 重量	Travel 40mm/ 行程40mm : 230g Travel 80mm/ 行程80mm : 240g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	3.8V (DC)
Rated current 额定电流	0.67A/phase 0.67A/相
Winding resistance 绕线电阻	5.6Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

- 注意事项**
- CL型无止转结构  
客户使用时需另装止转结构。
  - 上述规格为垂直状态且移动初期的参考值。
  - 标准规格没有装配传感器。  
如有需要, 请垂询KSS。

- Precautions**
- CL type does not have an anti-rotating device.  
External anti-rotating device should be set up when usage.
  - Specifications above are reference value measured in vertical position at virgin condition.
  - Sensor is not built in this standard design.  
Please ask KSS if necessary.

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA11 (□28)
Drive Screw type 驱动丝杠	Precision Ball Screw 精密滚珠丝杠
Screw Lead 丝杠导程	2mm
Travel 行程	40mm / 80mm
Repeatability 重复定位精度	±0.005mm
Lost Motion 空转	0.010mm
Maximum Speed 最高速度	40mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.2sec 0.2sec以上
Thrust Force 推力	25N
Mass 重量	Travel 40mm/ 行程40mm : 230g Travel 80mm/ 行程80mm : 240g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

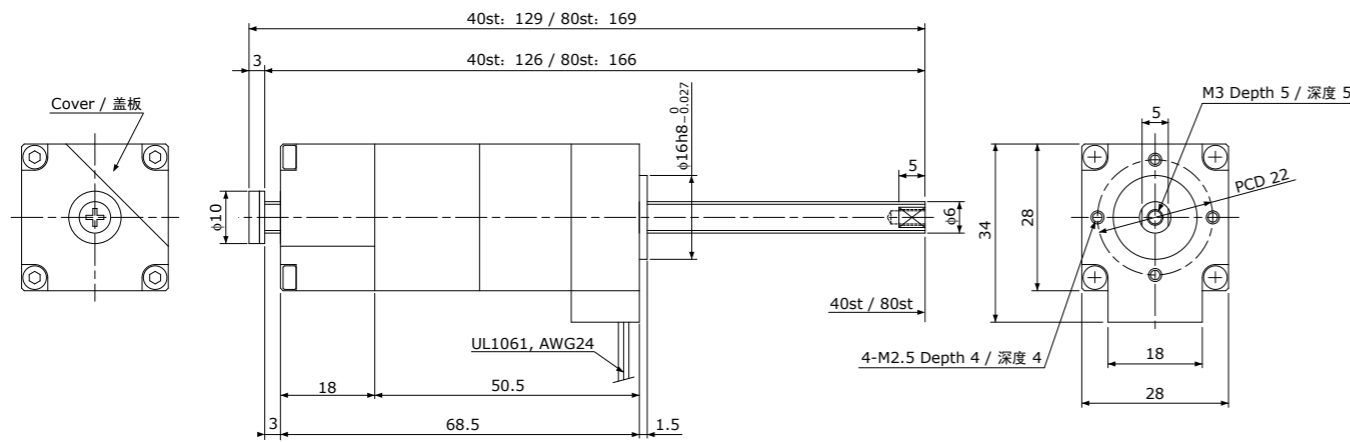
Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	3.8V (DC)
Rated current 额定电流	0.67A/phase 0.67A/相
Winding resistance 绕线电阻	5.6Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

- 注意事项**
- CL型无止转结构  
客户使用时需另装止转结构。
  - 上述规格为垂直状态且移动初期的参考值。
  - 标准规格没有装配传感器。  
如有需要, 请垂询KSS。

- Precautions**
- CL type does not have an anti-rotating device.  
External anti-rotating device should be set up when usage.
  - Specifications above are reference value measured in vertical position at virgin condition.
  - Sensor is not built in this standard design.  
Please ask KSS if necessary.

# DDACL28-R01 040/080

Lead(导程) 1mm  
Travel(行程) 40/80mm

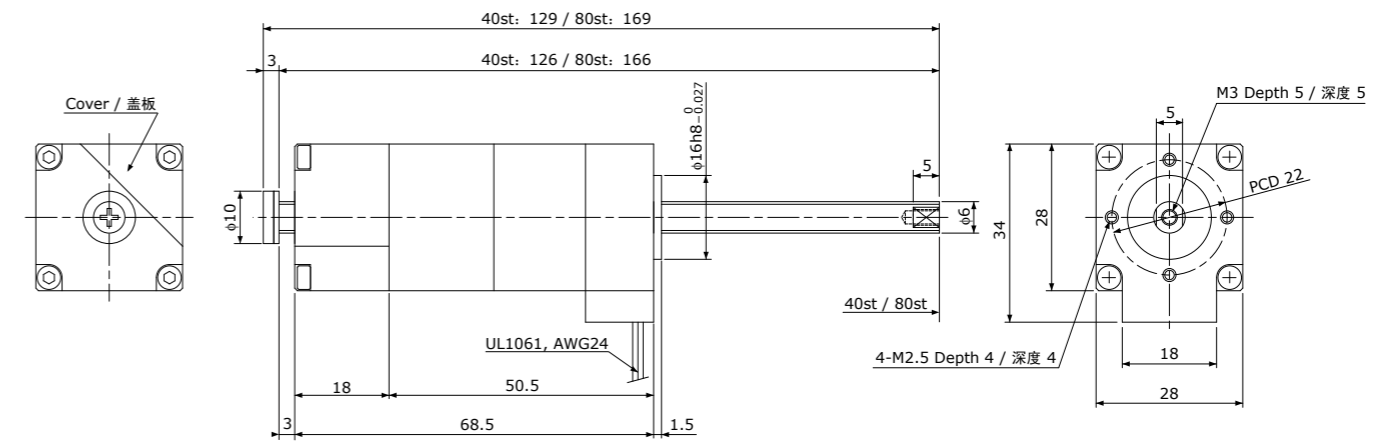


Motor lead wire / 电机线(310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

# DDACL28-R02 040/080

Lead(导程) 2mm  
Travel(行程) 40/80mm



Motor lead wire / 电机线(310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA11 (□28)
Drive Screw type 驱动丝杠	Rolled Ball Screw 轧制滚珠丝杠
Screw Lead 丝杠导程	1mm
Travel 行程	40mm / 80mm
Repeatability 重复定位精度	±0.010mm
Lost Motion 空转	0.020mm
Maximum Speed 最高速度	20mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.2sec 0.2sec以上
Thrust Force 推力	50N
Mass 重量	Travel 40mm/ 行程40mm : 230g Travel 80mm/ 行程80mm : 240g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	3.8V (DC)
Rated current 额定电流	0.67A/phase 0.67A/相
Winding resistance 绕线电阻	5.6Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA11 (□28)
Drive Screw type 驱动丝杠	Rolled Ball Screw 轧制滚珠丝杠
Screw Lead 丝杠导程	2mm
Travel 行程	40mm / 80mm
Repeatability 重复定位精度	±0.010mm
Lost Motion 空转	0.020mm
Maximum Speed 最高速度	40mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.2sec 0.2sec以上
Thrust Force 推力	25N
Mass 重量	Travel 40mm/ 行程40mm : 230g Travel 80mm/ 行程80mm : 240g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	3.8V (DC)
Rated current 额定电流	0.67A/phase 0.67A/相
Winding resistance 绕线电阻	5.6Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

注意事项

- CL型无止转结构  
客户使用时需另装止转结构。
- 上述规格为垂直状态且移动初期的参考值。
- 标准规格没有装配传感器。  
如有需要, 请垂询KSS。

Precautions

- CL type does not have an anti-rotating device.  
External anti-rotating device should be set up when usage.
- Specifications above are reference value measured in vertical position at virgin condition.
- Sensor is not built in this standard design.  
Please ask KSS if necessary.

注意事项

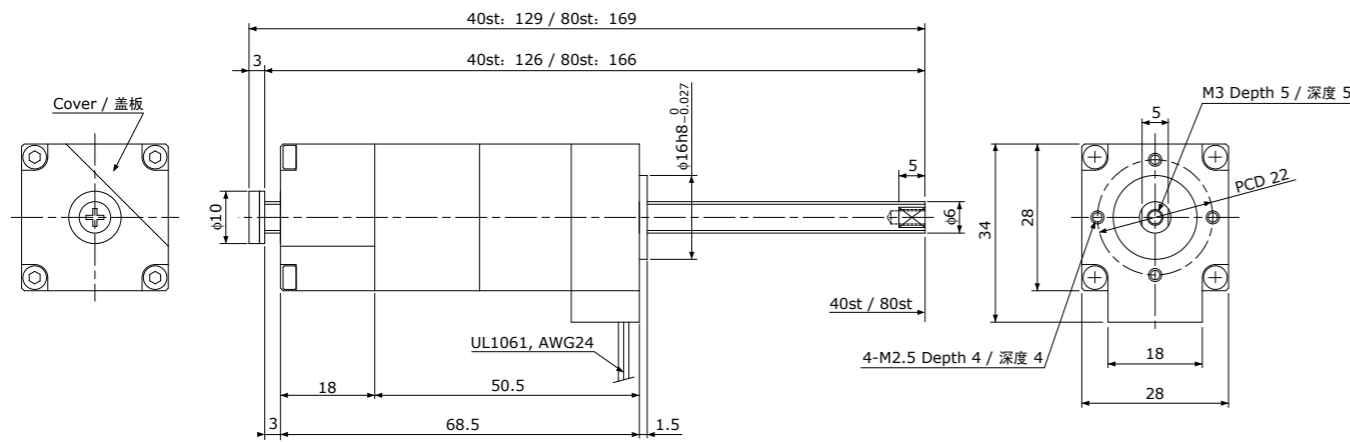
- CL型无止转结构  
客户使用时需另装止转结构。
- 上述规格为垂直状态且移动初期的参考值。
- 标准规格没有装配传感器。  
如有需要, 请垂询KSS。

Precautions

- CL type does not have an anti-rotating device.  
External anti-rotating device should be set up when usage.
- Specifications above are reference value measured in vertical position at virgin condition.
- Sensor is not built in this standard design.  
Please ask KSS if necessary.

# DDACL28-Re02 040/080

Lead(导程) 2mm  
Travel(行程) 40/80mm

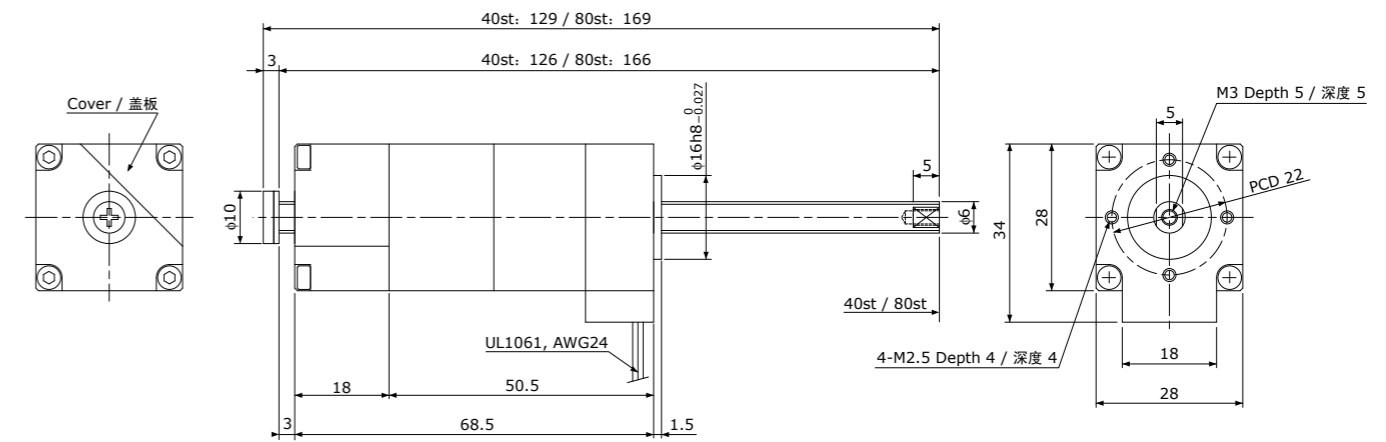


Motor lead wire /电机线(310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

# DDACL28-Re06 040/080

Lead(导程) 6mm  
Travel(行程) 40/80mm



Motor lead wire /电机线(310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA11 (□28)
Drive Screw type 驱动丝杠	Resin Lead Screw 树脂螺母进给丝杠
Screw Lead 丝杠导程	2mm
Travel 行程	40mm / 80mm
Repeatability 重复定位精度	±0.030mm
Lost Motion 空转	0.060mm
Maximum Speed 最高速度	20mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.4sec 0.4sec以上
Thrust Force 推力	10N
Mass 重量	Travel 40mm/ 行程40mm : 210g Travel 80mm/ 行程80mm : 220g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	3.8V (DC)
Rated current 额定电流	0.67A/phase 0.67A/相
Winding resistance 绕线电阻	5.6Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

注意事项

- CL型无止转结构  
客户使用时需另装止转结构。
- 上述规格为垂直状态且移动初期的参考值。
- 标准规格没有装配传感器。  
如有需要, 请垂询KSS。

Precautions

- CL type does not have an anti-rotating device.  
External anti-rotating device should be set up when usage.
- Specifications above are reference value measured in vertical position at virgin condition.
- Sensor is not built in this standard design.  
Please ask KSS if necessary.

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA11 (□28)
Drive Screw type 驱动丝杠	Resin Lead Screw 树脂螺母进给丝杠
Screw Lead 丝杠导程	6mm
Travel 行程	40mm / 80mm
Repeatability 重复定位精度	±0.030mm
Lost Motion 空转	0.060mm
Maximum Speed 最高速度	60mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.4sec 0.4sec以上
Thrust Force 推力	2.5N
Mass 重量	Travel 40mm/ 行程40mm : 210g Travel 80mm/ 行程80mm : 220g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	3.8V (DC)
Rated current 额定电流	0.67A/phase 0.67A/相
Winding resistance 绕线电阻	5.6Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

注意事项

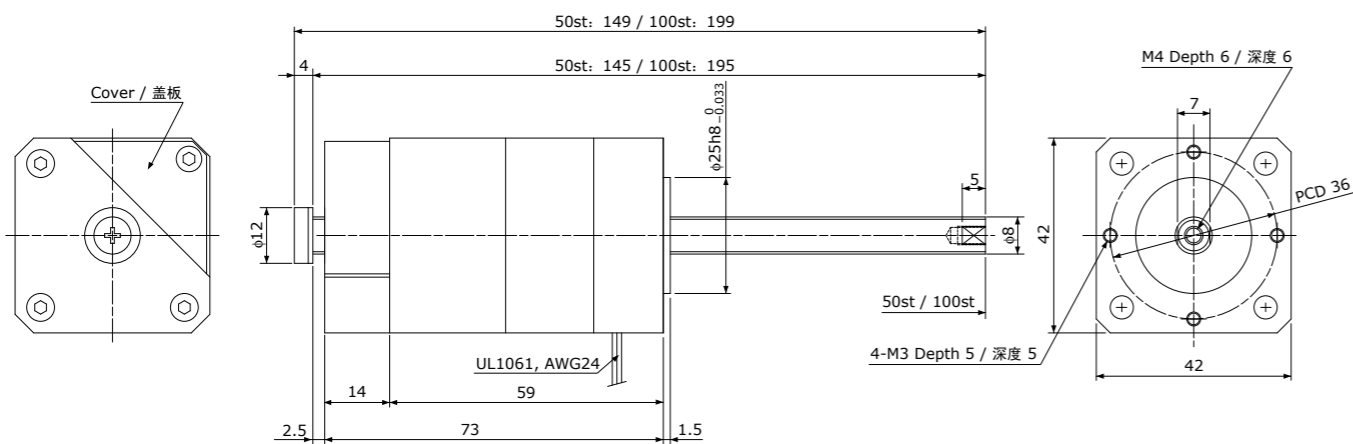
- CL型无止转结构  
客户使用时需另装止转结构。
- 上述规格为垂直状态且移动初期的参考值。
- 标准规格没有装配传感器。  
如有需要, 请垂询KSS。

Precautions

- CL type does not have an anti-rotating device.  
External anti-rotating device should be set up when usage.
- Specifications above are reference value measured in vertical position at virgin condition.
- Sensor is not built in this standard design.  
Please ask KSS if necessary.

# DDACL42-G02 050/100

Lead(导程) 2mm  
Travel(行程) 50/100mm

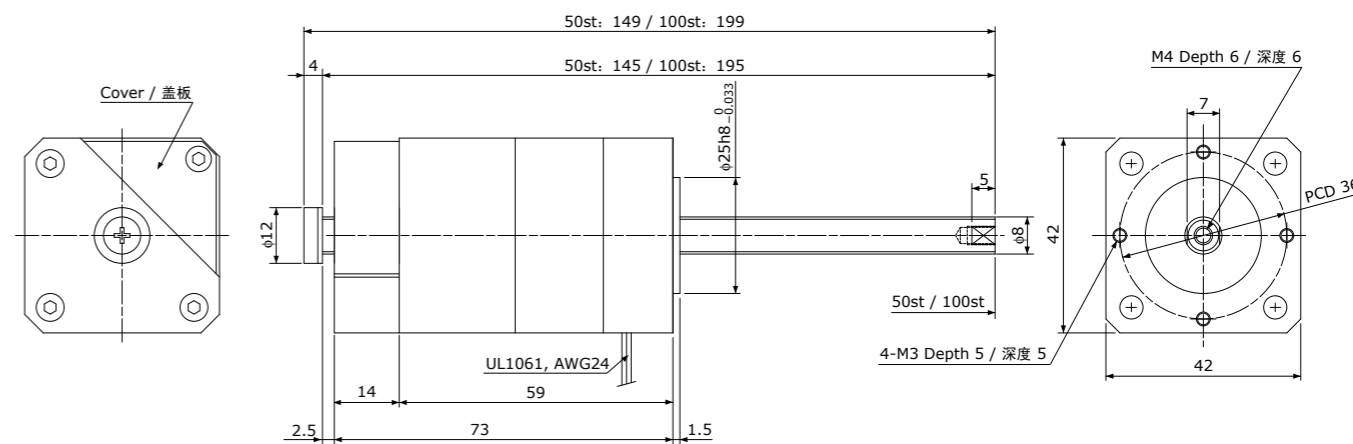


Motor lead wire /电机线(310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

# DDACL42-G05 050/100

Lead(导程) 5mm  
Travel(行程) 50/100mm



Motor lead wire /电机线(310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA17 (□42)
Drive Screw type 驱动丝杠	Precision Ball Screw 精密滚珠丝杠
Screw Lead 丝杠导程	2mm
Travel 行程	50mm / 100mm
Repeatability 重复定位精度	±0.005mm
Lost Motion 空转	0.010mm
Maximum Speed 最高速度	40mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.2sec 0.2sec以上
Thrust Force 推力	80N
Mass 重量	Travel 50mm/ 行程50mm : 530g Travel 100mm/ 行程100mm : 550g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	2.5V (DC)
Rated current 额定电流	1.2A/phase 1.2A/相
Winding resistance 绕线电阻	2.1Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

注意事项

- CL型无止转结构  
客户使用时需另装止转结构。
- 上述规格为垂直状态且移动初期的参考值。
- 标准规格没有装配传感器。  
如有需要, 请垂询KSS。

Precautions

- CL type does not have an anti-rotating device.  
External anti-rotating device should be set up when usage.
- Specifications above are reference value measured in vertical position at virgin condition.
- Sensor is not built in this standard design.  
Please ask KSS if necessary.

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA17 (□42)
Drive Screw type 驱动丝杠	Precision Ball Screw 精密滚珠丝杠
Screw Lead 丝杠导程	5mm
Travel 行程	50mm / 100mm
Repeatability 重复定位精度	±0.005mm
Lost Motion 空转	0.010mm
Maximum Speed 最高速度	100mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.2sec 0.2sec以上
Thrust Force 推力	30N
Mass 重量	Travel 50mm/ 行程50mm : 530g Travel 100mm/ 行程100mm : 550g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	2.5V (DC)
Rated current 额定电流	1.2A/phase 1.2A/相
Winding resistance 绕线电阻	2.1Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

注意事项

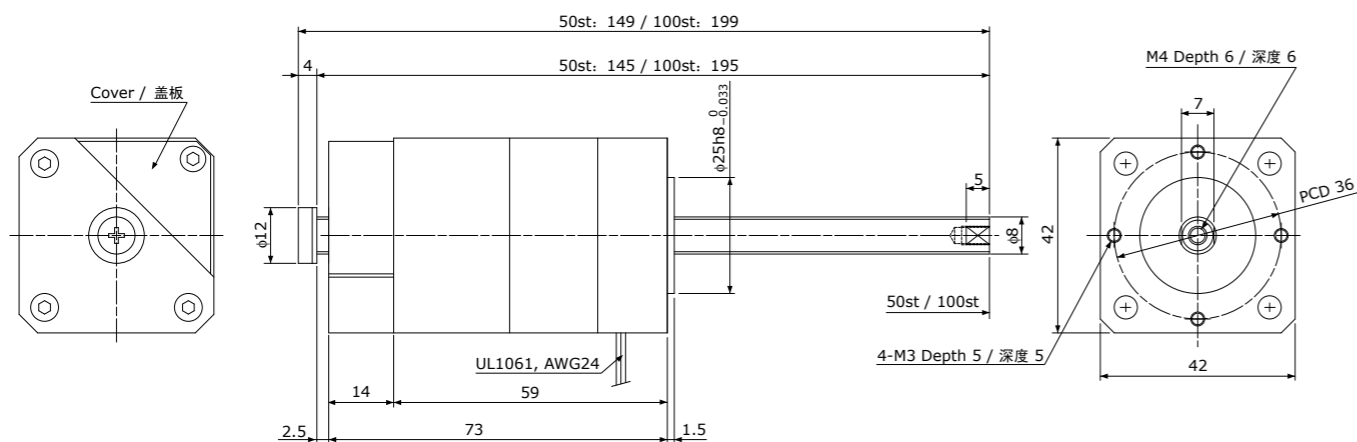
- CL型无止转结构  
客户使用时需另装止转结构。
- 上述规格为垂直状态且移动初期的参考值。
- 标准规格没有装配传感器。  
如有需要, 请垂询KSS。

Precautions

- CL type does not have an anti-rotating device.  
External anti-rotating device should be set up when usage.
- Specifications above are reference value measured in vertical position at virgin condition.
- Sensor is not built in this standard design.  
Please ask KSS if necessary.

# DDACL42-R02 050/100

Lead (导程) 2mm  
Travel (行程) 50/100mm

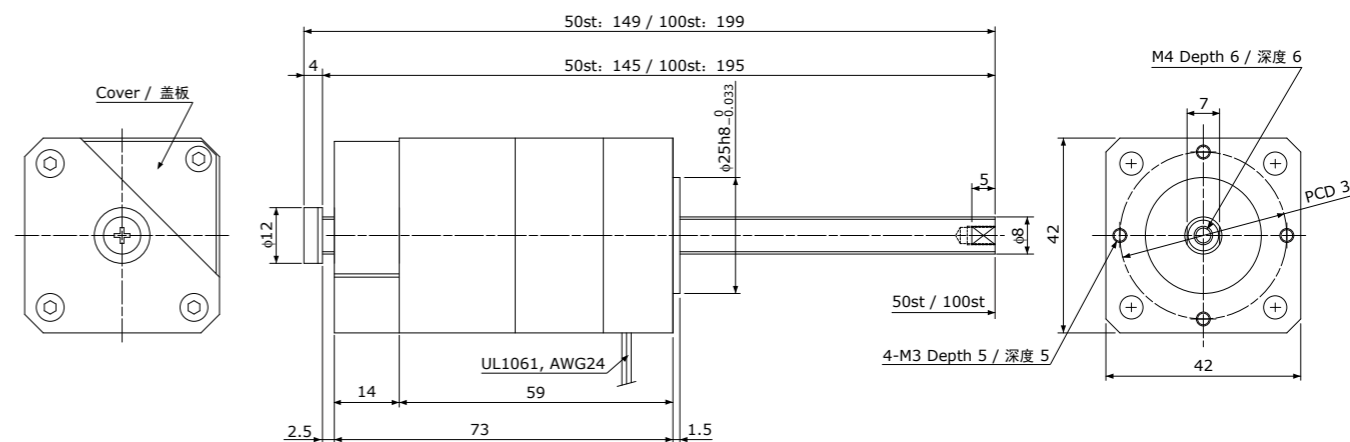


Motor lead wire / 电机线 (310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

# DDACL42-R05 050/100

Lead (导程) 5mm  
Travel (行程) 50/100mm



Motor lead wire / 电机线 (310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA17 (□42)
Drive Screw type 驱动丝杠	Rolled Ball Screw 轧制滚珠丝杠
Screw Lead 丝杠导程	2mm
Travel 行程	50mm / 100mm
Repeatability 重复定位精度	±0.010mm
Lost Motion 空转	0.020mm
Maximum Speed 最高速度	40mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.2sec 0.2sec以上
Thrust Force 推力	80N
Mass 重量	Travel 50mm/ 行程50mm : 530g Travel 100mm/ 行程100mm : 550g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	2.5V (DC)
Rated current 额定电流	1.2A/phase 1.2A/相
Winding resistance 绕线电阻	2.1Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

注意事项

- CL型无止转结构  
客户使用时需另装止转结构。
- 上述规格为垂直状态且移动初期的参考值。
- 标准规格没有装配传感器。  
如有需要，请垂询KSS。

Precautions

- CL type does not have an anti-rotating device.  
External anti-rotating device should be set up when usage.
- Specifications above are reference value measured in vertical position at virgin condition.
- Sensor is not built in this standard design.  
Please ask KSS if necessary.

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA17 (□42)
Drive Screw type 驱动丝杠	Rolled Ball Screw 轧制滚珠丝杠
Screw Lead 丝杠导程	5mm
Travel 行程	50mm / 100mm
Repeatability 重复定位精度	±0.010mm
Lost Motion 空转	0.020mm
Maximum Speed 最高速度	100mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.2sec 0.2sec以上
Thrust Force 推力	30N
Mass 重量	Travel 50mm/ 行程50mm : 530g Travel 100mm/ 行程100mm : 550g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	2.5V (DC)
Rated current 额定电流	1.2A/phase 1.2A/相
Winding resistance 绕线电阻	2.1Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

注意事项

- CL型无止转结构  
客户使用时需另装止转结构。
- 上述规格为垂直状态且移动初期的参考值。
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如有需要，请垂询KSS。

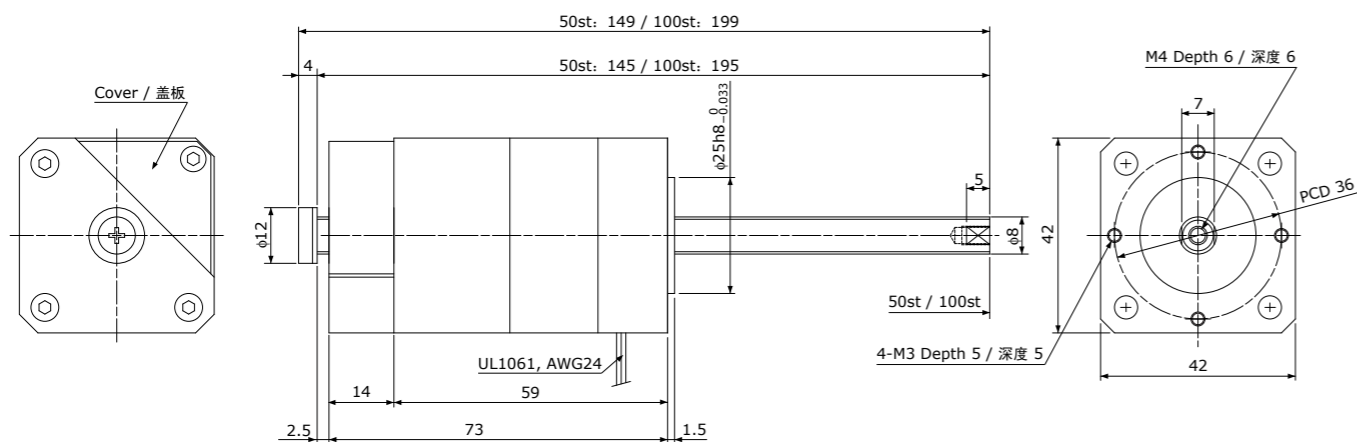
Precautions

- CL type does not have an anti-rotating device.  
External anti-rotating device should be set up when usage.
- Specifications above are reference value measured in vertical position at virgin condition.
- Sensor is not built in this standard design.  
Please ask KSS if necessary.



# DDACL42-Re02 050/100

Lead (导程) 2mm  
Travel (行程) 50/100mm

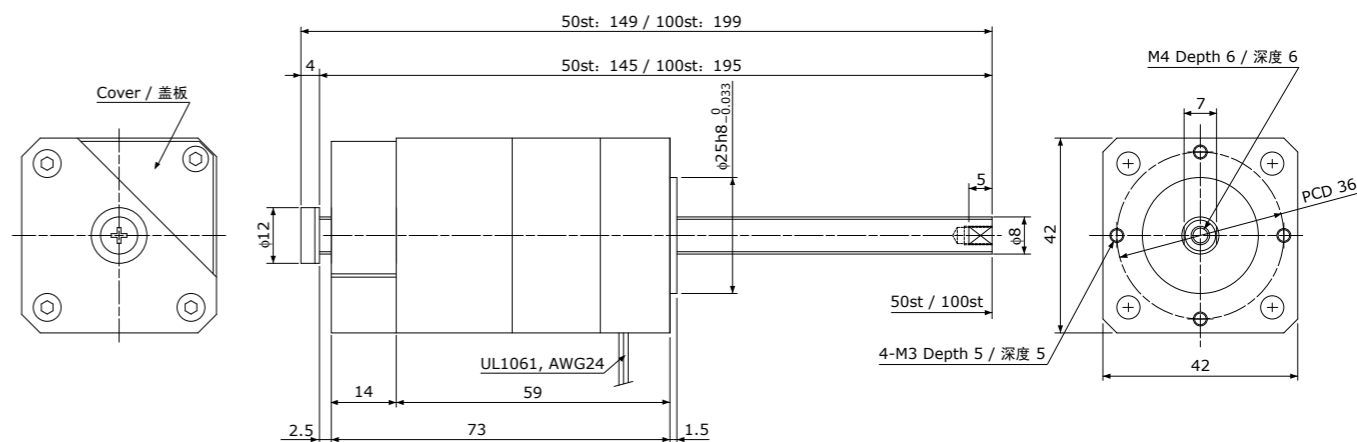


Motor lead wire / 电机线 (310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

# DDACL42-Re05 050/100

Lead (导程) 5mm  
Travel (行程) 50/100mm



Motor lead wire / 电机线 (310mm)

A	Black (黑)
Ā	Green (绿)
B	Red (红)
B̄	Blue (蓝)

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA17 (□42)
Drive Screw type 驱动丝杠	Resin Lead Screw 树脂螺母进给丝杠
Screw Lead 丝杠导程	2mm
Travel 行程	50mm / 100mm
Repeatability 重复定位精度	±0.030mm
Lost Motion 空转	0.060mm
Maximum Speed 最高速度	20mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.4ec 0.4sec以上
Thrust Force 推力	20N
Mass 重量	Travel 50mm/ 行程50mm : 490g Travel 100mm/ 行程100mm : 510g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	2.5V (DC)
Rated current 额定电流	1.2A/phase 1.2A/相
Winding resistance 绕线电阻	2.1Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

- 注意事项**
- CL型无止转结构  
客户使用时需另装止转结构。
  - 上述规格为垂直状态且移动初期的参考值。
  - 标准规格没有装配传感器。  
如有需要, 请垂询KSS。

- Precautions**
- CL type does not have an anti-rotating device.  
External anti-rotating device should be set up when usage.
  - Specifications above are reference value measured in vertical position at virgin condition.
  - Sensor is not built in this standard design.  
Please ask KSS if necessary.

Specifications 规格	
Motor Frame Size 电机安装尺寸	NEMA17 (□42)
Drive Screw type 驱动丝杠	Resin Lead Screw 树脂螺母进给丝杠
Screw Lead 丝杠导程	5mm
Travel 行程	50mm / 100mm
Repeatability 重复定位精度	±0.030mm
Lost Motion 空转	0.060mm
Maximum Speed 最高速度	50mm/sec
Acceleration & Deceleration time 加减速时间	Min. 0.4sec 0.4sec以上
Thrust Force 推力	10N
Mass 重量	Travel 50mm/ 行程50mm : 490g Travel 100mm/ 行程100mm : 510g
Operating Temperature 使用温度范围	0~40°C (No Condensation) 0~40°C (无结露)

Motor Specifications 电机规格	
Driving method 励磁方式	2-phase Bi-polar 2相 双极方式
Rated Voltage 额定电压	2.5V (DC)
Rated current 额定电流	1.2A/phase 1.2A/相
Winding resistance 绕线电阻	2.1Ω
Insulation Class 绝缘等级	Class B (130°C) B种 (130°C)

- 注意事项**
- CL型无止转结构  
客户使用时需另装止转结构。
  - 上述规格为垂直状态且移动初期的参考值。
  - 标准规格没有装配传感器。  
如有需要, 请垂询KSS。

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- CL type does not have an anti-rotating device.  
External anti-rotating device should be set up when usage.
  - Specifications above are reference value measured in vertical position at virgin condition.
  - Sensor is not built in this standard design.  
Please ask KSS if necessary.

●选项 / Option

为了使用方便, 我司备有AR/CL执行器的标准驱动器, 连接线等附属品。

KSS provides Standard Stepping Motor Driver and Extension Cable for AR/CL Cylinder in order to make it easy to use.

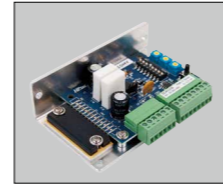
[标准驱动器 / Stepping Motor Driver]

SD4030B2

2相步进电机用推荐驱动器。可设定8种步进角 (V108页)。

This is recommended Driver for 2-phase stepping Motor.

It has Micro-Step function with 8-step angle. (page V108)



※注意事项

- SD4030B2的出货时电流设定为2A。
- 使用前请确认电机额定电流之后, 再设定驱动器电流。
- 请按驱动器附属使用说明书内容设定电流。

※Caution

- The factory setting of SD4030B2 is 2A.
- Please be sure to perform a current setup of Driver based on Motor Rated current before use.
- Please confirm with the operation manual attached to a Driver about current setup.

[连接线]

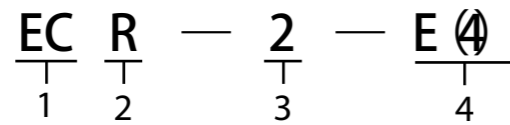
KSS AR/CL电动缸和KSS推荐驱动器专用连接线。

以下实例以外, 可指定长度, 连接器形状。

一端为散线。

[Extension Cable]

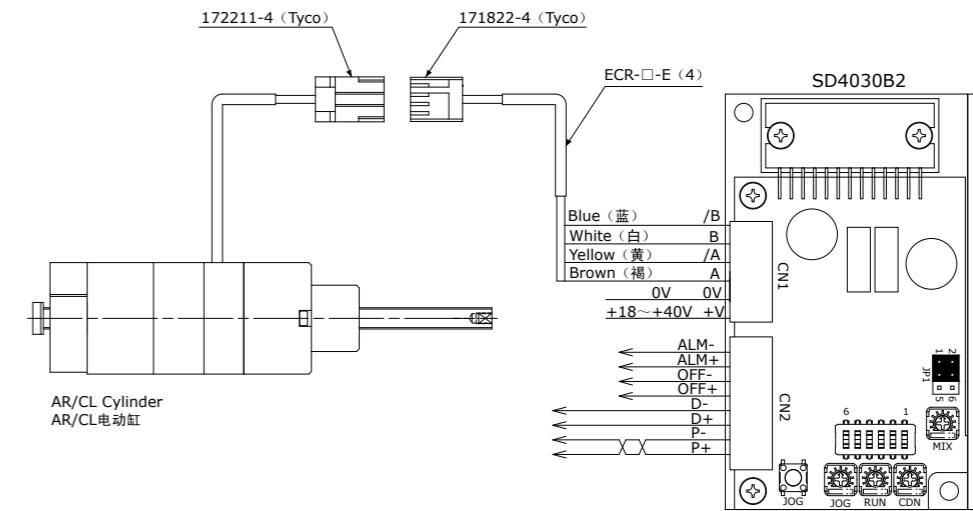
Extension Cable between KSS AR/CL Cylinder and KSS recommended Stepping Motor Driver. Please designate Cable length and Connector type in accordance with the example below. Please note that one side of Extension Cable is cut edge only (no connector).



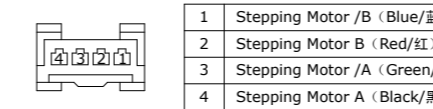
- 1 连接线记号
- 2 连接线种类  
R : 耐屈曲线
- 3 长度 (m)
- 4 连接器形状  
N : 散线  
E (4) : EI连接器4芯

- 1 Extension Cable
- 2 Cable type  
R : Robot Cable
- 3 Cable length (m)
- 4 Connector type  
N : No connector (Cut only)  
E (4) : EI connector 4-pins

●驱动器接线图 / Connection Diagram



电机线172211-4 (公头) / Motor cable 172211-4 (male)



电机连接线171822-4 (母端) / Motor Extension cable 171822-4 (female)

