

安装说明

Installation

instruction

驱动器部分

Drive

适用型号：PE-HS500-15

Applicable model:PE-HS500-15


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符号

Symbol

 **警告**-潜在的伤害或可能危及生命的危险!

Warning-potential injury or potentially life-threatening danger

 **警告**-对人身存在危险的电流!

Warning-potential injury or potentially life-threatening danger

! **注意**-重要信息!

Attention-important information!

本文图示是基于产品实例。实际交付的产品可能存在偏差，如要获得更加详细的资料，可以联系厂家的相关人员。

The illustrations in this article are based on product examples. There may be deviations in the actual delivered products. For more detailed information, you can contact the relevant personnel of the manufacturer.

1 一般安全信息

1 Common safety information

使用处

Applicable place

本设备专为工业或者商业场合的门设计，必须对其进行保护，防止其坠落;设备上装有一个安全制动器，驱动单元直接安装在门轴上。只有在正常使用的情况下才能保证安全操作。驱动装置应避免雨、湿气和恶劣的环境条件。对因其他应用或未遵守本手册中的信息而造成的损害不承担责任。只有在制造商同意的情况下，才允许进行修改，否则，**制造商的声明将被视为无效。**

This equipment is specially designed for doors in industrial or commercial occasions. It must be protected from falling; the equipment is equipped with a safety brake, and the drive unit is directly installed on the door shaft. Safe operation can only be guaranteed under normal use. The driving device should avoid rain, moisture and harsh environmental conditions. Not liable for damage caused by other applications or failure to comply with the information in this manual. ~~Modification are allowed only with the manufacturer's consent,~~

安全信息

Safety information

安装和初次调试工作只能由训练有素的熟练专业人员来完成。只有受过训练的专业人员才被允许在电气设备上工作。他们必须充分评估分配给他们的任务，识别潜在的危险区域，并能够采取适当的安全措施。

Installation and initial commissioning can only be done by trained and skilled professionals. Only trained professionals are allowed to work on electrical equipment. They must fully evaluate the tasks assigned to them, identify potentially hazardous areas, and be able to take appropriate safety measures.

安装前，请熟悉相关的安装指导或者说明性技术文件。

Before installation, please read relevant installation instructions or explanatory technical documents

只有在电源关闭的情况下才能进行安装。

Installation can only be performed when the power is off.

请遵守适用的法规和标准。

Please comply with applicable regulations and standards.

传感器配件或者外部设备

Sensor accessories or external devices

推荐使用原厂的传感器配件或者符合本系统技术接口要求的配件。

It is recommended to use the original sensor accessories or accessories that meet the technical interface requirements of this system.

备件

Spare parts

推荐使用原厂的备件

It is recommended to use the original spare parts.

2 技术参数

2 Technical specification

型号 model	PE-HS500-15	
输出扭矩 output torque	60	Nm
开门输出速度 open door outputspeed	26-133	rpm
关门输出速度 close door output speed	26-90	rpm
输出轴或孔直径 output shaft or hollow diameter	25.4	mm
最大保持转矩 Maximum holding	130	Nm

torque		
电源电压 Mains voltage	1N~230	V
工作电流 Operation current	13	A
工作频率 Operation frequency	50/60	Hz
功率因素 Power factor	0.70	
每小时最大运行次数 Maximum running time per hour	90	h ⁻¹
手动 力矩 manual torque	200	N
防护等级 Protection rating	IP54	
最大限位圈数 Maximum number of rotations	120	
制动器力矩 braking torque	10	Nm
制动器电压 braking voltage	24	VDC
电子限位方式 Electronic limit mode	内置电子绝对值编码器 built-in absolute encoder	
温度保护 temperature protection	内置驱动器主板和电机温度传感器 Built-in driver board and motor temperature sensor	
温度范围 temperature range	-10 ~ +40	°C 备注 1 note 1
工作噪声 working noise	<70	dB(A)

备注：1：当使用环境高于+40°的温度范围时，在<60°C 场合，每小时运行次数减半。

Note: 1: When the operating environment is higher than the temperature range of +40 °, in the case of <60 ° C, the number of operations per hour is halved.

3 机械安装

3 Mechanical installation

准备工作

Prepare

安装前，请确保设备的安装空间足够，并且安装所需的支撑部位，强度足够。
安装孔位要求和设备的孔位匹配。

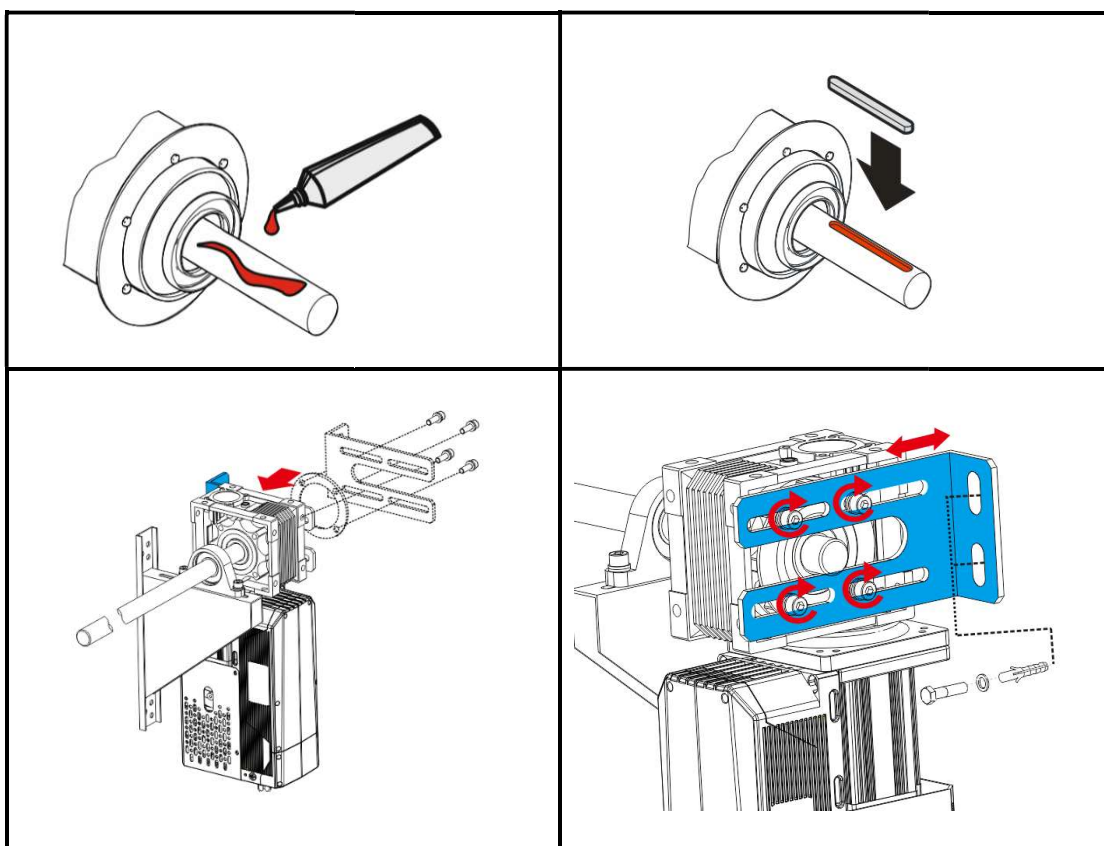
Before installation, make sure that the installation space of the device is sufficient, and that the supporting parts required for installation are of sufficient strength. The requirements of the mounting holes should match those of the device.

安装

Installation

下面的安装步骤适用于一般的工业门或者商业门的安装规范。在实际安装过程中还必须遵守门制造商的规范。

The following installation steps apply to the general industrial door or commercial door installation specifications. The door manufacturer's specifications must also be followed during the actual installation.



1、给门轴涂抹润滑油脂。

1. Apply grease to the door shaft
- 2、在轴上的键槽里安装相应的键。
2. Install the corresponding key in the keyway on the shaft.
- 3、将驱动装置推至安装轴上。
3. Push the drive device onto the mounting shaft
- 4、将角铁安装至驱动器上。
4. Install the bracket to the drive device
- 5、用四个螺丝、弹垫和平垫圈来固定角铁。
5. Use four screws, spring washers and flat washers to fix the bracket.
- 6、装入膨胀螺钉，用两个螺钉和垫圈固定角铁。
- Install expansion screws and fix the bracket with two screws and washers

4 电气安装

Electrical installation



警告-对人身存在危险的电流!

Warning-dangerous electric current

1. 安装前确保全部电源已经关闭并且电线上不带电

Make sure that all power is turned off and there is no power on the cable before installation

2. 参考相关的规范和标准

Refer to relevant codes and standards

3. 使用专用的电气连接器

Use a dedicated electrical connector

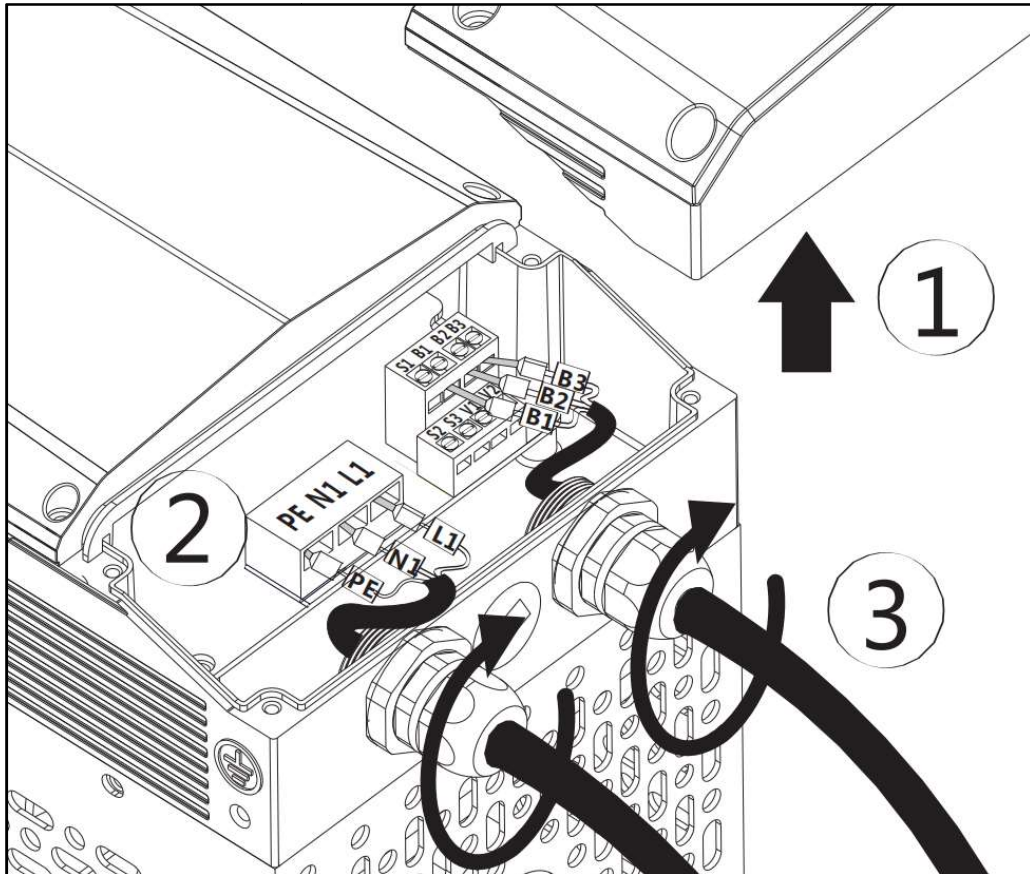
4. 使用合适的安装工具

Use suitable installation tools

驱动器概序接线端子

Drive terminals

端子形式 端子功能 Terminal function	端子名称 Terminal name	说明 Description	端子规格备注 Note
驱动电源输入 Drive mains	L1	和控制器的主电源输出 (L1、N1、PE) 连接	
	N1		
	PE		
驱动信号输入 Drive signal input	B1/B2/B3	和控制器的驱动信号输出 (B1、B2、B3) 连接	
刹车备用电源 Brake backup power supply	V1	连接备用电源负极	
	V2	连接备用电源正极	
摇臂安全信号 Crank safety signal	S1	DC24V 电源正极	输入电压范围: 0~28VDC ≤3V, 导通 ≥11V, 截止 接 NPN 或干接点信号
	S2	摇臂安全信号输入	
	S3	DC24V 电源负极 (等同信号公共端)	
端子形式	端子名称	说明	端子规格
驱动电源输入	L1	和控制器的主电源输出 (L1、N1、PE) 连接	
	N1		
	PE		
驱动信号输入	B1/B2/B3	和控制器的驱动信号输出 (B1、B2、B3) 连接	
刹车备用电源	V1	连接备用电源负极	
	V2	连接备用电源正极	
摇臂安全信号	S1	DC24V 电源正极	输入电压范围: 0~28VDC ≤3V, 导通 ≥11V, 截止 接 NPN 或干接点信号
	S2	摇臂安全信号输入	
	S3	DC24V 电源负极 (等同信号公共端)	



1、 1、 打开驱动器接线盖
Open the drive wiring cover

2、 将 2 根电缆穿过防水接头后，将端子插入对应编号的插孔，并旋紧固定螺丝。
After passing the 2 cables through the waterproof connector, insert the terminal into the corresponding numbered jack and tighten the fixing screw

! 注意连接线和主板上的标识要一致

Note that labels on the connection cable and on the motherboard must be consistent

3、 确保电缆护套在防水接头内，旋紧防水接头。
Make sure the cable sheath is inside the waterproof connector, and tighten the waterproof connector

4、 将步骤 1 拆下来的接线盖重新装配好。
Put back the wiring cover removed in step 1

5 连接控制器

Connect controller

本驱动装置主要包含电机驱动、电机和减速机部分，上节所示连接驱动器的 2 根电缆另一头和控制器部分相连接。具体接线方式请参考所选配的控制器的接线部分内容。

This drive device mainly includes a motor drive, a motor and a reducer. The other end of the two cables connecting the drive shown in the previous section are connected to the controller. Please refer to the wiring part of the selected controller for the specific wiring method.

6 应急手动操作

6 Emergency manual operation

紧急手动操作是为在没有电源的情况下开门或关门而设计的。它在使用过程中，将会禁止电控操作，此时电气操作不再可能。

Emergency manual operation is designed to open or close the door without power. During its use, electrical control operations will be prohibited, and electrical operations are no longer possible.



警告-因操作不当或高空坠物可能会引起人身伤害!

Warning-Improper operation or falling objects may cause personal injury

操作前请先确保:

Please make sure before operation:

1. 关闭电源开关。

1.Turn off power switch

2. 采取安全的操作姿势。

Apply safe operation way.

3. 对于带刹车的驱动单元, 必须对**闭合关闭**的刹车进行紧急手动操作。

For the drive unit with brake, emergency manual operation must be performed on the engaged brake.



警告- 门体有坠落的危险!

Warning- Danger of the door falling exists!

~~1. 释放刹车可能导致失速, 门体坠落释放失速可能会导致门体坠落~~

Releasing the brake may cause a stall and the door may fall

在电机的尾轴端, 插上曲柄, 转动, 直到它啮合左右旋转曲柄, 开启或者关闭门体。

At the shaft end of the motor, insert the crank and turn it until it engages the left and right rotating crank to open or close the door.

7 完成调试/测试

7 Complete debugging/test

检查以下组件，确认安装工作完成。

Check the following components to confirm the completion of the installation work.

减速机

Reducer

确保减速机不会漏油

Ensure that the reducer does not leak oil

机械安装

Mechanical installation

确保所有紧固件、零件都安装到位

Ensure all fasteners and parts are installed in place

电线安装

Electrical installation

检查连接电缆是否损坏或夹紧。检查螺丝和插头的连接是否正确。

Check whether the connecting cables are damaged or loose. Check if the connection of screw and plug is correct

紧急手动操作

Emergency manual operation

此功能需要处于断电状态调试。仅在最终开关门位置之间进行功能测试。

This function needs to be debugged in the power off state. Perform functional testing only between the final door open and close position

! 日常检查

Regular inspection

本驱动装置，每年至少进行一次安全检查。

The drive unit is subject to safety inspection at least once a year
对于经常使用的场合，应该减少检查间隔时间。

For frequently used occasions, the inspection interval should be reduced
参照其他通用行规执行。

Refer to other general regulations.



警告- 门体有坠落的危险!

Warning- Danger of the door falling exists!

减速机失速或者其他原因损坏，或者释放失速可能会导致门体坠落，此时应该：

The reducer stalls or is damaged for other reasons, or releasing the brake may cause the door to fall. Should

挡住行人或者车辆。

Block pedestrians or vehicles.

1. 不要使用紧急手动功能。

Don't use emergency manual function.

2. 请关闭该门通道。

Please close the door channel

3. 更换驱动设备

Replace the drive device