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CN 安装说明

EN Instruction Sheet

1. 安全注意事项 (Safety precautions)

本说明书涉及产品为工业产品，并且均为开放型外壳设计。要求用户使用产品时，务必将产品安装于具有防尘、防潮以及免于电击 / 冲击等意外的控制柜内，并且需要设置保护措施以防止非维护人员不当操作或意外导致设备故障或损坏，造成不可避免的人员危险和财产损失。

The products in this manual are industrial products and are all open-type housing designs. It is essential to install these products within a control cabinet that is safeguarded against dust, moisture, and accidents such as electric shocks or physical impacts. Additionally, protective measures must be taken to prevent malfunctions or damage caused by improper operation or accidents involving non-maintenance personnel. Failure to do so may lead to serious risks to personnel safety and potential loss of property.

更详细的信息请参考 E610 系列变频器简要说明书附录。

Please refer to the appendix of the E610 series variable frequency drive (VFD) manual for more detailed information.

2. 命名规则 (Model identification)

HDv - CMC - ECC - XXXX

1

2

3

4

1	产品名称 (Product name)
HDv	禾川变频器 (HCFA VFD)

3	功能模块 (Functional module)
ECC	EtherCAT耦合器 (EtherCAT coupler)

2	产品类型 (Product type)
CMC	通讯类配件 (Communication accessories)

4	软件/固件定制代码 (Software/Firmware customized code)
X	0~9/AZ/空 (N/A) (0~9/A-Z/None (N/A))

3. 通用电气及环境规格 (General electrical and environmental specifications)

3.1 通用电气规格 (General electrical specifications)

型号 (Model) : CMC-ECC-000

电源电压	Power supply voltage	绝缘电压	Insulation voltage	工作电流	Operating current	消耗功率	Power consumption
DC5V (-5%~5%)	DC5V (-5%~5%)	DC500V	DC500V	180mA	180mA	5W	5W

3.2 环境规格 (Environmental requirements)

项目	Item	规格	Specifications
海拔高度	Altitude	≤2000m	≤2000m
使用环境	Operating environment	控制柜内安装，开放式及室内使用	Installation within a control cabinet, open-type and indoor use
工作温度	Operating temperature	-10~50℃	-10~50℃
储存温度	Storage temperature	-20~70℃	-20~70℃
环境湿度	Ambient humidity	10~90%RH (无结露)	10~90%RH (non-condensing)
振动耐受	Vibration resistance	< 5.88m/s ² (0.6G)	< 5.88m/s ² (0.6G)
污染等级	Pollution degree	污染度2	Level 2
冷却方式	Cooling method	自然冷却	Natural air cooling
防护等级	IP rating	IP20	IP20

* 注：若设备未依制造商指定方式使用，设备所提供的保护可能会被减弱。

*Note: If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

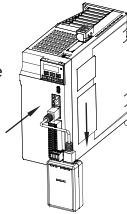
4. 安装说明 (Installation instructions)

4.1 整机拆装 (VFD mounting and dismounting)

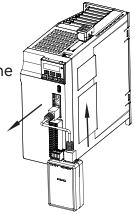
CN 使用超五类屏蔽双绞线连接耦合器模块的通信接口与 E610 变频器的 CN3 接口，即可完成安装；反之拔插即可拆卸，支持热插拔操作。

EN Connect the communication interface of the coupler module to the CN3 interface of the E610 inverter using Shielded Twisted Pair (STP) Cat5e to complete the installation; conversely, plug and unplug to disassemble, with support for hot-swappable operation.

沿箭头方向插入
Insert along the arrow



沿箭头方向拔出
Unplug along the arrow

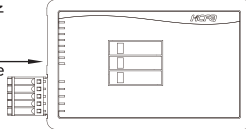


4.2 端子拆装 (Terminal block mounting and dismounting)

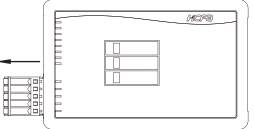
CN 端子拆装如右图所示。

EN The mounting and dismounting of the removable terminal block are shown in the figures on the right side.

沿箭头方向插入端子
Insert the terminal block into the controller along the direction indicated by the arrow



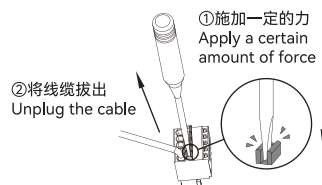
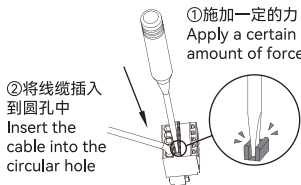
沿箭头方向拔出端子
Detach the terminal block along the direction indicated by the arrow

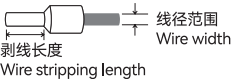


4.3 线缆拆装 (Cable connecting and disconnecting)

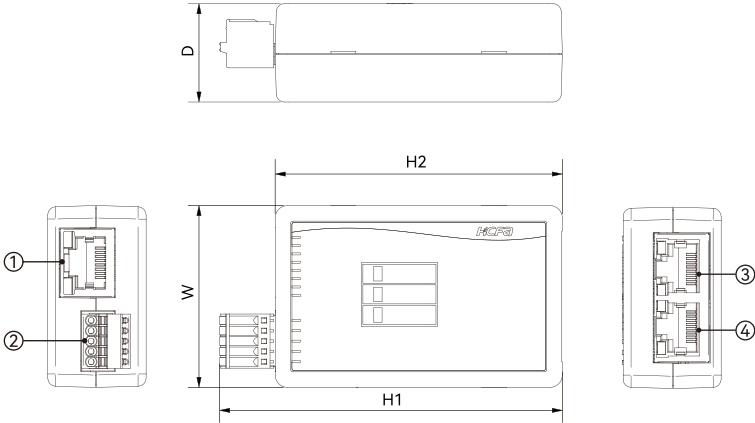
CN 安装线缆时，将一字螺丝刀垂直插入可拆卸端子压块内，施加一定的力，将准备好的线缆插入到圆孔中，拔出一字螺丝刀，轻拽线缆，线缆不松动即成功完成配线；反之即可取出线缆。端子规格及配线示意图如右图所示。

EN During connecting, insert the flat-blade screwdriver into the unlocking tab apply a certain amount of force. Then insert a cable into the circular hole. Gently tug the cable after pulling out the screwdriver. If the cable is secured firmly, then the connection is finished. The reverse is the procedure for unplugging the cable. The terminal specifications and wiring diagram are shown in the right figure.



端子 (Terminal)	线径范围: AWG (Wire width)	剥线长度: mm (Wire stripping length)	
5Pin接线端子 (5-Pin terminal block)	26~20	8	

5. 接口和尺寸说明 (Interface and dimension description)



序号(No.)	名称	Name	功能	Function
1	CN1: RJ45接口*	CN1: RJ45 interface*	变频器通讯接口, 支持DC 5V供电, 与E610系列变频器进行CANOpen通讯	Communication interface for frequency converter, supporting DC 5V power supply and CANOpen communication with E610 series frequency converter
2	CN2: 5Pin接线端子	CN2: 5-Pin terminal block	支持DC 5V供电, 与E610系列变频器进行CANOpen通讯	Supports DC 5V power supply and CANOpen communication with E610 series frequency converters
3	CN3: RJ45接口	CN3: RJ45 interface	EtherCAT IN, EtherCAT输入接口	EtherCAT in, EtherCAT input interface
4	CN4: RJ45接口	CN4: RJ45 interface	EtherCAT OUT, EtherCAT输出接口	EtherCAT out, EtherCAT output interface

* 注: 该接口与 E610 系列变频器的 CAN3 接口进行连接, 可实现 CANOpen 通讯。与 CN2 接口进行连接时, 可用于外部供电, 供电需在变频器正常上电之后进行。
Note: Connect this interface to the CAN3 interface of the E610 series VFD to enable CANOpen communication. When connected to the CAN2 interface, it can be used for external power supply, which must be carried out after the VFD has been properly powered on.

外形尺寸 (Dimension) : mm				重量 (Weight) : g
W	H1	H2	D	
44.0	82.9	69.5	23.8	45 approx.

6. 指示灯和面板说明 (Indicator and LED panel description)

丝印 (Screen printing)	指示灯含义 (Indicator meaning)	颜色 (Color)	状态	Status	说明	Description
ECAT	Ethercat 从站状态机 (EtherCAT slave state machine)	黄绿色 (Yellow-Green)		熄灭 Not lit	初始化状态	Initialization
				慢闪 Fast blinking	预运行状态	Pre operational
				快闪 Slow blinking	安全运行状态	Safe operational
				常亮 Lit	运行状态	Operational
ERR	通讯故障 (Communication fault)	黄绿色 (Yellow-Green)		熄灭 Not lit	通讯正常	Normal communication
				常亮 Lit	通讯异常	Abnormal communication
PWR	电源 (Power supply)	黄绿色 (Yellow-Green)		熄灭 Not lit	供电异常	Abnormal power supply
				常亮 Lit	供电正常	Normal power supply

7. 端子及配线说明 (Terminal and wiring description)

CN2: 5Pin 接线端子说明 (5-Pin terminal block description)			
	针脚 (Pin)	说明 (Description)	功能 (Function)
	1	5V	DC 5V供电
	2	GND	电源地
	3	CANH	CAN总线高电平信号
	4	CANL	CAN总线低电平信号
	5	120Ω	耦合器模块CANOpen总线终端电阻端口*

* 注: 该引脚默认内部与CANL引脚短接, 用户在使用时需要将该引脚与CANH进行连接。
*Note: This pin is internally shorted to the CANL pin by default. During use, users need to connect this pin to the CANH pin.

CANOpen通讯接线图 (CANOpen communication wiring)

