

支持的设备型号
Supported Models

HCNxE-ID16-D HCNxE-OD16-D HCNxE-MD0808-D
HCNxE-PRO16



HPPP2090016-00A
Date 2024-07-16
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 involved are all open-type housing designs. Therefore they should be installed in a control cabinet that is free of airborne dust, humidity, electric shock, and vibration. The cabinet should prevent non-maintenance staff from operating the products or accidents from happening in case danger and damage may occur on the products.

更详细的信息请参考 NXE 系列硬件手册。
Please refer to the NXE series hardware manual for more detailed information.

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

2.1 通用电气规格 (General electrical specifications)

型号 (Model)	额定功率: W	Rated power: W	额定电压	Rated voltage
HCNxE-ID16-D	1.0	1.0	DC24V, 电压范围: DC20.4~28.8V	DC24V, voltage range: DC20.4~28.8V
HCNxE-OD16-D				
HCNxE-MD0808-D				

* 注: 所有型号均为安全特低电压输入产品。
*Note: All models are featured by the SELV input type.

2.2 环境规格 (Environmental specifications)

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	-10~55℃	-10~55℃
储存温度	Storage temperature	-40~75℃	-40~75℃
环境湿度	Ambient humidity	10~95% RH (无结露)	10~95%RH (non-condensing)
振动耐受	Vibration resistance	5~150Hz (X/Y/Z方向, 1g/3.5mm位移)	5~150Hz (X/Y/Z direction, 1g /3.5mm displacement)
污染等级	Pollution degree	污染度II	Level 2
冷却方式	Cooling method	自然冷却	Natural air cooling
防护等级	IP rating	IP40 (配合防护罩)	IP 40 (use with a guard)
外壳材质	Enclosure material	阻燃材料	Self-extinguishable

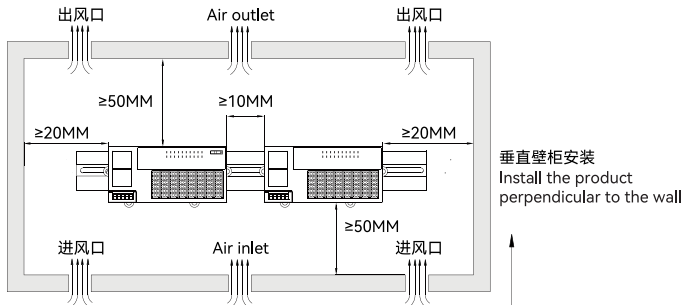
* 注: 如果以制造商未规定的方式使用设备，可能会损坏设备。
*Note: The equipment may be damaged if used in a manner not specified by the manufacturer.

3. 安装说明 (Installation instructions)

3.1 控制柜安装 (Installation within a control cabinet)

CN 设备冷却方式为自然冷却或通过加装风扇进行冷却，请保证安装方向与柜壁垂直；请参考右侧示意图，在设备的周围留有足够的空间。并排安装时，建议横向两侧预留 20mm 以上间距。

EN Please install the product perpendicular to the wall and ensure a sufficient cooling effect via natural air or a cooling fan. Please leave enough clearance around the product as shown in the right figure. During a side-by-side installation, please leave a horizontal clearance of more than 20 mm on both sides.

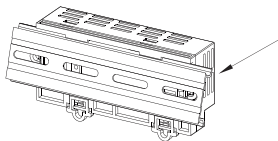


垂直柜安装
Install the product perpendicular to the wall

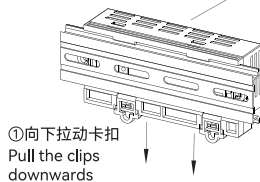
3.2 导轨拆装 (DIN rail mounting and dismounting)

CN 安装模块时，将模块顶部卡槽部紧扣在 DIN 导轨上，并用力按压模块下部，听到“咔哒”声，模块即成功安装于 DIN 导轨上（安装前应保证卡扣处于锁紧状态，否则可能导致安装故障）；拆卸模块时，将卡扣向下拉动一定距离，听到“咔哒”声后，取下模块即可。

将模块顶部卡槽部紧扣在 DIN 导轨上，并向导轨侧按压模块
Engage the upper mounting groove of the module onto the DIN rail, and then press the module the DIN rail



②取下模块
Remove the module

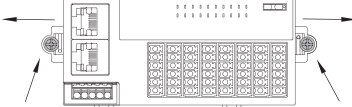


①向下拉动卡扣
Pull the clips downwards

3.3 整机拆装 (Module mounting and dismounting)

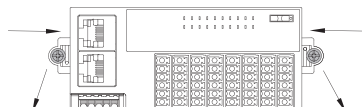
CN 安装模块时，将两侧的卡扣向外侧拉动，听到“咔哒”声后，在两侧的卡扣内放入两颗 M4 螺丝，然后拧紧螺丝。拆卸模块时，拧松螺丝，卸下两侧的 M4 螺丝，随后将卡扣复原，即可完成拆卸。

①向两侧拉动卡扣
Pull the DIN rail mounting latch to both sides



②打入两颗M4螺丝，拧紧螺丝
Punch in two M4 screws latch, and then tighten the screw

②将卡扣向内推回，取下模块
Press the clips inwards, and then remove the module



①拧松并卸下两侧的M4螺丝
Unscrew the two M4 screws and remove them

EN During mounting, pull the clips outwards until a clear click is heard. Punch in two M4 screws and then tighten them. During dismounting, unscrew the two M4 screws and remove them. Press the clips inwards, and then remove the module.

3.4 防护罩拆装 (Guard mounting and dismounting)

CN 防护罩拆装如右图所示。

EN The mounting and dismounting of the guard are shown in the figures on the right side.

沿箭头方向
竖直安装防护罩
Install the guard vertically
along the direction
indicated by the arrow

②向上竖直取下防护罩
Remove the guard
vertically upwards

①向外扳动卡扣，
使其脱离固定槽位
Disengage the snaps from the
securing groove by
prying them outwards

3.5 可拆卸端子拆装 (Removable terminal block mounting and dismounting)

CN 可拆卸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
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

3.6 线缆拆装 (Cable connecting and disconnecting)

CN 安装线缆时，将赠送的一字螺丝刀垂直插入可拆卸端子压块内，施加超过 20N 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 with a force of more than 20 N. 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.

①施加超过20N的力
Apply a force of
more than 20N

②将线缆插入到圆孔中
Insert the cable
into the circular hole

①施加超过20N的力
Apply a force of
more than 20N

②将线缆拔出
Unplug the cable

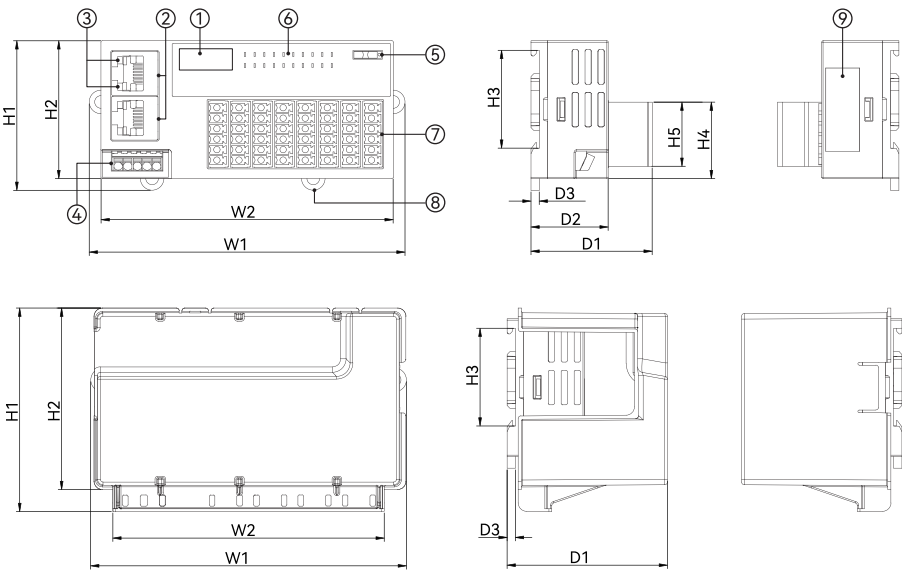
模块端子 (Terminal)	线径范围: AWG (Wire width)	剥线长度: mm (Wire stripping length)	按压力: N (Pressure)	拔线力: N (Wire pulling force)	
DC24V 电源端子 (DC24V power supply terminal)	24~16	9~10	20	80	剥线长度 Wire stripping length 线径范围 Wire width
IO 端子 (IO terminal)	26~16	8~9	20	50	

警告：仅使用铜导线。
Warning: Use copper conductors only.
Attention: Utilisez uniquement des conducteurs en cuivre.

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

序号 (No.)	项目	Item
1	产品型号	Product model
2	EtherCAT 通讯接口	EtherCAT communication interface
3	通讯指示灯	Communication indicator
4	DC24V 电源端子	DC24V power supply terminal
5	NPN/PNP 切换开关 *	NPN/PNP DIP switch*
6	模块状态指示灯	Module status indicator
7	IO 端子	IO terminal
8	卡扣	Clip
9	标签	Label

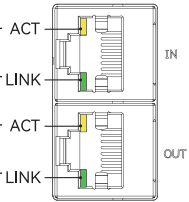
*注：HCNXE-OD16-D 无此接口。
*Note: HCNXE-OD16-D is not equipped with this interface.



型号 (Model)	外形尺寸 (Dimension) : mm										重量 (Weight) : g
	W1	W2	H1	H2	H3	H4	H5	D1	D2	D3	
HCNXE-ID16-D	114.60	106.00	54.30	50.00	35.50	27.75	23.25	44.00	28.00	3.00	100 approx.
HCNXE-OD16-D											
HCNXE-MD0808-D											
HCNXE-PRO16	114.60	98.5	73.85	65.85		-	-	58.20	-		54 approx.

5. 指示灯说明 (Indicator description)

HCNXE-ID16-D			HCNXE-OD16-D			HCNXE-MD0808-D		
丝印 (Screen printing)	指示灯含义 (Indicator meaning)	颜色 (Color)	状态	Status	说明	Description		
ID16 / OD16 / MD0808								
PWR	电源 (Power supply)	绿色 (Green)		熄灭	Not lit	模块供电电压不足或未供电	Insufficient power supply voltage or no power supply	
				常亮	Lit	模块供电正常	Normal power supply	
RUN	运行 (Run)	黄色 (Yellow)		熄灭	Not lit	正常运行	Run	
				常亮	Lit	停止	Stop	
IO-PW	IO端子电源 (IO terminal power supply)	绿色 (Green)		熄灭	Not lit	对外供电电压不足或未供电	Insufficient power supply voltage or no power supply	
				常亮	Lit	对外供电正常	Normal power supply	
OD16 / MD0808								
Y-ERR	输出通道故障 (Output channel error)	红色 (Red)		熄灭	Not lit	无故障发生	No error occurred	
				常亮	Lit	过流或短路或过温报警 (硬件报错)	Over-current/short-circuit/over-temperature alarm (hardware error)	
ID16								
X N (0~7,10~17)	输入 (Input)	绿色 (Green)		熄灭	Not lit	输入通道 N 未检测到输入信号	The input channel N has not detected input signals	
				常亮	Lit	输入通道 N 检测到输入信号	The input channel N has detected input signals	
OD16								
Y N (0~7,10~17)	输出 (Output)	绿色 (Green)		熄灭	Not lit	输出通道 N 无输出信号	There is no output signal in this channel	
				常亮	Lit	输出通道 N 有输出信号	There are output signals in this channel	
MD0808								
X N (0~7)	输入 (Input)	绿色 (Green)		熄灭	Not lit	输入通道 N 未检测到输入信号	The input channel N has not detected input signals	
				常亮	Lit	输入通道 N 检测到输入信号	The input channel N has detected input signals	
Y N (0~7)	输出 (Output)	绿色 (Green)		熄灭	Not lit	输出通道 N 无输出信号	There is no output signal in this channel	
				常亮	Lit	输出通道 N 有输出信号	There are output signals in this channel	
ID16 / OD16 / MD0808								
IN ACT	EtherCAT IN 通讯 (EtherCAT IN communication)	黄色 (Yellow)		熄灭	Not lit	控制器与 EtherCAT 从站无数据交互	No data exchange between the controller and the EtherCAT slave	
				常亮	Lit	控制器与 EtherCAT 从站存在数据交互	There is a data exchange between the controller and the EtherCAT slave	
IN LINK	EtherCAT IN 连接 (EtherCAT IN connection)	绿色 (Green)		熄灭	Not lit	控制器与 EtherCAT 从站无物理连接	No physical connection between the controller and the EtherCAT slave	
				常亮	Lit	控制器与 EtherCAT 从站存在物理连接	There is a physical connection between the controller and the EtherCAT slave	
OUT ACT	EtherCAT OUT 通讯 (EtherCAT OUT communication)	黄色 (Yellow)		熄灭	Not lit	模块与 EtherCAT 从站无数据交互	No data exchange between the module and the EtherCAT slave	
				常亮	Lit	模块与 EtherCAT 从站存在数据交互	There is a data exchange between the module and the EtherCAT slave	
OUT LINK	EtherCAT OUT 连接 (EtherCAT OUT connection)	绿色 (Green)		熄灭	Not lit	模块与 EtherCAT 从站无物理连接	No physical connection between the module and the EtherCAT slave	
				常亮	Lit	模块与 EtherCAT 从站存在物理连接	There is a physical connection between the module and the EtherCAT slave	



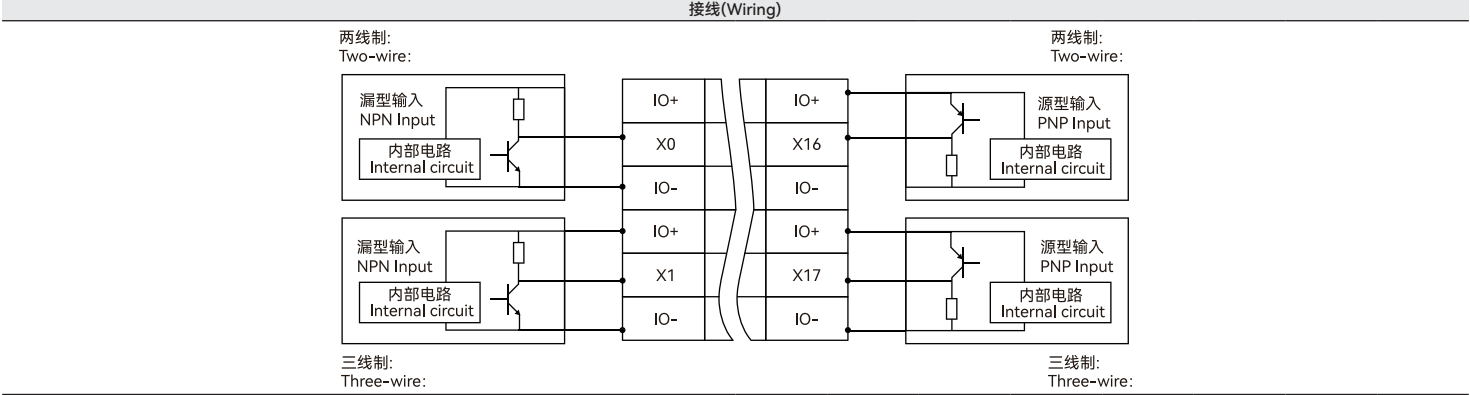
6. 端子及配线说明 (Terminal and wiring description)

类型(Type)	型号(Model)	输入 (Input)		输出 (Output)	
		PNP	NPN	PNP	NPN
	HCNXE-ID16-D	○	○	-	-
	HCNXE-OD16-D	-	-	-	○
	HCNXE-MD0808-D	○	○	-	○

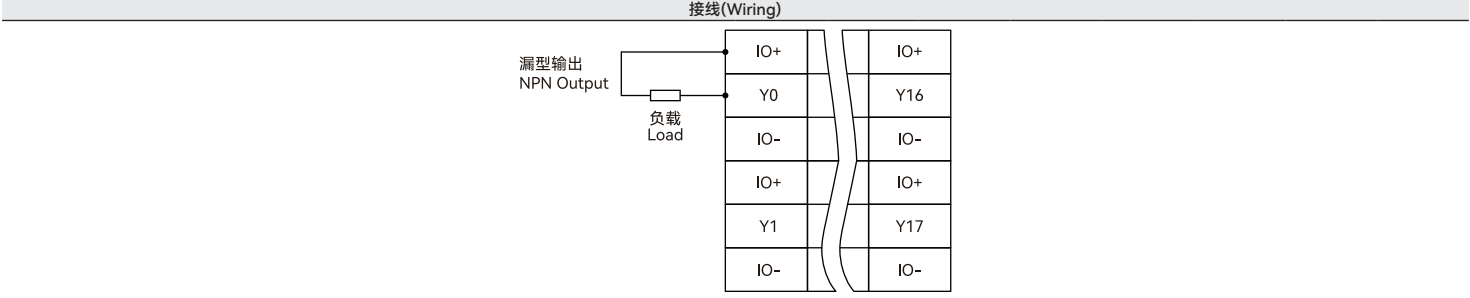
* 注：○：代表支持该类型；-：代表不支持该类型。
*Note: The symbol "○" indicates that the type is supported. The symbol "-" indicates that the type is not supported.

DC24V电源端子说明(DC24V power supply terminal description)		接线(Wiring)
IO-		
IO+		
0V		
24V		
PE		

端子说明(Terminal description)								HCNXE-ID16-D							
A	X0	X2	X4	X6	X10	X12	X14	IO+	IO+	IO+	IO+	IO+	IO+	IO+	IO+
	X1	X3	X5	X7	X11	X13	X15		X0	X2	X4	X6	X10	X12	X14
B								IO-	IO-	IO-	IO-	IO-	IO-	IO-	IO-
IO+								IO+	IO+	IO+	IO+	IO+	IO+	IO+	IO+
A								X1	X3	X5	X7	X11	X13	X15	X17
IO-								IO-	IO-	IO-	IO-	IO-	IO-	IO-	IO-
IO+															
B															
IO-															



端子说明(Terminal description)								HCNXE-OD16-D							
A	Y0	Y2	Y4	Y6	Y10	Y12	Y14	IO+	IO+	IO+	IO+	IO+	IO+	IO+	IO+
	Y1	Y3	Y5	Y7	Y11	Y13	Y15		Y0	Y2	Y4	Y6	Y10	Y12	Y14
B								IO-	IO-	IO-	IO-	IO-	IO-	IO-	IO-
IO+								IO+	IO+	IO+	IO+	IO+	IO+	IO+	IO+
A								IO-	IO-	IO-	IO-	IO-	IO-	IO-	IO-
IO-								IO+	IO+	IO+	IO+	IO+	IO+	IO+	IO+
IO+								Y1	Y3	Y5	Y7	Y11	Y13	Y15	Y17
B								IO-	IO-	IO-	IO-	IO-	IO-	IO-	IO-
IO-															



端子说明(Terminal description)								HCNXE-MD0808-D							
A	X0	X2	X4	X6	Y0	Y2	Y4	IO+	IO+	IO+	IO+	IO+	IO+	IO+	IO+
	X1	X3	X5	X7	Y1	Y3	Y5		X0	X2	X4	X6	X0	X2	X4
B								IO-	IO-	IO-	IO-	IO-	IO-	IO-	IO-
IO+								IO+	IO+	IO+	IO+	IO+	IO+	IO+	IO+
A								IO-	IO-	IO-	IO-	IO-	IO-	IO-	IO-
IO+								X1	X3	X5	X7	X1	X3	X5	X7
B								IO-	IO-	IO-	IO-	IO-	IO-	IO-	IO-
IO-															

