



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，务必将其安装于具有防尘、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 M 系列硬件手册。

Please refer to the M 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
HCMXB-2RS232-100-BD	0.15	0.15	DC5V, 电压范围: DC4.75V~DC5.25V	DC5V, voltage range: DC4.75V~DC5.25V
HCMXB-2RS485-100-BD	0.125	0.125		

* 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	0~50°C	0~50°C
储存温度	Storage temperature	-25~75°C	-25~75°C
环境湿度	Ambient humidity	5~95%RH (无结露)	5~95%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	IP20	IP20
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。

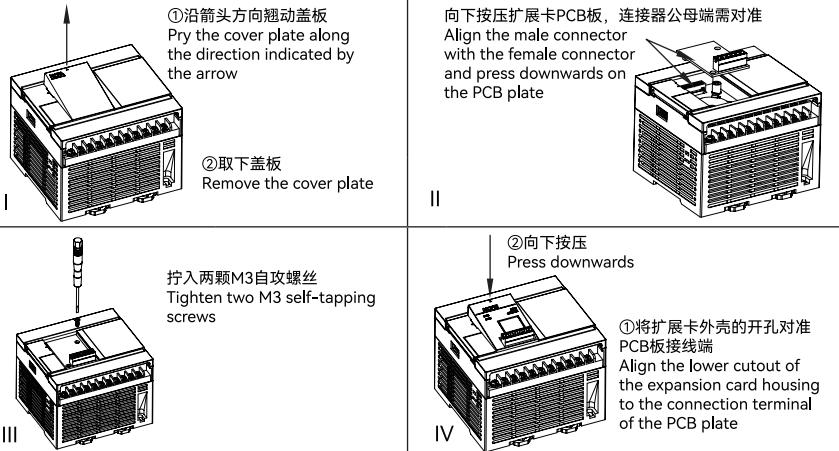
*Note: The equipment may be damaged if used in a manner not specified by the manufacturer.

3. 安装说明 (Installation instructions)

3.1 扩展卡拆装 (Expansion card mounting and dismantling)

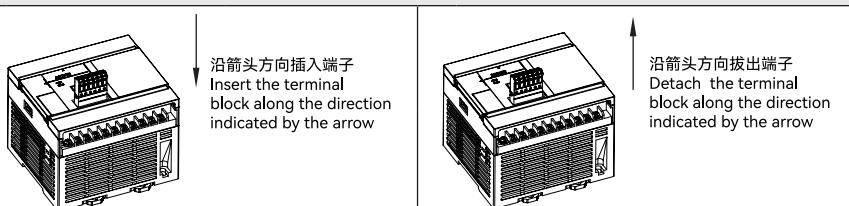
CN 安装扩展卡时, 将控制器水平放置, 用一字螺丝刀沿箭头方向撬动盖板, 当听到明显声音时, 盖板与控制器脱离, 取下盖板。沿箭头方向向下按压扩展卡PCB板, 对准控制器连接器的公头与扩展卡连接器的母头, 将PCB板的孔对准下方螺丝柱, 并拧入两颗M3自攻螺丝。将扩展卡外壳的开孔对准PCB板接线端子, 随后按压外壳上部。听到明显声音则表示扩展卡的安装已完成。反之为扩展卡的拆卸过程。

EN During mounting, first place the controller horizontally, and pry the cover plate along the direction indicated by the arrow with a flat screwdriver. Remove the cover plate from the controller when a distinct sound is heard. Then press downwards on the expansion card PCB plate along the direction indicated by the arrow to align the male connector of the controller connector with the female connector of the expansion card connector, and also align the holes of the PCB with the screw posts underneath and tighten two M3 self-tapping screws into the holes. Finally, align the lower cutout of the expansion card housing to the connection terminal of the PCB plate, and then press the upper part of the expansion card housing. The mounting of the expansion card is completed when a distinct sound is heard. The reverse is the procedure for dismantling the expansion card.



3.2 可拆卸端子拆装 (Removable terminal block mounting and dismantling)

CN 可拆卸端子拆装如右图所示。

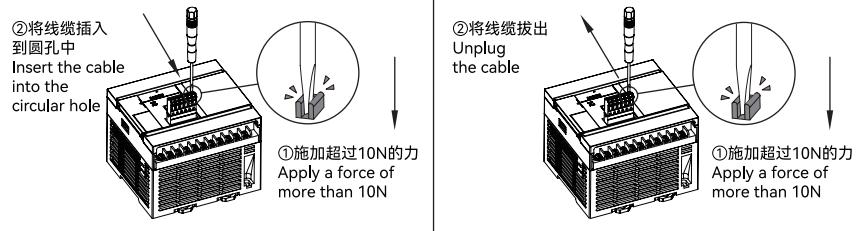


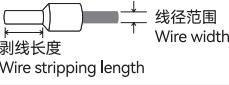
EN The mounting and dismantling of the removable terminal block are shown in the figures on the right side.

3.3 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10N的力, 此时圆孔打开, 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 of the terminal with a force of more than 10 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.



扩展卡端子 (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)	 线径范围 Wire width 剥线长度 Wire stripping length
通讯端子 (Communication terminal)	24~16	9~10	10	70	

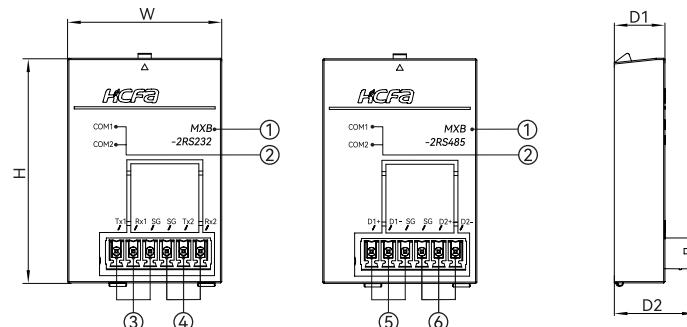
警告: 仅使用铜导线。

⚠ Warning: Use copper conductors only.

Attention: Utilisez uniquement des conducteurs en cuivre.

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

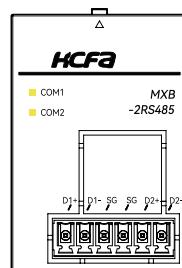
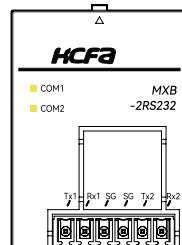
序号(No.)	项目	Item
1	产品型号	Product model
2	扩展卡状态指示灯	Expansion card status indicator
3	RS232 通道 1	RS232 Channel 1
4	RS232 通道 2	RS232 Channel 2
5	RS485 通道 1	RS485 Channel 1
6	RS485 通道 2	RS485 Channel 2



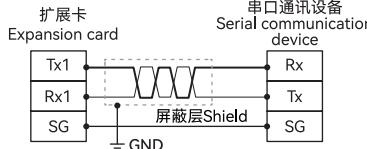
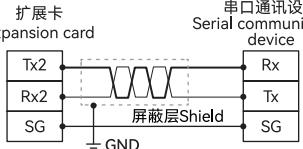
型号 (Model)	外形尺寸 (Dimension) : mm				重量 (Weight) : g
	W	H	D1	D2	
HCMXB-2RS232-100-BD	35.00	51.00	11.50	18.35	13.0 approx.
HCMXB-2RS485-100-BD					

5. 指示灯说明 (Indicator description)

丝印 (Screen printing)	指示灯含义 (Indicator meaning)	颜色 (Color)	状态	Status	说明	Description
MXB-2RS232						
COM1	RS232 通道 1 通讯 (RS232 Channel 1 communication)	黄色 (Yellow)		Not lit	未发送数据	No data is being sent to other devices
				Blinking	正在发送数据给其他设备	Data is being sent to other devices
MXB-2RS485						
COM1	RS485 通道 1 通讯 (RS485 Channel 1 communication)	黄色 (Yellow)		Not lit	未发送数据	No data is being sent to other devices
				Blinking	正在发送数据给其他设备	Data is being sent to other devices
COM2	RS485 通道 2 通讯 (RS485 Channel 2 communication)	黄色 (Yellow)		Not lit	未发送数据	No data is being sent to other devices
				Blinking	正在发送数据给其他设备	Data is being sent to other devices



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

通讯端子说明(Communication terminal description)			
RS232通讯端子 (RS232 communication terminal)		RS232 通道1接线 (RS232 Channel 1 Wiring)	RS232 通道2接线 (RS232 Channel 2 Wiring)
RS232 通道 1 数据发送 RS232 Channel 1 data sending	Tx1		
RS232 通道 1 数据接收 RS232 Channel 1 data receiving	Rx1		
RS232 通道 1 信号参考地 RS232 Channel 1 signal reference ground	SG*		
RS232 通道 2 信号参考地 RS232 Channel 2 signal reference ground	SG*		
RS232 通道 2 数据发送 RS232 Channel 2 data sending	Tx2		
RS232 通道 2 数据接收 RS232 Channel 2 data receiving	Rx2		
		扩展卡 Expansion card 	扩展卡 Expansion card 

RS485通讯端子 (RS485 communication terminal)		RS485接线 (RS485 Wiring)
RS485 通道 1 通讯信号+	D1+	
RS485 Channel 1 communication signal+		
RS485 通道 1 通讯信号-	D1-	
RS485 Channel 1 communication signal -		
RS485 通道 1 信号参考地	SG*	
RS485 Channel 1 signal reference ground		
RS485 通道 2 信号参考地	SG*	
RS485 Channel 2 signal reference ground		
RS485 通道 2 通讯信号+	D2+	
RS485 Channel 2 communication signal+		
RS485 通道 2 通讯信号-	D2-	
RS485 Channel 2 communication signal -		

* 注: 信号参考地 SG 内部导通。

* Note: Signal reference ground SG are all internally conductive.

