

RCU Room Control Unit 2.0

Datasheet



HDL-MHRCU-II.433



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Before using this product, please read this datasheet carefully and keep it properly!

Document Version : C

◆◆ Overview

RCU Room Control Unit 2.0 is the core of a hotel system. It supports hotel host control, mix module control, 48-channel dry contacts and doorbell function. The Hotel Room Control Host 2.0 has 23 channels, which must be set through HDL Hotel Room Management System. The Hotel Room Control Host 2.0 can monitor and control each equipment via HDL Hotel Room Management System after setting targets as curtains, lamps, ventilation fan, air conditioners and other devices.

Key functions:

- Adopts UDP network communication
- With 2 RS485 interfaces to support expansion
- Supports 50 scenes, each scene can be configured with 32 targets.
- 48 general logics and 8 normally used fixed logics
- Supports system time setting
- Saves the last history record
- Activates corresponding scene according to card master after identification.
- Monitors and controls air conditioners, curtains, lightings, room status, and uploads the status of air conditioners, curtains, lightings and other states to the monitor software of the server in real time.
- Receives various panel control signals, and control the module and channels.
- Network connection. The Hotel Room Control Host 2.0 has a RJ45 port, which can connect to each room, reception and management software. Through HDL Hotel Room Management System, the module can integrate with the third party management software to exchange information.

Mix control functions:

- Supports up to 8 air conditioners
- Supports up to 8 curtains, including internal and external curtains
- CH1-10, CH13-20, 18 TV8 relay channels (the Channel 20 is an emergency channel). CH1-10, each channel outputs 5A. CH13-20, each channel outputs 3A
- CH11-12, 2 magnetic latching relay channels, and each channel outputs 16A.
- CH21-23, 3 dimming channels, each channel outputs 1A.

Dry contact function:

- 48CH dry contacts, which can be used as input and output channels.

Doorbell function:

- The doorbell relay channel is used for doorbell control.

◆◆ Technical Data

Item	Parameter
Rated voltage	24V DC
Rated current	260mA/24V DC
Input voltage	100-240V~50/60Hz
Relay output	Relay 20CH(18TV8+2x16A); Bell 1CH/0.5A; MOSFET 3CH/1A
Dimming output	3 dimming channels, 1A/CH
Communication interface	HDL Buspro, RJ45, Inner Buspro/RS485, RS485, IR
RJ45 interface	UDP/IP network Interface
Cable diameter of Buspro terminal	0.6-0.8mm
Working temperature	-5°C~45°C
Working relative humidity	≤90%
Storage temperature	-20°C~60°C
Storage relative humidity	≤93%

◆◆ Specifications

Item	Parameter
Dimensions	216mmx90mmx56mm
Net weight	597g
Housing material	Nylon
Installation	35mm DIN rail installation
Protection rating (Compliant with EN 60529)	IP20
Approved	CE, RoHS

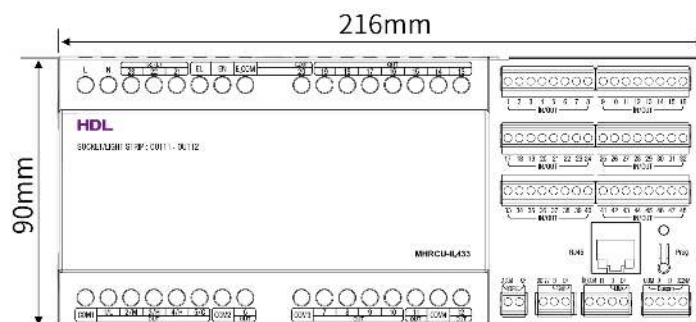


Figure 1

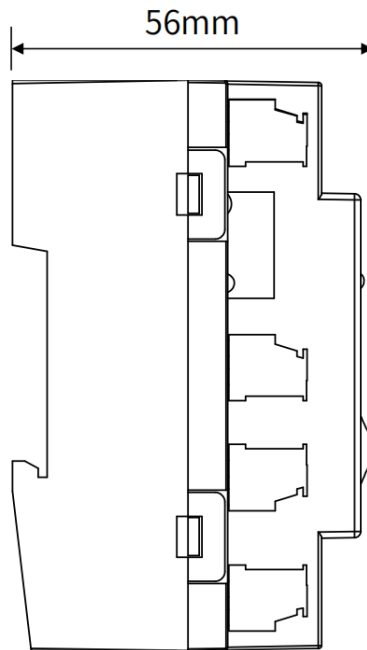


Figure 2

◆◆ Safety Precaution

Note:

- Buspro cable - CAT5E or dedicated HDL Buspro cable.
- The current of each channel must not exceed the rated current.
- The dimming temperature should not exceed 45°C.
- The breaker or fuse needs to be connected to each channel for protection.

Warning:

- The installation and testing for the product must be carried out by HDL Automation Co., Ltd. or its appointed service agencies. The electric construction shall comply with local laws and safety regulations.
- The device should be installed with DIN rail in DB box. HDL will not be responsible for any consequence caused by the inexpert or faulty installation and wiring methods, which are not in accordance with the instructions contained in this operating instruction.
- Please do not privately disassemble or replace any parts of the product. Otherwise, it may cause mechanical fault, electric shock, fire or personal injuries.
- Please contact our after-sales departments or our designated service agencies for your maintenance service. Product failures caused by private disassembly are not subject to this warranty.
- It is not allowed to exceed the range.

◆◆ Wiring

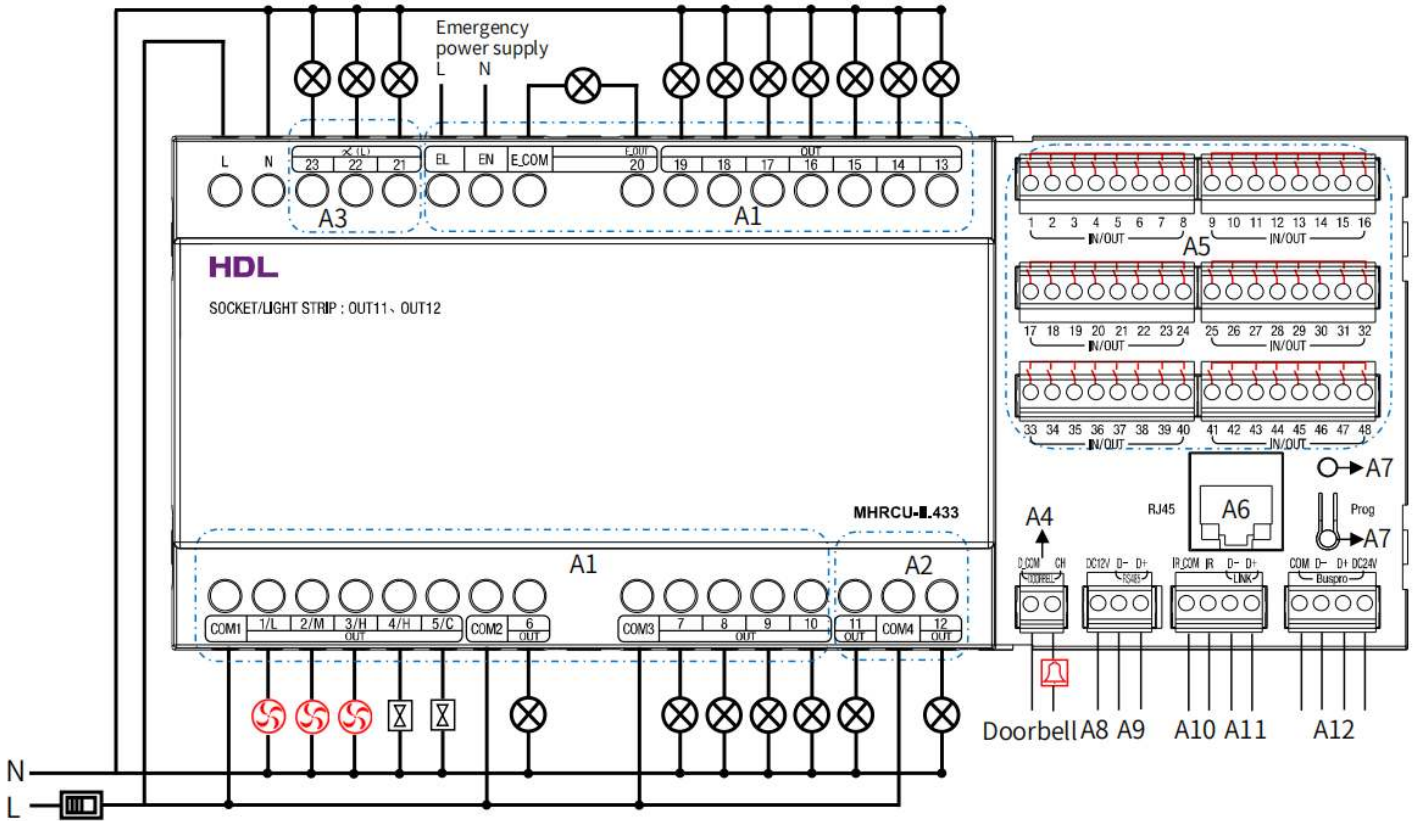


Figure 3

- A1: CH1-10, CH13-20, 18 TV8 relay channels (the Channel 20 is an emergency channel). CH1-10, each channel outputs 5A. CH13-20, each channel outputs 3A.
- A2: CH11-12, 2 magnetic latching relay channels, and each channel outputs 16A.
- A3: CH21-23, 3 dimming channels, each channel outputs 1A.
- A4: The doorbell relay channel is used for doorbell control.
- A5: 48CH dry contacts, which can be used as input and output channels.
- A6: RJ45 port
- A7: Button and indicator: The indicator flickers in green when the module is working properly. Keep pressing it for 2s, you can set the start channel. Keep pressing it for 10s, it will turn red, the module will be reset to the below IP.
- IP: 192.168.10.250
- Router IP: 192.168.10.1
- Port: 6006
- The network segment of the module should be the same as the PC.
- A8: Output voltage 12V
- A9: RS485 interface for third-party device
- A10: IR device interface
- A11: Inner Buspro/RS485 interface for third-party device

◆◆ Installation

Step 1. Fix the DIN rail with screws.

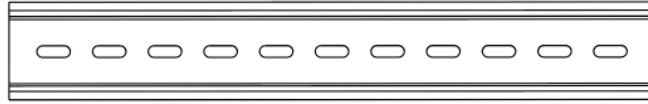


Figure 4

Step 2. Buckle the bottom cap of the device on the edge of the DIN rail.

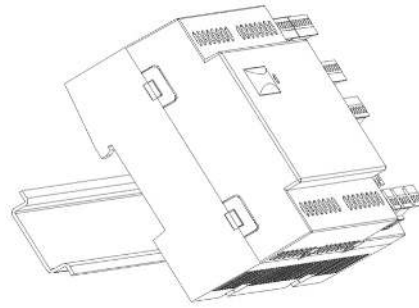


Figure 5

Step 3. Press the device on the DIN rail, slide it and fix it up until an appropriate position is adjusted.

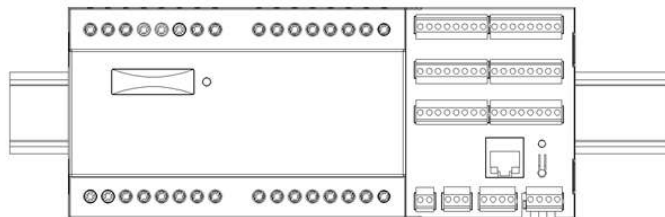


Figure 6

◆◆ Packing List

- HDL-MHRCU-II.433*1
- PET label paper*2

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Update History:

The form below contains the information of every update. The latest version contains all the updates of all former versions.

Version	Update Information	Date
V1.0	Initial release	November 14, 2025
V1.1	Update technical parameters and packing list	November 18, 2025

◆◆ Technical Support

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