

FCU intelligent module

一、概述 (Overview)

HOTEKEY-风机盘管模块是 HOTEKEY 公司开发研制的一种智能化中央空调风机盘管控制器，是智能建筑控制系统的智能控制模块，可设置场景模式。该模块采用 485 总线通讯方式，功能齐全，适用于智能化控制领域。

The HOTEKEY-fan coil module is an intelligent central air-conditioning fan coil controller developed by HOTEKEY. It is an intelligent control module of the intelligent building control system, which can set the scene mode. The module adopts 485 bus communication mode and has complete functions, which is suitable for intelligent control field.

二、功能特点 (Features)

- 一键更换模块，自动恢复模块数据和状态
- 可设置为最多 24 个模式的组成部分
- 可控制制冷制热和三种风速
- 温度采集可设置内置或总线读取（推荐）
- 设备可设置记忆保存功能，以记忆最近的模式状态
- 采用 485 总线方式通讯
- 标准 35mm 导轨式安装结构
- Replace the module with one button, automatically recover module data and status
- can be set to a maximum of 24 modes.
- Controls cooling and heating and three wind speeds.
- Temperature acquisition can be set to internal or bus read (recommended) .
- The device can set the memory save function to remember the most recent mode status.
- Communication using 485 bus.
- Standard 35mm rail mounting structure.

三、主要技术参数 (The main technical parameters)

- 工作电压：DC 12V

- 静态输入电流: 12mA DC 12V
- 动态输入电流: 55mA DC 12V
- 输出回路: 5 路
- 每回路最大输出电流: 10A
- 继电器寿命: 大于 60000 次
- 环境条件:
 - 工作温度 0°C~45°C
 - 工作相对湿度 20%~90%
 - 储存温度-40°C~+55°C
 - 储存相对湿度 10%~93%
- 外形尺寸: 72mm×88mm×66mm
- Working voltage: DC 12V
- Static input current: 12mA DC 12V
- Dynamic input current: 55mA DC 12V
- Output circuit: 5 way
- Maximum output current per loop: 10A
- Relay life: more than 60,000 times
- Environmental conditions:
 - Working temperature 0 ° C ~ 45 °
 - Working relative humidity 20%~90%
 - Storage temperature -40 ° C ~ +55 °
 - Store relative humidity 10%~93%
- Dimensions: 72mm × 88mm × 66mm

四、外观说明及连接示意图 (Appearance description and connection diagram)



- ① H/M/L 分别接高、中、低三速电机
- ② COLD/HEAT 分别接冷、热电磁阀
- ③ DC12V、A、B、GND 为 485 总线接线端。
- ④ 模块指示灯：模块正常工作时，为稳定的 1 秒闪烁，当使能了记忆功能时，模块记忆状态，指示灯快闪 3 秒，模块出厂和检测状态过程中，指示灯保持常亮。
- ⑤ 复位和出厂按键
 单按该按键超过 1 秒时，识别为复位操作，执行模块复位功能，长按该按键超过 5 秒时，识别为出厂功能，模块出厂会清掉所有数据，数据清空后会自动向交换机申请恢复数据和状态，该功能用于一键更换非正常工作的模块，或恢复模块数据

- ① H/M/L connected to high, medium and low three-speed motors
- ② COLD/HEAT connected to cold and hot solenoid valves
- ③ DC12V, A, B, GND are 485 bus terminals.
- ④ Module indicator: When the module is working normally, it will be stable for 1 second. When the memory function is enabled, the module remembers the status and the indicator flashes for 3 seconds. During the module factory and detection status, the

indicator light remains on.

⑤ reset and factory button:

When the button is pressed for more than 1 second, it is recognized as the reset operation, and the module reset function is executed. When the button is pressed for more than 5 seconds, it is recognized as the factory function. The module will clear all the data after the factory shipment, and the data will be automatically applied to the switch after the data is cleared. Data and status, this function is used to replace a module that is not working properly, or to recover module data

五、主要设置说明 (Main setup instructions)

该模块接入 485 总线，打开“系统设置软件”，搜索并设置该模块。

- 本机通讯地址

本机通讯地址由模块搜索功能自动分配。

- 区域

区域是对本模块回路的划分，一个区可含回路数最多 1 个，一个回路只能分配给一个区，最多可设置 1 个独立区域。

点击“分区”对回路分区。

- 回路

对回路参数的设置，包括回路备注、温度采集类型、温度偏移、上限偏置、下限偏置等设置。

“负载测试”对回路状态测试。

- 模式

综合设置系统使用模式，如离家模式、回家模式、全开/全关模式等等

- 记忆

可对回路设置是否使能记忆功能，使能记忆以后，当回路状态发生改变 30 秒后，对回路状态进行记忆。

安装连接

- 安装条件

安装位置要通风良好，注意防潮、防震、防尘。

- 接线规格

本模块风速控制端连接线： 1.0mm²铜导线。

本模块冷热控制端连接线： 1.0mm²铜导线。

485 总线连接线：采用超五类线。

The module is connected to the 485 bus. Open the "System Setup Software" to search and configure the module.

- ◆ Local Communication Address

The local communication address is automatically assigned by the module search function.

- ◆ Area

The area is a division of the module's circuits. One zone can contain at most 1 circuit. One circuit can only be assigned to one zone. Up to 1 independent zone can be set.

Click "Partition" to partition the circuits.

- ◆ Circuit

Settings for circuit parameters, including circuit remarks, temperature acquisition type, temperature offset, upper limit offset, lower limit offset, etc.

"Load Test" tests the circuit status.

- ◆ Mode

Comprehensively set system usage modes, such as away mode, home mode, full on/full off mode, etc.

- ◆ Memory

Memory function can be set for the circuit. After memory is enabled, when the circuit status changes for 30 seconds, the circuit status will be memorized.

- ◆ Installation Connection

Installation Conditions

The installation location should be well ventilated, with attention to moisture, shock, and dust prevention.

- ◆ Wiring Specifications

Wind speed control terminal connection wire of this module: 1.0mm² copper wire.

Cold/heat control terminal connection wire of this module: 1.0mm² copper wire.

485 bus connection wire: using Cat5e cable.

六、安全使用与维护保养 (Safe use and maintenance;)

1. 使用前仔细阅读所有说明。
2. 勿靠近干扰设备。

3. 要建立良好通风散热环境。
4. 在使用过程中，注意防潮、防震、防尘。
5. 严禁雨淋、接触其它液体或腐蚀性气体。
6. 定期除尘，不能用酒精、汽油等挥发性液体擦拭。
7. 如受潮或被液体侵袭，应及时进行干燥处理。
8. 定期检查线路的受损和老化程度，应及时更换不合格线路。
9. 机器出现故障时，请与专业维修人员或本公司联系。

本模块电源 AC220V~240V 接入须通过合适的断路器 ($\geq 10A$)。



警告

接线要符合要求。

The AC220V~240V power supply of this module must pass the appropriate circuit breaker ($\geq 10A$). Wiring should meet the requirements.

1. Read all instructions carefully before use.
2. Do not get close to the interference device.
3. To establish a good ventilation and heat dissipation environment.
4. During use, pay attention to moisture, shock and dust.
5. Do not expose to rain or other liquids or corrosive gases.
6. Regular dust removal, can not be wiped with volatile liquids such as alcohol and gasoline.
7. If it is wet or invaded by liquid, it should be dried in time.
8. Regularly check the damage and aging of the line, and replace the unqualified line in time.
9. In the event of a machine failure, please contact a qualified service person or our company.

七、Contacts

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