

Smart IoT Elevator Air Conditioner

---Cloud Communication Control Series

Based on IoT and cloud platform technology, Heshan successfully developed a smart IoT elevator air conditioner using wireless connection. The elevator air conditioner data is directly uploaded to the cloud server from the elevator machine room through the RS485 to 4G/WiFi communication gateway. Users can observe/control the operation of the elevator air conditioner anytime and anywhere through terminals such as mobile phones, PAD, and computers, and can also receive notification information from the elevator air conditioner, which greatly improves the user experience and comfort.

1.Product Feature

(1)Multi-terminal Operation

Users can observe/control the operation status of elevator air conditioners through mobile phones, PADs, computers and other terminals, just open a browser or WeChat applet.

(2)Operate Anytime, Anywhere

Users are no longer limited to a fixed location, do not need to visit each elevator site in person, and do not need to carry a remote control. They can

operate the temperature, operation mode, switching time, wind speed, etc. of the elevator air conditioner anytime, anywhere, saving time and effort.

(3)Sensing Passengers, Automatic Sleep Function

When no one enters or exits the elevator for a long time, the elevator air conditioner will automatically enter the sleep mode, and it will automatically turn on after sensing someone entering. This automatic sleep function can save power consumption and jointly practice the "carbon neutral" green environmental protection concept.

(4)Troubleshooting Function

The elevator air conditioner can logically analyze the collected data. If the equipment is abnormal, a warning mark will automatically pop up on the page to report the cause of the failure and prompt the solution. Users can also directly connect with Heshan Service Center, authorized third-party elevator maintenance units, etc. to provide remote assistance and guidance, greatly improve maintenance efficiency, and quickly handle elevator air-conditioning matters at home and abroad.

(5)Low Threshold and Simple Implementation

There is no need for long-distance wiring, only the elevator shaft has wireless WiFi coverage or mobile 4G signal to access, especially suitable for intelligent applications of new buildings and intelligent transformation of early construction buildings, helping customers to enter the intelligent Internet of Things at a low cost era.

2.Connection Diagram



3.Introduction to System Components

"Heshan" remote control elevator air conditioning system is mainly composed of five parts: remote control elevator air conditioner, transmission signal line, RS485 to Ethernet converter, customized software, and monitoring computer.

(1)Smart IoT Elevator Air Conditioner

Data such as cooling capacity and heating capacity refer to the original corresponding model (Y in the original model becomes YC); the control system has an RS485 interface.

(2)WiFi/4G Communication Gateway

A WIFI/4G communication gateway is installed in the elevator machine room or car top to transmit the elevator air conditioner data to the cloud server to

realize two-way data transmission and two-way control of the Internet of Things.

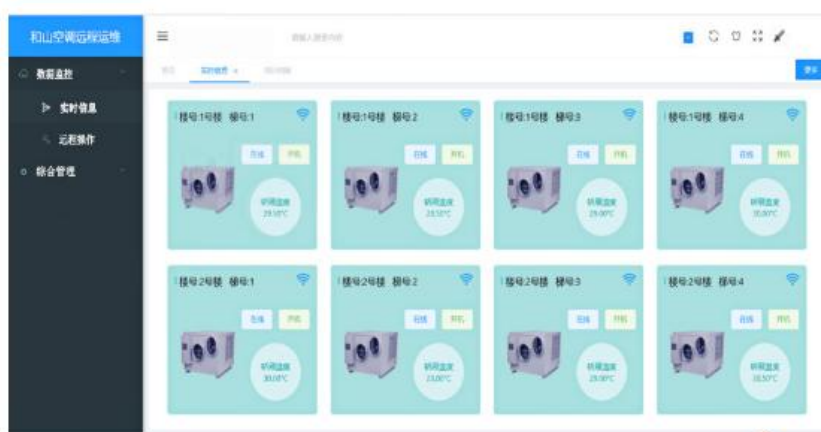
(3)Transmission Signal Line

The signal transmission from the car top to the elevator machine room needs to use a set of twisted pairs in the elevator accompanying cable, and the wire diameter is required to be 0.5mm² or more; (If there is WIFI or 4G signal coverage in the elevator shaft, it can also communicate through WIFI or 4G The gateway is directly connected to the network, no longer need to transmit signal lines).

(4)Control Program

The program is stored in the cloud server, and there is no need to install any software package, just open the browser or WeChat applet, log in with the account password, and then you can access the elevator air conditioning operation and maintenance system.

4.Real-time infographic of operation and maintenance system



Computer web page showing real-time information



Mobile phone/PAD display real-time information