VRF System Controller

UC722



UC722 VRF System Controller is a centralized controller designed for VRF air conditioning systems. It enables unified management and monitoring of VRF systems from multiple brands in smart buildings, commercial facilities, and energy management applications. Equipped with four HVAC channels, the UC722 can connect to up to four independent VRF systems. Each channel supports non-polarized communication wiring and can be independently configured for the same or different VRF brands. The controller features a built-in web GUI for configuration and supports Modbus RTU, Modbus TCP, and JSON communication protocols for integration with various control and building management systems.

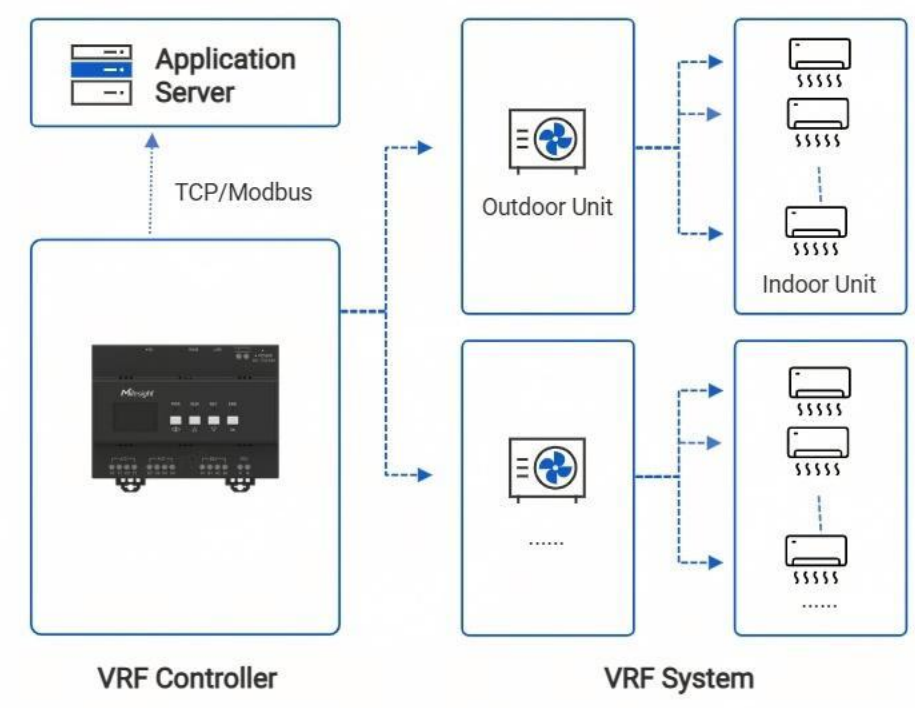
It can be deployed in applications such as buildings, campuses, commercial complexes, and centralized HVAC management scenarios.

Features

- Compatible with mainstream VRF air conditioning brand
- 4-channel for the same/different brands VRF systems
- RS485 or Ethernet Ports for system control and integration
- LCD display for real-time controller status and information
- Supports multiple scheduled tasks to implement energy-saving strategies
- Support Firmware Update Over the Air (FUOTA) feature

14 rue Edouard Petit
42000 St-Etienne
Tel : +33 477 92 03 56
Email : contact@rg2i.com
www.rg2i.com

◆ Application Example

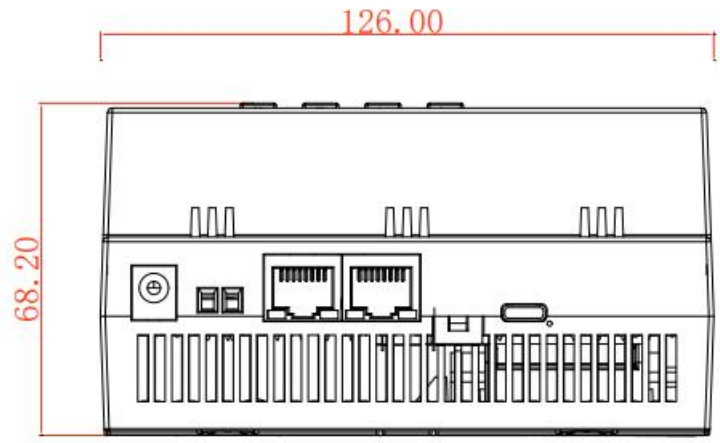


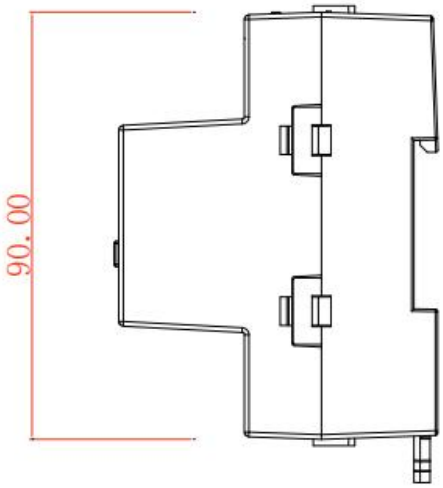
◆ Specifications

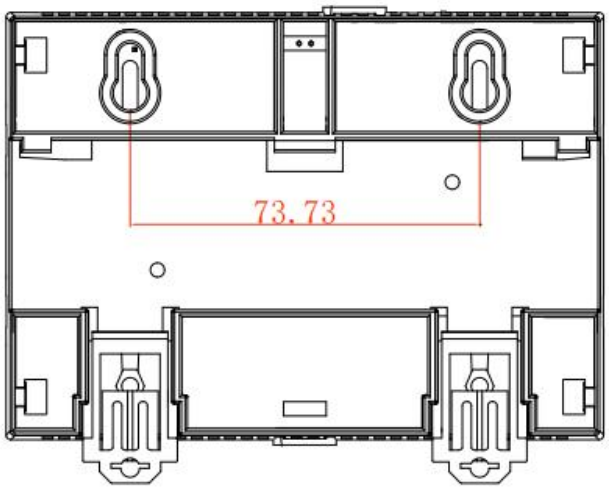
AC Control	
Compatibility	Mainstream VRF/Central Air Conditioning Systems including Daikin, Mitsubishi Electric, Mitsubishi Heavy Industries, Hitachi, Toshiba, Panasonic, Samsung, LG, Fujitsu General, York (Qingdao, Guangzhou), Carrier, Trane, Bosch, McQuary, Hisense, Haier, Gree, TCL, Midea, AUX, Chigo, TICA, etc.
Air Conditioner Channels	4 Outdoor Unit Channels, per Channel can add up to 160 Indoor Units
Control Functions	Power On/Off, Mode, Temperature, Fan Speed, Airflow Direction, Lock/unlock, Schedule, Group Control
Communication	
Ethernet Interface	
Port	2 × RJ45 10/100 Mbps
Property	1 × WAN + 1 × LAN
Server Type	MQTT, TCP
Protocol	JSON, Modbus TCP, Modbus RTU over TCP
Serial Port	
Port	1 × RS485 for Communication (Reserved: 2 × RS485 for Meter Connection)
Baud Rate	1200bps to 19200bps

Protocol	Modbus RTU
Others	
Display	LCD Screen
Screen Buttons	4 × Screen Control Buttons
LED Indicator	1 × PWR, 1 × RUN, 1 × NET, 1 × ERR
USB	1 × Type-C for Console (Reserved)
Power Connector	1 × DC Male Jack Connector (2.1 x 5.5 mm), 1 × 2-pin Screw Terminal
Software	
Configuration	Web GUI
Advanced Feature	FUOTA
Physical Characteristics	
Power Supply	12-24 VDC by DC Jack Connector or Screw Terminal
Operating Temperature	-20°C ~ 60°C
Relative Humidity	0% to 90% (Non-condensing)
Ingress Protection	IP20
Material & Color	ABS (UL94 V2), Black
Weight	280g
Dimension	126 × 90 × 68 mm
Wire Connection	>= 0.75 mm^2
Installation	DIN Rail Mounting, Wall Screw Mounting
Approvals	
Regulatory	CE, TELEC
Environmental	RoHS

◆ Dimensions (mm)




90.00


73.73