CoolMasterNet Control

Software Solution for HVAC Integration Using CoolMasterNet

cue

Main Features

- Seamless integration of HVAC systems with Cue System
- TCP/IP and serial XPL^2 drivers for HVAC control
- Dedicated XPL^2 driver for HVAC indoor unit
- Unified API for various HVAC systems
- Mode settings commands
- Fan settings commands
- Temperature set, increment and decrement commands
- Swing position settings commands
- Status query and get commands
- Degrees Celsius or Fahrenheit commands

Description

CoolMasterNet is a hardware solution for a seamless integration of the advanced VRF / Split air conditioning systems and Home Automation / BMS controllers. Interfacing home automation controllers by CUE through CoolMasterNet's built in RS-232/485 and ethernet communication ports, will provide home end users with full control and monitoring of air conditioning indoor units by Daikin, Mitsubishi, Toshiba, Fujitsu, LG, Hitachi, Gree and similar. Air conditioning control will be implemented from same controllers of which other tasks, like lighting, shades, security, media, are controlled.

The CoolMasterNet software solution integrates CoolMasterNet via IP or serial interface and gives your Cue System the ability to control all aspects of the HVAC system. It enables the user set the mode, fan, temperature setpoint and swing position of HVAC from any of the Cue System user interfaces - keypads, touch panels and mobile applications. All these HVAC can be automated and triggered too. The driver provides bi-directional communication with the CoolMasterNet unit. First way allows control from Cue System, second way allows monitor any changes in the HVAC system and display them on the Cue System user interface.
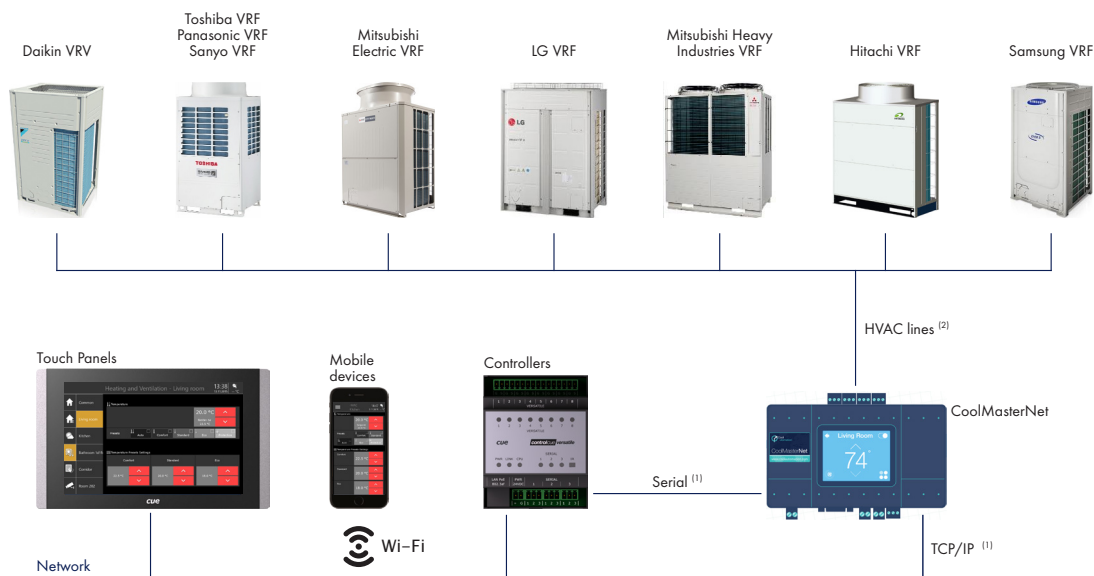
Order Information

CoolMasterNet software is available in the CueStore.
Hardware has to be ordered separately.
More information regarding CoolMasterNet hardware is available at www.coolautomation.com.

Applications

Control and monitor HVAC systems
Building automation
Home automation

Application Diagram

[1] Serial RS-232/485 or TCP/IP connection is available. Network connection allows control CoolMasterNet from touch panel only (without controller). Mobile device application needs touch panel or controller.

[2] HVAC lines provide communication with HVAC systems.

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Specifications

Interface
  Ethernet or RS-232/485 serial channel
Hardware required
  Touch panel or controller for TCP/IP network control
  Controller equipped with serial channel RS232/485 for serial control
Compatible HVAC systems
  Daikin VRV
  Toshiba VRF
  Panasonic VRF
  Sanyo VRF
  Mitsubishi Electric VRF
  LG VRF
  Mitsubishi Heavy Industries VRF
  Hitachi VRF
  Samsung VRF
  Fujitsu
  Gree

Drivers
  CoolMasterNetSerial for serial control
  CoolMasterNetTCPclient for TCP/IP network control
  CoolMasterNetIndoorUnit used as an instance of each existing indoor unit or group of indoor units
Commands
  On | off
  Set modes auto | heat | cool | dry, fan
  Set fan speed low | middle | high | auto, top
  Temperature set value | increment | decrement
  Set swing auto | vertical | horizontal | 30° | 45° | 60°
  Indoor unit status query | get
  Set degrees Celsius | Fahrenheit
  IP configuration set | get
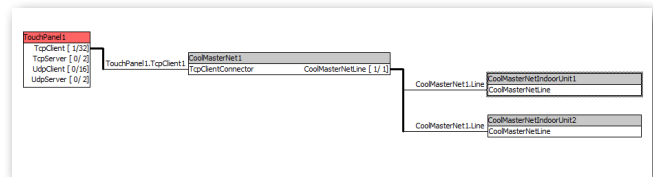 Get settings | status
  Simulate on
  Reset

CVC Configuration Example

The CoolMasterNetSerial or CoolMasterNetTCPclient devices can be used as standalone or they can be used for connecting set of Indoor Units with help of their CoolMasterNetLine connectors.

The advantage of using special device instance for each Indoor Unit or each group of Indoor Units is the possibility to assign them names according the actual names in installation or places of their location of the site.

CollMasterNetLine connector is common for all Indoor Units independently which physical Line of CoolMasterNet is used. Actual physical Line is defined by setting UID property of CoolMasterNetIndoorUnit device.

Network connection uses CoolMasterNetTCPclient driver connected to touch panel or controller using TcpClient network connection. All IndoorUnit drivers are conected to CoolMaster NetLine channel.

Serial connection uses CoolMasterSerial driver connected to controller's serial port. All IndoorUnit drivers are conected to CoolMaster NetLine channel.