HDL®

M/CBVRV.GW.1
KNX CoolBox VRV Gateway

Hardware Version: A

KNX

Datasheet

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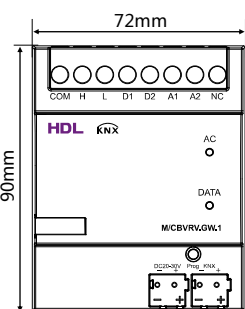Figure 1. KNX CoolBox VRV Gateway

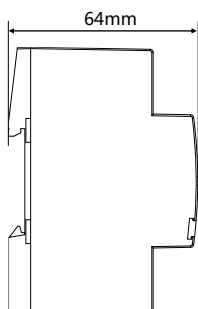Figure 2. Dimensions - Front View

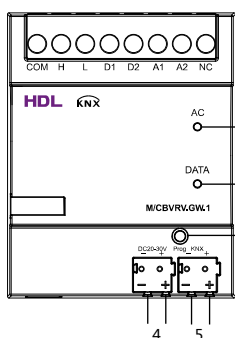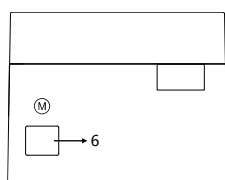Figure 3. Dimensions - Side View

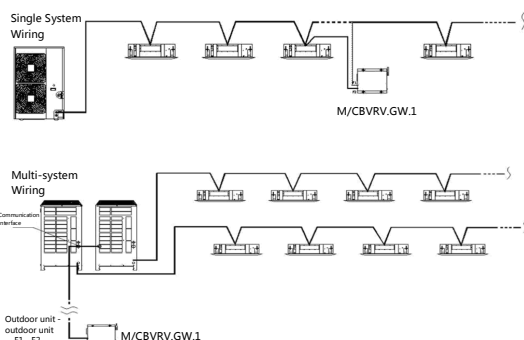

Figure 4. Components

Figure 5. Components

Figure 6. Wiring

Overview

KNX CoolBox VRV Gateway (See Figure 1) is a central air conditioning all-in-one control gateway based on KNX communication. The gateway supports air conditioners of most major brands : Daikin, Hitachi, Toshiba, Midea, Gree, etc.

Its main features include:

- Search KNX CoolBox VRV Gateway to view online/offline status of each indoor unit
- Easy configuration of air conditioner internal machine, assign address
- Control the switch, mode, temperature, etc. of different indoor units. Control up to 64 indoor units
- Monitor the switch, temperature, fault, etc. of different indoor units. Can monitor up to 64 indoor units
- Can realize air conditioning switch, temperature setting, mode switching, wind speed and wind direction adjustment, report fault, online detection
- Air conditioning working mode: standard mode and custom mode
- Upgrade the firmware online. Enable to remotely upgrade MCU and air conditioner module group firmware online

Components and Operation

Dimensions - See Figure 2 - 3
Components - See Figure 4 - 5
Wiring - See Figure 6

1. Air conditioner status indicator
2. Communication status indicator
3. Programming button/indicator:
Red indicator indicates programming mode.
4. Auxiliary voltage: 20~30V DC
5. KNX interface
6. Dial code interface

Instruction for wiring terminal and dial code

VRV	Wiring terminal							Code switch			
	COM	H	L	D1	D2	A1	A2	Switch 1	Switch 2	Switch3	Switch 4
Midea	COM	H	L								
Mitsubishi Heavy Industries		H	L								
Mitsubishi Heavy-Haier		H	L								
York		H	L								
LG		H	L								
Samsung		H	L								
Mitsubishi Electric						A1	A2	0	0	0	0
Daikin						A1	A2	1	0	1	0
Panasonic						A1	A2	0	1	0	1
Haier						A1	A2	0	1	0	1
Toshiba						A1	A2	0	1	0	1
Hitachi						A1	A2	0	1	0	1
Hisense Hitachi						A1	A2	0	1	0	1
Gree				D1	D2						

Installation

Installation - See Figure 7 - 9
Step 1. Fix the DIN rail with screws.
Step 2. Buckle the bottom cap of the gateway on the edge of the DIN rail.
Step 3. Press the gateway on the DIN rail, slide it and fix it up until an appropriate position is adjusted.

Note(s)

- Installation - Distribution box
- KNX Bus voltage: 21~30V DC, no AC power supply allowed
- Programming - This device is compliant with the KNX standard and can only be programmed by ETS software.

⚠ WARNING Safety Precautions

- The installation and commissioning of the device must be carried out by HDL or the organization designated by HDL. For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.
- The device should be installed with DIN rail in DB box. HDL does not take responsibility for all the consequences caused by installation and wire connection that are not in accordance with this document.
- Please do not privately disassemble the device or change components, otherwise it may cause mechanical failure, electric shock, fire or body injury.
- Please resort to our customer service department or designated agencies for maintenance service. The warranty is not applicable for the product fault caused by private disassembly.

Package Contents

M/CBVRV.GW.1*1 / Label*5 / Datasheet*1

Technical Data

Basic Parameters

Working voltage	21~30V DC
Working current	6mA/30V DC
Auxiliary voltage	20~30V DC
Auxiliary current	26mA/24V DC
Communication	KNX
Cable diameter of KNX terminal	0.6-0.8mm

External Environment

Working temperature	-5℃~45℃
Working relative humidity	≤90%
Storage temperature	-20℃~60℃
Storage relative humidity	≤93%

Specifications

Dimensions	72mm×90mm×64mm
Net weight	175g
Housing material	PA66
Installation	35mm DIN rail installation (Figure 7 - 9)
Protection rating (Compliant with EN 60529)	IP20

Name and Content of Hazardous Substances in Products

Components	Hazardous substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Chromium VI (Cr (VI))	Poly-brominated biphenyls (PBB)	Poly-brominated diphenyl ethers (PBDE)
Plastic	o	o	o	o	o	o
Hardware	o	o	o	o	-	-
Screw	o	o	o	×	-	-
Solder	×	o	o	o	-	-
PCB	×	o	o	o	o	o
IC	o	o	o	o	×	×

The symbol "-" indicates that the hazardous substance is not contained.
The symbol "o" indicates that the content of the hazardous substances in all the homogeneous materials of the component is below the limit requirement specified in the Standard IEC62321-2015.
The symbol "×" indicates that the content of the hazardous substance in at least one of the homogeneous materials of the part exceeds the limit requirement specified in the Standard IEC62321-2015.

Figure 7

1

Figure 8

2

Figure 9

Figure 7 - 9. Installation

KNX Cable Guide

KNX	KNX Cable
-	Black
+	Red

Technical support
E-mail: support@hdlautomation.com
Website: https://www.hdlautomation.com