

PROJECT VRF R410A

XRV MULTI SYSTEM - FULL DC INVERTER

EEV KIT

KITS FOR AHU CONNECTION WITH DIRECT EXPANSION COIL TO XRV HOKKAIDO SYSTEMS

EEV-KIT lets you connect direct air handling unit expansion coils to XRV systems. These kits are composed of an expansion valve and electronic control to manage refrigerant flow toward the AHU: in this way, AHU systems can make use of the advantages linked to XRV technology.



HAHU 9-20 XRV-K
HAHU 20-36 XRV-K
HAHU 36-56 XRV-K

EEV-KIT ADVANTAGES

High energy efficiency thanks to XRV technology which involves:

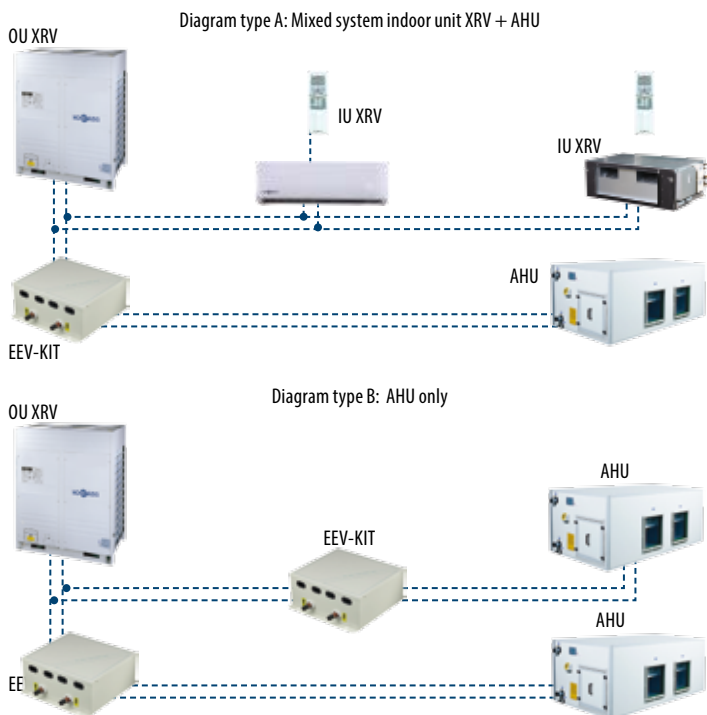
- Improved indoor temperature control in rooms
- Reduced energy consumption linked to Inverter technology
- Reduced outdoor unit **start&stop** cycles
- Lower installation and maintenance costs with respect to traditional systems which use an AHU

FUNCTIONALITY AND INSTALLATION

Here are a series of instructions regarding EEV-KIT functionality and the correct installation methods.

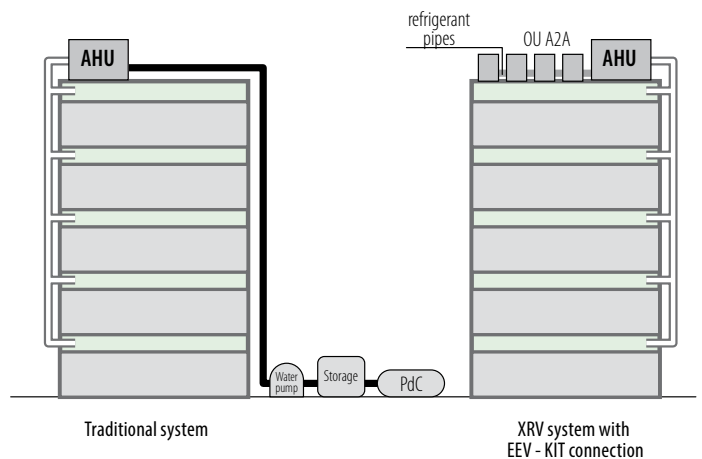
- **Failure feedback function:** error codes can be shown on the display when malfunctions occur. It is also possible to verify the set temperature.
- **Maximum Number of EEV-Kit that can be connected to an AHU:** 4 (maximum reachable capacity 224 kW).
- **Maximum distance between EEV Kits and AHU:** 8 m. Kit can be connected with XRV systems with R410A refrigerant gas, except for heat recovery systems (XRV 3 pipes).

EEV-KIT APPLICATION DIAGRAMS



TRADITIONAL SYSTEMS vs XRV WITH EEV-KIT

Below is a comparison between a traditional connection system and an XRV system with EEV-KIT connection.



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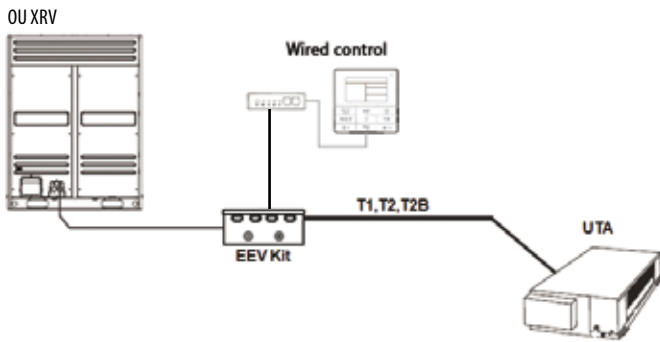
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TECHNICAL DATA

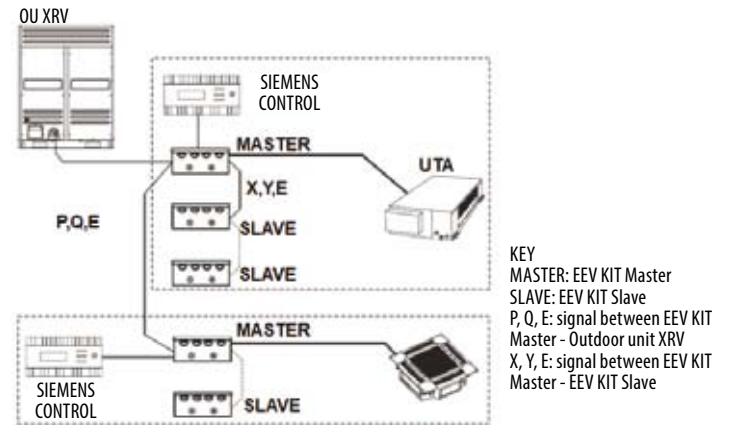
Model	HAHU 9-20 XRV-K	HAHU 20-36 XRV-K	HAHU 36-56 XRV-K
Power	220 ~ 240V - 50Hz		
Indoor unit capacity (kW)	9-20	20.1 - 36	36.1 - 56
hxlxd (mm)	375 x 350 x 150		
In/out refrigerant pipe dimensions (inches)	3/8" – 3/8"	1/2" – 1/2"	5/8" – 5/8"

ELECTRICAL CONNECTIONS DIAGRAM



Room temperature control occurs with the same logic as an XRV: comparing the temperature detected by the T1 sensor and the setting temperature T_s , it is possible to start or stop the outdoor unit, calculate the required thermal load and manage the refrigerant flow through the electronic expansion valve.

MASTER-SLAVE CONNECTION LOGIC



In the case of parallel connections of more than one EEV-KIT to service a AHU, the connection logic to be followed is that of Master-Slave.

EEV-KIT TYPE SELECTION

Model	HP	IU rated capacity (kW)
HAHU 9-20 XRV-K	3.2	Between 9.0 and 11.2 kW
	4	Between 11.2 and 14.0 kW
	5	Between 14.0 and 18.0 kW
	6	Between 18.0 and 20.0 kW
HAHU 20-36 XRV-K	8	Between 20.0 and 25.0 kW
	10	Between 25.0 and 30.0 kW
	12	Between 30.0 and 36.0 kW
HAHU 36-56 XRV-K	14	Between 36.0 and 40.0 kW
	16	Between 40.0 and 45.0 kW
	18	Between 45.0 and 50.0 kW
	20	Between 50.0 and 56.0 kW

The choice of the quantities and capacity of the EEV KITs to be installed is related to the power of the AHU to which it must be connected.

Example

If the AHU has a capacity of 82 kW, 2 EEV-KITs can be installed:
 HAHU 36-56 XRV-K - setting capacity 20HP
 HAHU 20-36 XRV-K - setting capacity 12HP