

# VX Series Energy Management Thermostat

## Model: VX3-RSW-MIE-W Wireless Energy Management Thermostat for Mitsubishi Electric Trane HVAC US VRF and Mini-Split Systems

- > **Easy-to-use Thermostat**
- > **Native Integration with Mitsubishi Electric Trane HVAC US (METUS) VRF and Mini-Split Units<sup>1</sup>**
- > **Unparalleled Energy Savings**
- > **Quick and Easy Installation**
- > **Online Management Capabilities\***

The VX3-RSW-MIE thermostat incorporates native connectivity with CITY MULTI® indoor VRF units and M-, P-, and Nv-Series mini-splits thereby enabling the many well-know features of the Verdant system. The thermostat connects directly to the CN105 port of the indoor unit.

By using the native Mitsubishi Electric protocol, Verdant's thermostat is capable of sending vital information to the indoor unit such as guestroom set point and actual guestroom temperature, allowing the unit to smoothly control the flow of refrigerant, reaching the desired set point with precision.

The thermostat communication with the indoor unit does not interfere with the existing communication bus between outdoor and indoor units. The thermostat communication wiring can be installed once the indoor unit has power without waiting for the completion of the main communication bus.

The Mitsubishi Electric CN105 port on the indoor unit is capable of providing the power requirements to the HVAC Controller. For convenience, the thermostat can be powered using 2 AA batteries or at 12VDC with a 2-conductor wire from terminals 12 and 13.

An integrated occupancy sensor on the Verdant thermostat allows for energy saving when rooms are unoccupied. Energy saving presets eliminate guesswork and make it easy to adjust the energy saving settings.

A patented "Night Occupancy" feature ensures comfort while occupants are sleeping.

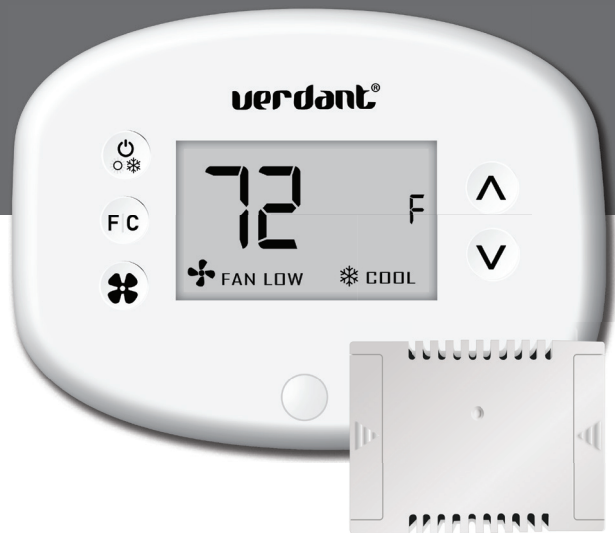
Built-in wireless mesh-networking enables optional online management features.

Fully configurable settings allow for customization of energy savings to fit any situation.

- Temperature Setback automatically adjusts the temperature when rooms are unoccupied to save energy.
- Temperature Recovery allows for setting a maximum time permitted for establishing a comfortable room temperature.

<sup>1</sup> See back page for a full list of compatible units.

\* Requires a network access license for each thermostat (Part Number: XMF) and one "Online Connection Kit" (Part Number: OL-KT). Additional fees apply.



- Setback Optimization monitors the temperature recovery rate and optimizes setback temperatures.
- Setback Limits control the maximum and minimum room temperature when a room is in setback mode.
- Set Point Limits prevent guests from setting the room temperature to extreme, energy-wasting levels.

	Thermostat	HVAC Controller	Verdant Connector
Case Dimensions (Imperial)	4.02 x 5.51" x 0.93"	3.88" x 2.13" x 0.75"	1.18 x 1.97 x 0.78
Case Dimensions (Metric)	102mm x 140mm x 23.5mm	98mm x 54mm x 19mm	30mm x 50mm x 20mm
Screen Dimensions (Imperial)	3.63" x 2.13"	N/A	N/A
Screen Dimensions (Metric)	92mm x 54mm	N/A	N/A
Operating Voltage	2 *AA* Cell Batteries/12VDC	12VDC	12VDC
Control Outputs		12VDC	12VDC
		GND	GND
		(B)	(B)
		(A)	(A)
			Mitsubishi CN105 Female Plug
Occupancy Sensor Beam Width (Angular degrees)	±47° (94°)	N/A	N/A
Wireless Frequency	902-928MHz	902-928MHz	N/A
Temperature Accuracy (Fahrenheit)	±1°F	N/A	N/A
FCC ID	XEYWX-DB	XEY-ZX-LV	N/A
IC	8410A-WXDB	8410A-ZXLV	N/A



THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

PURSUANT TO PART 15.21 OF THE FCC RULES, ANY CHANGES OR MODIFICATIONS TO THIS EQUIPMENT NOT EXPRESSLY APPROVED BY VERDANT ENVIRONMENTAL TECHNOLOGIES, INC. MAY VOID VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

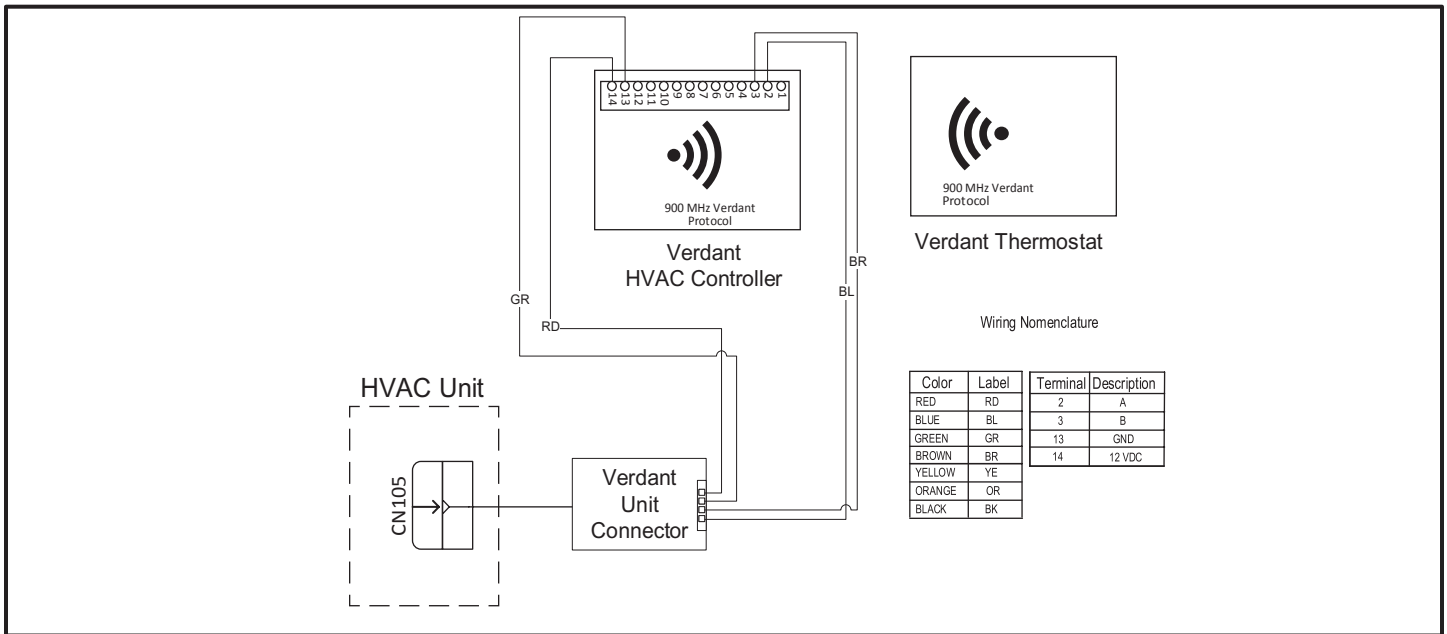
US PATENTS: 8,369,994; 8,141,791; 7,918,406; 7,841,542; 7,838,803; RE40,437; 7,232,075; 7,185,825; 7,156,318; 7,152,806; 7,145,110; 7,058,477; 7,050,026; 7,028,912; 6,902,117; 6,789,739; 6,786,421; 6,619,555; 6,581,846; 6,578,770; CANADIAN PATENTS: CA2615065; CA2633113; CA2633121; CA2633200; OTHER PATENTS PENDING.

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## Wiring Diagram Verdant MIE - HVAC Controller



**Compatibility Table\***

	<b>CITY MULTI®</b>	<b>M-Series</b>	<b>Nv-Series</b>	<b>P-Series</b>
<b>Ceiling Cassette</b>	PLFY-NBMU-E2 PLFY-NEMU PLFY-NFMU TPLFYP EM140A TPLFYP EM141A TPLFYP FM140A TPMFY BM140F	MLZ-KP SLZ-KA SLZ-KF	NTXCKS NTXUKS	PKA-KA4.TH PKA-KA6 PKA-KA7 PLA-BA4 PLA-BA6 PLA-EA
<b>Ceiling Suspended</b>	TPCFYP KM140B			PCA-KA4 PCA-KA4TH PCA-KA6 PCA-KA7
<b>Ducted</b>	PEFY-NMAU-E3 PEFY-NMHSU PEFY-NMSU-E3 TPEFYP MA143A TPEFYP MH140A TPEFYP MH142A TPEFYP MS140C	SEZ-KD4.1TH SEZ-KD4R1TH		PEA-AA4 PEA-AA4R1.TH PEA-AA6 PEAD-AA4 PEAD-AA5 PEAD-AA7 TPEAD-AA
<b>Floor Mounted</b>	TPFFYP CS140A TPFFYP RE140A	MFZ-KA MFZ-KJ	NTXFKS	
<b>Horizontal Ducted</b>			NTXDKS	
<b>Multiposition</b>	PVFY-NAMU PVFY-E00A PVFY-E00B TPVFYP AM141A	MVZ-AA4 MVZ-AA7 SVZ-KP	NTXAMT	PVA-AA4 PVA-AA7
<b>Wall-Mounted</b>	TPKFYP BM142B TPKFYP HM142A TPKFYP KM142A	MSY-GE-NA-8 MSY-GL MSY-NA-8 MSZD-NA-8 MSZ-EF MSZ-FE-09-NA-8 MSZ-FE-12-NA-8 MSZ-FE-18-NA MSZ-FH MSZ-GE-24NA MSZ-GE-NA9 MSZ-GL MSZ-GL MSZ-HM MSZ-JP MSZ-WR	MSZEF NTXWEL NTXWMT**A111 NTXWMT**A112 NTXWPH NTXWST NTYWST	PKA-HA4 PKA-HA6 PKA-HA7

\*Verify Compatibility if not listed below.

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