



ZULTRA R454B  
SEER2 17(-25°C/-13°F)

Z-ULTRA R454B Hyper Heat  
SEER2 18 (-30°C/-22°F)

NORTH  
AMERICA





## ZERO Z-ULTRA R454B Inverter Heat Pump and Air Handler System

ULTRA Comfort for Everyone.

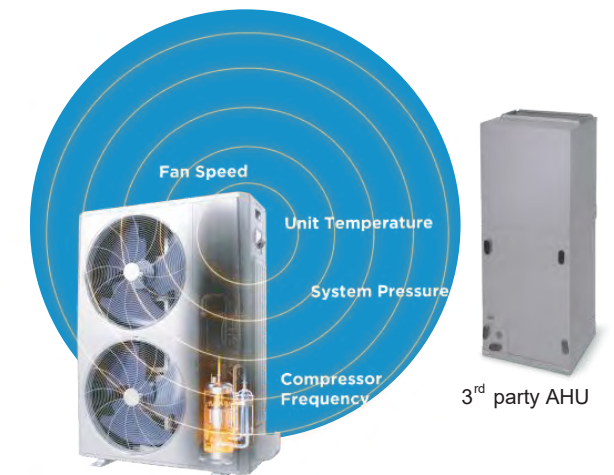


## Universal Communication Technology

Compatible with **485 & 24V**

Communication Mode

Self-adapt Mode



Z-ULTRA Inverter Heat Pump System can work with its own wired controller or to compatible with existing 24V thermostats. As a result, the Z-ULTRA System can be installed as a complete set or added in components to existing HVAC systems, without changing current duct design, refrigerant lines or communication wires.

## Inverter Benefits

### Enjoy Real Inverter

with the Z-ULTRA Inverter  
Heat Pump Condenser



**Up to 30%  
Energy Saving**

- ZERO Inverter technology



**Quiet Operation**

- As low as 60 dBA with  
a 1.5 ton Z-ULTRA inverter  
heat pump



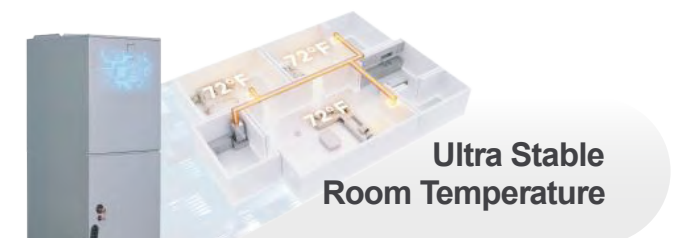
**Fast Heating  
& Cooling**

- ZERO Inverter Compressor  
Activation technology



### Enjoy Optimal Comfort

with the Full Z-ULTRA SET



ZERO Inverter Heat pump with GA Algorithm

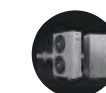


ZERO Z-ULTRA AHU with Computational Constant Airflow



**Adaptable Heating Combination**

- Optional Auxiliary heat kits



**Quiet Operation**

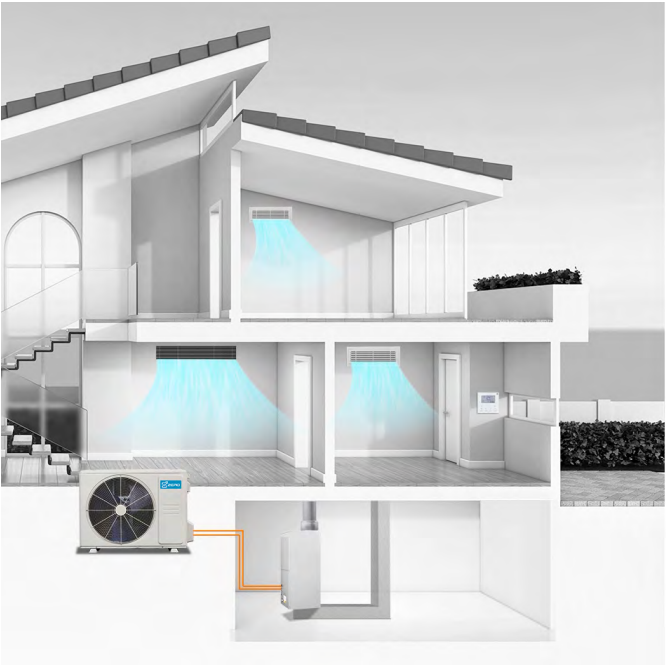
- As low as 28 dBA with a 1.5 ton Z-ULTRA AHU  
- As low as 60 dBA with a 1.5 ton Z-ULTRA inverter heat pump



**Easy Control**

- Wifi Control & Dual Control

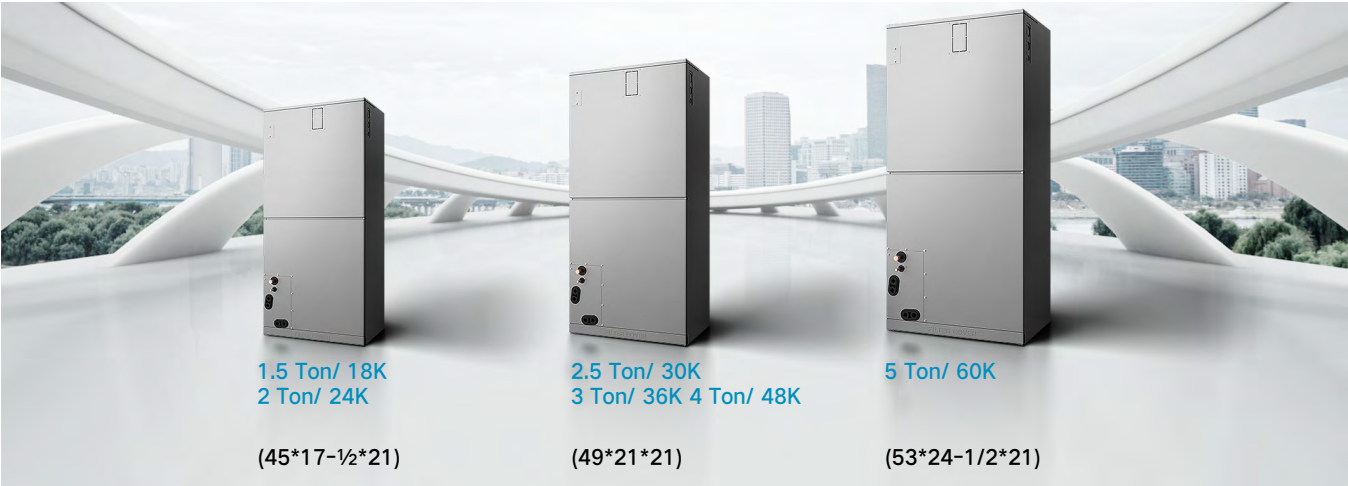
# High Compatibility in Wiring



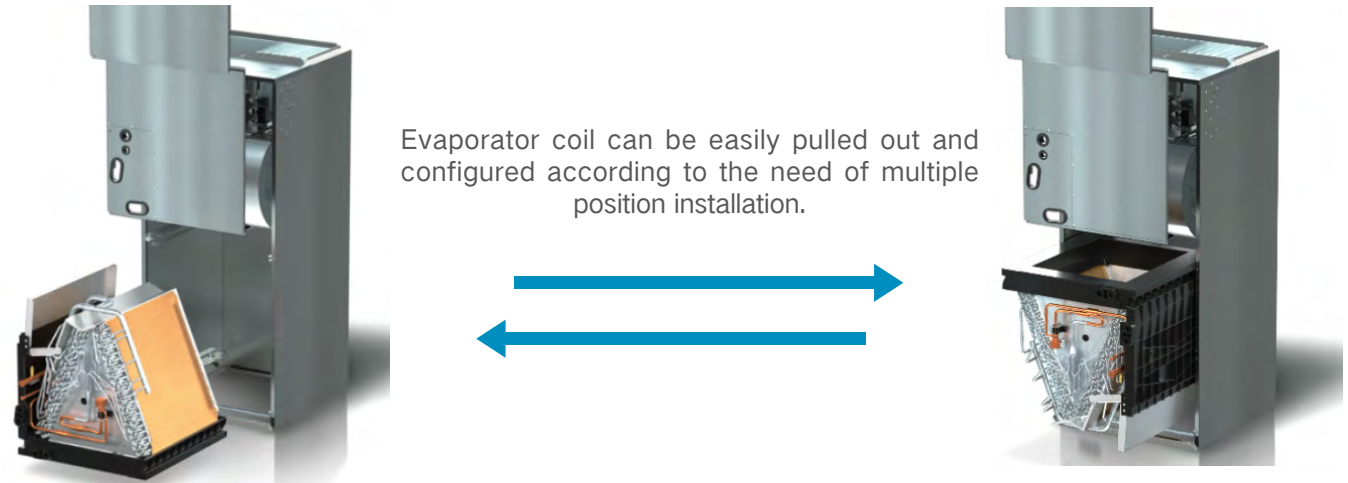
With built-in wiring terminals of common low voltage communication, ZERO AHU is compatible with most of other brands' products and thermostat in the market. So it can meet most of replacement demand.



# Unit Dimensions



# Easy 4 Position AHU



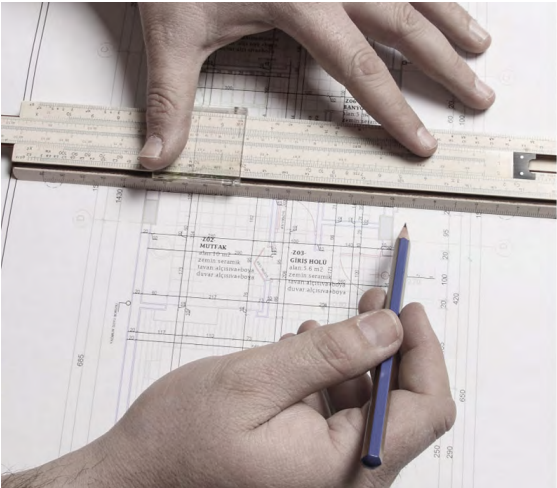
Evaporator coil can be easily pulled out and configured according to the need of multiple position installation.

# Cold Days Warm Heart

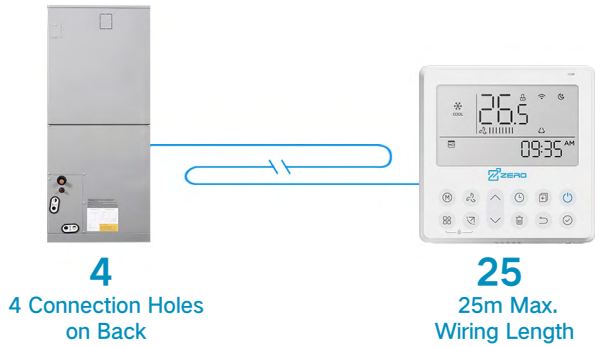
Up to 60% Heating output at -22 °F (-30°C ) Z-ULTRA HYPER HEAT VERSION



# Easy Installation



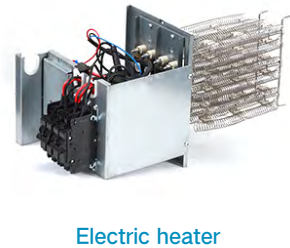
120X wired controller is connected to indoor units via two wires without polarity. It simplifies the application and saves the efforts of installation installers.  
(\*Only for 2-wired non-polarity controller)



# Electric Heater Available

ZERO AHU have reserved connective ports for the extension of some auxiliary function, such as electric heater.

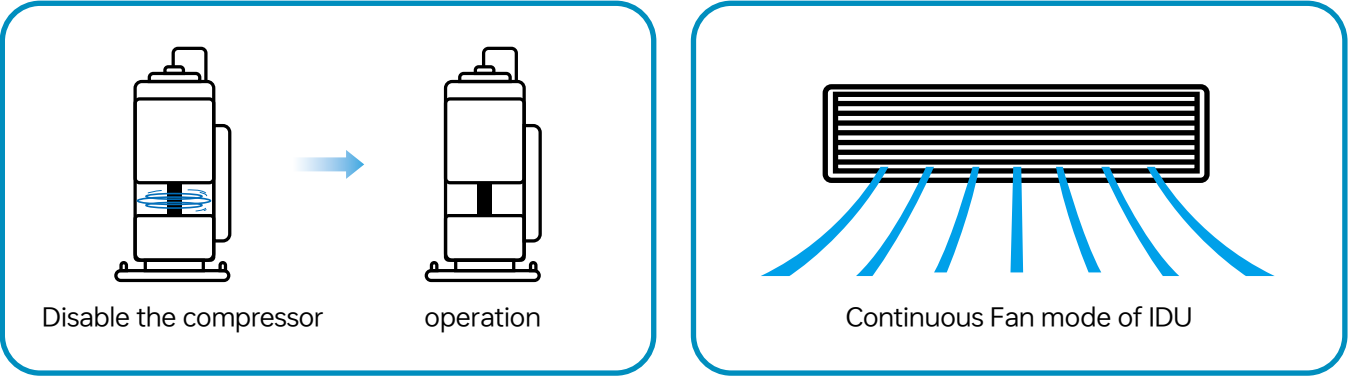
|                         |             |                                              |          |
|-------------------------|-------------|----------------------------------------------|----------|
| Electric Heater for AHU | 3KW heater  | Fit for 18K AHU IDU                          | 208-230V |
|                         | 5KW heater  | Fit for 18K,24K,30K,36K AHU IDU              |          |
|                         | 8KW heater  | Fit for 18K,24K,30K,36K AHU IDU              |          |
|                         | 10KW heater | Fit for 18K,24K,30K,36K, 48K and 60K AHU IDU |          |
|                         | 15KW heater | Fit for 24K,30K,36K, 48K and 60K AHU IDU     |          |
|                         | 20KW heater | Fit for 36K, 48K and 60K AHU IDU             |          |
|                         | 25KW heater | Fit for 60K AHU IDU                          |          |



Electric heater

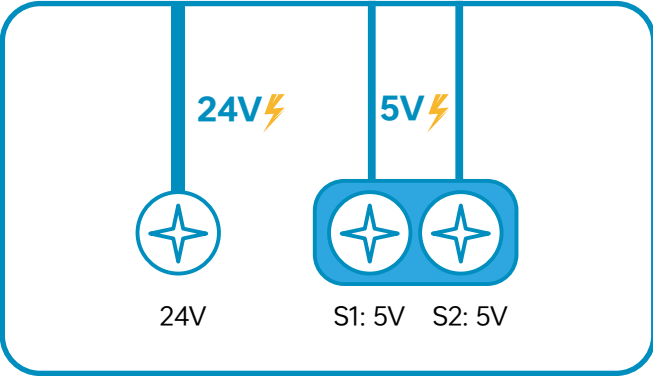
Refrigerant Leak Detection (AHU)

When leakage happens:

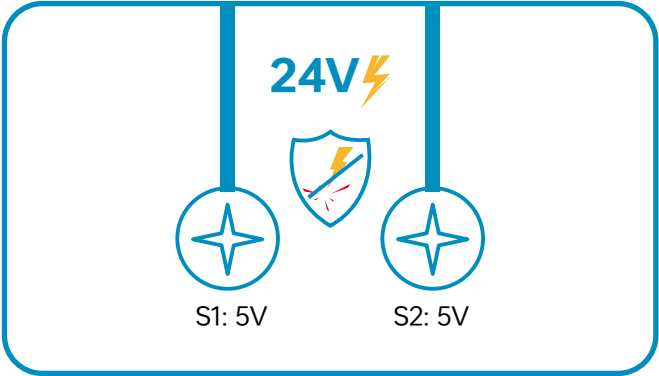


Easy-to-Connect Connection Board (ODU)

Easy Connection



No burnout when misconnection



Reduced Size

Loading Quantity



Less Space Occupied



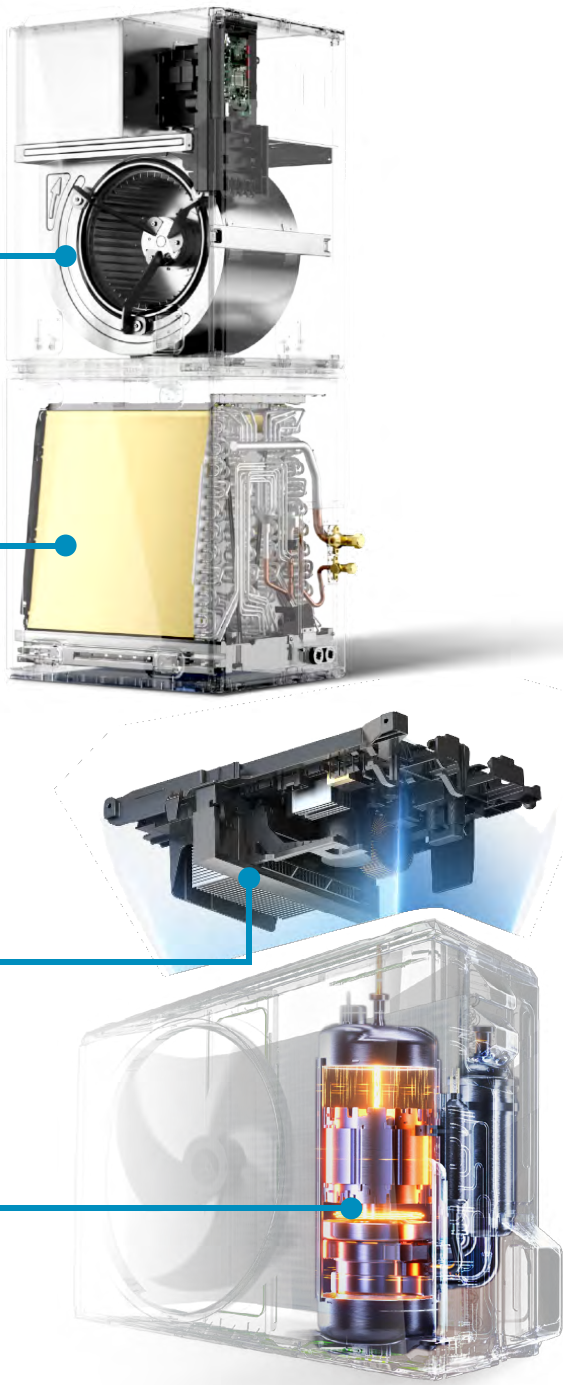
Structure Optimization

Symmetric Fan Blower Design  
Enhanced Airflow circulation

M Shaped Coil  
High Efficiency Heat Exchanger

High Efficiency Electrical Control

High Efficiency Compressor

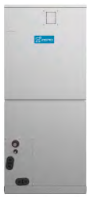
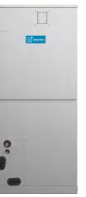
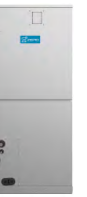
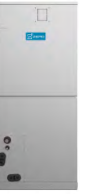
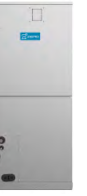


Adaptive Voltage

- 115 & 208/230V all in one
- Automatically identifying the required voltage, no need for manual conversion
- Eliminating the hassle of rewiring



Z-ULTRA R454B

| Series                          | 18,000 Btu/h                                                                      | 24,000 Btu/h                                                                      | 30,000 Btu/h                                                                      | 36,000 Btu/h                                                                      | 48,000 Btu/h                                                                       | 60,000 Btu/h                                                                        | Outdoor unit                                                                        |
|---------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Z-ULTRA 485+24V AHU             |  |  |  |  |  |  |  |
| Z-ULTRA 485+24V AHU -Hyper Heat |  |  |  |  |  |  |  |

Z-ULTRA R454B Hyper Heat  
AHU 60HZ 18SEER2 -22 °F



| Model                                      | ODU                                    |         | ZSOVA-18HDMB-USHH                  | ZSOVA-24HDMB-USHH                  | ZSOVA-30HDMB-USHH                  | ZSOVA-36HDMB-USHH                    | ZSOVA-48HDMB-USHH                      | ZSOVA-60HDMB-USHH                      |
|--------------------------------------------|----------------------------------------|---------|------------------------------------|------------------------------------|------------------------------------|--------------------------------------|----------------------------------------|----------------------------------------|
|                                            | IDU                                    |         | ZAVA-18HDMB-US                     | ZAVA-24HDMB-US                     | ZAVA-30HDMB-US                     | ZAVA-36HDMB-US                       | ZAVA-48HDMB-US                         | ZAVA-60HDMB-US                         |
| Power Supply                               | IDU Power Supply (Volts; Hz; Phase)    |         | 115/208/230V,60Hz,1Ph              | 115/208/230V,60Hz,1Ph              | 115/208/230V,60Hz,1Ph              | 115/208/230V,60Hz,1Ph                | 115/208/230V,60Hz,1Ph                  | 115/208/230V,60Hz,1Ph                  |
|                                            | ODU Power Supply (Volts; Hz; Phase)    |         | 208/230V,60Hz,1Ph                  | 208/230V,60Hz,1Ph                  | 208/230V,60Hz,1Ph                  | 208/230V,60Hz,1Ph                    | 208/230V,60Hz,1Ph                      | 208/230V,60Hz,1Ph                      |
| Cooling                                    | Cooling Capacity                       | Btu/h   | 18000                              | 23000                              | 30000                              | 36000                                | 48000                                  | 54000                                  |
|                                            | SEER2                                  | Btu/h/W | 19                                 | 18.3                               | 16.8                               | 17.4                                 | 16.5                                   | 16                                     |
|                                            | EER2                                   | Btu/h/W | 12.5                               | 11.7                               | 11.7                               | 11.7                                 | 10.5                                   | 10                                     |
| Heating                                    | Heating Capacity                       | Btu/h   | 19000                              | 24000                              | 34000                              | 37000                                | 50000                                  | 56000                                  |
|                                            | COP                                    | W/W     | 3.2                                | 3.33                               | 3.65                               | 3.6                                  | 3.4                                    | 3.1                                    |
|                                            | Heating at -13F (-25°C) Rated capacity | Btu/h   | 14000                              | 14400                              | 23400                              | 30800                                | 34200                                  | 41600                                  |
|                                            | Heating at -22F (-30°C) Rated capacity | Btu/h   | 11000                              | 12000                              | 20100                              | 27800                                | 25900                                  | 30900                                  |
| Indoor Indoor air flow (Turbo/Hi/Mi/Lo/Si) | m³/h                                   |         | 1050 / 980<br>900 / 830 / /        | 1400 / 1290<br>1180 / 1070 / /     | 1680 / 1520<br>1370 / 1210 / /     | 2020 / 1840<br>1650 / 1470 / /       | 2720 / 2500<br>2180 / 1860 / /         | 3070 / 2690<br>2310 / 1930 / /         |
|                                            | CFM                                    |         | 618.0 / 576.8<br>529.7 / 488.5 / / | 824.0 / 759.3<br>694.5 / 629.8 / / | 988.8 / 894.7<br>806.4 / 712.2 / / | 1189.0 / 1083.0<br>971.2 / 865.2 / / | 1601.0 / 1471.5<br>1283.1 / 1094.8 / / | 1807.0 / 1583.3<br>1359.7 / 1136.0 / / |
| Indoor noise level (Turbo/Hi/Mi/Lo/Si)     | dB(A)                                  |         | / /41/39/33/ /                     | / /44/42/28/ /                     | 47.0/46.0/43.0/27.5/ /             | 49/48.0/45.5/25.5/ /                 | / /52/50/34/ /                         | 54.5/52/49.5/34.5/ /                   |
| Outdoor Outdoor air flow                   | m³/h                                   |         | 3000                               | 3000                               | 5100                               | 5100                                 | 5160                                   | 4500                                   |
|                                            | CFM                                    |         | 1765.7                             | 1765.7                             | 3001.8                             | 3001.8                               | 3037.1                                 | 2648.6                                 |
| Outdoor noise level (Hi)                   | dB(A)                                  |         | 59                                 | 60                                 | 60.5                               | 62.5                                 | 65                                     | 65                                     |
| Refrigerant type                           |                                        |         | R454B                              | R454B                              | R454B                              | R454B                                | R454B                                  | R454B                                  |
| Dimension                                  | Indoor Package Dimension WxDxH         | inch    | 26.57 x 20.87 x 48.62              | 26.57 x 20.87 x 48.62              | 26.57 x 24.41 x 52.56              | 26.57 x 24.41 x 52.56                | 2795 x 26.77 x 56.50                   | 2795 x 26.77 x 56.50                   |
|                                            | Outdoor Package Dimension WxDxH        | inch    | 39.17 x 15.67 x 29.13              | 39.17 x 15.67 x 29.13              | 42.91 x 19.68 x 34.84              | 45.08 x 19.68 x 42.52                | 45.08 x 19.68 x 42.52                  | 43.11 x 19.49 x 58.27                  |

Z-ULTRA R454B AHU 60HZ 17SEER2 -13 °F



| Model                                      | ODU                                    |         | ZSOVA-18HDMB-US                          | ZSOVA-24HDMB-US                          | ZSOVA-30HDMB-US                          | ZSOVA-36HDMB-US                            | ZSOVA-48HDMB-US                              | ZSOVA-60HDMB-US                              |
|--------------------------------------------|----------------------------------------|---------|------------------------------------------|------------------------------------------|------------------------------------------|--------------------------------------------|----------------------------------------------|----------------------------------------------|
|                                            | IDU                                    |         | ZAVA-18HDMB-US                           | ZAVA-24HDMB-US                           | ZAVA-30HDMB-US                           | ZAVA-36HDMB-US                             | ZAVA-48HDMB-US                               | ZAVA-60HDMB-US                               |
| Power Supply                               | IDU Power Supply (Volts; Hz; Phase)    |         | 115/208/230V,60Hz,1Ph                    | 115/208/230V,60Hz,1Ph                    | 115/208/230V,60Hz,1Ph                    | 115/208/230V,60Hz,1Ph                      | 115/208/230V,60Hz,1Ph                        | 115/208/230V,60Hz,1Ph                        |
|                                            | ODU Power Supply (Volts; Hz; Phase)    |         | 208/230V,60Hz,1Ph                        | 208/230V,60Hz,1Ph                        | 208/230V,60Hz,1Ph                        | 208/230V,60Hz,1Ph                          | 208/230V,60Hz,1Ph                            | 208/230V,60Hz,1Ph                            |
| Cooling                                    | Cooling Capacity                       | Btu/h   | 18000                                    | 24000                                    | 30000                                    | 36000                                      | 48000                                        | 54000                                        |
|                                            | SEER2                                  | Btu/h/W | 18.8                                     | 18.1                                     | 17                                       | 16.1                                       | 16                                           | 15.2                                         |
|                                            | EER2                                   | Btu/h/W | 11                                       | 11                                       | 10.7                                     | 10                                         | 10                                           | 8.6                                          |
| Heating                                    | Heating Capacity                       | Btu/h   | 18000                                    | 26000                                    | 31000                                    | 36000                                      | 48000                                        | 54000                                        |
|                                            | COP                                    | W/W     | 3.15                                     | 3.18                                     | 3.5                                      | 3.4                                        | 3.45                                         | 3.37                                         |
|                                            | Heating at -13F (-25°C) Rated Capacity | Btu/h   | 7200                                     | 14400                                    | 12200                                    | 20000                                      | 32500                                        | 29000                                        |
| Indoor Indoor air flow (Turbo/Hi/Mi/Lo/Si) | m³/h                                   |         | 1050 / 980<br>900 / 830 / /              | 1400 / 1290<br>1180 / 1070 / /           | 1680 / 1520<br>1370 / 1210 / /           | 2020 / 1840<br>1650 / 1470 / /             | 2720 / 2500<br>2180 / 1860 / /               | 3070 / 2690<br>2310 / 1930 / /               |
|                                            | CFM                                    |         | 618.03 / 576.83 / 529.74<br>/ 488.54 / / | 824.04 / 759.29 / 694.55<br>/ 629.80 / / | 988.85 / 894.67 / 806.38<br>/ 712.21 / / | 1188.97 / 1083.02 / 971.19<br>/ 865.24 / / | 1600.99 / 1471.50 / 1283.15<br>/ 1094.80 / / | 1807.00 / 1583.33 / 1359.67<br>/ 1136.00 / / |
| Indoor noise level (Turbo/Hi/Mi/Lo/Si)     | dB(A)                                  |         | 44/43/41/33/ /                           | / /44/42/28/ /                           | / /46/42/29/ /                           | / /48/45/28/ /                             | / /53/50/44/ /                               | 56.0/52.0/49.0/34.5/ /                       |
| Outdoor Outdoor air flow                   | m³/h                                   |         | 2465                                     | 3000                                     | 5100                                     | 4100                                       | 5160                                         | 5160                                         |
|                                            | CFM                                    |         | 1450.9                                   | 1765.7                                   | 3001.8                                   | 2413.2                                     | 3037.1                                       | 3037.1                                       |
| Outdoor noise level (Hi)                   | dB(A)                                  |         | 55                                       | 60                                       | 60                                       | 63                                         | 65                                           | 65                                           |
| Refrigerant type                           |                                        |         | R454B                                    | R454B                                    | R454B                                    | R454B                                      | R454B                                        | R454B                                        |
| Dimension                                  | Indoor Package Dimension WxDxH         | inch    | 26.57 x 20.87 x 48.62                    | 26.57 x 20.87 x 48.62                    | 26.57 x 24.41 x 52.56                    | 26.57 x 24.41 x 52.56                      | 2795 x 26.77 x 56.50                         | 2795 x 26.77 x 56.50                         |
|                                            | Outdoor Package Dimension WxDxH        | inch    | 36.02 x 14.57 x 24.21                    | 39.17 x 15.67 x 29.13                    | 42.91 x 19.68 x 34.84                    | 42.91 x 19.68 x 34.84                      | 45.08 x 19.68 x 42.52                        | 45.08 x 19.68 x 42.52                        |



Multi-position  
installation



Aluminum  
Coil



Auxiliary  
Heat Kit



Wired Controller  
with WiFi



ODU Heater



Refrigerant  
Leakage Sensor



AHU Voltage  
Adaptivity



RS485  
24V  
BI-COMM  
Technology



**ZERO TECHNOLOGIES CO., LTD**

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