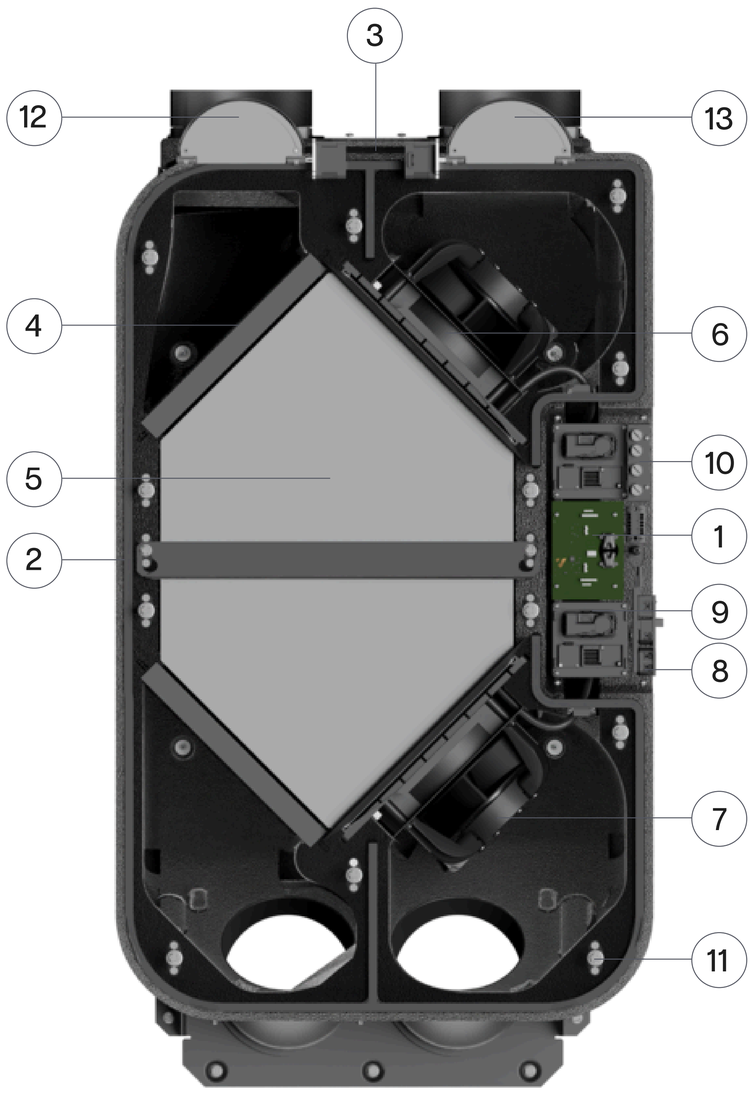
VIBRANT

BUILDING TECHNOLOGIES

# Energy Recovery Ventilator Specifications

*Disclaimer:* Specifications, performance claims, and product details contained herein are preliminary. Information is based on early testing and may be revised following third-party evaluation and certification processes. Vibrant Building Technologies reserves the right to update all information without notice.




## Product Description

Vibrant Air Smart ERV is a next-generation Energy Recovery Ventilator that combines air-quality sensing with an adaptive AI control system. Instead of running on fixed duty cycles, it continuously monitors building behavior and modulates airflow based on IAQ, pressure, and outdoor conditions – delivering optimal ventilation while reducing load on heating/cooling equipment.

## Service Part List

1. Electronics Assembly and Enclosure
2. Lightweight, Insulated, Durable EPP Envelope
3. Motorized Digitally Controlled Dampers
4. 1-inch MERV 13 Pre-filter
5. Counterflow Energy Recovery Core
6. EC Motor Fan
7. Fan Chassis
8. Power Supply
9. IAQ Sensor Pack
10. Fuse Box
11. Cover Latch System
12. 6-inch Supply Port Collar
13. 6-inch Exhaust Supply Collar

## Requirements and Standards

All certifications and testing are pending for Vibrant ClimaCore. Includes UL 1812, CSA C22.2 No. 113, HVI 2100 and CSA F326.

## Specifications

**Ventilation Type:** ERV - High efficiency enthalpy exchanger
**Typical Airflow Range:** 35–300CFM
**Duct Size:** 6 inch

**Standard Features:**
Lightweight insulated EPP cabinet
IAQ monitoring (CO2, VOC, CO, PM1-10)
Auto balancing with built-in DP sensors
Motorized dampers with remote control
Modulating fan speed from 35-300CFM
Duct-mounted chassis option
Line-cord power supply

**Controls:** Fully onboard digital control system no wired wall controls required. Commissioned through the Vibrant app with guided setup.

**Defrost Mode:** Modulates airflow based on core temperature to prevent icing without electric preheat.

**Power Requirements:** 115 VAC, 50/60 Hz, 2.4 A max, 170 W

**Filters:** MERV 16 washable pre-filter or 1" MERV 13. Nano-fiber upgrade optional. Tool-free access.

**Unit Weight:** 41lbs (46.5lbs with duct mounted chassis kit)

**Connectivity:** Thread + BLE 5.0 + Wi-Fi 2.4 GHz for mobile and cloud connection

**Dimensions:** 34" L x 14.5" W x 30" H

## Warranty

5-Year Limited Warranty on cabinet, electronics, and power supply.

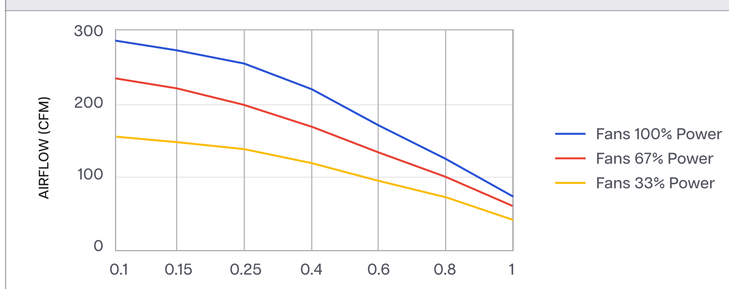
Extended 10-Year coverage available with Vibrant Smart Monitoring and subscription enrollment.

## Core Performance and Constant-Volume Airflow Profiles

### Ventilation Performance (100% Fan Power)

| ESP (in. wg.) | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1 |
|---|---|---|---|---|---|---|---|---|---|---|
| Gross Supply Airflow (CFM) | 300 | 276 | 252 | 228 | 204 | 180 | 156 | 132 | 108 | 84 |
| Gross Exhaust Airflow (CFM) | 295 | 271.4 | 247.8 | 224.2 | 200.6 | 177 | 153.4 | 129.8 | 106.2 | 82.6 |
| Net Supply Airflow (CFM) | 288 | 264.96 | 241.92 | 218.88 | 195.84 | 172.8 | 149.76 | 126.72 | 103.68 | 80.64 |

### Net Supply Air Flow



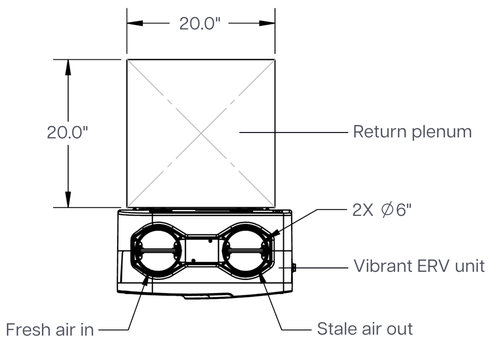

### Energy Performance

| | Supply temperature | | Net airflow | | Consumed power | Fan efficacy | Sensible recovery efficiency | Adjusted sensible recovery efficiency | Latent recovery/ moisture transfer |
|---|---|---|---|---|---|---|---|---|---|
| | °F | °C | cfm | (L/s) | W | cfm/W | % | % | % |
| Heating | 32 | 0 | 64 | 30 | 31 | 2.0 | 77 | 76 | 69 |
| | 32 | 0 | 178 | 84 | 95 | 1.8 | 67 | 69 | 52 |
| | 32 | 0 | 248 | 117 | 200 | 1.2 | 60 | 63 | 45 |
| | -13 | -25 | 64 | 30 | 35 | 1.8 | 63 | 64 | 55 |

| | Supply temperature | | Net airflow | | Consumed power | Fan efficacy | Sensible recovery efficiency | Adjusted sensible recovery efficiency | Latent recovery/ moisture transfer |
|---|---|---|---|---|---|---|---|---|---|
| | °F | °C | cfm | (L/s) | W | cfm/W | % | % | % |
| Cooling | 95 | 35 | 66 | 31 | 32 | 2.0 | 68 | 70 | 72 |
| | 95 | 35 | 178 | 84 | 95 | 1.8 | 58 | 60 | 61 |

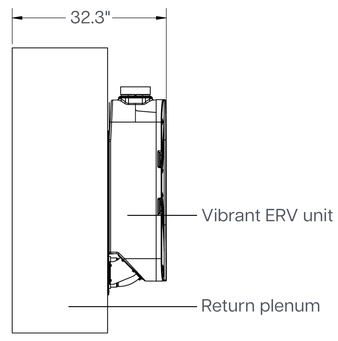
## Mounting Option A: Duct Mounted

### Top View



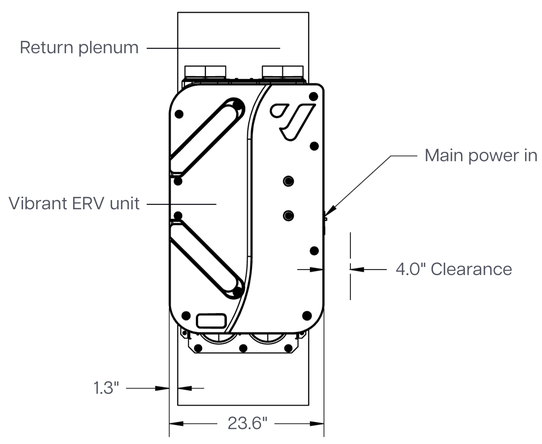

### Side View – Non-access side

*(Ideally faces wall or AHU)*



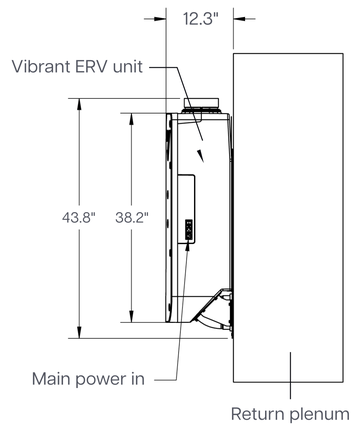

### Front View – Cabinet face

*Access side – core and prefilters changed here. Must remain accessible.*




### Side View – Access side

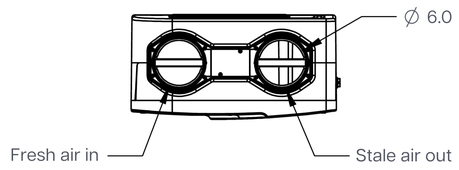
*(On/Off switch + power cord entry). Requires minimum 4" clearance for hand access and plug-in.*




## Mounting Option B: Standalone or Wall Mounted

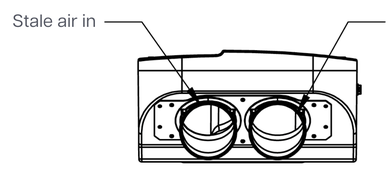
### Top View – Duct Ports

*(Fresh air in/stale air out)*



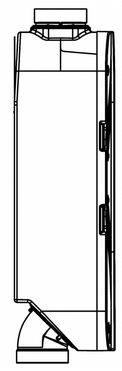

### Top View – Duct Ports

*(Stale air in/fresh air out)*



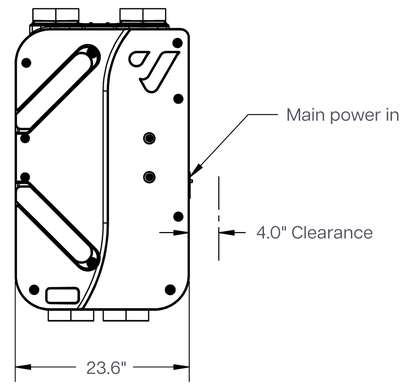

### Left Side View – Non-access side

*(Ideal wall side)*



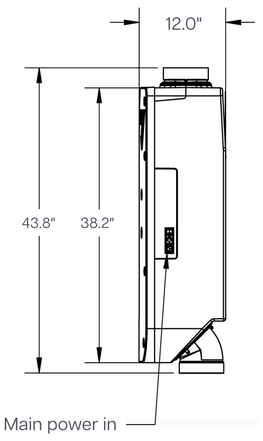
### Front View – Service Side

*(Core + Prefilters). This side cannot be mounted to the wall.*




### Side View – Access Side

*(On/Off switch + power cord entry). Minimum 4" clearance required.*

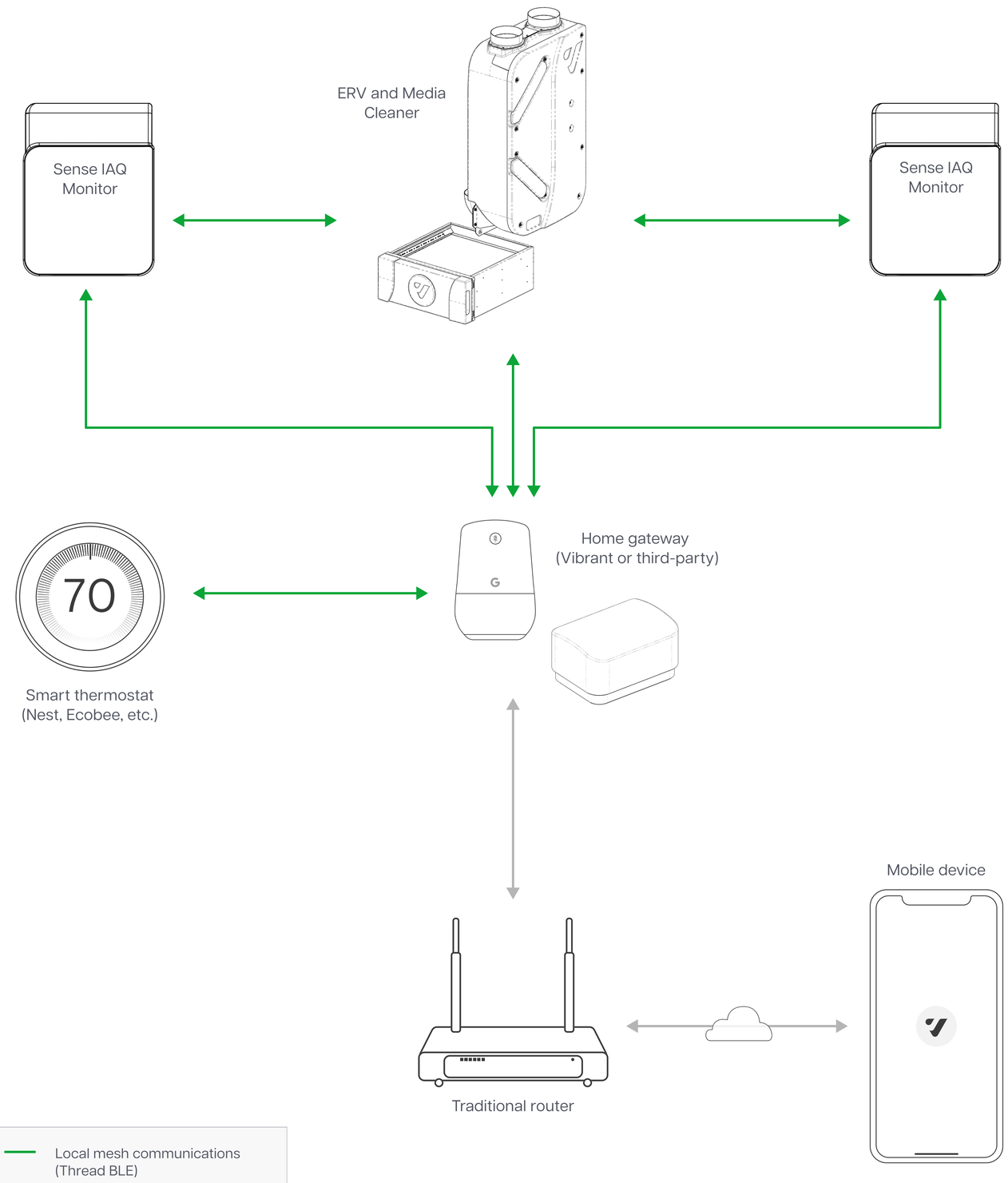



***DO NOT** mount face down. Condensation will damage IAQ sensors.*

### Fig. 1 The Vibrant App

*This is where homeowners **see and control** their air in real-time.*


## Vibrant Connectivity Overview




**BLE (bluetooth) required for one-time setup between mobile and Vibrant Hardware*

## System Maintenance

*Recommended to be performed by a licensed HVAC professional*

| | |
|---|---|
| **Filter Care (Every 3-6 months)** | Replace or clean pre-filters to keep airflow and efficiency optimal. |
| **Core Cleaning (Annually)** | Rinse the energy recovery core with mild soap and water; dry completely before reinstalling. |
| **Sensor Maintenance (Annually)** | Gently wipe IAQ sensors and ensure DP/IAQ clear tubes are free from debris |
| **Fan & Vent Check (Annually)** | Verify proper fan operation and confirm exterior vents are unobstructed. |