# AIO® Ceiling Ducted with ERV (Gen 3)

Product Data Sheet



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Unitary Small HP
AHRI Standard 210/240

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Passivhaus Institut

ENERGY STAR

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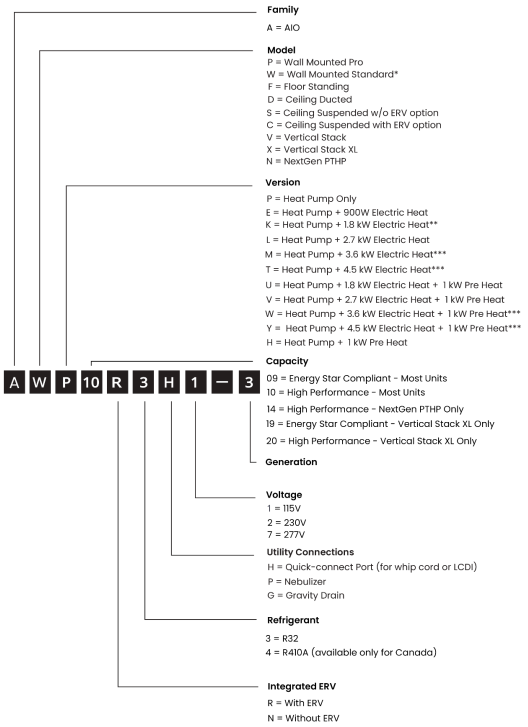
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## MODEL NUMBER NOMENCLATURE

The code identifies the family, model, version, size, voltage, accessories, refrigerant type, and ERV option. See the diagram below for details.

**Note:** Ceiling Ducted - Mirror Version units use the suffix "-MR" in place of the generation code (e.g., "-3" or "-3SP"), indicating a mirrored (left/right reversed) unit configuration.

*Figure 1. AIO® nomenclature*




* 8" Vents : Just generation (e.g. = 3)

6" Vents : Generation + SP (e.g. = 3SP)

** Field convertible to 900W

*** AIO® Vertical Stack XL **Only**

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# 1. READING THIS DOCUMENTATION

Some language and symbols in this documentation have specific meanings.

## 1.1 Documentation-specific language

**Reference to the product**
Any reference to "the unit" refers to the AIO® Ceiling Ducted with ERV unit.

**Unit orientation**
All directions in this guide (left, right, top, bottom) are given from the perspective of facing the unit.

**Mirrored unit orientation**

Some units are available in a mirrored configuration, identified by the suffix "-MR" in the model number.

Mirror Version units are physically identical to standard units but with left and right orientations reversed.

Unless otherwise stated, all references to left and right in this document apply to the standard orientation.

## 1.2 Annotation icons

Annotations are provided throughout this guide. It is essential to read each carefully and follow the instructions stated.

Indicates critical information for correct operation or installation.

Indicates supplemental information, tips, or useful background information.

# 2. AIO® CEILING DUCTED UNIT OVERVIEW

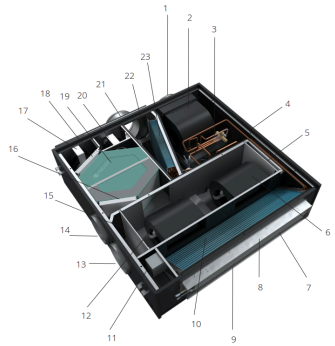
An AIO® Ceiling Ducted unit can be discreetly installed above a ceiling and is ideal for single or multi-room applications. The return can be from the sides or the bottom for maximum flexibility. Use this unit anywhere ducting is required. Use with any interior grille and louver to provide additional design flexibility. A bathroom exhaust can be connected to the dedicated stale air exhaust.

Available in standard and mirrored configurations (suffix -MR), with identical performance and mirrored left/right layout.

Units are supplied with side returns as standard. If a bottom return is required, it must be specified at time of order and included on the approved estimate and purchase order.

## 2.1 Components and structure

*Figure 2. What's Inside*




| | | | |
|---|---|---|---|
| **1** | Condenser + stale air exhaust vent | **13** | Return air vent |
| **2** | Condenser + stale air exhaust fan | **14** | ERV stale air supply |
| **3** | Twin rotary inverter compressor | **15** | Return air filter |
| **4** | Return air connection | **16** | MERV 13 filter |
| **5** | Return air filter | **17** | Fresh air ECM supply fan |
| **6** | ECM supply fan | **18** | MERV 13 filter |
| **7** | 900/1800W/2700 electric heat strip | **19** | ERV Hybrid Recovery Core |
| **8** | Supply air connection | **20** | Stale air ECM exhaust fan |
| **9** | Touch controller | **21** | Condenser + fresh air intake |
| **10** | High-efficiency indoor coil | **22** | Condensate drain |
| **11** | Controllers Connection Terminal | **23** | High efficiency outdoor coil |
| **12** | ECM supply fan | | |

- Component positions are mirrored in AIO® Ceiling Ducted - Mirror Version units.

- The components shown are for the unit without a preheater. For views of the unit with a preheater, see Sections 7.3 and 7.4.

## 2.2 Key features

**No outdoor unit**
The single package design means that there is no outdoor unit, freeing up space on rooftops and at ground level and enabling installations in buildings without space for an outdoor unit.

**Twin rotary BLDC inverter compressor**
The state-of-the-art, twin brushless DC (BLDC) inverter compressor operates efficiently, quietly, and with minimal vibration. AIO®'s Ceiling Ducted unit is ideal for any room or area that requires between 3,100 and 15,000 BTU/hr.

**Integrated ERV**
AIO® Ceiling Ducted's integrated ERV eliminates the requirement of installing an independent ERV system, ducting, electrical work, and engineering.

**Recovery plus™**
With a patent-pending innovation, AIO® Ceiling Ducted utilizes the heat or cold remaining in the air after passing through the recovery core to lower or raise the temperature of the condenser, providing a boost in performance and efficiency.

**Integrated bathroom exhaust system**
The integrated stale air exhaust can be used for bathrooms, maintaining perfect air pressure and eliminating the need for a dedicated exhaust system.

**MERV 13 clean air**
Clean outdoor air is essential to well-being and safety. The MERV 13 filter ensures that all air entering the room or home is clean and safe. Additionally, stale air is passed through a second MERV 13 filter, keeping the core clean.

**High-efficiency ECM fans with auto ESP**
High-efficiency electronically commutated motor (ECM) fans enable efficient and quiet operation because the EC motor can ramp up or down as required. Automatically adjusted external static pressure ensures correct airflow.

**Cold climate heat pump**
The heat pump functions efficiently in temperatures as low as 5°F (-15°C) outdoors, and will continue to operate at colder temperatures, even below -5°F (-20.6°C).

**Quiet**
With whisper-quiet operation as low as 27 decibels, the occupant will barely notice that the AIO® Ceiling Ducted unit is operating.

**Intelligent defrosting**
AIO®'s intelligent defrosting system means more time heating and less time on reverse cycle defrost.

**Optional 1,800/2,700-watt electric heat**
The optional electric heating system operates alongside the heat pump when the latter lacks adequate power. This electric heating setup consists of two/three 900W heaters, strategically staged to optimize efficiency while minimizing the use of electric heat. Depending on the unit ordered, it can offer multiple configuration options for electric heat usage: It can be modified to use no electric heat, or 900W/1,800W/2,700W of electric heat providing flexibility and energy management capabilities.

**Optional 1,000-watt preheater**
The optional 1,000W preheater pretreats incoming outdoor air before it enters the ERV module, helping the system recover energy more efficiently and improving overall energy performance.

**Versatile on/off options**
AIO®'s low-voltage connection enables connection to any Building Management System (BMS), key-card system, window sensors, fire alarms, etc. As long as a system can send a signal to the AIO® unit via low voltage, the unit can be easily turned on or off.

**Minimal clearances and compact footprint**
AIO®'s compact form does not use any line sets. This means that there is no need to access the sides of the unit. Units can be mounted with as little as 2" (50 mm) clearance on the top and bottom and 3.5" (90 mm) in the front and rear. Side clearances depend on the return air configuration — see Section 4.7 for details. Compact footprints take up minimal space.

**Leak protection**
If a drain becomes clogged, the system shuts down, and an alarm is activated. This prevents water damage.

**Easy to service**
The AIO® unit can be easily maintained and repaired from underneath without having to remove the unit from the ceiling.

**Versatile controls**
The AIO® unit includes an onboard touch controller and an optional iOS and Android app. AIO® can be used with optional wall-mounted controllers, including a Thin Film Transistor (TFT) with a 7-day program, and third-party controllers from any company, using the optional third-party kit. An optional BACnet and Modbus module enables interfacing with building management systems.

**10-Year limited warranty**
An industry-leading 10-year limited warranty provides peace of mind.

- Comprehensive onsite two-year parts and labor (after certification).
- 5-year parts warranty.
- 10-year parts warranty on the compressor.

See Warranty Terms and Conditions for details.

# 3. AIRFLOW

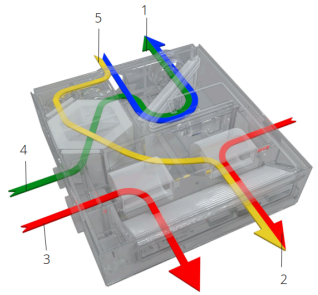
For Mirror Version units, all left and right airflow connections are reversed.

The AIO® Ceiling Ducted unit is flexible in many ways. It can be fully ducted or used with minimal or no ducting. This flexibility enables AIO® Ceiling Ducted to be placed anywhere in a dwelling, without restrictions.

- **Supply air**
  The rectangular 3.9" x 27.9" (100 mm x 708 mm) supply air vent is ideal for a supply grille or ducting.
- **Stale air exhaust**
  The five-inch round stale air exhaust connection can be used as part of a plenum return without any ducting or can be ducted to a bathroom or multiple locations with up to 0.5" WC (124.4 pa) external static pressure. If configuring an AIO® Ceiling Ducted unit with a bottom return, the stale air can also be pulled from the bottom return.
- **Return air - bottom option**
  The bottom 8.7" x 32.3" (220 mm x 820 mm) return is designed to be used with a ceiling-mounted return grille or an access hatch with an integrated return grille.
- **Return air - sides options**
  The left and right side 6" (15.2 mm) round connections can be ducted to one or more rooms. It can also be left open as a side plenum return. With two ECM fans, each with auto ESP, each connection is fully independent. Duct both, leave both open, or duct one and leave one open to a plenum.
- For optimal performance, a fully ducted return configuration is recommended. Both return air openings must remain open and unobstructed during operation. The unit may be installed with both returns ducted, or with one return ducted and the other left open as a side plenum return.
- **Outside air intake**
  The single 8" (203.2 mm) round outside air intake connection provides air for the condenser portion and fresh air for the inside.
- **Outside air exhaust**
  The single 8" (203.2 mm) round outside air exhaust connection is for the condenser portion and the stale air exhaust.

## 3.1 Side Return (Standard Configuration)

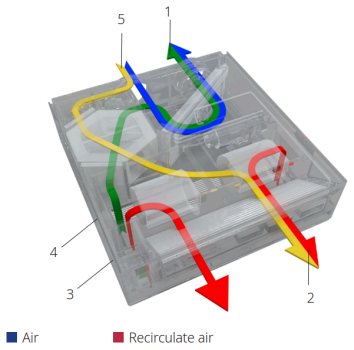
*Figure 3. Side Return*




| | | | |
|---|---|---|---|
| **1** | Exhaust air | **4** | Stale air |
| **2** | Supply air | **5** | Fresh air |
| **3** | Return air | | |

## 3.2 Bottom Return (Special Field-Configured Option)

*Figure 4. Bottom Return*




| | | | |
|---|---|---|---|
| **1** | Exhaust air | **4** | Stale air |
| **2** | Supply air | **5** | Fresh air |
| **3** | Return air | | |

## 3.3 Fan curves

The following graphs illustrate airflow versus external static pressure at low, medium, and high fan speeds.

*Figure 5. Indoor fan performance curves*

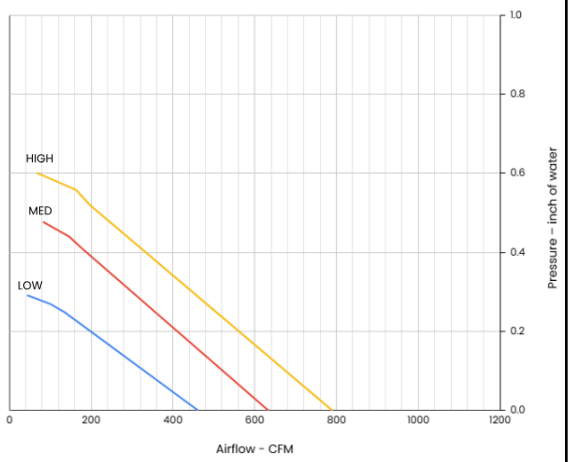



*Figure 6. Outdoor fan performance curves*

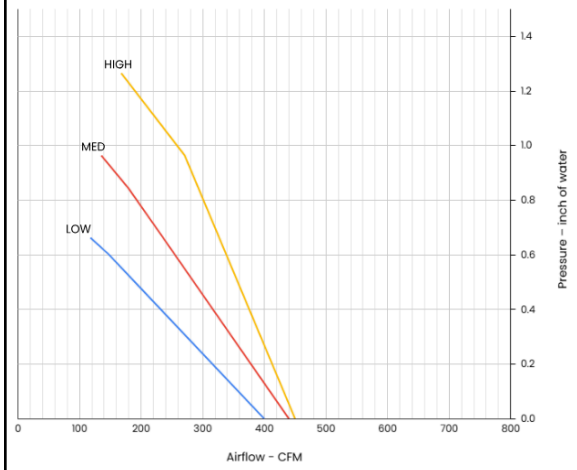
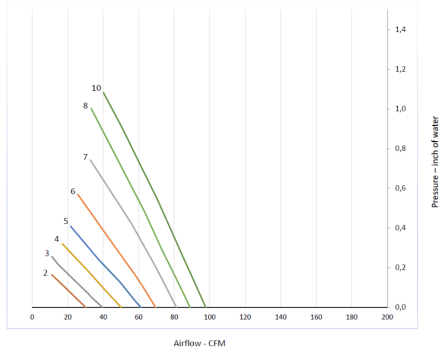



*Figure 7. ERV fan performance curves*




# 4. INSTALLATION

*Figure 8.*



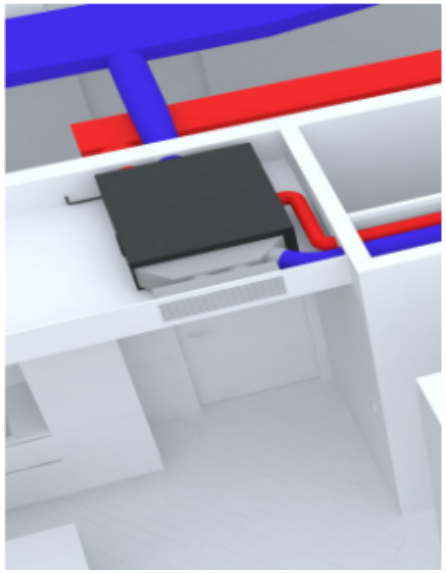
*Figure 9. Direct existing window vent*



*Figure 10. Direct external vent*



*Figure 11. Shared supply and exhaust vents*



## 4.1 Air balancing requirements

- All units must be properly air-balanced by a qualified, professional air-balancing company.
- Air balancing must be performed after installation and prior to final commissioning.
- A formal air balancing report must be completed and made available.
- Failure to perform air balancing properly may result in improper performance, system issues, and voiding of the warranty.

## 4.2 Startup airflow commissioning

Units require startup airflow commissioning. Select the indoor/outdoor airflow program to match the installed duct configuration and external static pressure. Adjust ERV ventilation airflow during startup and verify airflow in the field. See the Installation Guide for detailed setup and measurement procedures.

## 4.3 Low ambient heating configuration requirement

To configure the unit for electric resistance heating in low ambient conditions:

1. Turn on the unit.
2. Press and hold ☼ for 10 seconds until “Fh” appears on the display.
3. Press and hold ☼ for 5-10 seconds until “Fo” appears on the display.
4. Press and hold ☼ for 5-10 seconds until “rE” appears on the display.
5. Wait a few seconds (without pressing any buttons) to exit the menu.

rE = Resistance heat mode

This setting switches the unit to electric resistance heating during low ambient conditions, preventing heat pump operation that may contribute to ice formation.

## 4.4 Ambient temperature protection

When installed in climates with ambient temperatures below freezing, the unit must be located in an enclosed, temperature-protected indoor space that will not fall below 5°F (-15°C).



Secure any installation site insulation so that it cannot detach or be drawn into the unit's air openings.

Failure to secure insulation may lead to unit damage and will void the warranty.

## 4.5 Site requirements



Refer to the installation manual for complete installation requirements and specifications.

- Where practical, avoid installing the unit in a location exposed to direct sunlight. Solar heating may cause the room-air temperature sensor to detect a temperature higher than the actual room temperature, resulting in improper temperature control, unnecessary cooling operation, reduced heating output, and decreased energy efficiency.
- A power supply circuit installed in accordance with the current edition of NEC (ANSI/NFPA 70) and local codes and ordinances.



- Always consult local and national electrical codes before installing the unit.
- Damage or premature failure of the quoted equipment resulting from improper voltage conditions, inadequate electrical service, or operating the equipment with excessive THD (Total Harmonic Distortion) levels will void the Manufacturer's warranty.



Do not operate the unit in or near a construction or renovation site. Dust and debris can enter the unit, causing malfunctions and reduced performance.

- A power supply with a voltage rating of 60 Hz, single phase, in 115V or 208/230V in accordance with the model specified.
- All responsible parties must verify that the electrical supply is properly grounded, free of excessive electrical noise, and within the specified voltage and frequency limits before energizing the unit. Failure to correct power quality issues, including voltage instability or electrical noise, may result in equipment damage and will void the warranty for affected components.
- Interior clearances are as follows:
  - Sides of unit to wall: 3.5" (90 mm)
  - Bottom and top of unit: 2" (50 mm)
- Unblocked vents on the exterior and no obstacles within 36" (914 mm).
- An internal drain is highly recommended.
- If using an externally run condensate line, note the following:
  - The line must be properly insulated
  - The line must have a minimum slope of 30%.
  - If on a low floor, ensure that the end of the drain is above the maximum height of snow buildup.
- Approved louvers must be installed with best practices to ensure that no water enters the wall assembly.
- The unit is intended for ducted installation. Installation without ductwork may result in airflow performance issues.
- The unit must be perfectly level on the horizontal axis and level with a slight pitch to the rear on the vertical axis.
- The unit must be attached to the ducts tightly, with zero leakage between the external ducts and the unit.

## 4.6 Outdoor air louver options

AIO® Ceiling Ducted units accommodate various outdoor air louver designs, including architectural louvers and perforated panels.

Choose one of the following options:

- Use an INNOVA-approved louver, available through your INNOVA distributor:
  - **Sunvent:** LLA/C, LLA/F, LLA/S
  - **Thermaduct:** RLA8
- Use a custom louver designed with guidance from INNOVA.

Contact INNOVA before selecting, designing, or fabricating a custom louver. An unsuitable louver may restrict airflow, impair unit operation, and affect warranty coverage.

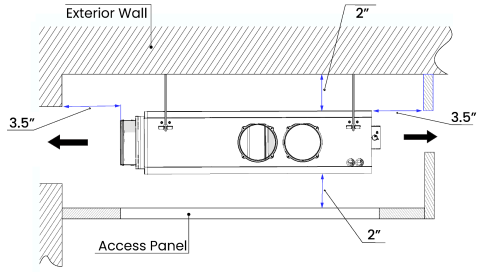
## 4.7 Clearance requirements

The clearances for the AIO® Ceiling Ducted unit depend on how it is vented. Carefully read the criteria below to determine the correct clearance required.

While these are the minimum clearances required for our units to operate, a greater clearance may be required by code. Always follow the stricter requirements.

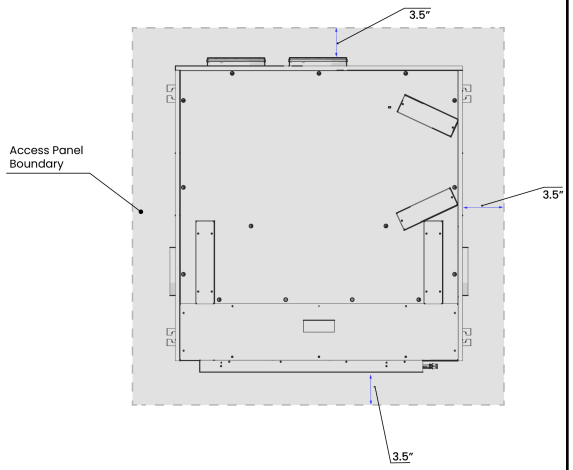
- **Ceiling**
  There must be a 2″ (50 mm) minimum clearance between the unit and the ceiling to minimize noise from vibrations.
- **Bottom**
  There must be a minimum of 2″ (50 mm) clearance between the unit and the false ceiling or access hatch to minimize noise from vibrations.
- **Front (supply air side)**
  The clearance required in front of the unit to drywall or other material is 3.5″ (90 mm) to minimize noise from vibration, and to ensure easy access for installation and maintenance.
- **Rear (intake/exhaust side)**
  There must be a 3.5″ (90 mm) minimum clearance between the unit and the wall to minimize noise from vibration, and to ensure easy access for installation and maintenance. Ensure sufficient clearance to attach ductwork to the rear vents.

*Figure 12. Ceiling Ducted Clearance*



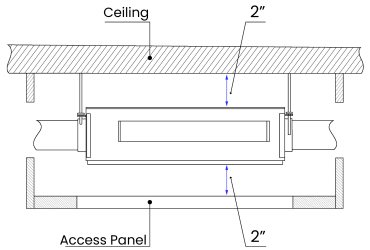

- **Access hatch**
  There must be an access hatch of at least the size of the unit plus 3.5" (90 mm) all around. The minimum size is 45.0" × 49.3″ (1142 mm × 1251 mm) for the unit without a preheater and 45.0" × 55.8″ (1142 mm × 1417 mm) for the unit with a preheater. A return grille can serve as an access hatch, or an access hatch with an integrated return grille can be used.

*Figure 13. Access hatch*



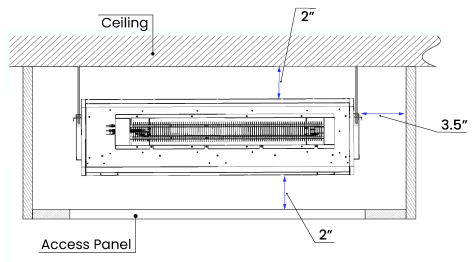

- **Sides**
  The clearance required on the sides is dependent on how the unit is configured for return and stale exhaust air. Minimum clearance is required between the unit and the wall to minimize noise from vibrations. Ensure sufficient clearance to attach ductwork to the rear vents.
- **Side ducted return configuration**
  The clearance required is based solely on the ductwork design. Ensure sufficient clearance to attach the ductwork to the side return.

*Figure 14. Side ducted return configuration*



- **Side non-ducted return configuration**
  A minimum of 3.5" (90 mm) should be free on each side to allow the air to flow into the returns, and to ensure easy access for installation and maintenance.

*Figure 15. Side plenum return configuration*




- **Exterior**
  On the exterior of the building, there should be no obstacles blocking the airflow from the louver. There must be at least 36" (914 mm) of free and clear space in front of the louvers.

# 5. TECHNICAL SPECIFICATIONS

## 5.1. High Performance

### 5.1.1 Cooling

*Table 1. High Performance - Cooling*

| Heat Pump | | | 95°F (35°C) (1) | 105°F (40.6°C) (2) | 115°F (46.1°C) (3) |
|---|---|---|---|---|---|
| Capacity | Maximum | BTU/hr | 15,000 | 11,400 | 9,825 |
| | Recommended* | | 9,400 | 8,200 | 7,300 |
| | Rated | | 7,700 | 7,345 | 6,550 |
| | Minimum | | 3,100 | 3,100 | 3,100 |
| Input Power | Maximum | W | 1,580 | 1,640 | 1,700 |
| | Recommended* | | 960 | 950 | 1,040 |
| | Rated | | 732 | 825 | 904 |
| | Minimum | | 230 | 255 | 285 |
| Efficiency | Maximum | EER | 9.49 | 6.96 | 5.78 |
| | Recommended* | | 9.79 | 8.63 | 7.00 |
| | Rated | EER2 | 10.55 | 8.90 | 7.25 |
| | Seasonal | SEER2 | 13.85 | - | - |
| Moisture Removal | | Pts/h | 1.8 | 2.0 | 2.2 |
| | | L/hr | 0.9 | 0.9 | 1.0 |

**Notes**

(1) ID: 80°F(26.7°C), W.B. 67°F(19.4°C) | OD: 95°F(35°C), W.B. 75°F(23.9°C)

(2) ID: 80°F(26.7°C), W.B. 67°F(19.4°C)| OD: 105°F(40.6°C), W.B. 75°F(23.9°C)

(3) ID: 80°F(26.7°C), W.B. 67°F(19.4°C) | OD: 115°F(46.1°C), W.B. 75°F(23.9°C)

* This is the recommended capacity for sizing the unit to the space.

### 5.1.2 Heating - Heat pump only

*Table 2. High Performance - Heating*

| Heat Pump | | | 47°F (8.3°C) (1) | 17°F (-8.3°C) (2) | 5°F (-15°C) (3) | 0°F (-17.8°C) (4) | -5°F (-20.6°C) (5) |
|---|---|---|---|---|---|---|---|
| Capacity | Maximum | BTU/hr | 14,000 | 10,000 | 6,600 | 6,300 | 5,800 |
| | Recommended* | | 9,200 | 9,300 | 6,200 | 5,935 | 5,570 |
| | Rated | | 8,600 | 8,300 | 6,200 | 5,935 | 5,570 |
| | Minimum | | 3,500 | 3,300 | 2,800 | 2,500 | 2,500 |
| Input Power | Maximum | W | 1,420 | 1,460 | 1,700 | 1,600 | 1,650 |
| | Recommended* | | 774 | 990 | 1,250 | 1,062 | 1,013 |
| | Rated | | 693 | 860 | 1,086 | 1,062 | 1,013 |
| | Minimum | | 315 | 420 | 440 | 430 | 480 |
| Efficiency | Maximum | COP | 2.89 | 2.01 | 1.13 | 1.14 | 1.04 |
| | Recommended* | | 3.48 | 2.75 | 1.45 | 1.64 | 1.61 |
| | Rated | | 3.64 | 2.83 | 1.68 | 1.64 | 1.61 |
| | Minimum | | 3.26 | 2.30 | 1.87 | 1.70 | 1.53 |
| | Seasonal | HSPF 2 | 9.15 | - | - | - | - |

**Notes**

(1) ID: 70°F(21.1°C), W.B. 60°F(15.6°C) | OD: 47°F(8.3°C), W.B. 43°F(6.1°C)

(2) ID: 70°F(21.1°C), W.B. 60°F(15.6°C) | OD: 17°F(-8.3°C), W.B. 15°F(-9.4°C)

(3) ID: 70°F(21.1°C), W.B. 60°F(15.6°C) | OD: 5°F(-15°C), W.B. 3°F(-16.1°C)

(4) ID: 70°F(21.1°C), W.B. 60°F(15.6°C) | OD: 0°F(-17.8°C)

(5) ID: 70°F(21.1°C), W.B. 60°F(15.6°C) | OD: -5°F(-20.6°C)

* This is the recommended capacity for sizing the unit to the space.

Optional heat strips are available for an additional 6,100 BTU/hr of heating capacity.

## 5.2. Energy Star Compliant

### 5.2.1 Cooling

*Table 3. Energy Star Compliant - Cooling*

| Heat Pump | | | 95°F (35°C) (1) | 105°F (40.6°C) (2) | 115°F (46.1°C) (3) |
|---|---|---|---|---|---|
| Capacity | Maximum | BTU/hr | 15,000 | 11,400 | 9,825 |
| | Recommended* | | 9,400 | 8,200 | 7,300 |
| | Rated | | 6,100 | 7,345 | 6,550 |
| | Minimum | | 3,100 | 3,100 | 3,100 |
| Input Power | Maximum | W | 1,580 | 1,640 | 1,700 |
| | Recommended* | | 960 | 950 | 1,040 |
| | Rated | | 528 | 825 | 904 |
| | Minimum | | 230 | 255 | 285 |
| Efficiency | Maximum | EER | 9.49 | 6.96 | 5.78 |
| | Recommended* | | 9.79 | 8.63 | 7.00 |
| | Rated | EER2 | 11.56 | 8.90 | 7.25 |
| | Seasonal | SEER2 | 15.3 | - | - |
| Moisture Removal | | Pts/h | 1.8 | 2.0 | 2.2 |
| | | L/hr | 0.9 | 0.9 | 1.0 |

**Notes**

(1) ID: 80°F(26.7°C), W.B. 67°F(19.4°C) | OD: 95°F(35°C), W.B. 75°F(23.9°C)

(2) ID: 80°F(26.7°C), W.B. 67°F(19.4°C)| OD: 105°F(40.6°C), W.B. 75°F(23.9°C)

(3) ID: 80°F(26.7°C), W.B. 67°F(19.4°C) | OD: 115°F(46.1°C), W.B. 75°F(23.9°C)

* This is the recommended capacity for sizing the unit to the space.

### 5.2.2 Heating - Heat pump only

*Table 4. Energy Star Compliant - Heating*

| Heat Pump | | | 47°F (8.3°C) (1) | 17°F (-8.3°C) (2) | 5°F (-15°C) (3) | 0°F (-17.8°C) (4) | -5°F (-20.6°C) (5) |
|---|---|---|---|---|---|---|---|
| Capacity | Maximum | BTU/hr | 14,000 | 10,000 | 6,600 | 6,300 | 5,800 |
| | Recommended* | | 9,200 | 8,700 | 5,900 | 5,935 | 5,570 |
| | Rated | | 8,200 | 7,800 | 5,900 | 5,935 | 5,570 |
| | Minimum | | 3,500 | 3,300 | 2,800 | 2,500 | 3,300 |
| Input Power | Maximum | W | 1,420 | 1,460 | 1,700 | 1,600 | 1,650 |
| | Recommended* | | 774 | 870 | 1,140 | 1,062 | 1,013 |
| | Rated | | 644 | 760 | 988 | 1,062 | 1,013 |
| | Minimum | | 315 | 420 | 440 | 430 | 480 |
| Efficiency | Maximum | COP | 2.89 | 2.01 | 1.13 | 1.14 | 1.04 |
| | Recommended* | | 3.48 | 2.93 | 1.52 | 1.64 | 1.61 |
| | Rated | | 3.73 | 3.01 | 1.75 | 1.64 | 1.61 |
| | Minimum | | 3.26 | 2.30 | 1.87 | 1.70 | 2.01 |
| | Seasonal | HSPF 2 | 9.2 | - | - | - | - |

**Notes**

(1) ID: 70°F(21.1°C), W.B. 60°F(15.6°C) | OD: 47°F(8.3°C), W.B. 43°F(6.1°C)

(2) ID: 70°F(21.1°C), W.B. 60°F(15.6°C) | OD: 17°F(-8.3°C), W.B. 15°F(-9.4°C)

(3) ID: 70°F(21.1°C), W.B. 60°F(15.6°C) | OD: 5°F(-15°C), W.B. 3°F(-16.1°C)

(4) ID: 70°F(21.1°C), W.B. 60°F(15.6°C) | OD: 0°F(-17.8°C)

(5) ID: 70°F(21.1°C), W.B. 60°F(15.6°C) | OD: -5°F(-20.6°C)

* This is the recommended capacity for sizing the unit to the space.

Optional heat strips are available for an additional 6,100 BTU/hr of heating capacity.

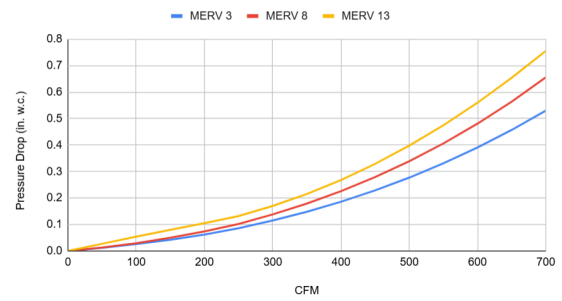
## 5.3. Airflow

### 5.3.1 Indoor

*Table 5. Airflow - Indoor*

| Air volume | | |
|---|---|---|
| Indoor | Type | ECM centrifugal |
| | CFM Range | 226 - 400 |
| | $m^3/hr$ | 384- 680 |
| | Available ESP | Refer to the fan curves |
| | Supply connection | 3.9" (100 mm) H x 27.9" (708 mm) W |
| | Return connection | Two 6" (152 mm) round on sides or bottom 8.7" x 32.3" (220 mm x 820 mm) |
| | Speeds | Low, med, high, boost, auto |
| | Filter | MERV 3 |

*Figure 16. MERV Filter Pressure Drop*




### 5.3.2 Outdoor

*Table 6. Airflow - outdoor*

| Air volume | | |
|---|---|---|
| Outdoor | Type | ECM centrifugal |
| | CFM Range | 385 - 638 |
| | $m^3/hr$ Range | 654- 1084 |
| | Nominal CFM | 400 |
| | Nominal $m^3/hr$ | 680 |
| | Available ESP at Nominal | Refer to the fan curves |
| | Intake and Exhaust Connection | 8" (203 mm) round |
| | Speeds | Low, med, high, auto |

## 5.4 Sound

*Table 7. Sound*

| Sound | | | |
|---|---|---|---|
| Location | Distance | Fan Speed | Sound Level (dB(A)) |
| Indoor | 1 m | Level 1 - Low | 38 |
| | | Level 2 - Medium | 48 |
| | | Level 3 - High | 49 |
| | 3 m | Level 1 - Low | 30 |
| | | Level 2 - Medium | 40 |
| | | Level 3 - High | 41 |
| Outdoor | - | Range | 28 - 55 |

## 5.5 ERV

*Table 8. ERV*

| General | | |
|---|---|---|
| Flow type | Counterflow enthalpy exchanger | |
| Material | Mold and bacteria-resistant, washable polymer membrane | |
| ASHRAE compliance | 62.1 and 62.2 when used with the ERV module | |
| Flow | CFM | 10-80 |
| | $m^3h$ | 17-136 |

*Table 9. ERV*

| | 40 CFM ($68 m^3/hr$) | 60 CFM ($102 m^3/hr$) | 80 CFM ($136 m^3/hr$) |
|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Efficiency of core in winter | Sensible | 81.8% | 78.2% | 74.6% |
| | Latent | 58.4% | 54.7% | 51.1% |
| Efficiency of core in summer | Sensible | 80.6% | 76.5% | 72.5% |
| | Latent | 57.5% | 53.4% | 49.3% |
| Filter | Indoor air | MERV 3 / optional MERV 13 | | |
| | Outside air | MERV 13 | MERV 13 | MERV 13 |
| Leakage | Internal | 2.6% at 0.40" WC (99.6 Pa) | 2.4% at 0.40" WC (99.6 Pa) | 2.2% at 0.40" WC (99.6 Pa) |
| | External | 2.8% at 1.0" WC (249.1 Pa) | 2.7% at 1.0" WC (249.1 Pa) | 2.5% at 1.0" WC (249.1 Pa) |

## 5.6 General

### 5.6.1 Controls

*Table 10. Controls*

| **Controls** | |
|---|---|
| Basic functionality | Dependent on the controller |
| WiFi | Optional module available |
| Dry contact | Yes |
| Power outage restart | Auto-on based on the last setting |

### 5.6.2 Modes

*Table 11. Modes*

| **Modes** | |
|---|---|
| Operation | Cool+ fresh air, cool only, heat+ fresh air, heat only, auto |
| Restricted modes | Heat only, cool only, temperature limiting |
| Timers | Dependent on the controller |

### 5.6.3 Condensate

*Table 12. Condensate*

| **Condensate** | |
|---|---|
| Pipe size | 3/4" (19 mm) outside diameter |
| Pipe material | Rubber |

### 5.6.4 Compressor

*Table 13. Compressor*

| **Compressor** | | | |
|---|---|---|---|
| Type | BLDC twin rotary inverter | | |
| Refrigerant | For R-32 Units | Refrigerant Type | R-32 |
| | | Charge | 16.93 oz. |
| | | | 480 g |
| | For R-410A Units | Refrigerant Type | R-410A |
| | | Charge | 23.97 oz. |
| | | | 680 g |
| Oil Type | Fv50s (ISO 50) Polyvinylether (PVE) | | |

### 5.6.5 Physical



For detailed dimensions, refer to the drawings in Section 7.

*Table 14. Physical data*

| **Physical data** | | | |
|---|---|---|---|
| Dimensions | Units without preheater | in | 41.4 W x 45.7 D x 11.0 H |
| | | mm | 1052 W x 1161 D x 279 H |
| | Unit with preheater | in | 41.4 W x 52.2 D x 11.0 H |
| | | mm | 1052 W x 1327 D x 279 H |
| Weight | Heat Pump + ERV | lb | 174.2 |
| | | kg | 79 |
| | 1.8 kW Electric Post Heater | lb | 3.4 |
| | | kg | 2 |
| | 2.7 kW Electric Post Heater | lb | 6.6 |
| | | kg | 3 |
| | 1 kW Electric Pre Heater | lb | 11.0 |
| | | kg | 5 |
| | Packaging | lb | 11.0 |
| | | kg | 5 |
| Cabinet | Finish | | Black covered with dark gray EPDM |
| | Material | | Steel |

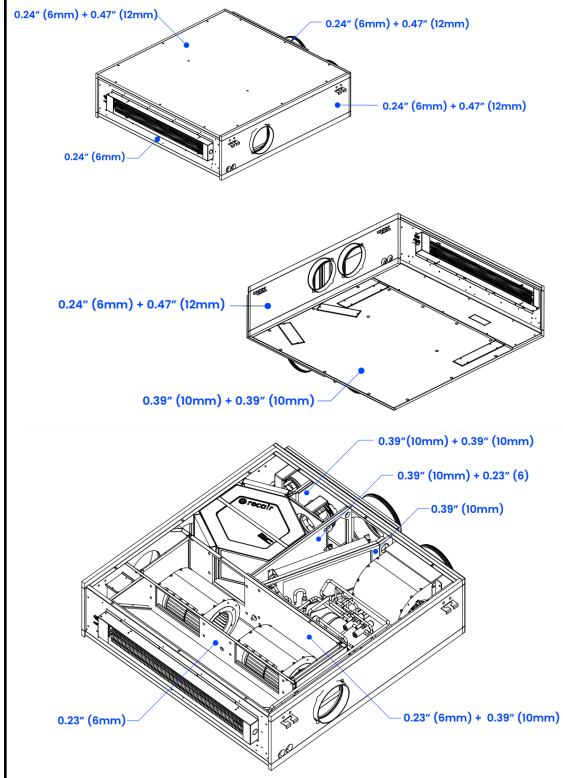
### 5.6.6 Insulation

*Table 15: General - Insulation*

| | |
|---|---|
| Thermal conductivity at 50°F | 0.239 BTU*in/(hr·ft²·°F) |
| Thermal conductivity at 10°C | 0.0344 W/(m·K) |

Insulation R-value is determined by dividing the insulation thickness by the thermal conductivity (k-value). Insulation thickness varies by component and configuration.

*Figure 17. Insulation Thickness*




## 5.7 Electrical

### 5.7.1 General

*Table 16. Electrical - General*

| General | | 115V | 230V |
|---|---|---|---|
| Volt range | | 103 - 127 | 180-253 |
| Hz/phase | | 60 Hz / single phase | |
| Power input connection | | Hardwire | |
| Power factor | | 0.96 | |
| Input power (standby) | W | 10.8 | |
| Input power (off mode) | | 1.5 | |
| **Heat Pump Only** | | | |
| Cooling +ERV (nominal) | A | 8.2 | 4.1 |
| Cooling - heat pump + ERV (max) | | 20.9 | 9.5 |
| Heating - heat pump +ERV (nom.) | A | 10.0 | 5.0 |
| Heating-heat pump + ERV (max) | | 20.9 | 9.5 |
| **Heat Pump + 900 W Elec Heater** | | | |
| Maximum | A | 29.1 | - |
| **Heat Pump + 1,800 W Elec Heater** | | | |
| Maximum | A | - | 17.3 |
| **Heat Pump + 2,700 W Elec Heater** | | | |
| Maximum | A | - | 21.2 |
| **Heat Pump + 1,800 W Electric Heater + 1 kW Preheater** | | | |
| Maximum | A | - | 21.7 |
| **Heat Pump + 2,700 W Electric Heater + 1 kW Preheater** | | | |
| Maximum | A | - | 25.6 |

### 5.7.2 Motors

*Table 17. Electrical - Compressor*

| Motors | | | 115V | 208V | 230V | 240V |
|---|---|---|---|---|---|---|
| Compressor | RLA | A | 13.0 | 6.6 | 6 | 5.8 |
| | LRA | | 13.0 | 6.6 | 6 | 5.8 |
| Indoor ECM fan motor | Watts (max) | W | 260 | 200 | | |
| | FLA | A | 3.4 | 1.33 | 1.2 | 1.15 |
| | Power | HP | 0.125 | 0.10 | | |
| Outdoor ECM fan motor | Watts (max) | W | 150 | 150 | | |
| | FLA | A | 2.1 | 1.16 | 1.05 | 1.01 |
| | Power | HP | 0.10 | | | |
| ERV ECM Fan Motor | Watts (max) | W | 120 | 120 | | |
| | FLA | A | 1.8 | 1 | 0.9 | 0.86 |
| | Power | HP | 1/10 | | | |

*Table 18. Electrical - Circuit breakers*

| Circuit breakers | | | 115V | 208V | 230V | 240V |
|---|---|---|---|---|---|---|
| Heat Pump + ERV | MCA | A | 25 | 13 | 11 | 11 |
| | MOCP | | 35 | 15 | 15 | 15 |
| Heat Pump + 900W Elec Heat + ERV | MCA | A | 33 | - | - | - |
| | MOCP | | 45 | - | - | - |
| Heat Pump + 1800W Elec Heat + ERV | MCA | A | - | 20 | 19 | 19 |
| | MOCP | | - | 25 | 20 | 20 |
| Heat Pump + 2700W Elec Heat + ERV | MCA | A | - | 23 | 23 | 24 |
| | MOCP | | - | 25 | 25 | 25 |
| Heat Pump + 1800W Elec Heat + 1 kW Preheat + ERV | MCA | A | - | 24 | 24 | 24 |
| | MOCP | | - | 25 | 25 | 25 |
| Heat Pump + 2700W Elec Heat + 1 kW Preheat + ERV | MCA | A | - | 27 | 28 | 28 |
| | MOCP | | - | 30 | 30 | 30 |

### 5.7.3 Heater Output (W) and Heater Current (A) vs. Supply Voltage

*Table 19. Heater Output (W) and Heater Current (A) vs. Supply Voltage*

| Volt/Watt | 1000W | 900W | 1800W | 2700W |
|---|---|---|---|---|
| 115V | N/a | 900W / 7.8A | N/A | N/A |
| 208V | 818W / 3.9A | 736W / 3.5A | 1472W / 7.1A | 2200W / 10.6A |
| 230V | 1000W / 4.3A | 900W / 3.9A | 1800W / 7.8A | 2700W / 11.7A |
| 240V | 1089W / 4.5A | 980W / 4.1A | 1960W / 8.2A | 3000W / 12.5A |

# 6. LOGIC

## 6.1 Backup electric heat

The backup electric heater function provides emergency heating while in heating mode if the heat pump becomes unavailable due to a compressor or heat pump alarm. If the heaters are already active, they continue operation; otherwise, the system enables them automatically. Once the alarm condition is cleared and the compressor restarts, the unit returns to normal heat pump operation. This function is only available on units equipped with the optional post-heater.

## 6.2 ERV defrost timer

The ERV defrost timer function is designed to prevent the ERV core from freezing during very cold outdoor conditions. During operation, the exhaust fan runs continuously, while the fresh air fan operates intermittently based on the outdoor air temperature measured after the preheater. As the temperature decreases, the fresh air fan cycles off for short periods to reduce frost buildup within the ERV core. At 23°F (-5°C), the fan operates 50 minutes on and 10 minutes off; at 14°F (-10°C), 30 minutes on and 10 minutes off; at -4°F (-20°C), 20 minutes on and 10 minutes off.

## 6.3 ERV preheater

The ERV preheater is designed to preheat incoming fresh air during heating operation to maintain a stable supply air temperature. The heater output is regulated to maintain a constant temperature setpoint of 26.6°F (-3°C). The preheater operates only when the ERV fan is running and is automatically disabled if the temperature probe enters an alarm condition. This function is only available on units equipped with the optional ERV preheater.

## 6.4 Post heater

The post-heater operates during heating and dehumidification modes to maintain a stable supply air temperature. The heater output is regulated to maintain the target temperature setpoint. Separate temperature setpoints are available for heating and dehumidification modes. These functions are only available on units equipped with the optional post-heater.

### 6.4.1 Post-heater modes

When the unit is equipped with the optional post-heater, different modes of operation are available.

**FH Mode**

In this mode, the post-heater operates together with the heat pump when additional heating is required. The post-heater activates when the compressor has been running for at least 20 minutes and the room temperature is still at least 3.6°F (2°C) below the setpoint. If the room temperature rises 1.8°F (1°C) above the setpoint, both the heat pump and post-heater shut off. When the room temperature drops 1.8°F (1°C) below the setpoint, the heat pump restarts and checks the above conditions to determine whether the post-heater should activate.

**rE Mode**

In this mode, the post-heater is activated to work with the heat pump when all of the following conditions are met:

- The compressor has been running for 30 seconds
- The room temperature is below 75.2°F (24°C)
- The room temperature is at least 3.6°F (2°C) below the setpoint
- The indoor coil temperature is below 111.2°F (44°C)
- The indoor fan motor is on and running at a stable speed
- No room temperature sensor or indoor coil sensor alarms are active

Heating is shut off when any of the following conditions occur:

- The indoor coil temperature exceeds 116.6°F (47°C)
- The room temperature exceeds the setpoint
- The room temperature exceeds 77°F (25°C)
- The internal fan stops or fails
- The compressor shuts down

If night mode is enabled or if the outdoor temperature is below -4°F (20°C), the heat pump is disabled and all heating is provided exclusively by the post-heater. The post-heater turns on when the room temperature is 1.8°F (1°C) below the setpoint, the room temperature is below 80.6°F (27°C), and no alarms are present for the room temperature sensor, indoor coil sensor, or indoor fan motor. The post-heater shuts off when the room temperature rises 1.8°F (1°C) above the setpoint, the room temperature rises above 82.4°F (28°C), or the indoor fan motor stops or fails.

## 6.5 Night mode

The human body temperature naturally falls during sleep. Activating Night mode adjusts the room temperature to match the changes in body temperature. It also operates at a lower noise level and saves energy. This mode may be activated before going to sleep.

Night mode is only available in Heating or Cooling mode. Night mode cannot be activated in Dehumidification, Auto, or Fan Only modes. The temperature automatically adjusts as follows:

- In Heating mode, the temperature setting decreases by 2°F (1.1°C) after one hour and by another 2°F (1.1°C) after two hours.
- In Cooling mode, the temperature setting increases by 2°F (1.1°C) after one hour and by another 2°F (1.1°C) after two hours.
- After the two adjustments, the temperature setting remains unchanged.
- After another six hours, the unit automatically enters standby mode.

If the timer is set while Night mode is activated, the unit will switch off after the set time has passed, overriding the Night mode's timer.

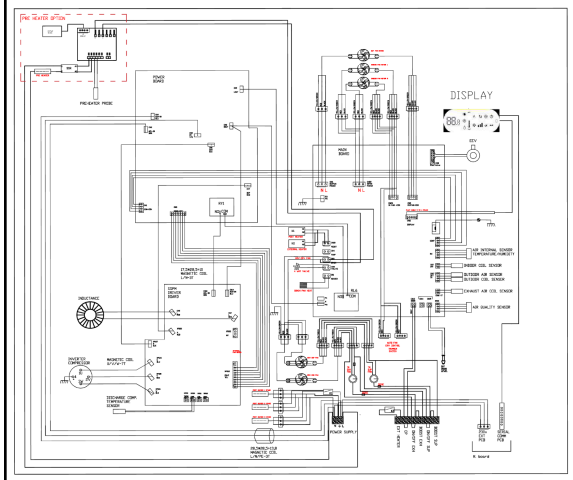
# 7. WIRING DIAGRAM

## 7.1 Manufactured before January, 2026

To view the diagram as a high-resolution PDF, click the link below:

PDF AIO Ceiling Ducted Wiring Diagram (Pre-Jan 202...

*Figure 18.*

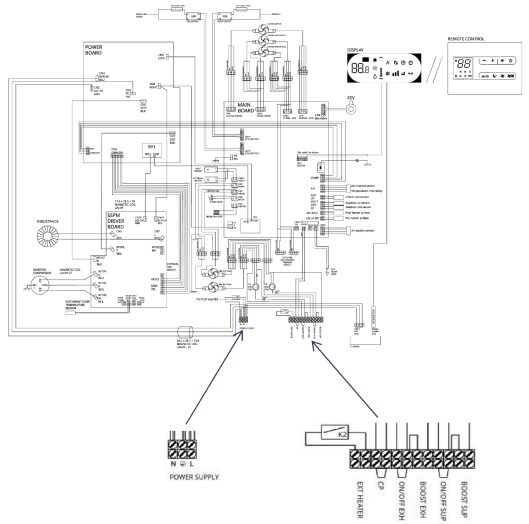



## 7.2 Manufactured after January, 2026

To view the diagram as a high-resolution PDF, click the link below:

PDF AIO Ceiling Ducted Wiring Diagram (Post-Jan 20...

*Figure 19.*



# 8. DIMENSIONS

## 8.1 Standard Configuration - Without Preheater

To view the dimensions as a high-resolution PDF, click the link below:

AIO Ceiling Ducted with ERV Dimensions (V 5.0).p...

*Figure 20. Unit Dimensions*

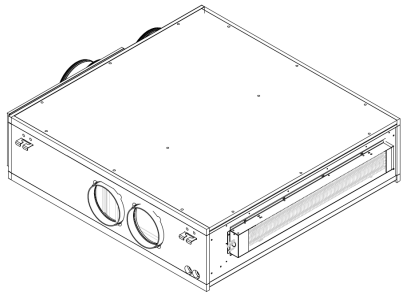


*Figure 21. Unit Dimensions (Top VIew)*

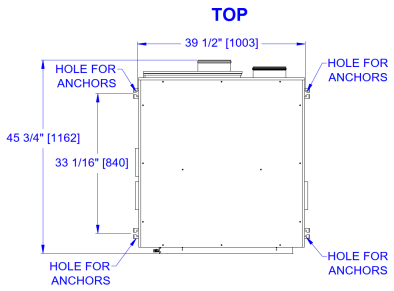



*Figure 22. Unit Dimensions (Left View)*

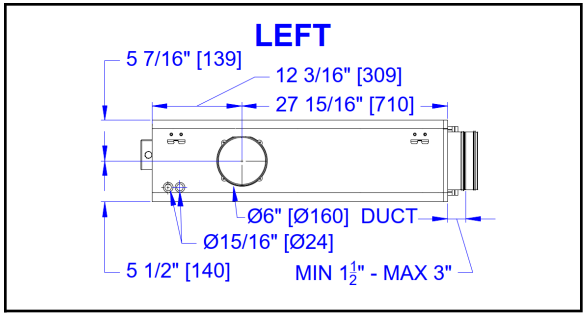



*Figure 23. Unit Dimensions (Front View)*

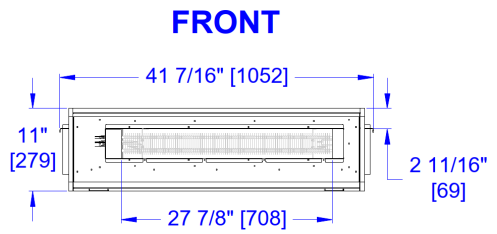



*Figure 24. Unit Dimensions (Right View)*

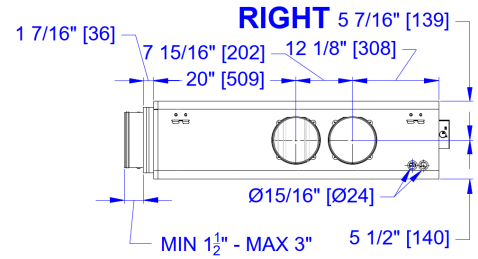



*Figure 25. Unit Dimensions (Bottom View)*

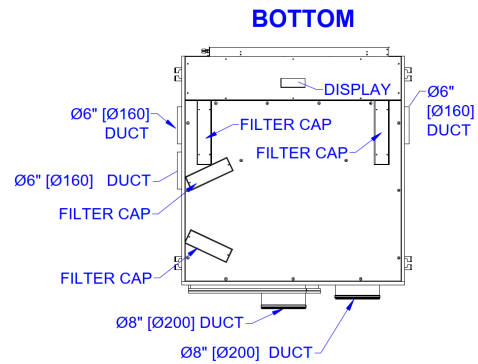
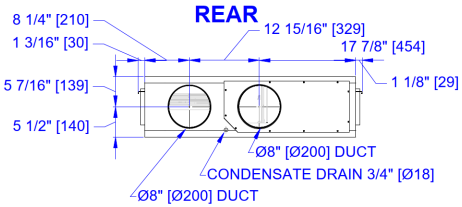



*Figure 26. Unit Dimensions (Rear View)*

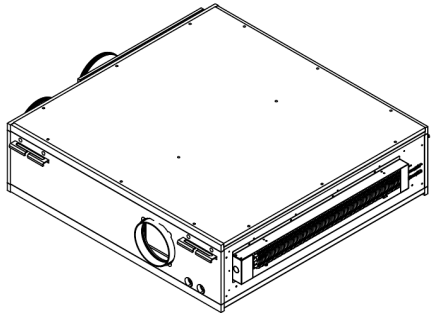



## 8.2 Mirrored Configuration - Without Preheater

To view the dimensions as a high-resolution PDF, click the link below:

AIO Ceiling Ducted (Mirror Version Gen 3) Dimens...

*Figure 27. Unit Dimensions*



| | | | |
|---|---|---|---|
| **1** | Power Supply | **4** | Ø7 7/8" (200) MALE DUCT |
| **2** | Condensate Drain Ø11/16"(18) | **5** | Hole for Anchors |
| **3** | Ø6 5/16" (160) MALE DUCT | **6** | Filter Cap |

*Figure 28. Unit Dimensions (Top View)*

**TOP**

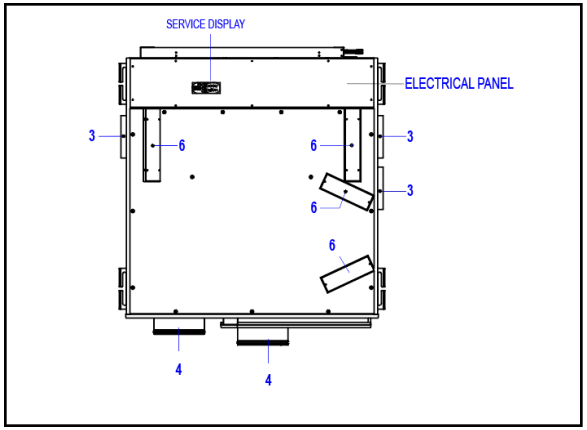



*Figure 29. Unit Dimensions (Left View)*

**LEFT**

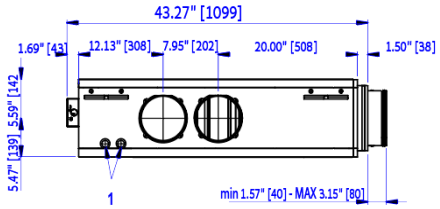



*Figure 30. Unit Dimensions (Front View)*

**FRONT**

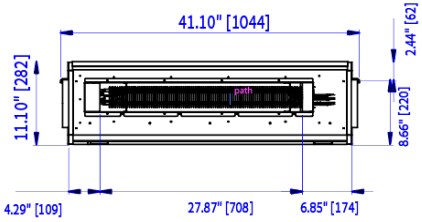



*Figure 31. Unit Dimensions (Right View)*

**RIGHT**

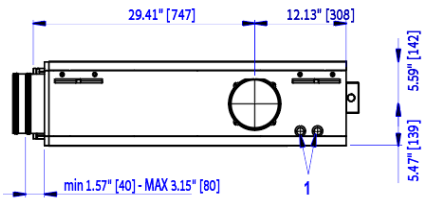



*Figure 32. Unit Dimensions (Bottom View)*

**BOTTOM**

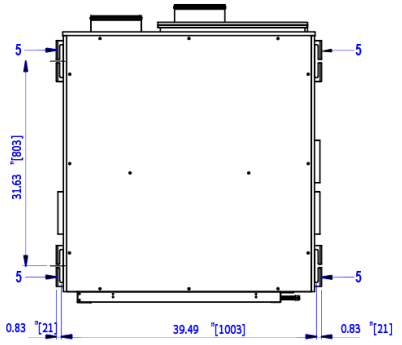
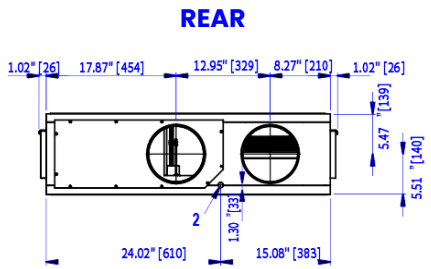


*Figure 33. Unit Dimensions (Rear View)*

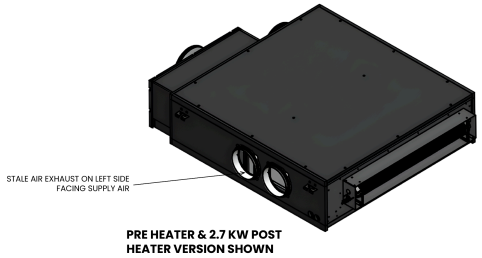



## 8.3 Standard Configuration - With Preheater

To view the dimensions as a high-resolution PDF, click the link below:

AIO Ceiling Ducted with ERV (Gen 3) and Preheat...

*Figure 34. Unit Dimensions*




| | | | |
|---|---|---|---|
| **1** | Power Supply | **4** | Ø7 7/8" (200) MALE DUCT |
| **2** | Condensate Drain Ø11/16"(18) | **5** | Hole for Anchors |
| **3** | Ø6 5/16" (160) MALE DUCT | **6** | Filter Cap |

*Figure 35. Unit Dimensions (Top View)*

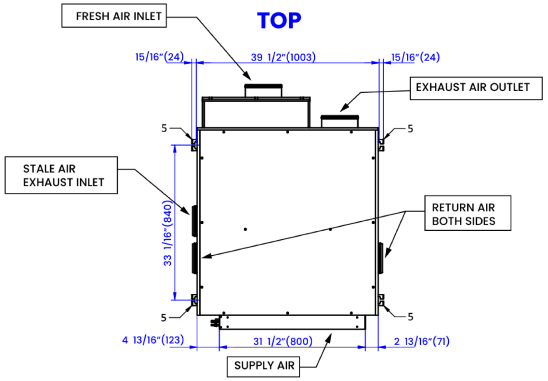



*Figure 36. Unit Dimensions (Left View)*

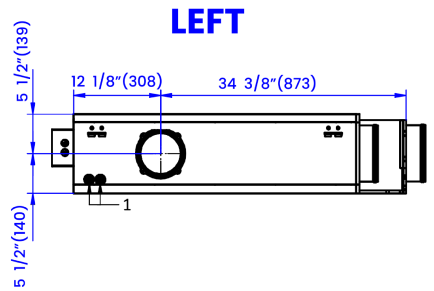



*Figure 37. Unit Dimensions (Front View)*

*Figure 38. Unit Dimensions (Front View)*

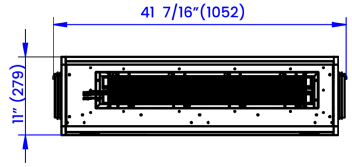


*Figure 38. Unit Dimensions (Right View)*

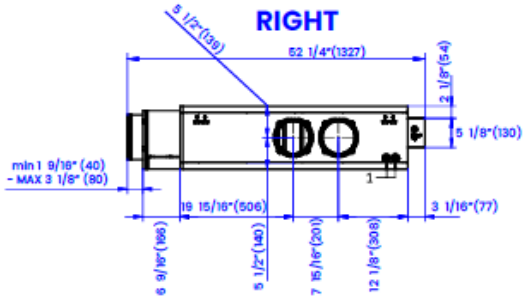



*Figure 39. Unit Dimensions (Bottom View)*

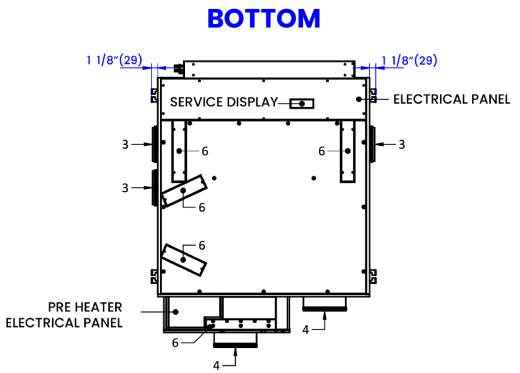
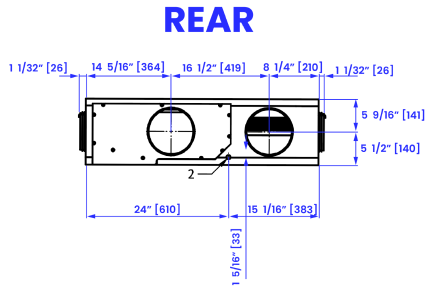



*Figure 40. Unit Dimensions (Rear View)*

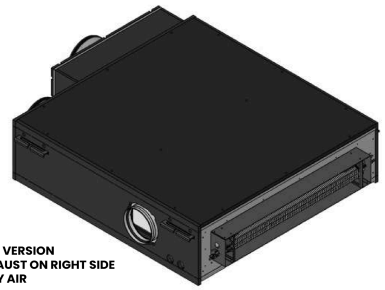



## 8.4 Mirrored Configuration - With Preheater

To view the dimensions as a high-resolution PDF, click the link below:

AIO Ceiling Ducted with ERV and Preheater (Gen ...

*Figure 41. Unit Dimensions*



MIRROR IMAGE VERSION
STALE AIR EXHAUST ON RIGHT SIDE
FACING SUPPLY AIR

| | | | |
|---|---|---|---|
| **1** | Power Supply | **4** | Ø7 7/8" (200) MALE DUCT |
| **2** | Condensate Drain Ø11/16"(18) | **5** | Hole for Anchors |
| **3** | Ø6 5/16" (160) MALE DUCT | **6** | Filter Cap |

*Figure 42. Unit Dimensions (Top View)*

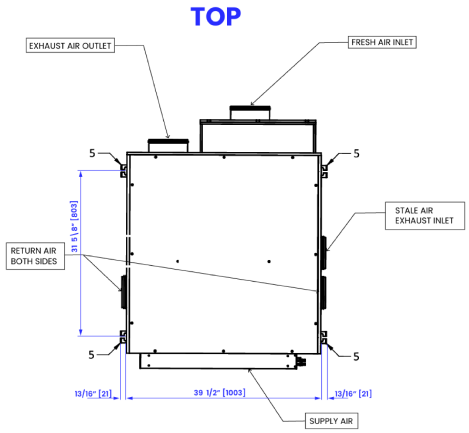



*Figure 43. Unit Dimensions (Left View)*

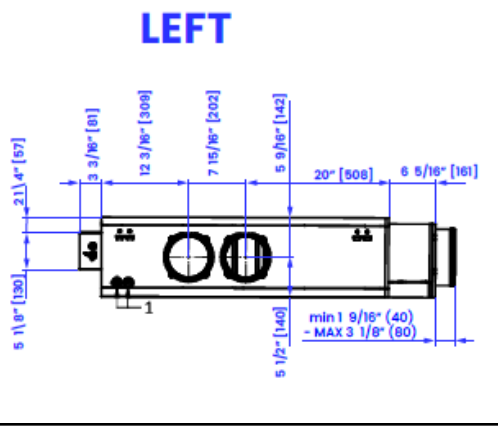



*Figure 44. Unit Dimensions (Front View)*

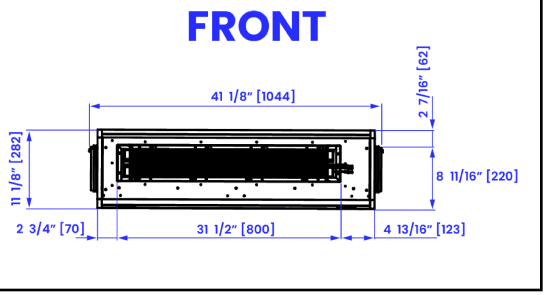



*Figure 45. Unit Dimensions (Right View)*

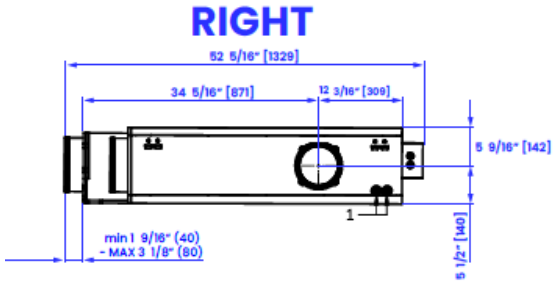


*Figure 46. Unit Dimensions (Bottom View)*

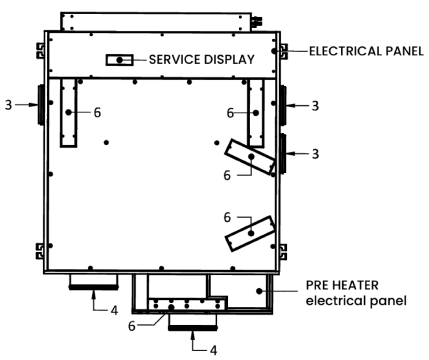
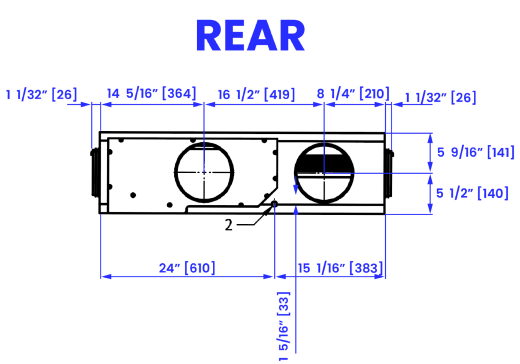



*Figure 47. Unit Dimensions (Rear View)*




## 8.5 Standard Configuration - With Bottom Return Attached

To view the dimensions as a high-resolution PDF, click the link below:

AIO Ceiling Ducted (Gen 3) with ERV and Bottom ...

# 9. MOUNTING TEMPLATE

INNOVA provides a mounting template to facilitate the installation process.

To view the template as a high-resolution PDF, click the link below:

AIO Ceiling Ducted Installation Template (V 5.0).p...

# 10. WARRANTY

## 10.1 Basic coverage

- **Parts:** 5 years from delivery.
- **Compressor:** 10 years from delivery.
- **Labor:** 2 years from certification (only if at least 10 units are installed, the site is certified by INNOVA or self-certified, and spare stock equal to 3% of total units is maintained)
- **Controllers:** Covered under a 2-year warranty.

## 10.2 Optional extended coverage

- **Additional 2-Year Parts & Labor Warranty:** Extends the basic coverage to 4 years labor and 7 years parts.
- **Extended 10-Year Parts Warranty:** Extends parts coverage to 10 years total.
- **Extended 5-Year Full Warranty:** Extends full parts and labor coverage to 5 years total.
- **Extended 10-Year Full Warranty:** Provides a 10-year full warranty on parts, labor, and compressor.
- **Extended 15-Year Full Warranty:** Provides a 15-year full warranty on parts, labor, and compressor.

## 10.3 Validation requirements

- Installation must be certified by an INNOVA technician or self-certified within 30 days.
- Installers must complete INNOVA training.
- The system must comply with local codes, use approved louvers, and be properly maintained (e.g., clean filters monthly, coils every 18 months).

For warranty service or claims, contact INNOVA Support at VIP@innova.co or (212) 204-2700.

For detailed terms and conditions, click the link below:

AIO Warranty Terms and Conditions - 2026 - INN...

# 11. SUBMITTALS

## 11.1 115V Heat Pump + ERV - High Performance

AIO® CEILING DUCTED - 115V NO ELECTRIC HEAT - ERV - R32 - SUBMITTAL (ADP10R3H1)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By | P.O. Number |

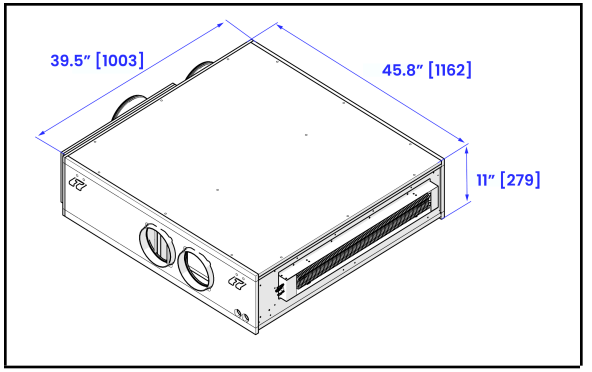
**General Features**

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W or 1,800W electric heat supplement
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online). It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 7,700 |
| | Efficiency | EER2 | 10.55 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,600 |
| | Rated capacity (5°F) | | 6,200 |
| | Efficiency | COP | 3.64 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3$/hr | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3$/hr | 654 - 1084 |

| Electric Specifications | |
|---|---|
| Power Supply | 115V/1Ph/60Hz |
| Voltage Range | 103-127 |
| Running Amps Cooling | 8.2 |
| Running Amps Heating | 10.0 |
| MCA | 25 |
| Maximum Overcurrent Protection (A) | 35 |
| Max Power Input (amps) Cooling | 20.9 |
| Max Power Input (amps) Heating | 20.9 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |

Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

## 11.2 115V Heat Pump + Elec Heat + ERV - High Performance

AIO® CEILING DUCTED - 115V + 900 W ELEC. HEAT + ERV - R32 - SUBMITTAL (ADE10R3H1)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By | P.O. Number |

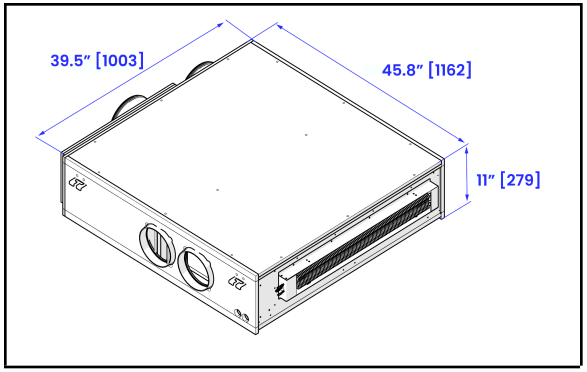
**General Features**

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W electric heat supplement
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical Support prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online) It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 7,700 |
| | Efficiency | EER2 | 10.55 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,600 |
| | Rated capacity (5°F) | | 6,200 |
| | Efficiency | COP | 3.64 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3/hr$ | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3/hr$ | 654 - 1084 |

| Electric Specifications | |
|---|---|
| Power Supply | 115V/1Ph/60Hz |
| Voltage Range | 103-127 |
| Running Amps Cooling | 8.2 |
| Running Amps Heating | 10.0 |
| MCA | 33 |
| Maximum Overcurrent Protection (A) | 45 |
| Max Power Input (amps) Cooling | 20.9 |
| Max Power Input (amps) Heating | 29.1 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |

Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

## 11.3 230V Heat Pump + ERV - High Performance

AIO® CEILING DUCTED - 230V - NO ELECTRIC HEAT - ERV - R32 - SUBMITTAL (ADP10R3H2)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By | P.O. Number |

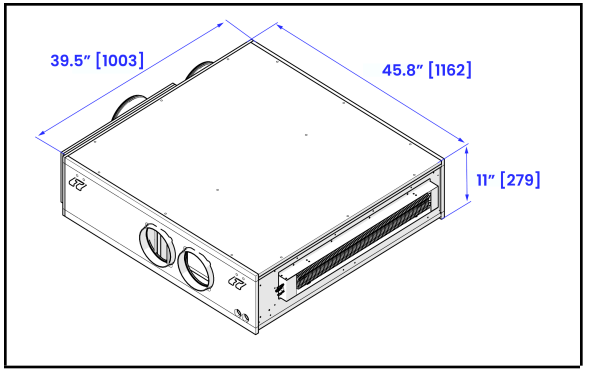
**General Features**

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W or 1,800W electric heat supplement
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical Support prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online) It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 7,700 |
| | Efficiency | EER2 | 10.55 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,600 |
| | Rated capacity (5°F) | | 6,200 |
| | Efficiency | COP | 3.64 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3/hr$ | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3/hr$ | 654 - 1084 |

| Electric Specifications | 230V/1,800W |
|---|---|
| Power Supply | 230V/1Ph/60Hz |
| Voltage Range | 180-253 |
| Running Amps Cooling | 4.1 |
| Running Amps Heating | 5.0 |
| MCA | 11 |
| Maximum Overcurrent Protection (A) | 15 |
| Max Power Input (amps) Cooling | 9.5 |
| Max Power Input (amps) Heating | 9.5 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |

Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

## 11.4 230V Heat Pump + 1,800W Elec Heat + ERV - High Performance

AIO® CEILING DUCTED - 230V - 1,800W ELEC. HEAT + ERV - R32 - SUBMITTAL (ADK10R3H2)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By | P.O. Number |

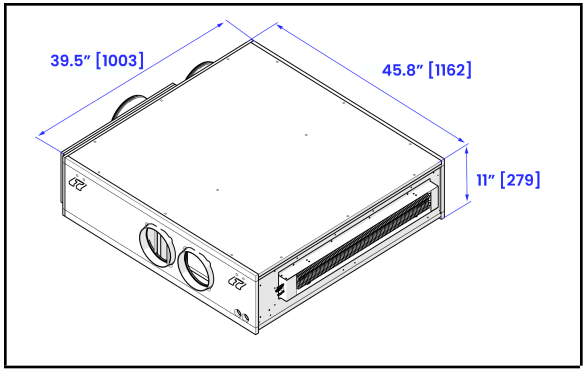
**General Features**

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W or 1,800W electric heat supplement
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical Support prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online) It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 7,700 |
| | Efficiency | EER2 | 10.55 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,600 |
| | Rated capacity (5°F) | | 6,200 |
| | Efficiency | COP | 3.64 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3/hr$ | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3/hr$ | 654 - 1084 |

| Electric Specifications | |
|---|---|
| Power Supply | 230V/1Ph/60Hz |
| Voltage Range | 180-253 |
| Running Amps Cooling | 4.1 |
| Running Amps Heating | 5.0 |
| MCA | 19 |
| Maximum Overcurrent Protection (A) | 20 |
| Max Power Input (amps) Cooling | 9.5 |
| Max Power Input (amps) Heating | 17.3 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |

Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

## 11.5 230V Heat Pump + 2,700W Elec Heat + ERV - High Performance

AIO® CEILING DUCTED - 230V - 2,700W ELEC. HEAT + ERV - R32 - SUBMITTAL (ADL10R3H2)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By | P.O. Number |

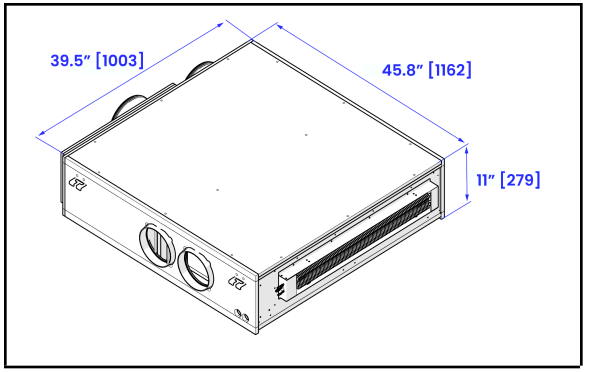
**General Features**

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W, 1,800W or 2,700W electric heat supplement
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical Support prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online) It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 7,700 |
| | Efficiency | EER2 | 10.55 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,600 |
| | Rated capacity (5°F) | | 6,200 |
| | Efficiency | COP | 3.64 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3/hr$ | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3/hr$ | 654 - 1084 |

| Electric Specifications | |
|---|---|
| Power Supply | 230V/1Ph/60Hz |
| Voltage Range | 180-253 |
| Running Amps Cooling | 4.1 |
| Running Amps Heating | 5.0 |
| MCA | 23 |
| Maximum Overcurrent Protection (A) | 25 |
| Max Power Input (amps) Cooling | 9.5 |
| Max Power Input (amps) Heating | 21.2 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |

Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

## 11.6 230V Heat Pump + 1,800W Elec Heat + 1kW Preheat + ERV - High Performance

AIO® CEILING DUCTED - 230V - 1,800W ELEC. HEAT+ 1kW PREHEAT + ERV - R32 - SUBMITTAL (ADU10R3H2)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By: | P.O. Number: |

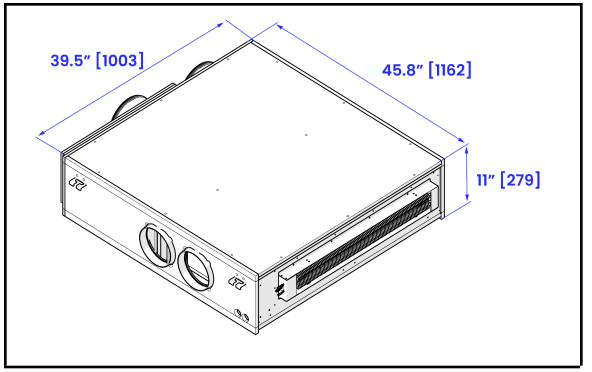
**General Features**

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W or 1,800W electric heat supplement
- Field configured 1kW preheat
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical Support prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online) It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 7,700 |
| | Efficiency | EER2 | 10.55 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,600 |
| | Rated capacity (5°F) | | 6,200 |
| | Efficiency | COP | 3.64 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3/hr$ | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3/hr$ | 654 - 1084 |

| Electric Specifications | |
|---|---|
| Power Supply | 230V/1Ph/60Hz |
| Voltage Range | 180-253 |
| Running Amps Cooling | 4.1 |
| Running Amps Heating | 5.0 |
| MCA | 23 |
| Maximum Overcurrent Protection (A) | 25 |
| Max Power Input (amps) Cooling | 9.5 |
| Max Power Input (amps) Heating | 21.7 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |

Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

## 11.7 230V Heat Pump + 2,700W Elec Heat + 1kW Preheat + ERV - High Performance

AIO® CEILING DUCTED - 230V - 2,700W ELEC. HEAT +1kW PREHEAT + ERV - R32 - SUBMITTAL (ADV10R3H2)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By | P.O. Number |

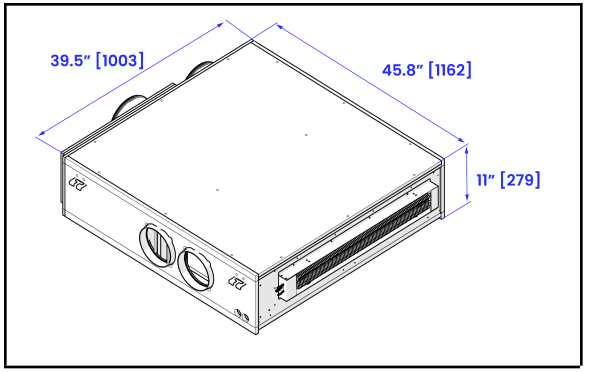
**General Features**

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W, 1,800W or 2,700W electric heat supplement
- Field configured 1kW preheat
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical Support prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online) It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 7,700 |
| | Efficiency | EER2 | 10.55 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,600 |
| | Rated capacity (5°F) | | 6,200 |
| | Efficiency | COP | 3.64 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3/hr$ | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3/hr$ | 654 - 1084 |

| Electric Specifications | |
|---|---|
| Power Supply | 230V/1Ph/60Hz |
| Voltage Range | 180-253 |
| Running Amps Cooling | 4.1 |
| Running Amps Heating | 5.0 |
| MCA | 28 |
| Maximum Overcurrent Protection (A) | 30 |
| Max Power Input (amps) Cooling | 9.5 |
| Max Power Input (amps) Heating | 25.6 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |



Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

## 11.8 115V Heat Pump + ERV - Energy Star Compliant

AIO® CEILING DUCTED - 115V - NO ELECTRIC HEAT - ERV - R32 - SUBMITTAL (ADP09R3H1)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By | P.O. Number |

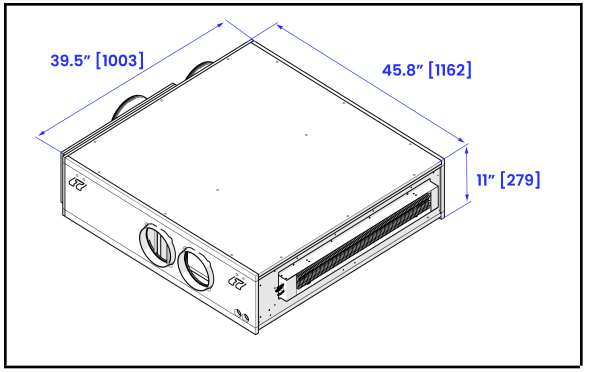
**General Features**

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W or 1,800W electric heat supplement
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical Support prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online) It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 6,100 |
| | Efficiency | EER2 | 11.56 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,200 |
| | Rated capacity (5°F) | | 5,900 |
| | Efficiency | COP | 3.73 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3/hr$ | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3/hr$ | 654 - 1084 |

| Electric Specifications | |
|---|---|
| Power Supply | 115V/1Ph/60Hz |
| Voltage Range | 103-127 |
| Running Amps Cooling | 8.2 |
| Running Amps Heating | 10.0 |
| MCA | 25 |
| Maximum Overcurrent Protection (A) | 35 |
| Max Power Input (amps) Cooling | 20.9 |
| Max Power Input (amps) Heating | 20.9 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |

Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

## 11.9 115V Heat Pump + Elec Heat + ERV - Energy Star Compliant

AIO® CEILING DUCTED - 115V + 900 W ELEC. HEAT + ERV - R32 - SUBMITTAL (ADE09R3H1)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By | P.O. Number |

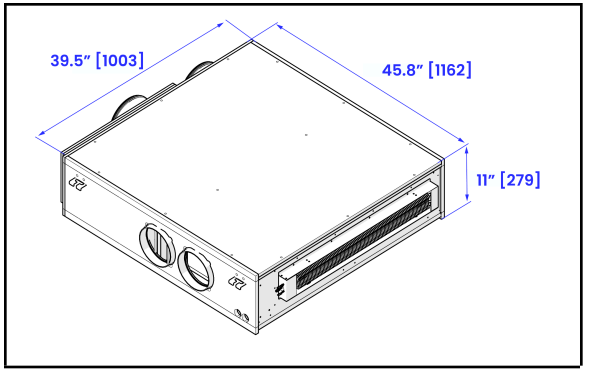
### General Features

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W electric heat supplement
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical Support prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online) It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | 9000W/1,800W |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 6,100 |
| | Efficiency | EER2 | 11.56 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,200 |
| | Rated capacity (5°F) | | 5,900 |
| | Efficiency | COP | 3.73 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3/hr$ | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3/hr$ | 654 - 1084 |

| Electric Specifications | |
|---|---|
| Power Supply | 115V/1Ph/60Hz |
| Voltage Range | 103-127 |
| Running Amps Cooling | 8.2 |
| Running Amps Heating | 10.0 |
| MCA | 33 |
| Maximum Overcurrent Protection (A) | 45 |
| Max Power Input (amps) Cooling | 20.9 |
| Max Power Input (amps) Heating | 29.1 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |



Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

## 11.10 230V Heat Pump + ERV - Energy Star Compliant

AIO® CEILING DUCTED - 230V - NO ELECTRIC HEAT - ERV - R32 - SUBMITTAL (ADP09R3H2)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By | P.O. Number |

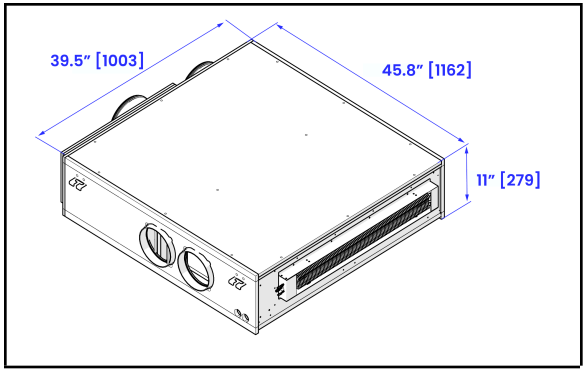
**General Features**

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W or 1,800W electric heat supplement
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical Support prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online) It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | 9000W/1,800W |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 6,100 |
| | Efficiency | EER2 | 11.56 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,200 |
| | Rated capacity (5°F) | | 5,900 |
| | Efficiency | COP | 3.73 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3/hr$ | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3/hr$ | 654 - 1084 |

| Electric Specifications | 230V/1,800W |
|---|---|
| Power Supply | 230V/1Ph/60Hz |
| Voltage Range | 180-253 |
| Running Amps Cooling | 4.1 |
| Running Amps Heating | 5.0 |
| MCA | 11 |
| Maximum Overcurrent Protection (A) | 15 |
| Max Power Input (amps) Cooling | 9.5 |
| Max Power Input (amps) Heating | 9.5 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |

Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

## 11.11 230V Heat Pump + 1,800W Elec Heat + ERV - Energy Star Compliant

AIO® CEILING DUCTED - 230V - 1,800W ELEC. HEAT + ERV - R32 - SUBMITTAL (ADK09R3H2)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By | P.O. Number |

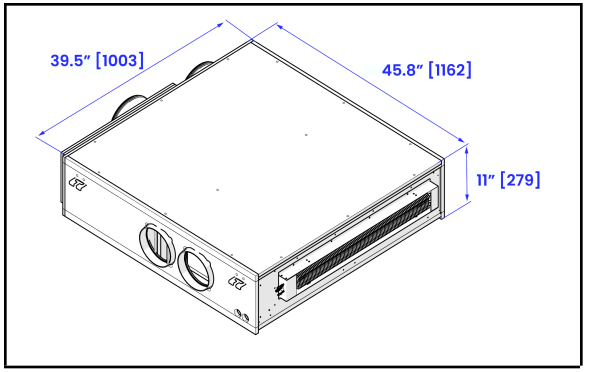
**General Features**

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W or 1,800W electric heat supplement
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical Support prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online) It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 6,100 |
| | Efficiency | EER2 | 11.56 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,200 |
| | Rated capacity (5°F) | | 5,900 |
| | Efficiency | COP | 3.73 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3/hr$ | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3/hr$ | 654 - 1084 |

| Electric Specifications | |
|---|---|
| Power Supply | 230V/1Ph/60Hz |
| Voltage Range | 180-253 |
| Running Amps Cooling | 4.1 |
| Running Amps Heating | 5.0 |
| MCA | 19 |
| Maximum Overcurrent Protection (A) | 20 |
| Max Power Input (amps) Cooling | 9.5 |
| Max Power Input (amps) Heating | 17.3 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |

Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

## 11.12 230V Heat Pump + 2,700W Elec Heat + ERV - Energy Star Compliant

AIO® CEILING DUCTED - 230V - 2,700W ELEC. HEAT + ERV - R32 - SUBMITTAL (ADL09R3H2)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By | P.O. Number |

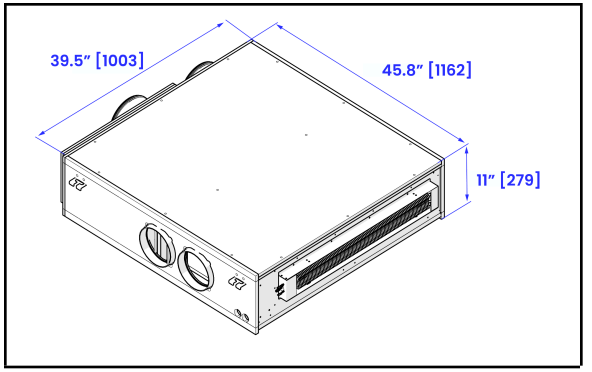
**General Features**

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W, 1,800W, or 2,700W electric heat supplement
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical Support prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online) It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 6,100 |
| | Efficiency | EER2 | 11.56 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,200 |
| | Rated capacity (5°F) | | 5,900 |
| | Efficiency | COP | 3.73 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3/hr$ | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3/hr$ | 654 - 1084 |

| Electric Specifications | |
|---|---|
| Power Supply | 230V/1Ph/60Hz |
| Voltage Range | 180-253 |
| Running Amps Cooling | 4.1 |
| Running Amps Heating | 5.0 |
| MCA | 23 |
| Maximum Overcurrent Protection (A) | 25 |
| Max Power Input (amps) Cooling | 9.5 |
| Max Power Input (amps) Heating | 21.2 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |

Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

## 11.13 230V Heat Pump + 1,800W Elec Heat + 1kW Preheat + ERV - Energy Star Compliant

AIO® CEILING DUCTED - 230V - 1,800W ELEC. HEAT+ 1kW PREHEAT + ERV - R32 - SUBMITTAL (ADU09R3H2)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By: | P.O. Number: |

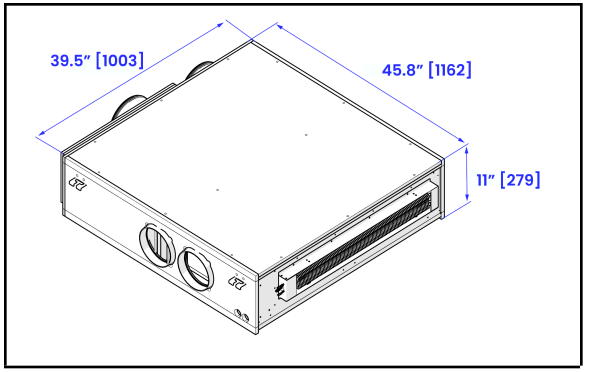
**General Features**

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W or 1,800W electric heat supplement
- Field configured 1kW preheat
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical Support prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online) It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 6,100 |
| | Efficiency | EER2 | 11.56 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,200 |
| | Rated capacity (5°F) | | 5,900 |
| | Efficiency | COP | 3.73 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3/hr$ | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3/hr$ | 654 - 1084 |

| Electric Specifications | |
|---|---|
| Power Supply | 230V/1Ph/60Hz |
| Voltage Range | 180-253 |
| Running Amps Cooling | 4.1 |
| Running Amps Heating | 5.0 |
| MCA | 23 |
| Maximum Overcurrent Protection (A) | 25 |
| Max Power Input (amps) Cooling | 9.5 |
| Max Power Input (amps) Heating | 21.7 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |

Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

## 11.14 230V Heat Pump + 2,700W Elec Heat + 1kW Preheat + ERV - Energy Star Compliant

AIO® CEILING DUCTED - 230V - 2,700W ELEC. HEAT + 1kW PREHEAT + ERV - R32 - SUBMITTAL (ADV09R3H2)

| | | |
|---|---|---|
| Job | Reference | Construction |
| Location | Approval | Quote Number |
| Engineer | Date | Drawing Number |
| Submitted To | Submitted By | P.O. Number |

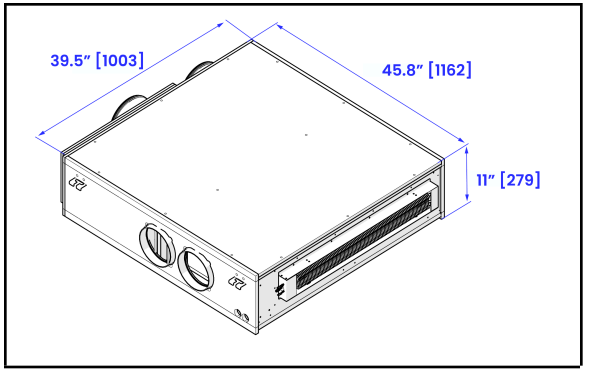
**General Features**

- BLDC inverter compressor
- ECM fans
- Integrated ERV
- Field configured 900W, 1,800W, or 2,700W electric heat supplement
- Field configured 1kW preheat
- Bathroom exhaust connection
- MERV 13 filters on fresh air
- R32 Refrigerant
- Auto restart
- Intelligent defrost
- No outdoor unit
- Onboard touch controller
- Washable filter
- 4 selectable fan speeds + Auto
- 10-Year limited warranty (after certification)
- Made in Italy

The installing contractor must contact INNOVA Customer Technical Support prior to installation to schedule an installation training overview.

This may be conducted in person or remotely (online) It is the official installation training and may include videos, best practices, and system requirements.

Performing installations without training may result in installation errors, performance issues, and possible warranty limitations.




| Performance Specifications | | | |
|---|---|---|---|
| Cooling | Min-Max | BTU/H | 3,100 - 15,000 |
| | Rated capacity (95°F) | | 6,100 |
| | Efficiency | EER2 | 11.56 |
| Heating | Min-Max | BTU/H | 3,500 - 14,000 |
| | Rated capacity (47°F) | | 8,200 |
| | Rated capacity (5°F) | | 5,900 |
| | Efficiency | COP | 3.73 |
| Sound | Indoor: Low-High at 1 m distance | db(A) | 38 - 49 |
| | Indoor: Low-High at 3 m distance | | 30 - 41 |
| | Outdoor sound range | | 28 - 55 |
| Moisture removal | Moisture removal | Pts/h | 1.8 |
| | | L/hr | 0.9 |
| Airflow | Indoor | CFM | 226 - 400 |
| | | $m^3/hr$ | 384 - 680 |
| | Outdoor | CFM | 385 - 638 |
| | | $m^3/hr$ | 654 - 1084 |

| Electric Specifications | |
|---|---|
| Power Supply | 230V/1Ph/60Hz |
| Voltage Range | 180-253 |
| Running Amps Cooling | 4.1 |
| Running Amps Heating | 5.0 |
| MCA | 28 |
| Maximum Overcurrent Protection (A) | 30 |
| Max Power Input (amps) Cooling | 9.5 |
| Max Power Input (amps) Heating | 25.6 |

| Included | Wall Controllers + Gateways | |
|---|---|---|
| ☐ | Wireless Remote | WRCH20 |
| ☐ | Basic Touch Controller | LTCH20 |
| ☐ | Recessed Touch Controller | RTCH20 |
| ☐ | Advanced TFT Controller with 7-Day program | TFTH20 |
| ☐ | Wireless (AA Battery) Infrared Controller with 7-Day program | WIPT20 |
| ☐ | Third Party Gateway | TPG015 |
| ☐ | WiFi Module | WIFI30 |
| ☐ | E-Paper EOS Controller | EEOS12 |
| ☐ | Simple EOS Controller | SEOS12 |
| ☐ | Integration gateway for LTCH20, TFTH20 and MODBUS | GWN |
| ☐ | Integration gateway for LTCH20, TFTH20, MODBUS, BACnet, and third-party thermostats | GWX |



Bottom return configuration (if required) must be specified at time of order. Standard units are supplied with side returns.

With over 20 years of experience in the climate comfort sector, we have a clear goal: growth through innovation. Our team is laser-focused on the conception, development, and production of innovative heating, ventilation, and air conditioning solutions. This mission has developed through bringing together technical skills, creativity, technology, design, Italian passion, and a global vision to achieve the best energy efficiency and performance.

innova.co | **USA:** 216-710-1000 **Canada:** 416-739-1000

MADE IN ITALY

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AIO® Ceiling Ducted with ERV (Gen 3)
**Product Data Sheet**