

HE SERIES

COMMERCIAL ERV CATALOG

MARCH 2024

RENEWAIRE.COM | 800.627.4499

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INDOOR AIR QUALITY MATTERS

DEFICIENT INDOOR AIR QUALITY IS A THREAT

As buildings get tighter to seal weather out, they seal in contaminants, causing deficient indoor air quality (IAQ). Typical contaminants include off-gassing from carpeting, furniture and building materials, excess humidity and mold, odors, cooking and cleaning fumes, CO₂, hair and fibers, to name a few.

Deficient IAQ is a threat since it can harm occupant health and cognitive function, damage structures and hurt the bottom line.

It's especially concerning since people spend about 90% of their time indoors, and indoor air can be two to five times—and up to 100 times—more polluted than outdoor air. The EPA ranks indoor air pollution as a top-five health risk.¹



**HEALTH
MATTERS**



**PRODUCTIVITY
MATTERS**



**LEARNING
MATTERS**

ADVERSE EFFECTS OF DEFICIENT IAQ

HEALTH PROBLEMS

Deficient IAQ can cause allergies, headaches, coughs, asthma, skin irritations and breathing difficulties, as well as cancer, liver disease, kidney damage and nervous-system failure.

DISEASE TRANSMISSION

Ventilation with outdoor air is vital to diluting airborne contaminants and decreasing disease transmission rates.



Ventilation can enhance IAQ and decrease the transmission of airborne infectious diseases, including COVID-19: https://bit.ly/COVID19WP_22

¹ "Why Indoor Air Quality is Important to Schools," U.S. Environmental Protection Agency (EPA), <https://bit.ly/2SoyRJc>.

² Romm, "Exclusive: Elevated CO₂ Levels Directly Affect Human Cognition, New Harvard Study Shows," Climate Progress, <https://bit.ly/2Vpj6AE2>.

³ Aleventis, Berman, Mills, Perlman, "The Costs and Financial Benefits of Green Buildings," U.S. Green Building Council (USGBC), <https://bit.ly/2KnP50c>.

ABOUT RENEWAIRE

For over 40 years, RenewAire has been a pioneer in enhancing IAQ in commercial and residential buildings of every size. This is achieved while maximizing sustainability through our fifth-generation, enthalpic-core, static-plate Energy Recovery Ventilators (ERVs) and Dedicated Outdoor Air Systems (DOAS) that optimize energy efficiency, lower capital costs and decrease operational expenses by reducing HVAC loads therefore minimizing equipment needs, resulting in significant energy savings. Our ERVs/DOAS are competitively priced, simple to install, easy to use and maintain, have a quick payback and enjoy the industry's best warranty with the lowest claims due to long-term reliability. In 2010, RenewAire joined the Soler & Palau (S&P) Ventilation Group, providing direct access to the latest in energy-efficient air-moving technologies. For more information, visit: renewaire.com.



RELEVANT EVERYWHERE

EVERY GEOGRAPHIC REGION

Our ERVs excel in every geographic region.

EVERY CLIMATE

Our ERVs operate in every climate—from Alaska to Florida, and everywhere in between.

EVERY PROJECT

From massive skyscrapers to cozy residential homes, our ERVs can be used in every size project and in every code jurisdiction.

RENEWAIRE TEMPERS THE AIR



Our **ERVs moderate the extremes of outdoor supply-air temperature and humidity year-round**, providing a sustainable solution for cleaner and healthier air that feels like a perfect spring day.

APPLIED ANYWHERE

When indoor occupants breathe in unclean air, this harms their health and causes cognitive impairment. Our ERVs can provide cleaner and healthier indoor air for every type of building in the world, thus improving occupants' wellbeing, while also reducing energy costs.

RESIDENTIAL

The increased airtightness of newer and remodeled homes is causing deficient IAQ, resulting in more health problems for indoor occupants.

COMMERCIAL

As commercial buildings become more airtight, deficient IAQ is increasing and causing sickness, absenteeism and decreased productivity.

HEALTHCARE

The high occupant density of hospitals, nursing homes and other healthcare facilities results in deficient IAQ and ensuing health problems for patients and staff alike.

RESTAURANTS/COFFEE SHOPS

The large volume of indoor occupants in restaurants and coffee shops causes deficient IAQ and subsequent health problems.

RETAIL

The high level of foot traffic in retail stores leads to deficient IAQ and the potential sickness of shoppers, which can negatively impact sales.

DAYCARE

Crowded daycare facilities breed deficient IAQ, thus causing health problems for everyone—especially children who are more vulnerable.

EDUCATION (K-12, COLLEGE/UNIVERSITY)

With students and teachers packed into tight classrooms, instances of deficient IAQ go up, resulting in academic performance and test scores going down.

GOVERNMENT

Aging and crowded government buildings result in deficient IAQ, which can impair worker performance and productivity.

EVERY TYPE OF BUILDING

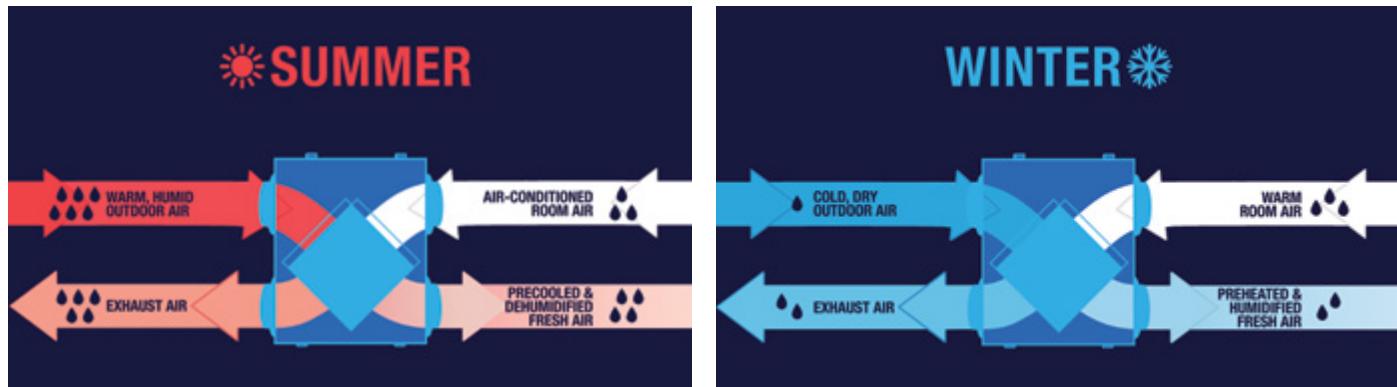
Every type of building can benefit from the enhanced IAQ generated by RenewAire ERVs, including veterinary clinics, nail salons and manufacturing facilities, among others.



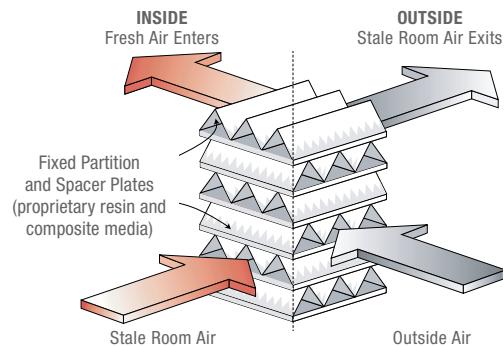
RENEWAIRE ERVs ACHIEVE SUSTAINABLE IAQ

OPTIMIZING ENERGY EFFICIENCY IN EVERY GEOGRAPHIC REGION OR CLIMATE

RenewAire residential ERVs are a sustainable ventilation solution. Our static-plate, cross-flow core separates the outgoing, polluted indoor airstream from the incoming fresh airstream—while simultaneously transferring total energy (heat and water vapor) between the two. Airstreams do not mix and pollutants are not transferred across partition plates. In the winter, that means that the cold, dry outside air is preheated and humidified by the outgoing warm interior air. And in the summer, the warm, humid outside air is precooled and dehumidified by the outgoing air-conditioned interior air.



**AIRSTREAMS DO NOT MIX
& POLLUTANTS ARE NOT TRANSFERRED
ACROSS PARTITION PLATES**



GREEN BUILDING TRENDS

High-performance, green-building standards seek to reduce energy use and increase ventilation to improve health, wellness, IAQ and indoor environmental quality (IEQ). Sustainable design initiatives like ASHRAE Standard 189.1, LEED, 2030 Challenge, Living Building Challenge and WELL Building Standard have grown in popularity among architects, engineers, contractors and building owners alike.

RenewAire ventilation technologies create healthier and more comfortable indoor environments, while optimizing energy efficiency. This is done by reusing otherwise-wasted total energy from the exhaust air to condition incoming outdoor air. The results are exceptional IAQ, IEQ, energy reductions and cost savings.



WHY RENEWAIRE IS PREFERRED



BEST VALUE

- ◆ Priced competitively against other energy recovery ventilation technology
- ◆ Due to competitive pricing and decreased costs, payback is short and ROI is maximized
- ◆ Contractors and OEMs can pass these significant savings along to their customers
- ◆ End users can benefit from a significantly reduced operating cost



RELIABLE OPERATION

- ◆ Built-to-last ERVs have lifespans of 25+ years and operate consistently year-round in every extreme, including frost-free performance in all but the most severe winter climates
- ◆ High-efficiency core operates dry in all conditions, meaning no condensate pans
- ◆ An industry-leading ten-year warranty for the static-plate core, two-year warranty for commercial products



HIGHEST-QUALITY INDOOR AIR

- ◆ Stale indoor air is replaced with fresh, conditioned and filtered air from the outside, resulting in enhanced IAQ by removing harmful contaminants
- ◆ Airstreams do not mix and pollutants are not transferred across partition plates
- ◆ No biocide used; material does not promote biological growth
- ◆ Moderated temperatures and humidity maintain a comfortable indoor environment
- ◆ Superior product quality results in paramount reliability and longevity



OPTIMIZED ENERGY EFFICIENCY

- ◆ Efficient heat and humidity transfer recaptures up to 70–80% of the energy exhausted in the airstream
- ◆ Energy that's otherwise wasted by conventional ventilation systems (such as bath fans) is reused, thus dramatically reducing monthly operation costs
- ◆ Energy-efficient operation decreases HVAC loads, which cuts down on energy use and costs
- ◆ The hotter or colder the climate, the more energy is recovered



HIGHLY CERTIFIED

- ◆ RenewAire products are highly certified. See individual catalog submittal for certification details:
- ◆ UL ◆ cUL ◆ ETL ◆ AHRI ◆ HVI



HE 07IN

NEW! INDOOR UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR EC MOTOR



SPECIFICATIONS

Ventilation Type:
Static plate, heat and humidity transfer

Airflow Range: 166–694 CFM

AHRI 1060 Certified Core:
One L85-G5

Standard Features:
Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports
Independent blower control

Filters:
Total Qty. 2, MERV 8: 14" x 20" x 2"

Unit Weight:
148–278 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):
60" L x 30" W x 55 1/4" H
310 lbs.

Motor(s):
Qty. 2, 170W ea., Direct drive EC motorized impeller packages (208–230V/1Ph/60Hz)

Options:
Qty. 2, Direct drive EC motorized impeller packages:

357W 208–230V/1Ph/60Hz (Intermediate),
330W 208–230V/1Ph/60Hz (Advanced),
357W 120V/1Ph/60Hz (Advanced)

Fused disconnect

Integrated programmable controls: enhanced, premium
Bypass economizer damper (see DIM drawing):
dry-bulb temperature controls (standard),
enthalpy controls (option)

Class 1 low leakage motorized isolation dampers:
FA, EA or both airstreams

Factory mounted filter alarms: both airstreams
Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Backdraft damper: 10", 12"

Automatic balancing damper: 4", 5", 6"

Hooded wall vent 10", 12": galvanized,
paintable galvanneal

Louver with 10" round duct connection:
12" x 12"

Potentiometer speed control: remote installed

Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:
wall mount (C02-W), duct mount (C02-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:
ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

Indoor electric duct heater: RH series (1–11.5 kW),

EK series (1–173 kW),

Indirect gas-fired duct furnace: GH series (50–400 MBH);

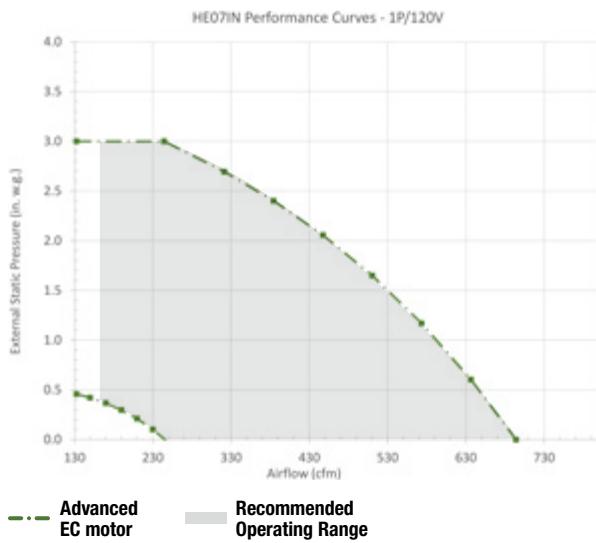
Installed downstream of any fans

Hanging bracket kit

Hanging spring vibration isolation kit

Duct flange kit: square 12" x 12", 2 flanges

EC MOTOR OPERATING RANGE AND FAN PERFORMANCE



| HE07IN MOTOR 1P/120V Options | | |
|------------------------------|--|--------------------------------|
| Airflow (CFM) | Advanced EC | |
| | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
| 133 | 3.00 | 458 |
| 245 | 3.00 | 631 |
| 322 | 2.69 | 706 |
| 385 | 2.40 | 760 |
| 448 | 2.06 | 804 |
| 511 | 1.65 | 833 |
| 573 | 1.17 | 847 |
| 636 | 0.60 | 840 |
| 694 | 0.00 | 815 |

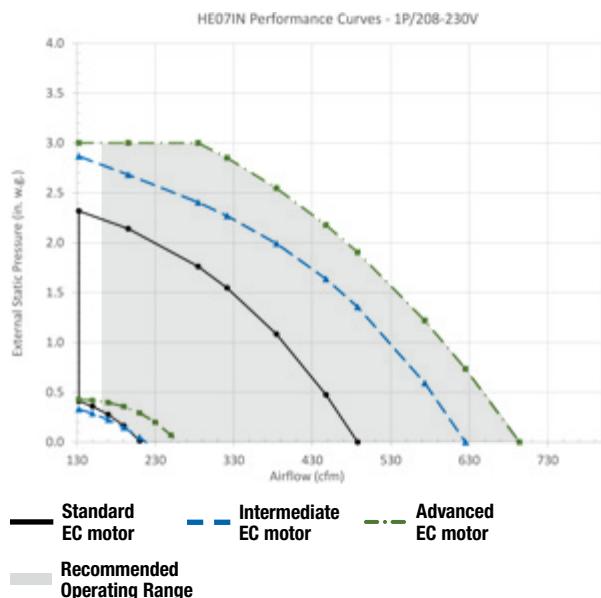
Note: Airflow performance includes effect of clean, standard filter supplied with unit.



AUGMENTED REALITY (AR)

Scan QR code to see life size version of HE07IN, or view here:
<https://AR.MarketScale.com/RenewAire/HE07>


**ENERGY RECOVERY VENTILATOR
EC MOTOR**

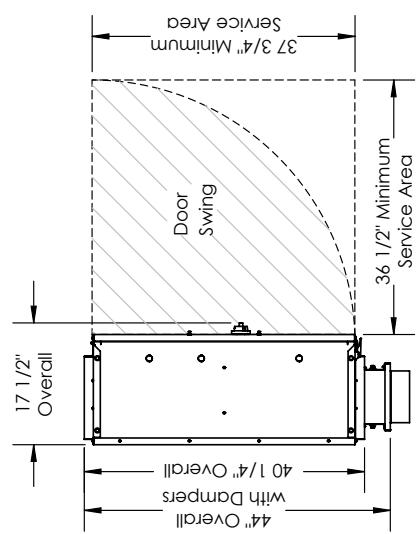
EC MOTOR OPERATING RANGE AND FAN PERFORMANCE


| Airflow (CFM) | HE07IN MOTOR 1P/208-230V Options | | | | | |
|---------------|--|--------------------------------|--|--------------------------------|--|--------------------------------|
| | Standard EC | | Intermediate EC | | Advanced EC | |
| | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
| 133 | 2.32 | 278 | 2.87 | 439 | 3.00 | 406 |
| 196 | 2.14 | 323 | 2.68 | 499 | 3.00 | 462 |
| 285 | 1.76 | 383 | 2.40 | 580 | 3.00 | 493 |
| 322 | 1.55 | 402 | 2.27 | 610 | 2.85 | 631 |
| 385 | 1.08 | 418 | 1.99 | 656 | 2.55 | 663 |
| 448 | 0.48 | 408 | 1.64 | 690 | 2.18 | 711 |
| 488 | 0.00 | 384 | 1.36 | 706 | 1.90 | 748 |
| 573 | | | 0.59 | 716 | 1.22 | 766 |
| 625 | | | 0.00 | 705 | 0.74 | 790 |
| 694 | | | | | 0.00 | 795 |

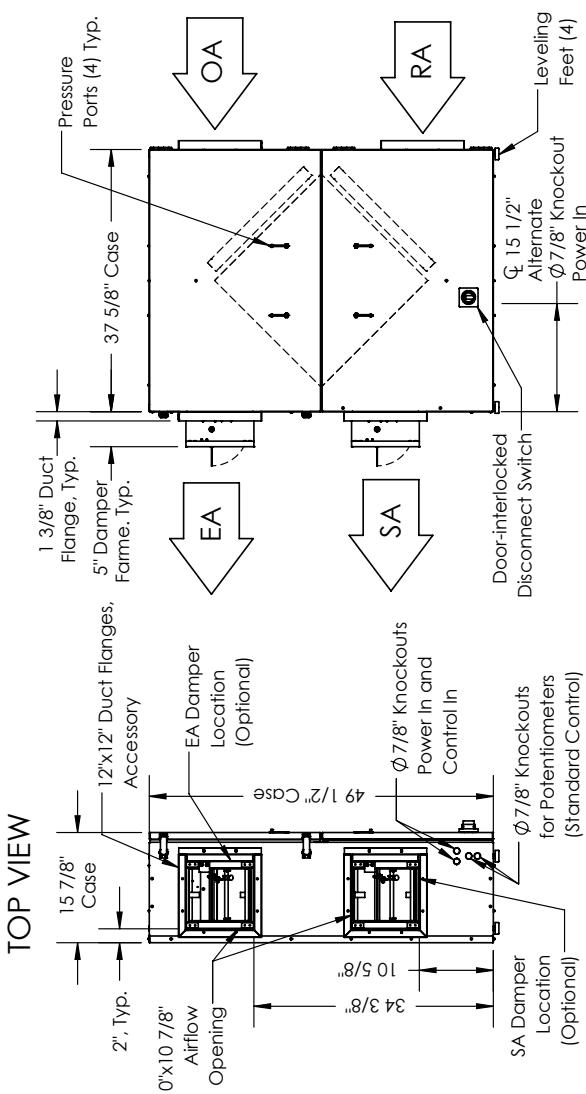
Note: Airflow performance includes effect of clean, standard filter supplied with unit.

ELECTRICAL DATA

| Option | Watts | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
|-------------------|-------|---------|----|--------|---------------|----------------|------------------------------------|
| [EE] Standard | 170 | 208-230 | 60 | Single | 1.16 | 2.6 | 15 |
| [BB] Intermediate | 357 | 208-230 | 60 | Single | 2.76 | 6.2 | 15 |
| [AA] Advanced | 330 | 208-230 | 60 | Single | 1.55 | 3.5 | 15 |
| | 357 | 120 | 60 | Single | 5.4 | 12.2 | 15 |

HEO7INH ENERGY RECOVERY VENTILATOR EC MOTOR

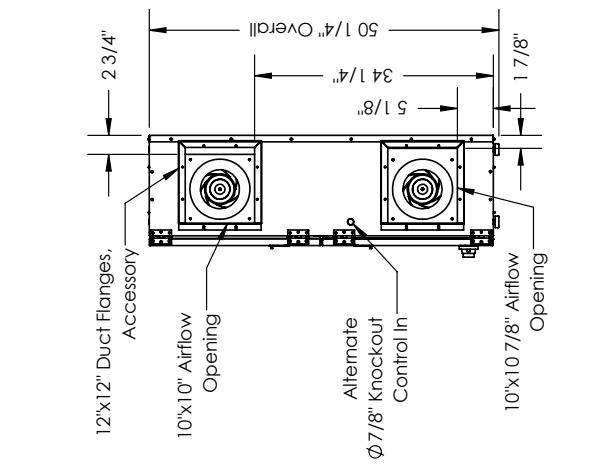
FRONT VIEW



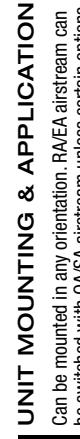
LEFT VIEW

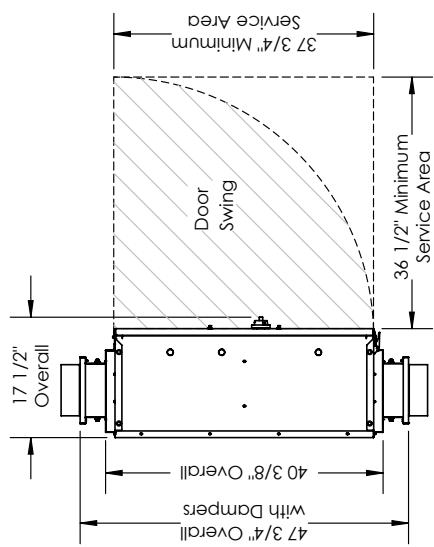


FRONT VIEW

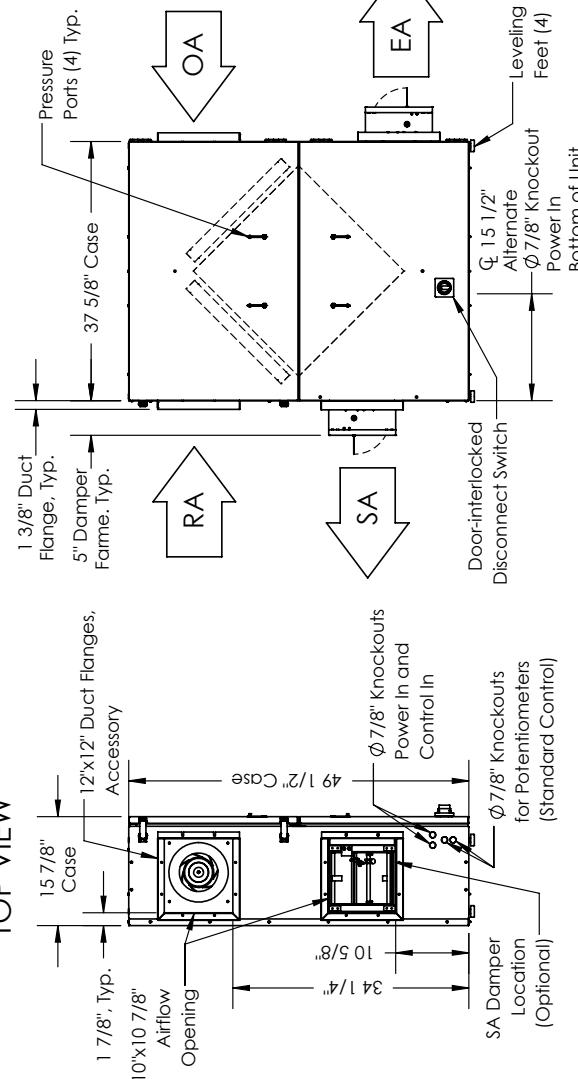


RIGHT VIEW

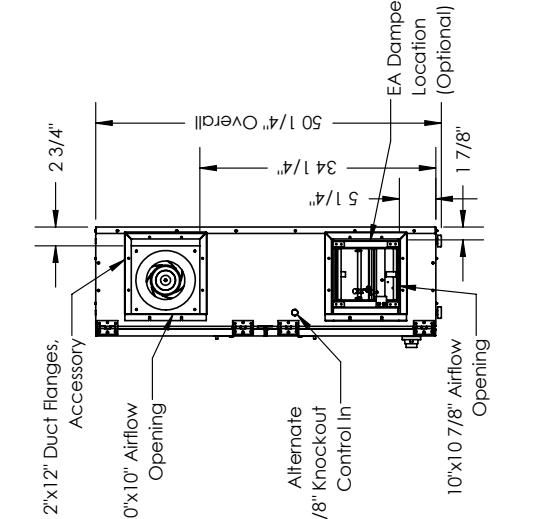


HEO7INV ENERGY RECOVERY VENTILATOR EC MOTOR

FRONT VIEW

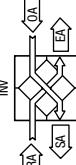


TOP VIEW



RIGHT VIEW

FRONT VIEW

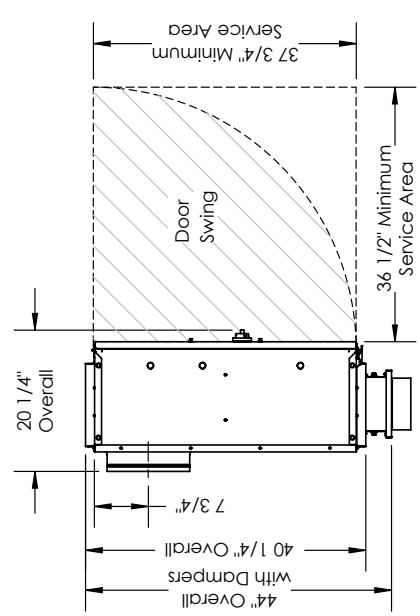


LEFT VIEW

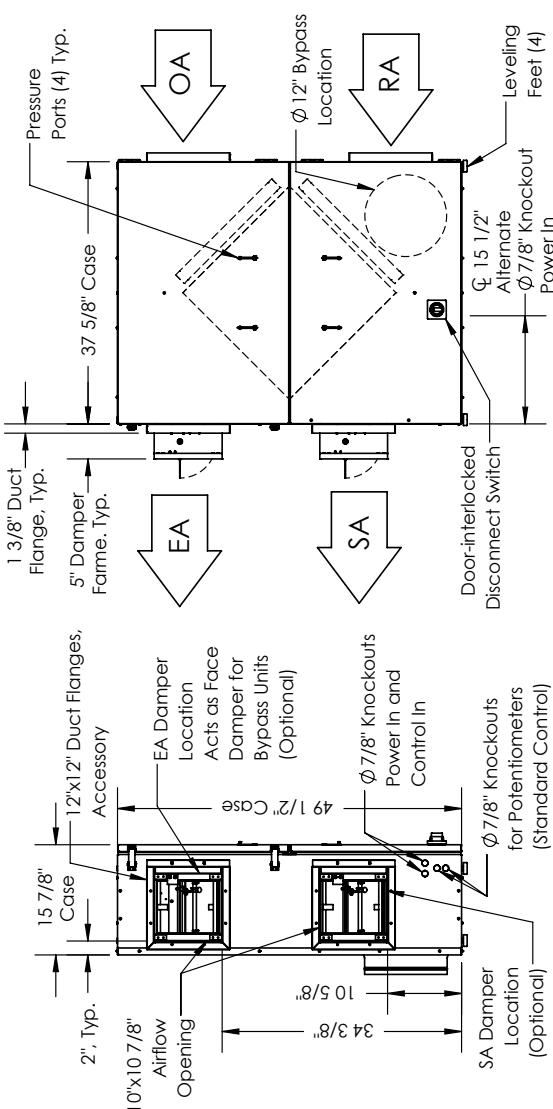
AIRFLOW ORIENTATION
Available as shown:

UNIT MOUNTING & APPLICATION
Can be mounted in any orientation. RA/EA airstream can be switched with OA/SA airstream unless certain options are selected.



HEO7INH ENERGY RECOVERY VENTILATOR EC MOTOR WITH BYPASS ECONOMIZER

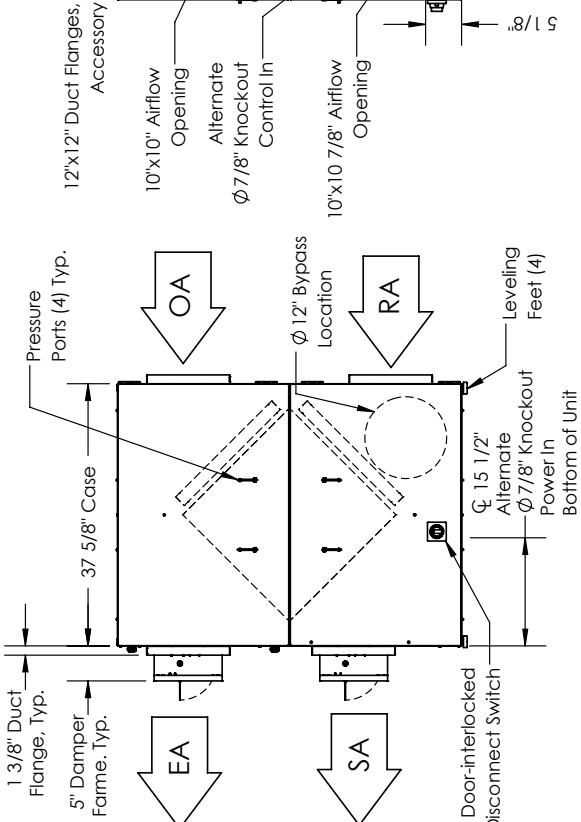
TOP VIEW



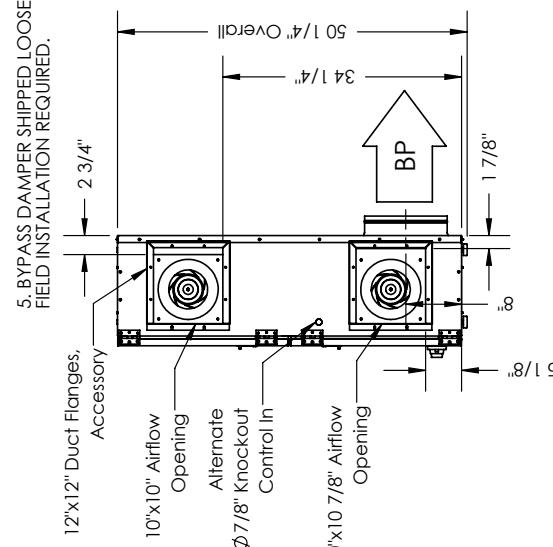
LEFT VIEW



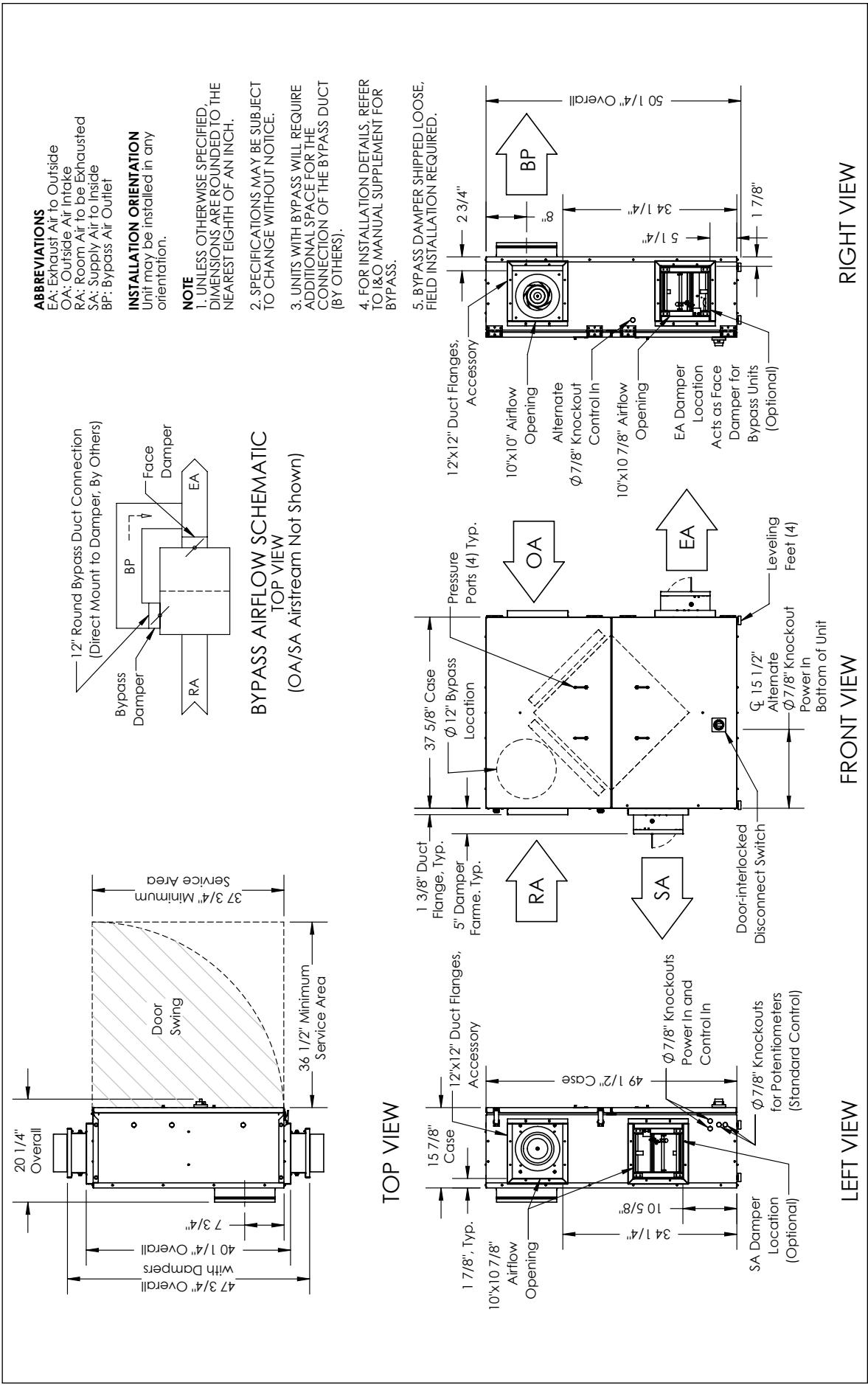
FRONT VIEW



RIGHT VIEW



HEO7INV ENERGY RECOVERY VENTILATOR EC MOTOR WITH BYPASS ECONOMIZER




HE 07RT
NEW! OUTDOOR UNIT


Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR EC MOTOR

SPECIFICATIONS

Ventilation Type: Static plate, heat and humidity transfer

Airflow Range: 166–694 CFM

AHRI 1060 Certified Core:

One L85-G5

Standard Features:

Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports
Independent blower control

Filters:

Total Qty. 2, MERV 8: 14" x 20" x 2"

Unit Weight:

218–373 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):
60" L x 30" W x 82 1/4" H
410 lbs.

Motor(s):

Qty. 2, 170W ea., Direct drive EC motorized impeller packages (208–230V/1Ph/60Hz)

Options:

Qty. 2, Direct drive EC motorized impeller packages:
357W 208–230V/1Ph/60Hz (Intermediate),
330W 208–230V/1Ph/60Hz (Advanced),
357W 120V/1Ph/60Hz (Advanced)

Fused disconnect

Integrated programmable controls: enhanced, premium
Class 1 low leakage motorized isolation dampers:
FA, EA or both airstreams

Factory mounted filter alarms: both airstreams

Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Backdraft damper: 10", 12"

Automatic balancing damper: 4", 5", 6"

Potentiometer speed control: remote installed

Roof curb: standard 14"

Curb wind clip

Engineered combo curb for Trane or Carrier RTUs

Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-W)

Motion occupancy sensor/control:

ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

Indoor electric duct heater: RH series (1–11.5 kW),

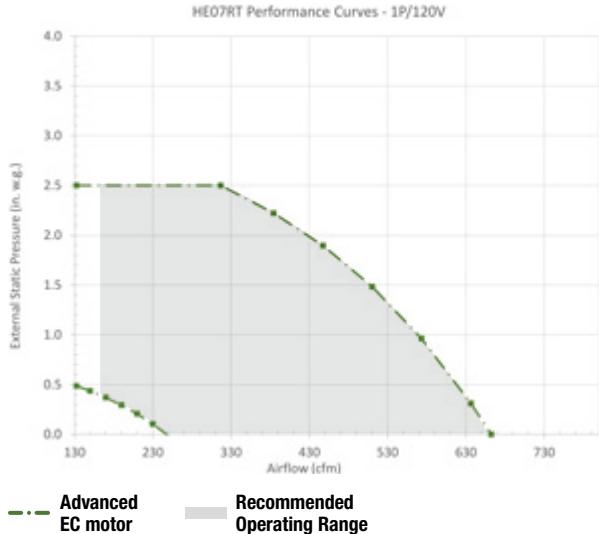
EK series (1–175 kW)

Indirect gas-fired duct furnace: GH series (50–400 MBH);

Installed downstream of any fans

Duct flange kit: square 12" x 12", 2 flanges

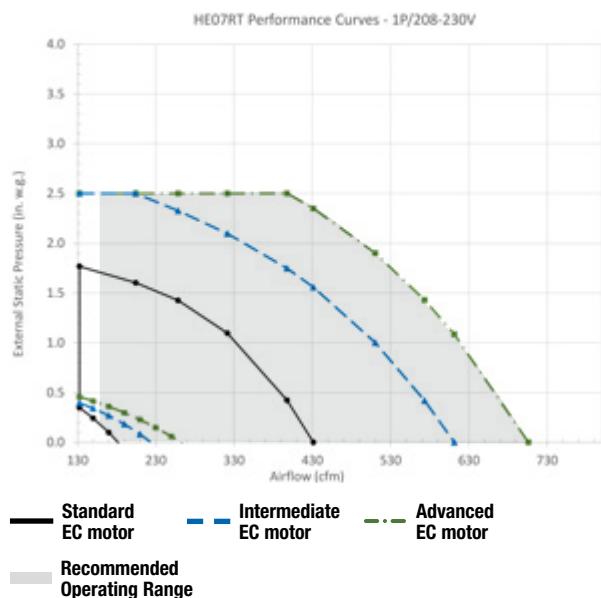
EC MOTOR OPERATING RANGE AND FAN PERFORMANCE



| HE07RT MOTOR 1P/120V Options | | |
|------------------------------|--|--------------------------------|
| Airflow (CFM) | Advanced EC | |
| | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
| 133 | 2.50 | 485 |
| 317 | 2.50 | 658 |
| 385 | 2.22 | 717 |
| 448 | 1.90 | 767 |
| 511 | 1.48 | 808 |
| 573 | 0.96 | 840 |
| 636 | 0.31 | 860 |
| 662 | 0.00 | 865 |

Note: Airflow performance includes effect of clean, standard filter supplied with unit.


**ENERGY RECOVERY VENTILATOR
EC MOTOR**

EC MOTOR OPERATING RANGE AND FAN PERFORMANCE


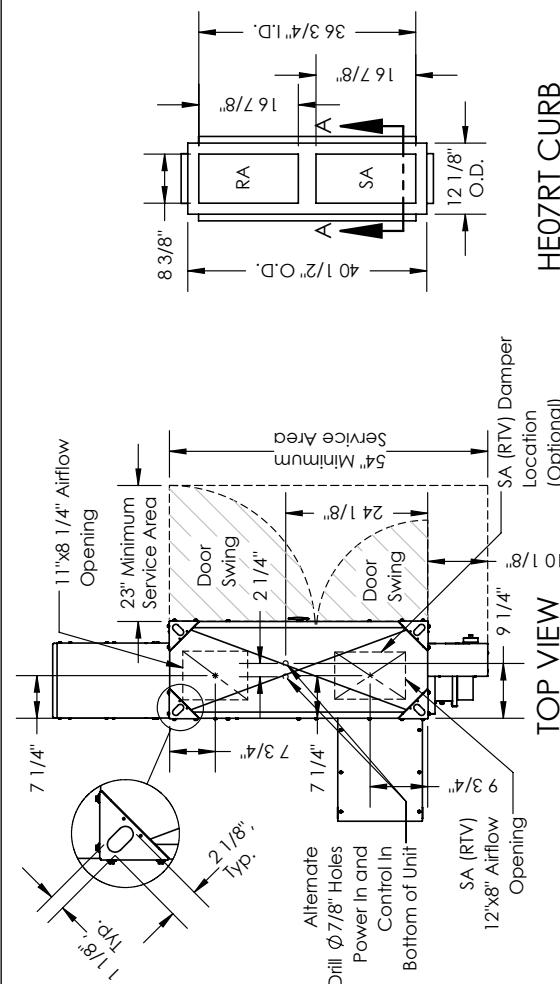
| Airflow (CFM) | HE07RT MOTOR 1P/208-230V Options | | | | | |
|---------------|--|--------------------------------|--|--------------------------------|--|--------------------------------|
| | Standard EC | | Intermediate EC | | Advanced EC | |
| | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
| 133 | 1.77 | 265 | 2.50 | 356 | 2.50 | 354 |
| 204 | 1.60 | 310 | 2.50 | 465 | 2.50 | 444 |
| 259 | 1.43 | 342 | 2.33 | 514 | 2.50 | 516 |
| 322 | 1.10 | 371 | 2.10 | 568 | 2.50 | 609 |
| 398 | 0.42 | 388 | 1.75 | 626 | 2.50 | 743 |
| 431 | 0.00 | 387 | 1.56 | 647 | 2.35 | 772 |
| 511 | | | 1.00 | 683 | 1.90 | 823 |
| 573 | | | 0.42 | 694 | 1.43 | 844 |
| 611 | | | 0.00 | 691 | 1.09 | 846 |
| 706 | | | | | 0.00 | 811 |

Note: Airflow performance includes effect of clean, standard filter supplied with unit.

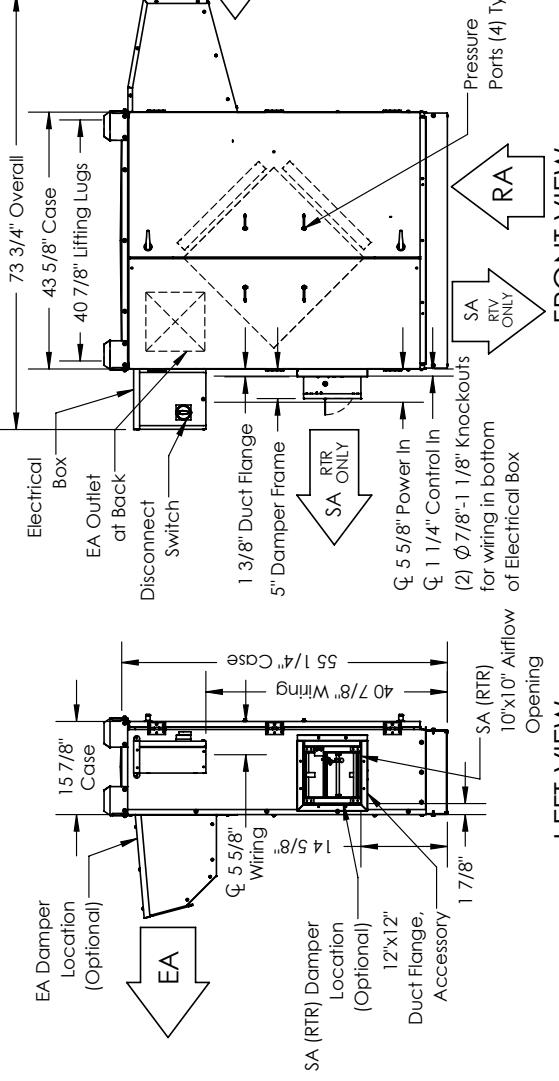
ELECTRICAL DATA

| Option | Watts | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
|-------------------|-------|---------|----|--------|---------------|----------------|------------------------------------|
| [EE] Standard | 170 | 208-230 | 60 | Single | 1.16 | 2.6 | 15 |
| [BB] Intermediate | 357 | 208-230 | 60 | Single | 2.76 | 6.2 | 15 |
| [AA] Advanced | 330 | 208-230 | 60 | Single | 1.55 | 3.5 | 15 |
| | 357 | 120 | 60 | Single | 5.4 | 12.2 | 15 |

HEO7RT (RTV/RTR) ENERGY RECOVERY VENTILATOR EC MOTOR



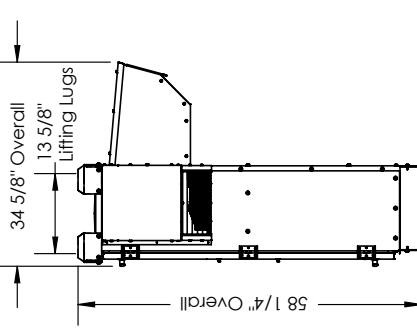
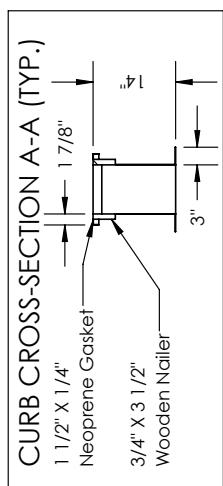
HEO7RT CURB



LEFT VIEW

AIRFLOW ORIENTATION

Available as shown:



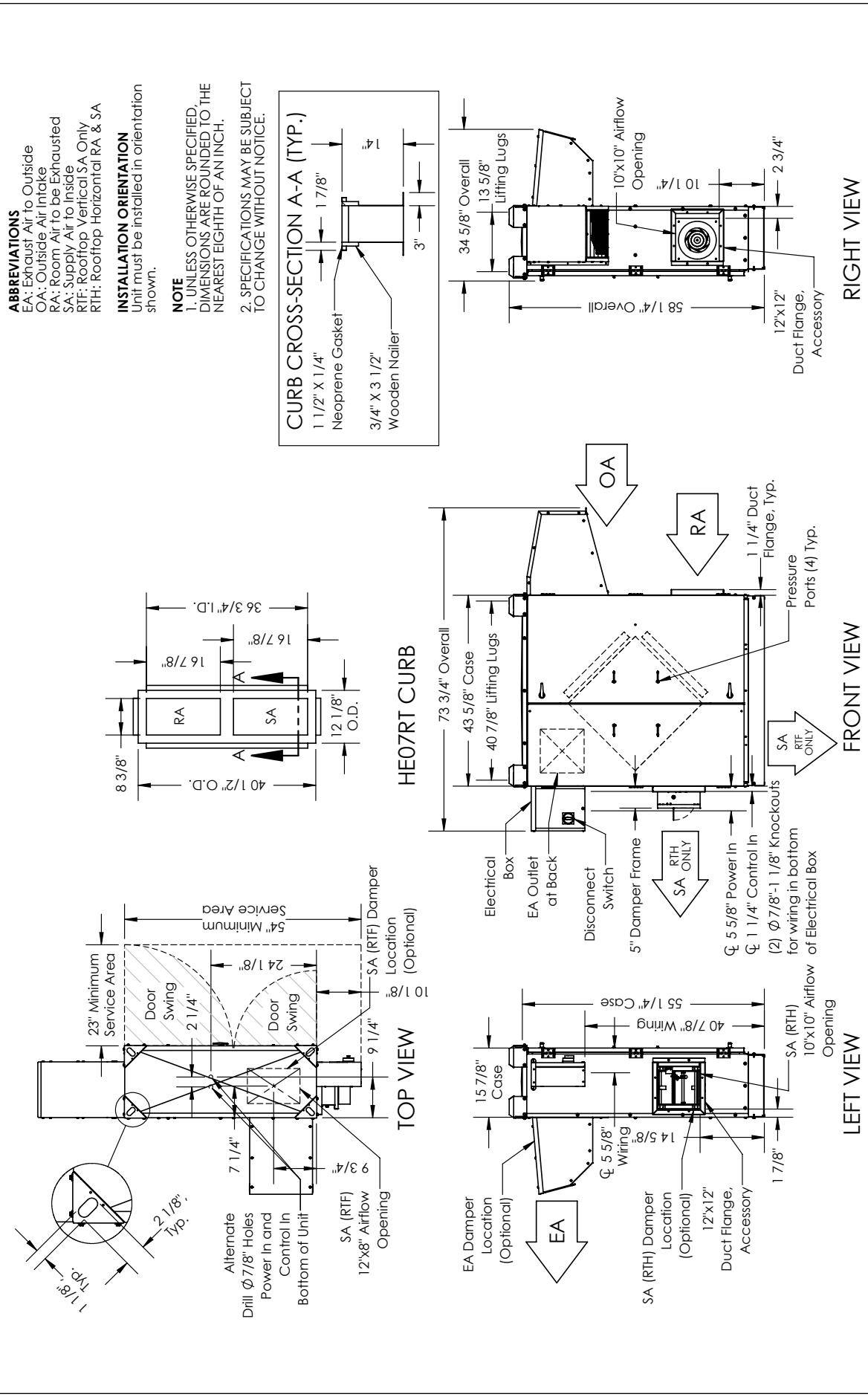
RIGHT VIEW

UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.



HEO7RT (RTH/RTF) ENERGY RECOVERY VENTILATOR EC MOTOR



HE 10IN

NEW! INDOOR UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR EC MOTOR



SPECIFICATIONS

Ventilation Type:
Static plate, heat and humidity transfer

Airflow Range: 250–1100 CFM

AHRI 1060 Certified Core:
One L125-G5

Standard Features:
Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports
Independent blower control

Filters:
Total Qty. 2, MERV 8: 20" x 20" x 2"

Unit Weight:
194–350 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):
60" L x 30" W x 55 1/4" H
385 lbs.

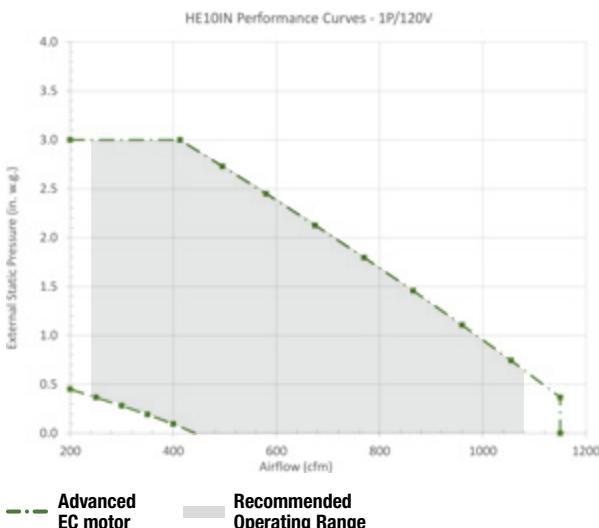
Motor(s):
Qty. 2, 370W ea., Direct drive EC motorized
impeller packages (208–230V/1Ph/60Hz)

Options:
Qty. 2, Direct drive EC motorized impeller packages:
480W 120V/1Ph/60Hz (Advanced),
680W 208–230V/1Ph/60Hz (Advanced),
860W 460V/3Ph/60Hz (Advanced)

Fused disconnect
Integrated programmable controls: enhanced, premium
Bypass economizer damper (see DIM drawing):
dry-bulb temperature controls (standard),
enthalpy controls (option)
Class 1 low leakage motorized isolation dampers:
FA, EA or both airstreams
Factory mounted filter alarms: both airstreams
Double wall construction
Exterior paint: white, custom colors

Accessories:
Filters: MERV 13, 2" (shipped loose)
Backdraft damper: 12"
Automatic balancing damper: 4", 5", 6"
Hooded wall vent 12": galvanized, paintable galvanneal
Potentiometer speed control: remote installed
Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)
Carbon dioxide sensor/control:
wall mount (CO2-W), duct mount (CO2-D)
IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)
Motion occupancy sensor/control:
ceiling mount (MC-C), wall mount (MC-W)
Smoke detector: duct mount (SD-D)
BACnet fan control: wall mount (BACNETFC-W)
Indoor electric duct heater: RH series (1–11.5 kW),
EK series (1–175 kW);
Indirect gas-fired duct furnace: GH series (50–400 MBH);
Installed downstream of any fans
Hanging bracket kit
Hanging spring vibration isolation kit
Duct flange kit: square 14" x 14", 2 flanges

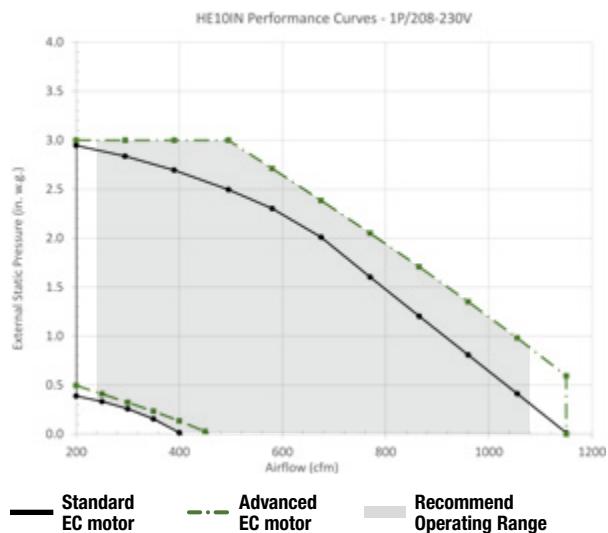
EC MOTOR OPERATING RANGE AND FAN PERFORMANCE



| Airflow (CFM) | HE10IN MOTOR 1P/120V Options | |
|------------------|------------------------------|------|
| | Advanced EC | |
| 200 | 3.00 | 673 |
| 413 | 3.00 | 989 |
| 495 | 2.73 | 1027 |
| 580 | 2.45 | 1060 |
| 675 | 2.13 | 1087 |
| 770 | 1.80 | 1105 |
| 865 | 1.46 | 1113 |
| 960 | 1.11 | 1113 |
| 1055 | 0.75 | 1103 |
| 1150 | 0.37 | 1084 |
| 1150 | 0.00 | 877 |

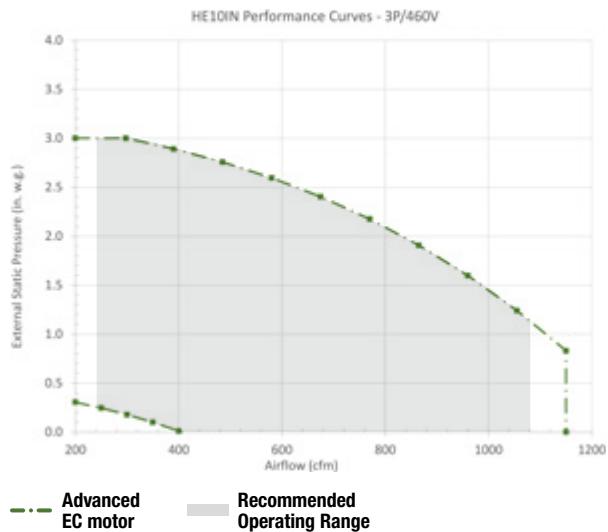
Note: Airflow performance includes effect of clean, standard filter supplied with unit.


**ENERGY RECOVERY VENTILATOR
EC MOTOR**

EC MOTOR OPERATING RANGE AND FAN PERFORMANCE


| Airflow (CFM) | HE10IN MOTOR 1P/208–230V Options | |
|---------------|--|--------------------------------|
| | Standard EC | Advanced EC |
| 200 | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
| 295 | 2.95 | 571 |
| 390 | 2.69 | 737 |
| 495 | 2.50 | 813 |
| 580 | 2.30 | 864 |
| 675 | 2.01 | 900 |
| 770 | 1.60 | 900 |
| 865 | 1.20 | 900 |
| 960 | 0.81 | 900 |
| 1055 | 0.41 | 900 |
| 1150 | 0.01 | 900 |
| 1150 | | |
| | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
| | 3.00 | 672 |
| | 3.00 | 809 |
| | 3.00 | 953 |
| | 3.00 | 822 |
| | 2.71 | 1158 |
| | 2.38 | 1190 |
| | 2.05 | 1215 |
| | 1.71 | 1231 |
| | 1.35 | 1239 |
| | 0.98 | 1239 |
| | 0.59 | 1232 |
| | 0.00 | 877 |

Note: Airflow performance includes effect of clean, standard filter supplied with unit.

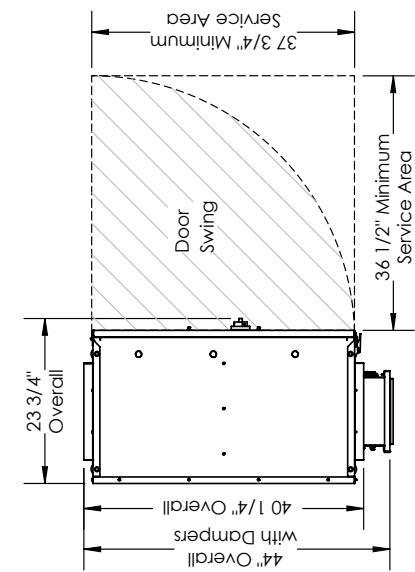


| Airflow (CFM) | HE10IN MOTOR 3P/460V Options | |
|---------------|--|--------------------------------|
| | Advanced EC | |
| 200 | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
| 298 | 3.00 | 807 |
| 390 | 2.89 | 928 |
| 485 | 2.76 | 1015 |
| 580 | 2.60 | 1105 |
| 675 | 2.40 | 1191 |
| 770 | 2.18 | 1273 |
| 865 | 1.91 | 1346 |
| 960 | 1.60 | 1408 |
| 1055 | 1.24 | 1456 |
| 1150 | 0.83 | 1488 |
| 1150 | 0.00 | 1501 |
| | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
| | 3.00 | 1097 |

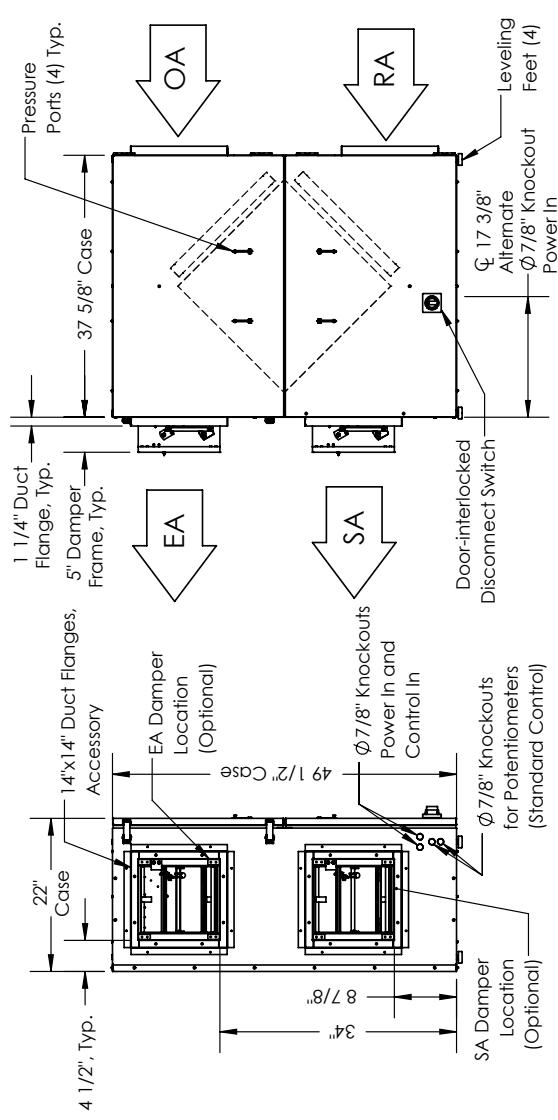
Note: Airflow performance includes effect of clean, standard filter supplied with unit.

ELECTRICAL DATA

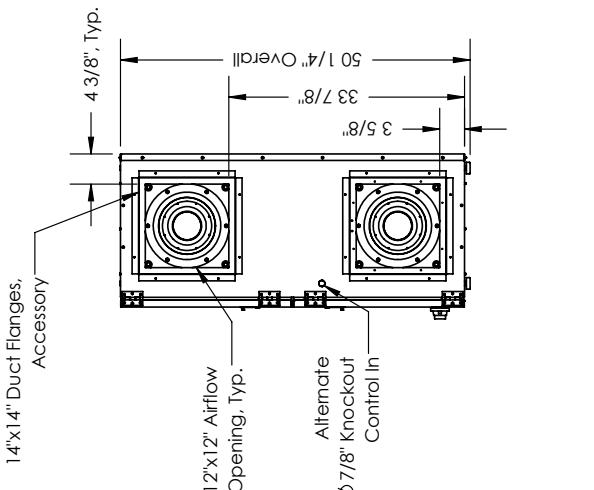
| Option | Watts | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
|---------------|-------|---------|----|--------|---------------|----------------|------------------------------------|
| [EE] Standard | 370 | 208–230 | 60 | Single | 1.73 | 3.9 | 15 |
| [AA] Advanced | 480 | 120 | 60 | Single | 6.5 | 14.6 | 20 |
| | 680 | 208–230 | 60 | Single | 5 | 11.3 | 15 |
| | 860 | 460 | 60 | Three | 1.22 | 2.7 | 15 |

HE10INH ENERGY RECOVERY VENTILATOR EC MOTOR

TOP VIEW

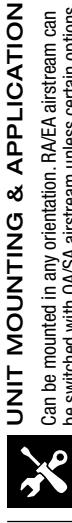


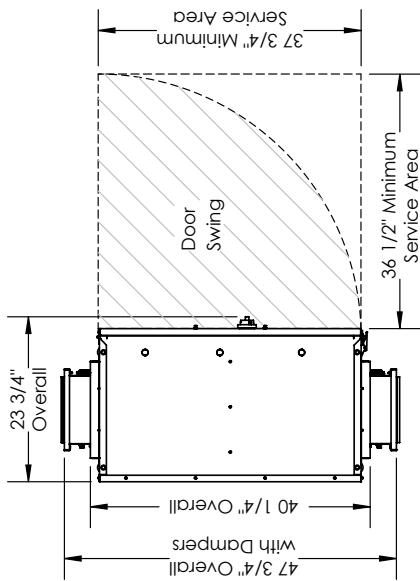
LEFT VIEW



FRONT VIEW

RIGHT VIEW

AIRFLOW ORIENTATION
Available as shown:

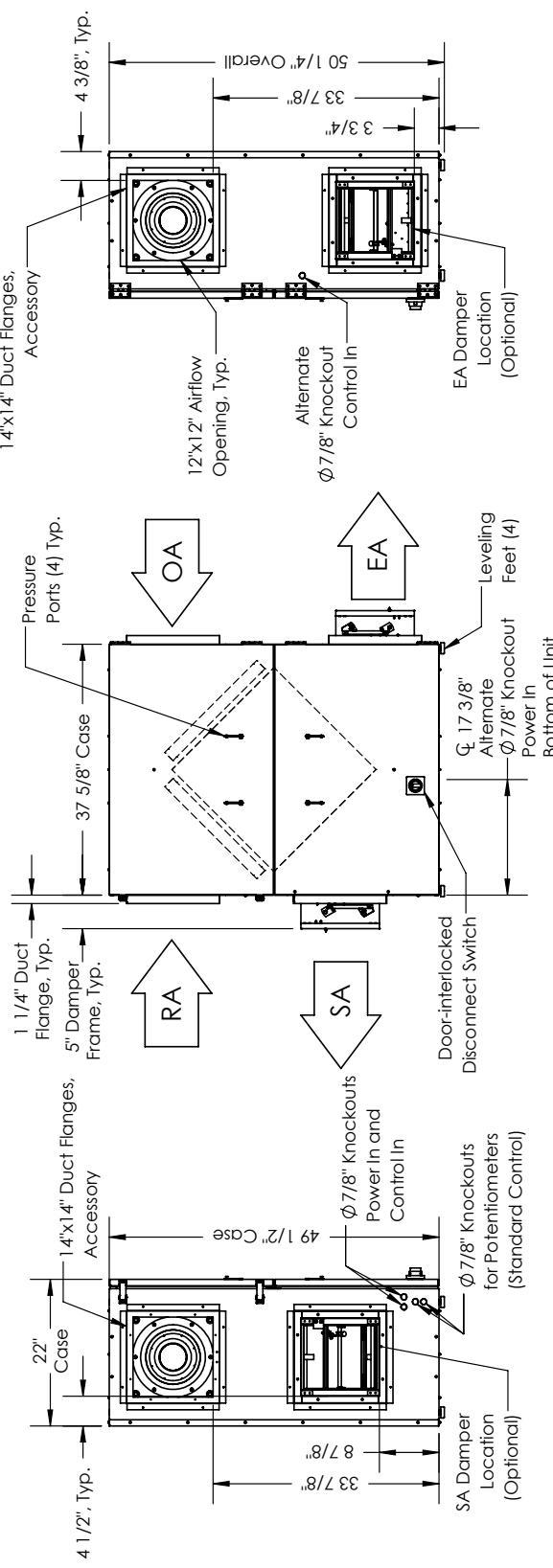
HE10INV ENERGY RECOVERY VENTILATOR EC MOTOR

ABBREVIATIONS
 EA: Exhaust Air to Outside
 OA: Outside Air Intake
 RA: Room Air to be Exhausted
 SA: Supply Air to Inside

INSTALLATION ORIENTATION
 Unit may be installed in any orientation.

NOTE
 1. UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE ROUNDED TO THE
 NEAREST EIGHTH OF AN INCH.
 2. SPECIFICATIONS MAY BE SUBJECT
 TO CHANGE WITHOUT NOTICE.

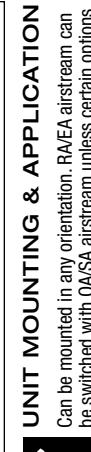
TOP VIEW



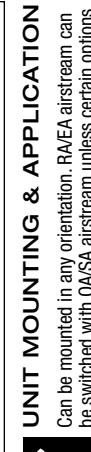
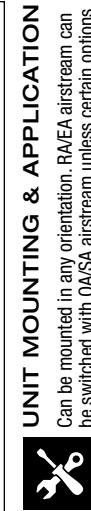
LEFT VIEW



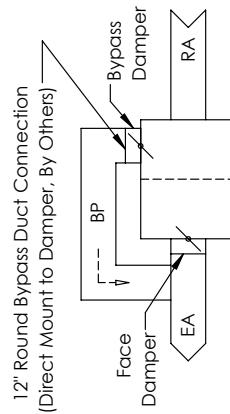
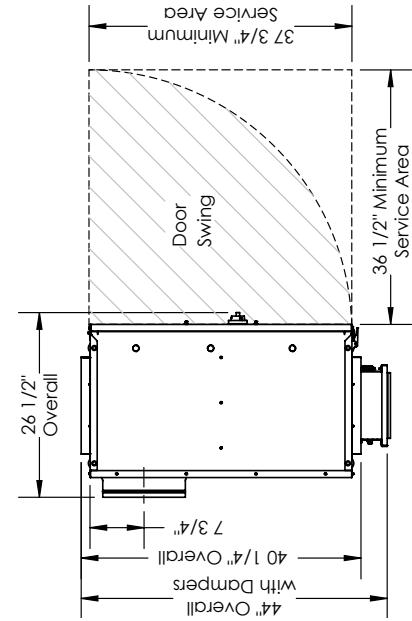
FRONT VIEW



RIGHT VIEW



HE10INH ENERGY RECOVERY VENTILATOR EC MOTOR WITH BYPASS ECONOMIZER



ABBREVIATIONS

EA: Exhaust Air to Outside
OA: Outside Air Intake
RA: Room Air to be Exhausted
SA: Supply Air to Inside
BP: Bypass Air Outlet

INSTALLATION ORIENTATION

Unit may be installed in any orientation.

NOTE

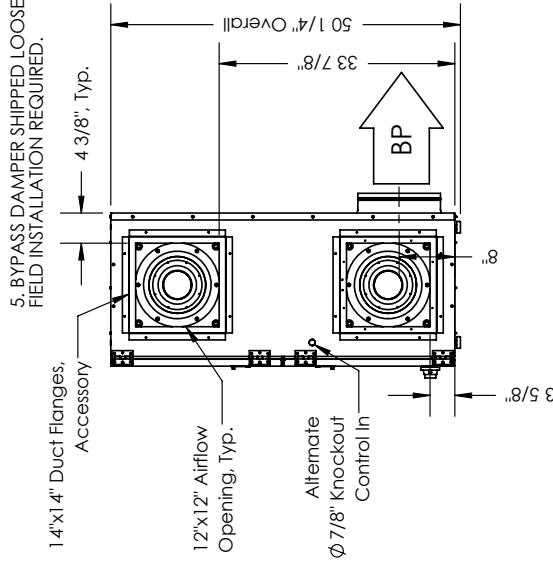
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.

2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

3. UNITS WITH BYPASS WILL REQUIRE ADDITIONAL SPACE FOR THE CONNECTION OF THE BYPASS DUCT (BY OTHERS).

4. FOR INSTALLATION DETAILS, REFER TO I&O MANUAL SUPPLEMENT FOR BYPASS.

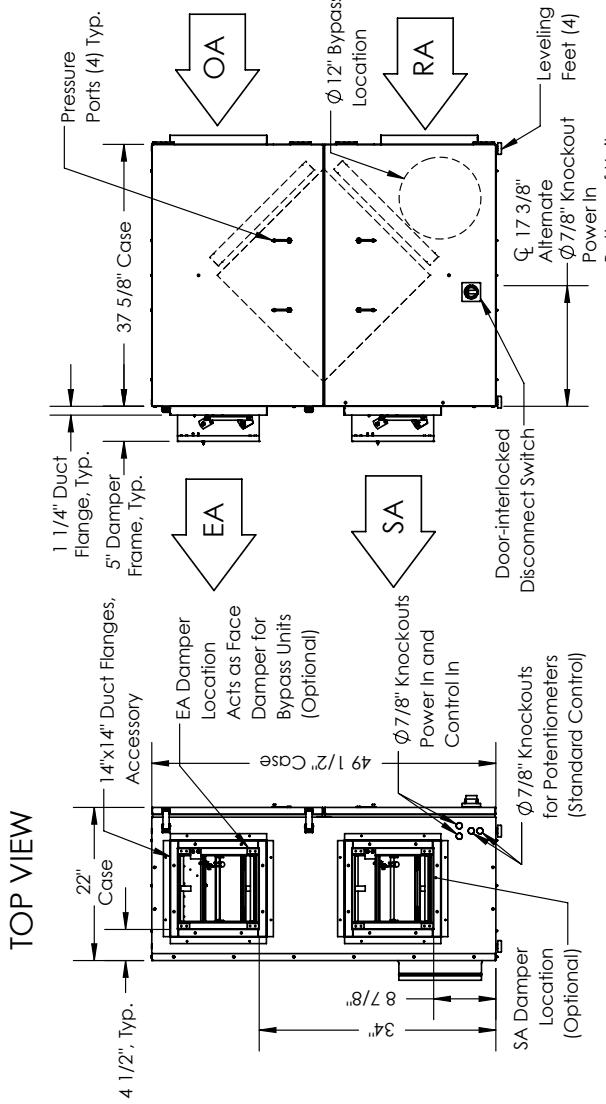
5. BYPASS DAMPER SHIPPED LOOSE, FIELD INSTALLATION REQUIRED.



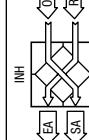
RIGHT VIEW

UNIT MOUNTING & APPLICATION

Can be mounted in any orientation. Airstream cannot be switched.



FRONT VIEW



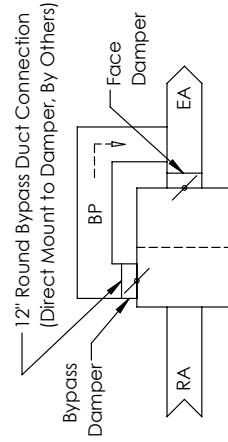
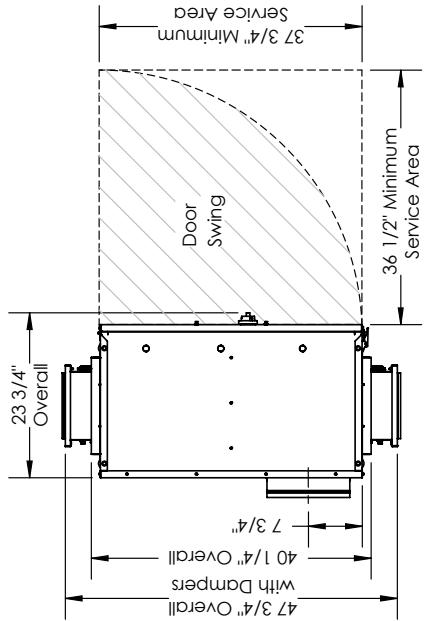
LEFT VIEW

AIRFLOW ORIENTATION

Available as shown:



HE10INV ENERGY RECOVERY VENTILATOR EC MOTOR WITH BYPASS ECONOMIZER



BYPASS AIRFLOW SCHEMATIC
TOP VIEW
(OA/SA Airstream Not Shown)

ABBREVIATIONS

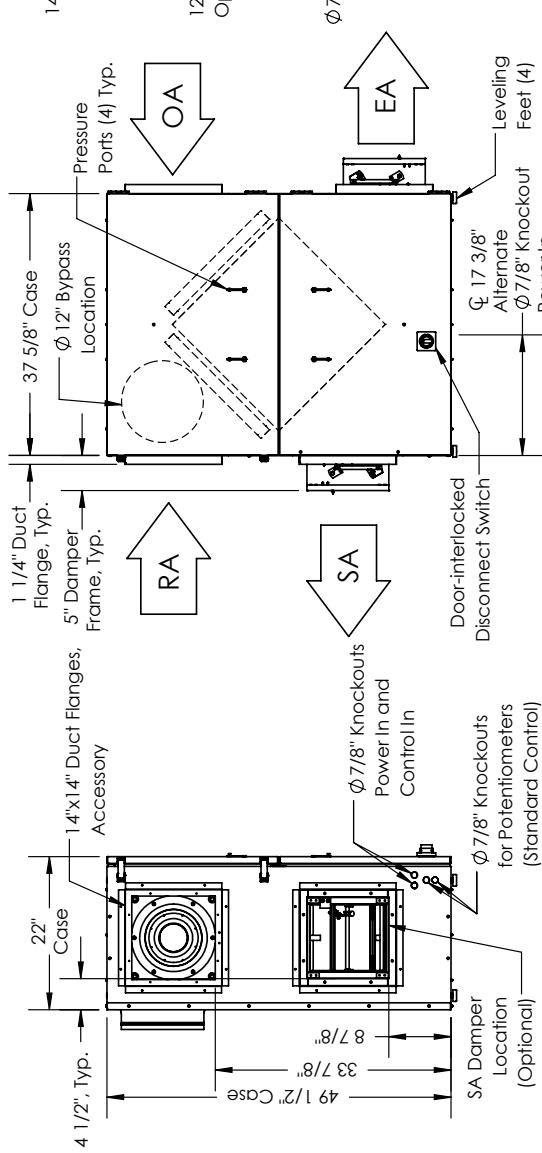
EA: Exhaust Air to Outside
OA: Outside Air Intake
RA: Room Air to be Exhausted
SA: Supply Air to Inside
BP: Bypass Air Outlet

INSTALLATION ORIENTATION
Unit may be installed in any orientation.

NOTE

1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.
3. UNITS WITH BYPASS WILL REQUIRE ADDITIONAL SPACE FOR THE CONNECTION OF THE BYPASS DUCT (BY OTHERS).
4. FOR INSTALLATION DETAILS, REFER TO I&O MANUAL SUPPLEMENT FOR BYPASS.

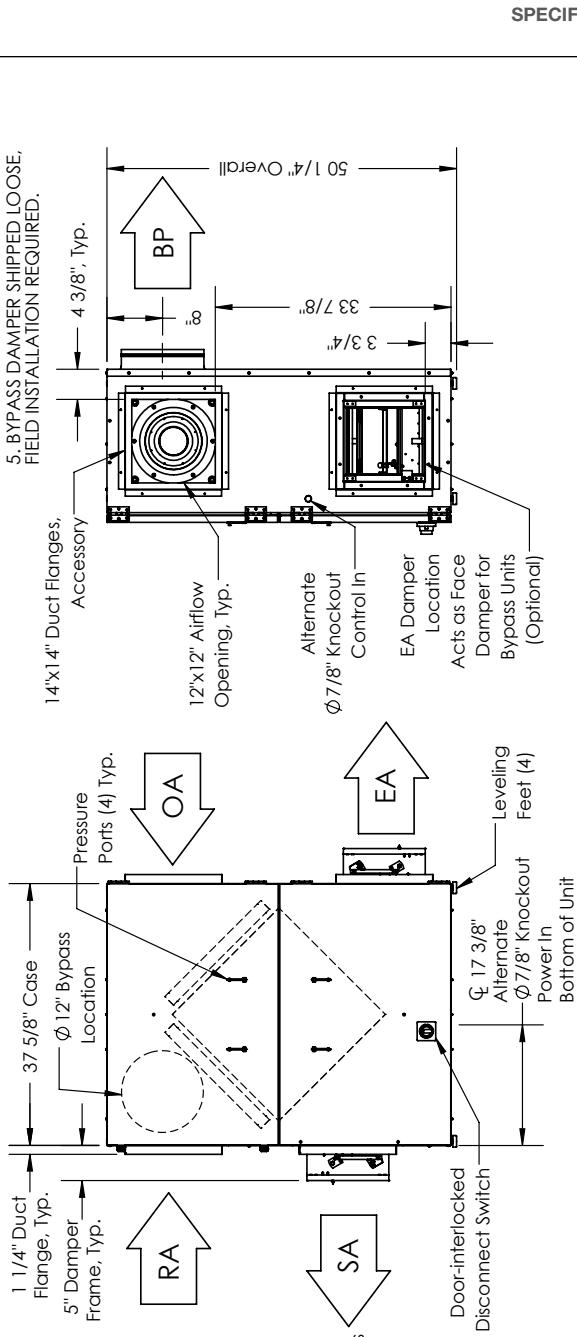
TOP VIEW



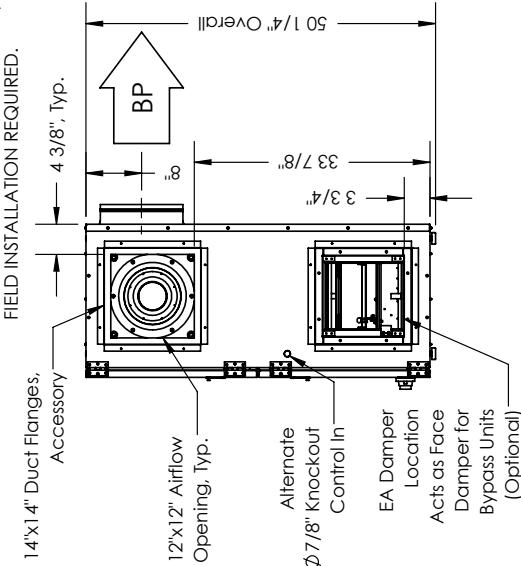
LEFT VIEW



FRONT VIEW



RIGHT VIEW



UNIT MOUNTING & APPLICATION
Can be mounted in any orientation. Airstream cannot be switched.





HE 10RT

NEW! OUTDOOR UNIT



Energy recovery core is AHRI Certified®

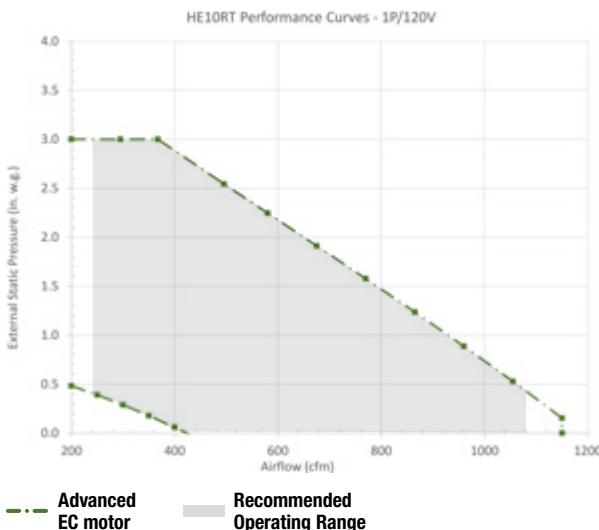


ENERGY RECOVERY VENTILATOR EC MOTOR

SPECIFICATIONS

| | |
|--|---|
| Ventilation Type: Static plate, heat and humidity transfer | Options: Qty. 2, Direct drive EC motorized impeller packages: 480W 120V/1Ph/60Hz (Advanced), 680W 208–230V/1Ph/60Hz (Advanced), 860W 460V/3Ph/60Hz (Advanced) |
| Airflow Range: 250–1100 CFM | Fused disconnect |
| AHRI 1060 Certified Core: One L125-G5 | Integrated programmable controls: enhanced, premium Class 1 low leakage motorized isolation dampers: FA, EA or both airstreams |
| Standard Features: Non-fused disconnect 24VAC transformer/relay package Cross-core differential pressure ports Independent blower control | Factory mounted filter alarms: both airstreams Double wall construction Exterior paint: white, custom colors |
| Filters: Total Qty. 2, MERV 8: 20" x 20" x 2" | Accessories: Filters: MERV 13, 2" (shipped loose) Backdraft damper: 12" Automatic balancing damper: 4", 5", 6" Potentiometer speed control: remote installed Roof curb: standard 14" Curb wind clip Engineered combo curb for Trane or Carrier RTUs Digital time clock: wall mount (TC7D-W), in exterior enclosure (TC7D-E) Carbon dioxide sensor/control: wall mount (CO2-W), duct mount (CO2-D) IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D) Motion occupancy sensor/control: ceiling mount (MC-C), wall mount (MC-W) Smoke detector: duct mount (SD-D) BACnet fan control: wall mount (BACNETFC-W) Indoor electric duct heater: RH series (1–11.5 kW), EK series (1–175 kW) Indirect gas-fired duct furnace: GH series (50–400 MBH); Installed downstream of any fans Duct flange kit: square 14" x 14", 2 flanges |
| Unit Weight: 261–415 lbs., varies by option(s) | |
| Max. Shipping Dimensions & Weight (on pallet): 60" L x 30" W x 82 1/4" H 455 lbs. | |
| Motor(s): Qty. 2, 370W ea., Direct drive EC motorized impeller packages (208–230V/1Ph/60Hz) | |

EC MOTOR OPERATING RANGE AND FAN PERFORMANCE



| HE10RT MOTOR 1P/120V Options | | |
|------------------------------|---|--------------------------------------|
| Airflow (CFM) | Advanced EC | |
| | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
| 200 | 3.00 | 567 |
| 295 | 3.00 | 739 |
| 367 | 3.00 | 870 |
| 495 | 2.54 | 978 |
| 580 | 2.25 | 1033 |
| 675 | 1.91 | 1080 |
| 770 | 1.58 | 1113 |
| 865 | 1.24 | 1133 |
| 960 | 0.89 | 1142 |
| 1055 | 0.53 | 1140 |
| 1150 | 0.15 | 1129 |
| 1150 | 0.00 | 1017 |

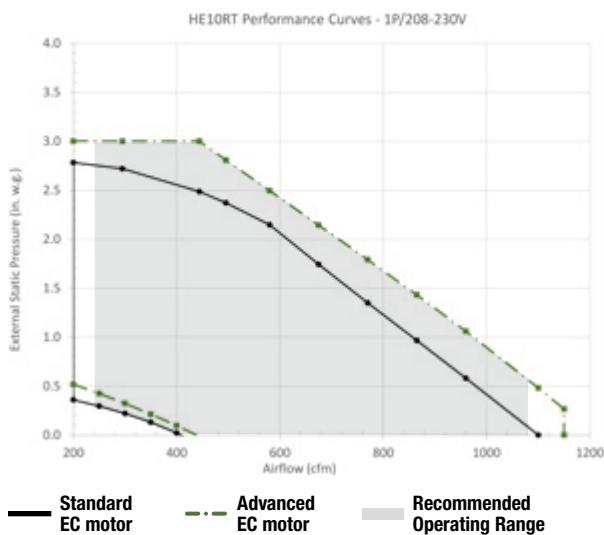
Note: Airflow performance includes effect of clean, standard filter supplied with unit.



AUGMENTED REALITY (AR)

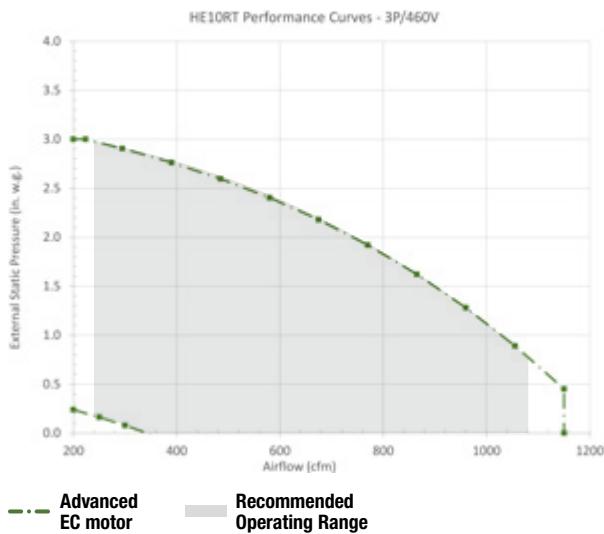
Scan QR code to see life size version of HE10RT, or view here:
<https://AR.MarketScale.com/Renewaire/HE10>


**ENERGY RECOVERY VENTILATOR
EC MOTOR**

EC MOTOR OPERATING RANGE AND FAN PERFORMANCE


| Airflow (CFM) | HE10RT MOTOR 1P/208–230V Options | |
|---------------|--|--------------------------------|
| | Standard EC | Advanced EC |
| 200 | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
| 295 | 2.72 | 658 |
| 444 | 2.48 | 791 |
| 495 | 2.37 | 832 |
| 580 | 2.15 | 894 |
| 675 | 1.74 | 900 |
| 770 | 1.35 | 900 |
| 865 | 0.97 | 900 |
| 960 | 0.58 | 900 |
| 1100 | 0.00 | 900 |
| 1150 | | 0.48 |
| 1150 | | 0.27 |
| 1150 | | 0.00 |
| 1150 | | 919 |

Note: Airflow performance includes effect of clean, standard filter supplied with unit.



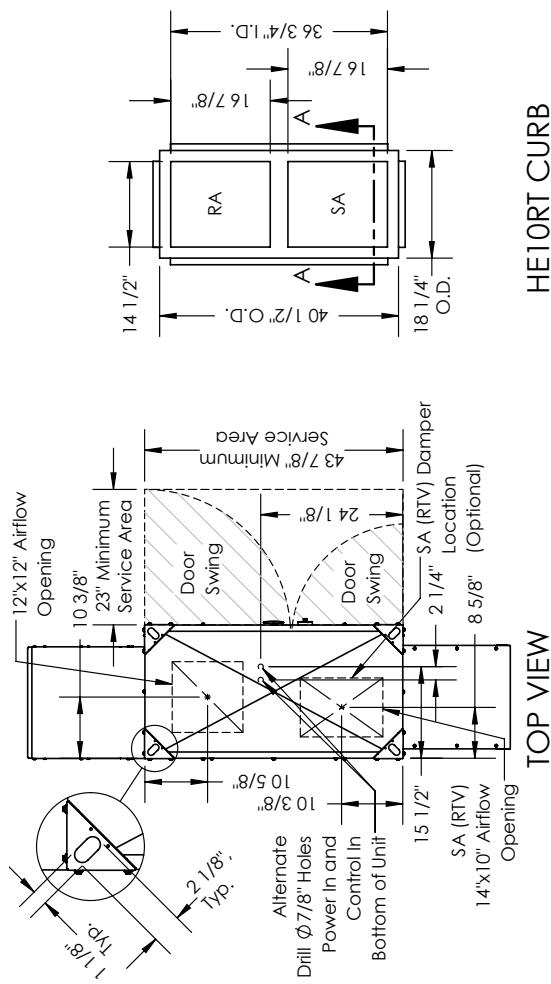
| Airflow (CFM) | HE10RT MOTOR 3P/460V Options | |
|---------------|--|--------------------------------|
| | Advanced EC | |
| 200 | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
| 224 | 3.00 | 829 |
| 295 | 3.00 | 860 |
| 390 | 2.91 | 925 |
| 485 | 2.76 | 1015 |
| 580 | 2.60 | 1105 |
| 675 | 2.40 | 1191 |
| 770 | 2.18 | 1273 |
| 865 | 1.92 | 1346 |
| 960 | 1.62 | 1408 |
| 1055 | 1.28 | 1456 |
| 1150 | 0.89 | 1488 |
| 1150 | 0.45 | 1501 |
| 1150 | 0.00 | 1267 |

Note: Airflow performance includes effect of clean, standard filter supplied with unit.

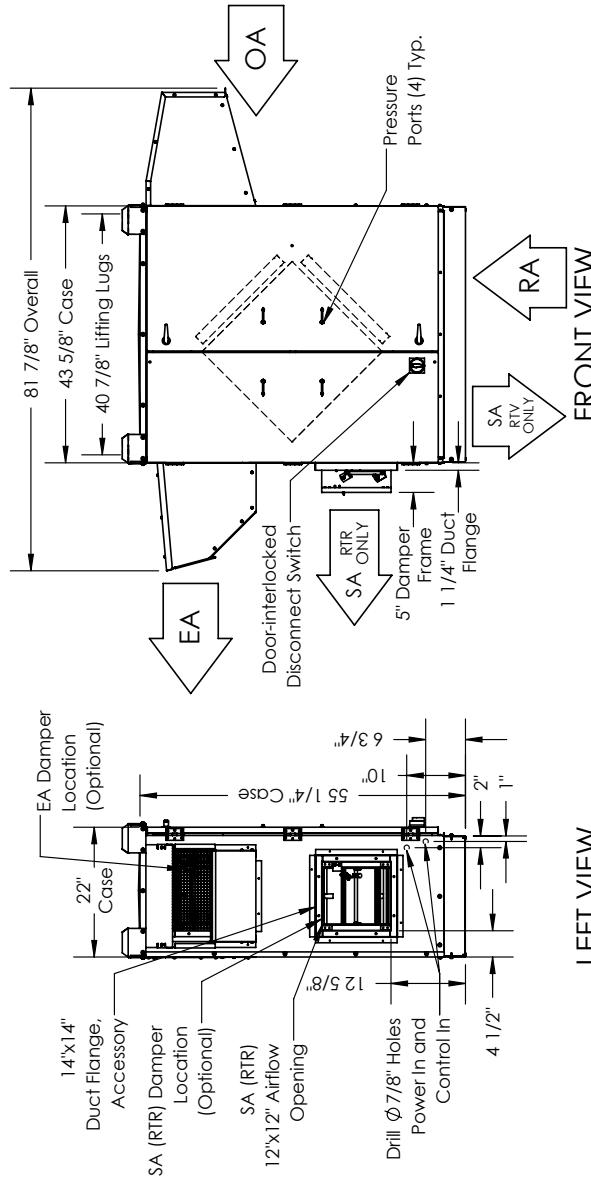
ELECTRICAL DATA

| Option | Watts | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
|---------------|-------|---------|----|--------|---------------|----------------|------------------------------------|
| [EE] Standard | 370 | 208–230 | 60 | Single | 1.73 | 3.9 | 15 |
| [AA] Advanced | 480 | 120 | 60 | Single | 6.5 | 14.6 | 20 |
| | 680 | 208–230 | 60 | Single | 5 | 11.3 | 15 |
| | 860 | 460 | 60 | Three | 1.22 | 2.7 | 15 |

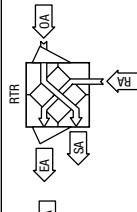
HE10RT (RTV/RTR) ENERGY RECOVERY VENTILATOR EC MOTOR



TOP VIEW



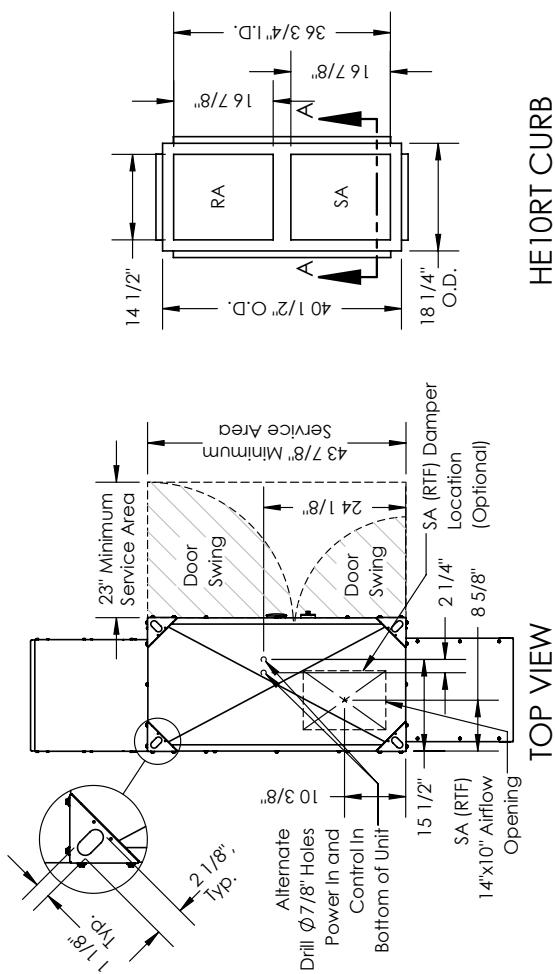
LEFT VIEW



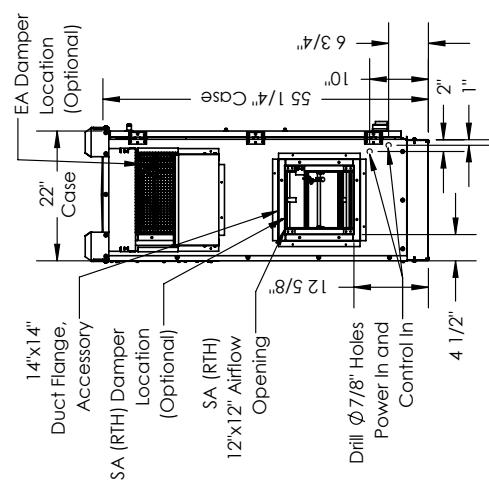
RIGHT VIEW



HE10RT (RTH/RTF) ENERGY RECOVERY VENTILATOR EC MOTOR

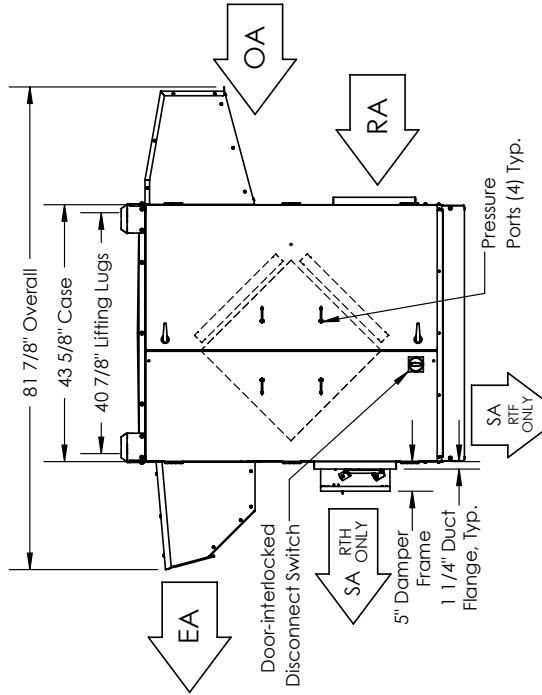


TOP VIEW

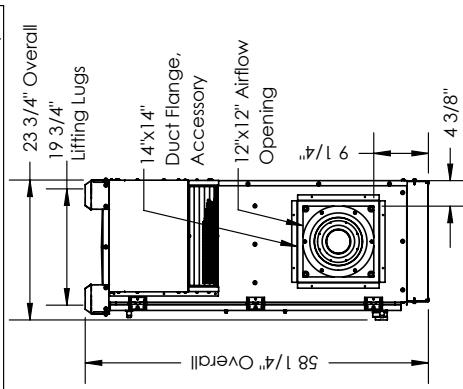
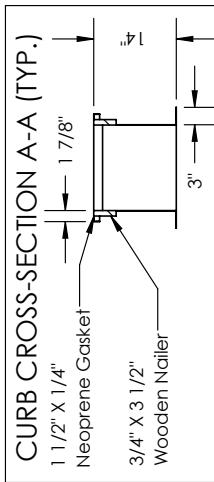


LEFT VIEW

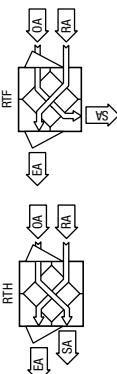
HE10RT CURB



FRONT VIEW



RIGHT VIEW



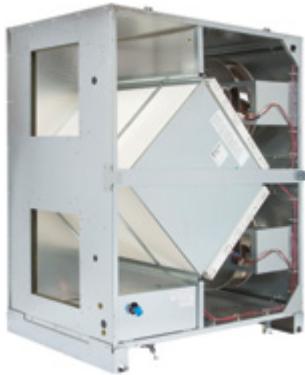
AIRFLOW ORIENTATION

Available as shown:





INDOOR UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:
Static plate, heat and humidity transfer

Airflow Range: 375–1,650 CFM

AHRI 1060 Certified Core:
One L62-G5 and one L125-G5

Standard Features:
Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports

Filters:
Total Qty. 4, MERV 8: (2) 14" x 20" x 2" and
(2) 16" x 20" x 2"

Unit Weight:
337–504 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):
70" L x 47" W x 53" H
571 lbs.

Motor(s):
Qty. 2, 1.0 HP ea., Direct drive standard
motorized impellers

Options:
Qty. 2, variable speed/ECM: Direct drive motors
(see HE1.5XINH EC Motor submittal):
1.0 HP 120V/1Ph/60Hz,
1.0 HP 208–230V/1Ph/60Hz
1.0 HP 277V/1Ph/60Hz

Independent blower control
Fused disconnect
Integrated programmable controls: enhanced, premium
Bypass economizer damper (see DIM drawing):
dry-bulb temperature controls (standard),
enthalpy controls (option)
Class 1 low leakage motorized isolation dampers:
FA, EA or both airstreams
Gravity backdraft dampers
Factory mounted filter alarms: both airstreams
Double wall construction
Exterior paint: white, custom colors

Accessories:
Filters: MERV 13, 2" (shipped loose)
Backdraft damper: OA or EA
Automatic balancing damper: 4", 5", 6"
Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)
Carbon dioxide sensor/control:
wall mount (CO2-W), duct mount (CO2-D)
IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)
Motion occupancy sensor/control:
ceiling mount (MC-C), wall mount (MC-W)
Smoke detector: duct mount (SD-D)
BACnet fan control: wall mount (BACNETFC-W)
Indoor electric duct heater: EK series (1–175 kW);
Indirect gas-fired duct furnace: GH series (50–400 MBH);
installed downstream of any fans

AIRFLOW PERFORMANCE

| Blower RPM | External Static Pressure (Inches Water Column) | | | | | | | | | | | | | |
|------------|--|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | 0.00 | | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | | 1.50 | |
| | SCFM | Watts | SCFM | Watts | SCFM | Watts | SCFM | Watts | SCFM | Watts | SCFM | Watts | SCFM | Watts |
| 1475 | 1575 | 1545 | 1470 | 1525 | 1350 | 1500 | 1225 | 1475 | 1090 | 1435 | 950 | 1380 | 795 | 1300 |
| 1475 | | | 1570 | 1400 | 1435 | 1380 | 1280 | 1340 | 1115 | 1280 | 940 | 1210 | 760 | 1135 |

Operation in this zone outside of core airflow limits.

Note: Watts is for the entire unit (2 motors). Airflow performance includes effect of clean, standard filter supplied with unit.

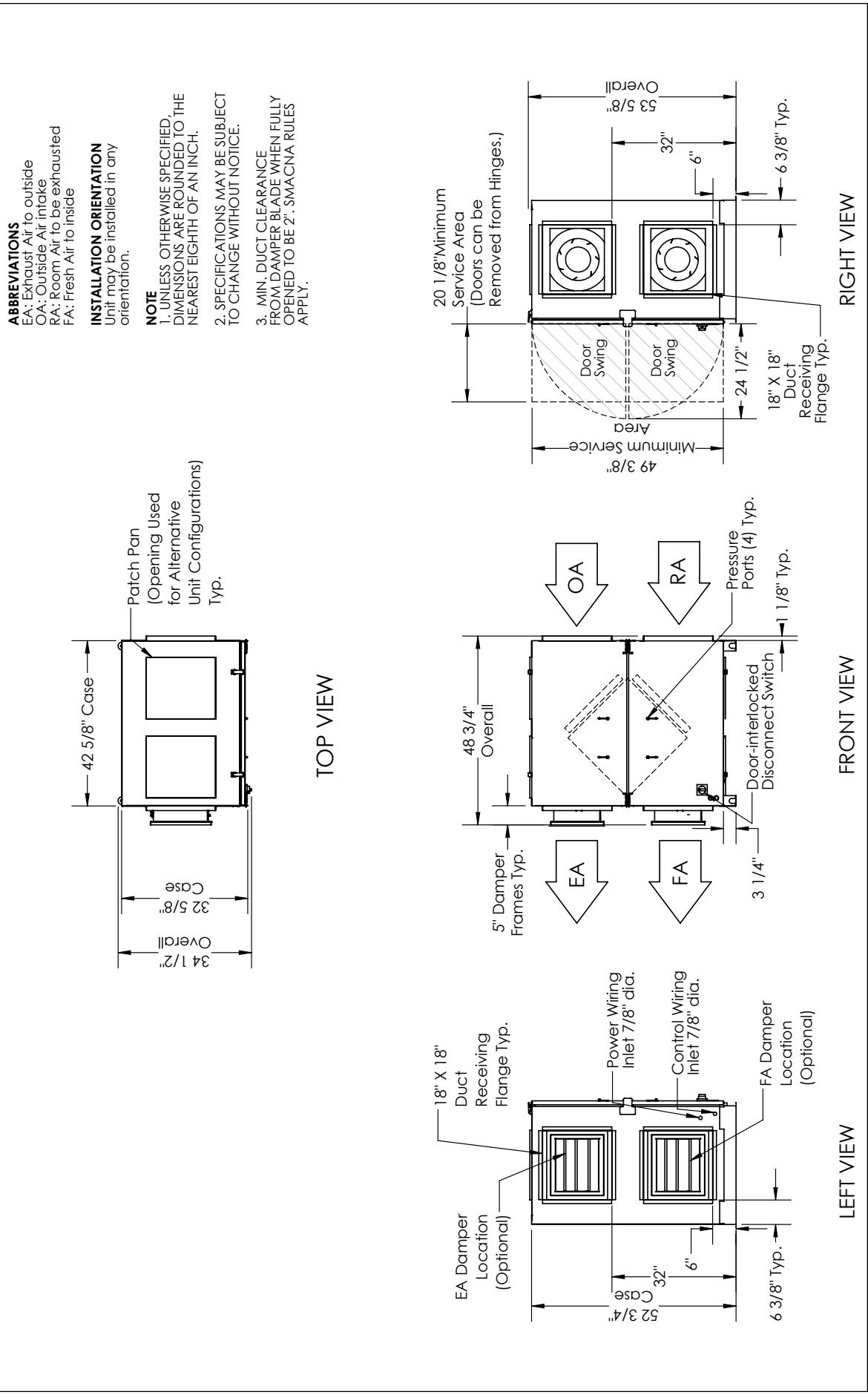
ELECTRICAL DATA

| Watts | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
|-------|---------|----|--------|---------------|----------------|------------------------------------|
| 1 | 120 | 60 | Single | 6.5 | 14.6 | 20 |
| 1 | 208–230 | 60 | Single | 3.3–3.4 | 7.7 | 15 |
| 1 | 277 | 60 | Single | 2.7 | 6.1 | 15 |
| 1 | 208–230 | 60 | Three | 2.2–2.2 | 5.0 | 15 |
| 1 | 460 | 60 | Three | 1.13 | 2.5 | 15 |



AUGMENTED REALITY (AR)

Scan QR code to see life size version of HE1.5X, or view here: <https://QR.MarketScale.com/HE15X>

HE1.5XINH ENERGY RECOVERY VENTILATOR**UNIT MOUNTING & APPLICATION**

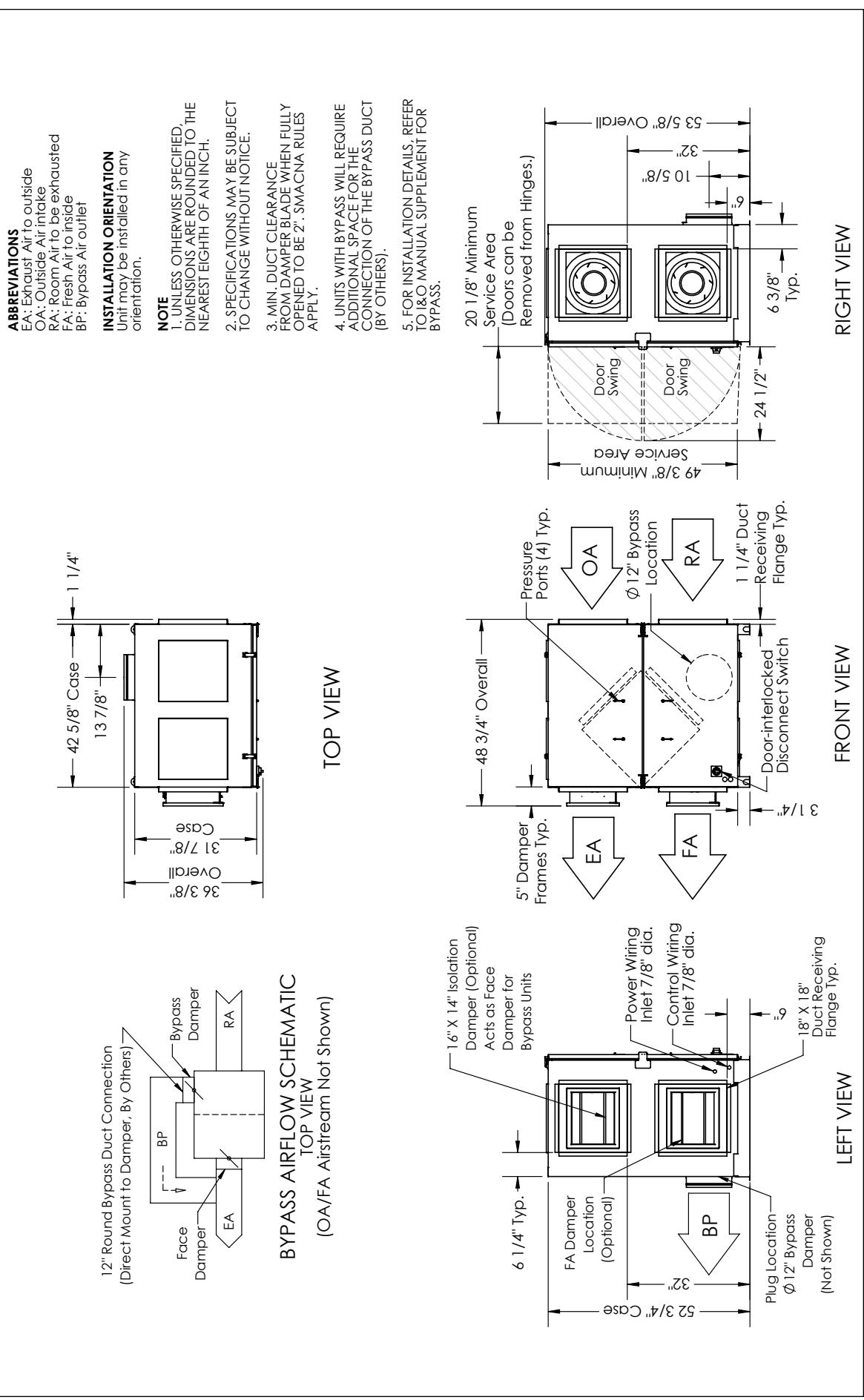
Can be mounted in any orientation. RA/EA airstream can be switched with OA/FA airstream unless certain options are selected. Duct configuration is field convertible.

**AIRFLOW CONFIGURATION**

Available as shown in dimension drawing.



HE1.5XINH ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER





INDOOR UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR EC MOTOR



SPECIFICATIONS

Ventilation Type:
Static plate, heat and humidity transfer

Airflow Range: 375–1,470 CFM

AHRI 1060 Certified Core:
One L62-G5 and one L125-G5

Standard Features:
Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports

Filters:
Total qty. 4, MERV 8: (2) 14" x 20" x 2" and
(2) 16" x 20" x 2"

Unit Weight:
336–504 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):
70" L x 47" W x 53" H
571 lbs.

Motor(s):
Qty. 2, 1.0 HP ea., Direct drive EC
motorized impellers

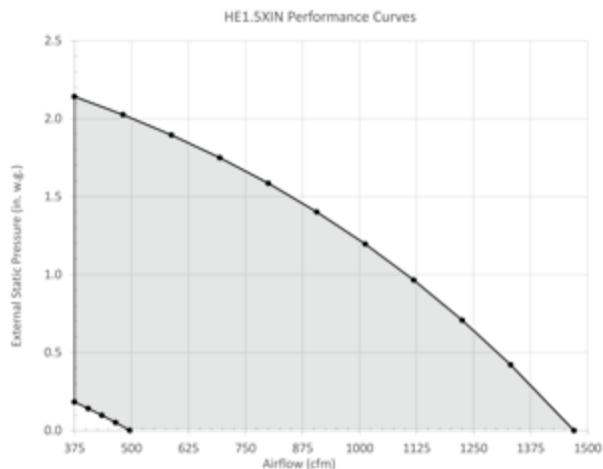
Options:
Fused disconnect

Integrated programmable controls: enhanced, premium
Bypass economizer damper (see DIM drawing):
dry-bulb temperature controls (standard),
enthalpy controls (option)

Class 1 low leakage motorized isolation dampers:
FA, EA or both airstreams
Gravity backdraft dampers
Factory mounted filter alarms: both airstreams
Double wall construction
Exterior paint: white, custom colors

Accessories:
Filters: MERV 13, 2" (shipped loose)
Backdraft damper: OA or EA
Automatic balancing damper: 4", 5", 6"
Potentiometer speed control: remote installed
Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)
Carbon dioxide sensor/control:
wall mount (CO2-W), duct mount (CO2-D)
IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)
Motion occupancy sensor/control:
ceiling mount (MC-C), wall mount (MC-W)
Smoke detector: duct mount (SD-D)
BACnet fan control: wall mount (BACNETFC-W)
Indoor electric duct heater: EK series (1–175 kW)
Indirect gas-fired duct furnace: GH series (50–400 MBH);
installed downstream of any fans

EC MOTOR OPERATING RANGE AND FAN PERFORMANCE



| Airflow (CFM) | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
|---------------|--|--------------------------------|
| 375 | 2.14 | 710 |
| 481 | 2.03 | 765 |
| 588 | 1.90 | 814 |
| 694 | 1.75 | 859 |
| 800 | 1.59 | 899 |
| 906 | 1.40 | 933 |
| 1013 | 1.20 | 963 |
| 1119 | 0.97 | 987 |
| 1225 | 0.71 | 1006 |
| 1331 | 0.42 | 1019 |
| 1470 | 0.00 | 1029 |

Note: Watts is for the entire unit. Airflow performance include effect of clean, standard filter supplied with unit.

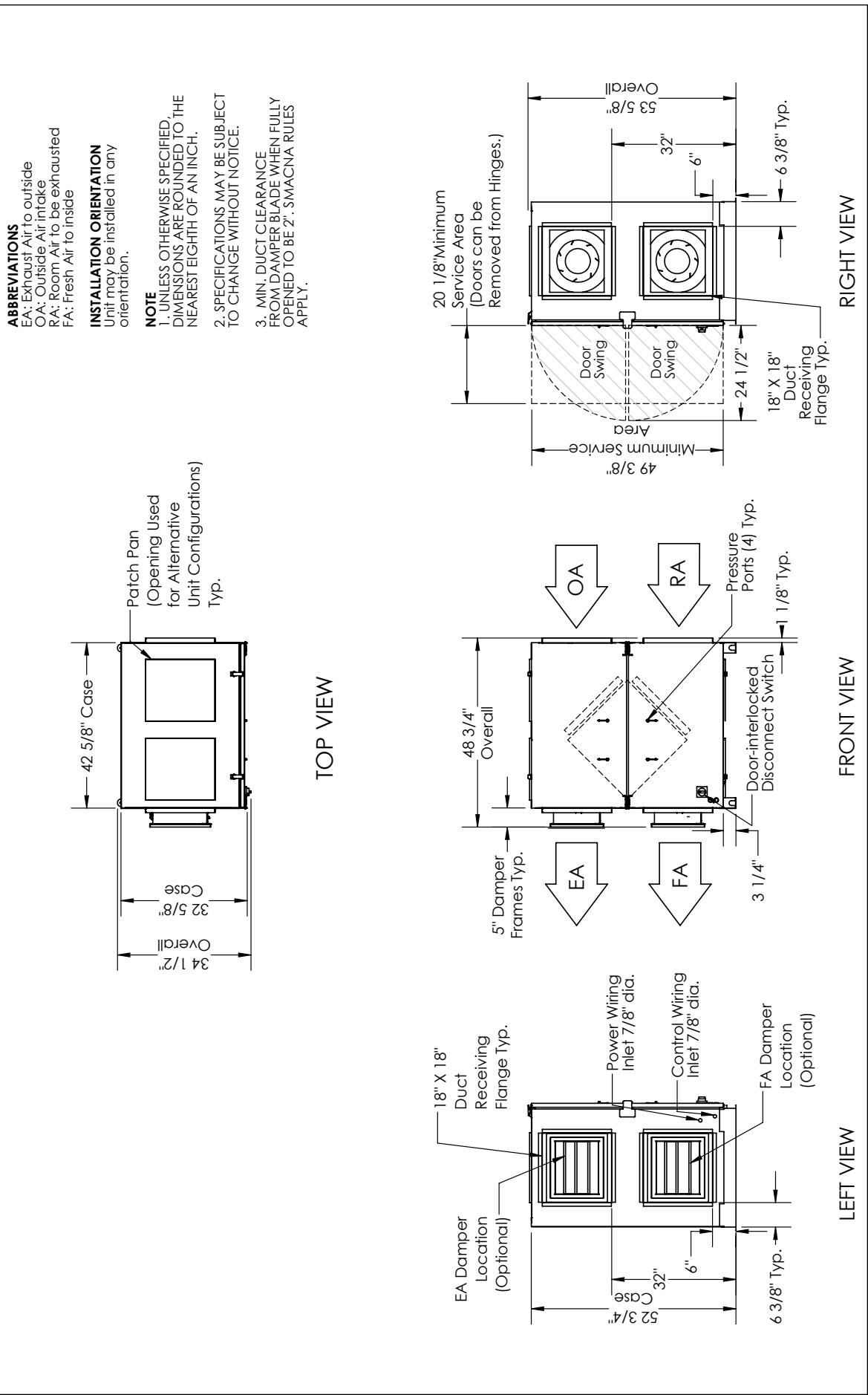
ELECTRICAL DATA

| Watts | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
|-------|---------|----|--------|---------------|----------------|------------------------------------|
| 480 | 120 | 60 | Single | 6.7 | 15.1 | 20 |
| 480 | 208–230 | 60 | Single | 3.4 | 7.7 | 15 |



AUGMENTED REALITY (AR)

Scan QR code to see life size version of HE1.5X, or view here: <https://QR.MarketScale.com/HE15X>

HE1.5XINH ENERGY RECOVERY VENTILATOR EC MOTOR OPTION**UNIT MOUNTING & APPLICATION**

Can be mounted in any orientation. RA/EA airstream can be switched with OA/FA airstream unless certain options are selected. Duct configuration is field convertible.

**AIRFLOW CONFIGURATION**

Available as shown in dimension drawing.

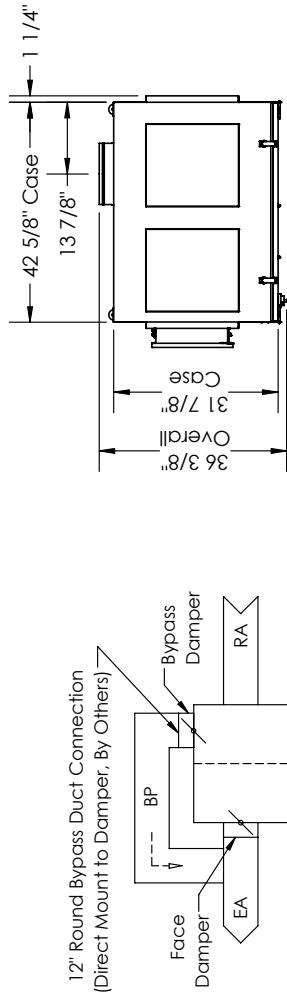


HE1.5XINH ENERGY RECOVERY VENTILATOR EC MOTOR WITH BYPASS ECONOMIZER**ABBREVIATIONS**

EA: Exhaust Air to outside
 OA: Outside Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside
 BP: Bypass Air outlet

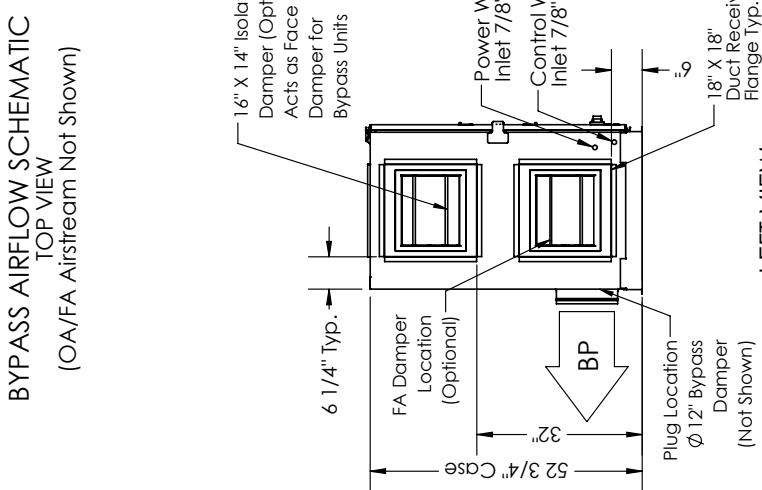
INSTALLATION ORIENTATION
Unit may be installed in any orientation.**NOTE**

1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.
3. MIN. DUCT CLEARANCE FROM DAMPER BLADE WHEN FULLY OPENED TO BE 2". SMACNA RULES APPLY.
4. UNITS WITH BYPASS WILL REQUIRE ADDITIONAL SPACE FOR THE CONNECTION OF THE BYPASS DUCT (BY OTHERS).
5. FOR INSTALLATION DETAILS, REFER TO I&O MANUAL SUPPLEMENT FOR BYPASS.



16" X 14" Isolation Damper (Optional)

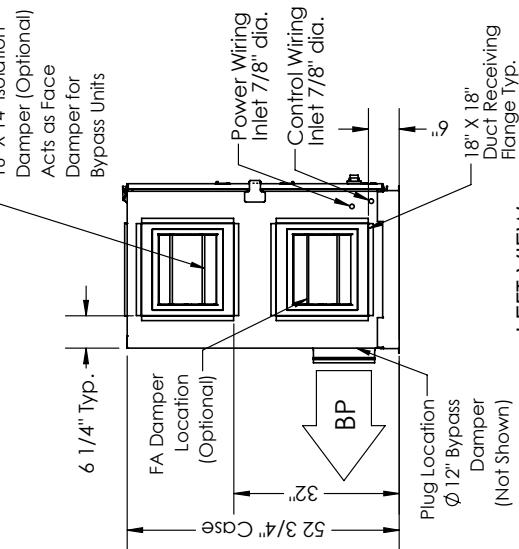
Acts as Face Damper for Bypass Units



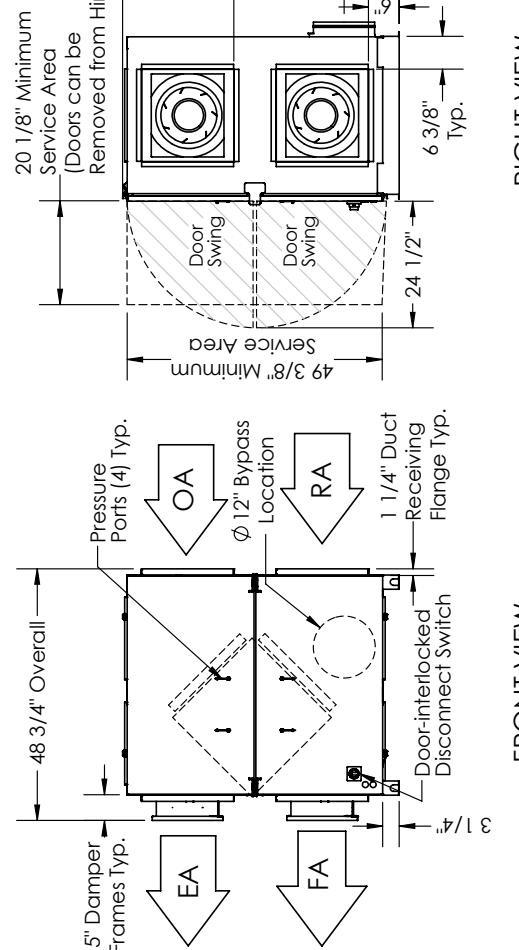
TOP VIEW

16" X 14" Isolation Damper (Optional)

Acts as Face Damper for Bypass Units



LEFT VIEW



FRONT VIEW

RIGHT VIEW

UNIT MOUNTING & APPLICATION

Can be mounted in any orientation. Airstreams cannot be switched.

**AIRFLOW CONFIGURATION**

Available as shown in dimension drawing.





INDOOR UNIT



HE1.5XINH shown

Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range: 375–1,650 CFM**AHRI 1060 Certified Core:**

One L62-G5 and one L125-G5

Standard Features:Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports**Filters:**Total qty. 4, MERV 8: (2) 14" x 20" x 2" and
(2) 16" x 20" x 2"**Unit Weight:**

337–504 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):70" L x 47" W x 59" H
571 lbs.**Motor(s):**Qty. 2, 1.0 HP ea., Direct drive standard
motorized impellers**Options:**Qty. 2, variable speed/ECM: Direct drive motors
(see HE1.5XINV EC Motor submittal):1.0 HP 120V/1Ph/60Hz,
1.0 HP 208–230V/1Ph/60Hz
1.0 HP 277V/1Ph/60Hz

Independent blower control

Fused disconnect

Integrated programmable controls: enhanced, premium
Bypass economizer damper (see DIM drawing):
dry-bulb temperature controls (standard),
enthalpy controls (option)

Class 1 low leakage motorized isolation dampers:

FA, EA or both airstreams

Gravity backdraft dampers

Factory mounted filter alarms: both airstreams

Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Backdraft damper: OA or EA

Automatic balancing damper: 4", 5", 6"

Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:

ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

Indoor electric duct heater: EK series (1–175 kW)

Indirect gas-fired duct furnace: GH series (50–400 MBH);

installed downstream of any fans

AIRFLOW PERFORMANCE

| Blower RPM | External Static Pressure (Inches Water Column) | | | | | | | | | | | | | |
|------------|--|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | 0.00 | | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | | 1.50 | |
| | SCFM | Watts | SCFM | Watts | SCFM | Watts | SCFM | Watts | SCFM | Watts | SCFM | Watts | SCFM | Watts |
| 1475 | 1575 | 1545 | 1470 | 1525 | 1350 | 1500 | 1225 | 1475 | 1090 | 1435 | 950 | 1380 | 795 | 1300 |
| 1475 | | | 1570 | 1400 | 1435 | 1380 | 1280 | 1340 | 1115 | 1280 | 940 | 1210 | 760 | 1135 |

Operation in this zone outside of core airflow limits.

Note: Watts is for the entire unit (2 motors). Airflow performance includes effect of clean, standard filter supplied with unit.

ELECTRICAL DATA

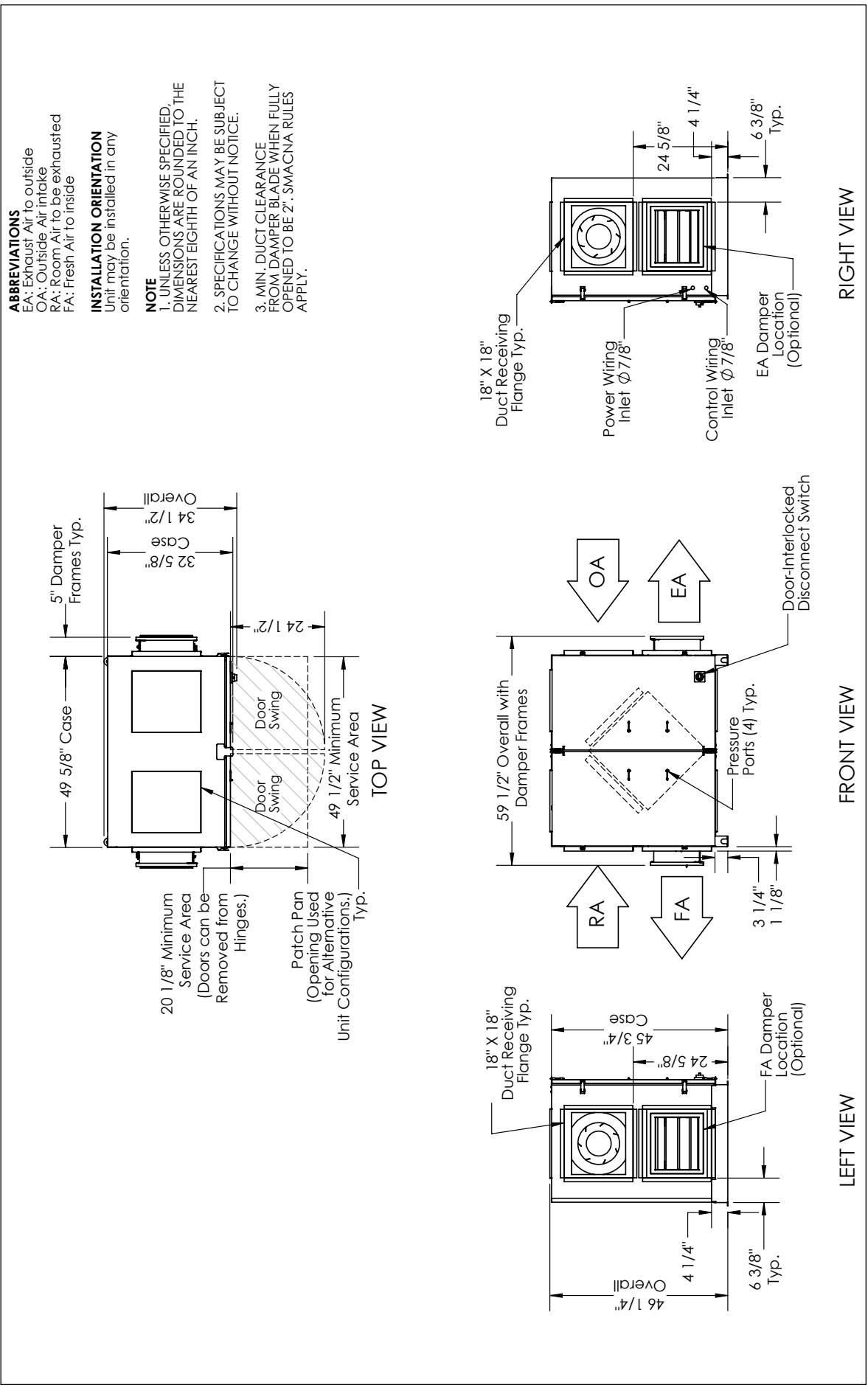
| Watts | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
|-------|---------|----|--------|---------------|----------------|------------------------------------|
| 1 | 120 | 60 | Single | 6.5 | 14.6 | 20 |
| 1 | 208–230 | 60 | Single | 3.3–3.4 | 7.7 | 15 |
| 1 | 277 | 60 | Single | 2.7 | 6.1 | 15 |
| 1 | 208–230 | 60 | Three | 2.2–2.2 | 5.0 | 15 |
| 1 | 460 | 60 | Three | 1.13 | 2.5 | 15 |



AUGMENTED REALITY (AR)

Scan QR code to see life size version of HE1.5X, or view here: <https://QR.MarketScale.com/HE15X>

HE1.5XINV ENERGY RECOVERY VENTILATOR



AIRFLOW CONFIGURATION

Available as shown in dimension drawing.

UNIT MOUNTING & APPLICATION

Can be mounted in any orientation. RA/FA airstream can be switched with OA/FA airstream unless certain options are selected. Duct configuration is field convertible.

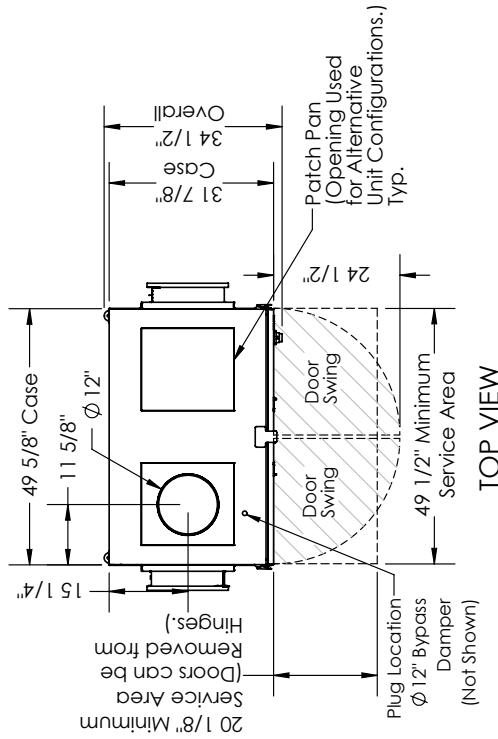
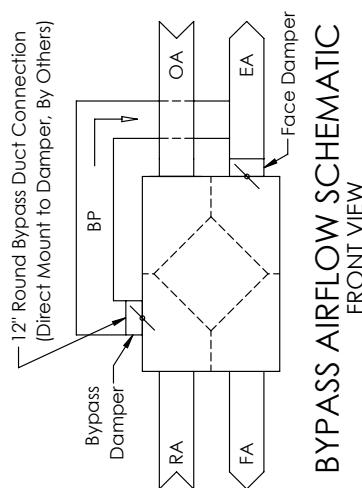


RIGHT VIEW

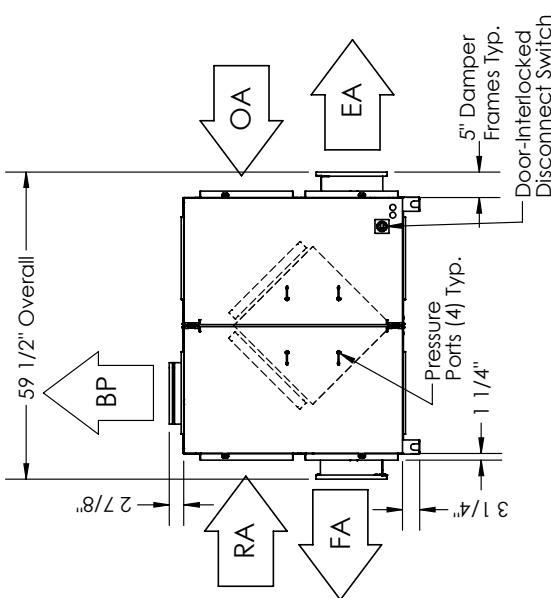
LEFT VIEW

FRONT VIEW

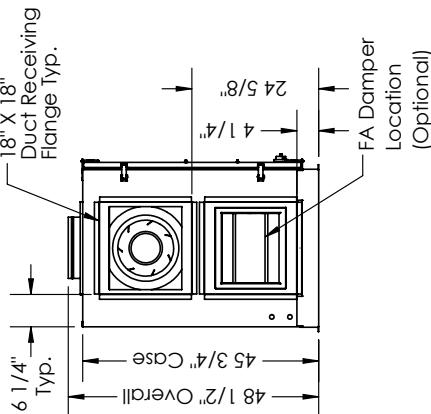
HE1.5XINV ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER



TOP VIEW

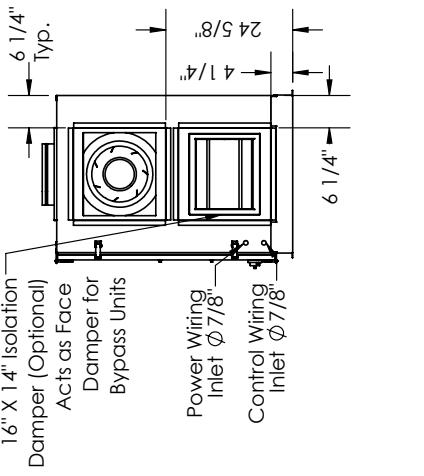


FRONT VIEW



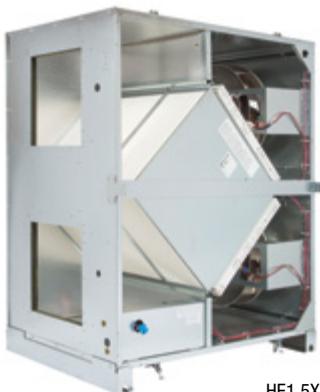
AIRFLOW CONFIGURATION

Available as shown in dimension drawing.





INDOOR UNIT



HE1.5XINV shown

Energy recovery core is AHRI Certified®

ENERGY RECOVERY VENTILATOR
EC MOTOR

SPECIFICATIONS

Ventilation Type:
Static plate, heat and humidity transfer

Airflow Range: 375–1,470 CFM

AHRI 1060 Certified Core:
One L62-G5 and one L125-G5

Standard Features:
Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports

Filters:
Total qty. 4, MERV 8: (2) 14" x 20" x 2" and
(2) 16" x 20" x 2"

Unit Weight:
336–504 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):
70" L x 47" W x 59" H
571 lbs.

Motor(s):
Qty. 2, 1.0 HP ea., Direct drive EC
motorized impellers

Options:
Fused disconnect

Integrated programmable controls: enhanced, premium
Bypass economizer damper (see DIM drawing):
dry-bulb temperature controls (standard),
enthalpy controls (option)

Class 1 low leakage motorized isolation dampers:
FA, EA or both airstreams
Gravity backdraft dampers
Factory mounted filter alarms: both airstreams
Double wall construction
Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Backdraft damper: OA or EA

Automatic balancing damper: 4", 5", 6"

Potentiometer speed control: remote installed
Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:
ceiling mount (MC-C), wall mount (MC-W)

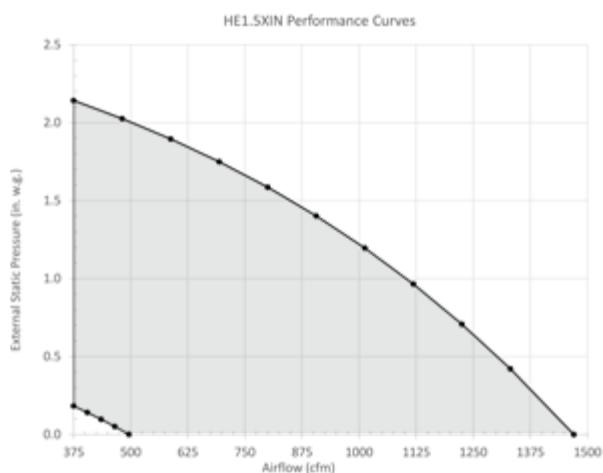
Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

Indoor electric duct heater: EK series (1–175 kW)

Indirect gas-fired duct furnace: GH series (50–400 MBH);
installed downstream of any fans

EC MOTOR OPERATING RANGE AND FAN PERFORMANCE



| Airflow (CFM) | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
|---------------|--|--------------------------------|
| 375 | 2.14 | 710 |
| 481 | 2.03 | 765 |
| 588 | 1.90 | 814 |
| 694 | 1.75 | 859 |
| 800 | 1.59 | 899 |
| 906 | 1.40 | 933 |
| 1013 | 1.20 | 963 |
| 1119 | 0.97 | 987 |
| 1225 | 0.71 | 1006 |
| 1331 | 0.42 | 1019 |
| 1470 | 0.00 | 1029 |

Note: Watts is for the entire unit. Airflow performance includes effect of clean, standard filter supplied with unit.

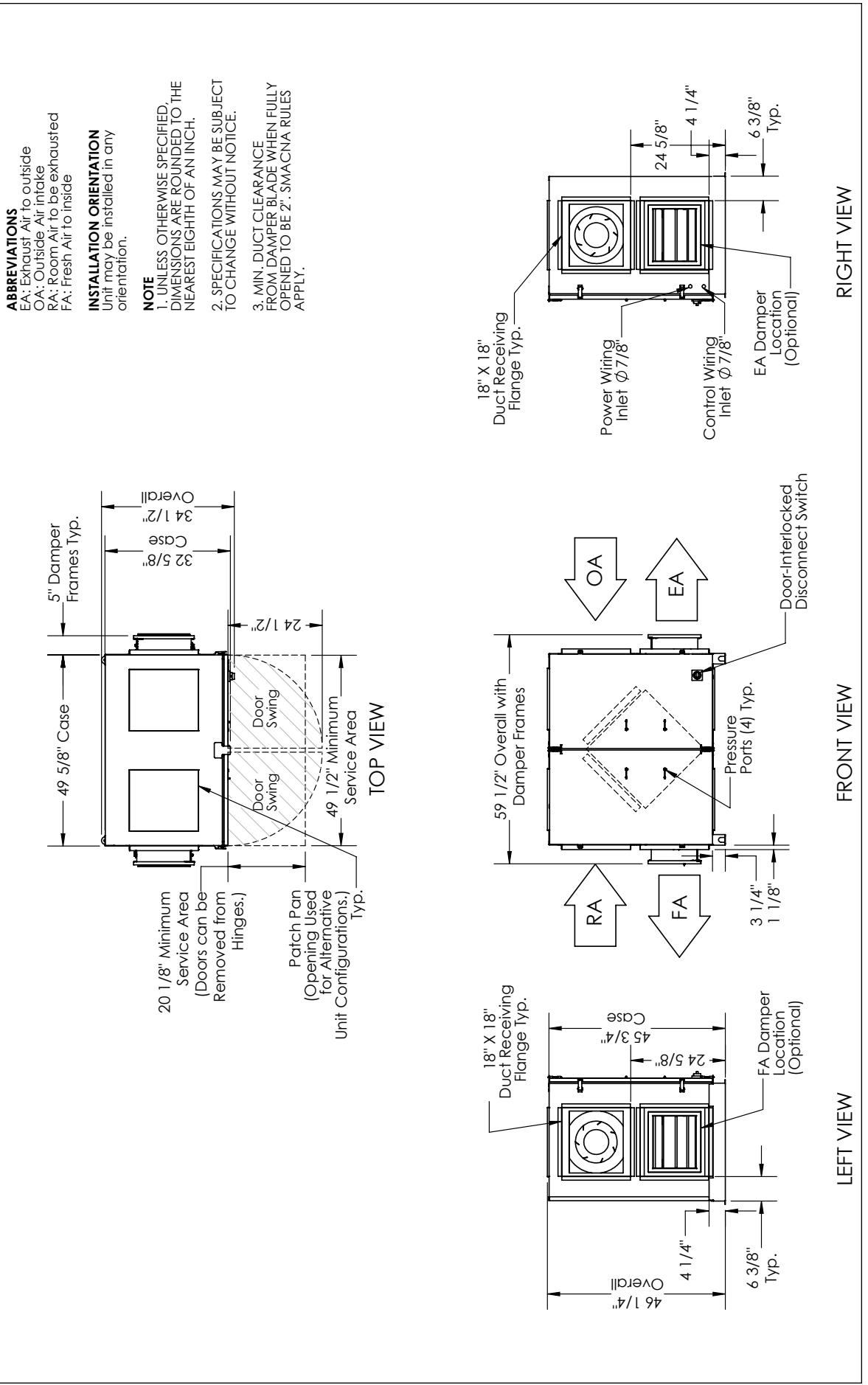
ELECTRICAL DATA

| Watts | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
|-------|---------|----|--------|---------------|----------------|------------------------------------|
| 480 | 120 | 60 | Single | 6.7 | 15.1 | 20 |
| 480 | 208–230 | 60 | Single | 3.4 | 7.7 | 15 |



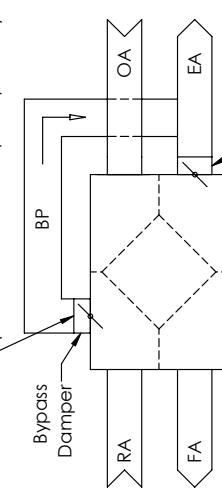
AUGMENTED REALITY (AR)

Scan QR code to see life size version of HE1.5X, or view here: <https://QR.MarketScale.com/HE15X>

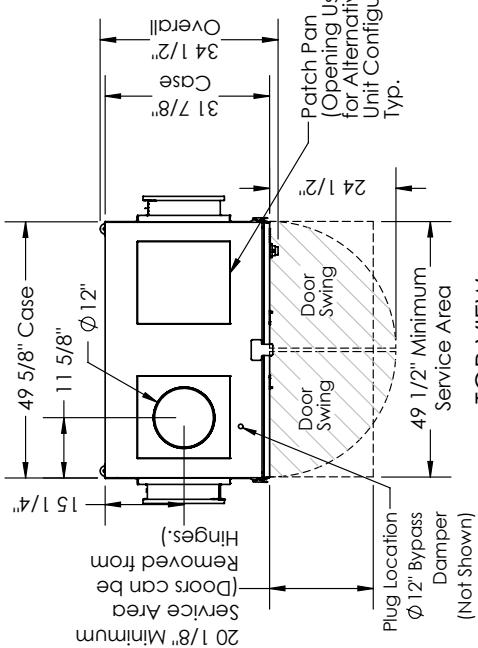
HE1.5XINV ENERGY RECOVERY VENTILATOR EC MOTOR OPTION

HE1.5XINV ENERGY RECOVERY VENTILATOR EC MOTOR WITH BYPASS ECONOMIZER

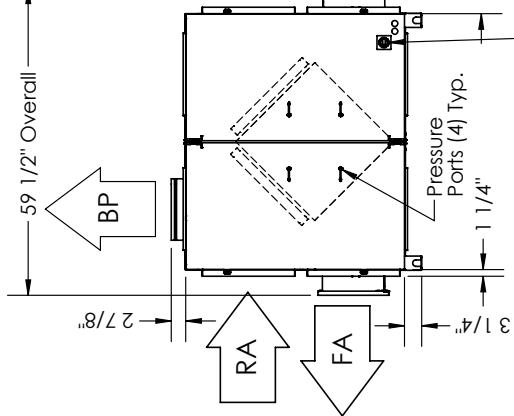
12" Round Bypass Duct Connection
(Direct Mount to Damper, By Others)



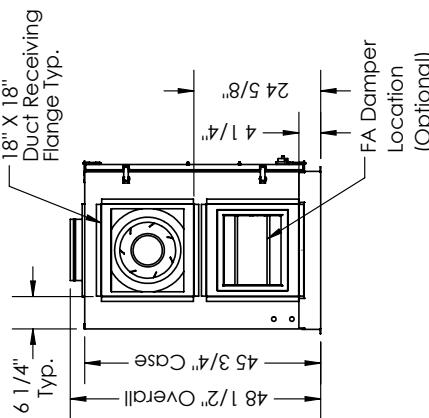
BYPASS AIRFLOW SCHEMATIC



TOP VIEW



LEFT VIEW



AIRFLOW CONFIGURATION

Available as shown in dimension drawing.



ABBREVIATIONS

EA: Exhaust Air to outside
OA: Outside Air intake
RA: Room Air to be exhausted
FA: Fresh Air to inside
BP: Bypass Air outlet

INSTALLATION ORIENTATION
Unit may be installed in any orientation.

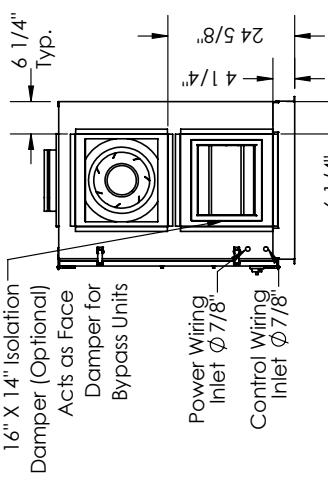
NOTE
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.

2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

3. MIN. DUCT CLEARANCE FROM DAMPER BLADE WHEN FULLY OPENED TO BE 2". SMACNA RULES APPLY.

4. UNITS WITH BYPASS WILL REQUIRE ADDITIONAL SPACE FOR THE CONNECTION OF THE BYPASS DUCT (BY OTHERS).

5. FOR INSTALLATION DETAILS, REFER TO I&O MANUAL SUPPLEMENT FOR BYPASS.



RIGHT VIEW





ROOFTOP UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range: 375–1,650 CFM**AHRI 1060 Certified Core:**

One L62-G5 and one L125-G5

Standard Features:Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports**Filters:**Total qty. 4, MERV 8: (2) 14" x 20" x 2" and
(2) 16" x 20" x 2"**Unit Weight:**

387–548 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

70" L x 47" W x 83" H

615 lbs.

Motor(s):Qty. 2, 1.0 HP ea., Direct drive standard
motorized impellers**Options:**Qty. 2, variable speed/ECM: Direct drive motors
(see HE1.5XRT EC Motor submittal):
1.0 HP 120V/1Ph/60Hz,
1.0 HP 208–230V/1Ph/60Hz,
1.0 HP 277V/1Ph/60Hz

Independent blower control

Onboard variable frequency drives (VFDs):
both airstreams

Fused disconnect

Integrated programmable controls: enhanced, premium
Class 1 low leakage motorized isolation dampers:

FA, EA or both airstreams

Gravity backdraft dampers

Factory mounted filter alarms: both airstreams

Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Backdraft damper: OA or EA

Automatic balancing damper: 4", 5", 6"

Roof curb: standard 14"

Curb wind clip

Engineered combo curb for Trane or Carrier RTUs
Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:

ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

Indoor electric duct heater: EK series (1–175 kW);

Indirect gas-fired duct furnace: GH series (50–400 MBH);
installed downstream of any fans

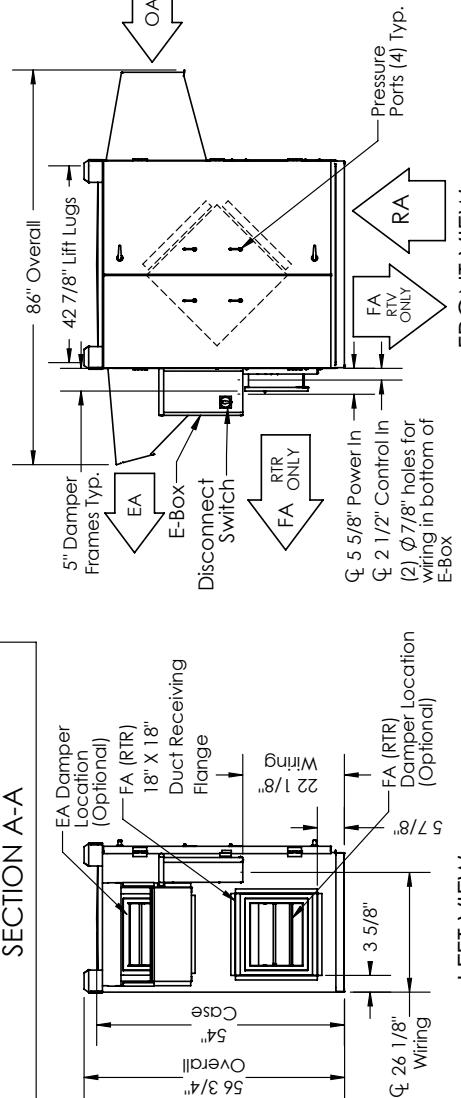
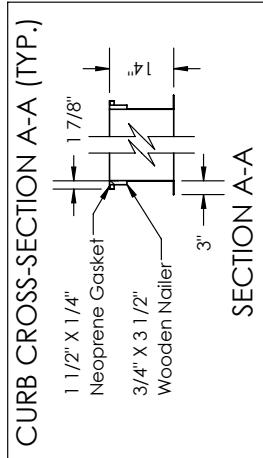
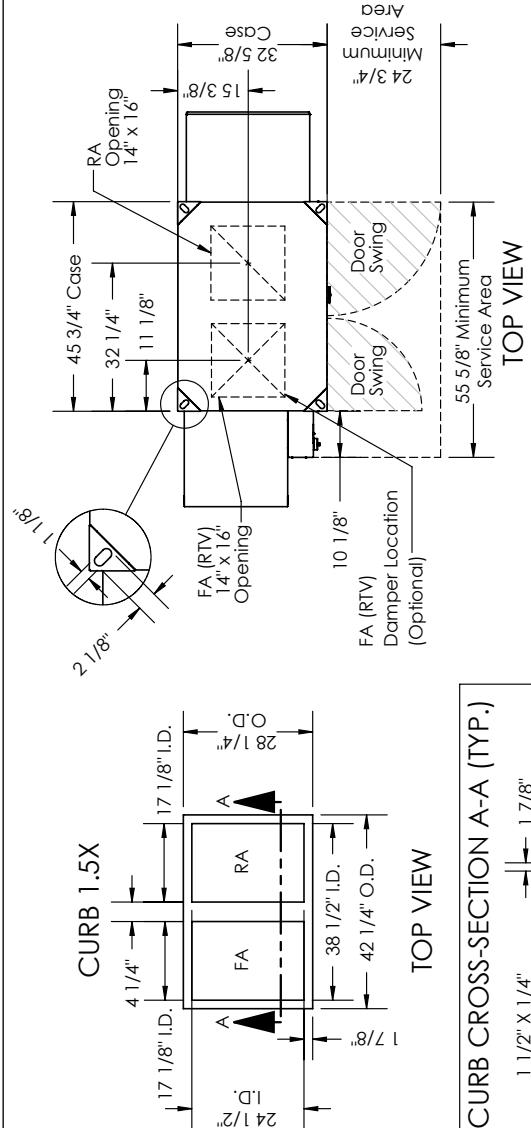
AIRFLOW PERFORMANCE

| Motor HP Phase | Blower RPM | External Static Pressure (Inches Water Column) | | | | | | | | | | | | | |
|---------------------|------------|--|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|
| | | 0.00 | | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | | 1.50 | |
| | | SCFM | Watts | SCFM | Watts | SCFM | Watts | SCFM | Watts | SCFM | Watts | SCFM | Watts | | |
| 1.0 Single Phase | 1475 | 1535 | 1540 | 1390 | 1515 | 1255 | 1485 | 1120 | 1445 | 970 | 1395 | 815 | 1310 | 640 | 1195 |
| 1.0 Three Phase | 1475 | 1630 | 1440 | 1485 | 1435 | 1335 | 1415 | 1170 | 1375 | 995 | 1325 | 810 | 1260 | 615 | 1180 |

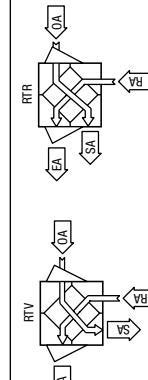
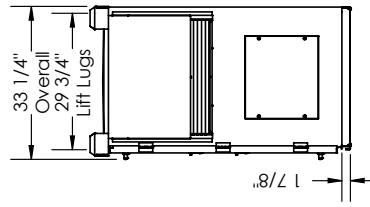
Note: Watts is for the entire unit (2 motors). Airflow performance includes effect of clean, standard filter supplied with unit.

ELECTRICAL DATA

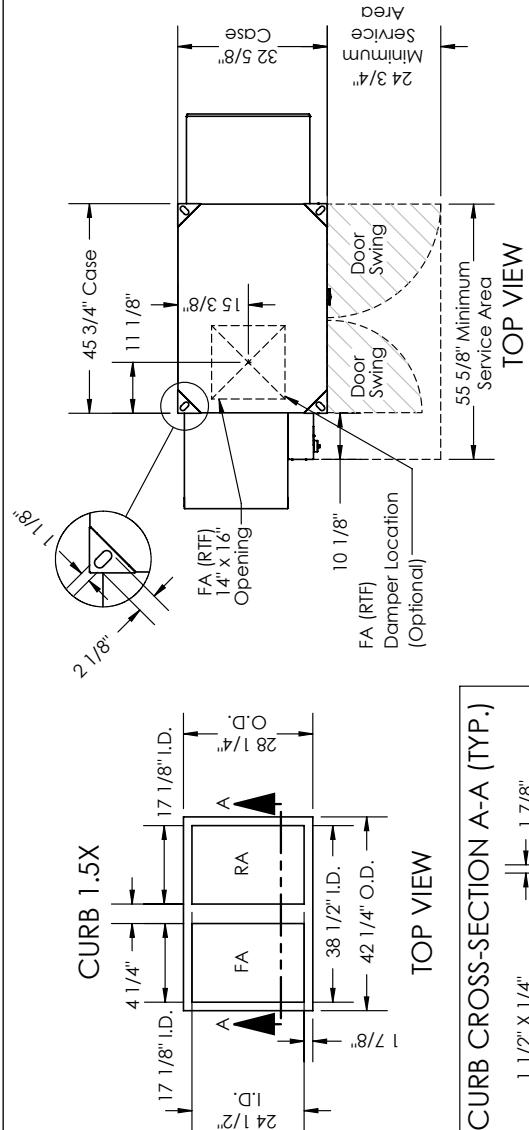
| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | | | | | |
|------------------------------------|---------|----|--------|---------------|----------------|--|---------------|----------------|------------------------------------|--|--|--|--|
| Watts | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | | | | |
| 1 | 120 | 60 | Single | 6.5 | 14.6 | 20 | | | | | | | |
| 1 | 208–230 | 60 | Single | 3.3–3.4 | 7.7 | 15 | | | | | | | |
| 1 | 277 | 60 | Single | 2.7 | 6.1 | 15 | | | | | | | |
| 1 | 208–230 | 60 | Three | 2.2–2.2 | 5.0 | 15 | 2.2–2.2 | 5.4 | 15 | | | | |
| 1 | 460 | 60 | Three | 1.13 | 2.5 | 15 | 1.1 | 2.8 | 15 | | | | |

HE1.5XRT (RTV/RTR) ENERGY RECOVERY VENTILATOR**AIRFLOW CONFIGURATION**

Available as shown:

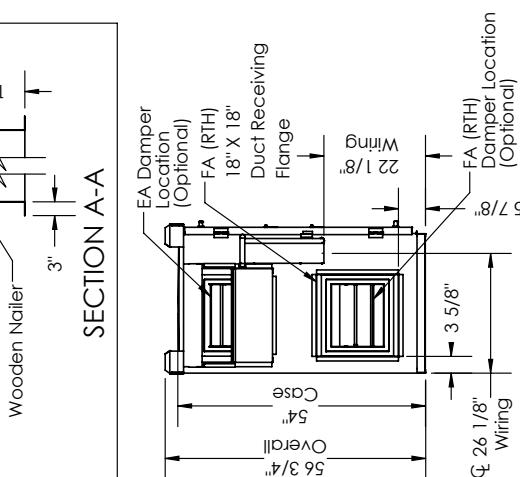
**RIGHT VIEW****RIGHT VIEW****UNIT MOUNTING & APPLICATION**

Must be mounted as shown. Airstreams cannot be switched. Duct configuration is field convertible.

HE1.5XRT (RTH/RTF) ENERGY RECOVERY VENTILATOR

TOP VIEW

SECTION A-A



LEFT VIEW

AIRFLOW CONFIGURATION

Available as shown:



ABBREVIATIONS

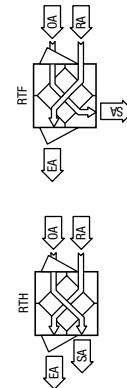
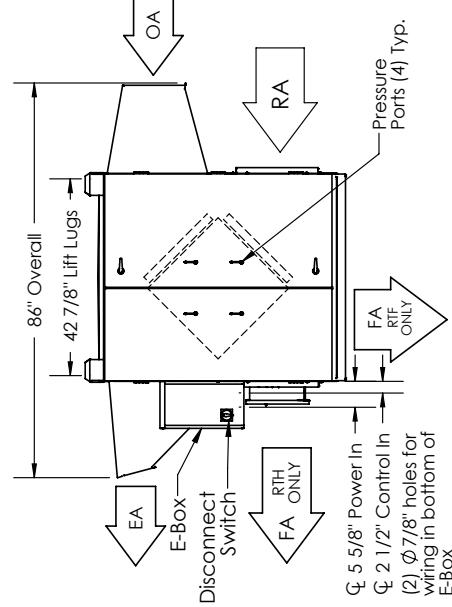
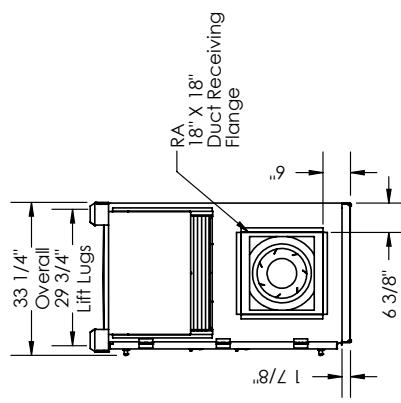
EA: Exhaust Air to outside
OA: Outside Air intake
RA: Room Air to be exhausted
FA: Fresh Air to inside
RTF: Rooftop Vertical FA Only
RTH: Rooftop Horizontal RA & FA

INSTALLATION ORIENTATION

Unit must be installed in orientation shown.

NOTE:

1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.



HE 1.5XRT

ROOFTOP UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR EC MOTOR



SPECIFICATIONS

Ventilation Type:
Static plate, heat and humidity transfer

Airflow Range: 375–1,378 CFM

AHRI 1060 Certified Core:
One L62-G5 and one L125-G5

Standard Features:
Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports

Filters:
Total qty. 4, MERV 8: (2) 14" x 20" x 2" and
(2) 16" x 20" x 2"

Unit Weight:
386–548 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):
70" L x 47" W x 83" H
615 lbs.

Motor(s):
Qty. 2, 1.0 HP ea., Direct drive EC
motorized impellers

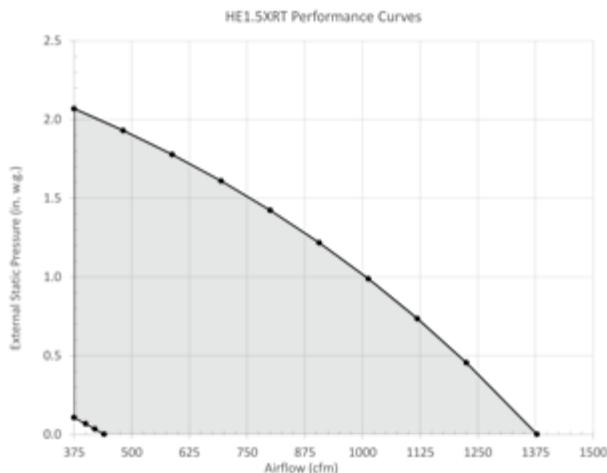
Options:
Fused disconnect
Integrated programmable controls: enhanced, premium
Class 1 low leakage motorized isolation dampers:

FA, EA or both airstreams
Gravity backdraft dampers
Factory mounted filter alarms: both airstreams
Double wall construction
Exterior paint: white, custom colors

Accessories:
Filters: MERV 13, 2" (shipped loose)
Backdraft damper: OA or EA
Automatic balancing damper: 4", 5", 6"
Potentiometer speed control: remote installed
Roof curb: standard 14"
Curb wind clip

Engineered combo curb for Carrier RTU
Engineered combo curb for Trane RTU
Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)
Carbon dioxide sensor/control:
wall mount (CO2-W), duct mount (CO2-D)
IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)
Motion occupancy sensor/control:
ceiling mount (MC-C), wall mount (MC-W)
Smoke detector: duct mount (SD-D)
BACnet fan control: wall mount (BACNETFC-W)
Indoor electric duct heater: EK series (1–175 kW);
Indirect gas-fired duct furnace: GH series (50–400 MBH);
installed downstream of any fans

EC MOTOR OPERATING RANGE AND FAN PERFORMANCE



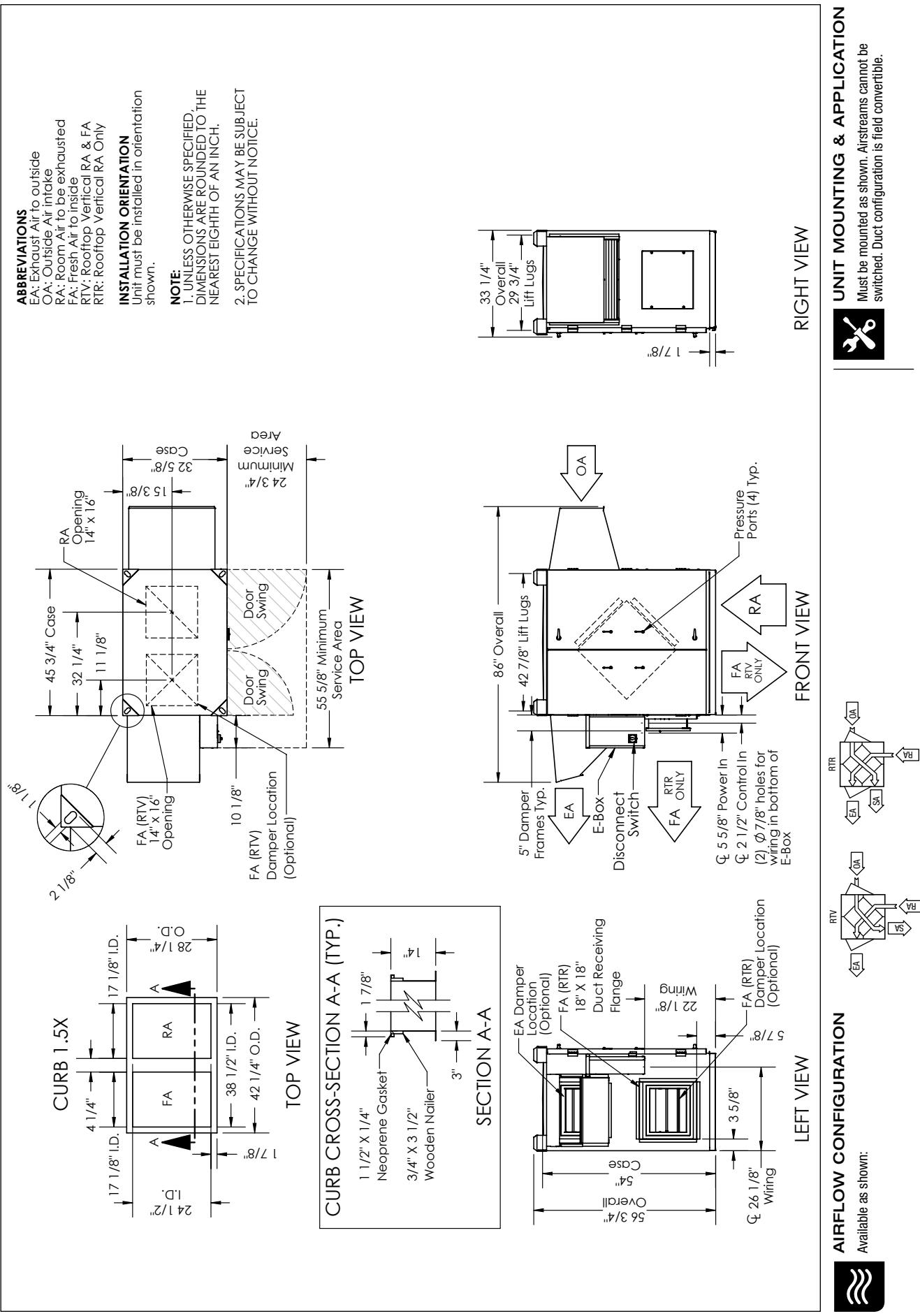
| Airflow (CFM) | External Static Pressure (Inches Water Column) | Unit Power Consumption (Watts) |
|---------------|--|--------------------------------|
| 375 | 2.07 | 710 |
| 481 | 1.93 | 765 |
| 588 | 1.78 | 814 |
| 694 | 1.61 | 859 |
| 800 | 1.42 | 899 |
| 906 | 1.22 | 933 |
| 1013 | 0.99 | 963 |
| 1119 | 0.74 | 987 |
| 1225 | 0.46 | 1006 |
| 1378 | 0.00 | 1024 |

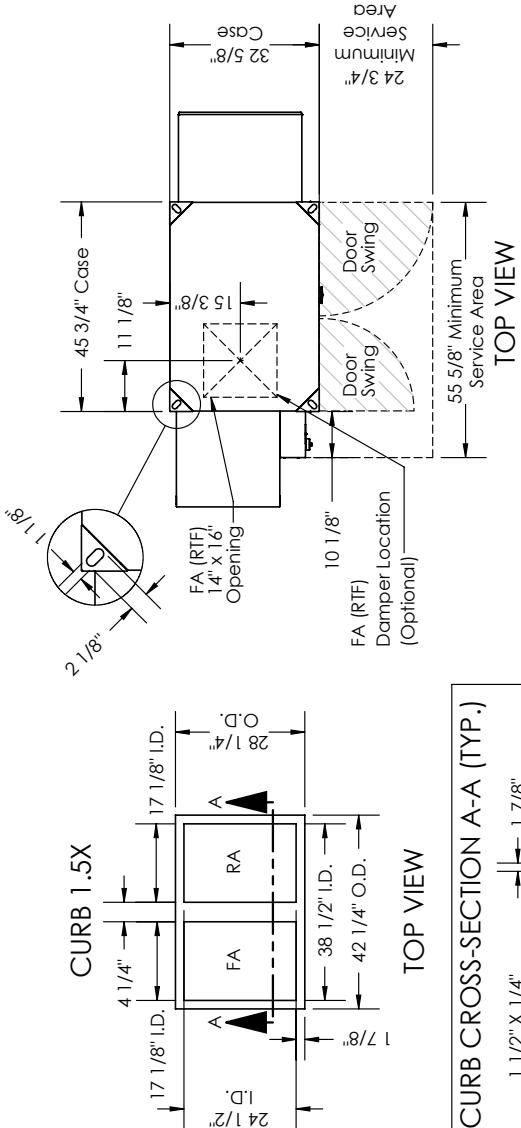
Note: Watts is for the entire unit. Airflow performance includes effect of clean, standard filter supplied with unit.

ELECTRICAL DATA

| Watts | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
|-------|---------|----|--------|---------------|----------------|------------------------------------|
| 480 | 120 | 60 | Single | 6.7 | 15.1 | 20 |
| 480 | 208–230 | 60 | Single | 3.4 | 7.7 | 15 |

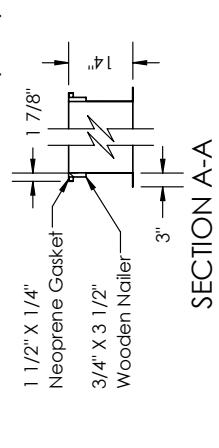
HE1.5XRT (RTV/RTR) ENERGY RECOVERY VENTILATOR EC MOTOR OPTION



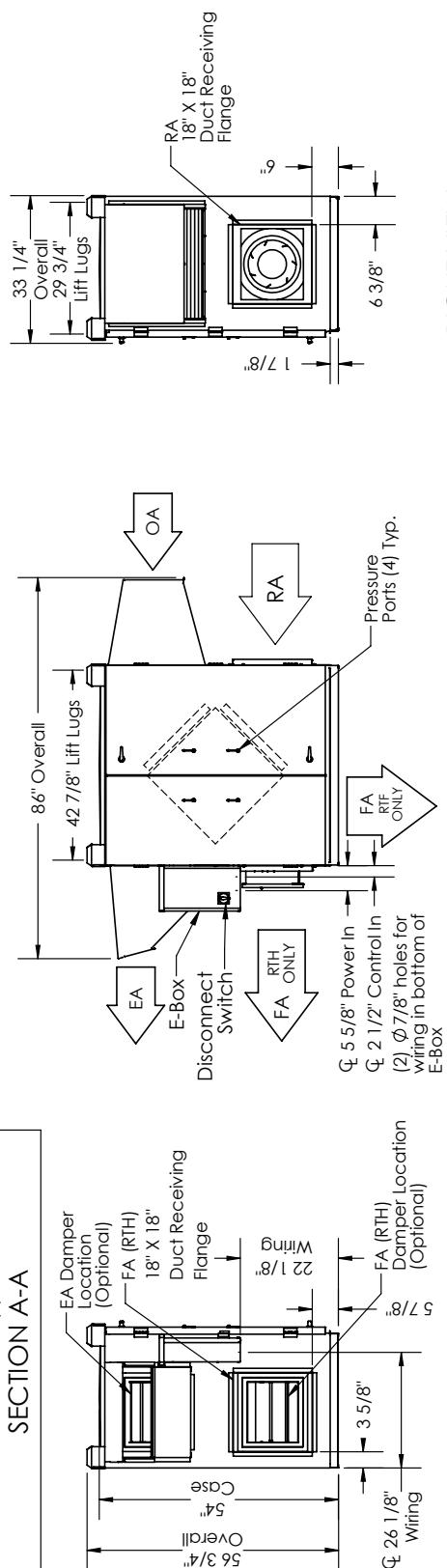
HE1.5XRT (RTH/RTF) ENERGY RECOVERY VENTILATOR EC MOTOR OPTION

TOP VIEW

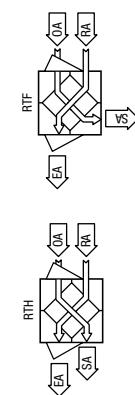
CURB CROSS-SECTION A-A (TYP.)



SECTION A-A

**AIRFLOW CONFIGURATION**

Available as shown:

**FRONT VIEW****RIGHT VIEW****UNIT MOUNTING & APPLICATION**

Must be mounted as shown. Airstreams cannot be switched. Duct configuration is field convertible.




HE 2XINH

INDOOR UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR

SPECIFICATIONS

Ventilation Type:
Static plate, heat and humidity transfer

Airflow Range: 500–2,200 CFM

AHRI 1060 Certified Core: Two L125-G5

Standard Features:
TEFC Premium efficiency motors
Motor starters
Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports

Filters:
Total qty. 4, MERV 8: 20" x 20" x 2"

Unit Weight:
406–619 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):
70" L x 47" W x 40" H
714 lbs.

Motor(s):
Qty. 2, Belt drive blower/standard motor packages with adjustable sheaves

Options:
Onboard variable frequency drives (VFDs):
both airstreams

Shaft grounding ring on motors with VFDs
Fused disconnect

Integrated programmable controls: enhanced, premium
Bypass economizer damper (see DIM drawing):
dry-bulb temperature controls (standard),
enthalpy controls (option)

Class 1 low leakage motorized isolation dampers:
OA, RA or both airstreams

Factory mounted filter alarms: both airstreams
Double wall construction
Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)
Automatic balancing damper: 4", 5", 6"

Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:
wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:
ceiling mount (MC-C), wall mount (MC-W)
Smoke detector: duct mount (SD-D)
BACnet fan control: wall mount (BACNETFC-W)
Indoor electric duct heater: EK series (1–175 kW)
Indirect gas-fired duct furnace: GH series (50–400 MBH);
installed downstream of any fans

AIRFLOW PERFORMANCE

| Blower RPM | External Static Pressure (Inches Water Column) | | | | | | | | | | | | | | | |
|------------|--|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
| | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | | 1.50 | | 1.75 | | 2.00 | |
| | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP |
| 800 | 573 | 0.3 | | | | | | | | | | | | | | |
| 900 | 778 | 0.4 | | | | | | | | | | | | | | |
| 1000 | 983 | 0.5 | 687 | 0.4 | | | | | | | | | | | | |
| 1100 | 1181 | 0.6 | 927 | 0.5 | 612 | 0.4 | | | | | | | | | | |
| 1200 | 1370 | 0.8 | 1151 | 0.7 | 889 | 0.6 | 561 | 0.5 | | | | | | | | |
| 1300 | 1552 | 1.0 | 1363 | 0.9 | 1140 | 0.7 | 870 | 0.6 | 541 | 0.5 | | | | | | |
| 1400 | 1732 | 1.2 | 1567 | 1.1 | 1375 | 1.0 | 1148 | 0.8 | 874 | 0.7 | 550 | 0.6 | | | | |
| 1500 | 1912 | 1.5 | 1766 | 1.4 | 1599 | 1.2 | 1405 | 1.1 | 1175 | 0.9 | 902 | 0.8 | 586 | 0.6 | | |
| 1600 | 2093 | 1.8 | 1961 | 1.7 | 1813 | 1.6 | 1645 | 1.4 | 1451 | 1.2 | 1222 | 1.1 | 952 | 0.9 | 646 | 0.7 |
| 1700 | | | | | 2018 | 1.9 | 1870 | 1.8 | 1703 | 1.6 | 1511 | 1.4 | 1286 | 1.2 | 1024 | 1.0 |

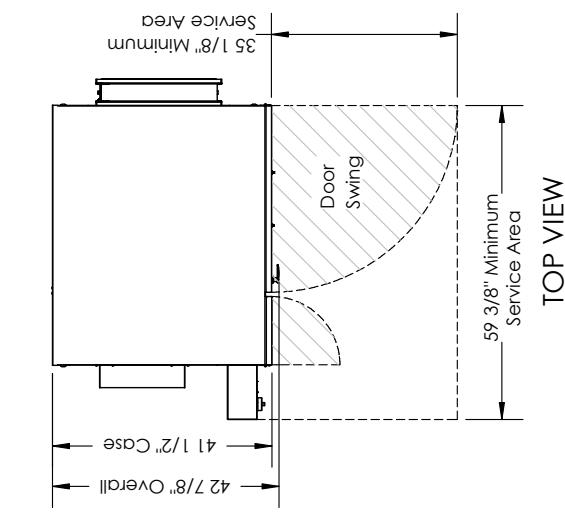
Operation in this zone will likely exceed FLA limits.

Operation in this zone outside of core airflow limits.

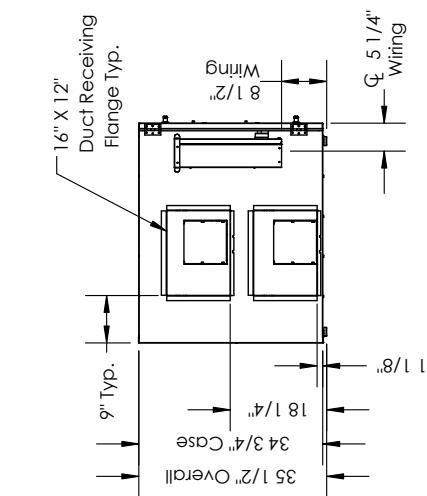
Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit.

ELECTRICAL DATA

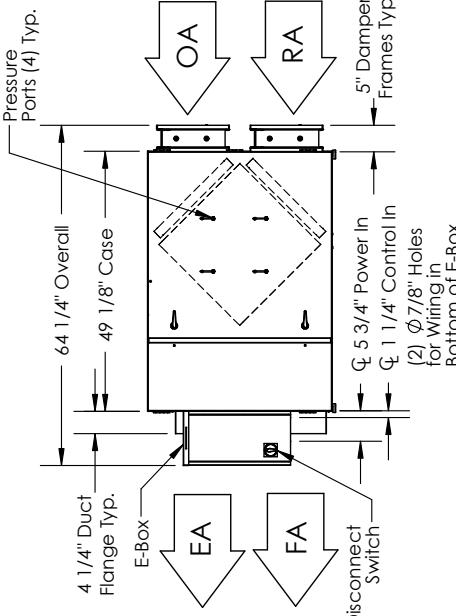
| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|--------|---------------|----------------|--|---------------|----------------|------------------------------------|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
| 1.5 | 120 | 60 | Single | 15.2 | 34.2 | 45.0 | | | |
| 1.5 | 208–230 | 60 | Single | 8.2–7.6 | 18.5 | 25.0 | 4.6–4.8 | 20.6 | 25.0 |
| | 208–230 | 60 | Three | 4.6–4.8 | 10.8 | 15.0 | 4.6–4.8 | 11.9 | 15.0 |
| | 460 | 60 | Three | 2.4 | 5.4 | 15.0 | 2.4 | 5.9 | 15.0 |
| | 575 | 60 | Three | 1.8 | 4.1 | 15.0 | 1.8 | 4.5 | 15.0 |
| 2.0 | 120 | 60 | Single | 20.0 | 45.0 | 60.0 | | | |
| 2.0 | 208–230 | 60 | Single | 10.8–10.0 | 24.3 | 35.0 | 6.6–5.8 | 28.3 | 30.0 |
| | 208–230 | 60 | Three | 6.6–5.8 | 14.9 | 20.0 | 6.6–5.8 | 16.3 | 20.0 |
| | 460 | 60 | Three | 2.9 | 6.5 | 15.0 | 2.9 | 7.2 | 15.0 |
| | 575 | 60 | Three | 2.4 | 5.4 | 15.0 | 2.4 | 5.9 | 15.0 |

HE2XINH ENERGY RECOVERY VENTILATOR

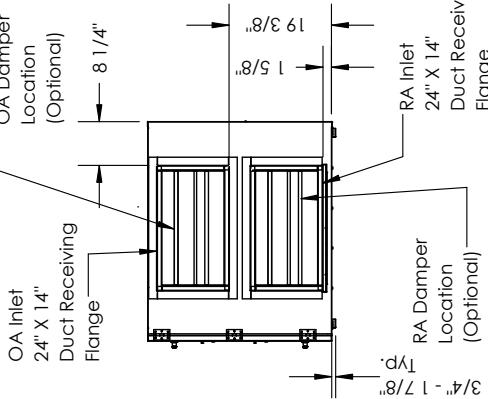
TOP VIEW



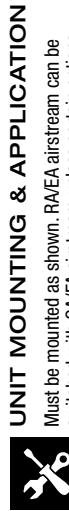
LEFT VIEW



FRONT VIEW



RIGHT VIEW

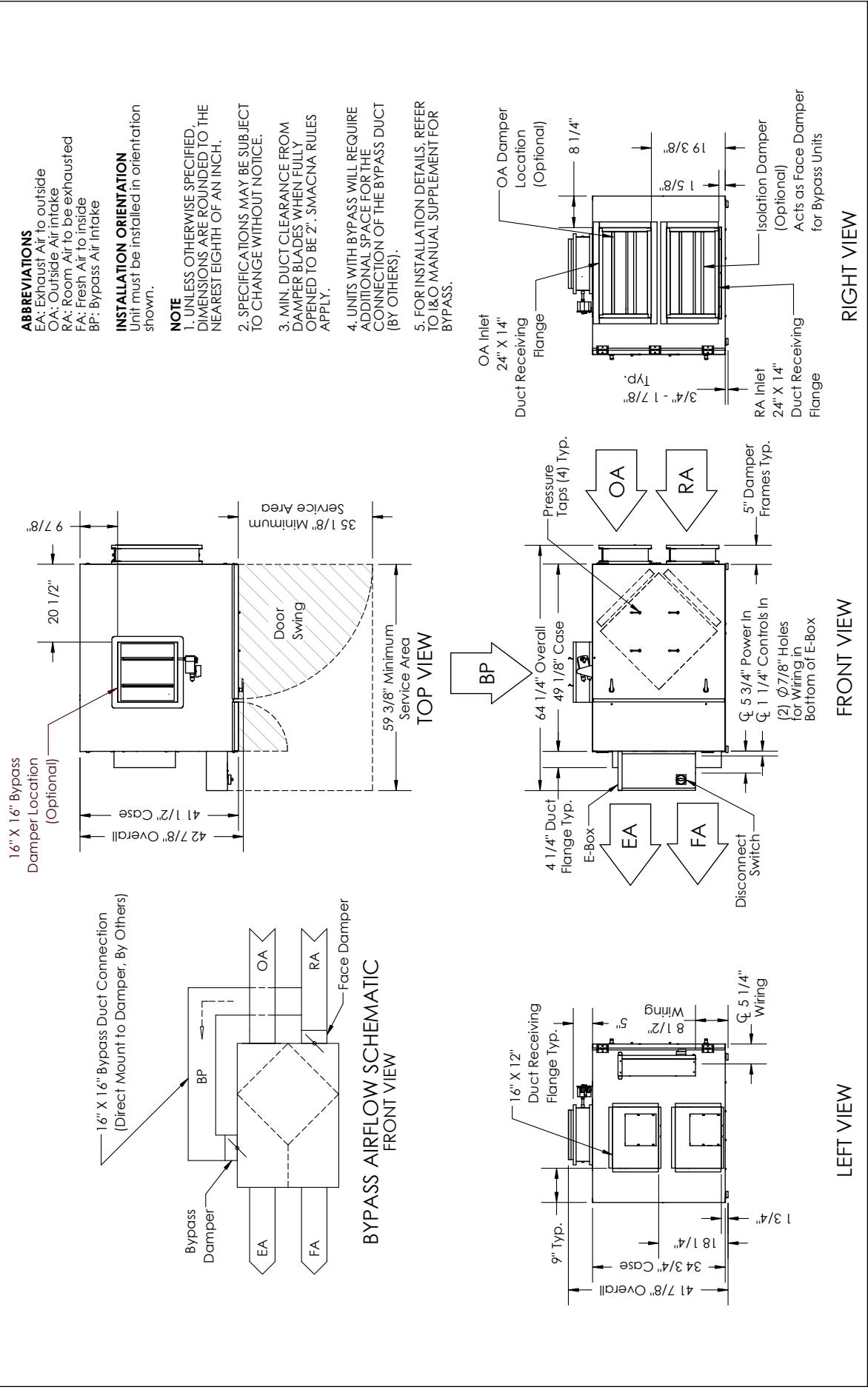


Must be mounted as shown. RA/EA airstream can be switched with OA/FA airstream unless certain options are selected.



Available as shown in dimension drawing.

HE2XINH ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER




HE 2XINV

INDOOR UNIT



Energy recovery core is AHRI Certified®



AIRFLOW PERFORMANCE

| Blower RPM | External Static Pressure (Inches Water Column) | | | | | | | | | | | | | | | |
|------------|--|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
| | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | | 1.50 | | 1.75 | | 2.00 | |
| | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP |
| 800 | 573 | 0.3 | | | | | | | | | | | | | | |
| 900 | 778 | 0.4 | | | | | | | | | | | | | | |
| 1000 | 983 | 0.5 | 687 | 0.4 | | | | | | | | | | | | |
| 1100 | 1181 | 0.6 | 927 | 0.5 | 612 | 0.4 | | | | | | | | | | |
| 1200 | 1370 | 0.8 | 1151 | 0.7 | 889 | 0.6 | 561 | 0.5 | | | | | | | | |
| 1300 | 1552 | 1.0 | 1363 | 0.9 | 1140 | 0.7 | 870 | 0.6 | 541 | 0.5 | | | | | | |
| 1400 | 1732 | 1.2 | 1567 | 1.1 | 1375 | 1.0 | 1148 | 0.8 | 874 | 0.7 | 550 | 0.6 | | | | |
| 1500 | 1912 | 1.5 | 1766 | 1.4 | 1599 | 1.2 | 1405 | 1.1 | 1175 | 0.9 | 902 | 0.8 | 586 | 0.6 | | |
| 1600 | 2093 | 1.8 | 1961 | 1.7 | 1813 | 1.6 | 1645 | 1.4 | 1451 | 1.2 | 1222 | 1.1 | 952 | 0.9 | 646 | 0.7 |
| 1700 | | | | | 2018 | 1.9 | 1870 | 1.8 | 1703 | 1.6 | 1511 | 1.4 | 1286 | 1.2 | 1024 | 1.0 |

 Operation in this zone will likely exceed FLA limits.

 Operation in this zone outside of core airflow limits.

Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit.

ELECTRICAL DATA

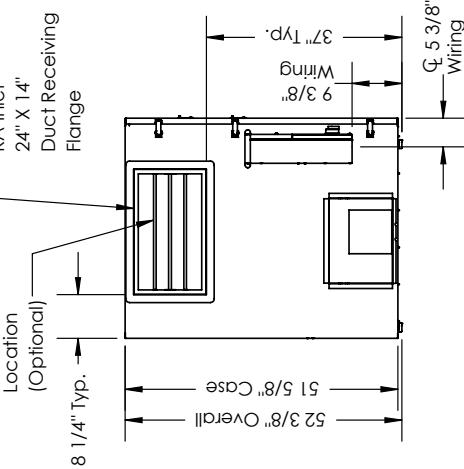
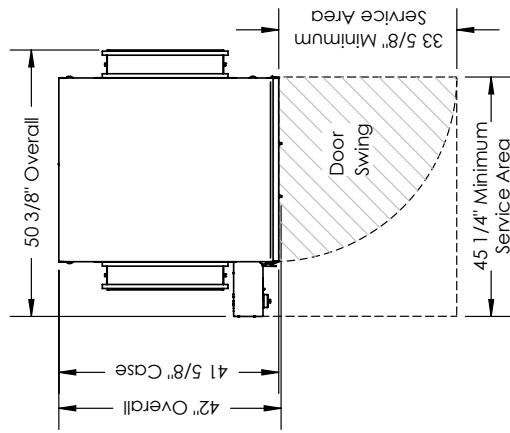
| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|--------|---------------|----------------|--|---------------|----------------|------------------------------------|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
| 1.5 | 120 | 60 | Single | 15.2 | 34.2 | 45.0 | | | |
| 1.5 | 208–230 | 60 | Single | 8.2–7.6 | 18.5 | 25.0 | 4.6–4.8 | 20.6 | 25.0 |
| | 208–230 | 60 | Three | 4.6–4.8 | 10.8 | 15.0 | 4.6–4.8 | 11.9 | 15.0 |
| | 460 | 60 | Three | 2.4 | 5.4 | 15.0 | 2.4 | 5.9 | 15.0 |
| 2.0 | 120 | 60 | Single | 20.0 | 45.0 | 60.0 | | | |
| 2.0 | 208–230 | 60 | Single | 10.8–10.0 | 24.3 | 35.0 | 6.6–5.8 | 28.3 | 30.0 |
| | 208–230 | 60 | Three | 6.6–5.8 | 14.9 | 20.0 | 6.6–5.8 | 16.3 | 20.0 |
| | 460 | 60 | Three | 2.9 | 6.5 | 15.0 | 2.9 | 7.2 | 15.0 |
| | 575 | 60 | Three | 2.4 | 5.4 | 15.0 | 2.4 | 5.9 | 15.0 |

HE2XINV ENERGY RECOVERY VENTILATOR

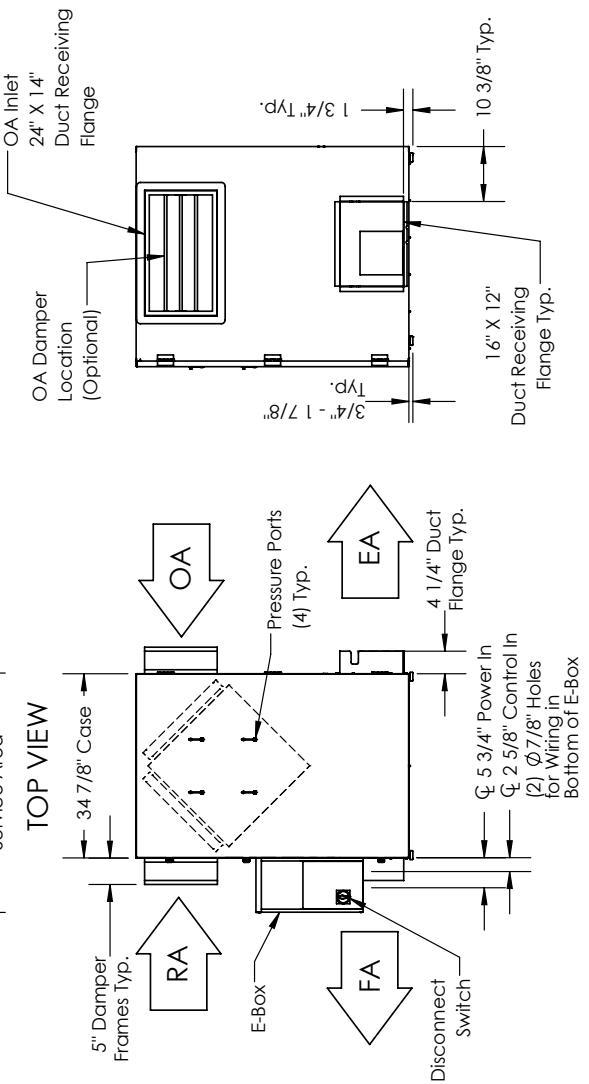
ABBREVIATIONS
 EA: Exhaust Air to outside
 OA: Outside Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside

INSTALLATION ORIENTATION
 Unit must be installed in orientation shown.

NOTE
 1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
 2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.
 3. MIN. DUCT CLEARANCE FROM DAMPER BLADES WHEN FULLY OPENED TO BE 2". SMACNA RULES APPLY.



TOP VIEW



LEFT VIEW

FRONT VIEW

AIRFLOW ORIENTATION
 Available as shown in dimension drawing.

**UNIT MOUNTING & APPLICATION**

Must be mounted as shown. RA/EA airstream can be switched with OA/FA airstream unless certain options are selected.

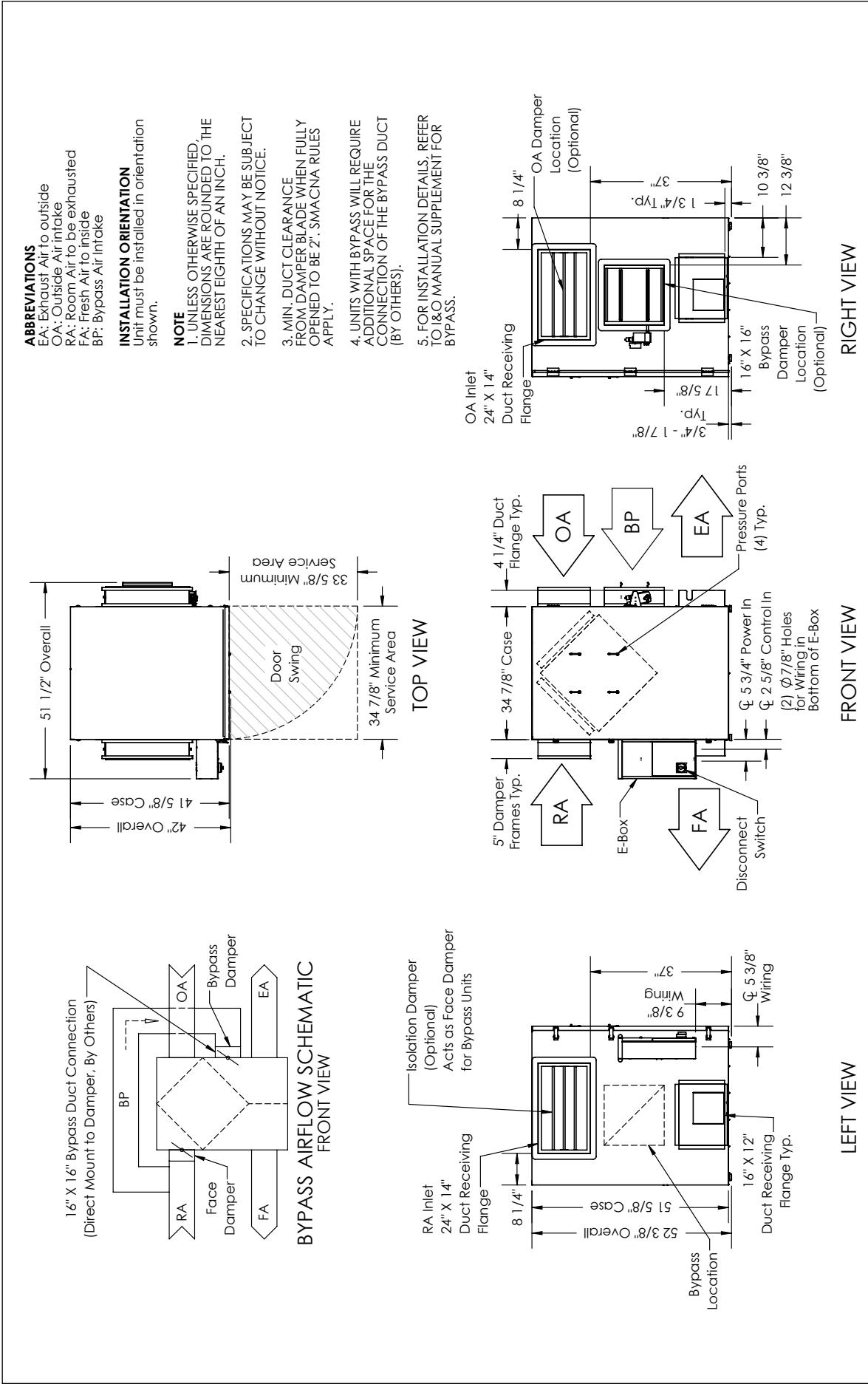


RIGHT VIEW



RIGHT VIEW

HE2XINV ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER





ROOFTOP UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:
Static plate, heat and humidity transfer

Airflow Range: 500–2,200 CFM**AHRI 1060 Certified Core:** Two L125-G5

Standard Features:
TEFC Premium efficiency motors
Motor starters
Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports

Filters:
Total qty. 4, MERV 8: 20" x 20" x 2"

Unit Weight:
498–689 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):
96" L x 47" W x 50" H
784 lbs.

Motor(s):
Qty. 2, Belt drive blower/standard motor packages with adjustable sheaves

Options:
Onboard variable frequency drives (VFDs):
both airstreams

Shaft grounding ring on motors with VFDs
Fused disconnect

Integrated programmable controls: enhanced, premium Class 1 low leakage motorized isolation dampers:
OA, RA or both airstreams
Factory mounted filter alarms: both airstreams
Double wall construction
Exterior paint: white, custom colors

Accessories:
Filters: MERV 13, 2" (shipped loose)

Automatic balancing damper: 4", 5", 6"
Roof curb: standard 14"
Curb wind clip

Engineered combo curb for Trane or Carrier RTUs
Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:
wall mount (CO2-W), duct mount (CO2-D)
IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)
Motion occupancy sensor/control:
ceiling mount (MC-C), wall mount (MC-W)
Smoke detector: duct mount (SD-D)
BACnet fan control: wall mount (BACNETFC-W)
Indoor electric duct heater: EK series (1–175 kW)
Indirect gas-fired duct furnace: GH series (50–400 MBH);
installed downstream of any fans

AIRFLOW PERFORMANCE

| Blower RPM | External Static Pressure (Inches Water Column) | | | | | | | | | | | | | | | |
|------------|--|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
| | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | | 1.50 | | 1.75 | | 2.00 | |
| | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP |
| 800 | | | | | | | | | | | | | | | | |
| 900 | 642 | 0.4 | | | | | | | | | | | | | | |
| 1000 | 829 | 0.4 | 558 | 0.4 | | | | | | | | | | | | |
| 1100 | 1016 | 0.5 | 775 | 0.5 | | | | | | | | | | | | |
| 1200 | 1200 | 0.7 | 986 | 0.6 | 739 | 0.5 | | | | | | | | | | |
| 1300 | 1381 | 0.9 | 1191 | 0.8 | 973 | 0.7 | 721 | 0.6 | | | | | | | | |
| 1400 | 1562 | 1.1 | 1392 | 1.0 | 1199 | 0.9 | 977 | 0.7 | 725 | 0.6 | | | | | | |
| 1500 | 1743 | 1.3 | 1590 | 1.2 | 1419 | 1.1 | 1223 | 1.0 | 1000 | 0.8 | 750 | 0.7 | | | | |
| 1600 | 1923 | 1.7 | 1785 | 1.5 | 1632 | 1.4 | 1459 | 1.3 | 1263 | 1.1 | 1041 | 1.0 | 795 | 0.8 | 534 | 0.7 |
| 1700 | | | 1975 | 1.9 | 1836 | 1.7 | 1683 | 1.6 | 1511 | 1.4 | 1317 | 1.3 | 1099 | 1.1 | 859 | 0.9 |

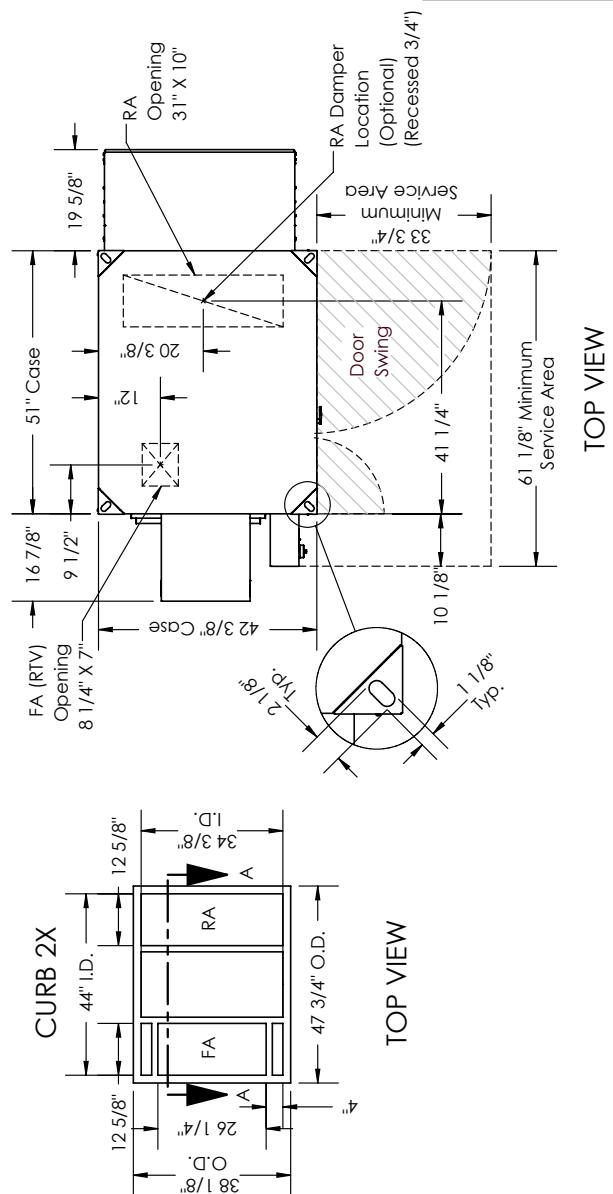
Operation in this zone will likely exceed FLA limits.

Operation in this zone outside of core airflow limits.

Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit.

ELECTRICAL DATA

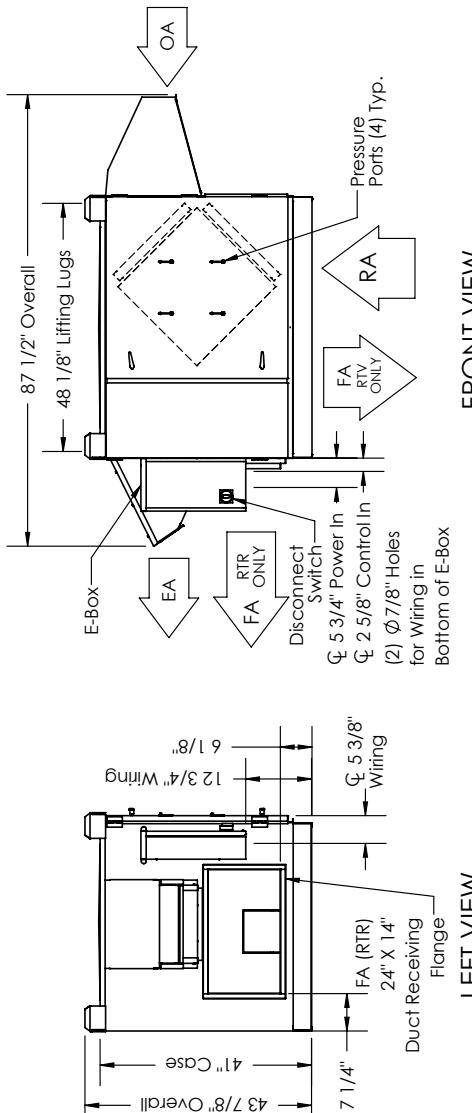
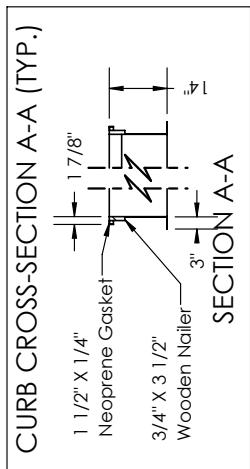
| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|--------|---------------|----------------|--|---------------|----------------|------------------------------------|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
| 1.5 | 120 | 60 | Single | 15.2 | 34.2 | 45.0 | | | |
| 1.5 | 208–230 | 60 | Single | 8.2–7.6 | 18.5 | 25.0 | 4.6–4.8 | 20.6 | 25.0 |
| | 208–230 | 60 | Three | 4.6–4.8 | 10.8 | 15.0 | 4.6–4.8 | 11.9 | 15.0 |
| | 460 | 60 | Three | 2.4 | 5.4 | 15.0 | 2.4 | 5.9 | 15.0 |
| | 575 | 60 | Three | 1.8 | 4.1 | 15.0 | 1.8 | 4.5 | 15.0 |
| 2.0 | 120 | 60 | Single | 20.0 | 45.0 | 60.0 | | | |
| 2.0 | 208–230 | 60 | Single | 10.8–10.0 | 24.3 | 35.0 | 6.6–5.8 | 28.3 | 30.0 |
| | 208–230 | 60 | Three | 6.6–5.8 | 14.9 | 20.0 | 6.6–5.8 | 16.3 | 20.0 |
| | 460 | 60 | Three | 2.9 | 6.5 | 15.0 | 2.9 | 7.2 | 15.0 |
| | 575 | 60 | Three | 2.4 | 5.4 | 15.0 | 2.4 | 5.9 | 15.0 |

HE2XRT (RTV/RTR) ENERGY RECOVERY VENTILATOR

ABBREVIATIONS
 EA: Exhaust Air to outside
 OA: Outside Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside
 RTV: Rooftop Vertical RA & FA
 RTR: Rooftop Vertical RA Only

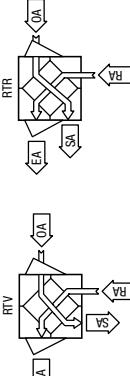
INSTALLATION ORIENTATION
 Unit must be installed in orientation shown.

NOTE:
 1. UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE ROUNDED TO THE
 NEAREST EIGHTH OF AN INCH.
 2. SPECIFICATIONS MAY BE SUBJECT
 TO CHANGE WITHOUT NOTICE.



RIGHT VIEW

FRONT VIEW



LEFT VIEW

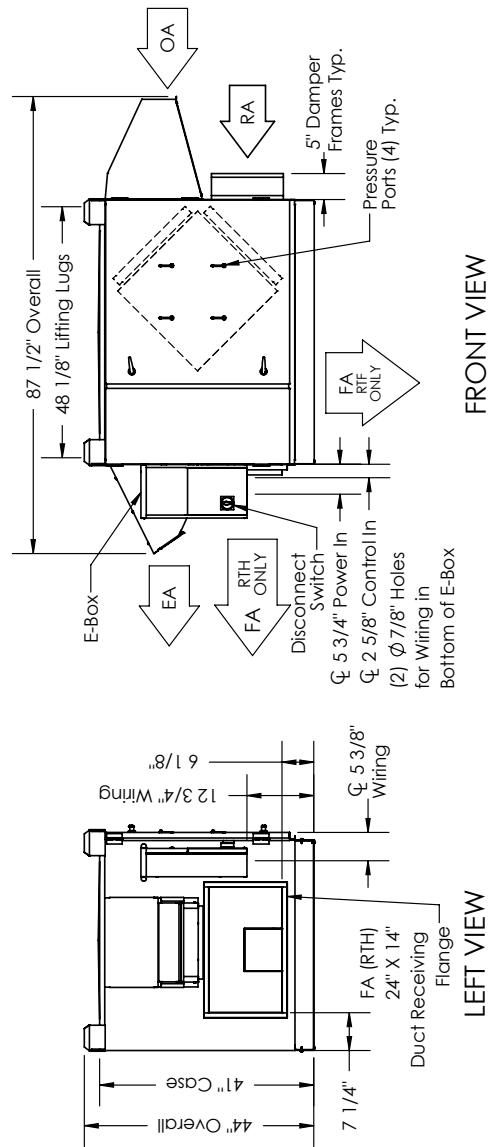
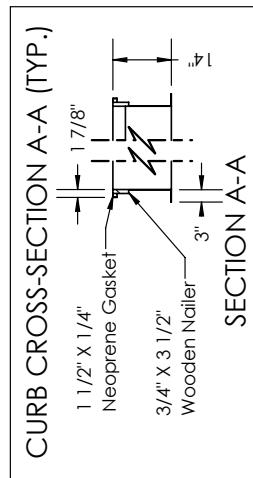
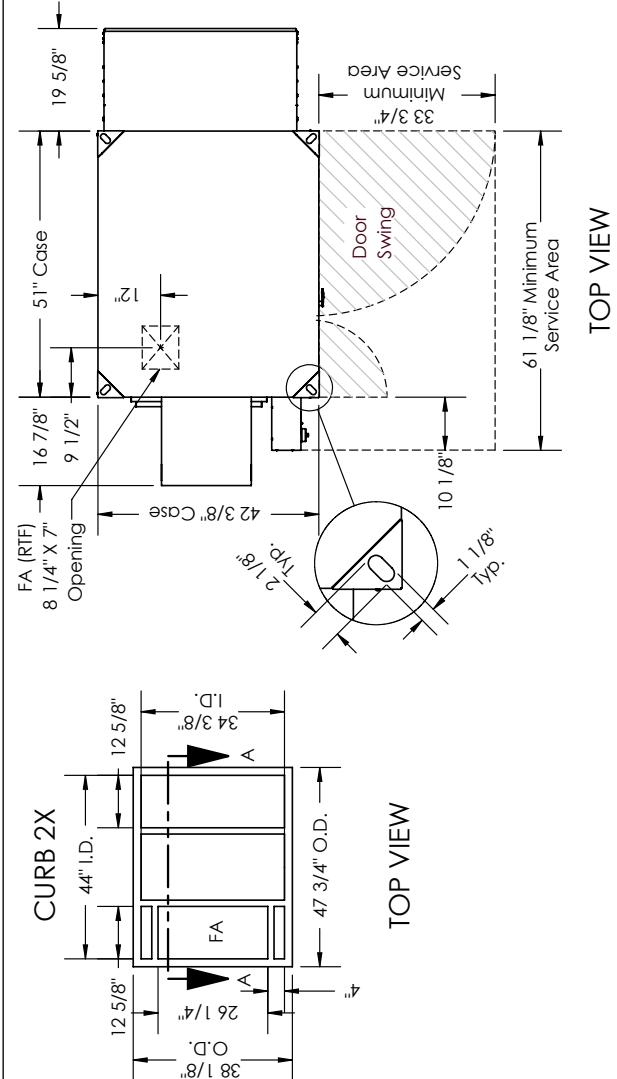
AIRFLOW ORIENTATION

Available as shown:

**UNIT MOUNTING & APPLICATION**

Must be mounted as shown. Airstreams cannot be switched.

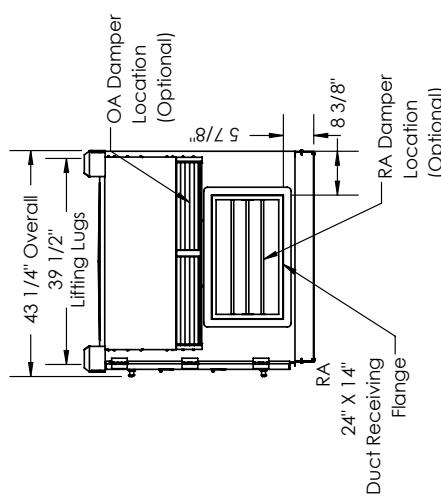


HE2XRT (RTH/RTTF) ENERGY RECOVERY VENTILATOR**AIRFLOW ORIENTATION**

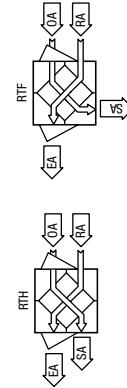
Available as shown:

**UNIT MOUNTING & APPLICATION**

Must be mounted as shown. Airstreams cannot be switched.

**RIGHT VIEW****UNIT MOUNTING & APPLICATION**

Must be mounted as shown. Airstreams cannot be switched.




**ROOFTOP UNIT
Direct Connect**


Energy recovery core is AHRI Certified®


ENERGY RECOVERY VENTILATOR

SPECIFICATIONS
Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range: 500–1,700 CFM

AHRI 1060 Certified Core: Two L125-G5

Standard Features:

TEFC Premium efficiency motors

Motor starters

Non-fused disconnect

24VAC transformer/relay package

Cross-core differential pressure ports

Filters:

Total qty. 4, MERV 8: (2) 20" x 20" x 2" and (2) 14" x 20" x 2"

Unit Weight:

566–711 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

80" L x 90" W x 50" H

850 lbs.

Motor(s):

Qty. 2, 2.0 HP ea., Belt drive blower/standard motor packages with adjustable sheaves

Options:

Onboard variable frequency drives (VFDs): both airstreams

Shaft grounding ring on motors with VFDs

Fused disconnect

Integrated programmable controls: enhanced, premium

Factory mounted filter alarms: both airstreams

Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Automatic balancing damper: 4", 5", 6"

RTC transition kit: for vertical RTU, for horizontal RTU

Rooftop RTC transition paint: white, custom colors

Digital time clock: wall mount (TC7D-W),

in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:

ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

ELECTRICAL DATA

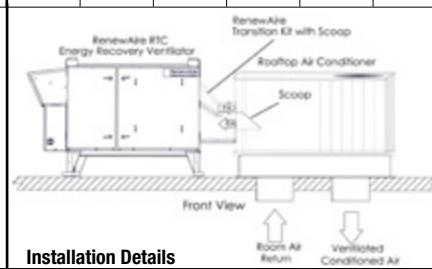
| Standard Electrical Specifications | | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|--------|---------------|----------------|------------------------------------|--|----------------|------------------------------------|--|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | |
| 2.0 | 208–230 | 60 | Single | 10.8–10.0 | 24.3 | 35.0 | 6.6–5.8 | 28.3 | 30.0 | |
| | 208–230 | 60 | Three | 6.6–5.8 | 14.9 | 20.0 | 6.6–5.8 | 16.3 | 20.0 | |
| | 460 | 60 | Three | 2.9 | 6.5 | 15.0 | 2.9 | 7.2 | 15.0 | |
| | 575 | 60 | Three | 2.4 | 5.4 | 15.0 | 2.4 | 5.9 | 15.0 | |

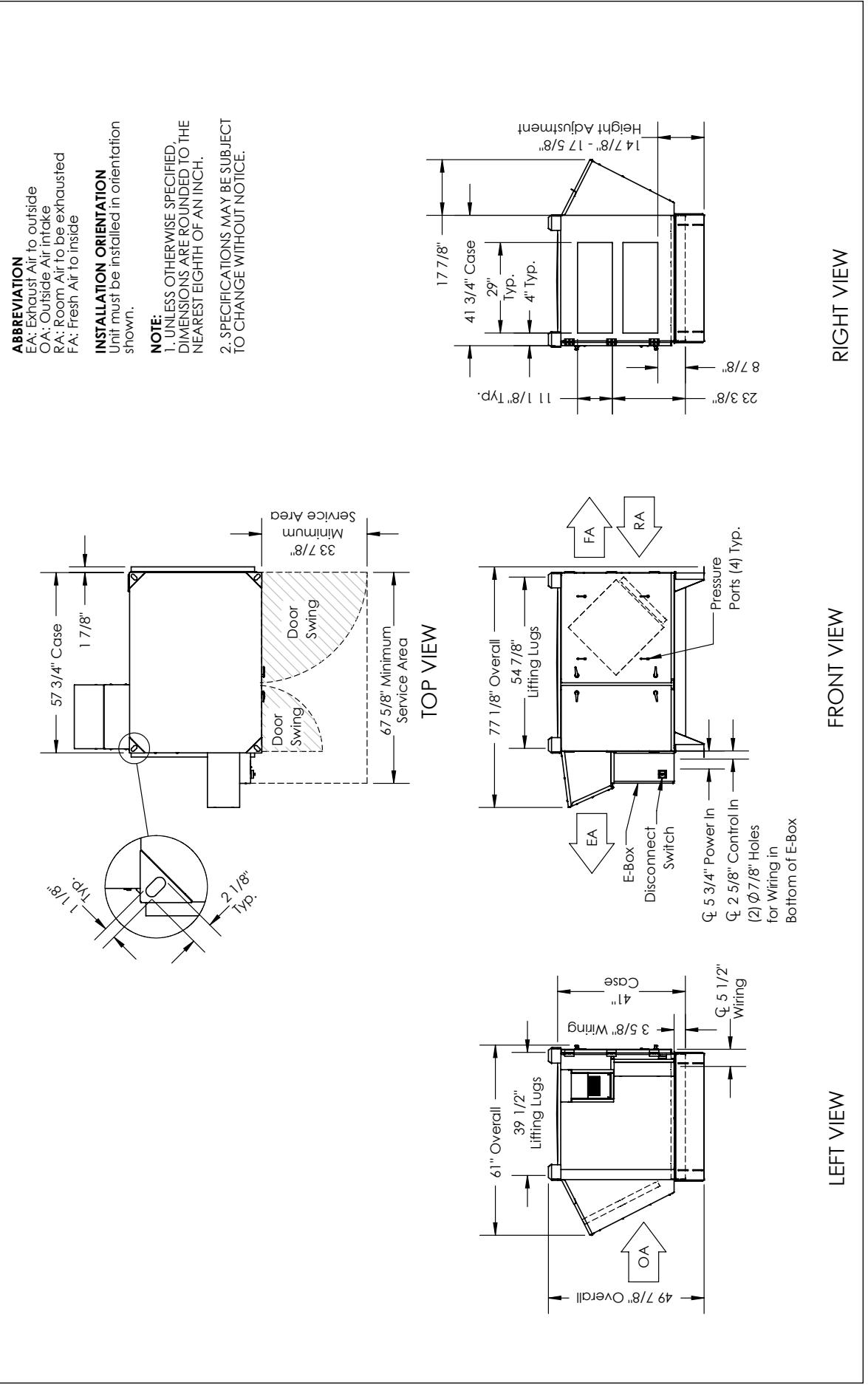
AIRFLOW PERFORMANCE

| Blower RPM Nominal | Sheave Adj. Turns Open | Tie-In Directly to Rooftop A/C Unit | | | | | | Unit Ducted Independently | | | | | | |
|--------------------|------------------------|---|------|-------|------|-------|------|--|------|-------|------|-------|------|------|
| | | Static Pressure in Adjacent Air Handler (Inches Water Column) | | | | | | External Static Pressure (Inches Water Column) | | | | | | |
| | | -0.75 | | -0.50 | | -0.25 | | 0.00 | | +0.25 | | +0.50 | | |
| | | CFM | BHP | CFM | BHP | CFM | BHP | CFM | BHP | CFM | BHP | CFM | BHP | |
| Exhaust Air | 1450 | 0 | | | | | | | | | | 1785 | 1.85 | |
| | 1370 | 1 | 2060 | 1.9 | 2000 | 1.9 | 1940 | 1.9 | 1900 | 1.9 | 1740 | 1.8 | 1570 | 1.57 |
| | 1290 | 2 | 1940 | 1.7 | 1860 | 1.7 | 1780 | 1.7 | 1727 | 1.6 | 1575 | 1.5 | 1350 | 1.40 |
| | 1210 | 3 | 1765 | 1.5 | 1700 | 1.5 | 1635 | 1.5 | 1560 | 1.4 | 1385 | 1.3 | 1165 | 1.12 |
| | 1130 | 4 | 1580 | 1.3 | 1515 | 1.3 | 1450 | 1.2 | 1365 | 1.1 | 1235 | 1.1 | 978 | 0.88 |
| | 1050 | 5 | 1390 | 1.1 | 1345 | 1.1 | 1300 | 1.1 | 1200 | 1.0 | 1060 | 0.9 | 810 | 0.80 |
| | 945 | 6 | 1198 | 0.9 | 1154 | 0.9 | 1110 | 0.9 | 1025 | 0.7 | 895 | 0.6 | 765 | 0.61 |
| Fresh Air | 1705 | 0 | | | | | | | | | | 1600 | 2.0 | |
| | 1610 | 1 | | | | | | | | | | 1480 | 1.87 | |
| | 1515 | 2 | 1742 | 2.0 | 1631 | 1.9 | 1520 | 1.7 | 1430 | 1.6 | 1355 | 1.6 | 1230 | 1.43 |
| | 1420 | 3 | 1620 | 1.7 | 1515 | 1.6 | 1410 | 1.5 | 1300 | 1.4 | 1230 | 1.4 | 1115 | 1.23 |
| | 1325 | 4 | 1465 | 1.5 | 1370 | 1.4 | 1275 | 1.3 | 1190 | 1.3 | 1120 | 1.2 | 995 | 1.05 |
| | 1230 | 5 | 1325 | 1.3 | 1245 | 1.2 | 1165 | 1.1 | 1080 | 1.0 | 985 | 0.9 | 850 | 0.79 |
| | 1090 | 6 | 1170 | 1.0 | 1085 | 0.9 | 1000 | 0.8 | 905 | 0.8 | 824 | 0.7 | 743 | 0.64 |

Operation in this zone will likely exceed FLA limits.

Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit.



HE2XRTC ENERGY RECOVERY VENTILATOR



INDOOR UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:
Static plate, heat and humidity transfer

Airflow Range: 750–3,300 CFM**AHRI 1060 Certified Core:** Three L125-G5

Standard Features:
TEFC Premium efficiency motors
Motor starters
Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports

Filters:
Total qty. 6, MERV 8: 20" x 20" x 2"

Unit Weight:
628–934 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):
80" L x 70" W x 50" H
1,029 lbs.

Motor(s):
Qty. 2, Belt drive blower/standard motor packages
with adjustable sheaves (see table below)

Options:
Onboard variable frequency drives (VFDs):
both airstreams

Shaft grounding ring on motors with VFDs
Fused disconnect

Integrated programmable controls: enhanced, premium
Bypass economizer damper (see DIM drawing):
dry-bulb temperature controls (standard),
enthalpy controls (option)

Class 1 low leakage motorized isolation dampers:
OA, RA or both airstreams

Factory mounted filter alarms: both airstreams
Double wall construction
Exterior paint: white, custom colors

Accessories:
Filters: MERV 13, 2" (shipped loose)
Automatic balancing damper: 4", 5", 6"
Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)
Carbon dioxide sensor/control:
wall mount (CO2-W), duct mount (CO2-D)
IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)
Motion occupancy sensor/control:
ceiling mount (MC-C), wall mount (MC-W)
Smoke detector: duct mount (SD-D)
BACnet fan control: wall mount (BACNETFC-W)
Indoor electric duct heater: EK series (1–175 kW)
Indirect gas-fired duct furnace: GH series (50–400 MBH);
Installed downstream of any fans

AIRFLOW PERFORMANCE

| Motor HP | Blower RPM | Sheave Adj. Turns Open | External Static Pressure (Inches Water Column) | | | | | | | | | | | |
|----------|------------|------------------------|--|------------|------------|------------|------------|------------|------|-----|------|-----|------------|------------|
| | | | 0.00 | | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | |
| | | | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP |
| 2.0 | 1189 | 4 | 2185 | 1.0 | 2095 | 0.9 | 1900 | 0.8 | 1580 | 0.6 | 800 | 0.4 | ██████████ | ██████████ |
| | 1329 | 2 | 2440 | 1.4 | 2360 | 1.3 | 2220 | 1.2 | 2020 | 1.0 | 1640 | 0.8 | 850 | 0.4 |
| | 1470 | 0 | 2700 | 1.9 | 2640 | 1.8 | 2520 | 1.6 | 2360 | 1.5 | 2150 | 1.8 | 1770 | 1.0 |
| 3.0 | 1496 | 3 | 2905 | 2.4 | 2815 | 2.3 | 2675 | 2.1 | 2505 | 1.9 | 2340 | 1.8 | 2220 | 1.6 |
| | 1560 | 2 | 3030 | 2.7 | 2945 | 2.6 | 2825 | 2.5 | 2655 | 2.3 | 2445 | 2.1 | 2325 | 1.9 |
| | 1656 | 0.5 | ██████████ | ██████████ | ██████████ | ██████████ | 3040 | 3.0 | 2875 | 2.8 | 2720 | 2.6 | 2575 | 2.4 |
| | 1688 | 0 | ██████████ | ██████████ | ██████████ | ██████████ | ██████████ | ██████████ | 2950 | 2.9 | 2800 | 2.8 | 2650 | 2.6 |
| 5.0 | 1686 | 3 | 3300 | 3.5 | 3225 | 3.4 | 3015 | 3.2 | 2855 | 3.0 | 2800 | 2.8 | 2645 | 2.6 |
| | 1764 | 1.5 | ██████████ | ██████████ | ██████████ | ██████████ | 3290 | 3.8 | 3145 | 3.5 | 2995 | 3.3 | 2850 | 3.1 |
| | 1843 | 0 | ██████████ | ██████████ | ██████████ | ██████████ | ██████████ | ██████████ | 3300 | 4.1 | 3175 | 3.8 | 3040 | 3.6 |

Operation in this zone will likely exceed FLA limits.

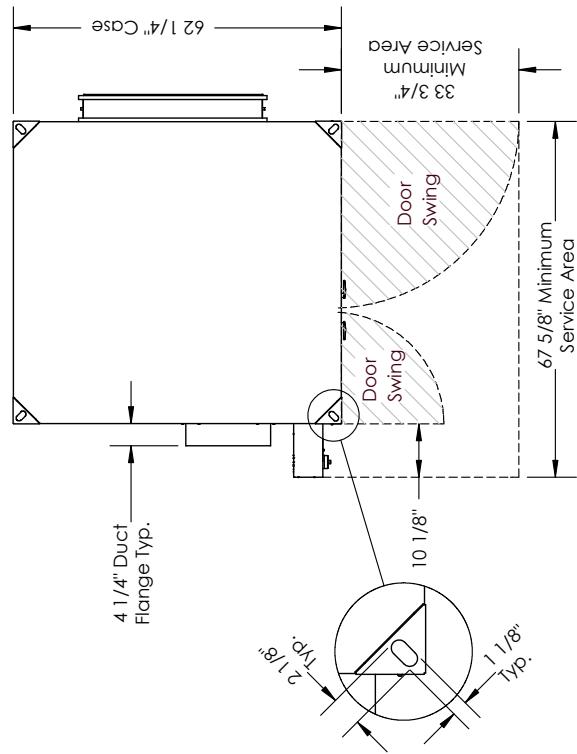
Operation in this zone outside of core airflow limits.

Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit.

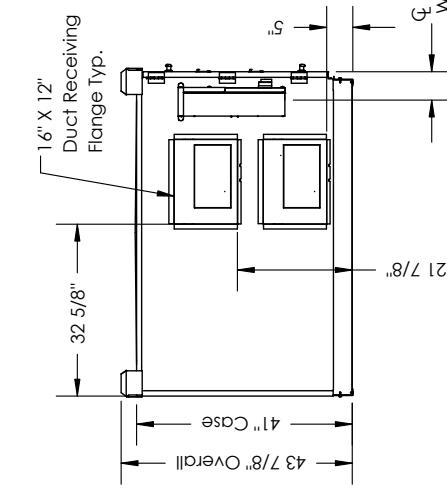
ELECTRICAL DATA

| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|--------|---------------|----------------|--|---------------|----------------|------------------------------------|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
| 2.0 | 120 | 60 | Single | 20.0 | 45.0 | 60.0 | | | |
| | 208–230 | 60 | Single | 10.8–10.0 | 24.3 | 35.0 | 6.6–5.8 | 28.3 | 30.0 |
| | 208–230 | 60 | Three | 6.6–5.8 | 14.9 | 20.0 | 6.6–5.8 | 16.3 | 20.0 |
| | 460 | 60 | Three | 2.9 | 6.5 | 15.0 | 2.9 | 7.2 | 15.0 |
| 3.0 | 575 | 60 | Three | 2.4 | 5.4 | 15.0 | 2.4 | 5.9 | 15.0 |
| | 208–230 | 60 | Single | 14.7–14 | 33.1 | 40.0 | 9.4–8.5 | 40.2 | 45.0 |
| | 208–230 | 60 | Three | 9.4–8.5 | 21.1 | 25.0 | 9.4–8.5 | 23.2 | 25.0 |
| | 460 | 60 | Three | 4.24 | 9.5 | 15.0 | 4.24 | 10.5 | 15.0 |
| 5.0 | 575 | 60 | Three | 3.3 | 7.4 | 15.0 | 3.3 | 8.2 | 15.0 |
| | 208–230 | 60 | Three | 14.5–13.4 | 32.6 | 45.0 | 14.5–13.4 | 35.9 | 45.0 |
| | 460 | 60 | Three | 6.7 | 15.1 | 20.0 | 6.7 | 16.6 | 20.0 |
| | 575 | 60 | Three | 5.3 | 11.9 | 15.0 | 5.3 | 13.1 | 15.0 |

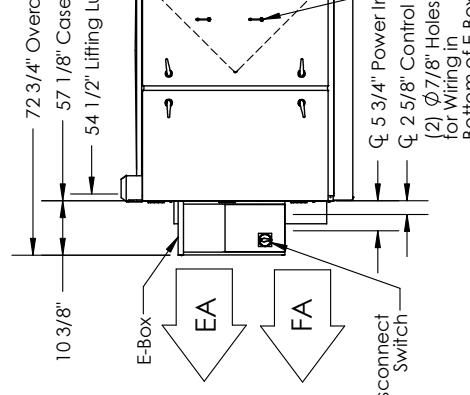
HE3XINH ENERGY RECOVERY VENTILATOR



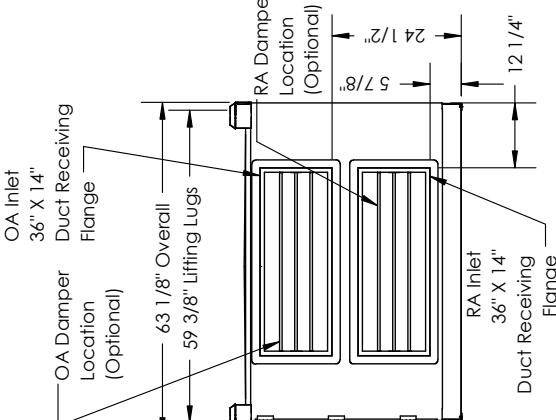
FRONT VIEW



LEFT VIEW



TOP VIEW



RIGHT VIEW

ABBREVIATIONS
 EA: Exhaust Air to outside
 OA: Outside Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside

INSTALLATION ORIENTATION

Unit must be installed in orientation shown.

NOTE

1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.
3. MIN. DUCT CLEARANCE FROM DAMPER BLADES WHEN FULLY OPENED TO BE 2". SMACNA RULES APPLY.

UNIT MOUNTING & APPLICATION

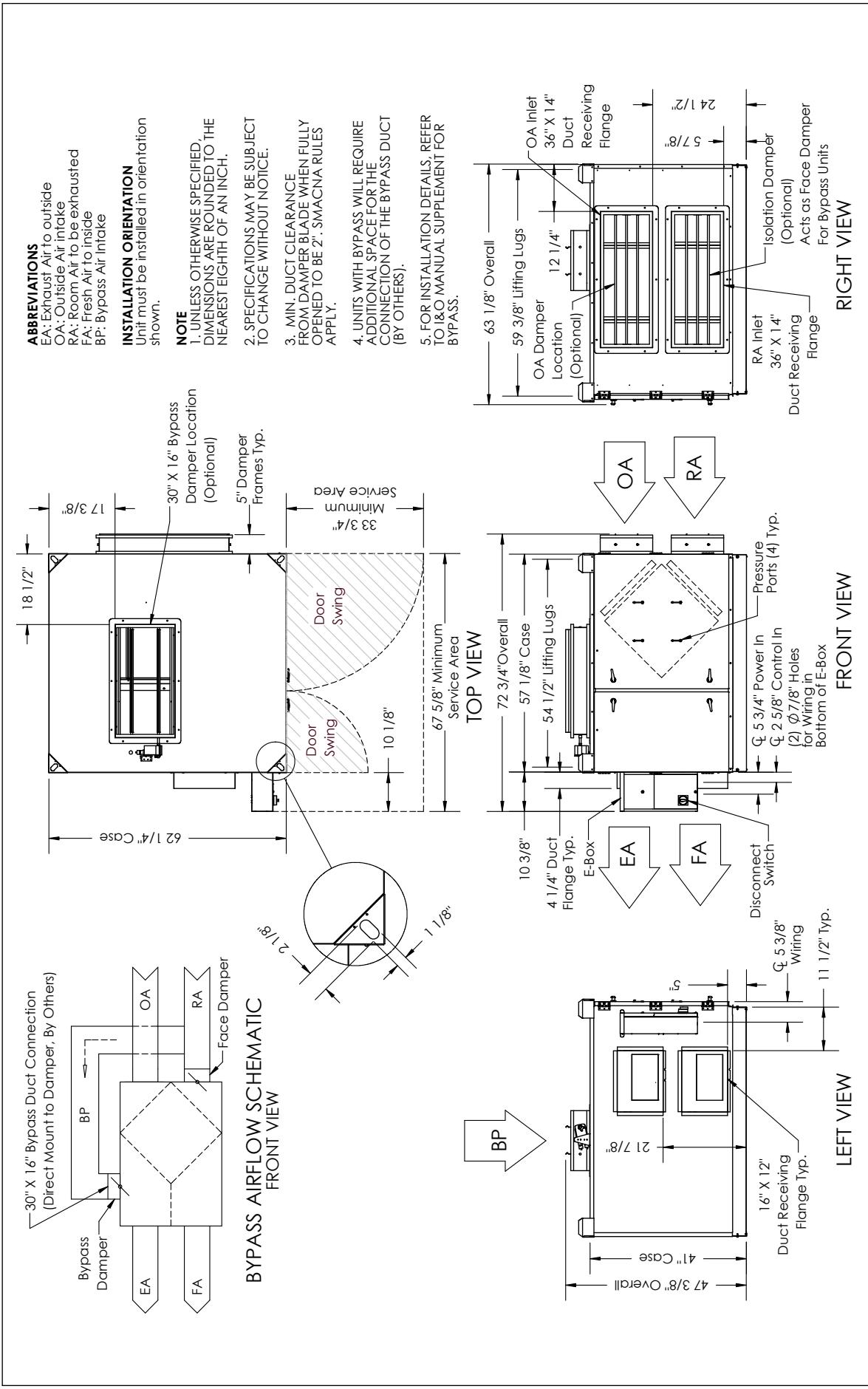
Must be mounted as shown. RA/EA airstream can be switched with OA/FA airstream unless certain options are selected.

**AIRFLOW ORIENTATION**

Available as shown in dimension drawing.



HE3XINH ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER



AIRFLOW ORIENTATION
Available as shown in dimension drawing.



UNIT MOUNTING & APPLICATION
Must be mounted as shown. Airstreams cannot be switched.





INDOOR UNIT



Energy recovery core is AHRI Certified®



AIRFLOW PERFORMANCE

| Motor HP | Blower RPM | Sheave Adj. Turns Open | External Static Pressure (Inches Water Column) | | | | | | | | | | | |
|----------|------------|------------------------|--|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
| | | | 0.00 | | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | |
| | | | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP |
| 2.0 | 1195 | 4 | 2185 | 0.8 | 2000 | 0.7 | 1725 | 0.5 | 1210 | 0.4 | | | | |
| | 1355 | 2 | 2440 | 1.1 | 2270 | 0.9 | 2060 | 0.8 | 1715 | 0.6 | 1210 | 0.5 | | |
| | 1476 | 0 | 2700 | 1.5 | 2550 | 1.3 | 2380 | 1.2 | 2150 | 1.0 | 1750 | 0.8 | 1300 | 0.6 |
| 3.0 | 1536 | 2.5 | 2810 | 2.1 | 2700 | 2.1 | 2560 | 1.9 | 2370 | 1.8 | 2140 | 1.6 | 1840 | 1.5 |
| | 1632 | 1.5 | 2985 | 2.5 | 2880 | 2.4 | 2760 | 2.3 | 2590 | 2.2 | 2400 | 2.0 | 2145 | 1.8 |
| | 1696 | 0.5 | 3100 | 2.8 | 3000 | 2.7 | 2900 | 2.7 | 2735 | 2.5 | 2505 | 2.3 | 2335 | 2.1 |
| | 1728 | 0 | 3160 | 3.0 | 3055 | 2.9 | 2960 | 2.8 | 2800 | 2.6 | 2635 | 2.5 | 2425 | 2.3 |
| 5.0 | 1749 | 2 | 3300 | 3.3 | 3200 | 3.1 | 3020 | 2.8 | 2860 | 2.6 | 2660 | 2.3 | 2440 | 2.1 |
| | 1801 | 1 | | | 3300 | 3.4 | 3140 | 3.1 | 2980 | 2.8 | 2800 | 2.6 | 2585 | 2.8 |
| | 1853 | 0 | | | | | 3245 | 3.4 | 3090 | 3.1 | 2920 | 2.9 | 2715 | 2.6 |

Operation in this zone outside of core airflow limits.

Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit.

ELECTRICAL DATA

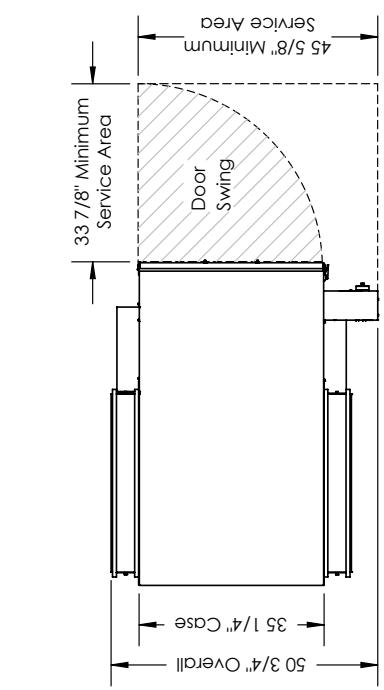
| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|--------|---------------|----------------|--|---------------|----------------|------------------------------------|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
| 2.0 | 120 | 60 | Single | 20.0 | 45.0 | 60.0 | | | |
| | 208-230 | 60 | Single | 10.8-10.0 | 24.3 | 35.0 | 6.6-5.8 | 28.3 | 30.0 |
| | 208-230 | 60 | Three | 6.6-5.8 | 14.9 | 20.0 | 6.6-5.8 | 16.3 | 20.0 |
| | 460 | 60 | Three | 2.9 | 6.5 | 15.0 | 2.9 | 7.2 | 15.0 |
| 3.0 | 575 | 60 | Three | 2.4 | 5.4 | 15.0 | 2.4 | 5.9 | 15.0 |
| | 208-230 | 60 | Single | 14.7-14 | 33.1 | 40.0 | 9.4-8.5 | 40.2 | 45.0 |
| | 208-230 | 60 | Three | 9.4-8.5 | 21.1 | 25.0 | 9.4-8.5 | 23.2 | 25.0 |
| | 460 | 60 | Three | 4.24 | 9.5 | 15.0 | 4.24 | 10.5 | 15.0 |
| 5.0 | 575 | 60 | Three | 3.3 | 7.4 | 15.0 | 3.3 | 8.2 | 15.0 |
| | 208-230 | 60 | Three | 14.5-13.4 | 32.6 | 45.0 | 14.5-13.4 | 35.9 | 45.0 |
| | 460 | 60 | Three | 6.7 | 15.1 | 20.0 | 6.7 | 16.6 | 20.0 |
| | 575 | 60 | Three | 5.3 | 11.9 | 15.0 | 5.3 | 13.1 | 15.0 |

ENERGY RECOVERY VENTILATOR

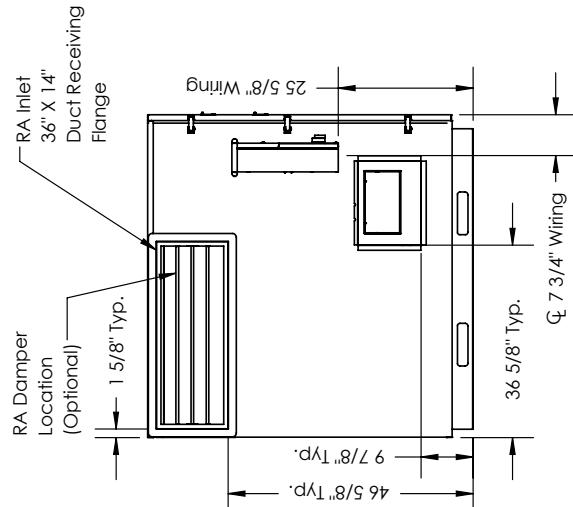


SPECIFICATIONS

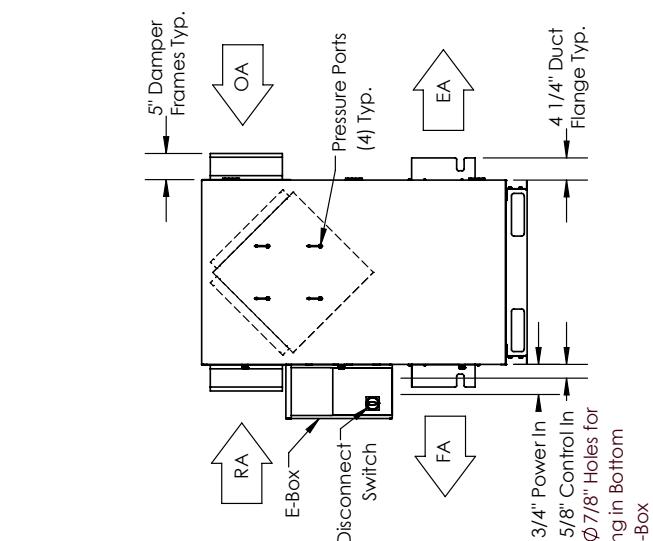
| | |
|--|---|
| Ventilation Type: Static plate, heat and humidity transfer | Options: Onboard variable frequency drives (VFDs): both airstreams |
| Airflow Range: 750–3,300 CFM | Shaft grounding ring on motors with VFDs |
| AHRI 1060 Certified Core: Three L125-G5 | Fused disconnect |
| Standard Features: TEFC Premium efficiency motors Motor starters Non-fused disconnect 24VAC transformer/relay package Cross-core differential pressure ports | Integrated programmable controls: enhanced, premium Bypass economizer damper (see DIM drawing): dry-bulb temperature controls (standard), enthalpy controls (option) Class 1 low leakage motorized isolation dampers: OA, RA or both airstreams |
| Filters: Total qty. 6, MERV 8: 20" x 20" x 2" | Factory mounted filter alarms: both airstreams Double wall construction Exterior paint: white, custom colors |
| Unit Weight: 590–999 lbs., varies by option(s) | Accessories: Filters: MERV 13, 2" (shipped loose) Automatic balancing damper: 4", 5", 6" Digital time clock: wall mount (TC7D-W), in exterior enclosure (TC7D-E) |
| Max. Shipping Dimensions & Weight (on pallet): 60" L x 90" W x 70" H 1,094 lbs. | Carbon dioxide sensor/control: wall mount (CO2-D), duct mount (CO2-W) IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D) Motion occupancy sensor/control: ceiling mount (MC-C), wall mount (MC-W) Smoke detector: duct mount (SD-D) BACnet fan control: wall mount (BACNETFC-W) Indoor electric duct heater: EK series (1–175 kW) Indirect gas-fired duct furnace: GH series (50–400 MBH); Installed downstream of any fans |

HE3XINV ENERGY RECOVERY VENTILATOR

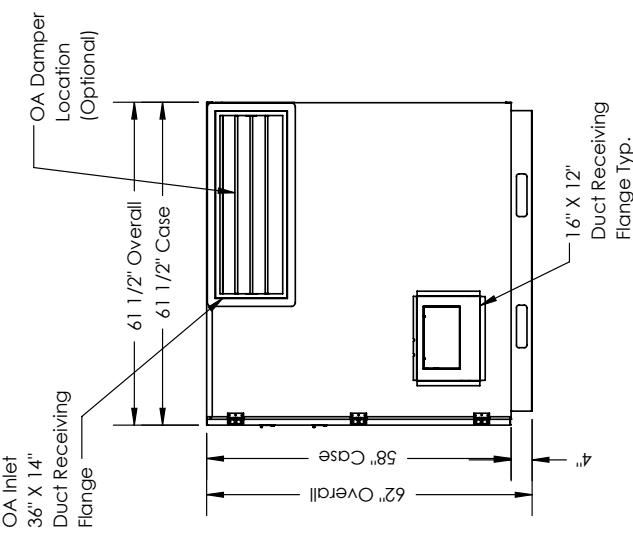
TOP VIEW



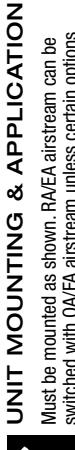
LEFT VIEW



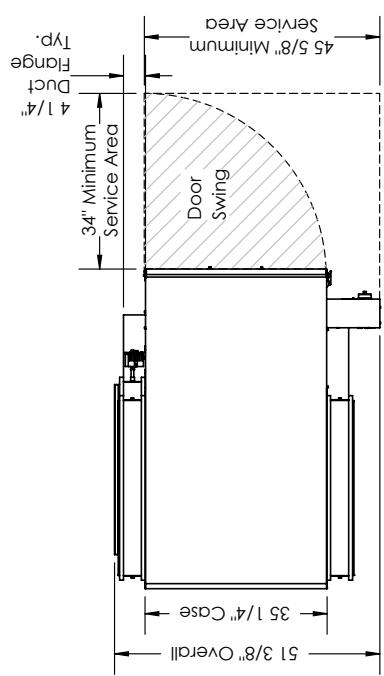
FRONT VIEW



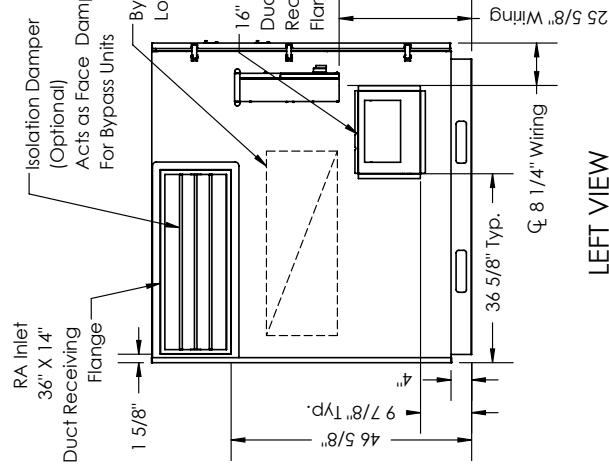
RIGHT VIEW



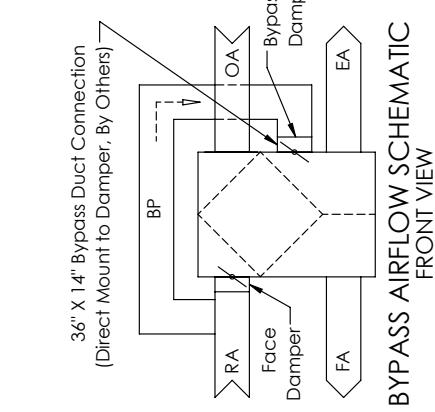
HE3XINV ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER



TOP VIEW



LEFT VIEW

BYPASS AIRFLOW SCHEMATIC
FRONT VIEW

ABBREVIATIONS

EA: Exhaust Air to outside
OA: Outside Air intake
RA: Room Air to be exhausted
FA: Fresh Air to inside
BP: Bypass Air intake

INSTALLATION ORIENTATION

Unit must be installed in orientation shown.

NOTE

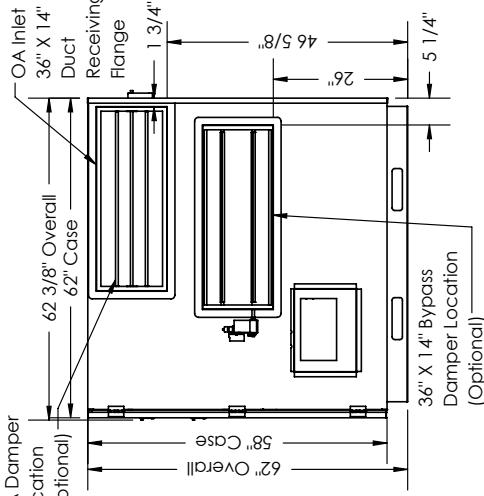
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.

2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

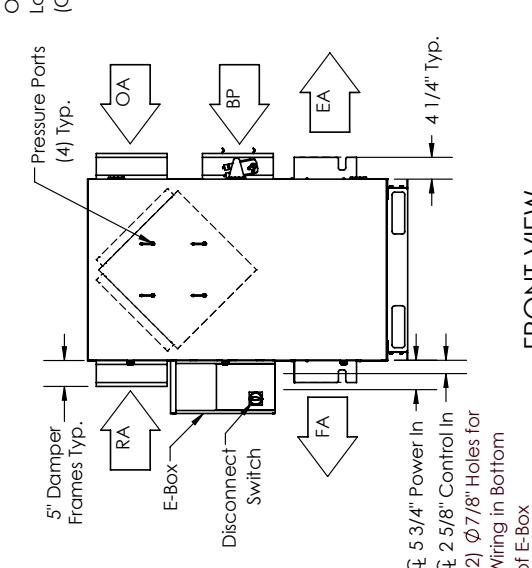
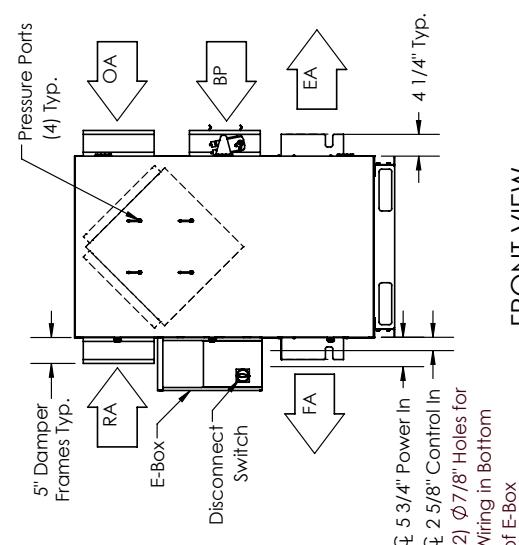
3. MIN. DUCT CLEARANCE FROM DAMPER BLADE WHEN FULLY OPENED TO BE 2": SMACNA RULES APPLY.

4. UNITS WITH BYPASS WILL REQUIRE ADDITIONAL SPACE FOR THE CONNECTION OF THE BYPASS DUCT (BY OTHERS).

5. FOR INSTALLATION DETAILS, REFER TO I&O MANUAL SUPPLEMENT FOR BYPASS.



RIGHT VIEW



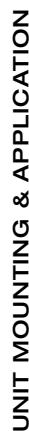
AIRFLOW ORIENTATION

Available as shown in dimension drawing.



UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.





ROOFTOP UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range: 750–3,300 CFM**AHRI 1060 Certified Core:** Three L125-G5**Standard Features:**

TEFC Premium efficiency motors

Motor starters

Non-fused disconnect

24VAC transformer/relay package

Cross-core differential pressure ports

Filters:

Total qty. 6, MERV 8: 20" x 20" x 2"

Unit Weight:

656–972 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

80" L x 70" W x 67" H

1,067 lbs.

Motor(s):

Qty. 2, Belt drive blower/standard motor packages with adjustable sheaves (see table below)

Options:

Onboard variable frequency drives (VFDs):

both airstreams

Shaft grounding ring on motors with VFDs

Fused disconnect

Integrated programmable controls: enhanced, premium

Class 1 low leakage motorized isolation dampers:

OA, RA or both airstreams

Factory mounted filter alarms: both airstreams

Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Automatic balancing damper: 4", 5", 6"

Roof curb: standard 14"

Curb wind clip

Engineered combo curb for Trane or Carrier RTUs

Digital time clock: wall mount (TC7D-W),

in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:

ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

Indoor electric duct heater: EK series (1–175 kW);

Indirect gas-fired duct furnace: GH series (50–400 MBH);

Installed downstream of any fans

AIRFLOW PERFORMANCE

| Motor HP | Blower RPM | Sheave Adj. Turns Open | External Static Pressure (Inches Water Column) | | | | | | | | | | | |
|----------|------------|------------------------|--|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
| | | | 0.00 | | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | |
| | | | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP |
| 2.0 | 1207 | 4 | 2130 | 1.0 | 1940 | 0.8 | 1695 | 0.6 | 1340 | 0.4 | 1365 | 0.5 | 1435 | 0.7 |
| | 1347 | 2 | 2380 | 1.4 | 2210 | 1.2 | 2005 | 1.0 | 1725 | 0.8 | 1800 | 0.9 | 1765 | 1.3 |
| | 1488 | 0 | 2630 | 1.9 | 2470 | 1.6 | 2300 | 1.4 | 2100 | 1.2 | 1800 | 0.9 | 1435 | 0.7 |
| 3.0 | 1533 | 3 | 2790 | 2.5 | 2660 | 2.3 | 2500 | 2.1 | 2290 | 1.8 | 2040 | 1.6 | 1765 | 1.3 |
| | 1597 | 2 | 2905 | 2.8 | 2785 | 2.6 | 2630 | 2.4 | 2340 | 2.1 | 2200 | 1.9 | 1955 | 1.6 |
| | 1661 | 0.5 | | | 2810 | 3.0 | 2760 | 2.7 | 2585 | 2.5 | 2365 | 2.2 | 2140 | 1.9 |
| | 1692 | 0 | | | | | 2820 | 2.9 | 2665 | 2.7 | 2450 | 2.4 | 2220 | 2.1 |
| 5.0 | 1686 | 3 | 3110 | 3.5 | 3000 | 3.2 | 2890 | 3.0 | 2730 | 2.7 | 2520 | 2.4 | 2295 | 2.1 |
| | 1764 | 1.5 | 3255 | 4.0 | 3150 | 3.7 | 3045 | 3.5 | 2905 | 3.2 | 2720 | 2.9 | 2520 | 2.5 |
| | 1843 | 0 | | | 3300 | 4.2 | 3200 | 4.0 | 3075 | 3.7 | 2910 | 3.4 | 2715 | 3.0 |

Operation in this zone will likely exceed FLA limits.

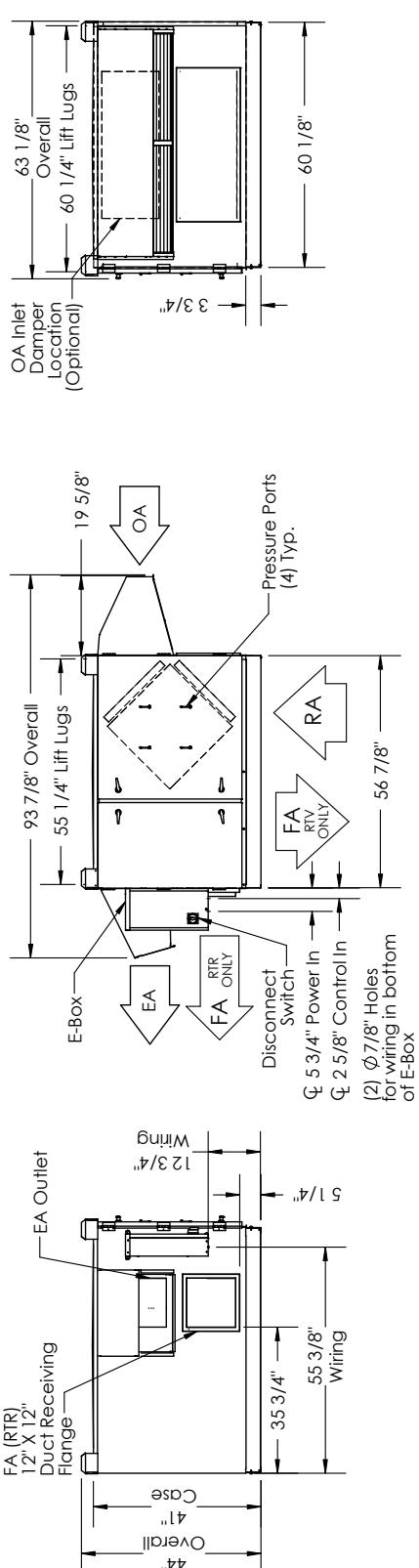
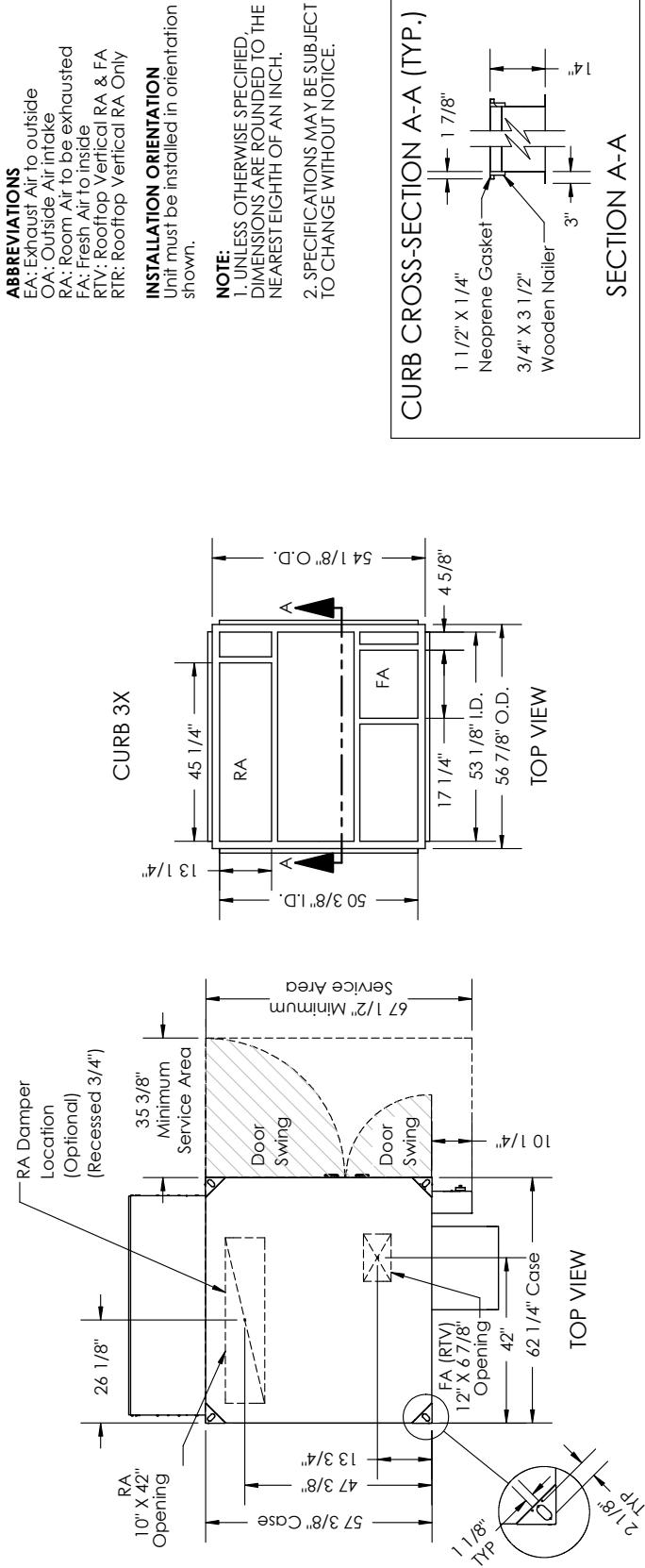
Operation in this zone outside of core airflow limits.

Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit.

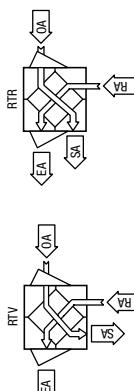
ELECTRICAL DATA

| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|--------|---------------|----------------|--|---------------|----------------|------------------------------------|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
| 2.0 | 120 | 60 | Single | 20.0 | 45.0 | 60.0 | | | |
| | 208-230 | 60 | Single | 10.8-10.0 | 24.3 | 35.0 | 6.6-5.8 | 28.3 | 30.0 |
| | 208-230 | 60 | Three | 6.6-5.8 | 14.9 | 20.0 | 6.6-5.8 | 16.3 | 20.0 |
| | 460 | 60 | Three | 2.9 | 6.5 | 15.0 | 2.9 | 7.2 | 15.0 |
| 3.0 | 208-230 | 60 | Single | 14.7-14 | 33.1 | 40.0 | 9.4-8.5 | 40.2 | 45.0 |
| | 208-230 | 60 | Three | 9.4-8.5 | 21.1 | 25.0 | 9.4-8.5 | 23.2 | 25.0 |
| | 460 | 60 | Three | 4.2 | 9.5 | 15.0 | 4.2 | 10.5 | 15.0 |
| | 575 | 60 | Three | 3.3 | 7.4 | 15.0 | 3.3 | 8.2 | 15.0 |
| 5.0 | 208-230 | 60 | Single | 14.5-13.4 | 32.6 | 45.0 | 14.5-13.4 | 35.9 | 45.0 |
| | 460 | 60 | Three | 6.7 | 15.1 | 20.0 | 6.7 | 16.6 | 20.0 |
| | 575 | 60 | Three | 5.3 | 11.9 | 15.0 | 5.3 | 13.1 | 15.0 |

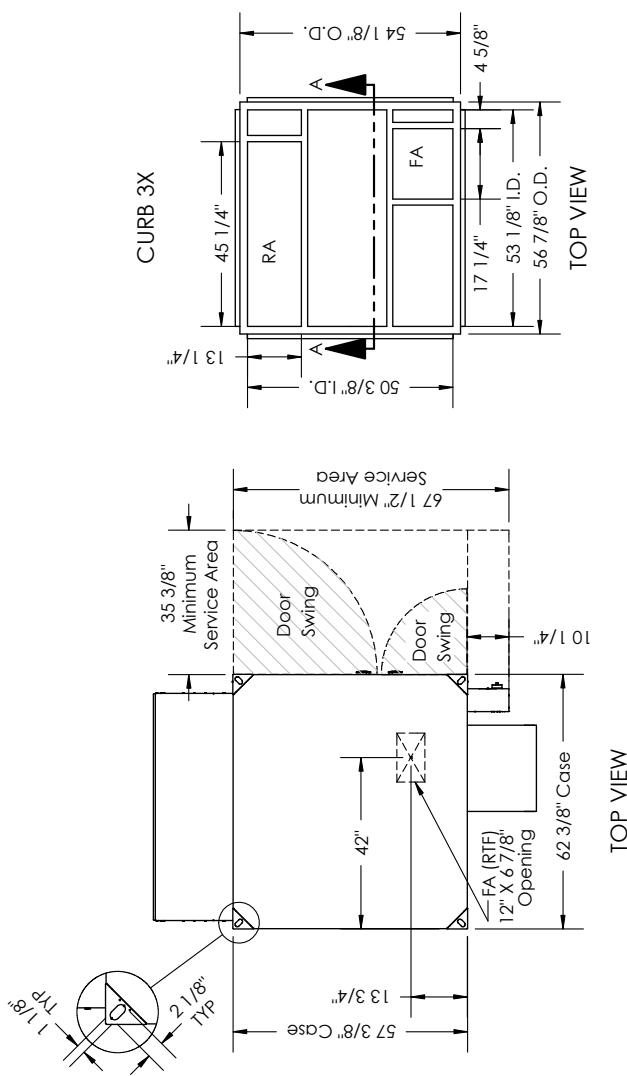
HE3XRT (RTV/RTR) ENERGY RECOVERY VENTILATOR



RIGHT VIEW



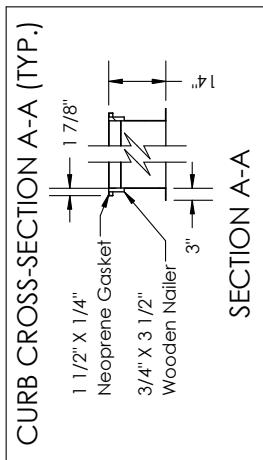
HE3XRT (RTH/RTTF) ENERGY RECOVERY VENTILATOR



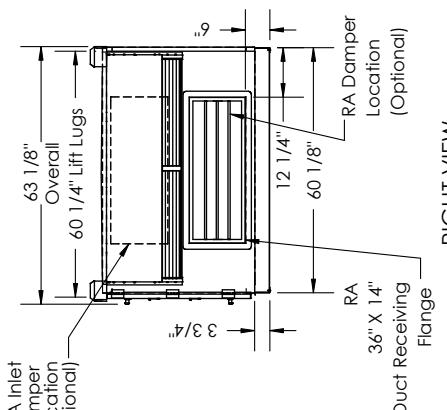
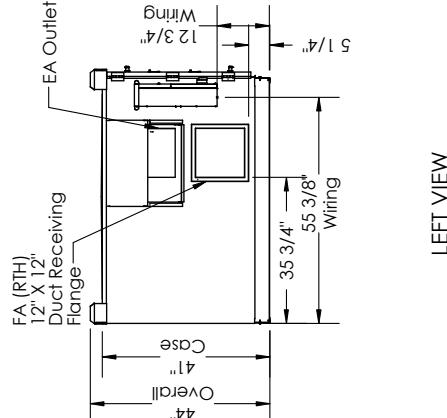
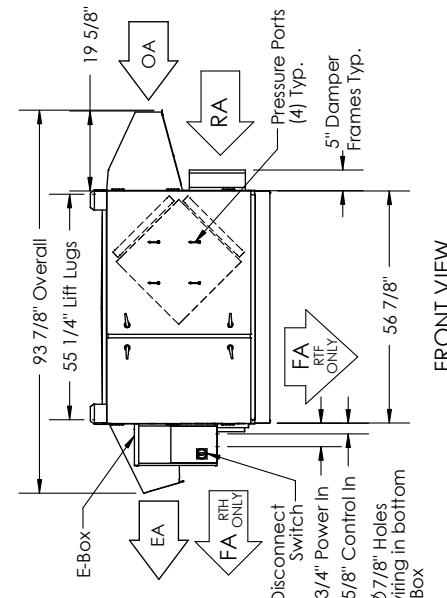
ABBREVIATIONS
 EA: Exhaust Air to outside
 OA: Outside Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside
 RTF: Rooftop Vertical FA Only
 RTH: Rooftop Horizontal RA & FA

INSTALLATION ORIENTATION
 Unit must be installed in orientation shown.

NOTE:
 1. UNLESS OTHERWISE SPECIFIED,
 DIMENSIONS ARE ROUNDED TO THE
 NEAREST EIGHTH OF AN INCH.
 2. SPECIFICATIONS MAY BE SUBJECT
 TO CHANGE WITHOUT NOTICE.

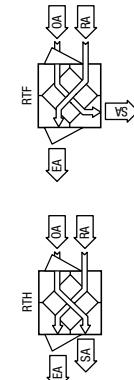


SECTION A-A



AIRFLOW ORIENTATION

Available as shown:



UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.





ROOFTOP UNIT
Direct Connect



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range: 1,100–2,400 CFM

AHRI 1060 Certified Core: Three L125-G5

Standard Features:

TEFC Premium efficiency motors

Motor starters

Non-fused disconnect

24VAC transformer/relay package

Cross-core differential pressure ports

Filters:

Total qty. 5, MERV 8: (3) 20" x 20" x 2" and (2) 16" x 25" x 2"

Unit Weight:

713–1,084 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

80" L x 90" W x 80" H

1,225 lbs.

Motor(s):

Qty. 2, 3.0 HP ea., Belt drive blower/standard motor packages with adjustable sheaves

Options:

Onboard variable frequency drives (VFDs): both airstreams

Shaft grounding ring on motors with VFDs

Fused disconnect

Integrated programmable controls: enhanced, premium

Factory mounted filter alarms: both airstreams

Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Automatic balancing damper: 4", 5", 6"

RTC transition kit: for vertical RTU, for horizontal RTU

Rooftop RTC transition paint: white, custom colors

Digital time clock: wall mount (TC7D-W),

in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:

ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

ELECTRICAL DATA

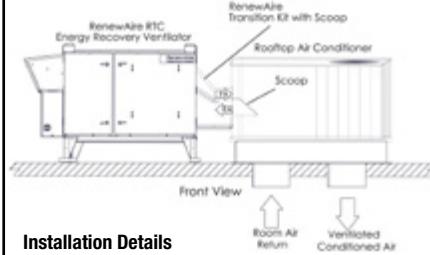
| Standard Electrical Specifications | | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|--------|---------------|----------------|------------------------------------|--|----------------|------------------------------------|--|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | |
| 3.0 | 208–230 | 60 | Single | 14.7–14 | 33.1 | 40.0 | 9.4–8.5 | 40.2 | 45.0 | |
| | 208–230 | 60 | Three | 9.4–8.5 | 21.1 | 25.0 | 9.4–8.5 | 23.2 | 25.0 | |
| | 460 | 60 | Three | 4.2 | 9.5 | 15.0 | 4.2 | 10.5 | 15.0 | |
| | 575 | 60 | Three | 3.3 | 7.4 | 15.0 | 3.3 | 8.2 | 15.0 | |

AIRFLOW PERFORMANCE

| Blower RPM Nominal | Sheave Adj. Turns Open | Tie-In Directly to Rooftop A/C Unit | | | | | | Unit Ducted Independently | | | | | | | |
|--------------------|------------------------|---|------|-------|------|-------|------|--|------|-------|------|-------|------|------|-----|
| | | Static Pressure in Adjacent Air Handler (Inches Water Column) | | | | | | External Static Pressure (Inches Water Column) | | | | | | | |
| | | -0.75 | | -0.50 | | -0.25 | | 0.00 | | +0.25 | | +0.50 | | | |
| | | CFM | BHP | CFM | BHP | CFM | BHP | CFM | BHP | CFM | BHP | CFM | BHP | | |
| Exhaust Air | 1510 | 0 | | | | | | | | | | | 2010 | 2.7 | |
| | 1465 | 1 | | | | | | | | | | | 2130 | 2.9 | |
| | 1420 | 2 | | | | | | | | | | | 2035 | 2.5 | |
| | 1375 | 3 | | | | | | 2535 | 2.7 | 2140 | 2.6 | 1945 | 1.9 | 1750 | 1.1 |
| | 1330 | 4 | 2645 | 3.0 | 2535 | 2.8 | 2425 | 2.6 | 2330 | 2.6 | 2030 | 1.9 | 1860 | 1.5 | |
| | 1285 | 5 | 2585 | 2.3 | 2455 | 2.2 | 2325 | 2.1 | 2250 | 2.1 | 1940 | 1.1 | 1725 | 1.0 | |
| | 1240 | 6 | 2500 | 2.0 | 2350 | 1.9 | 2200 | 1.8 | 2165 | 1.5 | 1860 | 0.3 | 1590 | 0.6 | |
| Fresh Air | 1825 | 0 | | | | | | | | | | | | 1630 | 2.1 |
| | 1770 | 1 | | | | | | 2525 | 3.0 | 2338 | 2.7 | 2195 | 2.6 | 1785 | 2.1 |
| | 1715 | 2 | 2605 | 2.7 | 2430 | 2.6 | 2255 | 2.4 | 2120 | 2.3 | 1960 | 2.0 | 1700 | 1.2 | |
| | 1660 | 3 | 2515 | 2.4 | 2345 | 2.2 | 2175 | 1.9 | 2050 | 1.8 | 1900 | 1.6 | 1620 | 0.6 | |
| | 1605 | 4 | 2430 | 2.2 | 2270 | 1.8 | 2110 | 1.3 | 1980 | 1.3 | 1830 | 1.3 | 1560 | 0.4 | |
| | 1550 | 5 | 2355 | 1.2 | 2185 | 1.1 | 2015 | 1.0 | 1900 | 0.6 | 1765 | 0.4 | 1540 | 0.3 | |
| | 1495 | 6 | 2230 | 0.8 | 2090 | 0.7 | 1950 | 0.5 | 1840 | 0.4 | 1730 | 0.3 | 1500 | 0.2 | |

Operation in this zone will likely exceed FLA limits.

Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit.

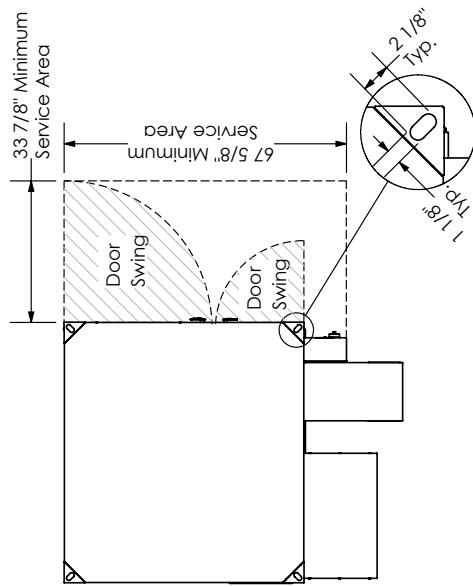


HE3XRT^C ENERGY RECOVERY VENTILATOR

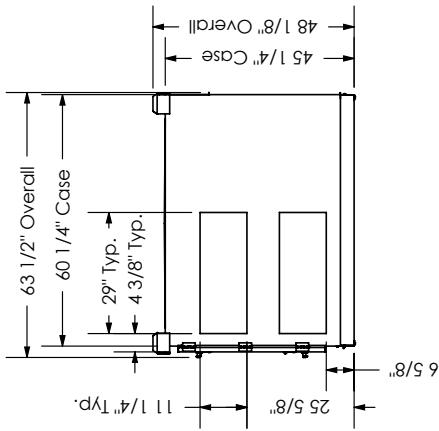
ABBREVIATIONS
 EA: Exhaust Air to outside
 OA: Outside Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside

INSTALLATION ORIENTATION
 Unit must be installed in orientation shown.

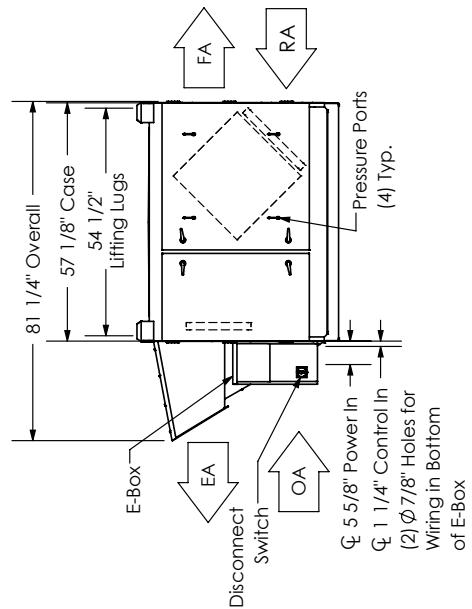
NOTE:
 1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
 2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.



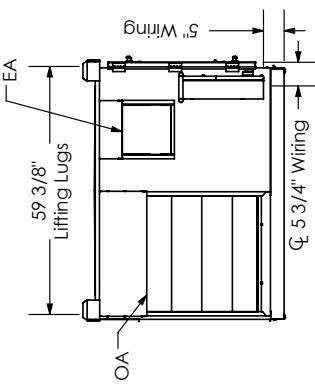
TOP VIEW



RIGHT VIEW



FRONT VIEW



LEFT VIEW

AIRFLOW ORIENTATION
 Available as shown in dimension drawing.

**UNIT MOUNTING & APPLICATION**

Must be mounted as shown. Airstreams cannot be switched.





INDOOR UNIT



Energy recovery core is AHRI Certified®



AIRFLOW PERFORMANCE

| Motor HP | Blower RPM | Sheave Adj. Turns Open | External Static Pressure (Inches Water Column) | | | | | | | | | | | |
|----------|------------|------------------------|--|-----|------|-----|------|------|------|------|------|------|------|------|
| | | | 0.00 | | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | |
| | | | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP |
| 2.0 | 1187 | 4 | 3215 | 1.5 | 2990 | 1.4 | 2535 | 1.2 | 2120 | 0.9 | 1360 | 0.7 | 2900 | 1.6 |
| | 1290 | 2.5 | 3505 | 2.0 | 3300 | 1.9 | 3000 | 1.7 | 2610 | 1.4 | 2060 | 1.1 | 1180 | 0.6 |
| | 1358 | 1.5 | | | | | 3220 | 2.0 | 2885 | 1.8 | 2415 | 1.4 | 1790 | 1.1 |
| | 1462 | 0 | | | | | | | | | 2900 | 2.0 | 2400 | 1.6 |
| 3.0 | 1448 | 4 | 3945 | 2.9 | 3765 | 2.8 | 3515 | 2.4 | 3200 | 2.1 | 2845 | 1.9 | 2310 | 1.5 |
| | 1520 | 3 | | | | | 3740 | 2.9 | 3475 | 2.6 | 3145 | 2.3 | 2695 | 2.0 |
| | 1591 | 2 | | | | | | | | | 3415 | 2.8 | 3050 | 2.4 |
| | 1663 | 1 | | | | | | | | | | | 3380 | 3.0 |
| | 1735 | 0 | | | | | | | | | | | | 3300 |
| 5.0 | 1591 | 4 | 4335 | 3.8 | 4185 | 4.0 | 3965 | 3.4 | 3710 | 3.1 | 3410 | 2.8 | 3050 | 2.5 |
| | 1696 | 2 | | | | | 4280 | 4.1 | 4060 | 3.9 | 3800 | 3.5 | 3510 | 3.2 |
| | 1800 | 0 | | | | | | 4395 | 4.7 | 4165 | 4.3 | 3900 | 4.0 | 3600 |

Operation in this zone will likely exceed FLA limits.

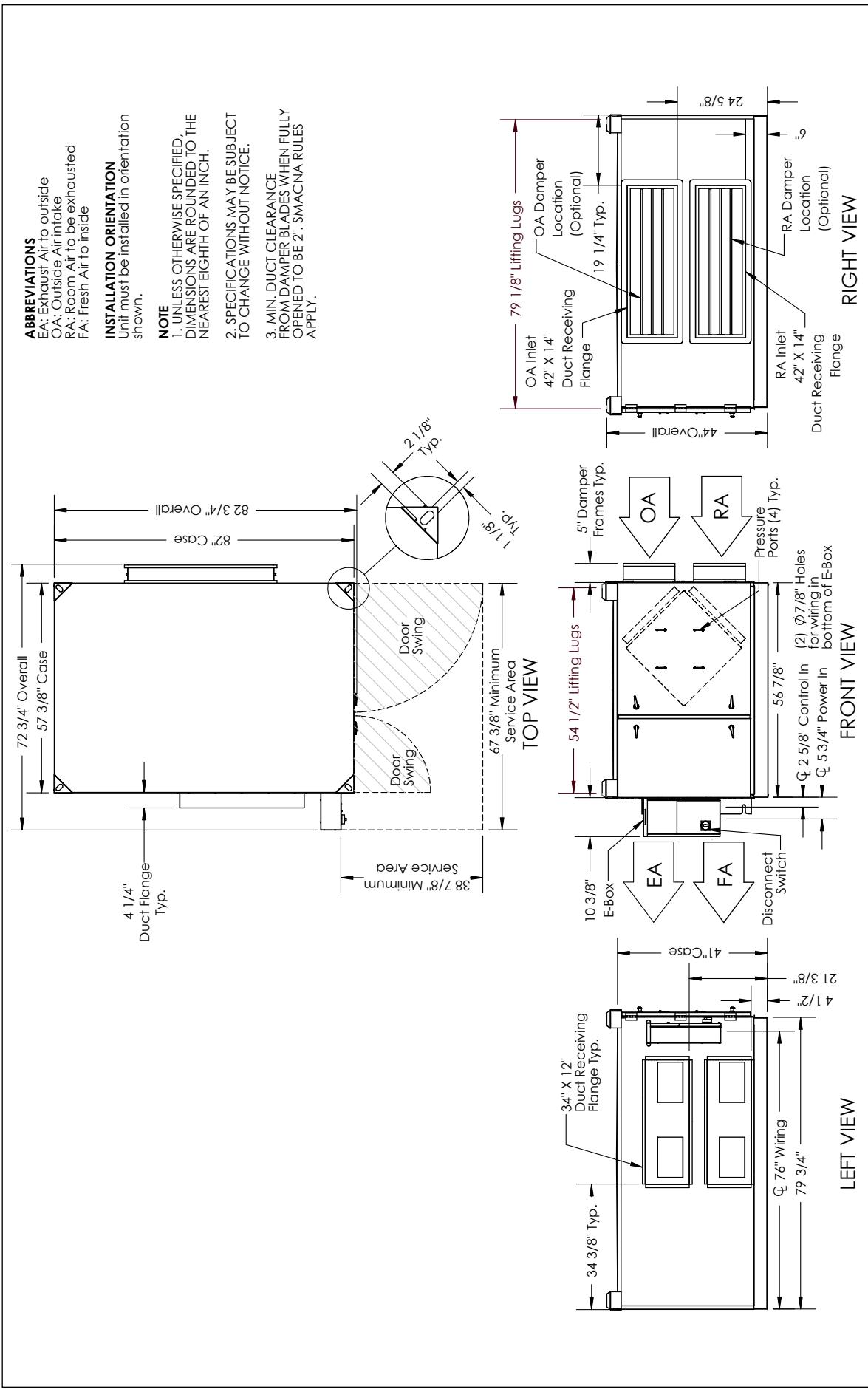
Operation in this zone outside of core airflow limits.

Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit.

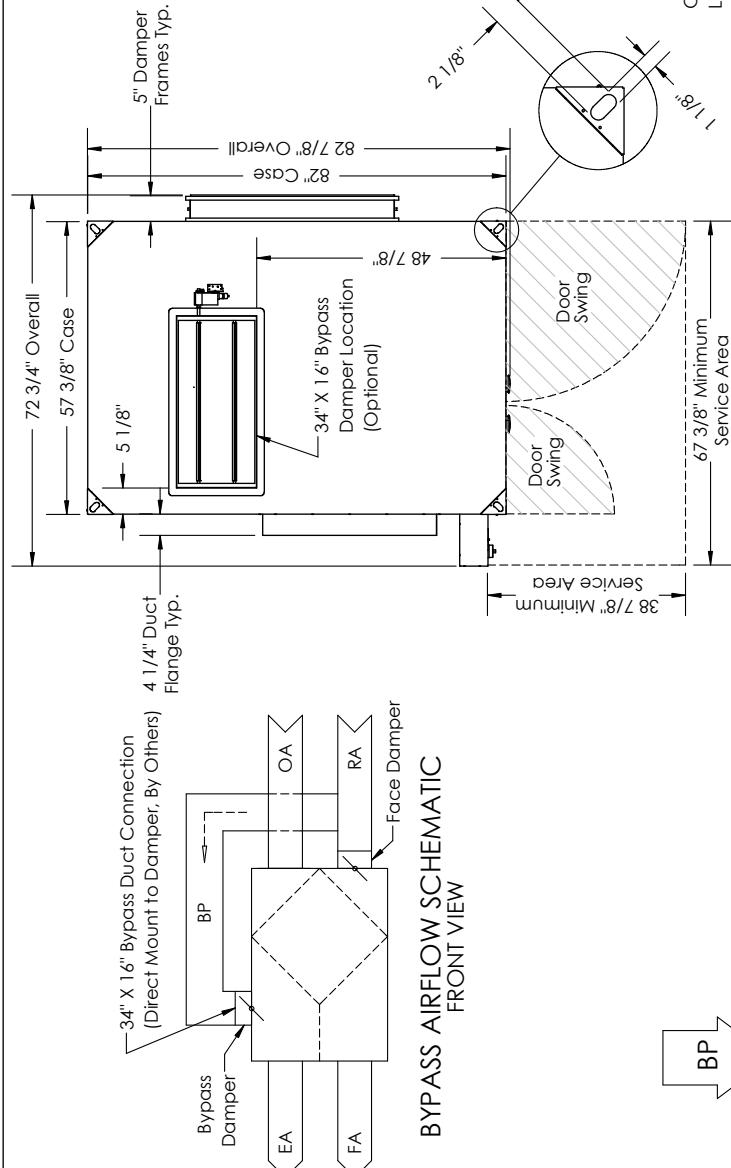
ELECTRICAL DATA

| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|--------|---------------|----------------|--|---------------|----------------|------------------------------------|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
| 2.0 | 120 | 60 | Single | 20 | 45 | 60 | | | |
| | 208-230 | 60 | Single | 10.8-10.0 | 24.3 | 35 | 6.6-5.8 | 28.3 | 30 |
| | 208-230 | 60 | Three | 6.6-5.8 | 14.9 | 20 | 6.6-5.8 | 16.3 | 20 |
| | 460 | 60 | Three | 2.9 | 6.5 | 15 | 2.9 | 7.2 | 15 |
| 3.0 | 575 | 60 | Three | 2.4 | 5.4 | 15 | 2.4 | 5.9 | 15 |
| | 208-230 | 60 | Single | 14.7-14 | 33.1 | 40 | 9.4-8.5 | 40.2 | 45 |
| | 208-230 | 60 | Three | 9.4-8.5 | 21.1 | 25 | 9.4-8.5 | 23.2 | 25 |
| | 460 | 60 | Three | 4.2 | 9.5 | 15 | 4.2 | 10.5 | 15 |
| 5.0 | 575 | 60 | Three | 3.3 | 7.4 | 15 | 3.3 | 8.2 | 15 |
| | 208-230 | 60 | Three | 14.5-13.4 | 32.6 | 45 | 14.5-13.4 | 35.9 | 45 |
| | 460 | 60 | Three | 6.7 | 15.1 | 20 | 6.7 | 16.6 | 20 |
| | 575 | 60 | Three | 5.3 | 11.9 | 15 | 5.3 | 13.1 | 15 |

HE4XINH ENERGY RECOVERY VENTILATOR



HE4XINH ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER



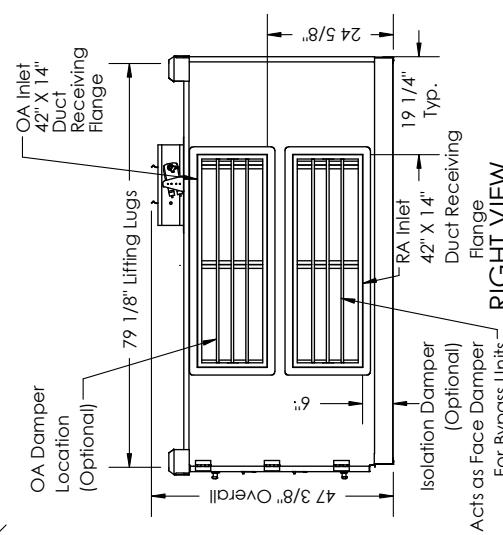
AIRFLOW ORIENTATION
Available as shown in dimension drawing.

ABBREVIATIONS
 EA: Exhaust Air to outside
 OA: Outside Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside
 BP: Bypass Air intake

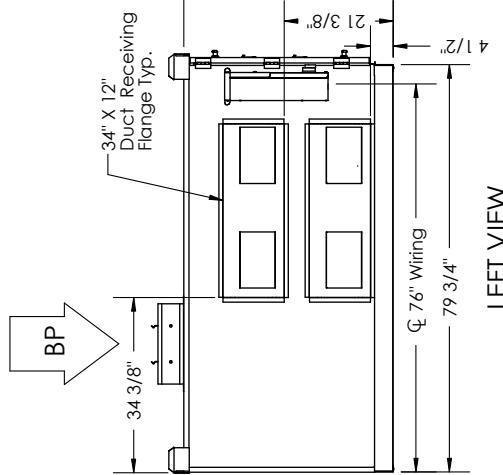
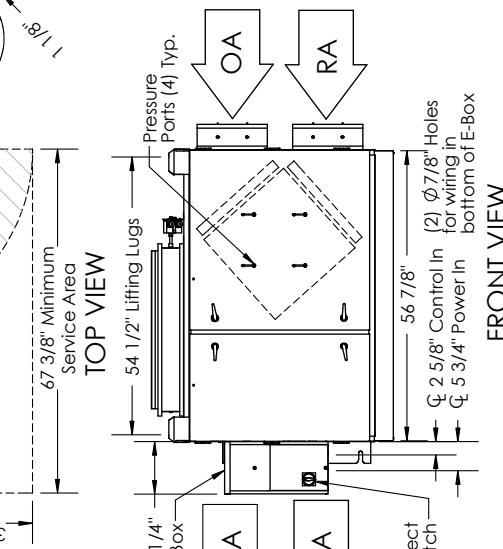
INSTALLATION ORIENTATION
 Unit must be installed in orientation shown.

NOTE

1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.
3. MIN. DUCT CLEARANCE FROM DAMPER BLADE WHEN FULLY OPENED TO BE 2'. SMACNA RULES APPLY.
4. UNITS WITH BYPASS WILL REQUIRE ADDITIONAL SPACE FOR THE CONNECTION OF THE BYPASS DUCT (BY OTHERS).
5. FOR INSTALLATION DETAILS, REFER TO I&O MANUAL SUPPLEMENT FOR BYPASS.



RIGHT VIEW



AIRFLOW ORIENTATION
 Available as shown in dimension drawing.

UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.





INDOOR UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range: 1,000–4,400 CFM**AHRI 1060 Certified Core:** Four L125-G5**Standard Features:**

TEFC Premium efficiency motors

Motor starters

Non-fused disconnect

24VAC transformer/relay package

Cross-core differential pressure ports

Filters:

Total qty. 8, MERV 8: 20" x 20" x 2"

Unit Weight:

753–1,196 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

60" L x 90" W x 70" H

1,332 lbs.

Motor(s):

Qty. 2, Belt drive blower/standard motor packages with adjustable sheaves (see table below)

Options:

Onboard variable frequency drives (VFDs): both airstreams

Shaft grounding ring on motors with VFDs

Fused disconnect

Integrated programmable controls: enhanced, premium

Bypass economizer damper (see bypass DIM drawing):

dry-bulb temperature controls (standard),

enthalpy controls (option)

Class 1 low leakage motorized isolation dampers:

OA, RA or both airstreams

Factory mounted filter alarms: both airstreams

Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Automatic balancing damper: 4", 5", 6"

Digital time clock: wall mount (TC7D-W),

in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:

ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

Indoor electric duct heater: EK series (1–175 kW)

Indirect gas-fired duct furnace: GH series (50–400 MBH);

Installed downstream of any fans

AIRFLOW PERFORMANCE

| Motor HP | Blower RPM | Sheave Adj. Turns Open | External Static Pressure (Inches Water Column) | | | | | | | | | | | |
|----------|------------|------------------------|--|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
| | | | 0.00 | | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | |
| | | | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP |
| 2.0 | 1191 | 4 | 3330 | 1.4 | 3015 | 1.2 | 2690 | 1.0 | 1915 | 0.8 | 1085 | 0.6 | | |
| | 1329 | 2 | 3715 | 1.9 | 3440 | 1.7 | 3100 | 1.5 | 2485 | 1.3 | 2000 | 1.0 | 1200 | 0.8 |
| | 1432 | 0.5 | 4000 | 2.4 | 3740 | 2.2 | 3480 | 2.0 | 3050 | 1.7 | 2490 | 1.5 | 1900 | 1.2 |
| | 1466 | 0 | | | | | | | 3200 | 1.9 | 2650 | 1.6 | 2120 | 1.3 |
| 3.0 | 1462 | 3 | 4060 | 2.6 | 3810 | 2.4 | 3550 | 2.1 | 3180 | 1.9 | 2645 | 1.6 | 2075 | 1.3 |
| | 1503 | 2.5 | 4175 | 2.8 | 3940 | 2.6 | 3700 | 2.4 | 3340 | 2.1 | 2885 | 1.7 | 2300 | 1.5 |
| | 1586 | 1.5 | | | | | 3950 | 2.8 | 3640 | 2.5 | 3250 | 2.3 | 2745 | 2.0 |
| | 1668 | 0.5 | | | | | | | 3900 | 3.0 | 3600 | 2.7 | 3155 | 2.4 |
| | 1710 | 0 | | | | | | | | | 3750 | 3.0 | 3350 | 2.7 |
| 5.0 | 1627 | 4 | 4393 | 3.9 | 4210 | 3.7 | 4050 | 3.6 | 3800 | 3.3 | 3490 | 3.1 | 3020 | 2.7 |
| | 1731 | 2 | | | | | 4350 | 4.3 | 4150 | 4.1 | 3895 | 3.8 | 3515 | 3.5 |
| | 1836 | 0 | | | | | | | 4400 | 5.0 | 4250 | 4.7 | 3970 | 4.4 |

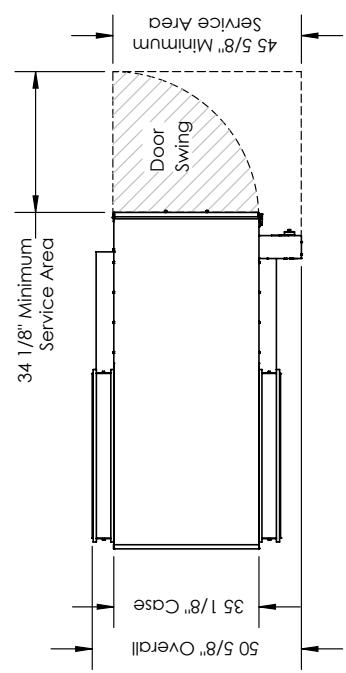
Operation in this zone will likely exceed FLA limits.

Operation in this zone outside of core airflow limits.

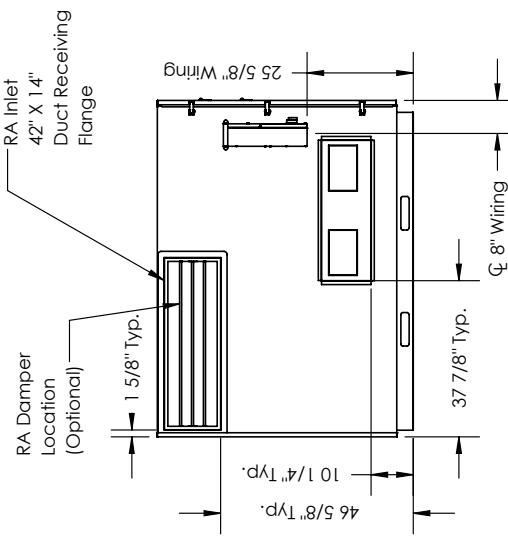
Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit.

ELECTRICAL DATA

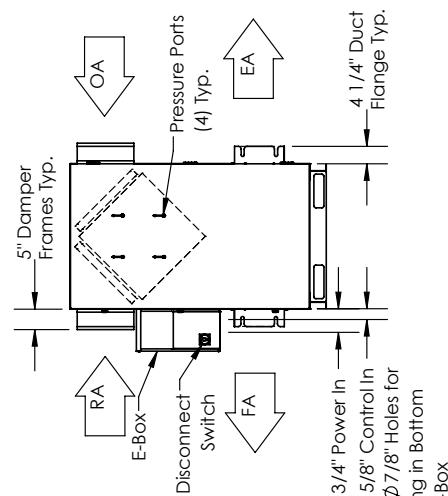
| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|--------|---------------|----------------|--|---------------|----------------|------------------------------------|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
| 2.0 | 120 | 60 | Single | 20 | 45 | 60 | | | |
| | 208–230 | 60 | Single | 10.8–10.0 | 24.3 | 35 | 6.6–5.8 | 28.3 | 30 |
| | 208–230 | 60 | Three | 6.6–5.8 | 14.9 | 20 | 6.6–5.8 | 16.3 | 20 |
| | 460 | 60 | Three | 2.9 | 6.5 | 15 | 2.9 | 7.2 | 15 |
| 3.0 | 575 | 60 | Three | 2.4 | 5.4 | 15 | 2.4 | 5.9 | 15 |
| | 208–230 | 60 | Single | 14.7–14 | 33.1 | 40 | 9.4–8.5 | 40.2 | 45 |
| | 208–230 | 60 | Three | 9.4–8.5 | 21.1 | 25 | 9.4–8.5 | 23.2 | 25 |
| | 460 | 60 | Three | 4.2 | 9.5 | 15 | 4.2 | 10.5 | 15 |
| 5.0 | 575 | 60 | Three | 3.3 | 7.4 | 15 | 3.3 | 8.2 | 15 |
| | 208–230 | 60 | Three | 14.5–13.4 | 32.6 | 45 | 14.5–13.4 | 35.9 | 45 |
| | 460 | 60 | Three | 6.7 | 15.1 | 20 | 6.7 | 16.6 | 20 |
| | 575 | 60 | Three | 5.3 | 11.9 | 15 | 5.3 | 13.1 | 15 |

HE4XINV ENERGY RECOVERY VENTILATOR

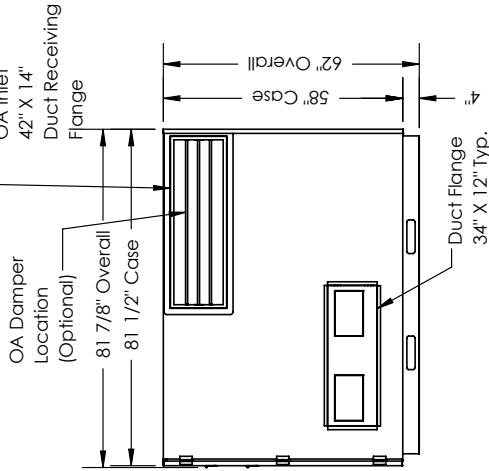
TOP VIEW



LEFT VIEW



FRONT VIEW



RIGHT VIEW

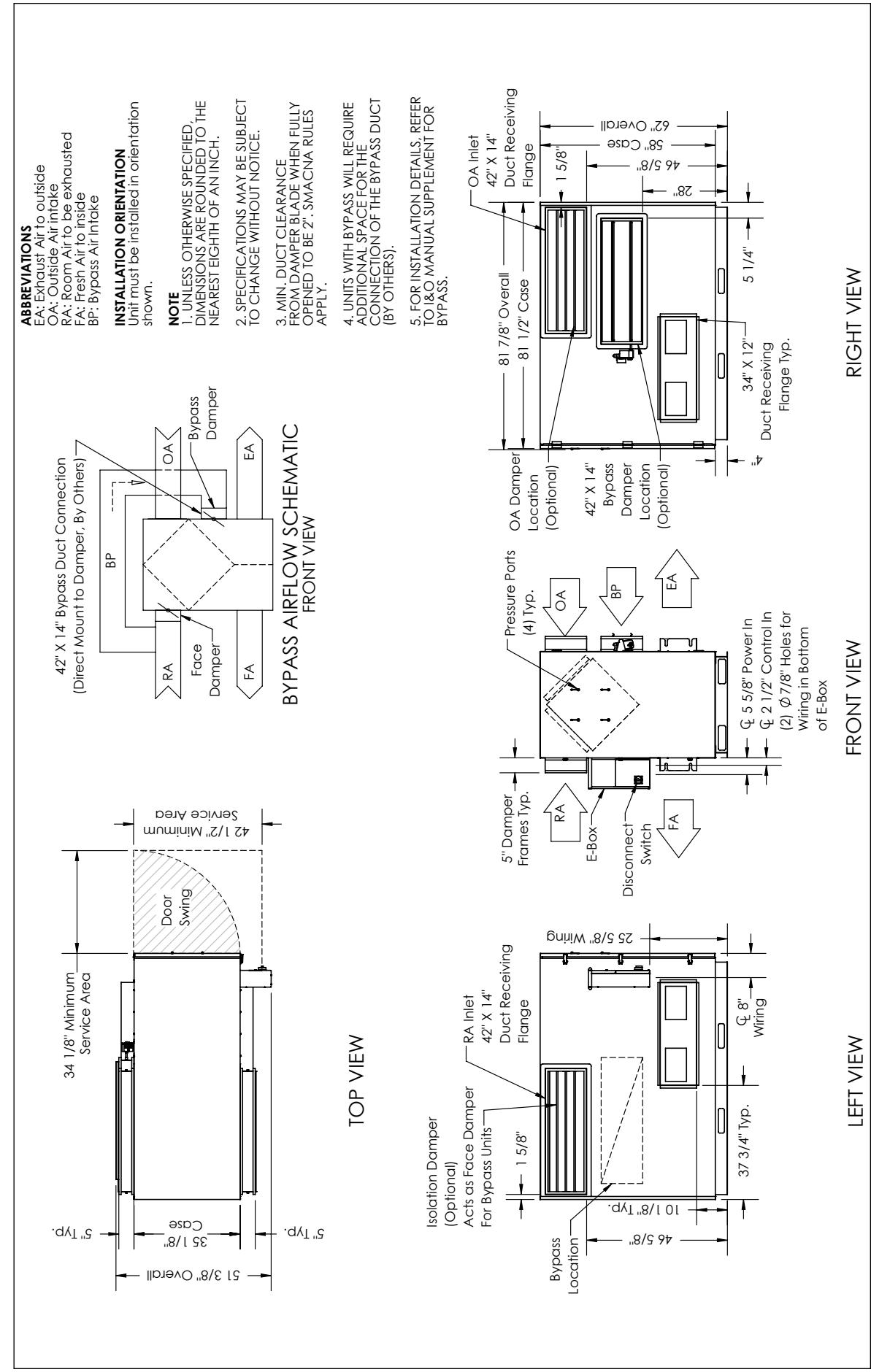
AIRFLOW ORIENTATION


Available as shown in dimension drawing.

UNIT MOUNTING & APPLICATION


Must be mounted as shown. RA/EA airstream can be switched with OA/FA airstream unless certain options are selected.

HE4XINV ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER





ROOFTOP UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range: 1,000–4,345 CFM**AHRI 1060 Certified Core:** Four L125-G5**Standard Features:**

TEFC Premium efficiency motors

Motor starters

Non-fused disconnect

24VAC transformer/relay package

Cross-core differential pressure ports

Filters:

Total qty. 8, MERV 8: 20" x 20" x 2"

Unit Weight:

845–1,143 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

80" L x 90" W x 67" H

1,279 lbs.

Motor(s):

Qty. 2, Belt drive blower/standard motor packages with adjustable sheaves (see table below)

Options:

Onboard variable frequency drives (VFDs):

both airstreams

Shaft grounding ring on motors with VFDs

Fused disconnect

Integrated programmable controls: enhanced, premium

Class 1 low leakage motorized isolation dampers:

OA, RA or both airstreams

Factory mounted filter alarms: both airstreams

Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Automatic balancing damper: 4", 5", 6"

Roof curb: standard 14"

Curb wind clip

Engineered combo curb for Trane or Carrier RTUs

Digital time clock: wall mount (TC7D-W),

in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:

ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

Indoor electric duct heater: EK series (1–175 kW);

Indirect gas-fired duct furnace: GH series (50–400 MBH);

Installed downstream of any fans

AIRFLOW PERFORMANCE

| Motor HP | Blower RPM | Sheave Adj.-Turns Open | External Static Pressure (Inches Water Column) | | | | | | | | | | | | | |
|----------|------------|------------------------|--|-----|------|------|------|------|------|------|------|------|------|------|------|-----|
| | | | 0.00 | | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | | | |
| | | | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | | |
| 2.0 | 1186 | 4 | 3099 | 1.5 | 2790 | 1.3 | 2295 | 1.1 | 1790 | 0.8 | 1150 | 0.6 | | | | |
| | 1326 | 2 | 3465 | 2.2 | 3185 | 1.9 | 2810 | 1.7 | 2335 | 1.4 | 1885 | 1.2 | 1290 | 0.9 | | |
| | 1466 | 0 | | | | | | | | | 2451 | 1.8 | 2026 | 1.5 | | |
| 3.0 | 1455 | 4 | 3812 | 2.7 | 3550 | 2.5 | 3285 | 2.3 | 2820 | 2.0 | 2400 | 1.7 | 1970 | 1.5 | | |
| | 1527 | 3 | | | 3750 | 2.9 | 3500 | 2.7 | 3085 | 2.4 | 2676 | 2.1 | 2300 | 1.9 | | |
| | 1598 | 2 | | | | | | | 3350 | 2.6 | 2950 | 2.6 | 2590 | 2.3 | | |
| | 1670 | 1 | | | | | | | | 3210 | 3.0 | 2870 | 2.7 | 2500 | 2.4 | |
| | 1742 | 0 | | | | | | | | | | | | 2800 | 2.9 | |
| 5.0 | 1623 | 4 | 4165 | 3.7 | 3965 | 3.5 | 3750 | 3.3 | 3475 | 3.0 | 3055 | 2.5 | 2685 | 2.3 | 2290 | 2.0 |
| | 1728 | 2 | 4435 | 4.5 | 4240 | 4.3 | 4050 | 4.0 | 3820 | 3.7 | 3450 | 3.3 | 3050 | 3.0 | 2720 | 2.6 |
| | 1832 | 0 | | | | 4345 | 4.9 | 4140 | 4.5 | 3850 | 4.2 | 3490 | 3.7 | 3145 | 3.3 | |

Operation in this zone will likely exceed FLA limits.

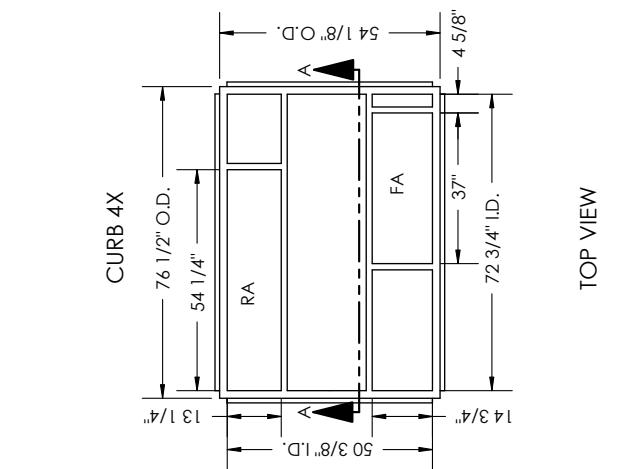
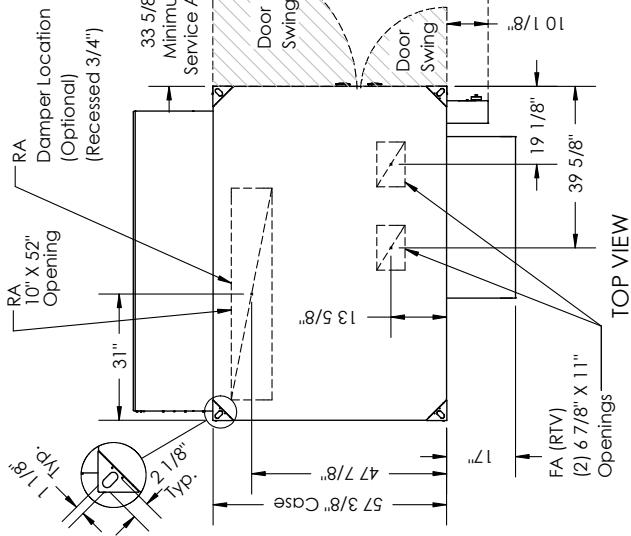
Operation in this zone outside of core airflow limits.

Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit.

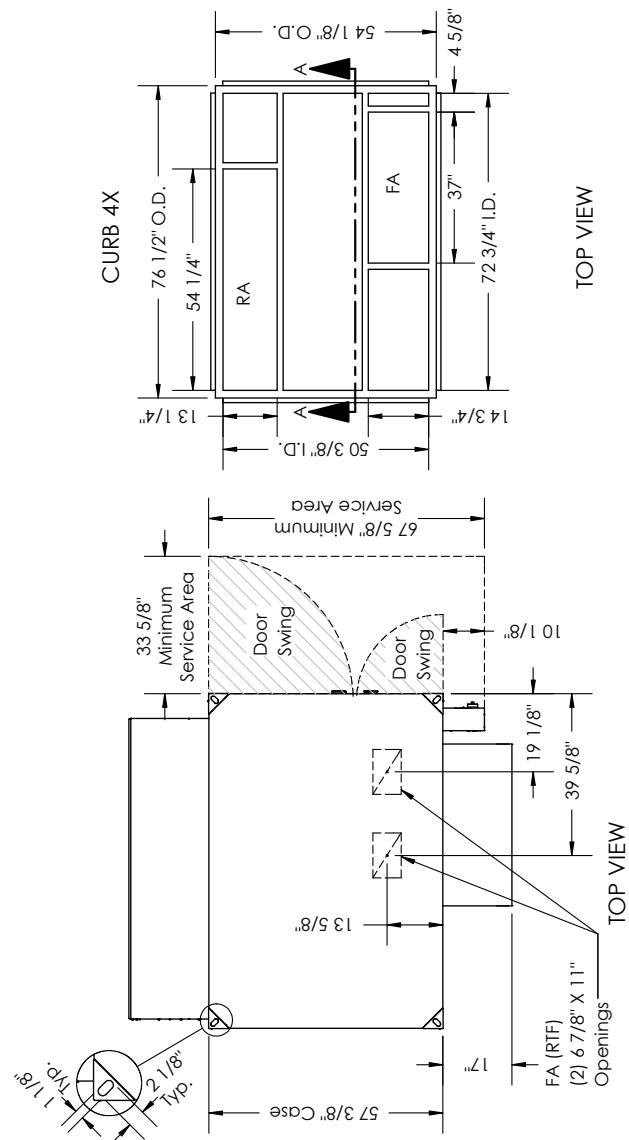
ELECTRICAL DATA

| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|--------|---------------|----------------|--|---------------|----------------|------------------------------------|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
| 2.0 | 120 | 60 | Single | 20 | 45 | 60 | | | |
| | 208-230 | 60 | Single | 10.8-10.0 | 24.3 | 35 | 6.6-5.8 | 28.3 | 30 |
| | 208-230 | 60 | Three | 6.6-5.8 | 14.9 | 20 | 6.6-5.8 | 16.3 | 20 |
| | 460 | 60 | Three | 2.9 | 6.5 | 15 | 2.9 | 7.2 | 15 |
| 3.0 | 208-230 | 60 | Single | 14.7-14 | 33.1 | 40 | 9.4-8.5 | 40.2 | 45 |
| | 208-230 | 60 | Three | 9.4-8.5 | 21.1 | 25 | 9.4-8.5 | 23.2 | 25 |
| | 460 | 60 | Three | 4.2 | 9.5 | 15 | 4.2 | 10.5 | 15 |
| | 575 | 60 | Three | 3.3 | 7.4 | 15 | 3.3 | 8.2 | 15 |
| 5.0 | 208-230 | 60 | Single | 14.5-13.4 | 32.6 | 45 | 14.5-13.4 | 35.9 | 45 |
| | 460 | 60 | Three | 6.7 | 15.1 | 20 | 6.7 | 16.6 | 20 |
| | 575 | 60 | Three | 5.3 | 11.9 | 15 | 5.3 | 13.1 | 15 |

HE4XRT (RTV/RTR) ENERGY RECOVERY VENTILATOR



HE4XRT (RTH/RTTF) ENERGY RECOVERY VENTILATOR

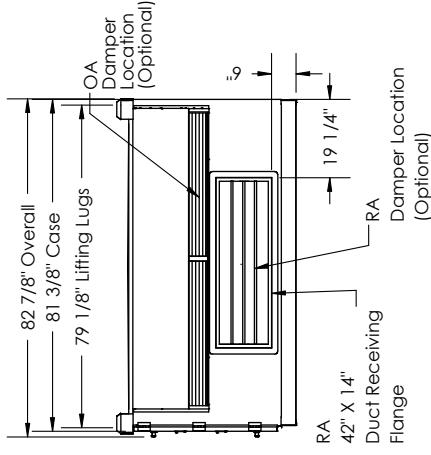
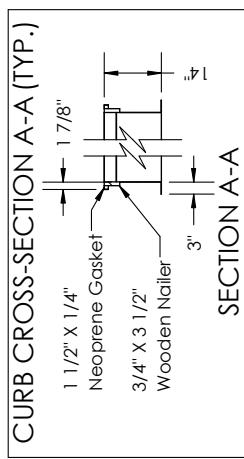


ABBREVIATIONS

EA: Exhaust Air to outside
 OA: Outside Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside
 RTF: Rooftop Vertical FA Only
 RTH: Rooftop Horizontal RA & FA

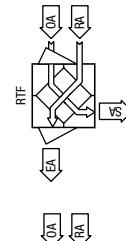
INSTALLATION ORIENTATION
 Unit must be installed in orientation shown.

NOTE:
 1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
 2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

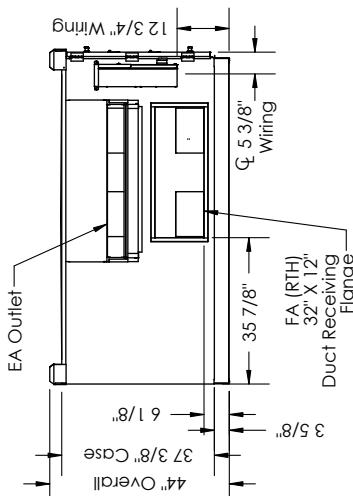


RIGHT VIEW

FRONT VIEW



LEFT VIEW



AIRFLOW ORIENTATION

Available as shown:





ROOFTOP UNIT
Direct Connect



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range:

2,500–3,900 CFM

AHRI 1060 Certified Core:

Four L125-G5

Standard Features:

TEFC Premium efficiency motors

Motor starters

Non-fused disconnect

24VAC transformer/relay package

Cross-core differential pressure ports

Filters:

Total qty. 8, MERV 8: (4) 20" x 20" x 2" and
(4) 16" x 20" x 2"

Unit Weight:

887–1,169 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

80" L x 90" W x 80" H

1,300 lbs.

Motor(s):

Qty. 2, 5.0 HP ea., Belt drive blower/standard motor packages with adjustable sheaves

Options:

Onboard variable frequency drives (VFDs):

both airstreams

Shaft grounding ring on motors with VFDs

Fused disconnect

Integrated programmable controls: enhanced, premium

Factory mounted filter alarms, Qty. 2: both airstreams

Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Automatic balancing damper: 4", 5", 6"

RTC transition kit: for vertical RTU, for horizontal RTU

Rooftop RTC transition paint: white, custom colors

Digital time clock: wall mount (TC7D-W),

in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:

ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

ELECTRICAL DATA

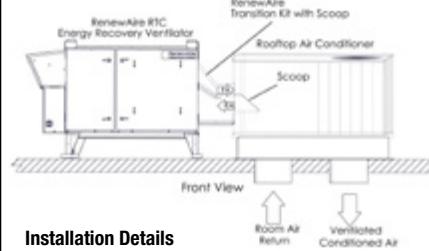
| Standard Electrical Specifications | | | | | | | Optional Factory Installed VFD Electrical Specifications | | | | |
|------------------------------------|---------|----|-------|---------------|----------------|------------------------------------|--|----------------|------------------------------------|--|--|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | | |
| 5.0 | 208–230 | 60 | Three | 14.5–13.4 | 32.6 | 45 | 14.5–13.4 | 35.9 | 45 | | |
| | 460 | 60 | Three | 6.7 | 15.1 | 20 | 6.7 | 16.6 | 20 | | |
| | 575 | 60 | Three | 5.3 | 11.9 | 15 | 5.3 | 13.1 | 15 | | |

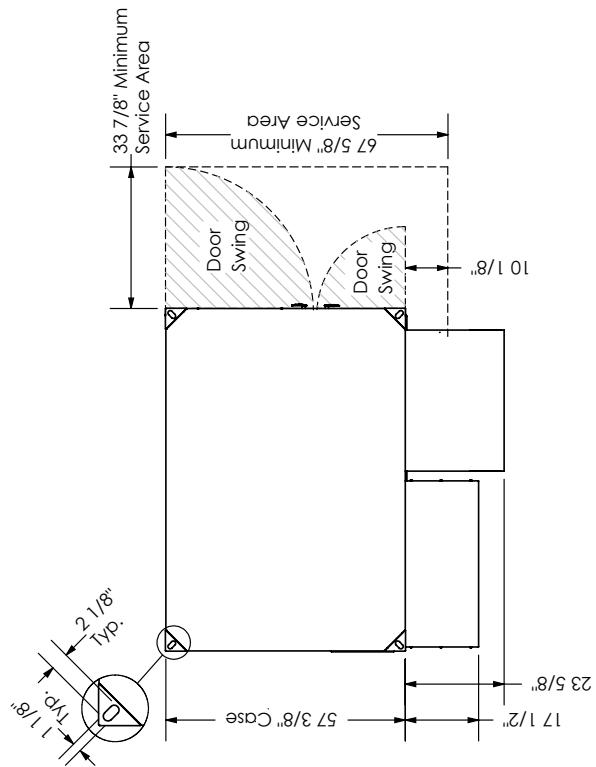
AIRFLOW PERFORMANCE

| Blower RPM Nominal | Sheave Adj. Turns Open | Tie-In Directly to Rooftop A/C Unit | | | | | | Unit Ducted Independently | | | | | | | | |
|--------------------|------------------------|---|------|-------|------|-------|------|--|------|-------|------|-------|------|------|------|-----|
| | | Static Pressure in Adjacent Air Handler (Inches Water Column) | | | | | | External Static Pressure (Inches Water Column) | | | | | | | | |
| | | -0.75 | | -0.50 | | -0.25 | | 0.00 | | +0.25 | | +0.50 | | | | |
| | | CFM | BHP | CFM | BHP | CFM | BHP | CFM | BHP | CFM | BHP | CFM | BHP | | | |
| Exhaust Air | 1600 | 0 | 4486 | 5.0 | 4450 | 4.7 | 4414 | 4.5 | 4250 | 4.1 | 4000 | 3.6 | 3700 | 3.3 | 3400 | 3.1 |
| | 1560 | 1 | 4472 | 4.8 | 4406 | 4.6 | 4340 | 4.3 | 4225 | 3.8 | 3925 | 3.4 | 3600 | 3.2 | 3275 | 3.0 |
| | 1525 | 2 | 4400 | 4.8 | 4350 | 4.5 | 4290 | 4.1 | 4156 | 3.6 | 3775 | 3.0 | 3450 | 2.9 | 3125 | 2.8 |
| | 1490 | 3 | 4395 | 4.7 | 4320 | 4.3 | 4245 | 4.0 | 4067 | 3.4 | 3665 | 2.8 | 3300 | 2.5 | 2935 | 2.3 |
| | 1450 | 4 | 4360 | 4.3 | 4280 | 3.9 | 4200 | 3.5 | 3900 | 3.1 | 3520 | 2.5 | 3150 | 2.3 | 2780 | 2.0 |
| | 1415 | 5 | 4340 | 3.6 | 4230 | 3.4 | 4120 | 3.2 | 3760 | 2.8 | 3415 | 2.4 | 3050 | 2.0 | 2685 | 1.6 |
| | 1375 | 6 | 4335 | 3.0 | 4150 | 2.9 | 3965 | 2.8 | 3600 | 2.4 | 3280 | 2.0 | 2950 | 1.7 | 2620 | 1.4 |
| Fresh Air | 1855 | 0 | | | | | | | | | | | | 3245 | 5.0 | |
| | 1815 | 1 | | | | | | | | | | | | 3225 | 4.9 | |
| | 1770 | 2 | | | | | | | | | | | | 3125 | 4.3 | |
| | 1730 | 3 | 3920 | 5.0 | 3760 | 5.0 | 3600 | 5.0 | 3360 | 4.5 | 3180 | 4.1 | 3060 | 4.0 | 2940 | 3.9 |
| | 1685 | 4 | 3790 | 4.6 | 3670 | 4.6 | 3550 | 4.7 | 3270 | 4.1 | 3090 | 3.7 | 2970 | 3.7 | 2850 | 3.7 |
| | 1645 | 5 | 3724 | 4.2 | 3582 | 4.3 | 3440 | 4.5 | 3190 | 3.6 | 3010 | 3.4 | 2890 | 3.3 | 2770 | 3.3 |
| | 1600 | 6 | 3680 | 4.2 | 3500 | 4.1 | 3320 | 3.9 | 3100 | 3.5 | 2910 | 2.9 | 2790 | 2.8 | 2670 | 2.8 |

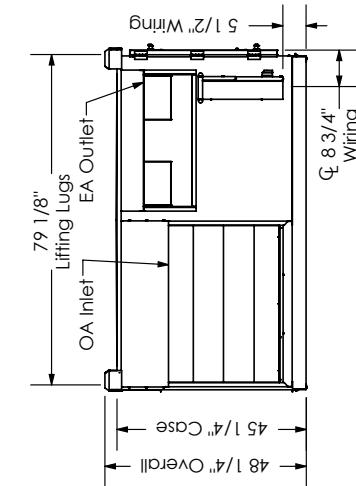
Operation in this zone will likely exceed FLA limits.

Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit.

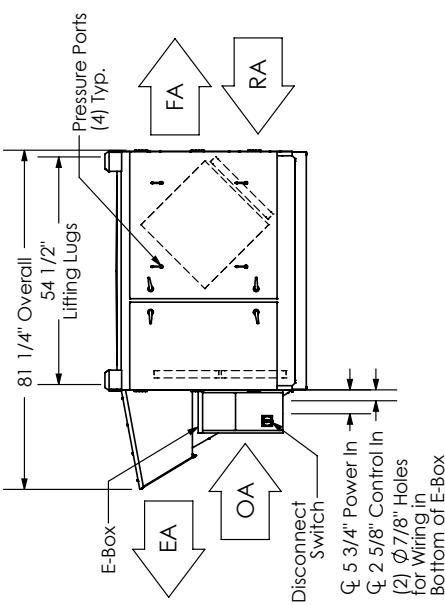


HE4XRT^C ENERGY RECOVERY VENTILATOR

TOP VIEW



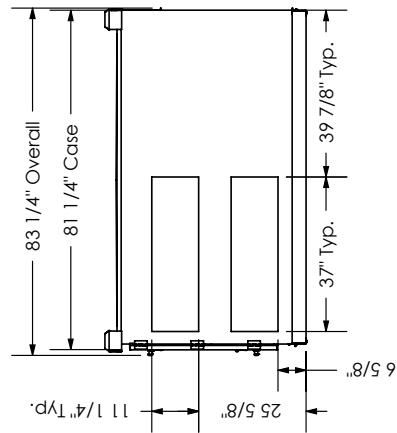
LEFT VIEW



FRONT VIEW



RIGHT VIEW

**AIRFLOW ORIENTATION**

Available as shown in dimension drawing.

UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.



| ABBREVIATIONS | |
|----------------------|--------------------------|
| EA: | Exhaust Air to outside |
| OA: | Outside Air intake |
| RA: | Room Air to be exhausted |
| FA: | Fresh Air to inside |

INSTALLATION ORIENTATION

Unit must be installed in orientation shown.

NOTE:

1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.



INDOOR UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range: 1,500–6,600 CFM**AHRI 1060 Certified Core:** Six L125-G5**Standard Features:**

TEFC Premium efficiency motors

Motor starters

Non-fused disconnect

24VAC transformer/relay package

Cross-core differential pressure ports

Filters:

Total qty. 12, MERV 8: 20" x 20" x 2"

Unit Weight:

2,235–3,099 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

116" L x 90" W x 90" H

3,439 lbs.

Motor(s):

Qty. 2, Belt drive blower/standard motor packages with adjustable sheaves

Options:

Onboard variable frequency drives (VFDs):

both airstreams

Shaft grounding ring on motors with VFDs

Fused disconnect

Integrated programmable controls: enhanced, premium

Bypass economizer damper (see DIM drawing):

dry-bulb temperature controls (standard),

enthalpy controls (option)

Class 1 low leakage motorized isolation dampers:

OA, EA or both airstreams

Factory mounted filter alarms: both airstreams

Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Automatic balancing damper: 4", 5", 6"

Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:

ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

Indoor electric duct heater: EK series (1–175 kW)

Indirect gas-fired duct furnace: GH series (50–400 MBH);

Installed downstream of any fans

AIRFLOW PERFORMANCE

| Blower RPM | External Static Pressure (Inches Water Column) | | | | | | | | | | | | | | | | | | | |
|------------|--|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|--|
| | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | | 1.50 | | 1.75 | | 2.00 | | 2.25 | | 2.50 | |
| | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | | |
| 900 | 2836 | 1.2 | 2493 | 1.2 | 1855 | 1.1 | | | | | | | | | | | | | | |
| 1000 | 3310 | 1.4 | 3067 | 1.3 | 2766 | 1.3 | 2356 | 1.2 | 1641 | 1.0 | | | | | | | | | | |
| 1100 | 3746 | 1.8 | 3505 | 1.7 | 3226 | 1.6 | 2891 | 1.5 | 2464 | 1.4 | 1843 | 1.3 | | | | | | | | |
| 1200 | 4277 | 2.4 | 4005 | 2.3 | 3698 | 2.1 | 3345 | 2.0 | 2924 | 1.9 | 2397 | 1.8 | 1684 | 1.6 | | | | | | |
| 1300 | 4976 | 3.0 | 4665 | 2.9 | 4315 | 2.8 | 3910 | 2.7 | 3430 | 2.5 | 2847 | 2.4 | 2137 | 2.2 | | | | | | |
| 1400 | 5689 | 3.7 | 5396 | 3.6 | 5058 | 3.5 | 4651 | 3.3 | 4143 | 3.2 | 3479 | 3.1 | 2612 | 3.0 | 1731 | 2.8 | | | | |
| 1500 | 6096 | 4.2 | 5866 | 4.2 | 5601 | 4.1 | 5285 | 4.0 | 4892 | 3.9 | 4355 | 3.8 | 3488 | 3.7 | 2254 | 3.6 | | | | |
| 1600 | 6267 | 4.8 | 6083 | 4.7 | 5876 | 4.7 | 5638 | 4.6 | 5354 | 4.6 | 4996 | 4.5 | 4489 | 4.5 | 3528 | 4.4 | 2072 | 4.3 | | |
| 1700 | 6415 | 5.5 | 6255 | 5.4 | 6080 | 5.4 | 5884 | 5.3 | 5658 | 5.3 | 5391 | 5.2 | 5055 | 5.2 | 4589 | 5.2 | 3724 | 5.2 | | |
| 1800 | | | 6578 | 6.3 | 6415 | 6.3 | 6234 | 6.2 | 6033 | 6.2 | 5803 | 6.1 | 5531 | 6.1 | 5198 | 6.0 | 4752 | 6.0 | | |
| 1900 | | | | | | | | | | | | | 6442 | 7.2 | 6110 | 7.2 | 5705 | 7.1 | | |
| | | | | | | | | | | | | | | | | | 5183 | 7.0 | | |

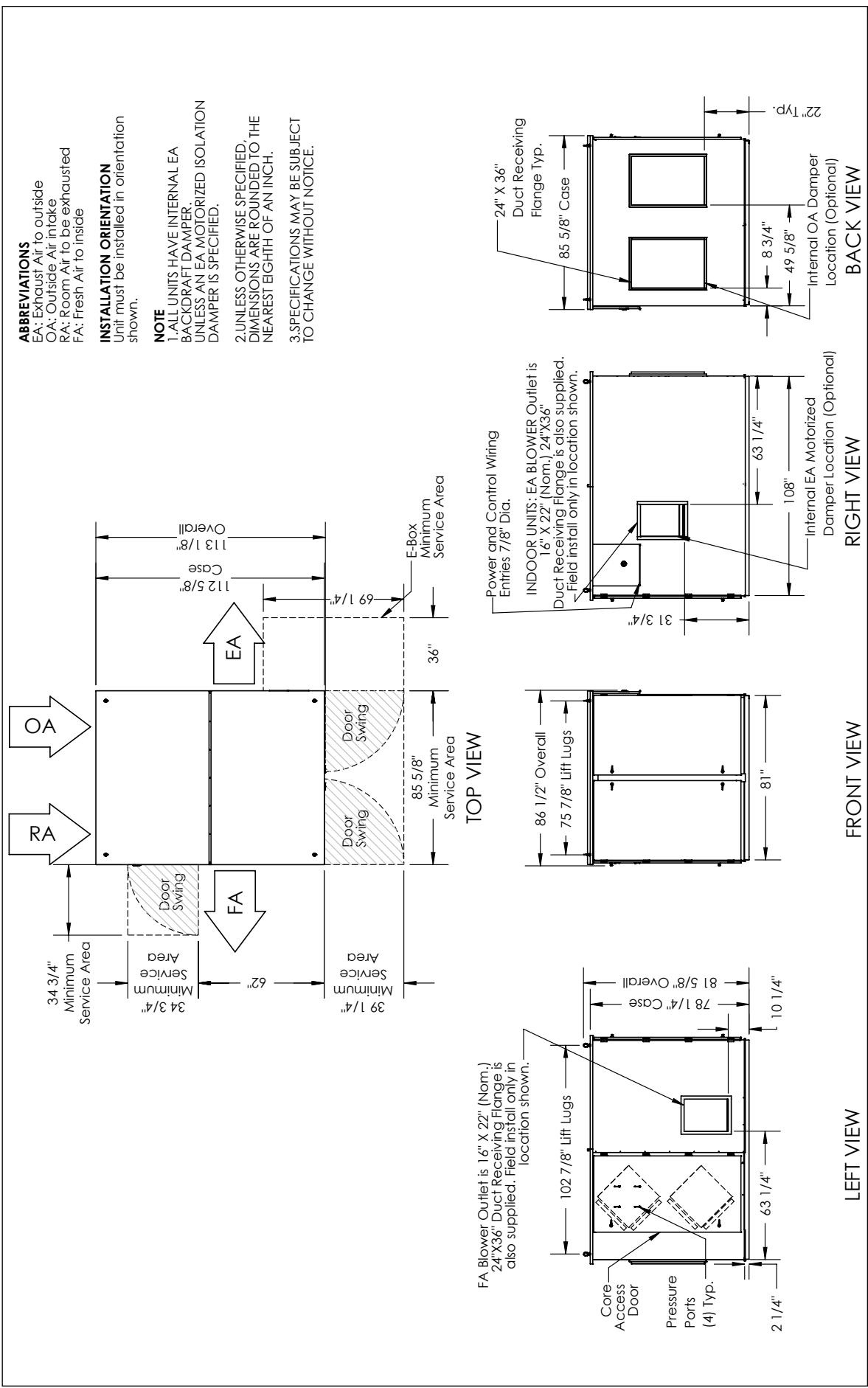
Operation in this zone will likely exceed FLA limits.

Operation in this zone outside of core airflow limits.

Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit. For full operating range, see *CORES*.

ELECTRICAL DATA

| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|-------|---------------|----------------|--|---------------|----------------|------------------------------------|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
| 5.0 | 208–230 | 60 | Three | 14.5–13.4 | 32.6 | 45 | 14.5–13.4 | 35.9 | 45 |
| | 460 | 60 | Three | 6.7 | 15.1 | 20 | 6.7 | 16.6 | 20 |
| | 575 | 60 | Three | 5.3 | 11.9 | 15 | 5.3 | 13.1 | 15 |
| 7.5 | 208–230 | 60 | Three | 21.0–19.0 | 47.3 | 60 | 21.0–19.0 | 52.0 | 60 |
| | 460 | 60 | Three | 9.5 | 21.4 | 25 | 9.5 | 23.5 | 25 |
| | 575 | 60 | Three | 7.6 | 17.1 | 20 | 7.6 | 18.8 | 20 |

HE6XIN ENERGY RECOVERY VENTILATOR

HE6XIN ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER

ABBREVIATIONS

EA: Exhaust Air to outside
 OA: Outside Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside
 BP: Bypass Air intake

INSTALLATION ORIENTATION

Unit must be installed in orientation shown.

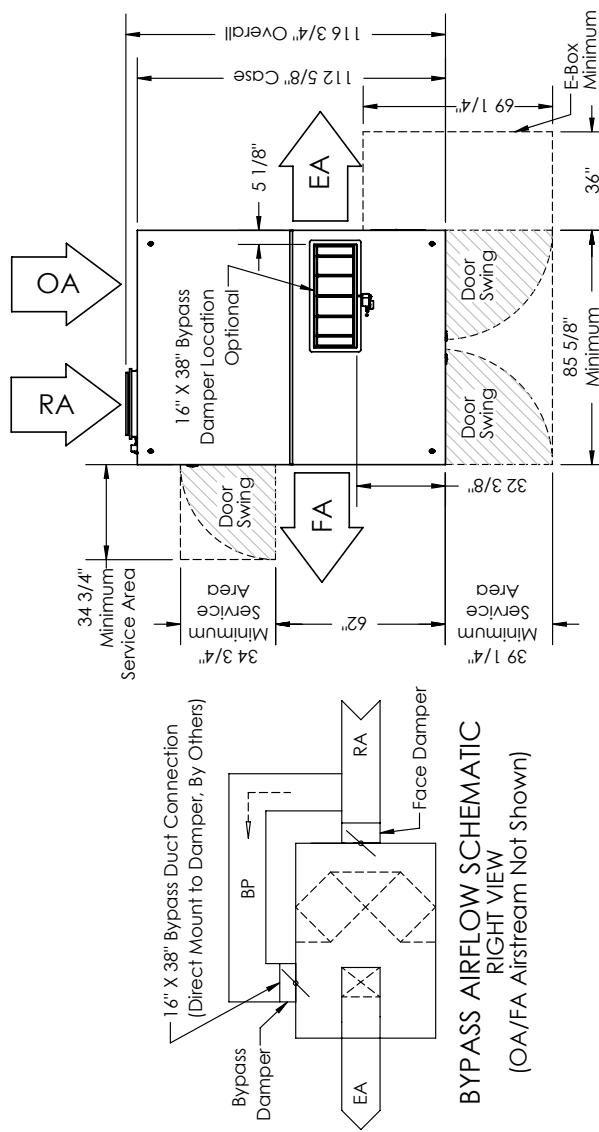
NOTE

1. ALL UNITS HAVE INTERNAL EA BACKDRAFT DAMPER UNLESS AN EA MOTORIZED ISOLATION DAMPER IS SPECIFIED.
 2. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
 3. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

4. DAMPER SWINGS IN DIRECTION OF AIRFLOW, MIN. DUCT CLEARANCE FROM DAMPER BLADE WHEN FULLY OPENED TO BE 2". SMACNA RULES APPLY.

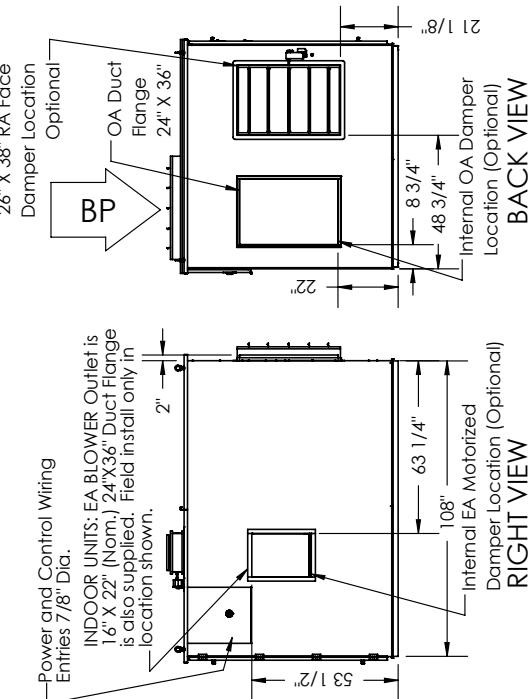
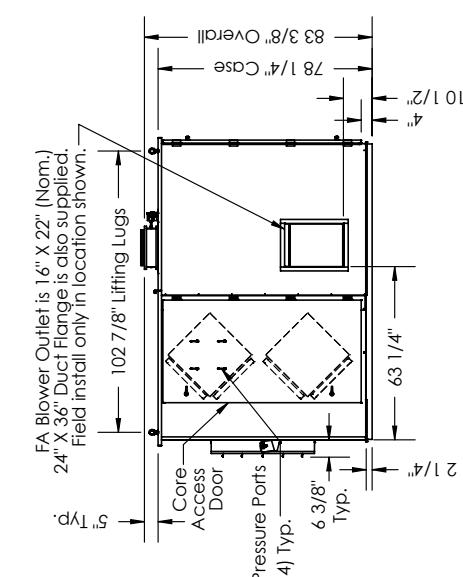
5. UNITS WITH BYPASS WILL REQUIRE ADDITIONAL SPACE FOR THE CONNECTION OF THE BYPASS DUCT (BY OTHERS).

6. FOR INSTALLATION DETAILS, REFER TO I&O MANUAL SUPPLEMENT FOR BYPASS.



TOP VIEW

FRONT VIEW



UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.



AIRFLOW ORIENTATION

Available as shown in dimension drawing.





ROOFTOP UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range:

1,500–6,600 CFM

AHRI 1060 Certified Core:

Six L125-G5

Standard Features:

TEFC Premium efficiency motors

Motor starters

Non-fused disconnect

24VAC transformer/relay package

Cross-core differential pressure ports

Filters:

Total qty. 12, MERV 8: 20" x 20" x 2"

Unit Weight:

2,301–3,166 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

116" L x 90" W x 90" H

3,599 lbs.

Motor(s):

Qty. 2, Belt drive blower/standard motor packages
with adjustable sheaves

Options:

Onboard variable frequency drives (VFDs):

both airstreams

Shaft grounding ring on motors with VFDs

Fused disconnect

Integrated programmable controls: enhanced, premium

Class 1 low leakage motorized isolation dampers:

OA, EA or both airstreams

Factory mounted filter alarms: both airstreams

Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Automatic balancing damper: 4", 5", 6"

Roof curb: standard 14"

Curb wind clip

Engineered combo curb for Trane or Carrier RTUs

Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:

ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

Indoor electric duct heater: EK series (1–175 kW);

Indirect gas-fired duct furnace: GH series (50–400 MBH);

Installed downstream of any fans

AIRFLOW PERFORMANCE

| Blower RPM | External Static Pressure (Inches Water Column) | | | | | | | | | | | | | | | | | | | |
|------------|--|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|------|--|
| | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | | 1.50 | | 1.75 | | 2.00 | | 2.25 | | 2.50 | |
| | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | | |
| 900 | 2836 | 1.2 | 2493 | 1.2 | 1855 | 1.1 | | | | | | | | | | | | | | |
| 1000 | 3310 | 1.4 | 3067 | 1.3 | 2766 | 1.3 | 2356 | 1.2 | 1641 | 1.0 | | | | | | | | | | |
| 1100 | 3746 | 1.8 | 3505 | 1.7 | 3226 | 1.6 | 2891 | 1.5 | 2464 | 1.4 | 1843 | 1.3 | | | | | | | | |
| 1200 | 4277 | 2.4 | 4005 | 2.3 | 3698 | 2.1 | 3345 | 2.0 | 2924 | 1.9 | 2397 | 1.8 | 1684 | 1.6 | | | | | | |
| 1300 | 4976 | 3.0 | 4665 | 2.9 | 4315 | 2.8 | 3910 | 2.7 | 3430 | 2.5 | 2847 | 2.4 | 2137 | 2.2 | | | | | | |
| 1400 | 5689 | 3.7 | 5396 | 3.6 | 5058 | 3.5 | 4651 | 3.3 | 4143 | 3.2 | 3479 | 3.1 | 2612 | 3.0 | 1731 | 2.8 | | | | |
| 1500 | 6096 | 4.2 | 5866 | 4.2 | 5601 | 4.1 | 5285 | 4.0 | 4892 | 3.9 | 4355 | 3.8 | 3488 | 3.7 | 2254 | 3.6 | | | | |
| 1600 | 6267 | 4.8 | 6083 | 4.7 | 5876 | 4.7 | 5638 | 4.6 | 5354 | 4.6 | 4996 | 4.5 | 4489 | 4.5 | 3528 | 4.4 | 2072 | 4.3 | | |
| 1700 | 6415 | 5.5 | 6255 | 5.4 | 6080 | 5.4 | 5884 | 5.3 | 5658 | 5.3 | 5391 | 5.2 | 5055 | 5.2 | 4589 | 5.2 | 3724 | 5.2 | | |
| 1800 | | | 6578 | 6.3 | 6415 | 6.3 | 6234 | 6.2 | 6033 | 6.2 | 5803 | 6.1 | 5531 | 6.1 | 5198 | 6.0 | 4752 | 6.0 | | |
| 1900 | | | | | | | | | | | | | 6442 | 7.2 | 6110 | 7.2 | 5705 | 7.1 | | |
| | | | | | | | | | | | | | | | | | | 5183 | 7.0 | |

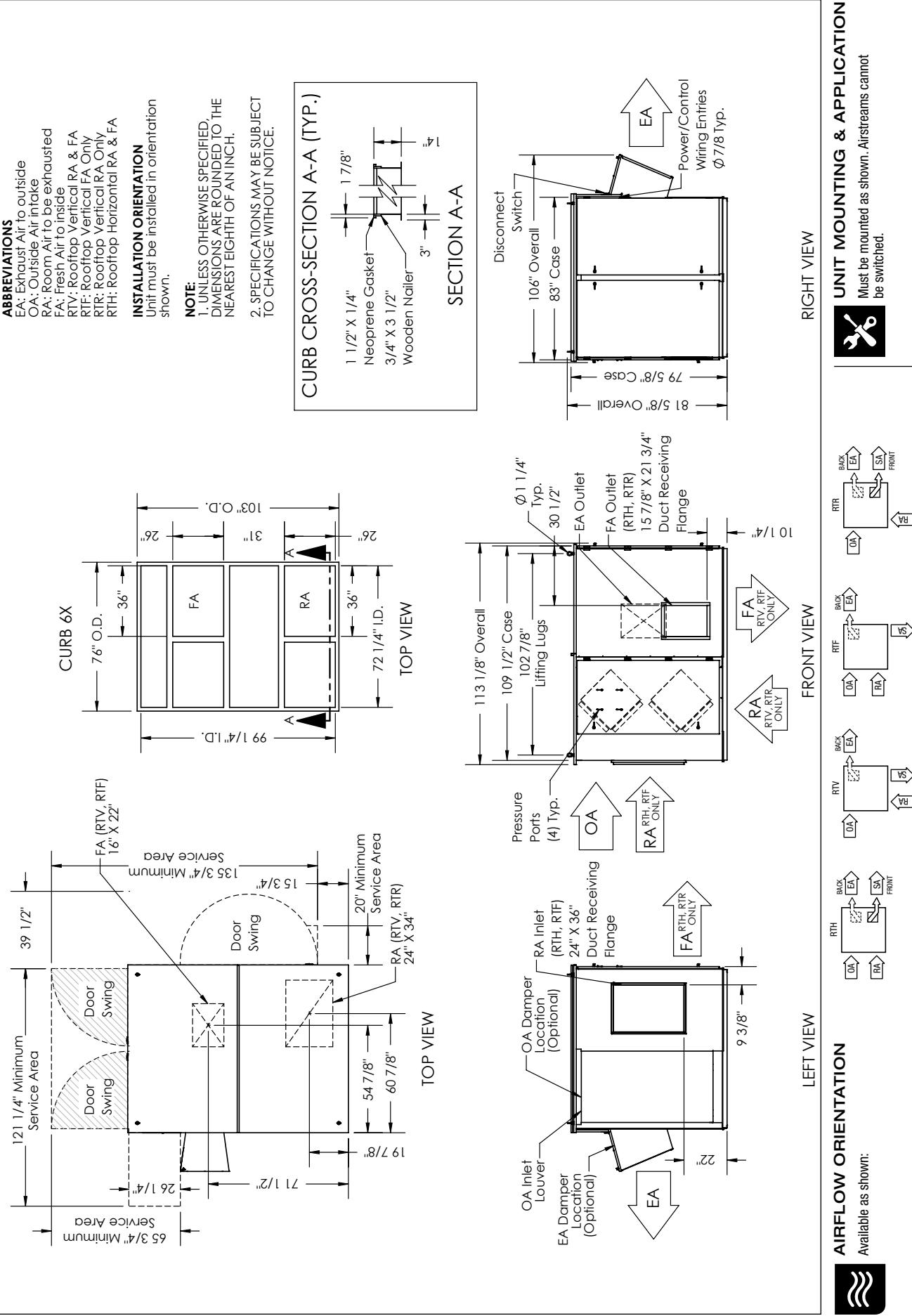
Operation in this zone will likely exceed FLA limits.

Operation in this zone outside of core airflow limits.

Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit. For full operating range, see CORES.

ELECTRICAL DATA

| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|-------|---------------|----------------|--|---------------|----------------|------------------------------------|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
| 5.0 | 208–230 | 60 | Three | 14.5–13.4 | 32.6 | 45 | 14.5–13.4 | 35.9 | 45 |
| | 460 | 60 | Three | 6.7 | 15.1 | 20 | 6.7 | 16.6 | 20 |
| | 575 | 60 | Three | 5.3 | 11.9 | 15 | 5.3 | 13.1 | 15 |
| 7.5 | 208–230 | 60 | Three | 21.0–19.0 | 47.3 | 60 | 21.0–19.0 | 52.0 | 60 |
| | 460 | 60 | Three | 9.5 | 21.4 | 25 | 9.5 | 23.5 | 25 |
| | 575 | 60 | Three | 7.6 | 17.1 | 20 | 7.6 | 18.8 | 20 |

HE6XRT ENERGY RECOVERY VENTILATOR



INDOOR UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range: 2,000–8,800 CFM**AHRI 1060 Certified Core:** Eight L125-G5**Standard Features:**

TEFC Premium efficiency motors

Motor starters

Non-fused disconnect

24VAC transformer/relay package

Cross-core differential pressure ports

Filters:

Total qty. 16, MERV 8: 20" x 20" x 2"

Unit Weight:

2,261–3,278 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

116" L x 90" W x 90" H

3,618 lbs.

Motor(s):Qty. 2, Belt drive blower/standard motor packages
with adjustable sheaves**Options:**

Onboard variable frequency drives (VFDs):

both airstreams

Shaft grounding ring on motors with VFDs

Fused disconnect

Integrated programmable controls: enhanced, premium

Bypass economizer damper (see DIM drawing):

dry-bulb temperature controls (standard),

enthalpy controls (option)

Class 1 low leakage motorized isolation dampers:

OA, EA or both airstreams

Factory mounted filter alarms: both airstreams

Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Automatic balancing damper: 4", 5", 6"

Digital time clock: wall mount (TC7D-W),

in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:

ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

Indoor electric duct heater: EK series (1–175 kW)

Indirect gas-fired duct furnace: GH series (50–400 MBH);

Installed downstream of any fans

AIRFLOW PERFORMANCE

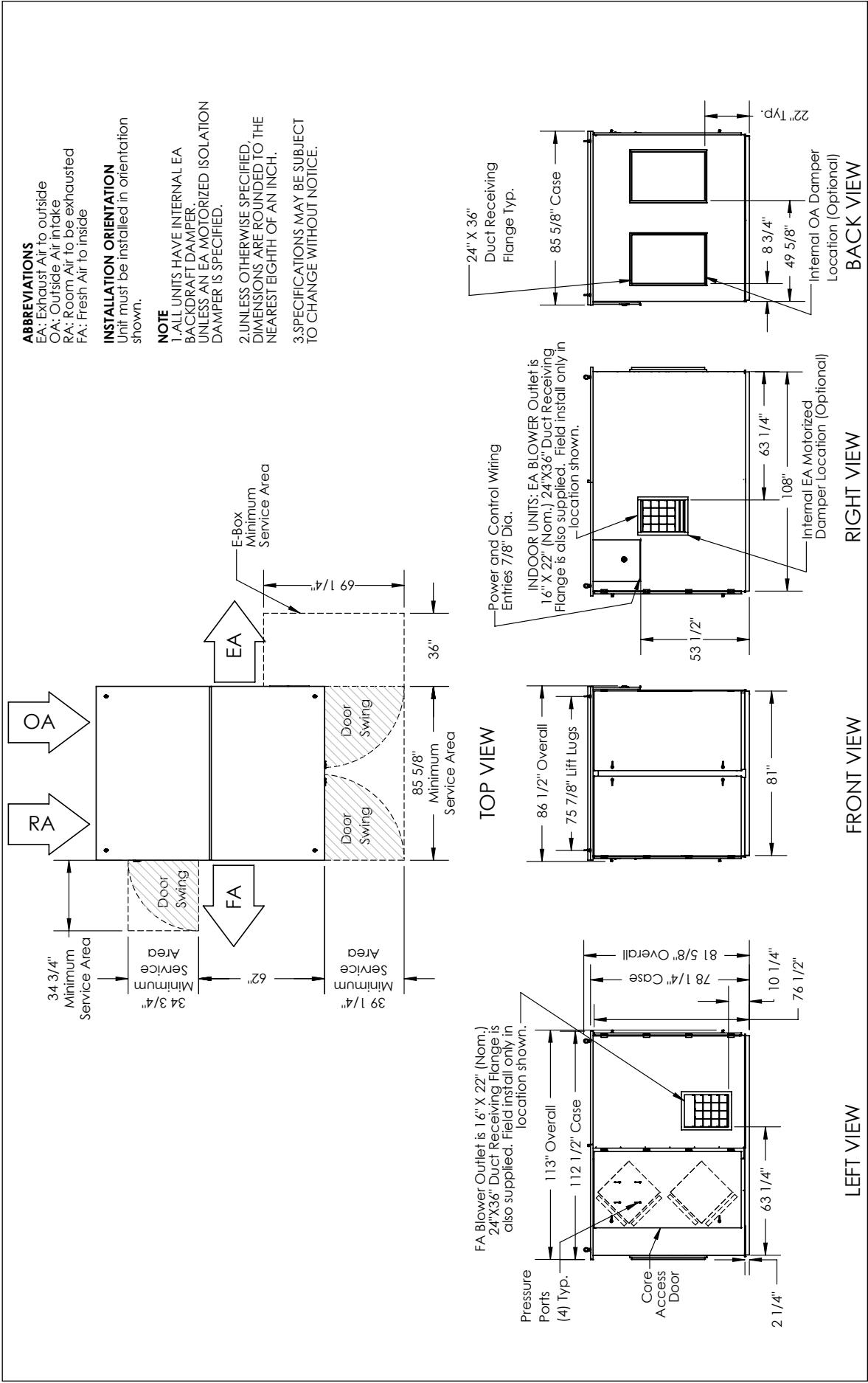
| Blower RPM | External Static Pressure (Inches Water Column) | | | | | | | | | | | | | | | | | | | |
|------------|--|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
| | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | | 1.50 | | 1.75 | | 2.00 | | 2.25 | | 2.50 | |
| | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP |
| 1000 | 3757 | 1.6 | 3404 | 1.5 | 2912 | 1.5 | | | | | | | | | | | | | | |
| 1100 | 4278 | 1.8 | 4018 | 1.8 | 3713 | 1.7 | 3334 | 1.6 | 2812 | 1.5 | | | | | | | | | | |
| 1200 | 4714 | 2.2 | 4480 | 2.2 | 4216 | 2.1 | 3911 | 2.1 | 3544 | 2.0 | 3073 | 1.9 | 2389 | 1.7 | | | | | | |
| 1300 | 5162 | 2.8 | 4934 | 2.8 | 4681 | 2.7 | 4395 | 2.7 | 4062 | 2.6 | 3664 | 2.5 | 3162 | 2.4 | 2487 | 2.2 | | | | |
| 1400 | 5668 | 3.5 | 5443 | 3.5 | 5192 | 3.4 | 4910 | 3.4 | 4585 | 3.3 | 4199 | 3.2 | 3727 | 3.1 | 3130 | 2.9 | 2396 | 2.7 | | |
| 1500 | 6239 | 4.3 | 6022 | 4.2 | 5781 | 4.2 | 5507 | 4.1 | 5190 | 4.1 | 4811 | 4.0 | 4340 | 3.9 | 3733 | 3.7 | 2975 | 3.5 | 2223 | 3.3 |
| 1600 | 6840 | 5.1 | 6643 | 5.0 | 6423 | 5.0 | 6176 | 4.9 | 5889 | 4.9 | 5545 | 4.8 | 5111 | 4.7 | 4519 | 4.6 | 3667 | 4.4 | 2746 | 4.1 |
| 1700 | 7405 | 6.0 | 7232 | 5.9 | 7042 | 5.9 | 6829 | 5.8 | 6587 | 5.7 | 6304 | 5.7 | 5957 | 5.6 | 5496 | 5.4 | 4782 | 5.3 | 3522 | 5.0 |
| 1800 | 7897 | 7.0 | 7745 | 7.0 | 7579 | 6.9 | 7397 | 6.8 | 7195 | 6.7 | 6964 | 6.6 | 6692 | 6.5 | 6359 | 6.4 | 5908 | 6.2 | 5148 | 6.0 |
| 1900 | 8327 | 8.1 | 8188 | 8.0 | 8038 | 7.9 | 7875 | 7.8 | 7696 | 7.7 | 7496 | 7.6 | 7269 | 7.5 | 7004 | 7.4 | 6677 | 7.2 | 6238 | 7.0 |
| 2000 | 8743 | 9.0 | 8607 | 9.0 | 8461 | 8.9 | 8304 | 8.8 | 8134 | 8.7 | 7946 | 8.6 | 7737 | 8.5 | 7498 | 8.3 | 7216 | 8.2 | 6868 | 8.0 |
| 2100 | | | | | | | 8787 | 9.5 | 8605 | 9.5 | 8406 | 9.4 | 8186 | 9.3 | 7937 | 9.2 | 7647 | 9.1 | 7303 | 8.9 |
| 2200 | | | | | | | | | | | | | | | 8549 | 9.8 | 8157 | 9.8 | 7689 | 9.6 |

Operation in this zone outside of core airflow limits.

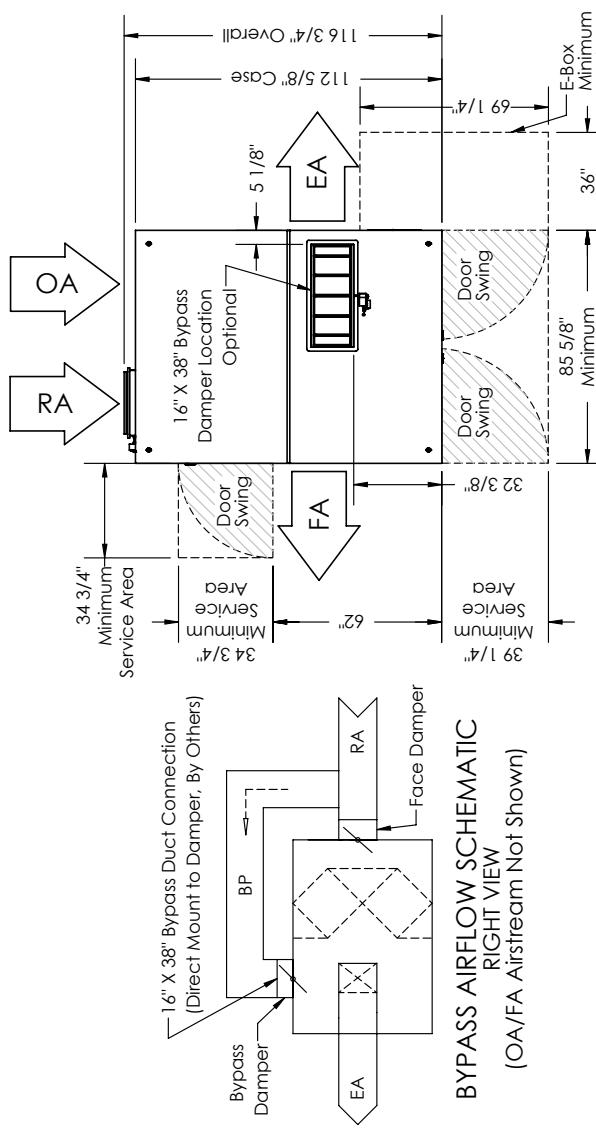
Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit. For full operating range, see CORES.

ELECTRICAL DATA

| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|-------|---------------|----------------|--|---------------|----------------|------------------------------------|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
| 5.0 | 208–230 | 60 | Three | 14.5–13.4 | 32.6 | 45 | 14.5–13.4 | 35.9 | 45 |
| | 460 | 60 | Three | 6.7 | 15.1 | 20 | 6.7 | 16.6 | 20 |
| | 575 | 60 | Three | 5.3 | 11.9 | 15 | 5.3 | 13.1 | 15 |
| 7.5 | 208–230 | 60 | Three | 21.0–19.0 | 47.3 | 60 | 21.0–19.0 | 52.0 | 60 |
| | 460 | 60 | Three | 9.5 | 21.4 | 25 | 9.5 | 23.5 | 25 |
| | 575 | 60 | Three | 7.6 | 17.1 | 20 | 7.6 | 18.8 | 20 |
| 10.0 | 208–230 | 60 | Three | 27.0–25.0 | 60.8 | 80 | 27.0–25.0 | 66.8 | 80 |
| | 460 | 60 | Three | 12.5 | 28.1 | 35 | 12.5 | 30.9 | 35 |
| | 575 | 60 | Three | 9.8 | 22.0 | 30 | 9.8 | 24.2 | 30 |

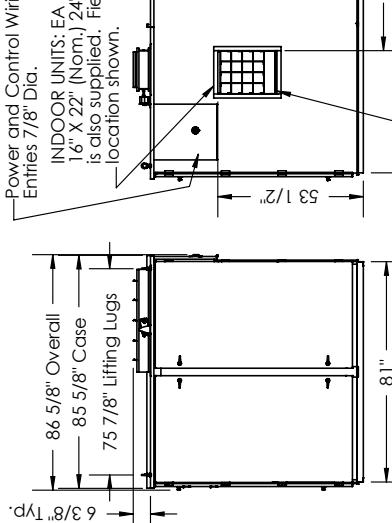
HE8XIN ENERGY RECOVERY VENTILATOR

HE8XIN ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER

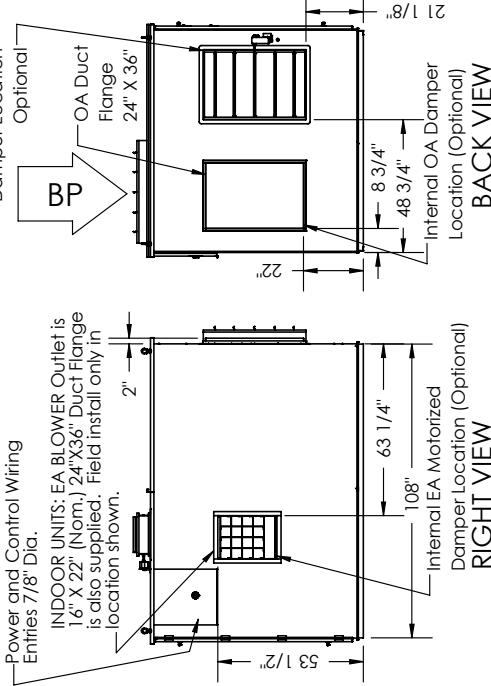


BYPASS AIRFLOW SCHEMATIC
RIGHT VIEW
(OA/FA Airstream Not Shown)

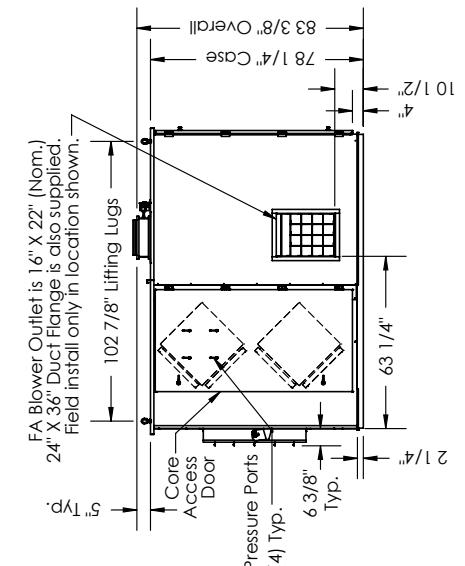
TOP VIEW



FRONT VIEW



FRONT VIEW



LEFT VIEW

AIRFLOW ORIENTATION
Available as shown in dimension drawing.



UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.

INSTALLATION ORIENTATION

Unit must be installed in orientation shown.

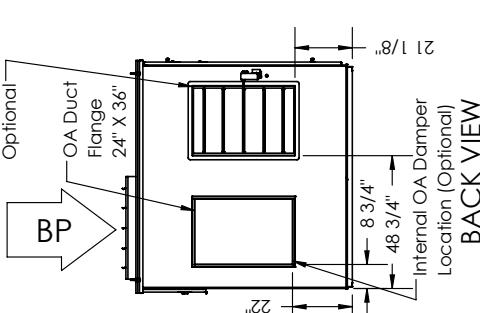
NOTE
ALL UNITS HAVE INTERNAL EA BACKDRAFT DAMPER.
UNLESS AN EA MOTORIZED ISOLATION DAMPER IS SPECIFIED.

2 UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
3 SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

4 DAMPER SWINGS IN DIRECTION OF AIRFLOW MIN. DUCT CLEARANCE FROM DAMPER BLADE WHEN FULLY OPENED TO BE 2". SMACNA RULES APPLY.

5 UNITS WITH BYPASS WILL REQUIRE ADDITIONAL SPACE FOR THE CONNECTION OF THE BYPASS DUCT (BY OTHERS).

6 FOR INSTALLATION DETAILS, REFER TO I&O MANUAL SUPPLEMENT FOR BYPASS.



BACK VIEW

UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.



ROOFTOP UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range:

2,000–8,800 CFM

AHRI 1060 Certified Core:

Eight L125-G5

Standard Features:

TEFC Premium efficiency motors

Motor starters

Non-fused disconnect

24VAC transformer/relay package

Cross-core differential pressure ports

Filters:

Total qty. 16, MERV 8: 20" x 20" x 2"

Unit Weight:

2,399–3,416 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

Pallet 1 (unit): 116" L x 90" W x 90" H

Pallet 2 (hoods): 60" L x 42" W x 90" H

3,756 lbs.

Motor(s):

Qty. 2, Belt drive blower/standard motor packages with adjustable sheaves

Options:

Onboard variable frequency drives (VFDs):

both airstreams

Shaft grounding ring on motors with VFDs

Fused disconnect

Integrated programmable controls: enhanced, premium

Class 1 low leakage motorized isolation dampers:

OA, EA or both airstreams

Factory mounted filter alarms: both airstreams

Double wall construction

Exterior paint: white, custom colors

Accessories:

Filters: MERV 13, 2" (shipped loose)

Automatic balancing damper: 4", 5", 6"

Roof curb: standard 14"

Curb wind clip

Engineered combo curb for Trane or Carrier RTUs

Digital time clock: wall mount (TC7D-W),

in exterior enclosure (TC7D-E)

Carbon dioxide sensor/control:

wall mount (CO2-W), duct mount (CO2-D)

IAQ sensor: wall mount (IAQ-W), duct mount (IAQ-D)

Motion occupancy sensor/control:

ceiling mount (MC-C), wall mount (MC-W)

Smoke detector: duct mount (SD-D)

BACnet fan control: wall mount (BACNETFC-W)

Indoor electric duct heater: EK series (1–175 kW);

Indirect gas-fired duct furnace: GH series (50–400 MBH);

Installed downstream of any fans

AIRFLOW PERFORMANCE

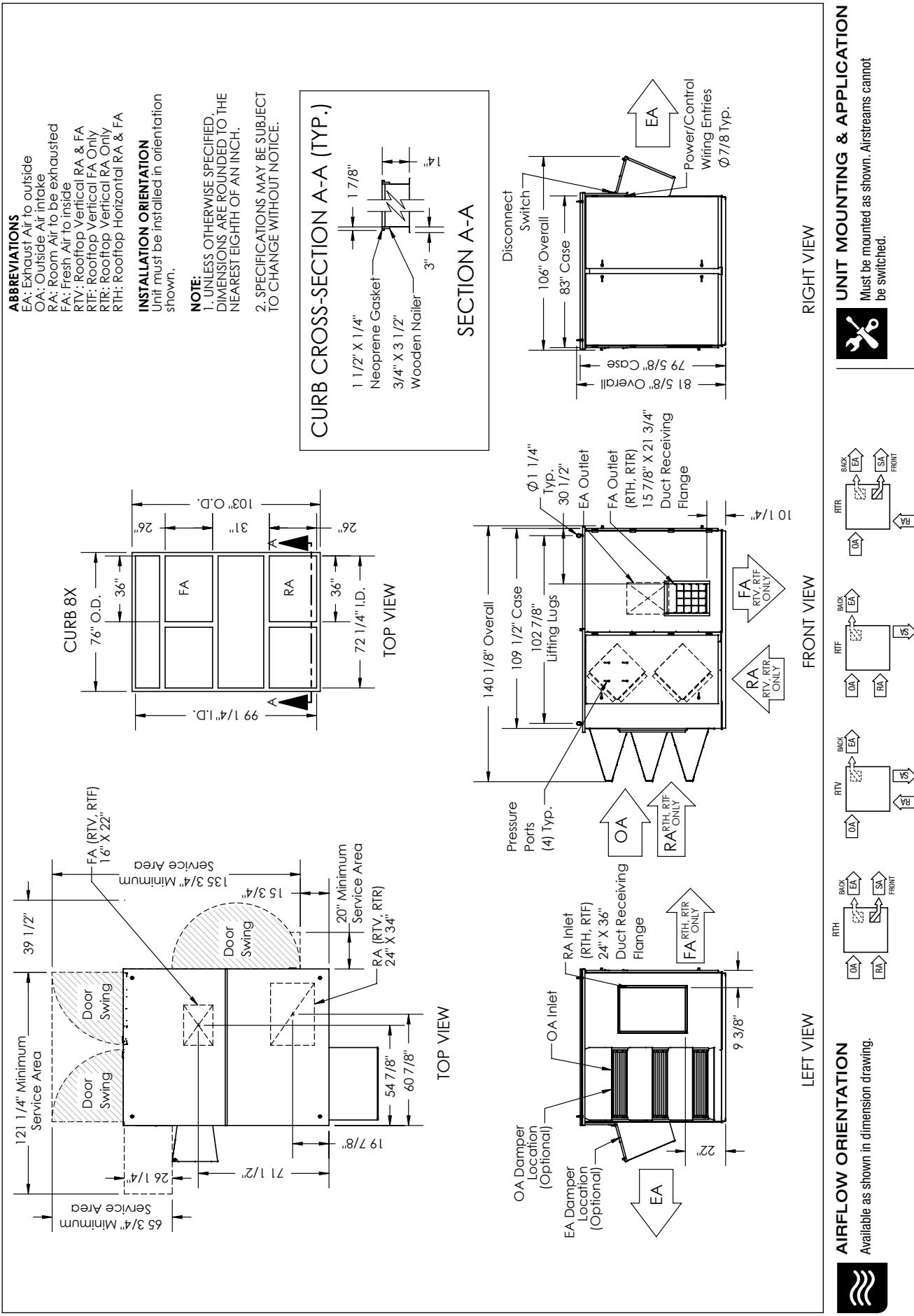
| Blower RPM | External Static Pressure (Inches Water Column) | | | | | | | | | | | | | | | | | |
|------------|--|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
| | 0.25 | | 0.50 | | 0.75 | | 1.00 | | 1.25 | | 1.50 | | 1.75 | | 2.00 | | 2.25 | |
| | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP | SCFM | BHP |
| 1000 | 3757 | 1.6 | 3404 | 1.5 | 2912 | 1.5 | | | | | | | | | | | | |
| 1100 | 4278 | 1.8 | 4018 | 1.8 | 3713 | 1.7 | 3334 | 1.6 | 2812 | 1.5 | | | | | | | | |
| 1200 | 4714 | 2.2 | 4480 | 2.2 | 4216 | 2.1 | 3911 | 2.1 | 3544 | 2.0 | 3073 | 1.9 | 2389 | 1.7 | | | | |
| 1300 | 5162 | 2.8 | 4934 | 2.8 | 4681 | 2.7 | 4395 | 2.7 | 4062 | 2.6 | 3664 | 2.5 | 3162 | 2.4 | 2487 | 2.2 | | |
| 1400 | 5668 | 3.5 | 5443 | 3.5 | 5192 | 3.4 | 4910 | 3.4 | 4585 | 3.3 | 4199 | 3.2 | 3727 | 3.1 | 3130 | 2.9 | 2396 | 2.7 |
| 1500 | 6239 | 4.3 | 6022 | 4.2 | 5781 | 4.2 | 5507 | 4.1 | 5190 | 4.1 | 4811 | 4.0 | 4340 | 3.9 | 3733 | 3.7 | 2975 | 3.5 |
| 1600 | 6840 | 5.1 | 6643 | 5.0 | 6423 | 5.0 | 6176 | 4.9 | 5889 | 4.9 | 5545 | 4.8 | 5111 | 4.7 | 4519 | 4.6 | 3667 | 4.4 |
| 1700 | 7405 | 6.0 | 7232 | 5.9 | 7042 | 5.9 | 6829 | 5.8 | 6587 | 5.7 | 6304 | 5.7 | 5957 | 5.6 | 5496 | 5.4 | 4782 | 5.3 |
| 1800 | 7897 | 7.0 | 7745 | 7.0 | 7579 | 6.9 | 7397 | 6.8 | 7195 | 6.7 | 6964 | 6.6 | 6692 | 6.5 | 6359 | 6.4 | 5908 | 6.2 |
| 1900 | 8327 | 8.1 | 8188 | 8.0 | 8038 | 7.9 | 7875 | 7.8 | 7696 | 7.7 | 7496 | 7.6 | 7269 | 7.5 | 7004 | 7.4 | 6677 | 7.2 |
| 2000 | 8743 | 9.0 | 8607 | 9.0 | 8461 | 8.9 | 8304 | 8.8 | 8134 | 8.7 | 7946 | 8.6 | 7737 | 8.5 | 7498 | 8.3 | 7216 | 8.2 |
| 2100 | | | | | | | 8787 | 9.5 | 8605 | 9.5 | 8406 | 9.4 | 8186 | 9.3 | 7937 | 9.2 | 7647 | 9.1 |
| 2200 | | | | | | | | | | | | | | | 8549 | 9.8 | 8157 | 9.8 |
| | | | | | | | | | | | | | | | | | 7689 | 9.6 |

Operation in this zone outside of core airflow limits.

Note: Brake horsepower (BHP) is for one blower motor package only. Airflow performance includes effect of clean, standard filter supplied with unit. For full operating range, see CORES.

ELECTRICAL DATA

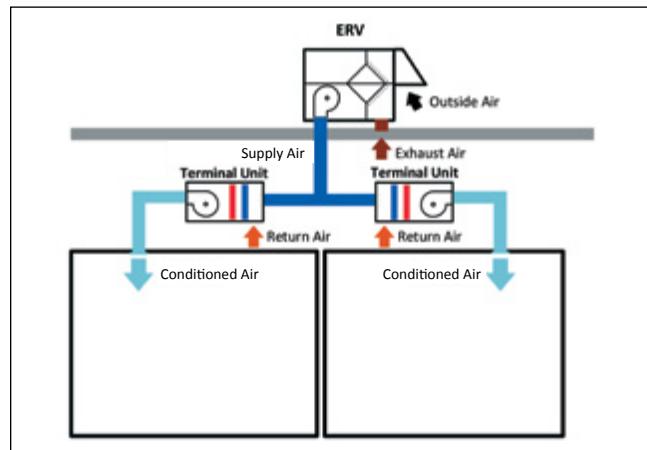
| Standard Electrical Specifications | | | | | | Optional Factory Installed VFD Electrical Specifications | | | |
|------------------------------------|---------|----|-------|---------------|----------------|--|---------------|----------------|------------------------------------|
| HP | Volts | Hz | Phase | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device | FLA per motor | Min. Cir. Amps | Max. Overcurrent Protection Device |
| 5.0 | 208–230 | 60 | Three | 14.5–13.4 | 32.6 | 45 | 14.5–13.4 | 35.9 | 45 |
| | 460 | 60 | Three | 6.7 | 15.1 | 20 | 6.7 | 16.6 | 20 |
| | 575 | 60 | Three | 5.3 | 11.9 | 15 | 5.3 | 13.1 | 15 |
| 7.5 | 208–230 | 60 | Three | 21.0–19.0 | 47.3 | 60 | 21.0–19.0 | 52.0 | 60 |
| | 460 | 60 | Three | 9.5 | 21.4 | 25 | 9.5 | 23.5 | 25 |
| | 575 | 60 | Three | 7.6 | 17.1 | 20 | 7.6 | 18.8 | 20 |
| 10.0 | 208–230 | 60 | Three | 27.0–25.0 | 60.8 | 80 | 27.0–25.0 | 66.8 | 80 |
| | 460 | 60 | Three | 12.5 | 28.1 | 35 | 12.5 | 30.9 | 35 |
| | 575 | 60 | Three | 9.8 | 22.0 | 30 | 9.8 | 24.2 | 30 |

HE8XRT ENERGY RECOVERY VENTILATOR

APPLICATIONS

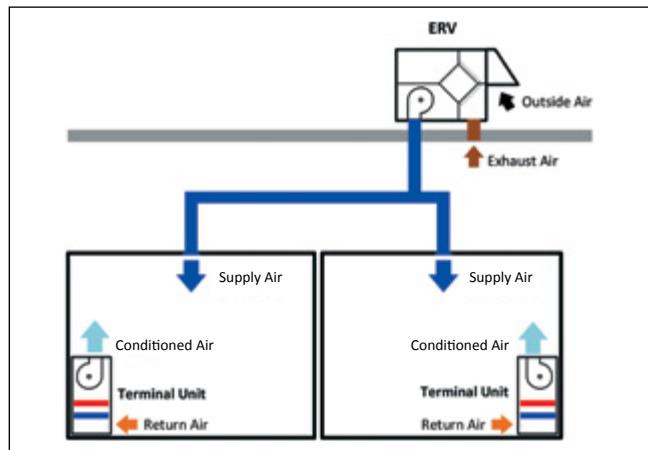
COMMON INSTALLATION APPROACHES

AIR SUPPLIED TO INTAKES OF TERMINAL UNITS



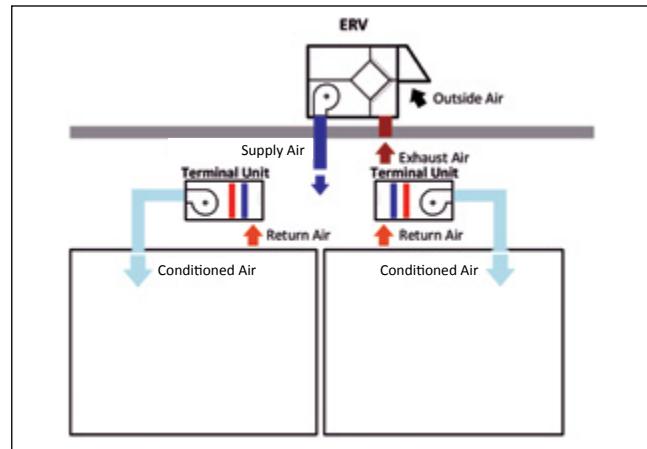
- ◆ Variable refrigerant flow/volume
- ◆ Active chilled beam
- ◆ Fan coils

DIRECT-TO-ZONE WITH TERMINAL UNITS



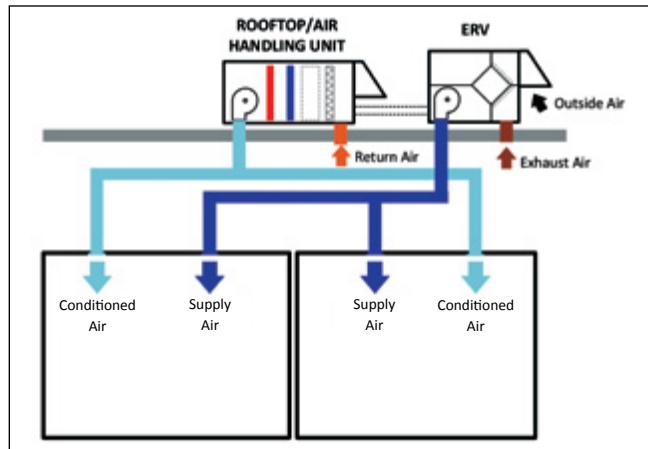
- ◆ Variable refrigerant flow/volume
- ◆ Chilled beam
- ◆ Fan coils
- ◆ Radiant floor heating & cooling
- ◆ Heat pumps
- ◆ Packaged terminal air conditioning

SUPPLY AIR TO MIXING BOXES FOR INDOOR TERMINAL UNITS OR ROOFTOPS



- ◆ Variable refrigerant flow/volume
- ◆ Chilled beam
- ◆ Fan coils

DIRECT-TO-ZONE WITH ROOFTOP OR ALTERNATIVELY TO MIXING BOX OF ROOFTOP UNITS (SEE DOTTED LINE)



Note: Rooftop applications shown, configuration can be applied to indoor units

OPTIONS

See individual submittal pages for availability by model.

EC MOTOR

- ◆ Best energy efficiency
- ◆ Two speed, single speed, or variable speed operation
- ◆ Easy airflow setup using RenewAire's standard pressure taps: cuts commissioning time



VARIABLE FREQUENCY DRIVE

- ◆ Factory supplied and mounted variable frequency drives (VFDs): one or both airstreams
- ◆ Provides additional control options
- ◆ Separate VFD for each airstream
- ◆ Display/control in electrical box: can be remotely mounted
- ◆ Pre-programmed speeds or variable speed
- ◆ Easy airflow setup using RenewAire's standard pressure ports: cuts commissioning time
- ◆ Shaft grounding ring on motors with VFDs



VFD all voltage
except 575V

FILTER ALARM

- ◆ Factory mounted airflow switches: one for each airstream
- ◆ Allows for remote indication of loaded (dirty) filter



ELECTRICAL

- ◆ Disconnect fuses and motor starters
- ◆ Independent blower control (IBC) available as an option for HE1.5X



MOTORIZED ISOLATION DAMPERS

- ◆ Class 1, low leakage
- ◆ Robust, reliable actuators for highest dependability
- ◆ Automatic operation with spring return in event of power loss
- ◆ Damper(s) are factory mounted and wired



EXTERIOR PAINT

- ◆ White and custom colors available



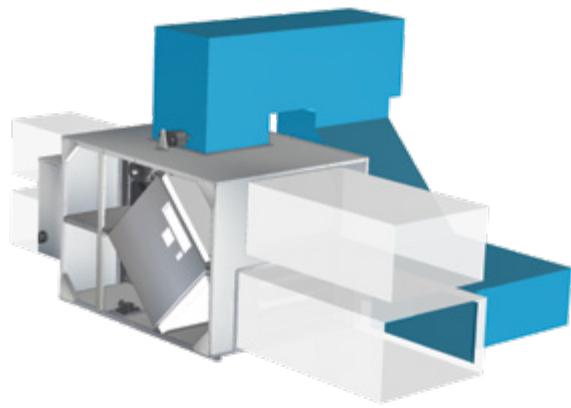
OPTIONS

BYPASS ECONOMIZER

AVAILABLE ON ALL HE SERIES INDOOR UNITS

The bypass system consists of the addition of an extra bypass duct, two electrically actuated dampers and a control system. Bypass is achieved with the help of two dampers consisting of the face damper (normally open) and the bypass damper (normally closed), factory-installed bypass controls and field-installed ductwork that links the return air to the exhaust air. When conditions are favorable for bypass, the face damper closes while the bypass damper opens simultaneously, thereby allowing for 100% of the return air to bypass the core.

The bypass economizer option comes with two factory-supplied dampers (square or circle) and a bypass control system of your choice of dry bulb or enthalpy. In the dry bulb option, the standard bypass control is temperature-based via a single outdoor-air controller and sensor. In contrast, the enthalpy-controlled option is based on differential enthalpy and uses a return-air enthalpy sensor in conjunction with an outdoor-air enthalpy controller and a dry-bulb temperature controller.



KEY BENEFITS

- ◆ **Reduce energy use and costs:** Energy efficiency is optimized since the bypass provides airside economizer capabilities to the building mechanical system.
- ◆ **Flexible design:** Bypass allows for flexibility in the routing of the bypass duct. Additionally, the dampers are adjustable.
- ◆ **Increase installation opportunities:** Indoor HE Series ERVs can now be specified and installed on projects that require ERV bypass.
- ◆ **100% bypass of air:** Unlike other options on the market, RenewAire offers 100% core bypass of air, resulting in free cooling and further energy reductions.
- ◆ **Fast and easy implementation:** The economizer option doesn't require any additional certifications.
- ◆ **Meet code requirements:** Bypass helps HE indoor units meet economizer requirements per building codes and other referenced standards.
- ◆ **Regulations:** AMCA Class I certified for low leakage.

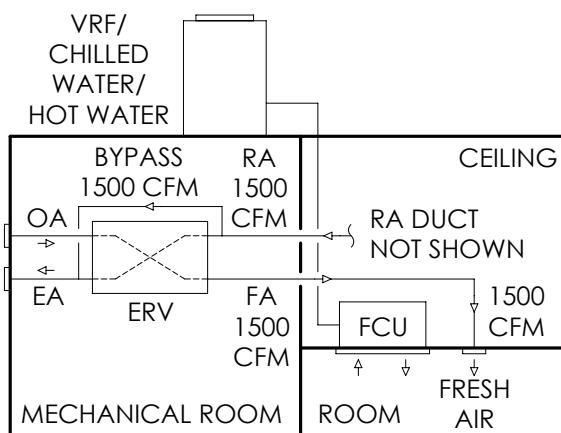
FIELD-INSTALLED BYPASS DUCT SIZE RECOMMENDATIONS

| ERV Unit | Face Damper | Bypass Damper | Recommended Bypass Duct Size* |
|----------------------|-------------------|-------------------|-------------------------------|
| HE07INH, HE07INV | Factory installed | Shipped loose | 12" |
| HE10INH, HE10INV | Factory installed | Shipped loose | 12" |
| HE1.5XINH, HE1.5XINV | Factory installed | Shipped loose | 12" |
| HE2XINH, HE2XINV | Factory installed | Factory installed | 16" x 16" |
| HE3XINH | Factory installed | Factory installed | 30" x 16" |
| HE3XINV | | | 36" x 14" |
| HE4XINH | Factory installed | Factory installed | 34" x 16" |
| HE4XINV | | | 42" x 14" |
| HE6XIN, HE8XIN | Factory installed | Factory installed | 38" x 16" |

* Recommended duct sizes are based on ensuring that the pressure drop in the bypass duct is less than the pressure drop through the core. Equivalent duct sizes at same pressure drop are acceptable.

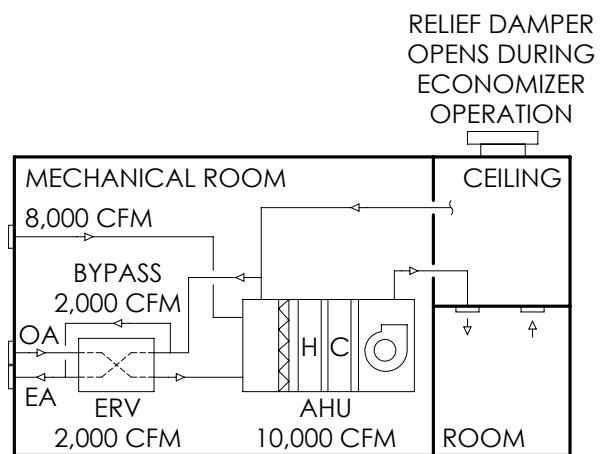
Note: Installation of bypass duct per SMACNA guidelines. The face damper is factory-installed on the return air (RA) duct inlet for all units.

APPLICATION STRATEGIES



100% Economizer

The Bypass Economizer option will provide 100% economizer capabilities in mechanical systems where the ERV is connected to a fan coil unit or supplying fresh air directly into the space. Examples of such systems are VRF, chilled beam or chilled/heated panels.



Partial Economizer

When connected to a main building air handler, the Bypass Economizer option shall offer partial bypass of only the ERV total airflow. For 100% economizer capability on the HVAC system, the air handler must be equipped with either powered relief or barometric relief economizer capacity (barometric relief shown).

OPTIONS

INTEGRATED PROGRAMMABLE CONTROLS

RenewAire's Integrated Programmable Controls optimize the usability and performance of our commercial ERVs by improving functionality, enabling intelligent controls, streamlining operations and boosting efficiencies. This is accomplished via sophisticated factory-installed microprocessor controls and sensors that provide stand-alone ERVs with Direct Digital Control (DDC) and/or Building Management System (BMS) control interface.



KEY BENEFITS

Optimize usability:

- Maximize ERV functionality and intelligent control via remote Ethernet accessibility and BMS connectivity without third-party interface.
- Streamline operations by easily managing and changing ERV control parameters via an advanced user interface.
- Increase uptime reliability through constant system monitoring.
- Achieve cleaner and healthier indoor air via IAQ-based ERV control.

Improve performance:

- Support effective and efficient ERV performance with real-time data trending and logging capabilities.
- Enhance ERV control via access to real-time airflow rates, airstream temperature and airstream humidity.
- Facilitate fast and easy ERV upkeep and maintenance with real-time fan, filter and bypass status.

Increase capabilities:

- Expand ERV connectivity via access to a wide range of open standard protocols, including BACnet and Modbus.
- Broaden ERV interoperability by connecting to third-party equipment and receiving third-party signals for unit control.
- Expand ERV-application scope by meeting new code requirements and the needs of institutional customers requiring DDC controls in mechanical equipment.

Simplify operations:

- Achieve easier ERV setup, commissioning and balancing via simple-to-install controls.
- Improve operational efficiencies by easily communicating ERV status, airflows, temperatures and humidity.
- Allow for more installations by enabling ERVs to be interconnected with a BMS, operated independently or run in concert with other ERVs.

ACCESSORIES (AVAILABLE WITH INTEGRATED PROGRAMMABLE CONTROLS)

| | Enhanced Controls | Premium Controls |
|---|-------------------|------------------|
| CO ₂ sensor (wall or duct mount) | | ◆ |
| IAQ sensor (wall or duct mount) | | ◆ |
| Room pressure sensor (with or without display) | | ◆ |
| Duct static pressure sensor (with or without display) | | ◆ |
| Conditioned air temperature sensor | | ◆ |
| Occupancy sensor (ceiling or wall mount) | ◆ | ◆ |
| Smoke detector (duct mount) | ◆ | ◆ |
| BACnet factory activation (MS/TP or TCP/IP) | ◆ | ◆ |
| Remote display (handheld or wall mount) | ◆ | ◆ |

OPTIONS

CONTROLS

MODELS

Standard Controls via dry contact and relays

Our ERV units are provided with a dry contact that can be used to control the unit with a variety of low-voltage (24VAC) control devices such as remote switches or relays. In addition, third-party analog output can be used to operate the ERV.

Enhanced Controls Carel [c.pCOMini] with or without BACnet

Enhanced controls offer automated control, including temperature and humidity control with data trending via microprocessor controls and sensors that enable BMS connectivity.

Premium Controls Carel [c.pCOMini] with expansion module with or without BACnet

Premium controls include all functionality of Enhanced-controls capabilities, as well as airflow and IAQ monitoring, demand control, electric or gas heating options, as well as RD-Series cooling and heating control.

Note: It is not necessary that RenewAire controls be used to operate RenewAire units. A wide range of controls or building automation systems may be used.

FEATURE COMPARISON

| | Standard Controls | Enhanced Controls | Premium Controls |
|---|---------------------------------------|---------------------------------------|---------------------------------------|
| Ability to automatically enable and disable unit | ♦ | ♦ | ♦ |
| Filter alarm for both sets of filters | Option ¹ | ♦ | ♦ |
| Bypass controls | Option on HE Series (IN) ² | Option on HE Series (IN) ² | Option on HE Series (IN) ² |
| Control isolation dampers | Option ² | ♦ | ♦ |
| Supply fan only modulation for VFD/ECM units | Option ³ | ♦ | ♦ |
| Exhaust fan only modulation for VFD/ECM units | Option ³ | ♦ | ♦ |
| Internal time clock | Accessory ⁴ | ♦ | ♦ |
| Frost controls—Canada only | Option ⁵ | ♦ | ♦ |
| Smoke detector input required | Accessory ⁴ | ♦ | ♦ |
| Demand control ventilation using CO ₂ —sensor required | Accessory ⁶ | | ♦ |
| IAQ control ventilation using VOC—sensor required | Accessory ⁶ | | ♦ |
| Occupancy-based ventilation—sensor required | Accessory ⁶ | ♦ | ♦ |
| Microprocessor controller | | ♦ | ♦ |
| Provide supply and exhaust air temperatures | | ♦ | ♦ |
| Provide outside and return air temperature and humidity | | ♦ | ♦ |
| Fan status on both fans | | ♦ | ♦ |
| Enable the supply fan only | Option ⁵ | ♦ | ♦ |
| Enable the exhaust fan only | Option ⁵ | ♦ | ♦ |
| Micro USB port | | ♦ | ♦ |
| BACnet MS/TP or BACnet TCP/IP—activation required | | ♦ | ♦ |
| Modbus | | ♦ | ♦ |
| Data trending | | ♦ | ♦ |
| Outside airflow rate | | | ♦ |
| Exhaust airflow rate | | | ♦ |
| Space pressure control—sensor required | | | ♦ |
| Duct pressure control—sensor required | | | ♦ |
| Conditioned air temperature—sensor required | | | ♦ |
| Heating enable | | | ♦ |
| Cooling enable | | | ♦ |
| Heating modulation—staged or modulating | | | ♦ |
| Cooling modulation—staged or modulating | | | ♦ |

Notes:

1. Wiring and any indications provided by others.
2. Availability varies per model.
3. VFD and EC models only.
4. Field installed.
5. Non-EC models only. Requires independent blower control.
6. Field installed, on/off control only.

ACCESSORIES

CONTROLS

Standard controls are intended to turn RenewAire commercial energy recovery ventilation systems on and off at appropriate times. Specification, installation and set-up is an easy process. RenewAire HE Series units come standard with a 24 Volt transformer/relay package for easy interface with all controls.

- *Compatible with Standard or Integrated Programmable Controls.
- **Only Compatible with Integrated Programmable Controls.
- ***Only Compatible with Standard Controls.

DIGITAL TIME CLOCK*

- ♦ Up to 8 on/off cycles per day or 56 per week
- ♦ 24VAC power requirement
- ♦ Battery back-up
- ♦ Wall mount or outdoor enclosure options
- ♦ Wall mount fits any 4" x 4" electrical box



TC7D-W
Wall Mount

IAQ SENSORS*

- ♦ Measures TVOC
- ♦ Adjustable range from 0–2000 ppm
- ♦ Digital display on wall mount
- ♦ 24VAC power required
- ♦ Internal menu for easy set-up
- ♦ Digital control output for use with standard controls



IAQ-W
Wall Mount

SMOKE DETECTOR*

- ♦ Photoelectric type detector
- ♦ Plug-in sensor
- ♦ Round, square or rectangular duct mounting options
- ♦ Easy access test/reset button and LED display
- ♦ For 100–4000 fpm duct air velocity applications
- ♦ 24VAC power requirement
- ♦ Interconnect feature for multi-fan shutdown
- ♦ Built-in short circuit protection



SD-D
Duct Mount

TEMPERATURE SENSOR KIT**

- ♦ Duct temperature sensors
- ♦ Hermetically sealed 304SS probe
- ♦ Operating range -40°F to 210°F
- ♦ Easy installation with integral mounting plate



TS
Duct Mount

REMOTE DISPLAY**

- ♦ Hand held or wall mount
- ♦ LED display
- ♦ Keypad for easy programming



RD-M
Handheld or Wall Mount

CO2 SENSORS*

- ♦ Adjustable range from 400–2000 PPM
- ♦ Digital display
- ♦ 24VAC power requirement
- ♦ Self calibrates during periods of low occupancy
- ♦ Wall mount or add duct mount accessory
- ♦ Digital control output for use with standard controls



CO2-W
Wall Mount

MOTION OCCUPANCY SENSORS*

- ♦ Passive infrared sensor
- ♦ Adjustable time-off delay to 30 minutes
- ♦ 24VAC power requirement
- ♦ Ceiling mount or directable wall mount
- ♦ Coverage floor space
 - Ceiling mount: 1500 sq. ft.
 - Wall mount: 2500 sq. ft.
- ♦ Major motion area
 - Ceiling mount: 50 ft. diameter
 - Wall mount: 68 x 50 ft.



MC-C
Ceiling Mount

BACNET FAN CONTROL***

- ♦ Adds remote fan control functionality to standard controls unit
- ♦ Set fan on/off status and speed
- ♦ Local control without opening unit and/or BMS override via BACnet MS/TP
- ♦ 24VAC power requirement
- ♦ Wired connection to unit and BMS
- ♦ LCD display
- ♦ Wall mount



BACNETFC-W
Wall Mount

PRESSURE SENSORS (ROOM PRESSURE/ DUCT STATIC PRESSURE)**

- ♦ With or without display
- ♦ Differential pressure transmitter
- ♦ 4–20 mA or field selectable 0–10 & 0.5V output signal
- ♦ Integral barbed tubing connections that fit 1/8" and 3/16" ID tubing

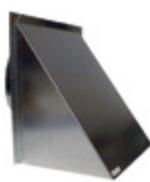


RPS-WOD/DPS-WOD
Wall/Duct Mount
without Display

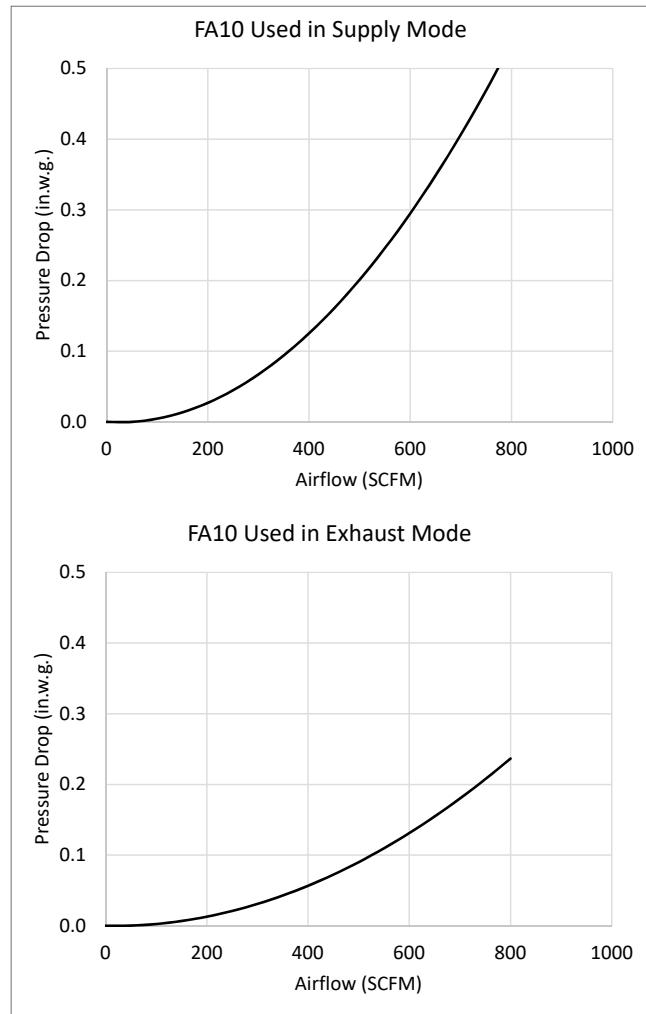
ACCESSORIES

HOODED WALL VENT

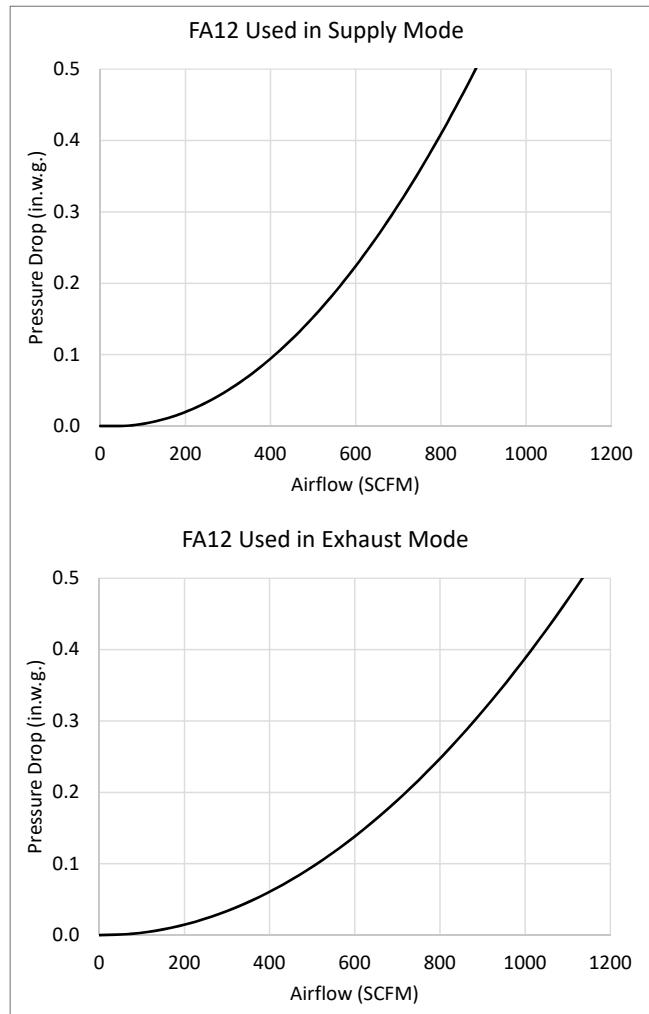
- ♦ 10" and 12"
- ♦ Galvanized, paintable galvanneal



FA10 PRESSURE DROP PERFORMANCE



FA12 PRESSURE DROP PERFORMANCE



AUTOMATIC BALANCING DAMPER

- ♦ 4", 5" and 6"



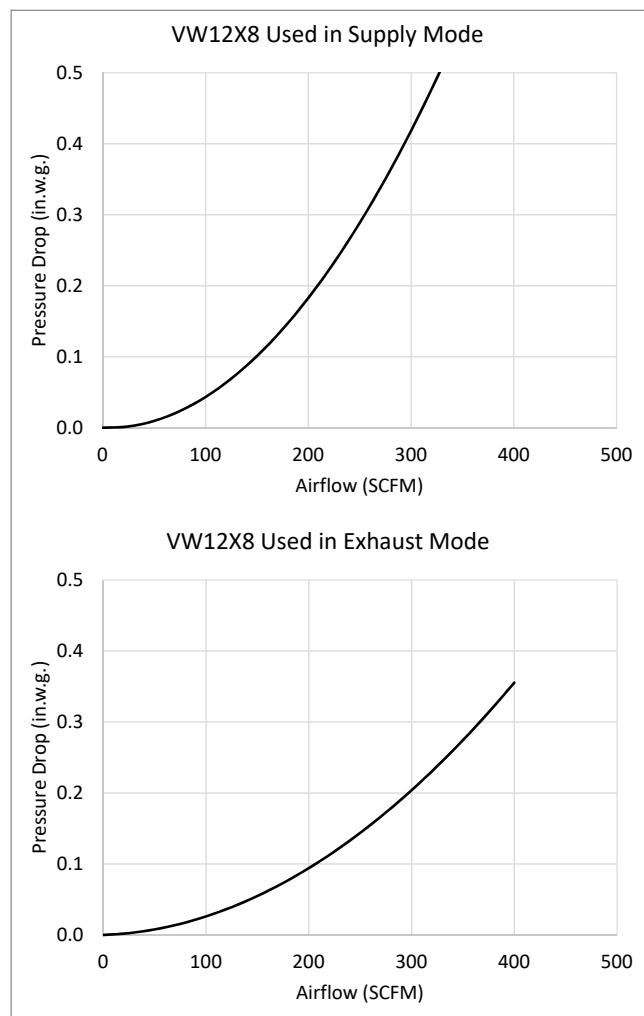
ACCESSORIES

LOUVERED WALL VENT

- ♦ 10" Round duct connection, 12" x 12"



VW12 x 8 PRESSURE DROP PERFORMANCE

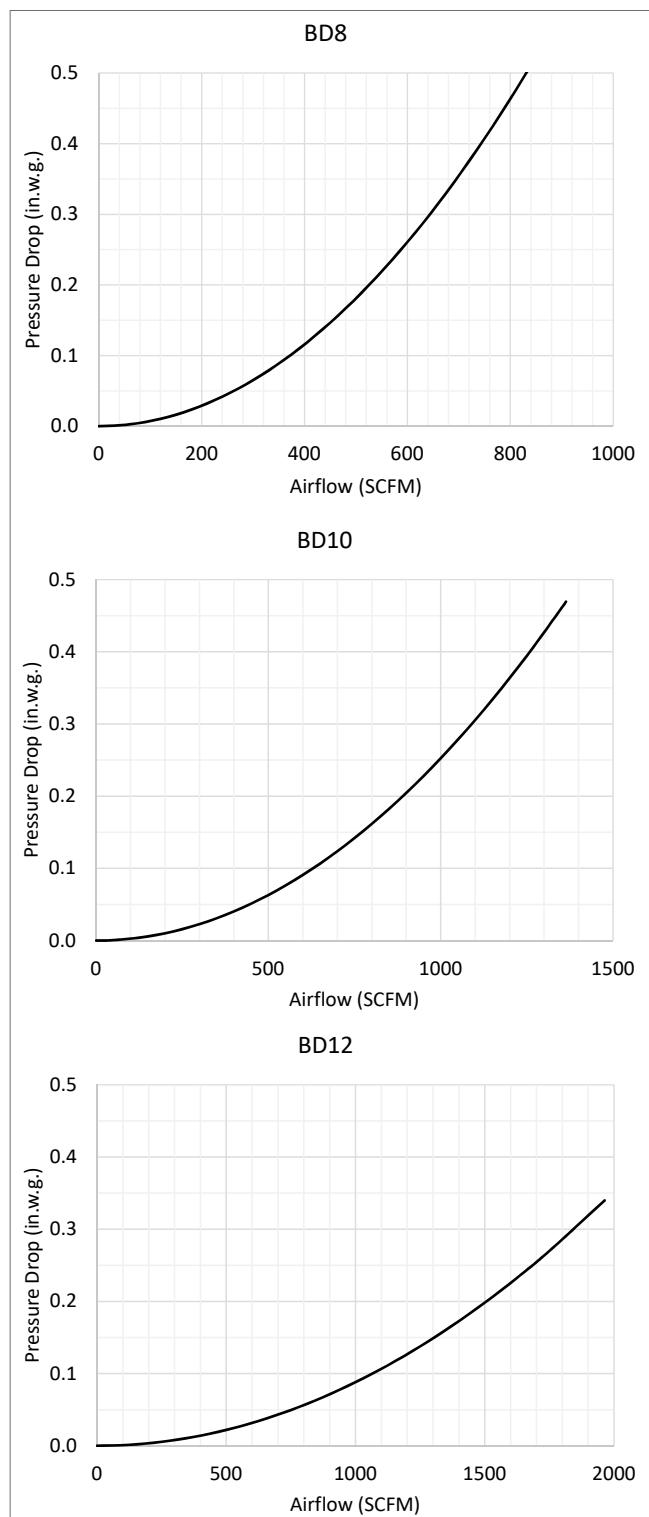


BACKDRAFT DAMPER

- ♦ 8", 10" and 12"



PRESSURE DROP PERFORMANCE



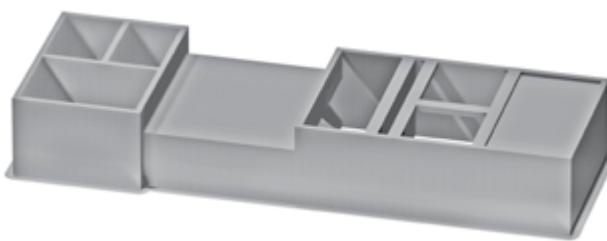
ACCESSORIES

ENGINEERED COMBO CURBS

Exclusively designed for select Trane (Voyager and Precedent) and Carrier (WeatherExpert, WeatherMaster, and WeatherMaker) models, RenewAire's engineered combo curb makes it easy to combine standard Air Handling Unit (AHU) rooftop applications with the benefits of RenewAire energy recovery ventilation. They eliminate the need for transitional ductwork between the RTU and the ERV, reducing the time and costs of installation. Simply install the curb, run the return and supply duct to the curb openings, then install the AHU and RenewAire units onto the curb. Additionally, the curbs allow the AHU unit to function in its standard operation as well as full-flow economizer modes.

Standard Construction

- ◆ Prime G-90, 18-gauge galvanized steel
- ◆ Fully welded and mitered corners (single piece curb lift)
- ◆ Base flange attachments for securing to the building structure
- ◆ 1 ½" 3 lb. density fiberglass insulation
- ◆ Reinforced with cross channel supports on center
- ◆ Conforms to ASTM A653/A653M (standard specification for sheet metal)



Available Options (Special Order)

- ◆ Seismic and/or wind load applications
- ◆ Pitched roof applications
- ◆ High vibration applications
- ◆ Custom curb heights
- ◆ Heavier metal gauges
- ◆ Aluminum liners

ELECTRIC DUCT HEATERS

RenewAire offers the highest-efficiency energy recovery ventilators (ERVs) on the market. However, during winter conditions, supply air from the ERV may be less than optimal for space conditions. By adding RenewAire's round electric duct heater as an option to our single/multi-family and light commercial ERVs or configurable electric duct heaters as an accessory to our commercial ERVs, RenewAire can now heat supply air during cooler months to enhance indoor comfort, all via one package for ERVs and heaters from a single source.

KEY BENEFITS

- ◆ **A single source reduces time and costs:** A single information source, a single purchase point and a single approval package for ERVs and heaters reduces design time and costs, and streamlines logistics for design engineers and contractors.
- ◆ **More flexibility:** RenewAire offers design engineers the capacity to specify ERVs with a matching heater to boost flexibility and provide heated air to a single space or multiple spaces.
- ◆ **Easy installation:** A ZERO clearance rating to combustibles allows designers and contractors to apply RenewAire heaters with less restrictions onsite.

- ◆ **Ultimate reliability:** RenewAire heaters come with our two-year warranty and unmatched reliability. Single-source responsibility offers contractors and end users peace of mind and a single call location for technical, start-up and commissioning questions.

Highly certified:

RH Series: CSA certified and evaluated to the applicable ANSI/UL and CSA Standards, for use in the U.S. and Canada.

EK Series: UL Listed (UL1996 Standard) and CSA certified.

RH SERIES

- ◆ Available on single/multi-family and light commercial units (some exceptions apply).



RH-W

EK SERIES

- ◆ Available on all commercial units (some exceptions apply).
- ◆ Flippable 180 degrees

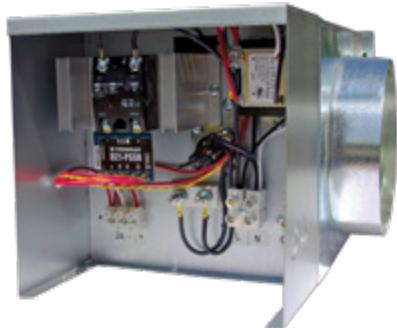


RH SERIES

ELECTRIC DUCT HEATER



RH-D (Integral Thermostat)



RH-W (Wall-Mount Thermostat)

ELECTRIC DUCT HEATER (1-11.5 kW) ACCESSORY



SPECIFICATIONS

Heater Type:
Electric Duct Heater

Typical kW Range:
1-11.5 kW (1, 2, 3, 4, 5, 6, 8, 10, 11.5 kW)

Voltages & Phase:
Single phase: 120, 208 and 240V

Control Voltage:
24VAC

Controllable Output Temperature Range:
RH-D: 5 to 131°F
RH-W: -3 to 130°F

Standard Features:
Open-coil element
High-grade, nickel-chrome element wire

Thermostat: Integral (RH-D), Wall mount (RH-W)

Modulating heat output (SCR control)

Vertical or horizontal operation

Automatic limit switch for primary

over-temperature protection

Manual reset limit switch for secondary

over-temperature protection

Airflow sensor

Standard control transformer: 24VAC

Corrosion-resistant galvanized steel

Round duct collars

High-voltage terminal block connections

Grounding lug

Mounting flanges

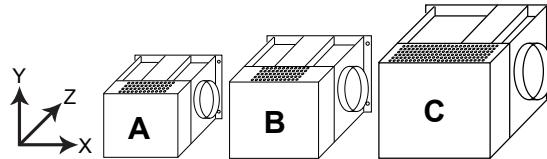
Accessories:

Temperature sensor: Duct mount (DS-600)

Digital time clock: wall mount (TC7D-W),
in exterior enclosure (TC7D-E)

Motion occupancy sensor/control:
ceiling mount (MC-C), wall mount (MC-W)

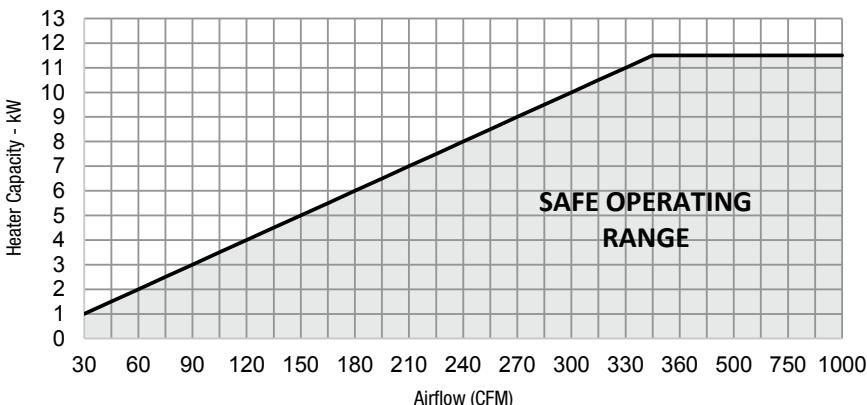
Note: Electric duct heater designed for indoor ductwork installation only.



| Duct Collar Sizes (in.) | kW | Volts | Size | Width (X) (in.) | Height (Y) (in.) | Depth (Z) (in.) | Max. Wt. (lbs.) |
|-------------------------|----------------------------|---------------|------|-----------------|------------------|-----------------|-----------------|
| 6 | 1, 2 | 120, 208, 240 | A | 11 1/2 | 8 | 11 1/2 | 10 |
| 8 | 3, 4, 5 | 208 | B | 11 1/2 | 10 | 13 1/2 | 15 |
| 8 | 3, 4, 5, 6 | 240 | B | 11 1/2 | 10 | 13 1/2 | 15 |
| 10 | 3, 4, 5 | 208 | C | 15 1/2 | 12 | 15 1/2 | 20 |
| 10 | 3, 4, 5, 6, 8, 10, 11.5 | 240 | C | 15 1/2 | 12 | 15 1/2 | 20 |
| 12 | 6, 8, 10, 11.5 | 240 | C | 15 1/2 | 12 | 15 1/2 | 20 |

RH SERIES HEATER CAPACITY

| Minimum Airflow (CFM) | Heater Capacity (kW) |
|-----------------------|----------------------|
| 30 | 1.00 |
| 60 | 2.00 |
| 90 | 3.00 |
| 120 | 4.00 |
| 150 | 5.00 |
| 180 | 6.00 |
| 240 | 8.00 |
| 300 | 10.00 |
| 345 | 11.50 |



RH SERIES CONFIGURATIONS

| Duct Collar Size (in) | Voltage (1P, 60 Hz) | Heater Capacity (kW) | Line Amps | Wire Gauge | Fuse Amps | Thermostat | Part Number | Configuration |
|-----------------------|---------------------|----------------------|-----------|------------|-----------|------------|-------------|-----------------|
| 6 | 120 | 1 | 8.33 | 12 | 15 | Integral | 131320 | RHD1120-6 |
| | | 2 | 16.66 | 12 | 20 | Wall Mount | 131324 | RHW1120-6 |
| | | 1 | 4.80 | 12 | 15 | Integral | 131321 | RHD2120-6 |
| | | 2 | 9.61 | 12 | 15 | Wall Mount | 131325 | RHW2120-6 |
| | 208 | 1 | 4.16 | 12 | 15 | Integral | 131352 | RHD1208-6 |
| | | 2 | 8.33 | 12 | 15 | Wall Mount | 131363 | RHW1208-6 |
| | | 1 | 4.16 | 12 | 15 | Integral | 131354 | RHD2208-6 |
| | | 2 | 9.61 | 12 | 15 | Wall Mount | 131365 | RHW2208-6 |
| | 240 | 1 | 4.16 | 12 | 15 | Integral | 131353 | RHD1240-6 |
| | | 2 | 8.33 | 12 | 15 | Wall Mount | 131364 | RHW1240-6 |
| | | 1 | 4.16 | 12 | 15 | Integral | 131355 | RHD2240-6 |
| | | 2 | 8.33 | 12 | 15 | Wall Mount | 131366 | RHW2240-6 |
| 8 | 208 | 3 | 14.42 | 12 | 20 | Integral | 131356 | RHD3208-8 |
| | | 4 | 19.23 | 10 | 30 | Wall Mount | 131367 | RHW3208-8 |
| | | 5 | 24.03 | 10 | 30 | Integral | 131357 | RHD4208-8 |
| | | 3 | 12.50 | 12 | 15 | Wall Mount | 131368 | RHW4208-8 |
| | 240 | 4 | 16.66 | 12 | 20 | Integral | 131358 | RHD5208-8 |
| | | 5 | 20.83 | 10 | 30 | Wall Mount | 131369 | RHW5208-8 |
| | | 3 | 12.50 | 12 | 15 | Integral | 131322 | RHD3240-8 |
| | | 4 | 16.66 | 12 | 20 | Wall Mount | 131326 | RHW3240-8 |
| | 208 | 5 | 20.83 | 10 | 30 | Integral | 131323 | RHD4240-8 |
| | | 6 | 25.00 | 10 | 40 | Wall Mount | 131327 | RHW4240-8 |
| | | 3 | 14.42 | 12 | 20 | Integral | 131359 | RHD5240-8 |
| | | 4 | 19.23 | 10 | 30 | Wall Mount | 131370 | RHW5240-8 |
| 10 | 240 | 6 | 25.00 | 10 | 40 | Integral | 131360 | RHD6240-8 |
| | | 3 | 12.50 | 12 | 15 | Wall Mount | 131371 | RHW6240-8 |
| | | 4 | 16.66 | 12 | 20 | Integral | 131336 | RHD3208-10 |
| | | 5 | 20.83 | 10 | 30 | Wall Mount | 131328 | RHW3208-10 |
| | 208 | 3 | 14.42 | 12 | 20 | Integral | 131338 | RHD4208-10 |
| | | 4 | 19.23 | 10 | 30 | Wall Mount | 131330 | RHW4208-10 |
| | | 5 | 24.03 | 10 | 30 | Integral | 131340 | RHD5208-10 |
| | | 3 | 12.50 | 12 | 15 | Wall Mount | 131332 | RHW5208-10 |
| | 240 | 4 | 16.66 | 12 | 20 | Integral | 131337 | RHD3240-10 |
| | | 5 | 20.83 | 10 | 30 | Wall Mount | 131329 | RHW3240-10 |
| | | 6 | 25.00 | 10 | 40 | Integral | 131339 | RHD4240-10 |
| | | 3 | 12.50 | 12 | 15 | Wall Mount | 131331 | RHW4240-10 |
| 12 | 240 | 5 | 20.83 | 10 | 30 | Integral | 131341 | RHD5240-10 |
| | | 6 | 25.00 | 10 | 40 | Wall Mount | 131333 | RHW5240-10 |
| | | 8 | 33.33 | 8 | 50 | Integral | 131342 | RHD6240-10 |
| | | 10 | 41.66 | 6 | 60 | Wall Mount | 131334 | RHW6240-10 |
| | 208 | 11.5 | 47.91 | 6 | 60 | Integral | 131343 | RHD8240-10 |
| | | 6 | 25.00 | 10 | 40 | Wall Mount | 131348 | RHW8240-10 |
| | | 8 | 33.33 | 8 | 50 | Integral | 131361 | RHD10240-10 |
| | | 10 | 41.66 | 6 | 60 | Wall Mount | 131372 | RHW10240-10 |
| 11.5 | 240 | 11.5 | 47.91 | 6 | 60 | Integral | 131362 | RHD11-1/2240-10 |
| | | 6 | 25.00 | 10 | 40 | Wall Mount | 131373 | RHW11-1/2240-10 |
| | | 8 | 33.33 | 8 | 50 | Integral | 131344 | RHD6240-12 |
| | | 10 | 41.66 | 6 | 60 | Wall Mount | 131335 | RHW6240-12 |
| 10.5 | 208 | 10.5 | 47.91 | 6 | 60 | Integral | 131345 | RHD8240-12 |
| | | 11.5 | 47.91 | 6 | 60 | Wall Mount | 131349 | RHW8240-12 |
| | | 12 | 53.33 | 6 | 60 | Integral | 131346 | RHD10240-12 |
| | | 13 | 60.00 | 6 | 60 | Wall Mount | 131350 | RHW10240-12 |
| 12 | 208 | 12 | 53.33 | 6 | 60 | Integral | 131347 | RHD11-1/2240-12 |
| | | 13 | 60.00 | 6 | 60 | Wall Mount | 131351 | RHW11-1/2240-12 |



EK SERIES

ELECTRIC DUCT HEATER



ELECTRIC DUCT HEATER (1-175 kW) ACCESSORY

SPECIFICATIONS

Heater Type:

Electric Duct Heater

Typical KW Range:

1-175 kW

Standard Features:

- A disconnecting magnetic control contactor per stage or each 48 Amp circuit within a stage
- Open-coil element
- Staged on/off
- Control terminal board
- Grounding lugs
- Automatic limit switch for primary over-temperature protection
- Manual reset limit switch for secondary over-temperature protection
- Non-adjustable airflow switch
- Standard control transformer: 24VAC
- Disconnect switch
- Duct thermostat with sensor for on/off control
- 60-20-20 (Ni/Cr/Fe) C Grade element wire with nickel-plated terminals
- Slip-in mount
- No left/right hand
- Vertical up/down flow

Voltages & Phase:

Single phase: 120, 208, 240, 277

Three phase: 208, 240, 480, 600

Control Voltage:
24VAC

Dimensions:

Minimum: 8" x 8" (W x H)

Maximum: 99" x 99" (W x H)

Options:

- Flange mount
- 80-20 (Ni/Cr) A Grade element wire with stainless steel terminals
- Recessed control box 1"
- Gasketed cover: dust tight
- Power fusing, standard for heaters drawing more than 48 Amps
- 2-stage
- Electronic step controller (4-stage)
- SCR (up to 96 Amps)
- SCR Vernier (over 96 Amps)
- Pilot light

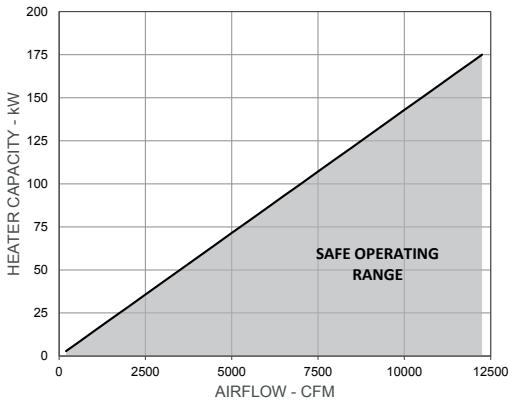
Accessory:

Room thermostat

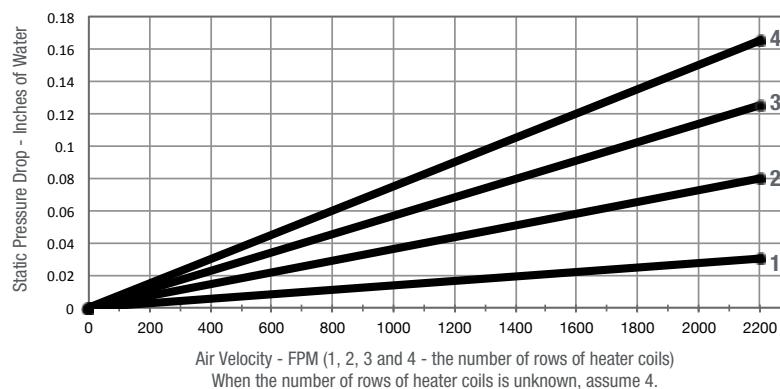
Room/duct thermostat-sensor kit for SCR control

Note: Electric duct heater designed for indoor ductwork installation only, and may be used for preheating in climates when desired.

EK SERIES HEATER CAPACITY

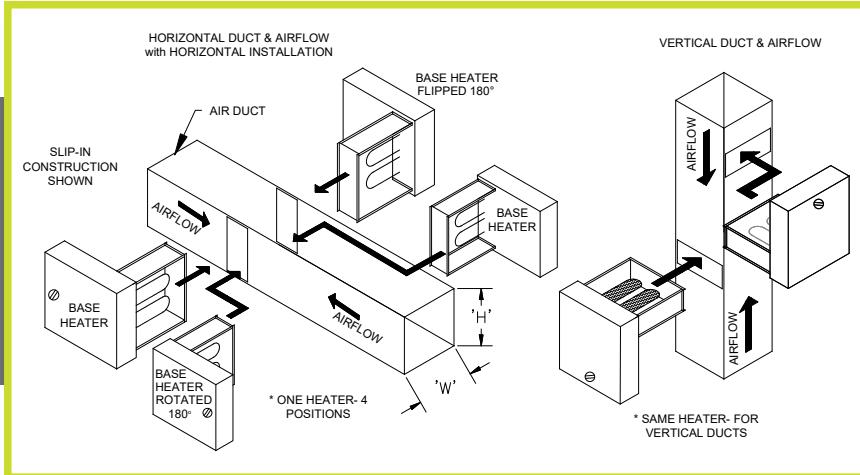


PRESSURE DROP THROUGH HEATER



FLIPPABLE CAPABILITIES

Unique to the EK series, this unit has the ability to flip 180°. Additionally, EK heaters features both vertical up and vertical down airflow.





INDIRECT GAS-FIRED DUCT FURNACE ACCESSORY



INDOOR INDIRECT GAS-FIRED DUCT FURNACE



Indoor IN-KI shown

SPECIFICATIONS

Heater Type:

Indirect Gas-Fired Duct Furnace

Typical Input Capacity (MBH):
50, 75, 100, 125, 150, 175,
200, 250, 300, 350, 400
Standard Features:

- Tubular heaters
- Indirect natural gas fired
- Indoor installation
- 81% thermal efficiency
- Horizontal airflow
- Rated for elevations from 0–2,000 ft.
- 409 stainless steel heat exchanger
- 409 stainless steel burners
- Flue/combustion air: indoor models
- Vertical (separated indoor)
- Vertical top exhaust with louvered intake
- Direct spark ignition
- 1-stage/2-stage gas controls
- Induced draft venting
- Terminal block for power and control wiring
- Automatic high limit safety shut-off
- Auxiliary manual high limit switch
- Combustion air pressure switch
- Air proving switch
- Combination gas valve with shutoff

Standard Features (continued):

- Flame rollout switch
- Manual shut off valve
- 3/8" condensate drain connection

Voltages & Phase:

Single phase: 120V, 230V

Control Voltage:

24VAC

Shipping:

Shipped loose with base unit and installed in the field

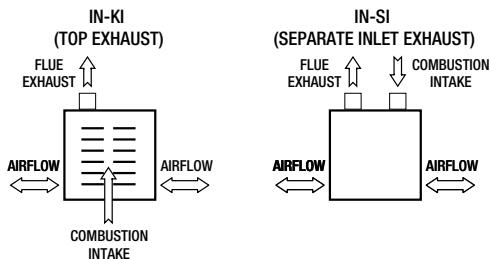
Options:

- Indirect propane fired fuel
- Elevation correction for elevation > 2,000 ft.
- 304 stainless steel heat exchanger
- 5:1 continuous electronic modulation for all furnaces
- 10:1 continuous electronic modulation for furnaces 200 MBH and larger
- Duct thermostat for modulation control
- Disconnect switch
- Power fusing

Accessory:

- Duct thermostat for 1-stage/2-stage control
- Duct thermostat for modulation control

FLUE AND COMBUSTION AIR CONFIGURATION



Note: The total equivalent length of vent pipe must not exceed 50 feet. If equivalent length exceeds 50 feet refer to IOM for recommendations.

Caution: All indirect gas-fired duct furnaces to be installed downstream of the ERV and on the positive side of the supply fan.

TEMPERATURE RISE AND PRESSURE DROP

FIGURE 1 GAS FURNACE 50–200 MBH

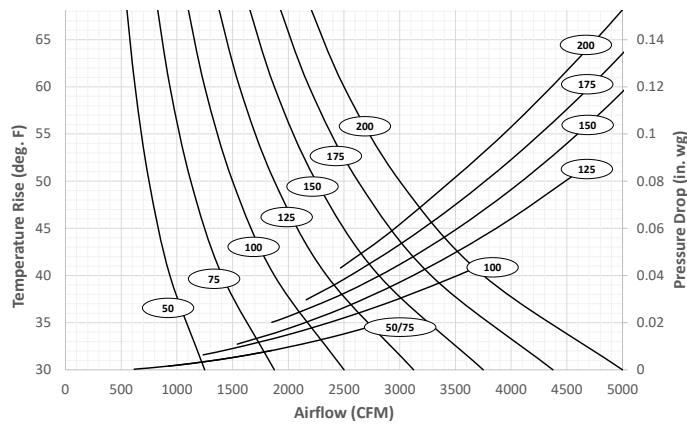
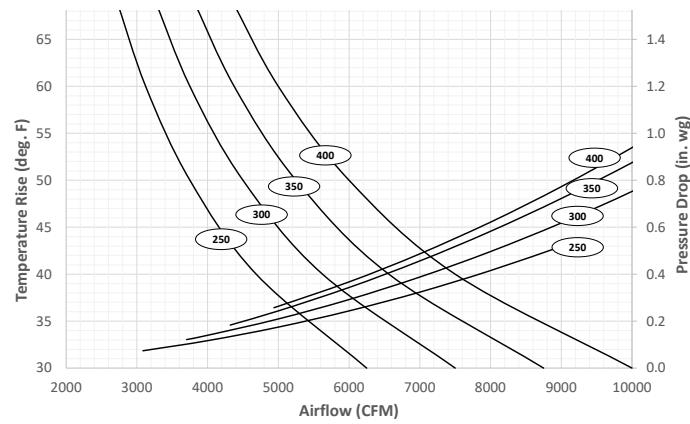
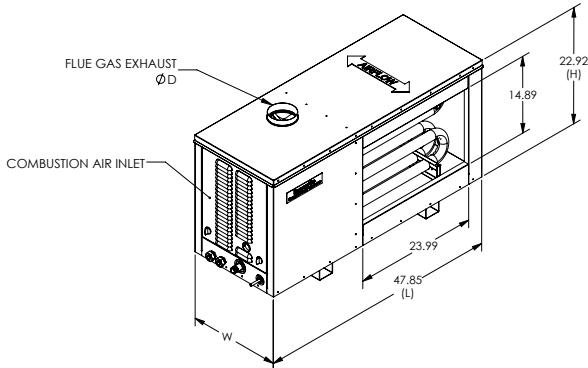
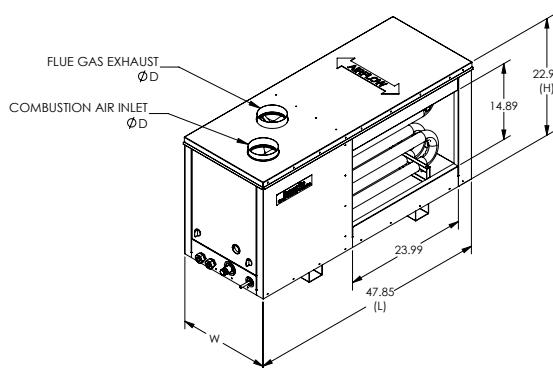


FIGURE 2 GAS FURNACE 250–400 MBH



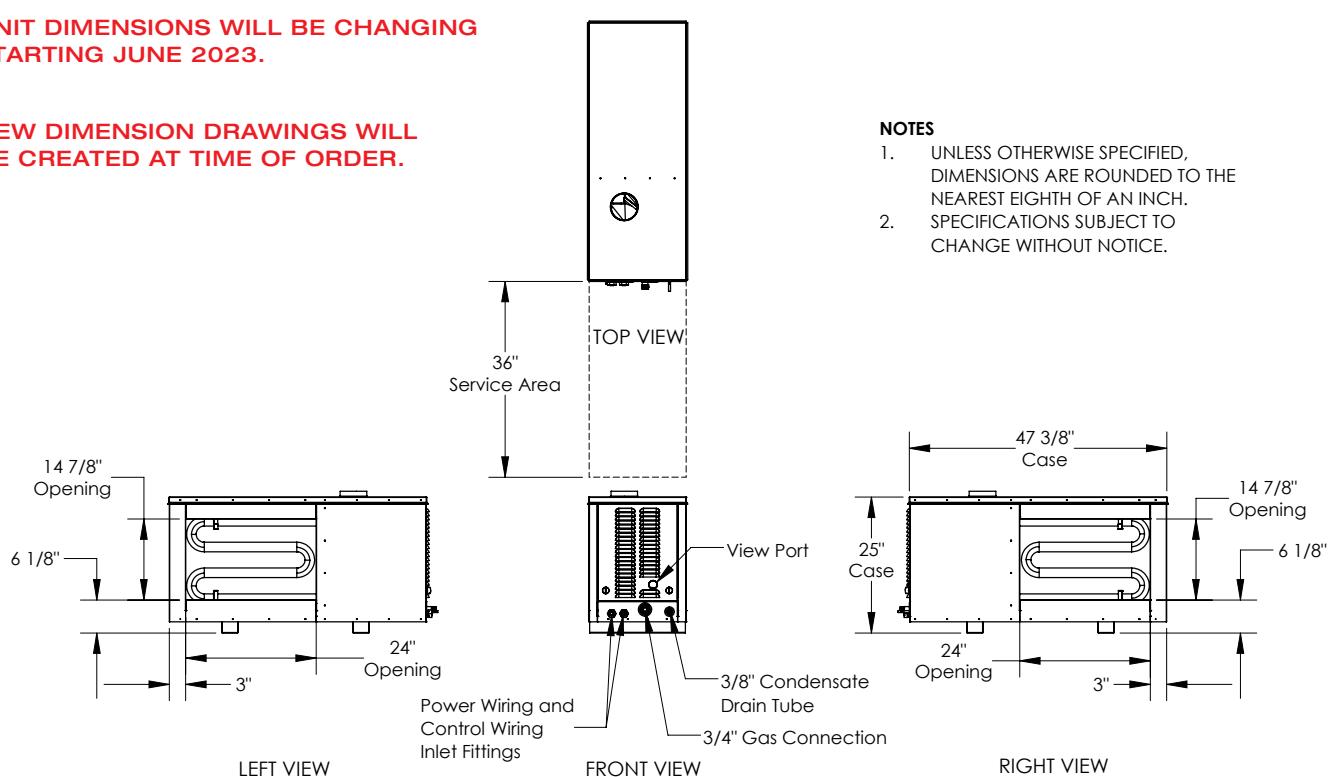
DUCT FURNACE DIMENSIONS**FIGURE 3 IN-KI (TOP EXHAUST INDOOR)****FIGURE 4 IN-SI (SEPARATE INLET EXHAUST INDOOR)****INDIRECT GAS-FIRED DUCT FURNACE DIMENSIONS**

**UNIT DIMENSIONS WILL BE CHANGING
STARTING JUNE 2023.**

**NEW DIMENSION DRAWINGS WILL
BE CREATED AT TIME OF ORDER.**

NOTES

1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.





OUTDOOR

INDIRECT GAS-FIRED DUCT FURNACE ACCESSORY



ROOFTOP INDIRECT GAS-FIRED DUCT FURNACE



Rooftop RT-NO shown

SPECIFICATIONS

Heater Type:
Indirect Gas-Fired Duct Furnace

Typical Input Capacity (MBH):
50, 75, 100, 125, 150, 175,
200, 250, 300, 350, 400

Standard Features:
Tubular heaters
Indirect natural gas fired
Outdoor installation
81% thermal efficiency
Horizontal airflow
Rated for elevations from 0–2,000 ft.
409 stainless steel heat exchanger
409 stainless steel burners
Flue/combustion air: outdoor models
 Horizontal separated outdoor with hoods
 Vertical top exhaust with intake hood
Direct spark ignition
1-stage/2-stage gas controls
Induced draft venting
Terminal block for power and control wiring
Automatic high limit safety shut-off
Auxiliary manual high limit switch
Combustion air pressure switch
Air proving switch

Standard Features (continued):
Combination gas valve with shutoff
Flame rollout switch
Manual shut off valve
3/8" condensate drain connection

Voltages & Phase:
Single phase: 120V, 230V

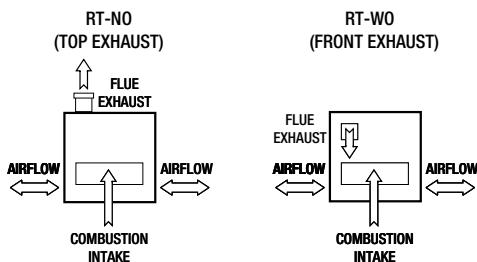
Control Voltage:
24VAC

Shipping:
Shipped loose with base unit and installed in the field

Options:
Indirect propane fired fuel
Elevation correction for elevation > 2,000 ft.
304 stainless steel heat exchanger
5:1 continuous electronic modulation for all furnaces
10:1 continuous electronic modulation for furnaces
200 MBH and larger
Duct thermostat for modulation control
Disconnect switch
Power fusing

Accessory:
Duct thermostat for 2-stage control
Duct thermostat for modulation control
Duct curb

FLUE AND COMBUSTION AIR CONFIGURATION



Caution: All indirect gas-fired duct furnaces to be installed downstream of the ERV and on the positive side of the supply fan.

TEMPERATURE RISE AND PRESSURE DROP

FIGURE 1 GAS FURNACE 50–200 MBH

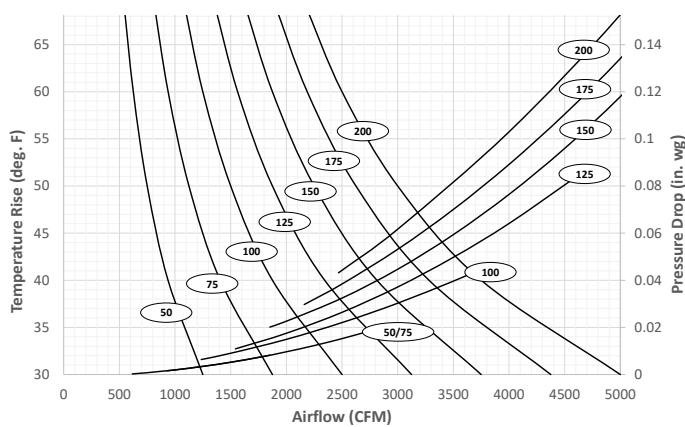
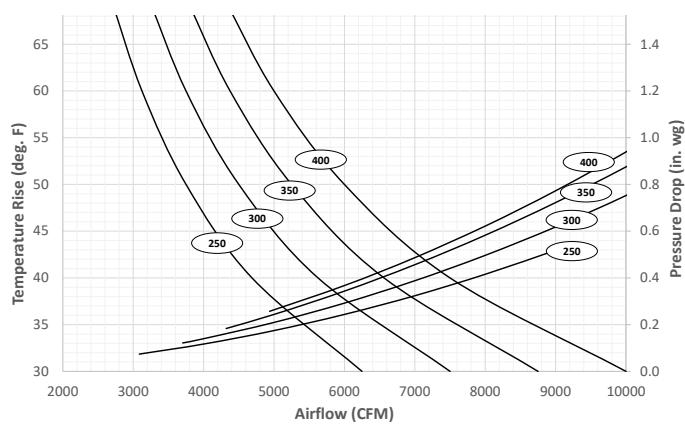
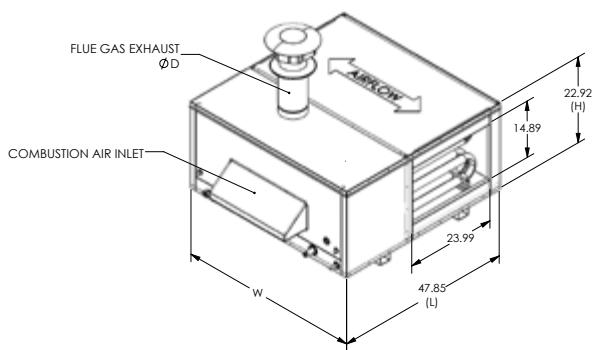
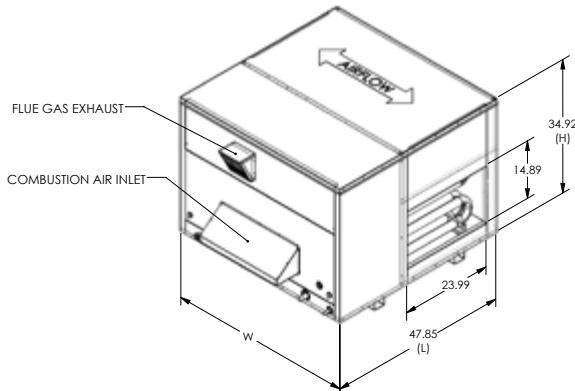


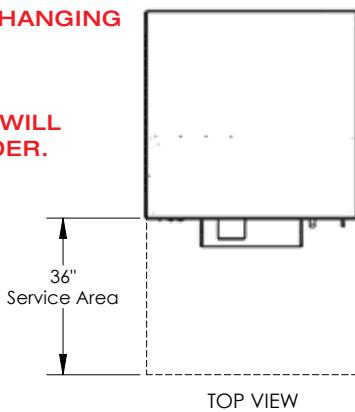
FIGURE 2 GAS FURNACE 250–400 MBH



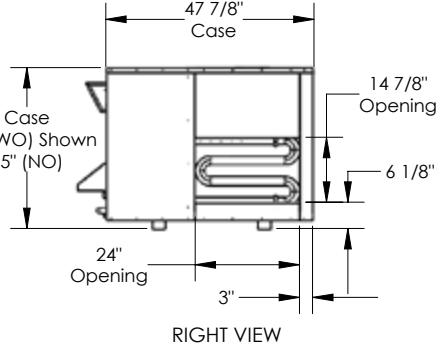
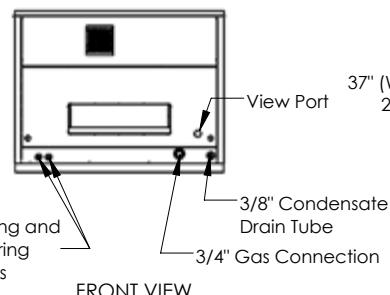
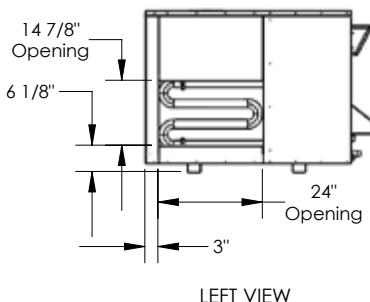
DUCT FURNACE DIMENSIONS**FIGURE 3 RT-NO (TOP EXHAUST OUTDOOR)****FIGURE 4 RT-WO (FRONT EXHAUST OUTDOOR)****INDIRECT GAS-FIRED DUCT FURNACE DIMENSIONS**

**UNIT DIMENSIONS WILL BE CHANGING
STARTING JUNE 2023.**

**NEW DIMENSION DRAWINGS WILL
BE CREATED AT TIME OF ORDER.**

**NOTES**

1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



SOUND DATA

HE10:

Advanced EC Motor; 120V/1 Phase, 208-230V/1 Phase, 460V/3 Phase

| Source | Estimated | | RPM | Sound Power Level (dB) | | | | | | | | Lw (dB) | LwA (dBA) |
|------------------|-------------------|-------------------|-------------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|--------------|
| | Airflow (SCFM) | ESP (in. w.g.) | | 62.5 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | | |
| Case Radiated | 1196 | 0.40 | 2667 | 83 | 75 | 70 | 60 | 54 | 43 | 34 | 37 | 84 | 65 |
| | 902 | 0.24 | 2134 | 75 | 72 | 77 | 59 | 49 | 42 | 25 | 31 | 80 | 69 |
| | 355 | 0.04 | 1067 | 58 | 66 | 64 | 51 | 40 | 32 | 28 | 25 | 68 | 57 |
| Room Inlet (SA) | 1196 | 0.40 | 2667 | 67 | 68 | 76 | 63 | 53 | 48 | 40 | 48 | 77 | 68 |
| | 902 | 0.24 | 2134 | 64 | 66 | 70 | 61 | 50 | 44 | 37 | 43 | 72 | 63 |
| | 355 | 0.04 | 1067 | 60 | 67 | 62 | 54 | 44 | 38 | 32 | 32 | 69 | 57 |
| Room Outlet (RA) | 1196 | 0.40 | 2667 | 72 | 68 | 69 | 59 | 44 | 38 | 24 | 27 | 75 | 62 |
| | 902 | 0.24 | 2134 | 68 | 66 | 66 | 55 | 41 | 35 | 27 | 26 | 72 | 59 |
| | 355 | 0.04 | 1067 | 62 | 62 | 58 | 48 | 36 | 28 | 26 | 19 | 66 | 52 |

HE10:

Standard EC Motor; 208-230V/1 Phase

| Source | Estimated | | RPM | Sound Power Level (dB) | | | | | | | | Lw (dB) | LwA (dBA) |
|------------------|-------------------|-------------------|-------------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|--------------|
| | Airflow (SCFM) | ESP (in. w.g.) | | 62.5 Hz | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | 8000 Hz | | |
| Case Radiated | 1098 | 0.40 | 2763 | 68 | 68 | 68 | 65 | 46 | 41 | 32 | 29 | 73 | 64 |
| | 846 | 0.24 | 2201 | 66 | 62 | 66 | 56 | 37 | 34 | 26 | 23 | 70 | 59 |
| | 350 | 0.04 | 1105 | 62 | 58 | 64 | 48 | 31 | 28 | 26 | 18 | 66 | 56 |
| Room Inlet (SA) | 1098 | 0.40 | 2763 | 66 | 63 | 67 | 67 | 48 | 46 | 37 | 37 | 72 | 68 |
| | 846 | 0.24 | 2201 | 60 | 60 | 67 | 57 | 43 | 41 | 30 | 32 | 69 | 63 |
| | 350 | 0.04 | 1105 | 57 | 57 | 62 | 51 | 37 | 34 | 23 | 29 | 64 | 57 |
| Room Outlet (RA) | 1098 | 0.40 | 2763 | 71 | 66 | 64 | 60 | 43 | 40 | 26 | 23 | 73 | 60 |
| | 846 | 0.24 | 2201 | 67 | 62 | 61 | 52 | 39 | 34 | 27 | 19 | 69 | 55 |
| | 350 | 0.04 | 1105 | 61 | 57 | 57 | 45 | 35 | 29 | 22 | 18 | 63 | 50 |

Sound Data: Actual sound levels will vary and be dependent on installation conditions including unit location, duct type, duct size, and duct run length.**Testing Method:** Testing conducted per the following standards: AHRI 230 & 260, ISO 9614-1 & 9614-2. Testing conducted internally at RenewAire.**Testing Disclaimer Note:** Hard ducted 1 m to measurement area. HE07 and HE10 data collected using INV configured units.

HE MODEL CONFIGURATION GUIDE

Note: Not all options are available on every model.

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| MODEL NUMBER | H | E | | | | J | | | - | | | | | - | | | | - | | | | | | | |
| DIGIT NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |

| | | |
|--|---|--|
| Digits 1-5: Model | "HE07-", "HE10-", "HE1.5", "HE-2X", "HE-3X", "HE-4X", "HE-6X", "HE-8X" | Digit 18: Flow Control* (see Restrictions 12, 13, & 14) |
| Digits 7-8: Location | "IN" = Indoor "RT" = Rooftop | "-" = No Isolation Dampers (with no Bypass) "D" = Motorized Damper both Airstreams (with no Bypass) "E" = Motorized Damper EA or RA Airstream (with no Bypass) "F" = Motorized Damper FA or OA Airstream (with no Bypass) "S" = Backdraft Damper OA Airstream (with no Bypass) "B" = Backdraft Damper EA Airstream (with no Bypass) "B" = Backdraft Damper both Airstreams (with no Bypass) "M" = Motorized Damper OA, Backdraft Damper EA (with no Bypass) "O" = Dry Bulb Face and Bypass Dampers only "1" = Dry Bulb Bypass with Motorized Dampers all Airstreams "4" = Dry Bulb Bypass with Backdraft Damper OA Airstream "5" = Enthalpy Face and Bypass Dampers only "6" = Enthalpy Bypass with Motorized Dampers all Airstreams "9" = Enthalpy Bypass with Backdraft Damper OA Airstream |
| Digit 9: Orientation (see Restriction 1) | "V", "H" (Indoor Units) "V", "H", "R", "F", "C" (Rooftop Units) | |
| Digit 11: Wall Type | "S" = Single "D" = Double | |
| Digit 12: Phase (See Restriction 2, 8, 11, & 20) | "1" = Single Phase "3" = Three Phase | Digit 19: Unit Control (see Restrictions 15, 16, 17, 18, 19, 20, & 21) |
| Digit 13: Voltage (see Restrictions 3, 4, 5, 6, 7, 11, & 19) | "1" = 120V "4" = 460V "5" = 208-230V "8" = 575V "9" = 277V | "A" = Standard Unit Control Wiring "B" = Independent Blower Control (HE1.5 only) "V" = Onboard VFD Both Airstreams "G" = Terminal Strip for EC Motors or Impellers |
| Digit 14: FA Horsepower (see Restrictions 7, 8, 9, 10, & 21) | "E" = EC Direct Drive Motors (HE07-, HE-10-, and HE1.5 only) "A" = Advanced EC Direct Drive Motorized Impellers (HE07- and HE10- only) "B" = Intermediate EC Direct Drive Motorized Impellers (HE07- only) "S" = Standard Impellers (HE1.5 only) "U" = 1.5HP (HE-2X only) "V" = 2HP (HE-2X, HE-3X, HE-4X only) "W" = 3HP (HE-3X, HE-4X only) "X" = 5HP (HE-3X, HE-4X, HE-6X, HE-8X only) "Y" = 7.5HP (HE-6X, HE-8X only) "Z" = 10HP (HE-8X only) | Digit 20: Disconnect |
| Digit 15: EA Horsepower (see Restrictions 7, 8, 9, 10, & 21) | "E" = EC Direct Drive Motors (HE07-, HE-10-, and HE1.5 only) "A" = Advanced EC Direct Drive Motorized Impellers (HE07- and HE10- only) "B" = Intermediate EC Direct Drive Motorized Impellers (HE07- only) "S" = Standard Impellers (HE1.5 only) "U" = 1.5HP (HE-2X only) "V" = 2HP (HE-2X, HE-3X, HE-4X only) "W" = 3HP (HE-3X, HE-4X only) "X" = 5HP (HE-3X, HE-4X, HE-6X, HE-8X only) "Y" = 7.5HP (HE-6X, HE-8X only) "Z" = 10HP (HE-8X only) | "N" = Non-Fused (Standard) "F" = Fused |
| Digit 21: Unit Control Enhancements (see Restrictions 16 & 22) | "T" = Transformer with Isolation Relay (Standard) "1" = Enhanced Controls "2" = Premium Controls "3" = Enhanced Controls with BACnet License "4" = Premium Controls with BACnet License | Digit 22: Filter Options (see Restriction 22) |
| | | "1" = None (Standard) "F" = Filter Monitor Both Airstreams |
| Digit 23: Other Options | "-" = None (Reserved) | Digit 24: Paint and Customization |
| | | "1" = None "W" = White Paint "C" = Custom Paint "X" = Custom Unit |
| Digit 25: Safety Listing (see Restriction 23) | "L" = Listed "N" = Non-Listed | |

*NOTES:

Digit 6 "J" = G5 Core Type. Digits 10, 16, and 17 are not used in these models.

Digit 18: For units with the Bypass Option, the face damper also acts as an isolation damper in the EA or RA airstream.

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| Restrictions: | |
| 1: Orientation Code "C" not available with models HE07-, HE10-, HE-6X, HE-8X, HE1.5 | |
| 2: Phase Code "3" not available with model HE07-. | |
| 3: Voltage Codes "1" & "9" only available with Phase Code "1" (Single-Phase). | |
| 4: Voltage Codes "4" & "8" only available with Phase Code "3" (Three-Phase). | |
| 5: Voltage Code "8" (575V) not available with models HE07-, HE10-, & HE1.5. | |

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HE MODEL CONFIGURATION GUIDE

Note: Not all options are available on every model.

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|--------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| MODEL NUMBER | H | E | | | | J | | | - | | | | | | - | - | | | | | - | | | | |
| DIGIT NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |

Restrictions:

- 6: Voltage Code "9" (277V) only available with HE1.5 models.
- 7: Voltage Code "1" (120V) only available with FA/EA Motor Codes "AA", "BB", "EE", "S", "U", "V".
- 8: Motor Codes "EE" or "BB" (EC Motors) only available with Phase Code "1" (Single Phase).
- 9: Only Motor Codes "EE", "AA", & "BB" (EC Motors) are available with models HE07- & HE10-.
- 10: Only Motor Code "AA" is available for HE07- & HE10- Models with Phase & Voltage Code "11".
- 11: Voltage Code "5" (208-230V) not available with Phase Code "3" in HE10- models.
- 12: Dampers and Bypass not available with Orientation Code "C".
- 13: Bypass only available with Location Code "IN".
- 14: Backdraft Dampers only available with HE1.5 models.
- 15: Unit Control Code "A" not available with models HE07- or HE10-.
- 16: Unit Control Code "A" not available with Unit Control Enhancements Codes "1", "2", "3", & "4" in HE1.5 models.
- 17: Unit Control Code "D" only available with HE1.5 models.
- 18: Unit Control Code "V" not available with models HE07-, HE10-, & HE1.5IN.
- 19: Unit Control Code "V" not available with Voltage Code "1".
- 20: Unit Control Code "V" not available with Phase Code "1" in HE1.5 models.
- 21: Unit Control Code "G" (Terminal Strip) only available in HE07-, HE10-, & HE1.5 with Motor Codes "EE", "AA", or "BB" (EC Motors).
- 22: Filter Code "F" not available with Unit Control Enhancements Codes "1", "2", "3", & "4". Filter Monitor is provided with those options.
- 23: Some units with Customization Code "X", HE-6X & HE-8X models are not safety listed.

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EK SERIES ELECTRIC DUCT HEATER CONFIGURATION GUIDE

Note: Not all options are available on every model.

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| MODEL NUMBER | E | K | - | | | | | | | | C | | | | | | | | S | - | | | | | |
| DIGIT NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |

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| Digits 1-2: | Heater Type "EK" = Electric Heater (Standard) |
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| Digit 18: | Voltage (see Restrictions 7 & 8) "1" = 120V "2" = 208V "3" = 240V "4" = 480V "8" = 600V "9" = 277V |
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| Digits 4-5: | Width in Inches (see Restriction 1) 08-99 |
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| Digit 19: | Phase "1" = Single-Phase "3" = Three-Phase |
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| Digits 6-7: | Height in Inches (see Restriction 2) 08-99 |
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| Digit 20: | Power Fusing (see Restriction 9) "-" = None "F" = Fusing |
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| Digit 11: | Mount "S" = Slip In (Standard) "F" = Flanged |
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| Digit 21: | Element Material "1" = Single (Standard) "2" = 2-Stage "4" = 4-Stage |
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| Digit 12: | Element Style "C" = Open Coil (Standard) |
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| Digit 22: | Control Voltage "S" = 24VAC |
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| Digit 13: | Element Material "C" = 60-20-20 Ni-Cr-Fe with Nickel Plate Terminal Pins (Standard) "A" = 80-20 Ni-Cr with Stainless Steel Terminal Pins |
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| Digit 23: | Control Type (see Restrictions 10, 11, & 12) "D" = Staged with Thermostat and Sensor (Standard) "E" = Electronic Step Control with Thermostat and Sensor "S" = SCR (control by others) "V" = SCR with Thermostat and Sensor |
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| Digit 14: | Airflow Orientation "H" = Horizontal (Standard) "V" = Vertical |
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| Digit 25: | Pilot Light (See Restriction 13) "N" = None (Standard) "L" = Light |
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| Digit 15: | Control Box Offset "L" = Left Hand (Standard) "R" = Right Hand |
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| Digit 16: | Control Box Recessed "-" = None (Standard) "R" = Recessed 1" |
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| Digit 17: | Control Box Dust Tight "-" = None (Standard) "D" = Dust Tight |
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*NOTES:

Digits 3 and 24 are not used in this model.

All heaters come with standard features: Disconnect Switch, Air Flow Switch (non adjustable), Control Transformer

Descriptions of feature and options are found in the installation and operation manual.

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| Restrictions: | 1: Width inches entered as a whole number. 2: Height inches entered as a whole number. 3: Heater density should be less than 30kW/ft ² . DENSITY = HEATER CAPACITY (kW) < 30 $(W'' \times H'') / 144$ 4: Heater capacity kW entered as a whole number. 5: Formulas for calculating kW and temperature rise: kW = $\frac{CFM \times \Delta T}{3150}$ $\Delta T = \frac{kW \times 3150}{CFM}$ 7: Voltage Codes "1" & "9" only available with Phase Code "1" (Single-Phase). 8: Voltage Codes "4" & "8" only available with Phase Code "3" (Three-Phase). 9: Power Fusing Code "F" required when amperage is > 48A. (based on kW and voltage) 10: Control Type Code "D" only available with Stage Code "1" & "2". 11: Control Type Code "E" only available with Stage Code "4". 12: Control Type Code "S" & "V" only available with Stage Code "1", unless amperage is greater than or equal to 96A, then Stage Code "4" is automatically selected. 13: Pilot Light Code "L" only available with Control Type Code "D". 3: Power Fusing Code "F" only available with Disconnect Switch Code "D". Power Fusing Code "F" always selected when Disconnect Switch Code "D" is selected. |
|---------------|--|

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GH SERIES INDIRECT GAS-FIRED DUCT FURNACE CONFIGURATION GUIDE

Note: Not all options are available on every model.

| | | | | | | | | | | | | | | | | | | | | | | | | | |
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| MODEL NUMBER | G | H | - | | | | | | | | | | | | H | T | | | | 1 | - | S | - | - | |
| DIGIT NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |

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| Digits 1-2: | Model "GH" = Gas Furnace 50-400 MBH |
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| Digit 17: | Disconnect Switch "N" = None (Standard) "D" = Disconnect Switch |
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| Digits 4-5: | Location "IN" = Indoor "RT" = Rooftop |
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| Digit 18: | System/Inducer Voltage "1" = 115V "3" = 230V |
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| Digits 6-7: | Vent Location "SI" = Separated Top Indoor "KI" = Top Exhaust Indoor "WO" = Front Exhaust Outdoor "NO" = Top Exhaust Outdoor |
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| Digit 19: | Phase "1" = Single Phase |
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| Digits 8-10: | Input Capacity in MBH "050", "075", "100", "125", "150", "175", "200", "250", "300", "350", "400" |
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| Digit 20: | Power Fusing (see Restriction 2) "N" = None "F" = Fusing |
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| Digit 11: | Fuel Type "N" = Natural Gas (Standard) "P" = Propane |
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| Digit 22: | Control Voltage "S" = 24VAC |
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| Digits 12-13: | Tube Material "SS" = 409 Stainless Steel (Standard) "CS" = 304 Stainless Steel |
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| Digit 23: | Control Type (see Restriction 1) "T" = Two Stage High/Low with Thermostat (Standard) "S" = Single Stage On/Off with Thermostat |
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| Digit 14: | Airflow Orientation "H" = Horizontal |
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| Digit 24: | Modulating 5:1 (Natural Gas)/3:1 (Propane) with Thermostat "W" = Modulating 10:1 (Natural Gas)/6:1 (Propane) with Thermostat "2" = Two Stage High/Low without Thermostat "1" = Single Stage On/Off without Thermostat |
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| Digit 15: | Thermal Efficiency "T" = 81% |
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| Digit 25: | Modulating 5:1 (Natural Gas)/3:1 (Propane) without Thermostat "M" = Modulating 10:1 (Natural Gas)/6:1 (Propane) without Thermostat "V" = Modulating 10:1 (Natural Gas)/6:1 (Propane) without Thermostat |
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| Digit 16: | Elevation "S" = 0-2000' (Standard) "2" = 2001'-3000' "3" = 3001'-4000' "4" = 4001'-5000' "5" = 5001'-6000' "6" = 6001'-7000' "7" = 7001' and above |
|-----------|---|

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| Digit 26: | Modulating 5:1 (Natural Gas)/3:1 (Propane) without Thermostat "M" = Modulating 10:1 (Natural Gas)/6:1 (Propane) without Thermostat "V" = Modulating 10:1 (Natural Gas)/6:1 (Propane) without Thermostat |
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***NOTES:**

Digits 3, 21, 24, & 25 are not used in this model.

All heaters come with standard features: Air Proving Switch, Auxiliary High Temperature Limit Switch

Descriptions of feature and options are found in the installation and operation manual.

| | |
|---------------|--|
| Restrictions: | 1: Control Type Code "V" & "W" not available with Input Capacity in MBH Codes "050", "075", "100", "125", "150", & "175". 2. Power Fusing Code "F" only available with Disconnect Switch Code "D". Power Fusing Code "F" always selected when Disconnect Switch Code "D" is selected. |
|---------------|--|

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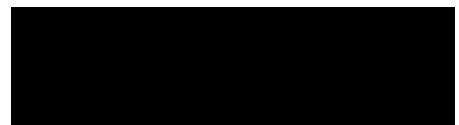
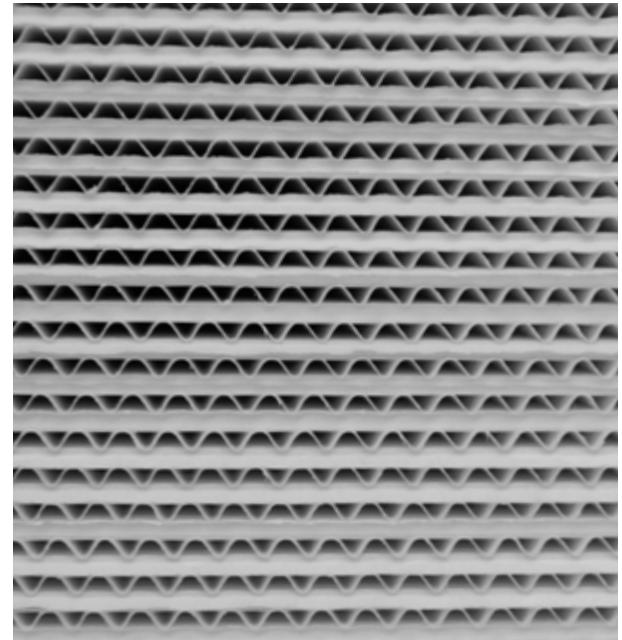
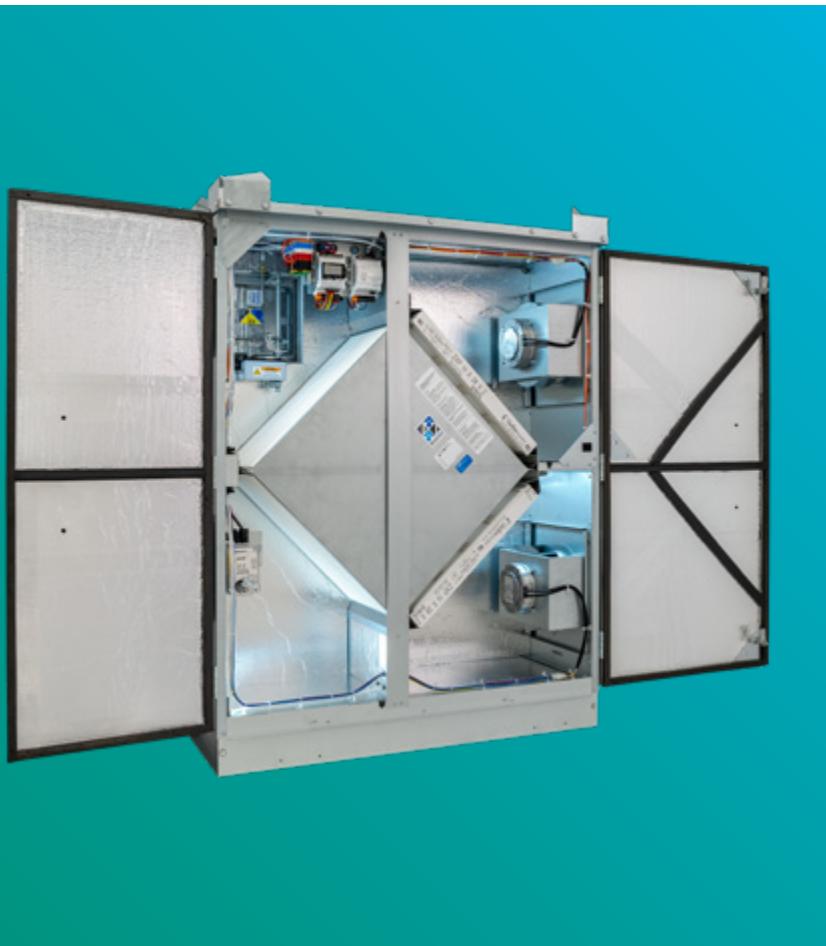
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