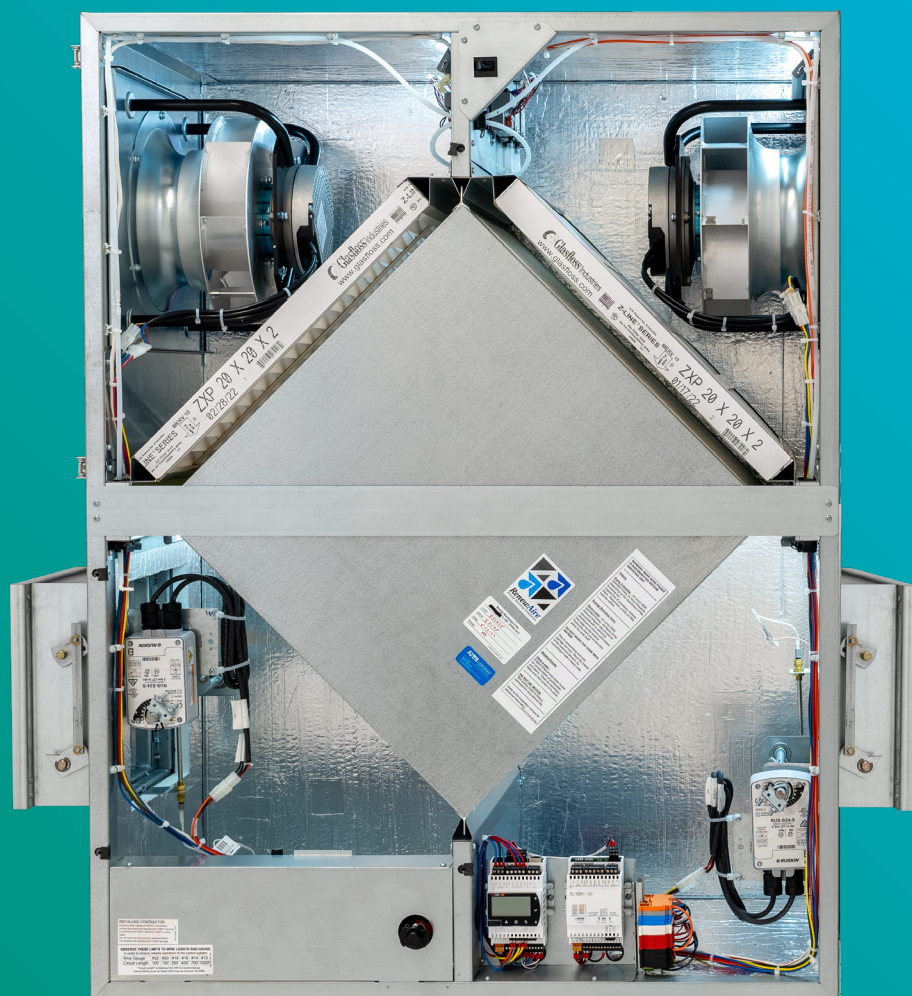




HE SERIES

COMMERCIAL ERV CATALOG

FEBRUARY 2025
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.



COGNITIVE IMPAIRMENT

Harvard and Berkeley Lab found that CO₂—a constituent of exhaled breath—negatively impacts thinking and decision-making at levels commonly found indoors.²



DISEASE TRANSMISSION

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



REDUCED PRODUCTIVITY

Berkeley Lab found that deficient IAQ can cost \$200 billion in debilitated worker performance and \$58 billion in lost sick time.³

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.



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/2Vp6AE2>.

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



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.

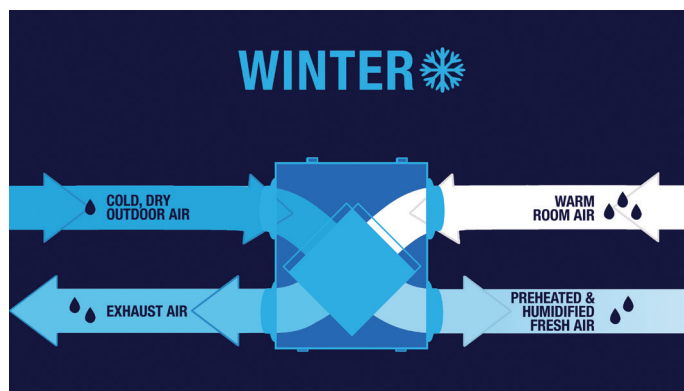
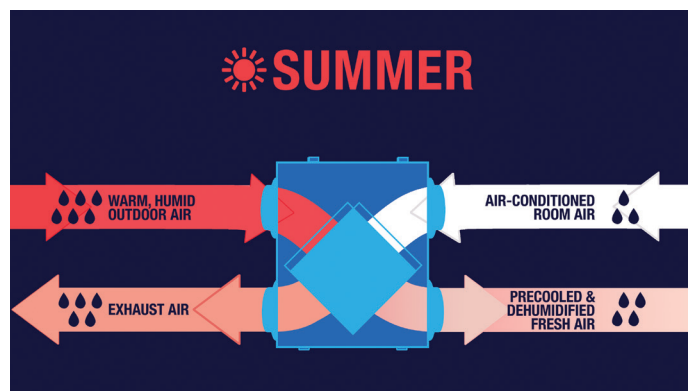


RENEWAIRE ERVs

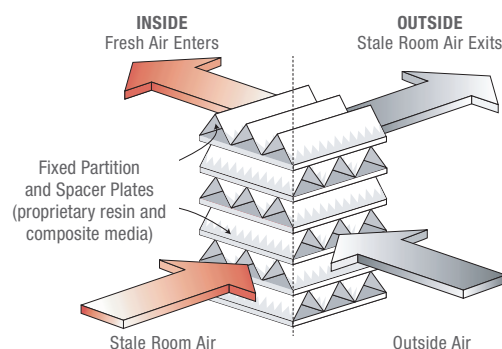
ACHIEVE SUSTAINABLE IAQ

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





INDOOR UNIT

ENERGY RECOVERY VENTILATOR

EC MOTORIZED IMPELLER



Energy recovery core is AHRI Certified®



SPECIFICATIONS

Ventilation Type:

Static plate, heat, and humidity transfer

Airflow Range: 120–375 CFM**AHRI 1060 Certified Core:**

One L62-G5

Standard Features:

Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports
Independent blower control
OA/SA and RA/EA swappable airflows

Filters:

Total Qty. 2, MERV 10: 10" x 20" x 2"

Unit Weight:

94 lbs.

Max. Shipping Dimensions & Weight (in carton):

41" L x 41" W x 13" H
108 lbs.

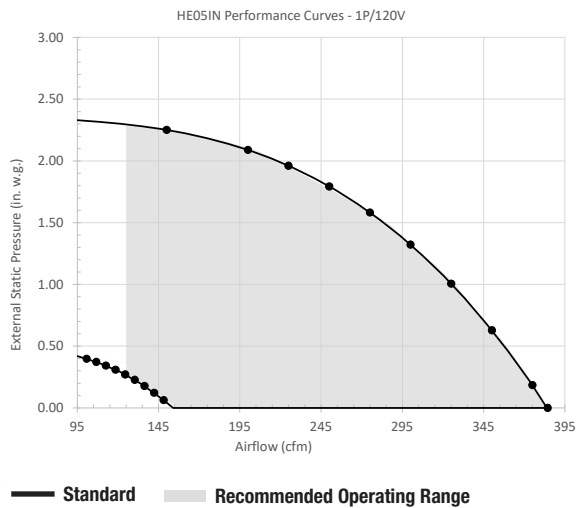
Motor(s):

Qty. 2, 220W ea., Direct drive EC motorized
impeller packages (120V/1Ph/60Hz)

Accessories:

Filters: MERV 13, 2" (shipped loose)
Backdraft damper: 10", 12"
Automatic balancing damper: 4", 5", 6"
Motorized Dampers: 8"
Louvered wall vent 8": taupe vinyl, galvanized,
paintable galvanneal
Louver with 8" round duct connection:
12" W x 8" H
Hooded wall vent 8": 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);
Hanging bracket kit
Hanging spring vibration isolation kit

EC MOTORIZED IMPELLER OPERATING RANGE AND FAN PERFORMANCE

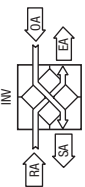


HE05IN MOTOR 1P/120V		
Airflow (CFM)	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)
95	2.33	225
120	2.30	245
150	2.25	268
200	2.09	303
225	1.96	317
250	1.79	329
275	1.58	337
300	1.32	342
325	1.01	343
350	0.63	339
375	0.19	330
384	0.00	325

Note: 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
220	120	60	Single	2.7	6.1	15



Available as shown:



Can be mounted in any orientation. RA/EA airstream can be switched with OA/SA airstream.

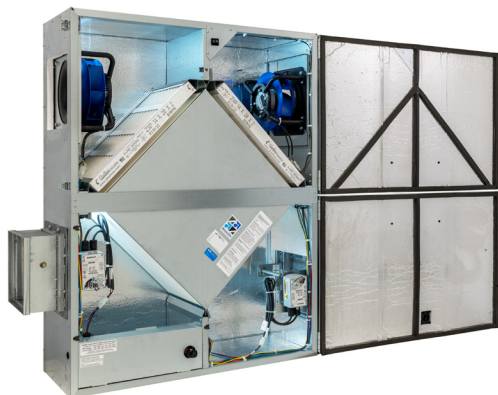




INDOOR UNIT

ENERGY RECOVERY VENTILATOR
EC MOTOR

SPECIFICATIONS



Energy recovery core is AHRI Certified®

**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 (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

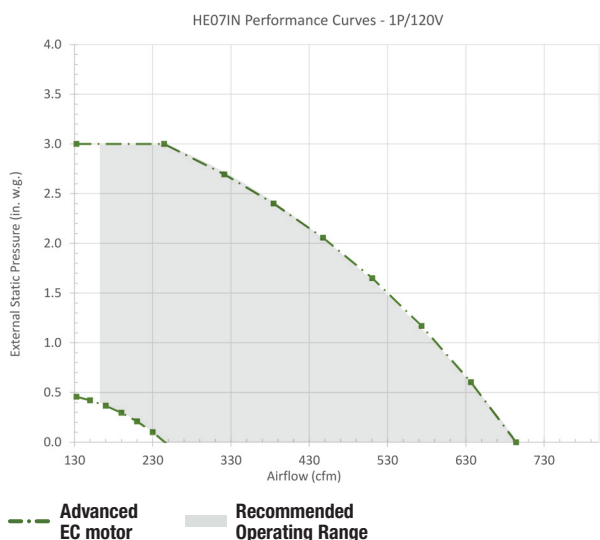
HE+DX coils

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)

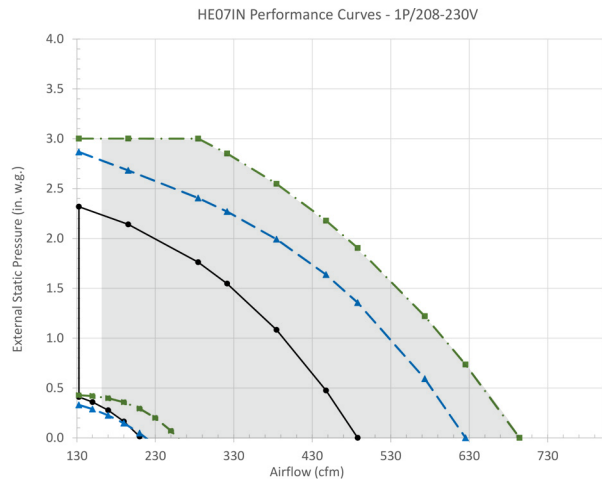
Scan QR code to see life size version of HE07IN, or view here:
<https://ar.marketscale.com/renewaire/he07in>



ENERGY RECOVERY VENTILATOR EC MOTOR



EC MOTOR OPERATING RANGE AND FAN PERFORMANCE



— Standard EC motor - - Intermediate EC motor - - - Advanced EC motor
 ■ Recommended Operating Range

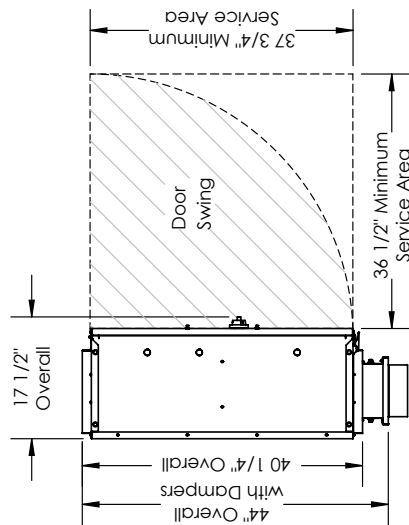
HE07IN MOTOR 1P/208-230V Options						
Airflow (CFM)	Standard EC		Intermediate EC		Advanced EC	
	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)	External Static Pressure (Inches Water Column)	Unit 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

HE07INH ENERGY RECOVERY VENTILATOR EC MOTOR



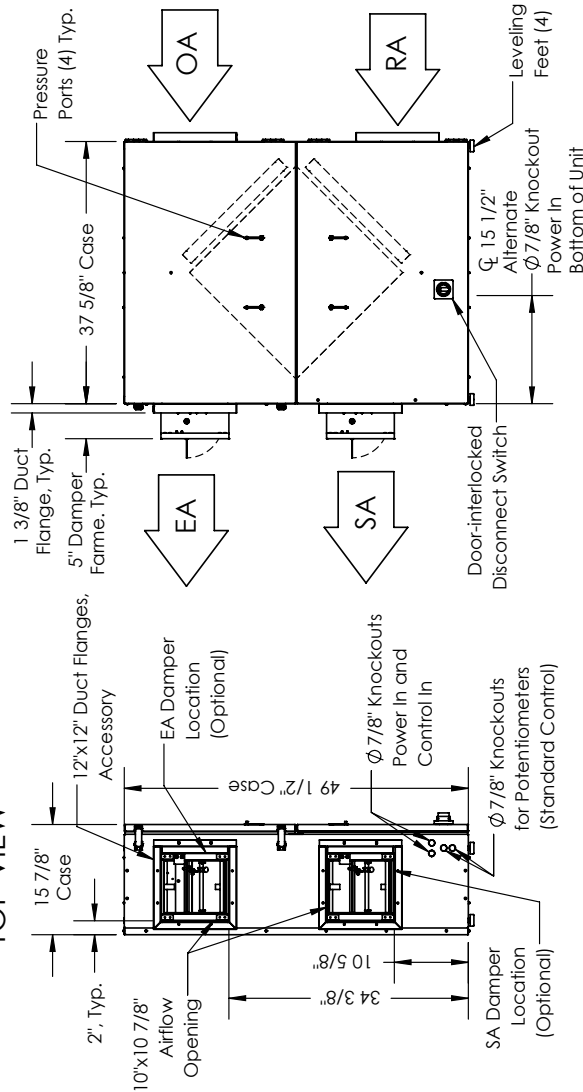
ABBREVIATIONS
 EA: Exhaust Air to Outside
 OA: Outside Air Intake
 RA: Room Air to be Exhausted
 SA: Supply Air to Inside

INSTALLATION ORIENTATION
 Unit may be installed in any orientation.

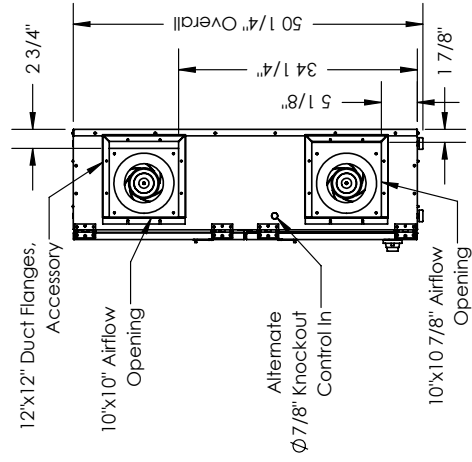
NOTE

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

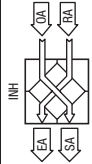
TOP VIEW



LEFT VIEW

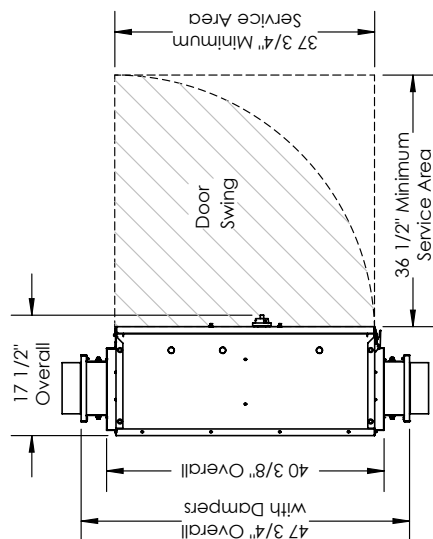


RIGHT VIEW



UNIT MOUNTING & APPLICATION

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



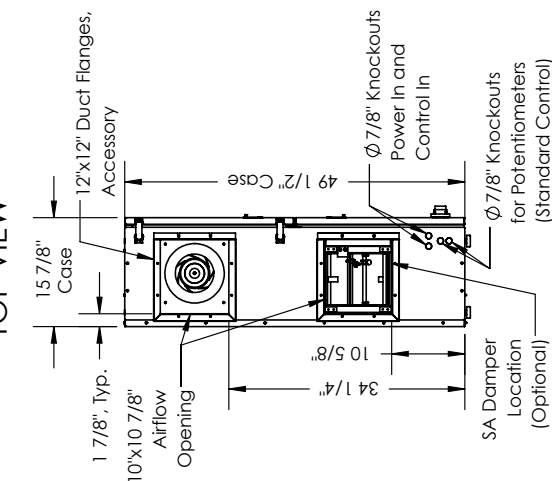
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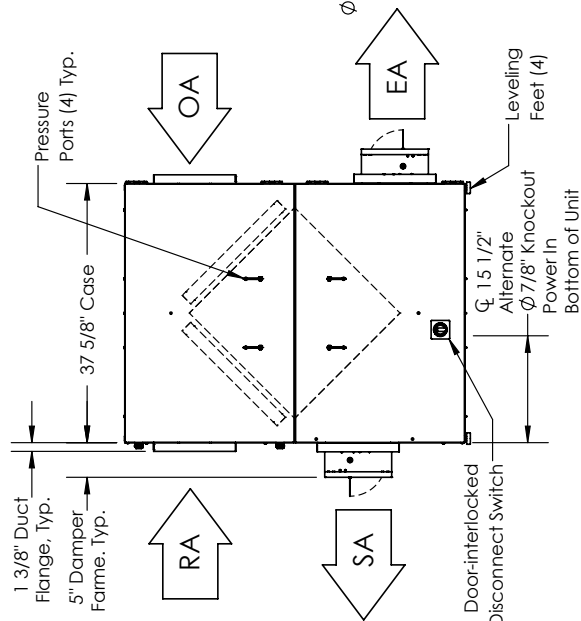
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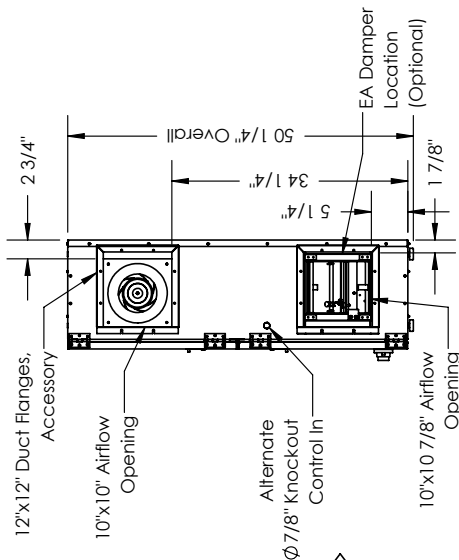
TOP VIEW



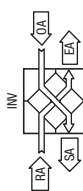
LEFT VIEW



FRONT VIEW



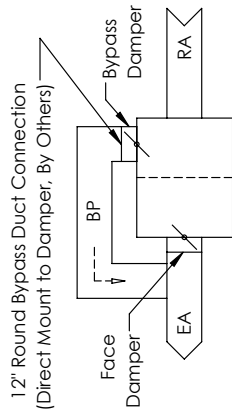
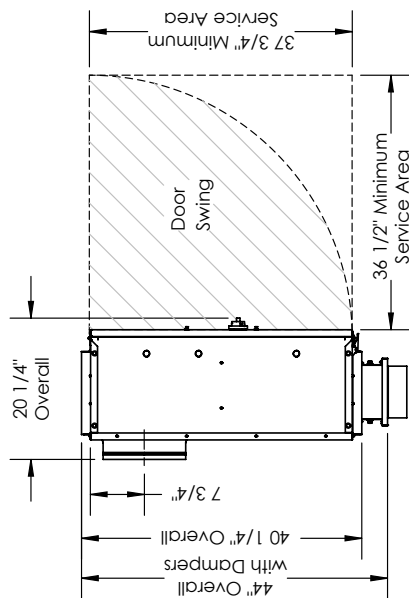
RIGHT VIEW



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.



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

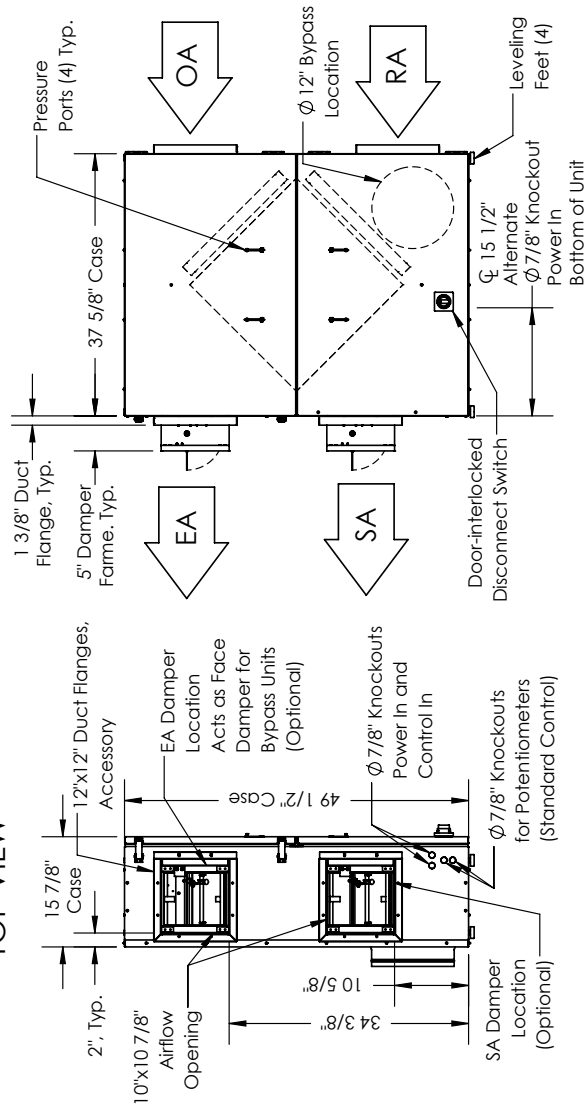
INSTALLATION ORIENTATION

Unit may be installed in any orientation.

NOTE

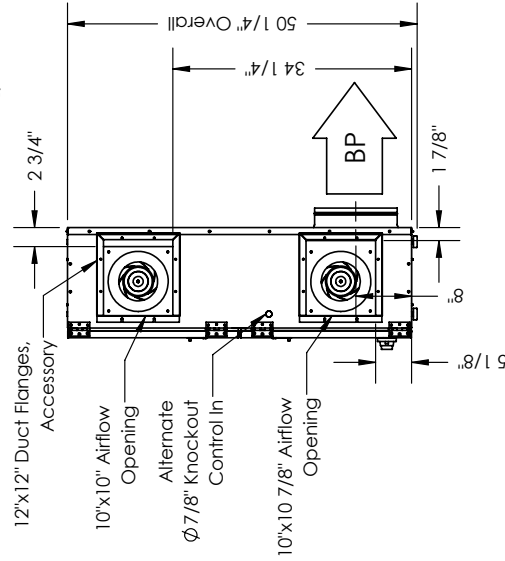
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.
3. UNITS WITH BYPASS WILL REQUIRE ADDITIONAL SPACE FOR THE CONNECTION OF THE BYPASS DUCT (BY OTHERS).
4. FOR INSTALLATION DETAILS, REFER TO I&O MANUAL SUPPLEMENT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

TOP VIEW

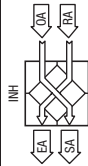


LEFT VIEW

FRONT VIEW



RIGHT VIEW



AIRFLOW ORIENTATION

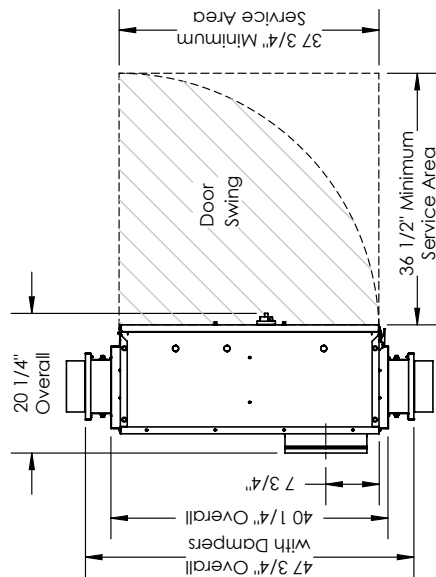
Available as shown:



UNIT MOUNTING & APPLICATION

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





ABBREVIATIONS
 EA: Exhaust Air to Outside
 OA: Outside Air Intake
 SA: Room Air to be Exhausted
 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.

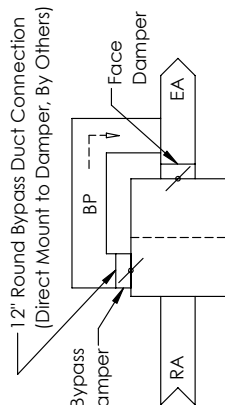
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

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

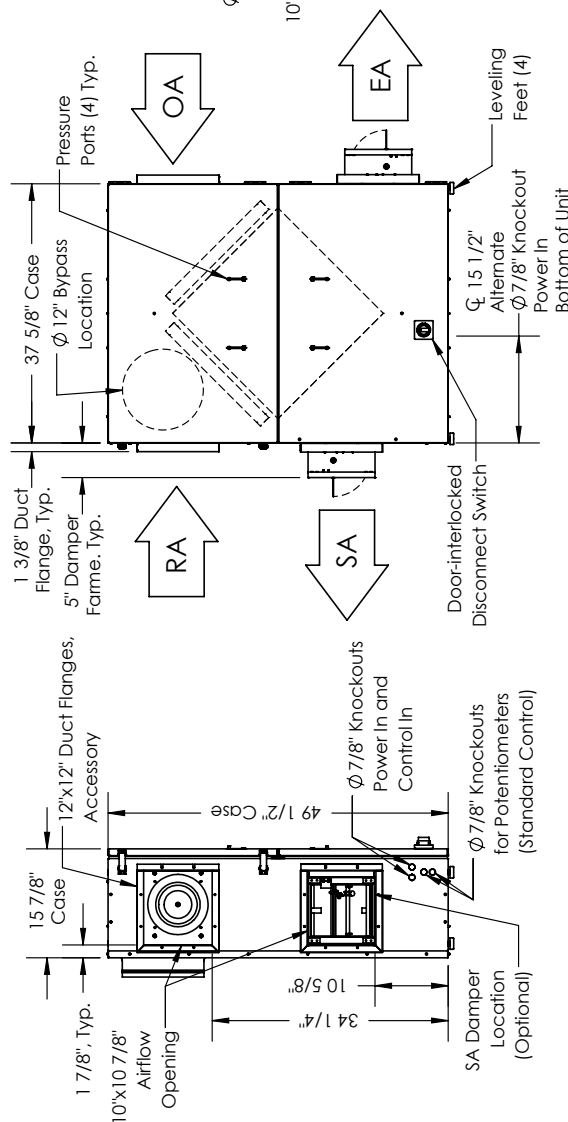
4. FOR INSTALLATION DETAILS, REFER TO I&O MANUAL SUPPLEMENT FOR BYPASS.

5. BYPASS DAMPER SHIPPED LOOSE, FIELD INSTALLATION REQUIRED.

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



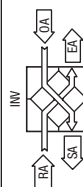
TOP VIEW



LEFT VIEW

FRONT VIEW

RIGHT VIEW



AIRFLOW ORIENTATION
 Available as shown:



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



ROOFTOP UNIT

ENERGY RECOVERY VENTILATOR

EC MOTOR



Energy recovery core is AHRI Certified®



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-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)

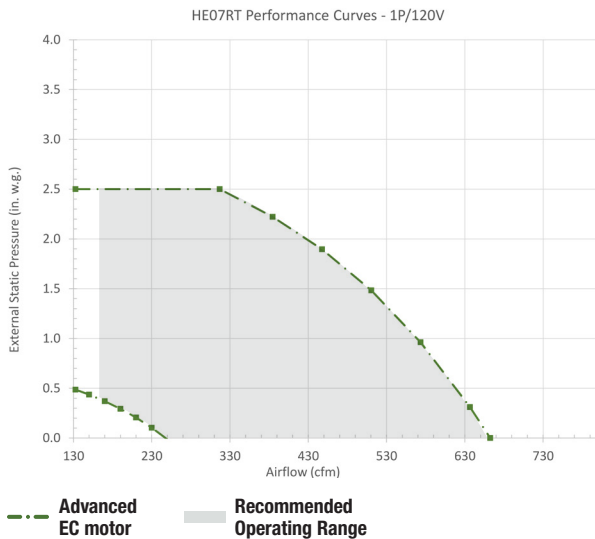
Indirect gas-fired duct furnace: GH series (50–400 MBH);

Installed downstream of any fans

HE+DX coils

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

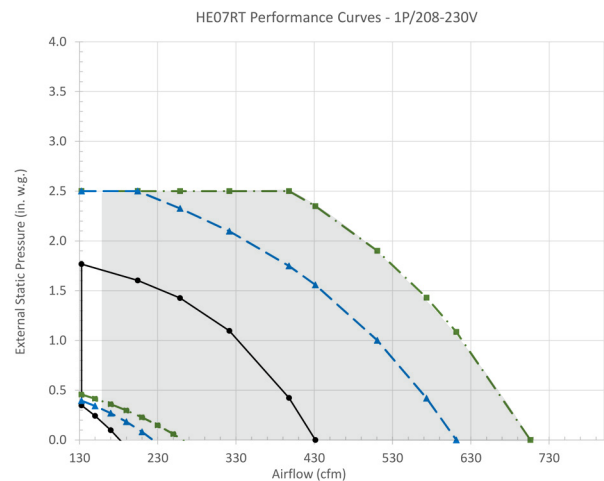
Note: Airflow performance includes effect of clean, standard filter supplied with unit.



ENERGY RECOVERY VENTILATOR EC MOTOR



EC MOTOR OPERATING RANGE AND FAN PERFORMANCE



— Standard EC motor - - Intermediate EC motor - - - Advanced EC motor
 ■ Recommended Operating Range

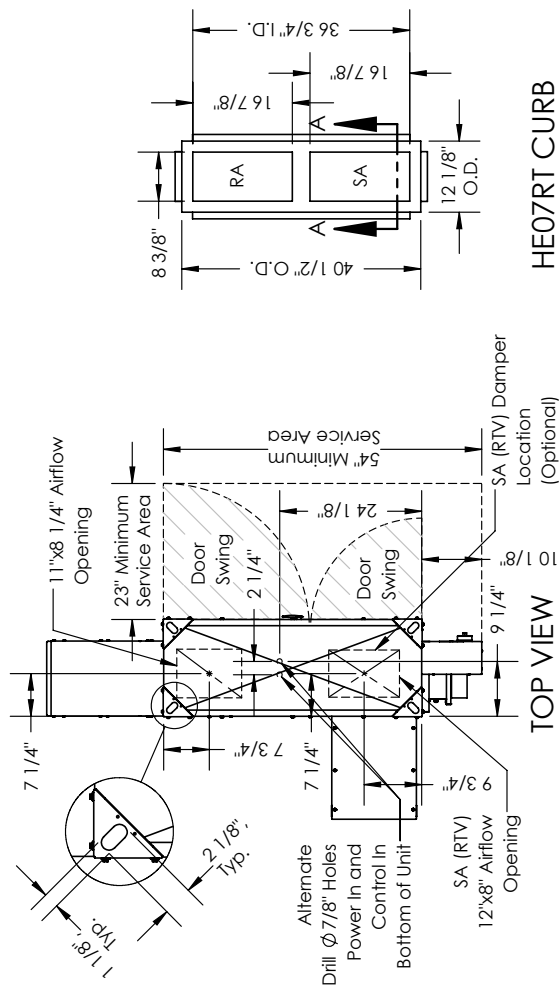
HE07RT MOTOR 1P/208–230V Options						
Airflow (CFM)	Standard EC		Intermediate EC		Advanced EC	
	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)	External Static Pressure (Inches Water Column)	Unit 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.

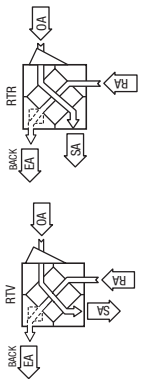
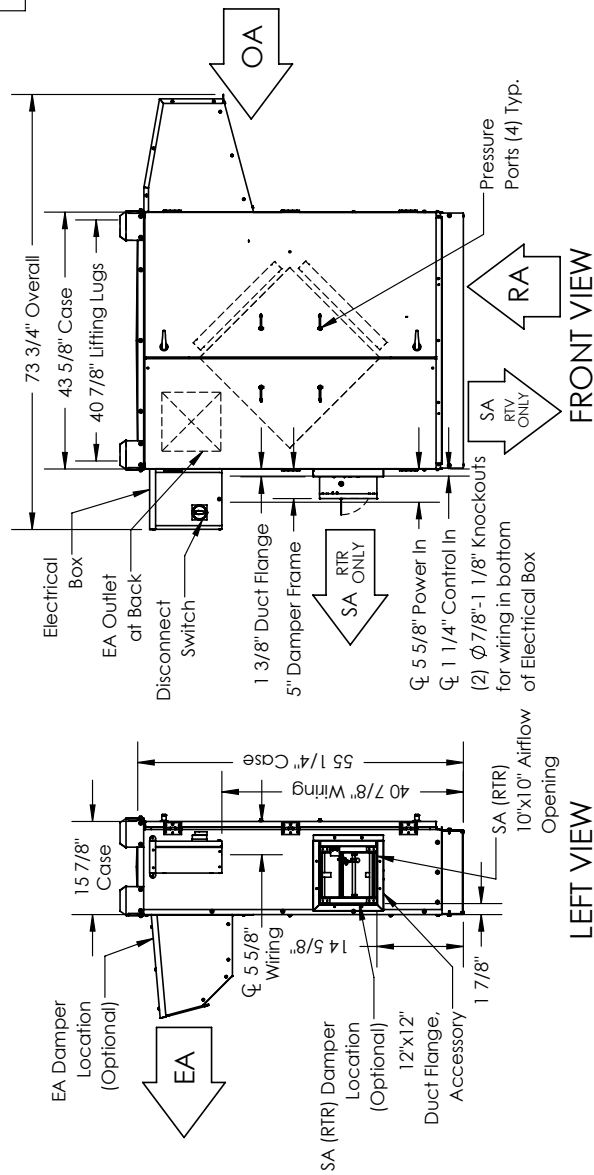
ELECTRICAL DATA

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



HE07RT CURB

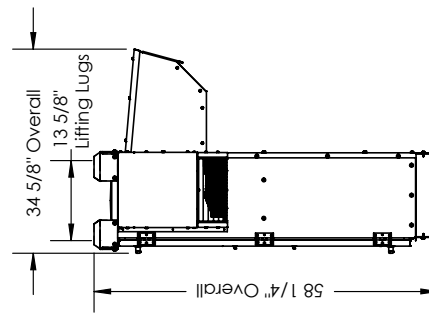


AIRFLOW ORIENTATION

Available as shown:



RIGHT VIEW



UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.



ABBREVIATIONS

ABBREVIATIONS
EA: Exhaust Air to Outside
OA: Outside Air Intake
RA: Room Air to be Exhausted
SA: Supply Air to Inside
RTR: Rooftop Vertical RA Only
RTV: Rooftop Vertical RA & SA

INSTALLATION ORIENTATION

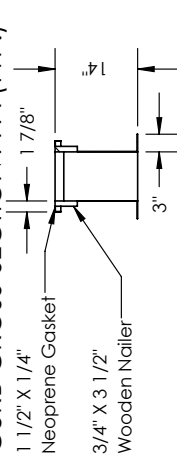
Unit must be installed in orientation shown.

NOTE

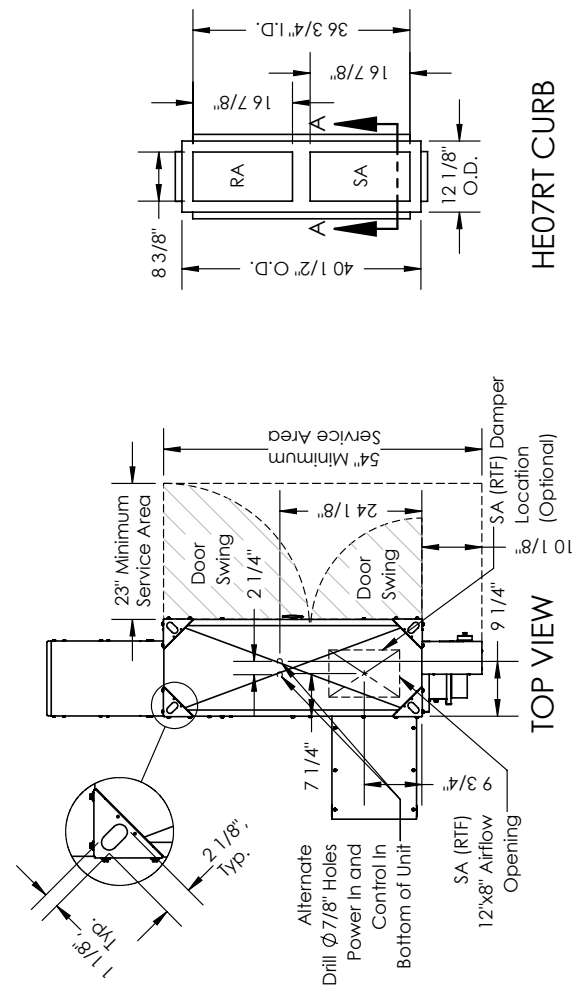
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.

2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

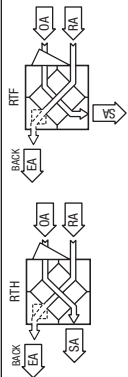
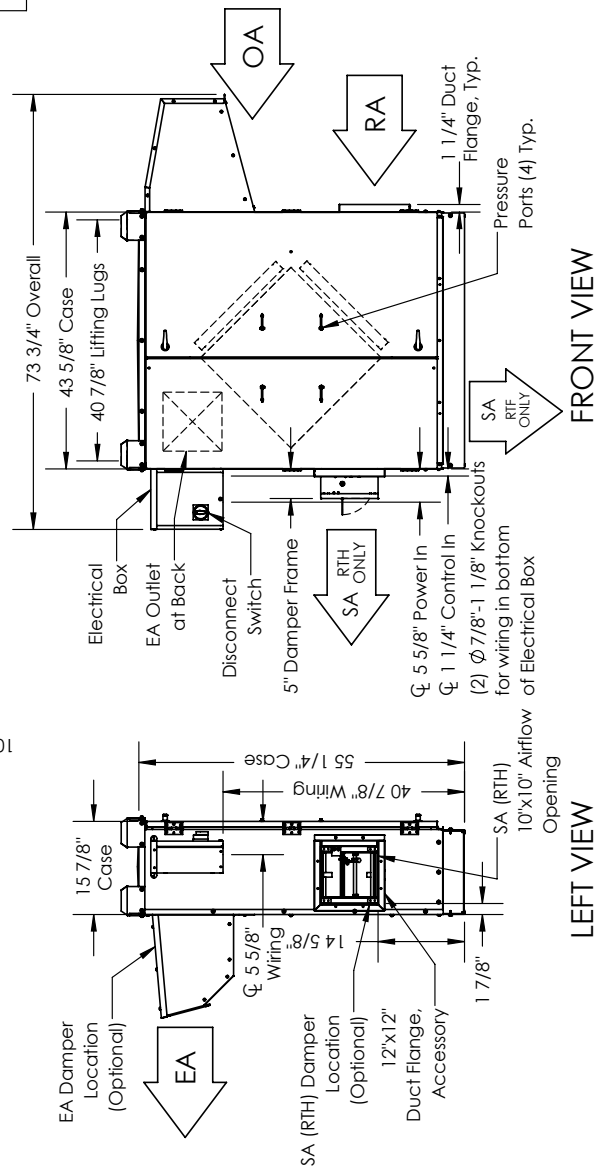
CURB CROSS-SECTION A-A (TYP.)



HEO7RT (RTH/RTF) ENERGY RECOVERY VENTILATOR EC MOTOR



HE07RT CURB



ABBREVIATIONS

ABUSE VIOLATIONS
EA: Exhaust Air to Outside
OA: Outside Air Intake
RA: Room Air to be Exhausted
SA: Supply Air to Inside
RTF: Rooftop Vertical SA Only
RTH: Rooftop Horizontal RA & SA

INSTALLATION ORIENTATION

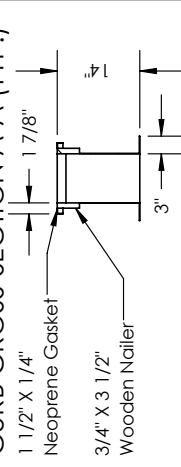
Unit must be installed in orientation shown.

NOTE

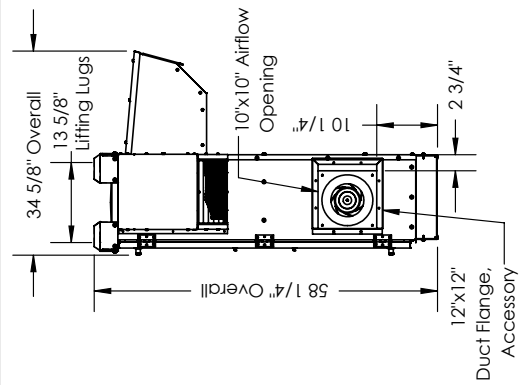
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.

2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

CURB CROSS-SECTION A-A (TYP.)



RIGHT VIEW



FRONT VIEW

AIRFLOW ORIENTATION

Available as shown:



UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.



**NEW!** INDOOR UNIT

ENERGY RECOVERY VENTILATOR EC MOTOR



Energy recovery core is AHRI Certified®



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 galvanized

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

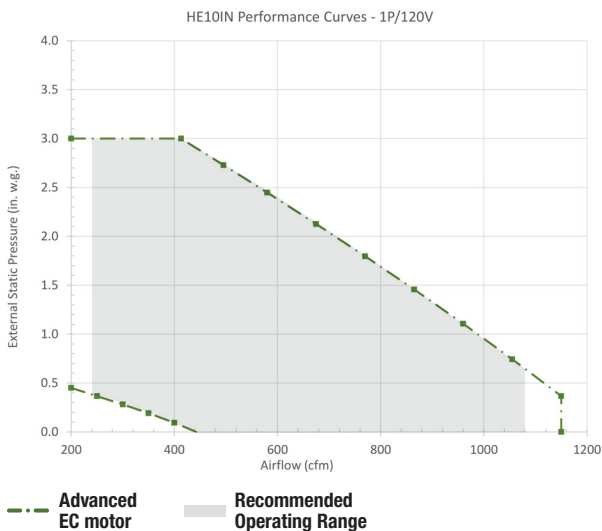
HE+DX coils

Hanging bracket kit

Hanging spring vibration isolation kit

Duct flange kit: square 14" x 14", 2 flanges

EC MOTOR OPERATING RANGE AND FAN PERFORMANCE



HE10IN MOTOR 1P/120V Options		
Airflow (CFM)	Advanced EC	
	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)
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

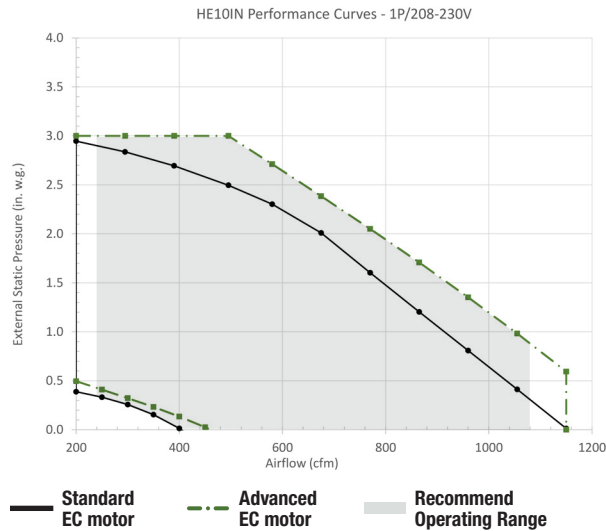
Note: Airflow performance includes effect of clean, standard filter supplied with unit.



ENERGY RECOVERY VENTILATOR EC MOTOR

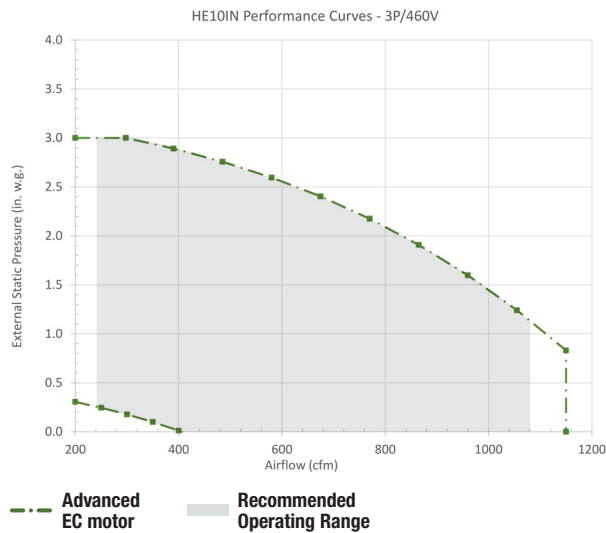


EC MOTOR OPERATING RANGE AND FAN PERFORMANCE



HE10IN MOTOR 1P/208-230V Options				
Airflow (CFM)	Standard EC		Advanced EC	
	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)
200	2.95	571	3.00	672
295	2.84	658	3.00	809
390	2.69	737	3.00	953
495	2.50	813	3.00	822
580	2.30	864	2.71	1158
675	2.01	900	2.38	1190
770	1.60	900	2.05	1215
865	1.20	900	1.71	1231
960	0.81	900	1.35	1239
1055	0.41	900	0.98	1239
1150	0.01	900	0.59	1232
1150			0.00	877

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



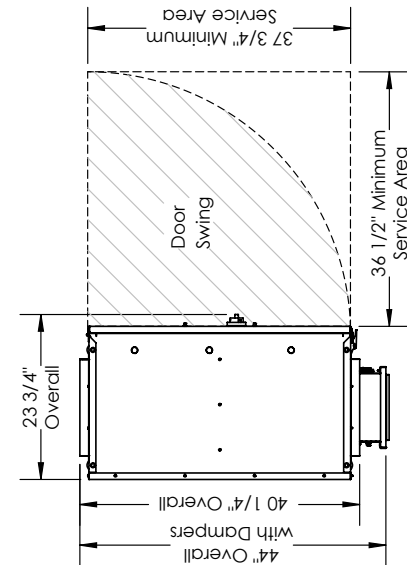
HE10IN MOTOR 3P/460V Options		
Airflow (CFM)	Advanced EC	
	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)
200	3.00	807
298	3.00	928
390	2.89	1015
485	2.76	1105
580	2.60	1191
675	2.40	1273
770	2.18	1346
865	1.91	1408
960	1.60	1456
1055	1.24	1488
1150	0.83	1501
1150	0.00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

HE10IN_H ENERGY RECOVERY VENTILATOR EC MOTOR



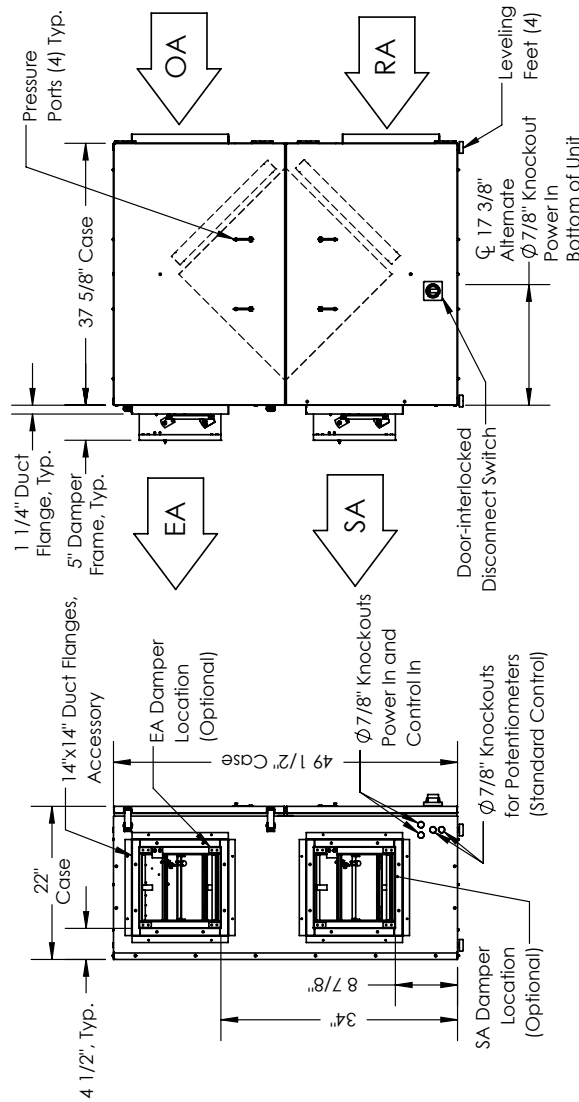
ABBREVIATIONS
 EA: Exhaust Air to Outside
 OA: Outside Air Intake
 RA: Room Air to be Exhausted
 SA: Supply Air to Inside

INSTALLATION ORIENTATION
 Unit may be installed in any orientation.

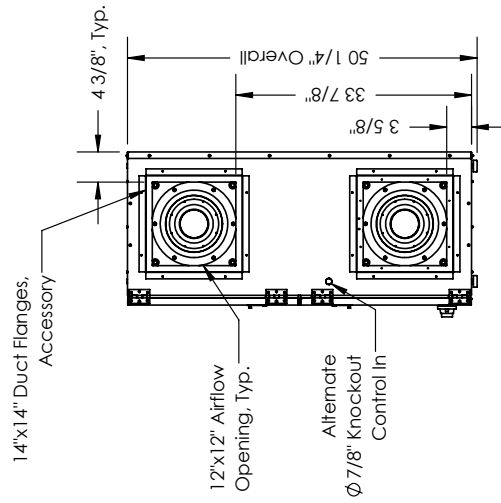
NOTE

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

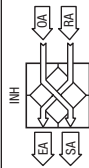
TOP VIEW



FRONT VIEW



RIGHT VIEW

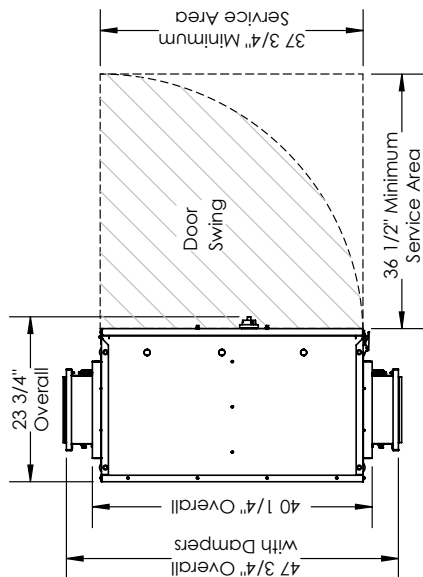


AIRFLOW ORIENTATION
 Available as shown:

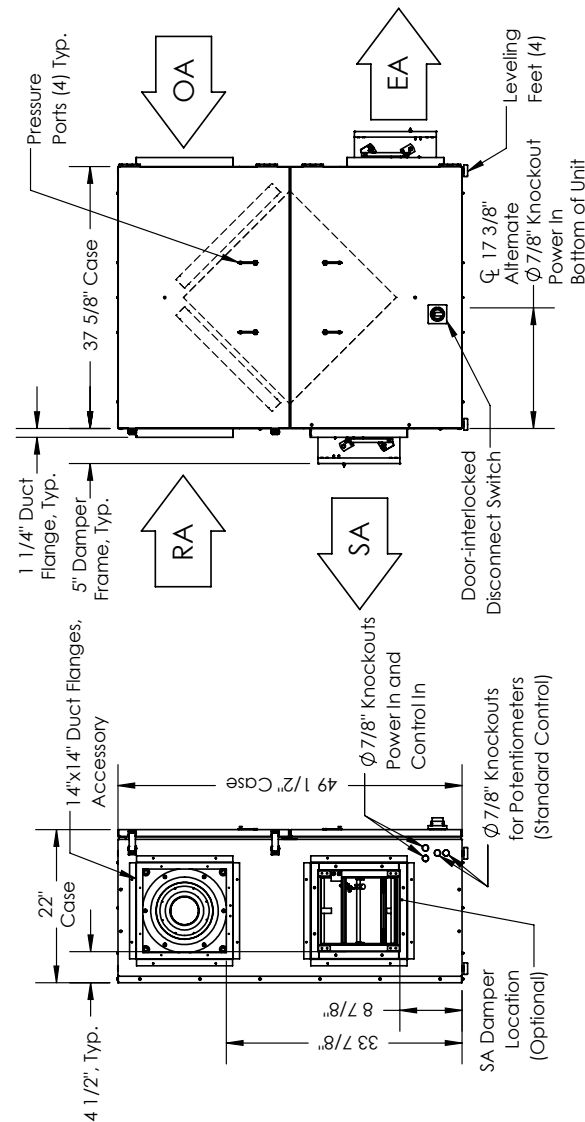
UNIT MOUNTING & APPLICATION
 Can be mounted in any orientation. RA/EA airstream can be switched with OA/SA airstream unless certain options are selected.



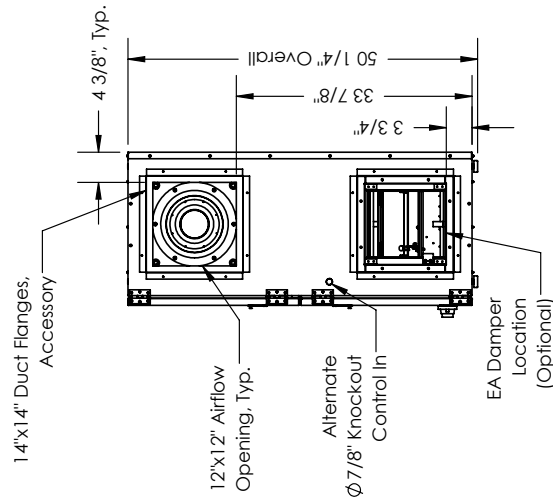
HE10IN_V ENERGY RECOVERY VENTILATOR EC MOTOR



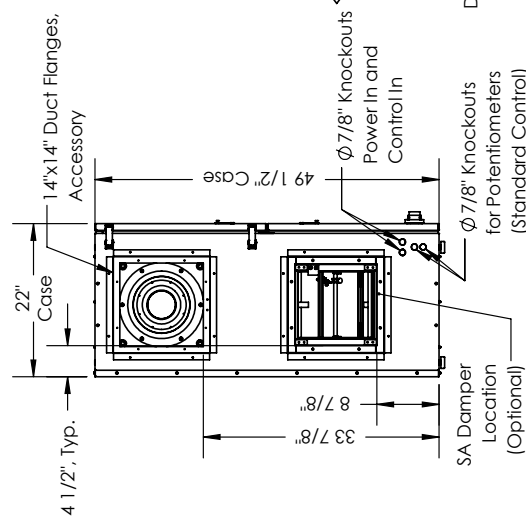
TOP VIEW



FRONT VIEW



RIGHT VIEW



LEFT VIEW

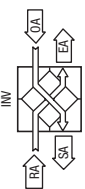
ABBREVIATIONS
 EA: Exhaust Air to Outside
 OA: Outside Air Intake
 RA: Room Air to be Exhausted
 SA: Supply Air to Inside

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.

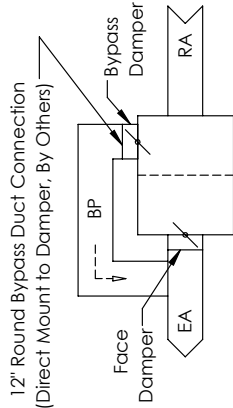
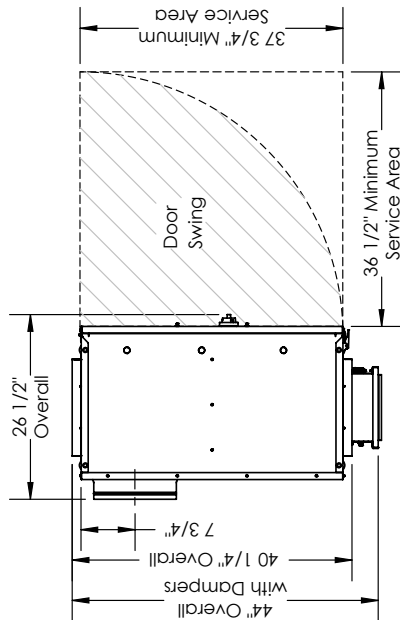


AIRFLOW ORIENTATION
 Available as shown:



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

HE10IN_H 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

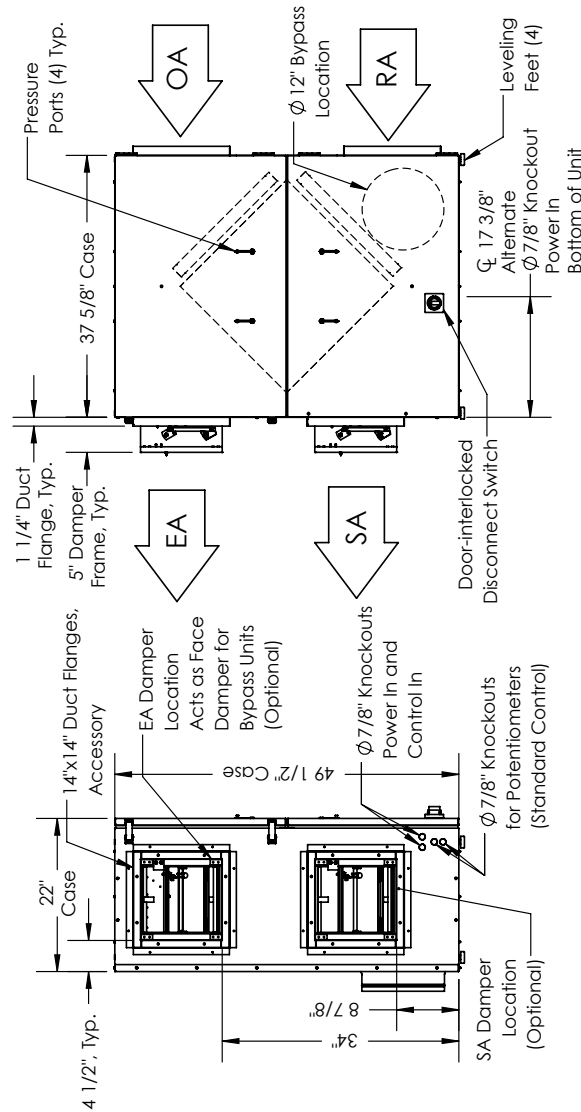
INSTALLATION ORIENTATION

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.
5. BYPASS DAMPER SHIPPED LOOSE, FIELD INSTALLATION REQUIRED.

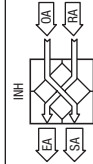
TOP VIEW



LEFT VIEW

FRONT VIEW

RIGHT VIEW



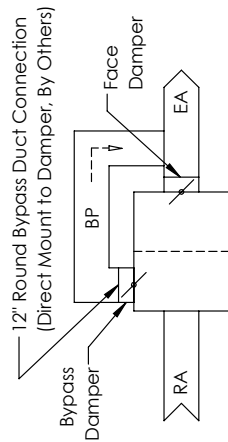
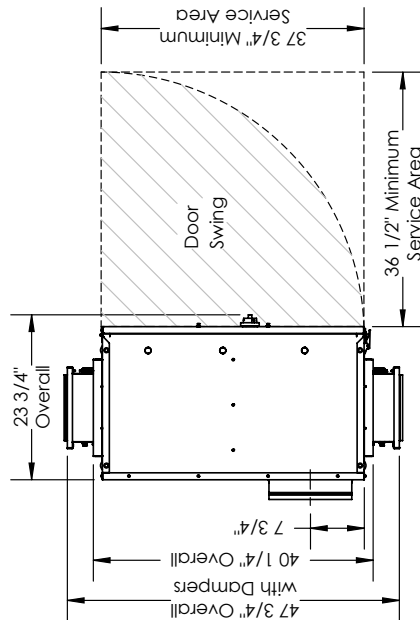
AIRFLOW ORIENTATION

Available as shown:



UNIT MOUNTING & APPLICATION

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



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

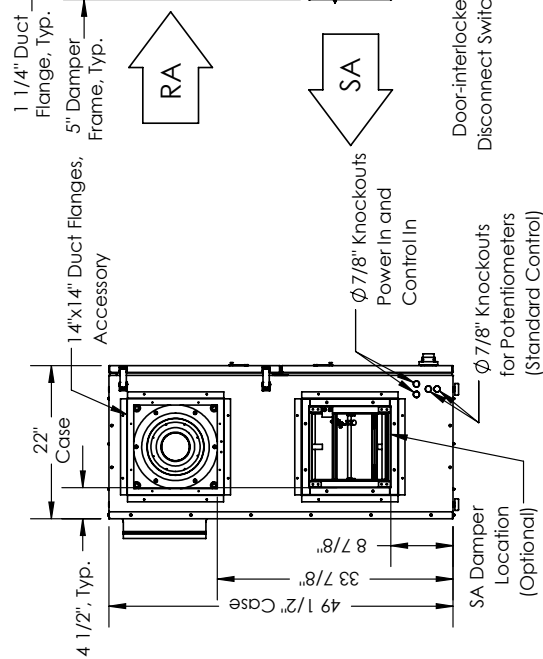
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

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

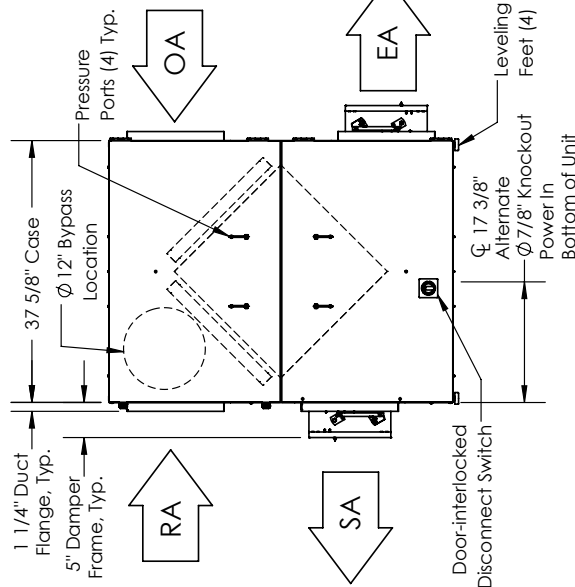
4. FOR INSTALLATION DETAILS, REFER TO I&O MANUAL SUPPLEMENT FOR BYPASS.

5. BYPASS DAMPER SHIPPED LOOSE, FIELD INSTALLATION REQUIRED.

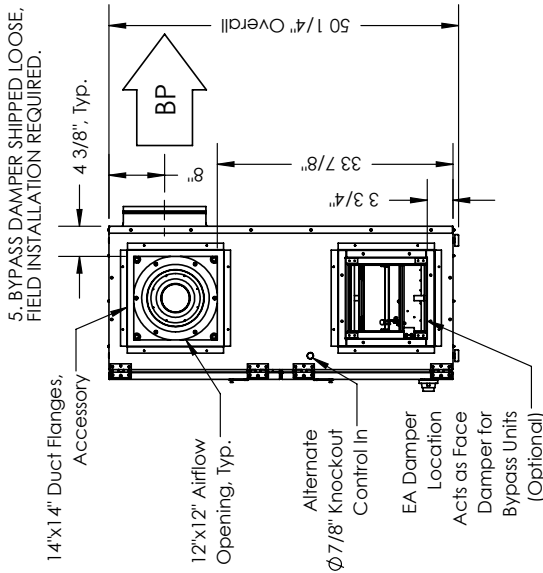
TOP VIEW



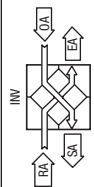
LEFT VIEW



FRONT VIEW



RIGHT VIEW



AIRFLOW ORIENTATION

Available as shown:



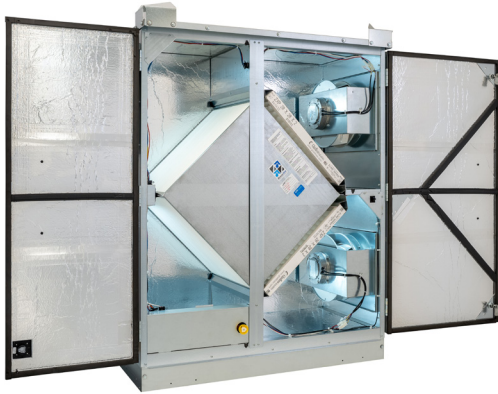
UNIT MOUNTING & APPLICATION

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

HE10RT

NEW! OUTDOOR UNIT

ENERGY RECOVERY VENTILATOR EC MOTOR



Energy recovery core is AHRI Certified®



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:

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)

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

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"

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)

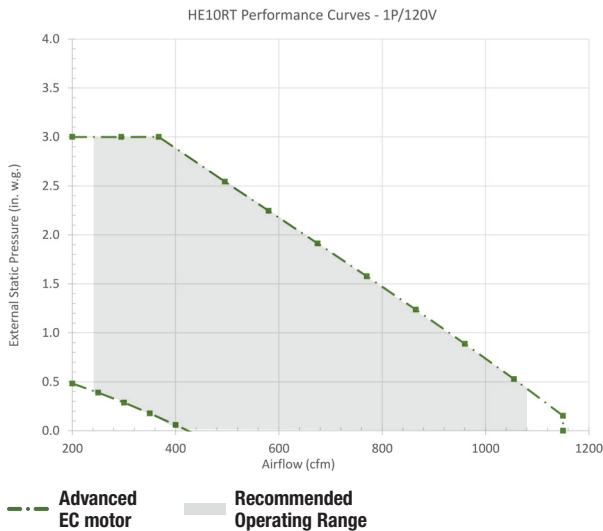
Indirect gas-fired duct furnace: GH series (50–400 MBH);

Installed downstream of any fans

HE+DX coils

Duct flange kit: square 14" x 14", 2 flanges

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)

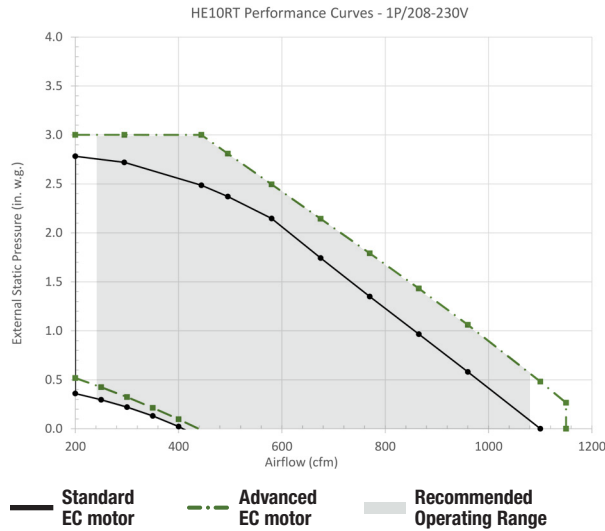
Scan QR code to see life size version of HE10RT, or view here:
<https://ar.marketscale.com/renewaire/he10rt>



ENERGY RECOVERY VENTILATOR EC MOTOR

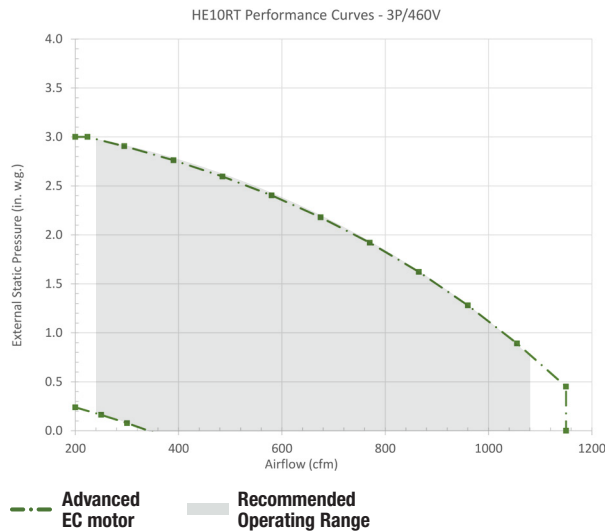


EC MOTOR OPERATING RANGE AND FAN PERFORMANCE



HE10RT MOTOR 1P/208-230V Options				
Airflow (CFM)	Standard EC		Advanced EC	
	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)
200	2.78	566	3.00	650
295	2.72	658	3.00	795
444	2.48	791	3.00	1051
495	2.37	832	2.81	1079
580	2.15	894	2.49	1120
675	1.74	900	2.14	1160
770	1.35	900	1.79	1190
865	0.97	900	1.43	1211
960	0.58	900	1.06	1222
1100	0.00	900	0.48	1217
1150			0.27	1209
1150			0.00	919

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



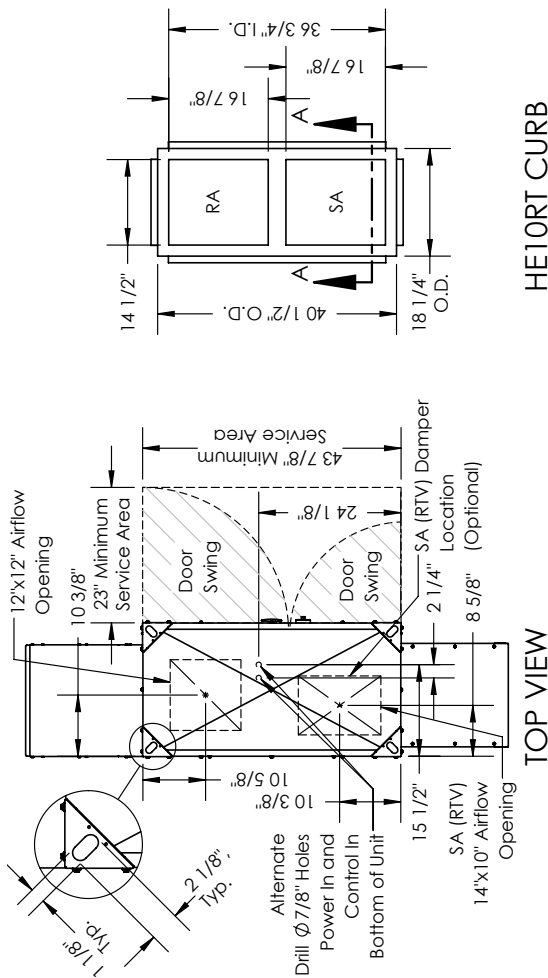
HE10RT MOTOR 3P/460V Options		
Airflow (CFM)	Advanced EC	
	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)
200	3.00	829
224	3.00	860
295	2.91	925
390	2.76	1015
485	2.60	1105
580	2.40	1191
675	2.18	1273
770	1.92	1346
865	1.62	1408
960	1.28	1456
1055	0.89	1488
1150	0.45	1501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

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

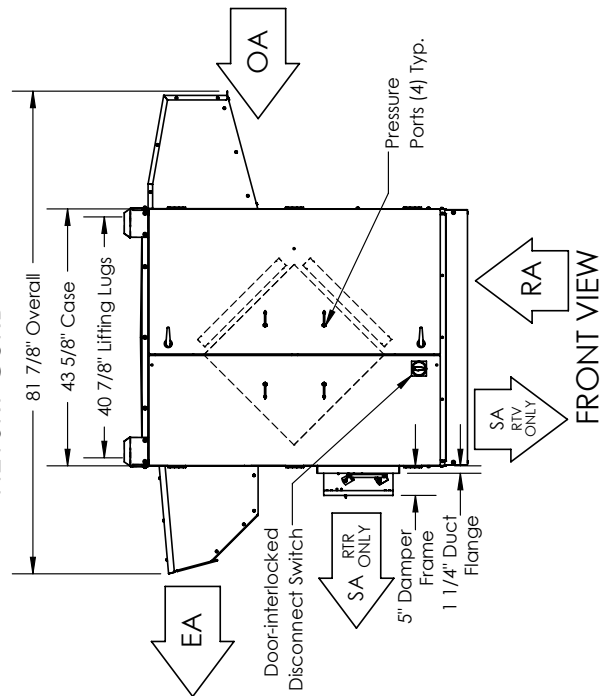
ELECTRICAL DATA

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

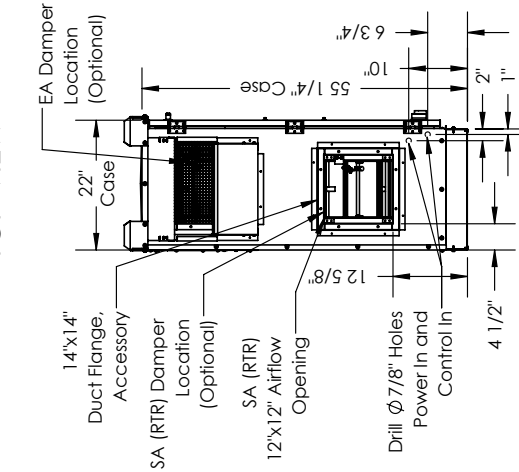
HE10RT (RTV/RTR) ENERGY RECOVERY VENTILATOR EC MOTOR



TOP VIEW



FRONT VIEW



LEFT VIEW

ABBREVIATIONS

EA: Exhaust Air to Outside
OA: Outside Air Intake
RA: Room Air to be Exhausted
SA: Supply Air to Inside
RTR: Rooftop Vertical RA Only
RTV: Rooftop Vertical RA & SA

INSTALLATION ORIENTATION

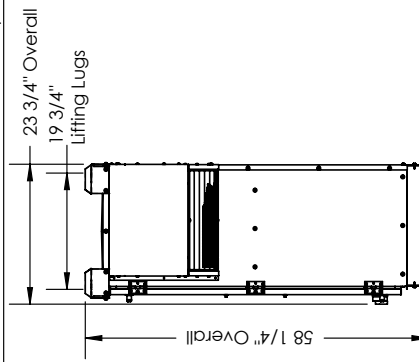
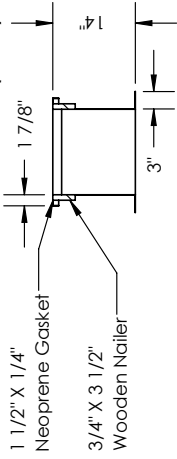
Unit must be installed in orientation shown.

NOTE

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

2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

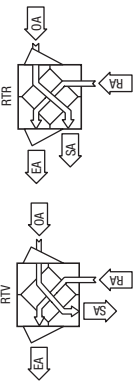
CURB CROSS-SECTION A-A (TYP.)



RIGHT VIEW

AIRFLOW ORIENTATION

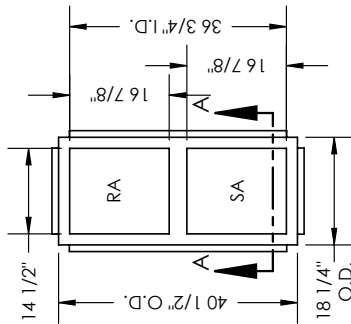
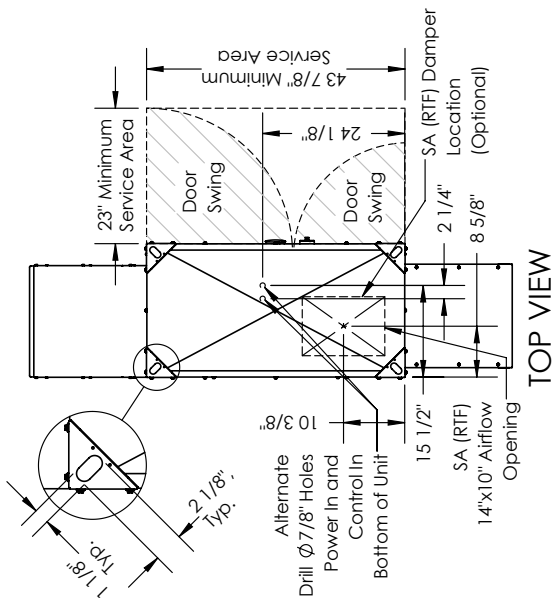
Available as shown:



UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.

HE10RT (RTH/RTF) 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
RTF: Rooftop Vertical SA Only
RTH: Rooftop Horizontal RA & SA

INSTALLATION ORIENTATION

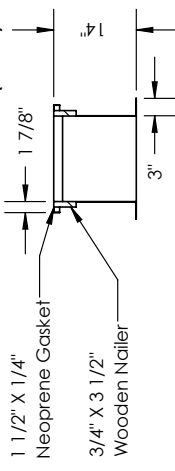
Unit must be installed in orientation shown.

NOTE

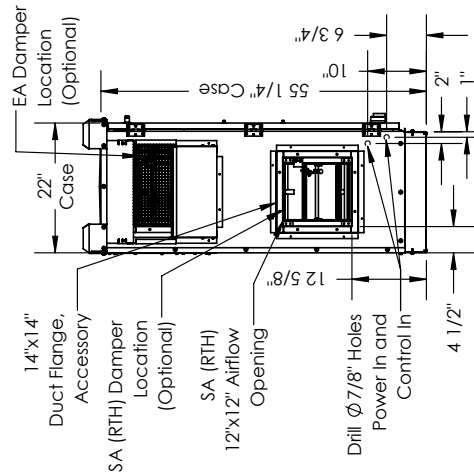
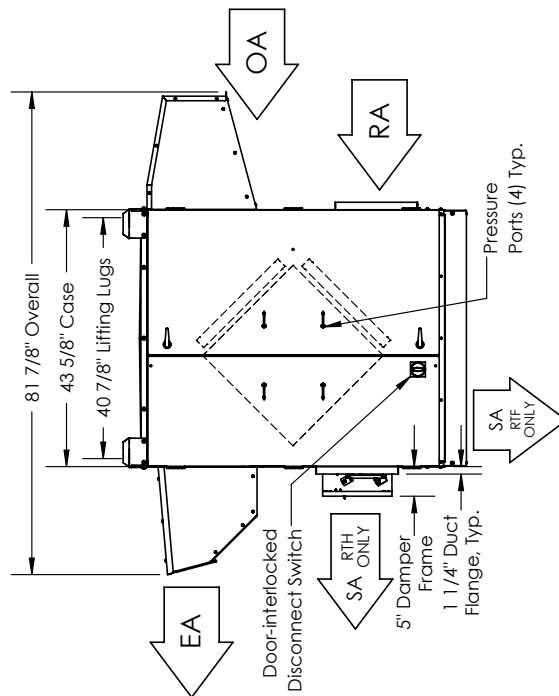
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.

2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

CURB CROSS-SECTION A-A (TYP.)



HE10RT CURB



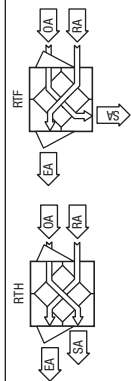
RIGHT VIEW

FRONT VIEW

LEFT VIEW

AIRFLOW ORIENTATION

Available as shown:



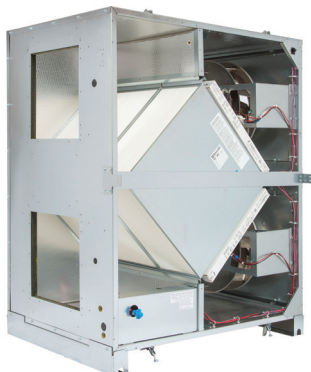
UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.





INDOOR UNIT



HE1.5XIN 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):

H: 70" L x 47" W x 53" H

571 lbs.

V: 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 HE1.5XIN EC Motor submittal):
480 W 120 V/1 Ph/60 Hz,
480 W 208–230 V/1 Ph/60 Hz

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

HP	Volts	Hz	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device
1.0	120	60	Single	6.5	14.6	20
1.0	208–230	60	Single	3.3–3.4	7.7	15
1.0	277	60	Single	2.7	6.1	15
1.0	208–230	60	Three	2.2–2.2	5.0	15
1.0	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://ar.marketscale.com/renewaire/he>

HE1.5XINH ENERGY RECOVERY VENTILATOR

ABBREVIATIONS

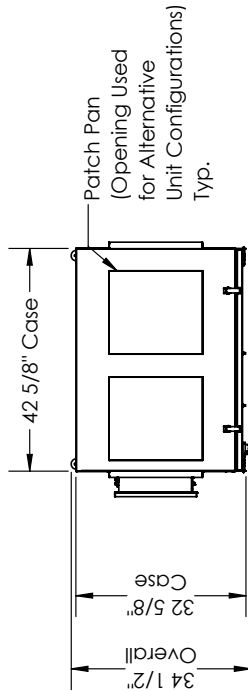
EA: Exhaust Air to outside
OA: Outside Air Intake
RA: Room Air to be exhausted
FA: Fresh Air to inside

INSTALLATION ORIENTATION

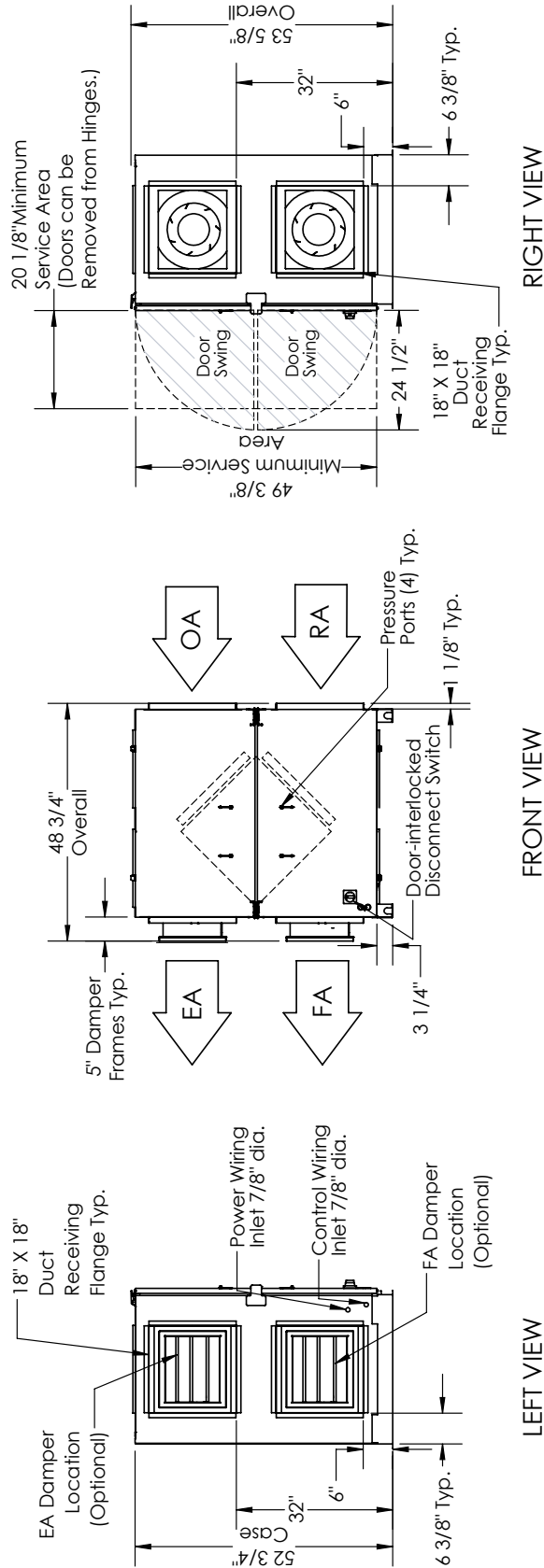
Unit may be installed in any orientation.

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.



TOP VIEW



RIGHT VIEW

FRONT VIEW

LEFT VIEW

AIRFLOW CONFIGURATION

Available as shown in dimension drawing.

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.



ABBREVIATIONS

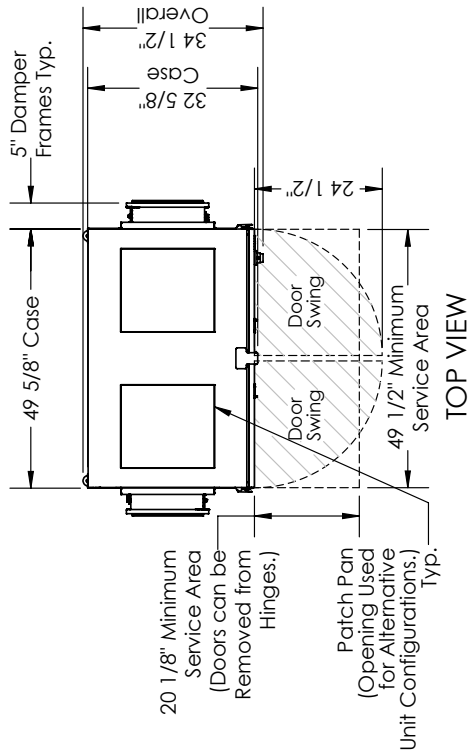
EA: Exhaust Air to outside
OA: Outside Air intake
RA: Room Air to be exhausted
FA: Fresh Air to inside

INSTALLATION ORIENTATION

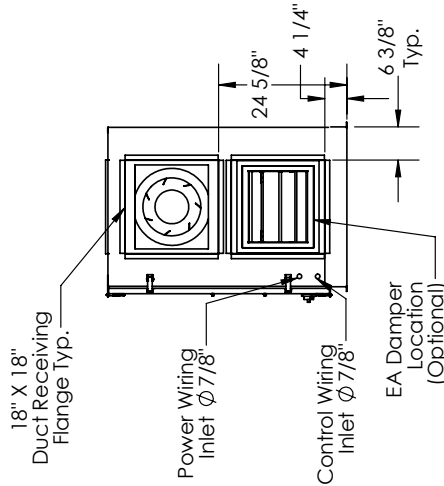
Unit may be installed in any orientation.

NOTE

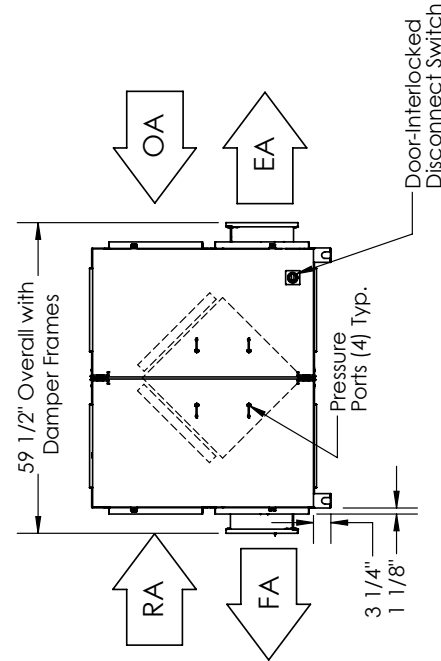
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.
3. MIN. DUCT CLEARANCE FROM DAMPER BLADE WHEN FULLY OPENED TO BE 2". SMACNA RULES APPLY.



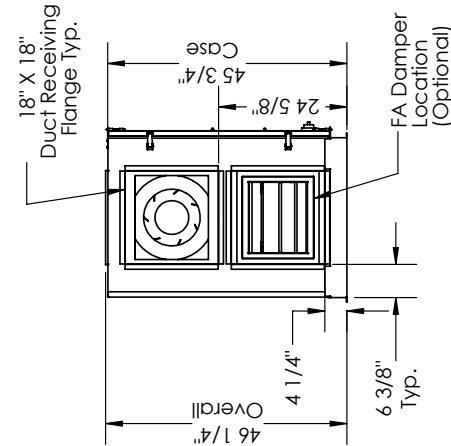
TOP VIEW



RIGHT VIEW



FRONT VIEW



LEFT VIEW

AIRFLOW CONFIGURATION

Available as shown in dimension drawing.

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.



HE1.5XINH ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER

ABBREVIATIONS

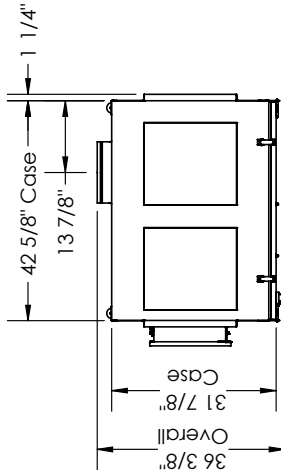
EA: Exhaust Air to outside
OA: Outside Air intake
RA: Room Air to be exhausted
FA: Fresh Air to inside
BP: Bypass Air outlet

INSTALLATION ORIENTATION

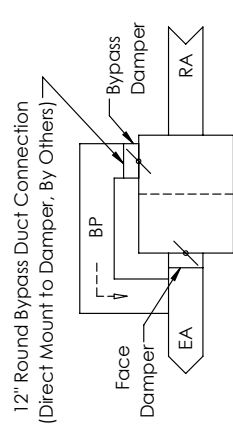
Unit may be installed in any orientation.

NOTE

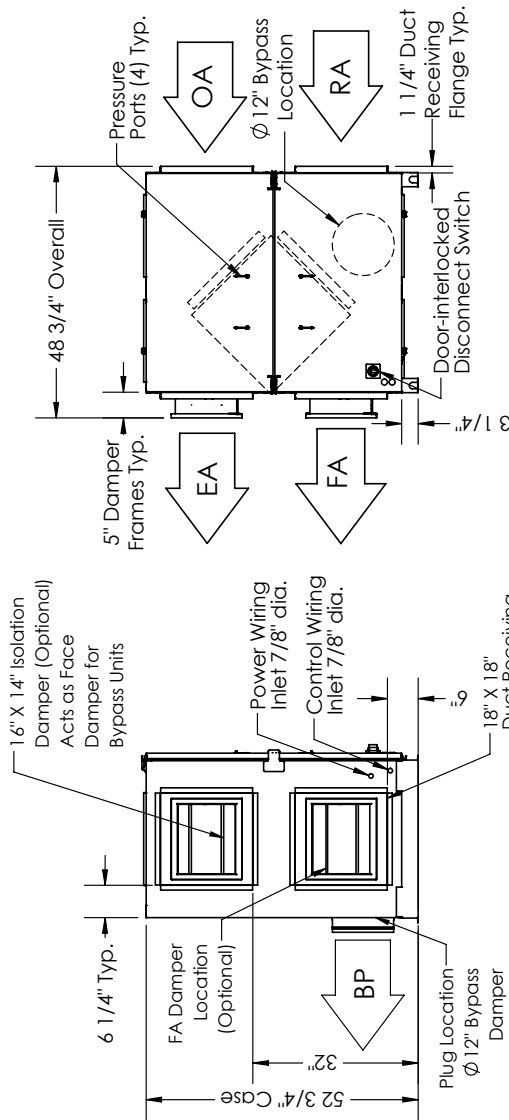
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.
3. MIN. DUCT CLEARANCE FROM DAMPER BLADE WHEN FULLY OPENED TO BE 2". SMACNA RULES APPLY.
4. UNITS WITH BYPASS WILL REQUIRE ADDITIONAL SPACE FOR THE CONNECTION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



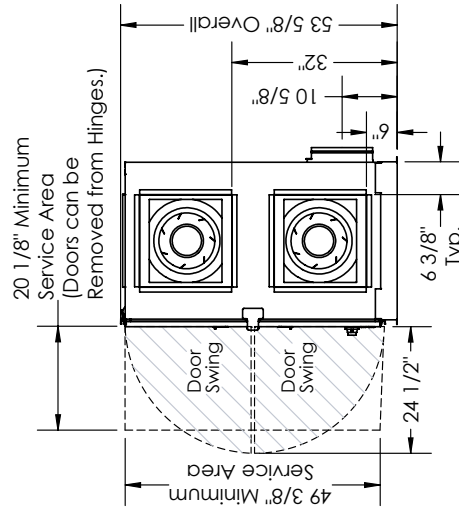
TOP VIEW



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



FRONT VIEW



RIGHT VIEW

AIRFLOW CONFIGURATION

Available as shown in dimension drawing.

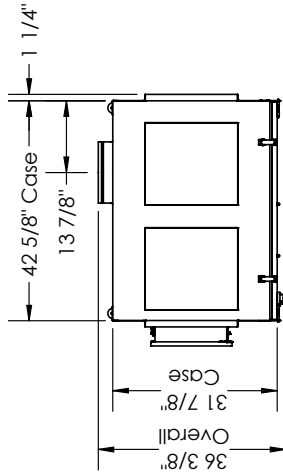


UNIT MOUNTING & APPLICATION

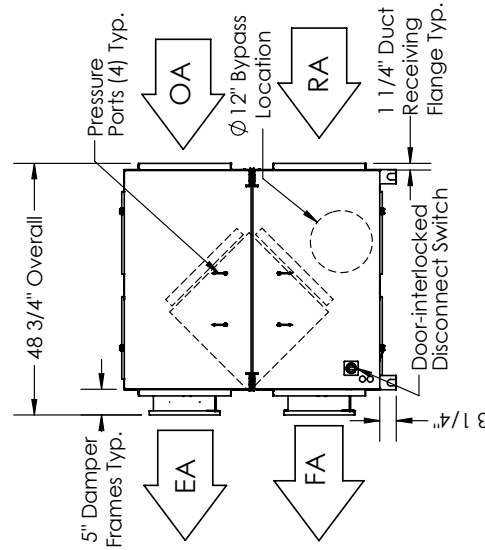
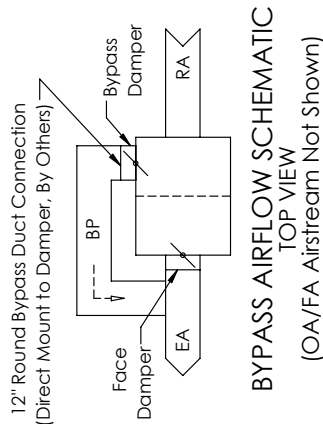
Can be mounted in any orientation. Airstreams cannot be switched.

HE1.5XIN^V ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER

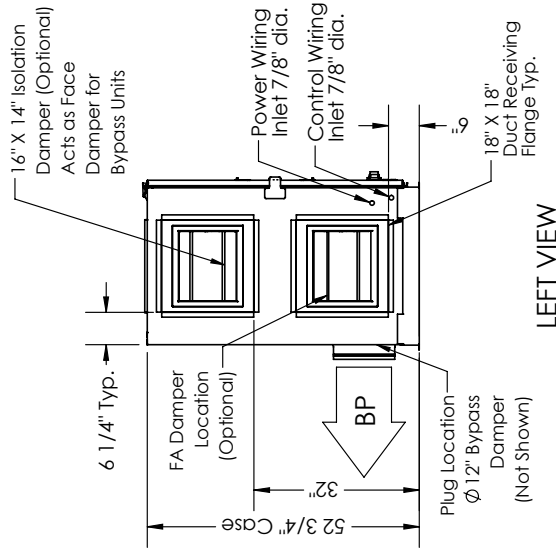
- ABBREVIATIONS**
 EA: Exhaust Air to outside
 OA: Outside Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside
 BP: Bypass Air outlet
- INSTALLATION ORIENTATION**
 Unit may be installed in any orientation.
- NOTE**
 1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH 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.



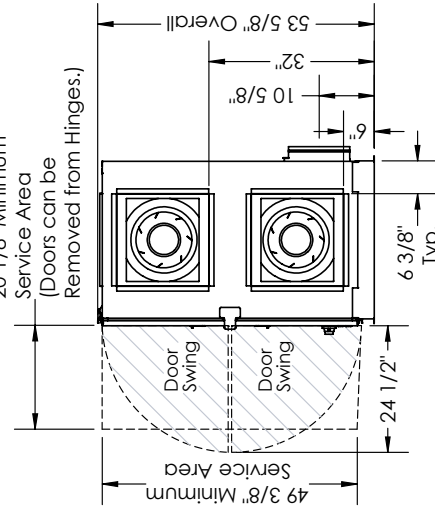
TOP VIEW



FRONT VIEW



LEFT VIEW



RIGHT VIEW

AIRFLOW CONFIGURATION

Available as shown in dimension drawing.

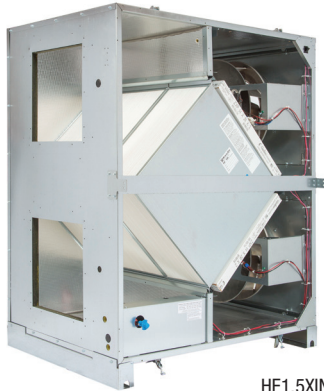


UNIT MOUNTING & APPLICATION

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

HE 1.5XIN

INDOOR UNIT



HE1.5XINH 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):

H: 70" L x 47" W x 53" H

571 lbs.

V: 70" L x 47" W x 59" H

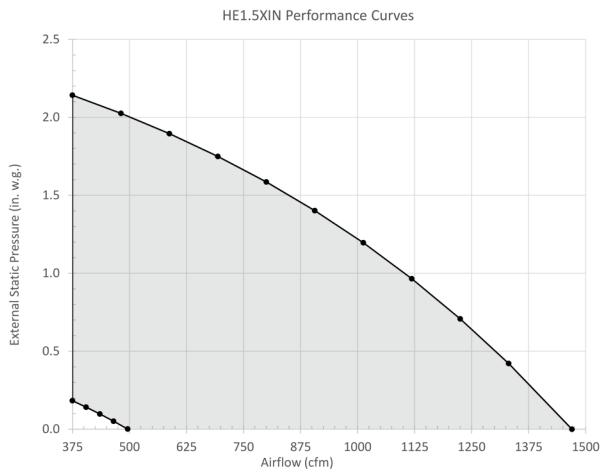
571 lbs.

Motor(s):

Qty. 2, 480 W 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

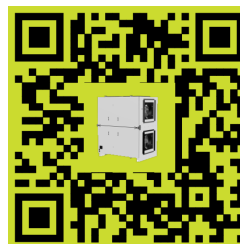


Airflow (CFM)	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)
375	2.14	710
481	2.03	765
588	1.90	814
694	1.75	859
800	1.59	899
906	1.40	933
1013	1.20	963
1119	0.97	987
1225	0.71	1006
1331	0.42	1019
1470	0.00	1029

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://ar.marketscale.com/renewaire/he15x>

ABBREVIATIONS

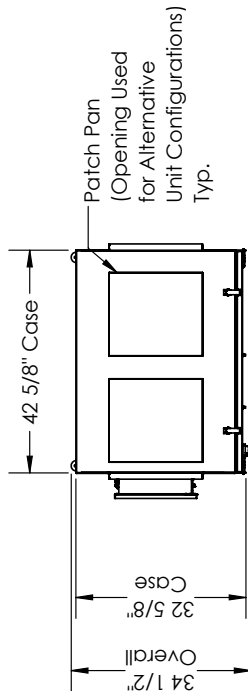
EA: Exhaust Air To outside
OA: Outside Air Intake
RA: Room Air to be exhausted
FA: Fresh Air to inside

INSTALLATION ORIENTATION

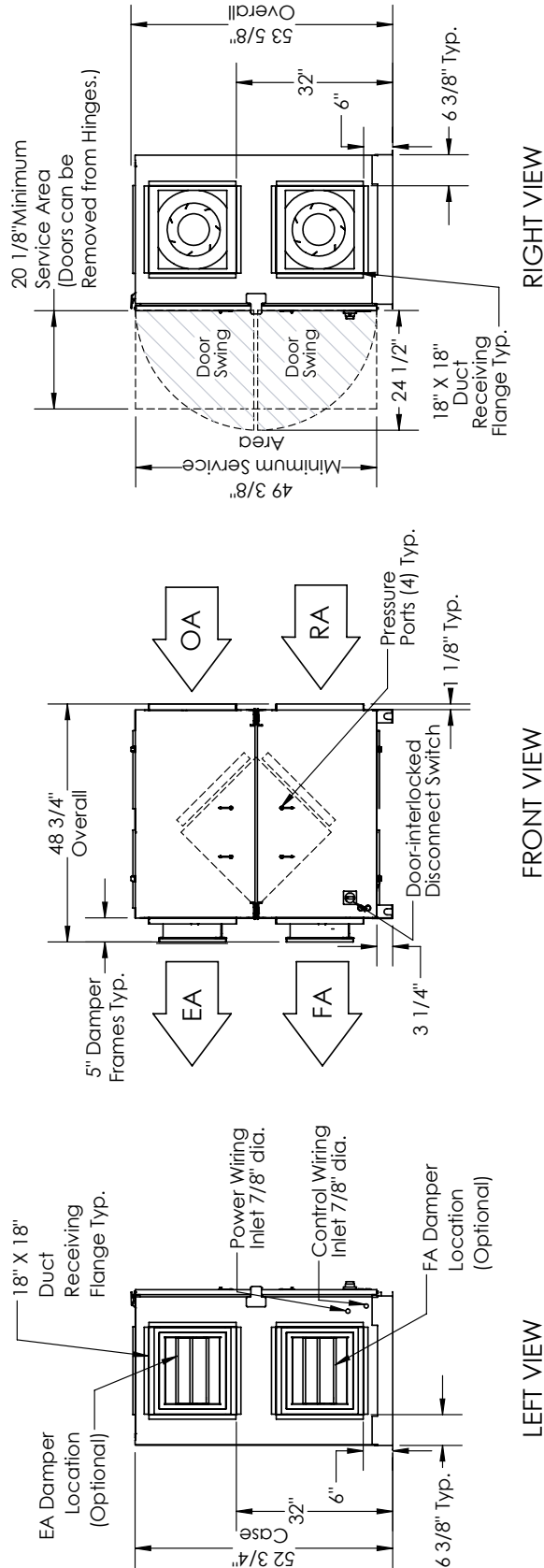
Unit may be installed in any orientation.

NOTE

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



TOP VIEW



AIRFLOW CONFIGURATION

Available as shown in dimension drawing.



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.



HE1.5XINV ENERGY RECOVERY VENTILATOR EC MOTOR OPTION

ABBREVIATIONS

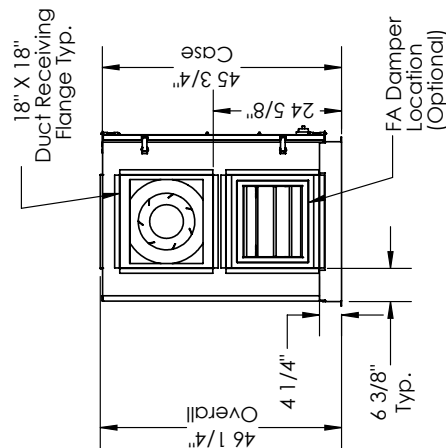
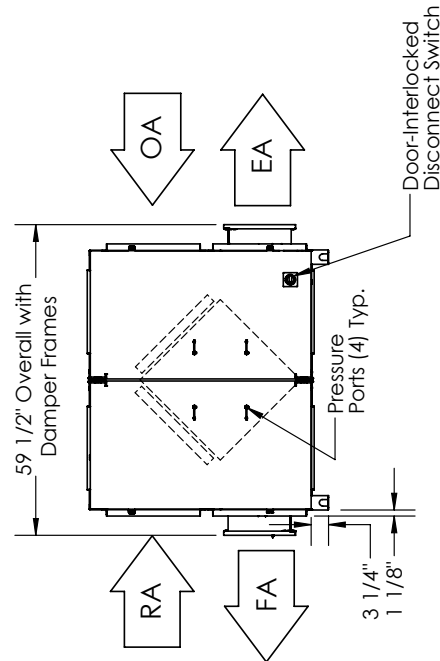
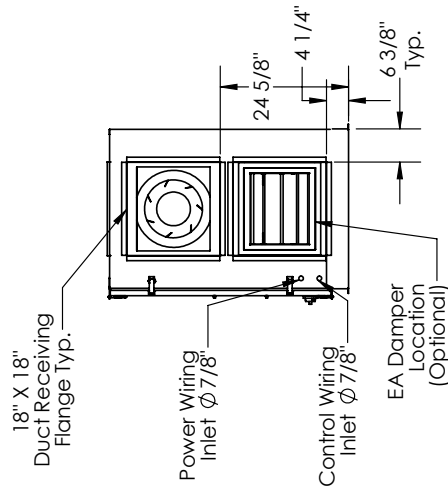
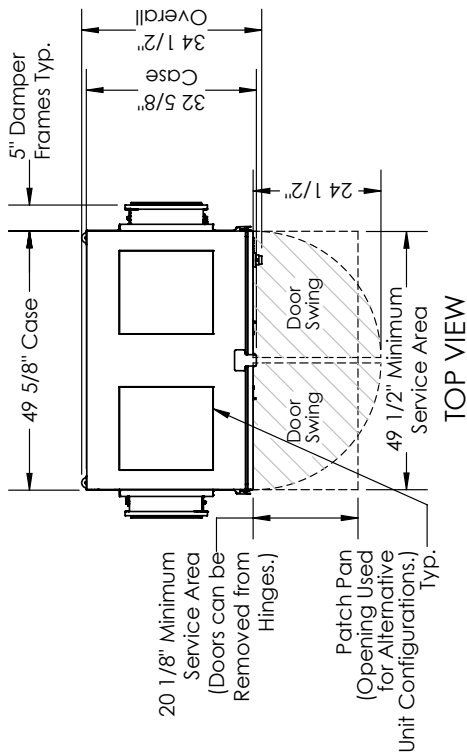
EA: Exhaust Air to outside
OA: Outside Air Intake
RA: Room Air to be exhausted
FA: Fresh Air to inside

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



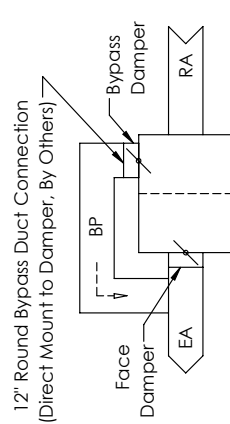
AIRFLOW CONFIGURATION

Available as shown in dimension drawing.

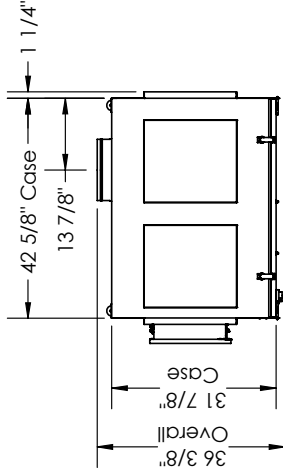


UNIT MOUNTING & APPLICATION

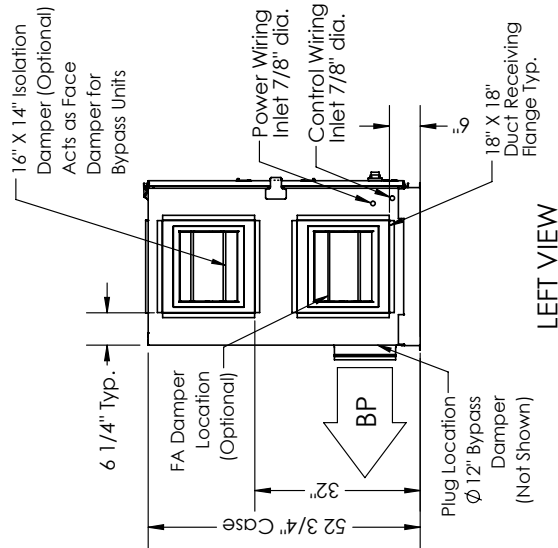
Can be mounted in any orientation. RA/EA airstream can be switched with OA/FA airstream unless certain options are selected. Duct configuration is field convertible.



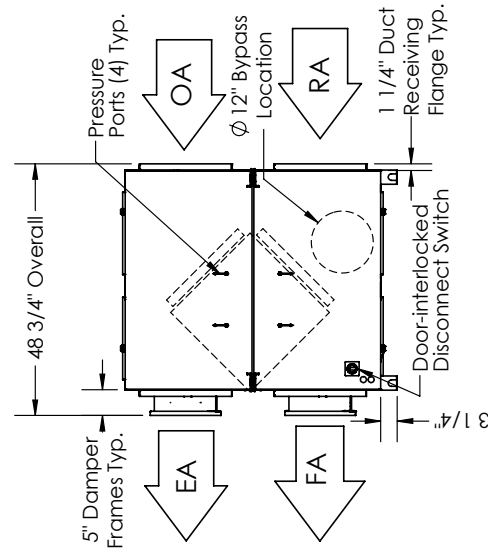
**BYPASS AIRFLOW SCHEMATIC
TOP VIEW**
(OA/FA Airstream Not Shown)



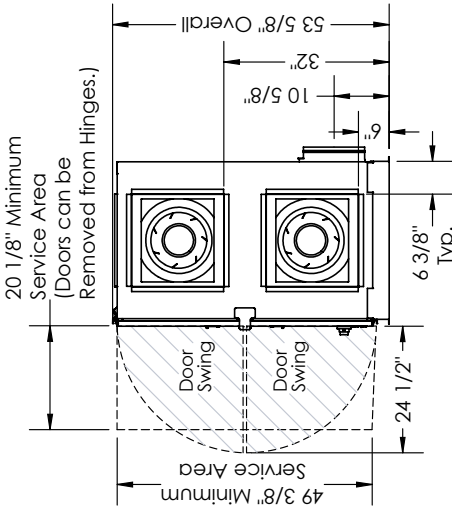
TOP VIEW



LEFT VIEW



FRONT VIEW



RIGHT 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 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.



AIRFLOW CONFIGURATION

Available as shown in dimension drawing.



UNIT MOUNTING & APPLICATION

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

ABBREVIATIONS

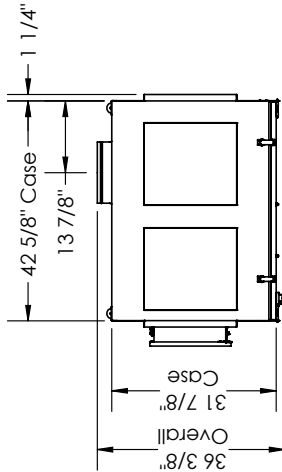
EA: Exhaust Air to outside
OA: Outside Air intake
RA: Room Air to be exhausted
FA: Fresh Air to inside
BP: Bypass Air outlet

INSTALLATION ORIENTATION

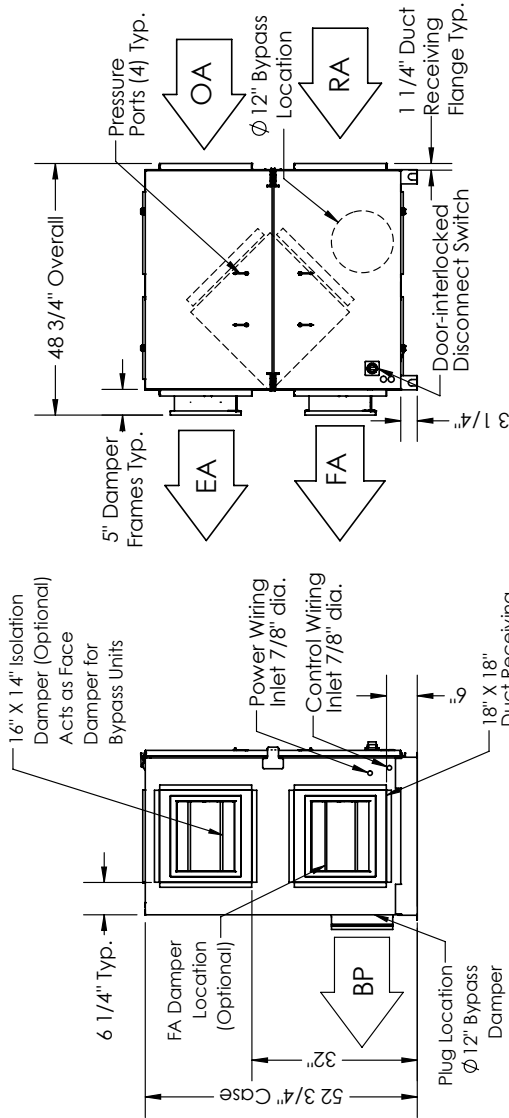
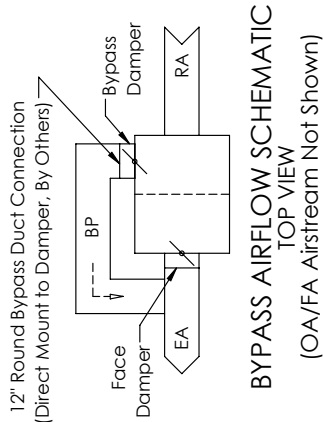
Unit may be installed in any orientation.

NOTE

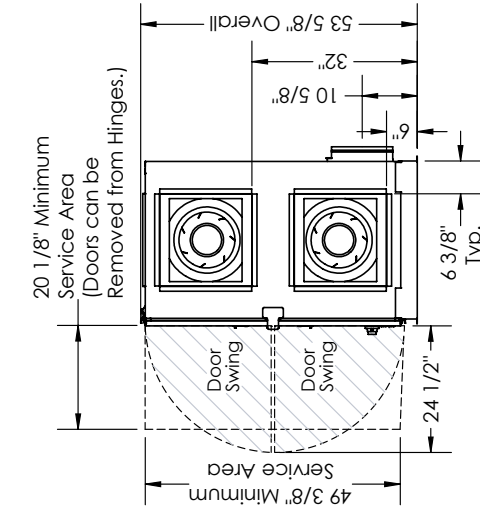
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.
3. MIN. DUCT CLEARANCE FROM DAMPER BLADE WHEN FULLY OPENED TO BE 2". SMACNA RULES APPLY.
4. UNITS WITH BYPASS WILL REQUIRE ADDITIONAL SPACE FOR THE CONNECTION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



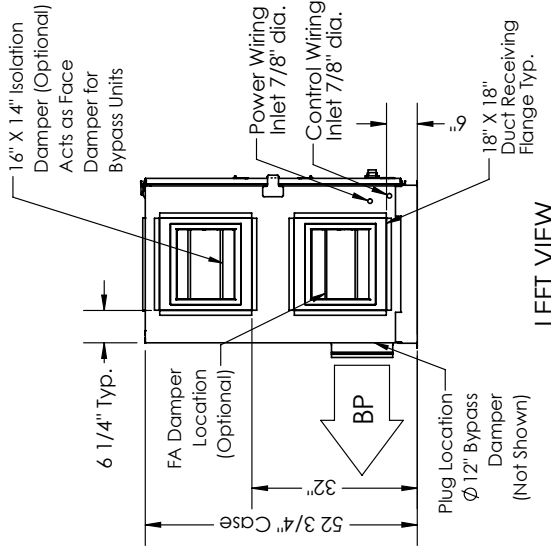
TOP VIEW



FRONT VIEW



RIGHT VIEW



LEFT VIEW

AIRFLOW CONFIGURATION

Available as shown in dimension drawing.

UNIT MOUNTING & APPLICATION

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

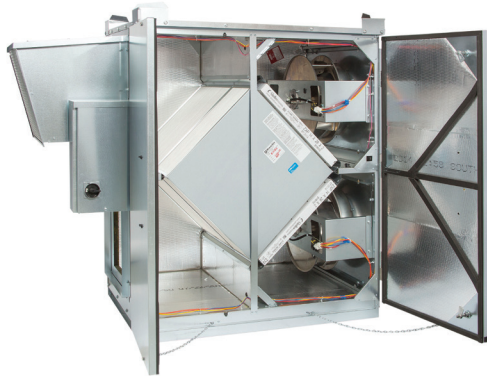


HE 1.5XRT

ENERGY RECOVERY VENTILATOR



ROOFTOP UNIT



Energy recovery core is AHRI Certified®



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):

480 W 120 V/1 Ph/60 Hz,

480 W 208–230 V/1 Ph/60 Hz

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

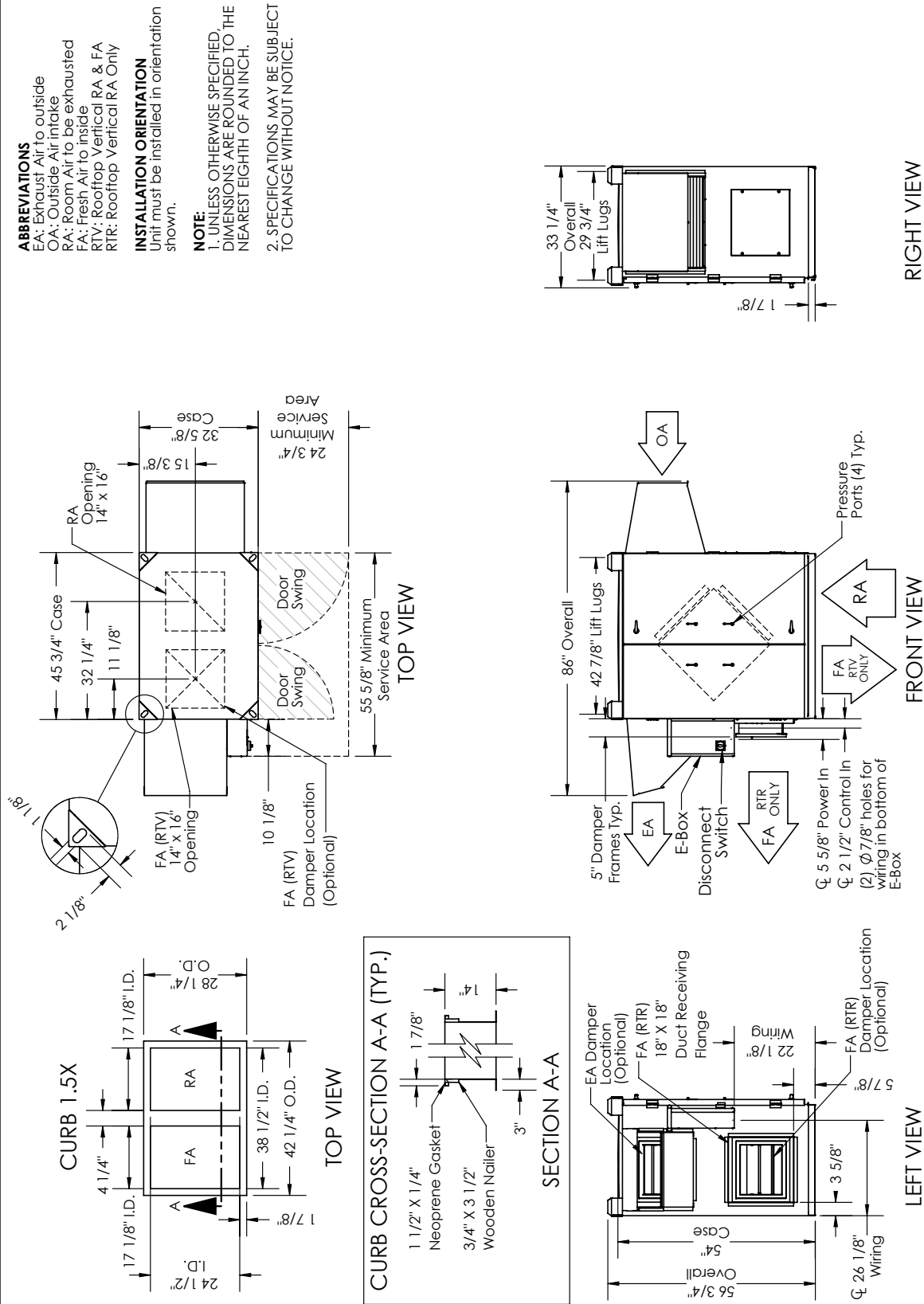
Motor HP Phase	Blower RPM	External Static Pressure (Inches Water Column)													
		0.00		0.25		0.50		0.75		1.00		1.25		1.50	
		SCFM	Watts	SCFM	Watts	SCFM	Watts	SCFM	Watts	SCFM	Watts	SCFM	Watts	SCFM	Watts
1.0 Single Phase	1475	1535	1540	1390	1515	1255	1485	1120	1445	970	1395	815	1310	640	1195
1.0 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 cal Specifications			VFD Electri-
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	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	5.0		15
1	460	60	Three	1.13	2.5	15	1.13	2.5		15

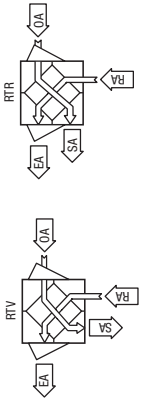
HE1.5XRT (RTV/RTR) ENERGY RECOVERY VENTILATOR



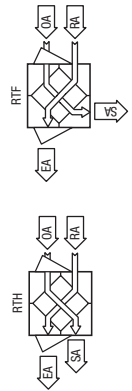
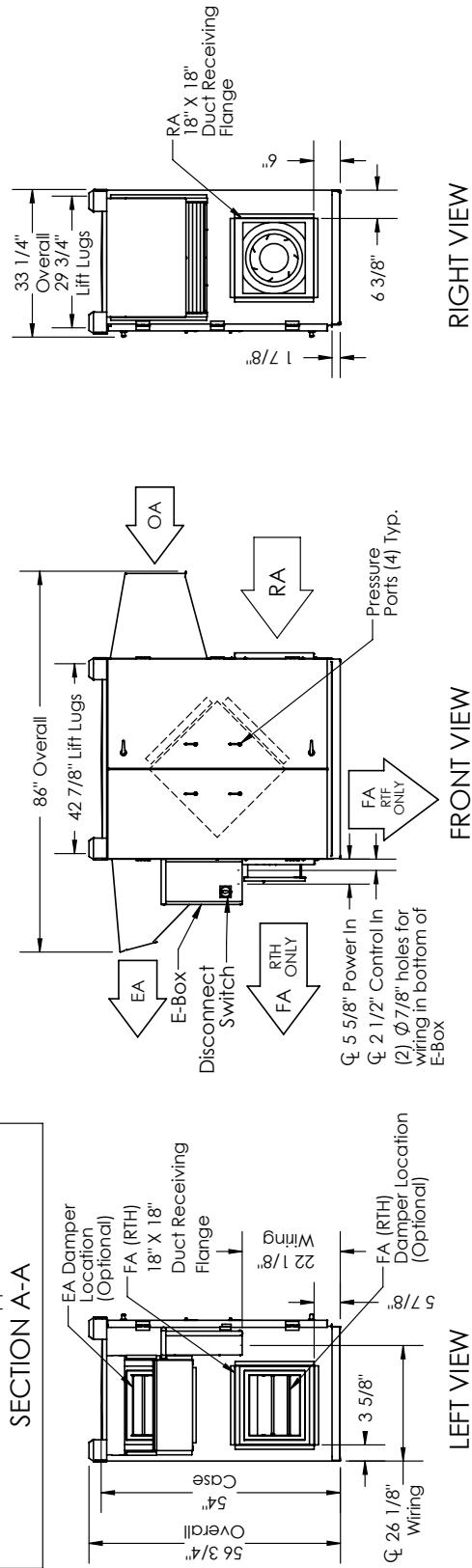
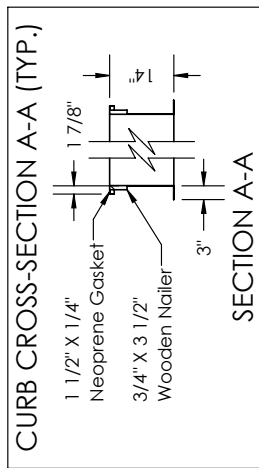
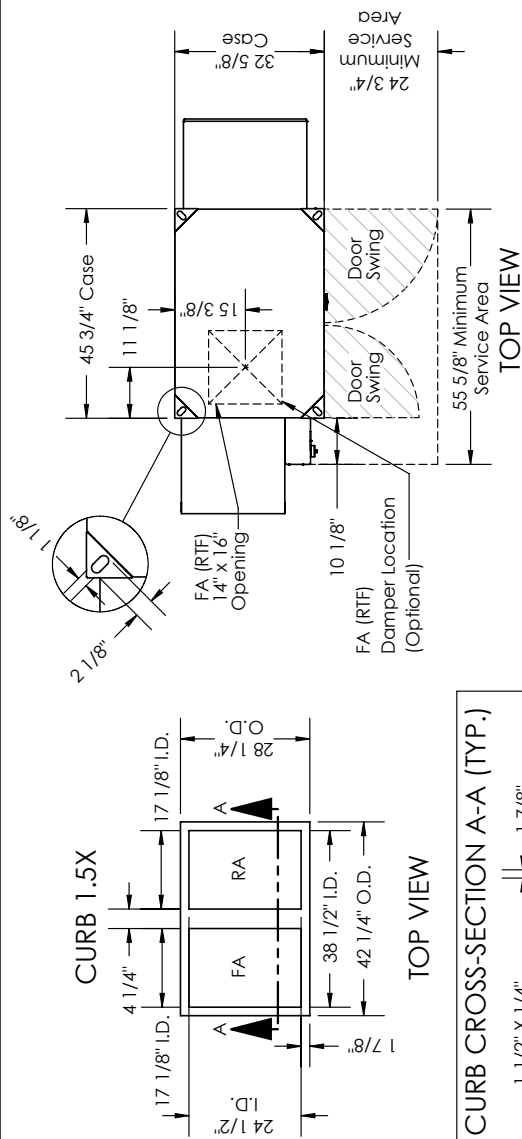
UNIT MOUNTING & APPLICATION
 Must be mounted as shown. Airstreams cannot be switched. Duct configuration is field convertible.



AIRFLOW CONFIGURATION
 Available as shown:



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



AIRFLOW CONFIGURATION

Available as shown:



UNIT MOUNTING & APPLICATION

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



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:

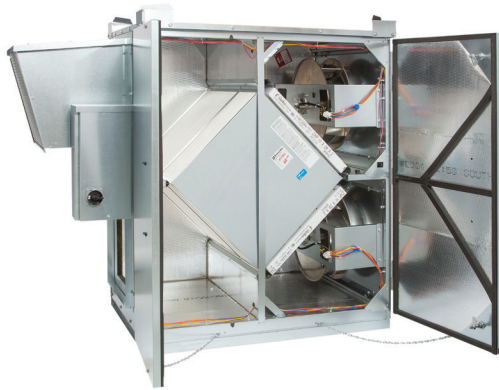
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.

2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

HE 1.5XRT

ROOFTOP UNIT

ENERGY RECOVERY VENTILATOR EC MOTOR



Energy recovery core is AHRI Certified®



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, 480 W ea., Direct drive EC motorized impellers

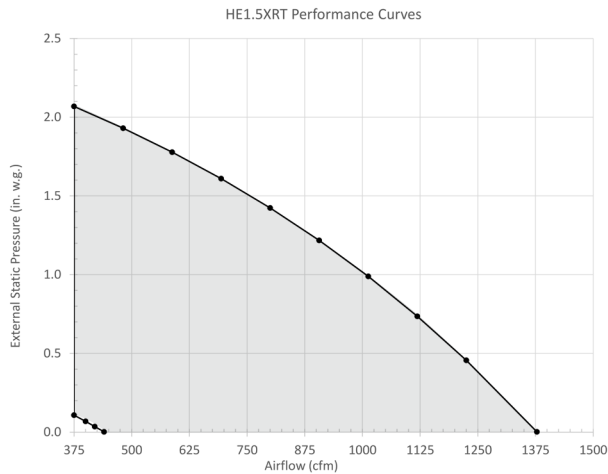
Options:

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



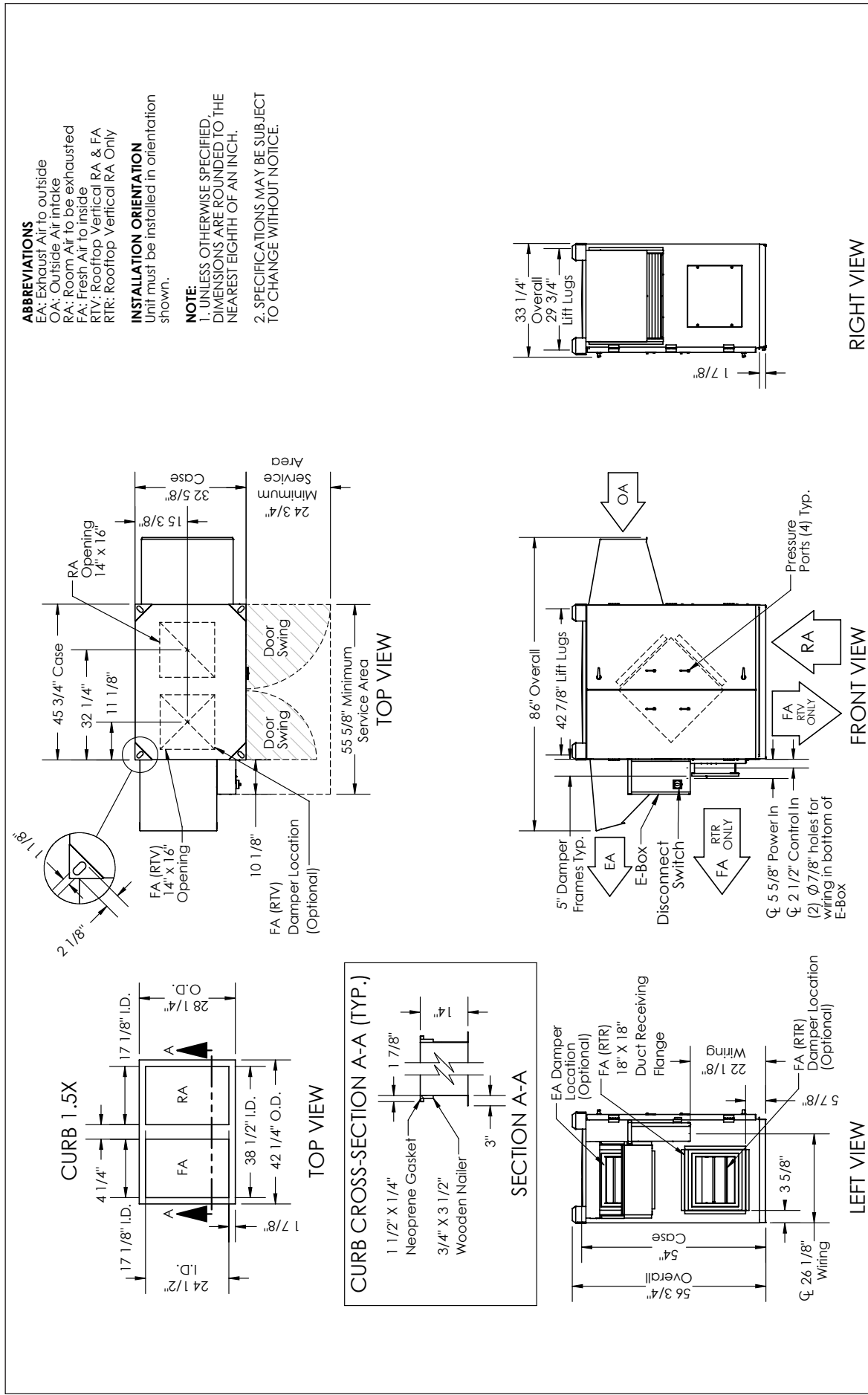
Airflow (CFM)	External Static Pressure (Inches Water Column)	Unit Power Consumption (Watts)
375	2.07	710
481	1.93	765
588	1.78	814
694	1.61	859
800	1.42	899
906	1.22	933
1013	0.99	963
1119	0.74	987
1225	0.46	1006
1378	0.00	1024

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

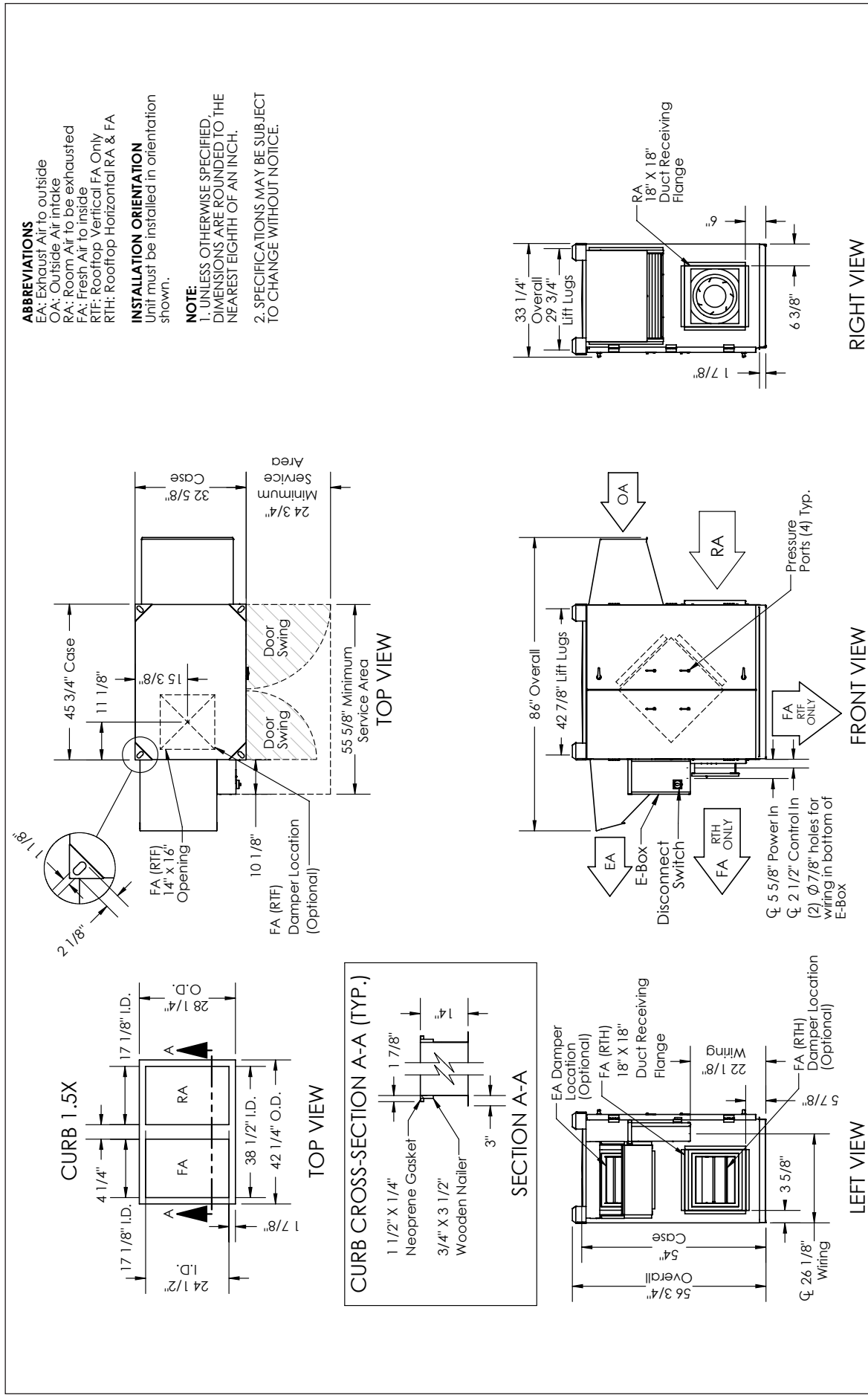
HE1.5XRT (RTV/RTR) ENERGY RECOVERY VENTILATOR EC MOTOR OPTION



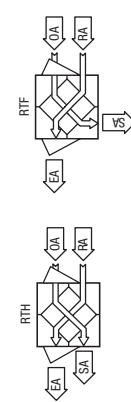
UNIT MOUNTING & APPLICATION
 Must be mounted as shown. Airstreams cannot be switched. Duct configuration is field convertible.

AIRFLOW CONFIGURATION
 Available as shown:

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

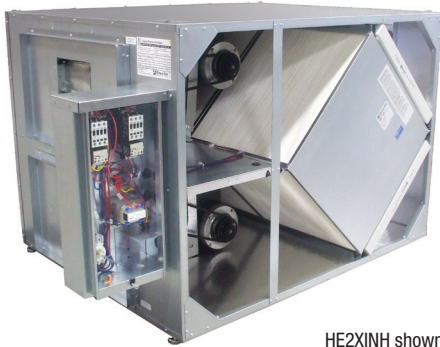


UNIT MOUNTING & APPLICATION
 Must be mounted as shown. Airstreams cannot be switched. Duct configuration is field convertible.





INDOOR UNIT



HE2XINH shown

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:

H: 406–619 lbs., varies by option(s)

V: 363–538 lbs., varies by options(s)

Max. Shipping Dimensions & Weight (on pallet):

H: 70" L x 47" W x 40" H

714 lbs.

V: 70" L x 47" W x 40" H

678 lbs.

Motor(s):

Qty. 2, Belt drive blower/standard motor (IE3) packages with adjustable sheaves

Options:

Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
 Onboard 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.



ENERGY RECOVERY VENTILATOR



ELECTRICAL DATA

Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	Hz	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	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						
1.5	208-230	60	Single	8.2-7.6	18.5	25	4.5-4.4	17.5	25			
	208-230	60	Three	4.5-4.4	10.1	15	4.5-4.4	10.1	15			
	460	60	Three	2.2	5.0	15	2.2	5.0	15			
	575	60	Three	1.8	4.1	15	1.8	4.1	15			
2.0	120	60	Single	20.0	45.0	60						
2.0	208-230	60	Single	10.8-10.0	24.3	35	6.6-5.8	25.7	35	4.5-4.5	17.5	25
	208-230	60	Three	6.6-5.8	14.9	20	6.6-5.8	14.9	20	4.5-4.5	10.1	15
	460	60	Three	2.9	6.5	15	2.9	6.5	15	2.3	5.2	15
	575	60	Three	2.3	5.2	15	2.3	5.2	15			

HE2XINH ENERGY RECOVERY VENTILATOR

ABBREVIATIONS

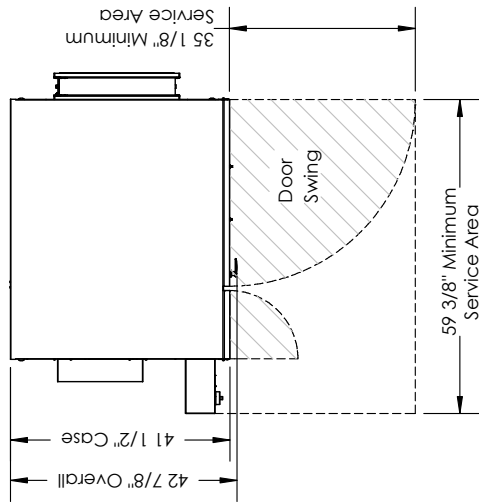
EA: Exhaust Air to outside
OA: Outside Air intake
RA: Room Air to be exhausted
FA: Fresh Air to inside

INSTALLATION ORIENTATION

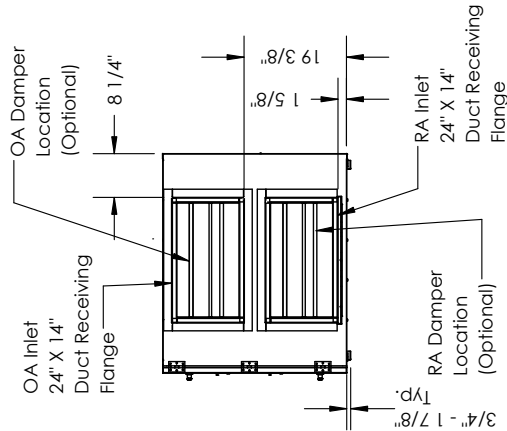
Unit must be installed in orientation shown.

NOTE

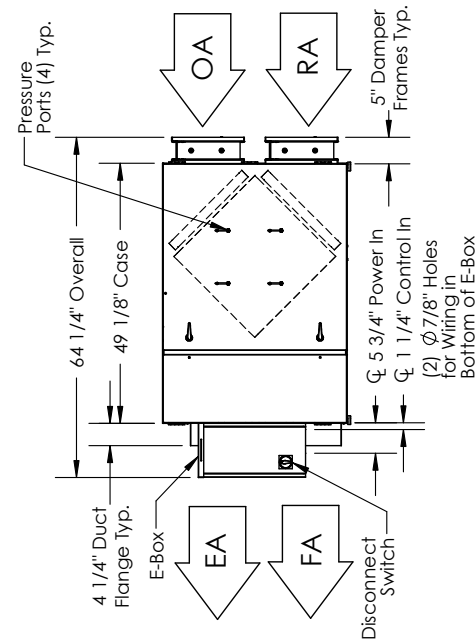
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.
3. MIN. DUCT CLEARANCE FROM DAMPER BLADES WHEN FULLY OPENED TO BE 2". SMACNA RULES APPLY.



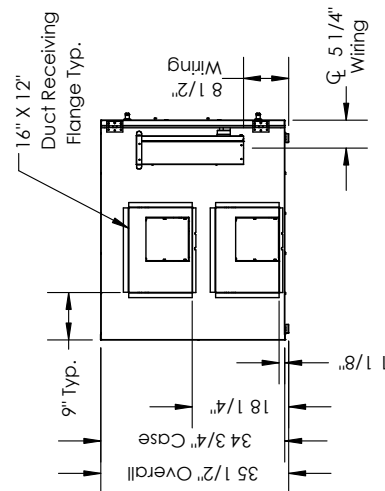
TOP VIEW



RIGHT VIEW



FRONT VIEW



LEFT VIEW

AIRFLOW ORIENTATION

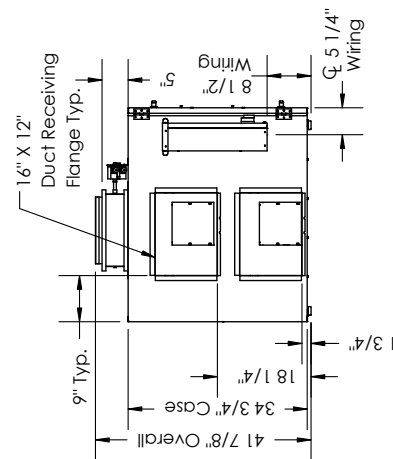
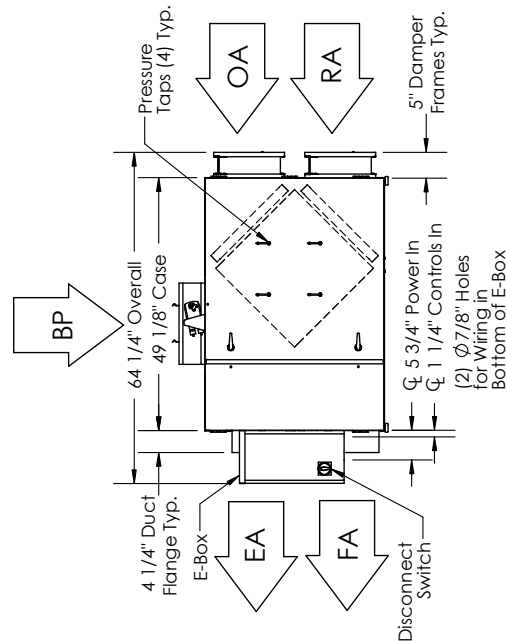
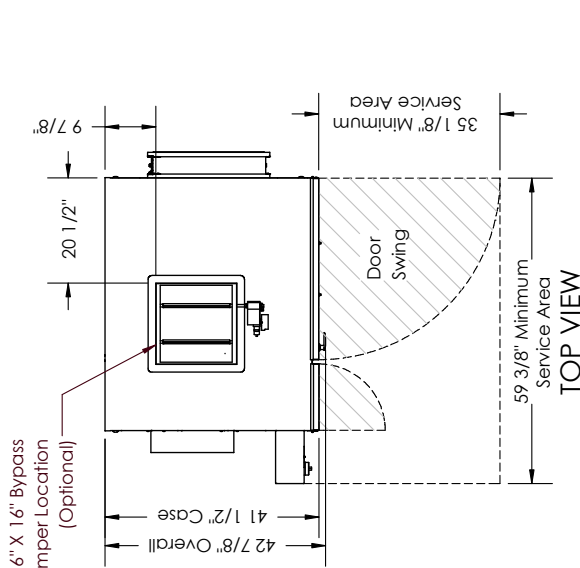
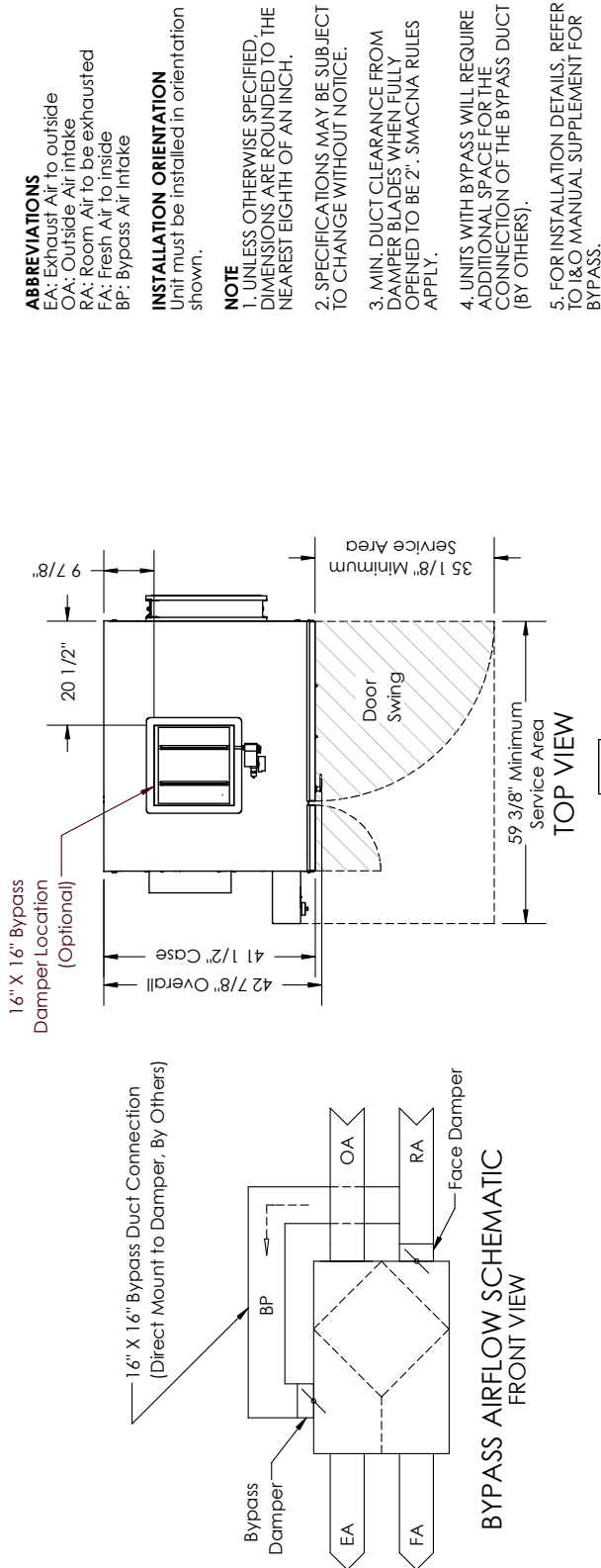
Available as shown in dimension drawing.

UNIT MOUNTING & APPLICATION

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



HE2XINH ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER



RIGHT VIEW

FRONT VIEW

LEFT VIEW

UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.



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

INSTALLATION ORIENTATION

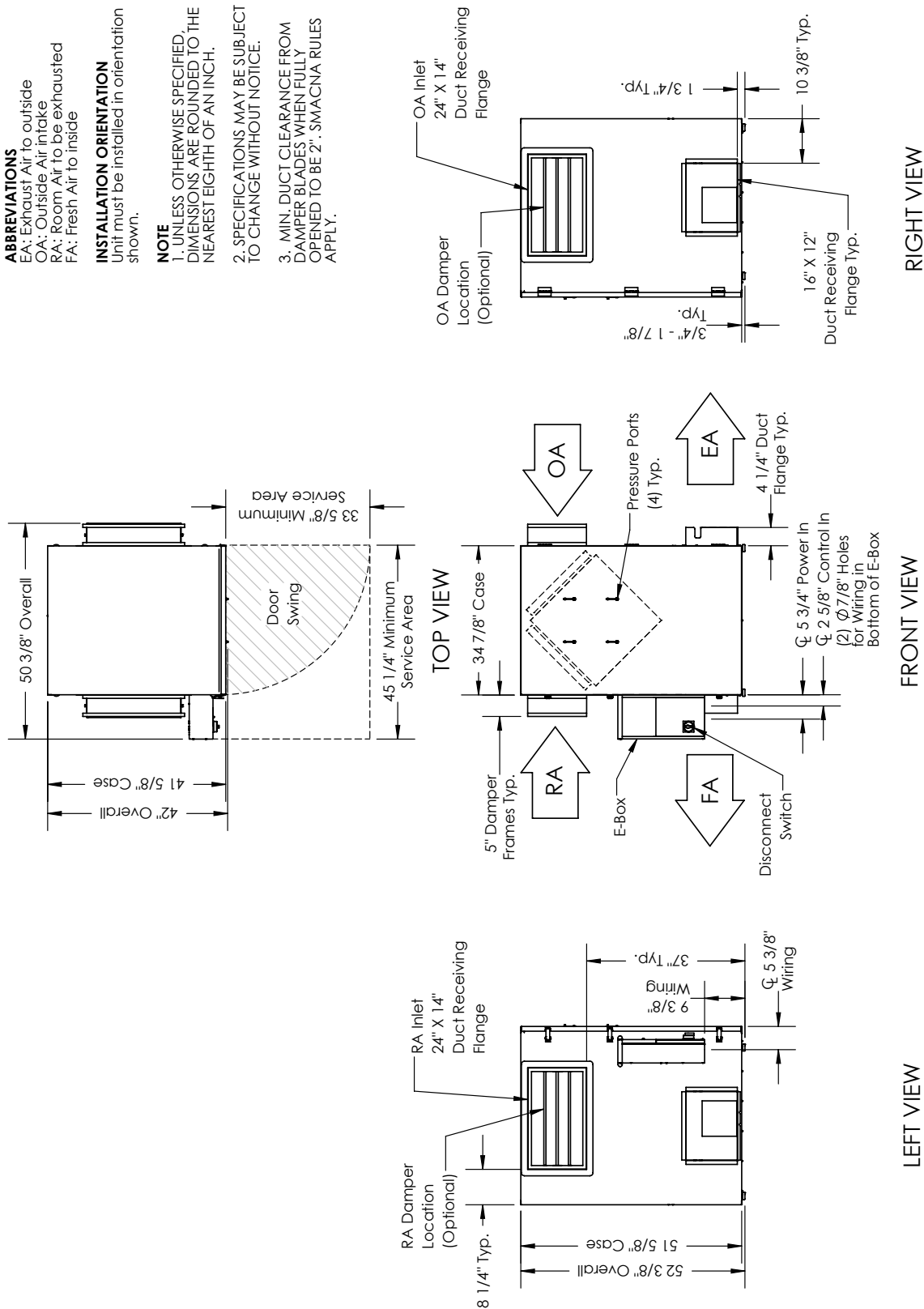
INSTALLATION ORIENTATION
Unit must be installed in orientation shown.

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.



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.





ROOFTOP UNIT

ENERGY RECOVERY VENTILATOR



Energy recovery core is AHRI Certified®



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 (IE3) packages with adjustable sheaves

Options:

Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
Onboard 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	776	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.

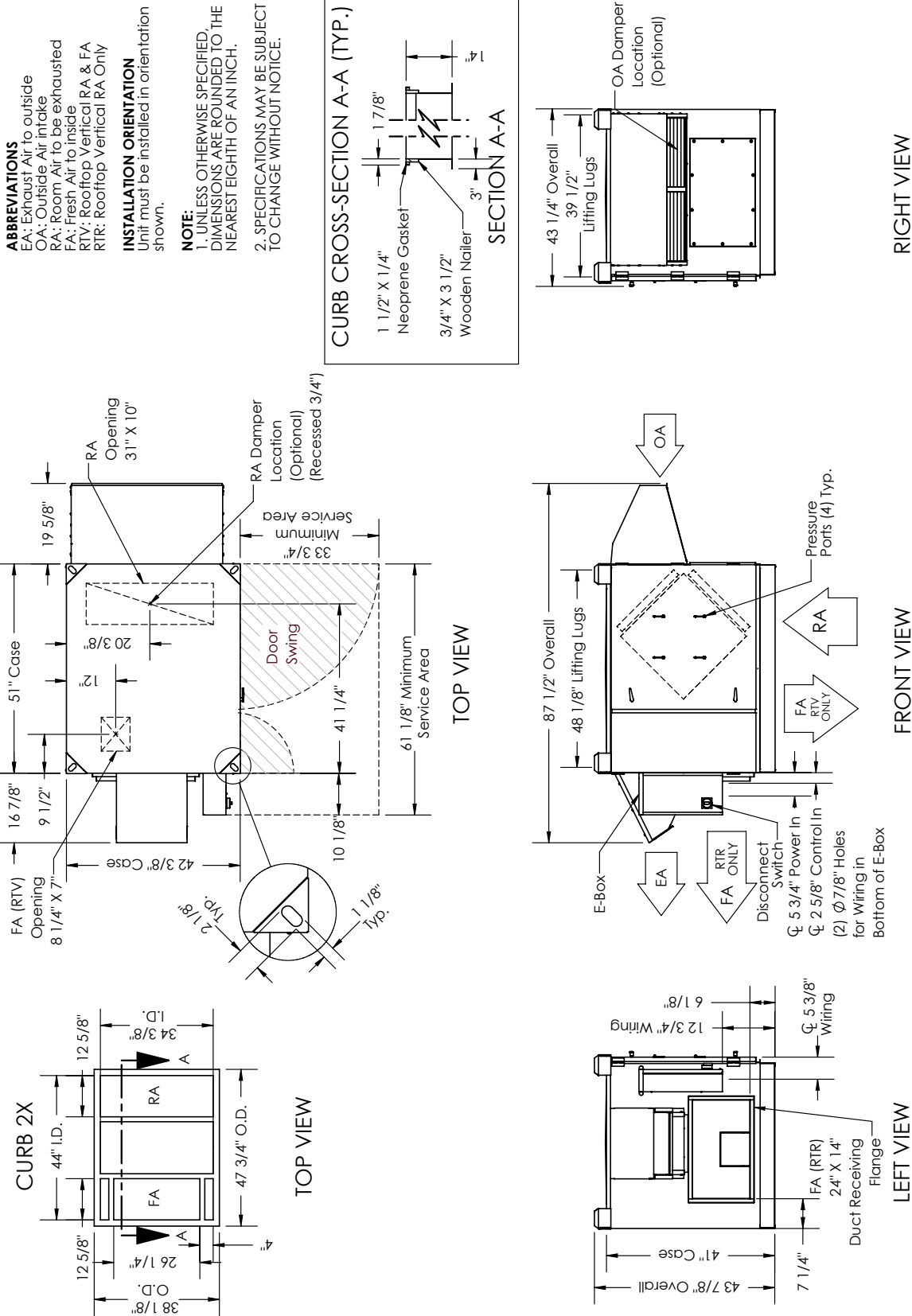
Operation in this zone outside of core airflow limits.

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

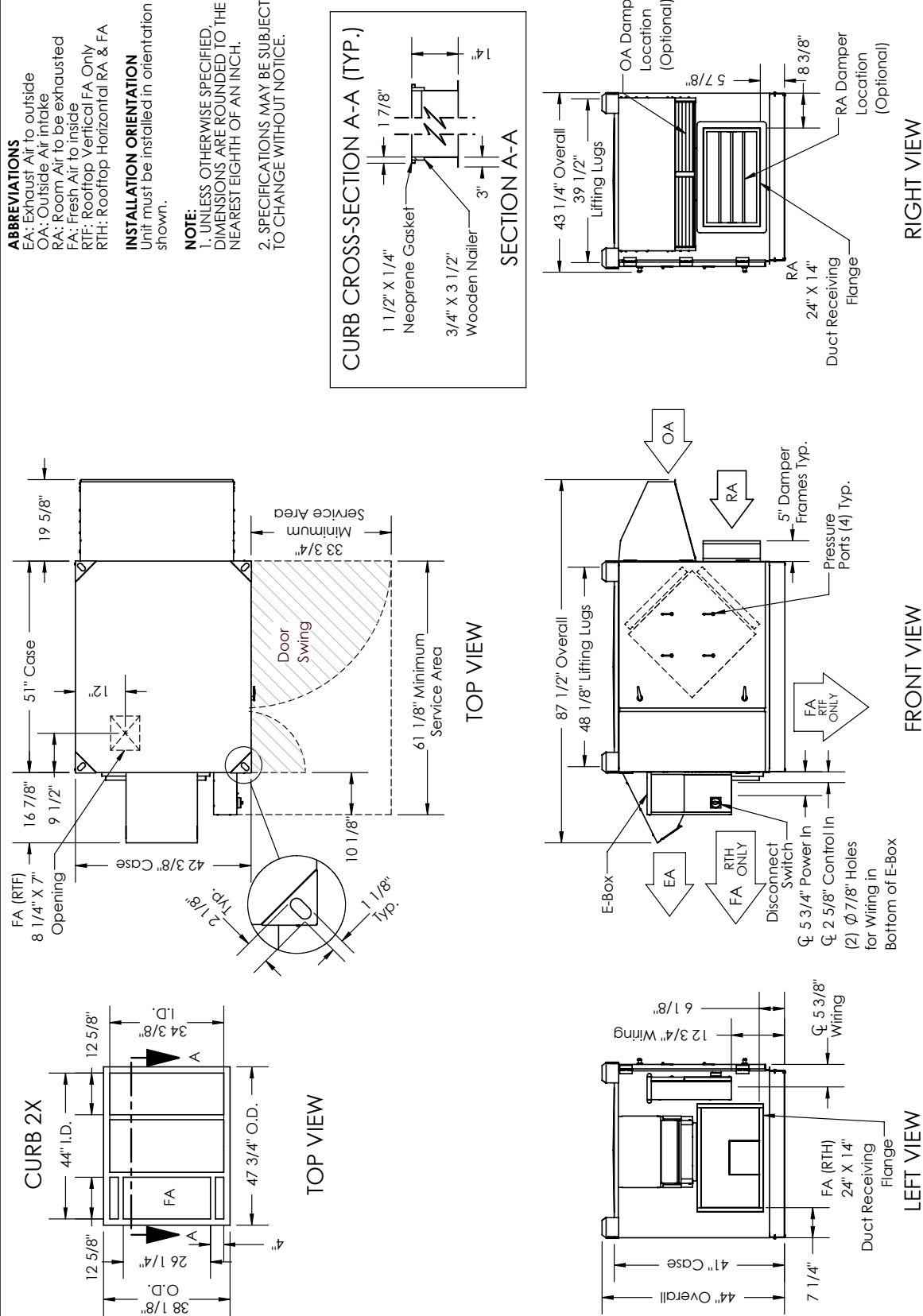
ELECTRICAL DATA

Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	Hz	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	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						
1.5	208–230	60	Single	8.2–7.6	18.5	25	4.5–4.4	17.5	25			
	208–230	60	Three	4.5–4.4	10.1	15	4.5–4.4	10.1	15			
	460	60	Three	2.2	5.0	15	2.2	5.0	15			
	575	60	Three	1.8	4.1	15	1.8	4.1	15			
2.0	120	60	Single	20.0	45.0	60						
2.0	208–230	60	Single	10.8–10.0	24.3	35	6.6–5.8	25.7	35	4.5–4.5	17.5	25
	208–230	60	Three	6.6–5.8	14.9	20	6.6–5.8	14.9	20	4.5–4.5	10.1	15
	460	60	Three	2.9	6.5	15	2.9	6.5	15	2.3	5.2	15
	575	60	Three	2.3	5.2	15	2.3	5.2	15			

HE2XRT (RTV/RTR) ENERGY RECOVERY VENTILATOR



HE2XRT (RTH/RTF) ENERGY RECOVERY VENTILATOR

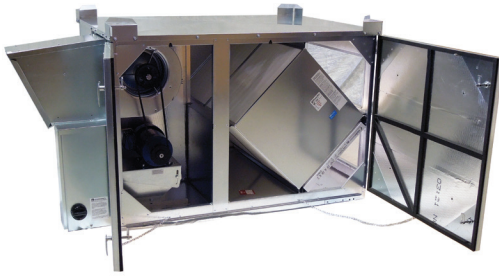




ENERGY RECOVERY VENTILATOR



ROOFTOP UNIT DIRECT CONNECT



Energy recovery core is AHRI Certified®



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 (IE3) motor
packages with adjustable sheaves

Options:

Ultra premium efficiency (IE5+) motors with variable
frequency drive (VFDs): both airstreams

Onboard 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

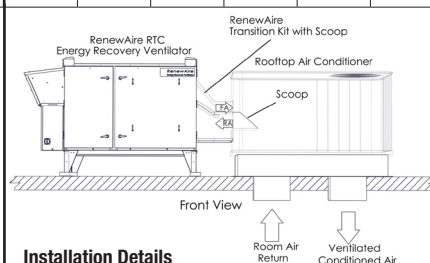
Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	Hz	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device
2.0	208–230	60	Single	10.8–10.0	24.3	35	6.6–5.8	25.7	35	4.5–4.5	17.5	25
	208–230	60	Three	6.6–5.8	14.9	20	6.6–5.8	14.9	20	4.5–4.5	10.1	15
	460	60	Three	2.9	6.5	15	2.9	6.5	15	2.3	5.2	15
	575	60	Three	2.3	5.2	15	2.3	5.2	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		+0.75	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
Exhaust Air	1450	0											1785	1.85	1664	1.6
	1370	1	2060	1.9	2000	1.9	1940	1.9	1900	1.9	1740	1.8	1570	1.57	1400	1.4
	1290	2	1940	1.7	1860	1.7	1780	1.7	1727	1.6	1575	1.5	1350	1.40	1125	1.3
	1210	3	1765	1.5	1700	1.5	1635	1.5	1560	1.4	1385	1.3	1165	1.12	945	1.0
	1130	4	1580	1.3	1515	1.3	1450	1.2	1365	1.1	1235	1.1	978	0.88	721	0.7
	1050	5	1390	1.1	1345	1.1	1300	1.1	1200	1.0	1060	0.9	810	0.80	560	0.7
	945	6	1198	0.9	1154	0.9	1110	0.9	1025	0.7	895	0.6	765	0.61	635	0.6
Fresh Air	1705	0									1600	2.0	1480	1.87	1360	1.7
	1610	1					1635	2.0	1555	1.9	1490	1.8	1375	1.67	1260	1.5
	1515	2	1742	2.0	1631	1.9	1520	1.7	1430	1.6	1355	1.6	1230	1.43	1105	1.3
	1420	3	1620	1.7	1515	1.6	1410	1.5	1300	1.4	1230	1.4	1115	1.23	1000	1.1
	1325	4	1465	1.5	1370	1.4	1275	1.3	1190	1.3	1120	1.2	995	1.05	870	0.9
	1230	5	1325	1.3	1245	1.2	1165	1.1	1080	1.0	985	0.9	850	0.79	715	0.6
	1090	6	1170	1.0	1085	0.9	1000	0.8	905	0.8	824	0.7	743	0.64	662	0.6

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

ABBREVIATION

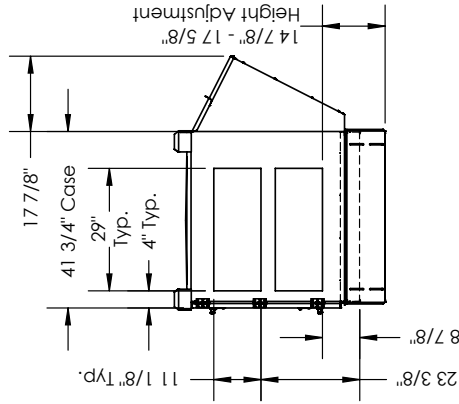
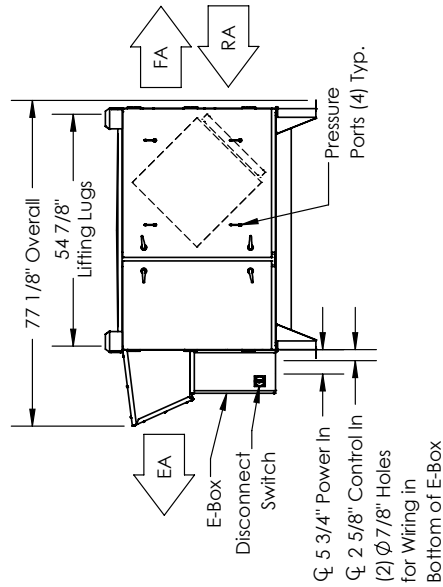
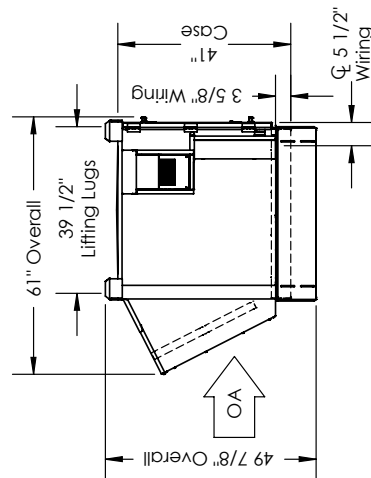
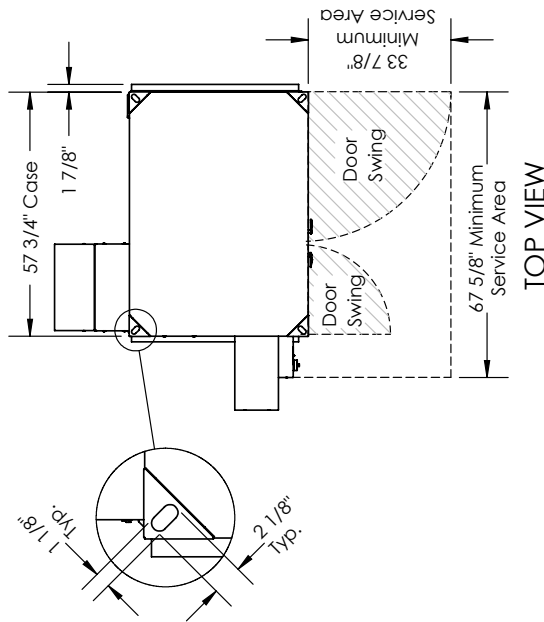
EA: Exhaust Air to outside
OA: Outside Air intake
RA: Room Air to be exhausted
FA: Fresh Air to inside

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.



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: 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:

Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
Onboard VFDs: both airstream
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		1.50	
			SCFM	BHP	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	1110	0.6
3.0	1496	3	2905	2.4	2815	2.3	2675	2.1	2505	1.9	2340	1.8	2220	1.6	1655	1.2
	1560	2	3030	2.7	2945	2.6	2825	2.5	2655	2.3	2445	2.1	2325	1.9	1990	1.6
	1656	0.5					3040	3.0	2875	2.8	2720	2.6	2575	2.4	2380	2.2
	1688	0							2950	2.9	2800	2.8	2650	2.6	2490	3.0
5.0	1686	3	3300	3.5	3225	3.4	3015	3.2	2855	3.0	2800	2.8	2645	2.6	2470	2.4
	1764	1.5					3290	3.8	3145	3.5	2995	3.3	2850	3.1	2705	2.9
	1843	0							3300	4.1	3175	3.8	3040	3.6	2900	3.4

Operation in this zone will likely exceed FLA limits.

Operation in this zone outside of core airflow limits.

Operation in this zone will likely exceed FLA limits 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.



3XINH

ENERGY RECOVERY VENTILATOR



ELECTRICAL DATA

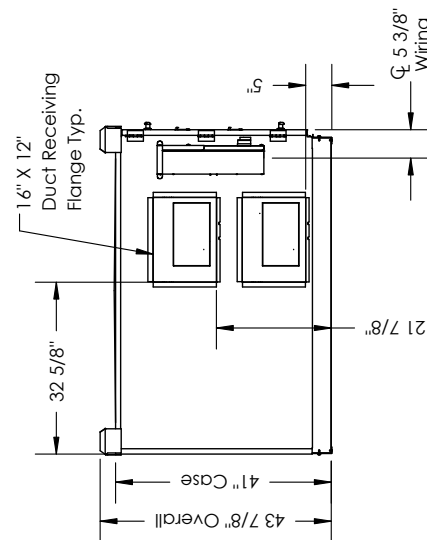
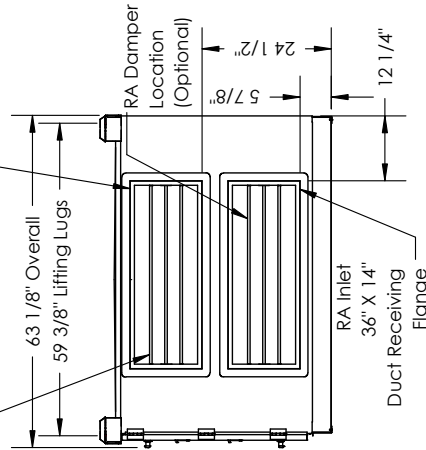
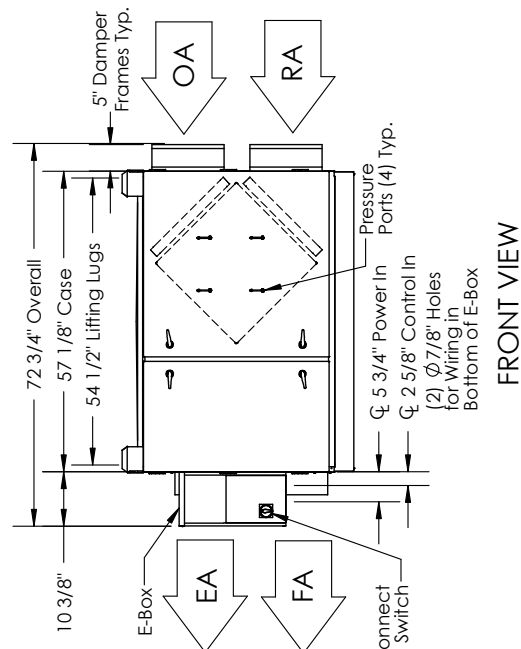
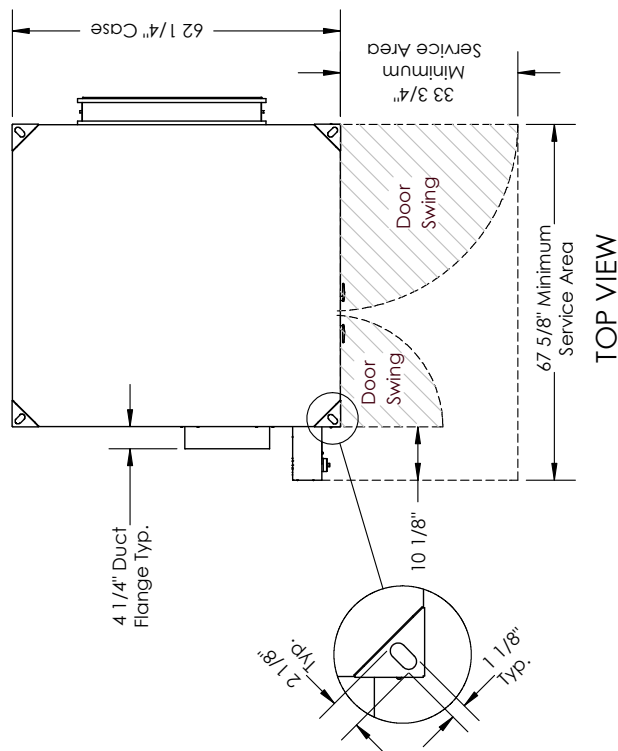
Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device
2.0	120	60	Single	20	45.0	60						
2.0	208-230	60	Single	10.8-10	24.3	35	6.6-5.8	25.7	35	4.5-4.5	17.5	25
	208-230	60	Three	6.6-5.8	14.9	20	6.6-5.8	14.9	20	4.5-4.5	10.1	15
	460	60	Three	2.9	6.5	15	2.9	6.5	15	2.3	5.2	15
	575	60	Three	2.3	5.2	15	2.3	5.2	15			
3.0	208-230	60	Single	14.6-14	32.9	45	9-8.4	35.1	50	7.3-7.3	28.4	40
	208-230	60	Three	9-8.4	20.3	25	9-8.4	20.3	25	7.3-7.3	16.4	20
	460	60	Three	4.2	9.5	15	4.2	9.5	15	3.7	8.3	15
	575	60	Three	3.3	7.4	15	3.3	7.4	15			
5.0	208-230	60	Three	13.9-13.4	31.3	45	13.9-13.4	31.3	45	10.5-10.5	23.6	30
	460	60	Three	6.7	15.1	20	6.7	15.1	20	5.3	11.9	15
	575	60	Three	5.3	11.9	15	5.3	11.9	15			

HE3XINH 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.

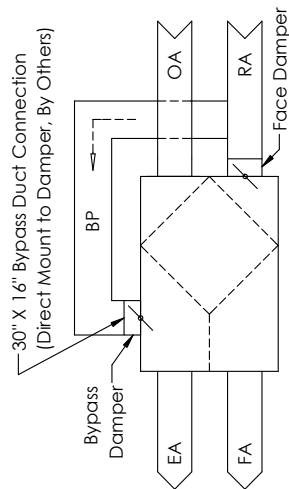


AIRFLOW ORIENTATION
 Available as shown in dimension drawing.

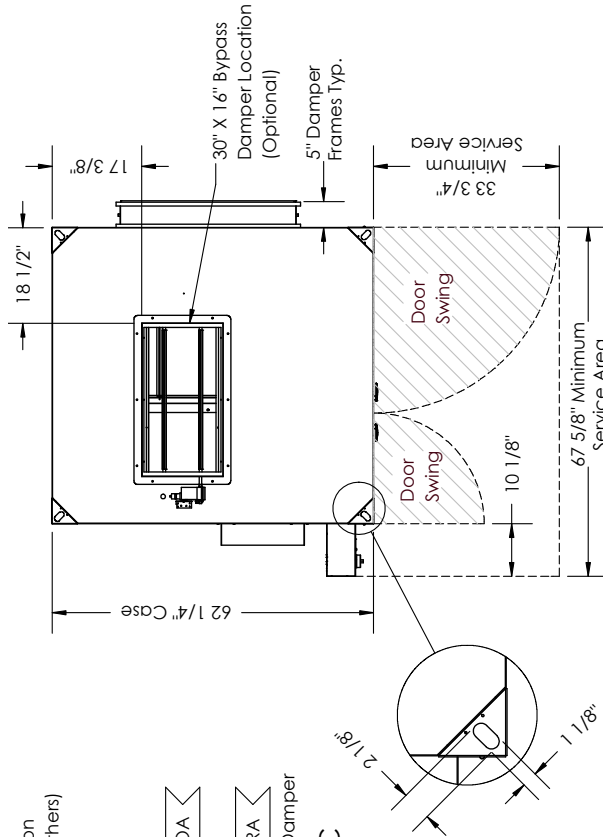
UNIT MOUNTING & APPLICATION
 Must be mounted as shown. RA/EA airstream can be switched with OA/FA airstream unless certain options are selected.



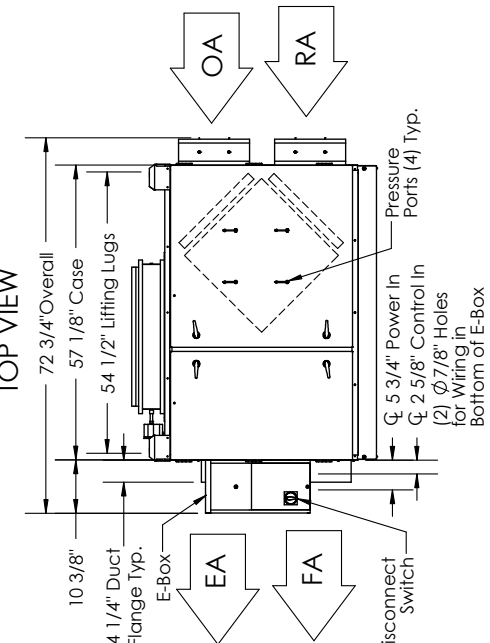
HE3XINH ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER



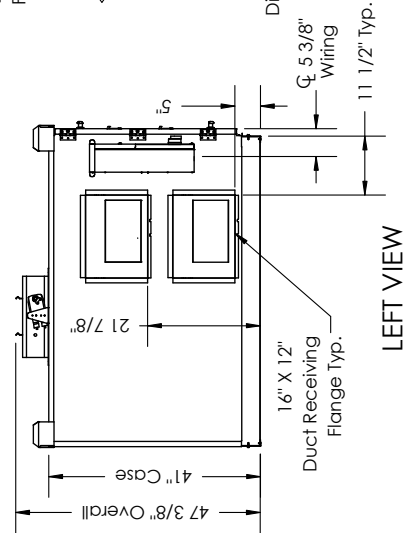
**BYPASS AIRFLOW SCHEMATIC
FRONT VIEW**



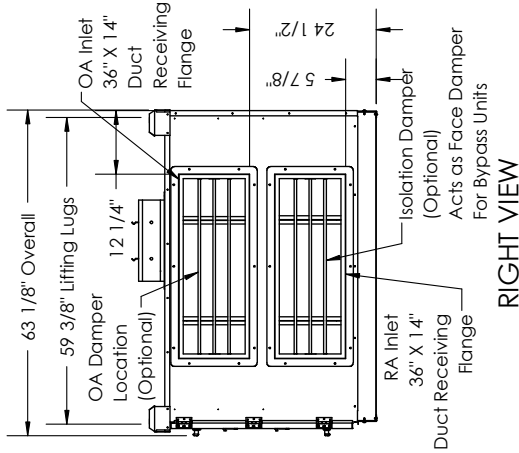
TOP VIEW



FRONT VIEW



LEFT VIEW



RIGHT 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.

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: 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:

590–999 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

60" L x 90" W x 70" H

1,094 lbs.

Motor(s):

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

Options:

Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
Onboard 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		1.50	
			SCFM	BHP	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	1420	1.1
	1632	1.5	2985	2.5	2880	2.4	2760	2.3	2590	2.2	2400	2.0	2145	1.8	1855	1.6
	1696	0.5	3100	2.8	3000	2.7	2900	2.7	2735	2.5	2505	2.3	2335	2.1	2065	1.9
	1728	0	3160	3.0	3055	2.9	2960	2.8	2800	2.6	2635	2.5	2425	2.3	2165	2.1
5.0	1749	2	3300	3.3	3200	3.1	3020	2.8	2860	2.6	2660	2.3	2440	2.1	2200	1.8
	1801	1			3300	3.4	3140	3.1	2980	2.8	2800	2.6	2585	2.8	2350	2.1
	1853	0					3245	3.4	3090	3.1	2920	2.9	2715	2.6	2500	2.4

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.



3XINV

ENERGY RECOVERY VENTILATOR



ELECTRICAL DATA

Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	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	45.0	60						
2.0	208-230	60	Single	10.8-10	24.3	35	6.6-5.8	25.7	35	4.5-4.5	17.5	25
	208-230	60	Three	6.6-5.8	14.9	20	6.6-5.8	14.9	20	4.5-4.5	10.1	15
	460	60	Three	2.9	6.5	15	2.9	6.5	15	2.3	5.2	15
	575	60	Three	2.3	5.2	15	2.3	5.2	15			
3.0	208-230	60	Single	14.6-14	32.9	45	9-8.4	35.1	50	7.3-7.3	28.4	40
	208-230	60	Three	9-8.4	20.3	25	9-8.4	20.3	25	7.3-7.3	16.4	20
	460	60	Three	4.2	9.5	15	4.2	9.5	15	3.7	8.3	15
	575	60	Three	3.3	7.4	15	3.3	7.4	15			
5.0	208-230	60	Three	13.9-13.4	31.3	45	13.9-13.4	31.3	45	10.5-10.5	23.6	30
	460	60	Three	6.7	15.1	20	6.7	15.1	20	5.3	11.9	15
	575	60	Three	5.3	11.9	15	5.3	11.9	15			

HE3XINV ENERGY RECOVERY VENTILATOR

ABBREVIATION

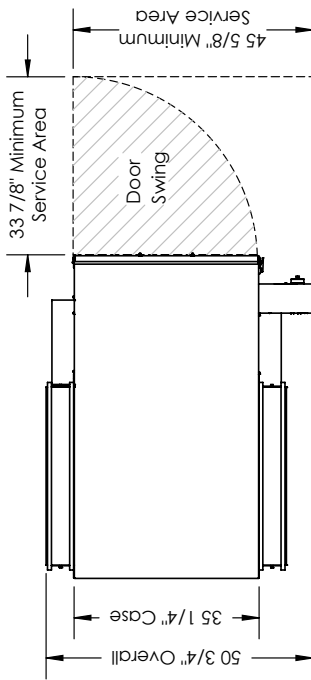
EA: Exhaust Air to outside
OA: Outside Air Intake
RA: Room Air to be exhausted
FA: Fresh Air to inside

INSTALLATION ORIENTATION

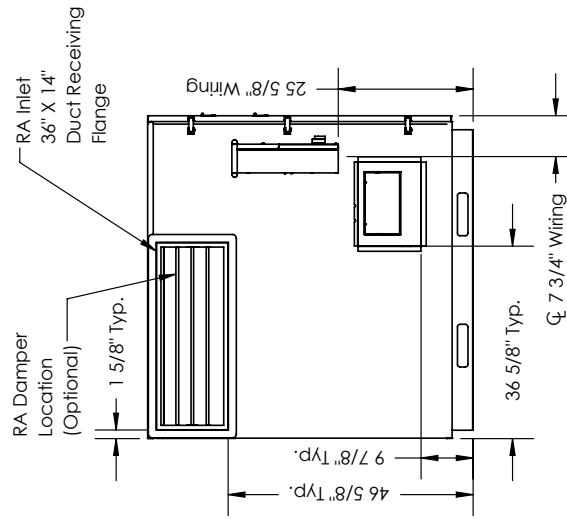
Unit must be installed in orientation shown.

NOTE:

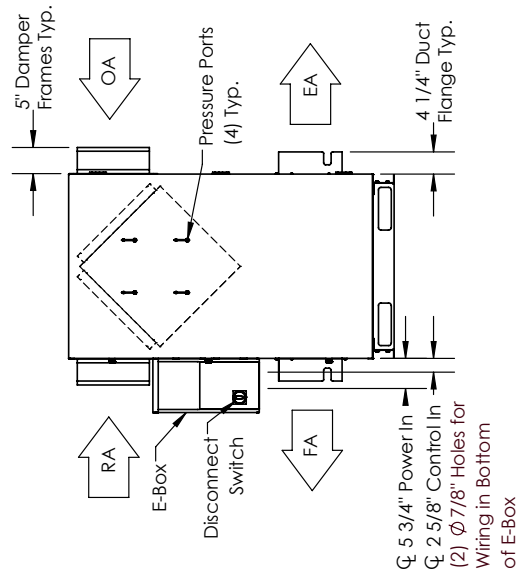
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.
3. MIN. DUCT CLEARANCE FROM DAMPER BLADES WHEN FULLY OPENED TO BE 2". SMACNA RULES APPLY.



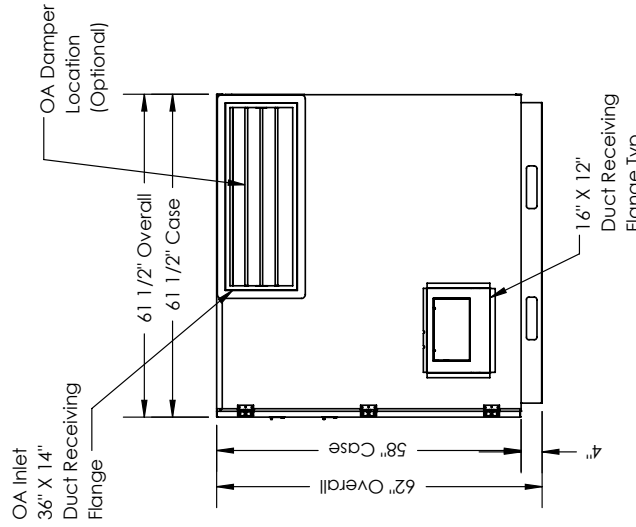
TOP VIEW



LEFT VIEW



FRONT VIEW



RIGHT VIEW

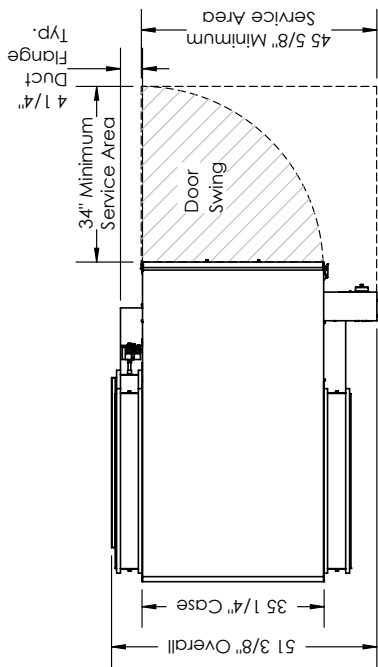
AIRFLOW ORIENTATION

Available as shown in dimension drawing.

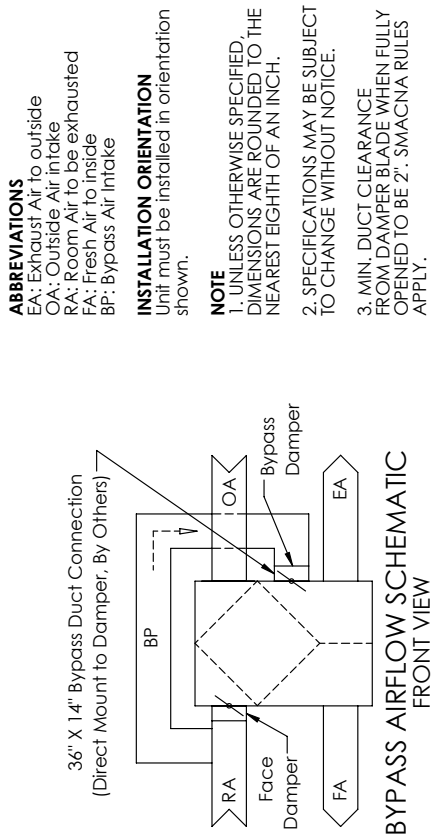


UNIT MOUNTING & APPLICATION

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



TOP VIEW



BYPASS AIRFLOW SCHEMATIC
FRONT VIEW

ABBREVIATIONS

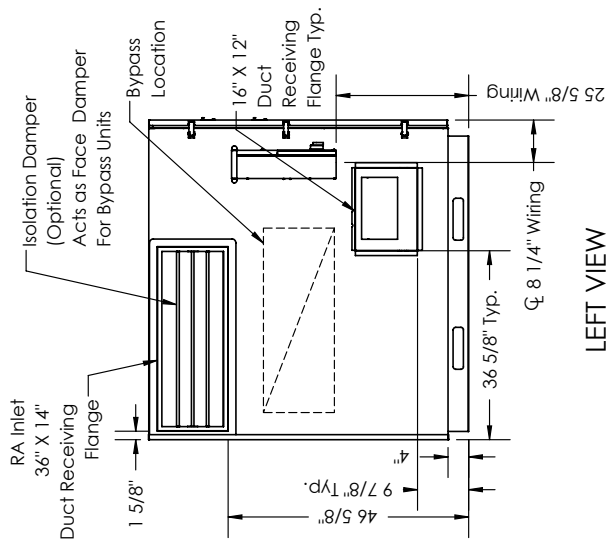
EA: Exhaust Air to outside
OA: Outside Air Intake
RA: Room Air to be exhausted
BP: Bypass Air Intake

INSTALLATION ORIENTATION

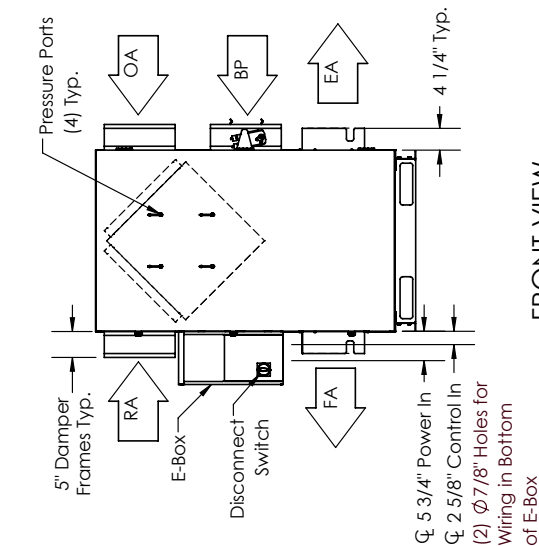
Unit must be installed in orientation shown.

NOTE

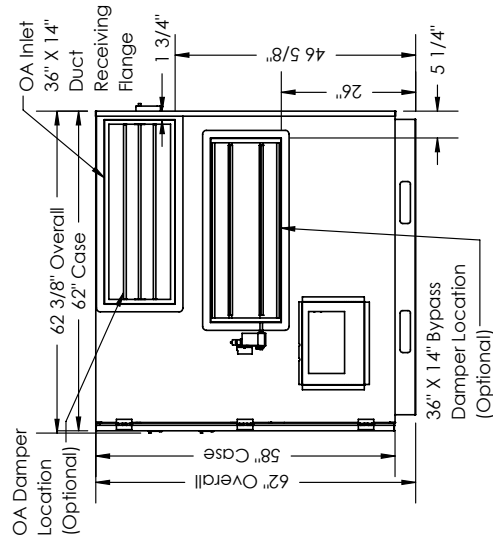
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.
3. MIN. DUCT CLEARANCE FROM DAMPER BLADE WHEN FULLY OPENED TO BE 2". SMAGNA RULES APPLY.
4. UNITS WITH BYPASS WILL REQUIRE ADDITIONAL SPACE FOR THE CONNECTION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



LEFT VIEW



FRONT VIEW



RIGHT VIEW

AIRFLOW ORIENTATION

Available as shown in dimension drawing.

UNIT MOUNTING & APPLICATION

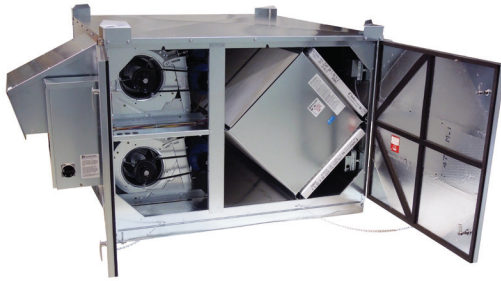
Must be mounted as shown. Airstreams cannot be switched.





ROOFTOP UNIT

ENERGY RECOVERY VENTILATOR



Energy recovery core is AHRI Certified®



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:

Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
Onboard 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		1.50	
			SCFM	BHP	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						
	1347	2	2380	1.4	2210	1.2	2005	1.0	1725	0.8	1365	0.5				
	1488	0	2630	1.9	2470	1.6	2300	1.4	2100	1.2	1800	0.9	1435	0.7	820	0.4
3.0	1533	3	2790	2.5	2660	2.3	2500	2.1	2290	1.8	2040	1.6	1765	1.3	1265	1.0
	1597	2	2905	2.8	2785	2.6	2630	2.4	2340	2.1	2200	1.9	1955	1.6	1640	1.3
	1661	0.5			2810	3.0	2760	2.7	2585	2.5	2365	2.2	2140	1.9	1890	1.6
	1692	0					2820	2.9	2665	2.7	2450	2.4	2220	2.1	1980	1.8
5.0	1686	3	3110	3.5	3000	3.2	2890	3.0	2730	2.7	2520	2.4	2295	2.1	2000	1.8
	1764	1.5	3255	4.0	3150	3.7	3045	3.5	2905	3.2	2720	2.9	2520	2.5	2270	2.2
	1843	0			3300	4.2	3200	4.0	3075	3.7	2910	3.4	2715	3.0	2500	2.7

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

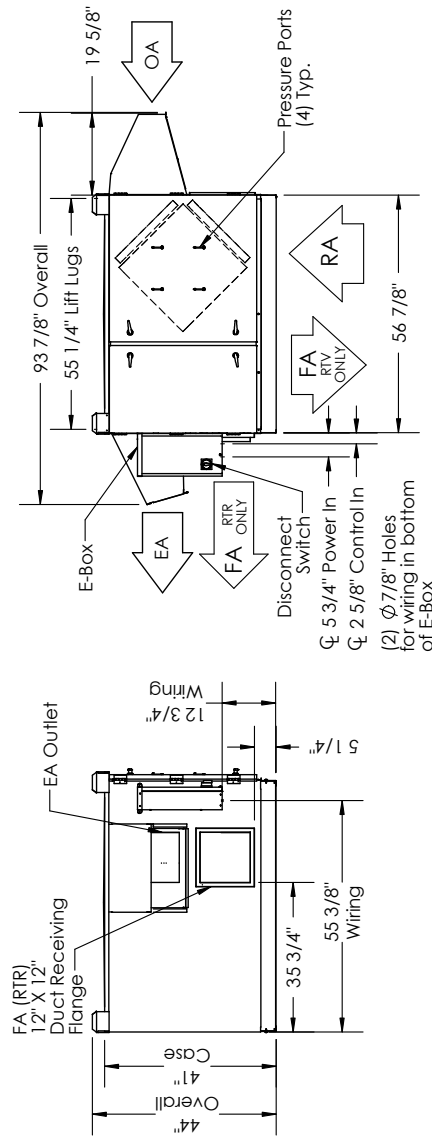
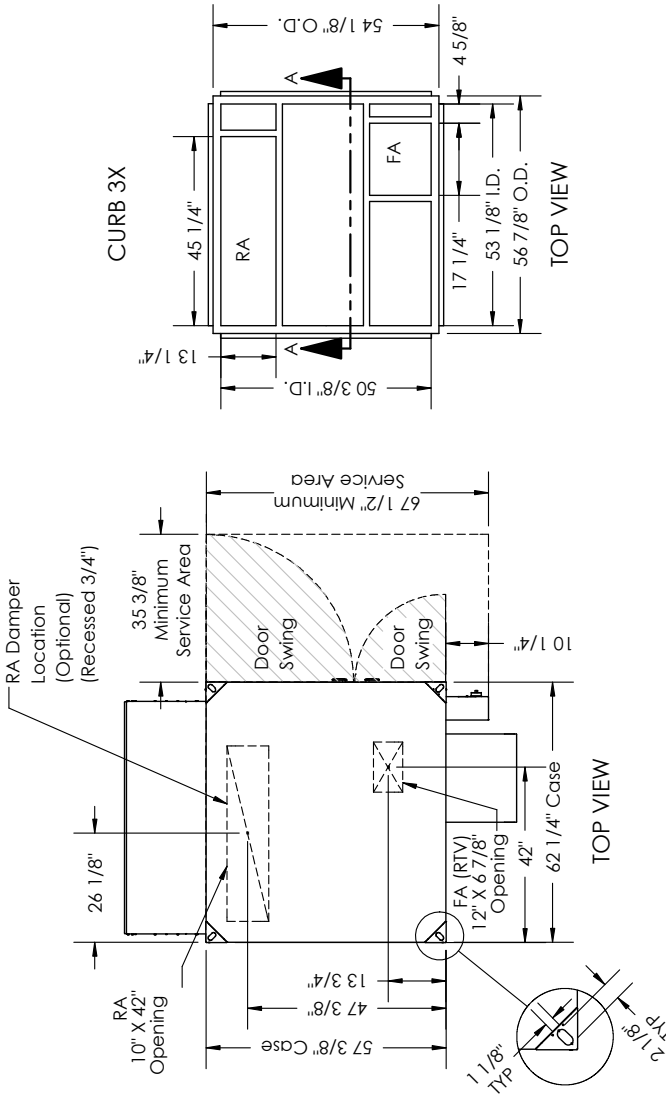
Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device
2.0	120	60	Single	20	45.0	60						
2.0	208-230	60	Single	10.8-10	24.3	35	6.6-5.8	25.7	35	4.5-4.5	17.5	25
	208-230	60	Three	6.6-5.8	14.9	20	6.6-5.8	14.9	20	4.5-4.5	10.1	15
	460	60	Three	2.9	6.5	15	2.9	6.5	15	2.3	5.2	15
	575	60	Three	2.3	5.2	15	2.3	5.2	15			
3.0	208-230	60	Single	14.6-14	32.9	45	9-8.4	35.1	50	7.3-7.3	28.4	40
	208-230	60	Three	9-8.4	20.3	25	9-8.4	20.3	25	7.3-7.3	16.4	20
	460	60	Three	4.2	9.5	15	4.2	9.5	15	3.7	8.3	15
	575	60	Three	3.3	7.4	15	3.3	7.4	15			
5.0	208-230	60	Three	13.9-13.4	31.3	45	13.9-13.4	31.3	45	10.5-10.5	23.6	30
	460	60	Three	6.7	15.1	20	6.7	15.1	20	5.3	11.9	15
	575	60	Three	5.3	11.9	15	5.3	11.9	15			

HE3XRT (RTV/RTR) ENERGY RECOVERY VENTILATOR

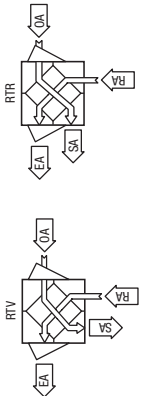
ABBREVIATIONS
 EA: Exhaust Air to outside
 OA: Outside Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside
 RTV: Rooftop Vertical RA & FA
 RTR: Rooftop Vertical RA Only

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.



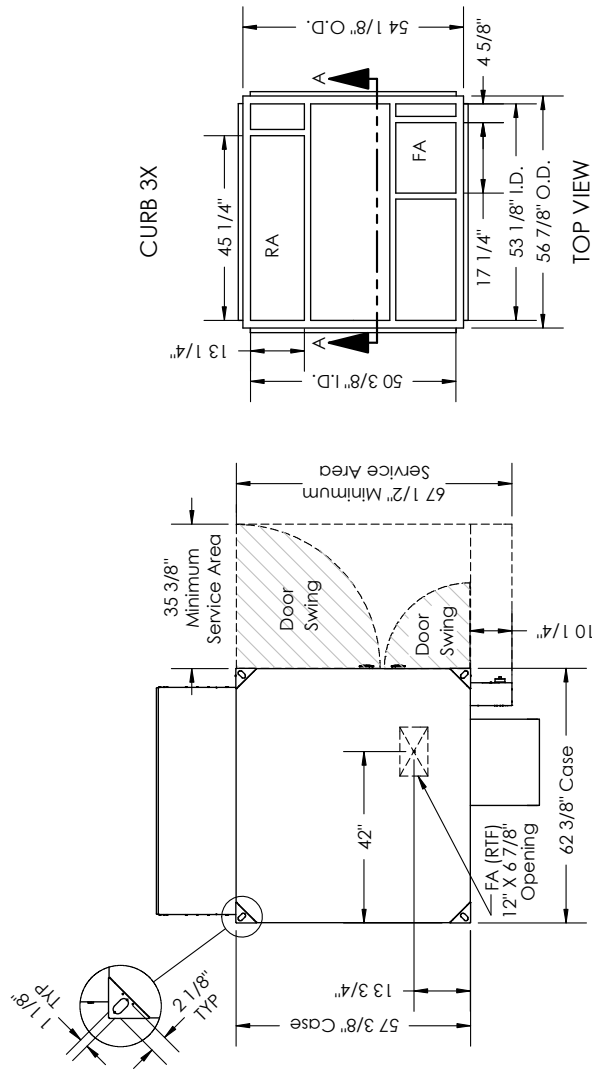
UNIT MOUNTING & APPLICATION
 Must be mounted as shown. Airstreams cannot be switched.



AIRFLOW ORIENTATION
 Available as shown:



HE3XRT (RTH/RTF) ENERGY RECOVERY VENTILATOR



TOP VIEW

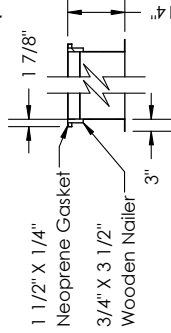
CURB 3X

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

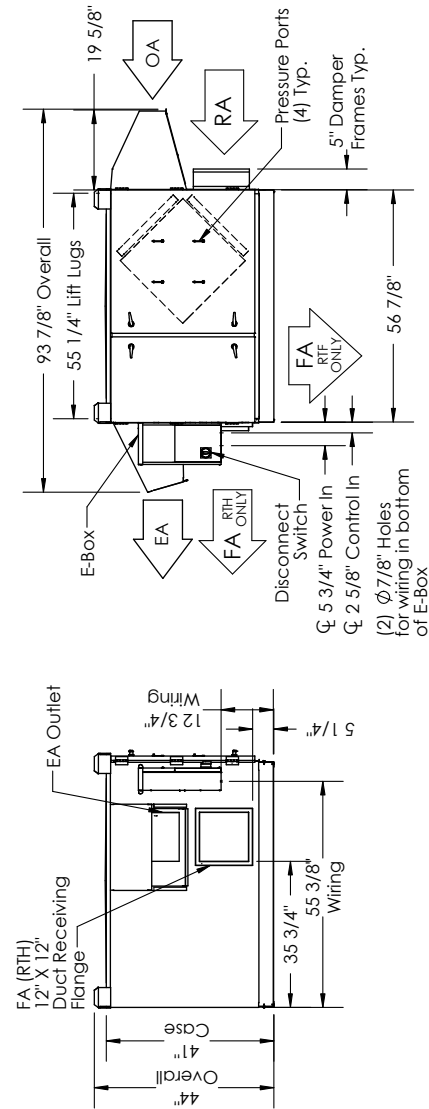
INSTALLATION ORIENTATION
 Unit must be installed in orientation shown.

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

CURB CROSS-SECTION A-A (TYP.)



SECTION A-A



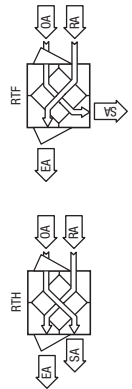
LEFT VIEW

FRONT VIEW

RIGHT VIEW

AIRFLOW ORIENTATION

Available as shown:



UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.

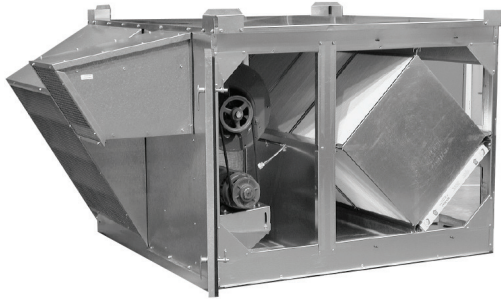




ENERGY RECOVERY VENTILATOR



ROOFTOP UNIT DIRECT CONNECT



Energy recovery core is AHRI Certified®



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:**

TFC 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:

Ultra premium efficiency (IE5+) motors with variable
frequency drive (VFDs): both airstreams
Onboard 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

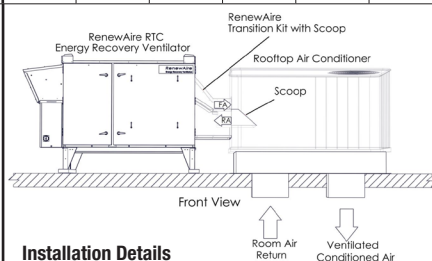
Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device
3.0	208-230	60	Single	14.6-14	32.9	45	9-8.4	35.1	50	7.3-7.3	28.4	40
	208-230	60	Three	9-8.4	20.3	25	9-8.4	20.3	25	7.3-7.3	16.4	20
	460	60	Three	4.2	9.5	15	4.2	9.5	15	3.7	8.3	15
	575	60	Three	3.3	7.4	15	3.3	7.4	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		+0.75	
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
Exhaust Air	1510	0													2010	2.7
	1465	1											2130	2.9	1920	2.3
	1420	2									2240	3.0	2035	2.5	1830	1.9
	1375	3					2535	2.7	2400	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	1690	1.0
	1285	5	2585	2.3	2455	2.2	2325	2.1	2250	2.1	1940	1.1	1725	1.0	1510	0.9
	1240	6	2500	2.0	2350	1.9	2200	1.8	2165	1.5	1860	0.3	1590	0.6	1320	0.8
Fresh Air	1825	0							2250	2.9	2100	2.5	1865	2.3	1630	2.1
	1770	1			2525	3.0	2338	2.7	2195	2.6	2025	2.3	1785	2.1	1545	1.8
	1715	2	2605	2.7	2430	2.6	2255	2.4	2120	2.3	1960	2.0	1700	1.2	1440	1.4
	1660	3	2515	2.4	2345	2.2	2175	1.9	2050	1.8	1900	1.6	1620	0.6	1340	1.0
	1605	4	2430	2.2	2270	1.8	2110	1.3	1980	1.3	1830	1.3	1560	0.4	1290	0.5
	1550	5	2355	1.2	2185	1.1	2015	1.0	1900	0.6	1765	0.4	1540	0.3	1200	0.4
	1495	6	2230	0.8	2090	0.7	1950	0.5	1840	0.4	1730	0.3	1500	0.2	1100	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.



HE3XRTC ENERGY RECOVERY VENTILATOR

ABBREVIATIONS

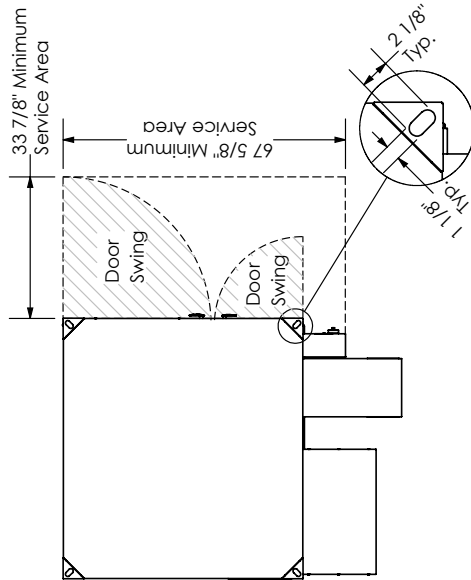
EA: Exhaust Air To outside
OA: Outside Air Intake
RA: Room Air To be exhausted
FA: Fresh Air To inside

INSTALLATION ORIENTATION

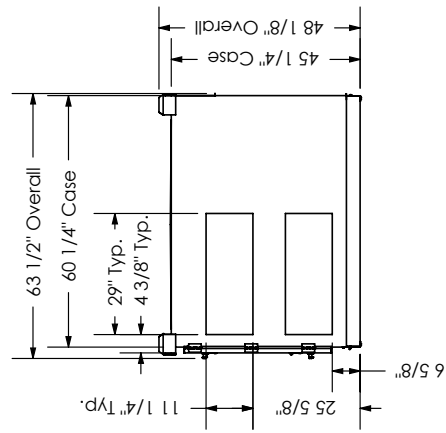
Unit must be installed in orientation shown.

NOTE:

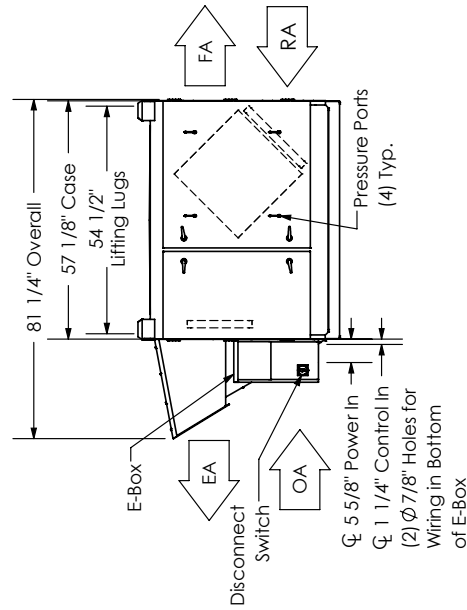
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.
2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.



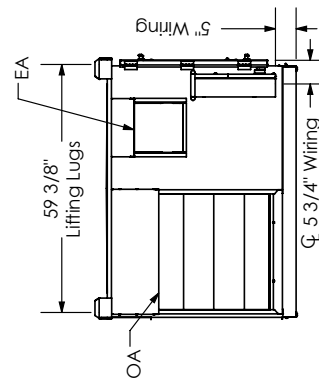
TOP VIEW



RIGHT VIEW



FRONT VIEW



LEFT VIEW

AIRFLOW ORIENTATION

Available as shown in dimension drawing.



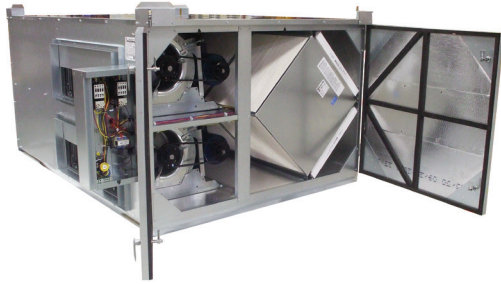
UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.





INDOOR UNIT



Energy recovery core is AHRI Certified®



ENERGY RECOVERY VENTILATOR



SPECIFICATIONS

Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range: 1,000–4,395 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:

723–1,092 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

80" L x 90" W x 50" H

1,228 lbs.

Motor(s):

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

Options:

Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
Onboard 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		1.50	
			SCFM	BHP	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				
	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	1730	1.2
3.0	1448	4	3945	2.9	3765	2.8	3515	2.4	3200	2.1	2845	1.9	2310	1.5	1670	1.2
	1520	3					3740	2.9	3475	2.6	3145	2.3	2695	2.0	2165	1.6
	1591	2									3415	2.8	3050	2.4	2580	2.1
	1663	1											3380	3.0	2930	2.5
	1735	0													3300	3.0
5.0	1591	4	4335	3.8	4185	4.0	3965	3.4	3710	3.1	3410	2.8	3050	2.5	2580	2.1
	1696	2					4280	4.1	4060	3.9	3800	3.5	3510	3.2	3100	2.8
	1800	0							4395	4.7	4165	4.3	3900	4.0	3600	3.7

Operation in this zone will likely exceed FLA limits.

Operation in this zone outside of core airflow limits.

Operation in this zone will likely exceed FLA limits 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.



4XINH

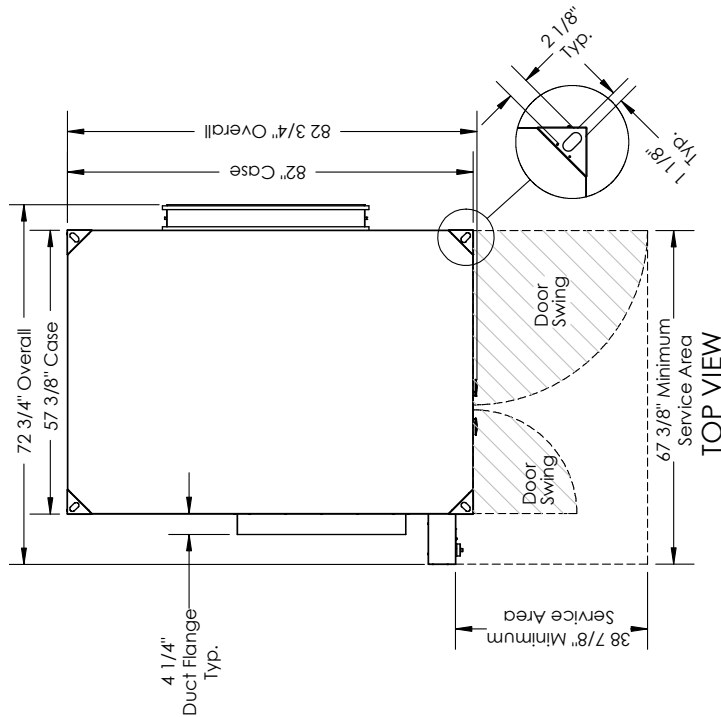
ENERGY RECOVERY VENTILATOR



ELECTRICAL DATA

Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	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	45.0	60						
2.0	208-230	60	Single	10.8-10	24.3	35	6.6-5.8	25.7	35	4.5-4.5	17.5	25
	208-230	60	Three	6.6-5.8	14.9	20	6.6-5.8	14.9	20	4.5-4.5	10.1	15
	460	60	Three	2.9	6.5	15	2.9	6.5	15	2.3	5.2	15
	575	60	Three	2.3	5.2	15	2.3	5.2	15			
3.0	208-230	60	Single	14.6-14	32.9	45	9-8.4	35.1	50	7.3-7.3	28.4	40
	208-230	60	Three	9-8.4	20.3	25	9-8.4	20.3	25	7.3-7.3	16.4	20
	460	60	Three	4.2	9.5	15	4.2	9.5	15	3.7	8.3	15
	575	60	Three	3.3	7.4	15	3.3	7.4	15			
5.0	208-230	60	Three	13.9-13.4	31.3	45	13.9-13.4	31.3	45	10.5-10.5	23.6	30
	460	60	Three	6.7	15.1	20	6.7	15.1	20	5.3	11.9	15
	575	60	Three	5.3	11.9	15	5.3	11.9	15			

HE4XINH ENERGY RECOVERY VENTILATOR



ABBREVIATIONS

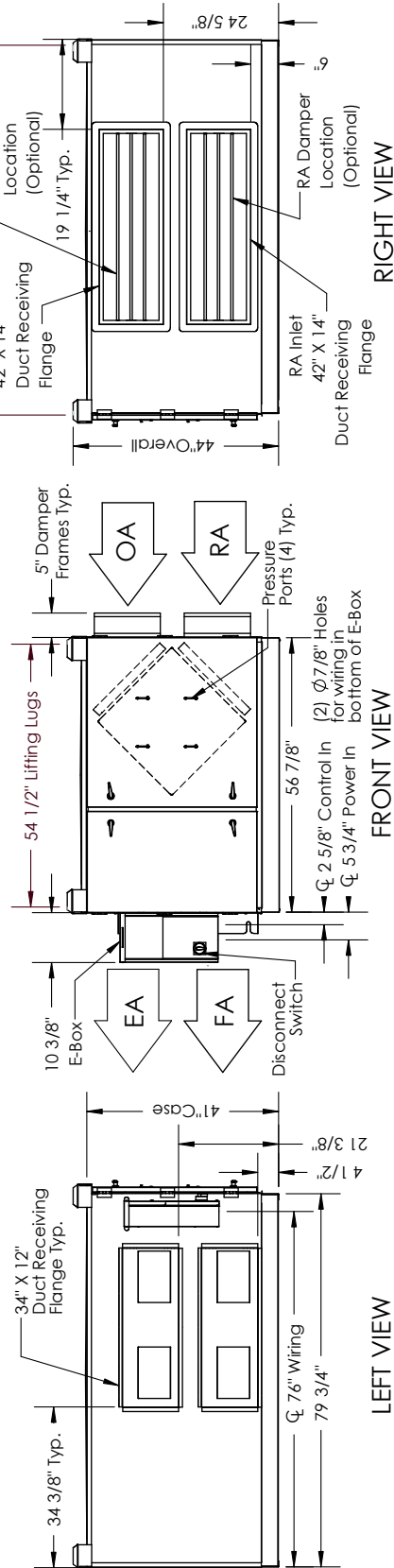
EA: Exhaust Air to outside
OA: Outside Air intake
RA: Room Air to be exhausted
FA: Fresh Air to inside

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.



AIRFLOW ORIENTATION

Available as shown in dimension drawing.



UNIT MOUNTING & APPLICATION

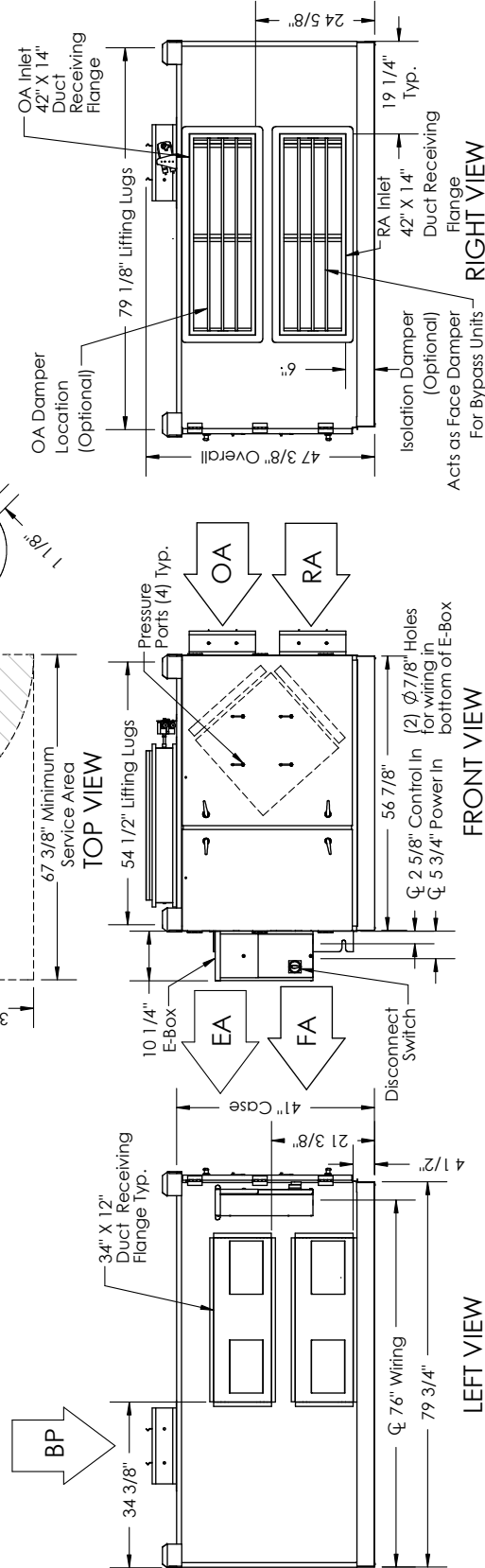
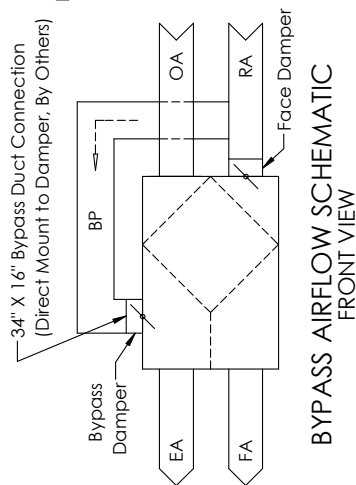
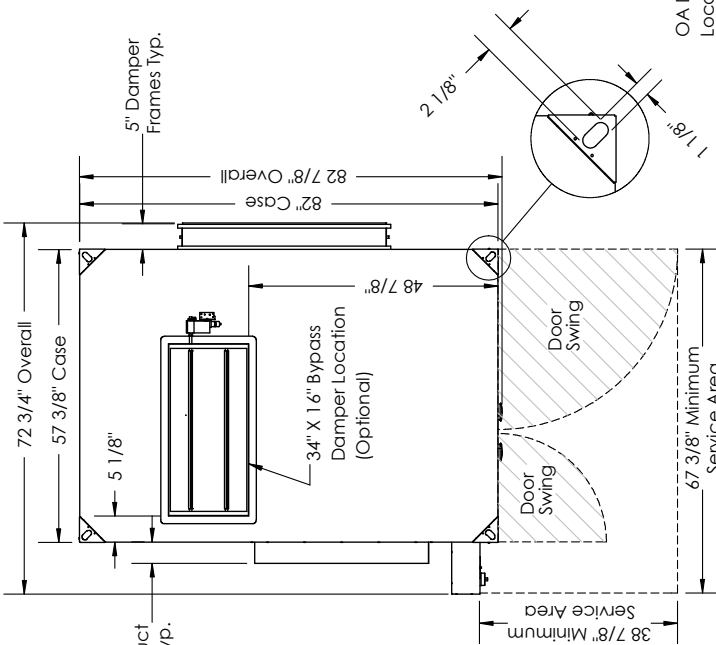
Must be mounted as shown. RA/EA airstream can be switched with OA/FA airstream unless certain options are selected.

HE4XINH 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. 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.



AIRFLOW ORIENTATION
 Available as shown in dimension drawing.



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



Energy recovery core is AHRI Certified®



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:

Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
Onboard 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		1.50	
			SCFM	BHP	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	1100	0.9
	1466	0							3200	1.9	2650	1.6	2120	1.3	1385	1.1
3.0	1462	3	4060	2.6	3810	2.4	3550	2.1	3180	1.9	2645	1.6	2075	1.3	1345	1.0
	1503	2.5	4175	2.8	3940	2.6	3700	2.4	3340	2.1	2885	1.7	2300	1.5	1600	1.2
	1586	1.5					3950	2.8	3640	2.5	3250	2.3	2745	2.0	2170	1.7
	1668	0.5							3900	3.0	3600	2.7	3155	2.4	2640	2.1
	1710	0									3750	3.0	3350	2.7	2975	2.4
5.0	1627	4	4393	3.9	4210	3.7	4050	3.6	3800	3.3	3490	3.1	3020	2.7	2385	2.4
	1731	2					4350	4.3	4150	4.1	3895	3.8	3515	3.5	3055	3.2
	1836	0							4400	5.0	4250	4.7	3970	4.4	3550	4.0

Operation in this zone will likely exceed FLA limits.

Operation in this zone outside of core airflow limits.

Operation in this zone will likely exceed FLA limits 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.



4XINV

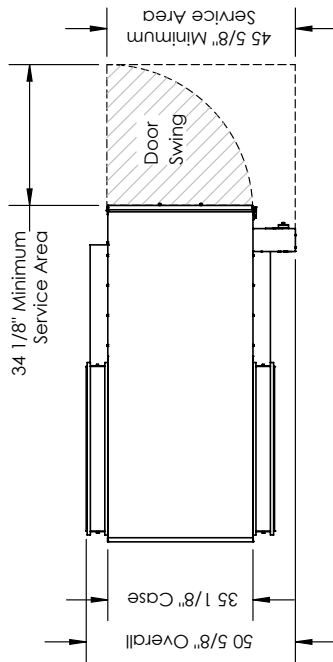
ENERGY RECOVERY VENTILATOR



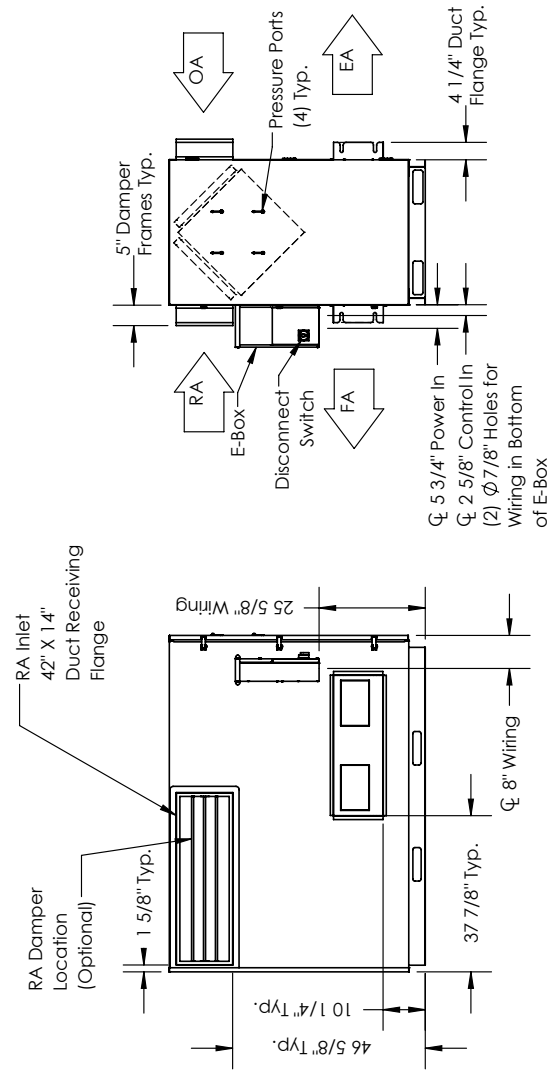
ELECTRICAL DATA

Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	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	45.0	60						
2.0	208-230	60	Single	10.8-10	24.3	35	6.6-5.8	25.7	35	4.5-4.5	17.5	25
	208-230	60	Three	6.6-5.8	14.9	20	6.6-5.8	14.9	20	4.5-4.5	10.1	15
	460	60	Three	2.9	6.5	15	2.9	6.5	15	2.3	5.2	15
	575	60	Three	2.3	5.2	15	2.3	5.2	15			
3.0	208-230	60	Single	14.6-14	32.9	45	9-8.4	35.1	50	7.3-7.3	28.4	40
	208-230	60	Three	9-8.4	20.3	25	9-8.4	20.3	25	7.3-7.3	16.4	20
	460	60	Three	4.2	9.5	15	4.2	9.5	15	3.7	8.3	15
	575	60	Three	3.3	7.4	15	3.3	7.4	15			
5.0	208-230	60	Three	13.9-13.4	31.3	45	13.9-13.4	31.3	45	10.5-10.5	23.6	30
	460	60	Three	6.7	15.1	20	6.7	15.1	20	5.3	11.9	15
	575	60	Three	5.3	11.9	15	5.3	11.9	15			

HE4XINV ENERGY RECOVERY VENTILATOR



TOP VIEW



LEFT VIEW

FRONT VIEW

RIGHT VIEW

ABBREVIATIONS

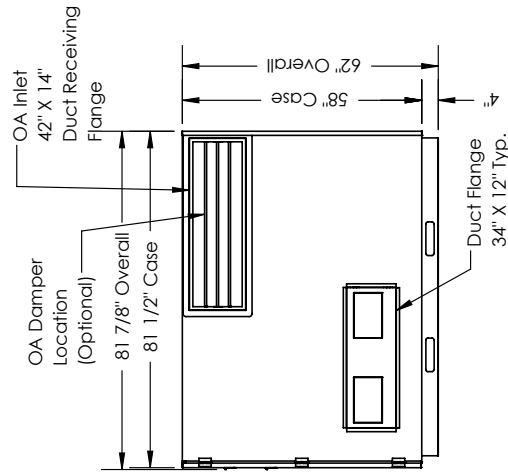
EA: Exhaust Air to outside
OA: Outside Air Intake
RA: Room Air to be exhausted
FA: Fresh Air to inside

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.



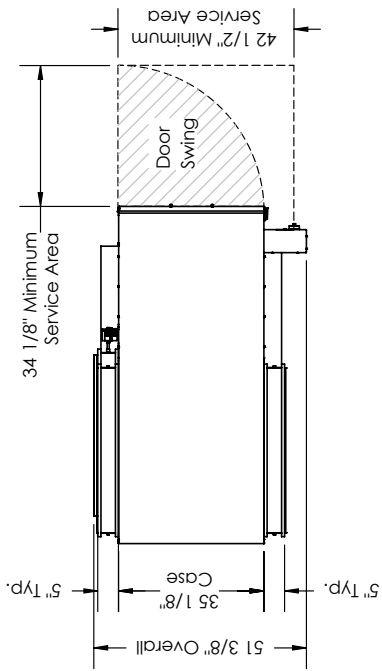
AIRFLOW ORIENTATION

Available as shown in dimension drawing.

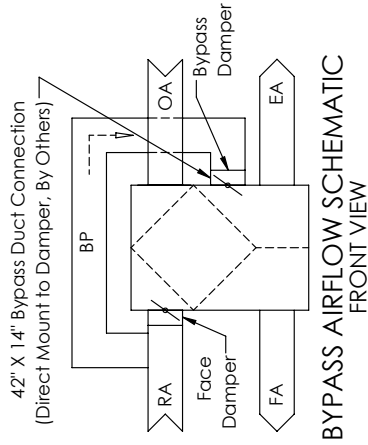


UNIT MOUNTING & APPLICATION

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

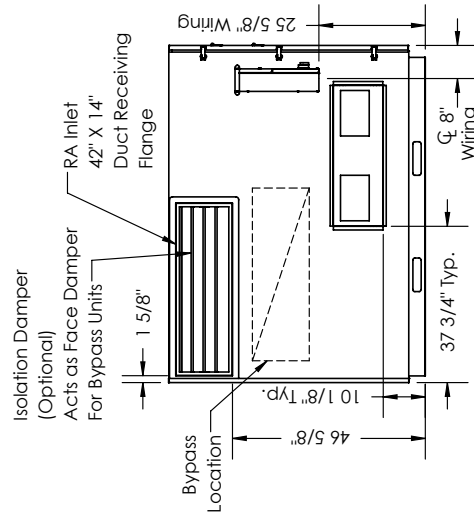


TOP VIEW

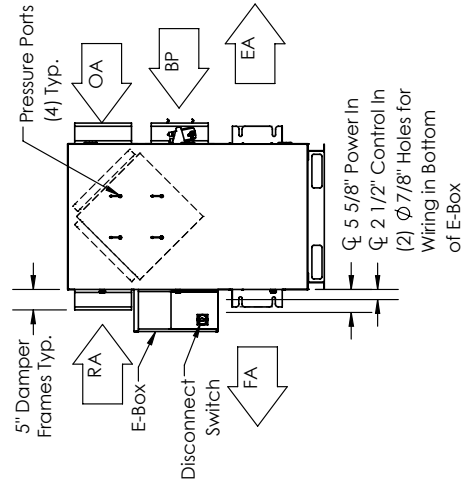


BYPASS AIRFLOW SCHEMATIC
FRONT VIEW

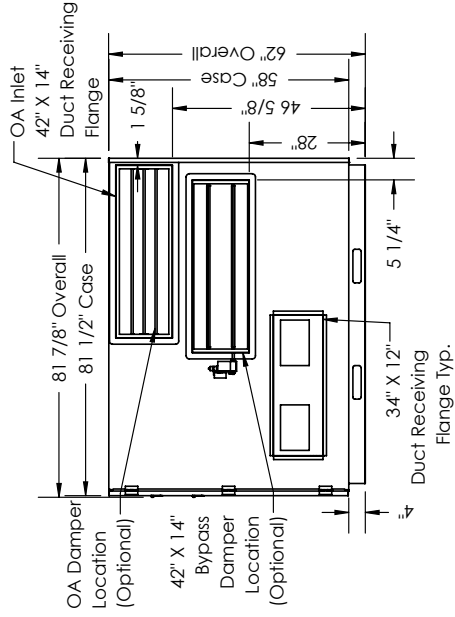
- ABBREVIATIONS**
EA: Exhaust Air to outside
OA: Outside Air Intake
RA: Room Air to be exhausted
FA: Fresh Air to inside
BP: Bypass Air Intake
- INSTALLATION ORIENTATION**
Unit must be installed in orientation shown.
- NOTE**
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH 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 J&O MANUAL SUPPLEMENT FOR BYPASS.



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.



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:

Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
Onboard 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		1.50	
			SCFM	BHP	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	1485	1.2
3.0	1455	4	3812	2.7	3550	2.5	3285	2.3	2820	2.0	2400	1.7	1970	1.5	1450	1.2
	1527	3			3750	2.9	3500	2.7	3085	2.4	2676	2.1	2300	1.9	1815	1.5
	1598	2							3350	2.6	2950	2.6	2590	2.3	2175	2.0
	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.

Operation in this zone will likely exceed FLA limits 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

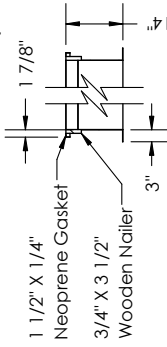
Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device
2.0	120	60	Single	20	45.0	60						
2.0	208-230	60	Single	10.8-10	24.3	35	6.6-5.8	25.7	35	4.5-4.5	17.5	25
	208-230	60	Three	6.6-5.8	14.9	20	6.6-5.8	14.9	20	4.5-4.5	10.1	15
	460	60	Three	2.9	6.5	15	2.9	6.5	15	2.3	5.2	15
	575	60	Three	2.3	5.2	15	2.3	5.2	15			
3.0	208-230	60	Single	14.6-14	32.9	45	9-8.4	35.1	50	7.3-7.3	28.4	40
	208-230	60	Three	9-8.4	20.3	25	9-8.4	20.3	25	7.3-7.3	16.4	20
	460	60	Three	4.2	9.5	15	4.2	9.5	15	3.7	8.3	15
	575	60	Three	3.3	7.4	15	3.3	7.4	15			
5.0	208-230	60	Three	13.9-13.4	31.3	45	13.9-13.4	31.3	45	10.5-10.5	23.6	30
	460	60	Three	6.7	15.1	20	6.7	15.1	20	5.3	11.9	15
	575	60	Three	5.3	11.9	15	5.3	11.9	15			

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

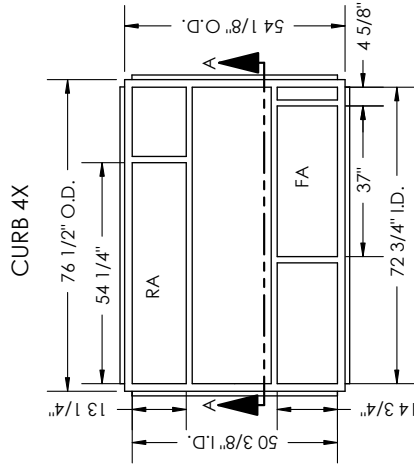
INSTALLATION ORIENTATION
 Unit must be installed in orientation shown.

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

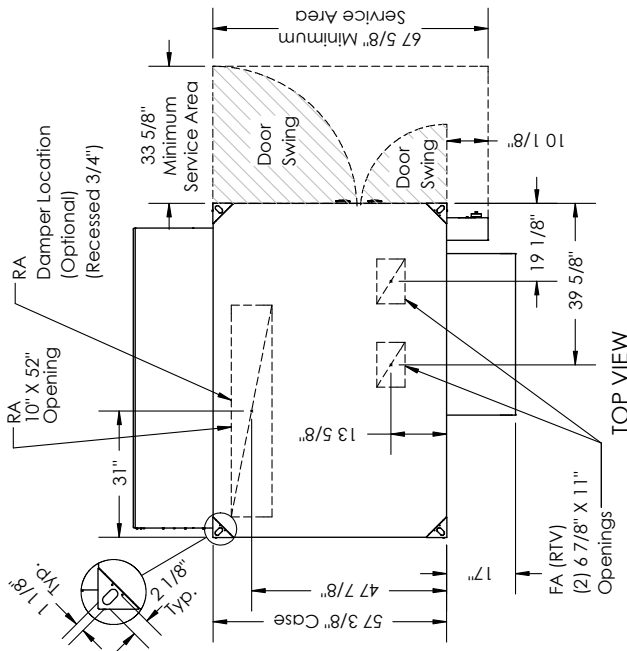
CURB CROSS-SECTION A-A (TYP.)



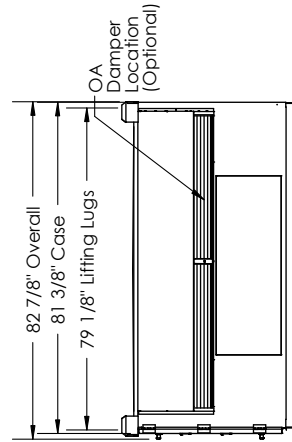
SECTION A-A



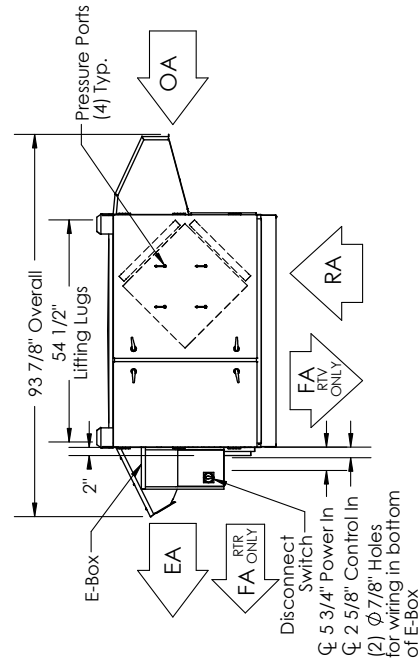
TOP VIEW



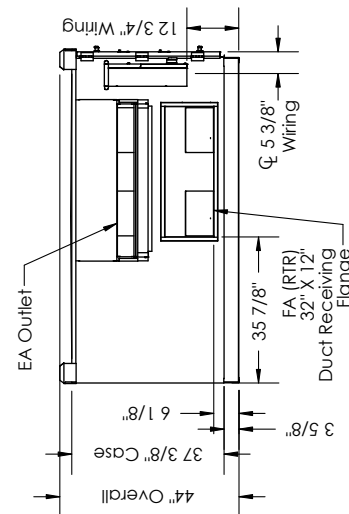
TOP VIEW



RIGHT VIEW

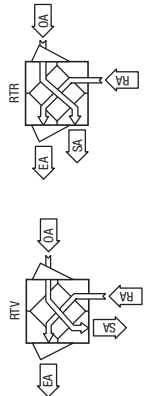


FRONT VIEW



LEFT VIEW

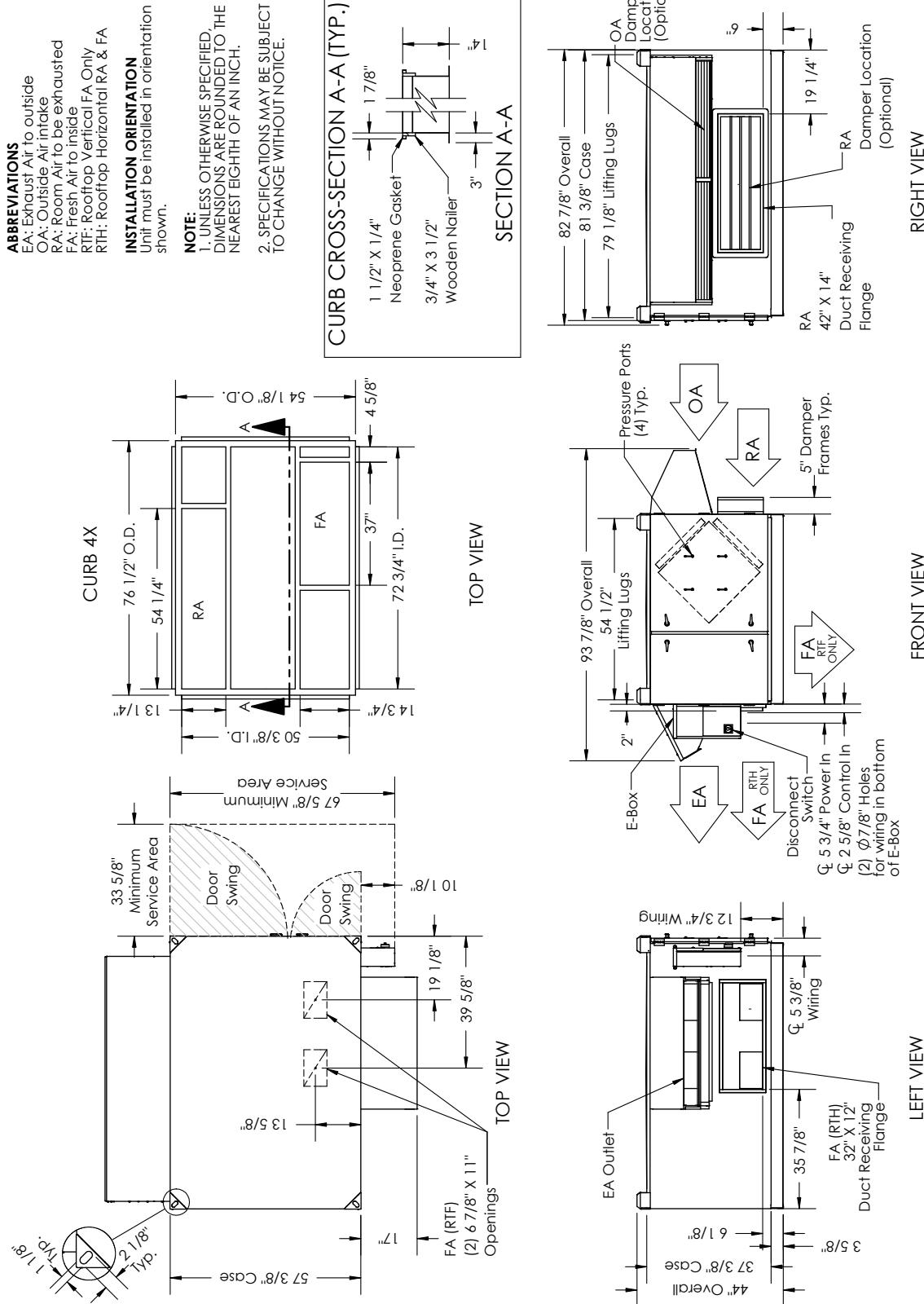
UNIT MOUNTING & APPLICATION
 Must be mounted as shown. Airstreams cannot be switched.



AIRFLOW ORIENTATION
 Available as shown:



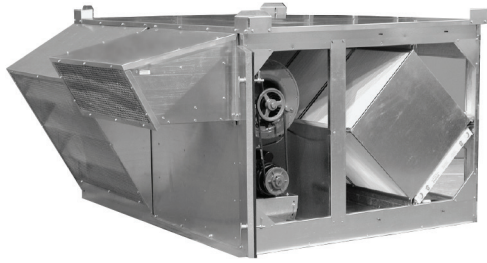
HE4XRT (RTH/RTF) ENERGY RECOVERY VENTILATOR





ROOFTOP UNIT DIRECT CONNECT

ENERGY RECOVERY VENTILATOR



Energy recovery core is AHRI Certified®



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:

Ultra premium efficiency (IE5+) motors with variable
frequency drive (VFDs): both airstreams
Onboard 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

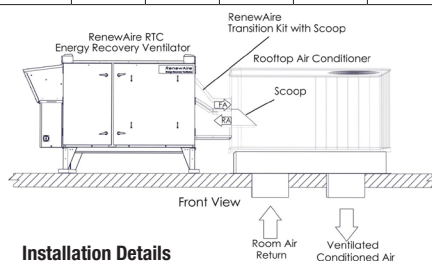
Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device
5.0	208-230	60	Three	13.9-13.4	31.3	45	13.9-13.4	31.3	45	10.5-10.5	23.6	30
	460	60	Three	6.7	15.1	20	6.7	15.1	20	5.3	11.9	15
	575	60	Three	5.3	11.9	15	5.3	11.9	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		+0.75	
			CFM	BHP	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													3125	4.6
	1770	2							3450	4.8	3275	4.6	3140	4.5	3005	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.

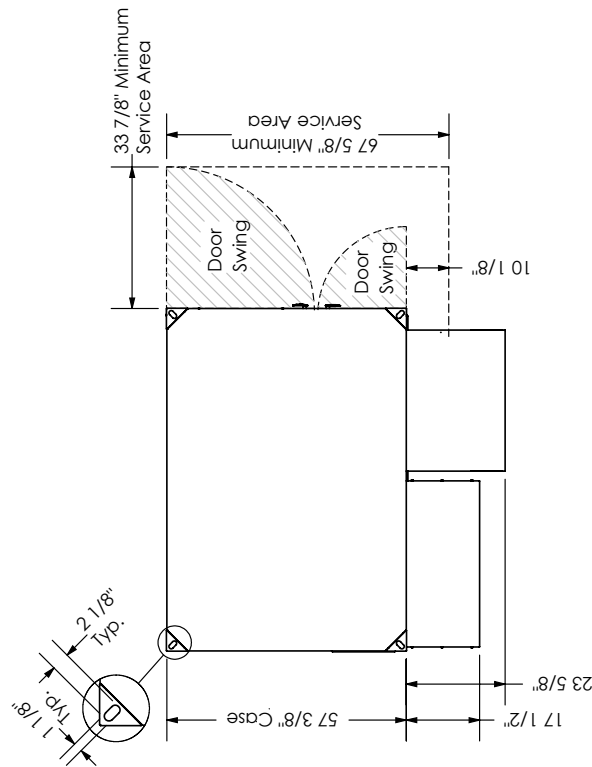


HE4XRTC ENERGY RECOVERY VENTILATOR

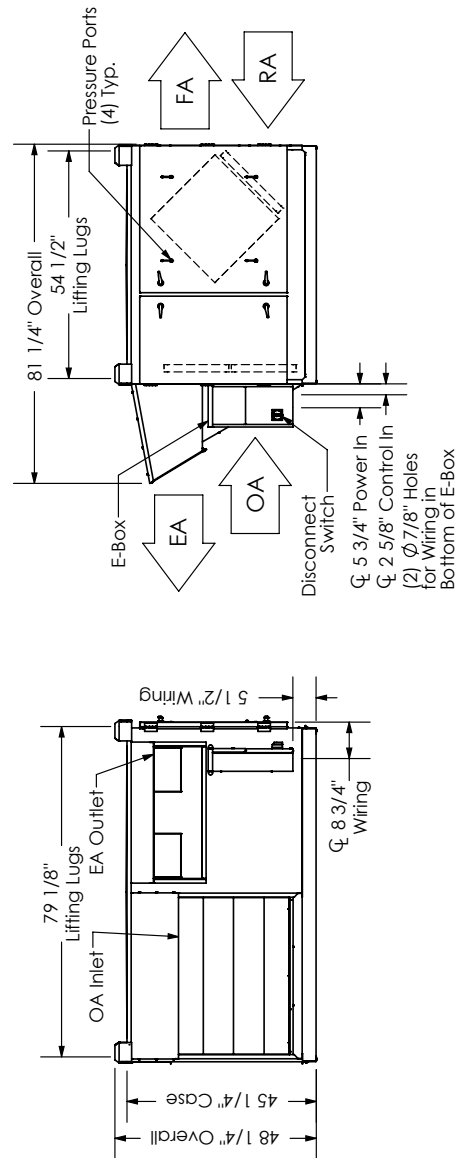
ABBREVIATIONS
 EA: Exhaust Air to outside
 OA: Outside Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside

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



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.





INDOOR UNIT



ENERGY RECOVERY VENTILATOR

SPECIFICATIONS



Energy recovery core is AHRI Certified®

**Ventilation Type:**

Static plate, heat and humidity transfer

Airflow Range: 1,750–7,700 CFM

AHRI 1060 Certified Core: Seven L125-G5

Standard Features:

TEFC premium efficiency motors
Motor starters
Non-fused disconnect
24VAC transformer/relay package
Cross-core differential pressure ports
Neoprene vibration isolators

Filters:

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

Unit Weight:

2,248–3,265 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:

Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
Onboard 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
Spring vibration isolators
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
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	2256	5.1
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	4045	5.9
1900													6442	7.2	6110	7.2	5705	7.1	5183	7.0

Operation in this zone outside of core airflow limits.

Operation in this zone will likely exceed FLA limits 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*.



ENERGY RECOVERY VENTILATOR



ELECTRICAL DATA

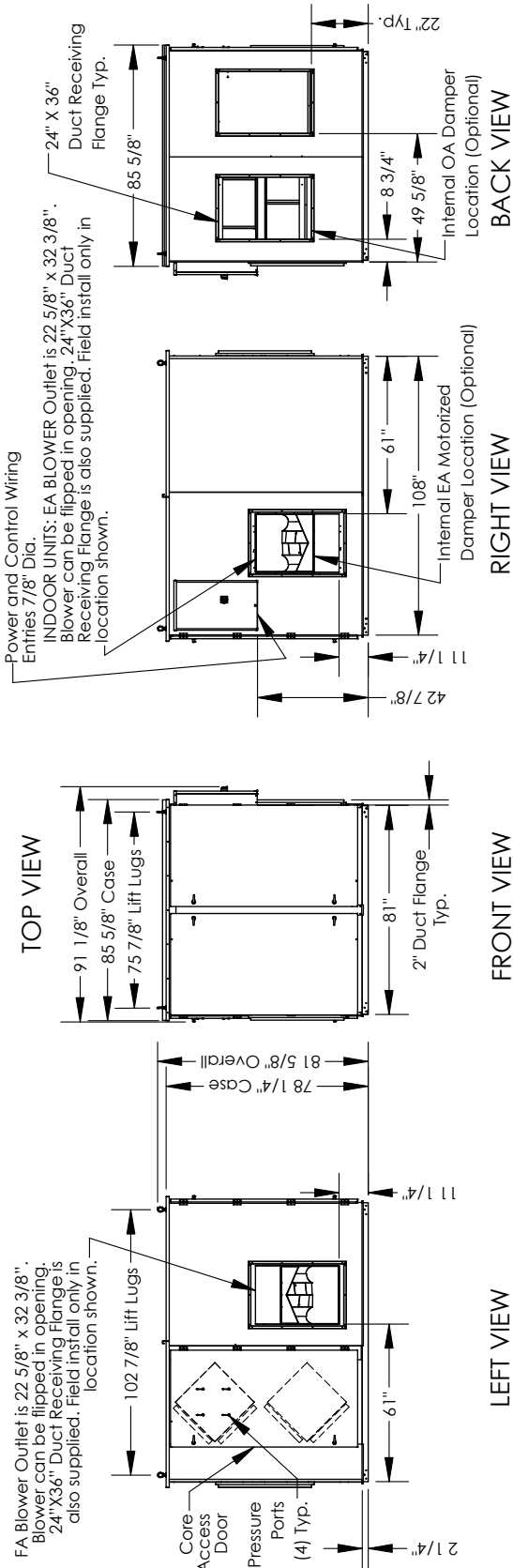
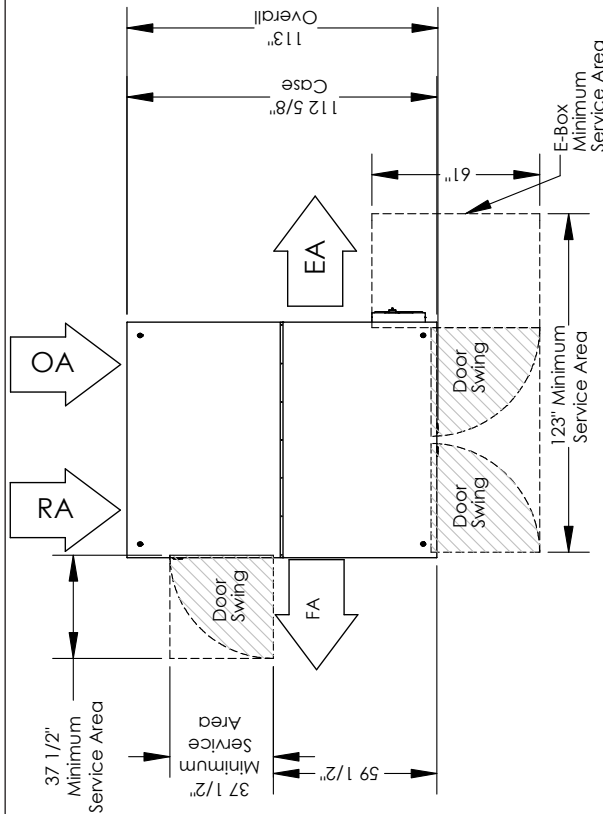
Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device
3.0	208-230	60	Single	14.6-14	32.9	45	9-8.4	35.1	50	7.3-7.3	28.4	40
3.0	208-230	60	Three	9-8.4	20.3	25	9-8.4	20.3	25	7.3-7.3	16.4	20
	460	60	Three	4.2	9.5	15	4.2	9.5	15	3.7	8.3	15
	575	60	Three	3.3	7.4	15	3.3	7.4	15			
5.0	208-230	60	Three	13.9-13.4	31.3	45	13.9-13.4	31.3	45	10.5-10.5	23.6	30
	460	60	Three	6.7	15.1	20	6.7	15.1	20	5.3	11.9	15
	575	60	Three	5.3	11.9	15	5.3	11.9	15			
7.5	208-230	60	Three	20-19	45.0	60	20-19	45.0	60	17.4-17.4	39.2	50
	460	60	Three	9.5	21.4	30	9.5	21.4	30	8.7	19.6	25
	575	60	Three	7.6	17.1	20	7.6	17.1	20			

HE6XIN 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.

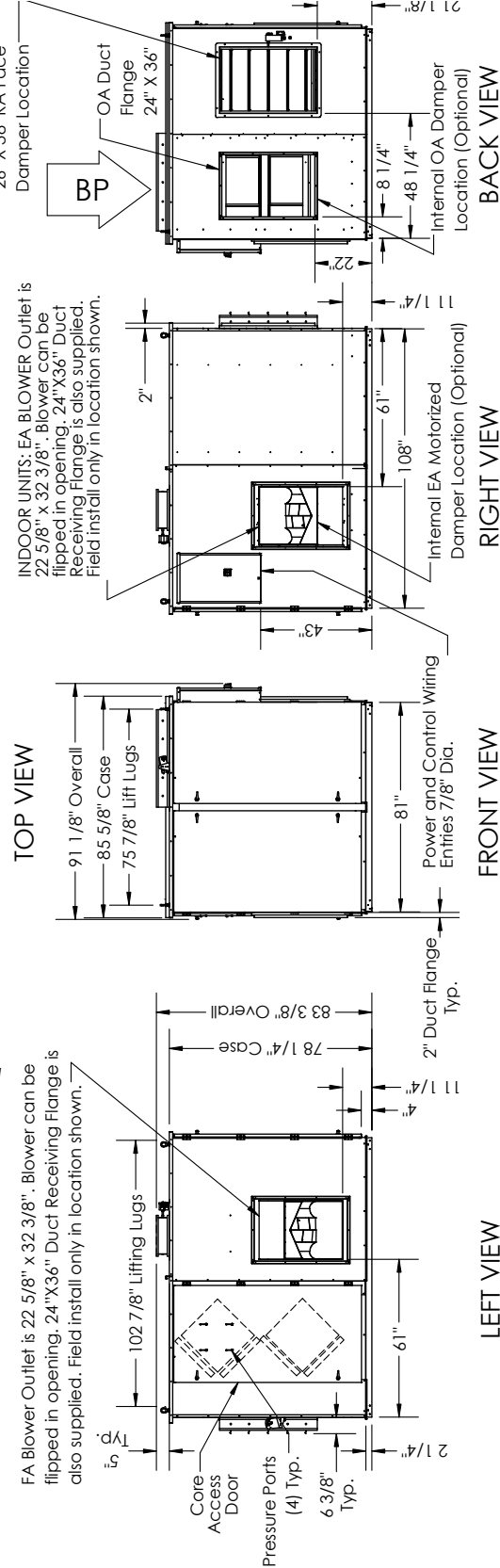
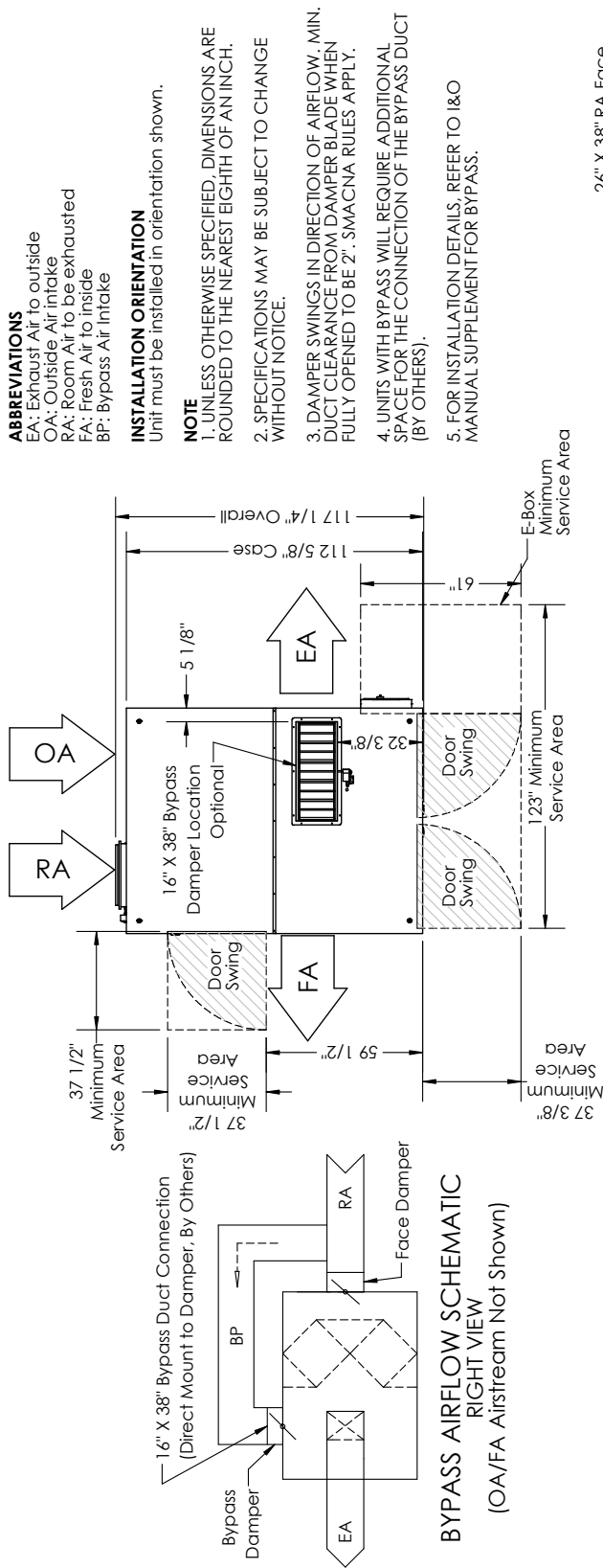


AIRFLOW ORIENTATION
 Available as shown in dimension drawing.

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



HE6XIN ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER



AIRFLOW ORIENTATION

Available as shown in dimension drawing.



UNIT MOUNTING & APPLICATION

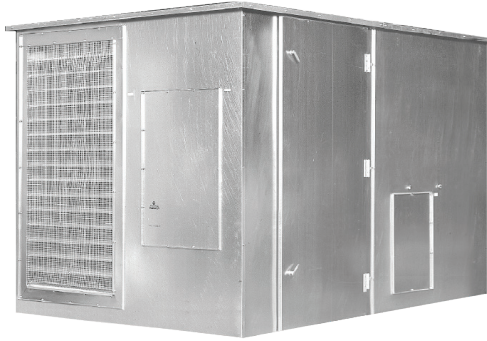
Must be mounted as shown. Airstreams cannot be switched.



ENERGY RECOVERY VENTILATOR



ROOFTOP UNIT



Energy recovery core is AHRI Certified®



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
Neoprene vibration isolators

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:

Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
Onboard 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
Spring vibration isolators
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	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	2256	5.1
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	4045	5.9
1900													6442	7.2	6110	7.2	5705	7.1	5183	7.0

Operation in this zone outside of core airflow limits.

Operation in this zone will likely exceed FLA limits 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*.



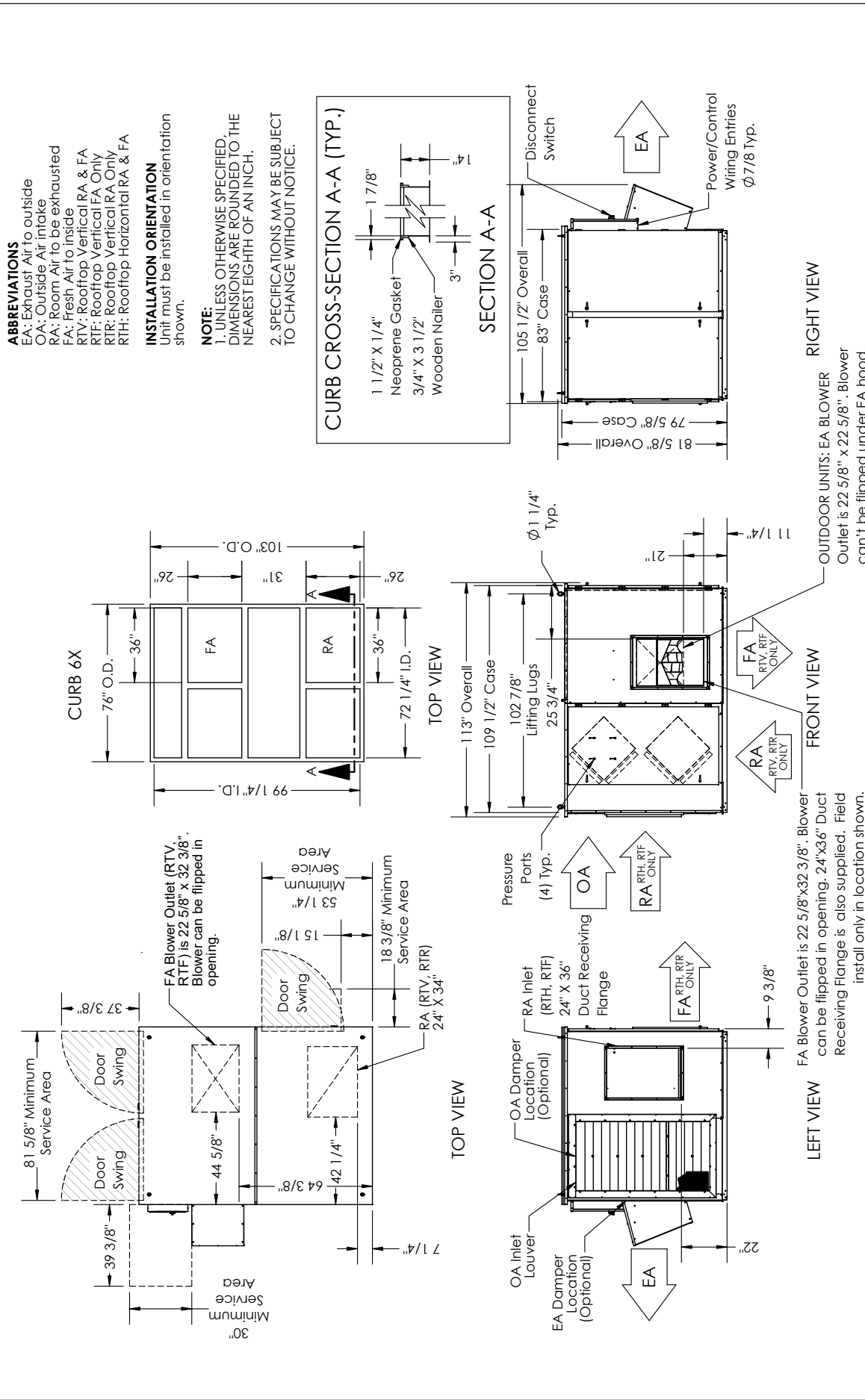
ENERGY RECOVERY VENTILATOR



ELECTRICAL DATA

Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	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	14.6-14	32.9	45	9-8.4	35.1	50	7.3-7.3	28.4	40
3.0	208-230	60	Three	9-8.4	20.3	25	9-8.4	20.3	25	7.3-7.3	16.4	20
	460	60	Three	4.2	9.5	15	4.2	9.5	15	3.7	8.3	15
	575	60	Three	3.3	7.4	15	3.3	7.4	15			
5.0	208-230	60	Three	13.9-13.4	31.3	45	13.9-13.4	31.3	45	10.5-10.5	23.6	30
	460	60	Three	6.7	15.1	20	6.7	15.1	20	5.3	11.9	15
	575	60	Three	5.3	11.9	15	5.3	11.9	15			
7.5	208-230	60	Three	20-19	45.0	60	20-19	45.0	60	17.4-17.4	39.2	50
	460	60	Three	9.5	21.4	30	9.5	21.4	30	8.7	19.6	25
	575	60	Three	7.6	17.1	20	7.6	17.1	20			

HE6XRT ENERGY RECOVERY VENTILATOR



AIRFLOW ORIENTATION
Available as shown:

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


NEW! INDOOR UNIT


ENERGY RECOVERY VENTILATOR

SPECIFICATIONS



Energy recovery core is AHRI Certified®


Ventilation Type:

Static plate, heat and humidity transfer

Airflow Range: 1,750–7,700 CFM

AHRI 1060 Certified Core: Seven L125-G5

Standard Features:

 TEFC premium efficiency motors
 Motor starters
 Non-fused disconnect
 24VAC transformer/relay package
 Cross-core differential pressure ports
 Neoprene vibration isolators

Filters:

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

Unit Weight:

2,248–3,265 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

 116" L x 90" W x 90" H
 3,605 lbs.

Motor(s):

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

Options:

 Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
 Onboard 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
 Spring vibration isolators
 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
900	2988	0.9	2528	0.9	1964	0.8														
1000	3456	1.2	3053	1.2	2597	1.1	2045	1.0												
1100	3926	1.5	3558	1.5	3155	1.4	2697	1.3	2149	1.2										
1200	4422	1.9	4077	1.8	3704	1.8	3297	1.7	2837	1.7	2291	1.6								
1300	4944	2.3	4621	2.3	4275	2.2	3902	2.2	3492	2.1	3029	2.0	2486	1.9	1779	1.8				
1400	5482	2.8	5184	2.8	4868	2.7	4526	2.7	4155	2.6	3746	2.6	3285	2.5	2745	2.4	2065	2.2		
1500	6018	3.3	5747	3.3	5459	3.3	5153	3.3	4821	3.2	4460	3.2	4061	3.1	3610	3.0	3083	2.9	2436	2.7
1600	6526	4.0	6285	3.9	6030	3.9	5758	3.9	5468	3.9	5153	3.8	4810	3.8	4429	3.7	3999	3.6	3501	3.5
1700	6998	4.7	6785	4.7	6560	4.6	6322	4.6	6069	4.6	5796	4.5	5504	4.5	5184	4.4	4831	4.4	4434	4.3
1800	7441	5.5	7251	5.5	7051	5.4	6841	5.4	6619	5.4	6383	5.3	6131	5.3	5861	5.3	5567	5.2	5245	5.2
1900					7521	6.3	7331	6.3	7132	6.3	6923	6.2	6702	6.2	6467	6.2	6216	6.1	5946	6.1
2000									7641	7.3	7449	7.2	7247	7.2	7036	7.2	6812	7.1	6576	7.1
2100															7619	8.3	7408	8.3	7189	8.2

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*.



ENERGY RECOVERY VENTILATOR



ELECTRICAL DATA

Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	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	14.6-14	32.9	45	9-8.4	35.1	50	7.3-7.3	28.4	40
3.0	208-230	60	Three	9-8.4	20.3	25	9-8.4	20.3	25	7.3-7.3	16.4	20
	460	60	Three	4.2	9.5	15	4.2	9.5	15	3.7	8.3	15
	575	60	Three	3.3	7.4	15	3.3	7.4	15			
5.0	208-230	60	Three	13.9-13.4	31.3	45	13.9-13.4	31.3	45	10.5-10.5	23.6	30
	460	60	Three	6.7	15.1	20	6.7	15.1	20	5.3	11.9	15
	575	60	Three	5.3	11.9	15	5.3	11.9	15			
7.5	208-230	60	Three	20-19	45.0	60	20-19	45.0	60	17.4-17.4	39.2	50
	460	60	Three	9.5	21.4	30	9.5	21.4	30	8.7	19.6	25
	575	60	Three	7.6	17.1	20	7.6	17.1	20			
10.0	208-230	60	Three	25.4-24	57.2	80	25.4-24	57.2	80	22.0-22.0	49.5	70
	460	60	Three	12	27.0	35	12	27.0	35	11	24.8	35
	575	60	Three	9.6	21.6	30	9.6	21.6	30			

HE7XIN ENERGY RECOVERY VENTILATOR

ABBREVIATIONS

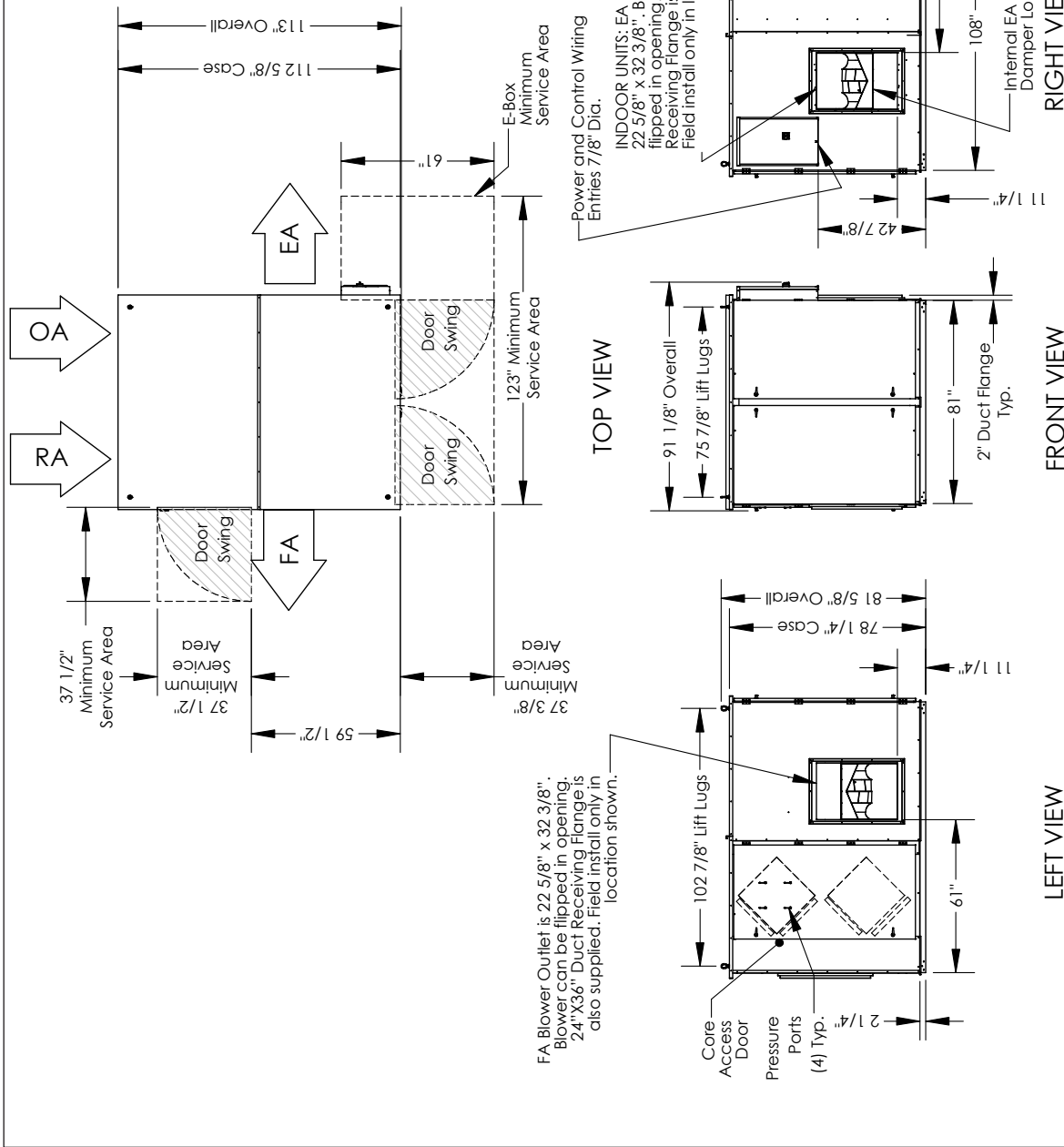
EA: Exhaust Air to outside
OA: Outside Air intake
RA: Room Air to be exhausted
FA: Fresh Air To inside

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.



AIRFLOW ORIENTATION

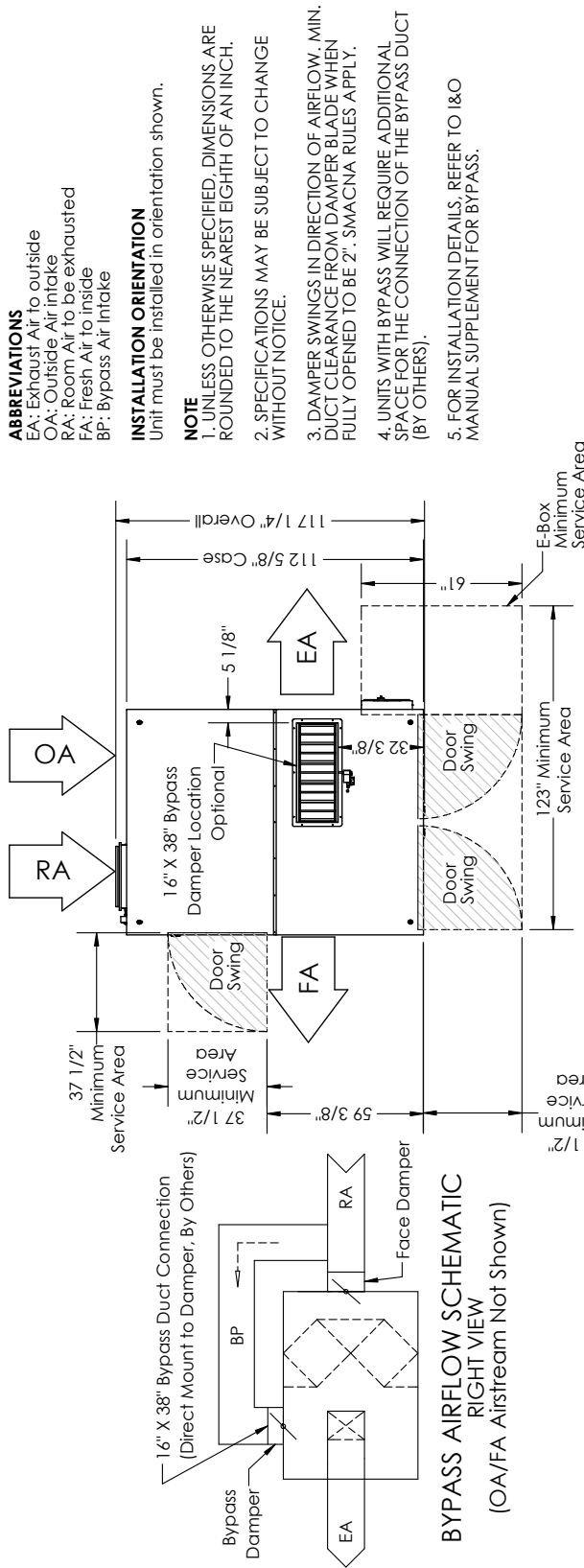
Available as shown in dimension drawing.



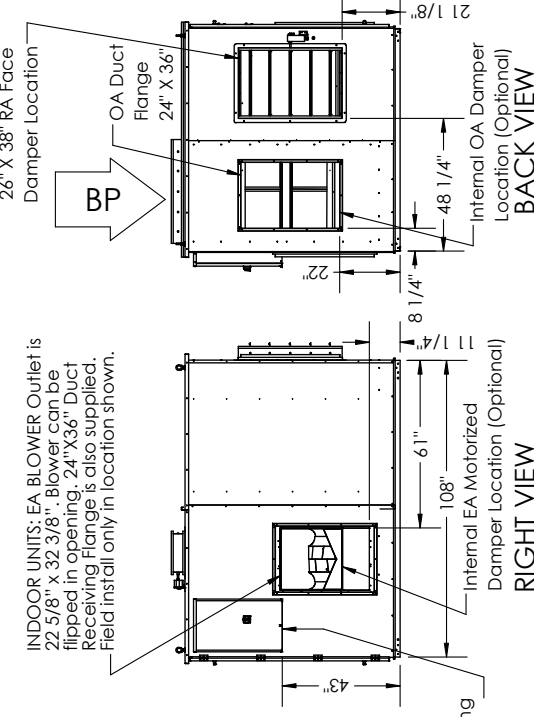
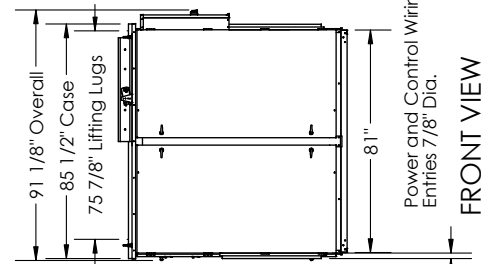
UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.

HE7XIN ENERGY RECOVERY VENTILATOR WITH BYPASS ECONOMIZER



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.



**NEW! ROOFTOP UNIT**

ENERGY RECOVERY VENTILATOR



SPECIFICATIONS



Energy recovery core is AHRI Certified®

**Ventilation Type:**

Static plate, heat and humidity transfer

Airflow Range: 1,750–7,700 CFM**AHRI 1060 Certified Core:** Seven L125-G5**Standard Features:**

TEFC premium efficiency motors
 Motor starters
 Non-fused disconnect
 24VAC transformer/relay package
 Cross-core differential pressure ports
 Neoprene vibration isolators

Filters:

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

Unit Weight:

2,350–3,403 lbs., varies by option(s)

Max. Shipping Dimensions & Weight (on pallet):

116" L x 90" W x 90" H

3,743 lbs.

Motor(s):

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

Options:

Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
 Onboard 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
 Spring vibration isolators
 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	SCFM	BHP
900	2988	0.9	2528	0.9	1964	0.8														
1000	3456	1.2	3053	1.2	2597	1.1	2045	1.0												
1100	3926	1.5	3558	1.5	3155	1.4	2697	1.3	2149	1.2										
1200	4422	1.9	4077	1.8	3704	1.8	3297	1.7	2837	1.7	2291	1.6								
1300	4944	2.3	4621	2.3	4275	2.2	3902	2.2	3492	2.1	3029	2.0	2486	1.9	1779	1.8				
1400	5482	2.8	5184	2.8	4868	2.7	4526	2.7	4155	2.6	3746	2.6	3285	2.5	2745	2.4	2065	2.2		
1500	6018	3.3	5747	3.3	5459	3.3	5153	3.3	4821	3.2	4460	3.2	4061	3.1	3610	3.0	3083	2.9	2436	2.7
1600	6526	4.0	6285	3.9	6030	3.9	5758	3.9	5468	3.9	5153	3.8	4810	3.8	4429	3.7	3999	3.6	3501	3.5
1700	6998	4.7	6785	4.7	6560	4.6	6322	4.6	6069	4.6	5796	4.5	5504	4.5	5184	4.4	4831	4.4	4434	4.3
1800	7441	5.5	7251	5.5	7051	5.4	6841	5.4	6619	5.4	6383	5.3	6131	5.3	5861	5.3	5567	5.2	5245	5.2
1900					7521	6.3	7331	6.3	7132	6.3	6923	6.2	6702	6.2	6467	6.2	6216	6.1	5946	6.1
2000									7641	7.3	7449	7.2	7247	7.2	7036	7.2	6812	7.1	6576	7.1
2100															7619	8.3	7408	8.3	7189	8.2

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*.



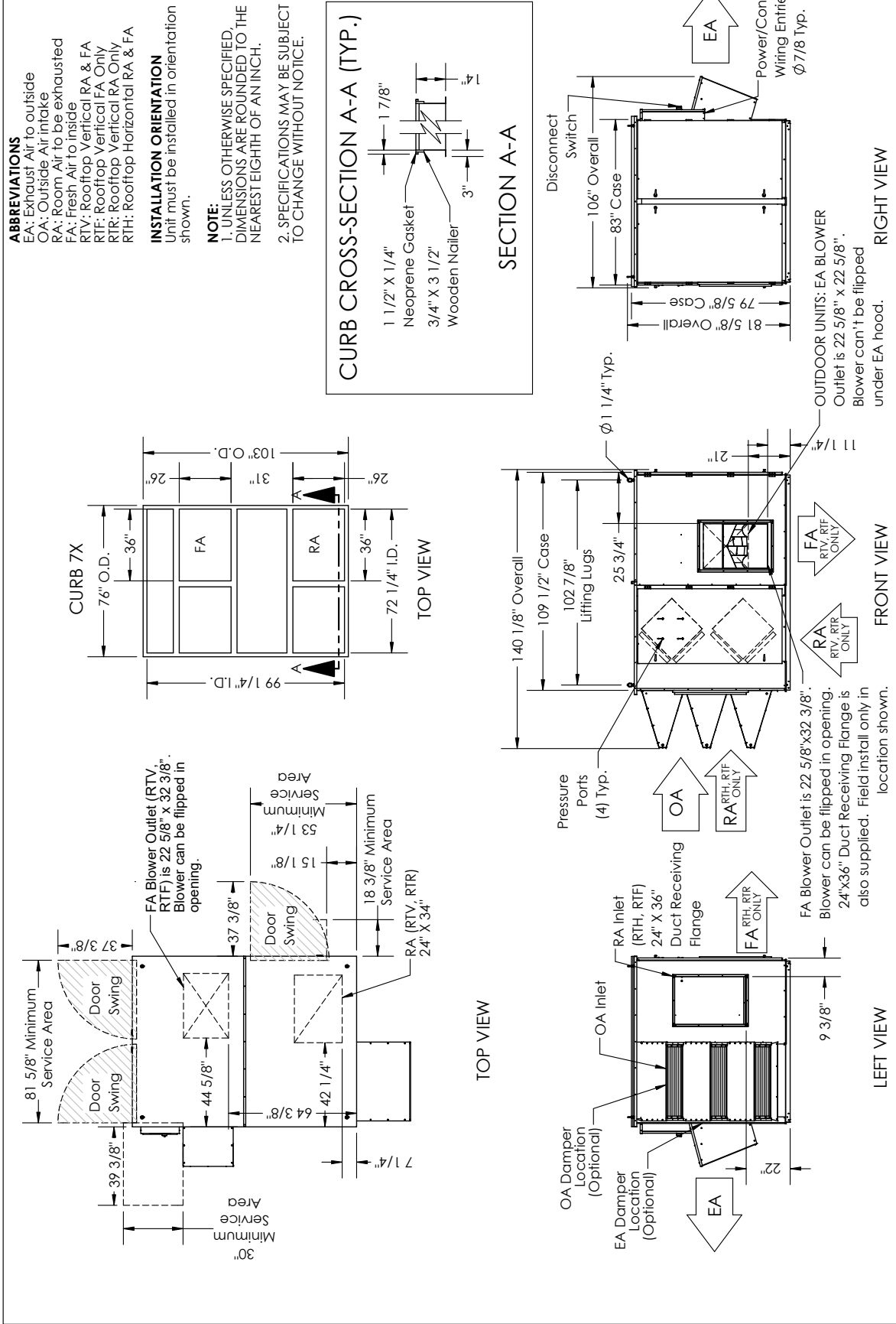
ENERGY RECOVERY VENTILATOR



ELECTRICAL DATA

Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	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	14.6-14	32.9	45	9-8.4	35.1	50	7.3-7.3	28.4	40
3.0	208-230	60	Three	9-8.4	20.3	25	9-8.4	20.3	25	7.3-7.3	16.4	20
	460	60	Three	4.2	9.5	15	4.2	9.5	15	3.7	8.3	15
	575	60	Three	3.3	7.4	15	3.3	7.4	15			
5.0	208-230	60	Three	13.9-13.4	31.3	45	13.9-13.4	31.3	45	10.5-10.5	23.6	30
	460	60	Three	6.7	15.1	20	6.7	15.1	20	5.3	11.9	15
	575	60	Three	5.3	11.9	15	5.3	11.9	15			
7.5	208-230	60	Three	20-19	45.0	60	20-19	45.0	60	17.4-17.4	39.2	50
	460	60	Three	9.5	21.4	30	9.5	21.4	30	8.7	19.6	25
	575	60	Three	7.6	17.1	20	7.6	17.1	20			
10.0	208-230	60	Three	25.4-24	57.2	80	25.4-24	57.2	80	22.0-22.0	49.5	70
	460	60	Three	12	27.0	35	12	27.0	35	11	24.8	35
	575	60	Three	9.6	21.6	30	9.6	21.6	30			

HE7XRT ENERGY RECOVERY VENTILATOR



AIRFLOW ORIENTATION
 Available as shown:

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: 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
Neoprene vibration isolators

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:

Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
Onboard 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)
Spring vibration isolators
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*.



ENERGY RECOVERY VENTILATOR



ELECTRICAL DATA

Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	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	14.6-14	32.9	45	9-8.4	35.1	50	7.3-7.3	28.4	40
3.0	208-230	60	Three	9-8.4	20.3	25	9-8.4	20.3	25	7.3-7.3	16.4	20
	460	60	Three	4.2	9.5	15	4.2	9.5	15	3.7	8.3	15
	575	60	Three	3.3	7.4	15	3.3	7.4	15			
5.0	208-230	60	Three	13.9-13.4	31.3	45	13.9-13.4	31.3	45	10.5-10.5	23.6	30
	460	60	Three	6.7	15.1	20	6.7	15.1	20	5.3	11.9	15
	575	60	Three	5.3	11.9	15	5.3	11.9	15			
7.5	208-230	60	Three	20-19	45.0	60	20-19	45.0	60	17.4-17.4	39.2	50
	460	60	Three	9.5	21.4	30	9.5	21.4	30	8.7	19.6	25
	575	60	Three	7.6	17.1	20	7.6	17.1	20			
10.0	208-230	60	Three	25.4-24	57.2	80	25.4-24	57.2	80	22.0-22.0	49.5	70
	460	60	Three	12	27.0	35	12	27.0	35	11	24.8	35
	575	60	Three	9.6	21.6	30	9.6	21.6	30			

HE8XIN ENERGY RECOVERY VENTILATOR

ABBREVIATIONS

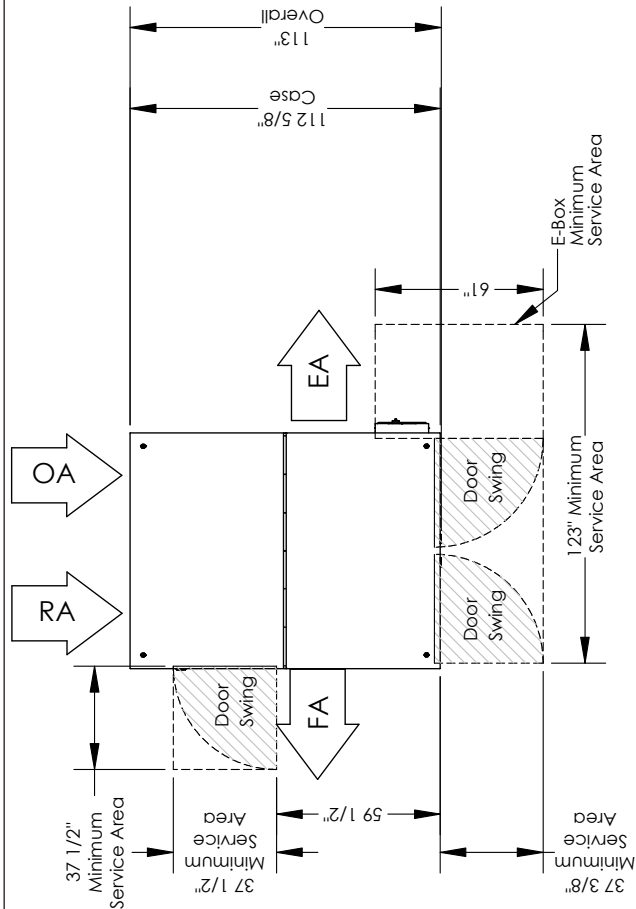
EA: Exhaust Air to outside
OA: Outside Air Intake
RA: Room Air to be exhausted
FA: Fresh Air To Inside

INSTALLATION ORIENTATION

Unit must be installed in orientation shown.

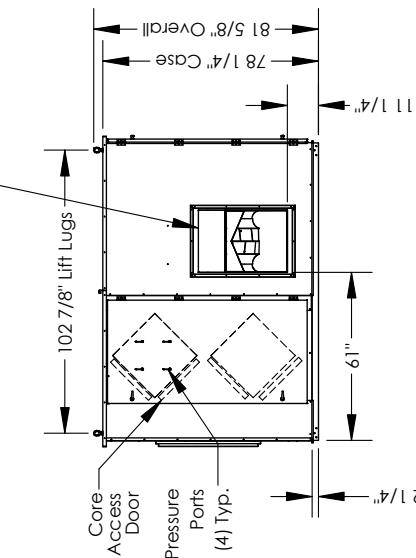
NOTE

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

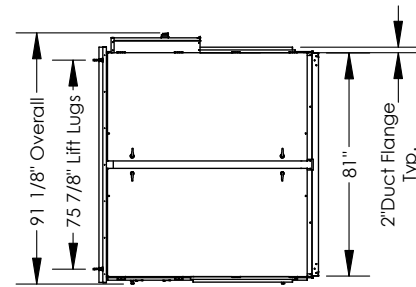


TOP VIEW

FA Blower Outlet is 22 5/8" x 32 3/8". Blower can be flipped in opening. 24"X36" Duct Receiving Flange is also supplied. Field install only in location shown.



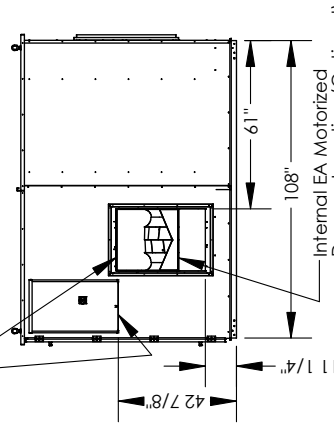
LEFT VIEW



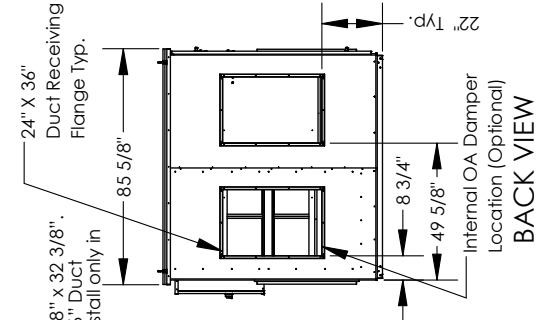
FRONT VIEW

Power and Control Wiring Entries 7/8" Dia.

INDOOR UNITS: EA BLOWER OUTLET IS 22 5/8" x 32 3/8". Blower can be flipped in opening. 24"X36" Duct Receiving Flange is also supplied. Field install only in location shown.



RIGHT VIEW



BACK VIEW

AIRFLOW ORIENTATION

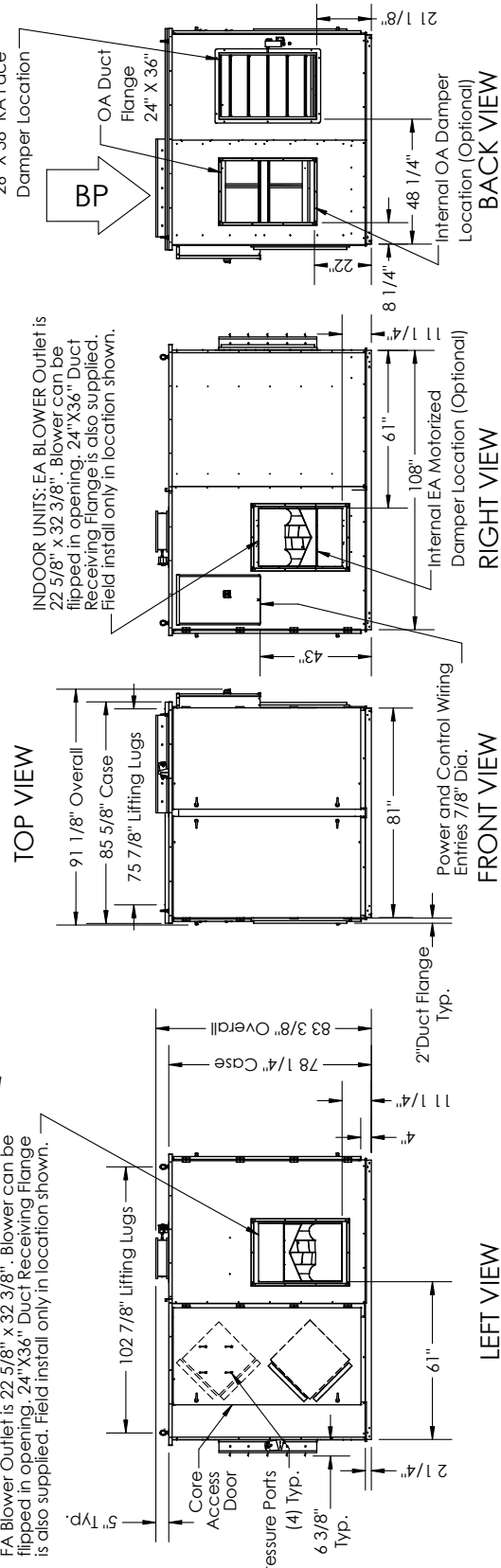
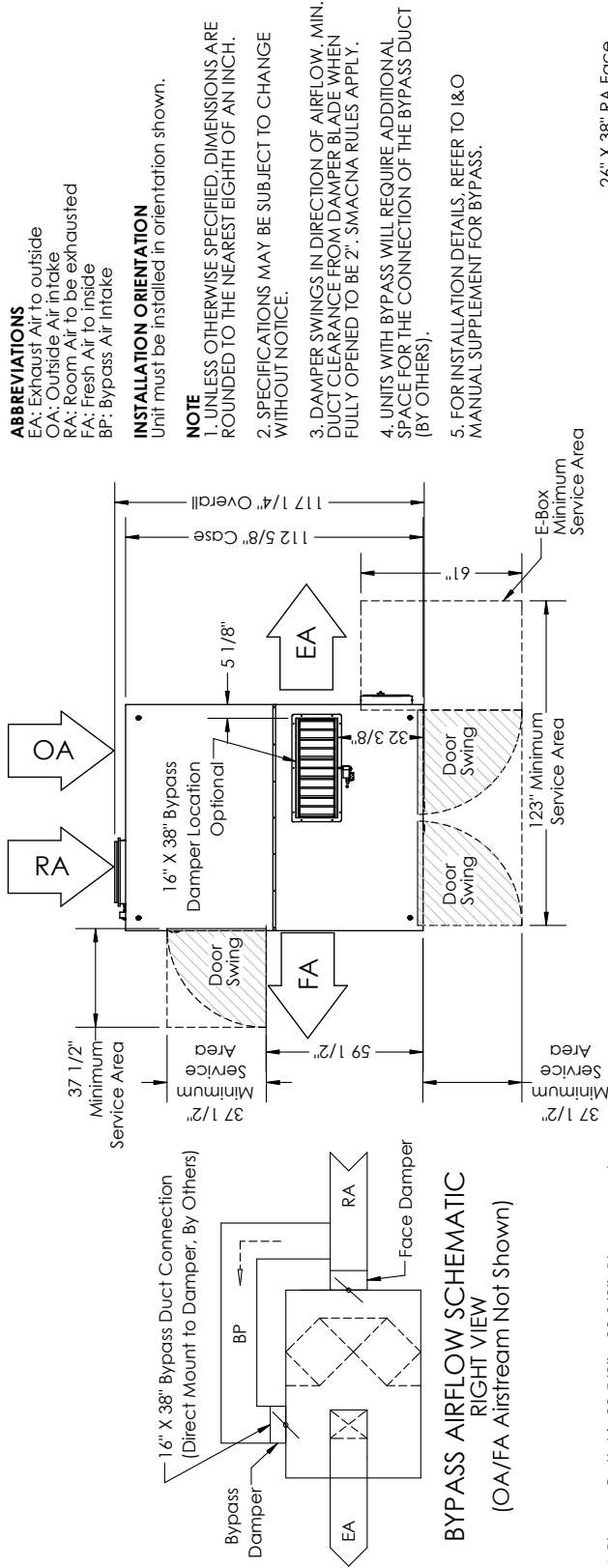
Available as shown in dimension drawing.



UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.

HE8XIN 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.



ENERGY RECOVERY VENTILATOR



ROOFTOP UNIT



HE7XRT shown

Energy recovery core is AHRI Certified®



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
Neoprene vibration isolators

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:

Ultra premium efficiency (IE5+) motors with variable frequency drive (VFDs): both airstreams
Onboard 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
Spring vibration isolators
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	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*.



ENERGY RECOVERY VENTILATOR



ELECTRICAL DATA

Electrical Specifications				Motor Starters (Standard)			Optional IE3 Efficiency Motor with VFDs			Optional IE5+ Efficiency Motor with VFDs		
HP	Volts	HZ	Phase	FLA per motor	Min. Cir. Amps	Max. Overcurrent Protection Device	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	14.6-14	32.9	45	9-8.4	35.1	50	7.3-7.3	28.4	40
3.0	208-230	60	Three	9-8.4	20.3	25	9-8.4	20.3	25	7.3-7.3	16.4	20
	460	60	Three	4.2	9.5	15	4.2	9.5	15	3.7	8.3	15
	575	60	Three	3.3	7.4	15	3.3	7.4	15			
5.0	208-230	60	Three	13.9-13.4	31.3	45	13.9-13.4	31.3	45	10.5-10.5	23.6	30
	460	60	Three	6.7	15.1	20	6.7	15.1	20	5.3	11.9	15
	575	60	Three	5.3	11.9	15	5.3	11.9	15			
7.5	208-230	60	Three	20-19	45.0	60	20-19	45.0	60	17.4-17.4	39.2	50
	460	60	Three	9.5	21.4	30	9.5	21.4	30	8.7	19.6	25
	575	60	Three	7.6	17.1	20	7.6	17.1	20			
10.0	208-230	60	Three	25.4-24	57.2	80	25.4-24	57.2	80	22.0-22.0	49.5	70
	460	60	Three	12	27.0	35	12	27.0	35	11	24.8	35
	575	60	Three	9.6	21.6	30	9.6	21.6	30			

ABBREVIATIONS

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
RTF: Rooftop Vertical FA Only
RTR: Rooftop Vertical RA Only
RTH: Rooftop Horizontal RA & FA

INSTALLATION ORIENTATION

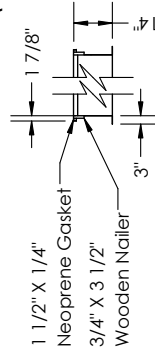
Unit must be installed in orientation shown.

NOTE:

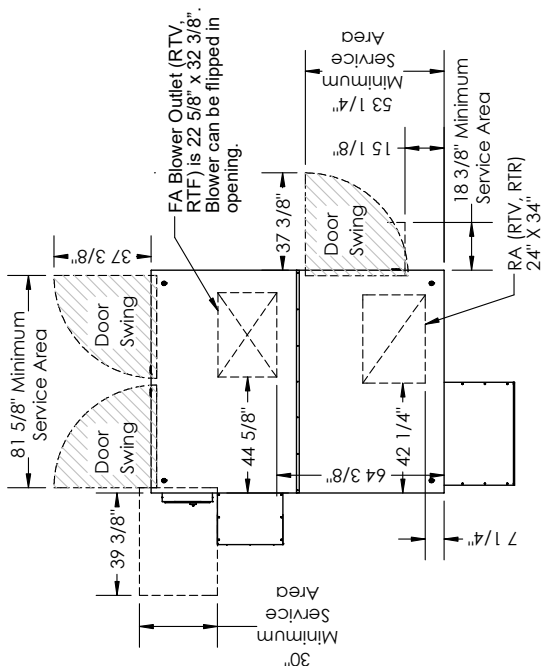
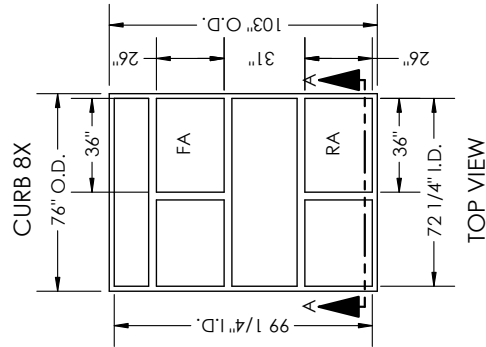
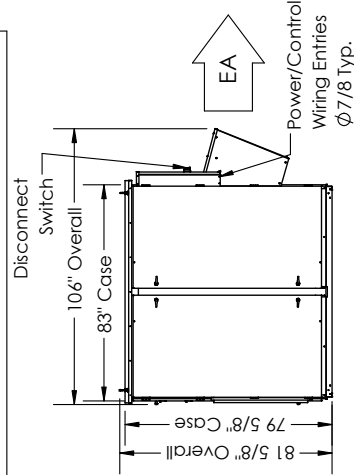
NOTE:
1. UNLESS OTHERWISE SPECIFIED,
DIMENSIONS ARE ROUNDED TO THE
NEAREST EIGHTH OF AN INCH.

2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

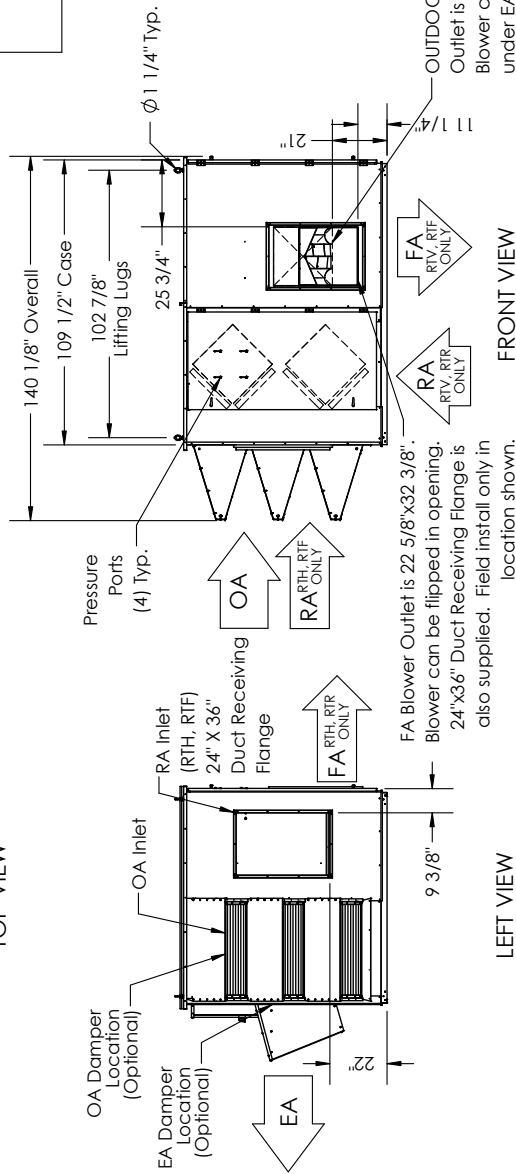
CURB CROSS-SECTION A-A (TYP.)



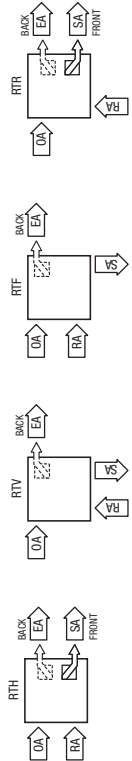
SECTION A-A



TOP VIEW



RIGHT VIEW



AIRFLOW ORIENTATION

Available as shown in dimension drawing.



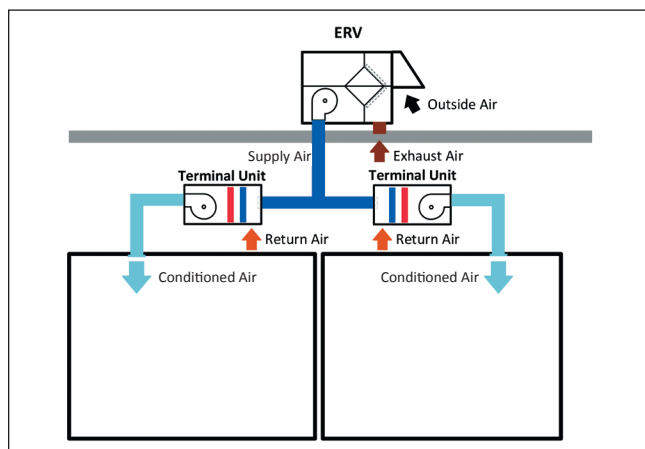
UNIT MOUNTING & APPLICATION

Must be mounted as shown. Airstreams cannot be switched.

APPLICATIONS

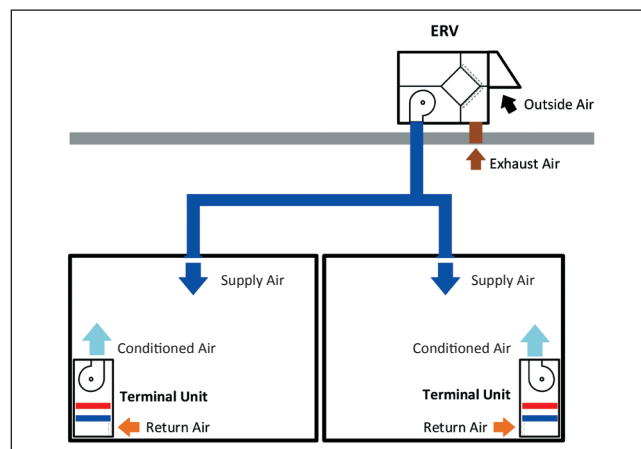
COMMON INSTALLATION APPROACHES

AIR SUPPLIED TO INTAKES OF TERMINAL UNITS



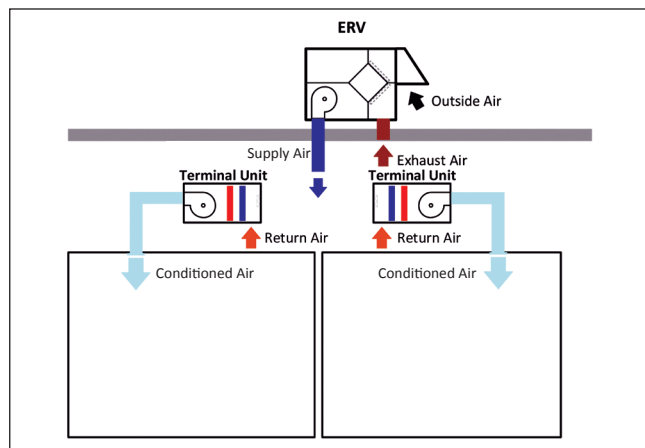
- ♦ Variable refrigerant flow/volume
- ♦ Active chilled beam
- ♦ Fan coils

DIRECT-TO-ZONE WITH TERMINAL UNITS



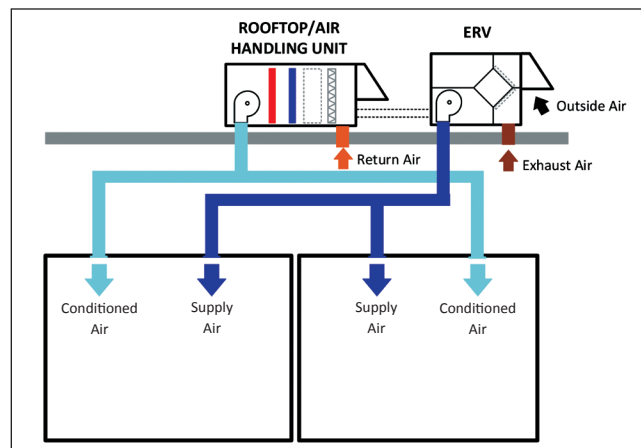
- ♦ Variable refrigerant flow/volume
- ♦ Chilled beam
- ♦ Fan coils
- ♦ Radiant floor heating & cooling
- ♦ Heat pumps
- ♦ Packaged terminal air conditioning

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



ULTRA PREMIUM EFFICIENCY (IE5+) MOTOR WITH VARIABLE FREQUENCY DRIVE (VFD)

- ♦ Highly efficient at full load and partial load conditions
- ♦ Greater energy efficiency than standard IE3 motors
- ♦ Internal grounding bushings
- ♦ Synchronous reluctance and permanent sustainable non-rare earth magnetic technologies
- ♦ VFDs required
- ♦ See VFD option for additional features



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



VFD all voltage except 575V

ELECTRICAL

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



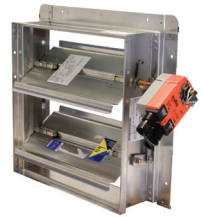
FILTER ALARM

- ♦ Factory mounted airflow switches: one for each airstream



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



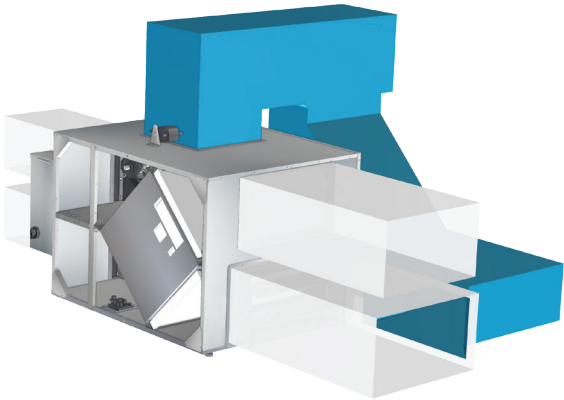
OPTIONS

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.

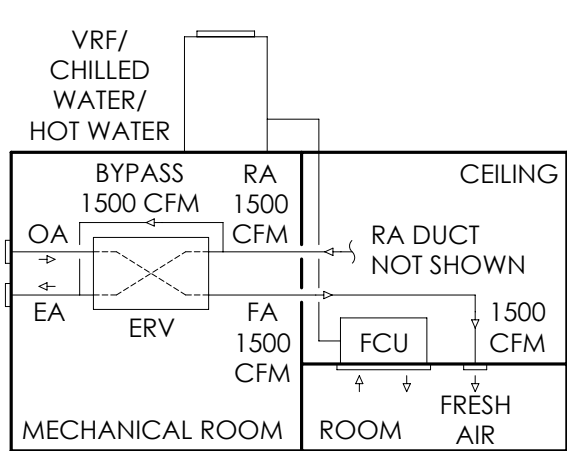
FIELD-INSTALLED BYPASS DUCT SIZE RECOMMENDATIONS

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			34" x 16"
HE4XINV			42" x 14"
HE6XIN, HE7XIN, 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.

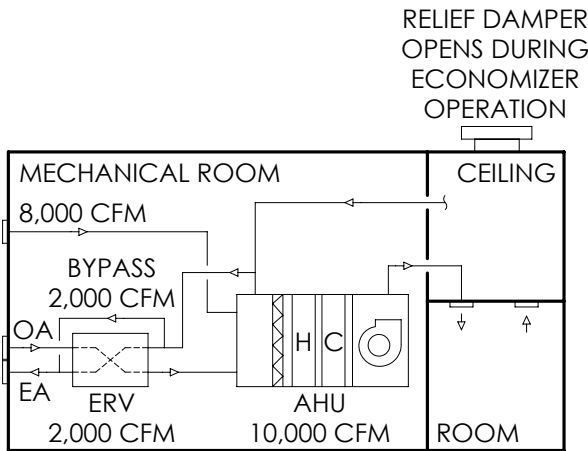
Note: Installation of bypass duct per SMACNA guidelines. The face damper is factory-installed on the return air (RA) duct inlet for all units.

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.



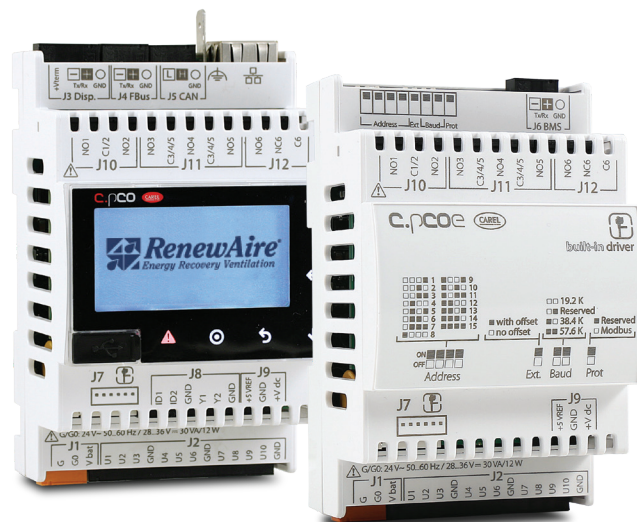
Partial Economizer

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
CO2 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 functionally 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

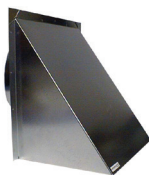


RPS-WOD/DPS-WOD
Wall/Duct Mount
without Display

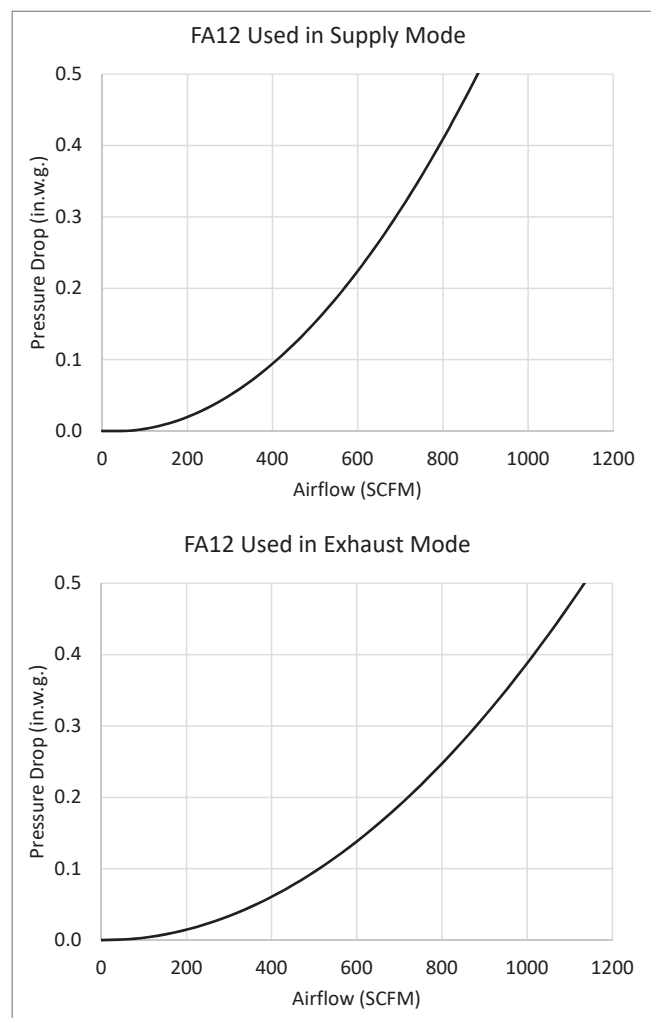
ACCESSORIES

HOODED WALL VENT

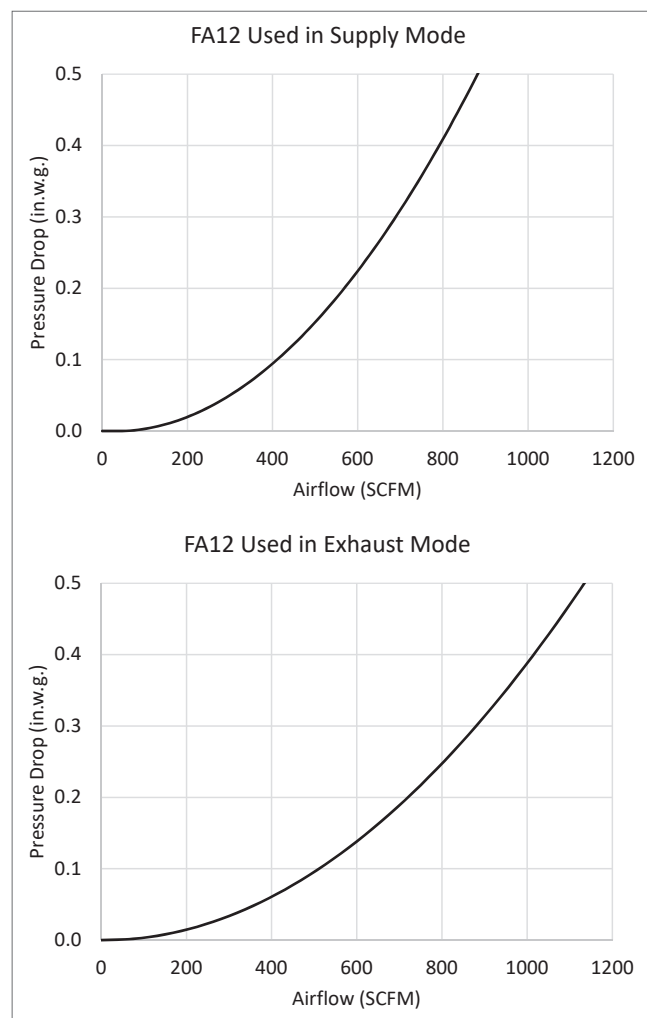
- ♦ 10" and 12"
- ♦ Galvanized, paintable galvalume



FA10 PRESSURE DROP PERFORMANCE



FA12 PRESSURE DROP PERFORMANCE



AUTOMATIC BALANCING DAMPER

- ♦ 4", 5" and 6"



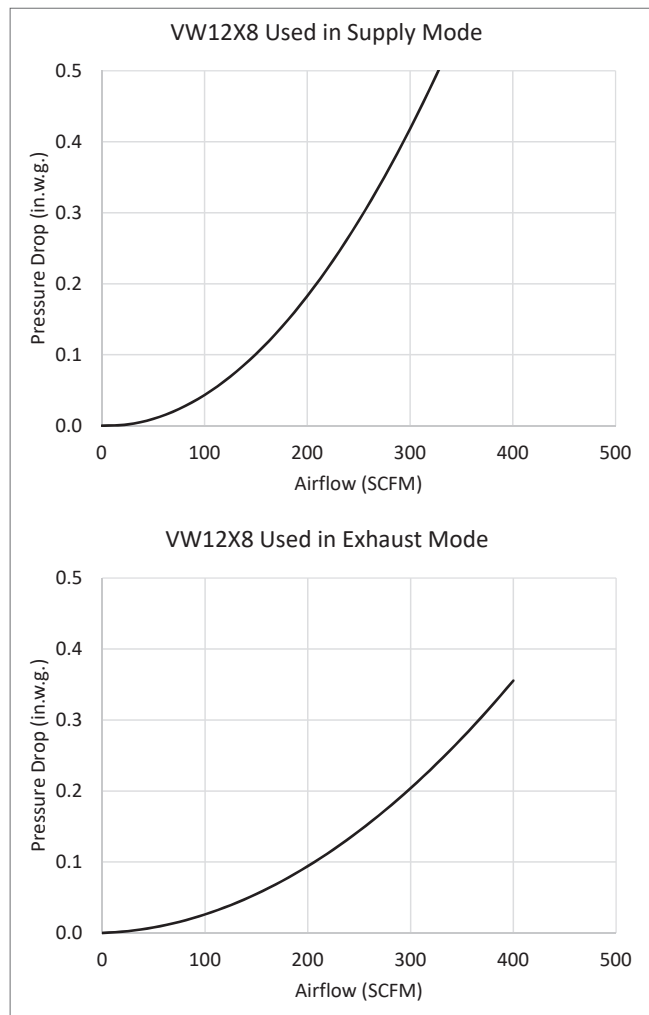
ACCESSORIES

LOUVERED WALL VENT

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



VW12 x 8 PRESSURE DROP PERFORMANCE

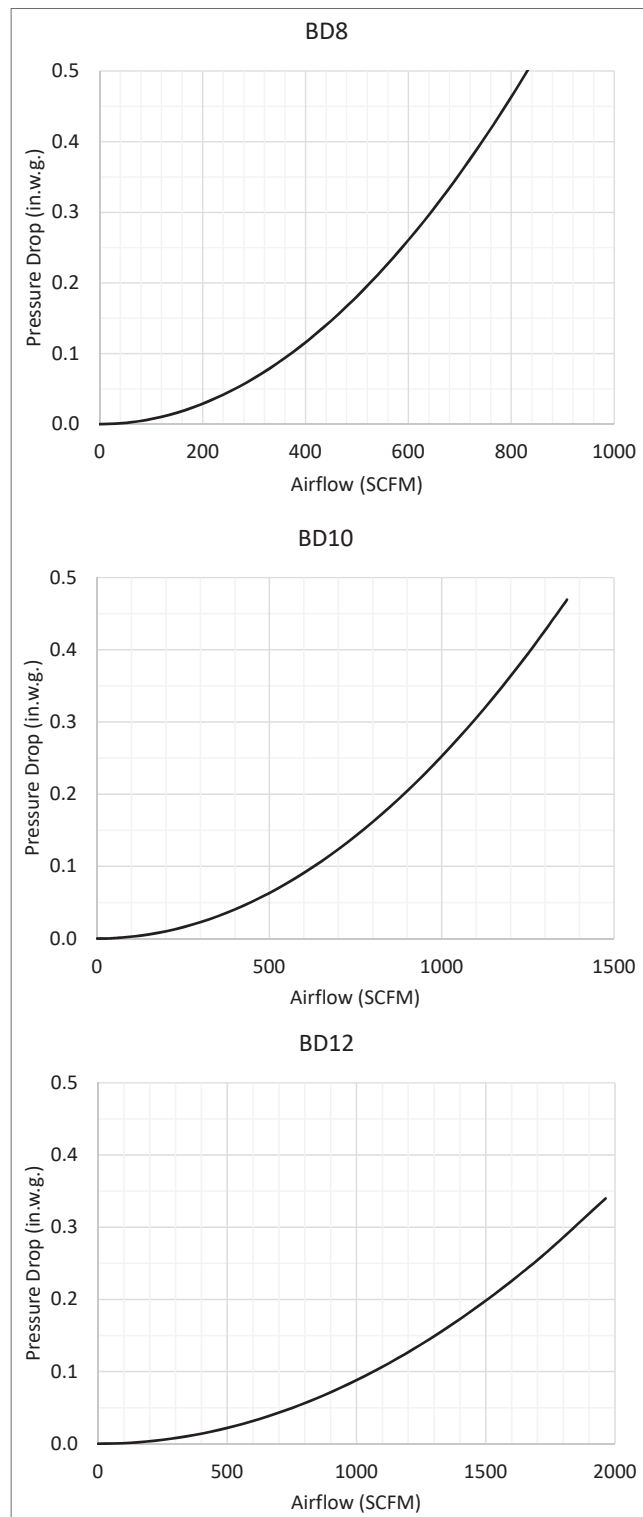


BACKDRAFT DAMPER

- ♦ 8", 10" and 12"



PRESSURE DROP PERFORMANCE



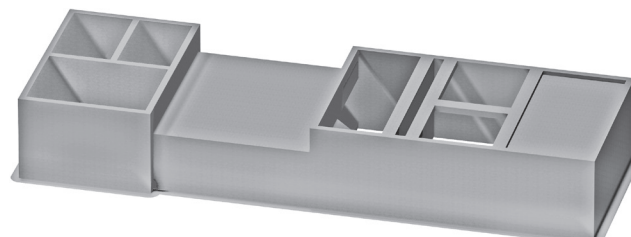
ACCESSORIES

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 1/2" 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

HE+DX COILS

The HE+DX coils engineered solution is designed specifically for RenewAire HE07 and HE10 ERVs. The DX coil has two copper connections, a liquid supply line and a suction line. The suction header has an option to be equipped with an external equalizer line connection for TXV applications. Refrigerant controller valves are supplied by other vendors per the designer's specifications.

The DX cooling coils are mounted above a condensate pan. The coil must be connected to separate, external equipment provided by other manufacturers.

KEY BENEFITS

- **Reduce Costs:** Our economical and compact HE ERVs paired with the HE+DX coil accessory are a cost-efficient alternative for applications requiring 100% outdoor air.
- **Decrease Lead Times:** The HE07 and HE10 ERVs are primed for short lead times, which allows for faster project completions.
- **Save Space:** In addition to be a cost-saving alternative, the HE+DX coil package is also a space-saving solution. In contrast with bulkier units, these ventilation systems can fit into smaller and tighter spaces.



ELECTRIC DUCT HEATERS

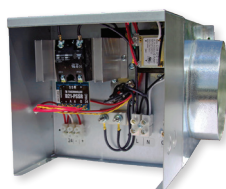
RenewAire offers the highest-efficiency energy recovery ventilators (ERVs) on the market. However, during winter conditions, supply air from the ERV may be less than optimal for space conditions. By adding RenewAire's round electric duct heater as an option to our single/multi-family and light commercial 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

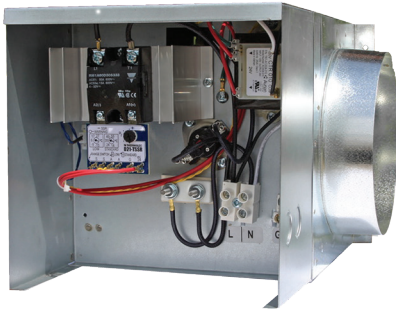
- Available on all commercial units (some exceptions apply).
- Flippable 180 degrees



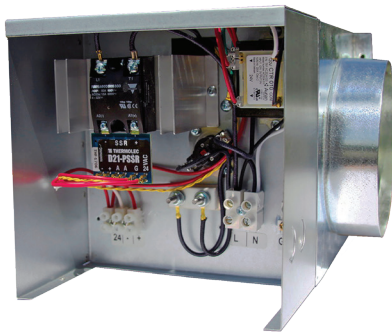
RH SERIES

ELECTRIC DUCT HEATER

ELECTRIC DUCT HEATER (1–11.5 kW) ACCESSORY



RH-D (Integral Thermostat)



RH-W (Wall-Mount Thermostat)

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

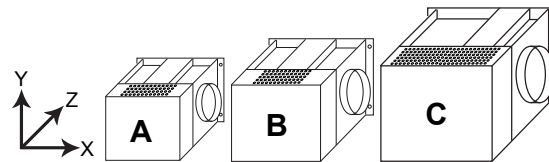
Standard Features:

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)

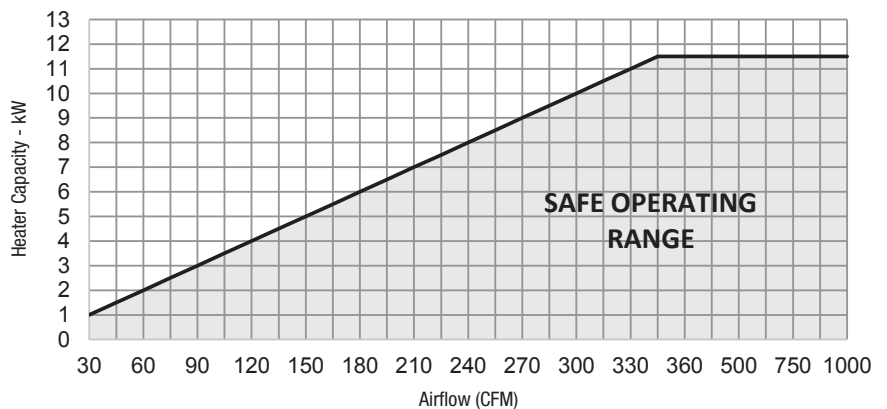
Note: Electric duct heater designed for indoor ductwork installation only.



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
						Wall Mount	131324	RHW1120-6
		2	16.66	12	20	Integral	131321	RHD2120-6
						Wall Mount	131325	RHW2120-6
	208	1	4.80	12	15	Integral	131352	RHD1208-6
						Wall Mount	131363	RHW1208-6
		2	9.61	12	15	Integral	131354	RHD2208-6
						Wall Mount	131365	RHW2208-6
	240	1	4.16	12	15	Integral	131353	RHD1240-6
						Wall Mount	131364	RHW1240-6
		2	8.33	12	15	Integral	131355	RHD2240-6
						Wall Mount	131366	RHW2240-6
8	208	3	14.42	12	20	Integral	131356	RHD3208-8
						Wall Mount	131367	RHW3208-8
		4	19.23	10	30	Integral	131357	RHD4208-8
						Wall Mount	131368	RHW4208-8
		5	24.03	10	30	Integral	131358	RHD5208-8
						Wall Mount	131369	RHW5208-8
	240	3	12.50	12	15	Integral	131322	RHD3240-8
						Wall Mount	131326	RHW3240-8
		4	16.66	12	20	Integral	131323	RHD4240-8
						Wall Mount	131327	RHW4240-8
		5	20.83	10	30	Integral	131359	RHD5240-8
						Wall Mount	131370	RHW5240-8
		6	25.00	10	40	Integral	131360	RHD6240-8
						Wall Mount	131371	RHW6240-8
10	208	3	14.42	12	20	Integral	131336	RHD3208-10
						Wall Mount	131328	RHW3208-10
		4	19.23	10	30	Integral	131338	RHD4208-10
						Wall Mount	131330	RHW4208-10
		5	24.03	10	30	Integral	131340	RHD5208-10
						Wall Mount	131332	RHW5208-10
	240	3	12.50	12	15	Integral	131337	RHD3240-10
						Wall Mount	131329	RHW3240-10
		4	16.66	12	20	Integral	131339	RHD4240-10
						Wall Mount	131331	RHW4240-10
		5	20.83	10	30	Integral	131341	RHD5240-10
						Wall Mount	131333	RHW5240-10
		6	25.00	10	40	Integral	131342	RHD6240-10
						Wall Mount	131334	RHW6240-10
		8	33.33	8	50	Integral	131343	RHD8240-10
						Wall Mount	131348	RHW8240-10
		10	41.66	6	60	Integral	131361	RHD10240-10
						Wall Mount	131372	RHW10240-10
		11.5	47.91	6	60	Integral	131362	RHD11-1/2240-10
						Wall Mount	131373	RHW11-1/2240-10
12	240	6	25.00	10	40	Integral	131344	RHD6240-12
						Wall Mount	131335	RHW6240-12
		8	33.33	8	50	Integral	131345	RHD8240-12
						Wall Mount	131349	RHW8240-12
		10	41.66	6	60	Integral	131346	RHD10240-12
						Wall Mount	131350	RHW10240-12
		11.5	47.91	6	60	Integral	131347	RHD11-1/2240-12
						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:

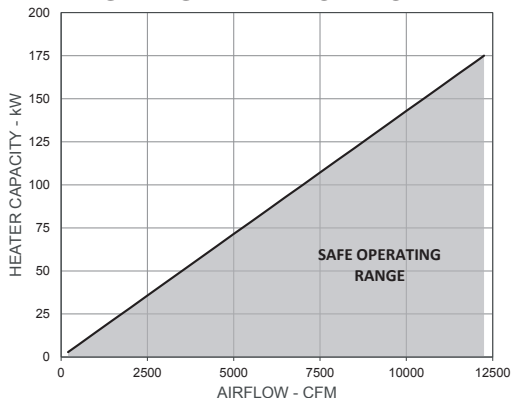
Flange mount
80-20 (Ni/Cr) A Grade element wire with stainless steel terminals
Recessed control box 1"
Gasketed cover: dust tight
Power fusing, standard for heaters drawing more than 48 Amps
2-stage
Electronic step controller (4-stage)
SCR (up to 96 Amps)
SCR Vernier (over 96 Amps)
Pilot light

Accessory:

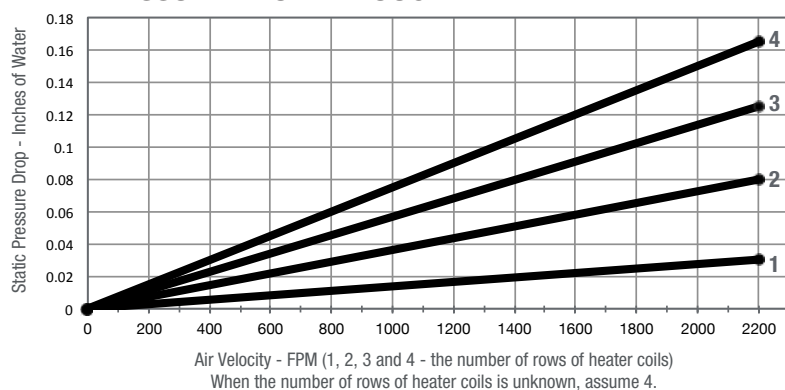
Room thermostat
Room/duct thermostat-sensor kit for SCR control

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

EK SERIES HEATER CAPACITY

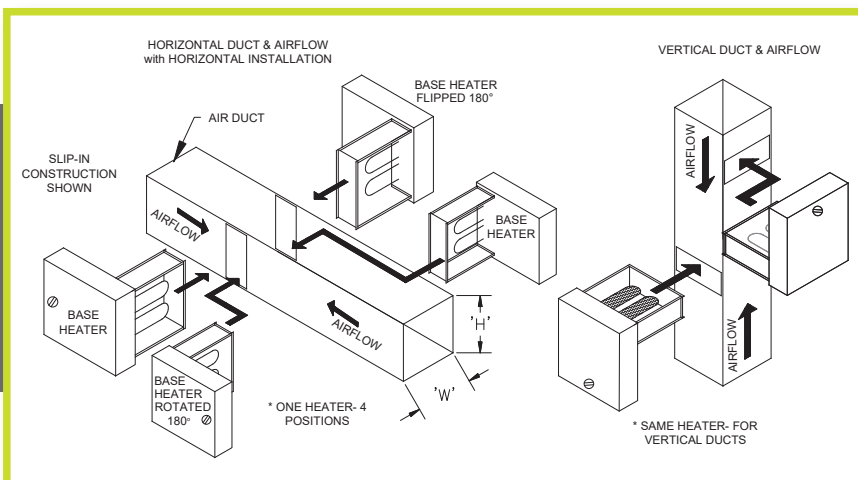


PRESSURE DROP THROUGH HEATER



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:

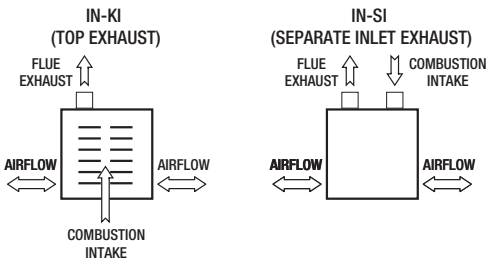
Indirect propane fired fuel
Elevation correction for elevation > 2,000 ft.
304 stainless steel heat exchanger
5:1 continuous electronic modulation for all furnaces
10:1 continuous electronic modulation for furnaces
200 MBH and larger

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

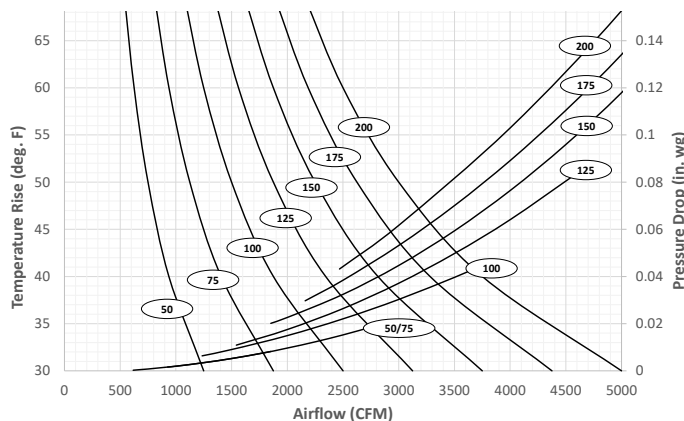
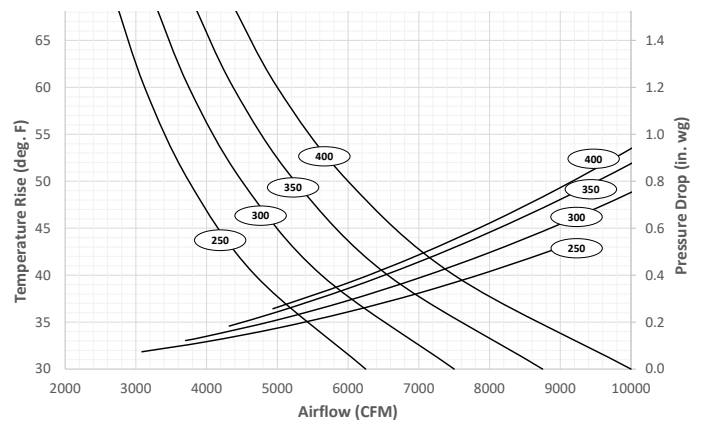


FIGURE 2 GAS FURNACE 250–400 MBH



DUCT FURNACE DIMENSIONS

FIGURE 3 IN-KI (TOP EXHAUST INDOOR)

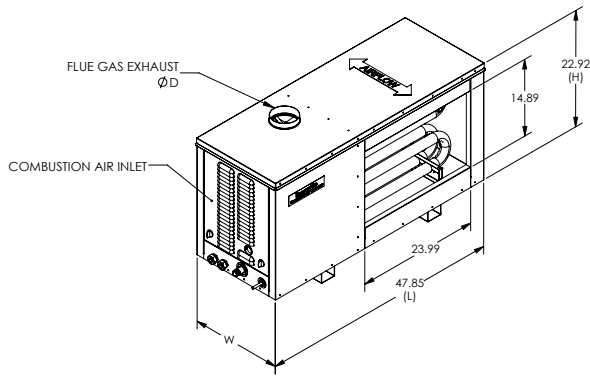
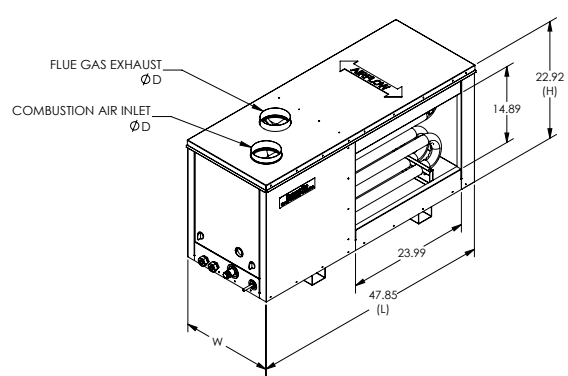


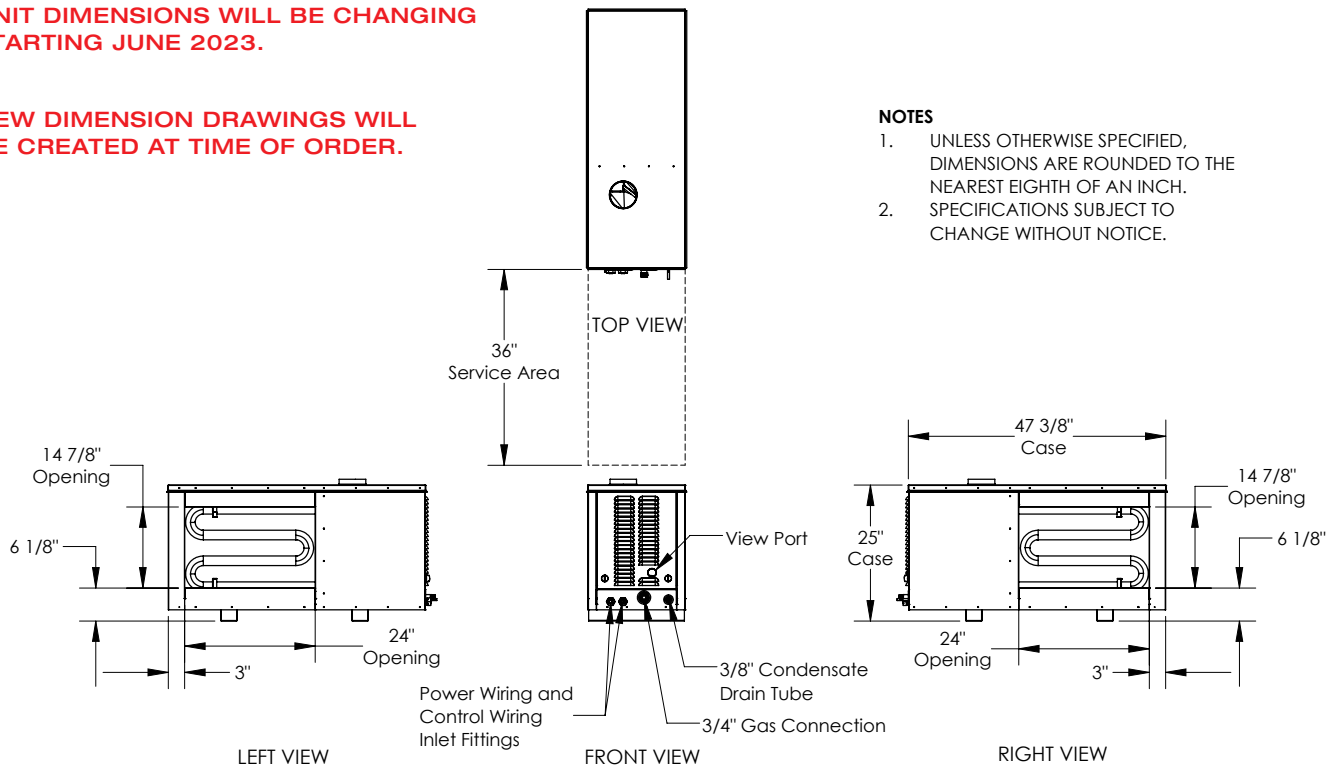
FIGURE 4 IN-SI (SEPARATE INLET EXHAUST INDOOR)



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

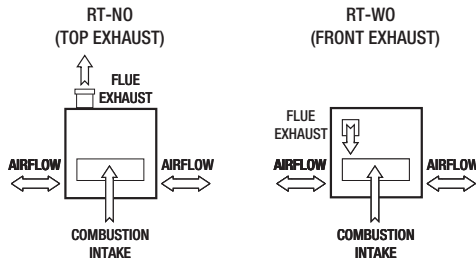
Options:

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

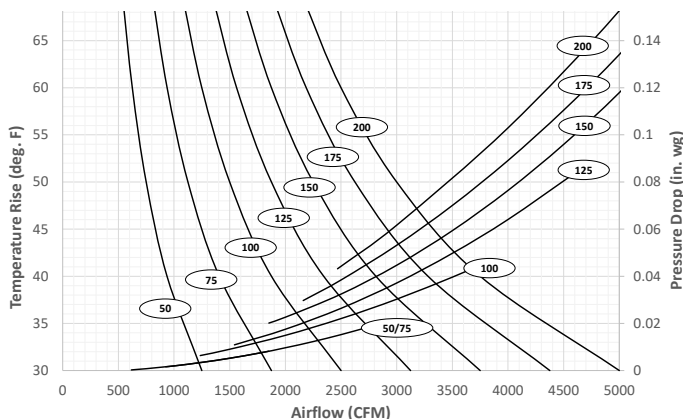
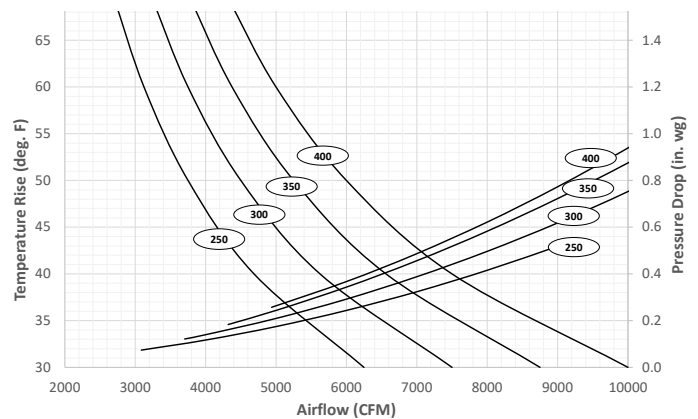


FIGURE 2 GAS FURNACE 250–400 MBH



DUCT FURNACE DIMENSIONS

FIGURE 3 RT-NO (TOP EXHAUST OUTDOOR)

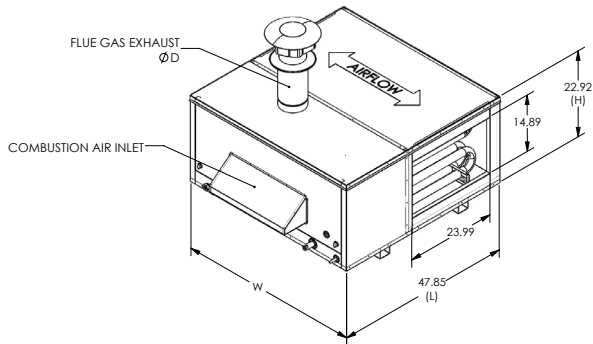
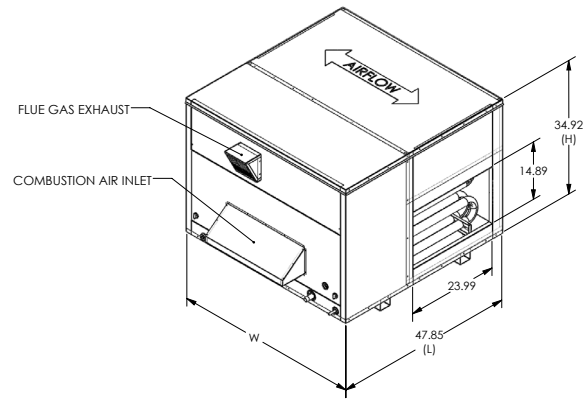


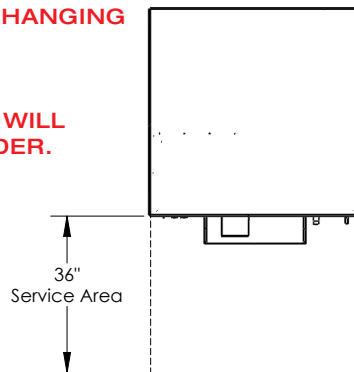
FIGURE 4 RT-WO (FRONT EXHAUST OUTDOOR)



INDIRECT GAS-FIRED DUCT FURNACE DIMENSIONS

UNIT DIMENSIONS WILL BE CHANGING STARTING JUNE 2023.

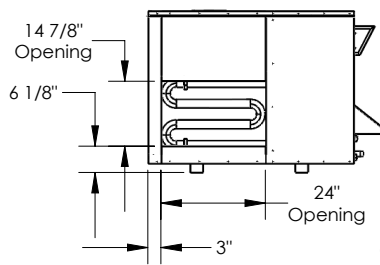
NEW DIMENSION DRAWINGS WILL BE CREATED AT TIME OF ORDER.



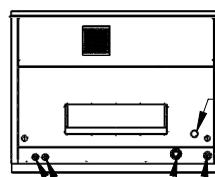
TOP VIEW

NOTES

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



LEFT VIEW



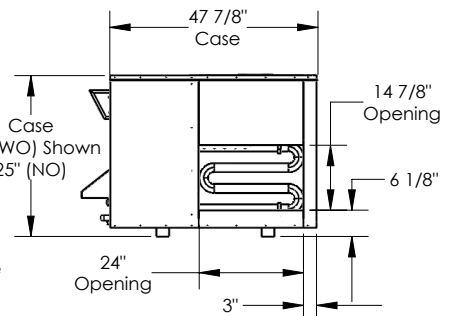
FRONT VIEW

Power Wiring and Control Wiring Inlet Fittings

View Port

3/8" Condensate Drain Tube

3/4" Gas Connection



RIGHT VIEW

SOUND DATA

HE05:

Standard EC Motor; 120V/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	363	0.40	4000	58	57	53	56	40	37	30	32	62	54
	276	0.25	3226	56	53	51	54	37	31	30	28	60	52
	146	0.09	1923	53	46	44	36	33	28	22	19	54	40
Room Inlet (SA)	363	0.40	4000	58	56	58	58	45	44	43	45	64	57
	276	0.25	3226	53	53	56	56	39	38	36	34	61	54
	146	0.09	1923	50	49	48	36	35	33	26	26	54	43
Room Outlet (RA)	363	0.40	4000	63	58	60	58	45	44	41	44	67	58
	276	0.25	3226	56	55	59	55	40	39	36	36	63	55
	146	0.09	1923	52	51	48	39	32	31	27	25	56	43

HE07:

Advanced EC Motor; 120V/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	591	0.40	3175	66	70	63	55	52	42	32	36	72	59
	485	0.25	2710	63	66	59	50	51	39	31	34	68	56
	344	0.12	2083	66	60	51	52	44	34	31	31	67	52
Room Inlet (SA)	591	0.40	3175	72	74	65	58	49	40	32	33	76	62
	485	0.25	2710	60	64	55	55	52	37	29	26	67	56
	344	0.12	2083	75	68	64	49	44	34	27	24	76	58
Room Outlet (RA)	591	0.40	3175	65	71	70	64	54	49	41	55	75	66
	485	0.25	2710	63	68	66	63	53	46	38	50	71	63
	344	0.12	2083	61	59	58	56	49	40	33	40	65	56

HE07:

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	472	0.40	3030	63	61	60	54	41	36	30	34	66	55
	360	0.23	2459	56	57	59	46	37	31	32	28	62	52
	248	0.11	1786	55	53	56	39	34	30	29	22	60	49
Room Inlet (SA)	472	0.40	3030	61	59	57	53	36	31	28	26	64	53
	360	0.23	2459	56	46	50	41	37	29	27	21	57	45
	248	0.11	1786	56	52	52	44	36	32	21	20	59	47
Room Outlet (RA)	472	0.40	3030	62	63	69	64	44	42	37	44	72	64
	360	0.23	2459	59	59	66	55	40	37	32	33	68	59
	248	0.11	1786	55	56	60	49	36	30	22	30	63	53

HE07:

Intermediate 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	591	0.40	3175	66	70	63	55	52	42	32	36	72	59
	485	0.25	2710	63	66	59	50	51	39	31	34	68	56
	344	0.12	2083	66	60	51	52	44	34	31	31	67	52
Room Inlet (SA)	591	0.40	3175	72	74	65	58	49	40	32	33	76	62
	485	0.25	2710	60	64	55	55	52	37	29	26	67	56
	344	0.12	2083	75	68	64	49	44	34	27	24	76	58
Room Outlet (RA)	591	0.40	3175	65	71	70	64	54	49	41	55	75	66
	485	0.25	2710	63	68	66	63	53	46	38	50	71	63
	344	0.12	2083	61	59	58	56	49	40	33	40	65	56

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. HE05, HE07, and HE10 data collected using INV units.

SOUND DATA

HE07:

Advanced 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	658	0.40	3290	83	79	69	56	54	43	34	37	85	66
	545	0.24	2702	68	64	60	60	38	34	31	31	70	58
	393	0.14	2084	59	58	59	45	36	30	29	26	63	52
Room Inlet (SA)	658	0.40	3290	65	63	58	59	40	36	27	25	68	58
	545	0.24	2702	62	58	55	53	36	31	27	22	65	52
	393	0.14	2084	59	56	53	42	33	24	21	21	62	47
Room Outlet (RA)	658	0.40	3290	78	69	69	66	59	46	45	48	79	66
	545	0.24	2702	61	62	65	66	47	40	33	40	70	64
	393	0.14	2084	56	58	66	51	38	32	26	30	67	58

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	65
	846	0.24	2201	60	60	67	57	43	41	30	32	69	60
	350	0.04	1105	57	57	62	51	37	34	23	29	64	55
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. HE05, HE07, and HE10 data collected using INV units.

COIL MODULE MODELS CONFIGURATION GUIDE

Note: Not all options are available on every model.

MODEL NUMBER

			C	J					-			X				1	A	1	C	C	C	S	-	-	-
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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:	Coil Type
"DX" = Direct Expansion	
"HP" = Heat Pump	

Digit 3:	Cabinet
"C" = Insulated Galvanized Steel Cabinet (Standard)	

Digit 4:	Coil Tube Geometry
"J" 3/8" 1.000" x 0.866" Sine Wave (Standard)	

Digit 5:	Number of Rows
2-6	

Digit 6:	Circuit
"F" = Full	
"H" = Half	
"Q" = Quarter	
"T" = Three Quarter	
"O" = One and One Half	
"D" = Double	
"C" = Custom (Standard)	

Digits 7-8:	Fins per Inch
08-14	

Digits 10-11:	Fin Height
"12" = 12 Inches	
"14" = 14 Inches	

Digits 13-14:	Fin Length (see Restrictions 1 & 2)
"12" = 12 Inches	
"16" = 16 Inches	
"18" = 18 Inches	
"24" = 24 Inches	

Digit 15:	Coil Hand
"L" = Left Hand	
"R" = Right Hand	

Digit 16:	Fin Thickness
"1" = 0.0075 (Standard)	

Digit 17:	Fin Material
"A" = Aluminum (Standard)	

Digit 18:	Tube Thickness
"1" = 0.016 (Standard)	

Digit 19:	Tube Material
"C" = Copper (Standard)	

Digit 20:	Header Material
"C" = Copper (Standard)	

Digit 21:	Connection Material
"C" = Copper (Standard)	

Digit 22:	Connection Type
"S" = Sweat (Standard)	

Digit 23:	Coating
"-" = None (Standard)	

*NOTES:

Digits 9, 24, and 25 are not used in this model.

Restrictions:	
1. Fin Lengths "12" & "16" only available with Fin Height "12".	
2. Fin Lengths "18" & "24" only available with Fin Height "14".	

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COIL MODULE MODELS CONFIGURATION GUIDE

Note: Not all options are available on every model.

MODEL NUMBER

			C	J					-			X				1	A	1	C	C	C	S	-	-	-
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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:	Coil Type
"DX" = Direct Expansion	
"HP" = Heat Pump	

Digit 3:	Cabinet
"C" = Insulated Galvanized Steel Cabinet (Standard)	

Digit 4:	Coil Tube Geometry
"J" 3/8" 1.000" x 0.866" Sine Wave (Standard)	

Digit 5:	Number of Rows
2–6	

Digit 6:	Circuit
"F" = Full	
"H" = Half	
"Q" = Quarter	
"T" = Three Quarter	
"O" = One and One Half	
"D" = Double	
"C" = Custom (Standard)	

Digits 7–8:	Fins per Inch
08–14	

Digits 10–11:	Fin Height
"12" = 12 Inches	
"14" = 14 Inches	

Digits 13–14:	Fin Length (see Restrictions 1 & 2)
"12" = 12 Inches	
"16" = 16 Inches	
"18" = 18 Inches	
"24" = 24 Inches	

Digit 15:	Coil Hand
"L" = Left Hand	
"R" = Right Hand	

Digit 16:	Fin Thickness
"1" = 0.0075 (Standard)	

Digit 17:	Fin Material
"A" = Aluminum (Standard)	

Digit 18:	Tube Thickness
"1" = 0.016 (Standard)	

Digit 19:	Tube Material
"C" = Copper (Standard)	

Digit 20:	Header Material
"C" = Copper (Standard)	

Digit 21:	Connection Material
"C" = Copper (Standard)	

Digit 22:	Connection Type
"S" = Sweat (Standard)	

Digit 23:	Coating
"-" = None (Standard)	

*NOTES:

Digits 9, 24, and 25 are not used in this model.

Restrictions:	
1. Fin Lengths "12" & "16" only available with Fin Height "12".	
2. Fin Lengths "18" & "24" only available with Fin Height "14".	

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EK SERIES ELECTRIC DUCT HEATER CONFIGURATION GUIDE

Note: Not all options are available on every model.

MODEL NUMBER

E	K	-										C												S	-		
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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)	

Digits 4-5:	Width in Inches (see Restriction 1)
08-99	

Digits 6-7:	Height in Inches (see Restriction 2)
08-99	

Digits 8-10:	Capacity in kW (see Restrictions 3, 4, & 5)
001-175	

Digit 11:	Mount
"S" = Slip In (Standard)	
"F" = Flanged	

Digit 12:	Element Style
"C" = Open Coil (Standard)	

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	

Digit 14:	Airflow Orientation
"H" = Horizontal (Standard)	
"V" = Vertical	

Digit 15:	Control Box Offset
"L" = Left Hand (Standard)	
"R" = Right Hand	

Digit 16:	Control Box Recessed
"-" = None (Standard)	
"R" = Recessed 1"	

Digit 17:	Control Box Dust Tight
"-" = None (Standard)	
"D" = Dust Tight	

Digit 18:	Voltage (see Restrictions 7 & 8)
"1" = 120V	
"2" = 208V	
"3" = 240V	
"4" = 480V	
"8" = 600V	
"9" = 277V	

Digit 19:	Phase
"1" = Single-Phase	
"3" = Three-Phase	

Digit 20:	Power Fusing (see Restriction 9)
"-" = None	
"F" = Fusing	

Digit 21:	Element Material
"1" = Single (Standard)	
"2" = 2-Stage	
"4" = 4-Stage	

Digit 22:	Control Voltage
"S" = 24VAC	

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	

Digit 25:	Pilot Light (See Restriction 13)
"N" = None (Standard)	
"L" = Light	

*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.

Restrictions:

- Width inches entered as a whole number.
- Height inches entered as a whole number.
- Heater density should be less than 30kW/ft². $DENSITY = \frac{HEATER\ CAPACITY\ (kW)}{(W" \times H") / 144} < 30$
- Heater capacity kW entered as a whole number.
- Formulas for calculating kW and temperature rise: $kW = \frac{CFM \times \Delta T}{3150}$ $\Delta T = \frac{kW \times 3150}{CFM}$
- Voltage Codes "1" & "9" only available with Phase Code "1" (Single-Phase).
- Voltage Codes "4" & "8" only available with Phase Code "3" (Three-Phase).
- Power Fusing Code "F" required when amperage is > 48A. (based on kW and voltage)
- Control Type Code "D" only available with Stage Code "1" & "2".
- Control Type Code "E" only available with Stage Code "4".
- 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.
- Pilot Light Code "L" only available with Control Type Code "D".
- 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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To Place an Order E-mail: RenewaireOrders@renewaire.com

GH SERIES INDIRECT GAS-FIRED DUCT FURNACE CONFIGURATION GUIDE

Note: Not all options are available on every model.

MODEL NUMBER

G	H	-												H	T				1		-	S		-	-
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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

Digits 4-5:	Location
"IN"	= Indoor
"RT"	= Rooftop

Digits 6-7:	Vent Location
"SI"	= Separated Top Indoor
"KI"	= Top Exhaust Indoor
"WO"	= Front Exhaust Outdoor
"NO"	= Top Exhaust Outdoor

Digits 8-10:	Input Capacity in MBH
"050", "075", "100", "125", "150", "175", "200", "250", "300", "350", "400"	

Digit 11:	Fuel Type
"N"	= Natural Gas (Standard)
"P"	= Propane

Digits 12-13:	Tube Material
"SS"	= 409 Stainless Steel (Standard)
"CS"	= 304 Stainless Steel

Digit 14:	Airflow Orientation
"H"	= Horizontal

Digit 15:	Thermal Efficiency
"T"	= 81%

Digit 16:	Elevation
"S"	= 0-2000' (Standard)
"2"	= 2001'-3000'
"3"	= 3001'-4000'
"4"	= 4001'-5000'
"5"	= 5001'-6000'
"6"	= 6001'-7000'
"Y"	= 7001' and above

*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.	

Digit 17:	Disconnect Switch
"N"	= None (Standard)
"D"	= Disconnect Switch

Digit 18:	System/Inducer Voltage
"1"	= 115V
"3"	= 230V

Digit 19:	Phase
"1"	= Single Phase

Digit 20:	Power Fusing (see Restriction 2)
"N"	= None
"F"	= Fusing

Digit 22:	Control Voltage
"S"	= 24VAC

Digit 23:	Control Type (see Restriction 1)
"T"	= Two Stage High/Low with Thermostat (Standard)
"S"	= Single Stage On/Off with Thermostat
"E"	= 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
"M"	= Modulating 5:1 (Natural Gas)/3:1 (Propane) without Thermostat
"V"	= Modulating 10:1 (Natural Gas)/6:1 (Propane) without Thermostat

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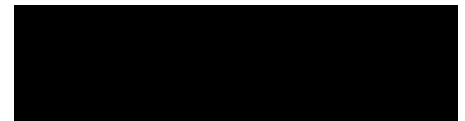
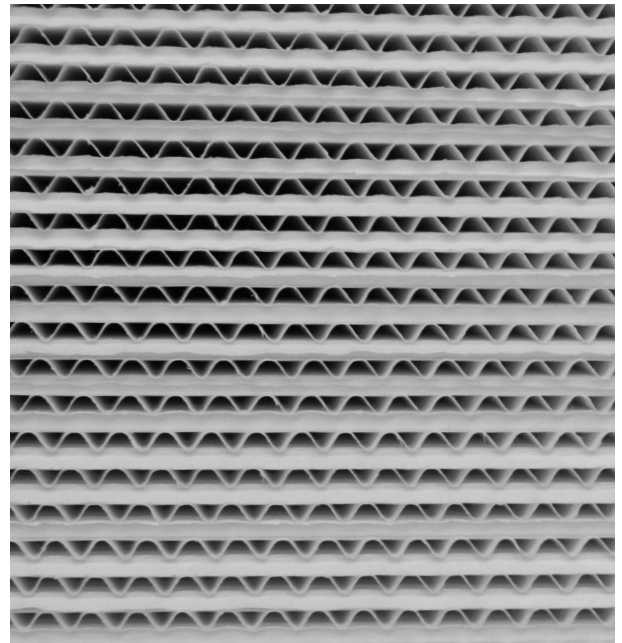
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RenewAireSupport@RenewAire.com



PHONE:
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