RenewAire®
Energy Recovery Ventilation

SUBMITTAL

Date:	4/30/2024
Project Name:	Summit Basement
Project Number:	O-152693
Job Location:	
Engineering Firm:	
Engineer:	
Contractor:	
Submittal Revision:	0

Unit Tags	Model
ERV	HE-3XJINH-S34VV--DVN2--WL
ERV	EK-2414032SCCHR--43F1SV-N

Submitted By Name: _____

Date: _____

Approved By Name: _____

Approved By Signature: _____

Date: _____

☐ Approved as Submitted

☐ Approved as Noted

☐ Rejected as Noted and Resubmit

Once this submittal is approved or approved "as noted" a complete copy of this document must be returned to the RenewAire rep office before the equipment can be released for fabrication. An approval area has been provided for your convenience. Disapproval or approved "as noted" actions should be indicated on the appropriate individual submittal sheets.

Date:	4/30/2024
Project Number:	O-152693
Project Name:	Summit Basement
Unit Tag:	ERV
Model:	HE-3XJINH-S34VV--DVN2--WL
Qty:	1

c UL us LISTED DUCTED HEAT RECOVERY VENTILATOR 89S5

HE3XINH shown

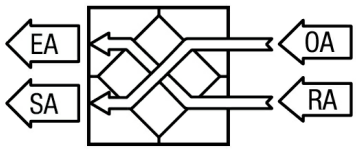
Specifications

Ventilation Type:	Static plate, heat and humidity transfer
Typical Airflow Range:	750-3,300 CFM
AHRI 1060 Certified Core:	Three L125-G5
OA Filters:	Total Qty. 3, MERV 8: 20" x 20" x 2"
RA Filters:	Total Qty. 3, MERV 8: 20" x 20" x 2"
Unit Weight:	628-934 lbs. (varies by option)

Configuration

Unit Tag	ERV
Model	[HE-3X] HE-3X
Core Type	[J] G5
Installation Location	[IN] Indoor Unit
Airflow Orientation	[H] Orientation H
Wall	[S] Single (Standard)
Electrical Service	[34] 460V / 3 Phase / 60 HZ
Fresh Air Motor	[V] TEFC Belt Drive - 2 HP
Exhaust Air Motor	[V] TEFC Belt Drive - 2 HP
Flow Control	[D] Motorized Dampers Both Airstreams
Unit Control	[V] Onboard VFD Both Airstreams
Shaft Grounding Rings	No
Disconnect	[N] Non Fused (Standard)
Control Option	[2] Premium Controls
Filter Monitor	[-] Filter monitors are included with controls
Paint	[W] White Paint
Safety Listing	[L] Listed

Airflow Orientation



Unit Accessories and Service Parts

Type	Part Number	Description	Quantity
Electric Heater	EK-2414032SCCHR--43F1SV-N	EK-2414032SCCHR--43F1SV-N	1

AHRI CERTIFIED® www.ahridirectory.org
Air-to-Air ERV
AHRI Standard 1060
Energy Recovery COMPONENT is certified. Actual performance in packaged equipment may vary.

	SUMMER			WINTER		
	Outdoor Air	**Return Air**	**Fresh Air**	**Outdoor Air**	**Return Air**	**Fresh Air**
Standard Flow Rate **SCFM**	2279*	2250	2250	2279*	2250	2250
Actual Flow Rate **ACFM**	2473*	2362	2389	2247*	2332	2297
Dry Bulb **°F**	91.4	75.0	79.9	45.0	70.0	62.5
Wet Bulb **°F**	74.2	62.4	68.7	32.8	51.2	44.2
Enthalpy (H) **BTU/lb**	38.3	28.4	33.4	12.2	21.2	17.4
Moisture Ratio (MR) **grains/lb**	103.7	66.8	90.5	9.0	28.0	15.4
Fresh Air - External Static Pressure **in w.g.**		0.50			0.50	
Exhaust Air - External Static Pressure **in w.g.**		0.50			0.50	
Sensible effectiveness **%**		70.0			70.0	
Total effectiveness **%**		50.0			58.0	
Load savings ratio **%** - 90.1 Compliance		50.0			57.9	
Moisture removed **grains/lb**		13.3			-6.3	
	Sen	**Lat**	**Tot**	**Sen**	**Lat**	**Tot**
Original load **BTUH [Tons]**	39891 [3.3]	59630 [5.0]	99521 [8.3]	60809	30049	90858
Load with RenewAire **BTUH [Tons]**	11985 [1.0]	37791 [3.1]	49775 [4.1]	18270	19953	38222
Total energy saved **BTUH [Tons]**	27906 [2.3]	21840 [1.8]	49746 [4.1]	42539	10096	52636

*Note: OA Flow Rate values are gross airflow, all others are net airflow.
Note: For full certified ERV performance, please see AHRI 1060 Report.
Note: Sensible cooling design conditions were used for the summer performance results.

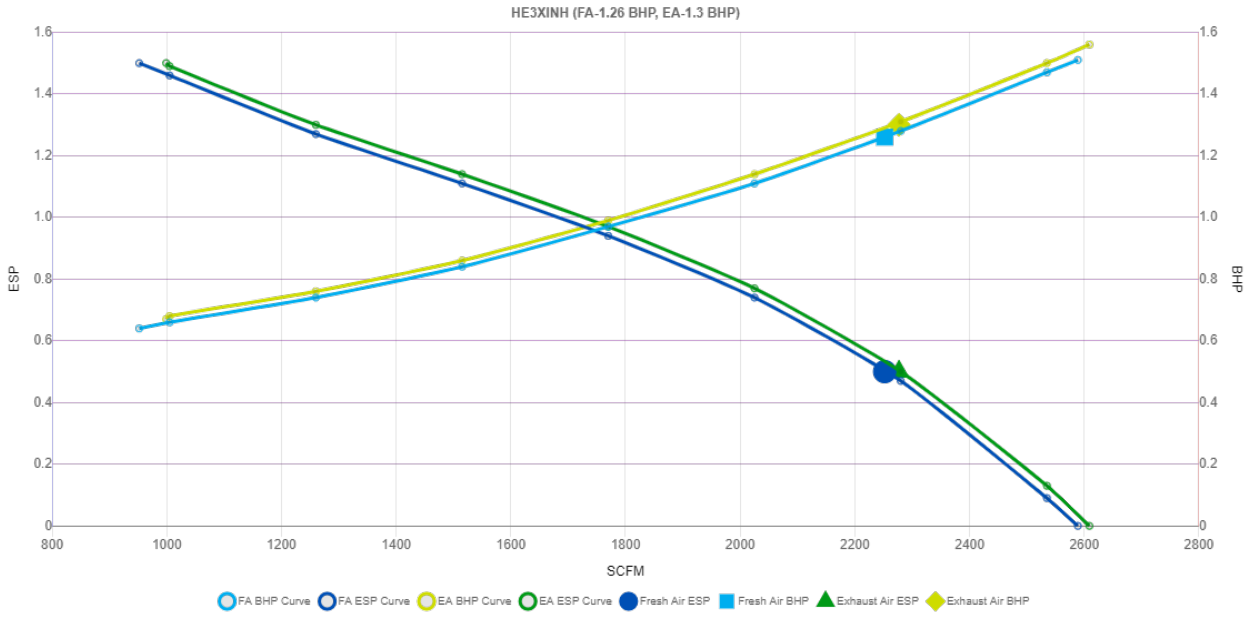
Fans

	Gross CFM	ESP	Filters	Fan Speed (RPM)	BHP	Elevation	Motors Protected by Motor Starters		Motors Protected by VFDs	
							Qty @ HP	FLA	Qty @ HP	FLA
FA	2252	0.50	2" MERV-8	1421	1.26	883	None	-	2@2.0	2.9
EA	2277	0.50	2" MERV-8	1432	1.3					

Unit Electrical Data

Volts	Hertz	Phase	MCA	MOP
460	60	3	7.2	15

Fan Curve



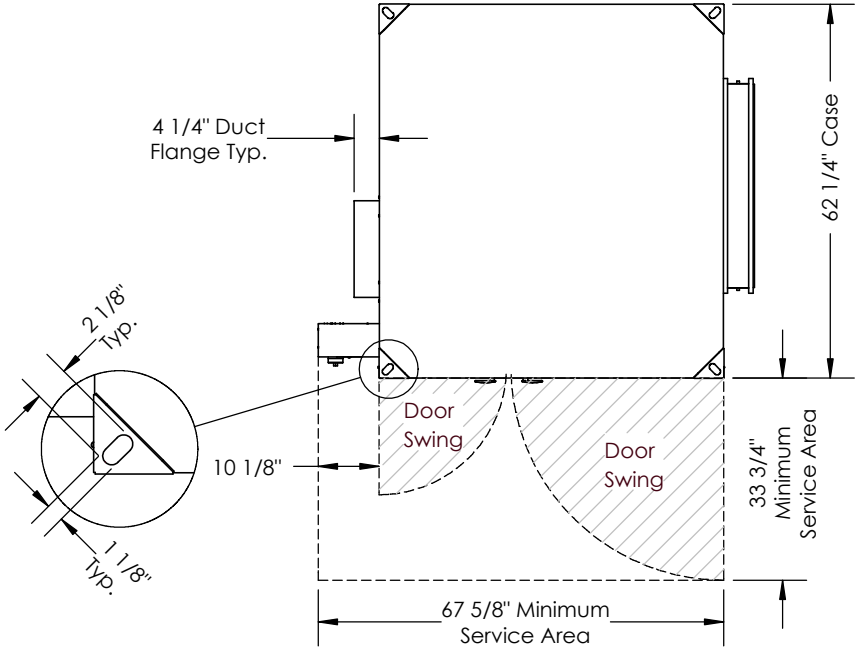
ABBREVIATIONS
EA: Exhaust Air to outside
OA: Outside Air intake
RA: Room Air to be exhausted
FA: Fresh Air to inside

INSTALLATION ORIENTATION
Unit must be installed in orientation shown.

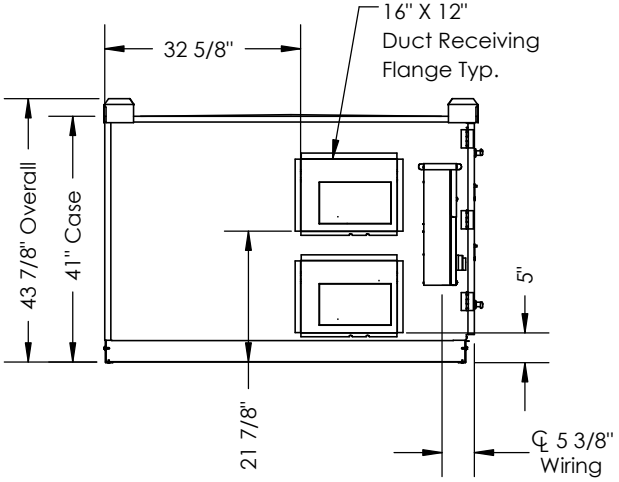
NOTE
1. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE ROUNDED TO THE NEAREST EIGHTH OF AN INCH.

2. SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE.

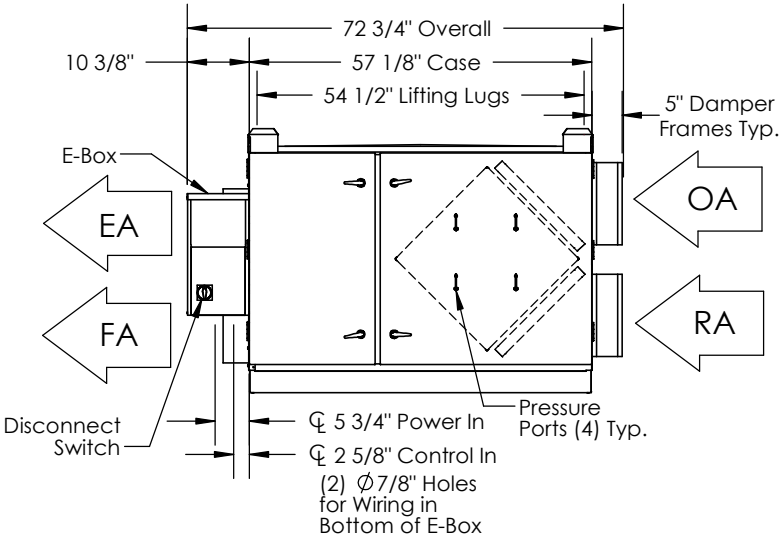
3. MIN. DUCT CLEARANCE FROM DAMPER BLADES WHEN FULLY OPENED TO BE 2". SMACNA RULES APPLY.



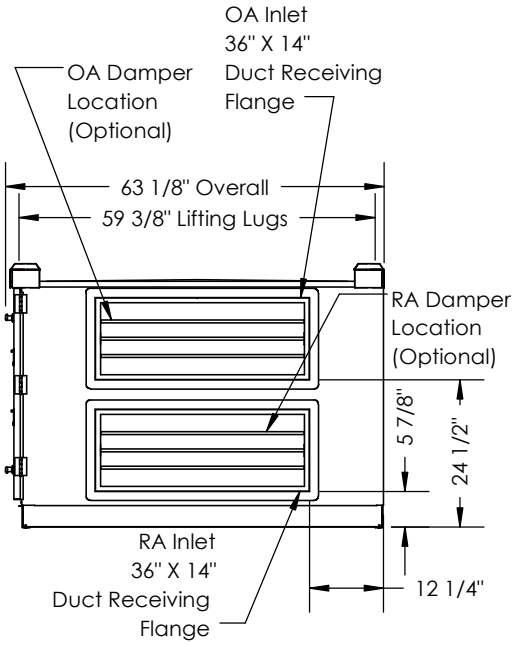
TOP VIEW



LEFT VIEW



FRONT VIEW



RIGHT VIEW

Model: HE3XINH
Drawing Type: Unit Dimension
Version: FEB23

RenewAire®
Energy Recovery Ventilation

Project Number:	O-152693
Project Name:	Summit Basement
Heater Tag:	ERV
Model:	EK-2414032SCCHR--43F1SV-N
Quantity:	1

Specifications

Heater Type:	Electric Duct Heater
Standard Features:	A disconnecting magnetic control contactor per stage or each 48 Amp circuit within a stage
	Open-coil element
	Control terminal board
	Grounding lugs
	Automatic limit switch for primary overtemperature protection
	Manual reset limit switch for secondary overtemperature protection
	Non-adjustable airflow switch
	Disconnect switch
	Designed for indoor ductwork installation only

Configuration

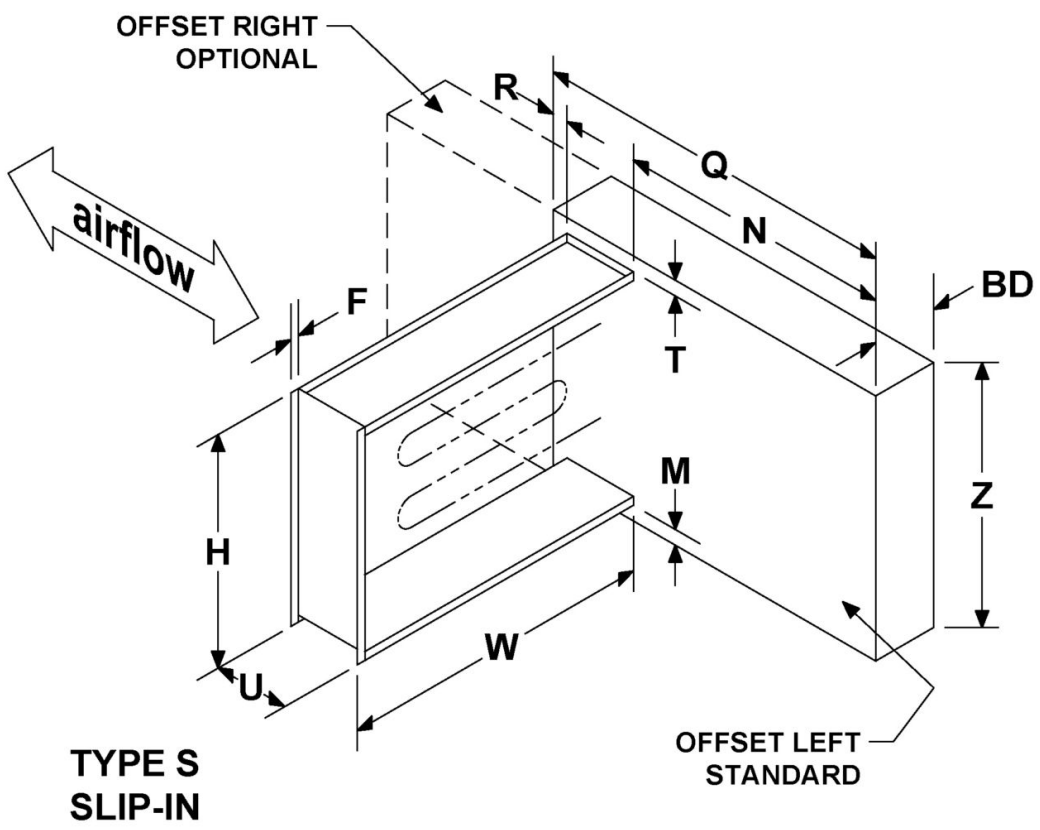
Heater Tag	ERV
Heater Series	[EK] EK Electric Duct Heater
Width	[24] Width
Height	[14] Height
Heater Capacity	[032] Capacity
Mount	[S] Slip-In (Standard)
Element Style	[C] Open Coil (Standard)
Element Material	[C] 60-20-20 Ni-Cr-Fe with Nickel-Plate Terminal Pins (Standard)
Airflow Orientation	[H] Horizontal
Control Box Offset	[R] Right Hand
Control Box Recessed	[-] None
Control Box Dust Tight	[-] None
Electrical Service	[43] 480V / 3 Phase / 60 HZ
Power Fusing	[F] Fusing
Stage	[1] Single Stage
Control Voltage	[S] 24VAC
Control Type	[V] SCR with Thermostat and Sensor
Pilot Light	[N] None
Request ID	539920

Unit Accessories and Service Parts

No accessories for this unit

Performance

CFM	Temp In	Temp Out	kW	Volts	Hertz	Phase	FLA	MCA	MOPD
2250	0°F	44.8°F	32	480V	60	3	38.49	48.11	50



Notes:

1. For Slip-In (S-Type) Heaters, the H DIM will be undersized by 0.063" and W DIM will be undersized by 0.250" to allow heater to slip into ductwork.
2. EK Series Heaters can be flipped 180°.
3. Heaters may be installed in the sides of either horizontal or vertical ducts but never in the top or bottom of a horizontal duct.
4. Vertical EK Series Heaters may be installed with up or down airflow.
5. Specifications may be subject to change without notice.

F	H	M	N	Q	R	T	U	W	Z	BD
0.375	13.875	1.000	12.000	19.000	1.000	1.000	6.000	23.750	15.875	8.000

Model: EK-2414032SCCHR--43F1SV-N
Drawing Type: Electric Duct Heater Dimension
Project Number: O-152693
Tag: ERV

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