



ecoseries
FRESH-PAK[™]
HP

Space Constrained Heat Pump
*with Electric Heating and Fully
Integrated ERV (EPE)*

1.0 - 2.5 Tons

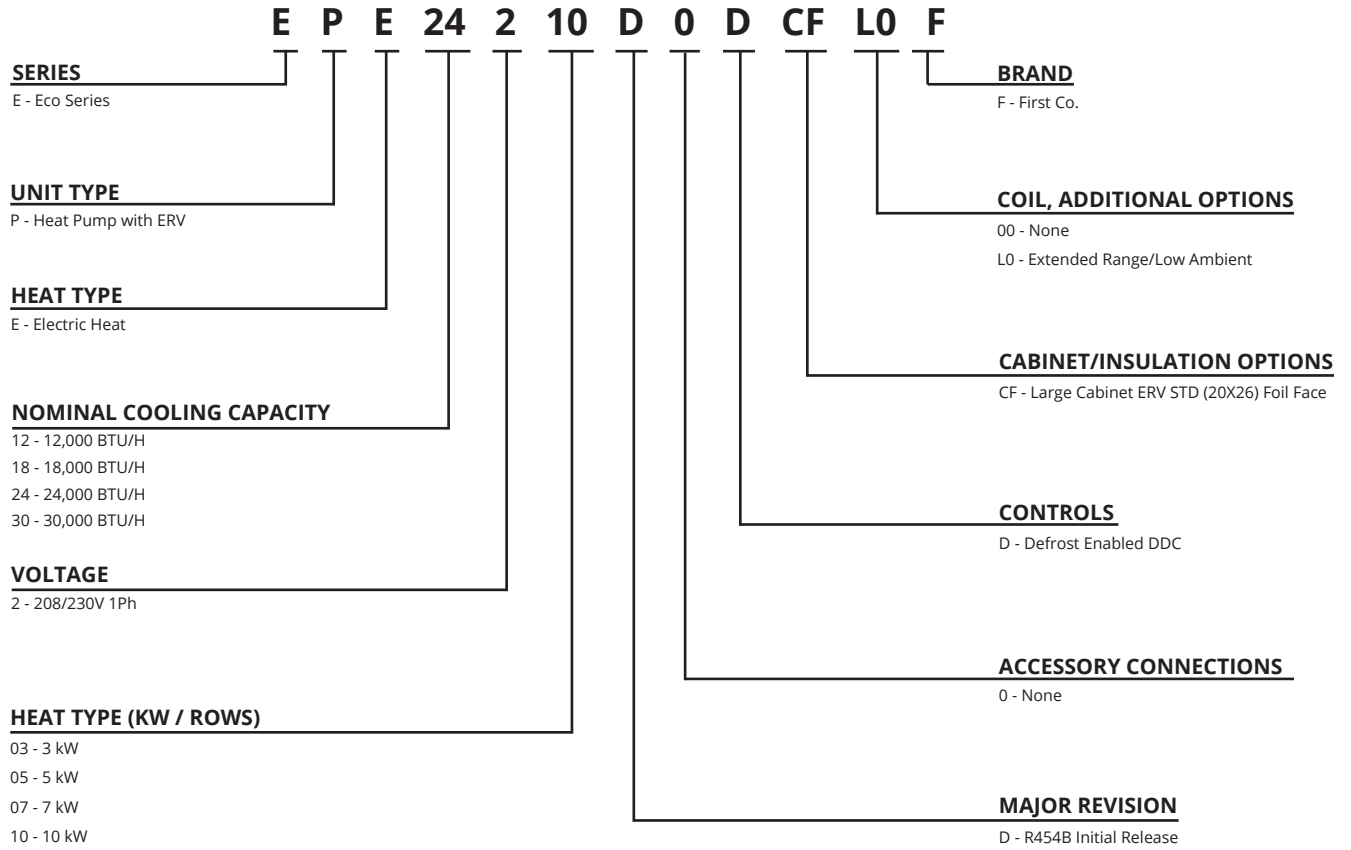
3 to 10 kW Electric Heat

11.9 SEER2 & 6.3 HSPF2



R454B

Nomenclature



PRODUCT DESCRIPTION

- Space constrained low ambient heat pump with integrated energy recovery ventilator (ERV)
- Pre-wired and pre-charged with R-454B refrigerant, capable of delivering conditioned air to multiple rooms
- Easily installs into a closet or mechanical room on an exterior wall, utilizing a minimal amount of floor space
- Controlled by a standard low voltage heat pump thermostat with ventilation capabilities

APPLICATIONS

Hospitality, Apartments/Condominiums, Assisted Living/Memory Care, Student Housing, Senior Living and Modular/Prefabricated Buildings

STANDARD FEATURES

- Shipped ready for top supply and front return (with optional ducted return)
- Insulated compartment to improve cooling performance, reduce noise, and prevent sweating
- ECM indoor blower & outdoor fan motor to provide precise airflow selection and improve system efficiency
- High-efficiency single stage scroll and rotary compressors with double isolated compressor mount to lower compressor noise and vibration
- Larger evaporator coil with low face velocity for improved cooling performance
- Drain pan with corrosion resistant coating to drain condensate in cooling and heating operations
- Thermal expansion valve (TXV) for both cooling and heating to optimize performance
- Operates down to as low as 5°F ambient temperature with time-temperature defrost board with selectable defrost interval times
- High and low pressure switch protection
- Electric heat with automatic reset limit switch and non-resettable fuse link
- Filter brackets and disposable filter shipped with unit for field installation; no tool needed to replace filter
- Multi-function microprocessor control board
- Factory installed condensate float switch for overflow protection
- Refrigerant leak mitigation on units over 4lbs of charge

SERVICEABILITY FEATURES

- Easy access for in-place service of most components
- All electrical components and control boards are serviceable from front of the unit

WARRANTY

Five (5) year limited warranty on compressor and parts

REQUIRED ACCESSORIES

- Single piece weight bearing wall sleeves with integrated ventilation air intake and exhaust ports for various wall thicknesses from 5" to 20"
- Flush type aluminum louver with finish and paint options
- Standard low voltage heat pump thermostat with ventilation capabilities
- WLAN service stick to program ERV control board

OPTIONAL ACCESSORIES

- Interior Access Panels - Louvered or Solid
- ERV Sensors - Humidity or Carbon Dioxide (field provided)
- ERV Exhaust Controls - Analog Egg Timer or Digital Timer Switch (field provided)

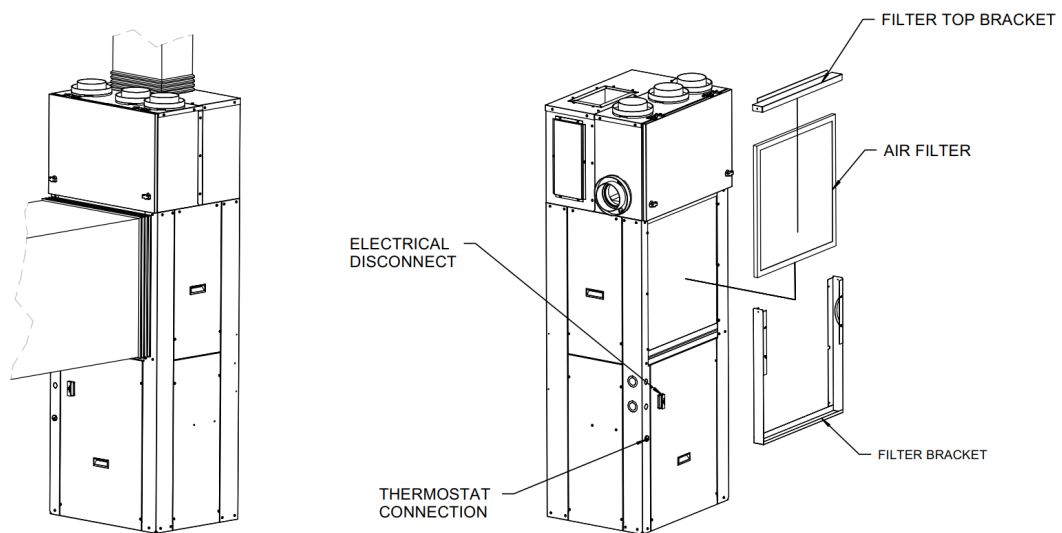
STANDARD UNIT FEATURES

Ductwork Connections - Shipped ready for top supply duct connection and front non-ducted return with optional ducted return. If require by code, return air can be ducted to the unit.

NOTE: If ducted return is utilized, the filter will need to be relocated to a suitable location outside the cabinet for ease of service.

Filter Rack - Filter brackets and a disposable filter ship with each unit to be field installed over the evaporator coil.

NOTE: Do not use filters which will cause the total external static pressure, including ducts, louvers, registers, and filters to exceed 0.5 in. w.c.



MULTI-FUNCTION MICROPROCESSOR CONTROL BOARD

Evaporator coil low temperature protection – During the cooling mode, should the evaporator coil experience either a low temperature condition that could result in ice buildup on the coil or a reduced air flow situation, a temperature sensor attached to the coil will de-energize the unit. The sensor will re-energize the unit when the coil warms back up.

Random restart – When power is turned on after a power outage, a built-in random restart delay of 3-4 minutes prevents all compressors from restarting simultaneously.

Compressor restart delay – This delay ensures that system pressures are allowed to equalize before a compressor restart, which extends compressor life.

Fan delay – A fan delay allows the evaporator blower to continue running for up to 45 seconds after the thermostat is satisfied which maximizes cooling performance.

Defrost controls - During the heating mode, if conditions for frost build-up are detected in the outdoor section, the unit will enter a temporary defrost mode to thaw the condenser coil and allow the unit to continue operation down to 5°F.

SERVICE PULL OUT SWITCH

Provides a visible means of disconnect when performing maintenance; models with 10 kW electric heat also have terminal block.

WARNING: The incoming conductors of the service switch remain energized when the service switch is pulled out. Always disconnect power at the main source as well as the service switch before servicing. All lockout/tag out procedures must be followed.

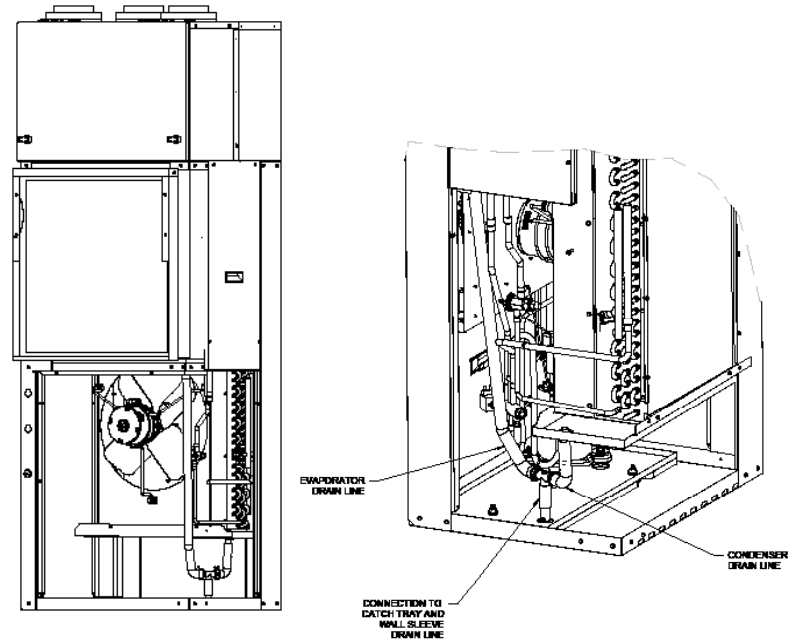
CONDENSATE SYSTEM

Primary Condensate

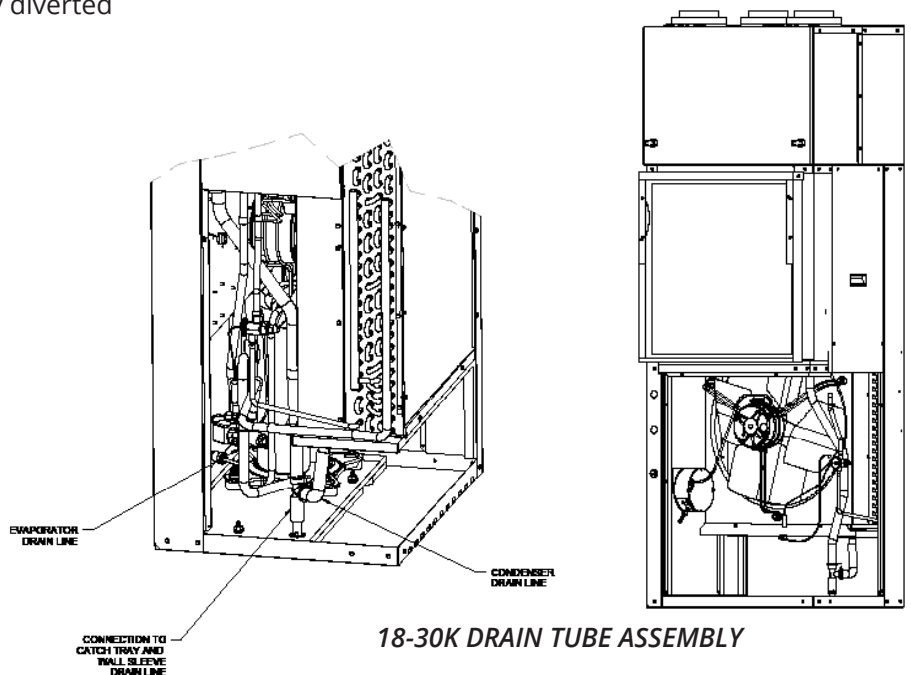
Factory installed drain line connects the evaporator drain pan to a vertical pipe connection in the unit base pan. Evaporator condensate is delivered from the unit to a catch tray in the wall sleeve and exits the sleeve through the 3/4" male NPT fitting. This design allows the plumber to completely pipe the drain to a condensate riser during the rough-in stage, thus eliminating condensate connection problems usually encountered when trying to connect the HVAC drain to the riser after the HVAC unit is installed in the closet. This feature also allows the unit to be removed for service without disconnecting the condensate piping. This configuration does not require any additional closet space to make the drain connection, as do some competitive products.

Secondary Condensate

If for any reason, the primary condensate riser becomes clogged, water will fill the catch tray and then be diverted through the wall sleeve to the exterior of the building, rather than be allowed to overflow into the closet or living area. Rain water entering the wall sleeve is automatically diverted to the condensate drain.



12K DRAIN TUBE ASSEMBLY



18-30K DRAIN TUBE ASSEMBLY

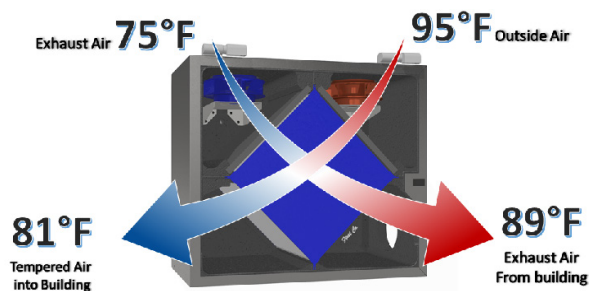
What is ERV?

ENERGY RECOVERY VENTILATOR (ERV) is a device that uses waste/stale air to precondition incoming outside/fresh air for ventilation.

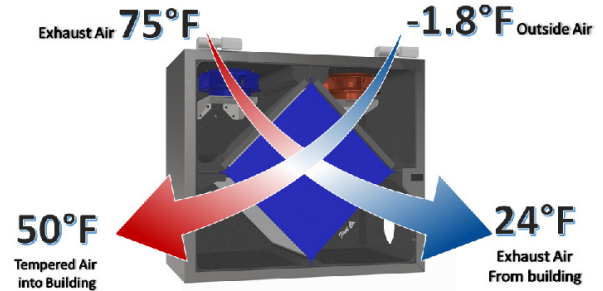
ERV uses a polymer core to transfer temperature (sensible energy) and moisture (latent energy) from waste air to incoming ventilation air. It will cool the air in the warmer months and warm the air in the colder months.

Tighter construction requirements create less natural ventilation, the **ERV** offers the solution with balanced ventilation.

How it works during summer months

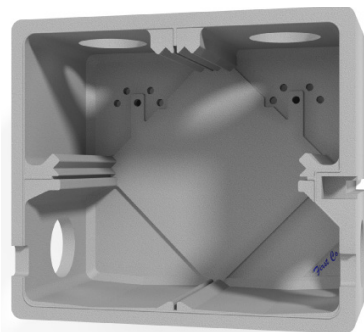


How it works during winter months

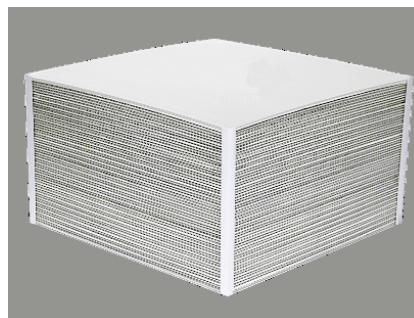


Integrated Energy Recovery Ventilator (ERV)

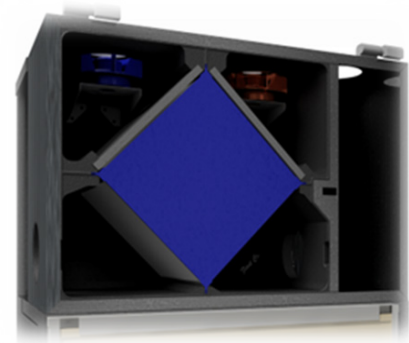
- **Core Enclosure:** Insulated one piece molded enclosure, made from mold/mildew resistant material. Completely sealed providing noise and air leakage reduction
- **Core:** Full enthalpy core made from polymer material that is removable for servicing & cleaning
- **Core Filters:** Filtration of ventilation air & return air with MERV 5 washable and disposable filters



ERV CORE ENCLOSURE



ERV CORE



DEFROST – The ERV will sense when the exhaust drops below the set temperature and will activate the built-in multi-stage defrost mode. The first stage will reduce the fan speed to help warm up the core and prevent freezing. The second stage will, if optional, activate a 3rd party field installed electric preheater. The ERV will cycle between defrost and normal operation until the temperature rises to the set point. It can be field configured so the supply fan can be switched off while the exhaust runs to warm up the core.

REQUIRED ACCESSORIES

Wall sleeve, louver and thermostat are required for each installation

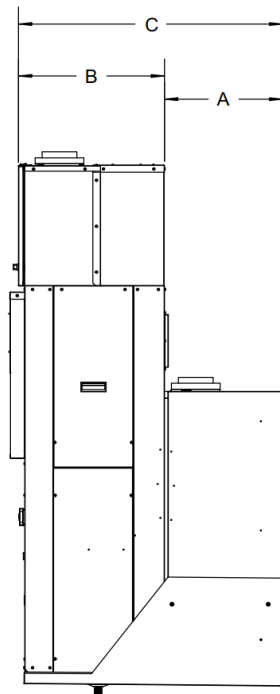
WALL SLEEVES

- Fresh air intake and exhaust ports are built in to wall sleeve
- Provided for installation during rough-in or when ready the unit is slid into the wall sleeve and ductwork and electrical are connected.
- Weight bearing wall sleeve that supports the entire weight of the unit and provides a weather tight seal against wind and water infiltration
- Four wall sleeve depths are available to accommodate wall thickness from 5" to 20".
- Includes a weather guard to cover the sleeve opening and a debris guard to cover wall sleeve base and drain during construction

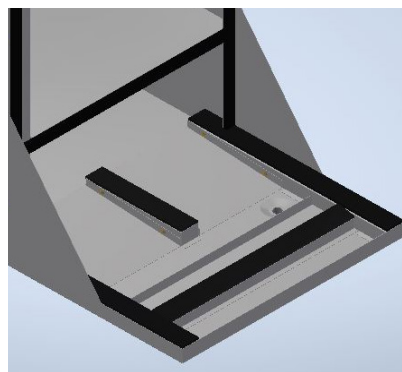
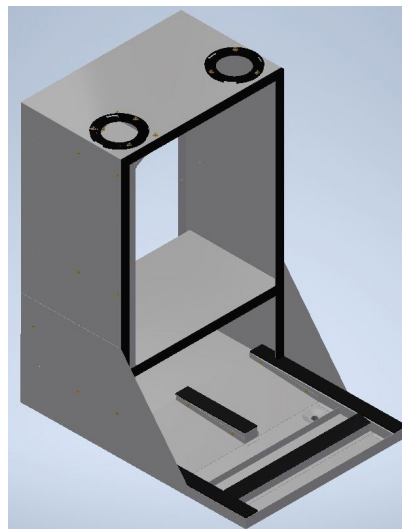
ACCESSORY	DESCRIPTION	DIMENSIONS (H x W x D)	PART #	A	B	C
FRESH-PAK INTEGRATED TOP PORTS	For 5" - 8" thick walls	43-1/4 x 26-1/2 x 37-1/4	999-21B-E	16-3/4"	20-15/16"	37-11/16"
	For 8" - 12" thick walls	43-1/4 x 26-1/2 x 41-1/4	999-22B-E	20-3/4"	20-15/16"	41-11/16"
	For 12" - 15" thick walls	43-1/4 x 26-1/2 x 44-1/4	999-23B-E	23-3/4"	20-15/16"	44-11/16"
	For 15" - 20" thick walls	43-1/4 x 26-1/2 x 50-1/4	999-24B-E	29-3/4"	20-15/16"	50-11/16"

All wall sleeves are shipped two (2) per carton, fully assembled.

Wall sleeve, louver and thermostat are required for each installation.

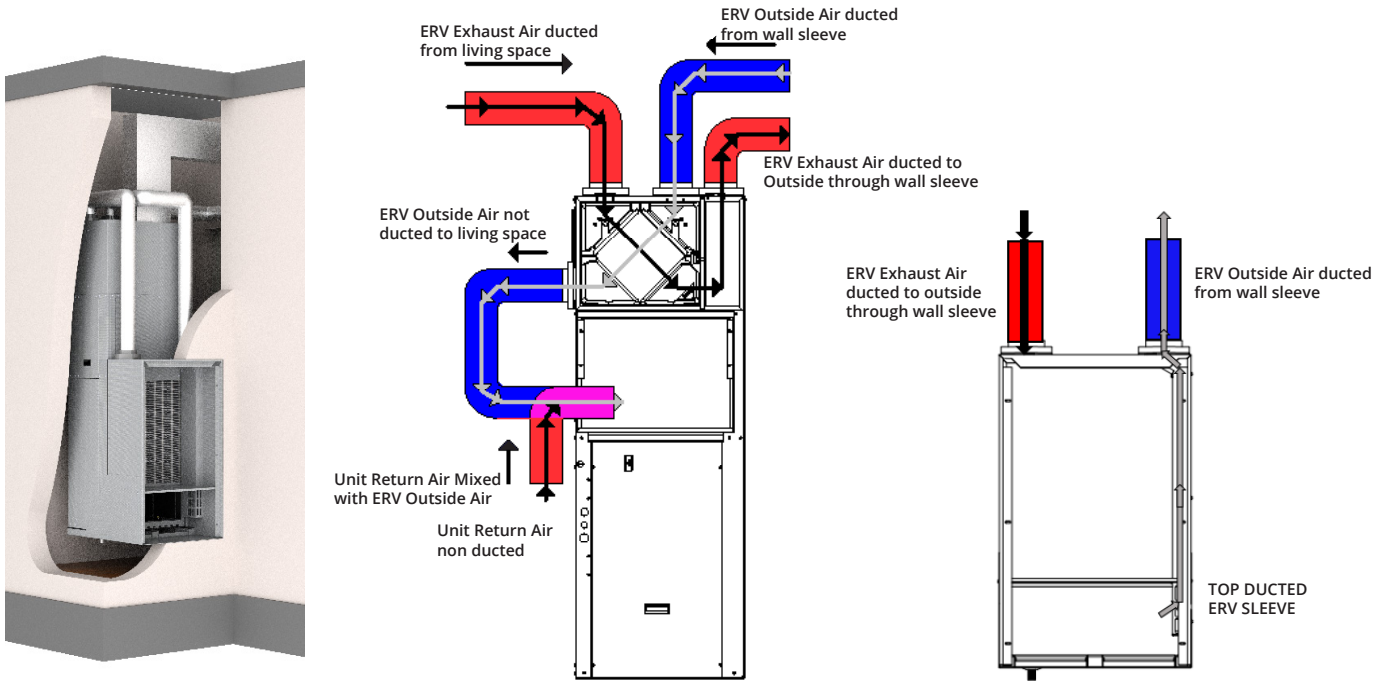


WALL SLEEVE WITH TOP PORTS



WALL SLEEVE CONDENSATE DRAIN

WALL SLEEVE ERV DUCTING



TOP DUCTED INSTALLATION

LOUVERS

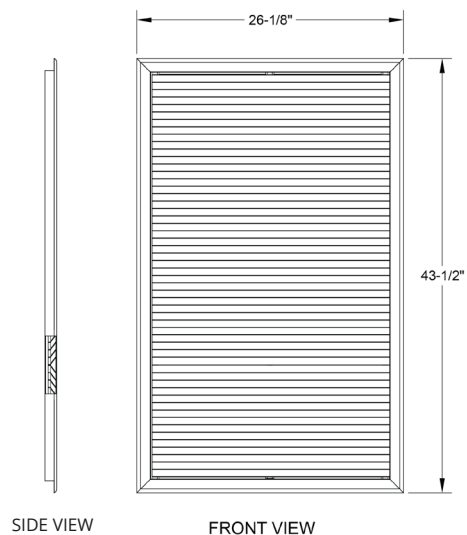
Extruded aluminum louver that attaches to the outside face of the wall sleeve. The blades of this unique louver recess into the wall sleeve for a neat, flush appearance.

Louver attachment screws are tightened from inside of the wall sleeve. Do not install the unit into the wall sleeve before installing the louver and tightening attachment screws.

DESCRIPTION	DIMENSIONS (H x W x D)	PART #
Field Painted	43-1/2 x 26-1/8	G8502PPA
Anodized Clear Coat	43-1/2 x 26-1/8	G8501A
Custom Painted	43-1/2 x 26-1/8	G8503S*

S* indicates custom color, to be provided by customer. Minimum order quantity is 15 per color, if less than 15 set up fees will be applied



STANDARD PAINT COLORS:



CONTROLS


Thermostats

Units are controlled by a standard low voltage heat pump thermostat with ventilation capabilities.

BRAND	DESCRIPTION	PART NUMBER	IMAGE
Honeywell	Programmable 7-day/5-2/5-1-1 3H/2C HP 2H/2C Conv. 24v Hardwired, C-wire only, Wi-Fi, w/ventilation control	TH6320WF2003	
Honeywell	Programmable 7-day/5-2/5-1-1 3H/2C HP 2H/2C Conv. 24v Hardwired, C-wire only, Wi-Fi, aux heat lockout w/ ventilation control	THX321WFS2001W	

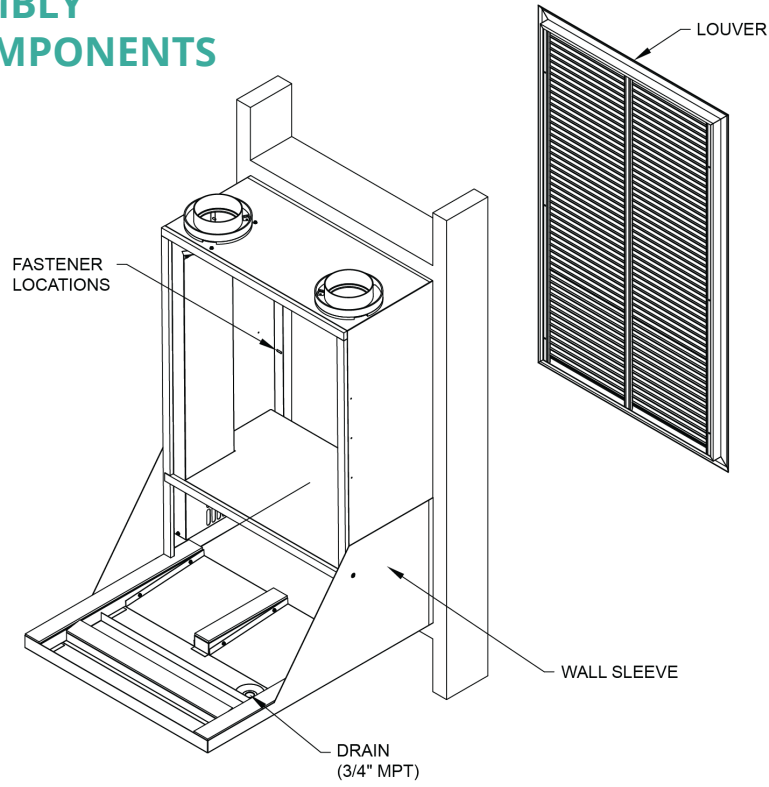
WLAN Service Stick

ERV Programming via WLAN* service stick - Must purchase one stick per project. Required to program ERV board through the ABT GO app.

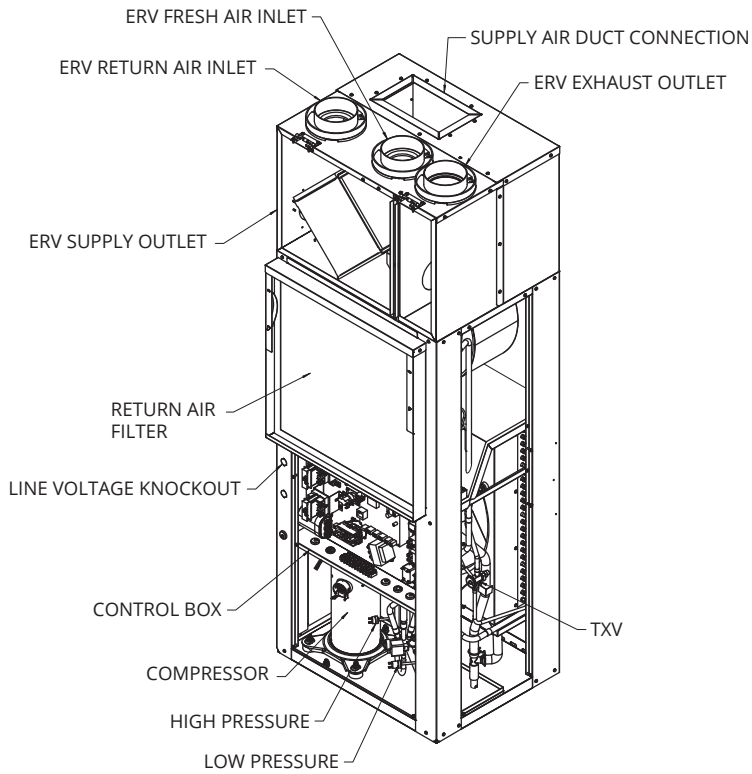
PART NUMBER	IMAGE
USB-300	

*WLAN = wireless local area network

GENERAL ASSEMBLY AND MAJOR COMPONENTS



GENERAL ASSEMBLY FOR WALL SLEEVE AND LOUVER



MAJOR COMPONENTS

OPTIONAL ACCESSORIES

ACCESS PANELS

COMPONENT	DESCRIPTION	FRAME (A x C)	OPENING (B x D)	PART NUMBER	SHIPPING WEIGHT LBS.
RETURN AIR PANEL	LOUVERED	87 X 37	84 X 34	931-20	55
ACCESS PANEL	SOLID	87 X 37	84 X 34	931-16	55

No filter provided, requires unit mounted filter.

Both panels are insulated for sound reduction and have tamperproof screws.






Panels are shipped ten per carton.

A solid door or panel with a side wall return air grille will result in lower sound levels.



ERV SENSORS (Field provided)

- Humidity: Measures temperature and air humidity, signals ERV board to bring on ventilation
- Carbon Dioxide (CO₂): Used for determining ventilation necessity and to manage the amount of ventilation air supplied to maintain acceptable levels of CO₂ in the space

BRAND	DESCRIPTION	PART NUMBER	IMAGE
Honeywell	Carbon Dioxide (CO ₂) Sensor Duct mounted no display	C7232	
Honeywell	Carbon Dioxide (CO ₂) Sensor wall mounted sensor with LED light display	C7233	
Honeywell	Carbon Dioxide (CO ₂) Sensor wall mounted sensor with digital display	C7263	
PCE	Humidity Sensor wall mounted 4 - 20 mA output	PCE-P18	
Honeywell	Humidistat wall mounted HumidiPRO Digital Humidity Control	H6062	

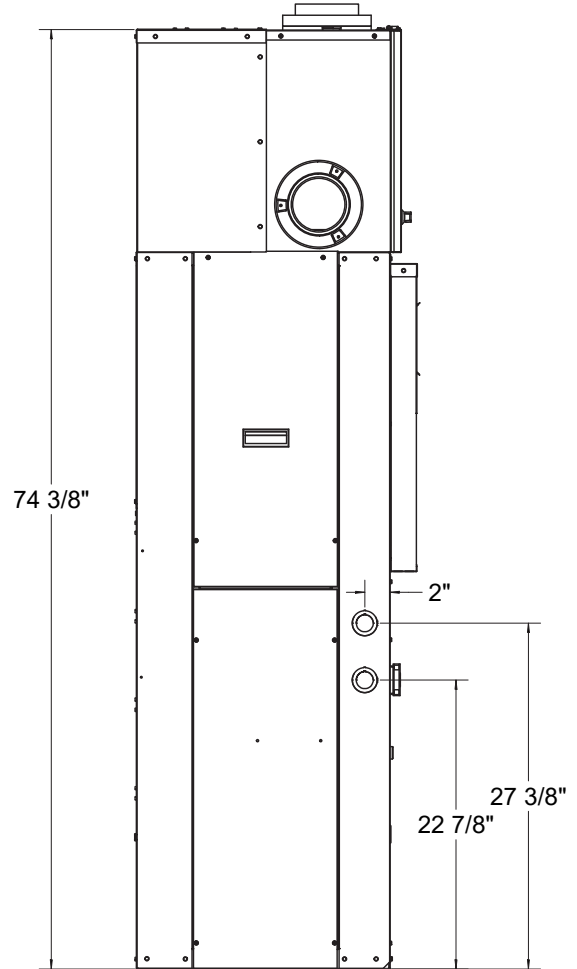
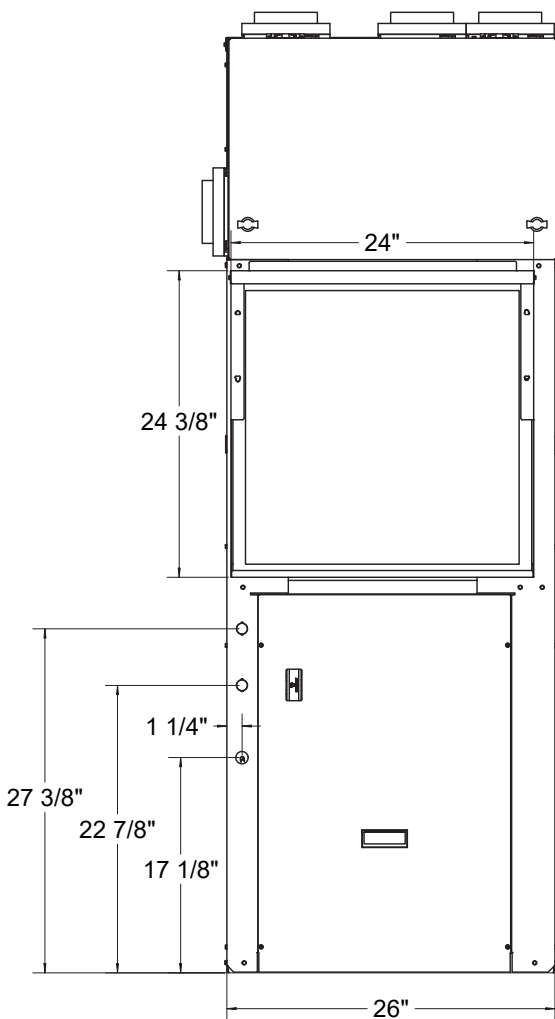
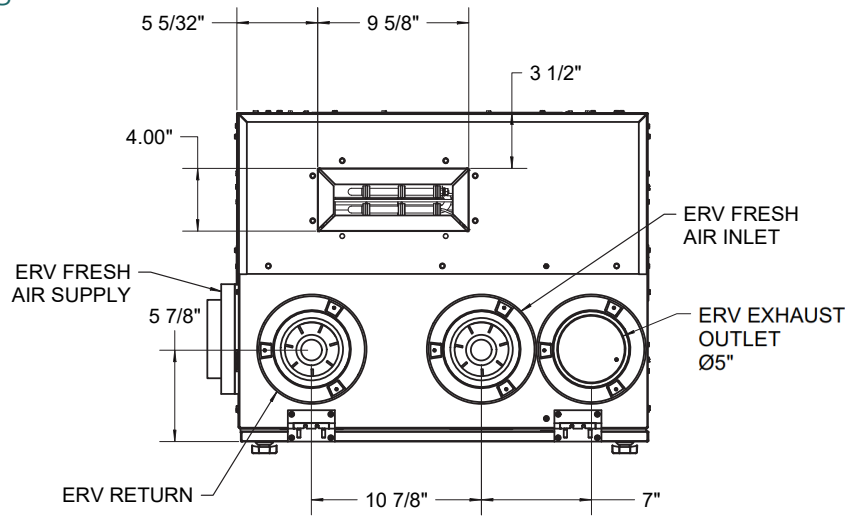
ERV EXHAUST CONTROLS (Field provided)

- Analog Egg Timer
- Digital Timer Switch

PHYSICAL DATA

Unit Dimensions

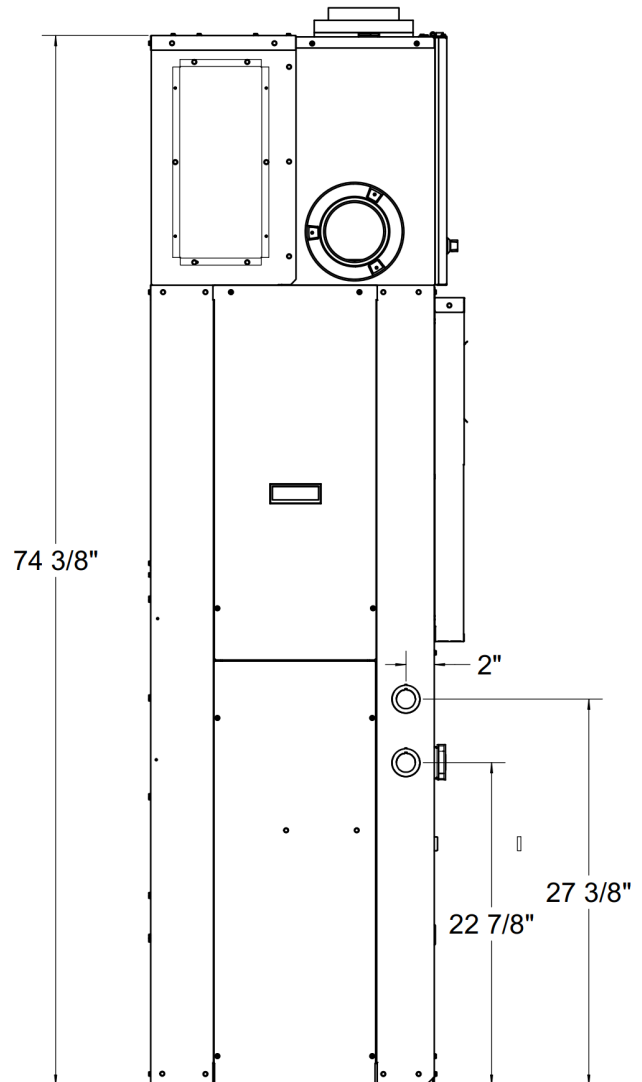
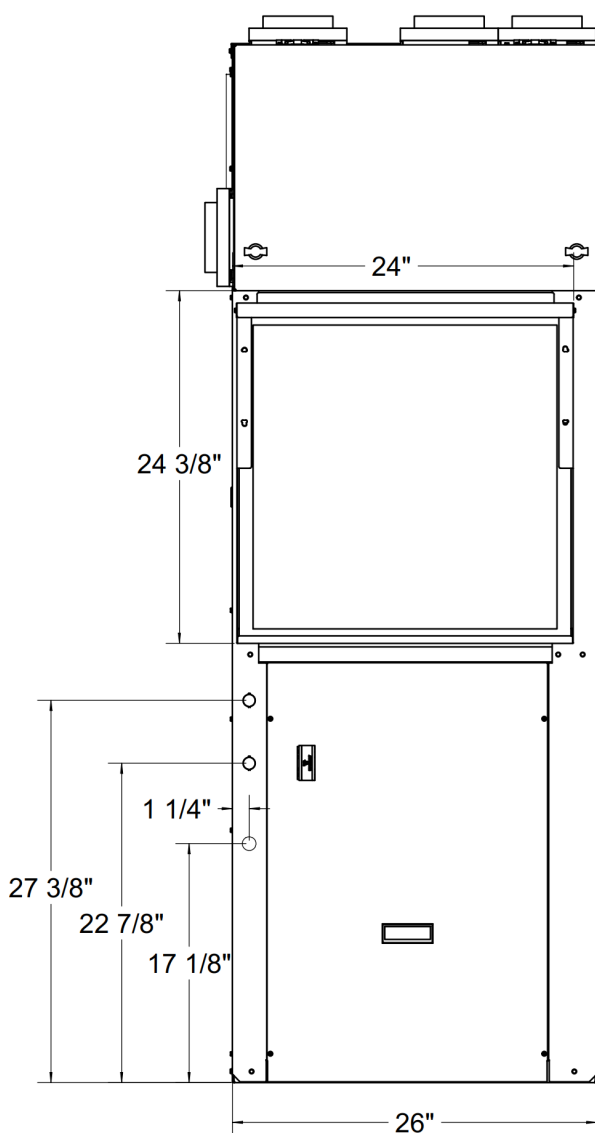
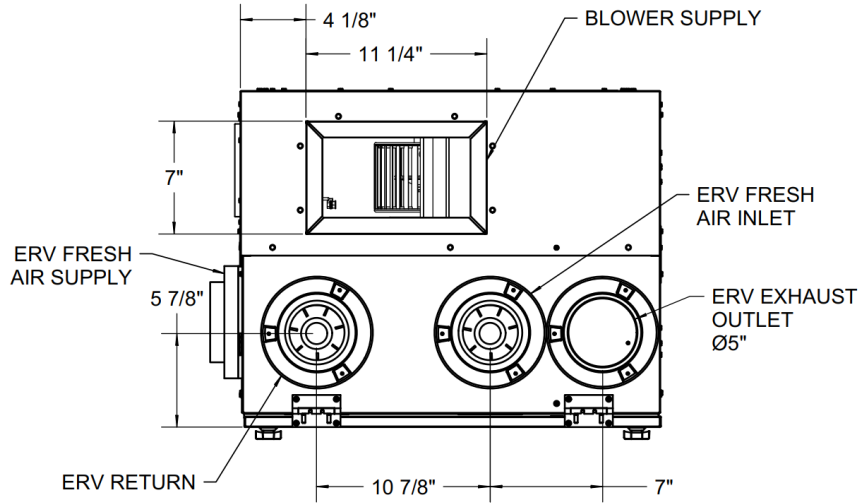
12K



PHYSICAL DATA

Unit Dimensions

18-30K



ELECTRICAL DATA

Model Number	Voltage	COMPRESSOR		OUTDOOR MOTOR		INDOOR MOTOR		MIN. CIRCUIT AMPACITY (MCA)				MAX. OVERCURRENT PROTECTION				MIN VOLT.	MAX VOLT.
		RLA	LRA	FLA	HP	FLA	HP	CIRCUIT 1* (L1-L2)		CIRCUIT 2* (L3-L4)		CIRCUIT 1* (L1-L2)		CIRCUIT 2* (L3-L4)			
								240V	208V	240V	208V	240V	208V	240V	208V		
EPE12203*	208/230-1-60	4.8	-	2.3	1/4	2.3	1/4	34	31	-	-	35	35	-	-	197	252
EPE12205*	208/230-1-60	4.8	-	2.3	1/4	2.3	1/4	31	28	-	-	35	30	-	-	197	252
EPE18203*	208/230-1-60	7.5	-	2.3	1/4	2.8	1/3	41	38	-	-	45	40	-	-	197	252
EPE18205*	208/230-1-60	7.5	-	2.3	1/4	2.8	1/3	49	44	-	-	50	45	-	-	197	252
EPE18207*	208/230-1-60	7.5	-	2.3	1/4	2.8	1/3	15	15	49	43	15	15	50	45	197	252
EPE18210*	208/230-1-60	7.5	-	2.3	1/4	2.8	1/3	46	42	-	-	50	45	-	-	197	252
EPE24205*	208/230-1-60	11.4	51	2.3	1/4	2.8	1/3	54	49	-	-	55	50	-	-	197	252
EPE24207*	208/230-1-60	11.4	51	2.3	1/4	2.8	1/3	20	20	49	43	25	25	50	45	197	252
EPE24210*	208/230-1-60	11.4	51	2.3	1/4	2.8	1/3	48	44	-	-	50	45	-	-	197	252
EPE30205*	208/230-1-60	11.7	71	2.8	1/3	4.1	1/2	55	51	-	-	60	55	-	-	197	252
EPE30207*	208/230-1-60	11.7	71	2.8	1/3	4.1	1/2	22	22	49	43	25	25	50	45	197	252
EPE30210*	208/230-1-60	11.7	71	2.8	1/3	4.1	1/2	17	17	49	43	25	25	50	45	197	252

Size 12 models require 1 electrical circuit

Size 18, 24 & 30 models require 2 electrical circuits for 10kW electric heat only

* Circuits 1 and 2 require separate sets of power wires connected to the unit, each backed by an independent circuit breaker

Size 12 models circuit 1 powers all components

Size 18, 24 & 30 models, circuit 1 powers compressor, condenser fan and evaporator motor. Circuit 2 powers both stages of electric heat

Refer to wiring diagrams in the EPE IOM for additional details

Wire size should be determined in accordance with National Electric Codes

Unit are rated for 208/230V, but MOP, MCA values are calculated at 208/240V

RLA – Rated Load Amps

LRA – Locked Rotor Amps

FLA – Full Load Amps

HP – Horsepower

Data is subject to change. Please verify current information on www.firstco.com.

RATED COOLING & HEATING PERFORMANCE

Model Number	Rated Air-flow SCFM	Cooling Capacity 95°F, BTU/H	EER2 95°F	SEER2	Heating Capacity 47°F, BTU/H	Heating Capacity 17°F, BTU/H	HSPF2
EPE12*	400	11,200	10.5	11.9	10,600	6,000	6.3
EPE18*	600	17,500	10.5	11.9	16,600	10,500	6.3
EPE24*	800	23,500	10.5	11.9	23,000	14,000	6.3
EPE30*	900	26,600	10.5	11.9	26,000	16,200	6.3

(1) Tested at 95°F DB/75°F WB outdoor and 80°F DB/67°F WB indoor

(2) Tested at 47°F DB outdoor

EXTENDED HEATING PERFORMANCE

Heat Pump Only

OUTDOOR TEMPERATURE - DB/WB (°F)

Model Number	Air Flow	47/43		35/33		17/15		5/0	
		BTU/H	kW	BTU/H	kW	BTU/H	kW	BTU/H	kW
EPE12*	400	10600	0.9	8600	0.9	6000	0.8	4500	0.8
EPE18*	600	16600	1.4	12400	1.3	10500	1.3	8000	1.2
EPE24*	800	23000	1.9	18400	1.8	14000	1.7	11500	1.6
EPE30*	900	26000	2.2	21200	2.1	16200	2.1	13000	2.0

Performance data is based on nominal CFM and 70°F indoor dry bulb

*May experience some loss in capacity.

*This data is to be used as reference values only and does not constitute a rating or a guarantee that the installed system will perform as indicated

Data is subject to change. Please verify current information on www.firstco.com.

COMBINED EXTENDED HEATING PERFORMANCE

Heat Pump & Electric Heat

OUTDOOR TEMPERATURE - DB/WB (°F)

Model Number	AIR FLOW SCFM	47/43				35/33				17/15				5/0			
		240V		208V		240V		208V		240V		208V		240V		208V	
		BTU/H	KW	BTU/H	KW	BTU/H	KW	BTU/H	KW	BTU/H	KW	BTU/H	KW	BTU/H	KW	BTU/H	KW
EPE12203*	450	20800	3.90	18250	3.15	18800	3.90	16250	3.15	16200	3.80	13650	3.05	14700	3.80	12150	3.05
EPE12205*	450	25950	5.40	22100	4.28	23950	5.40	20100	4.28	21350	5.30	17500	4.18	19850	5.30	16000	4.18
EPE18203*	650	26800	4.40	24250	3.65	22600	4.30	20050	3.55	20700	4.30	18150	3.55	18200	4.20	15650	3.45
EPE18205*	650	33650	6.40	29350	5.15	29450	6.30	25150	5.05	27550	6.30	23250	5.05	25050	6.20	20750	4.95
EPE18207*	650	40450	8.40	34500	6.65	36250	8.30	30300	6.55	34350	8.30	28400	6.55	31850	8.20	25900	6.45
EPE18210*	700	49000	10.90	40900	8.53	44800	10.80	36700	8.43	42900	10.80	34800	8.43	40400	10.70	32300	8.33
EPE24205*	850	40050	6.90	35750	5.65	35450	6.80	31150	5.55	31050	6.70	26750	5.45	28550	6.60	24250	5.35
EPE24207*	850	46850	8.90	40900	7.15	42250	8.80	36300	7.05	37850	8.70	31900	6.95	35350	8.60	29400	6.85
EPE24210*	900	55400	11.40	47300	9.03	50800	11.30	42700	8.93	46400	11.20	38300	8.83	43900	11.10	35800	8.73
EPE30205*	900	43050	7.20	38750	5.95	38250	7.10	33950	5.85	33250	7.10	28950	5.85	30050	7.00	25750	5.75
EPE30207*	900	49850	9.20	43900	7.45	45050	9.10	39100	7.35	40050	9.10	34100	7.35	36850	9.00	30900	7.25
EPE30210*	950	58400	11.70	50300	9.33	53600	11.60	45500	9.23	48600	11.60	40500	9.23	45400	11.50	37300	9.13

Note - Values based on nominal airflow at .3" in H₂O, 70°F Inlet Air

*May experience some loss in capacity.

*This data is to be used as reference values only and does not constitute a rating or a guarantee that the installed system will perform as indicated

Data is subject to change. Please verify current information on www.firstco.com.

EXTENDED COOLING PERFORMANCE

Model	Indoor Temp DB/WB	Airflow	Outdoor Temperature °F								
			65.0			75.0			85.0		
			BTUH	S/T	W	BTUH	S/T	W	BTUH	S/T	W
EPE12	75/57	400	12,200	1.00	800	11,300	1.00	900	10,800	1.00	900
	75/63		12,900	0.75	800	12,200	0.77	900	11,500	0.79	1,000
	80/67		13,900	0.72	800	13,100	0.74	900	12,300	0.76	1,000
	85/72		15,200	0.62	800	14,400	0.63	900	13,600	0.65	900
EPE18	75/57	600	18,100	1.00	1,100	17,300	1.00	1,200	16,400	1.00	1,400
	75/63		19,200	0.79	1,100	18,200	0.81	1,300	17,200	0.84	1,400
	80/67		20,400	0.77	1,200	19,500	0.79	1,300	18,400	0.81	1,500
	85/72		22,100	0.70	1,200	21,000	0.72	1,400	19,900	0.74	1,500
EPE24	75/57	800	24,800	1.00	1,700	23,700	1.00	1,900	22,100	1.00	2,100
	75/63		26,300	0.75	1,700	25,000	0.77	1,900	23,600	0.79	2,100
	80/67		28,100	0.73	1,700	26,700	0.75	1,900	25,300	0.76	2,100
	85/72		30,700	0.66	1,700	29,100	0.68	1,900	27,500	0.69	2,100
EPE30	75/57	900	26,700	0.99	1,900	25,700	1.00	2,100	24,900	1.00	2,300
	75/63		29,400	0.72	1,900	28,000	0.74	2,100	26,500	0.75	2,300
	80/67		31,300	0.69	1,900	29,800	0.71	2,100	28,300	0.72	2,300
	85/72		34,100	0.63	1,900	32,300	0.64	2,100	30,800	0.65	2,300

Model	Indoor Temp DB/WB	Airflow	Outdoor Temperature °F								
			95.0			105.0			115.0		
			BTUH	S/T	W	BTUH	S/T	W	BTUH	S/T	W
EPE12	75/57	400	10,200	1.00	1,000	9,600	1.00	1,100	9,000	1.00	1,200
	75/63		10,800	0.81	1,000	10,000	0.84	1,100	9,300	0.88	1,200
	80/67		11,600	0.78	1,000	10,800	0.82	1,100	10,000	0.85	1,200
	85/72		12,700	0.67	1,000	11,900	0.69	1,100	11,000	0.72	1,300
EPE18	75/57	600	15,600	1.00	1,500	14,700	1.00	1,700	13,800	1.00	1,800
	75/63		16,200	0.86	1,500	15,200	0.90	1,700	14,100	0.93	1,800
	80/67		17,300	0.84	1,600	16,200	0.87	1,700	15,100	0.91	1,900
	85/72		18,700	0.76	1,700	17,500	0.79	1,800	16,400	0.83	2,000
EPE24	75/57	800	21,000	1.00	2,300	19,800	1.00	2,600	18,600	1.00	3,000
	75/63		22,200	0.81	2,300	20,900	0.84	2,600	19,400	0.87	3,000
	80/67		23,800	0.79	2,400	22,300	0.81	2,600	20,800	0.84	3,000
	85/72		26,000	0.71	2,400	24,300	0.73	2,700	22,400	0.75	3,000
EPE30	75/57	900	23,100	1.00	2,500	22,000	1.00	2,700	20,800	1.00	3,000
	75/63		25,000	0.76	2,500	23,500	0.79	2,800	22,100	0.81	3,000
	80/67		26,800	0.74	2,500	25,200	0.76	2,800	23,600	0.79	3,100
	85/72		29,000	0.67	2,500	27,300	0.69	2,800	25,600	0.71	3,100

* Total power input of the unit

Performance data is simulated based on the rated value of each model and is calculated based on nominal CFM and .3 external static pressure

This data is to be used as reference values only and does not constitute a rating or a guarantee that the installed system will perform as indicated

Data is subject to change. Please verify current information on www.firstco.com.

BLOWER PERFORMANCE

MODEL NUMBER	MOTOR SPEED TAP	IWC STATIC PRESSURE									
		0.10		0.20		0.30		0.40		0.50	
		SCFM	WATTS	SCFM	WATTS	SCFM	WATTS	SCFM	WATTS	SCFM	WATTS
EPE12203	T1	284	22	271	30	255	36	237	41	219	45
	T2 ^C	446	73	433	81	417	87	399	41	381	95
	T3	446	73	433	81	417	87	399	41	381	95
	T4 ^H	505	98	492	106	476	112	458	41	440	121
EPE12205	T1	284	22	271	30	255	36	237	41	219	45
	T2 ^C	446	73	433	81	417	87	399	41	381	95
	T3	446	73	433	81	417	87	399	41	381	95
	T4 ^H	575	136	562	143	546	149	528	41	510	158
EPE182205	T1	385	34	343	40	311	46	282	53	254	60
	T2 ^C	448	44	406	49	374	55	345	62	316	69
	T3	617	77	575	82	542	88	513	95	485	102
	T4 ^H	617	77	575	82	542	88	513	95	485	102
	T5	837	144	795	149	762	156	733	163	705	170
EPE182207	T1	385	34	343	40	311	46	282	53	254	60
	T2 ^C	706	100	664	105	631	112	602	119	574	126
	T3	788	126	746	132	714	138	685	145	657	152
	T4 ^H	837	144	795	149	762	156	733	163	705	170
	T5	926	182	884	187	851	194	822	200	794	208
EPE182210	T1	507	54	478	62	447	70	416	77	387	83
	T2 ^C	698	101	669	110	638	117	608	124	579	131
	T3	787	129	758	138	727	145	696	152	667	159
	T4 ^H	1315	444	1286	452	1255	460	1224	466	1195	473
	T5	1397	529	1367	538	1336	545	1306	552	1277	559

^C Factory-set default tap cooling and heat pump

^H Factory-set default tap electric heat

Tap T1 is fan only operation (all models)

Tap T2 & T3 are cooling and heat pump operation

Tap T4 & T5 are electric heat operation

Blower performance data based on a dry coil at 70°F DB EAT with a standard 1" clean air filter

SCFM - standard cubic feet per minute

Data is subject to change. Please verify current information on www.firstco.com.

BLOWER PERFORMANCE

Continued

MODEL NUMBER	MOTOR SPEED TAP	IWC STATIC PRESSURE									
		0.10		0.20		0.30		0.40		0.50	
		SCFM	WATTS	SCFM	WATTS	SCFM	WATTS	SCFM	WATTS	SCFM	WATTS
EPE24205	T1	385	34	343	40	311	46	282	53	254	60
	T2 ^C	926	182	884	187	851	194	822	200	794	208
	T3	982	210	940	215	907	222	879	229	850	236
	T4 ^H	882	162	840	168	808	174	779	181	751	188
	T5	1005	223	963	228	930	234	902	241	873	248
EPE24207	T1	385	34	343	40	311	46	282	53	254	60
	T2 ^C	882	162	840	168	808	174	779	181	751	188
	T3	982	210	940	215	907	222	879	229	850	236
	T4 ^H	882	162	840	168	808	174	779	181	751	188
	T5	1005	223	963	228	930	234	902	241	873	248
EPE24210	T1	507	54	478	62	447	70	416	77	387	83
	T2 ^C	868	160	838	169	807	176	777	183	748	190
	T3	955	201	926	209	895	216	864	223	835	230
	T4 ^H	1315	444	1286	452	1255	460	1224	466	1195	473
	T5	1397	529	1367	538	1336	545	1306	552	1277	559
EPE30205	T1	510	54	468	60	435	66	407	73	378	80
	T2 ^C	1041	244	999	249	967	256	938	263	910	270
	T3	1143	311	1100	316	1068	323	1039	330	1011	337
	T4 ^H	1041	244	999	249	967	256	938	263	910	270
	T5	1143	311	1100	316	1068	323	1039	330	1011	337
EPE30207	T1	510	54	468	60	435	66	407	73	378	80
	T2 ^C	1041	244	999	249	967	256	938	263	910	270
	T3	1143	311	1100	316	1068	323	1039	330	1011	337
	T4 ^H	1041	244	999	249	967	256	938	263	910	270
	T5	1143	311	1100	316	1068	323	1039	330	1011	337
EPE30210	T1	507	54	478	62	447	70	416	77	387	83
	T2 ^C	979	213	950	221	919	229	888	235	859	242
	T3	1104	286	1075	294	1044	302	1013	308	984	315
	T4 ^H	1315	444	1286	452	1255	460	1224	466	1195	473
	T5	1397	529	1367	538	1336	545	1306	552	1277	559

^C Factory-set default tap cooling and heat pump

^H Factory-set default tap electric heat

Tap T1 is fan only operation (all models)

Tap T2 & T3 are cooling and heat pump operation

Tap T4 & T5 are electric heat operation

Blower performance data based on a dry coil at 70°F DB EAT with a standard 1" clean air filter

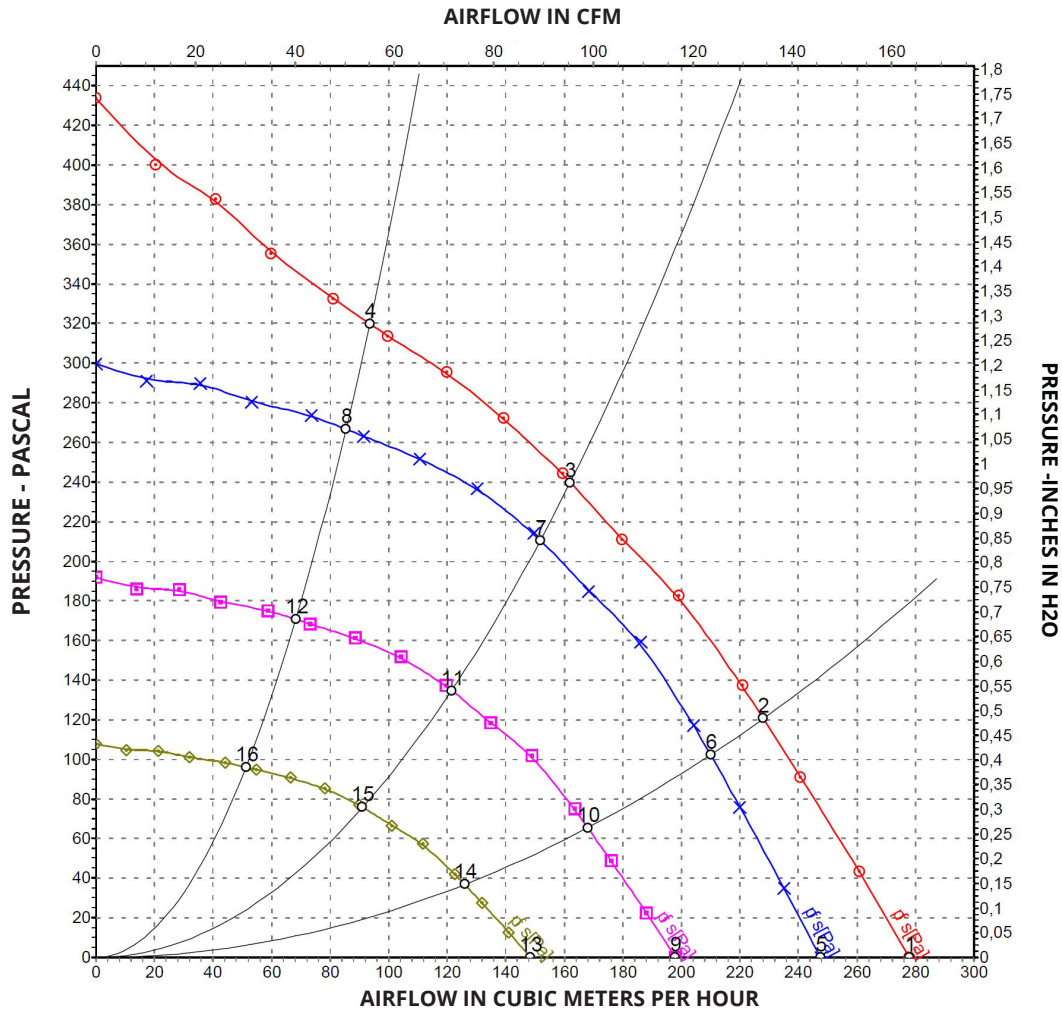
SCFM - standard cubic feet per minute

Data is subject to change. Please verify current information on www.firstco.com.

ERV FAN PERFORMANCE

ERV FAN CURVE

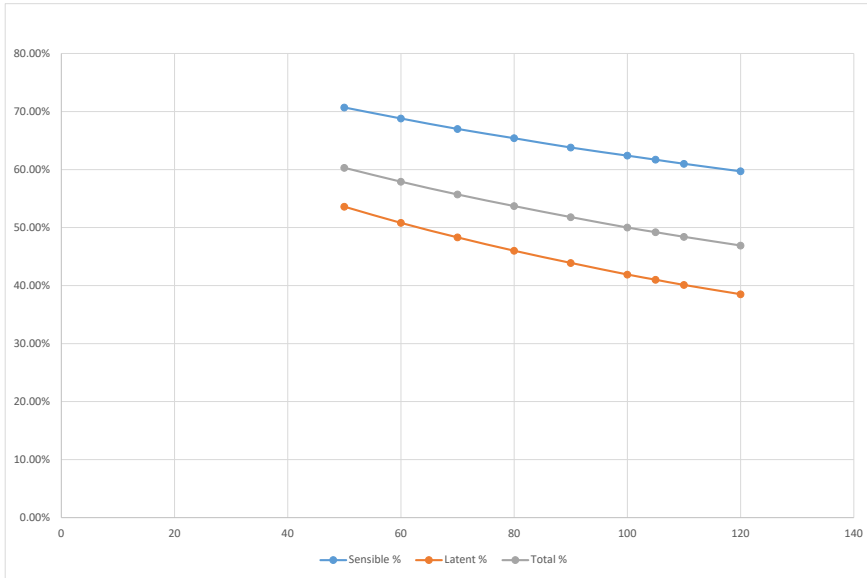
AIR FLOW AT 60HZ



	Voltage	Frequency Hz	Speed (Rev/min)	Power (Watts)	Current (Amps)	Airflow (m ³ /h)	Pressure (Pa)	Airflow (CFM)	Pressure (IN H2O)
1	230	60	3930	24	0.23	280	0	165	0.00
2	230	60	3800	26	0.26	230	120	136	0.48
3	230	60	3770	27	0.27	160	240	95	0.96
4	230	60	3835	26	0.25	95	320	56	1.28
5	230	60	3500	17	0.16	250	0	148	0.00
6	230	60	3500	20	0.2	210	102	124	0.41
7	230	60	3500	22	0.22	150	211	89	0.85
8	230	60	3500	19	0.19	85	267	51	1.07
9	230	60	2800	8.5	0.08	200	0	118	0.00
10	230	60	2800	10	0.1	170	66	101	0.26
11	230	60	2800	11	0.11	120	135	71	0.54
12	230	60	2800	9.9	0.1	70	171	42	0.69
13	230	60	2100	3.6	0.04	150	0	89	0.00
14	230	60	2100	4.4	0.04	125	37	74	0.15
15	230	60	2100	4.8	0.05	90	76	53	0.31
16	230	60	2100	4.2	0.04	50	96	30	0.39

ERV PERFORMANCE

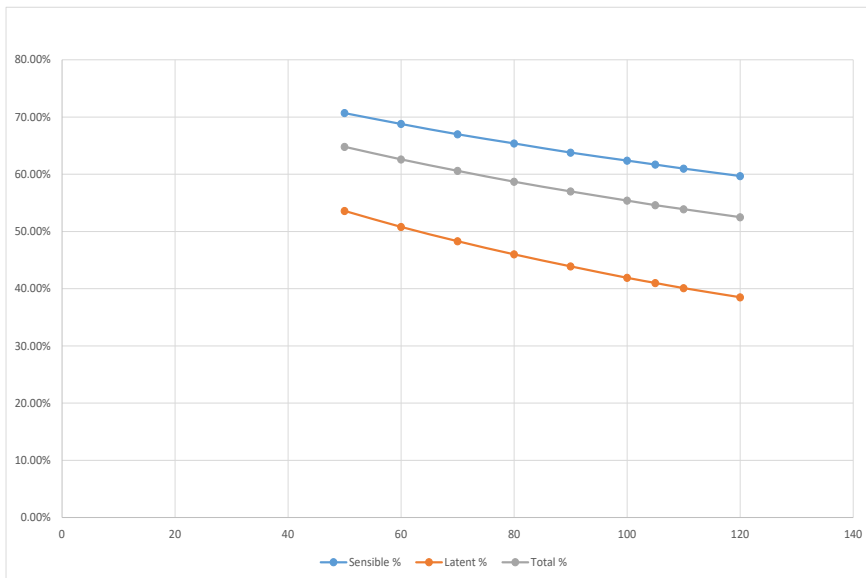
SUMMER



Outdoor		Return	
db	rh	db	rh
95	46.5%	75	51.17%

CFM	Sensible %	Latent %	Total %
50	70.70%	53.60%	60.30%
60	68.80%	50.80%	57.90%
70	67.00%	48.30%	55.70%
80	65.40%	46.00%	53.70%
90	63.80%	43.90%	51.80%
100	62.40%	41.90%	50.00%
105	61.70%	41.00%	49.20%
110	61.00%	40.10%	48.40%
120	59.70%	38.50%	46.90%

WINTER



Outdoor		Return	
db	rh	db	rh
35	81.69%	70	47.88%

CFM	Sensible %	Latent %	Total %
50	70.70%	53.60%	64.80%
60	68.80%	50.80%	62.60%
70	67.00%	48.30%	60.60%
80	65.40%	46.00%	58.70%
90	63.80%	43.90%	57.00%
100	62.40%	41.90%	55.40%
105	61.70%	41.00%	54.60%
110	61.00%	40.10%	53.90%
120	59.70%	38.50%	52.50%



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MAY 2024