



Space Constrained Vertical Unit with fully integrated ERV

Straight Cool (EFE), or Hydronic Heating (EFW)

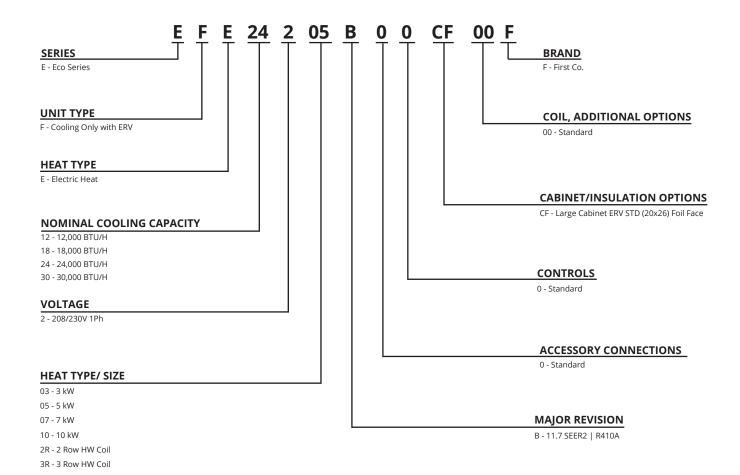
1 - 2.5 tons
Up to 10 kW Electric Heat
Up to 47,800 BTUH Hydronic Heat
11.7 SEER2







Nomenclature



PRODUCT DESCRIPTION

- Space constrained vertical unit with with integrated energy recovery ventilator (ERV)
- Pre-wired and pre-charged with R410a 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 cooling to optimize performance
- 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

WARNING:

This service switch does not de-energize the incoming power supply to the unit.

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

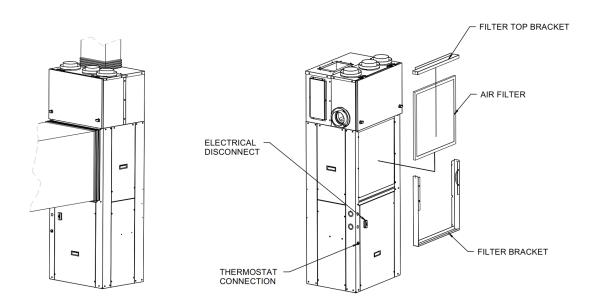
- Interior Access Panels Louvered or Solid **Bone White only*** no custom color
- ERV Sensors Humidity or Carbon Dioxide (field provided)
- Standard low voltage thermostat with ventilation capabilities

STANDARD UNIT FEATURES

Ductwork Connections - Shipped ready for top supply duct connection and front non-ducted return with optional ducted return. If required 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, grilles, 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 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.

SERVICE PULL OUT SWITCH

Provides a visible disconnecting means when performing maintenance.

WARNING: This service switch does not de-energize the incoming power supply to the unit. ALWAYS turn off all power to the unit before servicing equipment. There may be more than one disconnect switch. All lockout/tag out procedures should be followed.

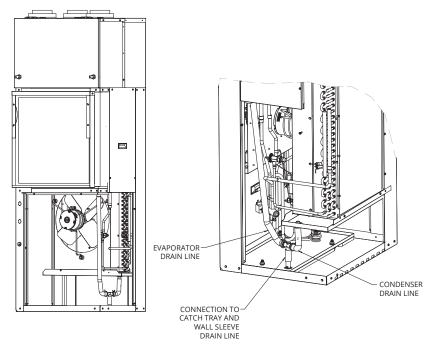
CONDENSATE SYSTEM

Primary Condensate

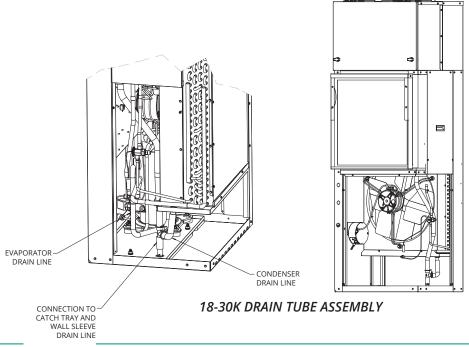
Factory installed drain line connects the evaporator drain pan to a vertical pipe connection in the unit base pan. Evaporator condensate is delivered from the unit to a catch tray in the wall sleeve and exits the sleeve through the 3/4" male NPT fitting. This design allows the plumber to completely pipe 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 features 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



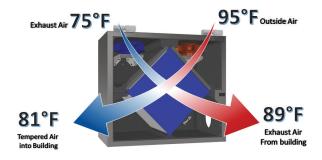
What is ERV?

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

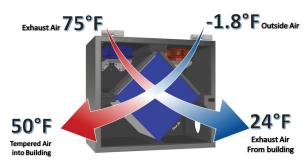
ERV uses a polymer core to transfer temperature (sensible energy) and moisture (latent energy) from waste air to incoming ventilation air. It will cool the air in the warmer months and warm the air in the colder months.

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

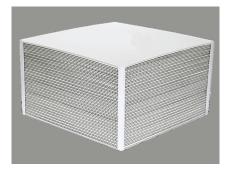


Integrated Energy Recovery Ventilator (ERV)

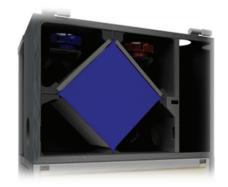
- **Core Enclosure:** Insulated one piece molded enclosure, made from mold/mildew resistant material. Completely sealed providing noise and air leakage reduction
- Core: Full enthalpy core made from polymer material that is removable for servicing & cleaning
- Core Filters: Filtration of Ventilation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







ERV CORE



DEFROST – The ERV will sense when the exhaust drops below the set temperature and will activate the built-in multistage defrost mode. The first stage will reduce the fan speed to help warm up the core and prevent freezing. The second stage will, if optioned, 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 that 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

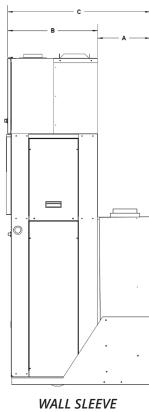
WALL SLEEVES

- •Fresh air intake and exhaust ports are built in to wall sleeve
- •Provided for installation during rough-in and when ready the unit is simply slid into the wall sleeve and connect the ductwork and electrical
- •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

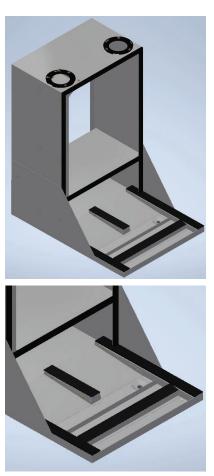
ACCESSORY	DESCRIPTION	DIMENSIONS (H x W x D)	PART #	Α	В	С
	For 5" - 8" thick walls	43-1/4 x 26-1/2 x 37-1/4	999-21B-E	16-3/4"	20-15/16"	37-11/16"
FRESH-PAK	For 8" - 12" thick walls	43-1/4 x 26-1/2 x 41-1/4	999-22B-E	20-3/4"	20-15/16"	41-11/16"
INTEGRATED TOP PORTS	For 12" - 15" thick walls	43-1/4 x 26-1/2 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.

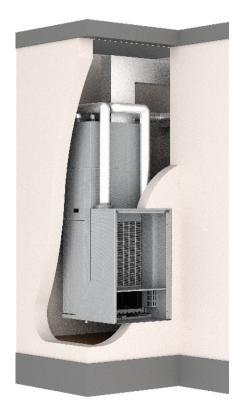


WALL SLEEVE WITH TOP PORTS

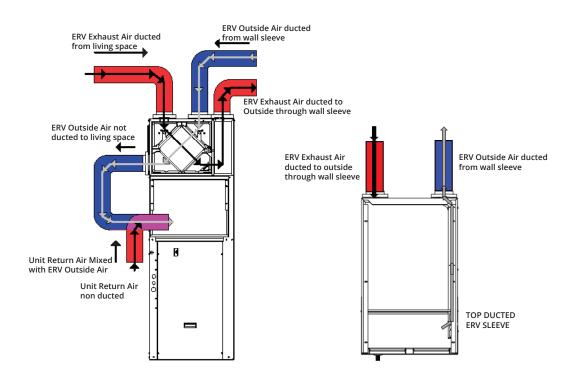


WALL SLEEVE CONDENSATE DRAIN

WALL SLEEVE ERV DUCTING



TOP DUCTED INSTALLATION



LOUVERS

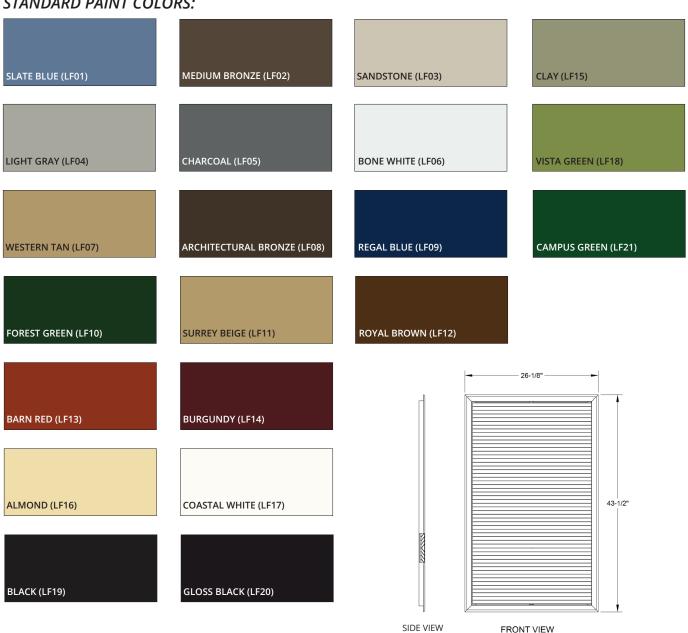
Extruded aluminum louver that attaches to the outside face of the wall sleeve. The blades of this unique louver recess into the wall sleeve for a neat, flush appearance.

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.

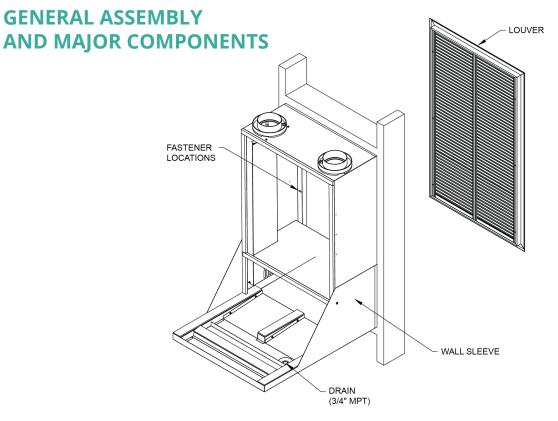
BRAND	DESCRIPTION	PART NUMBER	IMAGE		
Honeywell	Programmable 7-day/5-2/5-1-1 3H/2C HP 2H/2C Conv. 24v Hardwired, C-wire only, Wi-Fi, w/ventilation control	TH6320WF2003	Name of the state		
Honeywell	Programmable 7-day/5-2/5-1-1 3H/2C HP 2H/2C Conv. 24v Hardwired, C-wire only, Wi-Fi, aux heat lockout w/ ventilation control	THX321WFS2001W	630 72 088		

WLAN Service Stick

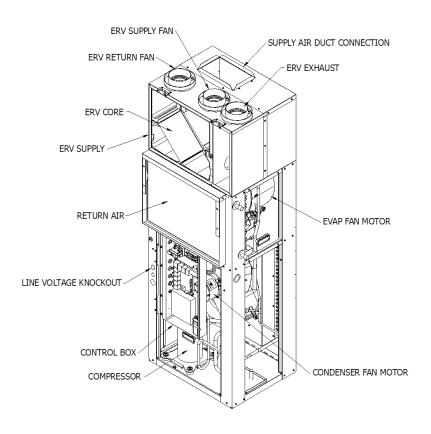
ERV Programming via WLAN* service stick - Must purchase one stick per project. Required to program ERV board through the ABT GO app.

PART NUMBER	IMAGE
USB-300	SIEMENS POLICE AND THE CONTROL OF TH

^{*}WLAN = wireless local area network



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
- \bullet 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

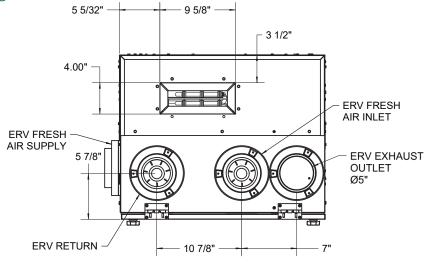
BRAND	DESCRIPTION	PART NUMBER	IMAGE
Honeywell	Carbon Dioxide (CO2) Sensor Duct mounted no display	C7232	
Honeywell	Carbon Dioxide (CO2) Sensor wall mounted sensor with LED light display	C7233	1140
Honeywell	Carbon Dioxide (CO2) Sensor wall mounted sensor with digital display	C7263	I
PCE	Humidity Sensor wall mounted 4 - 20 mA output	PCE-P18	o Ce is a
Honeywell	Humidistat wall mounted HumidiPRO Digital Humidity Control	H6062	Homosed. Section Sect

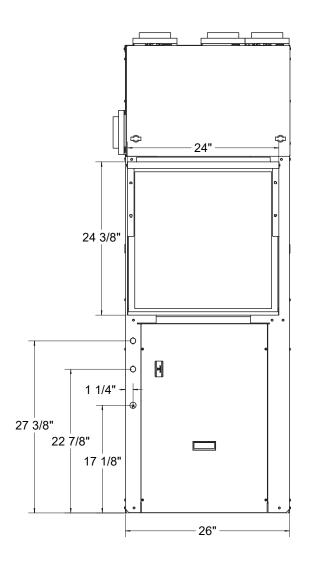
ERV EXHAUST CONTROLS (Field provided)

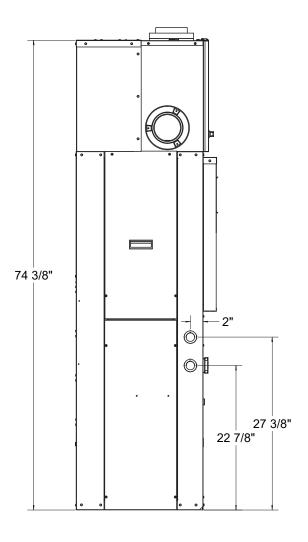
- Analog Egg Timer
- Digital Timer Switch

PHYSICAL DATA

Unit Dimensions 12K



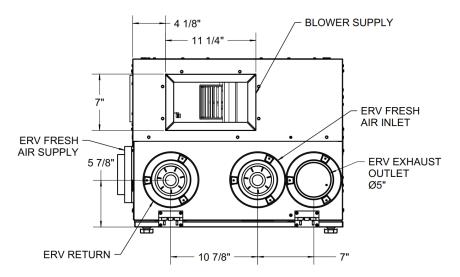


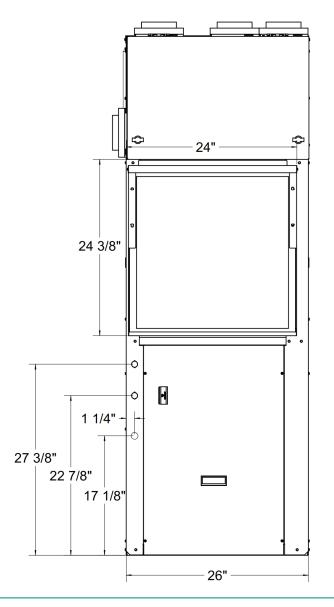


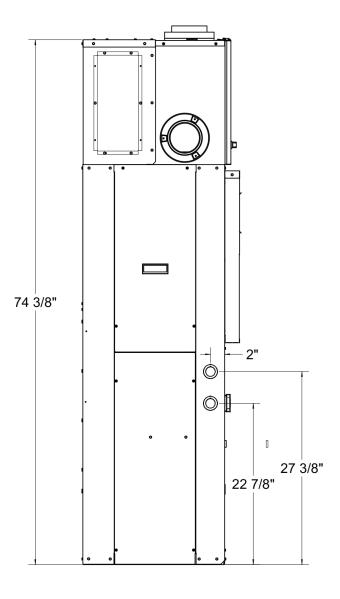
PHYSICAL DATA

Unit Dimensions

18-30K







Cooling with Electric Heat (EFE)

Electrical Data

	BLOWE	R DATA	C	ONDEN	SER DAT	Ą		MUM CUIT		MUM CUIT	SHIPPING							
MODEL NUMBER		OOR TOR	СОМР	RESSOR		OOOR TOR		ACITY CA)	PROTE (M	CTION OP)	WEIGHT							
	AMPS	HP	RLA	LRA	FLA	HP	208V	240V	208V	240V	LBS.							
EFE12 - 0							11	11	15	15								
EFE12 - 2							12	14	15	15								
EFE12 - 3	2.3	1/4	4.7	26	2.3	1/4	17	19	20	20	245							
EFE12 - 4							21	24	25	25								
EFE12 - 5							26	29	30	30								
EFE18 - 0							17	17	25	25								
EFE18 - 2							17	17	25	25								
EFE18 - 3								18	20	25	25							
EFE18 - 4	2.8	1/3	9.0	56	2.8	1/3	22	25	25	25	255							
EFE18 - 5	2.0	1/3	9.0	30	2.8	1/3	27	30	30	30								
EFE18 - 6							31	35	35	35								
EFE18 - 8							40	46	40	50								
EFE18 - 10							49	56	50	60								
EFE24 - 0														19	19	25	25	
EFE24 - 3							19	20	25	25								
EFE24 - 4							22	25	25	25								
EFE24 - 5	2.8	1/3	10.1	62	2.8	3 1/3	27	30	30	30	295							
EFE24 - 6							31	35	35	35								
EFE24 - 8							40	46	40	50								
EFE24 - 10							49	56	50	60								
EFE30 - 0							23	23	35	35								
EFE30 - 3							23	23	35	35								
EFE30 - 4							24	26	35	35								
EFE30 - 5	4.1	1/2	12.8	65	2.8	1/3	28	32	35	35	325							
EFE30 - 6							33	37	35	40								
EFE30 - 8							42	47	45	50								
EFE30 - 10							51	52	60	60								

 $\textbf{Data is subject to change. Please verify most current information on } \underline{\textbf{www.firstco.com}} \text{ or } \underline{\textbf{www.AE-Air.com}} \text{ websites.}$

Cooling with Electric Heat (EFE)

Cooling & Heating Performance

	COOLING				ELECTR	RIC HEAT		
MODEL	COOLING	FFFICIENCY		240V			208V	
MODEL NUMBER	CAPACITY (BTUH) (1)	EFFICIENCY EER (2)	kW	втин	HEATING AMPS	kW	втин	HEATING AMPS
EFE12 -0			0.0	0	0.0	0.0	0	0.0
EFE12 -2			2.0	6800	8.3	1.5	5100	7.2
EFE12 -3	11500	12.0	3.0	10200	12.5	2.25	7700	10.8
EFE12 -4			4.0	13600	16.7	3.0	10200	14.4
EFE12 -5			4.5	15400	20.8	3.38	11500	18.0
EFE18 -0			0.0	0	0.0	0.0	0	0.0
EFE18 -2			2.0	6800	8.3	1.5	5100	7.2
EFE18 -3			3.0	10200	12.5	2.25	7700	10.8
EFE18 -4	17500	11.5	4.0	13600	16.7	3.0	10200	14.4
EFE18 -5	17500	11.5	4.5	15400	20.8	3.38	11500	18.0
EFE18 -6			6.0	20500	25.0	4.5	15400	21.6
EFE18 -8			8.0	27300	33.3	6.0	20500	28.8
EFE18 -10			9.0	30700	37.5	6.75	23000	32.5
EFE24 -0			0.0	0	0.0	0.0	0	0.0
EFE24 -3			3.0	10200	12.5	2.25	7700	10.8
EFE24 -4			4.0	13600	16.7	3.0	10200	14.4
EFE24 -5	24600	11.2	4.5	15400	20.8	3.38	11500	18.0
EFE24 -6			6.0	20500	25.0	4.5	15400	21.6
EFE24 -8			8.0	27300	33.3	6.0	20500	28.8
EFE24 -10			9.0	30700	37.5	6.75	23000	32.5
EFE30 - 0			0.0	0	0.0	0.0	0	0.0
EFE30 -3			3.0	10200	12.5	2.25	7700	10.8
EFE30 -4			4.0	13600	16.7	3.0	10200	14.4
EFE30 -5	27000	11.0	4.5	15400	20.8	3.38	11500	18.0
EFE30 -6			6.0	20500	25.0	4.5	15400	21.6
EFE30 -8			8.0	27300	33.3	6.0	20500	28.8
EFE30 -10			9.0	30700	37.5	6.75	23000	32.5

^{(1) 95°}F DB/75°F WB outdoor - 80°F DB/67°F WB indoor.

Data is subject to change. Please verify most current information on www.AE-Air.com websites.

⁽²⁾ Tested in accordance with AHRI Standard 390.

Cooling with Electric Heat (EFE)

Blower Performance

	BLOWER				CFM vs	EXTERNA	L STATIC P	RESSURE			
MODEL	SPEED	0	.1	0	.2	0.3		0).4	C).5
	TAP	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS
	T1	356	42	344	46	332	51	318	56	300	59
EFE12*	T2 (H & C)	433	64	421	68	409	73	395	78	377	81
	T3	506	85	494	90	482	94	468	99	450	102
	T1	561	71	536	75	505	80	474	84	449	89
	T2 (H & C)	649	99	624	103	593	108	563	112	537	117
EFE18*	T3	702	120	677	124	646	128	615	133	590	137
	T4	718	127	693	131	662	135	632	140	606	144
	T5	757	145	732	149	701	153	670	158	645	163
	T1	718	127	693	131	662	135	632	140	606	144
	T2 (H & C)	824	184	799	188	768	192	738	197	712	201
EFE24*	T3	904	241	879	245	848	249	818	254	792	258
	T4	937	266	912	270	881	274	851	279	825	284
	T5	999	309	974	313	943	317	912	322	887	327
	T1	850	217	837	220	821	224	799	227	774	229
	T2 (H & C)	936	273	923	277	907	281	885	284	859	285
EFF30*	T3	1063	347	1050	351	1034	354	1012	357	986	359
	T4	1162	379	1149	383	1132	387	1111	390	1085	391
	T5	1285	389	1272	393	1256	397	1234	400	1209	401

Factory Settings: (H) = Heating, (C) = Cooling Airflow data shown is with dry coil at 70°F DB EAT with standard 1" air filter

Data is subject to change. Please verify most current information on <u>www.firstco.com</u> or <u>www.AE-Air.com</u> websites.

Cooling with Hot Water Heat (EFW)

Electrical & Physical Data

	BLOWE	R DATA	(CONDENSER DATA				MINIMUM		IMUM	
MODEL NUMBER		OOR	СОМР	RESSOR	OR OUTDOOR AMPACITY (MCA)		ACITY	CIRCUIT PROTECTION (MOP)		SHIPPING WEIGHT	
	AMPS	HP	RLA	LRA	FLA	HP	208V	230V	208V	230V	LBS.
EFW12*	2.3	1/4	4.7	26	2.3	1/4	11	11	15	15	256
EFW18*	4.1	1/2	9	56	2.8	1/3	19	19	25	25	266
EFW24*	4.1	1/2	10.1	62	2.8	1/3	20	20	25	25	306
EFW30*	4.1	1/2	12.8	65	2.8	1/3	23	23	35	35	336

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Cooling with Hot Water Heat (EFW)

Cooling & Heating Performance

	COOLING				HOT WAT	ER HEATIN	G	
MODEL NUMBER	COOLING CAPACITY	EFFICIENCY EER (3)	AIR FLOW	GPM	PRESSURE DROP		(1000) @ EN TER TEMPERA	
NOMBER	(BTUH) (1)	LLK (3)	(CI IVI)		(FT. WATER)	120°F	140°F	180°F
				2.00	1.80	13.60	19.20	30.30
EFW1222RA**	11500	12.0	400	2.50	2.80	14.20	19.90	31.50
				3.00	3.90	14.60	20.50	32.40
				2.00	2.60	16.30	22.90	36.20
EFW1223RA**	11500	12.0	400	2.50	3.90	17.00	23.80	37.60
				3.00	5.40	17.40	24.50	38.60
				2.00	1.90	17.30	24.30	38.60
EFW1822RA**	17500	11.5	600	2.50	2.80	18.30	25.80	40.80
				3.00	3.90	19.00	26.80	42.40
			600	2.00	2.60	20.90	29.40	46.50
EFW1823RA**	17500	11.5		2.50	3.90	22.20	31.20	49.40
				3.00	5.50	23.10	32.50	51.40
				2.00	1.90	20.00	28.20	44.70
EFW2422RA**	24600	11.2	800	2.50	2.80	21.40	30.20	47.90
				3.00	3.90	22.40	31.60	50.10
				2.00	2.60	24.30	34.20	54.10
EFW2423RA**	24600	11.2	800	2.50	3.90	26.20	36.90	58.30
				3.00	5.50	27.60	38.80	61.40
				2.00	1.90	21.10	29.70	47.20
EFW3022RA**	27000	11.0	900	2.50	2.80	22.70	32.00	50.80
				3.00	3.90	23.90	33.60	53.40
				2.00	2.60	25.60	36.10	57.00
EFW3023RA**	27000	11.0	900	2.50	3.90	27.80	39.10	61.90
				3.00	5.50	29.40	41.40	65.50

Note: Use 3 GPM capacities when First Co. Flow Control Module (Part Number 940-3CV) is used

Data is subject to change. Please verify most current information on www.AE-Air.com websites.

Cooling with Hot Water Heat (EFW)

Blower Performance

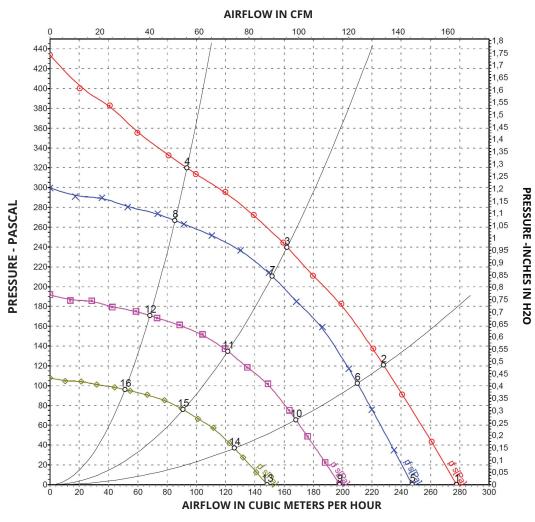
	BLOWER				CFM vs	EXTERNA	L STATIC PR	ESSURE			
MODEL	SPEED	0	.1	C).2	0.3		0).4	0).5
0522	TAP	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS	CFM	WATTS
	T1	405	56	394	61	381	65	367	70	349	73
EFW12*	T2 (H & C)	405	56	394	61	381	65	367	70	349	73
	T3	489	80	477	84	464	89	450	94	433	97
	T1	607	104	574	107	554	109	533	108	503	105
	T2 (H & C)	607	104	574	107	554	109	533	108	503	105
EFW18*	T3	683	127	650	130	629	132	608	131	578	128
	T4	711	137	678	140	658	141	636	141	606	138
	T5	777	162	744	166	724	167	702	166	672	164
	T1	802	173	769	177	749	178	727	177	697	174
	T2 (H & C)	802	173	769	177	749	178	727	177	697	174
EFW24*	T3	893	217	860	221	840	222	818	222	788	219
	T4	944	246	911	250	890	251	869	251	839	248
	T5	990	275	957	279	937	280	915	280	885	277
	T1	903	223	870	227	850	228	829	227	799	225
	T2 (H & C)	963	258	930	262	909	263	888	262	858	260
EFW30*	T3	1101	356	1068	359	1048	361	1027	360	997	357
	T4	1128	378	1095	381	1075	382	1054	382	1024	379
	T5	1168	411	1135	415	1114	416	1093	415	1063	413

Factory Settings: (H) = Heating, (C) = Cooling Airflow data shown is with dry coil at 70°F DB EAT with standard 1" air filter

Data is subject to change. Please verify most current information on <u>www.firstco.com</u> or <u>www.AE-Air.com</u> websites.

ERV FAN PERFORMANCE

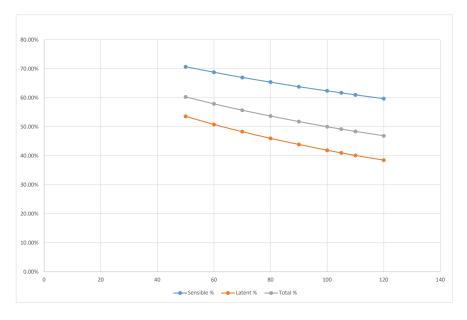
ERV FAN CURVE AIR FLOW AT 60HZ



	Voltage	Frequency Hz	Speed (Rev/min)	Power (Watts)	Current (Amps)	Airflow (m^3/h)	Pressure (Pa)	Airflow (CFM)	Pressure (IN H20)
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

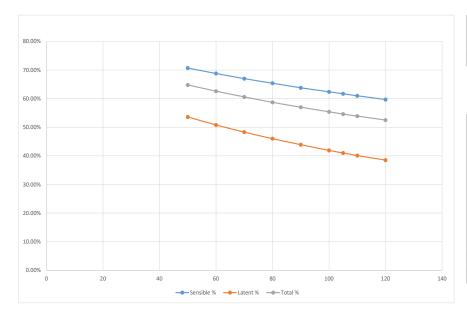
SUMMER -



Outo	door	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



Out	door	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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