#### Light Commercial Heat & Energy Recovery

Light Commercial HRV/ERV 284-2150 CFM

**l**aldes

## #HealthyLiving aldes

# Ready for **Business**



Every dollar counts when running a business. Reducing operating costs is one of best ways to improve the bottom line. Light Commercial Heat and Energy Recovery Ventilators (HRV/ERV) by Aldes are effective ways of recovering energy and reducing the load on heating and cooling systems. These units recover up to 70% of the energy exhausted by traditional ventilation systems. Aldes HRV/ERVs are a small investment with huge return potential.

Quiet, efficient, and easy to install, Aldes models are specially designed for light-commercial use. Offices, medical buildings, stores, salons, restaurants, schools, theatres, daycare centers, retirement homes, and even high-humidity spaces like indoor pools and spas – these are just a few examples of businesses that can use Aldes technology to save money. The benefits are not purely fiscal. **Employees and customers alike will enjoy better thermal comfort and improved indoor air quality, and the business can lower its carbon footprint.** 

Aldes has manufactured ventilation systems and solutions in North America for more than 30 years. Every Aldes product is equal parts innovation and experience. Make Aldes Heat & Energy Recovery Ventilators part of your successful business plan.









#### **How They Work**

In the heating season, Heat Recovery Ventilators (HRV) and Energy Recovery Ventilators (ERV) draw in fresh air from outside while stale, humid air is exhausted. As the fresh and stale airstreams pass through the unit's core, the fresh air is tempered with heat recovered from the exhaust air. In the cooling season, fresh outdoor air is cooled by the air-conditioned exhaust air. An ERV will also transfer moisture to improve comfort in homes.

## Light Commercial Product Range





	Nominal			Availabl Ty	e Defrost /pe		Electrical	Mi	
Model	Airflow Rate at 0.2 in. w.g.	Unit Type	Core Type	Fan Exhaust (Fi)	Recirc (Ri)	Motor Type	Requirements (1 Phase)	Unit Weight **	
H280-SRG	284 CFM (135 L/s)	HRV	Polypropylene		$\checkmark$	PSC	120 VAC	70 lbs (31 kg)	
E280-SRG	269 CFM (127 L/s)	ERV	High Latent Transfer (HLT)		$\checkmark$	PSC	120 VAC	70 lbs (31 kg)	
H650	800 CFM (377 L/s)	HRV	Polypropylene	$\checkmark$	$\checkmark$	PSC	120 VAC	190 lbs (86 kg)	
H650-EC	700 CFM (330 L/s)	HRV	Polypropylene	$\checkmark$	$\checkmark$	EC	208 VAC	190 lbs (86 kg)	
H650-P*	800 CFM (377 L/s)	HRV	Polypropylene	$\checkmark$		PSC	120 VAC	185 lbs (83 kg)	
H650A	800 CFM (377 L/s)	HRV	Aluminum	$\checkmark$	$\checkmark$	PSC	120 VAC	211 lbs (95 kg)	
H650A-EC	700 CFM (330 L/s)	HRV	Aluminum	$\checkmark$	$\checkmark$	EC	208 VAC	200 lbs (90 kg)	
E650	700 CFM (330 L/s)	ERV	Polymeric Membrane	$\checkmark$	$\checkmark$	PSC	120 VAC	199 lbs (90 kg)	
E650L	705 CFM (332 L/s)	ERV	High Latent Transfer (HLT)	$\checkmark$	$\checkmark$	PSC	120 VAC	199 lbs (90 kg)	
E650L-EC	625 CFM (294 L/s)	ERV	High Latent Transfer (HLT)	$\checkmark$	$\checkmark$	EC	208 VAC	199 lbs (90 kg)	
H1100	1340 CFM (632 L/s)	HRV	Polypropylene	V	$\checkmark$	PSC	120 VAC	271 lbs (122 kg)	
H1100-EC	1275 CFM (601 L/s)	HRV	Polypropylene	$\checkmark$	$\checkmark$	EC	208 VAC	269 lbs (122 kg)	
H1100-P*	1340 CFM (632 L/s)	HRV	Polypropylene	$\checkmark$		PSC	120 VAC	254 lbs (115 kg)	
H1100A	1340 CFM (632 L/s)	HRV	Aluminum	$\checkmark$	$\checkmark$	PSC	120 VAC	288 lbs (130 kg)	
H1100A-EC	1275 CFM (601 L/s)	HRV	Aluminum	$\checkmark$	$\checkmark$	EC	208VAC	269 lbs (122 kg)	
E1100	1400 CFM (660 L/s)	ERV	Polymeric Membrane	$\checkmark$	$\checkmark$	PSC	120 VAC	269 lbs (122 kg)	
E1100L	1175 CFM (554 L/s)	ERV	High Latent Transfer (HLT)	$\checkmark$	$\checkmark$	PSC	120 VAC	269 lbs (122 kg)	
E1100L-EC	1075 CFM (507 L/s)	ERV	High Latent Transfer (HLT)	$\checkmark$	$\checkmark$	EC	208VAC	269 lbs (122 kg)	
H1800	1725 CFM (814 L/s)	HRV	Polypropylene	$\checkmark$	$\checkmark$	PSC	120 VAC	325 lbs (147 kg)	
H1800-P*	1725 CFM (814 L/s)	HRV	Polypropylene	$\checkmark$		PSC	120 VAC	312 lbs (141 kg)	
H1800A	1825 CFM (861 L/s)	HRV	Aluminum	$\checkmark$	$\checkmark$	PSC	120 VAC	369 lbs (167 kg)	
E1800	1800 CFM (849 L/s)	ERV	Polymeric Membrane	$\checkmark$	$\checkmark$	PSC	120 VAC	310 lbs (140 kg)	
H1800-EC	2150 CFM (1014 L/s)	HRV	Polypropylene	$\checkmark$	$\checkmark$	EC	208VAC	313 lbs (141 kg)	
H1800A-EC	2150 CFM (1014 L/s)	HRV	Aluminum	$\checkmark$	$\checkmark$	EC	208VAC	313 lbs (141 kg)	
E1800L	1475 CFM (696 L/s)	ERV	High Latent Transfer (HLT)	$\checkmark$	$\checkmark$	PSC	120 VAC	313 lbs (141 kg)	
E1800L-EC	2000 CFM (943 L/s)	ERV	High Latent Transfer (HLT)	$\checkmark$	$\checkmark$	EC	208VAC	313 lbs (141 kg)	

\* Recirculation defrost available for factory installation; Recirculation defrost conversion kit available for field installation on standard fan exhaust defrost models (except pool models)
\*\* Shipping weight will vary. Add 10 ihs, for units with recirculation defrost (4.5 kg)

## Features

#### Effective

- Efficient Performance: Units recover energy that would otherwise be exhausted, shrinking heating and cooling bills.
- **Core Options:** (HLT) High-latent transfer, Polypropylene (sensible heat recovery), aluminum (sensible heat recovery), and polymeric membrane (sensible and latent heat recovery) cores are durable and designed for different climates and uses.
- **Silently Powerful:** High-effiency EC and PSC motors are quiet and designed to consume very little power.
- Verified Technology: All cores and units are AHRI Certified to Standard 1060.
- EC Motor Options: Units are highly efficient, yet quiet and can use 50% less energy.



**Backward-Inclined Impellers** 

### Smart

- Quick Calibration with FLEXControl: Airflow circuits can be electronically calibrated without the need for resistance-inducing balancing dampers. Blowers are electronically and independently adjustable.
- **Continuous Duty:** Backward-inclined impellers and high-efficiency totally enclosed motors are not susceptible to dust loading and do not need cleaning or maintenance.
- **Superior Insulation:** Rigid insulation with FSK non-porous coating is lightweight and keeps moisture out so it does not get trapped in the unit and cause mold to grow.
- Advanced Electronics: The circuit board is conveniently accessible, and the terminal block can be removed for easy wiring to controllers. Optional BACnet™ interface available.



**Control Board** 

### Balanced

- EvacMAX<sup>™</sup> Airflow Boost: On-demand maximum ventilation rate boost for times requiring fast contaminant removal.
- **Built-In Defrost:** Fan exhaust or recirculation modes protect the core from freezing in cold climates. Recirculation can be selected initially, or added later using the retrofit kit. \*
- **Complete Climate Control:** Compatible controllers are available to automate the unit's response to changes in the indoor environment.
- **Speed Options:** Continuous variable speed with 0-10V inputs, or configurable normal and boost speeds.



Front and Back Access Doors



#### Flexible

- **Special Applications:** All polypropylene units can be used for indoor pools and spas. The letter "P" in the model name indicates it is a pool unit.\* Pool units have stainless steel interiors and totally enclosed motors make these models perfectly suited for high-humidity environments.
- Dual Access Doors: The unit can be oriented whichever way the space requires without restricting access to internal components. \*
- Versatile Defrost: Fan exhaust defrost models (-Fi) have an extra pre-punched opening that remains totally sealed unless it becomes desirable to convert it to a recirculation defrost port via the low-cost, simple-to-install recirculation kit.\*
- Easy Installation: Units come with built-in base rails. The unit can be suspended or placed on the floor without the added time and expense of building a support trapeze. \*
- Clean Air: Multiple filter options enhance the filtration capabilities of the unit, which improves overall indoor air quality.

## Performance

Reading the Model Code



HRV Model		H650-Fi H650-Ri H650-Fi-P	H650-Fi-EC H650-Ri-EC	H650A-Fi H650A-Ri	H650A-Fi-EC H650A-Ri-EC	H1100-Fi H1100-Ri H1100-Fi-P	H1100-Fi-EC H1100-Ri-EC	H1100A-Fi H1100A-Ri	H1100A-Fi-EC H1100A-Ri-EC	H1800-Fi H1800-Ri H1800-Fi-P	H1800A-Fi H1800A-Ri
Airflow CFM (L/s) @ .2" Ps w.g.		800	700	800	700	1340	1275	1340	1275	1725	1825
Sensible Efficiency %	Winter @ 100% Flow	45%	45%	52%	52%	45%	45%	51%	51%	45%	55%
	Winter @ 75% Flow	48%	48%	57%	57%	48%	48%	52%	52%	48%	56%
	Summer @ 100% Flow	46%	46%	52%	52%	46%	46%	50%	50%	46%	53%
	Summer @ 75% Flow	48%	48%	58%	58%	48%	48%	53%	53%	48%	57%

ERV Model		E650-Fi E650-Ri	E650L-Fi E650L-Ri	E650L-Fi-EC E650L-Ri-EC	E1100-Fi E1100-Ri	E1100L-Fi E1100L-Ri	E1100L-Fi-EC E1100L-Ri-EC	E1800-Fi E1800-Ri
Airflow CFM (L/s) @ .2" Ps w.g.		700	705	630	1400	1175	1075	1800
Sensible Efficiency %	Winter @ 100% Flow	68%	70%	70%	68%	70%	70%	68%
	Winter @ 75% Flow	71%	74%	74%	71%	74%	74%	71%
	Summer @ 100% Flow	68%	70%	70%	68%	70%	70%	68%
	Summer @ 75% Flow	71%	74%	74%	71%	74%	74%	71%
Total Efficiency %	Summer @ 100% Flow	59%	55%	55%	59%	55%	55%	59%
	Summer @ 75% Flow	62%	60%	60%	62%	60%	60%	62%

AHRI CERTIFIED

Notes: For complete performance curves, refer to product specification sheets or Aldes Selector software.

#### H280

11200							LCOO							
Supply Temperature		Net Airflow		MAX	Sensible Recovery	Adjusted Sensible	Outside Air Temperature		Net Airflow		MAX Power	Sensible	Adjusted Sensible	Latent
	°C	CFM	L/s	Power Consumed (W)	Efficiency	Recovery Efficiency	°F		CFM	L/s	Consumed (W)	Efficiency	Recovery Efficiency	Recovery
Lie e No							Heatin	g						
Heatin	g		1	1			32	0	64	30	84	77%	86%	73%
32	0	64	30	80	75%	83%	32	0	81	38	94	76%	84%	69%
32	0	78	38	88	72%	80%	32	0	121	57	146	72%	80%	60%
02	0	10	- 50		1270	00 %	-13	-25	67	31	107	70%	75%	68%
32	0	117	55	134	66%	74%	Cooling	g				TOTAL REC. EFF.	A. TOTAL R.E.	
-13	-25	68	32	105	65%	70%	95	35	94	38	94	57%	62%	N/A

F280

## Dimensions



	MODEL									
	H/E 280	H/E 650	H/E 1100	H/E 1800						
А	31" (787 mm)	36-1/4" (921 mm)	36-1/4" (921 mm)	43-1/2" (1105 mm)						
в	35-1/2" (902 mm)	41-3/4" (1060 mm)	41-3/4" (1060 mm)	45-5/8" (1158 mm)						
с	Ø 6" (Ø 152 mm)	N/A	N/A	N/A						
D	21-3/4" (552 mm)	23-7/8" (606 mm)	23-7/8" (606 mm)	28-5/8" (726 mm)						
E	17-1/16" (433 mm)	32-1/8" (816 mm)	47-1/4" (1200 mm)	48-7/8" (1242 mm)						
F	N/A	14" (356 mm)	20" (508 mm)	24" (610 mm)						
G	N/A	8" (203 mm)	8" (203 mm)	8" (203 mm)						

Only models with recirculation defrost have a functional top (fifth) port. Recirculation defrost can be selected initially (-Ri models), or field installed on exhaust defrost models (-Fi) by purchasing a conversion kit. Exhaust defrost models have a totally sealed, pre-punched opening. This option does not apply to H/E240-Ri.

ACCESSORIES Compatibility varies by product. Consult spec sheets for complete details.



Humidity Control (P/N 611224)



**Recirculation Defrost** Conversion Kit



20/40/60 Timer (P/N 611228)



MERV 8 Filter



Speed Control (P/N 611229)



Aluminum Filter



Mode Control (P/N 611230)





Multifunction Control (P/N 611242)





High-Efficiency Filter



BACnet<sup>™</sup> Interface (P/N 611235)

**Optional Recirculation** Mode. Compatible with Aldes Wall Controls.



For more information, contact your Aldes sales advisor, visit aldes-na.com, call 1.800.255.7749, or find us on

