



MODELS TR & TRC

TOTAL RECOVERY FOR ALL CLIMATES
RESIDENTIAL OR COMMERCIAL APPLICATIONS

With S&P's TR & TRC (total recovery) Series for all climates, stale room air is exhausted and fresh outdoor air is brought back into the house. These two air streams are directed through a highly developed "air-to-air" energy exchange core. The air streams are physically separated by many layers of "plates" so there is no mixing or contamination of the fresh air. The plates are made of an engineered "resin" material that simultaneously transfers heat by conduction and humidity by attracting and moving water vapor from one air stream to the other.

S&P's TR & TRCs moderate extremes in both temperature and humidity, creating a comfortable indoor environment. The unique moisture transfer capability of the S&P core also eliminates condensation and frost build up in most applications. Unlike other ERVs on the market no mechanical or electrical defrost systems are needed, which means higher heat recovery efficiencies, easier installation and more reliable operation.

Contractor Benefits

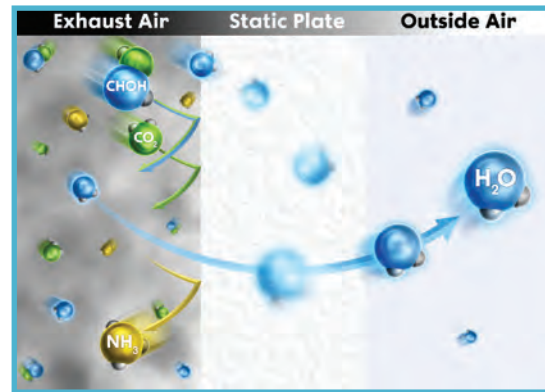
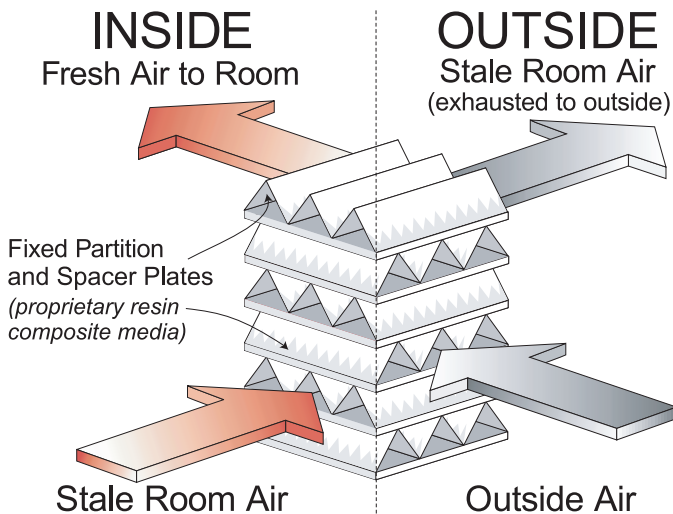


- Models compatible to any HVAC equipment
- Simple installation
- Mount in any orientation
- May be installed in unconditioned locations like attics and garages
- Easy-to-access field support
- Elimination of callbacks
- "Green Building" compliant

The CORE

- Efficient transfer of heat and moisture
- No liquid is accumulated; no drain pan or defrost mechanism is required!
- Industry best **10-year** warranty

5th Generation Core



- Contaminated air is exhausted from the building, while the static plate core regulates extremes in humidity

The Warranty

An S&P TR or TRC is protected by a 10-year core warranty with a 5-year warranty on balance of the TR unit and 2-year warranty on balance of the TRC unit. This commitment - twice as long as coverage on the best wheel products - means with S&P you can just fit and forget.





MODEL TR AND TRC SIZING

Choosing the Right Size TR by Square Footage

Choosing the correct size TR for your structure is easy, all you need to know is the square footage.

If your structure is up to:

- 1500 Sq. Ft. you need a **TR90/TR90G**
- 2700 Sq. Ft. you need a **TR130**
- 4000 Sq. Ft. you need a **TR200**
- 6000 Sq. Ft. you need a **TR300**



Choosing the Right Size TR or TRC by Air Handler Load

For each ton of air handling capacity, 120 CFM of Energy Recovery Ventilation is recommended.

Ton	Capacity 30% Outside Air Fraction in CFM	Model Needed
1.0	120	TR130
1.6	192	TR200
2.0	244	TR300
2.5	299	TR300
3.0	360	TRC500
3.5	415	TRC500
4.0	490	TRC500
5.0	594	TRC800
6.8	810	TRC800
9.3	1,116	TRC1600
14.3	1,716	TRC1600



Models TR90/TR90G



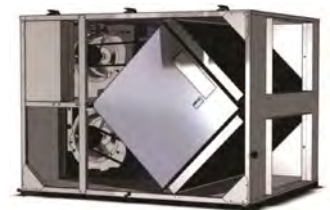
Models TR130, TR200 and TR300



Model TRC500



Model TRC800

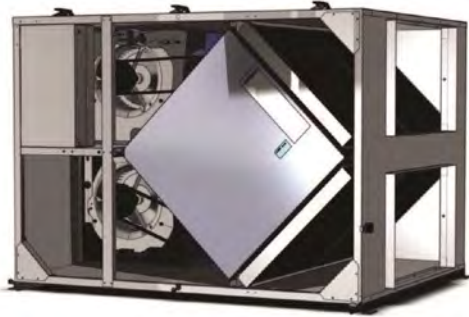


Model TRC1600



MODEL TRC

TOTAL RECOVERY FOR ALL CLIMATES -
COMMERCIAL APPLICATIONS



MODEL FEATURES

- MERV-8 filters
- Non-Fused disconnect
- Transformer/relay package allowing simple on/off control
- Access doors for easy access to blowers, core and filters
- Fully insulated case
- Large cores for high efficiency
- No condensate pan or drain required

10-YEAR
Core Warranty

MODEL OVERVIEW

With S&P's TRC (total recovery for commercial applications) Series for all climates, stale room air is exhausted and fresh outdoor air is brought back into the building. With this line of ERVs (Energy Recovery Ventilators) these two air streams are directed through a highly developed "air-to-air" energy exchange core. The air streams are physically separated by many layers of "plates" so there is no mixing or contamination of the fresh air. The plates are made of an engineered "resin" material that simultaneously transfers heat by conduction and humidity by attracting and moving water vapor from one air stream to the other.

S&P's TRCs moderate extremes in both temperature and humidity, creating a comfortable indoor environment. The unique moisture transfer capability of the S&P core also eliminates condensation and frost build up in most applications. Unlike other ERVs on the market no mechanical or electrical defrost systems are needed, which means higher heat recovery efficiencies, easier installation and more reliable operation.

Model TRC is available in our Quickship program. All sizes are available for next day shipping from stock.



10-year industry best core warranty. 2-year warranty on balance of unit.

All specifications are subject to change without notice unless approved in submittal by Soler & Palau.

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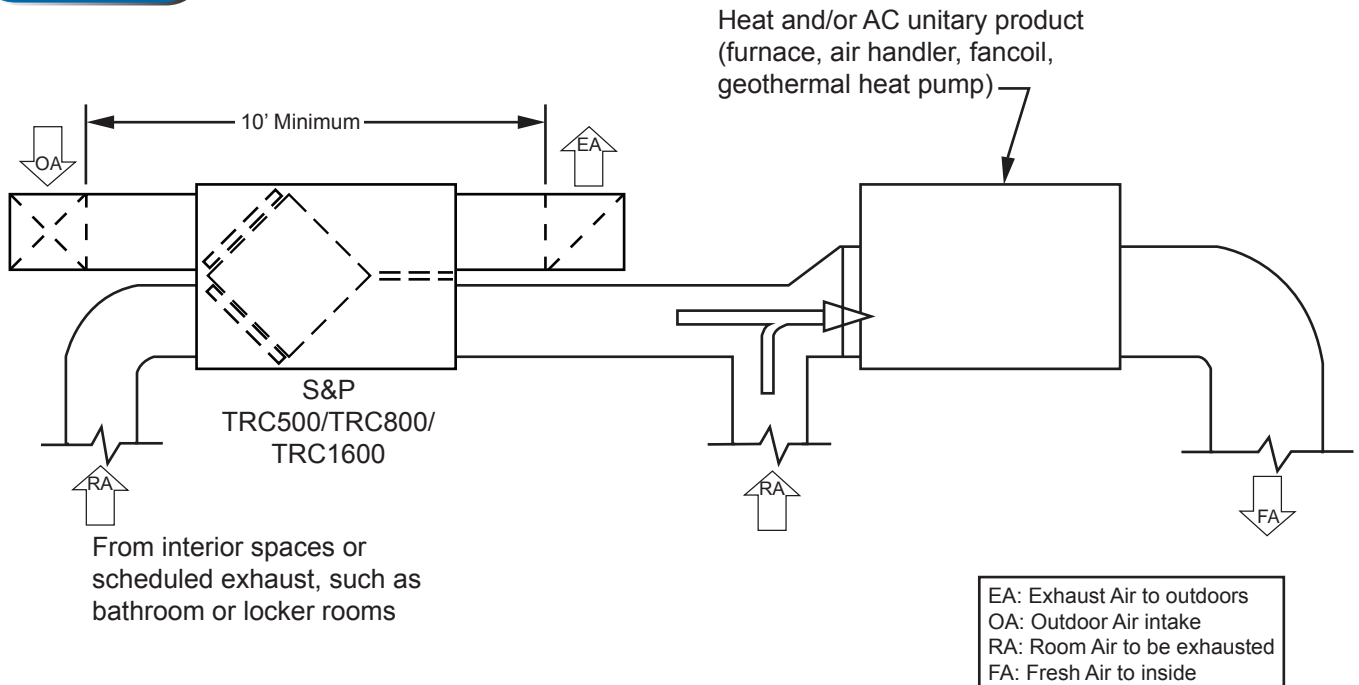
MODEL TRC

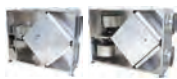
TOTAL RECOVERY FOR ALL CLIMATES - COMMERCIAL APPLICATIONS



STANDARD SPECIFICATIONS AND FEATURES

- AHRI certified performance data for efficiency and cross leakage.
- UL tested flammability and smoke generation that meets NFPA 90A and 90B test standards for commercial applications.
- Easy installation and service.
- Easiest maintenance of any ERV
- MERV-8 filters are standard (2 in the TRC500 & TRC 800, 4 in the TRC1600)
- Non-Fused disconnect
- Transformer/relay package allowing simple on/off control
- Access doors for easy access to blowers, core and filters
- TRC500 & TRC800 have integral mounting flange and hanging bracket system
- TRC1600 has mounting feet for installation at floor level
- 2 Direct Drive, TEFC, Premium Efficient blower motors in the TRC500 and TRC800
- 2 Belt Drive, TEFC, Premium Efficient blower motors in the TRC1600
- Fully insulated case
- Large cores for high efficiency
- No condensate pan or drain required
- **10-year** industry best core warranty
- 2-year warranty on balance of unit





CONTROLS

These controls are intended to turn S&P commercial energy recovery ventilation systems on and off at appropriate times. Specification, installation and set-up is an easy process. The TRC units come standard with a 24 volt transformer/relay package for easy interface with all controls.

It is not necessary that S&P controls be used to operate S&P units. A wide range of controls or building automation systems may be used. Additionally, TRC800 units are “VFD Ready” as a standard feature.

The S&P residential (TR) units have their own line of compatible controls that are not intended to operate S&P commercial (TRC) units.

STC7D-W - Digital Time Clock - Wall Mount



- Up to 8 on/off cycles per day or 56 per week
- 24 VAC power requirement
- Battery back-up
- Fits any 4” x 4” electrical box

SMC-C - Motion (Occupancy) Control - Ceiling Mount



- Passive infrared sensor
- Adjustable time-off delay to 30 minutes
- 24 VAC power requirement
- Covers up to 1500 sq. ft. floor space
walking motion coverage up to 22 foot radius

SCO2-W - Carbon Dioxide Control - Wall Mount



- Adjustable control from 600-2000 PPM
- Digital display
- 24 VAC power requirement
- Computer/BAS interface for information and control
- Self calibrates during periods of low occupancy

SHW-20 - Dehumidistat



- Rotary dial dehumidistat
- Turn the dial to set desired humidity level
- Designed for convenient installation in bathrooms, kitchen or laundry room
- Dehumidifies when inside air is more humid than the set point
- **Caution:** the outside air must be less humid than the indoor air for this to work.



MODEL TRC

TOTAL RECOVERY FOR ALL CLIMATES - COMMERCIAL APPLICATIONS



TRC500



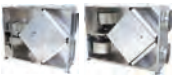
Performance

Airflow CFM	ESP in H ₂ O	Watts	Temp EFF%	Total EFF% Winter/Summer*
225	1.25	335	81	76/66
338	1.00	420	77	71/61
380	0.90	470	75	69/59
450	0.65	550	73	66/56
540	0.25	640	70	62/52
575	0.00	690	69	61/51
600	-0.25	735	68	60/50

* At AHRI 1060 standard conditions
(see certified data on page 69 for core components.)
Note: Watts is for the entire unit.

Specifications

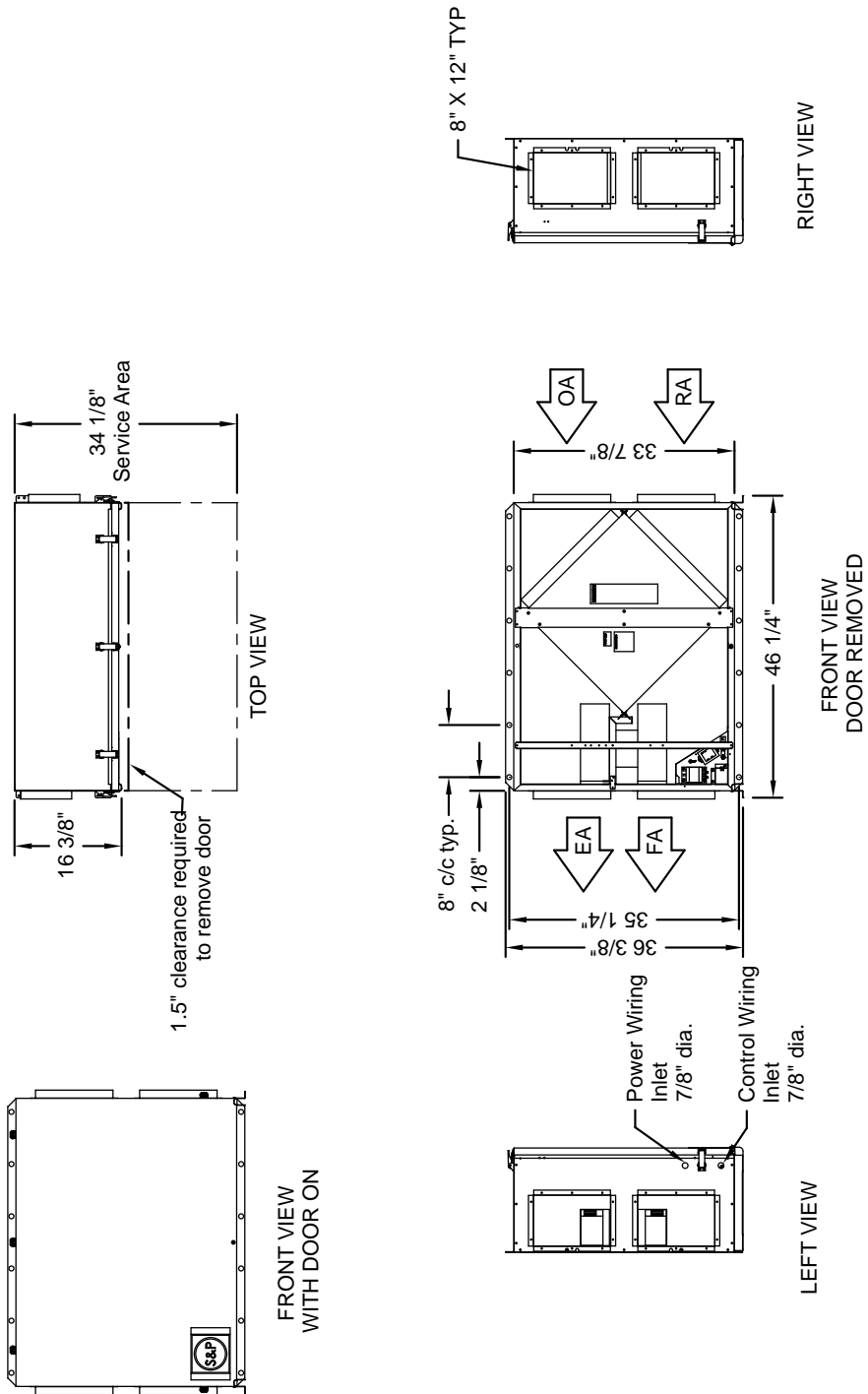
Ventilation Type: Static Plate, Heat and Humidity Transfer					
Typical Airflow Range: 200-540 CFM					
AHRI 1060 Certified Core: One L85					
Airflow Rating Points (for AHRI): 450 CFM and 338 CFM					
Motors: One, 0.6 hp (Single Phase)					
V	Hz	Phase	FLA	Min. Cir. Amps	Max. Overcurrent Protection Device
115	60	Single	7.0	8.8	15
208-230	60	Single	3.5	4.4	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package					
Filters: Two total, MERV 8, 2" pleated, 14" x 20" nominal size					
Weight: 141 lbs (unit), 160 lbs (in carton) 200 lbs (on pallet), up to 3 units on 40 lb pallet					
Shipping Dimensions: 48" L x 41" W x 18" H (in carton) 55" L x 42" W x 22" H (on pallet)					

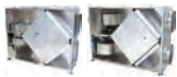


TRC500

Dimensions

EA: Exhaust Air to outdoors
 OA: Outdoor Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside



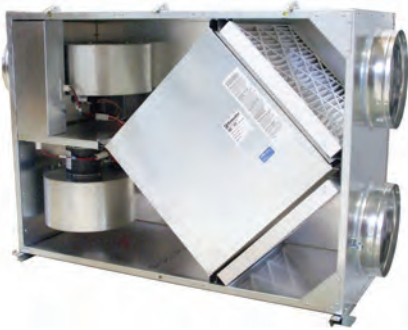


MODEL TRC

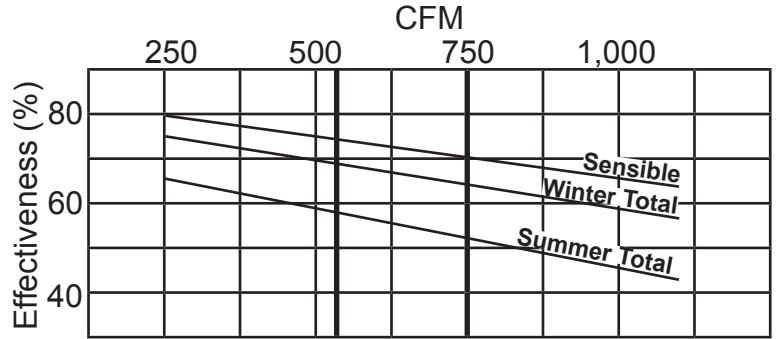
TOTAL RECOVERY FOR ALL CLIMATES - COMMERCIAL APPLICATIONS



TRC800



Performance



* At AHRI 1060 standard conditions
(see certified data on page 69 for core components.)

Specifications

Ventilation Type: Static Plate, Heat and Humidity Transfer					
Typical Airflow Range: 250-925 CFM					
AHRI 1060 Certified Core: One L125-00					
Airflow Rating Points (for AHRI): 750 CFM and 563 CFM					
Number Motors: Two direct drive blower/motor packages					
V	Hz	Phase	FLA (per motor)	Min. Cir. Amps	Max. Overcurrent Protection Device
115	60	Single	9.0	20.3	25
208-230	60	Single	4.5	10.1	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package					
Filters: Two total, MERV 8, 2" pleated, 20" x 20" nominal size					
Weight: 211 lbs (unit), 300 lbs (shipping weight, on pallet)					
Shipping Dimensions: 62" L x 48" W x 40" H					

Airflow Performance

Motor HP	External Static Pressure (Inches Water Column)							
	Phase	0.0	0.25	0.5	0.75	0.9	1.25	1.5
0.75		970 CFM	925 CFM	860 CFM	795 CFM	750 CFM	635 CFM	480 CFM
Single Phase		1,490 Watts	1,375 Watts	1,270 Watts	1,160 Watts	1,090 Watts	950 Watts	825 Watts

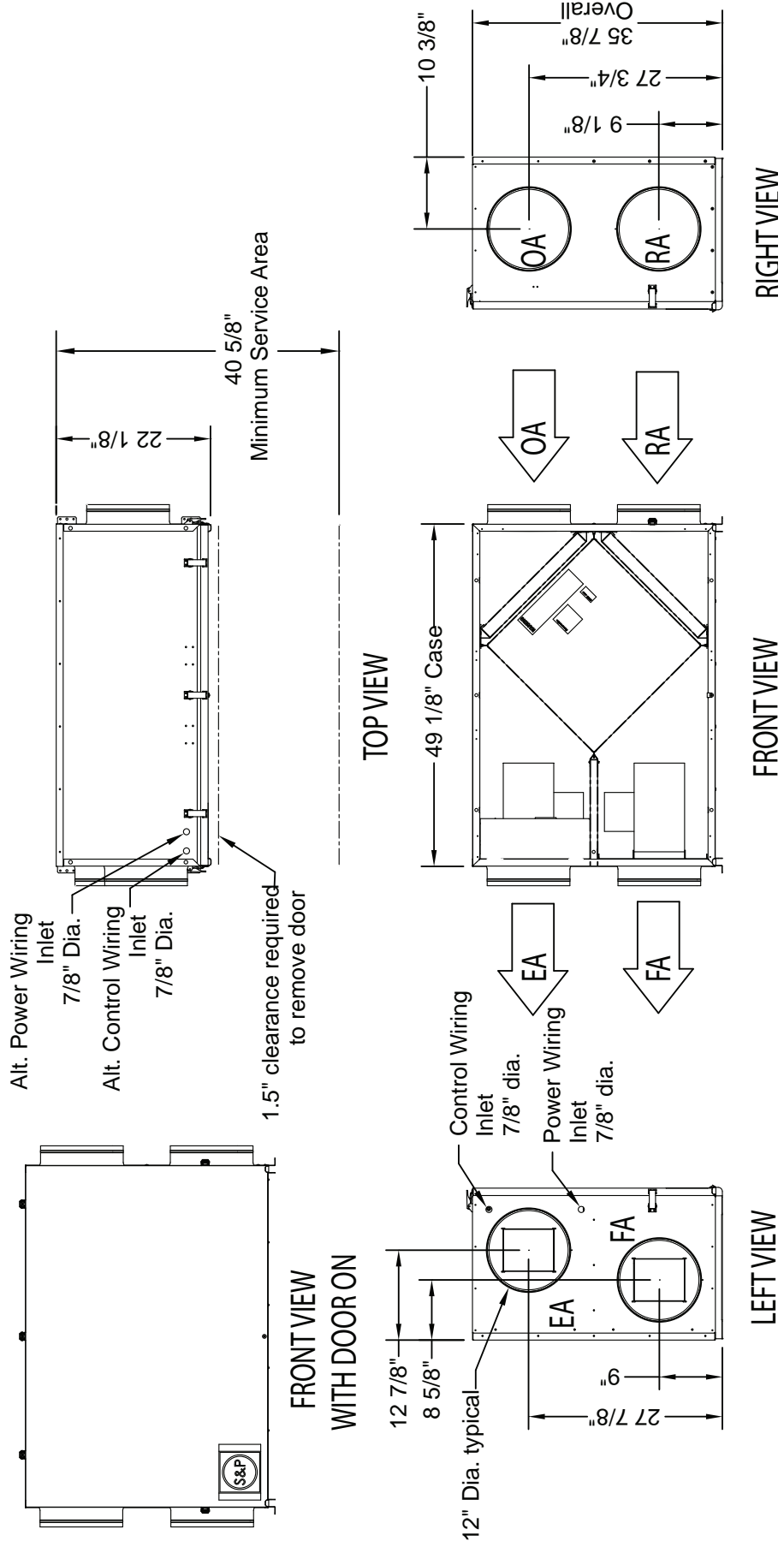
Note: Watts is for the entire unit (two motors).

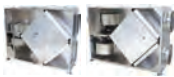


TRC800

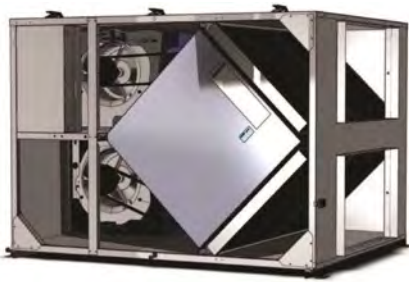
Dimensions

EA: Exhaust Air to outdoors
 OA: Outdoor Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside

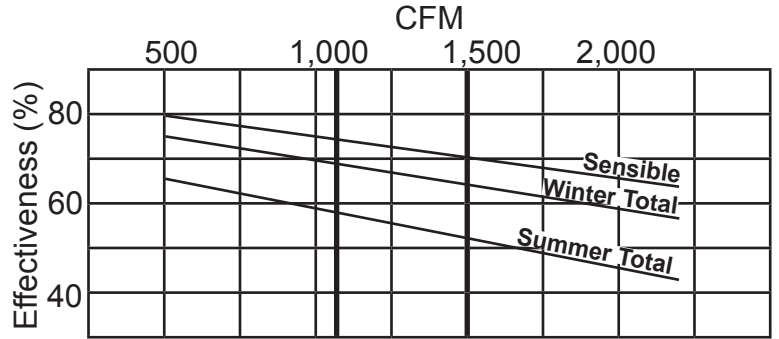




TRC1600



Performance



* At AHRI 1060 standard conditions
(see certified data on page 69 for core components.)

Specifications

Ventilation Type: Static Plate, Heat and Humidity Transfer						
Typical Airflow Range: 500-2,025 CFM						
AHRI 1060 Certified Core: Two L125-00						
Airflow Rating Points (for AHRI): 1,500 CFM and 1,126 CFM						
Number Motors: Two belt drive blower/motor packages with adjustable sheaves						
Drive HP	V	Hz	Phase	FLA (per motor)	Min. Cir. Amps	Max. Overcurrent Protection Device
1.5	115	60	Single	15.2	34.2	45
	208-230	60	Single	8.2-7.6	18.5	25
	208-230	60	Three	4.6-4.8	10.8	15
	460	60	Three	2.4	5.4	15
Standard Features: Totally Enclosed Premium Efficiency Motors Motor Starters, Non-fused Disconnect 24 VAC Transformer/Relay Package						
Filters: Four total, MERV 8, 2" pleated, 20" x 20" nominal size						
Weight: 414 lbs (unit), 505 lbs (shipping weight, on pallet)						
Shipping Dimensions: 72" L x 48" W x 40" H						

Airflow Performance

Motor HP	Blower RPM	Turns Open	External Static Pressure (in w.g.)													
			0.0		0.25		0.5		0.75		0.9		1.25		1.5	
			SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP	SCFM	BHP
1.5	1148	4	1592	0.7	1480	0.7	1320	0.6	1120	0.5	800	0.4	-	-	-	-
	1304	2	1809	1.0	1720	1.0	1600	0.9	1410	0.8	1250	0.7	975	0.6	630	0.4
	1460	0	2025	1.5	1950	1.4	1845	1.3	1715	1.2	1540	1.1	1400	1.0	1165	0.8

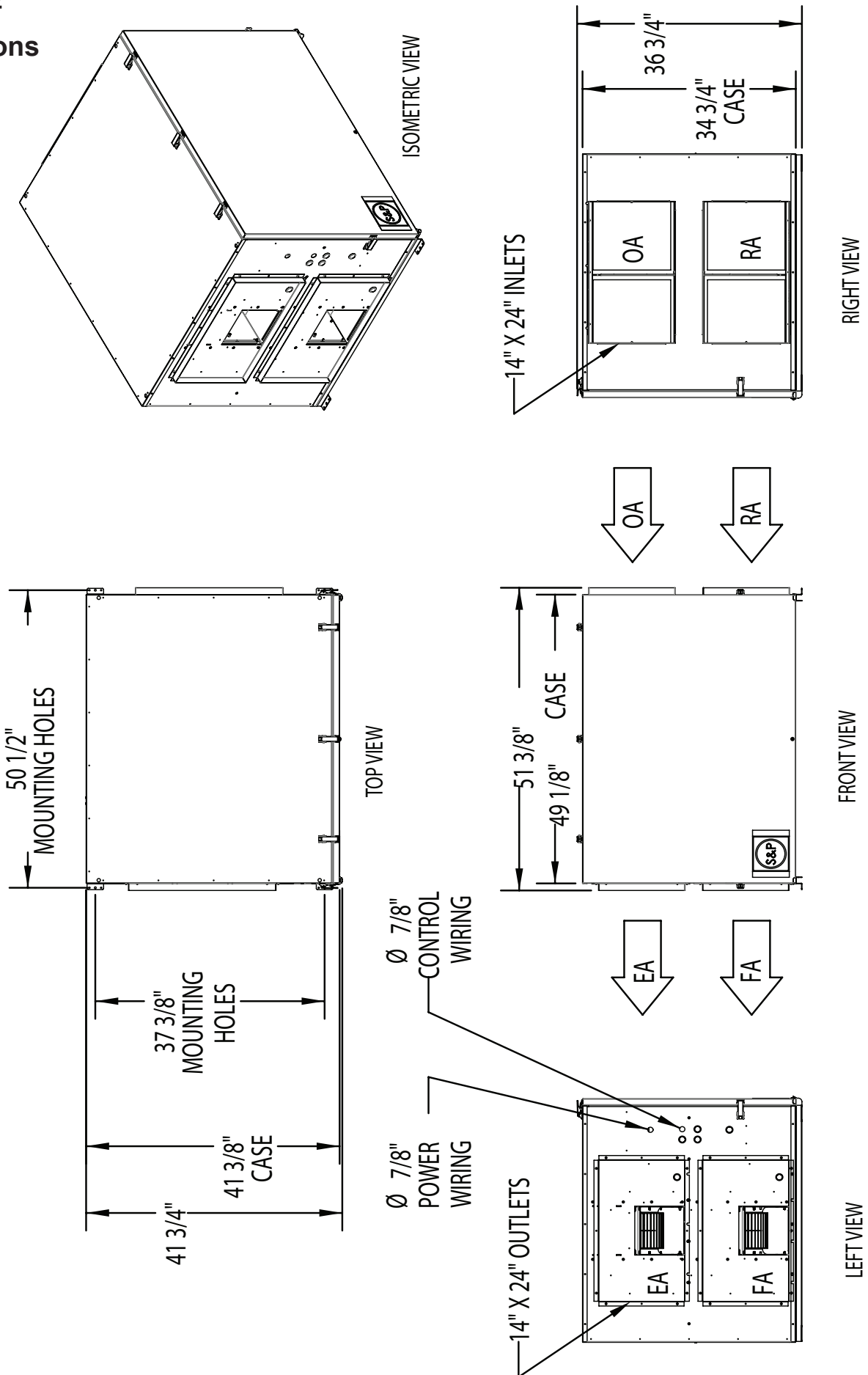
Note: Brake Horse Power (BHP) is for one blower motor package only.

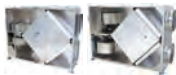


TRC1600

Dimensions

EA: Exhaust Air to outdoors
 OA: Outdoor Air intake
 RA: Room Air to be exhausted
 FA: Fresh Air to inside





AHRI 1060-2005 - CERTIFIED PERFORMANCE

AHRI-1060 Certified Performance - Model Number L85-G5 (used in TRC500)													
Type		Tilt Angle			Nominal Airflow				Pressure Drop				
Plate		N/A			100% - 450 SCFM 75% - 338 SCFM				0.6 in. H ₂ O 0.5 in. H ₂ O				
Leakage Ratings					Thermal Effectiveness Ratings at 0" Pressure Differential								
	Pressure Differential	EATR	OACF	Purge Angle or Setting	Nominal Airflow		Sensible	Latent	Total	Net Airflow	Net Sensible	Net Latent	Net Total
Test 1	-1 in. H ₂ O	1.0%	1.00	N/A	450 CFM	Heating	73%	53%	66%	450 CFM	73%	53%	66%
						Cooling	73%	46%	56%		73%	46%	56%
Test 2	0 in. H ₂ O	0.0%	1.02	N/A	338 CFM	Heating	77%	60%	71%	338 CFM	77%	60%	71%
						Cooling	77%	52%	61%		77%	52%	61%

AHRI-1060 Certified Performance - Model Number L125-G5 (used in TRC800 & TRC1600)													
Type		Tilt Angle			Nominal Airflow				Pressure Drop				
Plate		N/A			100% - 750 SCFM 75% - 563 SCFM				0.65 in. H ₂ O 0.45 in. H ₂ O				
Leakage Ratings					Thermal Effectiveness Ratings at 0" Pressure Differential								
	Pressure Differential	EATR	OACF	Purge Angle or Setting	Nominal Airflow		Sensible	Latent	Total	Net Airflow	Net Sensible	Net Latent	Net Total
Test 1	-1 in. H ₂ O	1.0%	1.00	N/A	750 CFM	Heating	71%	52%	64%	750 CFM	71%	52%	64%
						Cooling	71%	43%	53%		71%	43%	53%
Test 2	0 in. H ₂ O	0.0%	1.02	N/A	563 CFM	Heating	75%	59%	69%	563 CFM	75%	59%	69%
						Cooling	75%	50%	59%		75%	50%	59%

NOTE: SCFM = Standard Cubic Feet per Minute OACF = Outdoor Air Correction Factor EATR = Exhaust Air Transfer Ratio N/A = Not Applicable

Energy recovery components certified in accordance with AHRI Standard 1060-2005. Actual Performance in packaged equipment may vary.

