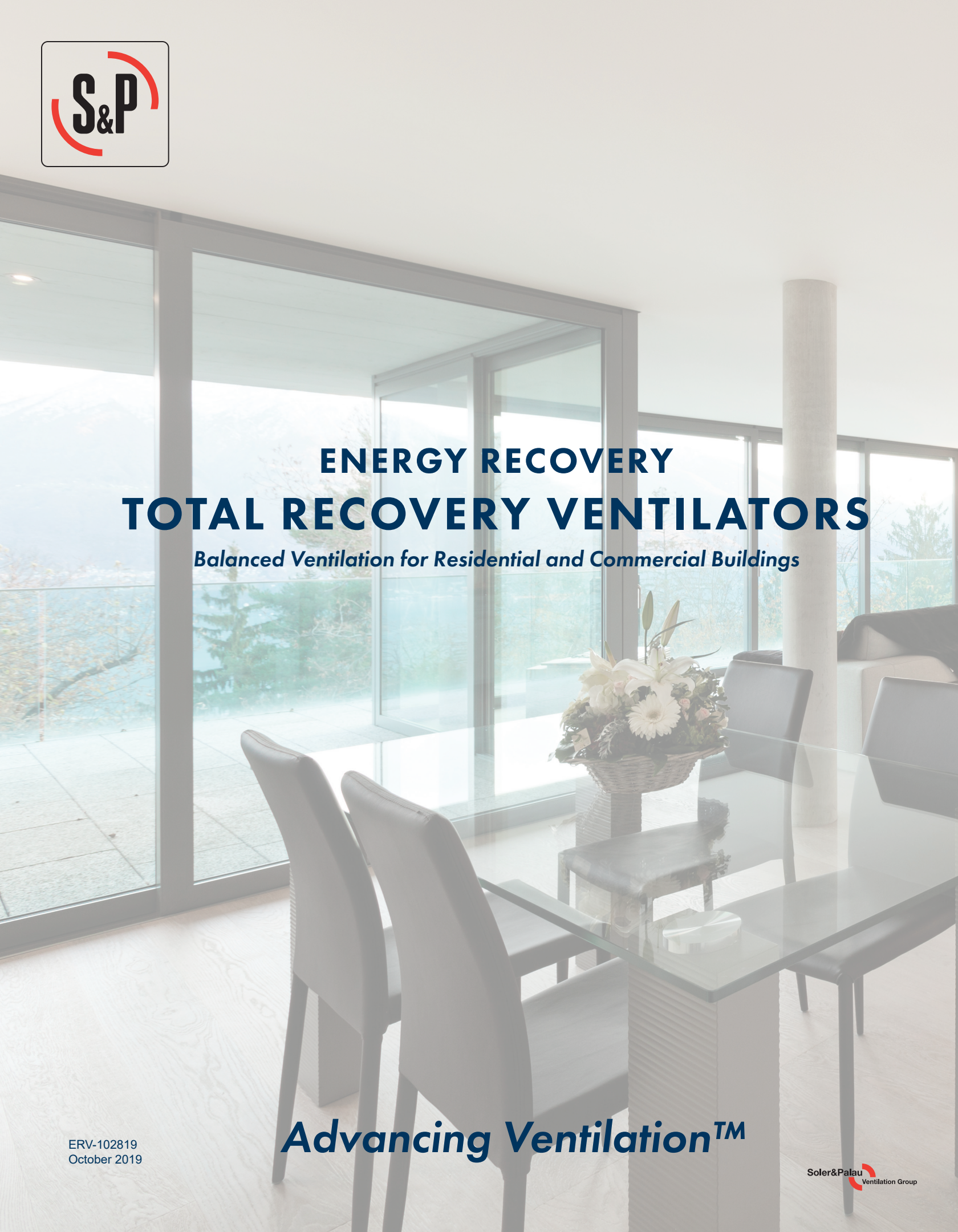


ENERGY RECOVERY
TOTAL RECOVERY VENTILATORS

Balanced Ventilation for Residential and Commercial Buildings

Advancing Ventilation™

ERV-102819
October 2019

Soler&Palau Ventilation Group

INDOOR AIR QUALITY

As buildings are being built with higher quality construction methods, balanced ventilation methods are more important than ever. An unbalanced home results in poor Indoor Air Quality (IAQ), causing poor conditions for your home and the inhabitants.

As codes change, it is important for you to understand why Indoor Air Quality is so important and the options available to you from S&P USA.

Americans spend **90%** of their time **INDOORS.**

Indoor Air can be **2-5 TIMES** MORE POLLUTED THAN OUTSIDE AIR

The EPA ranks indoor air polluntants as a **TOP FIVE** environmental **HEALTH RISK.**

ADVERSE EFFECTS
OF POOR INDOOR AIR QUALITY

COMMON HEALTH ISSUES: Allergies, headaches, cough, asthma, skin irratiants and breathing difficulties.
SEVERE HEALTH ISSUES: Cancer, liver disease, kidney damage and nervous system failure

DETERIORATING BUILDINGS

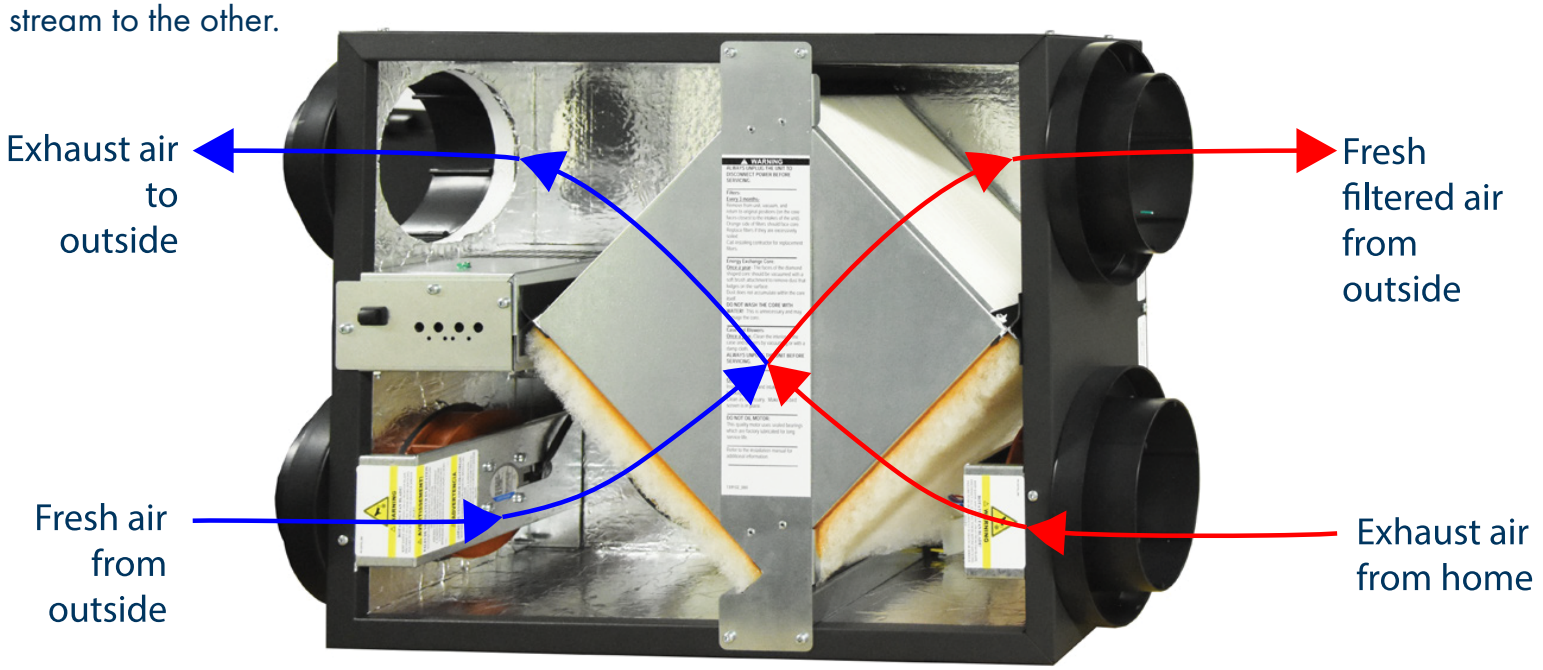
- **VOCs** released by cooking, cleaning, storing household chemicals, and can be found in furniture, paint, adhesives and upholstery.
- **HUMIDITY** built up from showering, cooking and even breathing

Studies by the Harvard School of Public Health and the Lawrence Berkeley National Labroratory found that Carbon Dioxide (CO_2) negatively impacted thinking and decision making at acceptable levels found in most homes and offices.

HOW ERVs WORK

With S&P's TR, TRLPe & TRC (Total Recovery) ERV Series for all climates, stale room air is exhausted and fresh outdoor air is brought back into the building. These two air streams are directed through a highly developed enthalpic 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.



TERMS TO KNOW

SENSIBLE HEAT
The amount of energy involved in raising or lowering the temperature of air not including any energy required to cause water vapor to change state.

LATENT HEAT
The amount of energy associated with the humidity (or water vapor content) of an air stream. A drier air stream contains less latent heat and will impose a smaller latent load on the air conditioner.

ENTHALPY
The total amount of energy contained in air, the sum of sensible and latent heat.

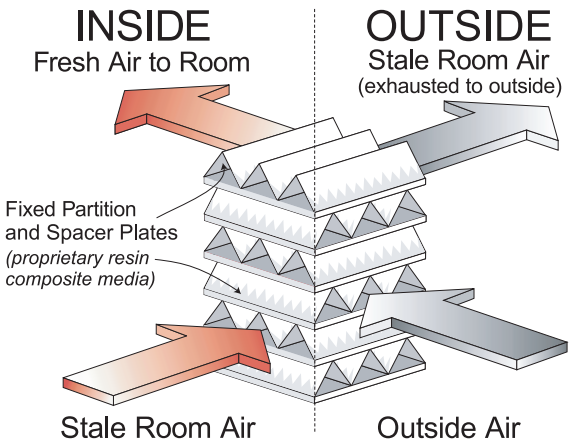
BALANCED VENTILATION
A ventilation strategy using both an exhaust air blower and a supply or make-up air blower that does not pressurize or de-pressurize a building.

AIR-TO-AIR HEAT EXCHANGER
Generic term for technologies designed to transfer heat -- and sometimes moisture -- between two air streams.

HEAT RECOVERY VENTILATOR – HRV
An air-to-air heat exchanger that transfers sensible heat only; no humidity (latent heat) transfer occurs between the two air streams.

ENERGY RECOVERY VENTILATOR – ERV
An air-to-air heat exchanger that transfers sensible heat & latent (humidity) heat.

THE S&P ADVANTAGE



5TH GENERATION CORE

- Efficient transfer of heat and moisture
- No liquid is accumulated; no drain pan or defrost mechanism is required!
- Contaminated air is exhausted from the building, while the static plate core regulates extremes in humidity
- Industry best **10-year** warranty

10 YEAR CORE WARRANTY

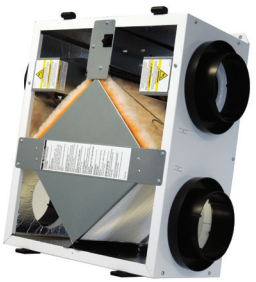
S&P TR, TRLPe and TRC are protected by a 10-year core warranty (2 years on balance of the unit). This commitment - twice as long as coverage on the best wheel products - means with S&P you can just fit and forget.

CERTIFIED

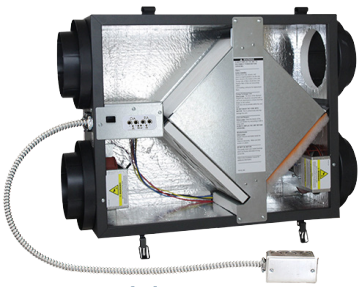
- cULus
- cETLus
- HVI
- AHRI

See Individual listing for certification details.

MODEL TR, TRe, TRC, AND TRCe
SIZING



Model TR90
and TR90G

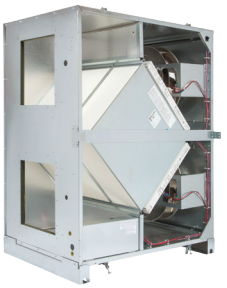


Models TRLPe100
and TRLPe100C

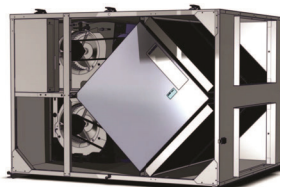
Models TR130,
TR200 and TR300

Model TRC500
and TRCe500

Model TRC800
and TRCe800
(Vertical Configuration
Available)



Model TRC1200
and TRCe1200



Model TRC1600

CHOOSING THE RIGHT SIZE TR
Based on square footage

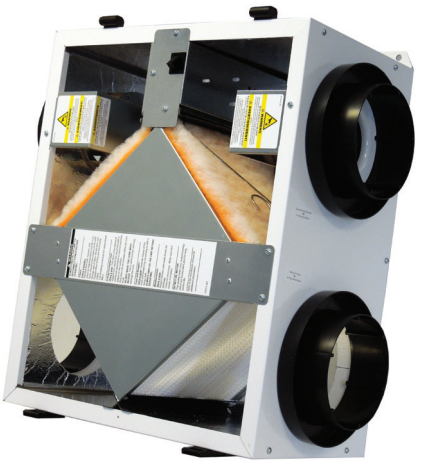
Sq. Ft.	Model Needed
<1500	TR90 / TR90G / TRLPe100/ TRLPe100C
1501-2700	TR130
2701-4000	TR200
4001-6000	TR300

CHOOSING THE RIGHT SIZE TR OR TRC
Based on Air Handler Load

Ton	Capacity 30% Outside Air Fraction in CFM	Model Needed
1.0	120	TR130
1.5	180	TR200
2.0	240	TR300
2.5	300	TR300
3.0	360	TRC500
3.5	420	TRC500
4.0	480	TRC500
5.0	600	TRC800
6.5	780	TRC800
8.0	960	TRC1200
12.0	1,440	TRC1200
13.5	1,620	TRC1600

TR+ TRe SERIES MODELS

MODEL TR90/TR90G



HVI CERTIFIED 2100

c UL us LISTED
DUCTED HEAT RECOVERY VENTILATOR
89S5

CORE 10 YEAR WARRANTY

SPECIFICATIONS

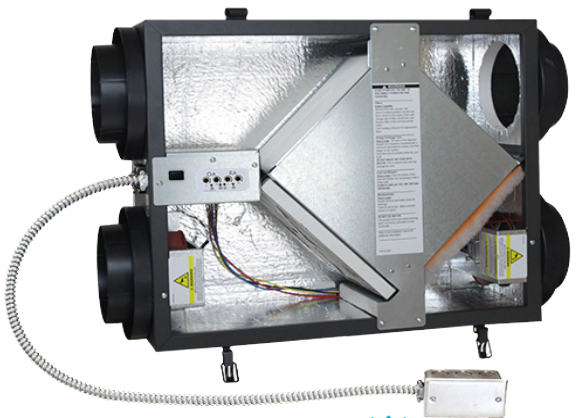
Ventilation Type: Static Plate, Heat and Humidity Transfer
Typical Airflow Range: 40-110 CFM
TR90 - Painted Case, Low Voltage Controls, Line Cord
TR90G - Galvanized Case, Line Voltage, No Line Cord; No Control Board
Unit may be mounted in any orientation and in heated or unheated locations
Number Motors: Two, 0.03 HP each, totally enclosed, thermally protected

V	Hz	Phase	Input Watts	FLA per Motor
120	60	Single	46 @ 90 CFM	0.35

Control Voltage: **TR90 -** 24 VAC **TR90G** -N/A (Control Board not included)
Filters: MERV 8, spun polyester media. 9-5/8" x 10-1/2" x 1"
Weight: 36 lbs (unit), 40 lbs (in carton)
Shipping Dimensions: 29" W x 22" L x 15" H

MODEL TRLPe100/ TRLPe100C

SPECIFICATIONS



HVI CERTIFIED 2100

c ETL INTERTEK LISTED us

CORE 10 YEAR WARRANTY

Ecowatt®

Ventilation Type: Static Plate, Heat and Humidity Transfer
Typical Airflow Range: 30-110 CFM
TRLPe100 - Painted Case, No Line Cord
TRLPe100c - Painted Case, Line Cord
Unit may be mounted in any orientation and in heated or unheated locations
Number Motors: Two, 48V EC motorized impeller packages

V	Hz	Phase	Max Watts	FLA per motor
120	60	Single	104	2

Control Voltage: 24 VAC
Filters: MERV 8, spun polyester media. 7-1/2" x 10-1/2" x 1"
Weight: 32 lbs (unit), 38 lbs (in carton)
Shipping Dimensions: 29-1/2" L x 22-1/2" W x 11-1/2" H

MODEL TR130

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer				
Typical Airflow Range: 50-140 CFM				
Unit may be mounted in any orientation				
Number Motors: One, 0.1 hp				
V	**Hz**	**Phase**	**Input Watts**	**FLA per motor**
120	60	Single	102 @ 130 CFM	1.3
Control Voltage: 24 VAC transformer / relay package with switched dry contacts				
Filters: MERV 8, spun polyester media. 10-1/2" x 10-1/2" x 1"				
Weight: 48 lbs (unit), 60 lbs (in carton)				
Shipping Dimensions: 32" L x 22" W x 18" H				

2100 HVI CERTIFIED

c UL us LISTED DUCTED HEAT RECOVERY VENTILATOR 89S5

CORE 10 YEAR WARRANTY

MODEL TR200

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer				
Typical Airflow Range: 100-200 CFM				
Unit may be mounted in any orientation				
Number Motors: One, 0.1 hp				
V	**Hz**	**Phase**	**Input Watts**	**FLA per motor**
120	60	Single	157 @ 181 CFM	1.5
Control Voltage: 24 VAC transformer				
Filters: MERV 8, spun polyester media. 10-1/2" x 21-3/4" x 1"				
Weight: 68 lbs (unit), 110 lbs (in carton)				
Shipping Dimensions: 34" L x 44" W x 34" H				

2100 HVI CERTIFIED

c UL us LISTED DUCTED HEAT RECOVERY VENTILATOR 89S5

CORE 10 YEAR WARRANTY

MODEL TR300

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer				
Typical Airflow Range: 150-300 CFM				
Unit may be mounted in any orientation				
Number Motors: One, 0.2 hp				
V	**Hz**	**Phase**	**Input Watts**	**FLA**
120	60	Single	315 @ 297 CFM	3.3
Control Voltage: 24 VAC transformer				
Filters: MERV 8, spun polyester media. 10-1/2" x 21-3/4" x 1"				
Weight: 72 lbs (unit), 115 lbs (in carton)				
Shipping Dimensions: 34" L x 44" W x 34" H				

HVI 2100 CERTIFIED

c UL us LISTED DUCTED HEAT RECOVERY VENTILATOR 89S5

CORE 10 YEAR WARRANTY

TRC+ TRCe SERIES MODELS

Model TRC500

SPECIFICATIONS

AHRI CERTIFIED

INTERTEK ETL LISTED c US

CORE 10 YEAR WARRANTY

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 per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection Device**
115	60	Single	7.2	9.0	15
208-230	60	Single	3.9-3.6	4.9	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package Cross-Core Differential Pressure Ports					
Filters: Two total, MERV 8, 2" pleated, 14" x 20" nominal size					
Weight: 137-199 lbs (unit), 250 lbs (ship weight)					
Shipping Dimensions: 62" L x 42" W x 22" H					

Model TRCe500

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, 0.5 hp (Single Phase)					
V	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection Device**
120	60	Single	8.1	10.1	15
208-230	60	Single	4.8	6.0	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package Cross-core differential pressure ports					
Filters: Two total, MERV 8, 2" pleated, 14" x 20" nominal size					
Weight: 140-202 lbs (unit), 250 lbs (Shipping)					
Shipping Dimensions: 62" L x 42" W x 22" H					

MODEL TRC800

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					
Motors: Two, 0.75 HP, 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 Cross-Core Differential Pressure Ports					
Filters: Two total, MERV 8, 2" pleated, 20" x 20" nominal size					
Weight: 204-275 lbs (unit), 325 lbs (shipping weight)					
Shipping Dimensions: 63" L x 30" W x 56" H					

Model TRC800V

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer					
Typical Airflow Range: 250-925 CFM					
AHRI 1060 Certified Core: One L125-G5					
Airflow Rating Points (for AHRI): 750 CFM and 563 CFM					
Motors: Two, 0.75 HP, direct drive blower/motor packages					
V	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection Device**
120	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 Cross-core differential pressure ports					
Filters: Two total, MERV 8, 2" pleated, 20" x 20" nominal size					
Weight: :201-272 lbs., varies by option(s) (unit), 325 lbs (shipping weight, on pallet)					
Shipping Dimensions: 30" L x 42" W x 71" H					

MODEL TRCe800

SPECIFICATIONS

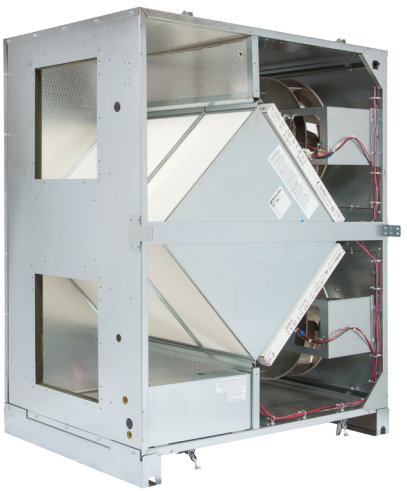
Ventilation Type: Static Plate, Heat and Humidity Transfer					
Typical Airflow Range: 250-925 CFM					
AHRI 1060 Certified Core: One L125-00					
Airflow Rating Points (for AHRI): 750 CFM and 563 CFM					
Motors: Two, 0.5 HP, direct drive blower/motor packages					
V	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection**
115	60	Single	8.1	18.2	25
208-230	60	Single	4.8	10.8	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package Cross-Core Differential Pressure Ports					
Filters: Two total, MERV 8, 2" pleated, 20" x 20" nominal size					
Weight: 207-278 lbs (unit), 325 lbs (shipping weight, on pallet)					
Shipping Dimensions: 63" L x 30" W x 56" H					

Model TRCe800V

SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer					
Typical Airflow Range: 250-1,100 CFM					
AHRI 1060 Certified Core: One L125-00					
Airflow Rating Points (for AHRI): 750 CFM and 563 CFM					
Motors: Two, 0.5 HP, direct drive blower/motor packages					
V	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection**
115	60	Single	8.1	18.2	25
208-230	60	Single	4.8	10.8	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package Cross-core differential pressure ports					
Filters: Two total, MERV 8, 2" pleated, 20" x 20" nominal size					
Weight: 204-275 lbs., varies by option(s) (unit), 325 lbs (shipping)					
Shipping Dimensions: 30" L x 42" W x 71" H					

Model TRC1200

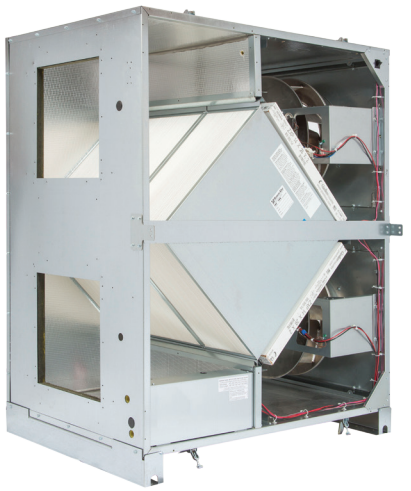


SPECIFICATIONS

Ventilation Type: Static Plate, Heat and Humidity Transfer						
Typical Airflow Range: 375-1,575 CFM						
AHRI 1060 Certified Cores: One L62-G5 and one L125-G5						
Motors: Qty 2, 1.0 HP ea., Direct Drive motorized impeller packages						
Drive HP	**V**	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max Overcurrent Protection Device**
1.0	120	60	Single	6.5	14.6	20
	208-230	60	Single	3.3-3.4	7.7	15
	208-230	60	Three	2.2-2.2	5.0	15
	460	60	Three	1.1	2.5	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package Cross-core differential pressure ports						
Filters: Total Qty. 4, MERV 8: (2) 14" x 20" x 2" and (2) 16" x 20" x 2"						
Weight: 337-504 lbs (Unit), 571 lbs.(Shipping)						
Shipping Dimensions: 70" L x 47" W x 53" H						

MODEL TRCe1200

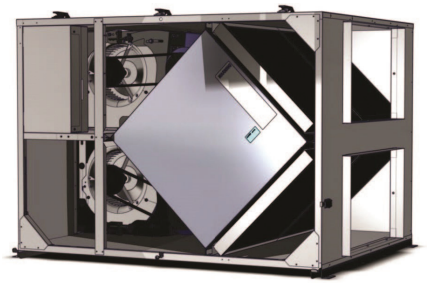
SPECIFICATIONS



Ventilation Type: Static Plate, Heat and Humidity Transfer						
Typical Airflow Range: 375-1,575 CFM						
AHRI 1060 Certified Cores: One L62-G5 and one L125-G5						
Motors: Qty 2, 1.0 HP ea., Direct Drive EC blower/motor package						
Drive HP	**V**	**Hz**	**Phase**	**FLA per motor**	**Min. Cir. Amps**	**Max. Overcurrent Protection Device**
1.0	120	60	Single	8.0	18.0	20
	208-230	60	Single	6.2	14.0	15
Standard Features: Non-Fused Disconnect 24 VAC Transformer/Relay Package Cross-core differential pressure ports						
Filters: Total Qty. 4, MERV 8: (2) 14" x 20" x 2" and (2) 16" x 20" x 2"						
Weight: 336-504 lbs., varies by option(s), 571 lbs (Shipped)						
Shipping Dimensions: 70" L x 47" W x 53" H						

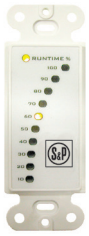
MODEL TRC1600

SPECIFICATIONS



Ventilation Type: Static Plate, Heat and Humidity Transfer						
Typical Airflow Range: 500-2,200 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**
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 Cross-core differential pressure ports						
Filters: Four total, MERV 8, 2" pleated, 20" x 20" nominal size						
Weight: 406-619 lbs (unit), 714 lbs (Shipping)						
Shipping Dimensions: 70" L x 47" W x 40" H						

TR+ TRLPe SERIES ACCESSORIES



SPTL - PERCENTAGE TIMER CONTROL-SPTL -

- Primary control for TR90, TRLPe100, TRLPe100C, TR130, TR200 and TR300
- Runs unit an adjustable amount of time each hour
- Two wire, low voltage connection to TR
- Meets ASHRAE 62.2 continuous ventilation standards

PUSH BUTTON POINT-OF-USE CONTROL- SPBL

- Push button control turns on unit
- 20 minute run-time with one touch
- Push 2x for 40 or 3x for 60 minutes
- Two wire, low voltage connection to SPTL

PERCENTAGE TIMER CONTROL WITH FURNACE INTERLOCK- SFM

- Alternate primary control for TR90, TRLPe100, TRLPe100C TR130, TR200 and TR300
- Wires to TR unit and either thermostat or furnace control to turn on furnace blower
- Six wire, low voltage connection
- Meets ASHRAE 62.2 continuous ventilation standards

DEHUMIDISTAT- SHW-20

- 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: Outside air must be less humid than the indoor air for use.

PROGRAMMABLE FAN TIMER- FT247

- Provides 7 ON and 7 OFF events per day
- LCD display
- Rechargeable battery back-up
- Push button activation

ENVIROSENSE VENTILATION CONTROL- ES24V

- 3-Modes Off/On/Eco-Mode
- LED display
- Simple Eco-Mode programming to limit outside air at set humidity and temperature points
- 24 volt control

TRC SERIES ACCESSORIES

DIGITAL TIME CLOCK - WALL MOUNT - STC7D-W

- 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

MOTION (OCCUPANCY) CONTROL - CEILING MOUNT- SMC-C

- Passive infared 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 ft radius)

CARBON DIOXIDE CONTROL - WALL MOUNT - SCO2-W

- 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

DEHUMIDISTAT -SHW-20

- 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: Outside air must be less humid than the indoor air for this to work

PROGRAMMABLE FAN TIMER- FT247

- Provides 7 ON and 7 OFF events per day
- LCD display
- Rechargeable battery back-up
- Push button activation

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Soler&Palau
Ventilation Group