



AEROMATIC™ SERIES STANDARD COMMERCIAL SH1000i Heat Recovery Ventilator

PRODUCT
SPECIFICATIONS
& TECHNICAL
DATA



NOMINAL CAPACITY
500-1000 CFM

CASING – STANDARD

- Double-wall cabinet
- 22-gauge galvanized steel interior and exterior
- Access doors with quarter-turn handles
- 22-gauge galvanized steel drain pan
- Drain Connections: 1" NPT
- Insulation: 1" (25 mm)

CASING – OPTIONAL

- Painted white baked enamel outside finish
- Pool Construction: TEFC motors, stainless steel interior, and epoxy-coated fans
- Removable access panels

MOUNTING – STANDARD

On platform

BLOWERS & MOTORS – STANDARD OPTIONS

Blowers:

- Quantity: 2
- Forward-curved
- Permanently sealed and lubricated ball bearings
- Power transmission by adjustable pulleys and belts

Motors:

- Type: Inverter duty 10:1
- Maximum Power: 2 hp
- Available Voltage:
 - » 120, 208, 230 V / 1ph / 60Hz
 - » 208, 230, 460, 575 V / 3ph / 60Hz

(See table on page 2 for details)

PLATE EXCHANGER OPTIONS

Polypropylene (sensible heat transfer)

- Quantity: 1
- Pitch: 0.16" (4 mm)
- Dimensions: 21" x 21" x 19-3/8"
(533 mm x 533 mm x 492 mm)



Aluminum (sensible heat transfer)

- Quantity: 1
- Pitch: 0.17" (4.2 mm)
- Dimensions: 19-3/8" x 19-3/8" x 19-3/8"
(492 mm x 492 mm x 492 mm)



FROST PREVENTION/CONTROL

See page 2 for details

ELECTRICAL & CONTROLS – STANDARD

- 24 V double motor contactor with start-stop dry contact
- Non-fused disconnect (NEMA 4)
- 24 V transformer for controls

ELECTRICAL & CONTROLS – OPTIONAL

- Fused disconnect
- 24 VAC, 20 VA power available for accessories

FILTERS – STANDARD

Quantity: 1 supply, 1 exhaust

Type: MERV 8

Dimensions: 18" x 20" x 2" (457 mm x 508 mm x 51 mm)

FILTERS – OPTIONAL

MERV 13 Filters (substitute on supply air circuit only)

WARRANTY

- Core Assembly: Limited 10-year
- All Other Covered Components: Limited 2-year

LISTED BY



(See table on page 2 for details)

SH1000i Features (Continued)

FROST PREVENTION/CONTROL – OPTIONS

If no defrost mode is selected, it is the customer’s responsibility to protect the core from freezing.

Frost control activated by a temperature reference: 23°F (-5°C)

Exhaust Defrost:

- Supply air blower shuts down and outside air damper closes. Warm exhaust air defrosts the core until it is completely defrosted.
- Includes motorized and insulated damper on fresh air intake (OA)

OPTIONAL COMPONENTS

- Motorized and insulated damper for exhaust port (EA)
- Non-insulated backdraft damper for exhaust port (EA)
- Motorized and insulated damper on fresh air intake (OA) (included with exhaust defrost)

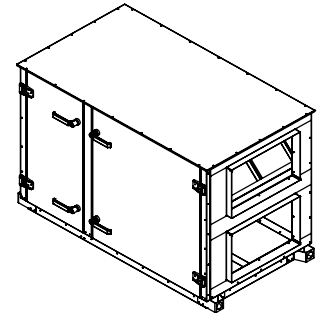
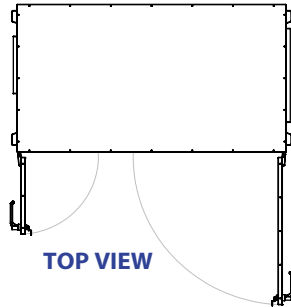
SH1000i Motor & Blower Options*

		PARAMETERS																
		HP				VOLTAGE & PHASE								MOTOR SPEED				
		3/4	1	1.5	2	1-PHASE			3-PHASE					SINGLE SPEED	2-SPEED		VARIABLE SPEED	
						120 V	208 V	230 V	208 V	230 V	460 V	575 V	MOTOR		VFD	MOTOR	VFD	
MOTOR TYPE & EFFICIENCY†	ODP, EPAct	√	√	√	√	√	√	√					√	√	√		√	
	TEFC, EPAct	√	√			√	√	√					√		√		√	
	TEFC, Premium			√	√				√	√	√	√	√		√		√	

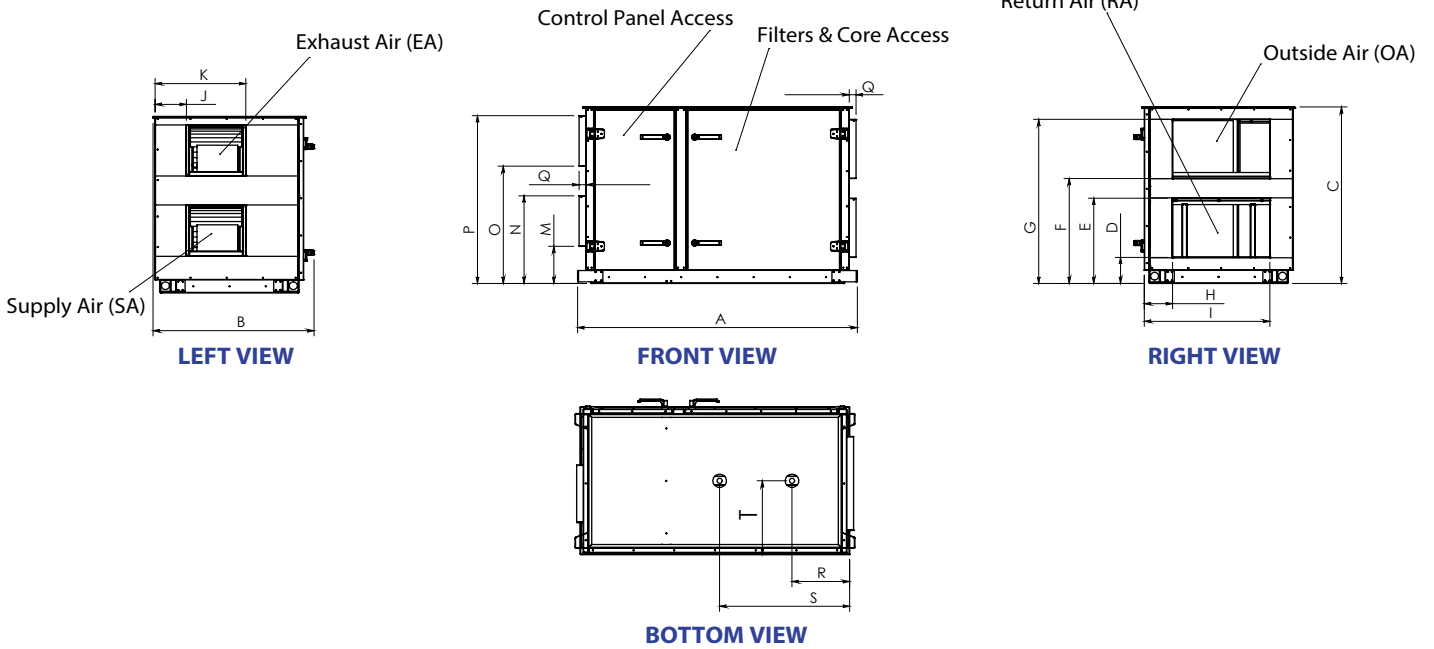
*See page 7 for motor sizing.

†Premium efficiency required when available.

SH1000i Dimensions



Keep a minimum clearance of 42" (1067 mm) in front the unit and 24" (610 mm) behind it

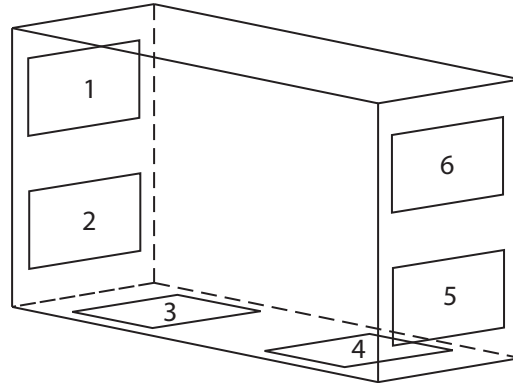


DIMENSIONS in inches (mm)											
Overall			Openings								
A*	B	C	D	E	F	G	H	I	J	K	M
61.88 (1572)	35.63 (905)	40.38 (1026)	6 (152)	19.5 (495)	24 (610)	37.5 (953)	6.25 (159)	27.75 (705)	6.875 (175)	20 (508)	8.5 (216)
Openings											
N	O	P	Q	R	S	T					
20 (508)	26.88 (683)	38.38 (975)	1.5 (38)	12.13 (308)	28.13 (714)	16.5 (419)					

*Optional motorized and insulated damper for exhaust port (EA) adds 7" (178 mm) to overall unit width

SH1000i Configurations & Weights

AVAILABLE CONFIGURATIONS*
1-2-5-6
1-3-5-6
1-2-4-6
1-3-4-6



DUCT CONNECTION KEY	
1	Exhaust Air (EA)
2, 3	Supply Air (SA)
4, 5	Return Air (RA)
6	Outside Air (OA)

*Mirror Image Cabinet Also Available

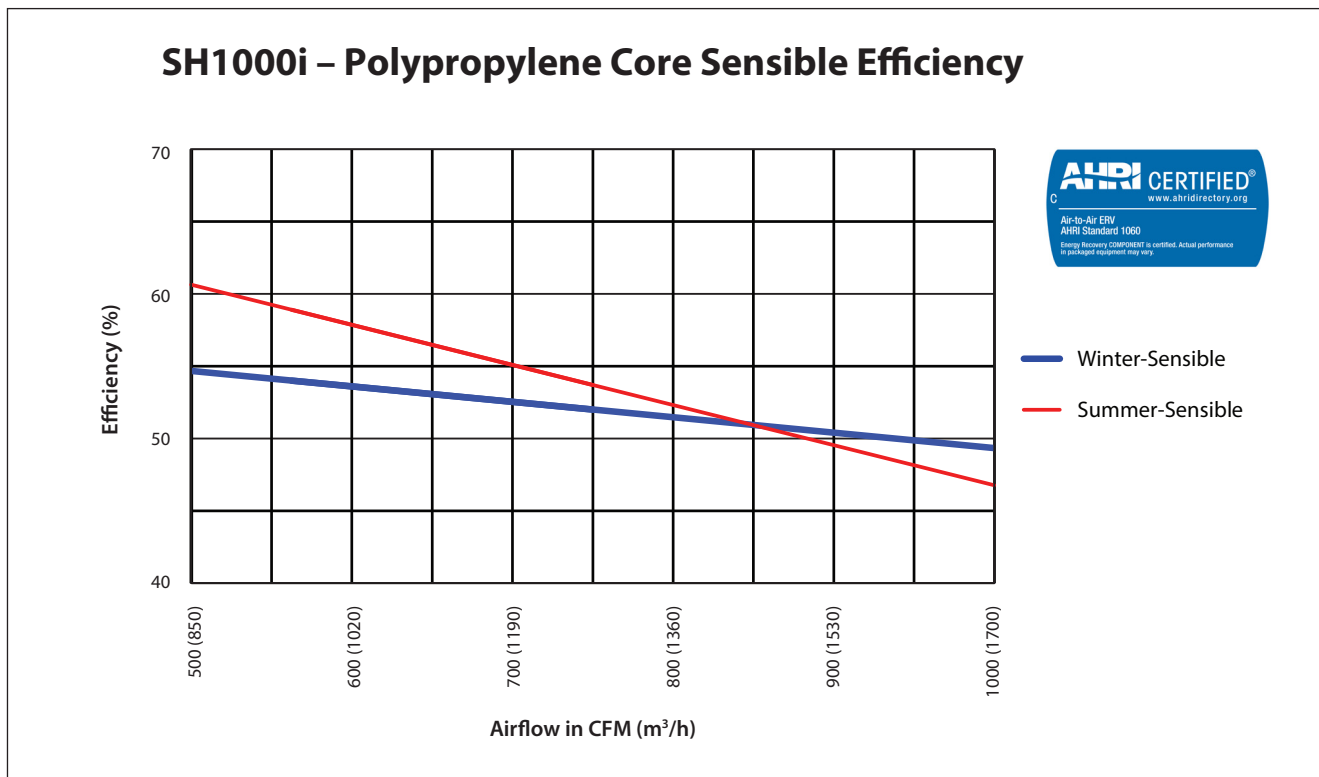
SH1000i WEIGHTS & DIMENSIONS †		
Core Type	Polypropylene	Aluminum
Minimum Unit Weight	553 lbs (251 kg)	563 lbs (255 kg)
Maximum Unit Weight	661 lbs (300 kg)	671 lbs (304 kg)
Minimum Shipping Weight	598 lbs (271 kg)	608 lbs (276 kg)
Maximum Shipping Weight	706 lbs (320 kg)	716 lbs (325 kg)

† Actual weight may vary by ±10%.

Polypropylene Core Performance

AHRI STANDARD CONDITIONS	CONDITIONS	
Outside Air Temperature	Winter	Summer
Dry Bulb	35°F (1.7°C)	95°F (35°C)
Wet Bulb	33°F (0.6°C)	78°F (25.6°C)
Exhaust Air Temperature	Winter	Summer
Dry Bulb	70°F (21.1°C)	75°F (23.9°C)
Wet Bulb	58°F (14.4°C)	63°F (17.2°C)

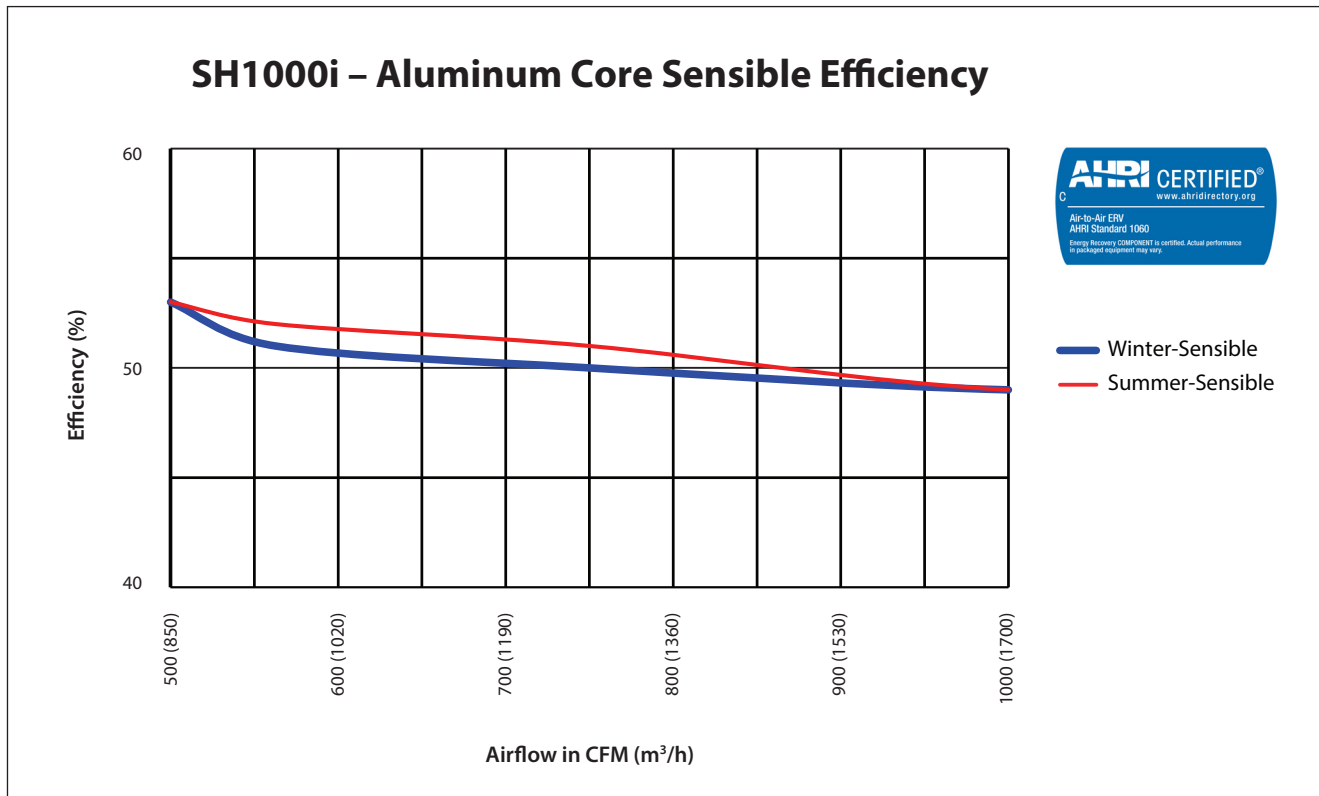
Note: Efficiencies are based on AHRI standard conditions.



Aluminum Core Performance

AHRI STANDARD CONDITIONS	CONDITIONS	
	Winter	Summer
Outside Air Temperature		
Dry Bulb	35°F (1.7°C)	95°F (35°C)
Wet Bulb	33°F (0.6°C)	78°F (25.6°C)
Exhaust Air Temperature		
Dry Bulb	70°F (21.1°C)	75°F (23.9°C)
Wet Bulb	58°F (14.4°C)	63°F (17.2°C)

Note: Efficiencies are based on AHRI standard conditions.



Motor Selection – Polypropylene Core

SUPPLY																				
MOTOR	CFM (m ³ /h)	EXTERNAL STATIC PRESSURE (inH ₂ O) - SUPPLY																		MOTOR
		0.25 (60 Pa)			0.50 (125 Pa)			0.75 (185 Pa)			1.00 (250 Pa)			1.25 (310 Pa)			1.50 (375 Pa)			
		RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	
3/4 hp	500 (850)	911	0.14	0.17	1052	0.19	0.23	1174	0.25	0.30	1282	0.31	0.37	1381	0.38	0.46	1473	0.45	0.54	3/4 hp
	600 (1020)	994	0.18	0.22	1127	0.25	0.30	1244	0.32	0.38	1349	0.39	0.47	1445	0.46	0.55	1534	0.54	0.65	
	700 (1190)	1081	0.25	0.30	1207	0.32	0.38	1319	0.40	0.48	1420	0.48	0.58	1513	0.56	0.67	1600	0.64	0.77	1 hp
	800 (1360)	1165	0.32	0.38	1286	0.41	0.49	1393	0.49	0.59	1491	0.58	0.70	1581	0.67	0.80	1665	0.76	0.91	1.5 hp
	900 (1530)	1246	0.41	0.49	1364	0.50	0.60	1467	0.60	0.72	1561	0.69	0.83	1649	0.79	0.95	1732	0.89	1.07	
	1000 (1700)	1331	0.51	0.61	1444	0.62	0.74	1545	0.72	0.86	1636	0.83	1.00	1722	0.93	1.12	1802	1.04	1.25	

EXHAUST																				
MOTOR	CFM (m ³ /h)	EXTERNAL STATIC PRESSURE (inH ₂ O) - EXHAUST																		MOTOR
		0.25 (60 Pa)			0.50 (125 Pa)			0.75 (185 Pa)			1.00 (250 Pa)			1.25 (310 Pa)			1.50 (375 Pa)			
		RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	
3/4 hp	500 (850)	840	0.11	0.13	993	0.17	0.20	1122	0.22	0.26	1236	0.29	0.35	1339	0.35	0.42	1433	0.42	0.50	3/4 hp
	600 (1020)	881	0.14	0.17	1033	0.20	0.24	1161	0.27	0.32	1274	0.34	0.41	1376	0.41	0.49	1470	0.48	0.58	
	700 (1190)	914	0.17	0.20	1071	0.24	0.29	1197	0.31	0.37	1310	0.39	0.47	1412	0.47	0.56	1505	0.55	0.66	
	800 (1360)	942	0.20	0.24	1099	0.28	0.34	1231	0.37	0.44	1343	0.45	0.54	1445	0.54	0.65	1538	0.62	0.74	1 hp
	900 (1530)	975	0.24	0.29	1128	0.33	0.40	1261	0.42	0.50	1377	0.52	0.62	1479	0.61	0.73	1572	0.70	0.84	
	1000 (1700)	998	0.28	0.34	1150	0.37	0.44	1282	0.47	0.56	1400	0.58	0.70	1507	0.68	0.82	1600	0.78	0.94	

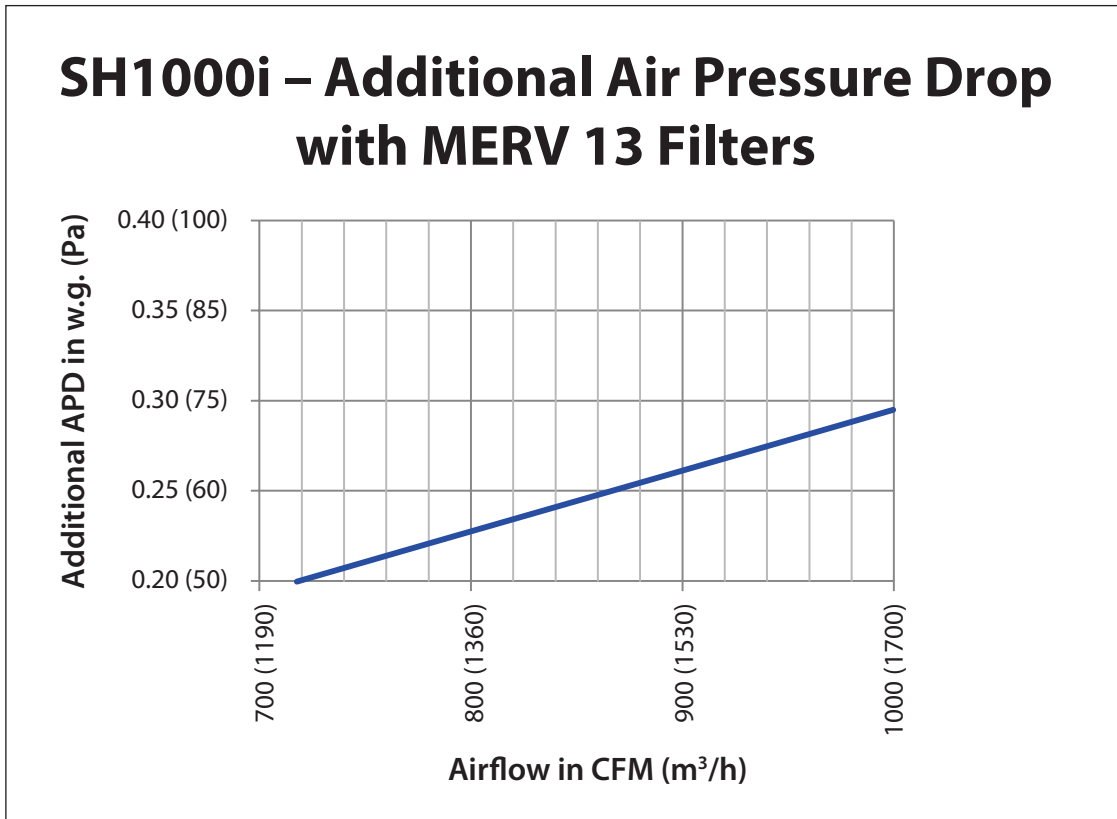
Motor Selection – Aluminum Core

SUPPLY/EXHAUST																				
MOTOR	CFM (m ³ /h)	EXTERNAL STATIC PRESSURE (inH ₂ O) - SUPPLY/EXHAUST																		MOTOR
		0.25 (60 Pa)			0.50 (125 Pa)			0.75 (185 Pa)			1.00 (250 Pa)			1.25 (310 Pa)			1.50 (375 Pa)			
		RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	RPM	BHP	HP	
3/4 hp	500 (850)	917	0.14	0.17	1057	0.19	0.23	1179	0.25	0.30	1287	0.32	0.38	1385	0.38	0.46	1476	0.45	0.54	3/4 hp
	600 (1020)	983	0.18	0.22	1117	0.24	0.29	1235	0.31	0.37	1341	0.38	0.46	1437	0.45	0.54	1527	0.53	0.64	
	700 (1190)	1042	0.23	0.28	1173	0.30	0.36	1288	0.37	0.44	1392	0.45	0.54	1487	0.53	0.64	1576	0.62	0.74	
	800 (1360)	1093	0.28	0.34	1226	0.36	0.43	1339	0.45	0.54	1441	0.53	0.64	1535	0.62	0.74	1622	0.71	0.85	1 hp
	900 (1530)	1162	0.35	0.42	1291	0.44	0.53	1403	0.54	0.65	1502	0.63	0.76	1594	0.73	0.88	1679	0.82	0.98	
	1000 (1700)	1226	0.43	0.52	1350	0.53	0.64	1461	0.64	0.77	1560	0.74	0.89	1650	0.84	1.01	1735	0.95	1.14	

NOTES: hp = bhp x 1.2

Internal static pressure will vary based on selected options.

Additional Air Pressure Drop with MERV 13 Filters



Selection Information

▲ = Standard Feature

☐ = Optional Feature (check the box to select this option)

Send your completed selection to your Aldes Canada Representative.

MODEL

Series: Standard Commercial (SH)

Nominal Capacity: 500-1000 CFM

Application: Interior (i)

CASING & CORE

Cabinet Finish

- Galvanized
- Painted
- Pool Construction

Duct Configuration (see pg. 4)

- 1-2-5-6
- 1-3-5-6
- 1-2-4-6
- 1-3-4-6

Mirror Image Cabinet

- Optional

Access Doors

- Fixed/Hinged
- Removable Panels

Plate Exchanger

- Polypropylene
- Aluminum

BLOWERS & MOTORS ¹

Supply Blower

- 3/4 hp
- 1 hp
- 1.5 hp
- 2 hp

Exhaust Blower

- 3/4 hp
- 1 hp
- 1.5 hp
- 2 hp

Motor Type

- ODP
- TEFC

Speed

- Single Speed
- 2-Speed
- 2-Speed VFD
- Variable Speed Motor
- Variable Speed VFD

ELECTRICAL REQUIREMENTS ¹

- 120V/1ph/60Hz
- 208V/1ph/60Hz
- 230V/1ph/60Hz
- 208V/3ph/60Hz
- 230V/3ph/60Hz
- 460V/3ph/60Hz
- 575V/3ph/60Hz

DISCONNECT

- Non-Fused
- Fused

FROST CONTROL

- None
- Exhaust Defrost ²

FILTERS (SUPPLY)

- MERV 8
- MERV 13

ADD-ONS

- Motorized & Insulated Damper for OA ²
- Motorized & Insulated Damper for EA
- Non-Insulated Backdraft Damper for EA
- 24 VAC, 10 VA terminals for OA and/or EA dampers by others
- 24 VAC, 20 VA power available for accessories by others
- Spare Filters QTY: _____
- Spare Belts QTY: _____

¹ See pg. 2 for motor and blower restrictions.

² OA Motorized & Insulated Damper included

Project:		Architect:	
Location:		Engineer:	
Model #:		Contractor:	
Quantity:		Comments:	
Submitted By:			
Date:			