



(Painted Option Shown)

1000 – 3000 CFM (NOMINAL)

INDOOR & ROOFTOP APPLICATIONS

MULTIPLE CONFIGURATIONS

FACTORY AIR BALANCED TO PROJECT SPECIFICATIONS

SPECIFICATIONS

CABINET/CONSTRUCTION

- Double wall construction, 22 ga (standard); 1 inch insulation
- Duct connections: 24" x 12". Weather hoods c/w bird screen (outdoor unit).
- Cabinet L x D x H: 93 x 45 x 44" (2362 x 1143 x 1118 mm)
- Removable access door with 1/4 turn, lockable handle
- Door-mounted differential pressure ports for air flow balancing
- NEMA 3R enclosure with non-fused disconnect
- 3/4" NPT female drain connections (left-front of unit)

Unit Weight: 900 lbs (408 kg) Shipping Weight: 1250 lbs (567 kg)

Shipping L x D x H: 98 x 65 x 56" (NO hoods); 112 x 65 x 56" (W/ hoods)

CORE: Static Plate, Crossflow. Certified to AHRI 1060

- HRV: Polypropylene, 2 x p/n PC1721A (AHRI Ref.# PC18)
- ERV: Enthalpic membrane, 2 x p/n EC1721A (AHRI Ref.# EC18)
- FACE & BYPASS 1 x BP1714 (1030)+ 2 x PC1714 (HRV), or 2 x EC1714 (ERV)

MOTORS - FANS - FILTERS

- 2 x TEFC single-speed motors, 0.5-3.0 HP
- 2 x DWDI belt drive blowers, p/n 50071
- 6 x MERV 8 pleated filters (standard), 14 x 17.5 x 2", p/n 50078.

CONTROL

- Starter panel has Manual (full-time) or Auto/Remote (24 VAC) options.
- Factory installed VFD's present options for additional control means.
- 7-Day programmable timer, p/n 50395

FROST CONTROL – 6 OPTIONS (details see: PRODUCT SELECTION)

- None
- Face & Bypass (F&P)
- Exhaust only (temperature ON/OFF)
- F&P with Economizer
- Timed exhaust (temperature ON/Timed OFF)
- Recirculation

OPTIONS & ACCESSORIES

- 0.050 painted (white) aluminum outer skin
- Factory installed VFD's
- MERV 13 filters, 14 x 17.5 x 2", p/n 50211
- Dirty filter contacts/sensors
- Insulated, low leakage Outside Air backdraft damper (motorized)
- Exhaust Air backdraft damper (gravity OR motorized/insulated)
- Non-insulated roof curb 14" (standard). Custom sizes: 18", 24".
- 7-Day programmable timer, p/n 50395

WARRANTY - COMPLIANCE

- 2 years on internal components
- 15 years on polypropylene (HRV) cores; 5 years on Enthalpy (ERV) cores
- NU1030 conforms to CSA SPE1000

CFM/MOTOR TABLE: HRV

CFM	Motor Size	ESP = 0.25		ESP = 0.50		ESP = 0.75		ESP = 1.00		ESP = 1.25		ESP = 1.5		Motor Size	CFM
		BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM		
1000	1/2 HP	0.24	822	0.34	964	0.44	1085	0.55	1192	0.66	1288	0.77	1374	1 HP	1000
1100		0.29	850	0.39	990	0.5	1109	0.61	1215	0.73	1311	0.85	1399		1100
1200		0.34	883	0.45	1018	0.57	1136	0.69	1241	0.81	1337	0.94	1424		1200
1300		0.39	909	0.51	1041	0.63	1157	0.76	1261	0.89	1356	1.03	1444		1300
1400		0.44	934	0.57	1062	0.7	1176	0.84	1280	0.97	1375	1.12	1462		1400
1500	0.5	963	0.64	1086	0.78	1199	0.92	1301	1.07	1395	1.22	1483	1500		
1600	3/4 HP	0.57	986	0.71	1106	0.85	1216	1	1317	1.16	1411	1.31	1498	1600	
1700		0.63	1009	0.78	1125	0.93	1233	1.09	1333	1.25	1426	1.41	1512	1700	
1800		0.71	1039	0.86	1148	1.02	1253	1.18	1351	1.35	1443	1.52	1529	1800	
1900	1 HP	0.8	1065	0.94	1166	1.11	1268	1.27	1365	1.45	1456	1.63	1542	1900	
2000		0.89	1095	1.04	1189	1.2	1288	1.38	1382	1.56	1472	1.74	1557	2000	
2100		0.98	1120	1.13	1211	1.3	1304	1.48	1396	1.67	1484	1.86	1568	2100	
2200	1 1/2 HP	1.08	1149	1.24	1237	1.41	1323	1.59	1413	1.75	1499	1.98	1582	2200	
2300		1.19	1174	1.35	1260	1.52	1341	1.71	1427	1.9	1511	2.11	1593	2300	
2400		1.31	1202	1.47	1286	1.65	1365	1.83	1444	2.03	1527	2.24	1607	2400	
2500	2 HP	1.43	1230	1.6	1311	1.78	1389	1.97	1463	2.17	1542	2.38	1620	2500	
2600		1.55	1254	1.73	1333	1.91	1409	2.1	1482	2.3	1555	2.52	1631	2600	
2700		1.69	1282	1.87	1359	2.06	1433	2.26	1504	2.46	1573	2.67	1645	2700	
2800		1.84	1309	2.03	1384	2.22	1456	2.42	1526	2.62	1594	2.83	1660	2800	
2900		1.98	1332	2.18	1406	2.37	1477	2.58	1545	2.78	1612	3	1676	2900	
3000	3 HP	2.15	1359	2.34	1431	2.54	1500	2.75	1567	2.96	1632			N/A	3000

CFM/MOTOR TABLE: HRV – FACE AND BYPASS

CFM	Motor Size	ESP = 0.25		ESP = 0.50		ESP = 0.75		ESP = 1.00		ESP = 1.25		ESP = 1.5		Motor Size	CFM
		BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM		
800	1/2 HP	0.19	802	0.27	943	0.36	1061	0.45	1161	0.54	1251	0.63	1334	3/4 HP	800
900		0.23	841	0.32	977	0.42	1094	0.52	1197	0.62	1287	0.72	1369		900
1000		0.28	876	0.38	1010	0.48	1125	0.59	1227	0.7	1320	0.81	1402		1000
1100		0.33	914	0.44	1044	0.55	1157	0.67	1259	0.78	1351	0.92	1445		1100
1200		0.39	945	0.5	1072	0.62	1184	0.74	1284	0.87	1376	1	1461		1200
1300	3/4 HP	0.44	974	0.57	1098	0.69	1208	0.82	1308	0.96	1399	1.09	1484	1300	
1400		0.51	1007	0.64	1127	0.78	1236	0.91	1334	1.05	1425	1.2	1509	1400	
1500		0.58	1038	0.72	1155	0.86	1261	1.01	1359	1.16	1449	1.31	1532	1500	
1600		0.65	1064	0.8	1177	0.95	1282	1.1	1378	1.26	1468	1.41	1551	1600	
1700		0.74	1093	0.89	1203	1.04	1305	1.2	1400	1.37	1489	1.53	1572	1700	
1800	1 HP	0.82	1122	0.98	1228	1.14	1328	1.31	1421	1.48	1509	1.65	1591	1800	
1900		0.92	1149	1.08	1252	1.25	1350	1.42	1442	1.6	1528	1.78	1610	1900	
2000		1.02	1177	1.18	1276	1.36	1371	1.54	1461	1.72	1547	1.91	1628	2000	

CFM/MOTOR TABLE: ERV

CFM	Motor Size	ESP = 0.25		ESP = 0.50		ESP = 0.75		ESP = 1.00		ESP = 1.25		ESP = 1.5		Motor Size	CFM
		BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM		
1000	1/2 HP	0.29	899	0.39	1029	0.5	1142	0.6	1243	0.72	1334	0.83	1415	1 HP	1000
1100		0.35	937	0.46	1063	0.57	1174	0.68	1274	0.8	1365	0.92	1449		1100
1200		0.41	972	0.52	1095	0.64	1205	0.77	1303	0.89	1393	1.02	1477		1200
1300		0.47	1005	0.6	1126	0.72	1233	0.85	1331	0.99	1420	1.13	1503		1300
1400		0.54	1037	0.67	1154	0.81	1260	0.95	1357	1.09	1445	1.23	1528		1400
1500	3/4 HP	0.62	1067	0.75	1181	0.9	1285	1.04	1381	1.19	1469	1.34	1552	1500	
1600		0.69	1097	0.84	1207	0.99	1310	1.14	1404	1.3	1491	1.46	1573	1600	
1700		0.78	1129	0.94	1237	1.09	1336	1.25	1429	1.42	1516	1.59	1597	1700	
1800	1 HP	0.87	1156	1.03	1261	1.2	1359	1.36	1450	1.54	1536	1.71	1617	1800	
1900		0.97	1187	1.14	1288	1.31	1384	1.48	1474	1.66	1558	1.85	1638	1900	
2000		1.08	1213	1.25	1311	1.42	1404	1.6	1493	1.79	1576	1.98	1656	2000	
2100	1 1/2 HP	1.19	1243	1.36	1337	1.55	1428	1.73	1515	1.93	1597	2.12	1676	2100	
2200		1.31	1274	1.49	1363	1.68	1451	1.87	1536	2.07	1617	2.27	1695	2200	
2300		1.44	1303	1.61	1385	1.81	1471	2.01	1554	2.21	1634	2.42	1710	2300	
2400	2 HP	1.58	1334	1.75	1411	1.95	1494	2.16	1575	2.37	1653	2.58	1729	2400	
2500		1.72	1364	1.91	1440	2.1	1516	2.31	1596	2.53	1672	2.75	1746	2500	
2600		1.88	1397	2.07	1471	2.27	1542	2.48	1619	2.7	1694	2.93	1767	2600	
2700		2.05	1427	2.24	1498	2.44	1568	2.65	1639	2.88	1713			2700	
2800		3 HP	2.22	1456	2.42	1526	2.62	1594	2.83	1660					2800
2900	2.4		1485	2.6	1553	2.81	1620							2900	
3000	2.59		1516	2.8	1583									3000	

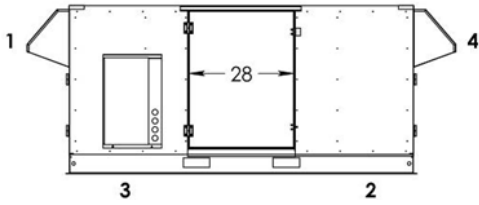
CFM/MOTOR TABLE : ERV – FACE AND BYPASS

CFM	Motor Size	ESP = 0.25		ESP = 0.50		ESP = 0.75		ESP = 1.00		ESP = 1.25		ESP = 1.5		Motor Size	CFM
		BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM		
800	1/2 HP	0.24	884	0.32	1011	0.41	1119	0.5	1212	0.59	1298	0.69	1377	3/4 HP	800
900		0.29	936	0.39	1059	0.49	1166	0.59	1259	0.69	1343	0.79	1421		900
1000		0.36	985	0.46	1103	0.57	1208	0.68	1302	0.79	1387	0.9	1464		1000
1100		0.42	1025	0.53	1140	0.65	1243	0.76	1336	0.88	1422	1.01	1501		1100
1200		0.5	1072	0.62	1184	0.74	1284	0.87	1376	1	1461	1.13	1540		1200
1300	3/4 HP	0.58	1112	0.71	1221	0.84	1319	0.97	1410	1.11	1494	1.25	1572	1300	
1400		0.67	1150	0.8	1256	0.94	1353	1.08	1442	1.23	1525	1.37	1603	1400	
1500		0.77	1190	0.91	1293	1.05	1388	1.2	1475	1.36	1558	1.51	1635	1500	
1600	1 HP	0.86	1224	1.01	1325	1.17	1418	1.33	1505	1.49	1586	1.65	1663	1600	
1700		0.97	1261	1.13	1359	1.29	1451	1.46	1536	1.63	1616	1.8	1692	1700	
1800		1.09	1297	1.26	1392	1.43	1482	1.6	1565	1.77	1645	1.95	1720	1800	
1900	1 1/2 HP	1.21	1331	1.39	1424	1.56	1511	1.74	1594	1.93	1672	2.11	1746	1900	
2000		1.35	1368	1.53	1458	1.71	1543	1.9	1625	2.09	1702	2.29	1775	2000	

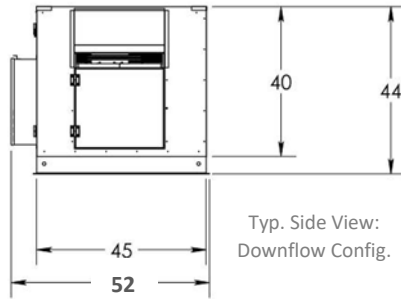
CONFIGURATIONS



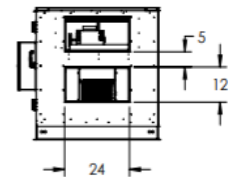
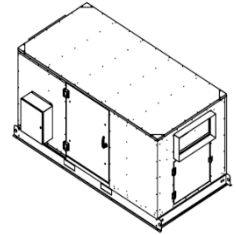
SHOP DRAWINGS – BASIC OPTIONS/CONFIGURATIONS SHOWN



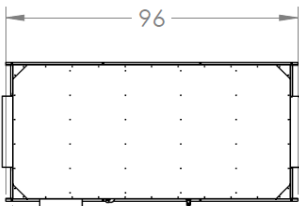
1 = Outside Air (OA) 2 = Supply Air (SA)
3 = Return Air (RA) 4 = Exhaust Air (EA)



Typ. Side View:
Downflow Config.



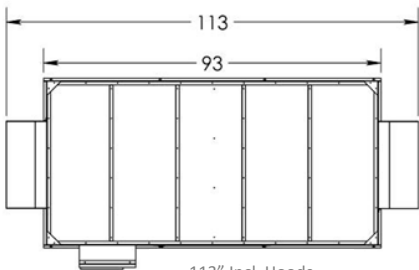
Typ. Side View: Duct Location, Size
Side Configuration



96" Incl. Lifting Frame

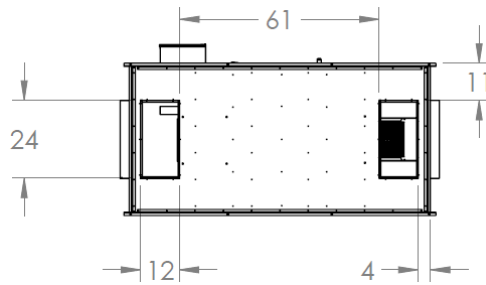
Top View

Service Clearances: NU1030						
Front	Back	Left	Right	Top	Bottom	
RECOMMENDED	MINIMUM					
(in)	(in)	(in)	(in)	(in)	(in)	(in)
30	24	0	0	0	0	0

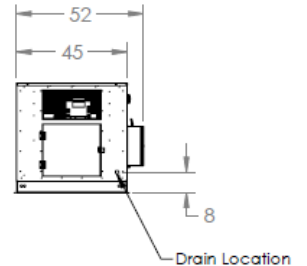


113" Incl. Hoods

Top View

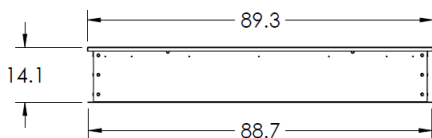
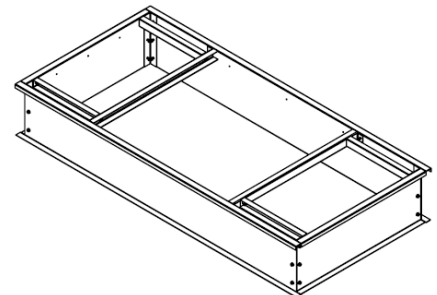
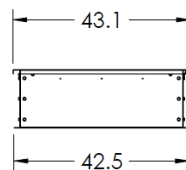
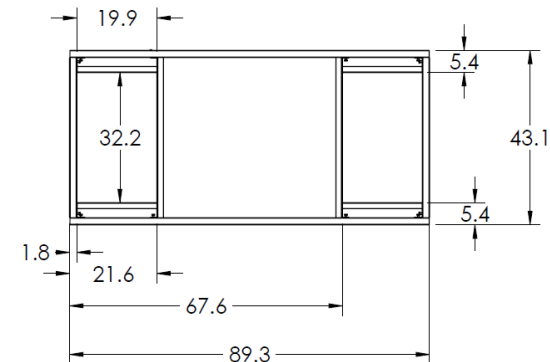


Typ. Bottom View: Downflow Config.

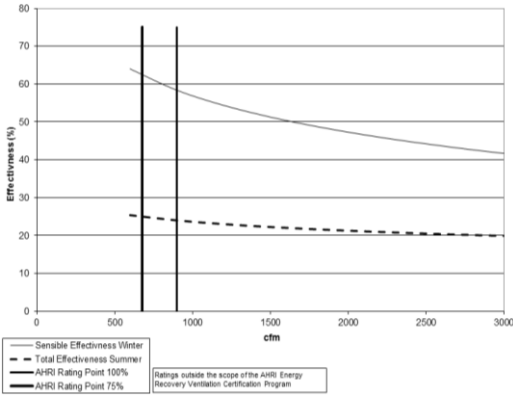


Typ. Left View: Drain Detail
(ALL CONFIGURATIONS)

SHOP DRAWINGS – STANDARD 14-inch ROOF CURB, p/n RC303540-14



HRV PERFORMANCE – AHRI 1060

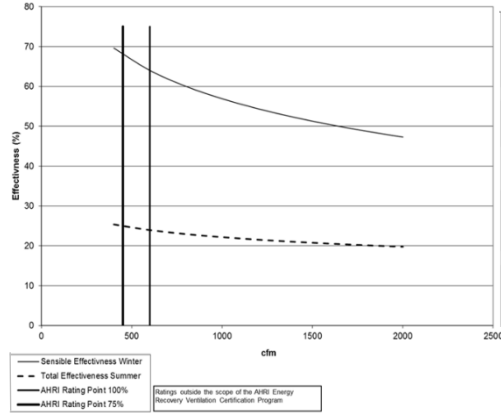


Model no.	PC 18			
Type	Plate			
Nominal Air Flow (scfm)	300			
Pressure drop (inches)	0.12			
Leakage Ratings				
Test 1	Diff. Pressure	EATR %	OACF	
Test 2	-0.5	0.50	0.95	
Test 3	0	0.00	1.00	
Test 3	0.5	0.20	1.08	
Thermal Effectiveness Ratings at 0° Pressure Differential				
		Sensible	Latent	Total
100% air Flow Heating	64	0	40	
75% air Flow Heating	68	0	43	
100% air Flow cooling	62	0	24	
75% air Flow Cooling	66	0	25	
		Net Sensible	Net Latent	Net Total
100% air Flow Heating	64	0	40	
75% air Flow Heating	68	0	43	
100% air Flow cooling	62	0	23	
75% air Flow Cooling	66	0	25	



Energy recovery component is certified by AHRI to AHRI Standard 106. Actual performance in packaged equipment may vary.

HRV PERFORMANCE FACE & BYPASS – AHRI 1060

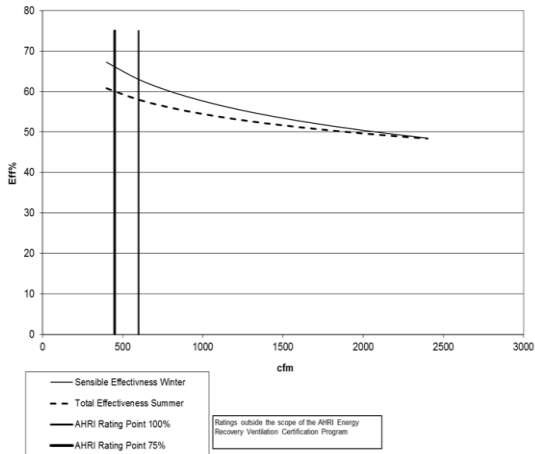


Model no.	PC 18			
Type	Plate			
Nominal Air Flow (scfm)	300			
Pressure drop (inches)	0.12			
Leakage Ratings				
Test 1	Diff. Pressure	EATR %	OACF	
Test 2	-0.5	0.50	0.95	
Test 3	0	0.00	1.00	
Test 3	0.5	0.20	1.08	
Thermal Effectiveness Ratings at 0° Pressure Differential				
		Sensible	Latent	Total
100% air Flow Heating	64	0	40	
75% air Flow Heating	68	0	43	
100% air Flow cooling	62	0	24	
75% air Flow Cooling	66	0	25	
		Net Sensible	Net Latent	Net Total
100% air Flow Heating	64	0	40	
75% air Flow Heating	68	0	43	
100% air Flow cooling	62	0	23	
75% air Flow Cooling	66	0	25	



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ERV PERFORMANCE – AHRI 1060

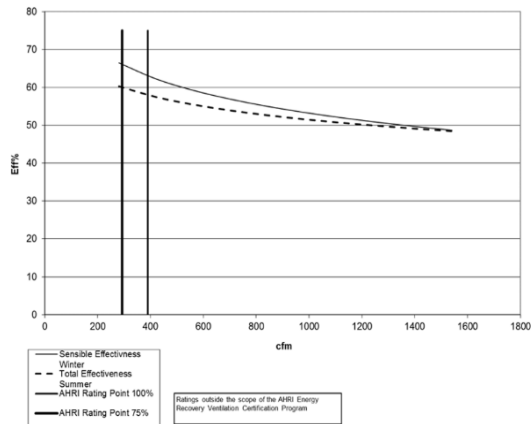


Model no.	EC-18			
Type	Plate			
Nominal Air Flow (scfm)	300			
Pressure drop (inches)	0.33			
Leakage Ratings				
Test 1	Diff. Pressure	EATR %	OACF	
Test 2	-0.5	5.00	0.92	
Test 3	0	0.80	1.07	
Test 3	0.5	0.50	1.20	
Thermal Effectiveness Ratings at 0° Pressure Differential				
		Sensible	Latent	Total
100% air Flow Heating	63	47	58	
75% air Flow Heating	66	49	60	
100% air Flow cooling	63	36	46	
75% air Flow Cooling	66	39	49	
		Net Sensible	Net Latent	Net Total
100% air Flow Heating	63	47	57	
75% air Flow Heating	66	49	60	
100% air Flow cooling	63	35	46	
75% air Flow Cooling	66	39	49	



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ERV PERFORMANCE FACE & BYPASS – AHRI 1060

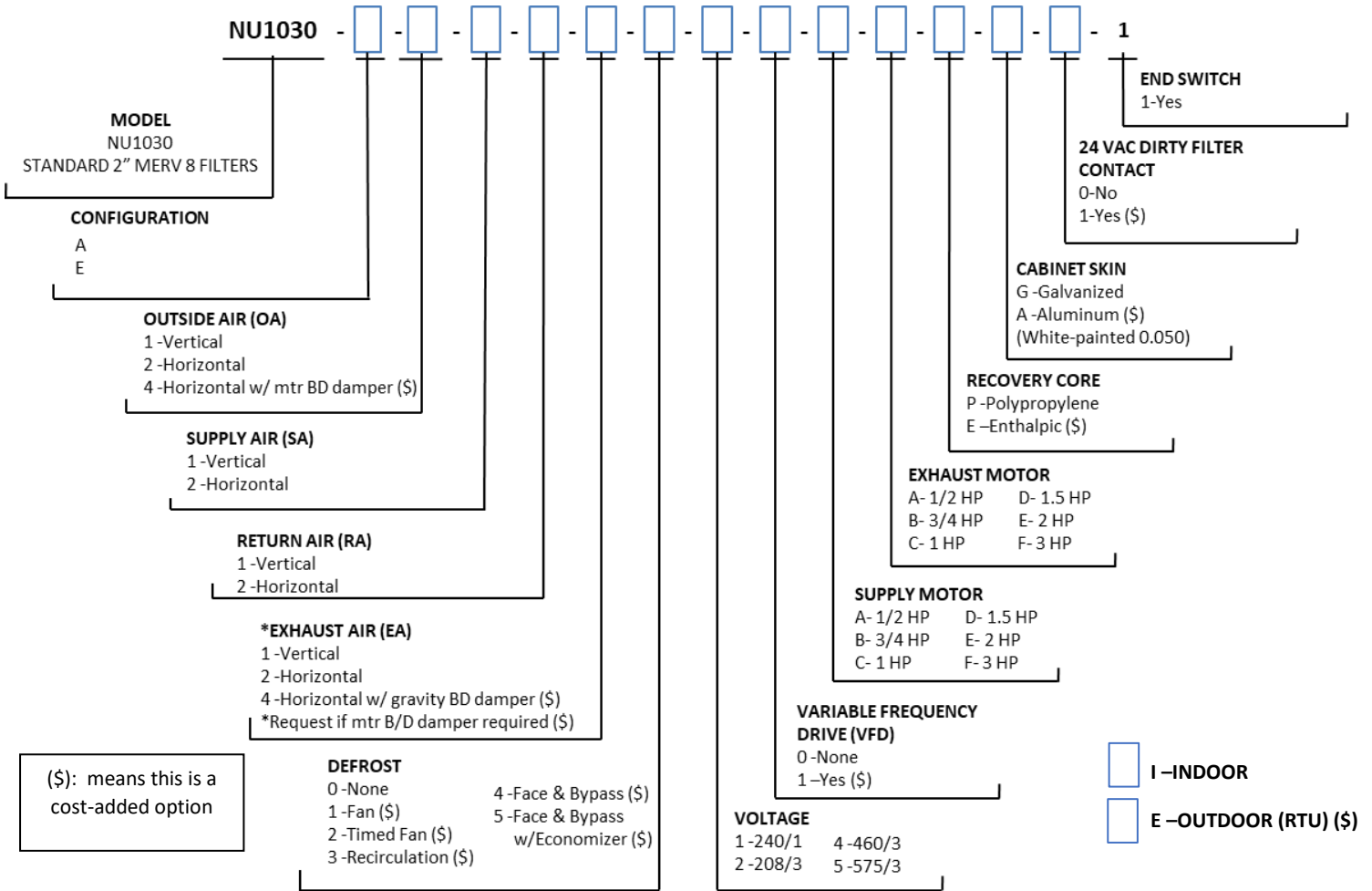


Model no.	EC-18			
Type	Plate			
Nominal Air Flow (scfm)	300			
Pressure drop (inches)	0.33			
Leakage Ratings				
Test 1	Diff. Pressure	EATR %	OACF	
Test 2	-0.5	5.00	0.92	
Test 3	0	0.80	1.07	
Test 3	0.5	0.50	1.20	
Thermal Effectiveness Ratings at 0° Pressure Differential				
		Sensible	Latent	Total
100% air Flow Heating	63	47	58	
75% air Flow Heating	66	49	60	
100% air Flow cooling	63	36	46	
75% air Flow Cooling	66	39	49	
		Net Sensible	Net Latent	Net Total
100% air Flow Heating	63	47	57	
75% air Flow Heating	66	49	60	
100% air Flow cooling	63	35	46	
75% air Flow Cooling	66	39	49	



Energy recovery component is certified by AHRI to AHRI Standard 106. Actual performance in packaged equipment may vary.

PRODUCT SELECTION/ORDERING INFORMATION: NU1030



ADD-ON OPTIONS/ACCESSORIES: NU1030

- Motorized Damper, Exhaust Air (EA) (\$)
- 2" MERV 13 Filters (\$)
- Filters, Extra Set (of 6), MERV 8 (\$)
- Filters, Extra Set (of 6), MERV 13 (\$)
- 7-Day Programmable Timer (\$)
- Roof Curb, Uninsulated, 14" (\$)
- Roof Curb, Uninsulated, 18" (\$)
- Roof Curb, Uninsulated, 24" (\$)

FROST CONTROL RECOMMENDATIONS*

TYPE	WINTER DESIGN TEMP.		FACTORY DEFAULT TIMING**	
	° C	° F	RUN	DEFROST
0 - NONE	> -5	> 23	n/a	n/a
1 - FAN SHUT-DOWN	> -10	> 14		
2 - TIMED FAN SHUT-DOWN	> -15	> 5	60 min.	10 min.
3 - RECIRCULATION	> -15	> 5	60 min.	10 min.
4 - FACE & BYPASS	Uninterrupted ventilation and free cooling.			

- 1 - Supply fan shuts off when EA OC (32F). Normal operation resumes when EA is 8C (47F).
 - 2 - Supply fan shuts off for defined time when OA is nominal OC (32F).
 - 3 - Non-negative pressure defrost when EA is nominal OC (32F).
 - 4 - Heat exchanger bypassed in a temperature activated cycle.
- *notwithstanding other design considerations such as building pressure, preheat, delivered air temp., etc.
**Field adjustable.

PROJECT INFORMATION

Unit (e.g. HRV-1)	
Project Tag	
Project Location	
Specified By	
Version, Date	

DESIGN INFORMATION

Air Stream	Airflow	ESP
Supply		
Exhaust		
Air Temp. (C or F)	Winter	Summer
RA, DB		
RA, WB		
OA, DB		
OA, WB		