



(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	1 HP	1100
1200		0.34	883	0.45	1018	0.57	1136	0.69	1241	0.81	1337	0.94	1424	1 HP	1200
1300		0.39	909	0.51	1041	0.63	1157	0.76	1261	0.89	1356	1.03	1444	1 HP	1300
1400		0.44	934	0.57	1062	0.7	1176	0.84	1280	0.97	1375	1.12	1462	1 HP	1400
1500	3/4 HP	0.5	963	0.64	1086	0.78	1199	0.92	1301	1.07	1395	1.22	1483	1 1/2 HP	1500
1600		0.57	986	0.71	1106	0.85	1216	1	1317	1.16	1411	1.31	1498	1 1/2 HP	1600
1700		0.63	1009	0.78	1125	0.93	1233	1.09	1333	1.25	1426	1.41	1512	1 1/2 HP	1700
1800		0.71	1039	0.86	1148	1.02	1253	1.18	1351	1.35	1443	1.52	1529	1 1/2 HP	1800
1900		0.8	1065	0.94	1166	1.11	1268	1.27	1365	1.45	1456	1.63	1542	1 1/2 HP	1900
2000	1 HP	0.89	1095	1.04	1189	1.2	1288	1.38	1382	1.56	1472	1.74	1557	2 HP	2000
2100		0.98	1120	1.13	1211	1.3	1304	1.48	1396	1.67	1484	1.86	1568	2 HP	2100
2200		1.08	1149	1.24	1237	1.41	1323	1.59	1413	1.75	1499	1.98	1582	2 HP	2200
2300		1.19	1174	1.35	1260	1.52	1341	1.71	1427	1.9	1511	2.11	1593	2 HP	2300
2400		1.31	1202	1.47	1286	1.65	1365	1.83	1444	2.03	1527	2.24	1607	2 HP	2400
2500	1 1/2 HP	1.43	1230	1.6	1311	1.78	1389	1.97	1463	2.17	1542	2.38	1620	3 HP	2500
2600		1.55	1254	1.73	1333	1.91	1409	2.1	1482	2.3	1555	2.52	1631	3 HP	2600
2700		1.69	1282	1.87	1359	2.06	1434	2.26	1504	2.46	1573	2.67	1645	3 HP	2700
2800		1.84	1309	2.03	1384	2.22	1456	2.42	1526	2.62	1594	2.83	1660	3 HP	2800
2900		1.98	1332	2.18	1406	2.37	1477	2.58	1545	2.78	1612	3	1676	3 HP	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	3/4 HP	900
1000		0.28	876	0.38	1010	0.48	1125	0.59	1227	0.7	1320	0.81	1402	1 HP	1000
1100		0.33	914	0.44	1044	0.55	1157	0.67	1259	0.78	1351	0.92	1445	1 HP	1100
1200		0.39	945	0.5	1072	0.62	1184	0.74	1284	0.87	1376	1	1461	1 HP	1200
1300	3/4 HP	0.44	974	0.57	1098	0.69	1208	0.82	1308	0.96	1399	1.09	1484	1 1/2 HP	1300
1400		0.51	1007	0.64	1127	0.78	1236	0.91	1334	1.05	1425	1.2	1509	1 1/2 HP	1400
1500		0.58	1038	0.72	1155	0.86	1261	1.01	1359	1.16	1449	1.31	1532	1 1/2 HP	1500
1600		0.65	1064	0.8	1177	0.95	1282	1.1	1378	1.26	1468	1.41	1551	1 1/2 HP	1600
1700		0.74	1093	0.89	1203	1.04	1305	1.2	1400	1.37	1489	1.53	1572	1 1/2 HP	1700
1800	1 HP	0.82	1122	0.98	1228	1.14	1328	1.31	1421	1.48	1509	1.65	1591	2 HP	1800
1900		0.92	1149	1.08	1252	1.25	1350	1.42	1442	1.6	1528	1.78	1610	2 HP	1900
2000		1.02	1177	1.18	1276	1.36	1371	1.54	1461	1.72	1547	1.91	1628	2 HP	2000

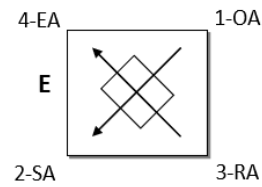
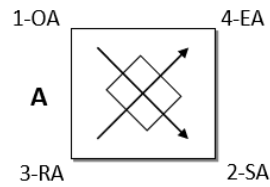
CFM/MOTOR TABLE: ERV

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

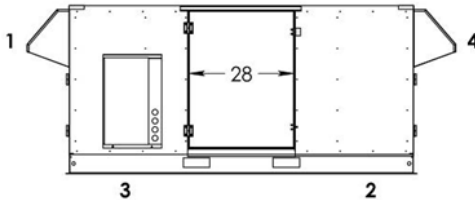
CFM/MOTOR TABLE : ERV – FACE AND BYPASS

		ESP = 0.25		ESP = 0.50		ESP = 0.75		ESP = 1.00		ESP = 1.25		ESP = 1.5			
CFM	Motor Size	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	Motor Size	CFM
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	1 HP	900
1000		0.36	985	0.46	1103	0.57	1208	0.68	1302	0.79	1387	0.9	1464		1000
1100	3/4 HP	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	1 1/2 HP	1200
1300		0.58	1112	0.71	1221	0.84	1319	0.97	1401	1.11	1494	1.25	1572		1300
1400	1 HP	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		0.86	1224	1.01	1325	1.17	1418	1.33	1505	1.49	1586	1.65	1663	2 HP	1600
1700	1 1/2 HP	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		1.21	1331	1.39	1424	1.56	1511	1.74	1594	1.93	1672	2.11	1746	3 HP	1900
2000		1.35	1368	1.53	1458	1.71	1543	1.9	1625	2.09	1702	2.29	1775		2000

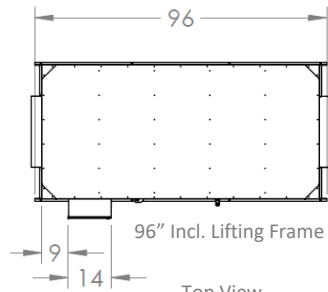
CONFIGURATIONS



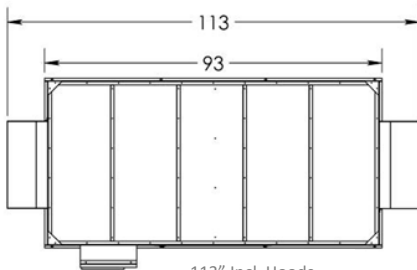
SHOP DRAWINGS – BASIC OPTIONS/CONFIGURATIONS SHOWN



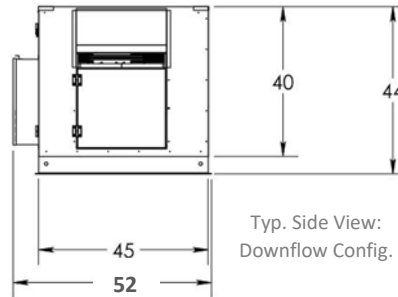
1 = Outside Air (OA) 2 = Supply Air (SA)
3 = Return Air (RA) 4 = Exhaust Air (EA)



Top View

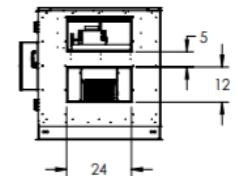
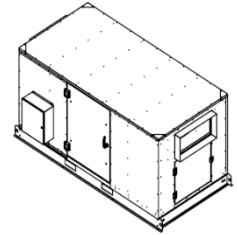


Top View

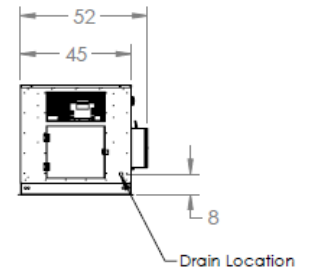


Typ. Side View:
Downflow Config.

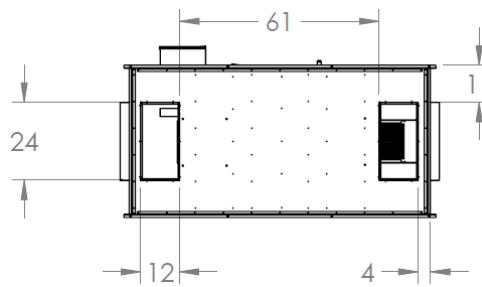
Service Clearances: NU1030						
Front	Back	Left	Right	Top	Bottom	
RECOMMENDED	MINIMUM					
(in)	(in)	(in)	(in)	(in)	(in)	(in)
30	24	0	0	0	0	0



Typ. Side View: Duct Location, Size
Side Configuration

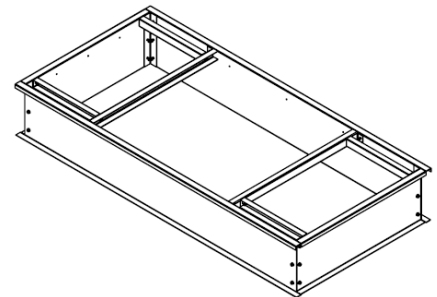
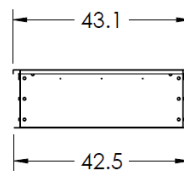
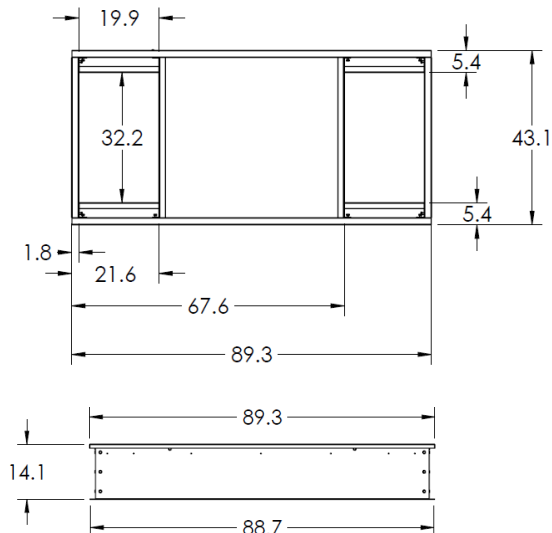


Typ. Left View: Drain Detail
(ALL CONFIGURATIONS)

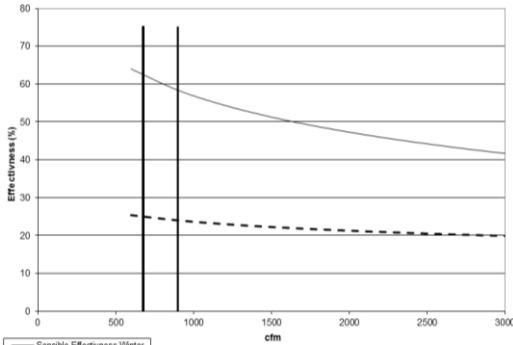


Typ. Bottom View: Downflow Config.

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



HRV PERFORMANCE – AHRI 1060

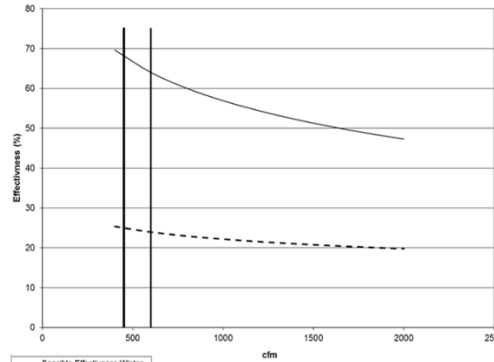


Model no.	PC 18		
Type	Plate		
Nominal Air Flow (scfm)	300		
Pressure drop (inches)	0.12		
Leakage Ratings			
	Diff. Pressure	EATR %	OACF
Test 1	-0.5	0.50	0.95
Test 2	0	0.00	1.00
Test 3	0.5	0.20	1.08
Thermal Effectiveness Ratings at 0" Pressure Differential			
	Sensible	Latent	Total
100% air Flow Heating	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



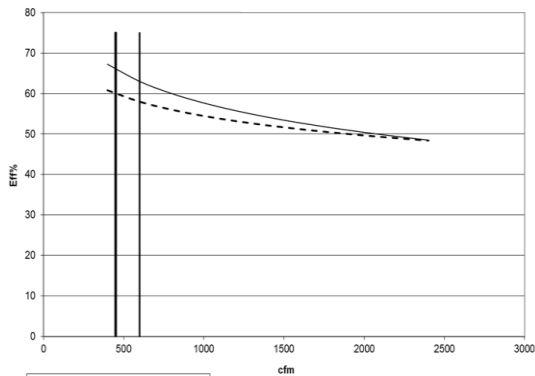
Model no.	PC 18		
Type	Plate		
Nominal Air Flow (scfm)	300		
Pressure drop (inches)	0.12		
Leakage Ratings	Diff. Pressure	EATR %	OACF
Test 1	-0.5	0.50	0.95
Test 2	0	0.00	1.00
Test 3	0.5	0.20	1.08

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.

ERV PERFORMANCE – AHRI 1060

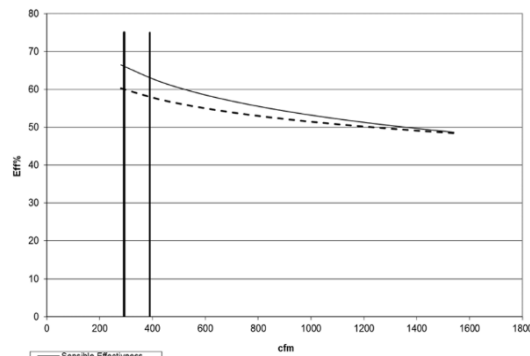


Model no.	EC-18		
Type	Plate		
Nominal Air Flow (scfm)	300		
Pressure drop (inches)	0.33		
Leakage Ratings	Diff. Pressure	EATR %	OACF
Test 1	-0.5	5.00	0.92
Test 2	0	0.80	1.07
Test 3	0.5	0.50	1.20
Thermal Effectiveness Ratings at 0" Pressure Differential			
	Sensible	Latent	Total
100% air Flow Heating	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.

ERV PERFORMANCE FACE & BYPASS – AHRI 1060



Model no.	EC-18			
Type	Plate			
Nominal Air Flow (scfm)	300			
Pressure drop (inches)	0.33			
Leakage Ratings	Diff. Pressure	EATR %	OACF	
Test 1	-0.5	5.00	0.92	
Test 2	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

NU1030 - - - - - - - - - - - - - - **1**

MODEL
NU1030
STANDARD 2" MERV 8 FILTERS

CONFIGURATION
A
E

OUTSIDE AIR (OA)
2 -Horizontal
4 -Horizontal w/ mtr BD damper (\$)

SUPPLY AIR (SA)
1 -Vertical
2 -Horizontal

RETURN AIR (RA)
1 -Vertical
2 -Horizontal

***EXHAUST AIR (EA)**
2 -Horizontal
4 -Horizontal w/ gravity BD damper (\$)
*Request if mtr B/D damper required (\$)

DEFROST
0 -None
1 -Fan (\$)
2 -Timed Fan (\$)
3 -Recirculation (\$)
4 -Face & Bypass (\$)
5 -Face & Bypass w/Economizer (\$)

END SWITCH
1-Yes

24 VAC DIRTY FILTER CONTACT
0-No
1-Yes (\$)

CABINET SKIN
G -Galvanized
A -Aluminum (\$)
(White-painted 0.050)

RECOVERY CORE
P -Polypropylene
E -Enthalpic (\$)

EXHAUST MOTOR
A- 1/2 HP D- 1.5 HP
B- 3/4 HP E- 2 HP
C- 1 HP F- 3 HP

SUPPLY MOTOR
A- 1/2 HP D- 1.5 HP
B- 3/4 HP E- 2 HP
C- 1 HP F- 3 HP

VARIABLE FREQUENCY DRIVE (VFD)
0 -None
1 -Yes (\$)

VOLTAGE
1 -240/1 4 -460/3
2 -208/3 5 -575/3

I -INDOOR
E -OUTDOOR (RTU) (\$)

(\$): means this is a cost-added option

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 0C (32F). Normal operation resumes when EA is 8C (47F).

2 - Supply fan shuts off for defined time when OA is nominal 0C (32F).

3 - Non-negative pressure defrost when EA is nominal 0C (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		