



(Painted Option Shown)

2500 – 4000 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: 32" x 16". Weather hoods c/w bird screen (outdoor unit).
- Cabinet L x D x H: 93 x 45 x 51" (2362 x 1143 x 1296 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: 1000 lbs (455 kg) Shipping Weight: 1325 lbs (600 kg)

Shipping L x D x H: 98 x 65 x 63" (NO hoods); 112 x 65 x 63" (W/ hoods)

CORE: Static Plate, Crossflow. Certified to AHRI 1060

- HRV: Polypropylene, 3 x p/n PC2314A (AHRI Ref.# PC24)
- ERV: Enthalpic membrane, 3 x p/n EC2314A (AHRI Ref.# EC24)
- FACE & BYPASS 1 x BP2314 (1030)+ 2 x PC2314 (HRV), or 2 x EC2314 (ERV)

MOTORS - FANS - FILTERS

- 2 x TEFC single-speed motors, 0.5-3.0 HP
- 2 x DWDI belt drive blowers, p/n 50072
- 6 x MERV 8 pleated filters (standard), 14 x 23.5 x 2", p/n 50092.

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/Off)
- Recirculation

OPTIONS & ACCESSORIES

- 0.050 painted (white) aluminum outer skin
- Factory installed VFD's
- MERV 13 filters, 14 x 23.5 x 2", p/n 50856
- 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
- NU2540 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 = 1.50		ESP = 1.75		ESP = 2.00		Motor Size	CFM
		BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM		
2400	1 HP	0.9	896	1.05	967	1.19	1032	1.34	1092	1.48	1149	1.62	1202	1.76	1251	1.89	1299	2 HP	2400
2500		0.98	914	1.13	984	1.28	1048	1.43	1108	1.58	1164	1.73	1216	1.88	1266	2.02	1313		2500
2600	1 1/2 HP	1.06	931	1.22	1000	1.37	1063	1.53	1122	1.69	1178	1.84	1231	2	1281	2.15	1328	3 HP	2600
2700		1.14	947	1.31	1015	1.47	1078	1.63	1137	1.79	1192	1.95	1245	2.12	1294	2.28	1342		2700
2800	2 HP	1.23	963	1.4	1031	1.57	1093	1.73	1151	1.9	1206	2.07	1258	2.24	1308	2.41	1355	N/A	2800
2900		1.32	979	1.49	1046	1.67	1107	1.84	1165	2.02	1220	2.19	1272	2.36	1321	2.54	1368		2900
3000	3 HP	1.41	994	1.59	1060	1.77	1122	1.95	1179	2.13	1233	2.31	1285	2.49	1334	2.67	1381	N/A	3000
3100		1.5	1009	1.69	1075	1.88	1135	2.07	1193	2.25	1246	2.44	1298	2.63	1346	2.81	1393		3100
3200	4 HP	1.6	1023	1.8	1089	1.99	1149	2.18	1206	2.37	1259	2.57	1310	2.76	1359	2.95	1405	N/A	3200
3300		1.7	1037	1.9	1102	2.1	1162	2.3	1219	2.5	1272	2.7	1323	2.9	1371				3300
3400	5 HP	1.82	1054	2.02	1118	2.23	1178	2.43	1233	2.64	1286	2.84	1337					N/A	3400
3500		1.93	1067	2.14	1131	2.35	1190	2.56	1246	2.77	1298	2.98	1349						3500
3600	6 HP	2.04	1080	2.26	1143	2.47	1203	2.69	1258	2.91	1310							N/A	3600
3700		2.15	1093	2.38	1156	2.6	1215	2.82	1270										3700
3800	7 HP	2.27	1106	2.5	1168	2.73	1226	2.96	1282									N/A	3800
3900		2.4	1122	2.64	1182	2.87	1240												3900
4000	2.53	1134	2.77	1194														4000	

CFM/MOTOR TABLE: HRV – FACE AND BYPASS

CFM	Motor Size	ESP = 0.25		ESP = 0.50		ESP = 0.75		ESP = 1		ESP = 1.25		ESP = 1.50		ESP = 1.75		ESP = 2.00		Motor Size	CFM
		BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM		
1600	1/2 HP	0.46	785	0.55	859	0.64	926	0.73	988	0.82	1045	0.91	1099	1.01	1150	1.1	1199	1 1/2 HP	1600
1700		0.52	809	0.62	882	0.71	948	0.81	1003	0.9	1066	1	1119	1.1	1169	1.2	1217		1700
1800	3/4 HP	0.58	832	0.69	904	0.79	969	0.89	1029	0.99	1085	1.09	1138	1.19	1188	1.3	1236	2 HP	1800
1900		0.65	855	0.76	926	0.87	990	0.98	1049	1.08	1105	1.19	1157	1.3	1206	1.4	1254		1900
2000	1 HP	0.72	877	0.84	947	0.96	1010	1.07	1069	1.18	1124	1.29	1175	1.4	1225	1.52	1271	2 HP	2000
2100		0.8	901	0.92	969	1.05	1032	1.17	1090	1.28	1144	1.4	1195	1.52	1244	1.64	1291		2100
2200	1 1/2 HP	0.87	922	1.01	989	1.14	1051	1.27	1109	1.39	1162	1.51	1213	1.64	1261	1.76	1308	3 HP	2200
2300		0.95	942	1.09	1008	1.23	1070	1.37	1127	1.5	1180	1.63	1231	1.76	1278	1.88	1324		2300
2400	2 HP	1.04	962	1.18	1027	1.33	1088	1.47	1144	1.61	1198	1.75	1248	1.88	1295	2.02	1341	N/A	2400
2500		1.13	981	1.28	1045	1.43	1105	1.58	1161	1.73	1214	1.87	1264	2.01	1312	2.15	1357		2500
2600	3 HP	1.22	1002	1.38	1066	1.54	1125	1.69	1180	1.85	1233	2	1282	2.15	1330	2.3	1375	3 HP	2600
2700		1.32	1020	1.48	1083	1.64	1142	1.81	1197	1.97	1249	2.13	1298	2.29	1345	2.44	1390		2700
2800	4 HP	1.42	1038	1.59	1100	1.76	1158	1.92	1213	2.09	1264	2.26	1313	2.43	1360	2.59	1405	N/A	2800
2900		1.53	1058	1.7	1119	1.88	1177	2.05	1231	2.23	1282	2.4	1330	2.57	1377	2.75	1422		2900
3000	1.63	1075	1.81	1136	2	1192	2.18	1246	2.36	1297	2.54	1345	2.72	1392	2.9	1436	3000		

CFM/MOTOR TABLE: ERV

CFM	Motor Size	ESP = 0.25		ESP = 0.50		ESP = 0.75		ESP = 1.00		ESP = 1.25		ESP = 1.50		ESP = 1.75		ESP = 2.00		Motor Size	CFM
		BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM		
2400	1 1/2 HP	1.08	981	1.22	1044	1.37	1104	1.51	1159	1.65	1212	1.84	1280	1.92	1308	2.05	1353	3 HP	2400
2500		1.17	1002	1.32	1065	1.47	1124	1.62	1179	1.77	1231	1.92	1280	2.06	1326	2.2	1371		2500
2600	2 HP	1.27	1021	1.42	1083	1.58	1141	1.74	1195	1.89	1247	2.05	1296	2.19	1342	2.34	1387	N/A	2600
2700		1.37	1041	1.53	1102	1.7	1160	1.86	1214	2.02	1265	2.18	1313	2.34	1360	2.49	1404		2700
2800	3 HP	1.48	1061	1.65	1122	1.82	1178	1.98	1232	2.15	1282	2.32	1331	2.49	1377	2.65	1421	N/A	2800
2900		1.58	1078	1.76	1138	1.93	1194	2.11	1247	2.28	1298	2.45	1346	2.63	1392	2.8	1436		2900
3000	4 HP	1.7	1098	1.88	1157	2.06	1212	2.24	1265	2.42	1315	2.6	1362	2.78	1408	2.96	1452	N/A	3000
3100		1.82	1116	2.01	1175	2.19	1230	2.38	1282	2.57	1331	2.75	1378	2.94	1424				3100
3200	5 HP	1.94	1135	2.14	1192	2.33	1247	2.52	1298	2.71	1347	2.91	1394					N/A	3200
3300		2.07	1153	2.27	1210	2.47	1264	2.67	1315	2.87	1363								3300
3400	6 HP	2.2	1171	2.41	1227	2.61	1280	2.82	1331									N/A	3400
3500		2.34	1188	2.55	1244	2.76	1296	2.97	1347										3500
3600	7 HP	2.48	1205	2.7	1260	2.91	1312											N/A	3600
3700		2.63	1221	2.85	1276														3700
3800	8 HP	2.77	1237															N/A	3800
3900		2.93	1253																3900
4000																		4000	

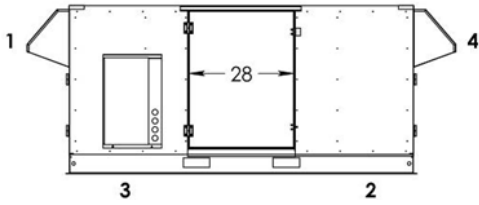
CFM/MOTOR TABLE: ERV – FACE AND BYPASS

CFM	Motor Size	ESP = 0.25		ESP = 0.50		ESP = 0.75		ESP = 1		ESP = 1.25		ESP = 1.50		ESP = 1.75		ESP = 2.00		Motor Size	CFM
		BHP																	

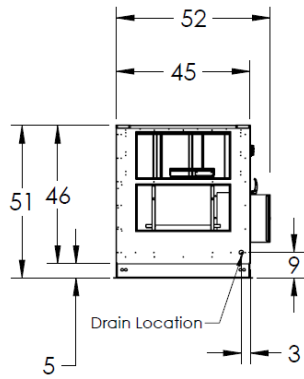
CONFIGURATIONS



SHOP DRAWINGS – BASIC OPTIONS/CONFIGURATIONS SHOWN

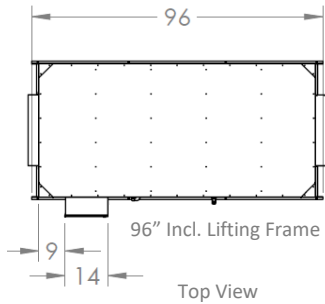
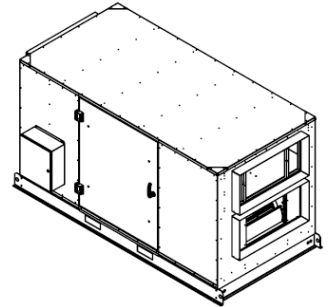


1 = Outside Air (OA) 2 = Supply Air (SA)
3 = Return Air (RA) 4 = Exhaust Air (EA)



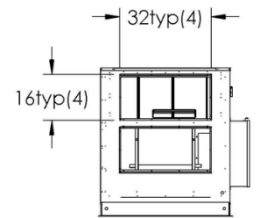
Typ. Left View: Side Discharge

Drain Detail (ALL CONFIGURATIONS)

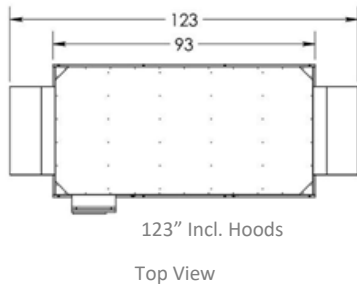


Top View

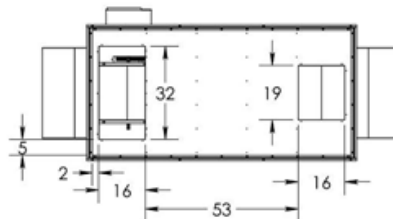
Service Clearances: NU2540						
Front		Back	Left	Right	Top	Bottom
RECOMMENDED	MINIMUM					
(in)	(in)	(in)	(in)	(in)	(in)	(in)
30	18	0	0	0	0	0



Typ. Side View: DUCT CONNECTIONS Side Configuration

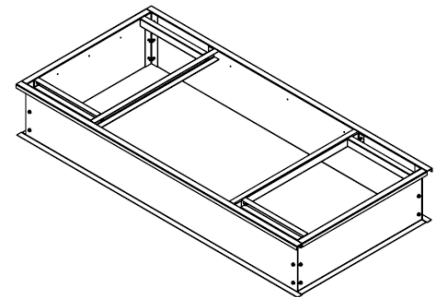
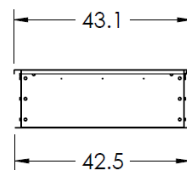
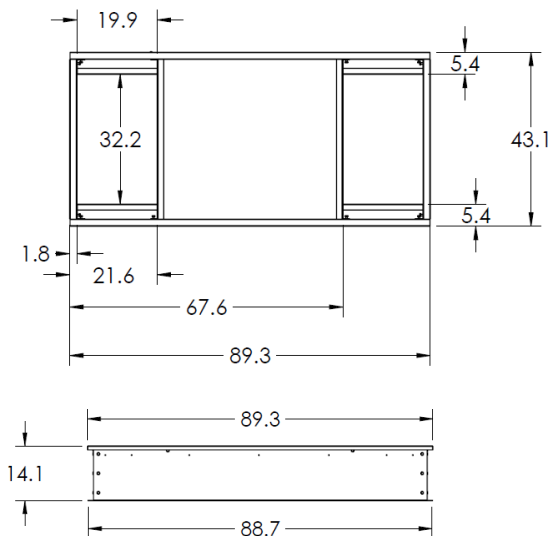


Top View

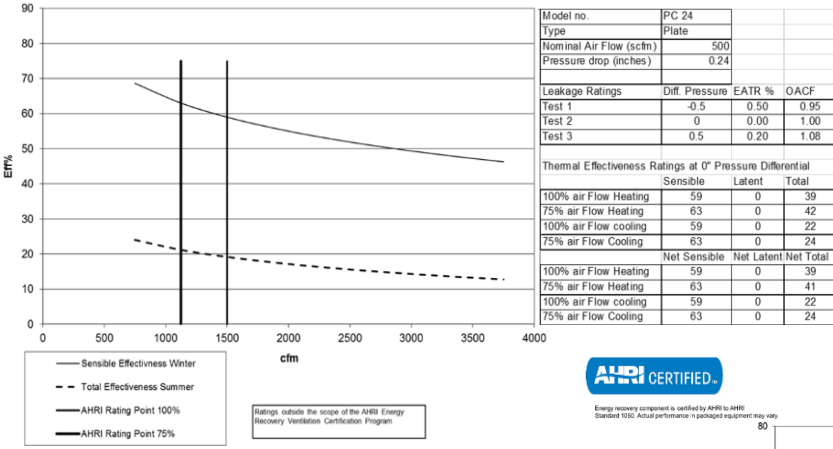


Typ. Bottom View: Downflow. NOTE: ALL BOTTOM DUCT CONNECTIONS 32 X 16

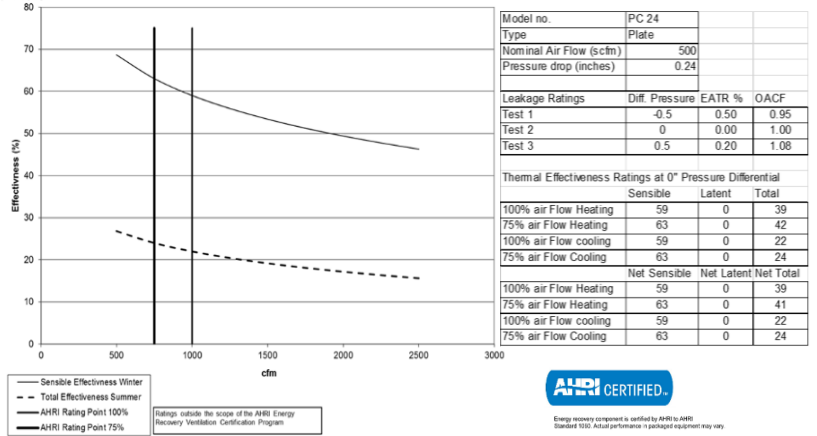
SHOP DRAWINGS – STANDARD 14-inch ROOF CURB, p/n RC303540-14



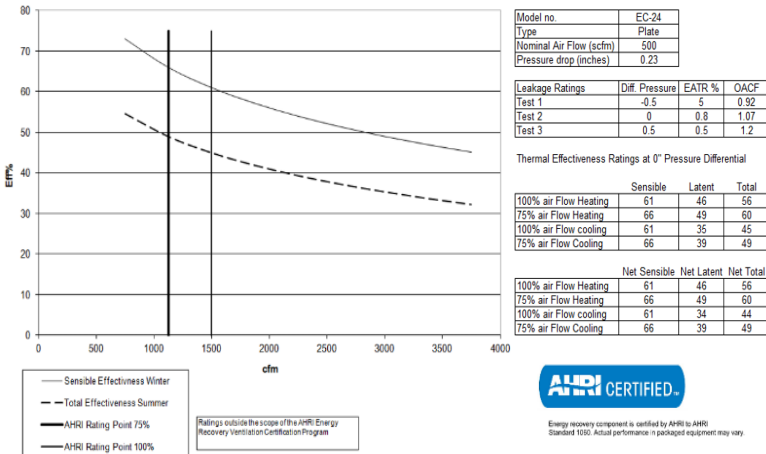
HRV PERFORMANCE – AHRI 1060



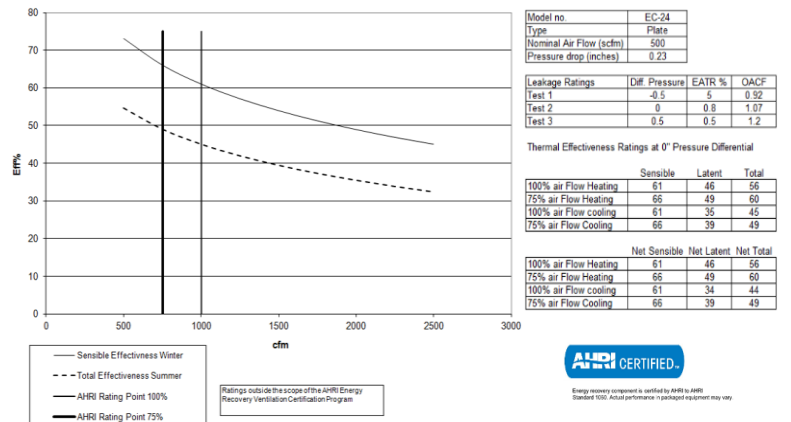
HRV PERFORMANCE FACE & BYPASS – AHRI 1060



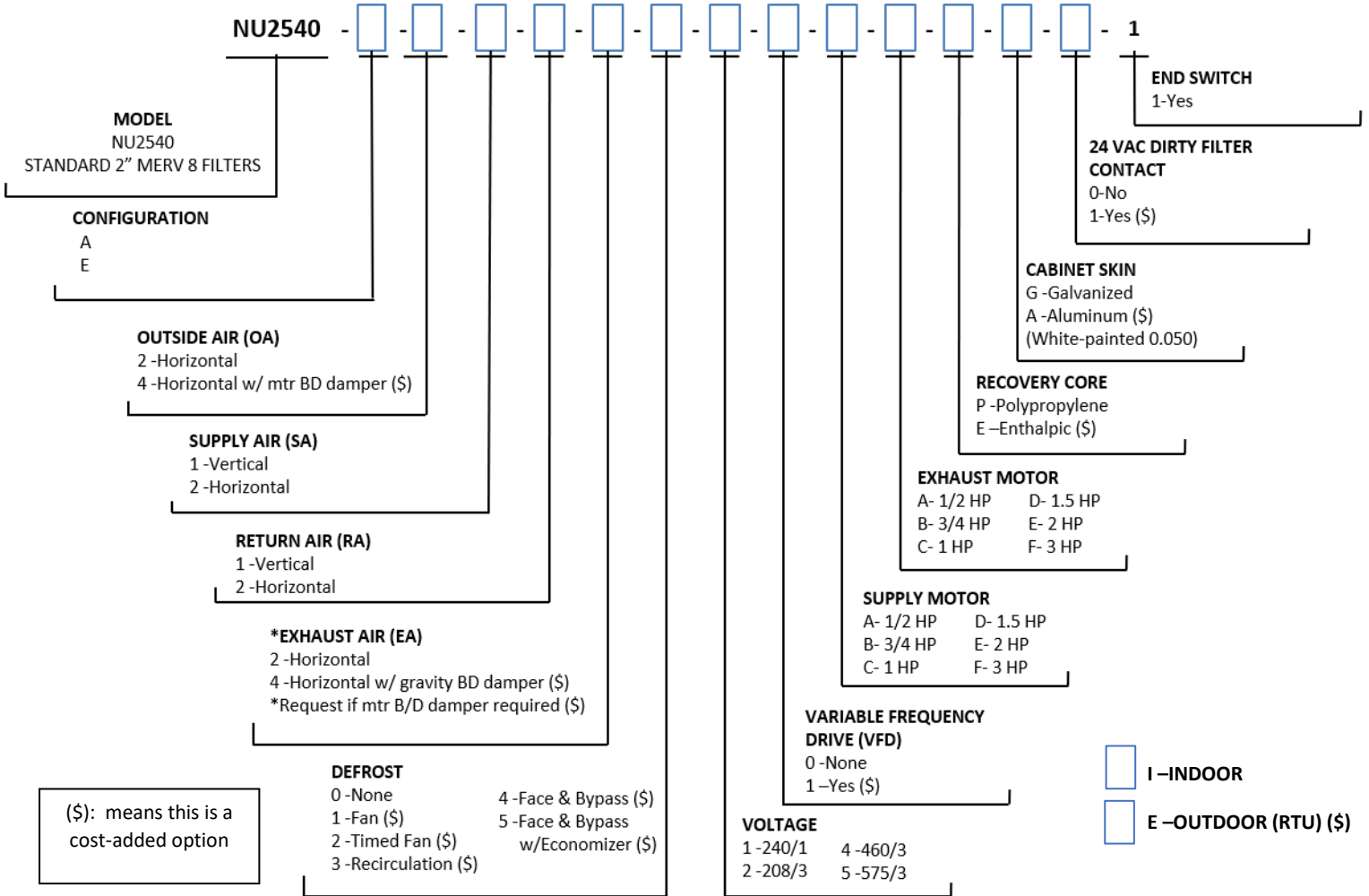
ERV PERFORMANCE – AHRI 1060



ERV PERFORMANCE FACE & BYPASS – AHRI 1060



PRODUCT SELECTION/ORDERING INFORMATION: NU2540



ADD-ON OPTIONS/ACCESSORIES: NU2540

- 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		