



Casing

Interior cabinet with double wall

Material : Pre painted (white color) 22GA steel exterior and 22GA galvanized steel interior

Access door with ¼ turn handle

Insulation : 1 in

Height : 29 ½ in

Width : 87 1/8 in

Depth : 49 3/8 in

Weight : 621 lbs to 800 lbs

Drain connection : 1 in NPT

Mount

On platform or suspended

Blower

Diameter : 12 in

Width : 9 in

Shaft diameter : 1 in

Drive : belt and variable pulley

Motors

Type: ODP, inverter duty 10:1, 1725 RPM

Maximum power: 3 HP

Drive assembly/Blower: on anti-vibration isolator

Supply damper

Type: Insulated and profiled parallel aluminum blades

Actuator: 6Nm, 24V

Exhaust damper

Type: Non insulated gravity back draft

Defrost available

- Per defrost cycle (recirculation or evacuation only)

Aluminum and polypropylene

DEFROST CYCLE TEMPERATURE			
Outside temperature		Standard	Extended
Celsius	Fahrenheit	min deg/vent	min deg/vent
t > -5	t > 23	n.a.	n.a.
-5 > t > -25	23 > t > -13	7/32	10/25
-25 > t	-13 > t	7/20	10/15

Enthalpy

DEFROST CYCLE TEMPERATURE			
Outside temperature		Standard	Extended
Celsius	Fahrenheit	min deg/vent	min deg/vent
t > -10	t > 14	n.a.	n.a.
-10 > t > -25	14 > t > -13	9/22	10/20
-25 > t	-13 > t	10/20	10/15

- Per preheating (set point at -5°C with aluminum and polypropylene, -10°C with enthalpy)

Supply and exhaust filters

Quantity: 2

Type: Pleated, MERV 7

Dimensions: 12 in X 24 in X 4 in

Recovery core

• POLYPROPYLENE

Dimensions : 16 in X 16 in X 15 5/8 in

Quantity : 3

Pitch : 0.12 in (3 mm)

• ALUMINUM certified



Dimensions : 16.34 in X 16.34 in X 15 5/8 in

Quantity : 3

Pitch : 0.13 in (3.3 mm)

• ENTHALPY certified

Dimensions : 15 in X 15 in X 15 5/8 in

Quantity : 3

Pitch : 0.10 in (2.5 mm)



Apparatus control

Dry contact (input):

- Occupation control
- apparatus start-up
- activation of the exchange modes*

Dry contact (output):

- start-up confirmation
- General alarm

Possibility of recirculation when unoccupied*

Access panel with fuse less switch NEMA 4

Single point power connection

24VAC socket 20VA accessories

* with recirculation option

Available options

- Dirty filter contact
- Recirculation
- Insulated, motorised exhaust damper
- Low air flow contact
- Low temperature contact
- 2 speed motors
- VFD on blower
- Preheat

Warranty

Core assembly – Limited 10 year warranty

All other covered components – Limited 2 year warranty



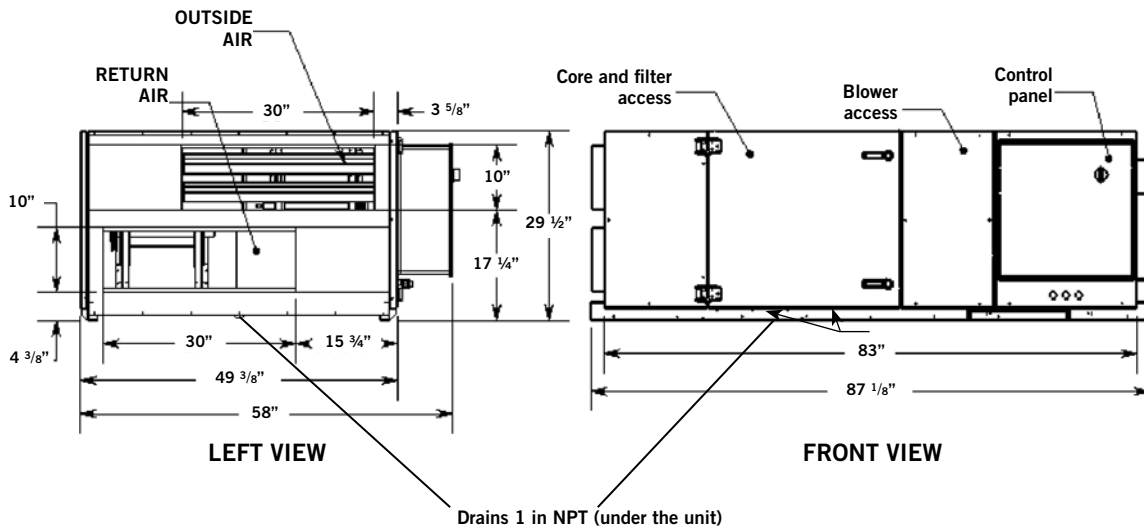
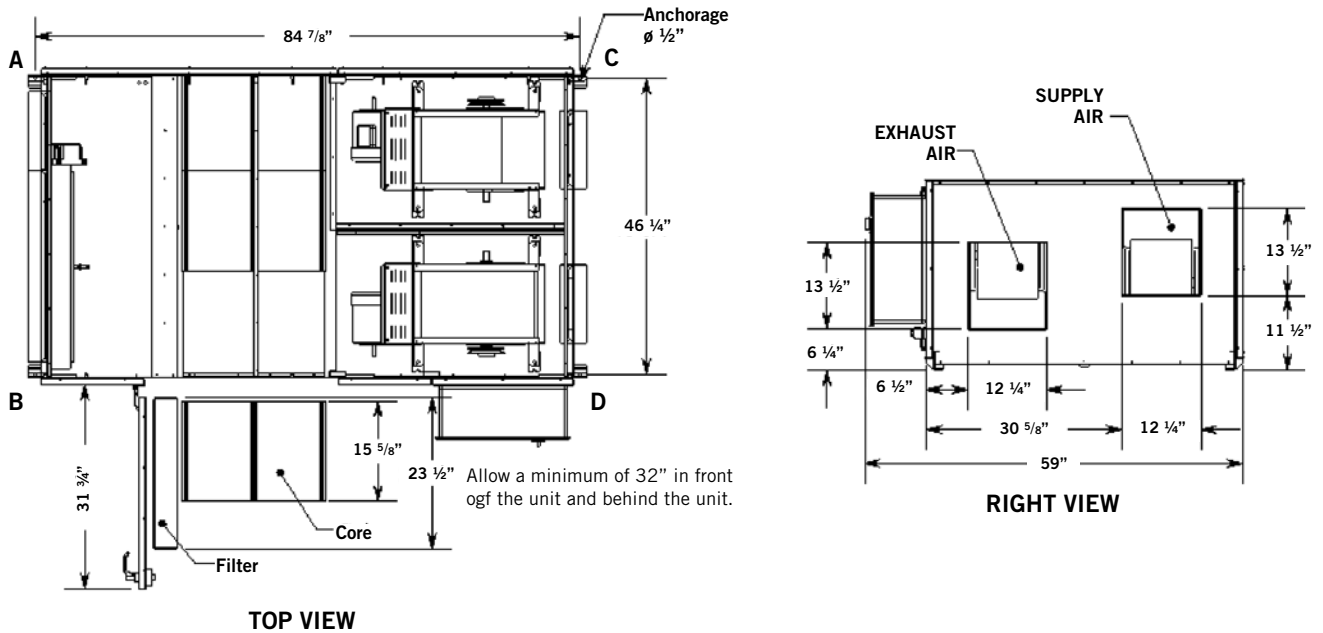
Certified



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Dimension and weight

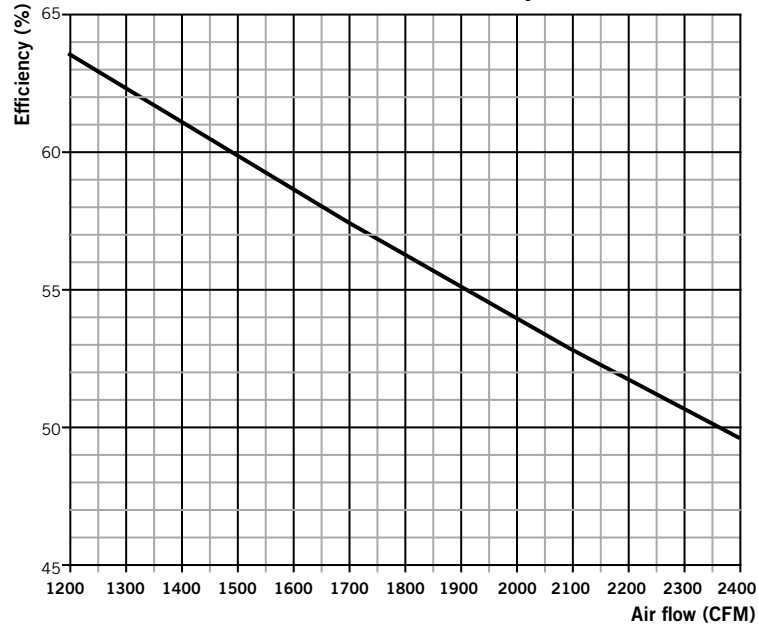


Weight distribution

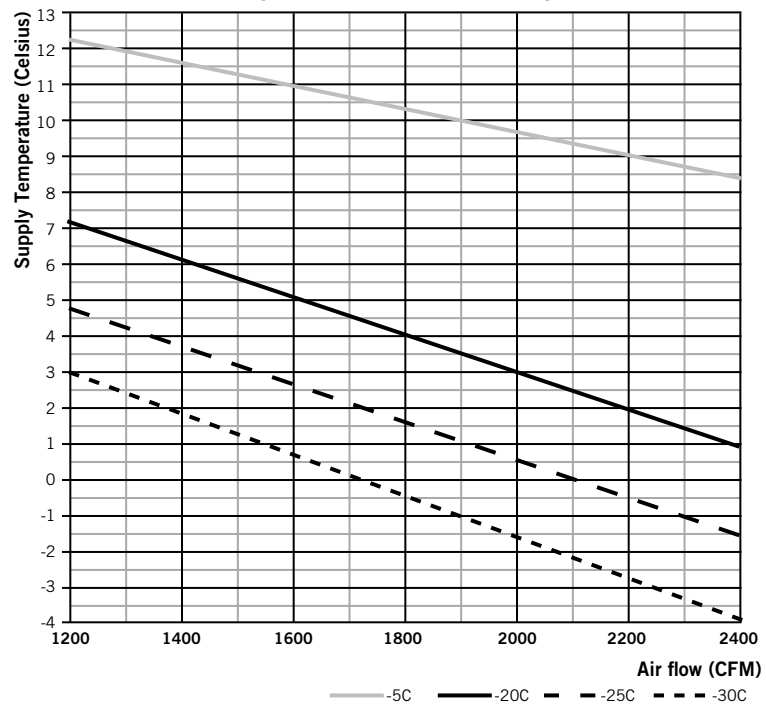
Points	Min		Max	
	Lbs	kg	Lbs	kg
A	130	59	165	75
B	153	70	188	85
C	155	70	209	95
D	183	83	238	108
Total	621	282	800	364

Core performance

**C2000e and C2000i
POLYPROPYLENE core
Net sensible efficiency**

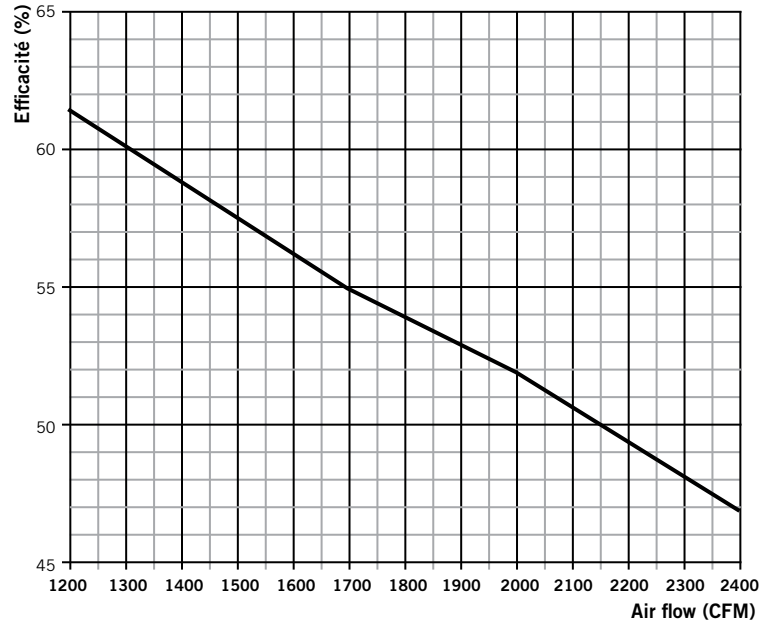


**C2000e and C2000i, POLYPROPYLENE core
Supply Temperature T2
(T3 at 22C and 30% RH)**

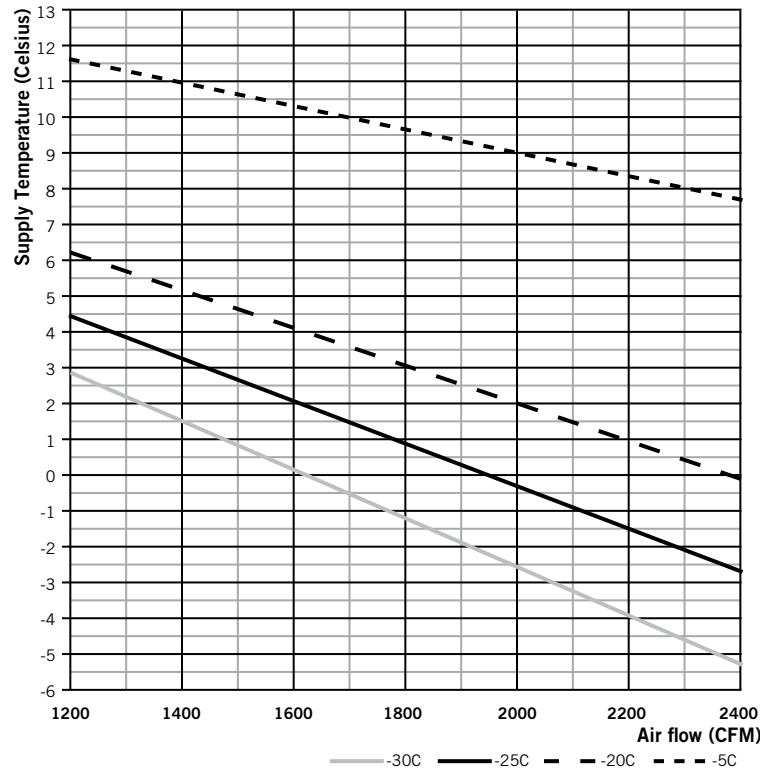


Core performance (continued)

C2000e and C2000i
ALUMINUM Core
Net sensible Efficiency

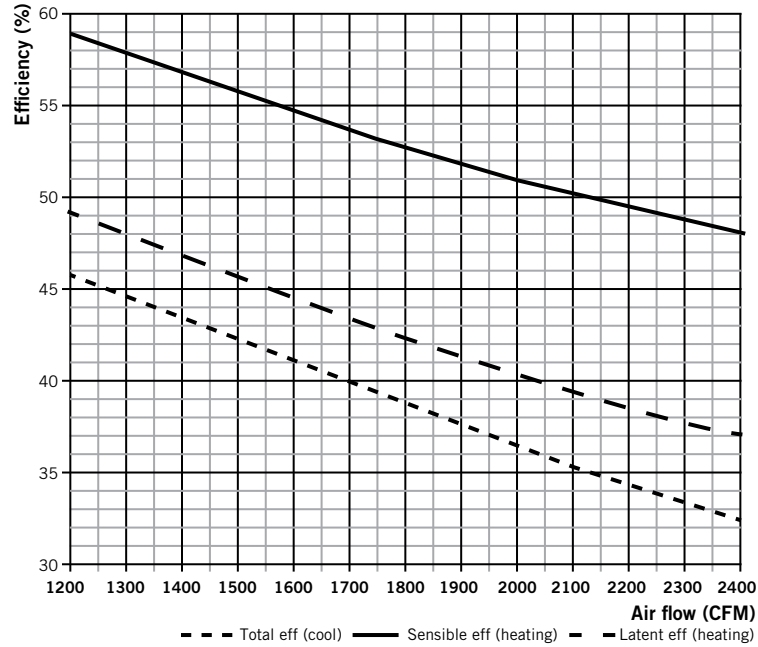


C2000e and C2000i, ALUMINUM Core
Supply Temperature T2
(T3 at 22C and 30% RH)

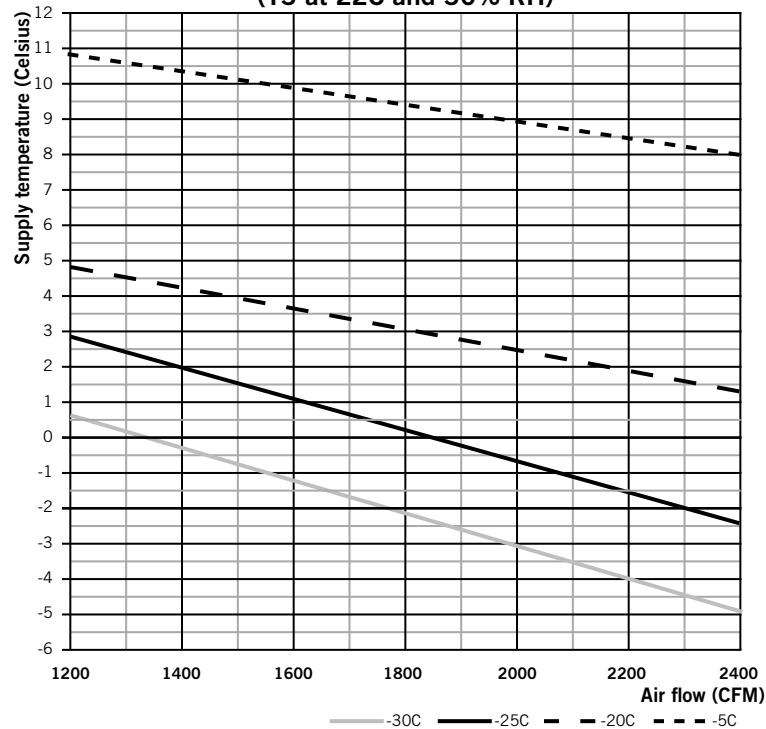


Core performance (continued)

**C2000e and C2000i
ENTHALPY Core**



**C2000e et C2000i, ENTHALPY CORE
Supply temperature T2
(T3 at 22C and 30% RH)**



The heating capacity can be calculated as follow:

$$kW = \frac{CFM * \Delta T (^{\circ}C)}{1666}$$

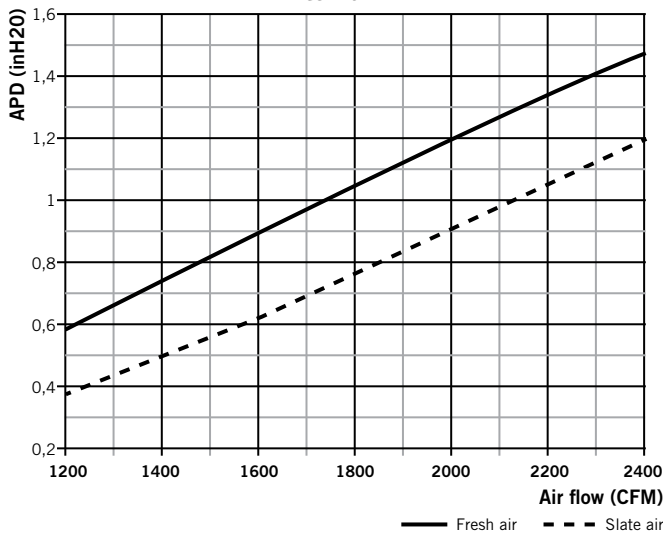
$$kW = \frac{CFM * \Delta T (^{\circ}F)}{3000}$$

Note: The efficiency are based on ARI standard conditions

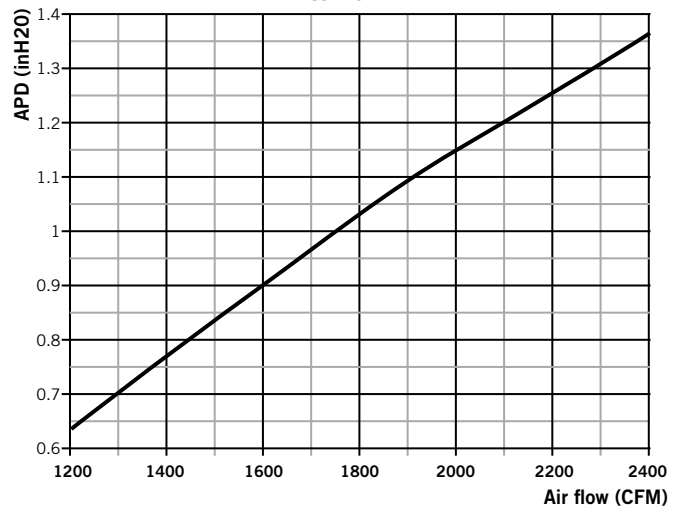
ARI 1060 standards conditions		Conditions	
		Heating	Cooling
Outside temperature	Dry bulb	35°F (1.7°C)	95°F (35°C)
	Wet bulb	33°F (0.6°C)	78°F (26°C)
Exhaust air temperature	Dry bulb	70°F (21°C)	75°F (24°C)
	Wet bulb	58°F (14°C)	63°F (17°C)

Internal Air Pressure Drop

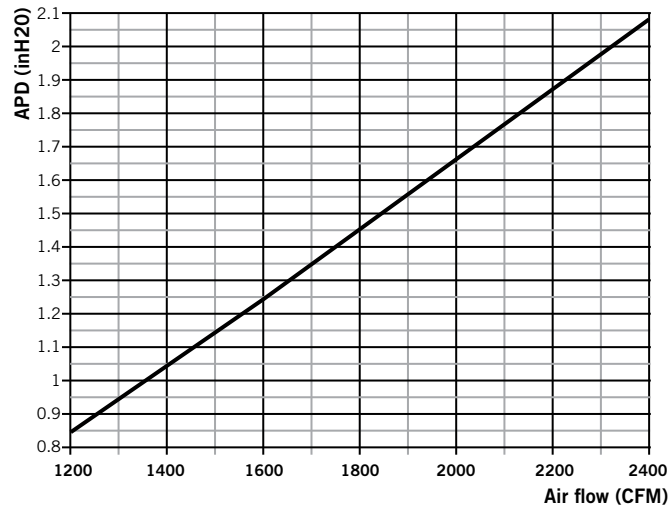
C2000e and C2000i, polypropylene core internal ADP



C2000e and C2000i, aluminum core internal ADP



C2000e and C2000i, enthalpy core internal ADP



Fan curve

Model G12-9 912-9

Max Wheel RPM 2140

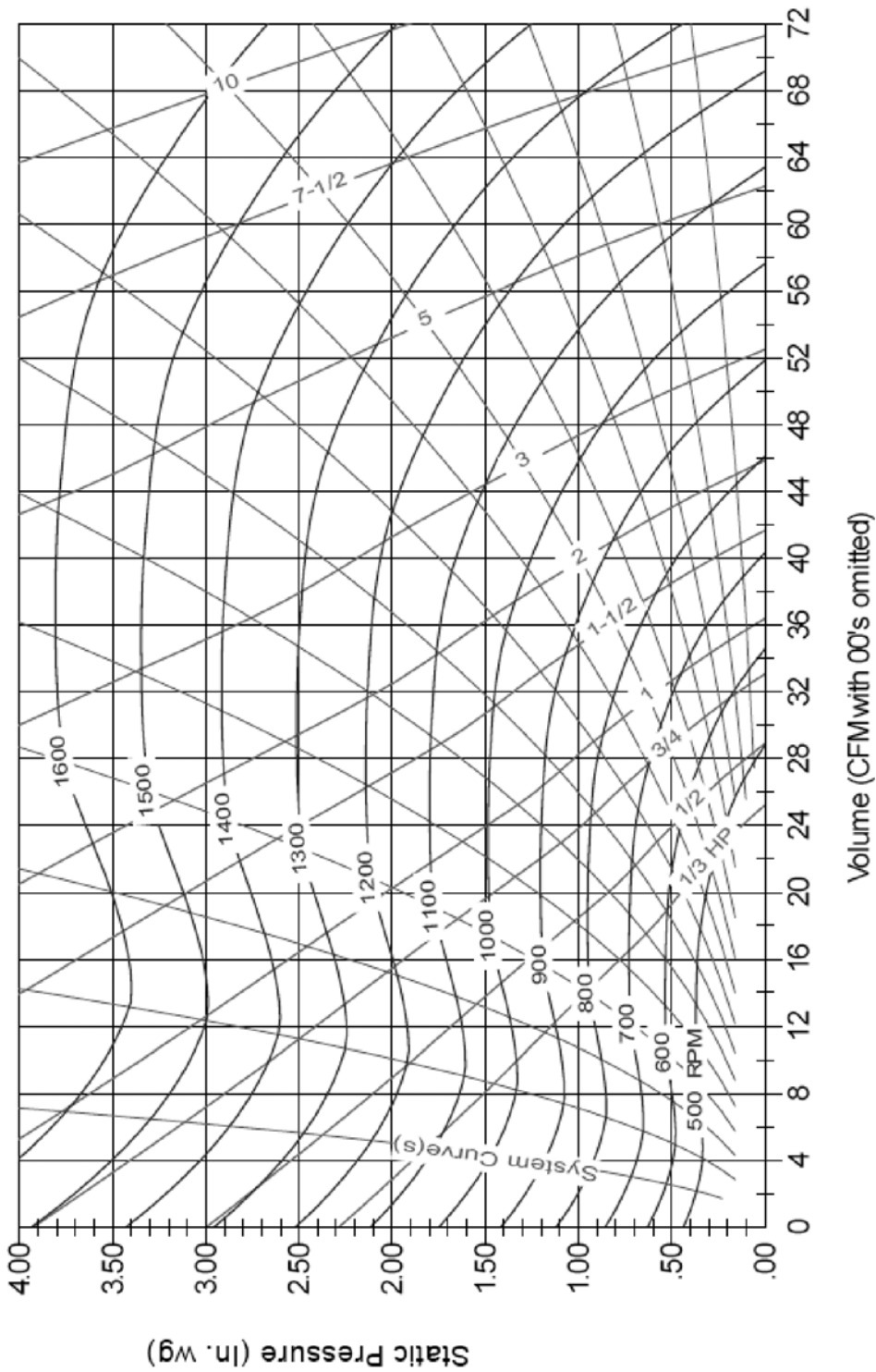
Shaft Diameter, in. See Component Limits

Max HP See Component Limits

Performance curves based on tests made in accordance with A.M.C.A. 210-85. Tested with discharge duct. Horsepower does not include drive losses. Standard air density 0.075 Lb/Cu. Ft.

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Printed: November 1999



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Air flow performance chart*

C2000e and C2000i, POLYPROPYLENE Core												
External Static Pressure (inH2O), SUPPLY												
CFM	0.25		0.5		0.75		1		1.25		1.5	
	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
1200	758	0.288	881	0.384	988	0.468	1084	0.564	1171	0.660	1250	0.768
1400	822	0.408	933	0.504	1035	0.612	1128	0.720	1213	0.828	1292	0.936
1600	883	0.552	982	0.660	1078	0.768	1167	0.888	1250	1.008	1328	1.140
1800	940	0.720	1030	0.828	1118	0.960	1203	1.092	1284	1.224	1360	1.356
2000	989	0.900	1073	1.020	1152	1.152	1232	1.296	1309	1.440	1383	1.584
2200	1031	1.104	1111	1.236	1186	1.380	1258	1.524	1331	1.668	1402	1.824
2400	1072	1.332	1149	1.476	1221	1.620	1290	1.776	1357	1.932	1422	2.100

External Static Pressure (inH2O), EXHAUST												
CFM	0.25		0.5		0.75		1		1.25		1.5	
	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
1200	637	0.216	769	0.300	890	0.384	996	0.480	1091	0.576	1177	0.672
1400	702	0.312	817	0.408	929	0.504	1031	0.612	1124	0.720	1210	0.828
1600	765	0.432	871	0.540	970	0.648	1067	0.756	1157	0.876	1240	0.996
1800	820	0.576	918	0.684	1009	0.804	1097	0.924	1183	1.056	1265	1.188
2000	875	0.744	967	0.864	1053	0.996	1133	1.128	1213	1.260	1291	1.404
2200	924	0.936	1011	1.068	1092	1.200	1169	1.344	1241	1.488	1313	1.632
2400	977	1.164	1059	1.308	1136	1.452	1210	1.596	1280	1.752	1346	1.908

C2000e & C2000i, aluminum core												
External static pressure (inH2O), SUPPLY and EXHAUST												
CFM	0.25		0.5		0.75		1		1.25		1.5	
	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
1200	731	0,240	851	0,396	949	0,492	1046	0,600	1121	0,720	1215	0,840
1400	798	0,408	894	0,480	994	0,672	1078	0,744	115	0,888	1224	0,960
1600	845	0,540	928	0,660	1008	0,756	1101	0,900	1189	1,044	1256	1,140
1800	896	0,720	985	0,840	1051	0,924	1128	1,068	1200	1,176	1275	1,380
2000	935	0,876	1010	0,972	1082	1,104	1165	1,260	1223	1,476	1294	1,560
2200	991	1,056	1038	1,176	1106	1,380	1195	1,512	1251	1,620	1304	1,776
2400	1011	1,260	1081	1,464	1138	1,584	1210	1,740	1282	1,812	1345	2,040

C2000e & C2000i, enthalpy core												
External static pressure (inH2O), SUPPLY and EXHAUST												
CFM	0.25		0.5		0.75		1		1.25		1.5	
	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP
1200	832	0,372	949	0,504	1029	0,588	1111	0,708	1200	0,780	1275	0,912
1400	902	0,528	1001	0,672	1078	0,744	1173	0,888	1231	0,984	1322	1,104
1600	965	0,696	1058	0,816	1125	0,912	1208	1,080	1292	1,200	1362	1,356
1800	1020	0,900	1104	1,020	1176	1,140	1262	1,320	1323	1,476	1395	1,560
2000	1097	1,104	1156	1,236	1224	1,440	1302	1,560	1370	1,740	1418	1,836
2200	1148	1,380	1209	1,536	1278	1,608	1345	1,800	1403	2,064	1469	2,160
2400	1203	1,620	1268	1,824	1323	2,040	1395	2,160	1450	2,340	1508	2,448

*HP = BHP x 1.2

Electric data

Needs preheating (kW) Polypropylene, aluminum and enthalpy core													
Airflow (CFM)													
	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
-10	4,0	4,3	4,6	5,0	5,3	5,6	5,9	6,3	6,6	6,9	7,3	7,6	7,9
-15	7,9	8,6	9,2	9,9	10,6	11,2	11,9	12,5	13,2	13,9	14,5	15,2	15,8
-20	11,9	12,9	13,9	14,9	15,8	16,8	17,8	18,8	19,8	20,8	21,8	22,8	23,8
-25	15,8	17,2	18,5	19,8	21,1	22,4	23,8	25,1	26,4	27,7	29,1	30,4	31,7
-30	19,8	21,5	23,1	24,8	26,4	28,1	29,7	31,4	33,0	34,7	36,3	38,0	39,6

T (°C)

Electric coil FLA							
Amp/Kw multiplier							
VOLTAGE SUPPLY							
120/1/60	208/1/60	230/1/60	208/3/60	230/3/60	460/3/60	575/3/60	
8,33	4,81	4,17	2,78	2,41	1,20	0,96	

Blower motor FLA (A)						
VOLTAGE SUPPLY						
HP	208/1/60	230/1/60	208/3/60	230/3/60	460/3/60	575/3/60
1/2	4,1	4,3	2,1	2,2	1,1	0,9
3/4	6,2	6,6	3,0	2,8	1,4	1,1
1	6,7	6,8	3,4	3,2	1,6	1,4
1 1/2	9,1	9,1	4,8	4,8	2,4	1,9
2	10,9	11,0	6,2	6,2	3,1	2,5
3	17,4	16,8	8,8	8,2	4,1	3,5
5	23,0	21,0	14,4	13,0	6,5	5,3
7 1/2	32,0	32,0	25,0	19,2	9,6	7,8

Control FLA (A)					
VOLTAGE SUPPLY					
208/1/60	230/1/60	208/3/60	230/3/60	460/3/60	575/3/60
0,9	0,8	0,5	0,5	0,2	0,2

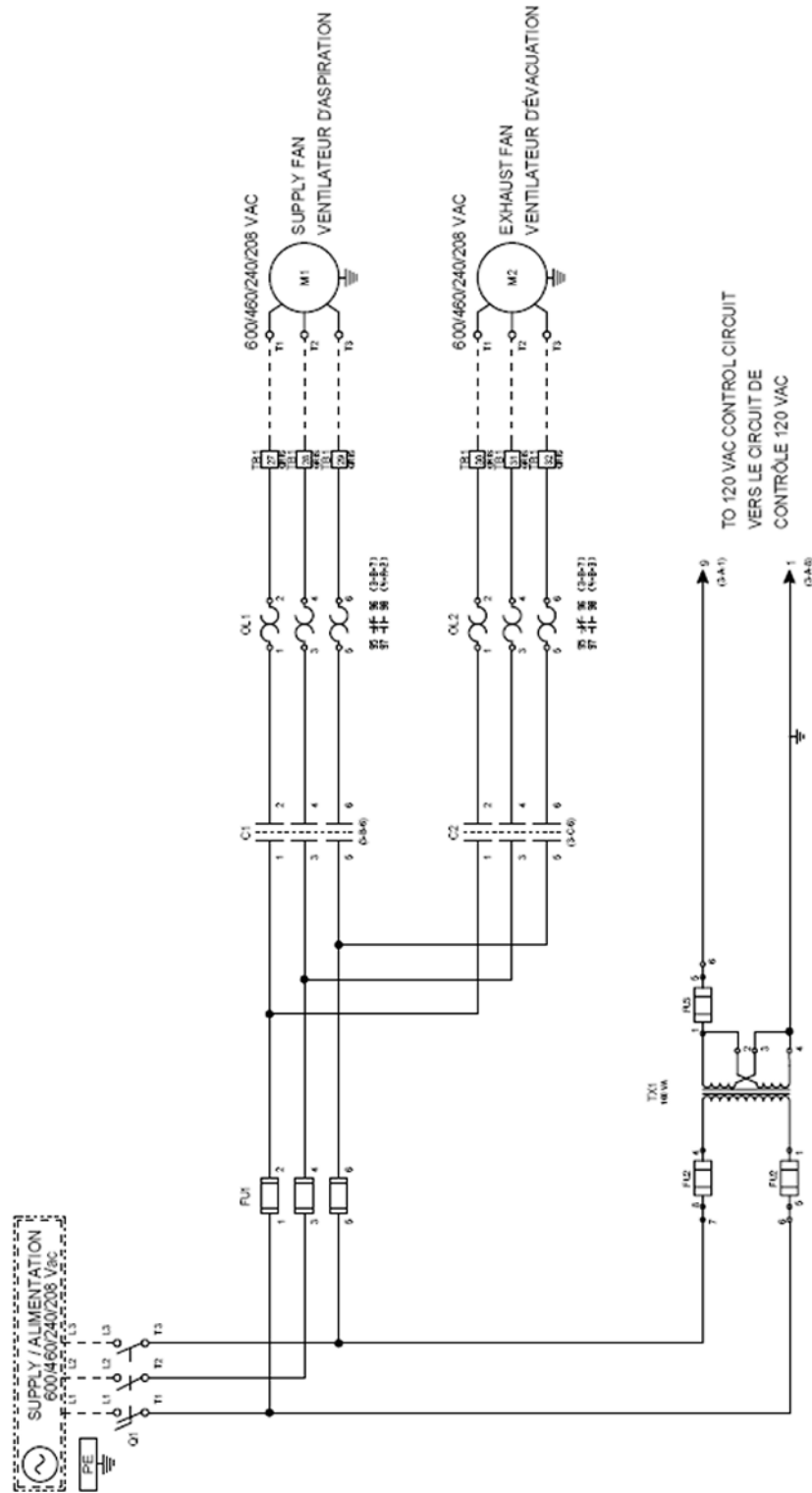
MCA calculation (unit with electric heater)			MCA calculation (unit without electric heater)		
1.25 X sum of all motor FLA =			1.25 X largest motor FLA =		
1.25 X sum of all electric heater FLA =	+		Sum of all other motor FLA =	+	
Controls FLA =	+		Controls FLA =	+	
Calculated Total FLA =			Calculated total FLA =		

MOP calculation	
2.25 X largest motor FLA =	
Sum of all heater FLA =	+
Sum of all motor FLA =	+
Controls FLA =	+
Calculated Total MOP =	
Actual MOP* (from Standard Overcurrent Protection Chart) =	
From the calculated MOP value, select the next smallest value of protection from the Standard Overcurrent Protection chart to get the actual MOP value.	
Exception 1: From the Standard Overcurrent Protection chart, the actual MOP values must be the next larger if the smallest one is not 125% of the heater FLA.	
Exception 2: If the actual MOP is lower than the MCA, the actual MOP is the next larger value of the MCA in the Standard Overcurrent Protection Chart.	

Standard overcurrent protection				
3	8	20	45	90
4	9	25	50	100
5	10	30	60	110
6	12	35	70	125
7	15	40	80	150



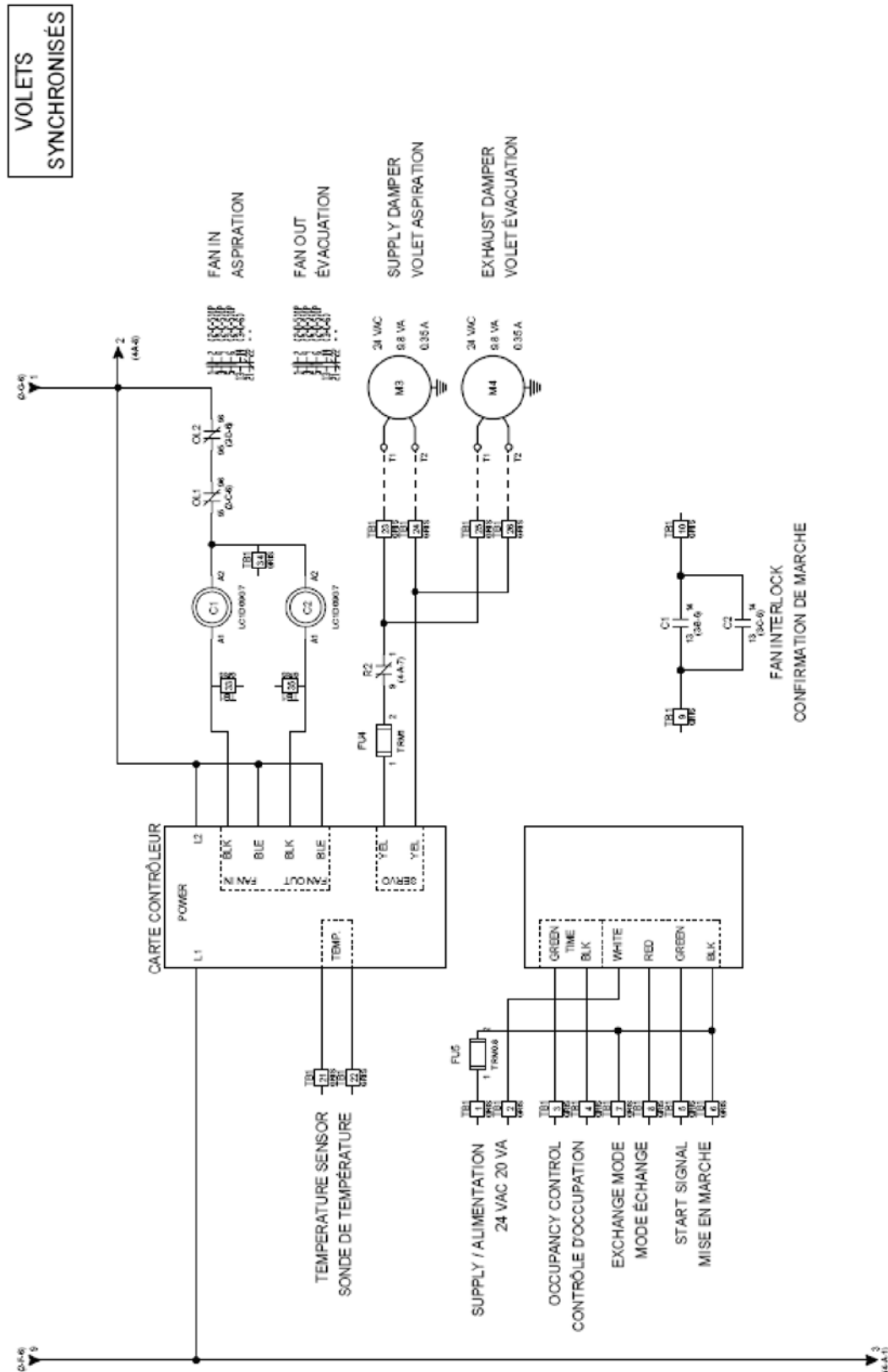
Standard electrical plan: Power section, 3 phase power supply



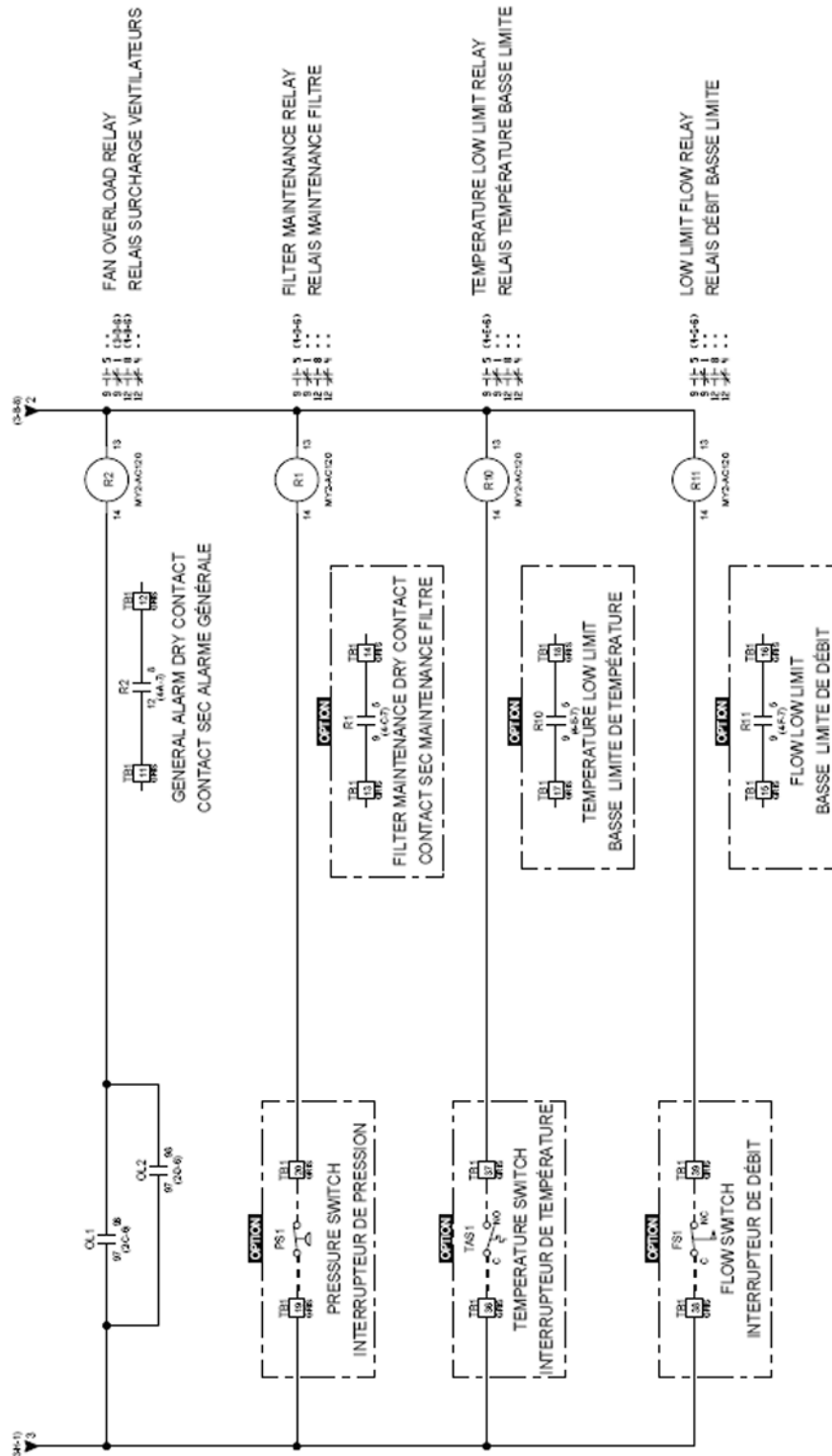
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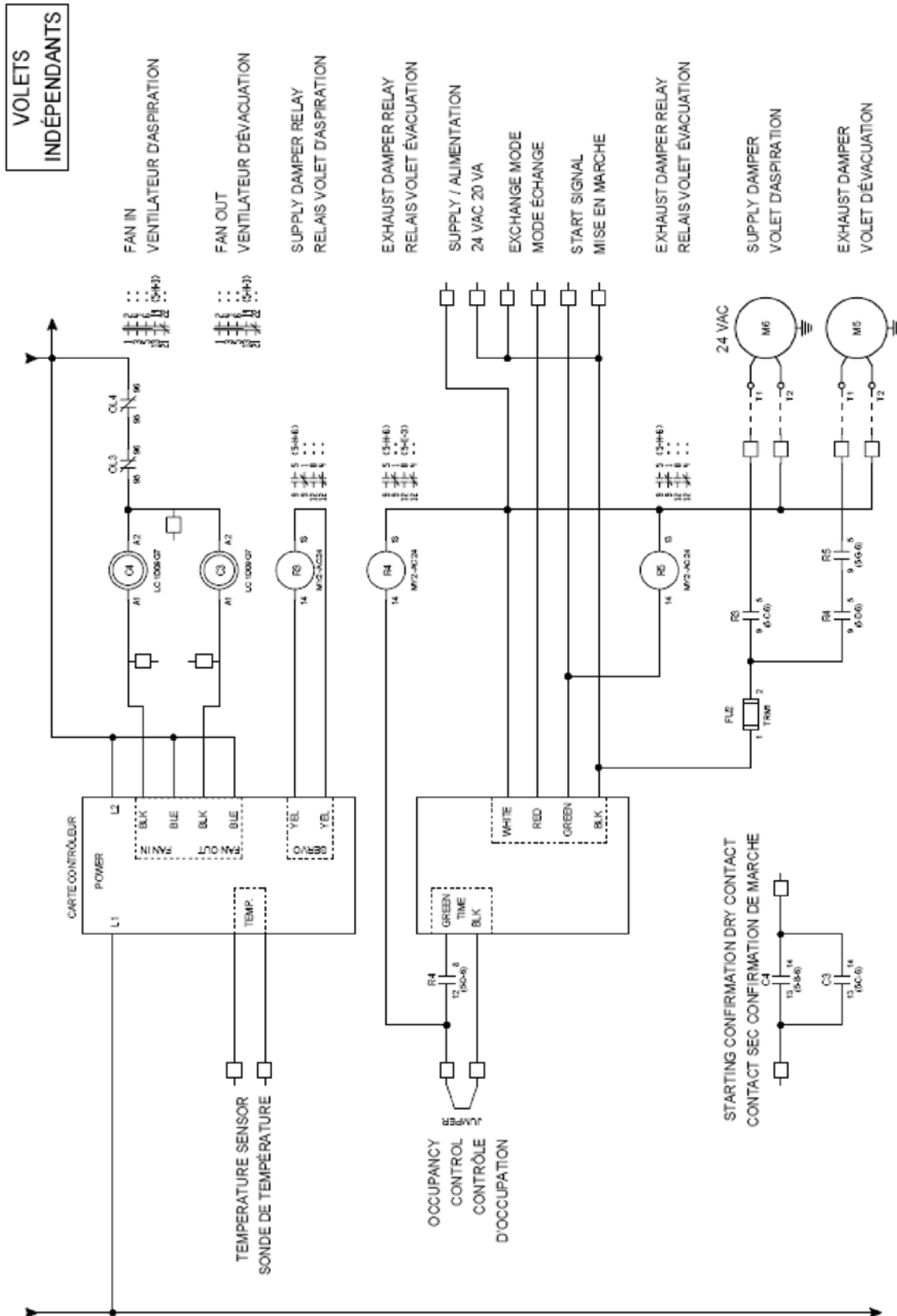
Standard electrical plan: Control section (synchronized damper)



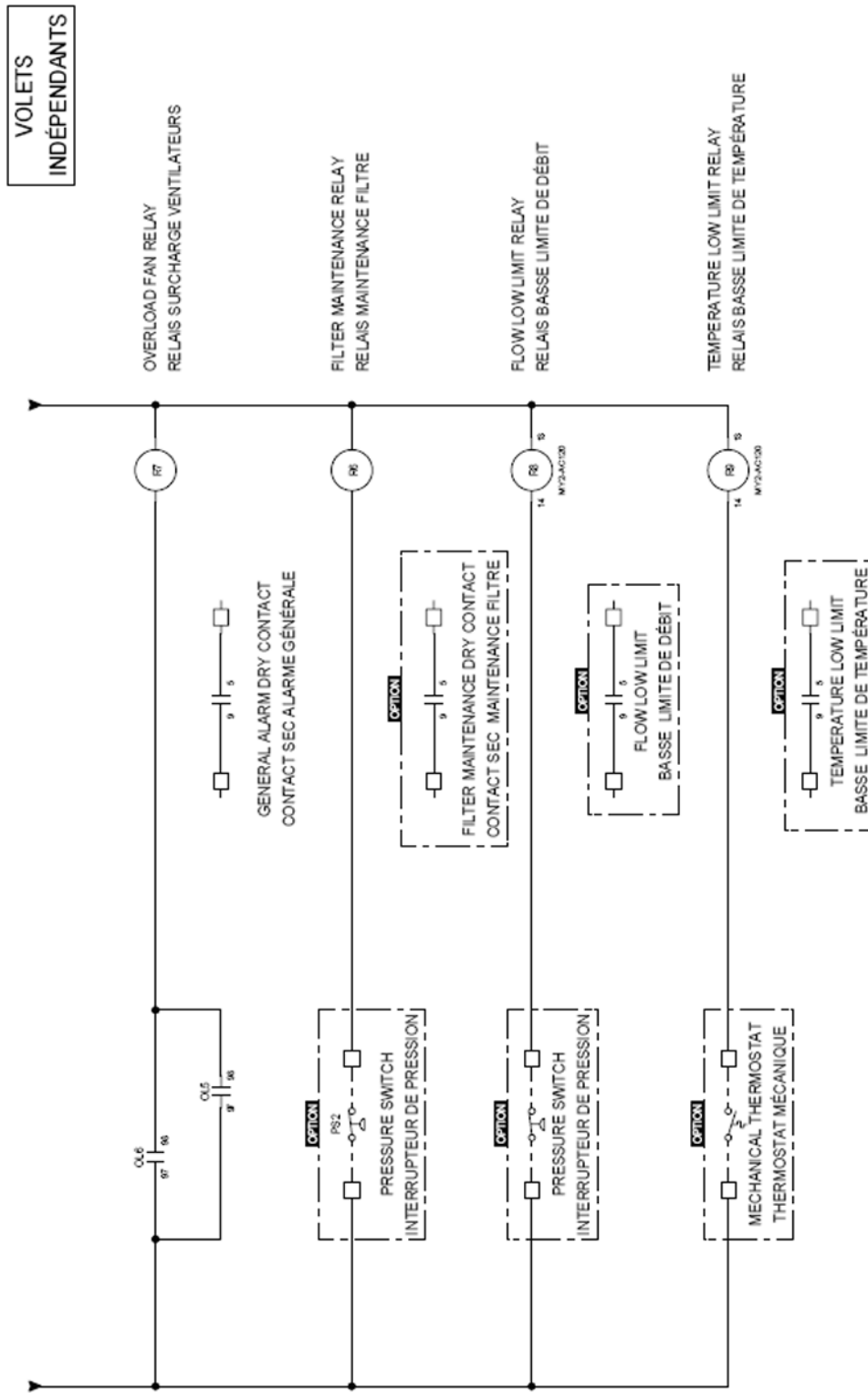
Standard electrical plan: Control section (synchronized damper) (continued)



Standard electrical plan: Control section (independant damper)



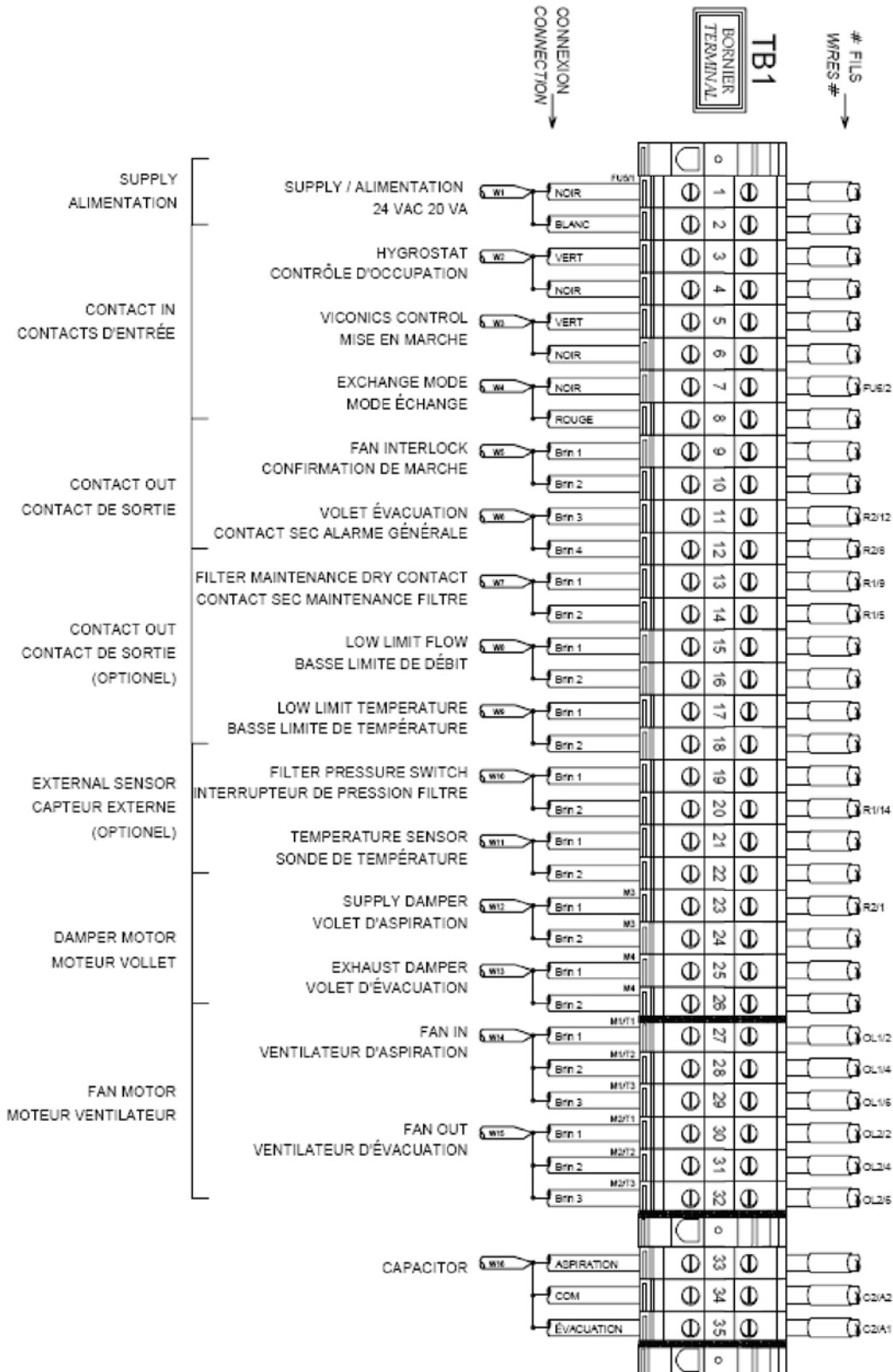
Standard electrical plan: Control section (independent damper) (continued)



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Standard electrical plan: Junction section



Product identification

C2000i					CASING & CORE									
Series		Size		Application	Configuration		Defrost		Core		Coil 1		Coil 2	
C	Plate Exchanger	2000	2000 CFM	i indoor	H Horizontal (std)	0 None	A Polypropylene	0 None	0 None	0 None	0 None	0 None	0 None	
					S Special	1 Preheat	B Aluminum ARI							
						2 Exhaust only	C Enthalpy							
						3 Recirculation								

ELECTRICAL REQUIREMENT					BLOWER SELECTION							OPTIONS			
Voltage		Phase		Control		Supply Blower			Exhaust blower			Motor type		OPTIONS	
						HP	RPM		HP	RPM					
A	115	1	1 phase	D	Dry Contact (std)	F 0.5	1 600-1000	F 0.5	1 600-1000	S	ODP Single Speed (std)	A	Dirty Fliter		
B	208	3	3 phases	B	BACnet	H 0.75	2 800-1200	H 0.75	2 800-1200	D	ODP Two Speed	B	Low temperature limit switch		
C	230			P	Power only	J 1	3 1000-1400	J 1	3 1000-1400	T	TEFC Single Speed	C	Low air flow limit switch		
D	460					K 1.5	4 1200-1600	K 1.5	4 1200-1600			G	Motorized/insulated exhaust damper		
E	575					L 2	5 1400-1800	L 2	5 1400-1800			J	VFD on blower		
						M 3	6 1600-2000	M 3	6 1600-2000			S	Special		
							7 1800-2200		7 1800-2200						

Ex.: **C 2000 i - H 2 A 0 0 - E 3 D - L 4 K 3 S - A B G**