

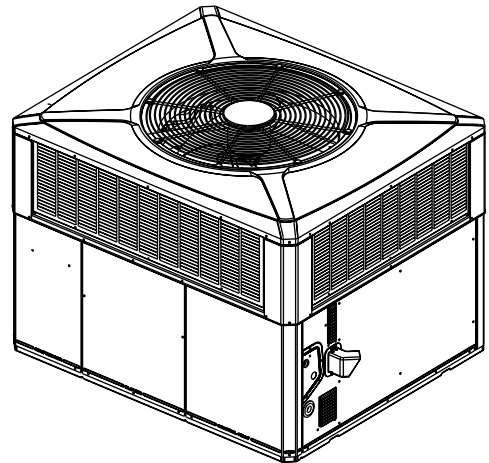
Preliminary

**TRANE®**

Product and Submittal Data

EarthWise™ Hybrid Dual Fuel Packaged System Single Packaged Dual Fuel, Priority, Convertible

5DCZ5024A1060A
5DCZ5030A1070A
5DCZ5036A1070A
5DCZ5042A1090A
5DCZ5048A1090A
5DCZ5060A1115A



*Note: Graphics in this document are for representation only.
Actual model may differ in appearance.*



Introduction

Packaged Convertible Dual Fuel System

Trane offers a complete family of dual fuel heating and cooling systems, designed to keep you comfortable all year long, regardless of the weather, while keeping your operating costs as low as possible. The heat pump operates efficiently as both an air conditioner and a heater. In the summer, the heat pump cools your home just like any other air conditioner by pulling the heat from the inside and releasing it outdoors. In the winter, it captures the heat that is always present in the outdoor air and transfers it indoors. The gas furnace provides additional heating capacity for cooler weather.

Single Packaged Convertible Dual Fuel Systems are easy and versatile to install.

Because cooling and heating functions are all contained in a single cabinet, Trane packaged dual fuel system is easy to install and service. It can be flush mounted beside your home at ground level or placed on the roof for horizontal or downflow installation. When connected to a *CONT402, 802, or 803 comfort control, and air distribution ducts, you have a highly efficient, total home comfort system.

Single Packaged Dual Fuel Systems are unmatched in quality and reliability.

All major components on these products, including the compressor, have been designed and manufactured for maximum service. Every Climatuff® compressor is designed and manufactured to exacting specifications. Each design is life tested in extreme environments to ensure reliable and long lasting operation in normal applications. Each compressor has internal motor protection for added reliability.

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Revision History

- Updated Optional Equipment Listing table, and added Adaptor Kit for CleanEffects and Media Filter.
- Updated product specification tables.
- Updated wiring diagrams images.



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Optional Equipment Listing

Table 1. Optional equipment list for 5DCZ5 packaged units (check mark [✓] indicates accessories included)

Hinged Filter Access Door (5DCZ5024-036) ^(a)	BAYACCDOR1A[]
Hinged Filter Access Door (5DCZ5042-060) ^(a)	BAYACCDOR2A[]
Roof Curb Full Perimeter (5DCZ5024-036) ^(b)	BAYCURB050B[]
Roof Curb Full Perimeter (5DCZ5042-060) ^(b)	BAYCURB051B[]
Roof Curb Utility Extension Kit (5DCZ5024-036)	BAYUTIL101B[]
Roof Curb Utility Extension Kit (5DCZ5042-060)	BAYUTIL102B[]
Outside Air Control for V S Economizer (5DCZ5024-060) ^(c)	BAYOSAC001C[]
0-25% Motorized Outside Air Damper (5DCZ5024-036)	BAYDMPR101A[]
0-25% Motorized Outside Air Damper (5DCZ5042-060)	BAYDMPR102A[]
0-25% Manual Fresh Air Damper (5DCZ5024-036) ^(d)	BAYOSAH001A[]
0-25% Manual Fresh Air Damper (5DCZ5042-060) ^(d)	BAYOSAH002A[]
0-100% Mod Economizer with Baro Relief (5DCZ5024-036) ^{(d)(e)(f)}	BAYECON107A[]
0-100% Mod Economizer with Baro Relief (5DCZ5042-060) ^{(d)(e)(f)}	BAYECON108A[]
0-100% Horizontal Economizer (5DCZ5024-036) ^{(d)(e)}	BAYECON207A[]
0-100% Horizontal Economizer (5DCZ5042-060) ^{(d)(e)}	BAYECON208A[]
Economizer Relay Kit (required for Heat Pump applications)	BAYRLAY006B[]
Enthalpy Control for Economizer (solid state)	BAYENTH001A[]
Remote Potentiometer (Used with all BAYECON.)	BAYSTAT023[]
1 to 2-in. Filter Frame (5DCZ5024-036) (20 x 25 filter not included) ^(d)	BAYFLTR101C[]
1 to 2-in. Filter Frame (5DCZ5042-060) (20 x 20,20X18 filter not included) ^(d)	BAYFLTR201C[]
Evaporator Defrost Control (Low Ambient Cooling) Kit ^(g)	BAYLOAM011A[]
Head Pressure Control (Low Ambient Cool) (208/240v) Kit ^(g)	BAYLOAM105A[]
Crankcase Heater Scroll (5DCZ5048, 060)(230v) ^(g)	BAYCCHT102A[]
Crankcase Heater Scroll (5DCZ5024-036)(230v) ^(g)	BAYCCHT103A[]
Adapter Curb 5DCZ5024-036 to BAYCURB030,38	BAYADAP050A[]
Adapter Curb 5DCZ5024-036 to BAYCURB033	BAYADAP051A[]
Adapter Curb 5DCZ5042-060A to BAYCURB030,38	BAYADAP052A[]
Adapter Curb 5DCZ5042-060A to BAYCURB033	BAYADAP053A[]
Adapter Curb 5DCZ5042-060A to BAYCURB034	BAYADAP054A[]
12-in. Duct Shroud Covers Horizontal 5DCZ5024-060 ^(h)	BAYCOVR112A[]
18-in. Duct Shroud Covers Horizontal 5DCZ5024-060 ^(h)	BAYCOVR118A[]
Extreme Condition Mounting Kit - All BAYCURB & BAYADAP	BAYEXMK001A[]
Extreme Condition Mounting Kit - All BAYUTIL	BAYEXMK002B[]
Extreme Condition Mounting Kit - All Slab Mounts	BAYEXMK003A[]
Lifting Lug Kit (All Models)	BAYLIFT002B[]
LP Conversion Kit (All 40K and 120K Models)	BAYLPKT100C[]
LP Conversion Kit (All 64K, 70K, and 96K Models)	BAYLPKT101C[]
LP Conversion Kit (All 75K Models)	BAYLPKT102C[]
LP Conversion Kit (All 60K, 90K Models)	BAYLPKT103A[]
LP Conversion Kit (All 115K Models)	BAYLPKT104A[]
Adaptor Kit for Installation of CleanEffects and 5-in. Media Filter (Horizontal) (5DCZ5024-036)	BAYACCEADP1B[]
Adaptor Kit for Installation of CleanEffects and 5-in. Media Filter (Horizontal) (5DCZ5042-060)	BAYACCEADP2B[]

^(a) BAYACCDOR1A requires BAYFLTR101C & BAYACCDOR2A requires BAYFLTR201C. They are not backward compatible to BAYFLTR101/201A.

^(b) Ships knocked down.

^(c) BAYOSAC001C is not compatible with BAYACCDOR1A or BAYACCDOR2A.

^(d) Must use internal filter frame when economizer or fresh air kit is used.

^(e) Dry bulb control standard with economizer.

^(f) Downflow only.

^(g) Low Ambient cooling requires crankcase heater (BAYCCHT-A).

^(h) BAYCOVR112, 118A will not cover 18-in. square-to-round applications.



Preliminary

Product Specifications

Table 2. Models - 5DCZ5024, 5DCZ5030, 5DCZ5036, 5DCZ5042, 5DCZ5048, and 5DCZ5060

Model	5DCZ5024	5DCZ5030	5DCZ5036	5DCZ5042	5DCZ5048	5DCZ5060
Rated Volts/Ph/Hz	208–230/1/60					
Performance Cooling BTUH ^(a)						
BTUH (High)	23400	29600	35400	42000	47000	57500
Indoor Airflow (CFM)	810	880	1100	1410	1600	1780
Power Input (kW)	1.94	2.64	3.12	3.55	4.09	5.06
BTUH (Low)	19200	24000	27800	34400	36600	46000
Indoor Airflow (CFM)	630	710	830	1090	1280	1290
Power Input (kW)	1.08	1.52	1.77	2.01	2.28	2.83
EER2 / SEER2	11.5/15.2	11.2/15.2	11.5/15.2	11.5/15.2	11.5/15.2	11.5/15.2
Sound Power Rating [dB(A)] ^(b)	66.8	67.3	70	72	72	80
HP Heating Performance						
(High Temp.) BTUH/COP (High)	22200/3.57	28800/3.47	33800/3.46	39000/3.76	42500/3.63	56500/3.29
Power Input (kW)	1.82	2.43	2.86	3.04	3.43	5.03
(Low Temp.) BTUH/COP (High)	13800	18600	21800	25600	28000	37800
Power Input (kW)	1.63	2.17	2.58	2.73	3.16	4.49
(High Temp.) BTUH/COP (Low)	16000/3.52	20800/3.46	23600/3.32	28600/3.84	31400/3.85	40000/3.26
Power Input (kW)	1.33	1.76	2.08	2.18	2.39	3.59
(Low Temp.) BTUH/COP (Low)	8600/2	12200/2.13	14000/2.09	16600/2.34	17200/2.2	24000/2.07
Power Input (kW)	1.26	1.68	1.96	2.08	2.29	3.4
HSPF2 (BTUH/Watt-Hr) ^(c)	7.2	7.2	8.1	7.2	8.1	7.2
Gas Heating Performance ^(d)						
Input BTUH - 1st Stage (Nat. Gas)	48600	56000	56000	72000	72000	92000
Input BTUH - 2nd Stage (Nat. Gas)	60000	70000	70000	90000	90000	115000
AFUE	81					
Temp. Rise-Min/Max (°F)	40 / 70	30 / 60	30 / 60	30 / 60	30 / 60	30 / 60
Orifice Qty / Drill Size (Nat. Gas) ^(e)	2 / #37	2 / #33	2 / #33	3 / #37	3 / #37	3 / #32
Power Conn. — V/Ph/Hz						
208–230/1/60						
Min. Brch. Cir. Ampacity ^(f)	18	23	23	30	31	40
Fuse Size — Max. (amps)	25	35	35	45	45	60
Compressor						
2 Stage Scroll						
Volts/Ph/Hz						
208–230/1/60						
R.L. Amps — L.R. Amps	10.3 / 62.0	14.6 / 82.0	14.6 / 90.0	18.2 / 106.0	18.2 / 138.0	25.2 / 147.3
Outdoor Coil — Type						
Spine Fin						
Rows/F.P.I	2 / 24					
Face Area (sq. ft.)	15.49	15.49	15.49	23.57	23.57	23.57
Tube Size (in.)	3/8					
Indoor Coil — Type						
Plate Fin						
Rows/F.P.I	4/15	4/15	4/15	4/15	4/15	4/15
Face Area (sq. ft.)	3.45			5.0		
Tube Size (in.)	3/8					
Refrigeration Control	Expansion Valve					



Product Specifications

Table 2. Models - 5DCZ5024, 5DCZ5030, 5DCZ5036, 5DCZ5042, 5DCZ5048, and 5DCZ5060 (continued)

Model	5DCZ5024	5DCZ5030	5DCZ5036	5DCZ5042	5DCZ5048	5DCZ5060
Drain Conn. Size (in.)	3/4 Female NPT					
Outdoor Fan — Type	Propeller					
Dia. (in.)	23.4			28.0	28.0	28.3
Drive/No. SpeedS	Direct / 1					
CFM @ 0.0 in. w.g. ^(g)	2550	3000	3000	4200	4200	5500
Motor — HP/R.P.M	1/12 /810	1/12 /810	1/6/830	1/6/830	1/6/830	1/3/825
Volts/Ph/Hz	208–230/1/60					
F.L. Amps/L.R Amps	0.54 / .82	0.54 / .82	0.85 / 1.95	0.85 / 1.95	0.85 / 1.95	1.7 / 3.8
Indoor Fan — Type	Centrifugal					
Dia. x Width (in.)	10 X 10	10 X 10	10 X 10	11 X 10	11 x 10	11 x 10
Drive/No. Speeds	Direct/Variable					
CFM @ 0.0 in. w.g. ^(h)	See Indoor Fan Performance Tables					
Motor — HP / R.P.M.	1/2/Variable	1/2/Variable	1/2/Variable	3/4/Variable	3/4/Variable	1/Variable
Volts/Ph/Hz	208–230/1/60					
F.L. Amps	4.3 / 4.3			6.8 / 6.8		6.9 / 6.9
Combustion Fan — Type	Centrifugal					
Drive/No. Speeds	Direct/ 2					
Motor — HP / R.P.M.	1/20 / 3350 /2600					
Volts/Ph/Hz	208–230/1/60					
FLA	0.34					
Filter / Furnished	No					
Type Recommended	Throwaway					
Recmd. Face Area (sq. ft)	4.0			5.3		
Refrigerant/Charge (lbs)	R-454B / 6.8	R-454B / 7.1	R-454B / 7.1	R-454B / 7.5	R-454B / 7.2	R-454B / 9.1
Subcooling	8° F	7° F	11° F	10° F	10° F	8° F
Gas Pipe Size (in.)	1/2					
Dimensions	H X W X L					
Crated (in.)	48 X 45 X 52			52 X 47 X 62		
Weight						
Shipping (lbs.) / Net (lbs.)	490 / 394	494 / 398	491 / 395	644 / 516	670 / 542	679 / 551

^(a) Certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on AHRI Standard 210/240. Noise calculated in accordance with AHRI Standard 270.

^(b) Sound Power values are not adjusted for AHRI 270–95 tonal corrections.

^(c) Filters must be installed in return air stream. Square footages listed are based on 300 f.p.m. face velocity. If permanent filters are used size per manufacturer's recommendation with a clean resistance of 0.05-in. W.C.

^(d) All models are certified to UL 60335. Ratings shown are for elevations up to 2000 ft. For higher elevations reduce ratings at a rate of 4% per 1000 ft. elevation.

^(e) Convertible to LPG.

^(f) This value is approximate. For more precise value, see Unit Nameplate.

^(g) Standard Air — Dry Coil — Outdoor.

^(h) Based on U.S. Government Standard Tests.



Indoor Fan Performance

Table 3. Airflow - model 5DCZ5024*1 (060)

5DCZ5024*1 (060)		Horizontal Airflow [Cooling Down Airflow]										
Motor Speed		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
350 CFM/ Ton Setting	Low	—	590 [601]	583 [588]	575 [571]	571 [562]	566 [563]	546 [549]	525 [525]	507 [517]	488 [504]	—
	High	—	721 [734]	724 [731]	727 [722]	717 [706]	706 [702]	701 [706]	695 [695]	678 [692]	660 [681]	—
400 CFM/ Ton Setting	Low	—	627 [638]	624 [622]	621 [619]	615 [617]	608 [613]	593 [600]	578 [588]	559 [575]	540 [554]	—
	High	—	801 [815]	806 [803]	811 [808]	806 [808]	800 [807]	789 [798]	777 [791]	745 [766]	712 [731]	—
450 CFM/ Ton Setting	Low	—	672 [676]	673 [676]	673 [678]	664 [668]	654 [656]	648 [646]	641 [642]	620 [641]	599 [632]	—
	High	—	880 [885]	888 [892]	895 [902]	894 [900]	893 [896]	883 [881]	872 [874]	817 [844]	761 [803]	—

Table 4. Airflow - model 5DCZ5030*1 (070)

5DCZ5030*1 (070)		Horizontal Airflow [Cooling Down Airflow]										
Motor Speed		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
350 CFM/ Ton Setting	Low	—	703 [705]	713 [712]	715 [712]	705 [703]	689 [691]	673 [682]	658 [670]	646 [653]	627 [633]	606 [610]
	High	—	888 [892]	900 [901]	911 [912]	914 [913]	912 [909]	898 [897]	881 [887]	865 [874]	847 [857]	785 [783]
400 CFM/ Ton Setting	Low	—	762 [757]	771 [767]	776 [775]	775 [766]	756 [752]	739 [740]	723 [729]	711 [718]	701 [700]	682 [677]
	High	—	998 [990]	1013 [1008]	1020 [1013]	1025 [1016]	1023 [1015]	1021 [1011]	1015 [1000]	990 [986]	963 [966]	849 [833]
450 CFM/ Ton Setting	Low	—	842 [835]	852 [848]	862 [856]	863 [857]	854 [847]	836 [834]	820 [822]	803 [810]	788 [795]	760 [743]
	High	—	1146 [1120]	1153 [1127]	1157 [1133]	1158 [1137]	1159 [1139]	1159 [1138]	1156 [1135]	1144 [1125]	1034 [1040]	922 [927]

Table 5. Airflow - model 5DCZ5036*1 (070)

5DCZ5036*1 (070)		Horizontal Airflow [Cooling Down Airflow]										
Motor Speed		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
350 CFM/ Ton Setting	Low	—	812 [808]	821 [816]	829 [818]	826 [811]	818 [795]	804 [777]	791 [762]	778 [751]	770 [742]	751 [723]
	High	—	1056 [1055]	1069 [1068]	1074 [1073]	1076 [1073]	1077 [1074]	1076 [1063]	1070 [1063]	1060 [1052]	1029 [1020]	893 [905]
400 CFM/ Ton Setting	Low	—	894 [892]	903 [898]	913 [904]	915 [904]	913 [891]	905 [873]	887 [860]	874 [845]	859 [833]	793 [803]
	High	—	1196 [1199]	1199 [1205]	1203 [1208]	1205 [1210]	1208 [1211]	1209 [1209]	1208 [1207]	1202 [1198]	1114 [1099]	994 [984]
450 CFM/ Ton Setting	Low	—	990 [988]	1002 [994]	1009 [1004]	1013 [1005]	1012 [1003]	1009 [997]	1000 [983]	989 [969]	974 [943]	866 [863]
	High	—	1369 [1381]	1370 [1381]	1372 [1383]	1374 [1381]	1375 [1382]	1375 [1369]	1370 [1373]	1300 [1298]	1199 [1194]	1091 [1085]



Indoor Fan Performance

Preliminary

Table 6. Airflow - model 5DCZ5042*1 (090)

5DCZ5042*1 (090)		Horizontal Airflow [Cooling Down Airflow]										
Motor Speed		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
350 CFM/ Ton Setting	Low	—	990 [980]	982 [971]	970 [957]	957 [945]	944 [937]	935 [920]	916 [902]	892 [881]	868 [860]	845 [837]
	High	—	1246 [1251]	1245 [1245]	1240 [1240]	1237 [1238]	1233 [1227]	1222 [1217]	1215 [1207]	1206 [1194]	1196 [1182]	1185 [1168]
400 CFM/ Ton Setting	Low	—	1103 [1096]	1096 [1089]	1088 [1080]	1077 [1068]	1072 [1061]	1060 [1048]	1048 [1035]	1033 [1019]	1012 [1002]	991 [983]
	High	—	1407 [1103]	1408 [1096]	1403 [1088]	1403 [1077]	1398 [1072]	1390 [1060]	1379 [1048]	1368 [1033]	1359 [1012]	1349 [991]
450 CFM/ Ton Setting	Low	—	1234 [1241]	1232 [1236]	1227 [1229]	1221 [1228]	1218 [1216]	1207 [1208]	1200 [1197]	1190 [1187]	1181 [1176]	1171 [1163]
	High	—	1571 [1587]	1575 [1589]	1584 [1586]	1580 [1579]	1575 [1573]	1568 [1561]	1563 [1551]	1556 [1539]	1547 [1529]	1540 [1516]

Table 7. Airflow - model 5DCZ5048*1 (090)

5DCZ5048*1 (090)		Horizontal Airflow [Cooling Down Airflow]										
Motor Speed		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
350 CFM/ Ton Setting	Low	—	954 [948]	973 [977]	977 [977]	973 [970]	966 [969]	957 [975]	950 [979]	944 [962]	—	—
	High	—	1363 [1354]	1390 [1396]	1396 [1396]	1390 [1386]	1379 [1384]	1368 [1393]	1358 [1399]	1349 [1375]	—	—
400 CFM/ Ton Setting	Low	—	1121 [1102]	1106 [1106]	1104 [1109]	1106 [1113]	1108 [1116]	1108 [1119]	1104 [1120]	1097 [1118]	—	—
	High	—	1601 [1574]	1580 [1580]	1577 [1585]	1580 [1589]	1583 [1594]	1583 [1599]	1577 [1601]	1567 [1597]	—	—
450 CFM/ Ton Setting	Low	—	1223 [1295]	1254 [1277]	1268 [1272]	1271 [1273]	1268 [1274]	1264 [1273]	1261 [1272]	1258 [1273]	—	—
	High	—	1747 [1851]	1792 [1824]	1811 [1817]	1816 [1818]	1812 [1820]	1806 [1819]	1801 [1817]	1797 [1819]	—	—

Table 8. Airflow - model 5DCZ5060*1 (115)

5DCZ5060*1 (115)		Horizontal Airflow [Cooling Down Airflow]										
Motor Speed		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
350 CFM/ Ton Setting	Low	—	1163 [1259]	1238 [1219]	1259 [1208]	1256 [1207]	1246 [1206]	1240 [1199]	1237 [1188]	1230 [1185]	—	—
	High	—	1662 [1799]	1768 [1742]	1799 [1726]	1794 [1725]	1780 [1723]	1771 [1712]	1767 [1698]	1757 [1692]	—	—
400 CFM/ Ton Setting	Low	—	1443 [1410]	1427 [1393]	1422 [1386]	1422 [1384]	1423 [1383]	1422 [1380]	1418 [1368]	1410 [1344]	—	—
	High	—	2062 [2015]	2038 [1990]	2031 [1980]	2032 [1977]	2034 [1976]	2032 [1971]	2025 [1955]	2015 [1920]	—	—

Table 9. Auxiliary heating airflow, horizontal or downflow from 0.2 to 0.6-inch wg - models 5DCZ5024, 5DCZ5030, and 5DCZ5036

Switch Settings		Selection	Nominal Airflow					
			5DCZ5024		5DCZ5030		5DCZ5036	
			Low Stage	High Stage	Low Stage	High Stage	Low Stage	High Stage
7-Off	8-Off	A	600	850	875	1190	850	1130
7-On	8-Off	B	625	900	915	1270	890	1200
7-Off	8-On	C	650	925	980	1345	950	1300
7-On	8-On	D	700	975	1050	1430	1020	1380

Table 10. Auxiliary heating airflow, horizontal or downflow from 0.2 to 0.6-inch wg - models 5DCZ5042, 5DCZ5048, and 5DCZ5060

Switch Settings		Selection	Nominal Airflow					
			5DCZ5042		5DCZ5048		5DCZ5060	
			Low Stage	High Stage	Low Stage	High Stage	Low Stage	High Stage
7-Off	8-Off	A	1180	1500	1075	1375	1375	1800
7-On	8-Off	B	1220	1600	1100	1450	1450	1900
7-Off	8-On	C	1260	1650	1150	1500	—	—
7-On	8-On	D	1300	1720	1200	1575	—	—

COMPRESSOR SECTION

HEATER SECTION

INDOOR SECTION

OPTIONAL START KIT

OUTDOOR SECTION

CONTROL BOX

IGN LED DIAGNOSTIC INDICATOR

DIP SWITCH SETTINGS	COOLING / HEAT PUMP CFM	NOMINAL AIRFLOW
SW1 SW2 SW3 SW4	350 CFM/TON	
OFF OFF OFF ON	400 CFM/TON	**
OFF OFF OFF OFF	450 CFM/TON	
OFF OFF OFF OFF	450 CFM/TON	
SW5 SW6	FAN OFF-DELAY OPTIONS	
ON OFF	NONE	NONIMAL
ON OFF	45 SECONDS	100% NONIMAL**
ON OFF	90 SECONDS	50% NONIMAL
ON ON	ENHANCED	ENHANCED
SW7 SW8	GAS HEAT AIRFLOW	
OFF OFF	350 CFM/TON	
ON OFF	400 CFM/TON	**

***FACTORY SETTING**

REFRIGERANT LEAK DETECTION AND MITIGATION CONTROL BOARD GREEN LED DIAGNOSTIC INDICATOR

LED STATUS	DESCRIPTION
OFF	NO POWER/OFF
ON	STARTUP
SLOW FLASH	NORMAL OPERATION
2 FLASH	ACTIVE ALARM - SENSOR COMMUNICATION ERROR
3 FLASH	ACTIVE ALARM - REFRIGERANT LEAK OR SENSOR FAILURE
4 FLASH	PAST REFRIGERANT DETECTED ALARM
5, 6 OR 7 FLASH	PAST SENSOR COMMUNICATION OR SENSOR FAILURE

LEGEND

DEVICE DESIG	DESCRIPTION	LINE NUMBER
A2L SR	A2L SENSOR	44
ACR	RECTIFIER BRIDGE	73
CAP-CTR	COMPRESSOR START CAPACITOR	17
CBS	COIL BOTTOM SENSOR	70
CC	CONTACTOR	21, 79
CFM	COMBUSTION FAN MOTOR	32
CN	CONNECTOR OR WIRE NUT	
CPB	COMPRESSOR	16
CPBS	COMPRESSOR OR MISC UNIT	70
CSR	COMPRESSOR START CAPACITOR	10
CS </td <td>COMPRESSOR START RELAY COIL</td> <td>10</td>	COMPRESSOR START RELAY COIL	10
DFC	DEFROST CONTROL	73
FD	FLAME SENSOR	49
FU	FUSE	40
GV	GAS VALVE	41
HI-TEMP-SW	HIGH TEMPERATURE SWITCH	79
HPCO	HIGH PRESSURE CUTOFF	79
ICM	INTEGRATED COMBUSTION MOTOR	26
ICMC	INTEGRATED MOTOR CONTROL	70
IGN	IGNITION BOARD	51
LP	INTERNAL OVERLOAD	51
LPI	IGNITOR PROBI	40
LED	IGN DIAGNOSTICS INDICATOR	44
LP CO	LOW PRESSURE CUTOFF	79
QOM	OUTDOOR MOTOR	22
ODS	OUTDOOR AMBIENT SENSIT	74
PS	AIR PRESSURE SWITCH	47
PP	POLARIZED PLUG	46
R	ROLL OUT	79
SOV	SHUTTER VALVE	65
THERM	THERMAL LIMIT SWITCH	44



Wiring Diagrams

Figure 3. 5DCZ5060A

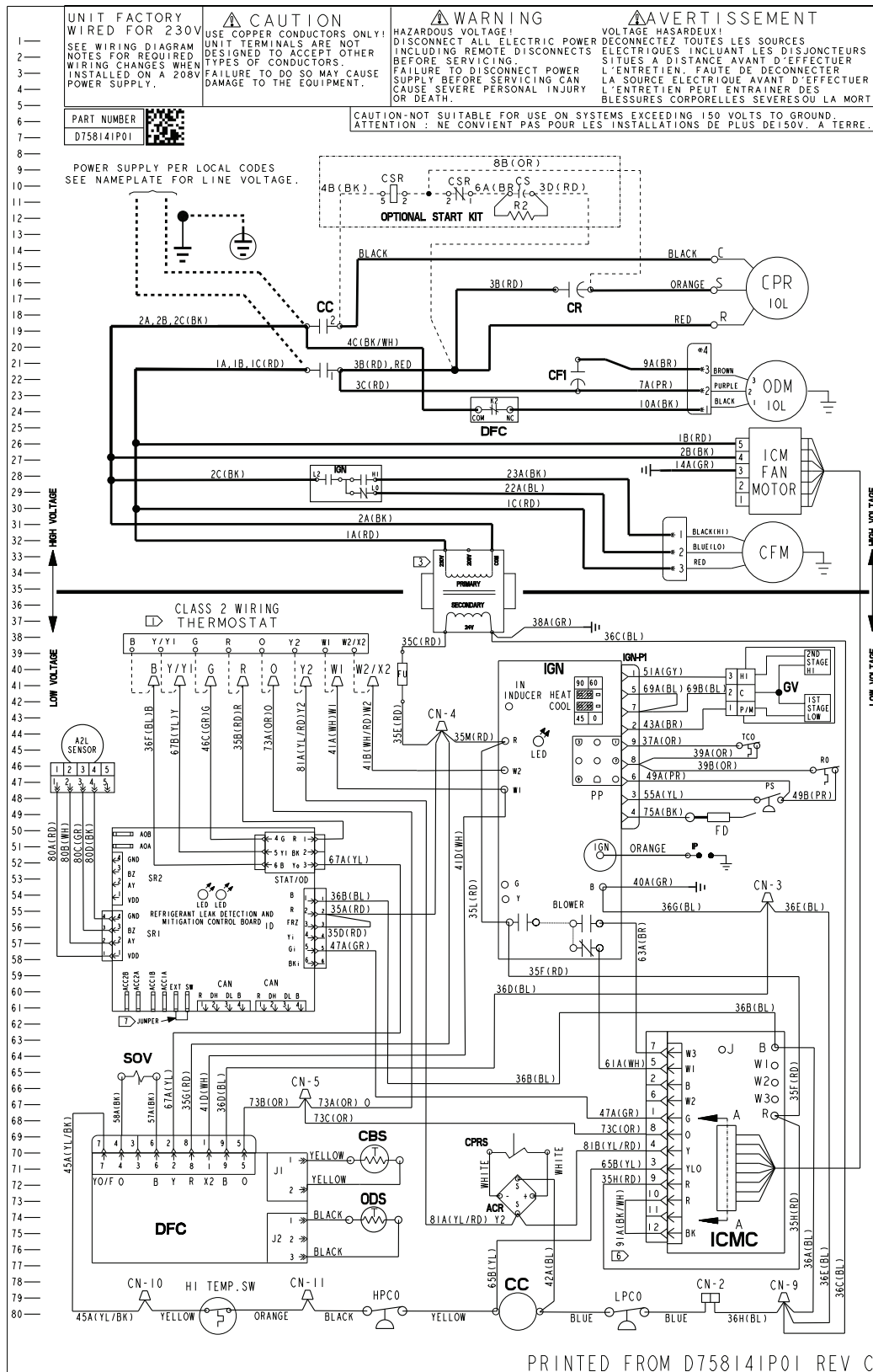
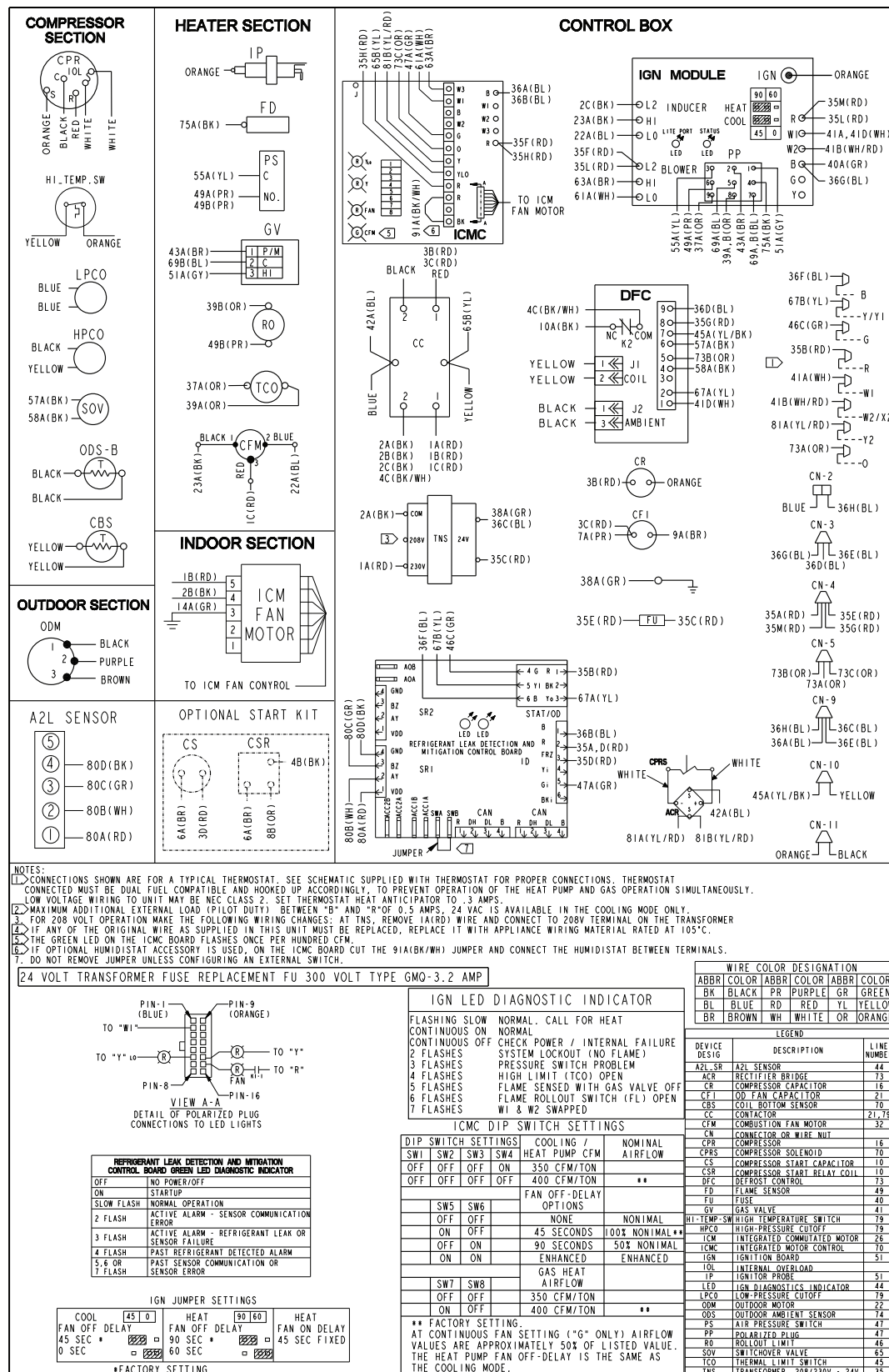


Figure 4. 5DCZ5060A



Full Perimeter Roof Mounting Curb

Figure 5. 2.0 to 3.0 ton models

BAYCURB050B Full Perimeter Roof Mounting Curb

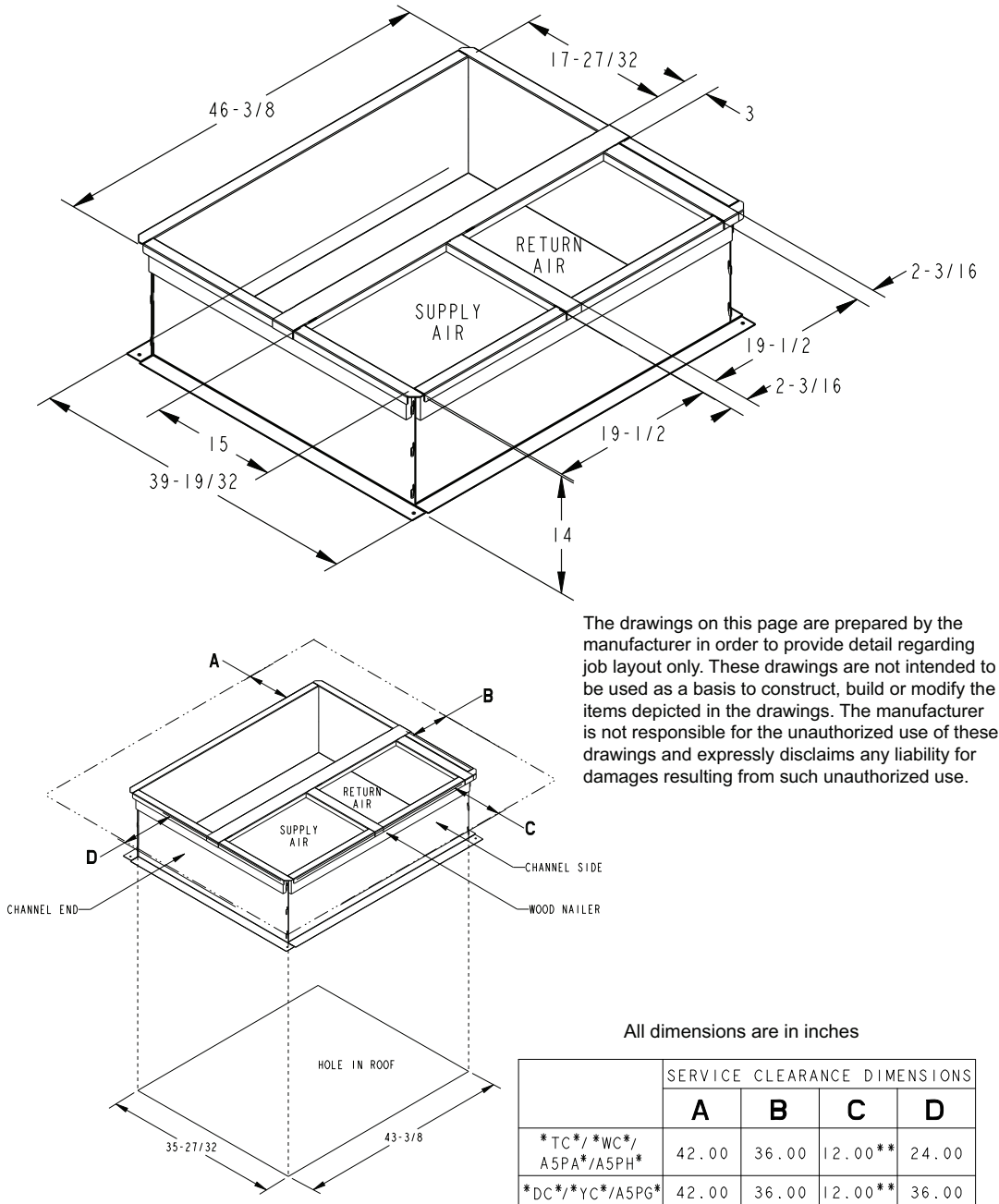
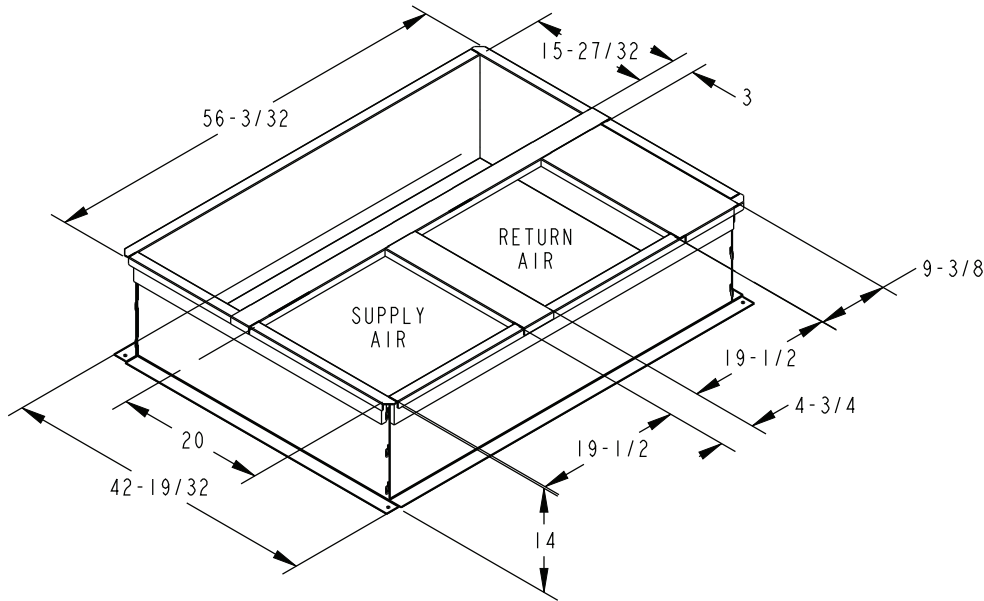
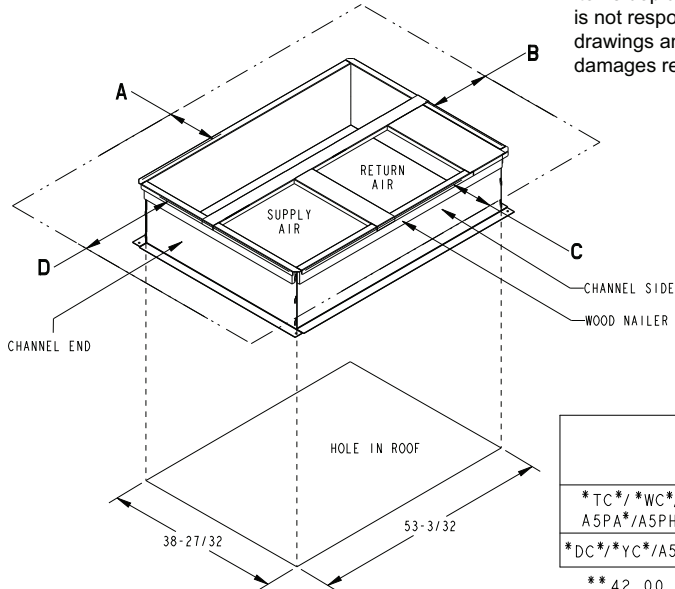


Figure 6. 3.5 to 5.0 ton models

BAYCURB051B Full Perimeter Roof Mounting Curb



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All dimensions are in inches

	SERVICE CLEARANCE DIMENSIONS			
	A	B	C	D
TC/ *WC*/ A5PA*/A5PH*	42.00	36.00	12.00**	24.00
DC/ *YC*/A5PG*	42.00	36.00	12.00**	36.00

**42.00 WITH ECONOMIZER WITH 25% FRESH AIR ACCESSORY

Optional Equipment — Filter Rack

Figure 7. BAYFLTR101 filter rack (2.0 to 3.0 ton models)/ BAYFLTR201 (3.5 to 5.0 ton models) (Mounts in filter/coil section)

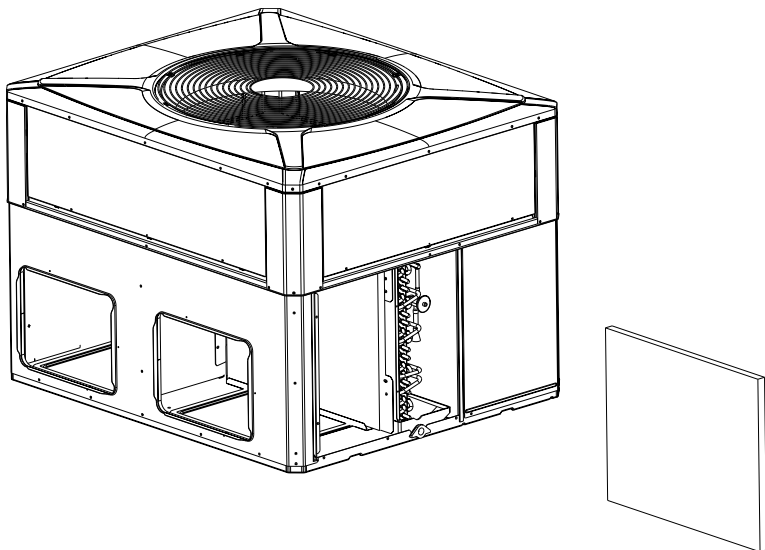
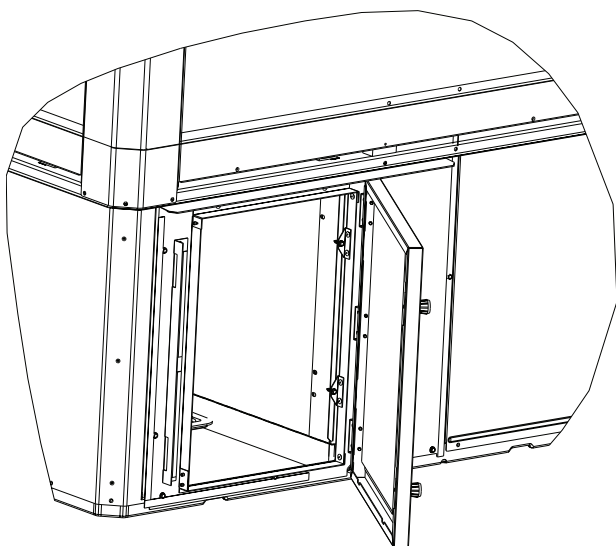


Figure 8. BAYACCDOR1A hinged filter access door (2.0 to 3.0 ton models)/ BAYACCDOR2A (3.5 to 5.0 ton models) (Replaces filter/coil access panel)



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Optional Equipment — Economizer

Figure 9. BAYECON107, 108A down discharge economizer and rain hood (Mounts over horizontal return air opening)

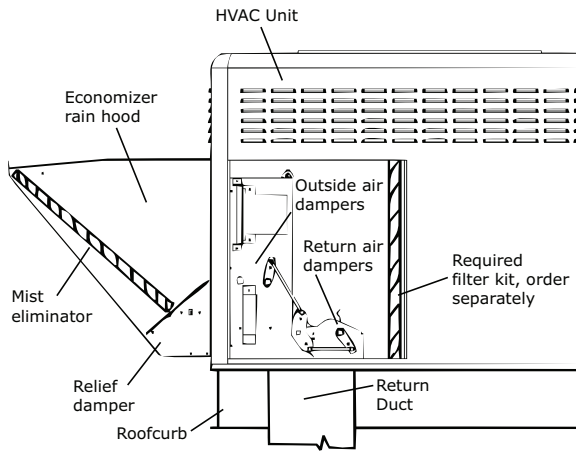


Table 11. Economizer application models

Economizer	Unit Application Models
BAYECON107A	2.0 to 3.0 Ton Models
BAYECON108A	3.5 to 5.0 Ton Models

Figure 10. BAYCON207, 208A horizontal economizer and rain hood

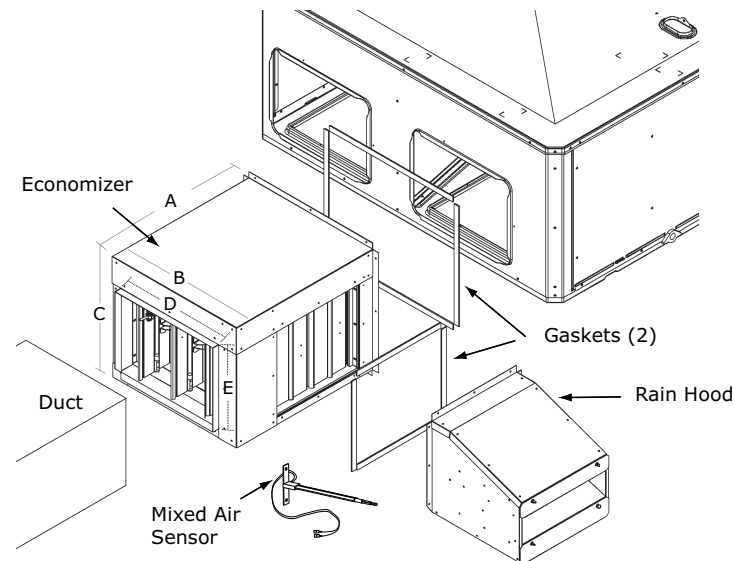


Table 12. Economizer dimensions (in inches)

Economizer	Models	A	B	C	D	E	F
BAYECON207A	2.0 to 3.0 Ton	22	20	16–7/8	15–11/16	11–11/16	15
BAYECON208A	3.5 to 5.0 Ton	26	22–21/32	19	17–11/16	14–11/16	21–3/8

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Optional Equipment — Outside Air Damper

Figure 11. BAYOSAH001 and BAYOSAH002A outside air damper (Replaces filter/coil access panel)

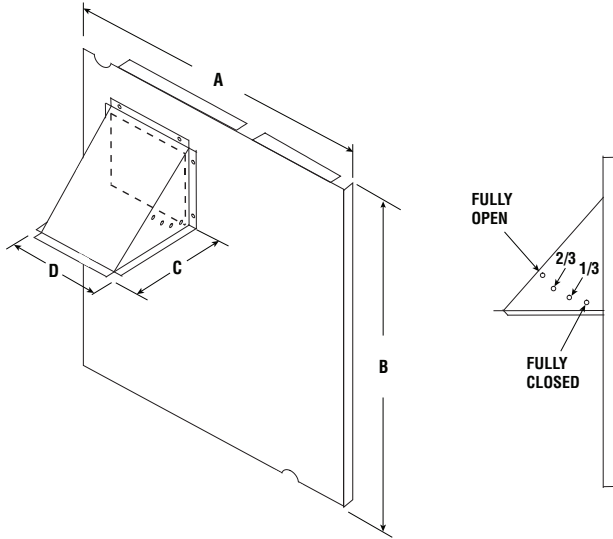


Table 13. Outside air damper dimensions (in inches)

Manual Fresh Air Model	Unit Application Models	A	B	C	D
BAYOSAH001A	2.0 to 3.0 Ton	22–7/16	20–11/16	12–3/8	9–3/16
BAYOSAH002A	3.5 to 5.0 Ton	25–3/16	20–11/16	12–3/8	9–3/16

Figure 12. BAYDMPR101 and BAYDMPR102A, 25% motorized outside air damper (Mounts over horizontal return air opening)

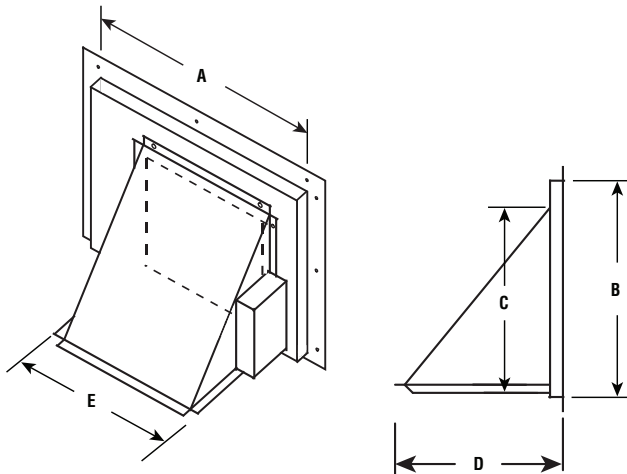


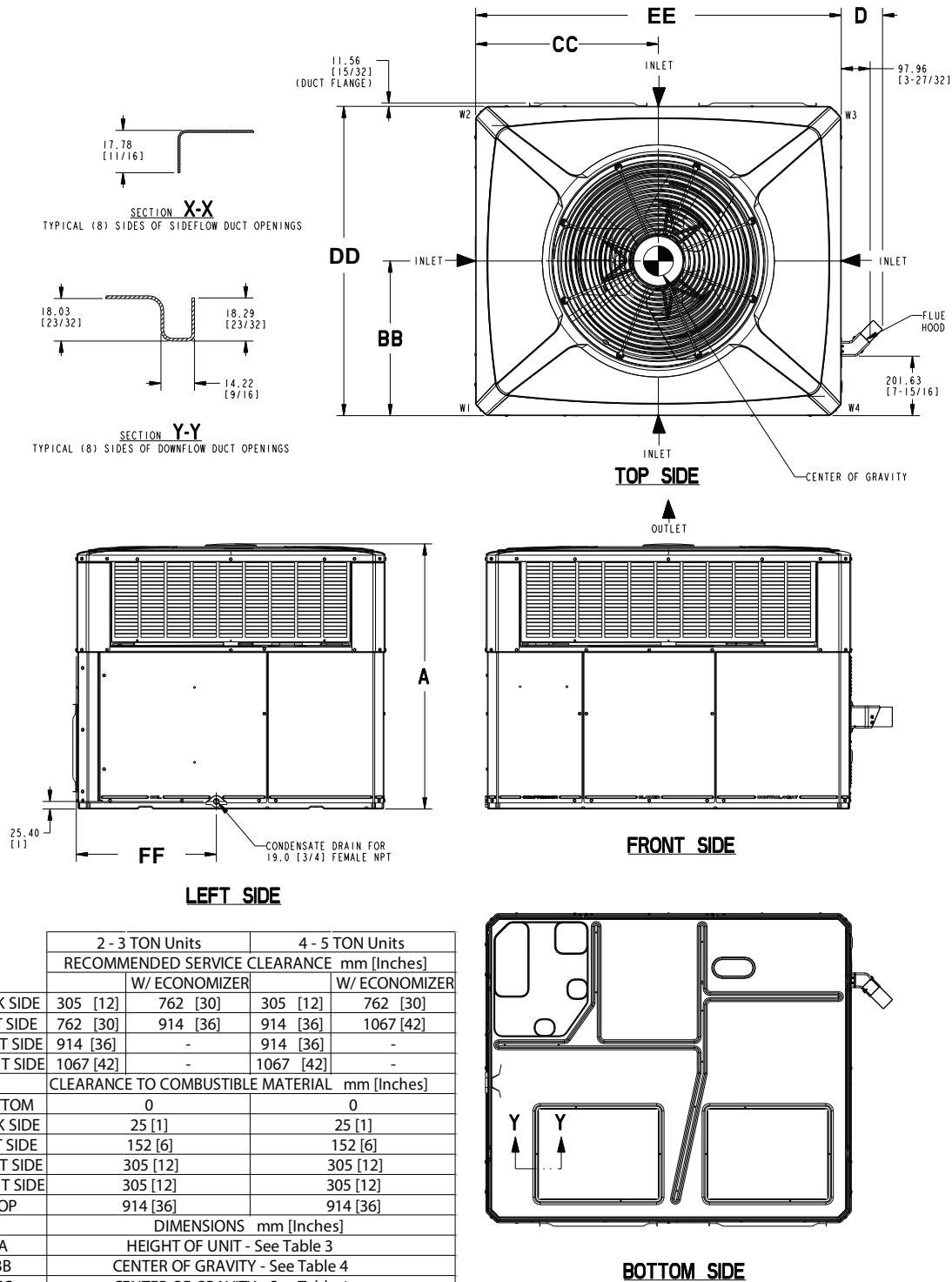
Table 14. Outside air damper dimensions (in inches)

Manual Fresh Air Model	Unit Application Models	A	B	C	D	E
BAYDMPR101A	2.0 to 3.0 Ton	15–13/16	11–13/16	10–1/4	11–1/2	12–1/4
BAYDMPR102A	3.5 to 5.0 Ton	18–3/16	15–1/8	10–1/4	11–1/2	12–1/4

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Dimensional Data

Figure 13. Space on sides requirements



Note: The view labeled "Bottom side" represents the base as viewed looking up from underneath the unit.

Figure 14. Bottom and back duct openings

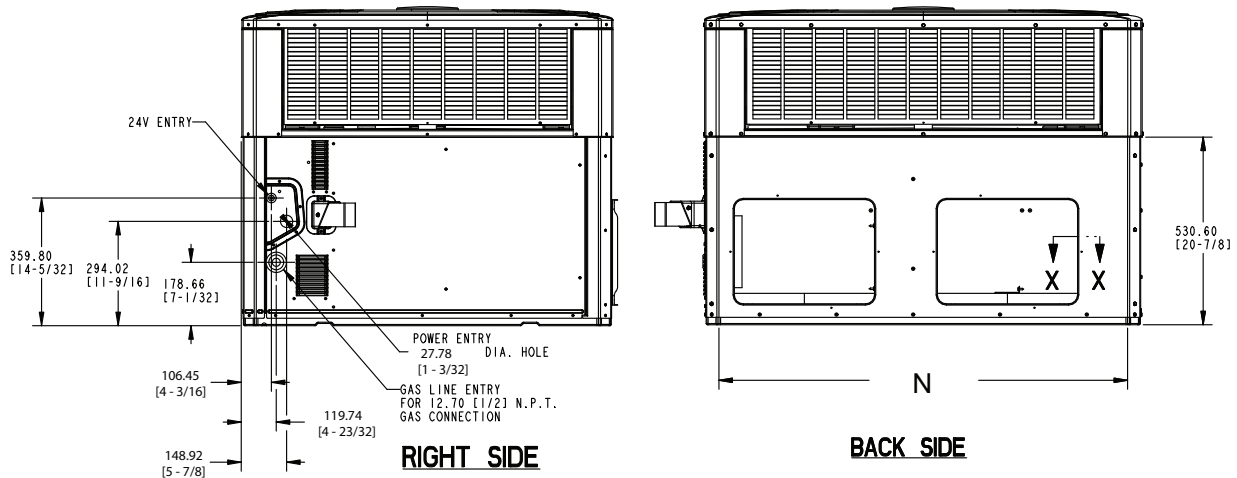
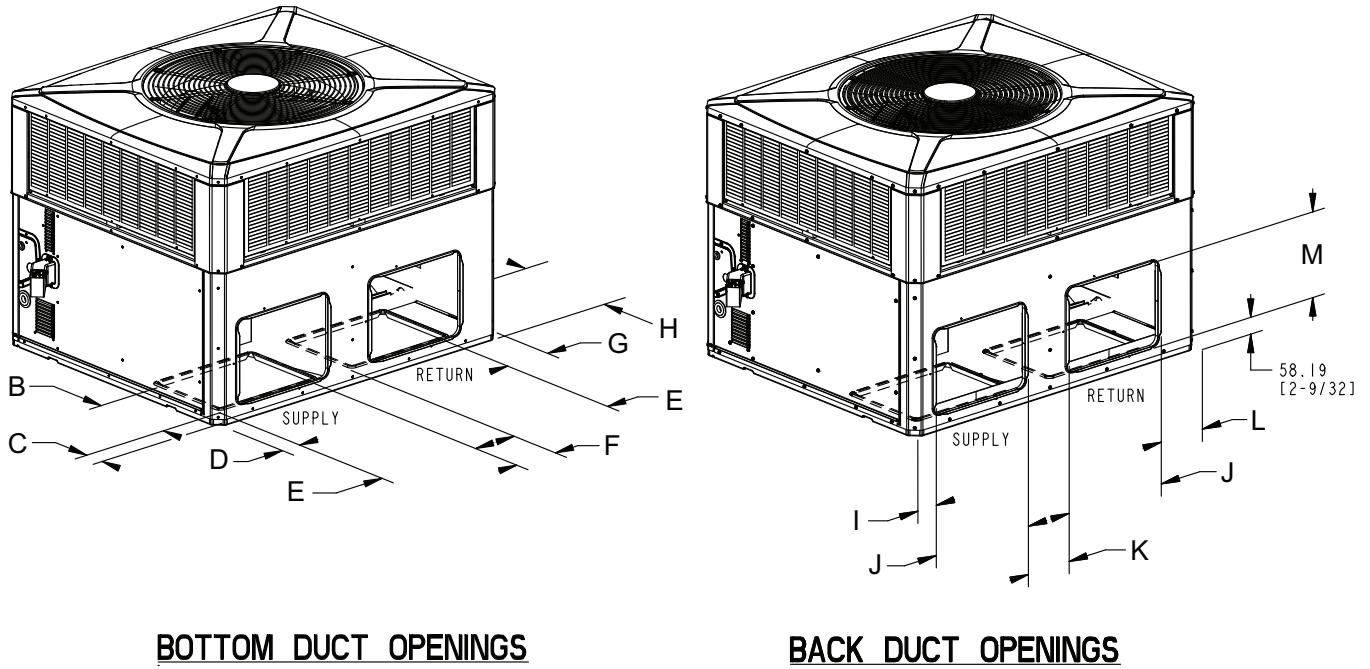


Table 15. Dimensions (mm [inch])

Model	Height A	B	C	D	E	F	G	H	I	J	K	L	M	N
5DCZ5024A	949.33 [37-3/8]	304.80 [12.0]	84.46 [3.32]	82.16 [3.23]	406.40 [16]	167.89 [6.61]	180.20 [7.1]	304.80 [12.0]	86.25 [3.40]	398.22 [15.68]	176.07 [6.93]	184.29 [7.26]	296.62 [11.68]	1108.75 [43.50]
5DCZ5030A														
5DCZ5036A														
5DCZ5042A	1050.93 [41-3/8]	457.20 [18]	85.60 [3.37]	84.12 [3.31]	381.00 [15]	244.09 [9.61]	327.45 [12.89]	381.00 [15]	88.21 [3.47]	449.02 [17.68]	176.07 [6.93]	331.54 [13.05]	372.82 [14.68]	1402.34 [55.21]
5DCZ5048A														
5DCZ5060A														

Table 16. Weights and center of gravity

Model	Corner Weights KG[LBS]				Shipping Weight KG [LBS]	Unit Weight KG[LBS]	Center of Gravity mm[inch]	
	W1	W2	W3	W4			BB	CC
5DCZ5024A	60.8 [134]	37.2 [82]	30.4 [67]	50.3 [111]	222.3 [490]	178.7 [394]	386.1 [15.2]	558.8 [22.0]
5DCZ5030A	62.6 [138]	37.2 [82]	30.4 [67]	50.3 [111]	222.3 [490]	180.5 [398]	386.1 [15.2]	558.8 [22.0]
5DCZ5036A	61.3 [140]	37.2 [82]	30.4 [67]	50.3 [111]	222.3 [490]	179.2 [395]	386.1 [15.2]	558.8 [22.0]
5DCZ5042A	71.8 [158]	46.3 [102]	42.2 [93]	50.3 [111]	291.9 [644]	233.8 [516]	419.1 [16.5]	706.1 [27.8]
5DCZ5048A	84.0 [185]	46.3 [102]	42.2 [93]	73.5 [162]	304.0 [670]	246.0 [542]	419.1 [16.5]	706.1 [27.8]
5DCZ5060A	84.0 [185]	47.2 [104]	43.1 [95]	73.5 [162]	308.1 [679]	250.0 [551]	419.1 [16.5]	711.2 [28.0]



Mechanical Specifications

General

All units shall be factory assembled, piped, internally wired and fully charged with refrigerant. All units shall be designed to operate at outdoor ambient temperatures as high as 115°F. Cooling capacities shall be rated in accordance with A.H.R.I. standards. The unit design is certified to UL 60335 and ANSI Z21.47/CSA 2.3, specifically for outdoor applications using natural gas or propane. All units shall be designed for outdoor rooftop or ground level installation. Unit casing is constructed of heavy gauge, galvanized steel and painted with a weather-resistant powder paint.

Shipped for horizontal application, convertible to downflow.

Casings -All panels shall be heavy gauge steel, gasketed and insulated. Foil-faced insulation shall be in the heat exchanger section. Foil-faced insulation shall be in the evaporator section. Base pan shall be heavy gauge steel. **WEATHERGUARD™** exterior corrosion resistant screws shall be used for added resistance to rust and corrosion.

Controls - Refrigeration cycle controls shall include condenser fan, evaporator fan and compressor contactors. Compressors shall be equipped with a combination internal winding thermostat/current overload. Internal high pressure relief shall also be provided.

Refrigeration System

Compressors - The Climatuff® compressor features internal over temperature and pressure protector, total dipped hermetic motor. Other features include: centrifugal oil pump, and low vibration and noise.

Evaporator Coil -Internally enhanced 3/8-inch OD seamless copper tubing mechanically bonded to aluminum fins, factory pressure tested at 480 psig and leak tested at 250 to 300 psig. All units have TXV to control refrigeration flow.

Condenser Coil - The **Spine Fin™** condenser coil shall be continuously wrapped, corrosion resistant all aluminum with minimum brazed joints. This coil is 3/8-inch OD seamless aluminum tubing glued to a continuous aluminum fin. Coils are lab tested to withstand 2,000 pounds of pressure per square inch. The outdoor coil provides low airflow resistance and efficient heat transfer. The coil is protected on all four sides by louvered panels.

Indoor Air Fan - Direct-drive, forward-curved, centrifugal wheel in a Composite **Vortica®** Blower housing. Motor shall have thermal overload protection. Permanently lubricated motor bearings. Motor/blower assembly isolated from unit with rubber mounts.

Condenser Fan -Direct-drive, draw through propeller type. Weather-proofed permanent split capacitor fan motor shall have built-in thermal overload and permanently lubricated motor bearings.

Low Ambient - Standard refrigerant system operation down to 55°F. Low ambient accessory required for operation to 0°F ambient condition.

Gas-Fired Heating System - Models shall provide completely assembled, wired and piped gas fired heating systems within unit. Design certified by UL, specifically for outdoor application. Threaded gas connection on the unit.

Electronic Ignition System - Main burner is lit each time thermostat calls for gas heat. Flame sensor proves flame and keeps the main burners on. Should a loss of flame occur, the main valve closes and the spark recurs within 0.8 second. When thermostat is satisfied, main burner is extinguished.

Forced Combustion Blower - Insures flame stability under varying wind conditions. Gives higher combustion efficiency and location flexibility.

Heat Exchanger - stainless steel tubes. Free floating design.

Burners - Stainless steel. Multi-port inshot.

Accessories (U.S. Domestic Models)

Roof Curb - The roof curb shall be designed to mate with the unit and provide support and complete weather-tight installation when properly installed. Curb shall ship knocked down for field assembly, and include wood nailer strips.

Modulating Economizer - This accessory shall be field installed and be composed of the following items: 0-100% fresh air damper, damper drive motor fixed dry bulb enthalpy control, and low voltage polarized plug for electrical connections. Solid state enthalpy or differential enthalpy control is optional.

Economizer operations shall be controlled by the preset position of the enthalpy control. A barometric relief damper shall be standard with the economizer and provide a pressure operated damper that shall be gravity closing and prohibit entrance of outside air on equipment "off" cycle.

Manual Fresh Air Hood - Manual outside air provides a fixed outside air quantity from 0 to 25 percent. Includes hood and birdscreen.

Low Ambient Control - Control allows cycling of compressor under low ambient cooling conditions. Required for cooling operation to 0°F.

Propane Gas

Conversion Kit - For conversion from natural gas to LP gas.

Preliminary



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