

FT5BD

Performance™ Series (Multipoise) Next Generation Air Handler with IntelliSense™ Technology – 2-Stage, Variable 25-Speed Motor – for Puron Advance™ (R-454B) Refrigerant Sizes 24 – 60



Product Data



PREMIUM ENVIRONMENTALLY RESPONSIBLE

Carrier, the pioneering leader in home comfort, is excited to launch a completely new and redesigned air handler that delivers a new spin on heating and cooling technology. Powered by our innovative Mixed-flow fan and Vertex™ technology V-coil, our new air handlers take comfort to the next level with significantly reduced size, enhanced serviceability, and efficiency-boosting performance. This family of air handlers will be dual-voltage capable and will introduce the NFC technology to make installation and service – simple, and fast. These air handlers will also include the IntelliSense™ technology that is designed specifically for remote monitoring, diagnostics, and troubleshooting purposes, to enhance homeowner service experience by providing the dealer system health data and tools for **Know Before You Go** troubleshooting. Data will be collected from the unit and transferred to the cloud connected portal once the homeowner has opted into data sharing. This transfer will only take place when these air handlers are paired to Carrier's IntelliSense capable thermostats, and the thermostat is connected to Wi-Fi.

The 25-speed ECM (Electronically Commutated Motor) blower setting allows the **FT5BD** to operate efficiently when paired with a Carrier Performance™ Heat Pump or Air Conditioner with environmentally friendly (chlorine free) Puron Advance™ refrigerant. Further, you can now unlock a complete variable system functionality when **FT5BD** is paired with Carrier's Next Generation variable speed condensing units and the new IntelliSense capable thermostats.

With attention to quiet, efficient, and comfortable operation, Carrier has developed a new benchmark for superior indoor comfort and control.

The **FT5BD** using Puron Advance refrigerant maximizes performance for environmentally balanced systems.

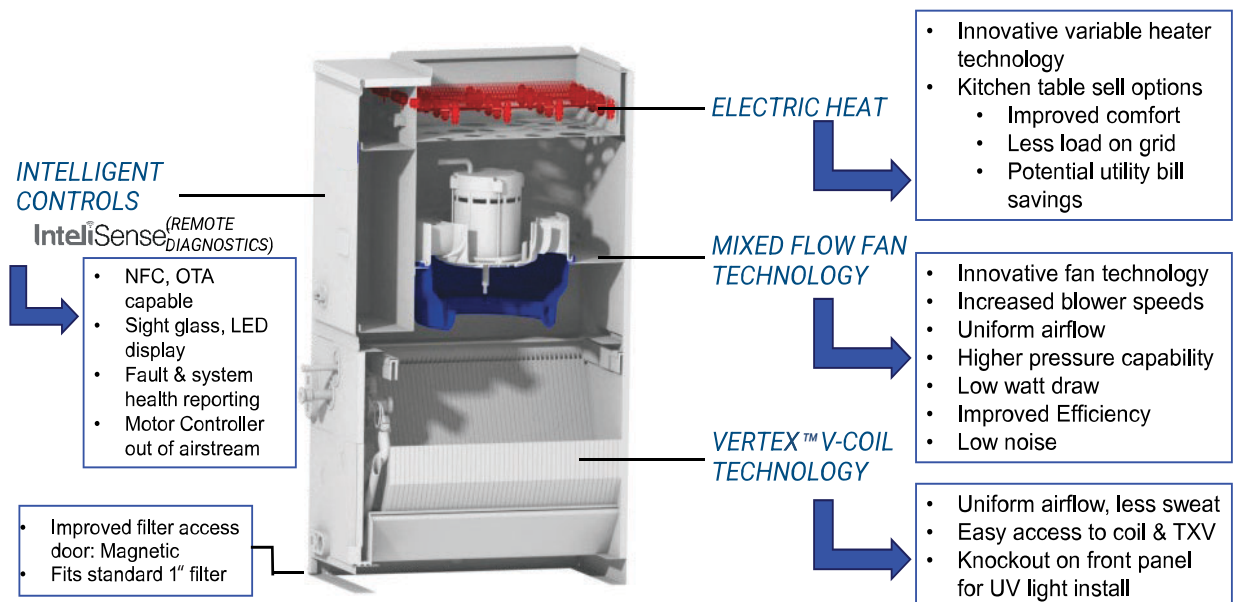
The **FT5BD** provides these benefits due to Carrier's command of Mixed Flow Fan technology ECM blower and Vertex V-coil technology. These motors are extremely efficient at all speeds, and enable the **FT5BD** to operate at the correct speed to deliver airflow precisely, ensuring proper performance across a wide range of duct static pressures. This adaptive efficiency also makes installation quality easier to achieve for today's demanding homeowner.

Carrier's command of ECM technology may be most evident in the comfort advantages that ECM can deliver. Operation setup steps on the main control board provide the installing technician with alternatives to maximize comfort and efficiency. The dehumidification terminal on the board allows the installer to run a wire between the indoor and a dehumidification capable thermostat, providing true indoor comfort to the homeowner. This allows the **FT5BD** to be almost 20% on average shorter in height and 50 lbs on average lighter than traditional air handlers. Thus making it easier for shipping, handling, storage, and installation in tight spaces.

Another feature which sets the **FT5BD** apart is the factory-installed TXV with mechanical connections, which enhances efficiency and provides compressor protecting operation at all recommended conditions. Louvered aluminum fins, and the large face areas of the **FT5BD** refrigerant coils also provide superior efficiency, for high SEER2 and HSPF2 performance.

Carrier leads the way in condensate control, a hallmark of these multipoise air handlers. All of these featured components are protected within a rugged, pre-painted metal cabinet, along with 1" thick insulation (4.2 R-value) on the side walls and controls door, and ½" thick insulation on the lower coil door and top panel. For neat, high quality installations this unit exterior features brazeless fittings, and multiple electrical entry for both high and low voltage service. The unit can also use sweat refrigerant connections. Refer to your fitting manufacturer for correct installation procedures.

Assembled at the factory compliant with low leak requirements of less than 1.4% cabinet leakage rate at 0.5 inches W.C. when tested in accordance with ASHRAE 193 standard.



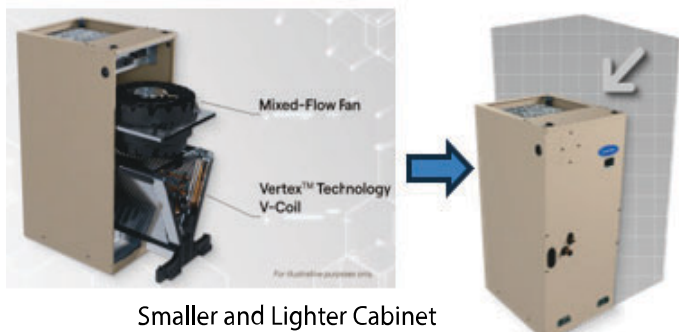
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FEATURES

- This product is designed and certified to UL 60335-2-40.
- Unit can operate without the control box door during unit servicing and troubleshooting (unit will not freeze).
- Knockout for UV light in the coil door.
- Motor controller out of air stream.

Ease of Install

These Next Generation Air Handlers will be ~20% shorter on average, and ~50lbs lighter on average than current units. This is made possible due to the combination of smaller, lighter Mixed-Flow Fan, Vertex™ coil, and moving motor controller out of the airstream. The 5-ton model is now in a 21" wide cabinet, down from the previous 24" wide cabinet, making installation in tighter spaces easier.



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Environmentally Balanced Refrigerant Technology

- Puron Advance®, chlorine-free, non-ozone depleting refrigerant.
- Refrigerant leak detection dissipation system for added safety.
- Thermostatic Expansion Valve (TXV) with brazeless fitting capability, designed to maximize performance with Puron Advance® refrigerant.

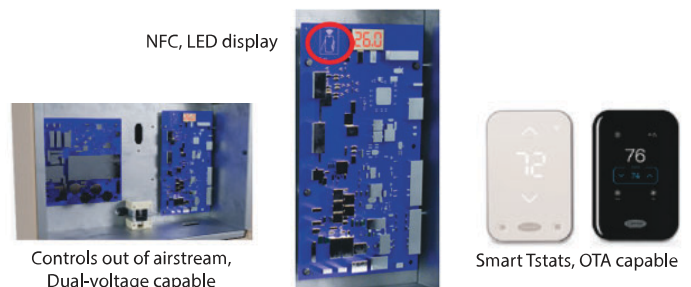
Energy Efficient Operation

- Introducing innovative and advanced Mixed Flow Fan blower technology that offers uniform airflow and improved efficiency.
- 2-Stage, Variable 25-Speed (ECM) blower that operates efficiency at all 25 speeds.
- Maximizes efficiency of heating and cooling systems.

- The Mixed Flow Fan offers lower power consumption compared to the traditional forward curve blowers up to 1" external static pressure.

Controls and Electrical Features

- Dual voltage (230V / 115V) capable to fit any application without requiring a separate SKU (electric heat cannot operate on 115V).
- Introducing built-in near-field communication (NFC) feature for faster and more accurate system setup using the service tech app, and without the need for the unit to be powered ON.
- Sight glass and LED display for quick status and fault checks.
- Over-the-air system updates (when paired with next-generation thermostats with InteliSense) for top system performance and seamless software updates.
- Relocated control board away from the unit's airstream to minimize board failures.
- Easy plug connection provided for quick installation of accessory heater packages.
- 40VA 208/230/115V transformer.
- Replaceable 3A blade-type auto fuse protects against transformer secondary short.



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InteliSense (Remote Monitoring and Diagnostics)

With our next generation air handlers, we have taken steps to further enhance ease of serviceability. These new air handlers will feature InteliSense connecting the unit to dealer digital tools for **Know Before You Go** troubleshooting, ensuring an improved dealer and homeowner service experience. Data will be collected from the unit and transferred to the cloud connected portal. This transfer will only take place when these air handlers are paired with new smart thermostats w/InteliSense, thermostat is connected to Wi-Fi, and homeowner has opted into data sharing.

Indoor Comfort

- Introducing Modulating Electric Heaters which will supplement only as little energy needed to keep the home comfortable when the HP has reached capacity. A potential money saving offering to the homeowner that delivers energy savings and precise load matching for cozy comfort when outdoor temperatures plummet.
 - To unlock modulating electric heat functionality, you will need the following:
 - a. Performance Series Next Gen variable-speed condensing unit + Next Gen Air Handler + Smart or Advanced Tstat w/InteliSense + Modulating Heater + RAT & SAT sensors installed.
 - b. As an alternative, a standard staged electric heater will be offered.
- Unmatched humidity control by having the dehumidification terminal on the main control board and as a system when paired with Carrier's Next Generation Variable condensing units along with Carrier's new thermostats with relative humidity controls.
- Warm, comfortable heating air temperatures.

Airflow and Sound Technology

- Diffuser air discharge section for high airflow efficiency and quiet, smooth operation.
- High duct static capability, up to 1" w.c.

Condensate Control and Disposal Technology

- The corrosion-resistant drain pan is designed of a "Polybutylene terephthalate" material (PBT) that offers unsurpassed pan strength. It is engineered with proper slope to help ensure water drainage, improved moisture removal, and home comfort.
- The drain pans are supplied with water-tight drain plugs to prevent leakage from unused drain connections.
- Designed with performance in mind, the evaporator coil offers lower pressure drops to enhance system performance and airflow characteristics.
- Condensate fittings relocated away from turbulent airflow patterns at the blower entrance for improved condensate control performance.
- Tested and validated for condensate disposal at extreme conditions more severe than agency requirements.
- Primary and secondary drain connections.

Heat Transfer Technology

- Multi-port extruded tubes (microchannels).
- Louvered fins.
- Brazed aluminum manifolds.
- Bi-flow hard shut-off TXV metering device with mechanical fitting connections.

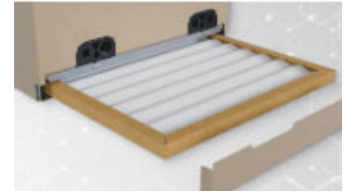
Quality Assisting, Ease of Installation and Service Features

- Multipoise design. Easy to install in any orientation without requiring conversion kits.
- Ease of access to all control components for installation and service by removing coil box door.
- Modular cabinet on 48 and 60 size units.
- Straight stubouts accommodate brazeless or sweat connections for ease of installation and leak-free service.
- Multiple electrical entry locations (with plugs) for application flexibility (high and low voltage).
- Low voltage terminal strip, to safely hold connections within the cabinet.
- Cabinet construction features 1-inch thick insulation and 4.2 R-value on side walls and controls door, and ½" thick insulation on the lower coil door and top panel, designed to prevent cabinet sweating.

- Drain pan material (PBT) offers unsurpassed pan strength to avoid cracking.
- Pre-painted galvanized sheet metal cabinet.

Filter Features

- Factory supplied filter.
- New standard sized filter rack fits most common size replacement filters.
- Introducing magnetic filter door for ease of access and improved reliability.



WARRANTY

- Default 5-year parts limited warranty
 - 10-year parts limited warranty with timely registration *.
 Equipment must be registered within 90 days of original installation, except in jurisdictions where warranty benefits cannot be conditioned on registration.

* Applies to original purchaser/homeowner and not available to subsequent owners, except in jurisdictions where laws dictate otherwise.

See Warranty certificate for complete details and restrictions.



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Table 1 – Model Nomenclature

	1	2	3	4	5	6	7	8	9	10	11	12
	F	T	5	B	D	2	4	1	7	X	0	0
Product F = Air Handler												Electric Heater Size 00 = No factory-installed heat. Field install option available.
Type / Tier T = Performance Series™ Variable, 25-Speed ECM Motor												Coil Characteristic X = TXV
Refrigerant Type 5 = Puron Advance®												Cabinet Width 17 = 17" 21 = 21"
Major Series												Nominal Capacity 24 = 24,000 36 = 36,000 48 = 48,000 60 = 60,000
Electrical D = 208/230V, 1 ph, 60 Hz (default) Can be configured for 115V, 1 ph, 60 Hz												

Position	1	2	3	4	5	6	7	8	9	10	11
Example	A	F	B	E	H	M	2	0	B	2	1
Position 1	Product										
	A = Accessory										
Position 2	Tier/Type										
	F = Air Handler										
Position 3	Major Series										
	B-Z = Major Iteration										
Position 4, 5	Refrigerant										
	EH = Electric Heat										
Position 6	Type										
	S = Standard										
	M = Modulating										
Position 7, 8	Nominal kW										
	5 = 5kW										
	8 = 8kW										
	9 = 9kW										
	10 = 10kW										
	15 = 15kW										
	18 = 18kW										
	20 = 20kW										
	25 = 25kW										
Position 9	Electrical Protection										
	N = None										
	B = Circuit Breaker										
	F = Fused										
	3 = 3 Phase, None										
Position 10	Cabinet Width										
	1 = 14" width Electric Heater Kit										
	2 = 17" width Electric Heater Kit										
	3 = 21" width Electric Heater Kit										
Position 11	Packaging										
	1 = Single Electric Heater Kit										

Fig. 1 – Electric Heater Nomenclature

Table 2 – Models Available

2 Ton	3 Ton	4 Ton	5 Ton
FT5BD2417X00	FT5BD3617X00	FT5BD4821X00	FT5BD6021X00

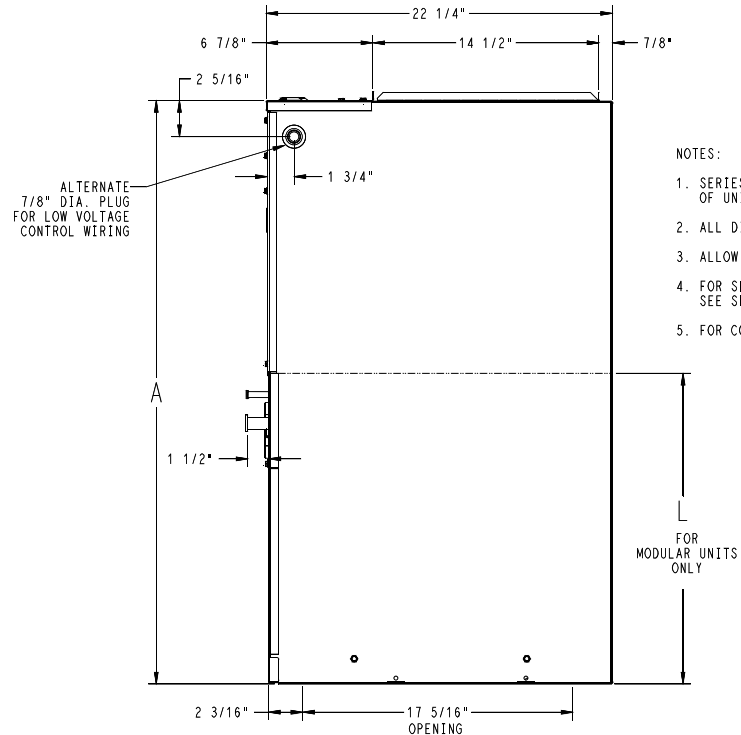
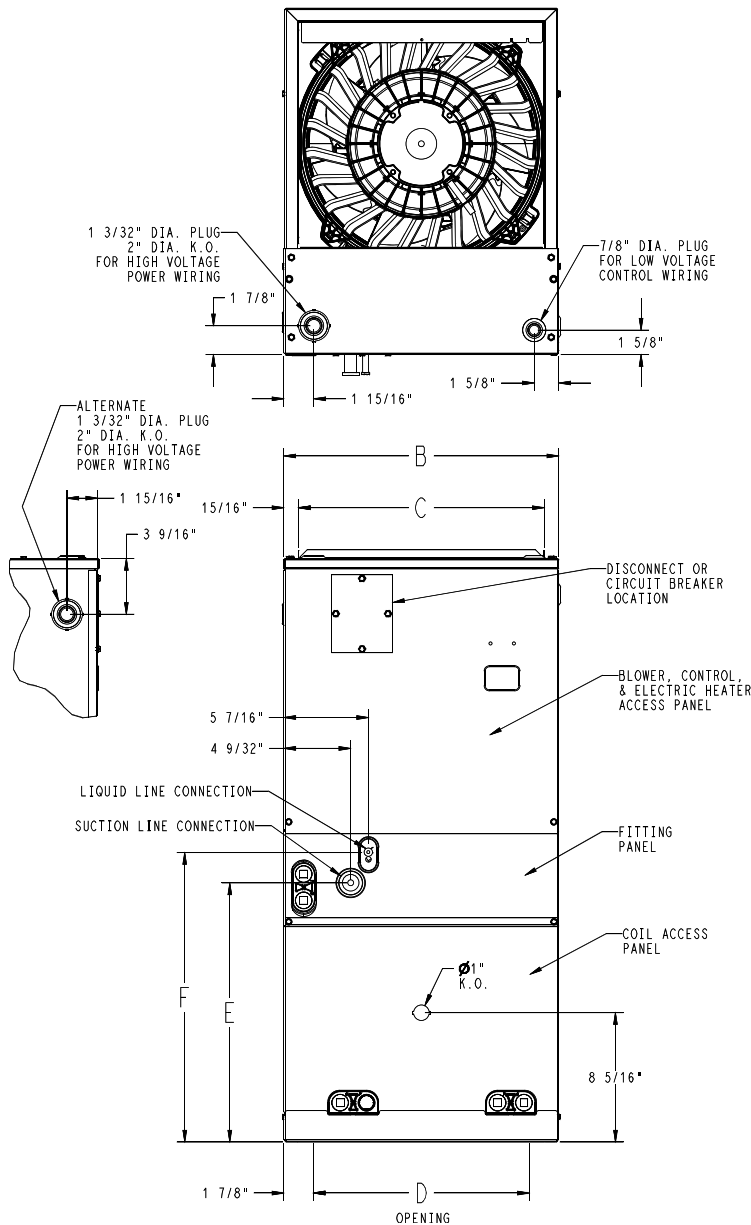
Table 3 – Specifications

(Microchannel) V-Coil				
	2 Ton	3 Ton	4 Ton	5 Ton
Face Area (sq ft)	2.47	3.56	6.06	7.32
Coil Configuration	V			
Metering Device Puron Advance® R-454B	TXV			
Refrigerant Sweat Liquid Line Connection, in (mm)	3/8 (9.5) ID			
Refrigerant Sweat Suction Line Connection, in (mm)	5/8 (15.9) ID	3/4 (19.05) ID	7/8 (22.2) ID	
Rows/Fins per Inch	1 / 17			
BLOWER & MOTOR				
Air Discharge	Upflow, Downflow, Horizontal Right, Horizontal Left			
Motor HP (ECM)	0.4		0.55	
FILTERS				
The filter rack can accommodate most common size filters.				
Market Specified Filter Dimensions, L x W x H, in, (mm)	16 x 20 x 1 (406 x 508 x 25)		20 x 20 x 1 (508 x 508 x 25)	
Actual Filter Dimensions, L x W x H, in, (mm)	up to 15.75 x 19.75 x 0.83 (400 x 502 x 21)		up to 19.75 x 19.75 x 0.83 (502 x 502 x 21)	
CABINET CONFIGURATION OPTIONS				
All are Multipoise	Singular (1-piece)		Modular (2-piece)	
UNIT WEIGHT, lb (kg)				
Packaged	98 (44.5)	107 (48.5)	143 (64.9)	147 (66.7)
Operating	81 (36.7)	90 (40.8)	124 (56.2)	128 (58.1)

DIMENSIONS

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	H	J	K	L
FT5BD2417X	A	X				32 5/8"	17 41/64"	15 3/4"	13 55/64"	11 13/16"	13 49/64"	13 23/32"	-	13 23/32"	14 15/32"	-
FT5BD3617X	A	X				37 7/16"	17 41/64"	15 3/4"	13 55/64"	16 5/8"	18 37/64"	13 23/32"	-	13 23/32"	19 17/64"	-
FT5BD4821X	A	X				48 1/4"	21 9/64"	19 9/32"	17 23/64"	26 7/8"	28 53/64"	17 7/32"	-	17 7/32"	29 33/64"	30 9/32"
FT5BD6021X	A	X				53 13/16"	21 9/64"	19 9/32"	17 23/64"	32 27/64"	34 3/8"	17 7/32"	-	17 7/32"	35 5/64"	35 13/16"
		115V/230V/1PH/60HZ				X=YES O=NO										
		115V/230V/3PH/60HZ														



- NOTES:
1. SERIES DESIGNATION IS THE 14TH POSITION OF UNIT PRODUCT NUMBER.
 2. ALL DIMENSIONS ARE IN "INCHES" UNLESS NOTED.
 3. ALLOW 21" FROM FRONT FOR SERVICE.
 4. FOR SHIPPING WEIGHT AND SHIPPING DIMENSIONS SEE SHEET 2.
 5. FOR CONVERSION KITS, SEE PRODUCT DATA.

UNIT CONNECTION SIZES

SUCTION: 24 - 5/8" I.D. SWEAT
36 - 3/4" I.D. SWEAT
48 & 60 - 7/8" I.D. SWEAT
LIQUID: 3/8" I.D. SWEAT
CONDENSATE: 3/4" FPT

Fig. 2 – Dimensions, English, sheet 1

UNIT	SERIES	OPERATING WT (LBS)	SHIPPING WT (LBS)	SHIPPING HEIGHT	SHIPPING WIDTH	SHIPPING DEPTH
FT5BD2417X	A	81	98	35 1/2"	19"	24"
FT5BD3617X	A	90	107	40 1/2"	19"	24"
FT5BD4821X	A	124	143	52"	22 1/4"	24"
FT5BD6021X	A	128	147	57"	22 1/4"	24"

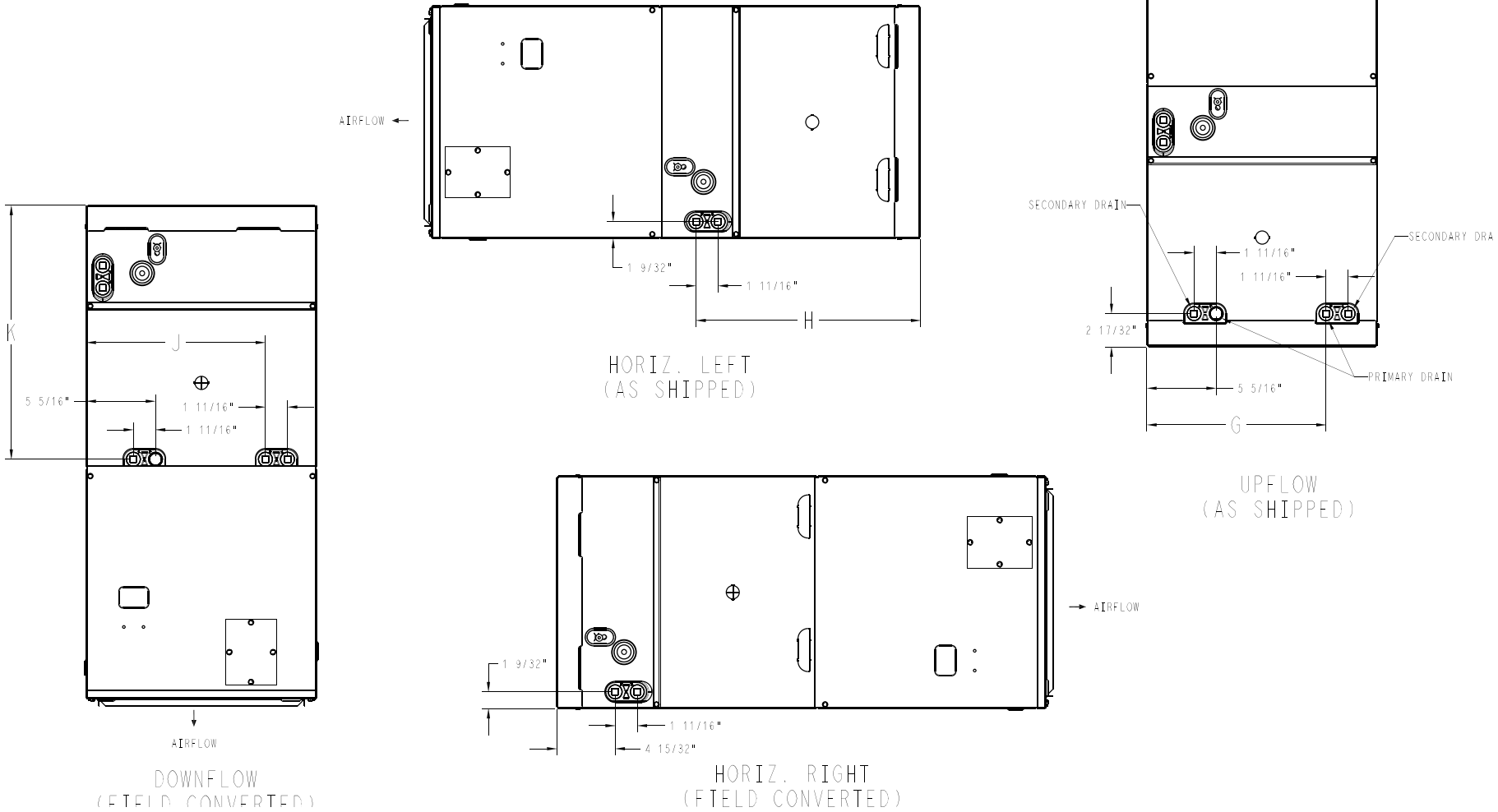
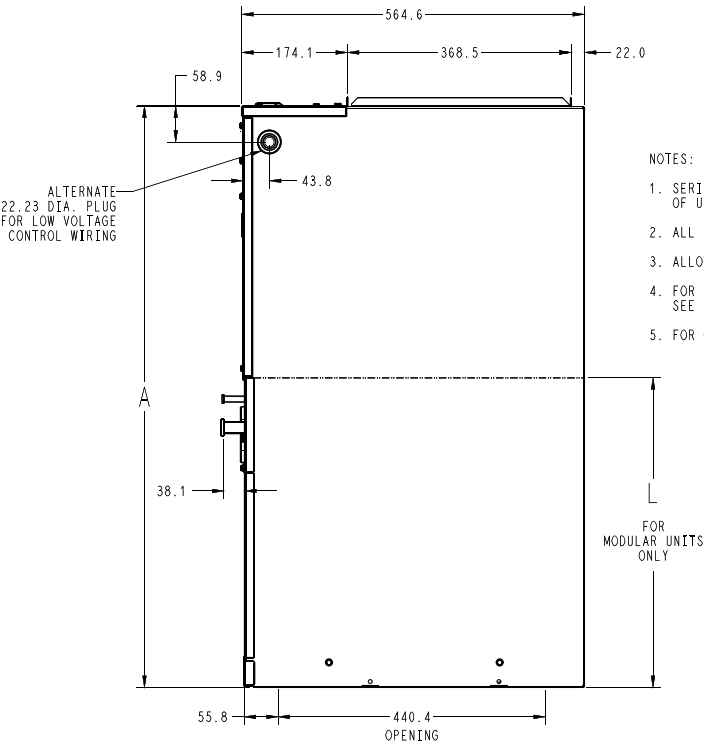
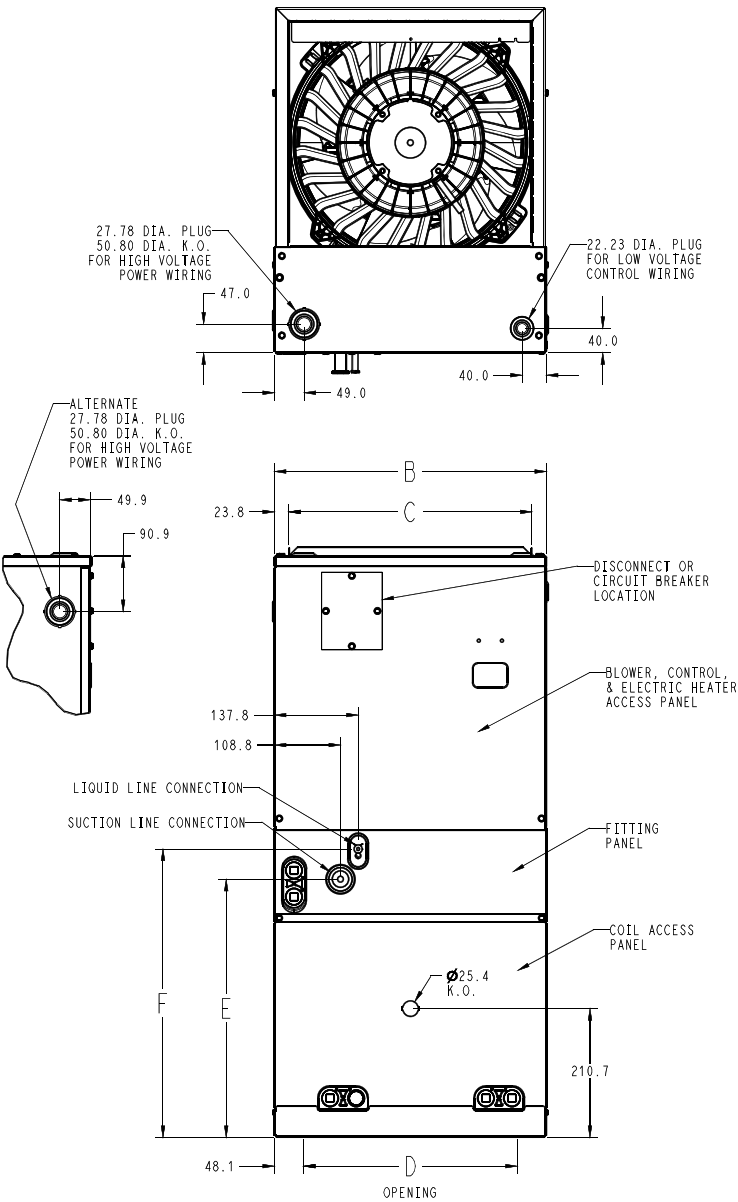


Fig. 3 – Dimensions, English, sheet 2

UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	H	J	K	L
FT5BD2417X	A	X				829.0	448.1	400.5	351.8	300.1	349.7	-	314.7	-	-	-
FT5BD3617X	A	X				951.0	448.1	400.5	351.8	422.2	471.8	-	436.8	-	-	-
FT5BD4821X	A	X				1226.0	537.1	489.5	440.8	682.6	732.2	-	697.2	-	-	769
FT5BD6021X	A	X				1367.0	537.1	489.5	440.8	823.6	873.2	-	838.2	-	-	910
		115V/230V/1PH/60HZ				X=YES O=NO										
		115V/230V/3PH/60HZ														



- NOTES:
- SERIES DESIGNATION IS THE 14TH POSITION OF UNIT PRODUCT NUMBER.
 - ALL DIMENSIONS ARE IN "MM" UNLESS NOTED.
 - ALLOW 533.4 FROM FRONT FOR SERVICE.
 - FOR SHIPPING WEIGHT AND SHIPPING DIMENSIONS SEE SHEET 4.
 - FOR CONVERSION KITS, SEE PRODUCT DATA.

UNIT CONNECTION SIZES

SUCTION: 24 - 15.88 I.D. SWEAT
36 - 19.05 I.D. SWEAT
48 & 60 - 22.23 I.D. SWEAT
LIQUID: 9.53 I.D. SWEAT
CONDENSATE: 19.05 FPT

FOR
MODULAR UNITS
ONLY

Fig. 4 – Dimensions, Metric, sheet 1

UNIT	SERIES	OPERATING WT (KGS)	SHIPPING WT (KGS)	SHIPPING HEIGHT	SHIPPING WIDTH	SHIPPING DEPTH
FT5BD2417X	A	36.7	44.5	901.7	482.6	609.6
FT5BD3617X	A	40.8	48.5	1028.7	482.6	609.6
FT5BD4821X	A	56.2	64.9	1320.8	565.2	609.6
FT5BD6021X	A	58.1	66.7	1447.8	565.2	609.6

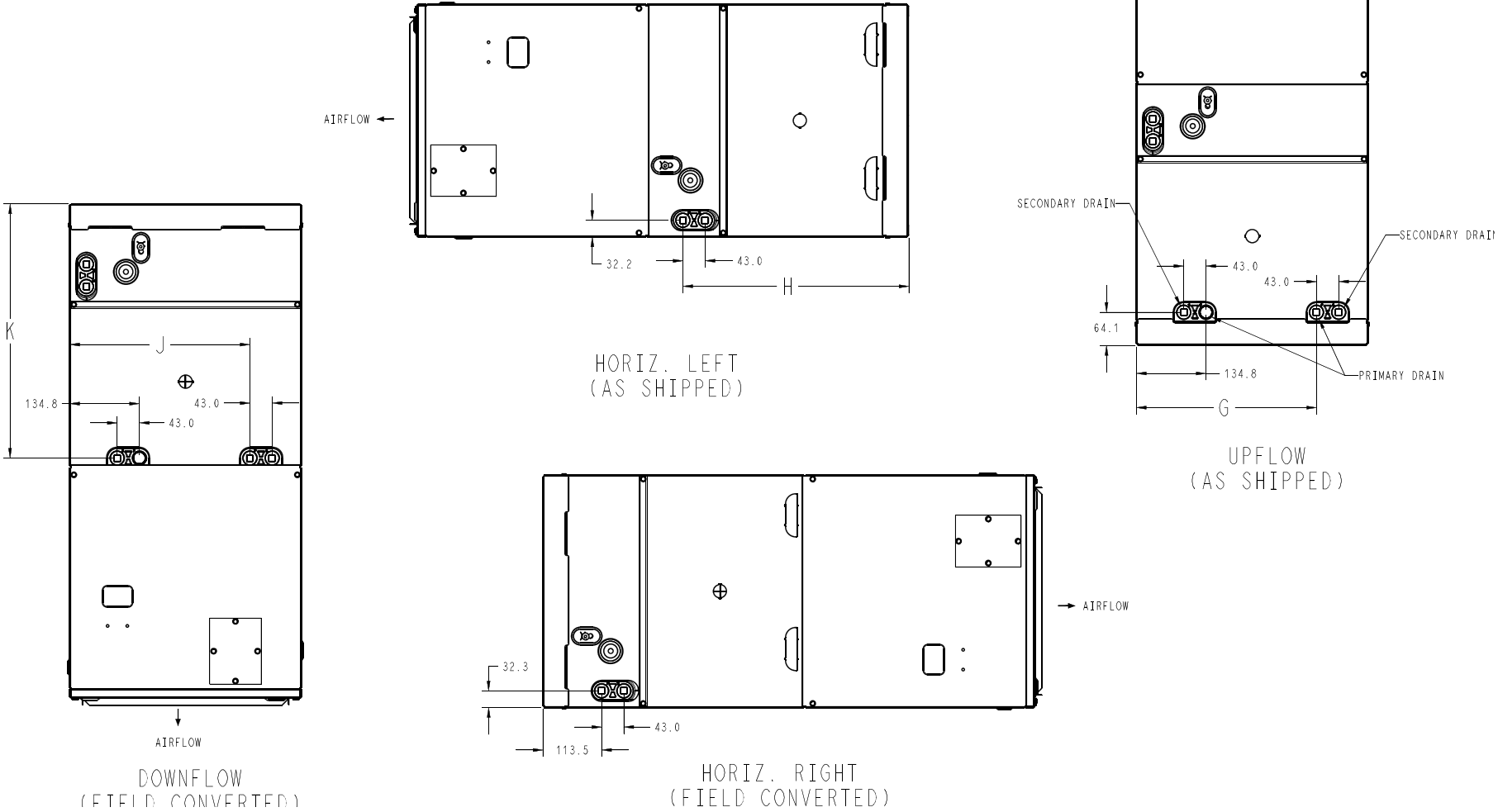


Fig. 5 – Dimensions, Metric, sheet 2

PERFORMANCE DATA

Airflow Programming

The unit allows the user to select between 25 different speed tap settings. Each operating mode includes a range of allowable speed taps that the user can select from the main control board or service tech app depending on the desired airflow. From the factory, [Table 4](#) displays the default speed tap settings for heating and cooling operating modes. The installer can adjust settings based on duct static and airflow tables ([Table 6](#) thru [Table 13](#)) to achieve desired SCFM.

Table 4 – Default Tap Settings

Default Airflow Index					
Ton	High Heat	Low Heat	High Cool	Low Cool	Continuous Fan
2T	18	13	17	12	15
3T	25	17	22	17	17
4T	21	14	20	14	17
5T	25	20	25	19	20

When adjusting tap selection for cooling and heating operating modes, SCFM cannot drop below 250 SCFM/Ton, because of the potential to freeze the indoor coil. In the tables, grayed out boxes fall outside this

range and are not recommended. For selections above 450 SCFM/Ton, the user may experience noise and water management concerns. All speed taps can be utilized for continuous fan operation. If user wishes to adjust airflow refer to outdoor AHRI listing for recommended indoor airflow SCFM. If rated indoor SCFM is unknown, the recommended airflow is 400 SCFM/Ton for high stage and 320 SCFM/Ton for low stage operation.

Table 5 – Airflow Delivery (SCFM) for Efficiency Mode

Unit Size	Cooling SCFM		Heating SCFM	
	High	Low	High	Low
24	815	650	845	675
36	1270	1015	1270	1015
48	1570	1255	1570	1255
60	1890	1510	1890	1510

All nominal heating and cooling values are at 0.5 ESP for high stage and 0.32 ESP for low stage.

IMPORTANT: If the tap selection and system duct static produces too low of SCFM it may freeze the coil.

NOTE: Airflow tables are subject to change, as new testing is ongoing.

Table 6 – 2T Cooling (Wet) Airflow (SCFM)*

Ton (Size)	Fan Speed	External Static (in. wc)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
2 (24)	Setting 1	368	—	—	—	—	—	—	—	—	—
	Setting 2	461	—	—	—	—	—	—	—	—	—
	Setting 3	526	—	—	—	—	—	—	—	—	—
	Setting 4	545	349	—	—	—	—	—	—	—	—
	Setting 5	611	508	—	—	—	—	—	—	—	—
	Setting 6	659	562	381	—	—	—	—	—	—	—
	Setting 7	695	603	430	—	—	—	—	—	—	—
	Setting 8	726	640	507	331	—	—	—	—	—	—
	Setting 9	757	681	539	383	—	—	—	—	—	—
	Setting 10	806	732	647	453	325	—	—	—	—	—
	Setting 11	838	768	684	508	371	—	—	—	—	—
	Setting 12	884	819	739	611	444	318	—	—	—	—
	Setting 13	926	863	789	709	513	392	—	—	—	—
	Setting 14	957	900	829	750	608	441	323	—	—	—
	Setting 15	1028	969	903	826	733	549	435	—	—	—
	Setting 16	1061	1004	943	870	790	646	484	358	—	—
	Setting 17	1120	1063	1011	952	880	806	569	461	351	—
	Setting 18	1184	1134	1076	1011	942	869	755	558	466	374
	Setting 19	1219	1173	1122	1066	1005	943	826	683	569	430
	Setting 20	1281	1225	1179	1128	1072	1009	947	809	665	562
	Setting 21	1339	1290	1244	1188	1135	1076	1013	903	794	668
	Setting 22	1376	1322	1275	1224	1172	1118	1059	998	879	744
	Setting 23	1433	1378	1336	1287	1239	1183	1125	1064	998	915
	Setting 24	1486	1432	1381	1334	1276	1220	1152	1090	1039	980
	Setting 25	1503	1453	1406	1355	1303	1246	1187	1126	1062	992

*. All values calculated with filter installed.
Values in GREY are not recommended at this Setting and External Static due to concerns of coil freezing.

Table 7 – 2T Heating (Dry) Airflow (SCFM)*

Ton (Size)	Fan Speed	External Static (in. wc)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
2 (24)	Setting 1	368	—	—	—	—	—	—	—	—	—
	Setting 2	436	—	—	—	—	—	—	—	—	—
	Setting 3	500	290	—	—	—	—	—	—	—	—
	Setting 4	545	349	—	—	—	—	—	—	—	—
	Setting 5	582	455	—	—	—	—	—	—	—	—
	Setting 6	647	541	331	—	—	—	—	—	—	—
	Setting 7	693	592	396	—	—	—	—	—	—	—
	Setting 8	729	637	460	—	—	—	—	—	—	—
	Setting 9	766	680	545	—	—	—	—	—	—	—
	Setting 10	819	740	636	430	—	—	—	—	—	—
	Setting 11	837	759	666	465	316	—	—	—	—	—
	Setting 12	878	806	713	588	374	—	—	—	—	—
	Setting 13	920	847	763	672	455	309	—	—	—	—
	Setting 14	944	889	809	714	612	377	—	—	—	—
	Setting 15	987	908	853	739	634	410	—	—	—	—
	Setting 16	1021	957	878	806	715	484	353	—	—	—
	Setting 17	1090	1026	958	884	806	712	477	333	—	—
	Setting 18	1161	1101	1041	969	899	820	653	479	348	—
	Setting 19	1194	1130	1072	999	932	857	706	528	380	—
	Setting 20	1249	1195	1143	1081	1018	970	898	811	562	—
	Setting 21	1328	1266	1209	1123	1059	984	914	768	664	496
	Setting 22	1367	1305	1255	1191	1132	1065	993	918	813	585
	Setting 23	1415	1368	1327	1276	1188	1124	1059	992	911	753
	Setting 24	1468	1423	1383	1335	1287	1235	1180	1122	1057	986
	Setting 25	1497	1450	1411	1365	1321	1271	1218	1163	1105	1038

*. All values calculated with filter installed.

Table 8 – 3T Cooling (Wet) Airflow (SCFM)*

Ton (Size)	Fan Speed	External Static (in. wc)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
3 (36)	Setting 1	473	247	—	—	—	—	—	—	—	—
	Setting 2	541	346	—	—	—	—	—	—	—	—
	Setting 3	602	486	249	—	—	—	—	—	—	—
	Setting 4	669	560	349	—	—	—	—	—	—	—
	Setting 5	714	609	425	—	—	—	—	—	—	—
	Setting 6	751	660	522	—	—	—	—	—	—	—
	Setting 7	800	716	607	387	—	—	—	—	—	—
	Setting 8	863	786	691	499	—	—	—	—	—	—
	Setting 9	900	826	740	633	—	—	—	—	—	—
	Setting 10	936	871	784	690	458	—	—	—	—	—
	Setting 11	993	926	846	753	606	398	—	—	—	—
	Setting 12	1041	979	900	806	712	489	—	—	—	—
	Setting 13	1088	1016	944	856	770	636	499	376	—	—
	Setting 14	1164	1109	1055	988	918	839	685	518	390	—
	Setting 15	1226	1174	1120	1062	994	921	801	613	499	384
	Setting 16	1272	1216	1150	1103	1041	971	898	753	568	453
	Setting 17	1286	1227	1173	1118	1051	982	910	824	582	457
	Setting 18	1349	1295	1246	1189	1128	1065	996	917	767	575
	Setting 19	1390	1330	1279	1226	1166	1101	1037	967	882	655
	Setting 20	1433	1371	1321	1272	1218	1156	1096	1027	953	869
	Setting 21	1464	1406	1349	1289	1222	1153	1074	971	894	797
	Setting 22	1500	1437	1367	1307	1238	1171	1102	1031	956	876
	Setting 23	1527	1475	1421	1373	1320	1260	1228	1169	1109	1044
	Setting 24	1562	1512	1469	1427	1382	1334	1280	1222	1163	1107
	Setting 25	1607	1558	1516	1477	1425	1379	1331	1277	1218	1161

*. All values calculated with filter installed.
 Values in GREY are not recommended at this Setting and External Static due to concerns of coil freezing.

Table 9 – 3T Heating (Dry) Airflow (SCFM)*

Ton (Size)	Fan Speed	External Static (in. wc)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
3 (36)	Setting 1	410	–	–	–	–	–	–	–	–	–
	Setting 2	477	–	–	–	–	–	–	–	–	–
	Setting 3	547	411	–	–	–	–	–	–	–	–
	Setting 4	615	493	–	–	–	–	–	–	–	–
	Setting 5	661	547	312	–	–	–	–	–	–	–
	Setting 6	702	597	429	–	–	–	–	–	–	–
	Setting 7	745	645	492	–	–	–	–	–	–	–
	Setting 8	803	720	617	377	–	–	–	–	–	–
	Setting 9	840	761	664	457	–	–	–	–	–	–
	Setting 10	878	804	713	603	347	–	–	–	–	–
	Setting 11	949	880	798	700	532	–	–	–	–	–
	Setting 12	998	931	860	769	671	411	–	–	–	–
	Setting 13	1046	978	910	826	731	560	328	–	–	–
	Setting 14	1118	1053	989	917	833	735	479	–	–	–
	Setting 15	1155	1090	1030	968	885	798	689	–	–	–
	Setting 16	1185	1123	1065	999	924	846	750	484	–	–
	Setting 17	1196	1134	1075	1013	942	862	767	535	355	–
	Setting 18	1251	1189	1129	1071	1001	925	847	743	479	–
	Setting 19	1291	1227	1171	1115	1053	980	905	816	628	–
	Setting 20	1347	1278	1224	1169	1108	1043	968	893	720	542
	Setting 21	1375	1318	1263	1210	1153	1089	1021	949	905	800
	Setting 22	1412	1365	1317	1271	1220	1162	1100	1034	954	797
	Setting 23	1458	1400	1352	1315	1267	1207	1145	1083	1015	931
	Setting 24	1505	1455	1417	1366	1322	1259	1200	1139	1076	1007
	Setting 25	1534	1480	1437	1388	1340	1292	1253	1175	1136	1072

*. All values calculated with filter installed.

Table 10 – 4T Cooling (Wet) Airflow (SCFM)*

Ton (Size)	Fan Speed	External Static (in. wc)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
4 (48)	Setting 1	349	–	–	–	–	–	–	–	–	–
	Setting 2	533	–	–	–	–	–	–	–	–	–
	Setting 3	668	396	211	–	–	–	–	–	–	–
	Setting 4	758	566	301	–	–	–	–	–	–	–
	Setting 5	933	825	675	348	–	–	–	–	–	–
	Setting 6	1025	930	810	537	327	–	–	–	–	–
	Setting 7	1091	1002	902	750	447	312	–	–	–	–
	Setting 8	1187	1090	995	870	582	389	304	–	–	–
	Setting 9	1251	1168	1080	972	842	534	361	303	–	–
	Setting 10	1331	1242	1159	1064	952	670	475	354	–	–
	Setting 11	1399	1312	1235	1149	1047	818	609	432	355	–
	Setting 12	1466	1389	1311	1234	1140	1037	767	584	378	–
	Setting 13	1504	1422	1349	1271	1183	1087	853	661	493	386
	Setting 14	1549	1470	1399	1330	1249	1152	1042	746	572	421
	Setting 15	1634	1557	1488	1423	1347	1258	1152	917	734	575
	Setting 16	1690	1619	1542	1478	1408	1334	1249	1141	884	710
	Setting 17	1749	1687	1623	1560	1504	1436	1361	1267	1175	864
	Setting 18	1798	1747	1685	1623	1561	1497	1424	1340	1251	985
	Setting 19	1908	1853	1798	1756	1703	1653	1591	1515	1436	1340
	Setting 20	1983	1928	1869	1809	1758	1701	1641	1578	1503	1427
	Setting 21	2031	1983	1927	1872	1822	1768	1712	1651	1575	1501
	Setting 22	2079	2026	1975	1922	1860	1780	1754	1696	1629	1561
	Setting 23	2106	2047	1996	1946	1886	1837	1783	1724	1657	1589
	Setting 24	2182	2136	2086	2027	1972	1919	1869	1811	1746	1666
	Setting 25	2295	2249	2202	2145	2089	2032	1977	1926	1868	1800

*. All values calculated with filter installed.
Values in GREY are not recommended at this Setting and External Static due to concerns of coil freezing.

Table 11 – 4T Heating (Dry) Airflow (SCFM)*

Ton (Size)	Fan Speed	External Static (in. wc)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
4 (48)	Setting 1	—	—	—	—	—	—	—	—	—	—
	Setting 2	429	—	—	—	—	—	—	—	—	—
	Setting 3	575	—	—	—	—	—	—	—	—	—
	Setting 4	691	408	—	—	—	—	—	—	—	—
	Setting 5	866	756	582	—	—	—	—	—	—	—
	Setting 6	961	860	723	405	—	—	—	—	—	—
	Setting 7	1026	933	825	500	—	—	—	—	—	—
	Setting 8	1093	1005	912	766	429	—	—	—	—	—
	Setting 9	1164	1083	992	867	534	—	—	—	—	—
	Setting 10	1223	1142	1060	950	813	461	—	—	—	—
	Setting 11	1305	1220	1142	1061	937	585	371	—	—	—
	Setting 12	1392	1306	1235	1156	1056	920	564	383	—	—
	Setting 13	1442	1359	1287	1205	1113	996	682	451	—	—
	Setting 14	1490	1414	1334	1256	1168	1056	915	543	—	—
	Setting 15	1526	1439	1375	1291	1213	1112	994	624	—	—
	Setting 16	1571	1506	1457	1371	1299	1207	1098	958	—	—
	Setting 17	1638	1565	1502	1418	1344	1258	1169	1053	901	—
	Setting 18	1723	1658	1588	1510	1445	1365	1280	1178	1067	697
	Setting 19	1807	1739	1677	1595	1527	1454	1373	1277	1191	1069
	Setting 20	1850	1786	1725	1651	1589	1523	1451	1366	1282	1171
	Setting 21	1914	1861	1799	1718	1657	1590	1524	1451	1368	1271
	Setting 22	1954	1894	1837	1762	1694	1636	1570	1499	1404	1317
	Setting 23	2001	1948	1907	1834	1762	1702	1633	1571	1485	1414
	Setting 24	2089	2048	1996	1916	1856	1805	1739	1683	1607	1530
	Setting 25	2203	2161	2118	2043	1987	1931	1880	1822	1766	1701

*. All values calculated with filter installed.

Table 12 – 5T Cooling (Wet) Airflow (SCFM)*

Ton (Size)	Fan Speed	External Static (in. wc)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
5 (60)	Setting 1	283	—	—	—	—	—	—	—	—	—
	Setting 2	400	183	—	—	—	—	—	—	—	—
	Setting 3	726	551	—	—	—	—	—	—	—	—
	Setting 4	862	750	432	—	—	—	—	—	—	—
	Setting 5	936	823	670	—	—	—	—	—	—	—
	Setting 6	984	882	758	437	—	—	—	—	—	—
	Setting 7	1104	1015	911	772	441	—	—	—	—	—
	Setting 8	1169	1088	1001	881	555	354	—	—	—	—
	Setting 9	1215	1146	1062	951	804	453	354	—	—	—
	Setting 10	1243	1172	1090	985	850	518	365	325	—	—
	Setting 11	1281	1212	1132	1043	925	619	433	359	—	—
	Setting 12	1419	1355	1283	1223	1138	1026	732	544	409	381
	Setting 13	1504	1443	1377	1306	1230	1131	1017	687	515	425
	Setting 14	1578	1525	1456	1391	1316	1230	1129	853	662	513
	Setting 15	1604	1544	1483	1417	1350	1264	1169	1043	717	557
	Setting 16	1688	1632	1572	1512	1445	1366	1280	1187	903	726
	Setting 17	1731	1674	1615	1567	1495	1431	1343	1251	1150	821
	Setting 18	1845	1796	1738	1687	1628	1569	1501	1421	1336	1238
	Setting 19	1890	1840	1792	1736	1684	1627	1569	1497	1410	1319
	Setting 20	1980	1938	1884	1830	1780	1732	1671	1608	1535	1458
	Setting 21	2001	1965	1914	1863	1815	1763	1701	1649	1575	1492
	Setting 22	2046	2005	1956	1910	1861	1814	1765	1704	1644	1567
	Setting 23	2167	2125	2082	2038	1993	1942	1894	1845	1757	1727
	Setting 24	2222	2184	2138	2092	2048	2001	1952	1906	1856	1798
	Setting 25	2301	2262	2218	2174	2130	2089	2040	1994	1949	1892

*. All values calculated with filter installed.
Values in **GREY** are not recommended at this Setting and External Static due to concerns of coil freezing.

Table 13 – 5T Heating (Dry) Airflow (SCFM)*

Ton (Size)	Fan Speed	External Static (in. wc)									
		0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
5 (60)	Setting 1	302	—	—	—	—	—	—	—	—	—
	Setting 2	451	—	—	—	—	—	—	—	—	—
	Setting 3	635	342	—	—	—	—	—	—	—	—
	Setting 4	772	645	—	—	—	—	—	—	—	—
	Setting 5	844	724	391	—	—	—	—	—	—	—
	Setting 6	912	801	650	—	—	—	—	—	—	—
	Setting 7	1033	939	815	506	272	—	—	—	—	—
	Setting 8	1088	1000	896	749	356	241	—	—	—	—
	Setting 9	1140	1054	961	836	458	286	—	—	—	—
	Setting 10	1170	1085	997	877	532	315	—	—	—	—
	Setting 11	1219	1141	1063	954	804	412	295	—	—	—
	Setting 12	1335	1271	1192	1131	1026	886	475	334	—	—
	Setting 13	1433	1365	1288	1216	1129	1011	848	453	339	—
	Setting 14	1439	1371	1306	1232	1152	1036	902	577	368	313
	Setting 15	1450	1390	1324	1253	1167	1063	927	569	422	402
	Setting 16	1518	1460	1394	1327	1251	1164	1056	906	558	572
	Setting 17	1561	1507	1447	1377	1314	1232	1126	801	604	477
	Setting 18	1679	1626	1567	1510	1444	1385	1308	1208	1097	715
	Setting 19	1735	1685	1627	1570	1512	1448	1379	1284	1189	1061
	Setting 20	1827	1779	1727	1668	1613	1551	1481	1408	1321	1223
	Setting 21	1862	1816	1765	1709	1656	1598	1532	1460	1369	1274
	Setting 22	1908	1860	1807	1751	1698	1645	1582	1512	1438	1346
	Setting 23	2028	1986	1939	1890	1842	1803	1742	1685	1617	1541
	Setting 24	2060	2015	2015	1963	1916	1861	1805	1753	1695	1632
	Setting 25	2175	2130	2086	2042	2078	1948	1899	1853	1796	1727

*. All values calculated with filter installed.

Table 14 – Cooling Capacities (MBtuh)

INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
2-TON (24 SIZE)																
550	72	40.01	19.08	0.00	35.68	17.03	0.00	31.21	15.01	0.00	26.04	12.87	0.26	20.51	10.54	0.27
	67	32.10	19.55	0.20	28.10	17.49	0.20	23.58	15.20	0.23	18.42	12.61	0.27	13.36	10.19	0.31
	62	25.86	19.92	0.21	21.89	17.69	0.22	17.32	15.12	0.26	12.82	12.82	0.28	10.95	10.94	0.39
650	72	44.06	21.08	0.00	39.53	18.95	0.00	34.43	16.74	0.00	28.82	14.34	0.27	22.51	11.66	0.30
	67	35.97	21.96	0.23	31.49	19.65	0.23	26.55	17.18	0.25	21.17	14.53	0.29	14.78	11.33	0.35
	62	29.27	22.62	0.23	24.84	20.16	0.25	19.61	17.23	0.28	14.66	14.59	0.31	12.42	12.40	0.41
750	72	48.31	23.03	0.00	43.37	20.76	0.00	38.04	18.47	0.00	31.49	15.74	0.29	24.68	12.82	0.33
	67	39.72	24.21	0.27	35.03	21.84	0.27	29.60	19.16	0.28	23.31	16.09	0.31	16.52	12.73	0.37
	62	32.38	25.09	0.26	27.47	22.40	0.27	21.97	19.41	0.29	16.61	16.58	0.32	13.71	13.70	0.44
850	72	51.18	24.57	0.00	46.80	22.44	0.00	41.05	19.98	0.00	34.87	17.34	0.33	27.25	14.16	0.34
	67	42.90	26.20	0.30	37.90	23.69	0.29	32.10	20.87	0.30	25.12	17.42	0.34	18.31	14.18	0.37
	62	35.06	27.29	0.28	29.81	24.44	0.29	24.05	21.37	0.31	19.23	19.20	0.31	14.82	14.81	0.46
1000	72	56.75	27.05	0.00	51.79	24.76	0.00	45.59	22.16	0.00	38.89	19.34	0.37	30.92	16.07	0.37
	67	47.38	28.97	0.34	41.99	26.32	0.33	35.98	23.44	0.33	28.18	19.65	0.36	20.11	15.69	0.41
	62	38.61	30.28	0.31	33.24	27.43	0.32	26.80	24.03	0.33	21.80	21.80	0.33	16.93	16.91	0.48
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

Table 14 – Cooling Capacities (MBtuh) (Continued)

INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
3-TON (36 SIZE)																
825	72	59.41	28.22	0.00	53.94	25.57	0.00	47.79	22.76	0.00	40.76	19.77	0.00	33.13	16.78	0.27
	67	48.63	29.27	0.00	42.75	26.43	0.22	36.48	23.42	0.21	29.65	20.24	0.22	21.67	16.59	0.25
	62	39.27	30.18	0.20	33.73	27.23	0.21	27.45	24.04	0.21	20.62	20.61	0.23	17.63	17.61	0.34
975	72	66.28	31.37	0.00	60.04	28.44	0.00	52.98	25.34	0.00	44.93	22.03	0.34	36.38	18.65	0.28
	67	54.02	32.70	0.29	48.11	29.74	0.26	41.19	26.46	0.25	33.32	22.86	0.25	24.67	18.99	0.27
	62	44.18	34.05	0.24	37.83	30.73	0.23	30.75	27.13	0.24	24.00	24.00	0.24	20.42	20.40	0.36
1125	72	72.16	34.15	0.00	65.36	31.02	0.00	57.59	27.65	0.00	49.48	24.28	0.36	39.71	20.47	0.30
	67	59.44	35.91	0.35	52.73	32.69	0.29	45.18	29.15	0.27	36.88	25.40	0.28	27.22	21.10	0.29
	62	48.39	37.50	0.26	41.62	33.96	0.26	34.04	30.23	0.26	27.70	27.70	0.24	22.47	22.46	0.39
1275	72	77.12	36.45	0.00	70.77	33.41	0.00	62.54	29.95	0.00	53.58	26.31	0.39	43.27	22.32	0.33
	67	64.15	38.75	0.38	57.05	35.41	0.31	49.03	31.71	0.30	40.09	27.72	0.30	29.32	22.88	0.32
	62	52.26	40.68	0.29	45.04	36.98	0.28	36.86	32.96	0.28	30.61	30.61	0.26	25.33	25.32	0.39
1400	72	81.97	38.56	0.00	74.75	35.27	0.00	66.05	31.70	0.00	56.73	27.91	0.40	46.17	23.81	0.35
	67	67.74	41.03	0.38	60.31	37.55	0.33	51.83	33.66	0.32	42.38	29.45	0.31	31.90	24.99	0.32
	62	55.23	43.21	0.30	47.72	39.38	0.30	39.17	35.23	0.30	32.83	32.83	0.28	27.71	27.71	0.39
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
4-TON (48 SIZE)																
1100	72	80.15	37.97	0.00	73.03	34.61	0.00	64.52	30.91	0.00	55.35	27.05	0.31	45.83	23.26	0.23
	67	65.98	39.81	0.26	59.11	36.32	0.22	50.98	32.57	0.19	40.71	28.01	0.18	30.69	23.61	0.20
	62	53.44	41.37	0.17	45.98	37.43	0.17	37.83	33.39	0.17	30.59	30.57	0.14	24.90	24.90	0.30
1300	72	89.21	42.11	0.00	81.34	38.49	0.00	72.26	34.56	0.00	61.81	30.34	0.30	50.30	25.88	0.24
	67	73.13	44.34	0.26	64.98	40.49	0.22	55.79	36.24	0.20	46.11	31.88	0.21	34.80	27.00	0.22
	62	59.58	46.47	0.20	51.30	42.17	0.20	42.36	37.75	0.20	34.86	34.86	0.17	28.87	28.85	0.32
1500	72	96.75	45.58	0.00	88.20	41.76	0.00	78.35	37.62	0.00	67.04	33.13	0.30	54.85	28.44	0.26
	67	79.63	48.48	0.28	70.90	44.43	0.24	61.66	40.16	0.23	50.45	35.16	0.23	37.92	29.70	0.25
	62	65.25	51.19	0.22	56.69	46.86	0.22	46.47	41.81	0.22	39.12	39.12	0.20	32.25	32.24	0.34
1700	72	104.26	49.00	0.00	95.16	44.99	0.00	84.82	40.69	0.00	72.89	36.03	0.33	59.65	30.99	0.28
	67	86.11	52.46	0.31	76.89	48.22	0.27	66.44	43.54	0.25	54.85	38.44	0.25	41.31	32.59	0.26
	62	70.25	55.53	0.24	61.12	50.96	0.24	50.53	45.89	0.24	42.73	42.73	0.23	35.66	35.62	0.36
2000	72	113.11	53.12	0.00	103.53	49.04	0.00	93.01	44.67	0.00	80.26	39.78	0.36	65.92	34.42	0.31
	67	93.88	57.55	0.33	84.32	53.23	0.30	73.13	48.30	0.28	59.81	42.39	0.29	45.18	36.12	0.30
	62	76.78	61.38	0.28	67.06	56.63	0.27	55.71	51.28	0.27	48.23	48.22	0.26	40.95	40.95	0.37
INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
5-TON (60 SIZE)																
1375	72	96.73	45.65	0.00	88.12	41.70	0.00	77.98	37.35	0.00	66.95	32.83	0.29	55.79	28.41	0.24
	67	79.47	48.04	0.27	70.56	43.85	0.20	60.65	39.35	0.18	50.10	34.64	0.18	37.60	29.21	0.20
	62	64.34	50.23	0.18	55.79	45.82	0.17	45.79	40.85	0.18	37.83	37.83	0.15	31.98	31.98	0.28
1625	72	107.00	50.35	0.00	97.71	46.16	0.00	86.94	41.61	0.00	74.37	36.64	0.30	60.41	31.34	0.24
	67	88.09	53.46	0.29	78.42	49.00	0.23	67.53	44.14	0.21	55.97	39.04	0.21	41.73	32.78	0.23
	62	71.80	56.46	0.20	62.04	51.51	0.20	51.55	46.49	0.20	43.25	43.25	0.18	36.62	36.62	0.31

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

Table 14 – Cooling Capacities (MBtuh) (Continued)

INDOOR COIL AIR		SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)														
		35			40			45			50			55		
CFM	EWB	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
1875	72	116.03	54.52	0.00	106.26	50.20	0.00	94.69	45.38	0.00	81.32	40.15	0.33	66.36	34.57	0.27
	67	96.05	58.48	0.31	85.60	53.72	0.26	73.62	48.49	0.24	61.18	43.05	0.24	46.27	36.68	0.25
	62	78.10	61.97	0.23	68.73	57.31	0.23	56.36	51.41	0.22	48.18	48.18	0.21	40.88	40.88	0.33
2000	72	120.07	56.37	0.00	110.17	52.07	0.00	98.36	47.16	0.00	84.69	41.84	0.34	68.62	35.91	0.28
	67	99.42	60.69	0.31	88.44	55.83	0.27	77.14	50.80	0.25	63.59	44.95	0.25	47.09	37.54	0.27
	62	81.45	64.85	0.24	70.20	59.17	0.24	58.11	53.35	0.24	50.49	50.49	0.22	42.58	42.58	0.34
2200	72	126.31	59.33	0.00	115.84	54.79	0.00	103.58	49.76	0.00	89.41	44.31	0.35	72.52	38.12	0.29
	67	104.88	64.22	0.33	93.57	59.19	0.29	81.38	53.92	0.27	67.01	47.72	0.27	50.52	40.57	0.28
	62	85.35	68.52	0.26	75.24	63.55	0.25	61.70	57.15	0.25	54.02	54.02	0.24	45.71	45.71	0.36

Definitions:**EWB** - Entering Wet Bulb (°F)**TC** - Total Cooling Capacity (1000 Btuh)**MBH** - 1000 Btuh**CFM** - Cubic Feet Per Minute**LWB** - Leaving Wet Bulb (°F)**BF** - Bypass Factor**SNC** - Sensible Heat Capacities (1000 Btuh)**NOTES:**

1. Contact manufacturer for cooling capacities at conditions other than shown in table.

2. Formulas:

Leaving db = entering db - $\frac{\text{sensible heat cap.}}{1.09 \times \text{CFM}}$

Leaving wb = wb corresponding to enthalpy of air leaving coil

 (h_{lwb}) $h_{lwb} = h_{ewb} - \frac{\text{total capacity (Btuh)}}{4.5 \times \text{CFM}}$ where h_{ewb} = enthalpy of air entering coil. Direct interpolation is permissible. Do not extrapolate.

3. SHC is based on 80°F db temperature of air entering coil. Below 80°F db, subtract (Correction Factor x CFM) from SHC. Above 80°F db, add (Correction Factor x CFM) to SHC.

4. Bypass Factor = 0 indicates no psychometric solution. Use bypass factor of next lower EWB for approximation.

Table 15 – SHC Correction Factor

BYPASS FACTOR	Entering Air Dry-Bulb Temperature – °F (°C)					
	79 (26)	78 (26)	77 (25)	76 (24)	75 (24)	Under 75 (24)
	81 (27)	82 (28)	83 (28)	84 (29)	85 (29)	Over 85
	Correction Factor					
0.10	.098	1.96	2.94	3.92	4.91	Use formula shown below
0.20	0.87	1.74	2.62	3.49	4.36	
0.30	0.76	1.53	2.29	3.05	3.82	
0.40	0.65	1.31	1.96	2.62	3.27	
0.50	0.36	0.71	1.70	1.43	1.78	

Interpolation is permissible.

Correction Factor = $1.09 \times (1 - \text{BF}) \times (\text{db} - 80)$

Table 16 – Prediction of Fan Airborne Sound Power Level (Vaneaxial Fan, Wheel Size under 40")

UNIT SIZE	INPUT FOR SOUND POWER PREDICTION					ESTIMATED INLET or OUTLET SOUND POWER, dB*						
	Flow Rate CFM	Press Drop, in. of water	Fan Speed, rpm	# of Blades	% of Peak Static Effic	63	125	250	500	1000	2000	4000
24	400	0.50	1425	7	85 – 89	60	68	66	66	66	64	51
	600	0.50	1555	7	> 90	58.8	60.8	70.8	64.8	64.8	62.8	49.8
	800	0.50	1711	7	> 90	60	62	72	66	66	64	51
	1000	0.50	1931	7	85 – 89	64	66	76	70	70	68	55
	1200	0.50	2174	7	65 – 74	70.8	72.8	82.8	76.8	76.8	74.8	61.8

Table 16 – Prediction of Fan Airborne Sound Power Level (Vaneaxial Fan, Wheel Size under 40")

36	400	0.50	1331	7	85 – 89	69.0	60	68	66	66	54.0	51
	600	0.50	1446	7	> 90	58.8	66.8	64.8	64.8	64.8	62.8	49.8
	800	0.50	1558	7	> 90	60	62	72	66	66	64	51
	1000	0.50	1719	7	85 – 89	64	66	76	70	70	68	55
	1200	0.50	1937	7	75 – 84	67.8	69.8	79.8	73.8	73.8	71.8	58.8
	1400	0.50	2158	7	65 – 74	71.4	73.4	83.4	77.4	77.4	75.4	62.4
48	400	0.50	1189	7	65 – 74	66	74	72	72	72	70	57
	600	0.50	1267	7	85 – 89	61.8	69.8	67.8	67.8	67.8	65.8	52.8
	800	0.50	1340	7	> 90	60	68	66	66	66	64	51
	1000	0.50	1456	7	> 90	61	69	67	67	67	65	52
	1200	0.50	1600	7	> 90	61.8	63.8	73.8	67.8	67.8	65.8	52.8
	1400	0.50	1739	7	75 – 84	68.4	73.4	74.4	68.4	68.4	66.4	53.4
60	1600	0.50	1894	7	75 – 84	69	71	81	75	75	73	60
	600	0.50	1201	7	85 – 89	61.8	69.8	67.8	67.8	67.8	65.8	52.8
	800	0.50	1261	7	> 90	60	68	66	66	66	64	51
	1000	0.50	1367	7	> 90	61	69	67	67	67	65	52
	1200	0.50	1489	7	> 90	61.8	69.8	67.8	67.8	67.8	65.8	52.8
	1400	0.50	1624	7	75 – 84	68.4	70.4	80.4	74.4	74.4	72.4	59.4
	1600	0.50	1783	7	75 – 84	69	71	81	75	75	73	60
	1800	0.50	1964	7	75 – 84	69.5	71.5	81.5	75.5	75.5	73.5	60.5
60	2000	0.50	2106	7	75 – 84	70	72	82	76	76	74	61

* Estimated sound power levels have been derived using the method described in the 1987 ASHRAE Systems & Applications Handbook, chapter 52, p. 52.7.

Installation of electric heat requires utilization of a heat deflection plate between the fan and the heating element. Without the heat deflection plate installed, the fan and fan motor will be compromised. All approved kits come with the required heat deflection plate. Installation of the electric heat kit will cause an increased pressure drop in the ductwork system. This decreases the airflow that passes through the air handler. To account for this, [Table 17](#) demonstrates the increased pressure drop at each tonnage and SCFM. This pressure drop is simply added to the ESP of the ductwork system when adjusting the speed tap demand to attain the required airflow.

Table 17 – Static Pressure Drop (in. wc) for Carrier-approved Electric Heat Kit

UNIT SIZE	SCFM								
	400	600	800	1000	1200	1400	1600	1800	2000
24	0.013	0.043	0.083	0.108	0.111	—	—	—	—
36	0.026	0.047	0.075	0.129	0.200	0.255	—	—	—
48	0.011	0.019	0.020	0.027	0.049	0.054	0.099	0.135	0.208
60	0.039	0.041	0.063	0.078	0.092	0.111	0.135	0.168	0.227

Table 18 – Units without Electrical Heat

UNIT SIZE	MTR HP	VOLTS/PH/HZ	SINGLE CIRCUIT		BRANCH CIRCUIT Min Wire Size Awg*
			MCA	MOCP	
24, 36	0.4	208/230/1/60	4.87	15	14
48, 60	0.55		7.31		
24, 36	0.4	115/1/60	7.89	15	14
48, 60	0.55		11.93		

*. Use copper wire only to connect unit. If other than uncoated (non-plated) 75°C copper wire (solid wire for 10 AWG and smaller, stranded wire for larger than 10 AWG) is used consult applicable tables of the National Electric Code (ANSI/NFPA 70).

NOTE: If branch circuit wire length exceeds 100 ft, consult NEC 210-19a to determine maximum wire length. Use 2% voltage drop.
FLA = Full Load Amps; **MCA** = Minimum Circuit Ampacity; **MOCP** = Maximum Overcurrent Protection

Electric Heaters

Electric heat will only be functional when the unit operating voltage is 208V/230V.

For 115V operation, electric heat will not function. In this scenario, a hydronic coil would be a good supplemental heat option if possible.

Table 19 – Next Gen Modulating Electric Heaters*

Legacy SKU	17" wide cabinet	21" wide cabinet	SAP Short Description†
KFFE0501N05	AFBEHM05N21	AFBEHM05N31	EH, AHU, 5kW MOD, 230-1, NONE, 1.5-5T
KFFE02401C05	AFBEHM05B21	AFBEHM05B31	EH, AHU, 5kW MOD, 230-1, BRKR, 1.5-5T
KFFE0901N10	AFBEHM10N21	AFBEHM10N31	EH, AHU, 10kW MOD, 230-1, NONE, 1.5-5T
KFFE02601C10	AFBEHM10B21	AFBEHM10B31	EH, AHU, 10kW MOD, 230-1, BRKR, 1.5-5T
KFFE03101C15, KFFE03001F15	AFBEHM15B21‡	AFBEHM15B31‡	EH, AHU, 15kW MOD, 230-1, BRKR, 2-5T
KFFE03301C20, KFFE03201F20	AFBEHM20B21‡	AFBEHM20B31‡	EH, AHU, 20kW MOD, 230-1, BRKR, 2.5-5T

*. Requires RAT/SAT sensors.

†. 3-phase heaters will be available in early 2027.

‡. Single Point Wiring kit (AFAWRKSPT01A) required for 15 kW and 20 kW circuit breaker heaters.

Table 20 – Next Gen Staged Electric Heaters*

Legacy SKU	17" wide cabinet	21" wide cabinet	SAP Short Description
KFFE0501N05	AFBEHS05N21	AFBEHS05N31	EH, AHU, 5kW STD, 230-1, NONE, 1.5-5T
KFFE02401C05	AFBEHS05B21	AFBEHS05B31	EH, AHU, 5kW STD, 230-1, BRKR, 1.5-5T
KFFE0801N08	AFBEHS08N21	AFBEHS08N31	EH, AHU, 8kW STD, 230-1, NONE, 1.5-5T
KFFE02501C08	AFBEHS08B21	AFBEHS08B31	EH, AHU, 8kW, STD, 230-1, BRKR, 1.5-5T
KFFE0901N10	AFBEHS10N21	AFBEHS10N31	EH, AHU, 10kW STD, 230-1, NONE, 1.5-5T
KFFE02601C10	AFBEHS10B21	AFBEHS10B31	EH, AHU, 10kW STD, 230-1, BRKR, 1.5-5T
KFFE03101C15, KFFE03001F15	AFBEHS15B21†	AFBEHS15B31†	EH, AHU, 15kW STD, 230-1, BRKR, 2-5T
KFFE03301C20, KFFE03201F20	AFBEHS20B21†	AFBEHS20B31†	EH, AHU, 20kW STD, 230-1, BRKR, 2.5-5T

*. 3-phase heaters will be available in early 2027.

†. Single Point Wiring kit (AFAWRKSPT01A) required for 15 kW and 20 kW circuit breaker heaters.

Table 21 – Electric Heat Packages (single phase)*

Model number†	kW	230V, Phase	Type	Stages (kW Operating)	Protection	Air Handler Size Used With, Ton	Heating Capacity at 230V, BTUH
AFBEHS05N _{xx}	5	1	Relay	5	Non-Fused	2 – 5	15700
AFBEHS05B _{xx}	5	1	Relay	5	Circuit Breaker	2 – 5	15700
AFBEHM05N**	5	1	Modulating‡	0 – 5	Non-Fused	2 – 5	15700
AFBEHM05B**	5	1	Modulating‡	0 – 5	Circuit Breaker	2 – 5	15700
AFBEHS08N _{xx}	8	1	Relay	4, 8	Non-Fused	2 – 5	25100
AFBEHS08B _{xx}	8	1	Relay	4, 8	Circuit Breaker	2 – 5	25100
AFBEHS10N _{xx}	10	1	Relay	5, 10	Non-Fused	2 – 5	31400
AFBEHS10B _{xx}	10	1	Relay	5, 10	Circuit Breaker	2 – 5	31400
AFBEHM10N**	10	1	Modulating‡	0 – 10	Non-Fused	2 – 5	31400
AFBEHM10B**	10	1	Modulating‡	0 – 10	Circuit Breaker	2 – 5	31400
AFBEHS15B _{xx}	15	1	Relay	5, 10, 15	Circuit Breaker	2 – 5	47100
AFBEHM15B**	15	1	Modulating‡	0 – 15	Circuit Breaker	2 – 5	47100
AFBEHS20B _{xx}	20	1	Relay	5, 10, 20	Circuit Breaker	3 – 5	62800
AFBEHM20B _{xx}	20	1	Modulating‡	0 – 20	Circuit Breaker	3 – 5	62800

*. 3-phase heaters will be available in early 2027.

†. "xx" suffix in part number represents cabinet width and minor series.

‡. Modulating heaters require RAT/SAT sensors.

Table 22 – Electric Heater Internal Protection

HEATER kW	FUSES QTY/SIZE	CKT BKR QTY/SIZE (all are 2-pole)
5*	N/A	1/60
8*		1/60
10*		1/60
15		2/60
15		N/A
20		2/60

*. Also available as non-fused, non-circuit breaker

Table 23 – Electric Heater Electrical Data

Unit Size	Unit Width	FLA Used	Heater Part No*	Internal Circuit Protection	Control Type	kW			Phase	Heater Amps 208/230V†			Min Ampacity 208/230V‡			BRANCH CIRCUIT									
						240V	230V	208V		Single Circuit	Dual Circuit		Single Circuit	Dual Circuit		Min Wire Size (AWG) 208/230V**			Min Gnd Wire Size (AWG)**			Max Fuse/Ckt Bkr Amps			
											L1,L2	L3,L4		Single Circuit	Dual Circuit		Single Circuit	Dual Circuit		Single Circuit	Dual Circuit		Single Circuit	Dual Circuit	
															L1,L2	L3,L4		L1,L2	L3,L4		L1,L2	L3,L4		L1,L2	L3,L4
24-36	17	3.891	AFBEHS05Nxx	Non-Fused	Relay	5	4.6	3.8	1	17.8/19.7	-	-	27.1/29.5	-	-	12/12	-	-	10/10	-	-	30/30	-	-	
24-36	17	3.891	AFBEHS05Bxx	Circuit Breaker	Relay	5	4.6	3.8	1	17.8/19.7	-	-	27.1/29.5	-	-	12/12	-	-	10/10	-	-	30/30	-	-	
24-36	17	3.891	AFBEHM05Nxx	Non-Fused	Modulating	5	4.6	3.8	1	17.8/19.7	-	-	27.1/29.5	-	-	12/12	-	-	10/10	-	-	30/30	-	-	
24-36	17	3.891	AFBEHM05Bxx	Circuit Breaker	Modulating	5	4.6	3.8	1	17.8/19.7	-	-	27.1/29.5	-	-	12/12	-	-	10/10	-	-	30/30	-	-	
48-60	21	5.85	AFBEHS05Nxx	Non-Fused	Relay	5	4.6	3.8	1	17.8/19.7	-	-	29.6/31.9	-	-	12/10	-	-	10/10	-	-	30/35	-	-	
48-60	21	5.85	AFBEHS05Bxx	Circuit Breaker	Relay	5	4.6	3.8	1	17.8/19.7	-	-	29.6/31.9	-	-	12/10	-	-	10/10	-	-	30/35	-	-	
48-60	21	5.85	AFBEHM05Nxx	Non-Fused	Modulating	5	4.6	3.8	1	17.8/19.7	-	-	29.6/31.9	-	-	12/10	-	-	10/10	-	-	30/35	-	-	
48-60	21	5.85	AFBEHM05Bxx	Circuit Breaker	Modulating	5	4.6	3.8	1	17.8/19.7	-	-	29.6/31.9	-	-	12/10	-	-	10/10	-	-	30/35	-	-	
24-36	17	3.891	AFBEHS08Nxx	Non-Fused	Relay	8	7.4	6.1	1	28.5/31.5	-	-	40.5/44.2	-	-	8/8	-	-	10/10	-	-	45/45	-	-	
24-36	17	3.891	AFBEHS08Bxx	Circuit Breaker	Relay	8	7.4	6.1	1	28.5/31.5	-	-	40.5/44.2	-	-	8/8	-	-	10/10	-	-	45/45	-	-	
48-60	21	5.85	AFBEHS08Nxx	Non-Fused	Relay	8	7.4	6.1	1	28.5/31.5	-	-	42.9/46.7	-	-	8/8	-	-	10/10	-	-	45/50	-	-	
48-60	21	5.85	AFBEHS08Bxx	Circuit Breaker	Relay	8	7.4	6.1	1	28.5/31.5	-	-	42.9/46.7	-	-	8/8	-	-	10/10	-	-	45/50	-	-	
24-36	17	3.891	AFBEHS10Nxx	Non-Fused	Relay	10	9.2	7.6	1	35.6/39.4	-	-	49.4/54.1	-	-	8/8	-	-	10/10	-	-	50/60	-	-	
24-36	17	3.891	AFBEHS10Bxx	Circuit Breaker	Relay	10	9.2	7.6	1	35.6/39.4	-	-	49.4/54.1	-	-	8/8	-	-	10/10	-	-	50/60	-	-	
24-36	17	3.891	AFBEHM10Nxx	Non-Fused	Modulating	10	9.2	7.6	1	35.6/39.4	-	-	49.4/54.1	-	-	8/8	-	-	10/10	-	-	50/60	-	-	
24-36	17	3.891	AFBEHM10Bxx	Circuit Breaker	Modulating	10	9.2	7.6	1	35.6/39.4	-	-	49.4/54.1	-	-	8/8	-	-	10/10	-	-	50/60	-	-	
48-60	21	5.85	AFBEHS10Nxx	Non-Fused	Relay	10	9.2	7.6	1	35.6/39.4	-	-	51.8/56.6	-	-	8/6	-	-	10/10	-	-	60/60	-	-	
48-60	21	5.85	AFBEHS10Bxx	Circuit Breaker	Relay	10	9.2	7.6	1	35.6/39.4	-	-	51.8/56.6	-	-	8/6	-	-	10/10	-	-	60/60	-	-	
48-60	21	5.85	AFBEHM10Nxx	Non-Fused	Modulating	10	9.2	7.6	1	35.6/39.4	-	-	51.8/56.6	-	-	8/6	-	-	10/10	-	-	60/60	-	-	
48-60	21	5.85	AFBEHM10Bxx	Circuit Breaker	Modulating	10	9.2	7.6	1	35.6/39.4	-	-	51.8/56.6	-	-	8/6	-	-	10/10	-	-	60/60	-	-	
24-36	17	3.891	AFBEHS15Bxx	Circuit Breaker	Relay	15	13.8	11.4	1	53.4/59.1	35.6/39.4	17.8/19.4	71.6/78.7	49.4/54.1	22.3/24.3	6/4	8/8	14/14	8/8	10/10	12/12	80/80	50/60	25/25	
24-36	17	3.891	AFBEHM15Bxx	Circuit Breaker	Modulating	15	13.8	11.4	1	53.4/59.1	35.6/39.4	17.8/19.4	71.6/78.7	49.4/54.1	22.3/24.3	6/4	8/8	14/14	8/8	10/10	12/12	80/80	50/60	25/25	
48-60	21	5.85	AFBEHS15Bxx	Circuit Breaker	Relay	15	13.8	11.4	1	53.4/59.1	35.6/39.4	17.8/19.4	74.1/81.2	51.8/56.6	22.3/24.3	6/4	8/6	14/14	8/8	10/10	12/12	80/90	60/60	25/25	
48-60	21	5.85	AFBEHM15Bxx	Circuit Breaker	Modulating	15	13.8	11.4	1	53.4/59.1	35.6/39.4	17.8/19.4	74.1/81.2	51.8/56.6	22.3/24.3	6/4	8/6	14/14	8/8	10/10	12/12	80/90	60/60	25/25	
36	17	3.891	AFBEHS20B1xx	Circuit Breaker	Relay	20	18.4	15.2	1	71.2/78.8	35.6/39.4	35.6/39.4	93.9/103.4	49.4/54.1	44.5/49.3	4/3	8/8	8/8	8/6	10/10	10/10	100/110	50/60	45/50	
36	17	3.891	AFBEHM20Bxx	Circuit Breaker	Modulating	20	18.4	15.2	1	71.2/78.8	35.6/39.4	35.6/39.4	93.9/103.4	49.4/54.1	44.5/49.3	4/3	8/8	8/8	8/6	10/10	10/10	100/110	50/60	45/50	
48-60	21	5.85	AFBEHS20Bxx	Circuit Breaker	Relay	20	18.4	15.2	1	71.2/78.8	35.6/39.4	35.6/39.4	96.3/105.8	51.8/56.6	44.5/49.3	3/3	8/6	8/8	8/6	10/10	10/10	100/110	60/60	45/50	
48-60	21	5.85	AFBEHM20Bxx	Circuit Breaker	Modulating	20	18.4	15.2	1	71.2/78.8	35.6/39.4	35.6/39.4	96.3/105.8	51.8/56.6	44.5/49.3	3/3	8/6	8/8	8/6	10/10	10/10	100/110	60/60	45/50	

*. "xx" suffix in part number represents cabinet width and minor series.

†. For 240V, multiply 230V heater amps by 1.04. Wire sizing and over-current protection may need adjustment per local code requirements.

‡. Includes blower motor amps of largest fan coil used with heater.

**. Copper wire must be used. If other than uncoated (non-plated), 75°C ambient, copper wire (solid wire for smaller, and stranded wire for larger than 10 AWG) is used, consult applicable tables of the National Electric Code (ANSI/NFPA 70).

ACCESSORIES

Table 24 – Accessories

	ITEM	ACCESSORY PART NO.	AIR HANDLER SIZE USED WITH
1	Disconnect Kit	AFADCKDSC01*	Cooling controls and heaters 5kW - 10kW
2	Downflow Base Kit	AFAFBKDFW01*17	24, 36
		AFAFBKDFW01*21	48, 60
3	Single-Point Wiring Kit	AFAWRKSPT01*	Only with 15- and 20-kW Heaters
4	Filter Kit (12 pack)	AFAFLTMED12*	17" (24, 36)
		AFAFLTLRG12*	21" (48, 60)
5	Air Handler Filter Cabinet (Air Handler Filter Media)	EZXCABXX**17 (EXPXXFIL**17)	24, 36
		EZXCABXX**21 (EXPXXFIL**21)	48, 60
6	Air Purifier (Purifier Replacement Cartridge)	DGAPAXX1620 (PGAPXCAR1620-A02)	24, 36
		DGAPAXX2020 (PGAPXCAR2020-A02)	48, 60
7	PVC Condensate Trap Kit (50 pack)	KFAET0150ETK	All
8	Accessory Quick Connect Kit	AFAINTQCK01*	All
9	Hydronic Relay Interface Kit	AFBINTHWC01*	All
10	RAT/SAT Sensor Kit	AFASENRST10*	All

Accessory Kits Description Suggested and Required Use

1. Disconnect Kit

The kit is used to disconnect electrical power to the air handler so service or maintenance may be performed safely.

SUGGESTED USE: Units for 5- through 10-kW electric resistance heaters and cooling controls.

2. Downflow Base Kit

This kit is designed to provide a 1-in. (25MM) minimum clearance between unit discharge plenum, ductwork, and combustible materials. It also provides a gap-free seal with the floor.

REQUIRED USE: This kit must be used whenever air handlers are used in downflow applications.

3. Single Point Wiring Kit

The single point wiring kit acts as a jumper between L1 and L3 lugs, and between the L2 and L4 lugs. This allows the installer to run 2 heavy-gauge, high-voltage wires into the air handler rather than 4 light-gauge, high-voltage wires.

SUGGESTED USE: Air handlers with 15- and 20-kW circuit breaker heaters only.

4. Filter Kit

These filters collect large dust particles from the return air entering the air handler and prevents them from collecting on the coil. This process helps to keep the coil clean, which increases heat transfer and, in turn, the efficiency of the system.

SUGGESTED USE: To replace filters in air handlers.

REQUIRED USE: All units unless a filter grille is used.

5. Air Handler Filter Cabinet

This cabinet is mounted to the air handler on the return air end and designed to slip over the outer casing. The cabinets are insulated using the same insulation as production air handlers. They are designed for the removal of particulates from indoor air using media filter cartridges. These air handler media filter cartridge kits are designed for the removal of particles from indoor air. The cartridge is installed in the return air duct next to the air handler or further upstream.

SUGGESTED USE: All air handlers.

6. Air Purifier

The Air Purifier wires directly to air handler and requires no duct transitions with Carrier units. These purifiers both capture and kill airborne viruses, bacteria, mold spores, and allergens. It comes with an airflow sensor. Maintenance is limited to replacement of the purification cartridge, and inspection/brush cleaning of the ionization array.

SUGGESTED USE: All air handlers.

7. Condensate Drain Trap Kit

This kit consists of 50 PVC condensate traps. Each trap is pre-formed and ready for field installation. This deep trap helps the system make and hold proper condensate flow even during blower initiation.

SUGGESTED USE: All air handlers.

8. Accessory Quick Connect Kit

This kit enables the installer to easily connect a 230V IAQ accessory (air purifier, electronic air cleaner, UV light, etc.) kit to an air handler unit, eliminating the need to run a separate power supply to the accessory. Use of this kit may eliminate the requirement for a licensed electrician to complete the job (check local codes).

SUGGESTED USE: All air handlers.

9. Hydronic Relay Interface Kit

This kit provides interface of the air handlers with Hydronic Heat equipment.

NOTE: Electric Heat cannot be used with Hydronic Interface Relay Kit.

SUGGESTED USE: All air handlers installed with hydronic heat.

10. RAT/SAT Sensor Kit

This kit enables the installer to easily connect a RAT/SAT sensor to an air handler unit. These sensors measure the return and supply air temperature and are important for precise climate control and energy savings.

SUGGESTED USE: All air handlers.