



**MTA1, MTA2
MTB1, MTB2**

Product Specifications

HORIZONTAL FAN COILS

- MTA1 and MTB1 1-1/2, 2, 2-1/2 TON
- MTA2 and MTB2 3 TON

ALL MODELS

- Horizontal application only
- Accessory field-installed electric heat kits available in 5, 7.5, or 10 kW
- 40 VA 208/230v-1-60 transformer
- MTA1 & MTA2 use R-410 TXV metering device
- MTB1 & MTB2 use R-410 TXV metering device
- R-22 capable with accessory R-22 TXV

MTB1 & MTB2

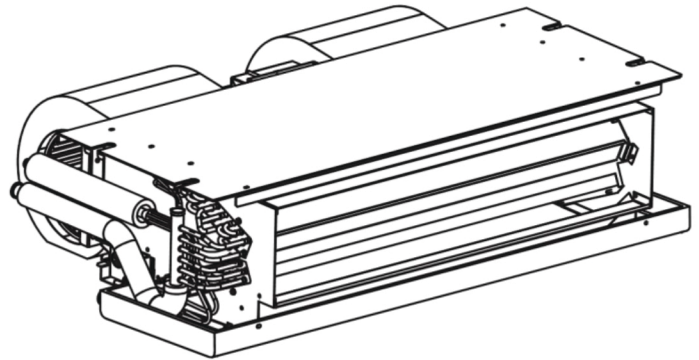
- Horizontal return applications require field fabricated bottom cover
- Cabinets meet the requirement of 2% cabinet leakage rate at 1-in. w.c. of static pressure
- Cabinets constructed to prevent cabinet sweating
- Refrigerant lines and electrical connections can be run out the back or side of casing

PERFORMANCE

- ECM motor on all new MTA2 and MTB2 models
- PSC motor on all MTA1 and MTB1 models

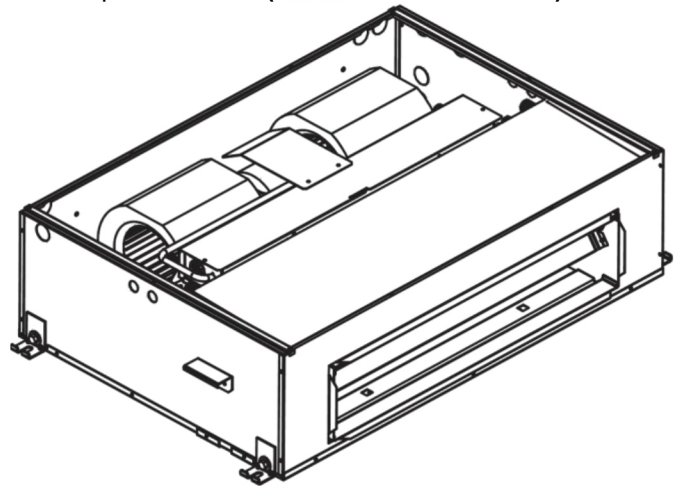
EASY TO INSTALL AND SERVICE

- A-coil design for maximum surface area
- Multiple electrical, refrigerant lineset and drain line entry for application flexibility
- Primary and secondary drain connections exit from the back or side of the cabinet
- Supports furred-down ceiling open return and ducted return applications
- Sweat connections for long term reliability
- Grooved copper tube / aluminum fin coils



MTA + MTB – Uncased Horizontal Fan Coil WARRANTY*

- 5 year parts limited warranty
- * Applies to original purchaser/homeowner, some limitations may apply. See Warranty certificate for complete details. (MTA model shown)



MTB1 & MTB2 – Cased Horizontal Fan Coil (Unit pictured upside down)

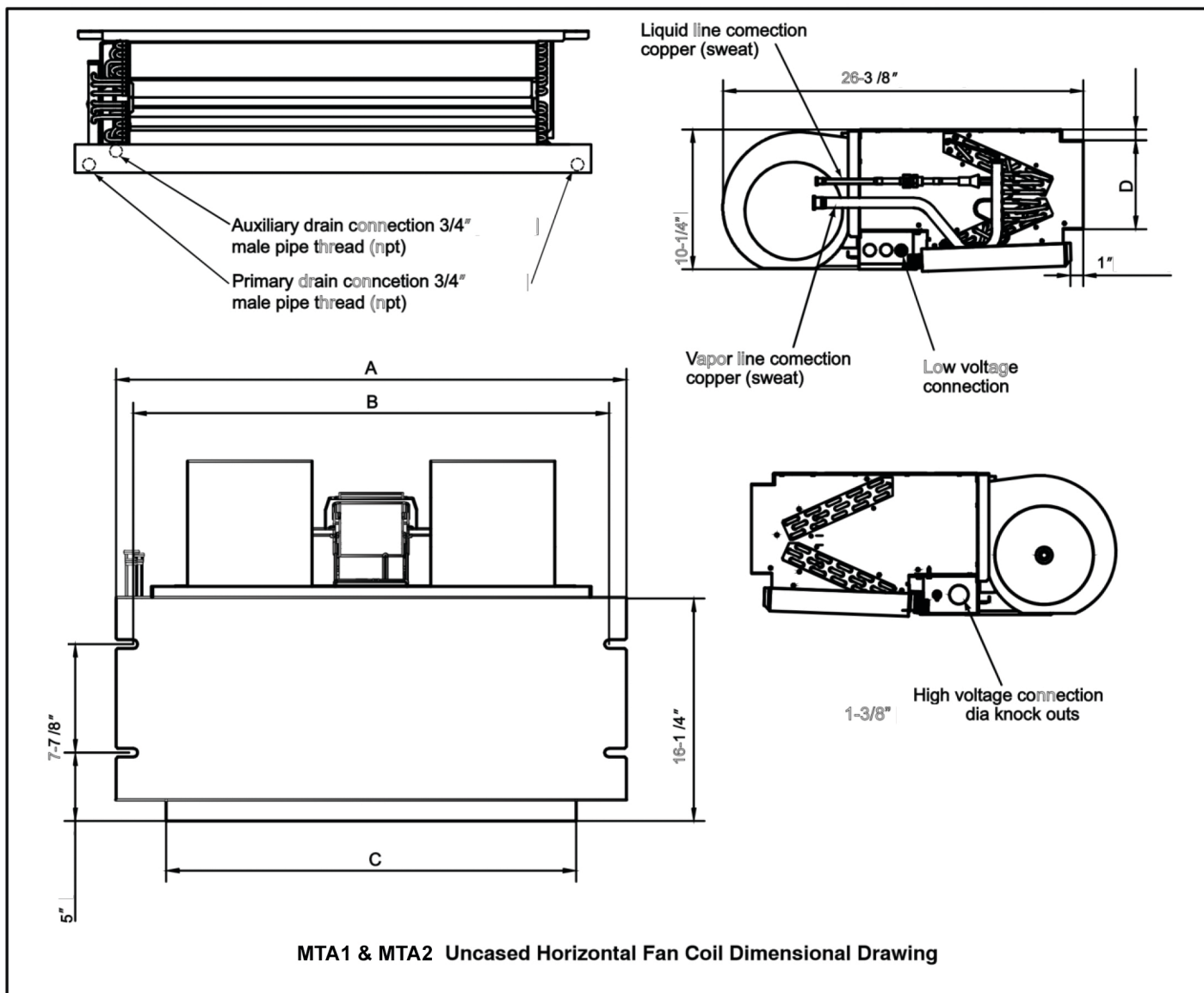


Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.

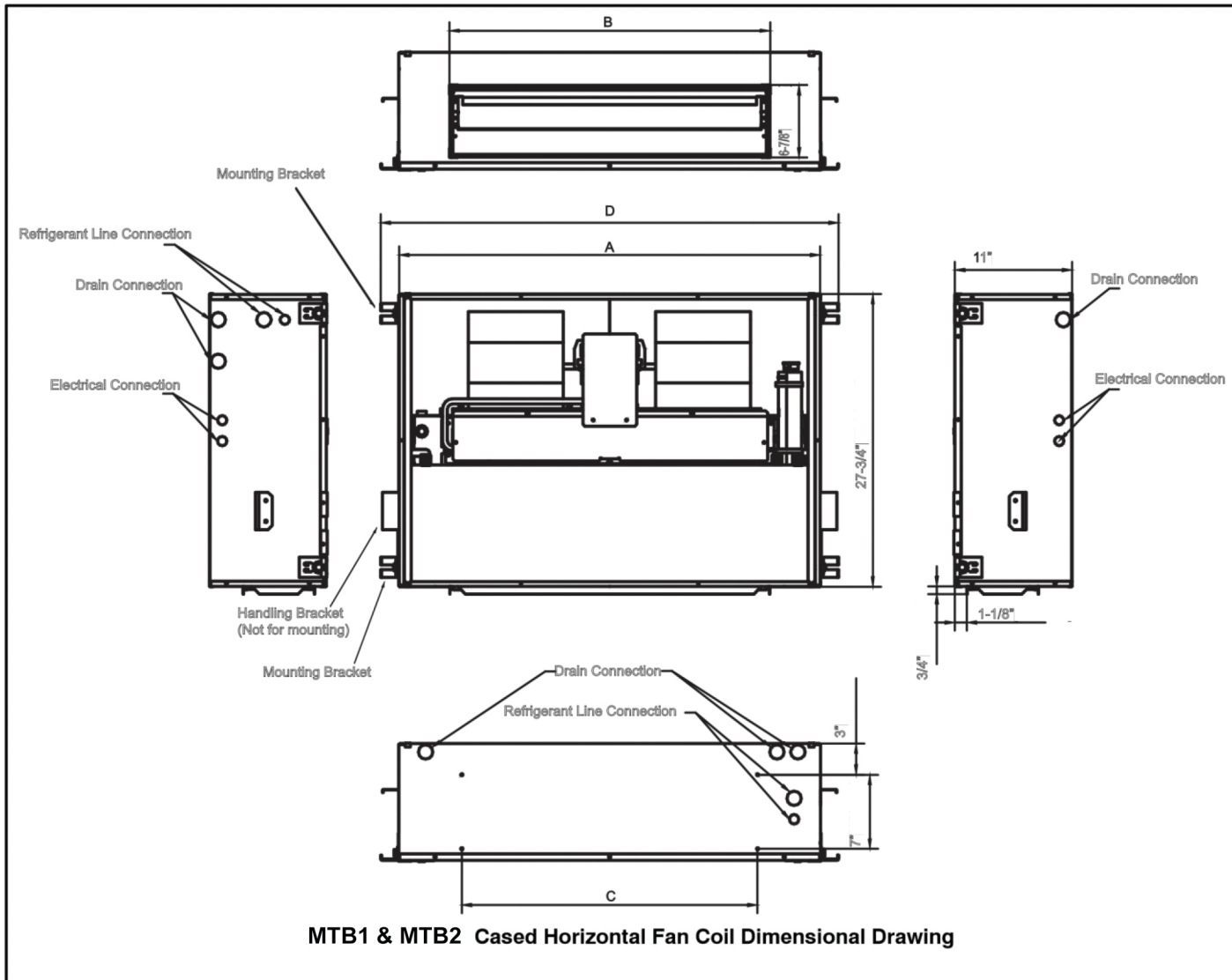


Model	Size	Tons	Nominal BTU	CFM (L/s)	Dimensions H x W x D in. (mm)	Ship Wt. lbs. (kg)
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DIMENSIONS



Model Size	Dimensions- inches				Unit Operating Weight lbs
	"A"	"B"	"C"	"D"	
MTA1-18	37-1/4	34-11/16	30	6-1/2	75
MTA1-24	37-1/4	34-11/16	30	6-1/2	75
MTA1-30	49-1/4	46-11/16	42	6-1/2	93
MTA2-36	49-1/4	46-11/16	42	6-1/2	93



Model Size	Dimensions- inches				Unit Operating Weight lbs
	"A"	"B"	"C"	"D"	
MTB1-18	39-3/4	30-3/8	28	43-3/8	109
MTB1-24	39-3/4	30-3/8	28	43-3/8	109
MTB1-30	51-3/4	42-3/8	40	55-3/8	135
MTB2-36	51-3/4	42-3/8	40	55-3/8	135
REQUIRED CLEARANCES - ALL MODELS inches					
No Heaters	All Sides				0
	From Supply Duct				0
With Heaters	All Sides				0
	From Supply Duct				0

PHYSICAL DATA

MT(A,B)	Unit Size			
	18	24	30	36
Nominal Cooling Capacity (BTUH)	18,000	24,000	30,000	36,000
COIL				
R-410A - Refrigerant Metering Device (TXV)*	50	56	67	69
Coil Configuration	A-Coil			
BLOWER & MOTOR				
Air Discharge	Horizontal			
Blower Type	Dual Blower Direct Drive			
CFM (Nominal)	647	800	1000	1200
Motor Type	PSC	PSC	PSC	ECM
Motor HP	1/8	1/8	1/3	1/3
Rated RPM	1075	1075	1600	1600
Motor Speeds	3	3	3	3
FILTER				
Field Installed – in.	Qty. 2– 16x20x1	Qty. 2– 16x20x1	Qty. 2– 20x20x1	Qty. 2– 20x20x1
CONNECTIONS (Sweat)				
Suction – in.	3/4 in.			
Liquid – in.	3/8 in.			
Condensate (MPT) – in.	3/4 in.			
ELECTRICAL DATA				
Voltage	208/230	208/230	208/230	208/230
Hertz	60	60	60	60
Minimum Circuit Ampacity	1.32	1.32	2.2	2.2
Maximum Circuit Protector	15 (A)	15 (A)	15 (A)	15 (A)

* TXV is factory installed

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AIRFLOW PERFORMANCE (STANDARD CFM) Use for Selecting Electric Heat Speed
CFM Dry Coil without Filter or Electric Heat
External Static Pressure-Inches W.C. (kPa)

Model	Motor Speed	0 (0)	0.05 (.01)	0.1 (.02)	0.15 (.04)	0.2 (.05)	0.25 (.06)	0.3 (.07)
18	Low	762	724	686	642	598	513	448
	Medium	1033	981	932	876	819	735	667
	High	1062	1007	953	888	825	764	722
24	Low	762	724	686	642	598	513	448
	Medium	1033	981	932	876	819	735	667
	High	1062	1007	953	888	825	764	722
30	Low	1200	1152	1116	1073	1039	989	924
	Medium	1331	1285	1242	1205	1165	1121	1050
	High	1449	1402	1361	1322	1284	1235	1198
36	Low	1200	1152	1116	1073	1039	989	924
	Medium	1331	1285	1242	1205	1165	1121	1050
	High	1449	1402	1361	1322	1284	1235	1198

AIRFLOW PERFORMANCE (STANDARD CFM) Use for Selecting Cooling and Heat Pump Speed
CFM Wet Coil without Filter or Electric Heat
External Static Pressure-Inches w.c. (kPa)

Model	Motor Speed	0 (0)	0.05 (.01)	0.1 (.02)	0.15 (.04)	0.2 (.05)	0.25 (.06)	0.3 (.07)
18	Low	747	671	623	575	528	469	397
	Medium	996	912	833	765	683	609	518
	High	1051	974	888	816	742	665	576
24	Low	747	671	623	575	528	469	397
	Medium	996	912	833	765	683	609	518
	High	1051	974	888	816	742	665	576
30	Low	1211	1150	1069	1017	958	906	849
	Medium	1313	1261	1216	1151	1105	1051	984
	High	1428	1377	1315	1244	1198	1148	1089
36	Low	1211	1150	1069	1017	958	906	849
	Medium	1313	1261	1216	1151	1105	1051	984
	High	1428	1377	1315	1244	1198	1148	1089

■ – Shaded boxes represent airflow outside the required 300-450 cfm/ton.

NOTES:

1. Airflow data is without filter or electric heat accessory. Heater adds 0.05" static.
2. Use dry coil data for determining electric heater airflow.
3. Use wet coil data for determining cooling airflow.

REQUIRED CFM RANGE

Size	CFM Min	CFM Max
18	450	675
24	600	900
30	750	1125
36	900	1350

PERFORMANCE DATA (cont.)

GROSS COOLING CAPACITIES (mbh)

Unit Size	INDOOR COIL AIR			SATURATED TEMPERATURE LEAVING EVAPORATOR °F (°C)													
	CFM	EWB	TC	35 (2)			40 (4)			45 (7)			50 (10)			55 (13)	
				SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF	TC	SHC	BF
18	525	72 (22)	40	21	0.00	36	19	0.00	32	17	0.01	27	15	0.03	22	12	0.04
		67 (19)	33	22	0.04	29	19	0.04	24	17	0.04	19	15	0.04	14	12	0.05
		62 (17)	26	22	0.05	22	20	0.05	18	17	0.05	14	14	0.08	12	12	0.23
		72 (22)	45	24	0.00	40	21	0.00	35	19	0.03	30	16	0.04	24	14	0.05
		67 (19)	36	24	0.05	32	22	0.05	27	19	0.05	22	16	0.06	15	14	0.06
		62 (17)	29	24	0.06	25	22	0.06	20	19	0.06	16	16	0.09	13	13	0.25
	675	72 (22)	49	26	0.00	44	23	0.00	38	20	0.04	32	18	0.05	26	15	0.06
		67 (19)	40	26	0.06	35	24	0.06	29	21	0.07	23	18	0.07	17	15	0.07
		62 (17)	32	27	0.07	27	24	0.07	22	21	0.07	17	17	0.10	14	14	0.26
		72 (22)	54	27	0.00	48	25	0.00	42	22	0.04	36	19	0.06	29	16	0.06
		67 (19)	44	28	0.06	39	25	0.07	33	22	0.07	26	19	0.07	18	16	0.07
		62 (17)	35	29	0.07	30	26	0.07	24	23	0.07	19	19	0.11	16	16	0.26
24	800	72 (22)	59	30	0.00	53	27	0.01	47	24	0.06	39	21	0.07	31	18	0.08
		67 (19)	48	31	0.08	42	28	0.08	36	25	0.08	28	21	0.09	20	18	0.09
		62 (17)	39	32	0.09	33	28	0.09	26	25	0.09	22	22	0.13	18	18	0.28
		72 (22)	64	33	0.00	57	30	0.03	50	26	0.07	43	23	0.09	34	19	0.09
		67 (19)	52	34	0.09	46	30	0.10	39	27	0.10	31	23	0.10	22	20	0.10
		62 (17)	42	35	0.10	35	31	0.10	29	28	0.10	24	24	0.15	20	20	0.29
	875	72 (22)	64	31	0.04	59	29	0.05	53	26	0.05	45	23	0.06	37	20	0.06
		67 (19)	53	33	0.06	48	31	0.06	41	28	0.06	34	25	0.06	25	21	0.06
		62 (17)	43	35	0.06	38	32	0.06	32	30	0.06	27	27	0.14	23	23	0.28
		72 (22)	69	34	0.05	63	31	0.06	57	28	0.07	49	25	0.07	40	22	0.07
		67 (19)	57	36	0.07	51	33	0.07	44	30	0.07	36	27	0.07	27	24	0.07
		62 (17)	47	38	0.07	41	36	0.07	34	33	0.08	30	30	0.17	25	25	0.30
30	1000	72 (22)	72	35	0.07	66	33	0.07	59	30	0.08	51	27	0.08	42	23	0.08
		67 (19)	60	38	0.08	54	35	0.08	46	32	0.08	38	29	0.08	29	25	0.08
		62 (17)	49	41	0.08	43	38	0.08	37	36	0.09	32	32	0.19	27	27	0.31
		72 (22)	69	34	0.06	63	32	0.07	56	29	0.07	49	26	0.08	40	22	0.08
		67 (19)	57	37	0.08	51	34	0.08	44	31	0.08	36	28	0.08	27	24	0.08
		62 (17)	46	39	0.08	40	37	0.08	34	34	0.08	30	30	0.18	25	25	0.30
	1050	72 (22)	73	36	0.08	67	34	0.08	60	31	0.09	52	28	0.09	42	24	0.09
		67 (19)	61	40	0.09	54	37	0.09	47	34	0.10	39	30	0.10	29	27	0.09
		62 (17)	50	43	0.09	43	40	0.09	37	37	0.10	33	33	0.21	28	28	0.33
		72 (22)	77	39	0.10	71	36	0.10	63	33	0.10	55	30	0.11	45	26	0.11
		67 (19)	64	42	0.11	57	40	0.11	50	36	0.11	41	33	0.11	31	29	0.11
		62 (17)	52	46	0.11	46	43	0.11	41	41	0.13	36	36	0.24	30	30	0.35

CFM - Cubic Ft per Minute
 SHC - Gross Sensible Capacity 1000 Btuh
 EWB - Entering Wet Bulb F (C) LWB - Leaving Wet Bulb F (C) TC - Gross Cooling Capacity 1000 Btuh
 BF - Bypass Factor MBH - 1000 Btuh

SENSIBLE CAPACITY (SHC) CORRECTION FACTOR

BYPASS FACTOR	ENTERING AIR DRY-BULB TEMPERATURE (°F)					Under 75 Over 85
	79	78	77	76	75	
	ENTERING AIR DRY-BULB TEMPERATURE (°C)					Under 75 Over 85
	26	25	25	24	24	
	27	28	28	29	29	
	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	

Interpolation is permissible.
 Correction Factor = 1.09 x (1 - BF) x (db - 80)

NOTES:

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

ESTIMATED SOUND POWER LEVEL (dBA)

- SHC is based on 80F (27C) db temperature of air entering coil. Below 80F (27C) db, subtract (Correction Factor x CFM) from SHC. Above 80F (27C) db, add (Correction Factor x CFM) to SHC.
- Bypass Factor = 0 indicates no psychometric solution. Use bypass factor of next lower EWB for approximation.

UNIT SIZE	CONDITIONS			OCTAVE BAND CENTER FREQUENCY						
	CFM	Ext Static Pressure		63	125	250	500	1000	2000	4000
18	600	0.18		47.9	51.6	46.6	49.6	47.6	38.7	34.7
24	800	0.18		47.9	51.3	50.7	51.1	46.9	41.6	35.7
30	1000	0.24		47.9	55.7	50	54.3	51.9	43.8	39.3
36	1200	0.24		47.9	55.6	49.2	53.1	49.6	43.4	38.2

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

OPTIONAL FIELD-INSTALLED ELECTRIC HEAT PACKAGES

HEATER PART NUMBER WITH TDR	SIZES USED WITH	NOMINAL kw @ 240V	HEATER VOLTS-PHASE (60 Hz)	HEATER CAPACITY (MBH)		MIN. CIRCUIT AMPACITY		MAX. FUSE OR BREAKER (HACR) AMPACITY		APPROX. SHIP WGT. LBS. (kg)
				208	240	208	240	208	240	
WMK05	All	5	208/240-1	12.8	17.1	22.6	26.0	30	30	10 (4.5)
WMK08	All	7.5	208/240-1	20.5	27.3	36.1	41.7	50	50	10 (4.5)
WMK10	All	10	208/240-1	25.7	34.2	45.1	52.1	60	60	10 (4.5)

OTHER ACCESSORIES

Kit Number	Description	Used on sizes
MT MBT2-01B	Louvered Panel with Filter Rack - Small	18, 24
MT MBT2-01A	Louvered Panel with Filter Rack - Large	30, 36
MT MBT2-02B	Access Panel - Small	18, 24
MT MBT2-02A	Access Panel - Large	30, 36