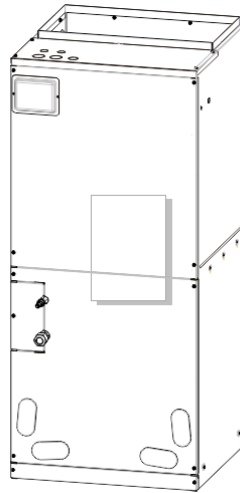


Product and Submittal Data

Air Handler

5TDM5B03AC21SA
5TDM5C04AC31SA
5TDM5D06AC41SA
5TDM5D07AC51SA



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

Introduction

The 5TDM5 series air handler is designed for installation in a closet, utility room, alcove, basement, crawlspace, or attic. These units are specifically designed to pair exclusively with the 5HCL5 Low Profile Heat Pump series. Field installed electric resistance heaters are available.

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Features and Benefits

- Four-way convertible (upflow, downflow, horizontal left, horizontal right)
- Blue fin coating on coil assembly
- Electronic expansion valve
- Painted metal cabinet
- 2% or less air leakage
- Copper - aluminum coil
- Draw through configuration
- Electric heaters (sold as accessory)
- R-454B thermal expansion valve
- Variable speed ECM motor
- 5 year base limited warranty
- 10 year registered limited warranty
- Optional extended warranty available

Model Number Description

Digit 1 — Refrigerant

5 = R-454B

Digit 2 — Brand

T = Trane Technologies

Digit 3 — Product Type

A = Air handler

D = Dedicate AHU

E = Air handler

Digit 4 — Convertability

M = Multi-poise 4-way

E = Upflow front returnn, 3-way

E = 3-way

Digit 5 — Product Tier

4/5 = 24V entry level

6 = 24V Variable speed

8 =

C = Communicating/24V TEM

X = Communicating/24V TAM

Digit 6 — Cabinet Size

B =

C =

D =

Digit 7 — Coil Size

0 =

Digit 8 —

1 =

2 =

3 =

4 =

5 =

6 =

Digit 9 — Major Modification

A

Digit 10— Airflow Type and Capability

C = CTM

V = Variable speed

Digit 11— Nominal Airflow Tonnage

2 = 2T

3 = 3T

4 = 4T

5 = 5T

Digit 12— Control Type

S = 24V

D = Link and 24V

3 = 3-phase

Digit 13— Control Type

S = 24V

D = Link and 24V

3 = 3-phase

Digit 14— Minor Design Change

A

Digit 15— Service Digit

A

Optional Accessories

Table 1. Optional accessories

Accessory Number	Description	Fits Cabinet Width
BAYHTR1705BRKA	HEATER; ELECTRIC; 5TDM AIR HANDLER, 5KW	B
BAYHTR1710BRKA	HEATER; ELECTRIC; 5TDM AIR HANDLER, 10 KW	B, C, D
BAYHTR1715BRKA	HEATER; ELECTRIC; 5TDM AIR HANDLER, 15 KW	C, D
BAYHTR1720BRKA	HEATER; ELECTRIC; 5TDM AIR HANDLER, 20 KW	D

Product Specifications

Table 2. Product specifications

Model	5TDM5B03AC21SAA	5TDM5C04AC31SAA	5TDM5D06AC41SAA	5TDM5D07AC51SAA
Orderable Model	5TDM5B03AC21SA	5TDM5C04AC31SA	5TDM5D06AC41SA	5TDM5D07AC51SA
AHRI Item Number	5TDM5B03AC21	5TDM5C04AC31	5TDM5D06AC41	5TDM5D07AC51
Description	Copper Tube - Aluminum Plate Fin Coil, 4-Way Poise, 24V System Control, 208-230/1/60, 12K-30K BTUH Capacity	Copper Tube - Aluminum Plate Fin Coil, 4-Way Poise, 24V System Control, 208-230/1/60, 18K-37K BTUH Capacity	Copper Tube - Aluminum Plate Fin Coil, 4-Way Poise, 24V System Control, 208-230/1/60, 34K-50K BTUH Capacity	Copper Tube - Aluminum Plate Fin Coil, 4-Way Poise, 24V System Control, 208-230/1/60, 35K-55K BTUH Capacity
Application configuration	4-Way	4-Way	4-Way	4-Way
Agency listing (ETL/UL/CSA)	ETL	ETL	ETL	ETL
Rated capacity range (BTUH)	12K-30K	18K-37K	34K-50K	35K-55K
System control type	24V	24V	24V	24V
Power conn. - V/PH/Hz	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
Max Breaker Size, Without Electric Heater (Amps)	15	15	15	15
Max Breaker Size, With Electric Heater (Amps) ^(a)	60	60	60	60
Coil type	Copper Tube - Aluminum Plate Fin	Copper Tube - Aluminum Plate Fin	Copper Tube - Aluminum Plate Fin	Copper Tube - Aluminum Plate Fin
Refrigerant Type	R-454B	R-454B	R-454B	R-454B
Refrigerant Control	EEV	EEV	EEV	EEV
Refrigerant Line Connection - Gas (in.)	3/4	3/4	3/4	3/4
Refrigerant Line Connection - Liquid (in.)	3/8	3/8	3/8	3/8
Blower type	Direct Drive	Direct Drive	Direct Drive	Direct Drive
Configuration	Draw Through	Draw Through	Draw Through	Draw Through
Dimensions (Diameter x Width (in.))	φ9-1/2 x 8-1/8	φ10-1/4 x 9-5/8	φ12-1/4-12-1/16	φ12-1/4-12-1/16
Motor Type	Variable Speed	Variable Speed	Variable Speed	Variable Speed
Nominal CFM ^(b)	800	1000	1200	1500
Speed (RPM)	1010	1010	950	1000
Volts/Ph/Hz	208-230/1/60	208-230/1/60	208-230/1/60	208-230/1/60
Full Load Amps	4.7	5.3	7.1	7.7
Filter rack	YES	YES	YES	YES
Dimensions (Length x Width (in.))	16 x 20 x 1	20 x 20 x 1	23 x 20 x 1	23 x 20 x 1
Duct connections	L x W	L x W	L x W	L x W
Supply (in.)	16-3/4 x 11-5/8	20 x 11-5/8	20 x 11-5/8	20 x 11-5/8
Return (in.)	18-1/8 x 21-1/4	21-1/4 x 21-1/4	24-13/16 x 21-1/4	24-13/16 x 21-1/4
Drain conn. Size (in.)	3/4 NPT	3/4 NPT	3/4 NPT	3/4 NPT
Dimensions	H x W x D	H x W x D	H x W x D	H x W x D
Uncrated (in.)	21.25 x 18.125 x 43.5	21.25 x 21.25 x 48.188	21.25 x 24.813 x 51.97	21.25 x 24.813 x 51.97

Product Specifications

Table 2. Product specifications (continued)

Model	5TDM5B03AC21SAA	5TDM5C04AC31SAA	5TDM5D06AC41SAA	5TDM5D07AC51SAA
Crated (in.)	25.98 x 25.59 x 46.26	25.98 x 23.74 x 50.98	27.3 x 26 x 54.8	27.3 x 26 x 54.8
Weight - shipping/net (lbs.)	144.4/135.6	178.6/163.1	218.3/199.5	218.3/199.5

(a) Maximum overcurrent protection is dependent on which electric heater is installed. See Installation, Operation, and Maintenance manual or unit name plate.

(b) For CFM versus external static pressure (in. w.c.), refer to Installation, Operation, and Maintenance manual.

Table 3. R-454B dedicated air handler 208-230/1/60,

Unit Model No.	Rated Capacity Range (BTUH)	Dimensions (in.) H x W x D	Shipping Weight (lbs.)	Supply Opening (in.)	Return Opening (in.)	Filter Sizes (in.) ^(a)	Line Size (in.)	
							Gas	Liquid
5TDM5B03AC21SA	12K-30K	25.98 x 25.59 x 46.26	144.4	16-3/4 x 11-5/8	18-1/8 x 21-1/4	16 x 20 x 1	3/4	3/8
5TDM5C04AC31SA	18K-37K	25.98 x 23.74 x 50.98	178.6	20 x 11-5/8	21-1/4 x 21-1/4	20 x 20 x 1	3/4	3/8
5TDM5D06AC41SA	34K-50K	27.3 x 26 x 54.8	218.3	20 x 11-5/8	24-13/16 x 21-1/4	23 x 20 x 1	3/4	3/8
5TDM5D07AC51SA	35K-55K	27.3 x 26 x 54.8	218.3	20 x 11-5/8	24-13/16 x 21-1/4	23 x 20 x 1	3/4	3/8

(a) Filter not supplied.

Performance Data

External static pressure should stay within the minimum and maximum limits shown in the tables below for proper operation of both cooling and heating operation.

Table 4. 5TDM5B03AC21SA

Level	Static pressure:inwg (Pa)											
	0 (0)	0.1 (25)	0.15 (37)	0.2 (50)	0.3 (75)	0.4 (100)	0.5 (125)	0.6 (150)	0.7 (175)	0.8 (200)	0.9 (225)	1 (250)
Speed 1 (CFM)	1080	960	900	830	—	—	—	—	—	—	—	—
Speed 2 (CFM)	1220	1120	1060	990	820	—	—	—	—	—	—	—
Speed 3 (CFM)	1380	1250	1120	1070	1020	920	760	—	—	—	—	—
Speed 4 (CFM)	1700	1630	1580	1530	1450	1400	1370	1270	1150	970	790	—
Speed 5 (CFM)	1750	1700	1650	1600	1590	1500	1420	1330	1200	1050	950	850

Note: — Indicates that electric heating is not allowed.

Table 5. 5TDM5C04AC31SA

Level	Static pressure:inwg (Pa)											
	0 (0)	0.1 (25)	0.15 (37)	0.2 (50)	0.3 (75)	0.4 (100)	0.5 (125)	0.6 (150)	0.7 (175)	0.8 (200)	0.9 (225)	1 (250)
Speed 1 (CFM)	1220	1120	1020	960	—	—	—	—	—	—	—	—
Speed 2 (CFM)	1380	1260	1200	1100	950	—	—	—	—	—	—	—
Speed 3 (CFM)	1630	1580	1500	1430	1370	1200	1000	970	—	—	—	—
Speed 4 (CFM)	1840	1800	1750	1710	1640	1590	1500	1420	1330	1220	1100	930
Speed 5 (CFM)	1870	1830	1810	1800	1760	1690	1620	1520	1440	1350	1250	1150

Note: — Indicates that electric heating is not allowed.

Table 6. 5TDM5D06AC41SA

Level	Static pressure:inwg (Pa)											
	0 (0)	0.1 (25)	0.15 (37)	0.2 (50)	0.3 (75)	0.4 (100)	0.5 (125)	0.6 (150)	0.7 (175)	0.8 (200)	0.9 (225)	1 (250)
Speed 1 (CFM)	1680	1560	1500	1350	—	—	—	—	—	—	—	—
Speed 2 (CFM)	1810	1690	1620	1550	1380	—	—	—	—	—	—	—
Speed 3 (CFM)	1930	1830	1770	1710	1580	1480	1200	—	—	—	—	—
Speed 4 (CFM)	2280	2240	2200	2180	2130	2080	2000	1880	1750	1600	1400	1200

Performance Data

Table 6. 5TDM5D06AC41SA (continued)

Level	Static pressure:inwg (Pa)											
	0 (0)	0.1 (25)	0.15 (37)	0.2 (50)	0.3 (75)	0.4 (100)	0.5 (125)	0.6 (150)	0.7 (175)	0.8 (200)	0.9 (225)	1 (250)
Speed 5 (CFM)	2300	2260	2220	2190	2140	2090	2040	1980	1930	1800	1700	1550

Note: — Indicates that electric heating is not allowed.

Table 7. 5TDM5D07AC51SA

Level	Static pressure:inwg (Pa)											
	0 (0)	0.1 (25)	0.15 (37)	0.2 (50)	0.3 (75)	0.4 (100)	0.5 (125)	0.6 (150)	0.7 (175)	0.8 (200)	0.9 (225)	1 (250)
Speed 1 (CFM)	1850	1720	1650	1600	—	—	—	—	—	—	—	—
Speed 2 (CFM)	1920	1800	1730	1650	1480	—	—	—	—	—	—	—
Speed 3 (CFM)	2110	2000	1950	1860	1760	1640	1500	—	—	—	—	—
Speed 4 (CFM)	2300	2260	2230	2200	2150	2115	2050	1990	1920	1790	1650	1470
Speed 5 (CFM)	2320	2280	2250	2230	2190	2140	2080	2040	2000	1950	1920	1890

Note: — Indicates that electric heating is not allowed.

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