Installer's Guide

Supplementary Electric Heaters

for 5TEM4, 5TEM6, 5TEMC, and A5AH Air Handlers

BAYHTR1504BRKC
BAYHTR1504LUGB
BAYHTR1505BRKC
BAYHTR1505LUGB
BAYHTR1508BRKC
BAYHTR1508LUGB
BAYHTR1510BRKC
BAYHTR1510LUGB
BAYHTR1517BRKA
BAYHTR1523BRKA
BAYHTR1525BRKA
BAYHTR3510LUGC
BAYHTR3517LUGA

⚠ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

June 2025

AHR-SVN001A-EN

Introduction

Read this manual thoroughly before operating or servicing this unit.

This document is customer property and is to remain with this unit. Return to the service information pack upon completion of work.

Warnings, Cautions, and Notices

Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:

⚠ WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.
NOTICE	Indicates a situation that could result in equipment or property-damage only accidents.

Important Environmental Concerns

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants.

Important Responsible Refrigerant Practices

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified according to local rules. For the USA, the Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

⚠ WARNING

Proper Field Wiring and Grounding Required!

Failure to follow code could result in death or serious injury.

All field wiring MUST be performed by qualified personnel. Improperly installed and grounded field wiring poses FIRE and ELECTROCUTION hazards. To avoid these hazards, you MUST follow requirements for field wiring installation and grounding as described in NEC and your local/state/national electrical codes.

⚠ WARNING

Personal Protective Equipment (PPE) Required!

Failure to wear proper PPE for the job being undertaken could result in death or serious injury.

Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, MUST follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:

- **Before installing/servicing this unit, technicians MUST put on all PPE required for the work being undertaken (Examples; cut resistant gloves/ sleeves, butyl gloves, safety glasses, hard hat/ bump cap, fall protection, electrical PPE and arc flash clothing). ALWAYS refer to appropriate Safety Data Sheets (SDS) and OSHA guidelines for proper PPE.**
- **When working with or around hazardous chemicals, ALWAYS refer to the appropriate SDS and OSHA/GHS (Global Harmonized System of Classification and Labelling of Chemicals) guidelines for information on allowable personal exposure levels, proper respiratory protection and handling instructions.**
- **If there is a risk of energized electrical contact, arc, or flash, technicians MUST put on all PPE in accordance with OSHA, NFPA 70E, or other country-specific requirements for arc flash protection, PRIOR to servicing the unit. NEVER PERFORM ANY SWITCHING, DISCONNECTING, OR VOLTAGE TESTING WITHOUT PROPER ELECTRICAL PPE AND ARC FLASH CLOTHING. ENSURE ELECTRICAL METERS AND EQUIPMENT ARE PROPERLY RATED FOR INTENDED VOLTAGE.**

⚠ WARNING

Follow EHS Policies!

Failure to follow instructions below could result in death or serious injury.

- **All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.**
- **Non-Trane personnel should always follow local regulations.**

⚠ WARNING

Cancer and Reproductive Harm!

This product can expose you to chemicals, including lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

⚠ WARNING

Safety Hazard!

Failure to follow instructions below could result in death or serious injury or property damage.

This unit is not to be used by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety.

Do not allow children to play or climb on the unit or to clean or maintain the unit without supervision.

⚠ WARNING

Fiberglass Wool!

Exposure to glass wool fibers without all necessary PPE equipment could result in cancer, respiratory, skin or eye irritation, which could result in death or serious injury. Disturbing the insulation in this product during installation, maintenance or repair will expose you to airborne particles of glass wool fibers and ceramic fibers known to the state of California to cause cancer through inhalation.

You MUST wear all necessary Personal Protective Equipment (PPE) including gloves, eye protection, a NIOSH approved dust/mist respirator, long sleeves and pants when working with products containing fiberglass wool.Precautionary Measures:

- **Avoid breathing fiberglass dust**
- **Use a NIOSH approved dust/mist respirator**
- **Avoid contact with the skin or eyes. Wear long-sleeved, loose fitting clothing, gloves, and eye protection**
- **Wash clothes separately from other clothing, rinse washer thoroughly**
- **Operations such as sawing, blowing, tear-out, and spraying may generate fiber concentrations requiring additional respiratory protection. Use the appropriate NIOSH approved respirator in these situations.**

First Aid Measures:

- **Eye Contact - Flush eyes with water to remove dust. If symptoms persist, seek medical attention.**
- **Skin Contact - Wash affected areas gently with soap and warm water after handling.**

⚠ WARNING

Hazardous Voltage!

Failure to disconnect power before servicing could result in death or serious injury.

Disconnect all electric power, including remote disconnects before servicing. Follow proper lockout/tagout procedures to ensure the power can not be inadvertently energized. Verify that no power is present with a voltmeter.

NOTICE

Equipment Malfunction!

Failure to follow instructions below could result in equipment malfunction.

Do not touch thermal limit discs.

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Trademark

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Revision History

- Updated front cover models:
  - Air handler units
  - BAYHTR kits
- Removed obsolete BAYHTR models from heater data tables.
- Updated heater data table values.
- Updated literature number to replace 18–HB22D1-14C-EN.

General

This accessory electric heater is designed to provide power directly to the unit from the accessory heater's power supply eliminating the need for additional circuits. The power and control wiring use a single polarized plug to connect the heater and the unit. See Table 1, p. 8 for the number of circuits required.

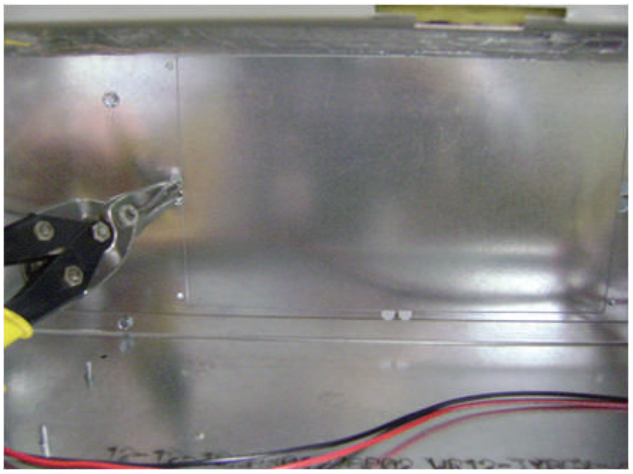
1. Check the unit heater label to confirm that the selected heater is approved for use with this unit in the installed configuration. For some heaters, a corresponding secondary nameplate label is included. Place the label within the heater data table on the air handler nameplate. This is shown in Figure 6, p. 7.
2. Check the components received for damage. Report any defects or shortages to the transportation company immediately.
3. Confirm the power supply agrees with the listing shown on heater nameplate.

Installation

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

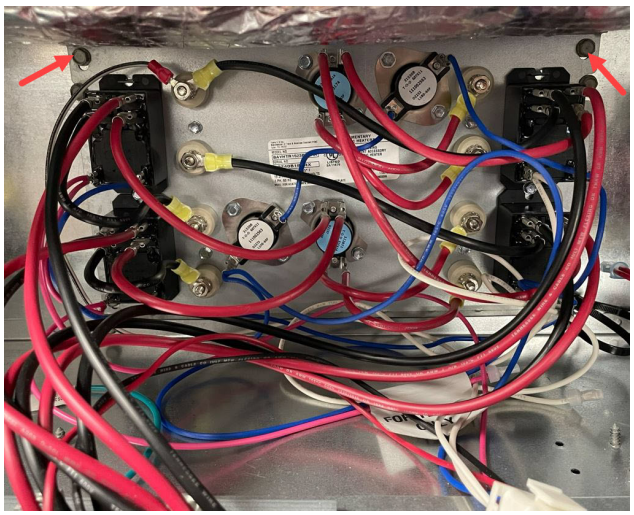
1. Remove the blower access panel.
2. Locate heater knockout plate at rear of control box.

Figure 1. Heater knockout plate



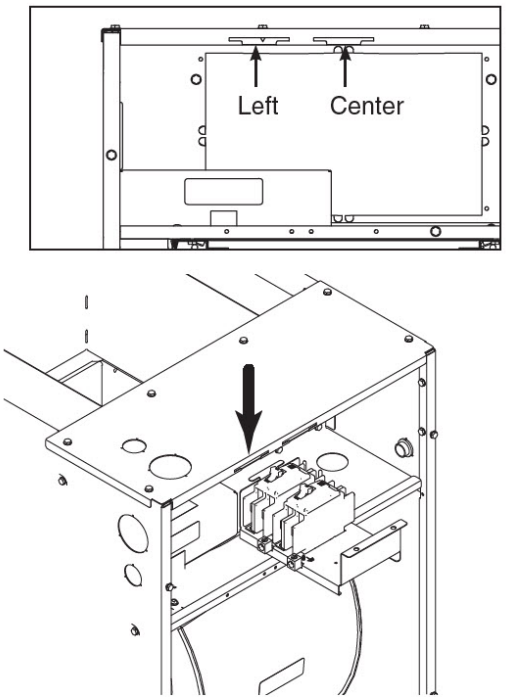
3. With tin snips, cut the four tabs located at the center points of the edges of knockout plate.
4. Discard knockout plate.
5. Slide the heater into the opening.
6. Secure the heater to the control box opening with four screws located at the corners of the mount plate.

Figure 2. Mount plate



7. Locate the two locking tabs on the top panel of the air handler (Left and Center in Figure 3, p. 6).

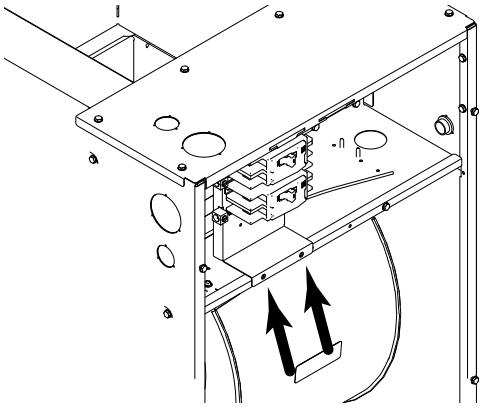
Figure 3. Left-side breaker mount location



Important: *The left side breaker mount location must be used for 5TEM6B02/B03, A5AHV002/003, and 5TEMCB02/B03 air handlers, 25 kW heaters, and Single Power Entry Kits. The center breaker mount location should be used for all other 4-20 kW heater installations.*

8. Slide the breaker plate assembly into the appropriate tab. Rotate the breaker assembly into the place as shown in Figure 4, p. 6.

Figure 4. Rotate the breaker plate



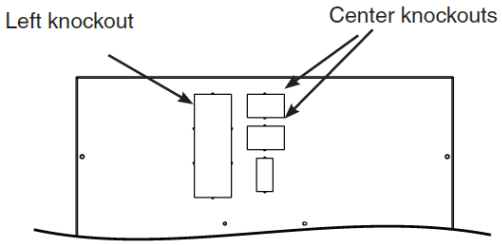
9. Secure breaker mount plate with two screws along the bottom of plate.

10. Make all wiring connections per applicable field wiring diagrams.
11. Connect the polarized harness plug to the polarized plug on the heater.
12. Refer to the heater minimum airflow chart or the unit rating nameplate for the appropriate minimum blower speed tap to be used with the approved heater installed.
13. Connect all field wiring per air handler installation guide.

Note: *For LUG models, do not remove knockouts or insulation.*

14. Remove the appropriate breaker knockout plates from the blower access panel. Cut and remove insulation behind knockout.

Figure 5. Blower access panel



Left knockouts: Must be used for the following:

- All 5TEM6B02/B03, A5AHV002/003, and 5TEMCB02/B03 air handlers
- All 25 kW heaters
- All 5TEM/A5AH air handlers installed with a Single Power Entry Kit ship with a Heater Breaker Seal Kit. (See Seal Kit Installer's Guide for install instructions.)

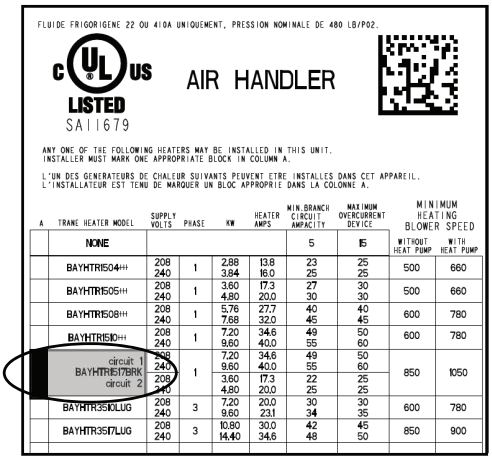
  Note: *Follow the instructions in the Breaker Seal Kit 18-GJ85D1-1*-EN. The Breaker Seal Kit will ship with the 5TEM6B, A5AHV002/003, and 5TEMCB air handlers, 25 KW heaters and single power entry kits for 5TEM/A5AH air handlers.*

Center knockouts: Use for all other 4-20 kW heaters installations with all 5TEM/A5AH air handler (except 5TEM6B, A5AHV002/003, and 5TEMCB).

15. Install the blower access panel, confirming alignment of breakers throughout the access panel.

16. On the unit nameplate, check off the heater that has been installed or apply the new secondary nameplate label within the heater data table on the air handler nameplate as shown in Figure 6, p. 7.

Figure 6. New label


FLUIDE FRIGORIGENE 22 OU 410A UNIQUEMENT, PRESSION NOMINALE DE 480 LB/PO2.

c UL us LISTED SA11679

AIR HANDLER

ANY ONE OF THE FOLLOWING HEATERS MAY BE INSTALLED IN THIS UNIT.
INSTALLER MUST MARK ONE APPROPRIATE BLOCK IN COLUMN A.

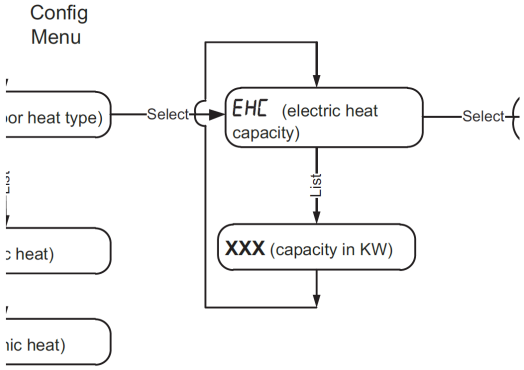
L'UN DES GENERATEURS DE CHALEUR SUIVANTS PEUVENT ETRE INSTALLES DANS CET APPAREIL.
L'INSTALLATEUR EST TENU DE MARQUER UN BLOC APPROPRIE DANS LA COLONNE A.

A	TRANE HEATER MODEL	SUPPLY VOLTS	PHASE	KW	HEATER AMPS	MIN. BRANCH CIRCUIT AMPACITY	MAXIMUM OVERCURRENT DEVICE	MINIMUM HEATING BLOWER SPEED	
	NONE					5	15	WITHOUT HEAT PUMP	WITH HEAT PUMP
	BAYHTR1504HH	208 240	1	2.88 3.84	13.8 16.0	23 25	25 25	500	660
	BAYHTR1505HH	208 240	1	3.60 4.80	17.3 20.0	27 30	30 30	500	660
	BAYHTR1508HH	208 240	1	5.76 7.68	27.7 32.0	40 45	40 45	600	780
	BAYHTR1510HH	208 240	1	7.20 9.60	34.6 40.0	49 55	50 60	600	780
	circuit 1 BAYHTR1517BRK circuit 2	208 240	1	7.20 9.60	34.6 40.0	49 55	50 60	850	1050
		208 240		3.60 4.80	17.3 20.0	22 25	25 25		
	BAYHTR3510LUG	208 240	3	7.20 9.60	20.0 23.1	30 34	30 35	600	780
	BAYHTR3517LUG	208 240	3	10.80 14.40	30.0 34.6	42 48	45 50	850	900

Note: *If using a heater in a 5TEM4/A5AHC air handler, continue to the Step 17.*

17. Cut insulated butt crimp terminal off of heater low voltage field wires (W1 - White, B/C - Blue)
18. Strip 1/2" insulation from the cut end for field thermostat wiring termination.
19. For the 5TEMC models, set the heater size in the Configuration Menu.

Figure 7. Configuration menu



Heater Tables

Important: *The BAYHTR15** electric heat accessory may include up to a combination of four 60 amp circuit breakers to provide an electrical disconnect for service personnel that is intended to help protect internal electrical components in the event of a short circuit or ground fault. As designed, the circuit breakers supplied in the BAYHTR15** accessory DO NOT provide over current protection of the branch circuit. Therefore, the branch circuit(s) shall be sized and protected according to the unit nameplate.*

Table 1. BAYHTR - heater data

Heater Model No	No. of Circuits/ Phases	240 Volt			208 Volt		
		Capacity		Heater Amps per Circuit	Capacity		Heater Amps per Circuit
		kW	BTUH		kW	BTUH	
BAYHTR1504BRKC, BAYHTR1504LUGB	1/1	3.84	13100	16.0	2.88	9800	13.8
BAYHTR1505BRKC, BAYHTR1505LUGB	1/1	4.8	16400	20.0	3.6	12300	17.3
BAYHTR1508BRKC, BAYHTR1508LUGB	1/1	7.68	26200	32.0	5.76	19700	27.7
BAYHTR1510BRKC, BAYHTR1510LUGB	1/1	9.6	32800	40.0	7.2	24600	34.6
BAYHTR1517BRKA	2/1	14.4	49200	40.0/20.0	10.8	36900	34.6/17.3
BAYHTR1523BRKA	2/1	19.2	65600	40.0/40.0	14.4	49200	34.6/34.6
BAYHTR1525BRKA	4/1	24.0	82000	25.0 each	18.0	61600	21.6 each
BAYHTR3510LUGC	1/3	9.6	32800	23.1	7.2	24600	20.0
BAYHTR3517LUGA	1/3	14.4	49100	34.6	10.8	36900	30.0

Notes:

1. For model-specific electrical data, see the air handler Installation, Operation, and Maintenance guide or Product and Submittal Data.

2. Heaters with two circuits are displayed as Circuit 1/Circuit 2 (Minimum Circuit Ampacity for Circuit 1 includes Blower Motor Amp).

Table 2. 5TEM4/A5AHC minimum heater airflow cfm - heater matrix (cooling/HP airflow)

Model No.	BAYHTR1504BRK* BAYHTR1504LUG* BAYHTR1505BRK* BAYHTR1505LUG*	BAYHTR1508BRK* BAYHTR1508LUG*	BAYHTR1510BRK* BAYHTR1510LUG*	BAYHTR1517BRK*	BAYHTR1523BRK*	BAYHTR1525BRK*	BAYHTR3510LUG*	BAYHTR3517LUG*
5TEM4B02AC21SA*, A5AHC002A1B30A*	Tap 2 / Tap 2	Tap 5 / Tap 5	Tap 5 / Tap 5	–	–	–	Tap 5 / Tap 5	–
5TEM4B03AC31SA*, A5AHC003A1B30A*	Tap 3 / Tap 3	Tap 3 / Tap 4	Tap 3 / Tap 4	Tap 3 / Tap 5	–	–	Tap 3 / Tap 5	Tap 3 / Tap 5
5TEM4D04AC31SA*, A5AHC004A1D30A*	Tap 2 / Tap 2	Tap 3 / Tap 5	Tap 3 / Tap 5	Tap 3 / Tap 5	Tap 3 / Tap 5	–	Tap 3 / Tap 5	Tap 3 / Tap 5
5TEM4D05AC41SA*, A5AHC005A1D30A*	Tap 2 / Tap 2	Tap 4 / Tap 4	Tap 4 / Tap 4	Tap 3 / Tap 5	Tap 3 / Tap 4	–	Tap 3 / Tap 5	Tap 3 / Tap 5
5TEM4D06AC41SA*, A5AHC006A1D30A*	Tap 2 / Tap 2	Tap 2 / Tap 2	Tap 2 / Tap 2	Tap 4 / Tap 4	Tap 4 / Tap 5	Tap 4 / Tap 5	Tap 2 / Tap 2	Tap 4 / Tap 4
5TEM4D07AC51SA*, A5AHC007A1D30A*	Tap 2 / Tap 2	Tap 2 / Tap 2	Tap 2 / Tap 2	Tap 3 / Tap 3	Tap 3 / Tap 5	Tap 3 / Tap 5	Tap 2 / Tap 2	Tap 3 / Tap 3

Note: The asterisk in the model number indicates one additional digit.

Table 3. 5TEM6/A5AHV minimum heater airflow cfm - heater matrix (cooling/HP airflow)

Model No.	BAYHTR1504BRK* BAYHTR1504LUG* BAYHTR1505BRK* BAYHTR1505LUG*	BAYHTR1508BRK* BAYHTR1508LUG*	BAYHTR1510BRK* BAYHTR1510LUG*	BAYHTR1517BRK*	BAYHTR1523BRK*	BAYHTR1525BRK*	BAYHTR3510LUG*	BAYHTR3517LUG*
5TEM6B02AV21SA*, A5AHV002A1B30A* 5TEM6B03AV21SA*, A5AHV003A1B30A*	500 / 660	600 / 780	600 / 780	850 / 1050			600 / 780	850 / 900
5TEM6D04AV31SA*, A5AHV004A1D30A* 5TEM6D05AV41SA*, A5AHV005A1D30A*	675 / 875	820 / 950	820 / 1000	820 / 1000	1140 / 1300		820 / 875	950 / 1000
5TEM6D06AV41SA*, A5AHV006A1D30A* 5TEM6D07AV51SA*, A5AHV007A1D30A*	975 / 1200	975 / 1350	975 / 1350	975 / 1365	1300 / 1365	1505 / 1810	975 / 1300	1120 / 1365

Note: The asterisk in the model number indicates one additional digit.

Table 4. 5TEMC minimum heater airflow cfm - heater matrix (cooling/HP airflow)

Model No.	BAYHTR1504BRK* BAYHTR1504LUG* BAYHTR1505BRK* BAYHTR1505LUG*	BAYHTR1508BRK* BAYHTR1508LUG*	BAYHTR1510BRK* BAYHTR1510LUG*	BAYHTR1517BRK*	BAYHTR1523BRK*	BAYHTR1525BRK*	BAYHTR3510LUG*	BAYHTR3517LUG*
5TEMCB02AV21SA* 5TEMCB03AV31SA*	600 / 650	700 / 850	700 / 850	850 / 1000	–	–	700 / 850	850 / 1000
5TEMCD04AV31SA* 5TEMCD05AV41SA*	675 / 675	900 / 950	900 / 950	900 / 950	1300 / 1500	–	900 / 950	950 / 1050
5TEMCD06AV41SA* 5TEMCD07AV51SA*	800 / 900	1000 / 1200	1000 / 1350	1100 / 1400	1300 / 1430	1600 / 1850	1000 / 1200	1100 / 1400

Note: The asterisk in the model number indicates one additional digit.

Heater Staging

Note: *The 5TEM/A5AH air handler families do not stage air flow in correlation with heater element staging. The minimum heating air flow table is representative for any call for indoor heat.*

Table 5. BAYHTR electric heat stage matrix

Model No.	BAYHTR1504BRK* BAYHTR1504LUG*	BAYHTR1505BRK* BAYHTR1505LUG*	BAYHTR1508BRK* BAYHTR1508LUG*	BAYHTR1510BRK* BAYHTR1510LUG*	BAYHTR1517BRK*	BAYHTR1523BRK*	BAYHTR1525BRK*	BAYHTR3510LUG*	BAYHTR3517LUG*
Electric Heat Stages	1	1	1	1	2	2	2	1	1
Stage 1 Capacity (W1)(kW)	3.84	4.8	7.68	9.6	9.6	9.6	12.0	9.6	14.4
Stage 2 Capacity (W1+W2)(kW)	3.84	4.8	7.68	9.6	14.4	19.2	24.0	9.6	14.4

About Trane and American Standard Heating and Air Conditioning

Trane and American Standard create comfortable, energy efficient indoor environments for residential applications. For more information, please visit www.trane.com or www.americanstandardair.com.

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