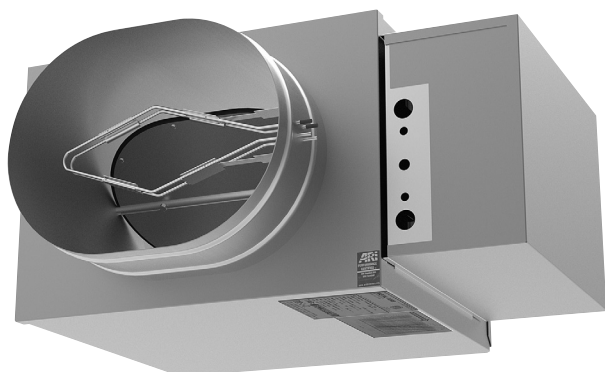


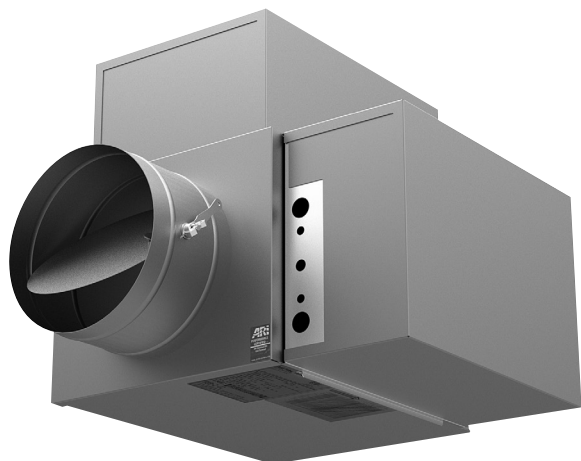
SINGLE DUCT AIR TERMINAL UNITS



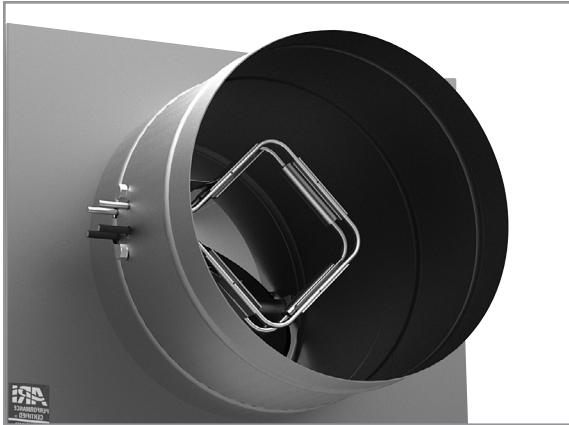
TH-500
SINGLE DUCT BOX
PAGE 3



TL-500
LOW-PROFILE SINGLE DUCT BOX
PAGE 35



BP-600
BYPASS BOX
PAGE 63



SINGLE DUCT AIR TERMINAL UNITS

The METALAIRE single duct terminal units are at the core of today's variable air volume (VAV) systems. The staple of today's HVAC system designer, VAV systems lower operating costs by using less central fan energy and less refrigeration energy. VAV systems also have lower first costs by allowing the designer to take advantage of the building's diversity.

The primary function of the METALAIRE single duct terminal units is to regulate conditioned air flow into an occupied zone in response to a control signal. METALAIRE single duct terminal units are available with a wide range of control options to suit any application. These include pneumatic, analog electronic, electric, and direct digital control (DDC). METALAIRE single duct terminal units can be applied in both pressure-dependent and pressure-independent applications in duct systems with static pressures up to 3" wg.

With the demands of today's building designs to reduce energy in smaller mechanical spaces, the METALAIRE single duct terminal unit is the perfect choice.

MODEL NUMBER LEGEND

EXAMPLE: **TH 510 105A**

XXXXX

Model
TH
TL
THECO

XXX

Inlet Size
(04, 05, 06, etc.)
Generation
5, 6, 7

-XXXX

Terminal Type:
1 TH, TL

Control Sequence:
00B No Controls
1 Pneumatic
5 Electric
05 DDC by others
6 Analog
8 Factory DDC

A 120 / 24 Transformer Voltage
C 277 / 24 Transformer Voltage
F 208 / 24 Transformer Voltage
N No Transformer
E 00E Electric Heat



Intertek



TH-500 SINGLE DUCT AIR TERMINAL UNIT

SPECIFIABLE FEATURES

- 22 ga. galvanized steel casing, mechanically sealed, low leakage construction.
- Damper construction of double layer 18 gauge equivalent with integral blade seal.
- Butt welded round primary inlet duct to minimize leakage.
- Metal inlet flow sensor with extra balancing taps.

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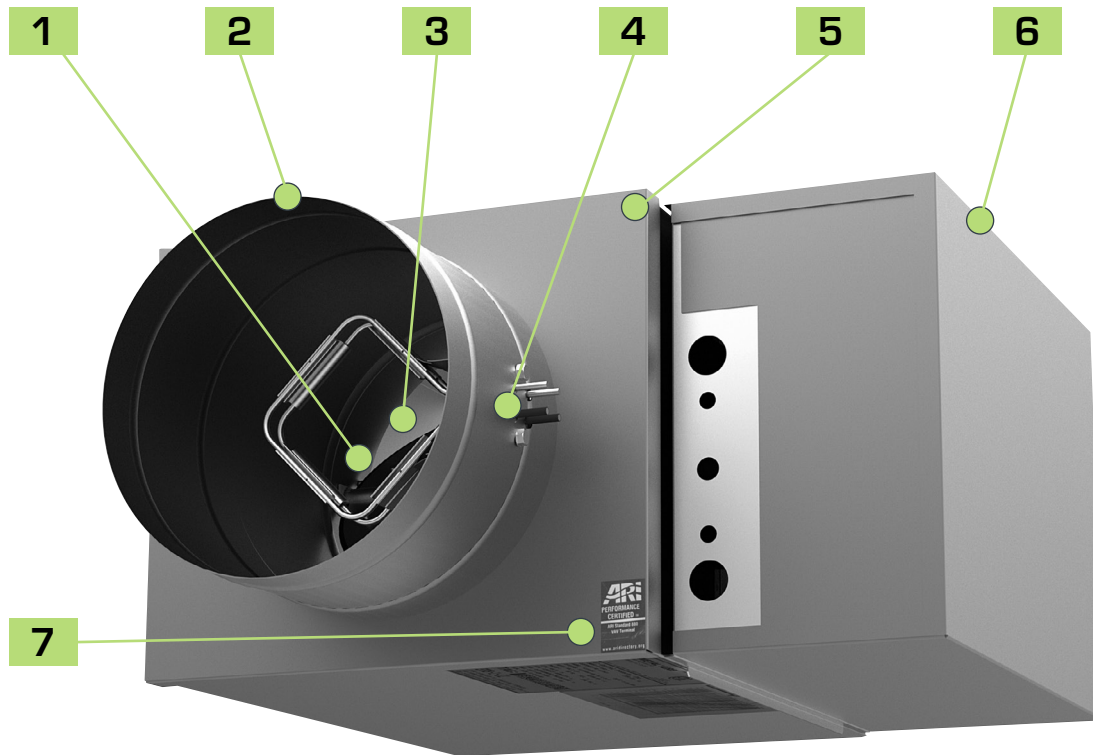
TH-500 SINGLE DUCT AIR TERMINAL UNIT

The METALAIRE TH-500 is the simplest and most widely used VAV terminal unit. Its basic components are an insulated sheet metal box, round inlet damper, flow measuring device and rectangular outlet. The unit is served by a central air handler and modulates the amount of 'primary' cooling air to the space between a minimum set point and the design airflow.

When necessary, the METALAIRE TH-500 can be provided with a heating coil on the discharge of the unit to provide for reheat.

STANDARD FEATURES

- TH-500 available in 10 unit sizes and TH-ECO-500 available in 8 sizes to handle 40-7200 CFM.
- Variable or constant volume applications.
- 22 ga. galvanized steel casing, mechanically sealed for low leakage.
- Mechanically fastened damper assembly is double layer, 18 gauge equivalent, galvanized steel with integral blade seal. (<1% at 3.0" wg static pressure).
- Optional factory calibrated controls to meet all control strategies.
- Multi-quadrant, averaging flow sensor for highly accurate (+/-5%) flow readings with varying inlet duct configurations after certified balancer has balanced terminal.
- Externally accessible steel balancing taps.
- External control cabinet with offset mounting plate is standard.
- 3-beaded inlet connection tube for added rigidity and secure flex duct connections.
- 1/2" thick, dual density (1.5lb / ft³ min.) fiberglass insulation with edges coated. Meets NFPA 90A and UL 181.
- Rectangular discharge with slip and drive cleat duct connection.
- Independently tested and certified laboratory performance data.
- Full range of options and accessories available (heating coils, disconnects, attenuators, etc.).
- Full range of liners / insulation available.

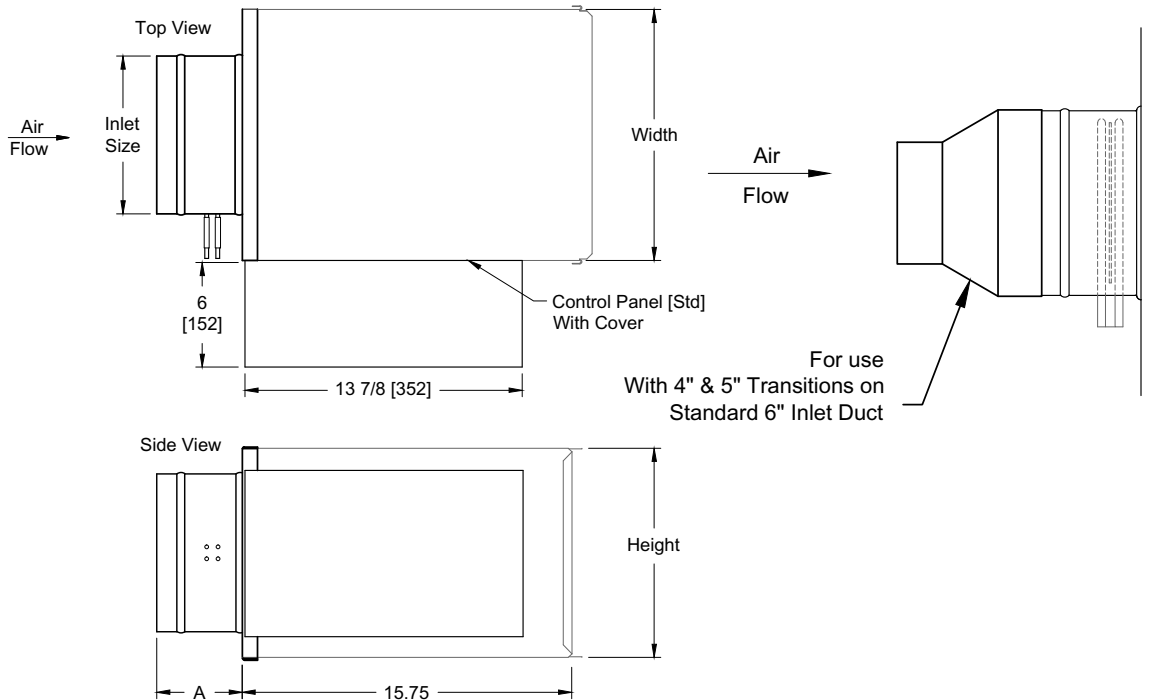


TH-500 SINGLE DUCT AIR TERMINAL UNIT

FEATURES AND BENEFITS

- 1** Damper rotates in a self-lubricating, long life, low friction thermoplastic bearing.
- 2** Continuous welded primary inlet duct to minimize leakage with three stiffening beads for added rigidity.
- 3** Damper construction of double layer 18 gauge equivalent with integral blade seal.
- 4** All metal constructed inlet flow sensor with extra balancing taps.
- 5** Galvanized steel casing, mechanically sealed for low leakage construction.
- 6** NEMA TYPE 1 rated control enclosure with stand-off to prevent penetration of casing standard on all terminal units.
- 7** All TH-500 terminal units are AHRI certified and shipped with the AHRI seal.

TH-500 SINGLE DUCT AIR TERMINAL UNIT, COOLING ONLY



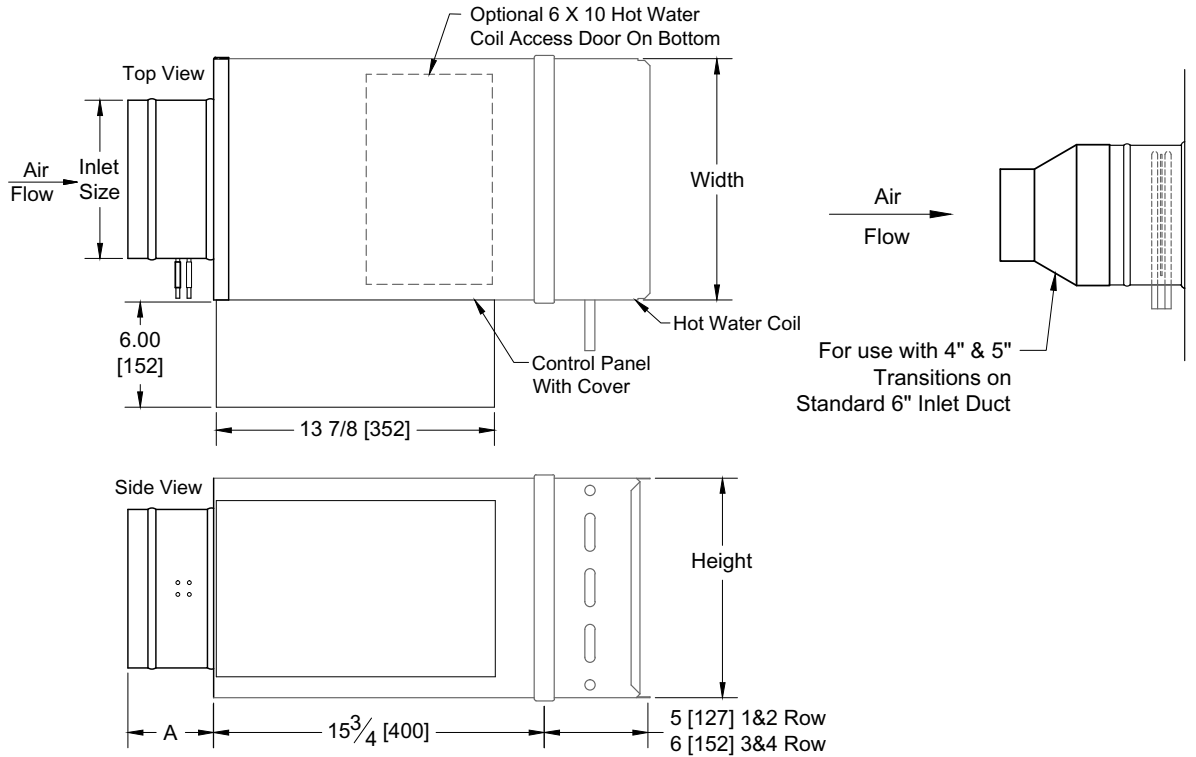
The standard location for control panel is Right Hand on Model TH.
Looking in the direction of airflow, the control panel is on the right.

The control panel will overhang the top and bottom of model TH506 1" (25.4 mm).
Control Panel Mounting Surface width by height is 13 7/8" x 9 3/4".

Models TH 520 & 524 have rectangular inlet ducts.

Model Number	Inlet Size		A		Width		Height		Unit wt.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	lb.	kg.
TH504	3 7/8	99	10	254	12	305	8	203	12	5
TH505	4 7/8	124	10	254	12	305	8	203	12	5
TH506	5 7/8	149	5	127	12	305	8	203	12	5
TH508	7 7/8	200	5	127	12	305	10	254	15	7
TH510	9 7/8	251	5	127	14	356	12 1/2	318	18	8
TH512	11 7/8	302	5	127	16	406	15	381	22	10
TH514	13 7/8	353	5	127	20	508	17 1/2	445	24	11
TH516	15 7/8	403	5	127	24	610	18	457	29	13
TH520	19 7/8 x 15 7/8	505 x 403	6	89	30	762	20	508	47	21
TH524	23 7/8 x 15 7/8	607 x 403	6	89	38	965	20	508	58	26

TH-500 SINGLE DUCT AIR TERMINAL UNIT WITH HOT WATER COIL



The standard location for control panel is Right Hand on Model TH. Looking in the direction of airflow, the control panel is on the right.

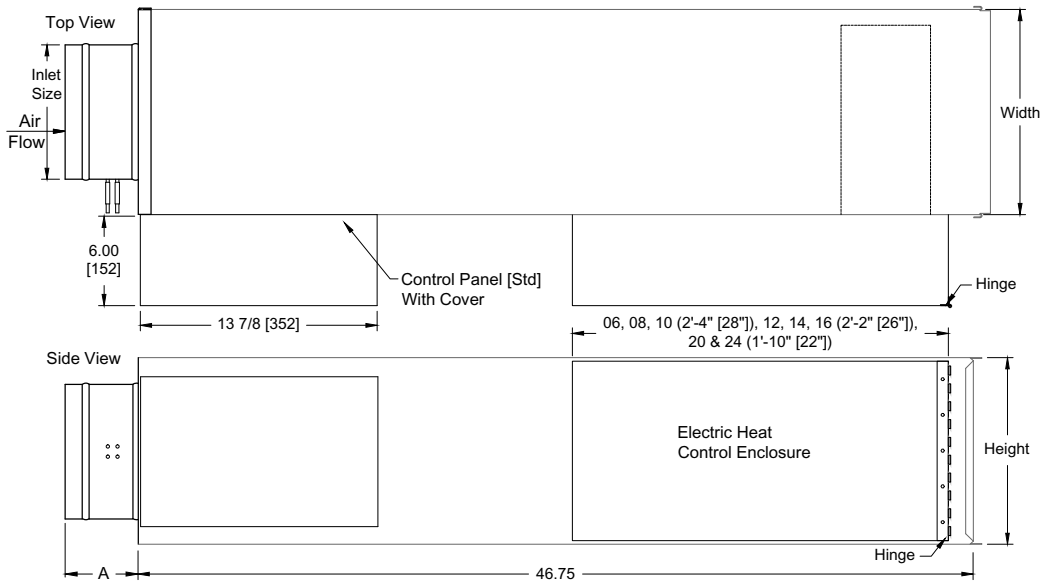
The control panel will overhang the top and bottom of model TH506 1" (25.4 mm).

Control Panel Mounting Surface width by height is 13 7/8" x 9 3/4".

Models TH 520 & 524 have rectangular inlet ducts.

Model Number	Inlet Size		A		Width		Height		Unit wt.							
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	1 Row		2 Row		3 Row		4 Row	
									lb.	kg.	lb.	kg.	lb.	kg.	lb.	kg.
TH504	3 7/8	99	10	254	12	305	8	203	17	7.7	18	8	24	11	23	10.4
TH505	4 7/8	124	10	254	12	305	8	203	17	7.7	18	8	24	11	23	10.4
TH506	5 7/8	149	5	127	12	305	8	203	17	7.7	18	8	24	11	23	10.4
TH508	7 7/8	200	5	127	12	305	10	254	20	9	22	10	28	13	28	13
TH510	9 7/8	251	5	127	14	356	12 1/2	318	24	11	27	12	34	15	38	17
TH512	11 7/8	302	5	127	16	406	15	381	31	14	34	15.4	41	19	43	19.5
TH514	13 7/8	353	5	127	20	508	17 1/2	445	34	15.4	39	17.7	47	21	53	24
TH516	15 7/8	403	5	127	24	610	18	457	42	19	48	21.8	54	25	59	26.8
TH520	19 7/8 x 15 7/8	505 x 403	6	127	30	762	20	508	64	29	72	32.7	77	35	86	39
TH524	23 7/8 x 15 7/8	607 x 403	6	127	38	965	20	508	79	36	89	40	93	42	109	49

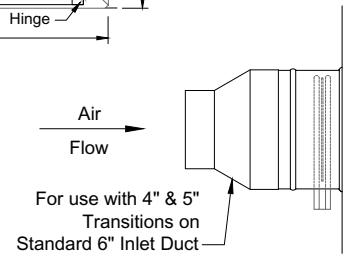
TH-500 SINGLE DUCT AIR TERMINAL UNIT WITH ELECTRIC HEAT



The standard location for control panel is Right Hand on Model TH.
Looking in the primary inlet, the control panel is on the right.

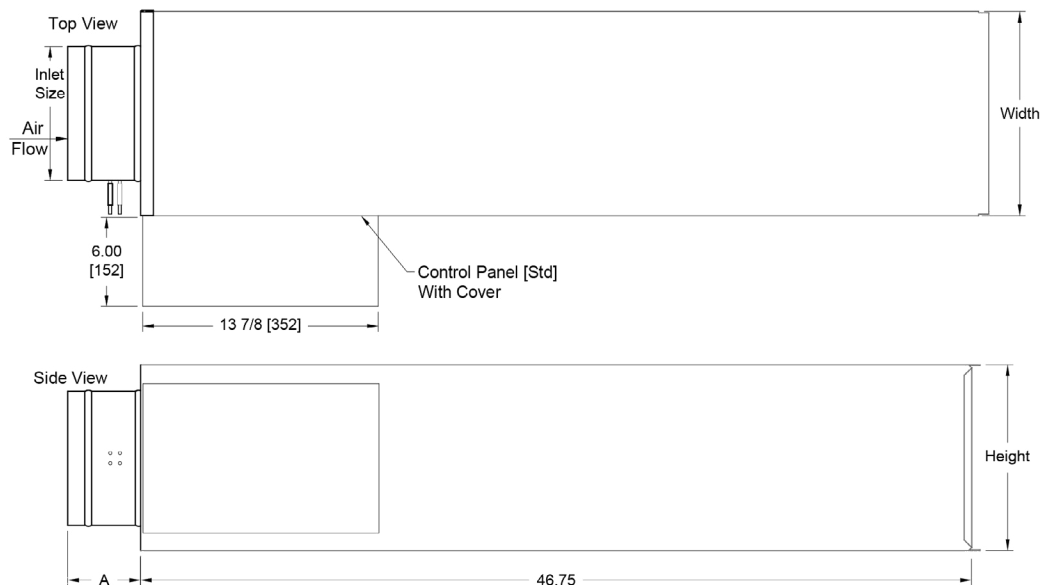
The control panel will overhang the top and bottom of model TH506 1" (25.4 mm).
Control Panel Mounting Surface width by height is 13 7/8" x 9 3/4".

Models TH 520 & 524 have rectangular inlet ducts.



Model Number	Inlet Duct				Unit					
	Nominal Size		A		Width		Height		Unit wt.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	lb.	kg.
TH504	3 7/8	99	10	254	12	305	8	203	38	17
TH505	4 7/8	124	10	254	12	305	8	203	38	17
TH506	5 7/8	149	5	127	12	305	8	203	38	17
TH508	7 7/8	200	5	127	12	305	10	254	43	20
TH510	9 7/8	251	5	127	14	356	12 1/2	318	50	23
TH512	11 7/8	302	5	127	16	406	15	381	59	27
TH514	13 7/8	353	5	127	20	508	17 1/2	445	67	30
TH516	15 7/8	403	5	127	24	610	18	457	77	35
TH520	19 7/8 x	505 x	6	127	30	762	20	508	103	47
	15 7/8	403								
TH524	23 7/8 x	607 x	6	127	38	965	20	508	122	55
	15 7/8	403								

TH-500 SINGLE DUCT AIR TERMINAL UNIT WITH INTEGRAL ATTENUATOR



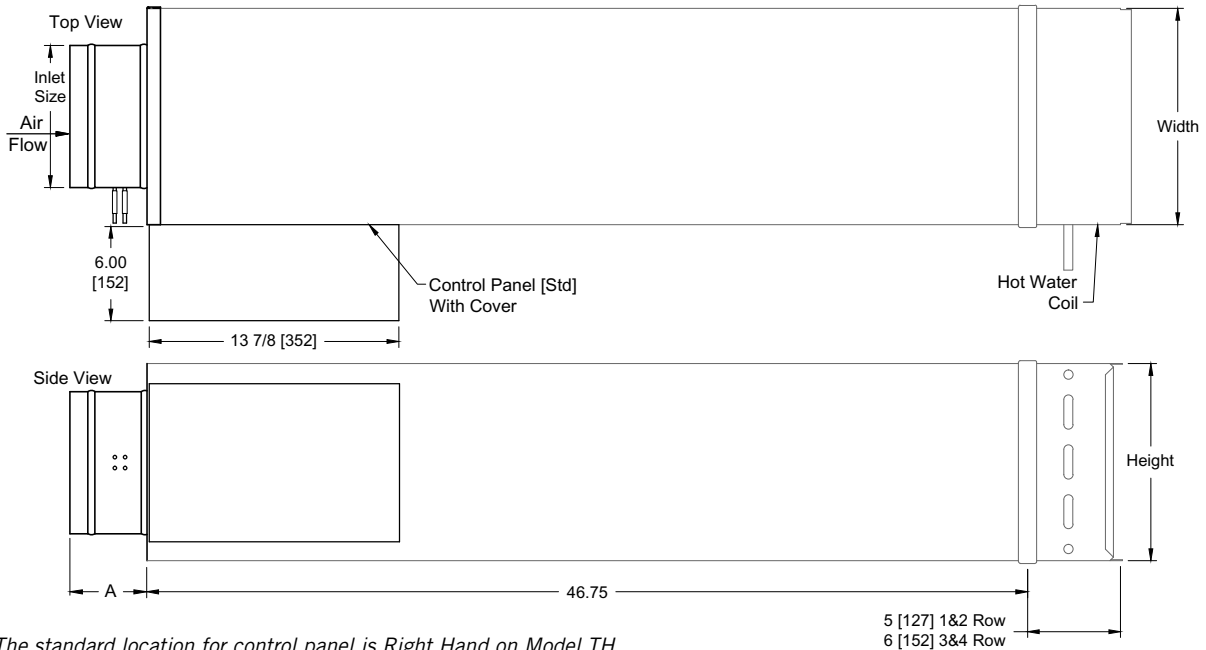
The standard location for control panel is Right Hand on Model TH.
Looking in the direction of airflow, the control panel is on the right.

The control panel will overhang the top and bottom of model TH506 1" (25.4 mm).
Control Panel Mounting Surface width by height is 13 7/8" x 9 3/4".

Models TH 520 & 524 have rectangular inlet ducts.

Model Number	Inlet Size		A		Width		Height		Unit wt.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	lb.	kg.
TH504	3 7/8	99	10	203	12	305	8	203	24	11
TH505	4 7/8	124	10	178	12	305	8	203	24	11
TH506	5 7/8	149	5	102	12	305	8	203	24	11
TH508	7 7/8	200	5	102	12	305	10	254	28	13
TH510	9 7/8	251	5	102	14	356	12 1/2	318	34	15
TH512	11 7/8	302	5	127	16	406	15	381	41	19
TH514	13 7/8	353	5	127	20	508	17 1/2	445	47	21
TH516	15 7/8	403	5	127	24	610	18	457	54	25
TH520	19 7/8 x 15 7/8	505 x 403	6	127	30	762	20	508	77	35
TH524	23 7/8 x 15 7/8	607 x 403	6	127	38	965	20	508	93	42

TH-500 SINGLE DUCT AIR TERMINAL UNIT WITH INTEGRAL ATTENUATOR AND HOT WATER COIL



The standard location for control panel is Right Hand on Model TH. Looking in the direction of airflow, the control panel is on the right.

The control panel will overhang the top and bottom of model TH506 1" (25.4 mm). Control Panel Mounting Surface width by height is 13 7/8" x 9 3/4".

Models TH 520 & 524 have rectangular inlet ducts.

Model Number	Inlet Size		A		Width		Height		Unit Weight							
									1 Row		2 Row		3 Row		4 Row	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	lb.	kg.	lb.	kg.	lb.	kg.	lb.	kg.
TH504	3 7/8	99	10	254	12	305	8	203	29	13	30	14	33	15	35	16
TH505	4 7/8	124	10	254	12	305	8	203	29	13	30	14	33	15	35	16
TH506	5 7/8	149	5	127	12	305	8	203	29	13	30	14	33	15	35	16
TH508	7 7/8	200	5	127	12	305	10	254	33	15	35	16	39	18	41	19
TH510	9 7/8	251	5	127	14	356	12 1/2	318	40	18	43	20	48	22	54	25
TH512	11 7/8	302	5	127	16	406	15	381	50	23	53	24	59	27	62	28
TH514	13 7/8	353	5	127	20	508	17 1/2	445	57	26	62	28	71	32	76	35
TH516	15 7/8	403	5	127	24	610	18	457	67	30	73	33	79	36	84	38
TH520	19 7/8 x 15 7/8	505 x 403	6	127	30	762	20	508	94	43	102	46	108	49	116	53
TH524	23 7/8 x 15 7/8	607 x 403	6	127	38	965	20	508	114	52	124	56	134	61	144	65

TH-500 AHRI CERTIFIED RATING POINTS

AHRI Certified Radiated Sound Power, ΔPs = 1.5 in. wg

Unit Size	Min Ps	CFM	Octave Band					
			2	3	4	5	6	7
504	0.04	200	52	44	38	32	26	22
505	0.04	200	52	44	38	32	26	22
506	0.08	400	58	53	49	44	41	36
508	0.01	700	62	57	52	44	39	34
510	0.02	1100	58	58	52	44	38	32
512	0.01	1600	61	56	54	45	41	40
514	0.01	2100	62	57	55	45	40	34
516	0.03	2800	64	62	56	50	47	44
520	0.06	3000	69	67	65	61	55	48
524	0.04	5300	76	71	71	65	60	54

AHRI Certified Discharge Sound Power, ΔPs = 1.5 in. wg

Unit Size	Min Ps	CFM	Octave Band					
			2	3	4	5	6	7
504	0.04	200	65	60	55	51	46	39
505	0.04	200	65	60	55	51	46	39
506	0.08	400	67	64	60	53	49	49
508	0.01	700	75	71	62	58	55	53
510	0.02	1100	73	70	65	60	56	53
512	0.01	1600	68	67	62	60	59	57
514	0.01	2100	66	62	61	63	63	60
516	0.03	2800	74	69	66	64	64	60
520	0.06	3000	74	71	71	71	67	63
524	0.04	5300	86	85	81	77	74	71

CERTIFICATIONS AND STANDARDS

- Units tested per ANSI / ASHRAE Standard 130.
- All model sizes certified in accordance with AHRI 880 certification program.
- ETL listed to meet requirements of UL 1995 and CSA 236.
- Dual-density fiberglass insulation meets UL 181 and NFPA 90A requirements.
- Insulation meets ASHRAE 62.1 requirements for resistance to mold growth and erosion.



TH-500

RADIATED SOUND POWER at $\Delta P_s = 0.50, 0.75$ and 1.0 in. wg

Unit Size	CFM (L/s)		Min Ps in. wg (Pa)		$\Delta P_s = 0.50$ in. wg (125 Pa)							$\Delta P_s = 0.75$ in. wg (187 Pa)							$\Delta P_s = 1.0$ in. wg (500 Pa)									
					Octave Band Sound Power, Lw, dB							NC	Octave Band Sound Power, Lw, dB							NC	Octave Band Sound Power, Lw, dB							NC
					2	3	4	5	6	7	2		3	4	5	6	7	2	3		4	5	6	7	2	3	4	
504 / 505 4 & 5 inch	50	(24)	0.005	(1.2)	41	32	19	19	15	7	<15	42	33	20	20	16	8	<15	43	34	21	21	17	9	<15			
	100	(47)	0.015	(3.8)	43	34	23	22	19	13	<15	44	35	24	23	20	14	<15	45	36	25	24	21	15	<15			
	150	(71)	0.027	(6.7)	46	38	29	26	21	16	<15	47	39	30	27	22	17	<15	48	40	31	28	23	18	<15			
	200	(94)	0.038	(9.5)	49	41	35	29	23	18	<15	50	42	36	30	24	19	<15	51	43	37	31	25	20	<15			
	250	(118)	0.059	(14.8)	51	43	39	32	28	26	<15	52	44	40	33	29	27	<15	53	45	41	34	30	28	<15			
	300	(142)	0.071	(17.6)	53	46	43	35	32	30	17	54	47	44	36	33	31	18	55	48	45	37	34	32	19			
506 6 inch	100	(47)	0.005	(1.2)	43	34	23	22	19	13	<15	44	35	24	23	20	14	<15	45	36	25	24	21	15	<15			
	200	(94)	0.020	(5.0)	49	41	35	29	23	18	<15	50	42	36	30	24	19	<15	51	43	37	31	25	20	<15			
	300	(142)	0.045	(11.2)	53	46	43	35	32	30	17	54	47	44	36	33	31	18	55	48	45	37	34	32	19			
	400	(189)	0.080	(19.9)	55	50	46	41	38	32	20	56	51	47	42	39	33	21	57	52	48	43	40	34	22			
	500	(236)	0.136	(33.9)	57	53	48	44	40	34	22	58	54	49	45	41	35	23	59	55	50	46	42	36	24			
	600	(283)	0.180	(44.8)	58	55	50	46	42	36	24	59	56	51	47	43	37	25	60	57	52	48	44	38	26			
508 8 inch	200	(94)	0.000	(0.0)	48	36	25	20	17	16	<15	50	39	30	26	20	19	<15	51	41	35	30	23	20	<15			
	300	(142)	0.001	(0.2)	51	40	33	25	20	19	<15	53	43	37	31	24	21	<15	55	46	42	36	28	24	16			
	600	(283)	0.003	(0.7)	54	44	37	33	25	20	<15	57	48	40	35	28	23	18	59	52	43	38	31	27	21			
	700	(330)	0.005	(1.2)	56	46	40	35	27	21	17	58	50	42	37	30	25	20	61	53	45	40	33	28	23			
	1000	(472)	0.008	(2.0)	60	52	46	42	34	27	22	62	54	48	44	36	30	25	65	57	50	45	39	33	29			
	1100	(519)	0.009	(2.2)	61	53	48	44	37	30	23	63	55	50	45	38	32	26	66	58	51	47	40	35	30			
510 10 inch	300	(142)	0.002	(0.5)	43	38	29	20	18	18	<15	45	40	32	23	19	19	<15	47	42	36	26	21	20	<15			
	600	(283)	0.009	(2.2)	47	46	37	30	26	22	<15	50	48	42	33	28	24	15	52	51	46	36	31	25	20			
	800	(378)	0.013	(3.2)	48	48	40	34	28	22	15	50	50	43	36	31	24	18	53	53	47	39	33	26	21			
	1000	(472)	0.018	(4.5)	49	49	42	36	29	24	16	51	52	45	38	32	26	20	54	54	48	40	34	28	22			
	1100	(519)	0.021	(5.2)	51	50	44	38	30	24	18	53	53	46	40	33	27	21	55	55	49	41	35	29	24			
	1400	(661)	0.028	(7.0)	55	55	48	42	34	28	24	58	57	49	43	36	30	26	60	58	50	43	37	31	27			
	1700	(802)	0.036	(9.0)	57	57	53	44	38	32	27	60	58	54	45	39	34	29	63	61	55	48	42	36	31			
512 12 inch	430	(203)	0.000	(0.1)	46	37	29	22	19	20	<15	49	39	32	25	21	21	<15	51	41	36	28	23	23	<15			
	800	(378)	0.001	(0.2)	50	42	35	28	26	29	<15	52	45	40	32	29	31	<15	54	48	45	36	32	32	19			
	1450	(684)	0.008	(2.0)	52	47	43	36	31	31	17	55	49	47	39	34	33	21	57	52	50	41	37	36	24			
	1600	(755)	0.010	(2.5)	54	48	46	39	33	32	20	56	50	48	40	35	35	22	58	53	51	42	38	37	25			
	1950	(920)	0.015	(3.7)	55	51	50	42	37	36	24	57	53	51	43	39	37	25	59	54	52	44	41	39	26			
	2200	(1038)	0.022	(5.5)	56	52	51	43	39	37	25	58	53	52	44	40	39	26	61	55	53	45	42	40	27			
	2500	(1180)	0.025	(6.2)	57	53	52	44	40	38	26	59	55	53	46	41	41	27	62	58	56	48	44	43	31			

1. Performance data contained within a bold border outline are AHRI certified data.
2. Performance data not contained within a bold border outline are application ratings. Application ratings are outside the scope of the Certification Program.
3. Performance data is obtained from laboratory testing in accordance with AHRI 880-2011 and ANSI / ASHRAE 130-2008.
4. NC values are calculated using attenuation credits outlined in Appendix E of AHRI 885-2008.
5. Discharge Sound power levels shown with End Reflection Corrections Included in dB (ref: 10^{-12} watts).
6. Minimum Ps is the static pressure drop across the air terminal unit while the inlet damper is in the wide-open position at a given airflow rate.

TH-500

RADIATED SOUND POWER at ΔPs = 0.50, 0.75 and 1.0 in. wg continued

Unit Size	CFM (L/s)		Min Ps in. wg (Pa)		ΔPs = 0.50 in. wg (125 Pa)							ΔPs = 0.75 in. wg (187 Pa)							ΔPs = 1.0 in. wg (500 Pa)									
					Octave Band Sound Power, Lw, dB							NC	Octave Band Sound Power, Lw, dB							NC	Octave Band Sound Power, Lw, dB							NC
					2	3	4	5	6	7	2		3	4	5	6	7	2	3		4	5	6	7				
514 14 inch	550	(260)	0.000	(0.0)	52	38	36	28	25	20	<15	53	39	37	29	26	21	<15	54	40	38	30	27	22	<15			
	925	(437)	0.001	(0.2)	53	41	39	31	27	22	<15	54	42	40	32	28	23	<15	55	43	41	33	29	24	16			
	1600	(755)	0.003	(0.7)	56	46	44	35	31	26	18	57	47	45	36	32	27	19	58	48	46	37	33	28	20			
	1900	(897)	0.004	(1.0)	57	50	49	39	33	28	23	58	51	50	40	34	29	24	59	52	51	41	35	30	25			
	2100	(991)	0.005	(1.2)	59	54	51	42	36	31	25	60	55	52	43	37	32	26	61	56	53	44	38	33	27			
	2600	(1227)	0.006	(1.5)	62	56	54	43	40	36	29	63	57	55	44	41	37	30	64	58	56	45	42	38	31			
	3250	(1534)	0.007	(1.7)	64	60	57	46	44	40	32	65	61	58	47	45	41	33	66	62	59	48	46	42	34			
516 16 inch	750	(354)	0.001	(0.4)	54	39	30	24	19	17	<15	54	41	33	28	21	19	<15	55	43	35	30	24	20	16			
	1100	(519)	0.006	(1.5)	56	45	36	29	24	20	17	56	47	39	32	26	22	17	57	49	41	34	29	24	18			
	1500	(708)	0.010	(2.6)	58	51	41	35	31	26	20	58	53	44	38	33	28	21	59	55	46	40	36	30	24			
	2400	(1133)	0.023	(5.7)	60	53	44	40	37	33	22	60	55	47	42	38	34	24	60	57	49	43	40	35	26			
	2800	(1321)	0.030	(7.5)	61	54	47	42	39	35	23	61	56	49	44	40	36	25	62	58	51	45	42	37	27			
	3600	(1699)	0.045	(11.1)	62	57	52	46	42	39	26	63	59	53	48	43	40	28	64	60	55	49	44	41	30			
	4400	(2076)	0.060	(15.0)	65	61	57	50	46	43	32	66	62	58	51	47	44	33	67	63	58	52	48	45	33			
520 20 x 16	1100	(519)	0.008	(2.0)	51	45	33	29	27	23	<15	53	47	35	31	29	25	<15	55	49	37	33	31	27	16			
	1600	(755)	0.024	(6.0)	53	51	43	39	32	29	19	55	53	45	41	34	31	21	57	55	47	43	36	33	24			
	2500	(1180)	0.055	(13.7)	59	58	56	52	44	39	31	61	60	58	54	46	41	33	63	62	60	56	48	43	35			
	3000	(1416)	0.060	(14.9)	64	62	60	56	50	43	35	66	64	62	58	52	45	37	68	66	64	60	54	47	39			
	4600	(2171)	0.140	(34.8)	70	67	65	62	52	47	41	72	69	67	64	54	49	43	74	71	69	66	56	51	45			
	5300	(2501)	0.167	(41.6)	71	69	67	64	54	48	43	73	71	69	66	56	50	45	75	73	71	68	58	52	47			
	6200	(2926)	0.202	(50.3)	74	71	69	66	56	49	45	76	73	71	68	58	51	47	78	75	73	70	60	53	49			
524 24 x 16	1250	(590)	0.010	(2.5)	54	45	35	32	30	23	<15	55	46	37	34	31	25	16	55	47	39	35	32	26	16			
	2000	(944)	0.015	(3.7)	58	51	44	41	36	31	20	59	52	45	42	37	32	21	59	52	46	42	38	32	21			
	3000	(1416)	0.020	(5.0)	63	56	50	47	42	37	26	64	57	51	48	43	38	27	64	57	52	48	44	38	27			
	4000	(1888)	0.025	(6.2)	66	61	58	53	49	42	33	67	62	59	54	50	43	34	68	62	59	55	50	44	34			
	5300	(2501)	0.040	(10.0)	70	66	63	59	55	49	38	72	67	64	61	56	50	39	73	68	64	62	57	51	39			
	6000	(2831)	0.050	(12.4)	73	68	66	61	57	51	42	75	69	67	63	58	52	43	76	70	68	64	59	53	44			
	7200	(3398)	0.070	(17.4)	76	72	68	66	60	54	44	77	73	70	68	61	55	46	78	74	71	69	62	56	47			

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3. Performance data is obtained from laboratory testing in accordance with AHRI 880-2011 and ANSI / ASHRAE 130-2008.
4. NC values are calculated using attenuation credits outlined in Appendix E of AHRI 885-2008.
5. Discharge Sound power levels shown with End Reflection Corrections Included in dB (ref: 10⁻¹² watts).
6. Minimum Ps is the static pressure drop across the air terminal unit while the inlet damper is in the wide-open position at a given airflow rate.

TH-500

RADIATED SOUND POWER at $\Delta P_s = 1.50, 2.0$ and 3.0 in. wg

Unit Size	CFM (L/s)		Min Ps in. wg (Pa)		$\Delta P_s = 1.5$ in. wg (375 Pa)							$\Delta P_s = 2.0$ in. wg (500 Pa)							$\Delta P_s = 3.0$ in. wg (750 Pa)									
					Octave Band Sound Power, Lw, dB							NC	Octave Band Sound Power, Lw, dB							NC	Octave Band Sound Power, Lw, dB							NC
					2	3	4	5	6	7	NC		2	3	4	5	6	7	NC		2	3	4	5	6	7	NC	
504 / 505 4 & 5 inch	50	(24)	0.005	(1.2)	44	35	22	22	18	11	<15	44	36	23	22	19	13	<15	45	38	25	24	23	18	<15			
	100	(47)	0.015	(3.8)	46	37	26	25	22	17	<15	46	38	27	25	23	19	<15	47	40	29	27	27	24	<15			
	150	(71)	0.027	(6.7)	49	41	32	29	24	20	<15	49	42	33	29	25	22	<15	50	44	35	31	29	27	<15			
	200	(94)	0.038	(9.5)	52	44	38	32	26	22	<15	52	45	39	32	27	24	<15	53	47	41	34	31	29	<15			
	250	(118)	0.059	(14.8)	54	46	42	35	31	30	15	54	47	43	35	32	32	17	55	49	45	37	36	37	19			
	300	(142)	0.071	(17.6)	56	49	46	38	35	34	20	56	50	47	38	36	36	21	57	52	49	40	40	41	23			
506 6 inch	100	(47)	0.005	(1.2)	46	37	26	25	22	17	<15	46	38	27	25	23	19	<15	47	40	29	27	27	24	<15			
	200	(94)	0.020	(5.0)	52	44	38	32	26	22	<15	52	45	39	32	27	24	<15	53	47	41	34	31	29	<15			
	300	(142)	0.045	(11.2)	56	49	46	38	35	34	20	56	50	47	38	36	36	21	57	52	49	40	40	41	23			
	400	(189)	0.080	(19.9)	58	53	49	44	41	36	23	58	54	50	44	42	38	24	59	56	52	46	46	43	26			
	500	(236)	0.136	(33.9)	60	56	51	47	43	38	25	61	57	52	47	44	40	26	61	59	54	49	48	45	29			
	600	(283)	0.180	(44.8)	61	58	53	49	45	40	27	62	59	54	49	46	42	29	62	61	56	51	50	47	31			
508 8 inch	200	(94)	0.000	(0.0)	52	42	37	33	26	22	<15	52	43	38	35	29	23	<15	53	45	39	36	32	27	<15			
	300	(142)	0.001	(0.2)	55	46	43	38	32	29	17	55	46	43	40	35	33	17	56	47	45	42	40	38	19			
	600	(283)	0.003	(0.7)	60	55	47	42	36	32	24	61	57	51	45	39	36	26	61	59	54	49	43	41	29			
	700	(330)	0.005	(1.2)	62	57	52	44	39	34	26	63	60	53	47	40	37	29	64	61	56	51	44	41	31			
	1000	(472)	0.008	(2.0)	67	60	53	48	42	36	31	68	63	56	50	44	39	33	70	66	60	54	47	42	37			
	1100	(519)	0.009	(2.2)	68	61	54	50	43	38	32	69	64	57	52	45	40	34	71	67	61	56	49	44	38			
510 10 inch	300	(142)	0.002	(0.5)	50	46	40	30	25	24	<15	54	47	40	32	26	25	<15	56	47	42	35	29	26	17			
	600	(283)	0.009	(2.2)	55	55	50	40	35	29	24	59	55	51	43	39	35	25	60	56	51	45	42	40	25			
	800	(378)	0.013	(3.2)	56	57	51	43	37	30	26	61	60	53	46	42	38	29	63	62	56	49	45	42	32			
	1000	(472)	0.018	(4.5)	57	58	52	44	38	32	27	62	63	56	49	44	40	33	64	67	60	52	47	45	38			
	1100	(519)	0.021	(5.2)	58	58	52	44	38	32	27	63	64	57	50	45	41	34	65	68	61	53	48	47	39			
	1400	(661)	0.028	(7.0)	63	62	54	47	41	35	32	70	66	58	52	47	44	37	71	70	63	56	50	49	41			
	1700	(802)	0.036	(9.0)	66	65	59	54	46	40	35	72	67	60	55	50	48	38	73	72	64	58	53	51	44			
512 12 inch	430	(203)	0.000	(0.1)	54	45	40	31	26	26	<15	55	47	41	34	29	28	16	56	47	44	38	34	33	18			
	800	(378)	0.001	(0.2)	57	51	49	40	35	35	23	58	54	53	45	40	41	27	58	56	56	50	44	42	31			
	1450	(684)	0.008	(2.0)	60	55	53	44	40	39	27	62	60	58	49	44	43	33	63	64	63	55	48	45	38			
	1600	(755)	0.010	(2.5)	61	56	54	45	41	40	29	63	60	58	49	44	44	33	65	65	63	55	48	46	38			
	1950	(920)	0.015	(3.7)	62	58	56	47	44	42	31	64	62	60	51	47	47	35	66	66	65	56	50	49	41			
	2200	(1038)	0.022	(5.5)	64	59	57	49	45	44	32	66	62	60	52	48	47	35	68	67	65	56	51	50	41			
	2500	(1180)	0.025	(6.2)	65	61	59	51	48	46	34	67	65	63	55	51	49	38	69	68	67	60	52	51	43			

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4. NC values are calculated using attenuation credits outlined in Appendix E of AHRI 885-2008.
5. Discharge Sound power levels shown with End Reflection Corrections Included in dB (ref: 10^{-12} watts).
6. Minimum Ps is the static pressure drop across the air terminal unit while the inlet damper is in the wide-open position at a given airflow rate.

TH-500

RADIATED SOUND POWER at $\Delta P_s = 1.50, 2.0$ and 3.0 in. wg continued

Unit Size	CFM (L/s)		Min P_s in. wg (Pa)		$\Delta P_s = 1.5$ in. wg (375 Pa)							$\Delta P_s = 2.0$ in. wg (500 Pa)							$\Delta P_s = 3.0$ in. wg (750 Pa)									
					Octave Band Sound Power, Lw, dB							NC	Octave Band Sound Power, Lw, dB							NC	Octave Band Sound Power, Lw, dB							NC
					2	3	4	5	6	7	2		3	4	5	6	7	2	3		4	5	6	7				
514 14 inch	550	(260)	0.000	(0.0)	55	41	39	31	28	23	16	55	41	39	31	28	23	16	56	42	40	32	29	24	17			
	925	(437)	0.001	(0.2)	56	43	41	33	30	24	17	56	44	42	34	30	25	17	57	45	43	35	31	26	18			
	1600	(755)	0.003	(0.7)	58	49	46	38	33	28	20	59	49	47	38	34	29	21	60	50	48	39	35	30	22			
	1900	(897)	0.004	(1.0)	60	53	52	41	36	31	26	60	53	52	42	36	31	26	61	54	53	43	37	32	27			
	2100	(991)	0.005	(1.2)	62	57	55	45	40	34	30	62	57	54	45	40	34	29	63	58	55	46	40	35	30			
	2600	(1227)	0.006	(1.5)	65	59	57	46	43	39	32	65	59	57	46	43	39	32	66	60	58	47	44	40	33			
	3250	(1534)	0.007	(1.7)	67	63	60	49	47	43	35	67	63	60	49	47	43	35	68	64	61	50	48	44	36			
516 16 inch	750	(354)	0.001	(0.4)	56	45	39	33	28	23	17	57	47	42	36	31	26	18	59	51	47	40	36	30	21			
	1100	(519)	0.006	(1.5)	58	51	45	39	34	28	20	59	53	49	44	38	32	23	61	56	51	49	40	35	25			
	1500	(708)	0.010	(2.6)	60	57	51	45	41	36	26	61	59	55	50	45	42	30	63	61	57	53	49	47	32			
	2400	(1133)	0.023	(5.7)	63	61	55	49	46	42	31	65	65	60	54	51	48	35	68	67	64	60	58	56	39			
	2800	(1321)	0.030	(7.5)	64	62	56	50	47	44	32	67	66	61	56	53	50	37	69	69	65	62	61	59	41			
	3600	(1699)	0.045	(11.1)	67	64	59	54	50	47	34	69	67	63	58	56	53	38	71	70	67	64	63	62	43			
	4400	(2076)	0.060	(15.0)	69	66	62	56	54	51	37	71	69	65	60	59	56	41	73	72	69	66	65	64	45			
520 20 x 16	1100	(519)	0.008	(2.0)	56	50	38	34	32	28	18	57	51	39	35	33	29	19	59	53	41	37	35	31	21			
	1600	(755)	0.024	(6.0)	58	56	48	44	37	34	25	59	57	49	45	38	35	26	61	59	51	47	40	37	28			
	2500	(1180)	0.055	(13.7)	64	63	61	57	49	44	36	65	64	62	58	50	45	37	67	66	64	60	52	47	39			
	3000	(1416)	0.060	(14.9)	69	67	65	61	55	48	41	70	68	66	62	56	49	42	72	70	68	64	58	51	44			
	4600	(2171)	0.140	(34.8)	75	72	70	67	57	52	46	76	73	71	68	58	53	47	78	75	73	70	60	55	49			
	5300	(2501)	0.167	(41.6)	76	74	72	69	59	53	48	77	75	73	70	60	54	49	79	77	75	72	62	56	51			
	6200	(2926)	0.202	(50.3)	79	76	74	71	61	54	50	80	77	75	72	62	55	51	82	79	77	74	64	57	54			
524 24 x 16	1250	(590)	0.010	(2.5)	58	50	42	38	35	29	20	58	52	44	39	37	32	20	59	55	49	42	39	35	24			
	2000	(944)	0.015	(3.7)	62	55	49	45	41	35	25	62	59	53	49	45	39	28	63	63	57	53	49	43	33			
	3000	(1416)	0.020	(5.0)	67	60	55	51	47	41	31	67	64	59	55	51	45	34	69	69	64	58	55	48	40			
	4000	(1888)	0.025	(6.2)	71	65	62	58	53	47	37	72	70	68	63	57	52	44	74	72	70	66	60	55	46			
	5300	(2501)	0.040	(10.0)	76	71	71	65	60	54	47	78	73	71	68	62	55	47	80	76	75	70	64	58	51			
	6000	(2831)	0.050	(12.4)	77	72	70	66	61	55	46	81	75	73	69	63	57	49	83	77	76	72	65	59	53			
	7200	(3398)	0.070	(17.4)	81	76	74	72	65	59	50	83	79	76	74	67	60	53	85	81	79	76	69	62	56			

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- Discharge Sound power levels shown with End Reflection Corrections Included in dB (ref: 10^{-12} watts).
- Minimum P_s is the static pressure drop across the air terminal unit while the inlet damper is in the wide-open position at a given airflow rate.

TH-500

DISCHARGE SOUND POWER at $\Delta P_s = 0.50, 0.75$ and 1.0 in. wg

Unit Size	CFM (L/s)	Min Ps in. wg (Pa)	$\Delta P_s = 0.50$ in. wg (125 Pa)										$\Delta P_s = 0.75$ in. wg (187 Pa)										$\Delta P_s = 1.0$ in. wg (250 Pa)												
			Octave Band Sound Power, Lw, dB										NC w/ SA	Octave Band Sound Power, Lw, dB										NC w/ SA	Octave Band Sound Power, Lw, dB										NC w/ SA
			2	3	4	5	6	7	NC	2	3	4		5	6	7	NC	2	3	4	5	6	7		NC										
504 / 505 4 & 5 inch	50 (24)	0.005 (1)	59	47	39	35	29	22	<15	<15	60	51	45	41	34	27	<15	<15	60	55	50	47	39	31	<15	<15									
	100 (47)	0.015 (4)	60	49	39	34	30	26	<15	<15	61	53	46	41	35	30	16	<15	61	56	52	47	40	34	16	<15									
	150 (71)	0.027 (7)	61	51	42	37	32	27	16	<15	62	54	48	43	37	32	17	<15	62	57	53	48	42	36	17	<15									
	200 (94)	0.038 (9)	62	52	45	40	34	28	17	<15	63	55	49	45	39	33	18	16	63	58	53	49	44	37	18	16									
	250 (118)	0.059 (15)	63	54	47	42	36	32	18	16	64	57	51	46	41	36	20	17	64	59	55	49	45	40	20	17									
	300 (142)	0.071 (18)	64	56	51	45	38	34	16	<15	64	59	54	48	42	39	16	<15	64	61	57	50	46	43	19	<15									
506 6 inch	100 (47)	0.005 (1.2)	60	49	39	34	30	26	<15	<15	61	53	46	41	35	30	16	<15	61	56	52	47	40	34	16	<15									
	200 (94)	0.020 (5.0)	62	52	45	40	34	28	17	<15	63	55	49	45	39	33	18	16	63	58	53	49	44	37	18	16									
	300 (142)	0.045 (11.2)	64	56	51	45	38	34	16	<15	64	59	54	48	42	39	16	<15	64	61	57	50	46	43	19	<15									
	400 (189)	0.080 (19.9)	65	60	55	49	42	40	18	<15	65	61	57	50	45	44	19	<15	65	62	58	51	47	47	20	15									
	500 (236)	0.136 (33.9)	68	64	59	54	48	45	22	18	68	65	61	55	50	48	24	19	68	66	62	56	52	50	25	20									
	600 (283)	0.180 (44.8)	69	67	62	59	52	49	26	21	69	68	63	60	54	50	27	22	69	68	64	60	55	51	27	22									
508 8 inch	200 (94)	0.000 (0.0)	62	53	46	40	34	30	17	<15	63	56	50	43	37	34	18	16	66	60	55	49	44	42	22	20									
	300 (142)	0.001 (0.2)	64	57	48	43	38	33	16	<15	65	60	52	46	41	37	18	<15	68	64	58	53	49	45	22	19									
	600 (283)	0.003 (0.7)	69	63	54	51	43	39	22	20	71	65	56	53	46	42	25	22	73	69	61	58	53	48	28	25									
	700 (330)	0.005 (1.2)	71	65	56	54	45	40	25	22	72	67	58	55	48	43	26	23	74	70	63	60	54	50	29	26									
	1000 (472)	0.008 (2.0)	75	70	62	60	52	47	28	25	77	71	64	63	54	49	30	27	79	74	67	65	58	53	33	30									
	1100 (519)	0.009 (2.2)	76	71	64	62	56	50	29	26	78	72	66	64	56	51	31	29	80	75	69	67	60	54	34	31									
510 10 inch	300 (142)	0.002 (0.5)	58	55	46	43	36	31	<15	<15	59	58	50	46	39	35	15	<15	62	62	55	52	46	43	20	16									
	600 (283)	0.009 (2.2)	62	59	50	46	38	36	16	<15	64	62	52	49	42	39	20	16	67	65	58	54	49	46	24	20									
	800 (378)	0.013 (3.2)	65	62	53	49	41	39	19	15	67	64	55	51	44	42	21	18	69	68	60	56	51	48	26	22									
	1000 (472)	0.018 (4.5)	68	63	55	52	41	40	20	17	69	65	57	53	44	43	22	19	71	68	62	58	55	52	26	22									
	1100 (519)	0.021 (5.2)	68	64	57	53	45	43	21	18	70	66	59	55	48	45	24	20	72	69	63	58	55	52	27	24									
	1400 (661)	0.028 (7.0)	72	70	62	59	52	50	28	25	74	71	64	62	54	52	29	26	76	74	67	64	58	56	33	29									
	1700 (802)	0.036 (9.0)	76	74	65	64	59	55	33	29	78	75	67	66	59	56	34	31	80	78	70	69	63	59	38	34									
512 12 inch	430 (203)	0.000 (0.1)	55	47	46	45	39	35	<15	<15	58	51	48	48	44	41	<15	<15	60	53	49	49	46	44	<15	<15									
	800 (378)	0.001 (0.2)	57	55	52	50	46	40	<15	<15	60	59	54	53	51	46	15	<15	62	59	54	53	51	48	15	<15									
	1450 (684)	0.008 (2.0)	61	59	58	54	50	45	15	<15	64	63	60	57	55	51	20	16	65	64	60	58	56	53	21	18									
	1600 (755)	0.010 (2.5)	62	60	59	55	51	46	16	<15	65	64	61	58	56	52	21	18	67	66	62	59	58	55	24	20									
	1950 (920)	0.015 (3.7)	64	61	59	56	52	48	18	<15	67	65	61	59	57	54	22	19	70	68	64	62	61	59	26	22									
	2200 (1038)	0.022 (5.5)	64	61	60	57	53	48	18	<15	68	65	62	60	58	55	22	19	71	69	65	63	62	60	27	24									
	2500 (1180)	0.025 (6.2)	66	62	61	57	53	50	19	15	70	66	64	61	59	57	24	20	73	70	67	64	63	62	28	25									

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3. Performance data is obtained from laboratory testing in accordance with AHRI 880-2011 and ANSI / ASHRAE 130-2008.
4. NC values are calculated using attenuation credits outlined in Appendix E of AHRI 885-2008.
5. Discharge Sound power levels shown with End Reflection Corrections Included in dB (ref: 10^{-12} watts).
6. Minimum Ps is the static pressure drop across the air terminal unit while the inlet damper is in the wide-open position at a given airflow rate.

TH-500

DISCHARGE SOUND POWER at ΔPs = 0.50, 0.75 and 1.0 in. wg continued

Unit Size	CFM (L/s)		Min Ps in. wg (Pa)		ΔPs = 0.50 in. wg (125 Pa)								ΔPs = 0.75 in. wg (187 Pa)								ΔPs = 1.0 in. wg (250 Pa)							
					Octave Band Sound Power, Lw, dB							NC w/ SA	Octave Band Sound Power, Lw, dB							NC w/ SA	Octave Band Sound Power, Lw, dB							NC w/ SA
					2	3	4	5	6	7	NC		2	3	4	5	6	7	NC		2	3	4	5	6	7	NC	
514 14 inch	550 (260)	0.000 (0.0)	46	38	36	34	27	22	<15	<15	51	45	43	41	36	31	<15	<15	57	51	49	49	44	39	<15	<15		
	925 (437)	0.001 (0.2)	46	38	38	36	30	23	<15	<15	52	45	45	44	39	32	<15	<15	57	52	51	51	47	42	<15	<15		
	1600 (755)	0.003 (0.7)	49	43	43	42	37	32	<15	<15	55	49	49	48	44	40	<15	<15	60	55	54	55	52	48	<15	<15		
	1900 (897)	0.004 (1.0)	51	45	45	44	40	36	<15	<15	56	51	50	50	47	44	<15	<15	60	56	55	56	54	51	15	<15		
	2100 (991)	0.005 (1.2)	53	48	49	48	44	41	<15	<15	57	53	53	53	50	47	<15	<15	62	57	57	58	57	54	18	<15		
	2600 (1227)	0.006 (1.5)	58	52	52	51	48	47	<15	<15	61	56	55	56	54	52	16	<15	65	59	59	60	59	57	21	<15		
	3250 (1534)	0.007 (1.7)	64	57	54	54	52	55	19	<15	66	60	57	58	56	58	22	<15	67	62	60	61	61	60	24	16		
516 16 inch	750 (354)	0.001 (0.4)	48	43	41	33	29	25	<15	<15	54	49	45	40	37	34	<15	<15	60	55	53	48	46	43	<15	<15		
	1100 (519)	0.006 (1.5)	50	45	43	36	32	26	<15	<15	56	51	47	43	40	35	<15	<15	62	57	53	50	48	44	<15	<15		
	1500 (708)	0.010 (2.6)	53	48	45	41	36	31	<15	<15	58	53	50	47	43	39	<15	<15	64	59	56	53	51	47	15	<15		
	2400 (1133)	0.023 (5.7)	60	55	53	50	44	40	<15	<15	64	59	57	54	50	46	15	<15	68	63	61	58	56	52	20	18		
	2800 (1321)	0.030 (7.5)	64	58	58	55	49	44	<15	<15	67	62	61	58	54	49	19	16	71	66	64	61	59	55	24	21		
	3600 (1699)	0.045 (11.1)	69	63	64	60	55	50	20	18	71	66	65	62	59	54	24	21	74	69	67	64	63	58	27	25		
	4400 (2076)	0.060 (15.0)	74	67	68	65	57	53	26	25	75	69	68	66	60	57	27	26	77	71	69	67	64	61	30	29		
520 20 x 16	1100 (519)	0.008 (2.0)	49	43	42	36	34	34	<15	<15	54	50	49	43	42	42	<15	<15	59	56	55	50	49	49	<15	<15		
	1600 (755)	0.024 (6.0)	54	50	48	42	39	36	<15	<15	58	55	53	48	46	43	<15	<15	62	59	58	54	52	50	15	<15		
	2500 (1180)	0.055 (13.7)	64	62	59	54	51	44	19	16	66	64	61	58	55	50	21	19	68	66	63	61	58	55	24	21		
	3000 (1416)	0.060 (14.9)	69	67	64	60	57	52	25	22	71	68	65	62	60	55	26	24	72	69	66	64	62	58	27	25		
	4600 (2171)	0.140 (34.8)	76	73	72	70	63	55	32	29	78	75	74	73	66	59	34	32	79	76	75	75	68	62	35	33		
	5300 (2501)	0.167 (41.6)	80	76	75	74	66	57	35	33	82	78	77	76	69	60	38	35	83	79	78	78	71	63	39	37		
	6200 (2926)	0.202 (50.3)	83	79	78	79	69	58	39	37	85	80	79	81	72	62	40	39	86	81	81	83	74	65	41	40		
524 24 x 16	1250 (590)	0.010 (2.5)	47	52	45	44	38	35	<15	<15	60	58	53	51	48	45	<15	<15	65	63	61	58	58	54	20	18		
	2000 (944)	0.015 (3.7)	60	61	55	52	48	46	18	15	65	64	60	58	54	51	21	19	68	67	64	63	59	57	25	22		
	3000 (1416)	0.020 (5.0)	71	68	63	60	59	56	26	24	74	70	66	63	61	58	28	26	76	72	68	66	62	60	31	28		
	4000 (1888)	0.025 (6.2)	73	69	64	62	62	57	27	25	76	71	68	65	64	60	29	27	79	74	71	67	66	62	33	31		
	5300 (2501)	0.040 (10.0)	77	75	66	67	65	64	34	32	80	77	69	70	68	66	37	34	82	79	72	72	70	67	39	37		
	6000 (2831)	0.050 (12.4)	79	76	69	68	66	65	35	33	82	78	72	71	69	67	38	35	84	80	75	73	71	68	40	38		
	7200 (3398)	0.070 (17.4)	82	80	72	69	69	66	40	38	85	82	75	72	72	68	42	40	87	84	78	74	74	69	45	42		

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4. NC values are calculated using attenuation credits outlined in Appendix E of AHRI 885-2008.
5. Discharge Sound power levels shown with End Reflection Corrections Included in dB (ref: 10⁻¹² watts).
6. Minimum Ps is the static pressure drop across the air terminal unit while the inlet damper is in the wide-open position at a given airflow rate.

TH-500

DISCHARGE SOUND POWER at $\Delta P_s = 1.50, 2.0$ and 3.0 in. wg

Unit Size	CFM (L/s)	Min Ps in. wg (Pa)		$\Delta P_s = 1.5$ in. wg (375 Pa)								$\Delta P_s = 2.0$ in. wg (500 Pa)								$\Delta P_s = 3.0$ in. wg (750 Pa)							
				Octave Band Sound Power, Lw, dB							NC w/ SA	Octave Band Sound Power, Lw, dB							NC w/ SA	Octave Band Sound Power, Lw, dB							NC w/ SA
				2	3	4	5	6	7	NC		2	3	4	5	6	7	NC		2	3	4	5	6	7	NC	
504 / 505 4 & 5 inch	50 (24)	0.005 (1)	62	57	52	49	41	33	17	<15	62	57	52	49	41	33	17	<15	64	59	52	51	43	35	20	17	
	100 (47)	0.015 (4)	63	58	54	49	42	36	18	16	63	58	54	49	42	36	18	16	65	60	54	51	44	38	21	18	
	150 (71)	0.027 (7)	64	59	55	50	44	38	20	17	64	59	55	50	44	38	20	17	66	61	55	52	46	40	22	20	
	200 (94)	0.038 (9)	65	60	55	51	46	39	21	18	65	60	55	51	46	39	21	18	67	62	55	53	48	41	23	21	
	250 (118)	0.059 (15)	66	61	57	51	47	42	22	20	66	61	57	51	47	42	22	20	68	63	59	53	49	44	25	22	
	300 (142)	0.071 (18)	66	63	59	52	48	45	21	16	66	63	59	52	48	45	21	16	68	65	61	54	50	47	24	19	
506 6 inch	100 (47)	0.005 (1.2)	63	58	54	49	42	36	18	16	63	58	54	49	42	36	18	16	65	60	54	51	44	38	21	18	
	200 (94)	0.020 (5.0)	65	60	55	51	46	39	21	18	65	60	55	51	46	39	21	18	67	62	55	53	48	41	23	21	
	300 (142)	0.045 (11.2)	66	63	59	52	48	45	21	16	66	63	59	52	48	45	21	16	68	65	61	54	50	47	24	19	
	400 (189)	0.080 (19.9)	67	64	60	53	49	49	22	18	67	64	60	53	49	49	22	18	69	67	62	55	51	51	26	21	
	500 (236)	0.136 (33.9)	70	68	64	58	54	52	27	22	70	68	64	58	54	52	27	22	72	70	66	60	56	54	29	25	
	600 (283)	0.180 (44.8)	71	70	66	62	57	53	29	25	71	70	66	62	57	53	29	25	73	72	68	64	59	55	32	27	
508 8 inch	200 (94)	0.000 (0.0)	66	60	54	50	46	44	22	0	67	61	55	52	48	46	23	21	68	62	56	54	50	48	25	22	
	300 (142)	0.001 (0.2)	68	64	56	53	49	48	22	0	69	65	57	55	51	50	24	20	70	66	58	57	53	52	25	21	
	600 (283)	0.003 (0.7)	73	68	59	56	53	52	27	22	74	69	60	58	55	54	29	26	75	70	61	60	57	56	30	27	
	700 (330)	0.005 (1.2)	75	71	62	58	55	53	31	25	76	72	63	60	57	55	32	29	77	73	64	62	59	57	33	30	
	1000 (472)	0.008 (2.0)	80	75	67	66	61	58	34	33	81	76	68	68	63	60	35	32	82	77	69	70	65	62	37	34	
	1100 (519)	0.009 (2.2)	81	76	69	68	62	60	35	36	82	77	70	70	64	62	37	34	83	78	71	72	66	64	38	35	
510 10 inch	300 (142)	0.002 (0.5)	62	62	56	53	48	45	20	15	62	62	56	53	48	45	20	16	64	64	57	55	50	48	22	19	
	600 (283)	0.009 (2.2)	68	66	61	57	52	49	25	20	68	66	61	57	52	49	25	21	70	68	63	59	55	53	27	24	
	800 (378)	0.013 (3.2)	70	68	63	58	54	51	26	21	70	68	63	58	54	51	26	22	72	70	65	61	57	53	28	25	
	1000 (472)	0.018 (4.5)	72	69	64	59	55	52	27	22	72	69	64	59	55	52	27	24	74	71	66	61	57	54	29	26	
	1100 (519)	0.021 (5.2)	73	70	65	60	56	53	28	24	73	70	65	60	56	53	28	25	74	72	68	62	59	55	31	27	
	1400 (661)	0.028 (7.0)	77	75	69	65	60	57	34	29	77	75	69	65	60	57	34	31	79	76	71	66	63	60	35	32	
	1700 (802)	0.036 (9.0)	81	79	72	70	64	60	39	34	81	79	72	70	64	60	39	35	83	81	74	71	66	64	41	38	
512 12 inch	430 (203)	0.000 (0.1)	61	55	49	50	47	46	<15	<15	62	56	50	51	48	47	<15	<15	64	58	52	53	50	49	16	<15	
	800 (378)	0.001 (0.2)	63	58	52	53	50	49	<15	<15	64	59	53	54	51	50	15	<15	66	61	55	56	53	52	18	<15	
	1450 (684)	0.008 (2.0)	66	64	59	58	56	54	21	16	67	65	60	59	57	55	22	19	69	67	62	61	59	57	25	21	
	1600 (755)	0.010 (2.5)	68	67	62	60	59	57	25	20	69	68	63	61	60	58	26	22	71	70	65	63	62	60	28	25	
	1950 (920)	0.015 (3.7)	73	71	66	65	64	63	29	25	74	72	67	66	65	64	31	27	76	74	69	68	67	66	33	29	
	2200 (1038)	0.022 (5.5)	74	72	67	66	66	64	31	26	75	73	68	67	67	65	32	28	77	75	70	69	69	67	34	31	
	2500 (1180)	0.025 (6.2)	76	73	69	67	67	66	32	27	77	74	70	68	68	67	33	29	79	76	72	70	70	69	35	32	

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- Discharge Sound power levels shown with End Reflection Corrections Included in dB (ref: 10^{-12} watts).
- Minimum Ps is the static pressure drop across the air terminal unit while the inlet damper is in the wide-open position at a given airflow rate.

TH-500

DISCHARGE SOUND POWER at ΔPs = 1.50, 2.0 and 3.0 in. wg continued

Unit Size	CFM (L/s)		Min Ps in. wg (Pa)		ΔPs = 1.5 in. wg (375 Pa)								ΔPs = 2.0 in. wg (500 Pa)								ΔPs = 3.0 in. wg (750 Pa)							
					Octave Band Sound Power, Lw, dB							NC w/ SA	Octave Band Sound Power, Lw, dB							NC w/ SA	Octave Band Sound Power, Lw, dB							NC w/ SA
					2	3	4	5	6	7	NC		2	3	4	5	6	7	NC		2	3	4	5	6	7	NC	
514 14 inch	550 (260)	0.000 (0.0)	62	58	56	56	53	48	15	<15	64	60	58	58	55	50	18	15	67	63	61	61	58	53	21	19		
	925 (437)	0.001 (0.2)	63	59	57	58	55	51	15	<15	65	61	59	60	57	53	18	15	68	64	62	63	60	56	21	19		
	1600 (755)	0.003 (0.7)	65	61	60	61	59	56	20	<15	67	63	62	63	61	58	22	18	70	66	65	66	64	61	25	21		
	1900 (897)	0.004 (1.0)	65	61	60	62	61	58	22	<15	67	63	62	64	63	60	24	18	70	66	65	67	66	63	27	21		
	2100 (991)	0.005 (1.2)	66	62	61	63	63	60	24	<15	68	64	63	65	65	62	26	19	71	67	66	68	68	65	29	22		
	2600 (1227)	0.006 (1.5)	68	63	62	64	64	62	26	16	70	65	64	66	66	64	28	20	73	68	67	69	69	67	31	24		
	3250 (1534)	0.007 (1.7)	69	64	63	65	65	63	27	17	71	66	65	67	67	65	29	21	74	69	68	70	70	68	32	25		
516 16 inch	750 (354)	0.001 (0.4)	66	61	57	55	54	52	18	<15	67	62	58	57	56	54	19	16	69	64	60	59	58	56	21	19		
	1100 (519)	0.006 (1.5)	67	62	59	57	56	53	19	<15	68	63	60	59	58	55	20	18	70	65	62	61	60	57	22	20		
	1500 (708)	0.010 (2.6)	69	64	61	59	58	55	21	17	70	65	62	61	60	57	22	20	72	67	64	63	62	59	25	22		
	2400 (1133)	0.023 (5.7)	72	67	64	62	62	58	25	21	73	68	65	64	64	60	26	24	75	70	67	66	66	62	28	26		
	2800 (1321)	0.030 (7.5)	74	69	66	64	64	60	27	23	75	70	67	66	66	62	28	26	77	72	69	68	68	64	31	29		
	3600 (1699)	0.045 (11.1)	76	71	68	66	66	62	29	26	77	72	69	68	68	64	31	29	79	74	71	70	70	66	33	31		
	4400 (2076)	0.060 (15.0)	78	72	69	68	67	64	31	29	79	73	70	70	69	66	32	31	81	75	72	72	71	68	35	34		
520 20 x 16	1100 (519)	0.008 (2.0)	66	64	63	60	59	59	23	16	67	65	64	61	60	60	24	20	68	66	65	62	61	61	25	21		
	1600 (755)	0.024 (6.0)	68	66	64	62	60	59	24	19	69	67	65	63	61	60	25	22	70	68	66	64	62	61	26	24		
	2500 (1180)	0.055 (13.7)	72	70	68	66	64	62	28	24	73	71	69	67	65	63	29	27	74	72	70	68	66	64	31	28		
	3000 (1416)	0.060 (14.9)	74	71	71	71	67	63	29	25	76	73	71	71	67	64	32	29	77	74	72	71	68	65	33	31		
	4600 (2171)	0.140 (34.8)	83	79	78	79	72	67	39	35	84	80	79	80	73	68	40	38	85	81	80	81	74	69	41	39		
	5300 (2501)	0.167 (41.6)	86	82	81	83	75	68	42	39	87	83	82	84	76	69	44	41	88	84	83	85	77	70	45	43		
	6200 (2926)	0.202 (50.3)	89	84	84	88	78	70	45	43	90	85	85	89	79	71	46	45	91	86	86	90	80	72	48	46		
524 24 x 16	1250 (590)	0.010 (2.5)	66	65	62	60	59	58	22	18	67	66	63	61	60	59	24	21	68	67	64	62	61	60	25	22		
	2000 (944)	0.015 (3.7)	70	68	66	64	61	59	26	21	71	69	67	65	62	60	27	25	72	70	68	66	63	61	28	26		
	3000 (1416)	0.020 (5.0)	77	73	69	67	64	62	32	27	78	74	70	68	65	63	33	31	79	75	71	69	66	64	34	32		
	4000 (1888)	0.025 (6.2)	80	76	72	70	67	64	35	31	81	77	73	71	68	65	37	34	82	78	74	72	69	66	38	35		
	5300 (2501)	0.040 (10.0)	86	85	81	77	74	71	46	41	87	86	82	78	75	72	47	45	88	87	83	79	76	73	48	46		
	6000 (2831)	0.050 (12.4)	89	88	84	80	77	74	50	45	90	89	85	81	78	75	51	48	91	90	86	82	79	76	52	50		
	7200 (3398)	0.070 (17.4)	91	90	86	82	79	76	52	47	92	91	87	83	80	77	53	51	93	92	88	84	81	78	54	52		

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5. Discharge Sound power levels shown with End Reflection Corrections Included in dB (ref: 10⁻¹² watts).
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TH-500 CASING LEAKAGE

Casing Leakage, CFM						
Inlet Size	0.25" ΔPs	0.50" ΔPs	1.00" ΔPs	1.50" ΔPs	2.0" ΔPs	3.0" ΔPs
6	2	3	4	5	6	7
8	2	3	5	6	6	8
10	3	4	6	8	9	10
12	3	5	7	9	10	12
14	4	6	9	11	12	15
16	5	7	10	12	14	17
20	5	7	10	12	14	17
24	6	8	12	14	17	20

TH-500 DAMPER LEAKAGE

Damper Leakage, CFM			
Inlet Size	1.5" ΔPs	3.0" ΔPs	6.0" ΔPs
6	3	4	7
8	3	4	7
10	4	5	7
12	4	5	7
14	4	6	8
16	4	6	8
20	N/A	N/A	N/A
24	N/A	N/A	N/A

TH-500 MINIMUM PRESSURES

Unit Size	CFM	Unit ΔP_s (in. wg)	Unit ΔP_t (in. wg)	Unit + 1R Coil, ΔP_s (in. wg)	Unit + 1R Coil, ΔP_t (in. wg)	Unit + 2R Coil, ΔP_s (in. wg)	Unit + 2R Coil, ΔP_t (in. wg)	Unit + 3R Coil, ΔP_s (in. wg)	Unit + 3R Coil, ΔP_t (in. wg)	Unit + 4R Coil, ΔP_s (in. wg)	Unit + 4R Coil, ΔP_t (in. wg)
504 / 505 4-inch 5-inch	100	0.005	0.020	0.02	0.03	0.04	0.05	0.05	0.06	0.05	0.06
	200	0.020	0.079	0.06	0.12	0.10	0.16	0.14	0.20	0.18	0.24
	300	0.045	0.178	0.12	0.25	0.21	0.34	0.29	0.42	0.37	0.50
	400	0.080	0.316	0.20	0.44	0.34	0.58	0.47	0.71	0.60	0.84
506 6-inch	500	0.125	0.494	0.31	0.67	0.51	0.87	0.69	1.05	0.88	1.24
	600	0.180	0.712	0.39	0.92	0.69	1.22	—	—	—	—
508 8-inch	300	0.001	0.039	0.05	0.09	0.10	0.14	0.16	0.20	0.20	0.24
	400	0.001	0.069	0.08	0.15	0.16	0.23	0.24	0.31	0.32	0.39
	500	0.002	0.108	0.11	0.22	0.23	0.34	0.35	0.46	0.46	0.57
	600	0.003	0.155	0.15	0.30	0.32	0.47	0.47	0.62	0.63	0.78
	700	0.004	0.211	0.19	0.40	0.41	0.62	0.61	0.82	0.82	1.03
	800	0.005	0.275	0.25	0.52	0.52	0.79	0.78	1.05	—	—
	900	0.007	0.348	0.31	0.65	0.63	0.97	—	—	—	—
1000	0.008	0.430	0.37	0.79	0.75	1.17	—	—	—	—	
510 10-inch	400	0.004	0.030	0.04	0.07	0.09	0.12	0.13	0.16	0.17	0.20
	600	0.009	0.068	0.09	0.15	0.18	0.24	0.25	0.31	0.35	0.41
	800	0.016	0.121	0.15	0.25	0.29	0.39	0.37	0.47	0.56	0.66
	1000	0.025	0.189	0.21	0.38	0.41	0.58	0.49	0.66	0.81	0.98
	1200	0.036	0.272	0.29	0.52	0.58	0.81	0.65	0.88	—	—
	1400	0.049	0.370	0.38	0.70	0.78	1.10	—	—	—	—
1600	0.063	0.483	0.48	0.90	—	—	—	—	—	—	
512 12-inch	800	0.020	0.070	0.09	0.14	0.19	0.24	0.26	0.31	0.34	0.39
	1000	0.031	0.110	0.14	0.22	0.27	0.35	0.38	0.46	0.49	0.57
	1200	0.045	0.158	0.20	0.31	0.38	0.49	0.52	0.63	0.68	0.79
	1400	0.061	0.215	0.25	0.41	0.49	0.65	0.67	0.83	0.88	1.04
	1600	0.080	0.281	0.32	0.52	0.59	0.79	0.85	1.05	—	—
	1800	0.101	0.356	0.40	0.66	0.72	0.98	—	—	—	—
	2000	0.125	0.439	0.49	0.80	0.87	1.18	—	—	—	—
2200	0.151	0.532	0.57	0.95	—	—	—	—	—	—	

1. ΔP_s = static pressure drop; ΔP_t = total pressure drop.
2. Calculations of ΔP_s and ΔP_t were performed using standard air with a density of 0.075 lbm / cu.ft.
3. Data based on testing standard METALAIRE hot water coils per AHRI Standard 410.
4. Unit ΔP_s and Unit ΔP_t are pressure drops across the air terminal unit while the inlet damper is in the wide-open position.
5. Data applies to air terminal units with hot water coil mounted on the discharge side.
6. "—" is shown when the static pressure drop exceeds 0.50 in. wg.

TH-500 MINIMUM PRESSURES continued

Unit Size	CFM	Unit ΔP_s (in. wg)	Unit ΔP_t (in. wg)	Unit + 1R Coil, ΔP_s (in. wg)	Unit + 1R Coil, ΔP_t (in. wg)	Unit + 2R Coil, ΔP_s (in. wg)	Unit + 2R Coil, ΔP_t (in. wg)	Unit + 3R Coil, ΔP_s (in. wg)	Unit + 3R Coil, ΔP_t (in. wg)	Unit + 4R Coil, ΔP_s (in. wg)	Unit + 4R Coil, ΔP_t (in. wg)
514 14-inch	1000	0.000	0.044	0.06	0.10	0.12	0.16	0.19	0.23	0.25	0.29
	1300	0.000	0.075	0.09	0.16	0.19	0.26	0.29	0.36	0.38	0.45
	1600	0.001	0.113	0.13	0.24	0.27	0.38	0.41	0.52	0.54	0.65
	2000	0.001	0.177	0.18	0.36	0.39	0.57	0.59	0.77	0.79	0.97
	2300	0.001	0.234	0.24	0.47	0.50	0.73	0.75	0.98	—	—
	2600	0.002	0.299	0.29	0.59	0.61	0.91	—	—	—	—
	3000	0.002	0.398	0.37	0.77	0.78	1.18	—	—	—	—
	3300	0.003	0.482	0.44	0.92	—	—	—	—	—	—
516 16-inch	1600	0.030	0.094	0.12	0.18	0.23	0.29	0.33	0.39	0.45	0.51
	2000	0.044	0.144	0.18	0.28	0.33	0.43	0.48	0.58	0.62	0.72
	2300	0.052	0.185	0.22	0.35	0.42	0.55	0.60	0.73	0.78	0.91
	2600	0.070	0.239	0.28	0.45	0.52	0.69	0.75	0.92	—	—
	3000	0.085	0.310	0.36	0.58	0.66	0.88	0.95	1.17	—	—
	3300	0.100	0.373	0.42	0.69	0.77	1.04	—	—	—	—
	3600	0.113	0.438	0.48	0.81	0.89	1.22	—	—	—	—
	4000	0.131	0.532	0.58	0.98	—	—	—	—	—	—
520 20 x 16	1500	0.008	0.028	0.05	0.07	0.11	0.13	0.16	0.18	0.21	0.23
	2000	0.013	0.049	0.08	0.12	0.17	0.21	0.25	0.29	0.33	0.37
	2500	0.021	0.077	0.13	0.19	0.25	0.31	0.37	0.43	0.48	0.54
	3000	0.030	0.111	0.18	0.26	0.35	0.43	0.50	0.58	0.66	0.74
	3500	0.041	0.151	0.23	0.34	0.45	0.56	0.65	0.76	0.86	0.97
	4000	0.053	0.198	0.29	0.44	0.56	0.71	0.82	0.97	—	—
	5000	0.083	0.309	0.44	0.67	0.82	1.05	—	—	—	—
	6000	0.120	0.445	0.61	0.94	—	—	—	—	—	—
524 24 x 16	2000	0.014	0.040	0.06	0.09	0.12	0.15	0.17	0.20	0.23	0.26
	3000	0.031	0.090	0.13	0.19	0.24	0.30	0.35	0.41	0.45	0.51
	4000	0.056	0.160	0.22	0.32	0.40	0.50	0.58	0.68	0.75	0.85
	5000	0.087	0.250	0.33	0.49	0.59	0.75	0.84	1.00	—	—
	6000	0.125	0.360	0.45	0.68	0.81	1.04	—	—	—	—
	6500	0.152	0.428	0.52	0.80	—	—	—	—	—	—
	7000	0.173	0.493	0.59	0.91	—	—	—	—	—	—

- ΔP_s = static pressure drop; ΔP_t = total pressure drop.
- Calculations of ΔP_s and ΔP_t were performed using standard air with a density of 0.075 lbm / cu.ft.
- Data based on testing standard METALAIRE hot water coils per AHRI Standard 410.
- Unit ΔP_s and Unit ΔP_t are pressure drops across the air terminal unit while the inlet damper is in the wide-open position.
- Data applies to air terminal units with hot water coil mounted on the discharge side.
- “—” is shown when the static pressure drop exceeds 0.50 in. wg

TH-500 HOT WATER COILS MBH SELECTION DATA – IMPERIAL UNITS

Unit Size	Rows	Connection OD (in)	GPM	Head Loss (ft-H ₂ O)	CFM							
					100	200	300	350	400	450	500	600
504 505 506	1	0.625	1	0.46	5.1	7.2	8.6	9.1	9.6	10.0	10.3	11.0
			2	1.76	5.4	7.8	9.5	10.1	10.7	11.2	11.7	12.5
			3	3.86	5.5	8.1	9.8	10.5	11.2	11.7	12.2	13.2
			4	6.73	5.6	8.2	10.0	10.7	11.4	12.0	12.6	13.5
			Airside Ps		0.01	0.04	0.07	0.10	0.12	0.15	0.18	0.24
504 505 506	2	0.875	1	0.12	7.5	11.1	13.4	14.3	15.0	15.7	16.3	17.3
			2	0.46	8.1	12.5	15.5	16.8	17.8	18.8	19.7	21.2
			4	1.75	8.4	13.4	17.0	18.4	19.8	21.0	22.1	24.1
			6	3.84	8.5	13.7	17.5	19.1	20.6	21.9	23.1	25.2
			Airside Ps		0.03	0.08	0.16	0.21	0.26	0.32	0.38	0.51
504 505 506	3	0.875	1	0.07	8.9	13.2	15.9	16.8	17.7	18.4	19.0	20.0
			2	0.28	9.6	15.2	19.1	20.6	21.9	23.1	24.1	25.9
			4	1.09	10.0	16.5	21.3	23.2	25.0	26.6	28.0	30.5
			6	2.44	10.2	17.0	22.2	24.3	26.3	28.0	29.7	32.5
			Airside Ps		0.04	0.12	0.24	0.31	0.39	0.47	0.56	0.77
504 505 506	4	0.875	1	0.05	9.7	14.5	17.4	18.4	19.3	20.1	20.7	21.7
			2	0.20	10.5	17.0	21.4	23.2	24.7	26.0	27.1	29.1
			4	0.79	10.9	18.6	24.2	26.6	28.7	30.6	32.3	35.3
			6	1.77	11.1	19.2	25.3	28.0	30.4	32.5	34.5	38.0
			Airside Ps		0.05	0.16	0.32	0.41	0.52	0.63	0.75	1.02

Unit Size	Rows	Connection OD (in)	GPM	Head Loss (ft-H ₂ O)	CFM							
					300	400	500	600	700	800	900	1000
508	1	0.625	1	0.63	9.9	11.1	12.1	12.9	13.5	14.1	14.6	15.1
			2	2.39	10.8	12.4	13.7	14.7	15.6	16.4	17.1	17.7
			3	5.24	11.3	12.9	14.3	15.4	16.4	17.3	18.1	18.8
			4	9.14	11.5	13.2	14.7	15.9	16.9	17.9	18.7	19.5
			Airside Ps		0.05	0.07	0.11	0.15	0.19	0.24	0.30	0.36
	2	0.875	1	0.17	15.1	17.1	18.6	19.8	20.9	21.7	22.1	22.5
			2	0.63	17.4	20.2	22.5	24.3	25.9	27.3	27.9	28.5
			4	2.39	18.9	22.3	25.1	27.5	29.6	31.5	32.3	33.1
			6	5.22	19.5	23.2	26.2	28.8	31.1	33.2	34.2	35.1
			Airside Ps		0.10	0.16	0.23	0.32	0.41	0.51	0.57	0.62
	3	0.875	1	0.08	18.0	20.2	21.8	23.1	24.1	25.0	25.7	26.3
			2	0.31	21.3	24.8	27.5	29.8	31.6	33.2	34.5	35.8
			4	1.21	23.5	28.0	31.7	34.8	37.5	39.9	41.9	43.8
			8	4.78	24.8	30.0	34.3	38.1	41.5	44.4	47.0	49.5
			Airside Ps		0.15	0.24	0.35	0.47	0.61	0.77	0.94	1.11
	4	0.875	2	0.21	23.8	27.8	30.9	33.4	35.4	37.1	38.5	39.9
			4	0.84	26.6	31.9	36.3	40.0	43.1	45.9	48.2	50.5
6			1.87	27.6	33.5	38.5	42.8	46.5	49.8	52.6	55.4	
8			3.32	28.2	34.4	39.8	44.4	48.5	52.1	55.2	58.3	
Airside Ps			0.20	0.32	0.46	0.63	0.82	1.02	1.26	1.49		

Heating capacity data in tables assume an entering water temperature (EWT) of 180°F, and an entering air temperature (EAT) of 65°F, which corresponds to a temperature difference of 115°F. Smaller temperature differences will result in a decrease of heating capacity. To obtain the heating capacity at another temperature difference, refer to the hot water coil notes located in the Reference Section.

TH-500

HOT WATER COILS MBH SELECTION DATA – IMPERIAL UNITS continued

Unit Size	Rows	Connection OD (in)	GPM	Head Loss (ft-H ₂ O)	CFM							
					500	600	700	800	1000	1200	1400	1600
510	1	0.625	1	0.11	13.4	14.3	15.0	15.6	16.7	17.5	18.2	18.7
			2	0.43	15.7	16.9	17.9	18.8	20.4	21.6	22.7	23.6
			4	1.63	17.2	18.6	19.9	21.1	23.0	24.7	26.0	27.3
			6	3.58	17.8	19.3	20.7	22.0	24.1	25.9	27.5	28.8
			Airside Ps		0.06	0.08	0.10	0.13	0.19	0.25	0.33	0.42
510	2	0.875	1	0.36	20.5	21.9	23.0	24.0	25.5	26.7	27.7	28.5
			2	1.43	25.2	27.4	29.3	30.9	33.6	35.8	37.6	39.1
			3	3.20	27.3	29.9	32.2	34.2	37.6	40.4	42.8	44.8
			4	5.68	28.5	31.4	34.0	36.2	40.0	43.2	46.0	48.3
			Airside Ps		0.12	0.17	0.22	0.27	0.39	0.54	0.69	0.87
510	3	0.875	1	0.24	23.7	25.1	26.2	27.1	28.6	29.6	30.4	31.1
			2	0.94	30.4	33.0	35.1	36.9	39.9	42.2	44.0	45.5
			4	3.79	35.3	39.0	42.2	45.0	49.8	53.6	56.8	59.6
			6	8.53	37.3	41.6	45.3	48.6	54.3	59.0	63.0	66.5
			Airside Ps		0.19	0.25	0.33	0.41	0.59	0.80	1.04	1.30
510	4	0.875	2	0.83	34.3	37.3	39.7	41.7	45.0	47.5	49.5	—
			4	3.35	40.3	44.7	48.6	51.9	57.5	62.0	65.8	—
			6	7.54	42.7	47.9	52.4	56.5	63.4	69.1	73.9	—
			8	13.41	44.0	49.6	54.6	59.0	66.8	73.2	78.8	—
			Airside Ps		0.25	0.34	0.43	0.54	0.79	1.07	1.39	—

Unit Size	Rows	Connection OD (in)	GPM	Head Loss (ft-H ₂ O)	CFM							
					800	1000	1200	1400	1600	1800	2000	2200
512	1	0.875	2	0.54	22.2	24.1	25.7	27.1	28.2	29.3	30.2	31.0
			4	2.07	24.8	27.3	29.4	31.2	32.7	34.1	35.4	36.5
			6	4.53	25.9	28.6	30.9	32.9	34.6	36.2	37.6	38.9
			8	7.90	26.5	29.3	31.7	33.8	35.7	37.4	38.9	40.3
			Airside Ps		0.07	0.11	0.15	0.19	0.24	0.30	0.36	0.42
512	2	0.875	2	0.33	34.1	37.2	39.7	41.7	43.4	46.2	47.3	48.4
			4	1.30	40.4	44.9	48.7	51.8	54.6	59.2	61.2	62.9
			6	2.89	43.1	48.3	52.7	56.5	59.9	65.5	67.9	70.1
			8	5.10	44.6	50.3	55.1	59.2	62.9	69.2	71.9	74.4
			Airside Ps		0.16	0.23	0.32	0.41	0.51	0.74	0.87	1.01
512	3	0.875	2	0.23	42.4	46.0	48.9	51.2	53.1	54.7	56.1	57.3
			4	0.90	51.3	57.2	62.0	66.1	69.6	72.6	75.2	77.6
			8	3.55	57.2	64.9	71.5	77.2	82.2	86.7	90.7	94.3
			12	7.95	59.5	68.0	75.4	81.8	87.6	92.7	97.4	101.6
			Airside Ps		0.24	0.35	0.47	0.61	0.77	0.93	1.11	1.31
512	4	0.875	2	0.42	47.6	51.6	54.7	57.2	59.2	60.9	62.3	—
			4	0.73	58.6	65.6	71.2	76.0	79.7	83.4	86.4	—
			8	2.89	65.9	75.3	83.4	90.4	96.5	101.9	106.7	—
			12	6.47	68.7	79.2	88.4	96.4	103.5	110.0	115.8	—
			Airside Ps		0.32	0.46	0.63	0.82	1.02	1.25	1.49	—

Heating capacity data in tables assume an entering water temperature (EWT) of 180°F, and an entering air temperature (EAT) of 65°F, which corresponds to a temperature difference of 115°F. Smaller temperature differences will result in a decrease of heating capacity. To obtain the heating capacity at another temperature difference, refer to the hot water coil notes located in the Reference Section.

TH-500 HOT WATER COILS MBH SELECTION DATA – IMPERIAL UNITS continued

Unit Size	Rows	Connection OD (in)	GPM	Head Loss (ft-H ₂ O)	CFM							
					600	700	800	1000	1500	2000	2500	3000
514	1	0.625	1	0.20	19.8	21.9	22.7	23.5	26.3	28.2	29.5	30.6
			2	0.74	23.4	26.6	27.9	29.1	33.6	36.9	39.3	41.3
			3	3.36	25.9	29.8	31.4	33.0	37.1	41.1	44.2	46.8
			4	6.17	26.8	31.1	32.9	34.6	39.1	43.6	47.1	50.1
			Airside Ps		0.02	0.04	0.05	0.06	0.11	0.19	0.27	0.37
514	2	0.875	2	0.39	34.4	39.4	41.4	43.3	50.1	54.7	58.0	60.6
			4	1.52	39.7	46.6	49.6	52.3	63.0	70.7	76.6	81.4
			6	3.36	41.8	49.7	53.1	56.2	68.9	78.4	85.8	91.9
			8	5.84	43.0	47.4	51.3	58.4	72.3	82.9	91.3	98.2
			Airside Ps		0.05	0.09	0.10	0.12	0.24	0.39	0.57	0.78
514	3	0.875	2	0.25	42.8	46.1	48.9	53.5	61.2	66.0	69.4	71.8
			6	2.20	52.1	57.6	62.7	71.5	88.5	100.8	110.3	117.9
			8	3.89	53.4	59.4	64.8	74.5	93.4	107.6	118.7	127.8
			10	6.05	54.3	60.5	66.2	76.3	96.6	112.1	124.4	134.5
			Airside Ps		0.08	0.10	0.13	0.19	0.37	0.59	0.86	1.17
514	4	0.875	4	0.78	55.4	61.2	66.3	75.0	90.9	101.7	109.5	115.5
			6	1.26	58.3	64.9	71.0	81.6	101.9	116.5	127.5	136.3
			8	3.08	59.8	66.9	73.5	85.2	108.2	125.3	138.6	149.4
			12	6.89	61.3	69.0	76.1	89.0	115.1	135.3	151.6	165.0
			Airside Ps		0.11	0.14	0.17	0.25	0.49	0.79	1.15	1.56

Unit Size	Rows	Connection OD (in)	GPM	Head Loss (ft-H ₂ O)	CFM							
					1000	1500	2000	2500	3000	3500	4000	4200
516	1	0.625	1	0.23	25.4	28.5	30.5	32.0	33.2	34.1	34.8	35.1
			2	0.86	31.6	36.7	40.3	43.1	45.3	47.1	48.7	49.2
			4	3.25	35.9	42.8	47.9	51.9	55.3	58.1	60.5	61.4
			6	7.12	37.6	45.3	51.1	55.8	59.7	63.0	65.9	66.9
			Airside Ps		0.04	0.08	0.14	0.20	0.27	0.36	0.45	0.49
516	2	0.875	2	0.41	46.2	53.7	58.8	62.4	65.2	67.5	69.3	69.9
			4	1.59	55.8	67.8	76.4	83.0	88.4	92.7	96.5	97.8
			6	2.52	60.0	74.2	84.8	93.1	100.0	105.8	110.8	112.6
			8	6.21	62.3	77.9	89.7	99.2	107.1	113.8	119.6	121.7
			Airside Ps		0.09	0.18	0.29	0.42	0.57	0.74	0.93	1.01
516	3	0.875	2	0.26	57.1	65.5	70.8	74.4	77.0	79.1	80.7	81.3
			4	1.03	70.4	85.7	96.3	104.2	110.3	115.3	119.4	120.8
			8	4.06	78.9	100.0	115.9	128.5	138.8	147.4	141.1	157.5
			10	6.31	80.8	103.4	120.7	134.6	146.1	155.9	154.8	167.4
			Airside Ps		0.14	0.27	0.44	0.63	0.86	1.11	1.40	1.51
516	4	0.875	2	0.20	63.2	72.1	77.5	81.0	83.5	85.5	—	—
			4	0.80	79.5	97.1	109.1	117.8	124.4	129.7	—	—
			8	1.80	86.1	115.1	134.3	149.3	161.4	171.5	—	—
			10	4.95	91.8	119.3	140.4	157.3	171.2	182.8	—	—
			Airside Ps		0.18	0.36	0.58	0.84	1.15	1.49	—	—

Heating capacity data in tables assume an entering water temperature (EWT) of 180°F, and an entering air temperature (EAT) of 65°F, which corresponds to a temperature difference of 115°F. Smaller temperature differences will result in a decrease of heating capacity. To obtain the heating capacity at another temperature difference, refer to the hot water coil notes located in the Reference Section.

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HOT WATER COILS MBH SELECTION DATA – IMPERIAL UNITS continued

Unit Size	Rows	Connection OD (in)	GPM	Head Loss (ft-H ₂ O)	CFM							
					2000	2500	3000	3500	4000	4500	5000	5500
520	1	0.875	2	0.33	43.8	46.7	49.0	50.9	52.4	53.8	54.9	55.9
			4	1.30	54.0	58.5	62.3	65.4	68.1	70.5	72.6	74.4
			6	2.89	58.6	64.0	68.5	72.4	75.7	78.7	81.3	83.7
			8	5.10	61.2	67.2	72.2	76.5	80.2	83.6	86.6	89.3
			Airside Ps		0.07	0.11	0.15	0.19	0.24	0.30	0.36	0.42
520	2	0.875	2	0.56	63.3	67.2	70.2	72.5	74.4	75.9	77.3	78.4
			4	1.12	84.3	91.8	97.8	102.7	106.9	110.4	113.5	116.2
			8	3.89	100.7	111.9	121.3	129.2	136.0	142.1	147.4	152.2
			10	6.05	104.8	117.1	127.3	136.2	143.9	150.7	156.8	162.2
			Airside Ps		0.16	0.23	0.32	0.41	0.51	0.62	0.74	0.87
520	3	1.125	4	0.44	97.4	106.1	112.9	118.5	123.1	127.1	130.5	133.4
			6	0.97	109.4	121.1	130.6	138.5	145.3	151.2	156.3	160.8
			8	1.71	116.3	130.0	141.3	151.0	159.3	166.5	173.0	178.7
			12	3.79	124.1	140.1	153.7	165.5	175.8	185.0	193.2	200.7
			Airside Ps		0.19	0.29	0.40	0.52	0.66	0.81	0.97	1.15
520	4	1.125	6	0.62	124.6	137.8	148.3	157.0	164.3	170.5	175.8	180.6
			10	1.70	139.8	157.5	172.4	184.9	195.8	205.3	213.8	221.3
			14	3.31	147.2	167.5	184.8	199.7	212.8	224.4	234.9	244.3
			18	5.44	151.6	173.5	192.3	208.8	223.4	236.5	248.3	259.0
			Airside Ps		0.26	0.38	0.53	0.69	0.88	1.08	1.29	1.53

Unit Size	Rows	Connection OD (in)	GPM	Head Loss (ft-H ₂ O)	CFM							
					2000	2500	3000	3500	4000	5000	6000	7000
524	1	0.875	2	0.36	48.7	52.0	54.6	56.7	58.5	61.3	63.5	65.3
			4	1.41	60.3	65.7	70.0	73.7	76.8	82.0	86.2	89.6
			6	3.13	65.6	71.9	77.2	81.8	85.7	92.3	97.7	102.3
			8	5.52	68.5	75.6	81.4	86.6	91.0	98.6	104.8	110.0
			Airside Ps		0.05	0.07	0.10	0.13	0.16	0.24	0.32	0.42
524	2	0.875	2	0.27	68.4	72.7	75.9	78.4	80.5	83.6	85.9	87.6
			4	1.05	91.7	100.2	107.0	112.6	117.3	124.8	130.6	135.2
			8	4.15	109.9	122.7	133.4	142.6	150.5	163.8	174.4	183.2
			10	6.45	114.3	128.4	140.2	150.5	159.4	174.5	186.7	197.0
			Airside Ps		0.11	0.16	0.21	0.27	0.34	0.50	0.68	0.88
524	3	1.125	3	0.28	94.7	102.0	107.6	112.0	115.6	121.1	125.1	128.2
			6	1.07	118.8	132.0	142.9	151.9	159.6	172.0	181.7	189.6
			10	2.92	131.1	148.2	162.7	175.2	186.0	204.3	219.0	231.3
			15	6.46	138.0	157.5	174.3	189.1	202.2	224.5	243.1	258.8
			Airside Ps		0.13	0.19	0.26	0.34	0.43	0.64	0.88	1.16
524	4	1.125	4	0.29	117.9	128.3	136.3	142.6	147.7	155.5	161.3	165.7
			8	1.16	144.4	162.4	177.2	189.7	200.3	217.6	231.2	242.1
			12	2.58	155.0	176.8	195.4	211.3	225.3	248.6	267.5	283.2
			18	5.76	162.7	187.5	209.1	228.0	244.9	273.7	297.6	317.9
			Airside Ps		0.17	0.25	0.35	0.46	0.58	0.86	1.18	1.54

Heating capacity data in tables assume an entering water temperature (EWT) of 180°F, and an entering air temperature (EAT) of 65°F, which corresponds to a temperature difference of 115°F. Smaller temperature differences will result in a decrease of heating capacity. To obtain the heating capacity at another temperature difference, refer to the hot water coil notes located in the Reference Section.

TH-500 HOT WATER COILS kW SELECTION DATA – METRIC UNITS

Unit Size	Rows	Connection OD (mm)	Water Flow (L/s)	Head Loss (kPa)	Airflow (L/s)							
					47	94	142	165	189	212	236	283
504 505 506	1	15.9	0.06	1.37	1.5	2.1	2.5	2.7	2.8	2.9	3.0	3.2
			0.13	5.26	1.6	2.3	2.8	3.0	3.1	3.3	3.4	3.7
			0.19	11.54	1.6	2.4	2.9	3.1	3.3	3.4	3.6	3.9
			0.25	20.12	1.6	2.4	2.9	3.1	3.3	3.5	3.7	4.0
			Airsides Ps (kPa)		0.00	0.01	0.02	0.02	0.03	0.04	0.04	0.06
504 505 506	2	22.2	0.06	0.36	2.2	3.3	3.9	4.2	4.4	4.6	4.8	5.1
			0.13	1.37	2.4	3.7	4.5	4.9	5.2	5.5	5.8	6.2
			0.25	5.23	2.5	3.9	5.0	5.4	5.8	6.1	6.5	7.1
			0.38	11.48	2.5	4.0	5.1	5.6	6.0	6.4	6.8	7.4
			Airsides Ps (kPa)		0.01	0.02	0.04	0.05	0.06	0.08	0.09	0.13
504 505 506	3	22.2	0.06	0.21	2.6	3.9	4.7	4.9	5.2	5.4	5.6	5.9
			0.13	0.84	2.8	4.5	5.6	6.0	6.4	6.8	7.1	7.6
			0.25	3.26	2.9	4.8	6.2	6.8	7.3	7.8	8.2	8.9
			0.38	7.29	3.0	5.0	6.5	7.1	7.7	8.2	8.7	9.5
			Airsides Ps (kPa)		0.01	0.03	0.06	0.08	0.10	0.12	0.14	0.19
504 505 506	4	22.2	0.06	0.15	2.8	4.2	5.1	5.4	5.7	5.9	6.1	6.4
			0.13	0.60	3.1	5.0	6.3	6.8	7.2	7.6	7.9	8.5
			0.25	2.36	3.2	5.4	7.1	7.8	8.4	9.0	9.5	10.3
			0.38	5.29	3.3	5.6	7.4	8.2	8.9	9.5	10.1	11.1
			Airsides Ps (kPa)		0.01	0.04	0.08	0.10	0.13	0.16	0.19	0.25

Unit Size	Rows	Connection OD (mm)	Water Flow (L/s)	Head Loss (kPa)	Airflow (L/s)							
					142	189	236	283	330	378	425	472
508	1	15.9	0.06	0.01	2.9	3.3	3.5	3.8	4.0	4.1	4.3	4.4
			0.13	0.05	3.2	3.6	4.0	4.3	4.6	4.8	5.0	5.2
			0.19	0.11	3.3	3.8	4.2	4.5	4.8	5.1	5.3	5.5
			0.25	0.19	3.4	3.9	4.3	4.7	4.9	5.2	5.5	5.7
			Airsides Ps (kPa)		0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.09
	2	22.2	0.06	0.00	4.4	5.0	5.4	5.8	6.1	6.4	6.5	—
			0.13	0.01	5.1	5.9	6.6	7.1	7.6	8.0	8.2	—
			0.25	0.05	5.5	6.5	7.3	8.1	8.7	9.2	9.5	—
			0.38	0.11	5.7	6.8	7.7	8.4	9.1	9.7	10.0	—
			Airsides Ps (kPa)		0.02	0.04	0.06	0.08	0.10	0.13	0.14	—
	3	22.2	0.06	0.00	5.3	5.9	6.4	6.8	7.1	7.3	—	—
			0.13	0.01	6.2	7.3	8.1	8.7	9.3	9.7	—	—
			0.25	0.03	6.9	8.2	9.3	10.2	11.0	11.7	—	—
			0.50	0.10	7.3	8.8	10.0	11.2	12.2	13.0	—	—
			Airsides Ps (kPa)		0.04	0.06	0.09	0.12	0.15	0.19	—	—
	4	22.2	0.13	0.00	7.0	8.1	9.0	9.8	10.4	—	—	—
			0.25	0.02	7.8	9.3	10.6	11.7	12.6	—	—	—
			0.38	0.04	8.1	9.8	11.3	12.5	13.6	—	—	—
			0.50	0.07	8.3	10.1	11.7	13.0	14.2	—	—	—
			Airsides Ps (kPa)		0.05	0.08	0.11	0.16	0.20	—	—	—

Heating capacity data in tables assume an entering water temperature (EWT) of 82°C, and an entering air temperature (EAT) of 18°C, which corresponds to a temperature difference of 64°C. Smaller temperature differences will result in a decrease of heating capacity. To obtain the heating capacity at another temperature difference, refer to the hot water coil notes located in the Reference Section.

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HOT WATER COILS kW SELECTION DATA – METRIC UNITS continued

Unit Size	Rows	Connection OD (mm)	Water Flow (L/s)	Head Loss (kPa)	Airflow (L/s)							
					236	283	330	378	472	566	661	755
510	1	15.9	0.06	0.33	3.9	4.2	4.4	4.6	4.9	5.1	5.3	5.5
			0.13	1.29	4.6	4.9	5.2	5.5	6.0	6.3	6.6	6.9
			0.25	4.87	5.0	5.4	5.8	6.2	6.7	7.2	7.6	8.0
			0.38	10.70	5.2	5.7	6.1	6.4	7.1	7.6	8.1	8.4
			Airsides Ps (kPa)		0.01	0.02	0.02	0.03	0.05	0.06	0.08	0.10
510	2	22.2	0.06	1.08	6.0	6.4	6.7	7.0	7.5	7.8	8.1	8.3
			0.13	4.27	7.4	8.0	8.6	9.0	9.8	10.5	11.0	11.4
			0.19	9.56	8.0	8.8	9.4	10.0	11.0	11.8	12.5	13.1
			0.25	16.98	8.3	9.2	10.0	10.6	11.7	12.6	13.5	14.1
			Airsides Ps (kPa)		0.03	0.04	0.05	0.07	0.10	0.13	0.17	0.22
510	3	22.2	0.06	0.72	6.9	7.3	7.7	7.9	8.4	8.7	8.9	9.1
			0.13	2.81	8.9	9.7	10.3	10.8	11.7	12.4	12.9	13.3
			0.25	11.33	10.3	11.4	12.4	13.2	14.6	15.7	16.6	17.5
			0.38	25.5	10.9	12.2	13.3	14.2	15.9	17.3	18.4	19.5
			Airsides Ps (kPa)		0.05	0.06	0.08	0.10	0.15	0.20	0.26	0.32
510	4	22.2	0.13	2.48	10.0	10.9	11.6	12.2	13.2	13.9	14.5	—
			0.25	10.01	11.8	13.1	14.2	15.2	16.8	18.2	19.3	—
			0.38	22.54	12.5	14.0	15.3	16.5	18.6	20.2	21.6	—
			0.50	40.08	12.9	14.5	16.0	17.3	19.6	21.4	23.1	—
			Airsides Ps (kPa)		0.06	0.08	0.11	0.13	0.20	0.27	0.35	—

Unit Size	Rows	Connection OD (mm)	Water Flow (L/s)	Head Loss (kPa)	Airflow (L/s)							
					378	472	566	661	755	850	944	1038
512	1	22.2	0.13	1.61	6.5	7.1	7.5	7.9	8.3	8.6	8.8	9.1
			0.25	6.19	7.3	8.0	8.6	9.1	9.6	10.0	10.4	10.7
			0.38	13.54	7.6	8.4	9.0	9.6	10.1	10.6	11.0	11.4
			0.50	23.61	7.8	8.6	9.3	9.9	10.5	11.0	11.4	11.8
			Airsides Ps (kPa)		0.02	0.03	0.04	0.05	0.06	0.07	0.09	0.10
512	2	22.2	0.13	0.99	10.0	10.9	11.6	12.2	12.7	13.5	13.8	14.2
			0.25	3.89	11.8	13.1	14.3	15.2	16.0	17.3	17.9	18.4
			0.38	8.64	12.6	14.1	15.4	16.5	17.5	19.2	19.9	20.5
			0.50	15.24	13.1	14.7	16.1	17.3	18.4	20.3	21.1	21.8
			Airsides Ps (kPa)		0.04	0.06	0.08	0.10	0.13	0.18	0.22	0.25
512	3	22.2	0.13	0.69	12.4	13.5	14.3	15.0	15.5	16.0	16.4	16.8
			0.25	2.69	15.0	16.7	18.2	19.4	20.4	21.3	22.0	22.7
			0.50	10.61	16.7	19.0	20.9	22.6	24.1	25.4	26.6	27.6
			0.76	23.76	17.4	19.9	22.1	24.0	25.6	27.1	28.5	29.7
			Airsides Ps (kPa)		0.06	0.09	0.12	0.15	0.19	0.23	0.28	0.33
512	4	22.2	0.13	1.26	13.9	15.1	16.0	16.7	17.3	17.8	18.2	—
			0.25	2.18	17.2	19.2	20.8	22.3	23.3	24.4	25.3	—
			0.50	8.64	19.3	22.0	24.4	26.5	28.3	29.8	31.2	—
			0.76	19.34	20.1	23.2	25.9	28.2	30.3	32.2	33.9	—
			Airsides Ps (kPa)		0.08	0.11	0.16	0.20	0.25	0.31	0.37	—

Heating capacity data in tables assume an entering water temperature (EWT) of 82°C, and an entering air temperature (EAT) of 18°C, which corresponds to a temperature difference of 64°C. Smaller temperature differences will result in a decrease of heating capacity. To obtain the heating capacity at another temperature difference, refer to the hot water coil notes located in the Reference Section.

TH-500 HOT WATER COILS kW SELECTION DATA – METRIC UNITS continued

Unit Size	Rows	Connection OD (mm)	Water Flow (L/s)	Head Loss (kPa)	Airflow (L/s)							
					283	330	378	472	708	944	1180	1416
514	1	15.9	0.06	0.60	5.8	6.4	6.6	6.9	7.7	8.3	8.6	9.0
			0.13	2.21	6.9	7.8	8.2	8.5	9.8	10.8	11.5	12.1
			0.19	10.04	7.6	8.7	9.2	9.7	10.9	12.0	12.9	13.7
			0.25	18.44	7.8	9.1	9.6	10.1	11.4	12.8	13.8	14.7
			Airsides Ps (kPa)		0.00	0.01	0.01	0.01	0.03	0.05	0.07	0.09
514	2	22.2	0.13	1.17	10.1	11.5	12.1	12.7	14.7	16.0	17.0	17.7
			0.25	4.54	11.6	13.6	14.5	15.3	18.4	20.7	22.4	23.8
			0.38	10.04	12.2	14.6	15.5	16.5	20.2	23.0	25.1	26.9
			0.50	17.46	12.6	13.9	15.0	17.1	21.2	24.3	26.7	28.8
			Airsides Ps (kPa)		0.01	0.02	0.02	0.03	0.06	0.10	0.14	0.19
514	3	22.2	0.13	0.75	12.5	13.5	14.3	15.7	17.9	19.3	20.3	21.0
			0.38	6.58	15.3	16.9	18.4	20.9	25.9	29.5	32.3	34.5
			0.50	11.63	15.6	17.4	19.0	21.8	27.3	31.5	34.8	37.4
			0.63	18.08	15.9	17.7	19.4	22.3	28.3	32.8	36.4	39.4
			Airsides Ps (kPa)		0.02	0.02	0.03	0.05	0.09	0.15	0.21	0.29
514	4	22.2	0.25	2.33	16.2	17.9	19.4	22.0	26.6	29.8	32.1	33.8
			0.38	3.77	17.1	19.0	20.8	23.9	29.8	34.1	37.3	39.9
			0.50	9.21	17.5	19.6	21.5	24.9	31.7	36.7	40.6	43.7
			0.76	20.59	17.9	20.2	22.3	26.1	33.7	39.6	44.4	48.3
			Airsides Ps (kPa)		0.03	0.03	0.04	0.06	0.12	0.20	0.29	0.39

Unit Size	Rows	Connection OD (mm)	Water Flow (L/s)	Head Loss (kPa)	Airflow (L/s)							
					472	708	944	1180	1416	1652	1888	1982
516	1	15.9	0.06	0.69	7.4	8.3	8.9	9.4	9.7	10.0	10.2	10.3
			0.13	2.57	9.3	10.7	11.8	12.6	13.3	13.8	14.3	14.4
			0.25	9.71	10.5	12.5	14.0	15.2	16.2	17.0	17.7	18.0
			0.38	21.28	11.0	13.3	15.0	16.3	17.5	18.4	19.3	19.6
			Airsides Ps (kPa)		0.01	0.02	0.03	0.05	0.07	0.09	0.11	0.12
516	2	22.2	0.13	1.23	13.5	15.7	17.2	18.3	19.1	19.8	20.3	20.5
			0.25	4.75	16.3	19.9	22.4	24.3	25.9	27.1	28.3	28.6
			0.38	7.53	17.6	21.7	24.8	27.3	29.3	31.0	32.4	33.0
			0.50	18.56	18.2	22.8	26.3	29.0	31.4	33.3	35.0	35.6
			Airsides Ps (kPa)		0.02	0.04	0.07	0.10	0.14	0.18	0.23	0.25
516	3	22.2	0.13	0.78	16.7	19.2	20.7	21.8	22.5	23.2	23.6	23.8
			0.25	3.08	20.6	25.1	28.2	30.5	32.3	33.8	35.0	35.4
			0.50	12.14	23.1	29.3	33.9	37.6	40.6	43.2	41.3	46.1
			0.63	18.86	23.7	30.3	35.3	39.4	42.8	45.6	45.3	49.0
			Airsides Ps (kPa)		0.03	0.07	0.11	0.16	0.21	0.28	0.35	0.38
516	4	22.2	0.13	0.60	18.5	21.1	22.7	23.7	24.4	25.0	—	—
			0.25	2.39	23.3	28.4	31.9	34.5	36.4	38.0	—	—
			0.50	5.38	25.2	33.7	39.3	43.7	47.3	50.2	—	—
			0.63	14.80	26.9	34.9	41.1	46.1	50.1	53.5	—	—
			Airsides Ps (kPa)		0.04	0.09	0.14	0.21	0.29	0.37	—	—

Heating capacity data in tables assume an entering water temperature (EWT) of 82°C, and an entering air temperature (EAT) of 18°C, which corresponds to a temperature difference of 64°C. Smaller temperature differences will result in a decrease of heating capacity. To obtain the heating capacity at another temperature difference, refer to the hot water coil notes located in the Reference Section.

TH-500

HOT WATER COILS kW SELECTION DATA – METRIC UNITS continued

Unit Size	Rows	Connection OD (mm)	Water Flow (L/s)	Head Loss (kPa)	Airflow (L/s)							
					944	1180	1416	1652	1888	2124	2360	2596
520	1	22.2	0.13	0.99	12.8	13.7	14.3	14.9	15.3	15.8	16.1	16.4
			0.25	3.89	15.8	17.1	18.2	19.1	19.9	20.6	21.3	21.8
			0.38	8.64	17.2	18.7	20.1	21.2	22.2	23.0	23.8	24.5
			0.50	15.24	17.9	19.7	21.1	22.4	23.5	24.5	25.4	26.1
			Airsides Ps (kPa)		0.02	0.03	0.04	0.05	0.06	0.07	0.09	0.10
520	2	22.2	0.13	1.67	18.5	19.7	20.6	21.2	21.8	22.2	22.6	23.0
			0.25	3.35	24.7	26.9	28.6	30.1	31.3	32.3	33.2	34.0
			0.50	11.63	29.5	32.8	35.5	37.8	39.8	41.6	43.2	44.6
			0.63	18.08	30.7	34.3	37.3	39.9	42.1	44.1	45.9	47.5
			Airsides Ps (kPa)		0.04	0.06	0.08	0.10	0.13	0.15	0.18	0.22
520	3	28.6	0.25	1.32	28.5	31.1	33.1	34.7	36.0	37.2	38.2	39.1
			0.38	2.90	32.0	35.5	38.2	40.6	42.5	44.3	45.8	47.1
			0.50	5.11	34.1	38.1	41.4	44.2	46.6	48.8	50.7	52.3
			0.76	11.33	36.3	41.0	45.0	48.5	51.5	54.2	56.6	58.8
			Airsides Ps (kPa)		0.05	0.07	0.10	0.13	0.16	0.20	0.24	0.29
520	4	28.6	0.38	1.85	36.5	40.3	43.4	46.0	48.1	49.9	51.5	52.9
			0.63	5.08	40.9	46.1	50.5	54.1	57.3	60.1	62.6	64.8
			0.88	9.89	43.1	49.0	54.1	58.5	62.3	65.7	68.8	71.5
			1.14	16.26	44.4	50.8	56.3	61.1	65.4	69.2	72.7	75.8
			Airsides Ps (kPa)		0.06	0.09	0.13	0.17	0.22	0.27	0.32	0.38

Unit Size	Rows	Connection OD (mm)	Water Flow (L/s)	Head Loss (kPa)	Airflow (L/s)							
					944	1180	1416	1652	1888	2360	2832	3304
524	1	22.2	0.13	1.08	14.3	15.2	16.0	16.6	17.1	17.9	18.6	19.1
			0.25	4.21	17.7	19.2	20.5	21.6	22.5	24.0	25.2	26.2
			0.38	9.36	19.2	21.1	22.6	24.0	25.1	27.0	28.6	30.0
			0.50	16.50	20.1	22.1	23.8	25.4	26.6	28.9	30.7	32.2
			Airsides Ps (kPa)		0.01	0.02	0.02	0.03	0.04	0.06	0.08	0.10
524	2	22.2	0.13	0.81	20.0	21.3	22.2	23.0	23.6	24.5	25.2	25.6
			0.25	3.14	26.8	29.3	31.3	33.0	34.3	36.5	38.2	39.6
			0.50	12.40	32.2	35.9	39.1	41.8	44.1	48.0	51.1	53.6
			0.63	19.28	33.5	37.6	41.1	44.1	46.7	51.1	54.7	57.7
			Airsides Ps (kPa)		0.03	0.04	0.05	0.07	0.08	0.12	0.17	0.22
524	3	28.6	0.19	0.84	27.7	29.9	31.5	32.8	33.8	35.5	36.6	37.5
			0.38	3.20	34.8	38.6	41.8	44.5	46.7	50.4	53.2	55.5
			0.63	8.73	38.4	43.4	47.6	51.3	54.5	59.8	64.1	67.7
			0.95	19.31	40.4	46.1	51.0	55.4	59.2	65.7	71.2	75.8
			Airsides Ps (kPa)		0.03	0.05	0.06	0.08	0.11	0.16	0.22	0.29
524	4	28.6	0.25	0.87	34.5	37.6	39.9	41.8	43.2	45.5	47.2	48.5
			0.50	3.47	42.3	47.6	51.9	55.5	58.6	63.7	67.7	70.9
			0.76	7.71	45.4	51.8	57.2	61.9	66.0	72.8	78.3	82.9
			1.14	17.22	47.6	54.9	61.2	66.8	71.7	80.1	87.1	93.1
			Airsides Ps (kPa)		0.04	0.06	0.09	0.11	0.14	0.21	0.29	0.38

Heating capacity data in tables assume an entering water temperature (EWT) of 82°C, and an entering air temperature (EAT) of 18°C, which corresponds to a temperature difference of 64°C. Smaller temperature differences will result in a decrease of heating capacity. To obtain the heating capacity at another temperature difference, refer to the hot water coil notes located in the Reference Section.

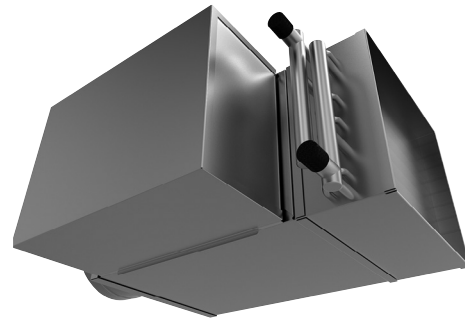
TH-500 ACCESSORIES AND COMPONENTS HOT WATER COILS

When ordered with the air terminal, the hot water coil is shipped attached to the discharge of the terminal casing via slip and drive connections. The discharge end of the casing has slip and drive connections for easy connection to downstream ductwork. The hot water coil is constructed of aluminum fin and copper serpentine-type tubes with male sweat connections tested at 300 psig.

Coil selection may be made using METALAIRE Terminal Selection Software. Contact your METALAIRE representative for a copy. In the interest of energy conservation and due to the possibility of condensation, all hot water coils are marked, "Coil must be externally insulated after installation in the field." Hot water coils are tested in accordance to AHRI. Options, at an additional charge on hot water coils, include access doors for inspection and cleaning, and inlet/outlet on opposite sides of coils.

HOT WATER COIL CONSTRUCTION DETAILS

- Hot water coils are factory mounted on the discharge of the terminal and are available with an optional integral coil access door.
- Coils are enclosed in 20 gauge coated steel casing with slip and drive connection.
- Fins are rippled and sine wave type constructed from heavy gauge aluminum, mechanically bonded to the tubes.
- Tubes are copper with a minimum wall thickness of 0.016" with male sweat header connections.
- Coils are leak tested to 300 psig with minimum burst of 2000 psig at ambient temperature.
- Coil performance data is based on tests run in accordance with AHRI standard 410; coils are AHRI certified and include AHRI label.



Coil Connection Size, Inches (mm)				
TH Size	1 Row	2 Row	3 Row	4 Row
504 / 505 / 506	5/8" (15.8)	7/8" (22.2)	7/8" (22.2)	7/8" (22.2)
508	5/8" (15.8)	7/8" (22.2)	7/8" (22.2)	7/8" (22.2)
510	5/8" (15.8)	7/8" (22.2)	7/8" (22.2)	7/8" (22.2)
512	7/8" (22.2)	7/8" (22.2)	7/8" (22.2)	7/8" (22.2)
514	5/8" (15.8)	7/8" (22.2)	7/8" (22.2)	7/8" (22.2)
516	5/8" (15.8)	7/8" (22.2)	7/8" (22.2)	7/8" (22.2)
520	7/8" (22.2)	7/8" (22.2)	1 1/8" (28.6)	1 1/8" (28.6)
524	7/8" (22.2)	7/8" (22.2)	1 1/8" (28.6)	1 1/8" (28.6)

All coils have 10 fins/inch with the exception of 3&4 row coils on 20 & 24 boxes which are 8 FPI

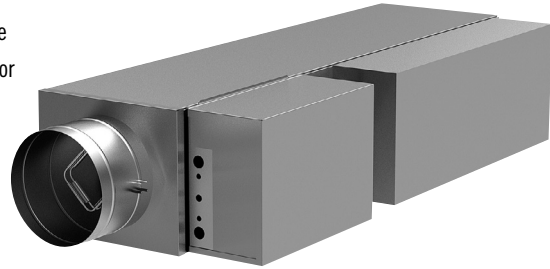
All accessories that can be attached to the Single Duct Boxes are not a part of the AHRI certification program but ratings can be affected by their use.

TH-500 ACCESSORIES AND COMPONENTS ELECTRIC HEAT

Electric heater elements, as illustrated on this page, are integral to the air terminal. The discharge end has slip and drive connections for easy connection to downstream ductwork. ETL® listed heaters are provided with a fan interlock relay. Heaters that will be controlled electronically must include a 24 VAC control circuit to operate with the low voltage controls on the air terminal. Heater plenums are internally insulated. When an air terminal is ordered with clean room lining and electric heat, the heater plenum is either internally lined with optional foil backed insulation or closed cell foam or may require external insulation in field.

INCLUDED WITH EACH HEATER ASSEMBLY:

- Heater and cabinet mounted on the discharge of the TH-500
- Discharge plenum with 1/2" fiber face lining
- Air pressure switch
- Pipe high side air flow switch to the discharge end of the primary inlet tube
- De-energizing magnetic contactors per step and backup magnetic contactor
- Primary automatic reset high temperature limit (disc type)
- Backup manual reset high temperature limit (disc type)
- Non-isolated transformer
- Slip and drive connections
- Heater is shipped factory mounted and wired



ELECTRIC HEATER ASSEMBLY CONSTRUCTION DETAILS

- Electric reheat coils are factory mounted on the discharge of the air terminal. The heaters are ETL listed for zero clearance, and are tested in accordance with UL Standard 1995, CSA-C22.2 No. 236 and the National Electric Code (NEC). Heater casings are constructed of galvanized steel. Element wire is high grade nichrome alloy derated to 45 watts per square inch density. Element wire is supported by moisture-resistant steatite ceramics.
- Ceramics are enclosed in reinforcement brackets spaced across the heater element rack at 2" to 4" intervals. Controls are contained in a NEMA 1 control cabinet with a hinged, latching door. A permanent wiring diagram is affixed to the inside of the control cabinet door for field reference.

SOUND ATTENUATORS

- The optional acoustically lined sound attenuator is designed to further reduce discharge sound levels from the air terminal. The chart below gives reductions to the discharge sound power figures at minimum static pressure for each octave band.

TH-500						
Air Band Frequency (Hz)						
Size	2 / 125	3 / 250	4 / 500	5 / 1000	6 / 2000	7 / 4000
506	1	1	3	10	13	8
508	1	1	3	9	11	8
510	1	1	3	8	10	7
512	1	1	2	7	9	6
514	1	1	2	7	7	6
516	1	1	2	6	7	5
520	1	1	2	6	6	5
524	1	1	2	6	5	4

All accessories that can be attached to the Single Duct Boxes are not a part of the AHRI certification program but ratings can be affected by their use.

TH-500 ELECTRIC HEATER CAPACITIES

Single Phase TH-500 kW Limits				
Unit Size	Heater Voltage	Min. kW Step	Max. kW	Max. Steps
504 505 506	120	1	4	2
	208	0.5	4	2
	240	0.5	4	2
	277	0.5	4	2
	480	1.5	4	2
508	120	1	5	3
	208	0.5	8	3
	240	0.5	8	3
	277	0.5	8	3
	480	1	8	3
510	208	0.5	5	3
	240	0.5	9.5	3
	480	0.5	11	3
	277	0.5	12	3
	480	1	15	3
512	120	0.5	5	3
	208	0.5	9.5	3
	240	0.5	11	3
	277	0.5	12	3
	480	1	15	3
514	120	0.5	5	3
	208	0.5	9.5	3
	240	0.5	11	3
	277	0.5	12	3
	480	0.5	23	3
516	120	1.5	5	3
	208	0.5	9.5	3
	240	0.5	11	3
	277	0.5	12	3
	480	0.5	23	3
520	120	0.5	5	3
	208	0.5	9.5	3
	240	0.5	11	3
	277	0.5	12	3
	480	0.5	23	3
524	120	0.5	5	3
	208	0.5	9.5	3
	240	0.5	11	3
	277	0.5	12	3
	480	0.5	23	3

Three Phase TH-500 kW Limits				
Unit Size	Heater Voltage	Min. kW Step	Max. kW	Max. Steps
504 505 506	208	0.5	4	2
	480	1.5	4	2
508	208	1.5	8	3
	480	1.5	8	3
510	208	1.5	13	3
	480	1.5	15	3
512	208	1.5	16	3
	480	1.5	23	3
514	208	1.5	16	3
	480	1.5	24	3
516	208	1.5	16	3
	480	1.5	39	3
520	208	1.5	16	3
	480	1.5	39	3
524	208	1.5	16	3
	480	1.5	39	3

NOTES:

1. Heaters less than 10 kW are specifiable to nearest 0.5 kW. Heaters greater than 10 kW are specifiable to nearest 1 kW.
2. Minimum flow rate for electric heat is 70 CFM / kW. Lower CFM's can cause nuisance tripping, excessive discharge temperatures, rapid cycling, and rapid element failure. Electric Heat units running below 70 CFM / kW will void all warranties.
3. For optimum thermal comfort, the suggested discharge temperature should not exceed 20°F above room set point.
4. We do not recommend discharge temperatures in excess of 115°F to protect heater coils.
5. Maximum number of steps at minimum kW is one step.
6. If more than 1 heater is wired into a building's circuit breaker (multi-outlet branch circuit) each heater will require the addition of power side fusing.

ELECTRIC HEAT SELECTION:

A. Specify electric duct heaters using voltage, phase, kW, and number of steps.

B. Use above chart to select voltage. Calculate required kW using following equations:

$$kW = \frac{BTU / HR}{3413} \quad kW = \frac{CFM \times \Delta \times 1.085}{3413} \quad \Delta = \frac{kW \times 3413}{CFM \times 1.085}$$

$$CFM = \frac{kW \times 3413}{\Delta \times 1.085} \quad CFM = \frac{kW \times 3413}{\Delta \times 1.085}$$

* air density at sea level—reduce by 0.036 for each 1000 feet of altitude above sea level

Where: BTU / Hr = Required heating capacity

CFM = volume of air during heating. Typically 100% of maximum cooling air volume

Δ = desired air temperature rise across the electric heater

Inlet air temperature = primary air temperature, usually 55°F

METALAIRE™

TH-500 CONTROL SEQUENCE OFFERINGS



PPD-PNEUMATIC PRESSURE DEPENDENT

- 110 DA / NC
- 112 RA / NO



PPI-PNEUMATIC PRESSURE INDEPENDENT

- 114 DA / NC
- 115 DA / NO
- 116 RA / NC
- 117 RA / NO
- 140 Static Pressure Control



EPD-ELECTRIC PRESSURE DEPENDENT

- 152 Cooling Only
- 153 Cooling with Reheat
- 156 Static Control
- 157 Actuator Only



API-ANALOG PRESSURE INDEPENDENT

- 160 Cooling Only
- 161 Cooling with Heat
- 164 Night Setback / Morning Warm-up
- 165 Heating / Cooling Changeover
- 173 Static Pressure Control



DDC-DIRECT DIGITAL CONTROL

BACnet

- 180 Cooling Only
- 181 Cooling or Heating
- 182 Hot Water Reheat
- 183-E Electric Heat



Refer to ACC 24 for complete description.