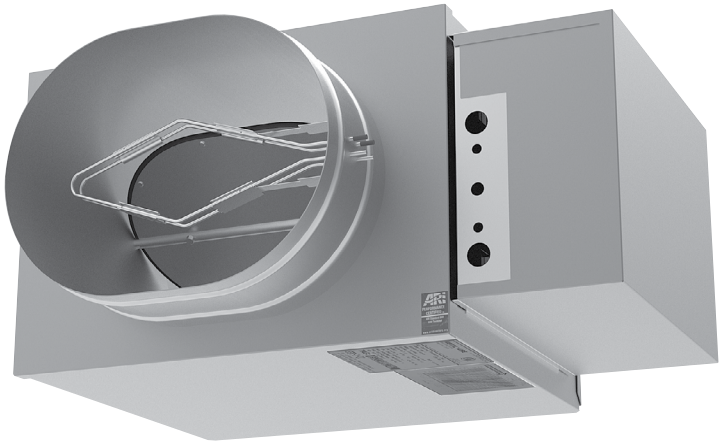
METALAIRE™

ATU PRODUCT CATALOG

AIR TERMINAL UNITS

TL-500
LOW PROFILE SINGLE DUCT AIR TERMINAL UNIT



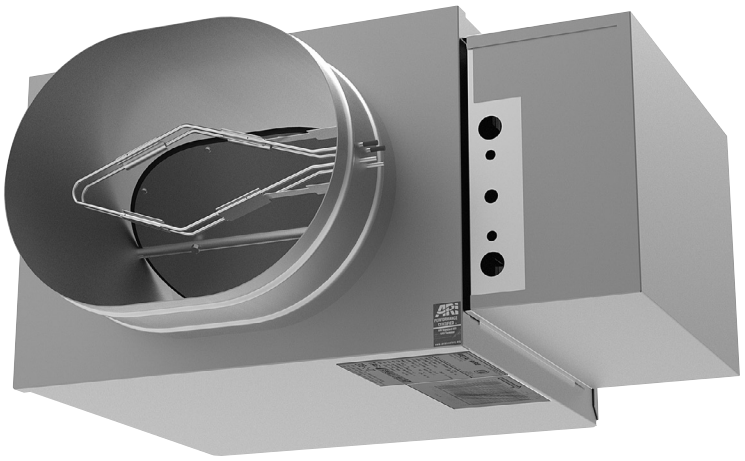
TL-500
LOW PROFILE SINGLE DUCT AIR TERMINAL UNIT

SPECIFIABLE FEATURES

- Maximum height of units is 12 1/2".
- 22 ga. galvanized steel casing, mechanically sealed for low leakage construction.
- Damper construction of double layer 18 gauge equivalent with integral blade seal.
- Metal inlet flow sensor with extra balancing taps.
- Butt welded round primary inlet duct to minimize leakage.

INDEX OF SECTIONS

METALAIRE™



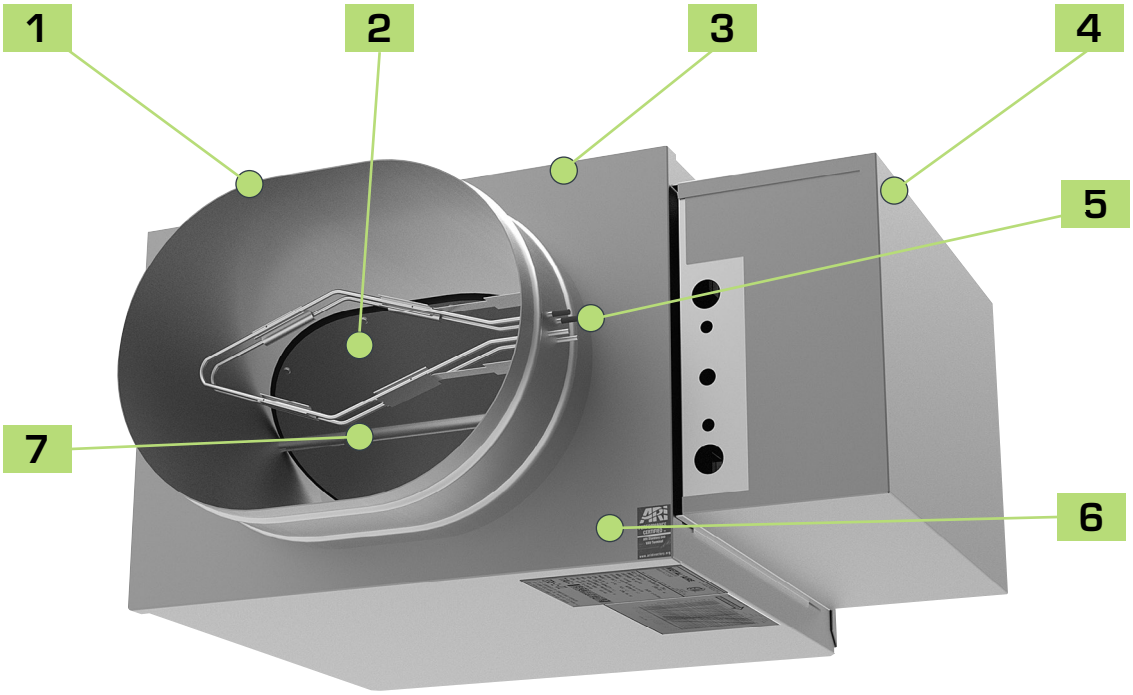
TL-500
LOW PROFILE SINGLE DUCT AIR TERMINAL UNIT

The METALAIRE TL-500 is the simplest and most widely used VAV terminal unit used for low profile applications. 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 TL-500 can be provided with a heating coil on the discharge of the unit to provide for reheat. The unit has a maximum height of 12 1/2".

STANDARD FEATURES

- TL-500 is available in 8 unit sizes to handle 80–4000 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 / ft^3 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.

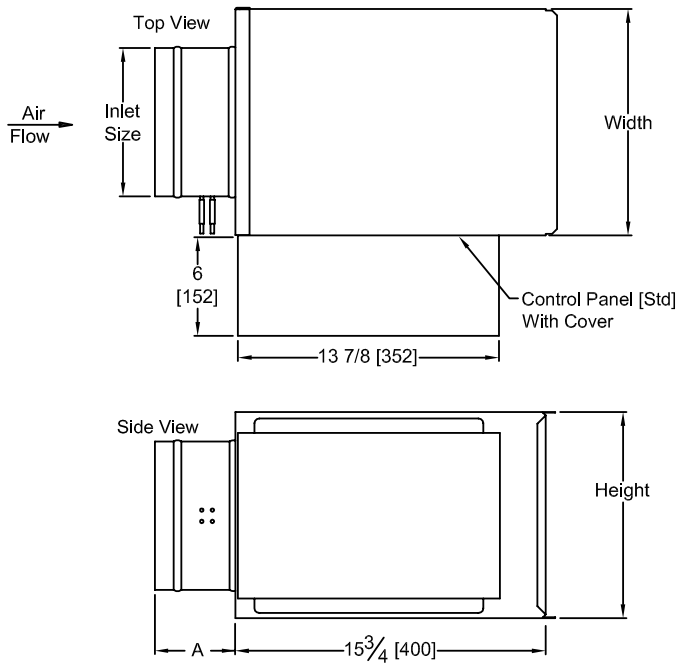


TL-500
LOW PROFILE SINGLE DUCT AIR TERMINAL UNIT

FEATURES AND BENEFITS

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

TL-500
SINGLE DUCT AIR TERMINAL UNIT, COOLING ONLY



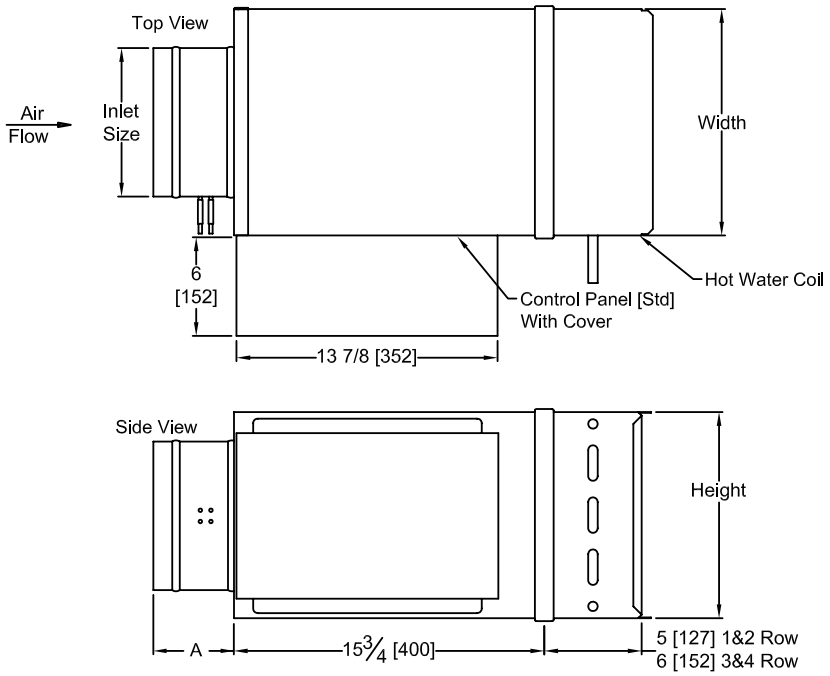
The standard location for control panel is Right Hand on Model TL.
Looking in the direction of airflow, the control panel is on the right.

The control panel will overhang the top and bottom of model TL506 1" (25.4 mm).
Control Panel Mounting Surface width by height is 13 7/8" x 9 3/4".

Models TL 512, 514 & 516 have flat oval inlet ducts.

Model Number	Inlet Size		A		Width		Height		Unit wt.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	lb.	kg.
TL504	3 7/8	99	10	254	12	305	8	203	12	5
TL505	4 7/8	124	10	254	12	305	8	203	12	5
TL506	5 7/8	149	5	127	12	305	8	203	12	5
TL508	7 7/8	200	5	127	12	305	10	254	15	7
TL510	9 7/8	251	5	127	14	356	12 1/2	318	18	8
TL512	13 x 9 7/8	330 x 251	5	127	18	457	12 1/2	318	23	10
TL514	16 1/4 x 9 7/8	413 x 251	5	127	24	610	12 1/2	318	26	12
TL516	19 3/8 x 9 7/8	492 x 251	5	127	28	711	12 1/2	318	30	14

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



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

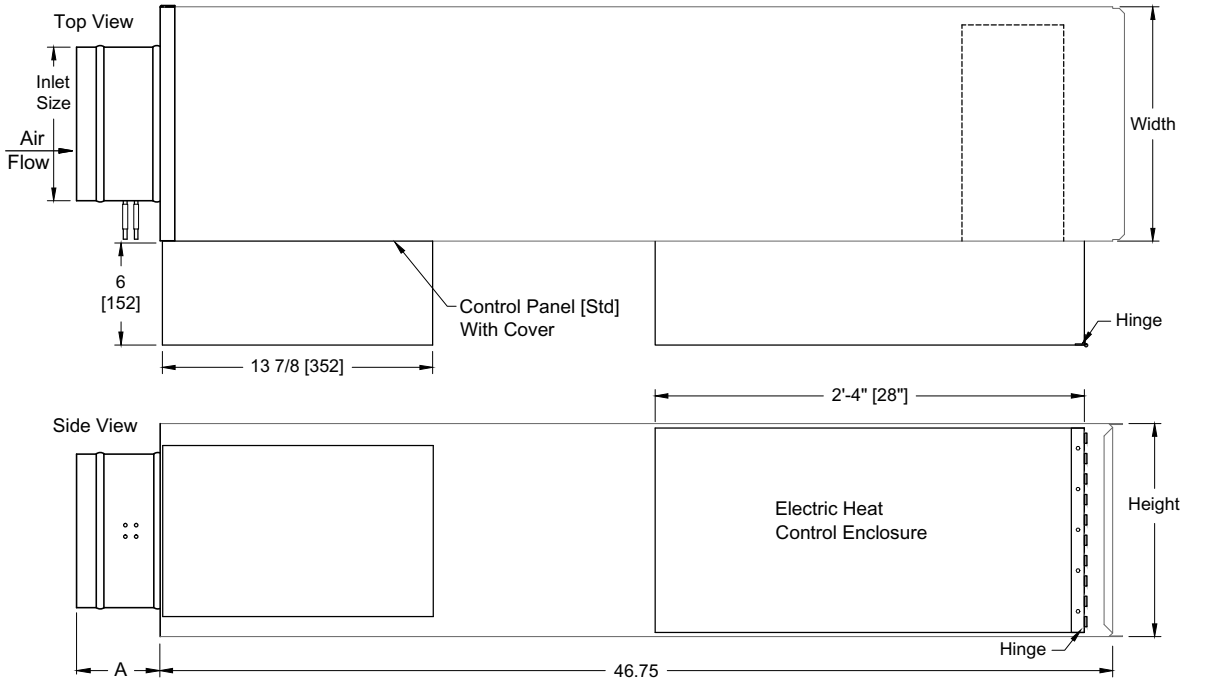
The control panel will overhang the top and bottom of model TL506 1" (25.4 mm).
Control Panel Mounting Surface width by height is 13 7/8" x 9 3/4".

Models TL 512, 514 & 516 have flat oval inlet ducts.

Model Number	Inlet Size		A		Width		Height		Unit wt.							
									1 Row		2 Row		3 Row		4 Row	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	lb.	kg.	lb.	kg.	lb.	kg.	lb.	kg.
TL504	3 7/8	99	10	254	12	305	8	203	16.5	8	17.5	8	20	9	20.25	9
TL505	4 7/8	124	10	254	12	305	8	203	16.5	8	17.5	8	20	9	20.25	9
TL506	5 7/8	149	5	127	12	305	8	203	16.5	8	17.5	8	20	9	20.25	9
TL508	7 7/8	200	5	127	12	305	10	254	20	9	22.75	10	26.25	12	26.5	12
TL510	9 7/8	251	5	127	14	356	12 1/2	318	24.5	11	27.5	13	33.75	15	34.75	16
TL512	13 x 9 7/8	300 x 251	5	127	18	457	12 1/2	318	31.5	14	35.5	16	42.25	19	44.5	20
TL514	16 1/4 x 9 7/8	413 x 251	5	127	24	610	12 1/2	318	35	16	41.5	19	50	23	51.75	24
TL516	19 3/8 x 9 7/8	492 x 251	5	127	28	711	12 1/2	318	41.5	19	47.25	21	55.25	25	58.5	27

METALAIRE™

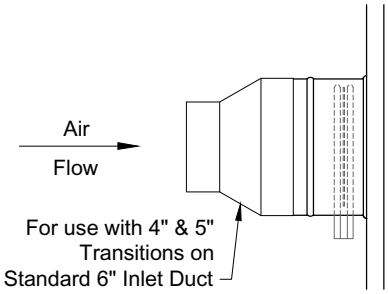
TL-500
SINGLE DUCT AIR TERMINAL UNIT WITH INTEGRAL ATTENUATOR AND ELECTRIC HEAT



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

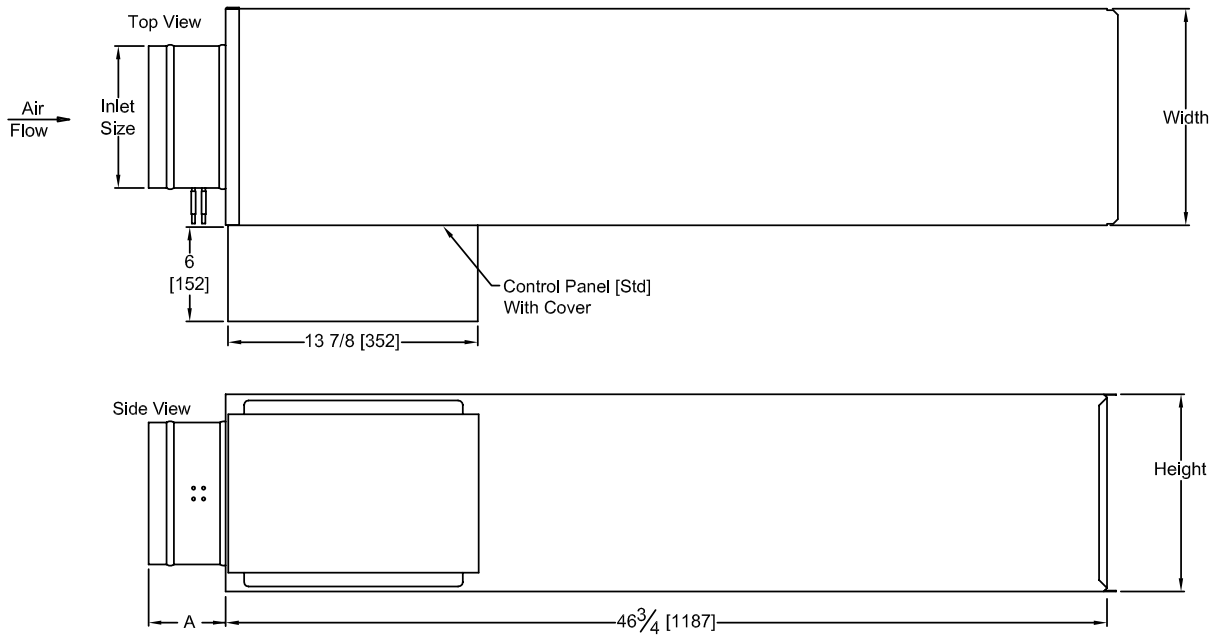
The control panel will overhang the top and bottom of model TL506 1" (25.4 mm). Control Panel Mounting Surface width by height is 13 7/8" x 9 3/4".

Models TL 512, 514 & 516 have flat oval inlet ducts.



Model Number	Inlet Size		A		Width		Height		Unit wt.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	lb.	kg.
TL504	3 7/8	99	10	254	12	305	8	203	39	18
TL505	4 7/8	124	10	254	12	305	8	203	39	18
TL506	5 7/8	149	5	127	12	305	8	203	39	17
TL508	7 7/8	200	5	127	12	305	10	254	43	20
TL510	9 7/8	251	5	127	14	356	12 1/2	318	50	23
TL512	13 x 9 7/8	330 x 251	5	127	18	457	12 1/2	318	59	27
TL514	16 1/4 x 9 7/8	413 x 251	5	127	24	610	12 1/2	318	67	30
TL516	19 3/8 x 9 7/8	492 x 251	5	127	28	711	12 1/2	318	77	35

TL-500
SINGLE DUCT AIR TERMINAL UNIT WITH INTEGRAL ATTENUATOR



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

The control panel will overhang the top and bottom of model TL506 1" (25.4 mm). Control Panel Mounting Surface width by height is 13 7/8" x 9 3/4".

Models TL 512, 514 & 516 have flat oval inlet ducts.

Model Number	Inlet Size		A		Width		Height		Unit wt.	
	in.	mm.	in.	mm.	in.	mm.	in.	mm.	lb.	kg.
TL504	3 7/8	99	10	254	12	305	8	203	24	10
TL505	4 7/8	124	10	254	12	305	8	203	24	10
TL506	5 7/8	149	5	127	12	305	8	203	24	10
TL508	7 7/8	200	5	127	12	305	10	254	28	12
TL510	9 7/8	251	5	127	14	356	12 1/2	318	34	15
TL512	13 x 9 7/8	330 x 251	5	127	18	457	12 1/2	318	41	18
TL514	16 1/4 x 9 7/8	413 x 251	5	127	24	610	12 1/2	318	47	21
TL516	19 3/8 x 9 7/8	492 x 251	5	127	28	711	12 1/2	318	54	24

TL-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	0.10	400	58	53	49	44	41	36
508	0.01	700	62	57	52	44	39	34
510	0.04	1100	58	58	52	44	38	32
512	0.08	1400	63	59	55	47	41	36
514	0.11	1950	63	56	50	41	35	33
516	0.10	2600	66	63	58	52	49	46

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	0.10	400	66	63	59	53	48	49
508	0.01	700	75	71	62	58	55	53
510	0.04	1100	74	70	65	60	56	53
512	0.08	1400	72	72	67	62	57	53
514	0.11	1950	72	68	62	58	59	58
516	0.10	2600	79	77	72	68	63	59

CERTIFICATIONS AND STANDARDS

AHRI CERTIFIED™ www.ahridirectory.org
VAV Terminals
AHRI Standard 880

- 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.

TL-500
RADIATED SOUND POWER at ΔPS = 0.50, 0.75 and 1.0 in. wg

Unit Size	CFM (L/s)		Min Ps in. wg (Pa)		ΔPs = 0.50 in. wg (125 Pa) Octave Band Sound Power, Lw, dB							ΔPs = 0.75 in. wg (187 Pa) Octave Band Sound Power, Lw, dB							ΔPs = 1.0 in. wg (500 Pa) Octave Band Sound Power, Lw, dB						
					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)	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)	0.100	(24.9)	55	50	46	41	38	32	20	56	51	47	42	39	33	21	57	52	48	43	40	34	22
	500	(236)	0.125	(31.1)	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)	0.020	(5.0)	48	48	40	34	28	22	15	50	50	43	36	31	24	18	53	53	47	39	33	26	21
	1000	(472)	0.030	(7.5)	49	49	42	36	29	24	16	51	52	45	38	32	26	20	54	54	48	40	34	28	22
	1100	(519)	0.040	(10.0)	51	50	44	38	30	24	18	53	53	46	40	33	27	21	55	55	49	41	35	29	24
	1400	(661)	0.055	(13.7)	55	55	48	42	34	28	24	58	57	49	43	36	30	26	60	58	50	43	37	31	27
	1700	(802)	0.070	(17.4)	57	57	53	44	38	32	27	60	58	54	45	39	34	29	63	61	55	48	42	36	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.*

TL-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) Octave Band Sound Power, Lw, dB							ΔPs = 0.75 in. wg (187 Pa) Octave Band Sound Power, Lw, dB							ΔPs = 1.0 in. wg (500 Pa) Octave Band Sound Power, Lw, dB						
					2	3	4	5	6	7	NC	2	3	4	5	6	7	NC	2	3	4	5	6	7	NC
512 12 inch	350	(165)	0.005	(1.3)	52	39	28	21	17	15	<15	53	41	31	25	18	17	<15	54	44	38	30	24	18	<15
	750	(354)	0.025	(6.2)	56	46	38	31	27	21	17	57	49	42	34	29	24	18	59	52	46	37	31	26	21
	1000	(472)	0.039	(9.6)	56	48	40	33	29	23	17	58	50	44	36	31	25	20	59	53	48	39	32	27	22
	1150	(543)	0.056	(13.8)	57	49	42	35	31	24	18	58	51	45	38	33	27	20	60	54	49	40	34	29	23
	1400	(661)	0.083	(20.5)	58	50	44	38	34	27	20	59	52	47	40	36	29	21	61	54	50	42	37	31	24
	1600	(755)	0.112	(27.9)	59	51	47	40	37	29	21	61	53	49	42	38	31	23	62	56	52	44	40	34	26
	2000	(944)	0.163	(40.5)	61	54	51	44	40	34	25	62	56	52	45	41	36	26	63	58	54	47	43	38	29
514 14 inch	450	(212)	0.005	(1.3)	43	38	30	23	21	20	<15	45	40	32	25	23	22	<15	47	42	34	27	25	24	<15
	850	(401)	0.019	(4.8)	46	41	33	25	21	21	<15	48	43	35	27	23	23	<15	50	45	37	29	25	25	<15
	1200	(566)	0.038	(9.5)	49	44	36	28	22	23	<15	51	46	38	30	24	25	<15	53	48	40	32	26	27	15
	1500	(708)	0.057	(14.2)	51	46	38	30	24	24	<15	53	48	40	32	26	26	15	55	50	42	34	28	28	18
	1950	(920)	0.108	(26.9)	56	49	43	34	28	26	17	58	51	45	36	30	28	20	60	53	47	38	32	30	22
	2400	(1133)	0.151	(37.5)	57	51	45	36	30	27	19	59	53	47	38	32	29	21	61	55	49	40	34	31	24
	2600	(1227)	0.180	(44.7)	58	53	47	38	31	28	21	60	55	49	40	33	30	24	62	57	51	42	35	32	26
516 16 inch	550	(260)	0.005	(1.2)	53	38	29	23	18	16	<15	53	40	32	27	20	18	<15	54	42	34	29	23	19	<15
	950	(448)	0.015	(3.6)	56	45	36	29	24	20	17	56	47	39	32	26	22	17	57	49	41	34	29	24	18
	1300	(614)	0.027	(6.6)	58	51	41	35	31	26	20	58	53	44	38	33	28	21	59	55	46	40	36	30	24
	1500	(708)	0.038	(9.5)	59	52	42	36	33	29	21	59	54	45	39	35	30	22	60	56	47	41	37	32	25
	2000	(944)	0.068	(16.8)	60	53	44	40	37	33	22	60	55	47	42	38	34	24	60	57	49	43	40	35	26
	2600	(1227)	0.104	(25.9)	61	55	49	44	40	37	24	62	57	51	46	41	38	26	63	59	53	47	43	39	28
	3200	(1510)	0.161	(40.1)	62	58	53	47	43	40	27	63	59	54	48	44	40	29	64	60	56	50	45	41	31

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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.*

TL-500
RADIATED SOUND POWER at ΔPS = 1.5, 2.0 and 3.0 in. wg

Unit Size	CFM (L/s)		Min Ps in. wg (Pa)		ΔPs = 1.5 in. wg (250 Pa)							ΔPs = 2.0 in. wg (500 Pa)							ΔPs = 3.0 in. wg (750 Pa)						
					Octave Band Sound Power, Lw, dB							Octave Band Sound Power, Lw, dB							Octave Band Sound Power, Lw, dB						
					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)	0.100	(24.9)	58	53	49	44	41	36	23	58	54	50	44	42	38	24	59	56	52	46	46	43	26
	500	(236)	0.125	(31.1)	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)	0.020	(5.0)	56	57	51	43	37	30	26	61	60	53	46	42	38	29	63	62	56	49	45	42	32
	1000	(472)	0.030	(7.5)	57	58	52	44	38	32	27	62	63	56	49	44	40	33	64	67	60	52	47	45	38
	1100	(519)	0.040	(10.0)	58	58	52	44	38	32	27	63	64	57	50	45	41	34	65	68	61	53	48	47	39
	1400	(661)	0.055	(13.7)	63	62	54	47	41	35	32	70	66	58	52	47	44	37	71	70	63	56	50	49	41
	1700	(802)	0.070	(17.4)	66	65	59	54	46	40	35	72	67	60	55	50	48	38	73	72	64	58	53	51	44

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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.*

TL-500
RADIATED SOUND POWER at ΔPS = 1.5, 2.0 and 3.0 in. wg continued

Unit Size	CFM (L/s)		Min Ps in. wg (Pa)		ΔPs = 1.5 in. wg (250 Pa) Octave Band Sound Power, Lw, dB							ΔPs = 2.0 in. wg (500 Pa) Octave Band Sound Power, Lw, dB							ΔPs = 3.0 in. wg (750 Pa) Octave Band Sound Power, Lw, dB						
					2	3	4	5	6	7	NC	2	3	4	5	6	7	NC	2	3	4	5	6	7	NC
512 12 inch	350	(165)	0.005	(1.3)	56	46	39	33	27	21	17	57	48	40	35	29	23	18	58	48	43	39	34	28	20
	750	(354)	0.025	(6.2)	60	55	50	42	36	32	24	61	57	54	47	41	38	29	61	59	57	52	47	44	32
	1000	(472)	0.039	(9.6)	61	57	53	44	38	33	27	62	60	57	49	43	38	32	63	62	60	55	49	44	35
	1150	(543)	0.056	(13.8)	62	58	54	45	39	34	29	64	62	58	50	44	39	33	65	65	63	56	49	45	38
	1400	(661)	0.083	(20.5)	63	59	55	47	41	36	30	65	63	59	51	45	40	34	66	67	64	57	50	45	39
	1600	(755)	0.112	(27.9)	64	60	56	48	43	38	31	66	64	60	52	46	41	35	68	69	65	57	51	45	41
	2000	(944)	0.163	(40.5)	65	62	58	51	46	41	33	67	66	62	54	49	44	37	69	71	66	59	52	48	42
514 14 inch	450	(212)	0.005	(1.3)	50	45	37	30	28	27	<15	51	46	38	31	29	28	<15	52	47	39	32	30	29	<15
	850	(401)	0.019	(4.8)	53	48	40	32	28	28	15	54	49	41	33	29	29	16	55	50	42	34	30	30	18
	1200	(566)	0.038	(9.5)	56	51	43	35	29	30	19	57	52	44	36	30	31	20	58	53	45	37	31	32	21
	1500	(708)	0.057	(14.2)	58	53	45	37	31	31	21	59	54	46	38	32	32	22	60	55	47	39	33	33	24
	1950	(920)	0.108	(26.9)	63	56	50	41	35	33	26	64	57	51	42	36	34	27	65	58	52	43	37	35	29
	2400	(1133)	0.151	(37.5)	64	58	52	43	37	34	27	65	59	53	44	38	35	29	66	60	54	45	39	36	30
	2600	(1227)	0.180	(44.7)	65	60	54	45	38	35	29	66	61	55	46	39	36	31	67	62	56	47	40	37	32
516 16 inch	550	(260)	0.005	(1.2)	55	44	38	32	27	22	16	56	46	41	35	30	25	17	58	50	46	39	35	29	20
	950	(448)	0.015	(3.6)	58	51	45	39	34	28	20	59	53	49	44	38	32	23	61	56	51	49	40	35	25
	1300	(614)	0.027	(6.6)	60	57	51	45	41	36	26	61	59	55	50	45	42	30	63	61	57	53	49	45	32
	1500	(708)	0.038	(9.5)	62	59	52	47	42	38	27	63	61	57	52	47	44	32	65	64	60	56	52	49	35
	2000	(944)	0.068	(16.8)	63	61	55	49	46	42	31	65	65	60	54	51	48	35	68	67	64	60	58	56	39
	2600	(1227)	0.104	(25.9)	66	63	58	52	49	46	33	68	66	62	57	55	52	37	70	70	66	63	63	62	42
	3200	(1510)	0.161	(40.1)	67	64	61	55	51	47	35	69	67	65	59	57	53	41	71	70	69	65	64	63	45

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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.*

TL-500
DISCHARGE SOUND POWER at ΔPS = 0.50, 0.75 and 1.0 in. wg

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	NC w/ SA	Octave Band Sound Power, Lw, dB						NC	NC w/ SA	Octave Band Sound Power, Lw, dB						NC	NC w/ SA
					2	3	4	5	6	7			2	3	4	5	6	7			2	3	4	5	6	7		
504 / 505 4 inch 5 inch	50	(24)	0.005	(1)	58	50	36	35	32	26	<15	<15	60	54	42	39	36	33	<15	<15	61	56	53	49	40	33	16	<15
	100	(47)	0.015	(4)	60	51	38	37	33	28	<15	<15	61	55	44	40	37	34	16	<15	62	57	54	49	41	36	17	<15
	150	(71)	0.027	(7)	62	52	40	39	34	30	17	<15	63	56	45	42	38	35	18	16	63	58	55	50	43	38	18	16
	200	(94)	0.038	(9)	63	53	41	41	35	31	18	16	64	57	46	44	39	36	20	17	64	59	55	51	45	39	20	17
	250	(118)	0.059	(15)	65	54	44	42	37	33	21	18	66	59	48	45	40	37	22	20	67	60	56	51	46	42	23	21
	300	(142)	0.071	(18)	67	56	46	45	38	35	20	17	67	60	50	47	41	38	20	17	68	62	58	52	47	45	21	18
506 6 inch	100	(47)	0.005	(1.2)	60	51	38	37	33	28	<15	<15	61	55	44	40	37	34	16	<15	62	57	54	49	41	36	17	<15
	200	(94)	0.020	(5.0)	63	53	41	41	35	31	18	16	64	57	46	44	39	36	20	17	64	59	55	51	45	39	20	17
	300	(142)	0.045	(11.2)	67	56	46	45	38	35	20	17	67	60	50	47	41	38	20	17	68	62	58	52	47	45	21	18
	400	(189)	0.100	(24.9)	68	61	51	50	42	40	21	18	70	64	54	52	45	42	23	21	71	64	59	53	48	49	25	22
	500	(236)	0.125	(31.1)	69	64	56	54	47	44	22	20	71	67	58	56	48	45	26	22	72	67	63	58	53	52	26	23
	600	(283)	0.180	(44.8)	71	68	60	58	51	48	27	22	73	70	62	59	52	49	29	25	74	70	65	62	56	53	29	26
508 8 inch	200	(94)	0.000	(0.0)	59	53	47	42	38	36	<15	<15	61	55	49	44	40	38	16	<15	63	57	51	46	42	40	18	16
	300	(142)	0.001	(0.2)	61	57	49	45	41	40	<15	<15	63	59	51	47	43	42	16	<15	65	61	53	49	45	44	19	<15
	600	(283)	0.003	(0.7)	66	61	52	48	45	44	19	16	68	63	54	50	47	46	21	18	70	65	56	52	49	48	24	21
	700	(330)	0.005	(1.2)	68	64	55	50	47	45	22	19	70	66	57	52	49	47	25	21	72	68	59	54	51	49	27	23
	1000	(472)	0.008	(2.0)	73	68	60	58	53	50	26	22	75	70	62	60	55	52	28	25	77	72	64	62	57	54	31	27
	1100	(519)	0.009	(2.2)	74	69	62	60	54	52	27	24	76	71	64	62	56	54	29	26	78	73	66	64	58	56	32	29
510 10 inch	300	(142)	0.002	(0.5)	59	55	46	43	36	31	<15	<15	60	58	50	46	39	35	15	<15	63	62	55	52	46	43	20	15
	600	(283)	0.009	(2.2)	63	59	50	46	38	36	16	<15	65	62	52	49	42	39	20	16	68	65	58	54	49	46	24	19
	800	(378)	0.020	(5.0)	66	62	53	49	41	39	19	15	68	64	55	51	44	42	21	18	70	68	60	56	51	48	26	21
	1000	(472)	0.030	(7.5)	69	63	55	52	41	40	20	18	70	65	57	53	44	43	22	20	72	68	62	58	55	52	26	21
	1100	(519)	0.040	(10.0)	69	64	57	53	45	43	21	18	71	66	59	55	48	45	24	21	73	69	63	58	55	52	27	22
	1400	(661)	0.055	(13.7)	73	70	62	59	52	50	28	25	75	71	64	62	54	52	29	26	77	74	67	64	58	56	33	28
	1700	(802)	0.070	(17.4)	77	74	65	64	59	55	33	29	79	75	67	66	59	56	34	31	81	78	70	69	63	59	38	33

TL-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	NC w/ SA	Octave Band Sound Power, Lw, dB						NC	NC w/ SA	Octave Band Sound Power, Lw, dB						NC	NC w/ SA
					2	3	4	5	6	7			2	3	4	5	6	7			2	3	4	5	6	7		
512 12 inch	350	(165)	0.005	(1.3)	61	51	46	39	30	28	<15	<15	63	54	49	43	34	31	<15	<15	64	56	52	47	39	35	16	<15
	750	(354)	0.025	(6.2)	64	61	51	45	35	33	18	<15	66	64	55	49	39	37	21	16	67	66	59	53	44	41	24	19
	1000	(472)	0.039	(9.6)	66	63	53	48	38	37	20	15	67	65	57	51	42	40	22	18	68	67	61	54	46	43	25	20
	1150	(543)	0.056	(13.8)	68	65	55	51	42	40	22	18	69	66	58	53	45	43	24	19	69	68	62	56	49	46	26	21
	1400	(661)	0.083	(20.5)	70	67	58	54	46	44	25	20	70	68	61	56	49	47	26	21	70	69	63	58	52	49	27	22
	1600	(755)	0.112	(27.9)	72	69	61	57	51	48	27	22	72	70	63	59	53	50	28	24	72	70	65	60	55	52	28	24
	2000	(944)	0.163	(40.5)	74	72	65	62	57	53	31	26	74	72	66	62	58	54	31	26	74	73	67	63	60	56	32	27
514 14 inch	450	(212)	0.005	(1.3)	51	38	33	31	26	27	<15	<15	54	41	36	35	30	31	<15	<15	57	44	39	39	34	35	<15	<15
	850	(401)	0.019	(4.8)	56	43	39	35	35	36	<15	<15	59	46	42	39	39	40	<15	<15	62	49	45	43	43	44	<15	<15
	1200	(566)	0.038	(9.5)	61	55	48	45	46	46	<15	<15	64	58	51	49	50	50	<15	<15	67	61	54	53	54	54	18	<15
	1500	(708)	0.057	(14.2)	61	57	50	47	48	48	<15	<15	64	60	53	51	52	52	16	<15	67	63	56	55	56	56	20	15
	1950	(920)	0.108	(26.9)	64	60	53	50	50	49	16	<15	67	63	56	54	54	53	20	16	70	66	59	58	58	57	24	19
	2400	(1133)	0.151	(37.5)	66	61	55	53	52	51	18	<15	69	64	58	57	56	55	21	18	72	67	61	61	60	59	25	21
	2600	(1227)	0.180	(44.7)	66	62	58	54	53	53	19	15	69	65	61	58	57	57	22	19	72	68	64	62	61	61	26	21
516 16 inch	550	(260)	0.005	(1.2)	63	58	52	51	45	41	15	<15	64	59	53	52	47	43	16	<15	65	60	55	53	49	45	18	<15
	950	(448)	0.015	(3.6)	66	63	58	54	48	43	20	16	67	65	59	55	50	45	22	19	68	66	61	57	52	48	24	19
	1300	(614)	0.027	(6.6)	70	67	61	55	49	44	25	21	71	69	64	58	52	46	27	24	72	71	67	61	54	49	29	25
	1500	(708)	0.038	(9.5)	72	69	62	57	52	46	27	24	73	71	66	59	54	48	29	26	74	72	69	62	56	50	31	26
	2000	(944)	0.068	(16.8)	76	72	65	60	55	51	31	27	76	73	67	62	56	52	32	28	76	74	69	63	58	53	33	28
	2600	(1227)	0.104	(25.9)	77	74	69	63	58	55	33	29	78	74	69	64	59	55	33	30	78	75	70	64	60	56	3 4	29
	3200	(1510)	0.161	(40.1)	77	75	70	65	60	57	34	31	78	76	71	66	61	57	35	32	78	77	72	66	62	58	37	32

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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.*

TL-500
DISCHARGE SOUND POWER at ΔPS = 1.5, 2.0 and 3.0 in. wg

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	NC w/ SA	Octave Band Sound Power, Lw, dB						NC	NC w/ SA	Octave Band Sound Power, Lw, dB						NC	NC w/ SA
					2	3	4	5	6	7			2	3	4	5	6	7			2	3	4	5	6	7		
504 / 505 4 inch 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	62	58	52	48	45	20	16	66	63	59	52	48	45	21	16	68	65	61	54	50	47	24	19
	400	(189)	0.100	(24.9)	66	63	59	53	48	49	21	16	67	64	60	53	49	49	22	18	69	67	62	55	51	51	26	21
	500	(236)	0.125	(31.1)	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	20	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	18	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	25	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	27	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	31	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	32	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)	63	62	56	53	48	45	20	15	63	62	56	53	48	45	20	16	65	64	57	55	50	48	22	19
	600	(283)	0.009	(2.2)	69	66	61	57	52	49	25	20	69	66	61	57	52	49	25	21	71	68	63	59	55	53	27	24
	800	(378)	0.020	(5.0)	71	68	63	58	54	51	26	21	71	68	63	58	54	51	26	22	73	70	65	61	57	53	28	25
	1000	(472)	0.030	(7.5)	73	69	64	59	55	52	27	22	73	69	64	59	55	52	27	24	75	71	66	61	57	54	29	26
	1100	(519)	0.040	(10.0)	74	70	65	60	56	53	28	24	74	70	65	60	56	53	28	25	75	72	68	62	59	55	31	27
	1400	(661)	0.055	(13.7)	78	75	69	65	60	57	34	29	78	75	69	65	60	57	34	31	80	76	71	66	63	60	35	32
	1700	(802)	0.070	(17.4)	82	79	72	70	64	60	39	34	82	79	72	70	64	60	39	35	84	81	74	71	66	64	41	38

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.*

TL-500
DISCHARGE SOUND POWER at ΔPS = 1.5, 2.0 and 3.0 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	NC w/ SA	Octave Band Sound Power, Lw, dB						NC	NC w/ SA	Octave Band Sound Power, Lw, dB						NC	NC w/ SA
					2	3	4	5	6	7			2	3	4	5	6	7			2	3	4	5	6	7		
512 12 inch	350	(165)	0.005	(1.3)	66	58	54	51	44	40	18	16	68	61	56	54	49	44	21	18	70	62	58	56	53	48	23	21
	750	(354)	0.025	(6.2)	69	68	62	58	51	47	26	21	71	71	65	62	57	52	29	25	72	72	66	65	62	57	31	26
	1000	(472)	0.039	(9.6)	70	70	65	59	52	49	28	24	72	73	68	64	58	54	32	27	73	74	70	68	63	58	33	28
	1150	(543)	0.056	(13.8)	71	71	66	61	54	51	29	25	74	74	70	65	59	55	33	28	74	76	72	70	64	59	35	31
	1400	(661)	0.083	(20.5)	72	72	67	62	57	53	31	26	75	75	71	66	61	57	34	29	76	77	74	71	65	61	37	32
	1600	(755)	0.112	(27.9)	74	73	69	64	59	55	32	27	77	76	72	67	62	58	35	31	78	78	75	72	66	62	38	33
	2000	(944)	0.163	(40.5)	76	75	70	66	63	59	34	29	79	78	73	69	65	61	38	33	81	80	77	74	69	64	40	35
514 14 inch	450	(212)	0.005	(1.3)	60	47	42	41	36	37	<15	<15	61	48	43	43	38	39	<15	<15	62	49	44	45	40	41	<15	<15
	850	(401)	0.019	(4.8)	65	52	48	45	45	46	<15	<15	66	53	49	47	47	48	16	<15	67	54	50	49	49	50	17	<15
	1200	(566)	0.038	(9.5)	70	64	57	55	56	56	21	18	71	65	58	57	58	58	22	20	72	66	59	59	60	60	24	21
	1500	(708)	0.057	(14.2)	70	66	59	57	58	58	24	19	71	67	60	59	60	60	25	21	72	68	61	61	62	62	26	22
	1950	(920)	0.108	(26.9)	72	68	62	58	59	58	26	21	74	70	63	62	62	61	28	25	75	71	64	64	64	63	29	26
	2400	(1133)	0.151	(37.5)	75	70	64	61	62	61	28	25	76	71	65	65	64	63	29	26	77	73	66	67	66	65	32	28
	2600	(1227)	0.180	(44.7)	75	71	67	64	63	63	29	25	76	72	68	66	65	65	31	27	77	72	69	68	67	67	31	27
516 16 inch	550	(260)	0.005	(1.2)	66	61	56	54	50	46	19	16	67	62	57	55	51	47	20	18	68	63	59	57	52	49	21	20
	950	(448)	0.015	(3.6)	69	67	63	59	55	50	25	20	70	68	65	61	58	52	26	22	71	69	66	63	60	55	27	24
	1300	(614)	0.027	(6.6)	73	73	69	66	59	54	32	27	74	75	70	70	64	58	34	31	74	76	73	72	69	63	35	32
	1500	(708)	0.038	(9.5)	75	74	70	67	60	55	33	28	76	76	71	71	64	59	35	32	76	78	74	75	70	64	38	34
	2000	(944)	0.068	(16.8)	77	76	71	67	62	57	35	31	79	77	73	71	65	60	37	33	81	79	75	76	70	65	39	35
	2600	(1227)	0.104	(25.9)	79	77	72	68	63	59	37	32	80	78	74	71	66	62	38	34	83	80	76	76	71	65	40	37
	3200	(1510)	0.161	(40.1)	79	79	74	70	65	61	39	34	81	81	76	73	68	64	41	38	84	82	79	77	73	67	42	39

1. *Performance data contained within a bold border outline are AHRI certified data.*
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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.*

TL-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

Damper: Less than 1% of rated capacity with 3.0" inlet pressure

TL-500
CASING LEAKAGE

Damper Leakage, CFM						
Inlet Size	0.25" ΔPs	0.25" ΔPs	0.50" ΔPs	1.00" 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

Casing: Less than 1% of rated capacity at 1.0" downstream pressure

TL-500
MINIMUM PRESSURES

Unit Size	CFM	Unit ΔPs (in. wg)	Unit ΔPt (in. wg)	Unit + 1R Coil, ΔPs (in. wg)	Unit + 1R Coil, ΔPt (in. wg)	Unit + 2R Coil, ΔPs (in. wg)	Unit + 2R Coil, ΔPt (in. wg)	Unit + 3R Coil, ΔPs (in. wg)	Unit + 3R Coil, ΔPt (in. wg)	Unit + 4R Coil, ΔPs (in. wg)	Unit + 4R Coil, ΔPt (in. wg)
504 / 505 4-inch 5-inch	100	0.005	0.02	0.02	0.03	0.04	0.05	0.05	0.06	0.05	0.06
	200	0.020	0.08	0.06	0.12	0.10	0.16	0.14	0.20	0.18	0.24
	300	0.045	0.18	0.12	0.25	0.21	0.34	0.29	0.42	0.37	0.50
	400	0.080	0.32	0.20	0.44	0.34	0.58	0.47	0.71	0.60	0.84
506 6-inch	500	0.125	0.49	0.31	0.67	0.51	0.87	0.69	1.05	0.88	1.24
	600	0.180	0.71	0.39	0.92	0.69	1.22	—	—	—	—
508 8-inch	300	0.001	0.04	0.05	0.09	0.10	0.14	0.16	0.20	0.20	0.24
	400	0.001	0.07	0.08	0.15	0.16	0.23	0.24	0.31	0.32	0.39
	500	0.002	0.11	0.11	0.22	0.23	0.34	0.35	0.46	0.46	0.57
	600	0.003	0.15	0.15	0.30	0.32	0.47	0.47	0.62	0.63	0.78
	700	0.004	0.21	0.19	0.40	0.41	0.62	0.61	0.82	0.82	1.03
	800	0.005	0.28	0.25	0.52	0.52	0.79	0.78	1.05	—	—
	900	0.007	0.35	0.31	0.65	0.63	0.97	—	—	—	—
	1000	0.008	0.43	0.37	0.79	0.75	1.17	—	—	—	—
510 10-inch	400	0.004	0.03	0.04	0.07	0.09	0.12	0.13	0.16	0.17	0.20
	600	0.009	0.07	0.09	0.15	0.18	0.24	0.25	0.31	0.35	0.41
	800	0.016	0.12	0.15	0.25	0.29	0.39	0.37	0.47	0.56	0.66
	1000	0.025	0.19	0.21	0.38	0.41	0.58	0.49	0.66	0.81	0.98
	1200	0.036	0.27	0.29	0.52	0.58	0.81	0.65	0.88	—	—
	1400	0.049	0.37	0.38	0.70	0.78	1.10	—	—	—	—
	1600	0.063	0.48	0.48	0.90	—	—	—	—	—	—
512 12-inch	800	0.020	0.07	0.10	0.15	0.20	0.25	0.29	0.34	0.38	0.43
	1000	0.031	0.11	0.15	0.23	0.29	0.37	0.42	0.50	0.55	0.63
	1200	0.045	0.15	0.21	0.31	0.40	0.50	0.58	0.68	0.75	0.85
	1400	0.061	0.21	0.27	0.42	0.52	0.67	0.74	0.89	0.97	1.12
	1600	0.080	0.27	0.35	0.54	0.65	0.84	0.93	1.12	—	—
	1800	0.101	0.35	0.43	0.68	0.79	1.04	—	—	—	—
	2000	0.125	0.43	0.53	0.83	0.96	1.26	—	—	—	—
	2200	0.151	0.52	0.62	0.99	—	—	—	—	—	—
514 14-inch	1000	0.000	0.04	0.07	0.11	0.16	0.20	0.24	0.28	0.32	0.36
	1300	0.000	0.07	0.11	0.18	0.25	0.32	0.37	0.44	0.50	0.57
	1600	0.001	0.10	0.16	0.26	0.35	0.45	0.53	0.63	0.70	0.80
	2000	0.001	0.16	0.24	0.40	0.51	0.67	0.77	0.93	—	—
	2300	0.001	0.21	0.31	0.52	0.65	0.86	0.97	1.18	—	—
	2600	0.002	0.27	0.38	0.65	0.79	1.06	—	—	—	—
	3000	0.002	0.36	0.49	0.85	—	—	—	—	—	—
	3300	0.003	0.44	0.58	1.02	—	—	—	—	—	—
516 16-inch	1600	0.030	0.08	0.16	0.21	0.30	0.35	0.44	0.49	0.57	0.62
	2000	0.044	0.13	0.23	0.32	0.43	0.52	0.63	0.72	0.83	0.92
	2300	0.052	0.17	0.29	0.41	0.55	0.67	0.80	0.92	—	—
	2600	0.070	0.21	0.36	0.50	0.68	0.82	0.98	1.12	—	—
	3000	0.085	0.28	0.46	0.65	0.87	1.06	—	—	—	—
	3300	0.100	0.33	0.54	0.77	—	—	—	—	—	—
	3600	0.113	0.39	0.62	0.90	—	—	—	—	—	—
	4000	0.131	0.47	0.75	1.09	—	—	—	—	—	—

1. *ΔPs = static pressure drop; ΔPt = total pressure drop.*
2. *Calculations of ΔPs and ΔPt 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 ΔPs and Unit ΔPt 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.*

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

Unit Size	Rows	Connection OD (in)	GPM	Head Loss (ft-H_2O)	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_2O)	CFM							
					500	600	700	800	1000	1200	1400	1600
508	1	0.625	1	0.63	12.1	12.9	13.5	14.1	15.1	15.9	16.5	17.1
			2	2.39	13.7	14.7	15.6	16.4	17.7	18.8	19.7	20.5
			3	5.24	14.3	15.4	16.4	17.3	18.8	20.1	21.1	22.1
			4	9.14	14.7	15.9	16.9	17.9	19.5	20.8	21.9	22.9
			Airside Ps		0.11	0.15	0.19	0.24	0.36	0.49	0.64	0.81
508	2	0.625	1	0.17	18.6	19.8	20.9	21.7	22.5	23.1	25.1	—
			2	0.63	22.5	24.3	25.9	27.3	28.5	29.6	33.0	—
			4	2.39	25.1	27.5	29.6	31.5	33.1	34.6	39.4	—
			6	5.22	26.2	28.8	31.1	33.2	35.1	36.7	42.2	—
			Airside Ps		0.23	0.32	0.41	0.51	0.62	0.74	1.31	—
508	3	0.625	1	0.08	21.8	23.1	24.1	25.0	26.3	27.3	—	—
			2	0.31	27.5	29.8	31.6	33.2	35.8	37.8	—	—
			4	1.21	31.7	34.8	37.5	39.9	43.8	47.0	—	—
			8	4.78	34.3	38.1	41.5	44.4	49.5	53.8	—	—
			Airside Ps		0.35	0.47	0.61	0.77	1.11	1.51	—	—
508	4	0.875	2	0.21	30.9	33.4	35.4	37.1	39.9	—	—	—
			4	0.84	36.3	40.0	43.1	45.9	50.5	—	—	—
			6	1.87	38.5	42.8	46.5	49.8	55.4	—	—	—
			8	3.32	39.8	44.4	48.5	52.1	58.3	—	—	—
			Airside Ps		0.46	0.63	0.82	1.02	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.

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

Unit Size	Rows	Connection OD (in)	GPM	Head Loss (ft-H_2O)	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_2O)	CFM							
					600	800	1000	1200	1400	1600	1800	2000
512	1	0.5	0.5	0.27	13.8	14.9	15.7	16.3	16.9	17.3	17.6	17.9
			1	1.04	17.5	19.4	20.8	22.0	23.0	23.8	24.5	25.2
			2	3.93	20.1	22.7	24.8	26.5	28.0	29.3	30.4	31.4
			3	8.57	21.2	24.1	26.5	28.5	30.2	31.7	33.0	34.2
			Airside Ps		0.05	0.08	0.12	0.16	0.21	0.27	0.33	0.40
512	2	0.875	1	0.27	25.4	28.1	30.1	31.7	32.9	34.0	34.8	35.6
			2	1.02	31.3	35.8	39.3	42.1	44.5	46.5	48.2	49.7
			4	3.85	35.4	41.3	46.1	50.2	53.7	56.7	59.4	61.8
			6	8.40	37.1	43.6	49.0	53.6	57.7	61.2	64.4	67.2
			Airside Ps		0.11	0.18	0.26	0.35	0.46	0.57	0.69	0.83
512	3	0.875	2	0.39	38.5	43.7	44.7	50.8	53.4	55.5	57.2	58.8
			4	1.52	44.3	52.0	58.1	63.2	67.5	71.2	74.4	77.3
			6	3.37	46.6	55.3	62.6	68.6	73.9	78.5	82.5	86.2
			8	5.94	47.8	57.2	65.0	71.7	77.5	82.7	87.2	91.4
			Airside Ps		0.17	0.27	0.39	0.53	0.68	0.85	1.04	1.24
512	4	0.875	3	0.55	47.4	55.2	61.1	65.9	69.9	73.2	76.0	—
			5	1.51	51.7	61.6	69.6	76.2	81.9	86.7	91.0	—
			7	2.94	53.7	64.7	73.8	81.5	88.2	94.0	99.2	—
			10	5.95	55.3	67.2	77.3	86.0	93.6	100.3	106.4	—
			Airside Ps		0.22	0.36	0.52	0.70	0.91	1.14	1.39	—

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.

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

Unit Size	Rows	Connection OD (in)	GPM	Head Loss (ft-H_2O)	CFM							
					600	700	800	1000	1500	2000	2500	3000
514	1	0.625	0.5	0.33	15.4	16.1	16.6	17.6	19.1	20.0	20.6	21.1
			1	1.23	19.7	20.9	21.9	23.7	26.7	28.8	30.3	31.4
			2	4.65	22.8	24.5	26.0	28.5	33.1	36.4	39.0	41.1
			3	10.15	24.1	26.0	27.6	30.5	35.9	39.9	43.1	45.6
			Airside Ps		0.03	0.04	0.05	0.07	0.15	0.24	0.36	0.49
514	2	0.875	1	0.32	27.8	29.5	30.9	33.2	37.0	39.3	40.9	42.1
			2	1.22	34.5	37.2	39.7	43.7	51.1	56.0	59.7	62.5
			4	4.62	39.0	42.7	45.9	51.6	62.5	70.4	76.5	81.5
			6	10.09	40.8	44.8	48.5	54.9	67.4	76.8	84.3	90.4
			Airside Ps		0.07	0.09	0.11	0.16	0.32	0.51	0.74	1.01
514	3	0.875	2	0.43	42.4	45.7	48.6	53.3	61.2	66.2	69.7	72.3
			4	1.68	48.5	53.3	57.5	64.8	78.4	87.9	95.0	100.6
			6	3.72	50.8	56.2	61.0	69.6	86.1	98.1	107.4	114.9
			8	6.55	52.0	57.7	62.9	72.2	90.4	104.0	114.8	123.6
			Airside Ps		0.10	0.13	0.17	0.24	0.47	0.77	1.11	1.51
514	4	0.875	2	0.26	46.8	50.6	53.7	58.7	67.0	72.0	75.4	—
			6	2.30	57.0	63.4	69.2	79.4	98.9	113.0	123.7	—
			8	4.06	58.4	65.2	71.5	82.7	104.6	121.0	133.7	—
			10	6.32	59.3	66.4	73.0	84.8	108.3	126.3	140.5	—
			Airside Ps		0.14	0.18	0.22	0.32	0.63	1.02	1.49	—

Unit Size	Rows	Connection OD (in)	GPM	Head Loss (ft-H_2O)	CFM							
					600	700	800	1000	1500	2000	2500	3000
516	1	0.625	0.5	0.36	16.2	16.9	17.6	18.5	20.1	21.0	21.7	22.2
			1	1.37	20.9	22.2	23.4	25.2	28.5	30.7	32.3	33.6
			2	5.19	24.4	26.2	27.8	30.5	35.6	39.3	42.1	44.4
			3	11.33	25.7	27.8	29.6	32.7	38.8	43.2	46.7	49.5
			Airside Ps		0.02	0.03	0.04	0.06	0.11	0.19	0.27	0.37
516	2	0.875	2	1.36	36.1	39.1	41.7	46.1	54.0	59.3	63.3	66.3
			3	2.96	39.2	42.7	45.9	51.4	61.7	69.0	74.6	79.0
			4	5.15	40.9	44.8	48.4	54.5	66.4	75.0	81.8	87.2
			5	7.92	42.0	46.2	49.9	56.6	69.5	79.1	86.7	92.9
			Airside Ps		0.05	0.07	0.09	0.12	0.24	0.39	0.57	0.78
516	3	0.875	2	0.46	44.4	48.0	51.1	56.2	64.8	70.2	73.9	76.7
			4	1.79	50.7	55.8	60.4	68.4	83.2	93.6	101.4	107.5
			6	3.95	53.0	58.7	64.0	73.3	91.3	104.6	114.9	123.2
			8	6.95	54.1	60.3	65.9	76.0	95.9	110.9	122.9	132.7
			Airside Ps		0.08	0.10	0.13	0.19	0.37	0.59	0.86	1.17
516	4	0.875	2	0.27	49.0	53.0	56.4	61.8	70.7	76.1	79.7	82.3
			4	1.07	56.4	62.4	67.8	77.0	94.0	105.6	114.1	120.6
			8	4.22	60.4	67.7	74.4	86.5	110.5	128.5	142.6	154.1
			10	6.56	61.2	68.8	75.8	88.6	114.3	134.0	149.8	162.7
			Airside Ps		0.11	0.14	0.17	0.25	0.49	0.79	1.15	1.56

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.

TL-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
			Airside 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
			Airside 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
			Airside 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
			Airside 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)							
					236	283	330	378	472	566	661	755
508	1	15.9	0.06	1.88	3.5	3.8	4.0	4.1	4.4	4.7	4.8	5.0
			0.13	7.14	4.0	4.3	4.6	4.8	5.2	5.5	5.8	6.0
			0.19	15.66	4.2	4.5	4.8	5.1	5.5	5.9	6.2	6.5
			0.25	27.32	4.3	4.7	4.9	5.2	5.7	6.1	6.4	6.7
			Airside Ps (kPa)		0.03	0.04	0.05	0.06	0.09	0.12	0.16	0.20
508	2	15.9	0.06	0.51	5.4	5.8	6.1	6.4	6.6	6.8	7.3	—
			0.13	1.88	6.6	7.1	7.6	8.0	8.3	8.7	9.7	—
			0.25	7.14	7.3	8.1	8.7	9.2	9.7	10.1	11.5	—
			0.38	15.60	7.7	8.4	9.1	9.7	10.3	10.7	12.4	—
			Airside Ps (kPa)		0.06	0.08	0.10	0.13	0.15	0.18	0.33	—
508	3	15.9	0.06	0.24	6.4	6.8	7.1	7.3	7.7	8.0	—	—
			0.13	0.93	8.1	8.7	9.3	9.7	10.5	11.1	—	—
			0.25	3.62	9.3	10.2	11.0	11.7	12.8	13.8	—	—
			0.50	14.29	10.0	11.2	12.2	13.0	14.5	15.8	—	—
			Airside Ps (kPa)		0.09	0.12	0.15	0.19	0.28	0.38	—	—
508	4	22.2	0.13	0.63	9.0	9.8	10.4	10.9	11.7	—	—	—
			0.25	2.51	10.6	11.7	12.6	13.4	14.8	—	—	—
			0.38	5.59	11.3	12.5	13.6	14.6	16.2	—	—	—
			0.50	9.92	11.7	13.0	14.2	15.3	17.1	—	—	—
			Airside Ps (kPa)		0.11	0.16	0.20	0.25	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.

TL-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)							
					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
			Airside 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
			Airside 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	25.50	10.9	12.2	13.3	14.2	15.9	17.3	18.4	19.5
			Airside 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	—
			Airside 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)							
					283	378	472	566	661	755	850	944
512	1	12.7	0.03	0.81	4.0	4.4	4.6	4.8	4.9	5.1	5.2	5.2
			0.06	3.11	5.1	5.7	6.1	6.4	6.7	7.0	7.2	7.4
			0.13	11.75	5.9	6.6	7.3	7.8	8.2	8.6	8.9	9.2
			0.19	25.62	6.2	7.1	7.8	8.3	8.8	9.3	9.7	10.0
			Airside Ps (kPa)		0.01	0.02	0.03	0.04	0.05	0.07	0.08	0.10
512	2	22.2	0.06	0.81	7.4	8.2	8.8	9.3	9.6	10.0	10.2	10.4
			0.13	3.05	9.2	10.5	11.5	12.3	13.0	13.6	14.1	14.6
			0.25	11.51	10.4	12.1	13.5	14.7	15.7	16.6	17.4	18.1
			0.38	25.11	10.9	12.8	14.3	15.7	16.9	17.9	18.9	19.7
			Airside Ps (kPa)		0.03	0.04	0.06	0.09	0.11	0.14	0.17	0.21
512	3	22.2	0.13	1.17	11.3	12.8	13.1	14.9	15.6	16.3	16.7	17.2
			0.25	4.54	13.0	15.2	17.0	18.5	19.8	20.8	21.8	22.6
			0.38	10.07	13.6	16.2	18.3	20.1	21.6	23.0	24.2	25.2
			0.50	17.75	14.0	16.7	19.0	21.0	22.7	24.2	25.5	26.8
			Airside Ps (kPa)		0.04	0.07	0.10	0.13	0.17	0.21	0.26	0.31
512	4	22.2	0.19	1.64	13.9	16.2	17.9	19.3	20.5	21.4	22.3	—
			0.32	4.51	15.1	18.0	20.4	22.3	24.0	25.4	26.6	—
			0.44	8.79	15.7	18.9	21.6	23.9	25.8	27.5	29.0	—
			0.63	17.78	16.2	19.7	22.6	25.2	27.4	29.4	31.2	—
			Airside Ps (kPa)		0.05	0.09	0.13	0.17	0.23	0.28	0.35	—

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.

TL-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	0.03	0.99	4.5	4.7	4.9	5.2	5.6	5.9	6.0	6.2
			0.06	3.68	5.8	6.1	6.4	6.9	7.8	8.4	8.9	9.2
			0.13	13.90	6.7	7.2	7.6	8.3	9.7	10.7	11.4	12.0
			0.19	30.34	7.1	7.6	8.1	8.9	10.5	11.7	12.6	13.4
			Airside Ps (kPa)		0.01	0.01	0.01	0.02	0.04	0.06	0.09	0.12
514	2	22.2	0.06	0.96	8.1	8.6	9.0	9.7	10.8	11.5	12.0	12.3
			0.13	3.65	10.1	10.9	11.6	12.8	15.0	16.4	17.5	18.3
			0.25	13.81	11.4	12.5	13.4	15.1	18.3	20.6	22.4	23.9
			0.38	30.16	11.9	13.1	14.2	16.1	19.7	22.5	24.7	26.5
			Airside Ps (kPa)		0.02	0.02	0.03	0.04	0.08	0.13	0.18	0.25
514	3	22.2	0.13	1.29	12.4	13.4	14.2	15.6	17.9	19.4	20.4	21.2
			0.25	5.02	14.2	15.6	16.8	19.0	23.0	25.7	27.8	29.5
			0.38	11.12	14.9	16.5	17.9	20.4	25.2	28.7	31.4	33.6
			0.50	19.58	15.2	16.9	18.4	21.1	26.5	30.5	33.6	36.2
			Airside Ps (kPa)		0.02	0.03	0.04	0.06	0.12	0.19	0.28	0.38
514	4	22.2	0.13	0.78	13.7	14.8	15.7	17.2	19.6	21.1	22.1	—
			0.38	6.87	16.7	18.6	20.3	23.2	29.0	33.1	36.2	—
			0.50	12.14	17.1	19.1	20.9	24.2	30.6	35.4	39.1	—
			0.63	18.89	17.4	19.4	21.4	24.8	31.7	37.0	41.1	—
			Airside Ps (kPa)		0.03	0.04	0.05	0.08	0.16	0.25	0.37	—

Unit Size	Rows	Connection OD (mm)	Water Flow (L/s)	Head Loss (kPa)	Airflow (L/s)							
					283	330	378	472	708	944	1180	1416
516	1	15.9	0.03	1.08	4.7	4.9	5.2	5.4	5.9	6.1	6.4	6.5
			0.06	4.09	6.1	6.5	6.9	7.4	8.3	9.0	9.5	9.8
			0.13	15.51	7.1	7.7	8.1	8.9	10.4	11.5	12.3	13.0
			0.19	33.87	7.5	8.1	8.7	9.6	11.4	12.6	13.7	14.5
			Airside Ps (kPa)		0.00	0.01	0.01	0.01	0.03	0.05	0.07	0.09
516	2	22.2	0.13	4.07	10.6	11.4	12.2	13.5	15.8	17.4	18.5	19.4
			0.19	8.85	11.5	12.5	13.4	15.0	18.1	20.2	21.8	23.1
			0.25	15.39	12.0	13.1	14.2	16.0	19.4	22.0	24.0	25.5
			0.32	23.67	12.3	13.5	14.6	16.6	20.3	23.2	25.4	27.2
			Airside Ps (kPa)		0.01	0.02	0.02	0.03	0.06	0.10	0.14	0.19
516	3	22.2	0.13	1.37	13.0	14.1	15.0	16.5	19.0	20.6	21.6	22.5
			0.25	5.35	14.8	16.3	17.7	20.0	24.4	27.4	29.7	31.5
			0.38	11.81	15.5	17.2	18.7	21.5	26.7	30.6	33.6	36.1
			0.50	20.77	15.8	17.7	19.3	22.3	28.1	32.5	36.0	38.9
			Airside Ps (kPa)		0.02	0.02	0.03	0.05	0.09	0.15	0.21	0.29
516	4	22.2	0.13	0.81	14.3	15.5	16.5	18.1	20.7	22.3	23.3	24.1
			0.25	3.20	16.5	18.3	19.9	22.5	27.5	30.9	33.4	35.3
			0.50	12.61	17.7	19.8	21.8	25.3	32.4	37.6	41.8	45.1
			0.63	19.61	17.9	20.1	22.2	25.9	33.5	39.2	43.9	47.6
			Airside Ps (kPa)		0.03	0.03	0.04	0.06	0.12	0.20	0.29	0.39

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.

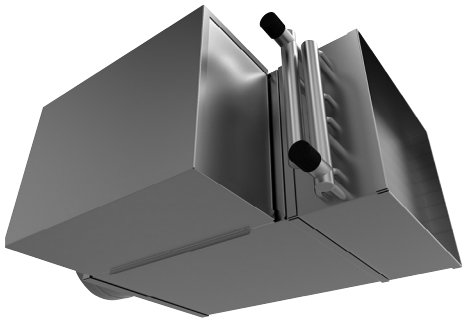
TL-500
ACCESSORIES AND COMPONENTS

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)				
Inlet Size	**1 Row**	**2 Row**	**3 Row**	**4 Row**
6	5/8" (15.8)	7/8" (22.2)	7/8" (22.2)	7/8" (22.2)
8	5/8" (15.8)	7/8" (22.2)	7/8" (22.2)	7/8" (22.2)
10	5/8" (15.8)	7/8" (22.2)	7/8" (22.2)	7/8" (22.2)
12	5/8" (15.8)	5/8" (15.8)	7/8" (22.2)	7/8" (22.2)
14	5/8" (15.8)	5/8" (15.8)	7/8" (22.2)	7/8" (22.2)
16	5/8" (15.8)	5/8" (15.8)	7/8" (22.2)	7/8" (22.2)

All coils have 10 fins/inch

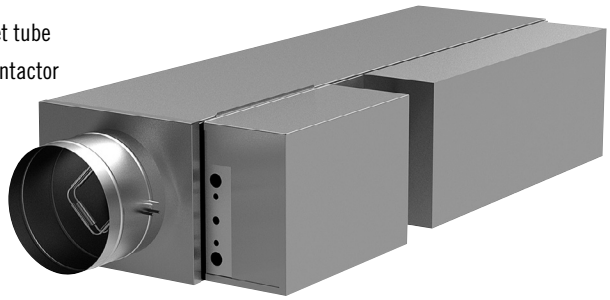
All accessories that can be attached to the Single Duct Boxes are not a part of the AHRI certification program but ratings can be affected by their use.

TL-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 TL-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.

TL-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	3	7	9	6
514	1	1	2	7	9	6
516	1	1	2	7	7	6

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.

TL-500
ELECTRIC HEATER CAPACITIES

Single Phase TL-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	120	0.5	5	3
	208	0.5	9.5	3
	240	0.5	11	3
	277	0.5	12	3
	480	1	23	3
512	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
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	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 TL-500 kW Limits				
Inlet 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

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:

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

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

** 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

TL-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.