

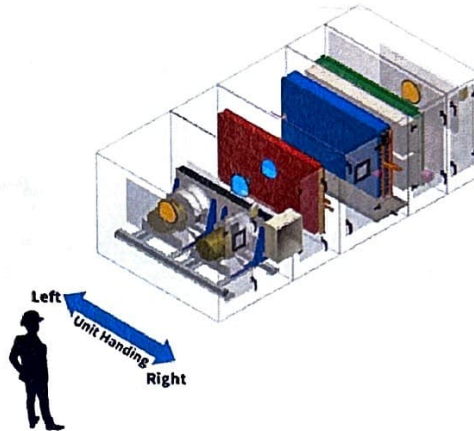
Trane Performance Climate Changer Air Handler

Unit Overview - AHU-LS5-106

Application	Unit Size	External Dimensions			Weight	
		Height	Width	Length	Installed	Rigging
Indoor unit	CSAA017	52.5 in	72.0 in	157.174 in	2663 lb	2504 lb
Quantity of Shipping Sections		Largest Ship Split			Heaviest Ship Split	Elevation
4 piece(s)		Height	Width	Length		
		52.5 in	72.0 in	44.3 in	962 lb	0.00 ft
Supply Fan						
Airflow	7545 cfm	Total Static Pressure		4.187 in H2O		

Construction Features

Panel	2in. foam injected R-13 with thermal break
Panel Material	All unit inner panels - galvanized
Integral Base Frame	6in. integral base frame
Short Circuit Current Rating	65 kA
Agency Approval	UL listed unit



Unit Electrical

Circuit	Voltage/Phase/Frequency	FLA	MCA	Max Fuse Size
Circuit number 1 Supply fan motor(s)	460/3/60	13.40 A	-	-
Circuit number 2 UV lights 1	115/1/60	1.30 A	1.63	15.00
Circuit number 3 Lights + switch	115/1/60	2.61 A	3.26	15.00
Circuit number 4 Receptacle	115/1/60	8.00 A	10.00	15.00

Note: No factory motor interface provided. MCA and MOP to be determined by the Electrical Contractor.

Unit Controls

Controller Type: No controller

Warranty

Warranty section	Extd. warranty
Parts - whole unit	2nd yr only additional
Labor - 1st year	1st year labor warranty
Labor - beyond 1st year	2nd year only

Air mixing section - Position: 1

Openings							
Face	Path	Type	Airflow	Face Velocity	Area	Pressure Drop	Hood
Back	Return	Sizeable rectangular opening	7545 cfm	985 ft/min	7.66 sq ft	0.000 in H2O	N/A
Section Options							
Door Location			Right				
Marine Light			Marine LED light				



Filter section - Position: 2

Primary Filter									
Type	Frame	Loading	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
12in. cartridge - 95% eff - MERV 15	Bag/cartridge filter frame	Side load filters	7545 cfm	18.89 sq ft	399 ft/min	Mid-life	0.775 in H2O	2.00 4.00	20x20 20x24

Prefilter							
Type	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
2" Pleated media - MERV 8	7545 cfm	18.89 sq ft	399 ft/min	Mid-life	0.610 in H2O	2.00 4.00	20x20 20x24

Filter Section Options	
Door Location	Right

Cooling coil section - Position: 3

Coil Construction		Coil Performance	
Model	Chilled water - 1/2" Unit Optimized, General (UW)	Capacity	
Rows	8	Total	217.82 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Sensible	159.19 MBh
Coil Connection	Standard	Air	
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Flow	7545 cfm
Fin Spacing	140 Per Foot	Entering Dry Bulb	70.20 F
Fin Material	Aluminum fins	Entering Wet Bulb	61.20 F
Fin Type	Delta flo H (Hi efficient)	Leaving Dry Bulb	51.00 F
Face Area	16.81 sq ft	Leaving Wet Bulb	50.90 F
Coil (top/single) H x L	40 in. (1016 mm) X 61" (1549 mm) finned length	Pressure Drop	0.867 in H2O
Casing	Stainless steel	Face Velocity	449 ft/min
Turbulators	Yes	Fluid	
Rigging Weight	360.0 lb	Flow	27.14 gpm
Installed Weight	483.0 lb	Entering	44.00 F
Voltage	115/60/1	Leaving	60.00 F
Coil Section Options		Pressure Drop	5.06 ft fluid
Extended Drain and Vent	YES	Tube Velocity	1.50 ft/s
Drain Pan	Stainless steel	Reynolds Number	4532.23
Drain Pan Size	Extended medium	Type	Water
Drain Connection	Right	Fouling Factor	0.00000 hr-sq ft-deg F/Btu
Minimum Trap Height (L)	8.226 in	Volume	14.72 gal
H Trap Dimension	4.817 in	AHRI 410 Classification	
J Trap Dimension	2.409 in	AHRI 410 Classification	AHRI ACHC Certified
Door Location	Right	Data Generation Date	7/29/2024
Window	Right - thermal	Trane Select Assist update number	2850
UV Light	Yes		

Note: Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.





CSAA
Quantity: 1
Tags: AHU-LS5-106

Job Name: OIA Hyatt Ballrooms

Heating coil section - Position: 4

Coil Construction		Coil Performance	
Model	Hot water - 1/2" Unit Optimized, Low Water Flow (UP)	Capacity	
Rows	2	Total	240.57 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Air	
Coil Connection	Standard	Flow	7545 cfm
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Entering Dry Bulb	60.20 F
Fin Spacing	147 Per Foot	Leaving Dry Bulb	89.60 F
Fin Material	Aluminum fins	Pressure Drop	0.181 in H2O
Fin Type	Delta flo H (Hi efficient)	Face Velocity	449 ft/min
Face Area	16.81 sq ft	Fluid	
Coil (top/single) H x L	40 in. (1016 mm) X 61" (1549 mm) finned length	Flow	24.12 gpm
Casing	Galvanized	Entering	120.00 F
Turbulators	Not Included	Leaving	100.00 F
Rigging Weight	126.9 lb	Pressure Drop	2.57 ft fluid
Installed Weight	163.1 lb	Tube Velocity	2.76 ft/s
Coil Section Options		Reynolds Number	17489.39
Extended Drain and Vent	YES	Type	Water
Drain Pan Size	Small	Fouling Factor	0.00025 hr-sq ft-deg F/Btu
Door Location	Right	Volume	4.34 gal
AHRI 410 Classification			
		AHRI 410 Classification	AHRI ACHC Certified
		Data Generation Date	7/29/2024
		Trane Select Assist update number	2850

Note: Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.



Supply fan section - Position: 5

Fan Data		Motor Data	
Wheel Diameter/Type/Class	18.25in. dd plenum, 80% width, M press	Power / Fan	5 hp
Fan Quantity	2	Voltage	460/3
Discharge Location	Front top	Speed	1800
Motor Location	Right side drive	Class	NEMA premium compliant ODP
Blades	Higher eff.(some bands lower,more spike)	Efficiency	90.03 %
Drive Service Factor	Direct drive	Part Load Efficiency	85.87 %
Fan K-factor	1822.00	Fan electrical power (FEP)	6.70 kW
Fan Performance		FEI	1.32
Airflow	7545 cfm	Wire to air static efficiency	55.34 %
Total Static Pressure	4.187 in H2O	Note: Field provided VFD efficiency not included. DOL motor fan electrical power calculated in accordance with AHRI 430.	
Total Brake Power	8.093 hp	Note: Certified airflow performance per AHRI 430	
Operating Speed	2318 rpm	Fan Section Options	
AMCA FEG	FEG85	Fan Wheel Balance	Inverter balance with shaft grounding
Bare fan peak total efficiency	72.20 %	Door Location	Right
Unit Static Efficiency	61.54 %	Window	Right - thermal
Motor Interface Options		Door Guard	Yes
Selection Type	Overload box	Marine Light	Marine LED light
Voltage	460/3	One Fan Down	
Motor Wire In Conduit	Motor wiring conduit	Redundancy	60.36 %
VFD Frequency	79.00 Hz	Operating Speed	2554 rpm

Fan Discharge Options							
Face	Type	Airflow	Face Velocity	Area	Pressure Drop	Exhaust Hood	Damper Torque Requirement
Front Face Feature	Sizeable rectangular opening	7545 cfm	1277 ft/min	5.91 sq ft	0.254 in H2O	N/A	N/A

Note: Certified by the AHRI Central Station Air-Handling Unit (AHU) Certification Program, based on AHRI Standard 430/431. AHRI certified units are subject to rigorous and continuous testing, have performance ratings independently measured and are third party verified. Certified units may be found in the AHRI Directory at www.ahridirectory.org.



Pressure Drop in (in w.g.)	
Supply fan	
Filter section	1.39
Coil section	0.87
Coil section	0.18
Fan section	0.25
Internal Static Pressure	2.69
External Static Pressure	1.50
Total Static Pressure	4.19

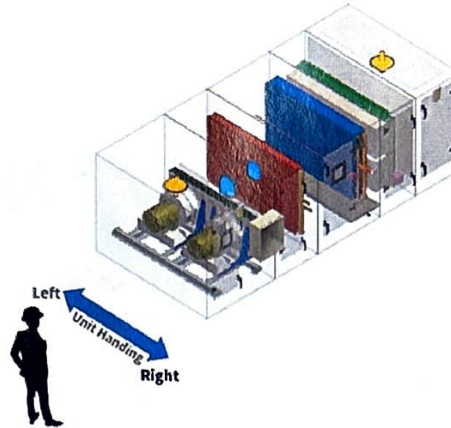
Trane Performance Climate Changer Air Handler

Unit Overview - AHU-LS5-107

Application	Unit Size	External Dimensions			Weight	
		Height	Width	Length	Installed	Rigging
Indoor unit	CSAA017	52.5 in	72.0 in	164.754 in	2709 lb	2550 lb
Quantity of Shipping Sections		Largest Ship Split			Heaviest Ship Split	Elevation
4 piece(s)		Height	Width	Length		
		52.5 in	72.0 in	51.4 in	1004 lb	0.00 ft
Supply Fan						
Airflow	8050 cfm	Total Static Pressure		4.337 in H2O		

Construction Features

Panel	2in. foam injected R-13 with thermal break
Panel Material	All unit inner panels - galvanized
Integral Base Frame	6in. integral base frame
Short Circuit Current Rating	65 kA
Agency Approval	UL listed unit



Unit Electrical

Circuit	Voltage/Phase/Frequency	FLA	MCA	Max Fuse Size
Circuit number 1 Supply fan motor(s)	460/3/60	19.60 A	-	-
Circuit number 2 UV lights 1	115/1/60	1.30 A	1.63	15.00
Circuit number 3 Lights + switch	115/1/60	2.61 A	3.26	15.00
Circuit number 4 Receptacle	115/1/60	8.00 A	10.00	15.00

Note: No factory motor interface provided. MCA and MOP to be determined by the Electrical Contractor.

Unit Acoustics

Sound Path	63 (Hz)	125	250	500	1K	2K	4K	8K
Supply top:	79 dB	79 dB	83 dB	86 dB	81 dB	81 dB	77 dB	68 dB
Return:	74 dB	74 dB	82 dB	73 dB	64 dB	67 dB	59 dB	51 dB
Casing:	81 dB	78 dB	78 dB	79 dB	75 dB	58 dB	51 dB	40 dB

Unit Controls

Controller Type	No controller
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Warranty

Warranty section	Extd. warranty
Parts - whole unit	2nd yr only additional
Labor - 1st year	1st year labor warranty
Labor - beyond 1st year	2nd year only



Air mixing section - Position: 1

Openings							
Face	Path	Type	Airflow	Face Velocity	Area	Pressure Drop	Hood
Top	Return	Sizeable rectangular opening	8050 cfm	950 ft/min	8.47 sq ft	0.000 in H2O	N/A

Section Options	
Door Location	Right
Marine Light	Marine LED light

Filter section - Position: 2

Primary Filter									
Type	Frame	Loading	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
12in. cartridge - 95% eff - MERV 15	Bag/cartridge filter frame	Side load filters	8050 cfm	18.89 sq ft	426 ft/min	Mid-life	0.790 in H2O	2.00 4.00	20x20 20x24

Prefilter							
Type	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
2" Pleated media - MERV 8	8050 cfm	18.89 sq ft	426 ft/min	Mid-life	0.620 in H2O	2.00 4.00	20x20 20x24

Filter Section Options	
Door Location	Right

Cooling coil section - Position: 3

Coil Construction		Coil Performance	
Model	Chilled water - 1/2" Unit Optimized, General (UW)	Capacity	
Rows	8	Total	234.71 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Sensible	172.50 MBh
Coil Connection	Standard	Air	
Tube Matl/Wall Thickness	.016" (0.406 mm) copper tubes	Flow	8050 cfm
Fin Spacing	145 Per Foot	Entering Dry Bulb	70.50 F
Fin Material	Aluminum fins	Entering Wet Bulb	61.30 F
Fin Type	Delta flo H (Hi efficient)	Leaving Dry Bulb	51.00 F
Face Area	16.81 sq ft	Leaving Wet Bulb	50.90 F
Coil (top/single) H x L	40 in. (1016 mm) X 61" (1549 mm) finned length	Pressure Drop	0.985 in H2O
Casing	Stainless steel	Face Velocity	479 ft/min
Turbulators	Yes	Fluid	
Rigging Weight	364.7 lb	Flow	29.24 gpm
Installed Weight	487.7 lb	Entering	44.00 F
Voltage	115/60/1	Leaving	60.00 F
Coil Section Options		Pressure Drop	5.72 ft fluid
Extended Drain and Vent	YES	Tube Velocity	1.62 ft/s
Drain Pan	Stainless steel	Reynolds Number	4883.66
Drain Pan Size	Extended medium	Type	Water
Drain Connection	Right	Fouling Factor	0.00000 hr-sq ft-deg F/Btu
Minimum Trap Height (L)	8.403 in	Volume	14.72 gal
H Trap Dimension	4.935 in	AHRI 410 Classification	
J Trap Dimension	2.468 in	AHRI 410 Classification	AHRI ACHC Certified
Door Location	Right	Data Generation Date	7/29/2024
Window	Right - thermal	Trane Select Assist update number	2850
UV Light	Yes		

Note: Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.





Job Name: OIA Hyatt Ballrooms

CSAA
Quantity: 1
Tags: AHU-LS5-107

Heating coil section - Position: 4

Coil Construction		Coil Performance	
Model	Hot water - 1/2" Unit Optimized, Low Water Flow (UP)	Capacity	
Rows	2	Total	256.67 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Air	
Coil Connection	Standard	Flow	8050 cfm
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Entering Dry Bulb	60.20 F
Fin Spacing	153 Per Foot	Leaving Dry Bulb	89.60 F
Fin Material	Aluminum fins	Pressure Drop	0.210 in H2O
Fin Type	Delta flo H (Hi efficient)	Face Velocity	479 ft/min
Face Area	16.81 sq ft	Fluid	
Coil (top/single) H x L	40 in. (1016 mm) X 61" (1549 mm) finned length	Flow	25.73 gpm
Casing	Galvanized	Entering	120.00 F
Turbulators	Not Included	Leaving	100.00 F
Rigging Weight	128.3 lb	Pressure Drop	2.89 ft fluid
Installed Weight	164.5 lb	Tube Velocity	2.94 ft/s
Coil Section Options		Reynolds Number	18659.99
Extended Drain and Vent	YES	Type	Water
Drain Pan Size	Small	Fouling Factor	0.00025 hr-sq ft-deg F/Btu
Door Location	Right	Volume	4.34 gal
AHRI 410 Classification			
AHRI 410 Classification		AHRI ACHC Certified	
Data Generation Date		7/29/2024	
Trane Select Assist update number		2850	

Note: Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.



Supply fan section - Position: 5

Fan Data		Motor Data	
Wheel Diameter/Type/Class	18.25in. dd plenum, 80% width, M press	Power / Fan	7.5 hp
Fan Quantity	2	Voltage	460/3
Discharge Location	Top front	Speed	1800
Motor Location	Right side drive	Class	NEMA premium compliant ODP
Blades	Higher eff.(some bands lower, more spike)	Efficiency	90.89 %
Drive Service Factor	Direct drive	Part Load Efficiency	81.34 %
Fan K-factor	1822.00	Fan electrical power (FEP)	7.44 kW
Fan Performance		FEI	1.33
Airflow	8050 cfm	Wire to air static efficiency	55.08 %
Total Static Pressure	4.337 in H2O	Note: Field provided VFD efficiency not included. DOL motor fan electrical power calculated in accordance with AHRI 430.	
Total Brake Power	9.108 hp	Note: Certified airflow performance per AHRI 430	
Operating Speed	2408 rpm	Fan Section Options	
AMCA FEG	FEG85	Fan Wheel Balance	Inverter balance with shaft grounding
Bare fan peak total efficiency	72.20 %	Door Location	Right
Unit Static Efficiency	60.43 %	Window	Right - thermal
Motor Interface Options		Door Guard	Yes
Selection Type	Overload box	Marine Light	Marine LED light
Voltage	460/3	One Fan Down	
Motor Wire In Conduit	Motor wiring conduit	Redundancy	64.50 %
VFD Frequency	82.00 Hz	Operating Speed	2858 rpm

Fan Discharge Options

Face	Type	Airflow	Face Velocity	Area	Pressure Drop	Exhaust Hood	Damper Torque Requirement
Top Face Feature	Sizeable rectangular opening	8050 cfm	1362 ft/min	5.91 sq ft	0.232 in H2O	N/A	N/A

Note: Certified by the AHRI Central Station Air-Handling Unit (AHU) Certification Program, based on AHRI Standard 430/431. AHRI certified units are subject to rigorous and continuous testing, have performance ratings independently measured and are third party verified. Certified units may be found in the AHRI Directory at www.ahridirectory.org.



Supply fan Acoustics

Sound Path	63 (Hz)	125	250	500	1K	2K	4K	8K
Supply top:	79 dB	79 dB	83 dB	86 dB	81 dB	81 dB	77 dB	68 dB
Return:	74 dB	74 dB	82 dB	73 dB	64 dB	67 dB	59 dB	51 dB
Casing:	81 dB	78 dB	78 dB	79 dB	75 dB	58 dB	51 dB	40 dB

Pressure Drop in (in w.g.)

Supply fan	
Filter section	1.41
Coil section	0.99
Coil section	0.21
Fan section	0.23
Internal Static Pressure	2.84
External Static Pressure	1.50
Total Static Pressure	4.34

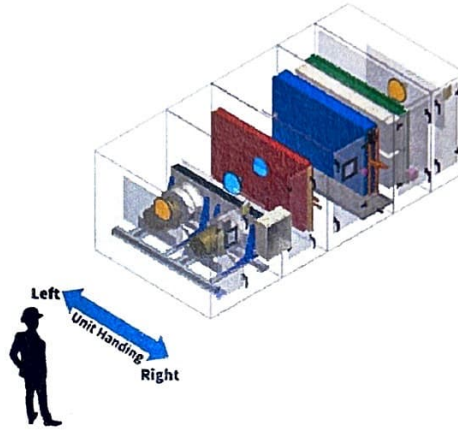
Trane Performance Climate Changer Air Handler

Unit Overview - AHU-LS5-108

Application	Unit Size	External Dimensions			Weight	
		Height	Width	Length	Installed	Rigging
Indoor unit	CSAA017	52.5 in	72.0 in	157.174 in	2655 lb	2496 lb
Quantity of Shipping Sections		Largest Ship Split			Heaviest Ship Split	Elevation
4 piece(s)		Height	Width	Length		
		52.5 in	72.0 in	44.3 in	962 lb	0.00 ft
Supply Fan						
Airflow	7045 cfm	Total Static Pressure	3.985 in H2O			

Construction Features

Panel	2in. foam injected R-13 with thermal break
Panel Material	All unit inner panels - galvanized
Integral Base Frame	6in. integral base frame
Short Circuit Current Rating	65 kA
Agency Approval	UL listed unit



Unit Electrical

Circuit	Voltage/Phase/Frequency	FLA	MCA	Max Fuse Size
Circuit number 1 Supply fan motor(s)	460/3/60	13.40 A	-	-
Circuit number 2 UV lights 1	115/1/60	1.30 A	1.63	15.00
Circuit number 3 Lights + switch	115/1/60	2.61 A	3.26	15.00
Circuit number 4 Receptacle	115/1/60	8.00 A	10.00	15.00

Note: No factory motor interface provided. MCA and MOP to be determined by the Electrical Contractor.

Unit Controls

Controller Type	No controller
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Warranty

Warranty section	Extd. warranty
Parts - whole unit	2nd yr only additional
Labor - 1st year	1st year labor warranty
Labor - beyond 1st year	2nd year only

Air mixing section - Position: 1

Openings							
Face	Path	Type	Airflow	Face Velocity	Area	Pressure Drop	Hood
Back	Return	Sizeable rectangular opening	7045 cfm	1004 ft/min	7.02 sq ft	0.000 in H2O	N/A
Section Options							
Door Location	Right						
Marine Light	Marine LED light						



Filter section - Position: 2

Primary Filter									
Type	Frame	Loading	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
12in. cartridge - 95% eff - MERV 15	Bag/cartridge filter frame	Side load filters	7045 cfm	18.89 sq ft	373 ft/min	Mid-life	0.761 in H2O	2.00 4.00	20x20 20x24

Prefilter							
Type	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
2" Pleated media - MERV 8	7045 cfm	18.89 sq ft	373 ft/min	Mid-life	0.600 in H2O	2.00 4.00	20x20 20x24

Filter Section Options	
Door Location	Right

Cooling coil section - Position: 3

Coil Construction		Coil Performance	
Model	Chilled water - 1/2" Unit Optimized, General (UW)	Capacity	
Rows	8	Total	201.18 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Sensible	147.86 MBh
Coil Connection	Standard	Air	
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Flow	7045 cfm
Fin Spacing	133 Per Foot	Entering Dry Bulb	70.10 F
Fin Material	Aluminum fins	Entering Wet Bulb	61.10 F
Fin Type	Delta flo H (Hi efficient)	Leaving Dry Bulb	51.00 F
Face Area	16.81 sq ft	Leaving Wet Bulb	50.90 F
Coil (top/single) H x L	40 in. (1016 mm) X 61" (1549 mm) finned length	Pressure Drop	0.746 in H2O
Casing	Stainless steel	Face Velocity	419 ft/min
Turbulators	Yes	Fluid	
Rigging Weight	353.4 lb	Flow	25.07 gpm
Installed Weight	476.4 lb	Entering	44.00 F
Voltage	115/60/1	Leaving	60.00 F
Coil Section Options		Pressure Drop	4.44 ft fluid
Extended Drain and Vent	YES	Tube Velocity	1.39 ft/s
Drain Pan	Stainless steel	Reynolds Number	4185.99
Drain Pan Size	Extended medium	Type	Water
Drain Connection	Right	Fouling Factor	0.00000 hr-sq ft-deg F/Btu
Minimum Trap Height (L)	8.044 in	Volume	14.72 gal
H Trap Dimension	4.696 in	AHRI 410 Classification	
J Trap Dimension	2.348 in	AHRI 410 Classification	AHRI ACHC Certified
Door Location	Right	Data Generation Date	7/29/2024
Window	Right - thermal	Trane Select Assist update number	2850
UV Light	Yes		

Note: Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.





Heating coil section - Position: 4

Coil Construction		Coil Performance	
Model	Hot water - 1/2" Unit Optimized, Low Water Flow (UP)	Capacity	
Rows	2	Total	224.62 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Air	
Coil Connection	Standard	Flow	7045 cfm
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Entering Dry Bulb	60.20 F
Fin Spacing	141 Per Foot	Leaving Dry Bulb	89.60 F
Fin Material	Aluminum fins	Pressure Drop	0.156 in H2O
Fin Type	Delta flo H (Hi efficient)	Face Velocity	419 ft/min
Face Area	16.81 sq ft	Fluid	
Coil (top/single) H x L	40 in. (1016 mm) X 61" (1549 mm) finned length	Flow	22.52 gpm
Casing	Galvanized	Entering	120.00 F
Turbulators	Not Included	Leaving	100.00 F
Rigging Weight	125.5 lb	Pressure Drop	2.27 ft fluid
Installed Weight	161.7 lb	Tube Velocity	2.58 ft/s
Coil Section Options		Reynolds Number	16330.39
Extended Drain and Vent	YES	Type	Water
Drain Pan Size	Small	Fouling Factor	0.00025 hr-sq ft-deg F/Btu
Door Location	Right	Volume	4.34 gal
		AHRI 410 Classification	
		AHRI 410 Classification	AHRI ACHC Certified
		Data Generation Date	7/29/2024
		Trane Select Assist update number	2850

Note: Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.



Supply fan section - Position: 5

Fan Data		Motor Data	
Wheel Diameter/Type/Class	18.25in. dd plenum, 80% width, M press	Power / Fan	5 hp
Fan Quantity	2	Voltage	460/3
Discharge Location	Front top	Speed	1800
Motor Location	Right side drive	Class	NEMA premium compliant ODP
Blades	Higher eff.(some bands lower,more spike)	Efficiency	90.12 %
Drive Service Factor	Direct drive	Part Load Efficiency	84.74 %
Fan K-factor	1822.00	Fan electrical power (FEP)	5.88 kW
Fan Performance		FEI	1.34
Airflow	7045 cfm	Wire to air static efficiency	56.03 %
Total Static Pressure	3.985 in H2O	Note: Field provided VFD efficiency not included. DOL motor fan electrical power calculated in accordance with AHRI 430.	
Total Brake Power	7.100 hp	Note: Certified airflow performance per AHRI 430	
Operating Speed	2222 rpm	Fan Section Options	
AMCA FEG	FEG85	Fan Wheel Balance	Inverter balance with shaft grounding
Bare fan peak total efficiency	72.20 %	Door Location	Right
Unit Static Efficiency	62.33 %	Window	Right - thermal
Motor Interface Options		Door Guard	Yes
Selection Type	Overload box	Marine Light	Marine LED light
Voltage	460/3	One Fan Down	
Motor Wire In Conduit	Motor wiring conduit	Redundancy	63.39 %
VFD Frequency	75.00 Hz	Operating Speed	2551 rpm

Fan Discharge Options

Face	Type	Airflow	Face Velocity	Area	Pressure Drop	Exhaust Hood	Damper Torque Requirement
Front Face Feature	Sizeable rectangular opening	7045 cfm	1192 ft/min	5.91 sq ft	0.222 in H2O	N/A	N/A

Note: Certified by the AHRI Central Station Air-Handling Unit (AHU) Certification Program, based on AHRI Standard 430.431. AHRI certified units are subject to rigorous and continuous testing, have performance ratings independently measured and are third party verified. Certified units may be found in the AHRI Directory at www.ahridirectory.org.



Job Name: OIA Hyatt Ballrooms

CSAA
Quantity: 1
Tags: AHU-LS5-108



Pressure Drop in (in w.g.)	
Supply fan	
Filter section	1.36
Coil section	0.75
Coil section	0.16
Fan section	0.22
Internal Static Pressure	2.48
External Static Pressure	1.50
Total Static Pressure	3.98

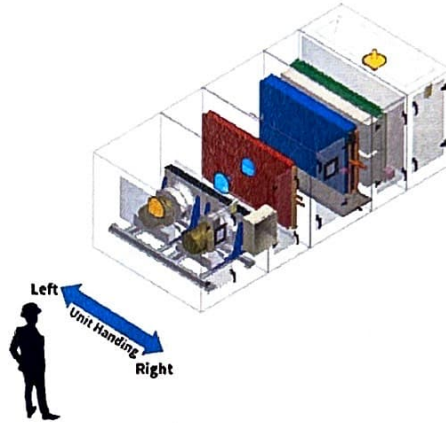
Trane Performance Climate Changer Air Handler

Unit Overview - AHU-LS5-109

Application	Unit Size	External Dimensions			Weight	
		Height	Width	Length	Installed	Rigging
Indoor unit	CSAA017	52.5 in	72.0 in	164.754 in	2713 lb	2554 lb
Quantity of Shipping Sections		Largest Ship Split			Heaviest Ship Split	Elevation
4 piece(s)		Height	Width	Length		
		52.5 in	72.0 in	51.4 in	1004 lb	0.00 ft
Supply Fan						
Airflow	8300 cfm	Total Static Pressure	4.511 in H2O			

Construction Features

Panel	2in. foam injected R-13 with thermal break
Panel Material	All unit inner panels - galvanized
Integral Base Frame	6in. integral base frame
Short Circuit Current Rating	65 kA
Agency Approval	UL listed unit



Unit Electrical

Circuit	Voltage/Phase/Frequency	FLA	MCA	Max Fuse Size
Circuit number 1 Supply fan motor(s)	460/3/60	19.60 A	-	-
Circuit number 2 UV lights 1	115/1/60	1.30 A	1.63	15.00
Circuit number 3 Lights + switch	115/1/60	2.61 A	3.26	15.00
Circuit number 4 Receptacle	115/1/60	8.00 A	10.00	15.00

Note: No factory motor interface provided. MCA and MOP to be determined by the Electrical Contractor.

Unit Acoustics

Sound Path	63 (Hz)	125	250	500	1K	2K	4K	8K
Supply front:	78 dB	79 dB	89 dB	82 dB	80 dB	81 dB	75 dB	68 dB
Return:	74 dB	75 dB	86 dB	68 dB	64 dB	68 dB	58 dB	51 dB
Casing:	80 dB	79 dB	81 dB	75 dB	74 dB	57 dB	50 dB	38 dB

Unit Controls

Controller Type: No controller

Warranty

Warranty section	Extd. warranty
Parts - whole unit	2nd yr only additional
Labor - 1st year	1st year labor warranty
Labor - beyond 1st year	2nd year only



Air mixing section - Position: 1

Openings							
Face	Path	Type	Airflow	Face Velocity	Area	Pressure Drop	Hood
Top	Return	Sizeable rectangular opening	8300 cfm	980 ft/min	8.47 sq ft	0.000 in H2O	N/A
Section Options							
Door Location		Right					
Marine Light		Marine LED light					

Filter section - Position: 2

Primary Filter									
Type	Frame	Loading	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
12in. cartridge - 95% eff - MERV 15	Bag/cartridge filter frame	Side load filters	8300 cfm	18.89 sq ft	439 ft/min	Mid-life	0.797 in H2O	2.00 4.00	20x20 20x24
Prefilter									
Type	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size		
2" Pleated media - MERV 8	8300 cfm	18.89 sq ft	439 ft/min	Mid-life	0.625 in H2O	2.00 4.00	20x20 20x24		
Filter Section Options									
Door Location					Right				

Cooling coil section - Position: 3

Coil Construction		Coil Performance	
Model	Chilled water - 1/2" Unit Optimized, General (UW)	Capacity	
Rows	8	Total	242.15 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Sensible	178.76 MBh
Coil Connection	Standard	Air	
Tube Matl/Wall Thickness	.016" (0.406 mm) copper tubes	Flow	8300 cfm
Fin Spacing	147 Per Foot	Entering Dry Bulb	70.60 F
Fin Material	Aluminum fins	Entering Wet Bulb	61.30 F
Fin Type	Delta flo H (Hi efficient)	Leaving Dry Bulb	51.00 F
Face Area	16.81 sq ft	Leaving Wet Bulb	50.90 F
Coil (top/single) H x L	40 in. (1016 mm) X 61" (1549 mm) finned length	Pressure Drop	1.048 in H2O
Casing	Stainless steel	Face Velocity	494 ft/min
Turbulators	Yes	Fluid	
Rigging Weight	366.6 lb	Flow	30.17 gpm
Installed Weight	489.6 lb	Entering	44.00 F
Voltage	115/60/1	Leaving	60.00 F
Coil Section Options		Pressure Drop	6.03 ft fluid
Extended Drain and Vent	YES	Tube Velocity	1.67 ft/s
Drain Pan	Stainless steel	Reynolds Number	5038.48
Drain Pan Size	Extended medium	Type	Water
Drain Connection	Right	Fouling Factor	0.00000 hr-sq ft-deg F/Btu
Minimum Trap Height (L)	8.497 in	Volume	14.72 gal
H Trap Dimension	4.998 in	AHRI 410 Classification	
J Trap Dimension	2.499 in	AHRI 410 Classification	AHRI ACHC Certified
Door Location	Right	Data Generation Date	7/29/2024
Window	Right - thermal	Trane Select Assist update number	2850
UV Light	Yes		

Note: Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.





Heating coil section - Position: 4

Coil Construction		Coil Performance	
Model	Hot water - 1/2" Unit Optimized, Low Water Flow (UP)	Capacity	
Rows	2	Total	268.24 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Air	
Coil Connection	Standard	Flow	8300 cfm
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Entering Dry Bulb	60.20 F
Fin Spacing	160 Per Foot	Leaving Dry Bulb	90.00 F
Fin Material	Aluminum fins	Pressure Drop	0.232 in H2O
Fin Type	Delta flo H (Hi efficient)	Face Velocity	494 ft/min
Face Area	16.81 sq ft	Fluid	
Coil (top/single) H x L	40 in. (1016 mm) X 61" (1549 mm) finned length	Flow	26.89 gpm
Casing	Galvanized	Entering	120.00 F
Turbulators	Not Included	Leaving	100.00 F
Rigging Weight	129.9 lb	Pressure Drop	3.13 ft fluid
Installed Weight	166.1 lb	Tube Velocity	3.08 ft/s
Coil Section Options		Reynolds Number	19501.26
Extended Drain and Vent	YES	Type	Water
Drain Pan Size	Small	Fouling Factor	0.00025 hr-sq ft-deg F/Btu
Door Location	Right	Volume	4.34 gal
AHRI 410 Classification			
AHRI 410 Classification		AHRI ACHC Certified	
Data Generation Date		7/29/2024	
Trane Select Assist update number		2850	

Note: Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.



Supply fan section - Position: 5

Fan Data		Motor Data	
Wheel Diameter/Type/Class	18.25in. dd plenum, full width, M press	Power / Fan	7.5 hp
Fan Quantity	2	Voltage	460/3
Discharge Location	Front top	Speed	1800
Motor Location	Right side drive	Class	NEMA premium compliant ODP
Blades	Higher eff.(some bands lower,more spike)	Efficiency	90.95 %
Drive Service Factor	Direct drive	Part Load Efficiency	81.94 %
Fan K-factor	1822.00	Fan electrical power (FEP)	7.64 kW
Fan Performance		FEI	1.32
Airflow	8300 cfm	Wire to air static efficiency	57.52 %
Total Static Pressure	4.511 in H2O	Note: Field provided VFD efficiency not included. DOL motor fan electrical power calculated in accordance with AHRI 430.	
Total Brake Power	9.363 hp	Note: Certified airflow performance per AHRI 430	
Operating Speed	2278 rpm	Fan Section Options	
AMCA FEG	FEG85	Fan Wheel Balance	Inverter balance with shaft grounding
Bare fan peak total efficiency	72.20 %	Door Location	Right
Unit Static Efficiency	63.04 %	Window	Right - thermal
Motor Interface Options		Door Guard	Yes
Selection Type	Overload box	Marine Light	Marine LED light
Voltage	460/3	One Fan Down	
Motor Wire In Conduit	Motor wiring conduit	Redundancy	67.45 %
VFD Frequency	77.00 Hz	Operating Speed	2697 rpm

Fan Discharge Options							
Face	Type	Airflow	Face Velocity	Area	Pressure Drop	Exhaust Hood	Damper Torque Requirement
Front Face Feature	Sizeable rectangular opening	8300 cfm	1404 ft/min	5.91 sq ft	0.308 in H2O	N/A	N/A

Note: Certified by the AHRI Central Station Air-Handling Unit (AHU) Certification Program, based on AHRI Standard 430/431. AHRI certified units are subject to rigorous and continuous testing, have performance ratings independently measured and are third party verified. Certified units may be found in the AHRI Directory at www.ahridirectory.org.



Supply fan Acoustics

Sound Path	63 (Hz)	125	250	500	1K	2K	4K	8K
Supply front:	78 dB	79 dB	89 dB	82 dB	80 dB	81 dB	75 dB	68 dB
Return:	74 dB	75 dB	86 dB	68 dB	64 dB	68 dB	58 dB	51 dB
Casing:	80 dB	79 dB	81 dB	75 dB	74 dB	57 dB	50 dB	38 dB

Pressure Drop in (in w.g.)

Supply fan	
Filter section	1.42
Coil section	1.05
Coil section	0.23
Fan section	0.31
Internal Static Pressure	3.01
External Static Pressure	1.50
Total Static Pressure	4.51

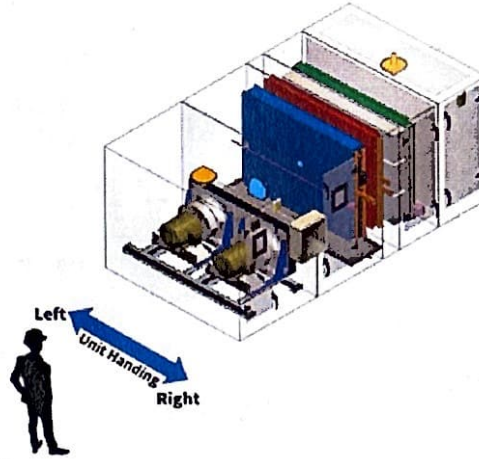
Trane Performance Climate Changer Air Handler

Unit Overview - AHU-LS5-110

Application	Unit Size	External Dimensions			Weight	
		Height	Width	Length	Installed	Rigging
Indoor unit	CSAA025	65.0 in	80.0 in	147.203 in	3237 lb	3005 lb
Quantity of Shipping Sections		Largest Ship Split			Heaviest Ship Split	Elevation
4 piece(s)		Height	Width	Length	1291 lb	0.00 ft
		65.0 in	80.0 in	46.5 in		
Supply Fan						
Airflow	10800 cfm	Total Static Pressure		4.169 in H2O		

Construction Features

Panel	2in. foam injected R-13 with thermal break
Panel Material	All unit inner panels - galvanized
Integral Base Frame	6in. integral base frame
Short Circuit Current Rating	65 kA
Agency Approval	UL listed unit



Unit Electrical

Circuit	Voltage/Phase/Frequency	FLA	MCA	Max Fuse Size
Circuit number 1 Supply fan motor(s)	460/3/60	19.60 A	-	-
Circuit number 2 UV lights 1	115/1/60	1.30 A	1.63	15.00
Circuit number 3 Lights + switch	115/1/60	2.61 A	3.26	15.00
Circuit number 4 Receptacle	115/1/60	8.00 A	10.00	15.00

Note: No factory motor interface provided. MCA and MOP to be determined by the Electrical Contractor.

Unit Controls

Controller Type: No controller

Warranty

Warranty section	Extd. warranty
Parts - whole unit	2nd yr only additional
Labor - 1st year	1st year labor warranty
Labor - beyond 1st year	2nd year only

Air mixing section - Position: 1

Openings

Face	Path	Type	Airflow	Face Velocity	Area	Pressure Drop	Hood
Top	Return	Sizeable rectangular opening	10800 cfm	1127 ft/min	9.58 sq ft	0.000 in H2O	N/A

Section Options

Door Location	Right
Marine Light	Marine LED light



Filter section - Position: 2

Primary Filter									
Type	Frame	Loading	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
12in. cartridge - 95% eff - MERV 15	Bag/cartridge filter frame	Side load filters	10800 cfm	26.00 sq ft	415 ft/min	Mid-life	0.784 in H2O	3.00 6.00	12x24 20x24

Prefilter								
Type	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size	
2" Pleated media - MERV 8	10800 cfm	26.00 sq ft	415 ft/min	Mid-life	0.616 in H2O	3.00 6.00	12x24 20x24	

Filter Section Options	
Door Location	Right

Heating coil section - Position: 3

Coil Construction		Coil Performance	
Model	Hot water - 1/2" Unit Optimized, Low Water Flow (UP)	Capacity	
Rows	2	Total	409.94 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Air	
Coil Connection	Standard	Flow	10800 cfm
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Entering Dry Bulb	35.00 F
Fin Spacing	89 Per Foot	Leaving Dry Bulb	70.00 F
Fin Material	Aluminum fins	Pressure Drop	0.120 in H2O
Fin Type	Delta flo H (Hi efficient)	Face Velocity	432 ft/min
Face Area	24.97 sq ft	Fluid	
Coil (top/single) H x L	52 in. (1321 mm) X 69" (1753 mm) finned length	Flow	41.10 gpm
Casing	Galvanized	Entering	120.00 F
Turbulators	Not Included	Leaving	100.00 F
Rigging Weight	152.8 lb	Pressure Drop	5.30 ft fluid
Installed Weight	204.7 lb	Tube Velocity	3.53 ft/s
Coil Section Options		Reynolds Number	22352.25
Extended Drain and Vent	YES	Type	Water
		Fouling Factor	0.00025 hr-sq ft-deg F/Btu
		Volume	6.24 gal
		AHRI 410 Classification	
		AHRI 410 Classification	AHRI ACHC Certified
		Data Generation Date	7/29/2024
		Trane Select Assist update number	2850

Note: Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.





Cooling coil section - Position: 4

Coil Construction		Coil Performance	
Model	Chilled water - 1/2" Unit Optimized, General (UW)	Capacity	
Rows	8	Total	888.22 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Sensible	509.65 MBh
Coil Connection	Standard	Air	
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Flow	10800 cfm
Fin Spacing	146 Per Foot	Entering Dry Bulb	94.00 F
Fin Material	Aluminum fins	Entering Wet Bulb	76.00 F
Fin Type	Delta flo H (Hi efficient)	Leaving Dry Bulb	51.50 F
Face Area	24.97 sq ft	Leaving Wet Bulb	51.40 F
Coil (top/single) H x L	52 in. (1321 mm) X 69" (1753 mm) finned length	Pressure Drop	0.949 in H2O
Casing	Stainless steel	Face Velocity	432 ft/min
Turbulators	Not Included	Fluid	
Rigging Weight	505.8 lb	Flow	110.67 gpm
Installed Weight	685.6 lb	Entering	44.00 F
Voltage	115/60/1	Leaving	60.00 F
Coil Section Options		Pressure Drop	16.44 ft fluid
Extended Drain and Vent	YES	Tube Velocity	4.63 ft/s
Drain Pan	Stainless steel	Reynolds Number	13973.96
Drain Pan Size	Extended medium	Type	Water
Drain Connection	Right	Fouling Factor	0.00000 hr-sq ft-deg F/Btu
Minimum Trap Height (L)	8.529 in	Volume	21.51 gal
H Trap Dimension	5.019 in	AHRI 410 Classification	
J Trap Dimension	2.510 in	AHRI 410 Classification	AHRI ACHC Certified
Door Location	Right	Data Generation Date	7/29/2024
Window	Right - thermal	Trane Select Assist update number	2850
UV Light	Yes		

Note: Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.





Supply fan section - Position: 5

Fan Data	
Wheel Diameter/Type/Class	20in. dd plenum, 80% width, M press
Fan Quantity	2
Discharge Location	Top front
Motor Location	Right side drive
Blades	Higher eff.(some bands lower, more spike)
Drive Service Factor	Direct drive
Fan K-factor	2186.00

Motor Data	
Power / Fan	7.5 hp
Voltage	460/3
Speed	1800
Class	NEMA premium compliant ODP
Efficiency	91.34 %
Part Load Efficiency	86.24 %
Fan electrical power (FEP)	10.07 kW
FEI	1.35
Wire to air static efficiency	52.48 %

Fan Performance	
Airflow	10800 cfm
Total Static Pressure	4.169 in H2O
Total Brake Power	12.358 hp
Operating Speed	2288 rpm
AMCA FEG	FEG85
Bare fan peak total efficiency	75.40 %
Unit Static Efficiency	57.44 %

Note: Field provided VFD efficiency not included. DOL motor fan electrical power calculated in accordance with AHRI 430.
Note: Certified airflow performance per AHRI 430

Motor Interface Options	
Selection Type	Overload box
Voltage	460/3
Motor Wire In Conduit	Motor wiring conduit
VFD Frequency	78.00 Hz

Fan Section Options	
Fan Wheel Balance	Inverter balance with shaft grounding
Door Location	Right
Window	Right - thermal
Door Guard	Yes
Marine Light	Marine LED light

Fan Discharge Options

Face	Type	Airflow	Face Velocity	Area	Pressure Drop	Exhaust Hood	Damper Torque Requirement
Top Face Feature	Sizeable rectangular opening	10800 cfm	1264 ft/min	8.54 sq ft	0.200 in H2O	N/A	N/A

Note: Certified by the AHRI Central Station Air-Handling Unit (AHU) Certification Program, based on AHRI Standard 430/431. AHRI certified units are subject to rigorous and continuous testing, have performance ratings independently measured and are third party verified. Certified units may be found in the AHRI Directory at www.ahridirectory.org.



Pressure Drop in (in w.g.)

Supply fan	
Filter section	1.40
Coil section	0.12
Coil section	0.95
Fan section	0.20
Internal Static Pressure	2.67
External Static Pressure	1.50
Total Static Pressure	4.17

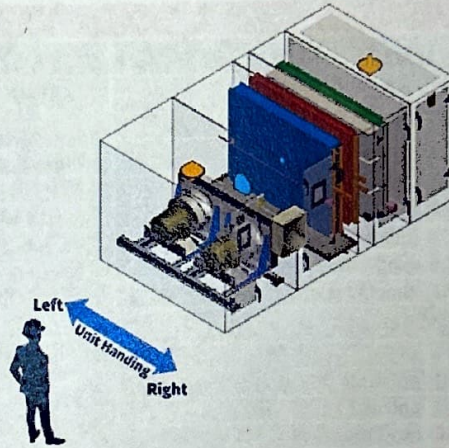
Trane Performance Climate Changer Air Handler

Unit Overview - AHU-LS5-111

Application	Unit Size	External Dimensions			Weight	
		Height	Width	Length	Installed	Rigging
Indoor unit	CSAA025	65.0 in	80.0 in	147.203 in	3237 lb	3005 lb
Quantity of Shipping Sections		Largest Ship Split			Heaviest Ship Split	Elevation
4 piece(s)		Height 65.0 in	Width 80.0 in	Length 46.5 in	1291 lb	0.00 ft
Supply Fan						
Airflow	10800 cfm	Total Static Pressure		4.169 in H2O		

Construction Features

Panel	2in. foam injected R-13 with thermal break
Panel Material	All unit inner panels - galvanized
Integral Base Frame	6in. integral base frame
Short Circuit Current Rating	65 kA
Agency Approval	UL listed unit



Unit Electrical

Circuit	Voltage/Phase/Frequency	FLA	MCA	Max Fuse Size
Circuit number 1 Supply fan motor(s)	460/3/60	19.60 A	-	-
Circuit number 2 UV lights 1	115/1/60	1.30 A	1.63	15.00
Circuit number 3 Lights + switch	115/1/60	2.61 A	3.26	15.00
Circuit number 4 Receptacle	115/1/60	8.00 A	10.00	15.00

Note: No factory motor interface provided. MCA and MOP to be determined by the Electrical Contractor.

Unit Controls

Controller Type: No controller

Warranty

Warranty section	Extd. warranty
Parts - whole unit	2nd yr only additional
Labor - 1st year	1st year labor warranty
Labor - beyond 1st year	2nd year only

Air mixing section - Position: 1

Openings

Face	Path	Type	Airflow	Face Velocity	Area	Pressure Drop	Hood
Top	Return	Sizeable rectangular opening	10800 cfm	1127 ft/min	9.58 sq ft	0.000 in H2O	N/A

Section Options

Door Location	Right
Marine Light	Marine LED light



Filter section - Position: 2

Primary Filter									
Type	Frame	Loading	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
12in. cartridge - 95% eff - MERV 15	Bag/cartridge filter frame	Side load filters	10800 cfm	26.00 sq ft	415 ft/min	Mid-life	0.784 in H2O	3.00 6.00	12x24 20x24

Prefilter							
Type	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
2" Pleated media - MERV 8	10800 cfm	26.00 sq ft	415 ft/min	Mid-life	0.616 in H2O	3.00 6.00	12x24 20x24

Filter Section Options	
Door Location	Right

Heating coil section - Position: 3

Coil Construction		Coil Performance	
Model	Hot water - 1/2" Unit Optimized, Low Water Flow (UP)	Capacity	
Rows	2	Total	409.94 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Air	
Coil Connection	Standard	Flow	10800 cfm
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Entering Dry Bulb	35.00 F
Fin Spacing	89 Per Foot	Leaving Dry Bulb	70.00 F
Fin Material	Aluminum fins	Pressure Drop	0.120 in H2O
Fin Type	Delta flo H (Hi efficient)	Face Velocity	432 ft/min
Face Area	24.97 sq ft	Fluid	
Coil (top/single) H x L	52 in. (1321 mm) X 69" (1753 mm) finned length	Flow	41.10 gpm
Casing	Galvanized	Entering	120.00 F
Turbulators	Not Included	Leaving	100.00 F
Rigging Weight	152.8 lb	Pressure Drop	5.30 ft fluid
Installed Weight	204.7 lb	Tube Velocity	3.53 ft/s
Coil Section Options		Reynolds Number	22352.25
Extended Drain and Vent	YES	Type	Water
		Fouling Factor	0.00025 hr-sq ft-deg F/Btu
		Volume	6.24 gal
AHRI 410 Classification			
		AHRI 410 Classification	AHRI ACHC Certified
		Data Generation Date	7/30/2024
		Trane Select Assist update number	2850

Note: Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.





Cooling coil section - Position: 4

Coil Construction		Coil Performance	
Model	Chilled water - 1/2" Unit Optimized, General (UW)	Capacity	
Rows	8	Total	888.22 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Sensible	509.65 MBh
Coil Connection	Standard	Air	
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Flow	10800 cfm
Fin Spacing	146 Per Foot	Entering Dry Bulb	94.00 F
Fin Material	Aluminum fins	Entering Wet Bulb	76.00 F
Fin Type	Delta flo H (Hi efficient)	Leaving Dry Bulb	51.50 F
Face Area	24.97 sq ft	Leaving Wet Bulb	51.40 F
Coil (top/single) H x L	52 in. (1321 mm) X 69" (1753 mm) finned length	Pressure Drop	0.949 in H2O
Casing	Stainless steel	Face Velocity	432 ft/min
Turbulators	Not Included	Fluid	
Rigging Weight	505.8 lb	Flow	110.67 gpm
Installed Weight	685.6 lb	Entering	44.00 F
Voltage	115/60/1	Leaving	60.00 F
Coil Section Options		Pressure Drop	16.44 ft fluid
Extended Drain and Vent	YES	Tube Velocity	4.63 ft/s
Drain Pan	Stainless steel	Reynolds Number	13973.96
Drain Pan Size	Extended medium	Type	Water
Drain Connection	Right	Fouling Factor	0.00000 hr-sq ft-deg F/Btu
Minimum Trap Height (L)	8.529 in	Volume	21.51 gal
H Trap Dimension	5.019 in	AHRI 410 Classification	
J Trap Dimension	2.510 in	AHRI 410 Classification	AHRI ACHC Certified
Door Location	Right	Data Generation Date	7/30/2024
Window	Right - thermal	Trane Select Assist update number	2850
UV Light	Yes		

Note: Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.





Supply fan section - Position: 5

Fan Data		Motor Data	
Wheel Diameter/Type/Class	20in. dd plenum, 80% width, M press	Power / Fan	7.5 hp
Fan Quantity	2	Voltage	460/3
Discharge Location	Top front	Speed	1800
Motor Location	Right side drive	Class	NEMA premium compliant ODP
Blades	Higher eff.(some bands lower,more spike)	Efficiency	91.34 %
Drive Service Factor	Direct drive	Part Load Efficiency	86.24 %
Fan K-factor	2186.00	Fan electrical power (FEP)	10.07 kW
Fan Performance		FEI	1.35
Airflow	10800 cfm	Wire to air static efficiency	52.48 %
Total Static Pressure	4.169 in H2O	Note: Field provided VFD efficiency not included. DOL motor fan electrical power calculated in accordance with AHRI 430.	
Total Brake Power	12.358 hp	Note: Certified airflow performance per AHRI 430	
Operating Speed	2288 rpm	Fan Section Options	
AMCA FEG	FEG85	Fan Wheel Balance	Inverter balance with shaft grounding
Bare fan peak total efficiency	75.40 %	Door Location	Right
Unit Static Efficiency	57.44 %	Window	Right - thermal
Motor Interface Options		Door Guard	Yes
Selection Type	Overload box	Marine Light	Marine LED light
Voltage	460/3	One Fan Down	
Motor Wire In Conduit	Motor wiring conduit	Redundancy	59.00 %
VFD Frequency	78.00 Hz	Operating Speed	2540 rpm

Fan Discharge Options							
Face	Type	Airflow	Face Velocity	Area	Pressure Drop	Exhaust Hood	Damper Torque Requirement
Top Face Feature	Sizeable rectangular opening	10800 cfm	1264 ft/min	8.54 sq ft	0.200 in H2O	N/A	N/A

Note: Certified by the AHRI Central Station Air-Handling Unit (AHU) Certification Program, based on AHRI Standard 430/431. AHRI certified units are subject to rigorous and continuous testing, have performance ratings independently measured and are third party verified. Certified units may be found in the AHRI Directory at www.ahridirectory.org.



Pressure Drop in (in w.g.)	
Supply fan	
Filter section	1.40
Coil section	0.12
Coil section	0.95
Fan section	0.20
Internal Static Pressure	2.67
External Static Pressure	1.50
Total Static Pressure	4.17

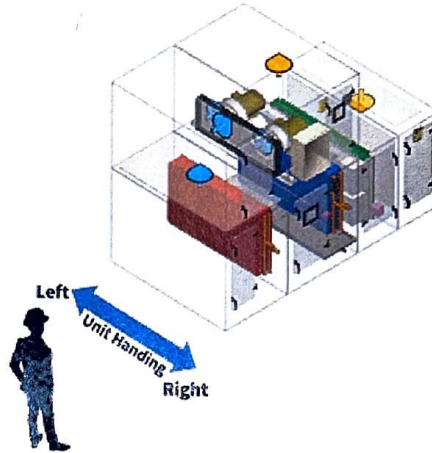
Trane Performance Climate Changer Air Handler

Unit Overview - AHU-LS5-112

Application	Unit Size	External Dimensions			Weight	
		Height	Width	Length	Installed	Rigging
Indoor unit	CSAA012	86.5 in	66.5 in	123.026 in	2572 lb	2467 lb
Quantity of Shipping Sections		Largest Ship Split			Heaviest Ship Split	Elevation
5 piece(s)		Height	Width	Length		
		45.0 in	66.5 in	46.4 in	806 lb	0.00 ft
Supply Fan						
Airflow	6100 cfm	Total Static Pressure 4.569 in H2O				

Construction Features

Panel	2in. foam injected R-13 with thermal break
Panel Material	All unit inner panels - galvanized
Integral Base Frame	6in. integral base frame
Short Circuit Current Rating	65 kA
Agency Approval	UL listed unit



Unit Electrical

Circuit	Voltage/Phase/Frequency	FLA	MCA	Max Fuse Size
Circuit number 1 Supply fan motor(s)	460/3/60	12.00 A	-	-
Circuit number 2 UV lights 1	115/1/60	1.30 A	1.63	15.00
Circuit number 3 Lights + switch	115/1/60	2.61 A	3.26	15.00
Circuit number 4 Receptacle	115/1/60	8.00 A	10.00	15.00

Note: No factory motor interface provided. MCA and MOP to be determined by the Electrical Contractor.

Unit Controls

Controller Type No controller

Warranty

Warranty section	Extd. warranty
Parts - whole unit	2nd yr only additional
Labor - 1st year	1st year labor warranty
Labor - beyond 1st year	2nd year only

Air mixing section - Position: 1

Openings							
Face	Path	Type	Airflow	Face Velocity	Area	Pressure Drop	Hood
Top	Return	Sizeable rectangular opening	6100 cfm	1065 ft/min	5.73 sq ft	0.000 in H2O	N/A

Section Options

Door Location	Right
Marine Light	Marine LED light



Filter section - Position: 2

Primary Filter									
Type	Frame	Loading	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
12in. cartridge - 95% eff - MERV 15	Bag/cartridge filter frame	Side load filters	6100 cfm	12.33 sq ft	495 ft/min	Mid-life	0.829 in H2O	2.00 3.00	12x24 20x20

Prefilter							
Type	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
2" Pleated media - MERV 8	6100 cfm	12.33 sq ft	495 ft/min	Mid-life	0.647 in H2O	2.00 3.00	12x24 20x20

Filter Section Options	
Door Location	Right

Cooling coil section - Position: 3

Coil Construction		Coil Performance	
Model	Chilled water - 1/2" Unit Optimized, Low Water Flow (UP)	Capacity	
Rows	8	Total	198.99 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Sensible	152.91 MBh
Coil Connection	Standard	Air	
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Flow	6100 cfm
Fin Spacing	125 Per Foot	Entering Dry Bulb	74.80 F
Fin Material	Aluminum fins	Entering Wet Bulb	63.20 F
Fin Type	Delta flo H (Hi efficient)	Leaving Dry Bulb	52.00 F
Face Area	12.30 sq ft	Leaving Wet Bulb	51.90 F
Coil (top/single) H x L	32 in. (813 mm) X 55" (1397 mm) finned length	Pressure Drop	0.935 in H2O
Casing	Stainless steel	Face Velocity	496 ft/min
Turbulators	Not Included	Fluid	
Rigging Weight	246.8 lb	Flow	24.79 gpm
Installed Weight	327.7 lb	Entering	44.00 F
Voltage	115/60/1	Leaving	60.00 F
Coil Section Options		Pressure Drop	14.55 ft fluid
Extended Drain and Vent	YES	Tube Velocity	3.54 ft/s
Drain Pan	Stainless steel	Reynolds Number	10696.13
Drain Pan Size	Extended medium	Type	Water
Drain Connection	Right	Fouling Factor	0.00000 hr-sq ft-deg F/Btu
Minimum Trap Height (L)	8.457 in	Volume	9.67 gal
H Trap Dimension	4.971 in	AHRI 410 Classification	
J Trap Dimension	2.486 in	AHRI 410 Classification	AHRI ACHC Certified
Door Location	Right	Data Generation Date	7/30/2024
Window	Right - thermal	Trane Select Assist update number	2850
UV Light	Yes		

Note: Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org.





Heating coil section - Position: 4

Coil Construction		Coil Performance	
Model	Hot water - 1/2" Unit Optimized, Low Water Flow (UP)	Capacity	
Rows	2	Total	165.39 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Air	
Coil Connection	Standard	Flow	6100 cfm
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Entering Dry Bulb	65.00 F
Fin Spacing	133 Per Foot	Leaving Dry Bulb	90.00 F
Fin Material	Aluminum fins	Pressure Drop	0.195 in H2O
Fin Type	Delta flo H (Hi efficient)	Face Velocity	496 ft/min
Face Area	12.30 sq ft	Fluid	
Coil (top/single) H x L	32 in. (813 mm) X 55" (1397 mm) finned length	Flow	16.58 gpm
Casing	Galvanized	Entering	120.00 F
Turbulators	Yes	Leaving	100.00 F
Rigging Weight	93.4 lb	Pressure Drop	4.83 ft fluid
Installed Weight	117.3 lb	Tube Velocity	2.37 ft/s
Coil Section Options		Reynolds Number	15029.62
Extended Drain and Vent	YES	Type	Water
Door Location	Right	Fouling Factor	0.00025 hr-sq ft-deg F/Btu
		Volume	2.87 gal
		AHRI 410 Classification	
		AHRI 410 Classification	AHRI ACHC Certified
		Data Generation Date	7/30/2024
		Trane Select Assist update number	2850

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Access/blank/turning section - Position: 5

Options	
Section Length	36.000 in
Door Location 1	Right



Supply fan section - Position: 6

Fan Data		Motor Data	
Wheel Diameter/Type/Class	13.5in. dd plenum, full width, M press	Power / Fan	5 hp
Fan Quantity	2	Voltage	460/3
Discharge Location	Top back	Speed	3600
Motor Location	Right side drive	Class	NEMA premium compliant ODP
Blades	Improved sound(lowest overall, less spike)	Efficiency	87.44 %
Drive Service Factor	Direct drive	Part Load Efficiency	81.68 %
Fan K-factor	965.00	Fan electrical power (FEP)	6.81 kW
Fan Performance		FEI	1.19
Airflow	6100 cfm	Wire to air static efficiency	48.03 %
Total Static Pressure	4.569 in H2O	Note: Field provided VFD efficiency not included. DOL motor fan electrical power calculated in accordance with AHRI 430.	
Total Brake Power	7.950 hp	Note: Certified airflow performance per AHRI 430	
Operating Speed	3605 rpm	Fan Section Options	
AMCA FEG	FEG85	Fan Wheel Balance	Inverter balance with shaft grounding
Bare fan peak total efficiency	69.40 %	Door Location	Right
Unit Static Efficiency	55.27 %	Window	Right - thermal
Motor Interface Options		Door Guard	Yes
Selection Type	Overload box	Marine Light	Marine LED light
Voltage	460/3	One Fan Down	
Motor Wire In Conduit	Motor wiring conduit	Redundancy	53.62 %
VFD Frequency	61.00 Hz	Operating Speed	3909 rpm

Fan Discharge Options							
Face	Type	Airflow	Face Velocity	Area	Pressure Drop	Exhaust Hood	Damper Torque Requirement
Top Face Feature	Sizeable rectangular opening	6100 cfm	1525 ft/min	4.00 sq ft	0.291 in H2O	N/A	N/A

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Pressure Drop in (in w.g.)	
Supply fan	
Filter section	1.48
Coil section	1.02
Coil section	0.28
Fan section	0.29
Internal Static Pressure	3.07
External Static Pressure	1.50
Total Static Pressure	4.57

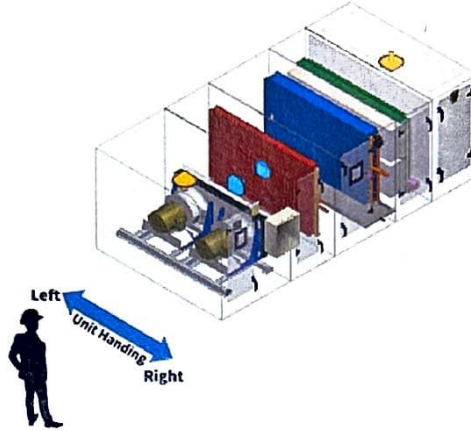
Trane Performance Climate Changer Air Handler

Unit Overview - AHU-LS5-113

Application	Unit Size	External Dimensions			Weight	
		Height	Width	Length	Installed	Rigging
Indoor unit	CSAA021	56.3 in	80.0 in	162.387 in	2941 lb	2786 lb
Quantity of Shipping Sections		Largest Ship Split			Heaviest Ship Split	Elevation
4 piece(s)		Height	Width	Length		
		56.3 in	80.0 in	51.4 in	1186 lb	0.00 ft
Supply Fan						
Airflow	9600 cfm	Total Static Pressure	3.985 in H2O			

Construction Features

Panel	2in. foam injected R-13 with thermal break
Panel Material	All unit inner panels - galvanized
Integral Base Frame	6in. integral base frame
Short Circuit Current Rating	65 kA
Agency Approval	UL listed unit



Unit Electrical

Circuit	Voltage/Phase/Frequency	FLA	MCA	Max Fuse Size
Circuit number 1 Supply fan motor(s)	460/3/60	19.60 A	-	-
Circuit number 2 UV lights 1	115/1/60	1.30 A	1.63	15.00
Circuit number 3 Lights + switch	115/1/60	2.61 A	3.26	15.00
Circuit number 4 Receptacle	115/1/60	8.00 A	10.00	15.00

Note: No factory motor interface provided. MCA and MOP to be determined by the Electrical Contractor.

Unit Controls

Controller Type: No controller

Warranty

Warranty section	Extd. warranty
Parts - whole unit	2nd yr only additional
Labor - 1st year	1st year labor warranty
Labor - beyond 1st year	2nd year only

Air mixing section - Position: 1

Openings							
Face	Path	Type	Airflow	Face Velocity	Area	Pressure Drop	Hood
Top	Return	Sizeable rectangular opening	9600 cfm	1002 ft/min	9.58 sq ft	0.000 in H2O	N/A
Section Options							
Door Location	Right						
Marine Light	Marine LED light						



Filter section - Position: 2

Primary Filter									
Type	Frame	Loading	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
12in. cartridge - 95% eff - MERV 15	Bag/cartridge filter frame	Side load filters	9600 cfm	22.00 sq ft	436 ft/min	Mid-life	0.796 in H2O	3.00 3.00	20x24 24x24

Prefilter							
Type	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
2" Pleated media - MERV 8	9600 cfm	22.00 sq ft	436 ft/min	Mid-life	0.624 in H2O	3.00 3.00	20x24 24x24

Filter Section Options	
Door Location	Right

Cooling coil section - Position: 3

Coil Construction		Coil Performance	
Model	Chilled water - 1/2" Unit Optimized, Low Water Flow (UP)	Capacity	
Rows	6	Total	319.21 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Sensible	245.99 MBh
Coil Connection	Standard	Air	
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Flow	9600 cfm
Fin Spacing	138 Per Foot	Entering Dry Bulb	75.80 F
Fin Material	Aluminum fins	Entering Wet Bulb	63.80 F
Fin Type	Delta flo H (Hi efficient)	Leaving Dry Bulb	52.50 F
Face Area	20.81 sq ft	Leaving Wet Bulb	52.40 F
Coil (top/single) H x L	43 in. (1092 mm) X 69" (1753 mm) finned length	Pressure Drop	0.675 in H2O
Casing	Stainless steel	Face Velocity	461 ft/min
Turbulators	Not Included	Fluid	
Rigging Weight	327.9 lb	Flow	39.77 gpm
Installed Weight	438.8 lb	Entering	44.00 F
Voltage	115/60/1	Leaving	60.00 F
Coil Section Options		Pressure Drop	16.16 ft fluid
Extended Drain and Vent	YES	Tube Velocity	4.01 ft/s
Drain Pan	Stainless steel	Reynolds Number	12111.68
Drain Pan Size	Extended medium	Type	Water
Drain Connection	Right	Fouling Factor	0.00000 hr-sq ft-deg F/Btu
Minimum Trap Height (L)	7.938 in	Volume	13.26 gal
H Trap Dimension	4.625 in	AHRI 410 Classification	
J Trap Dimension	2.313 in	AHRI 410 Classification	AHRI ACHC Certified
Door Location	Right	Data Generation Date	7/30/2024
Window	Right - thermal	Trane Select Assist update number	2850
UV Light	Yes		

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Heating coil section - Position: 4

Coil Construction		Coil Performance	
Model	Hot water - 1/2" Unit Optimized, Low Water Flow (UP)	Capacity	
Rows	2	Total	260.28 MBh
Tube Diameter	1/2in. tube diameter (12.7 mm)	Air	
Coil Connection	Standard	Flow	9600 cfm
Tube Mat/Wall Thickness	.016" (0.406 mm) copper tubes	Entering Dry Bulb	65.00 F
Fin Spacing	123 Per Foot	Leaving Dry Bulb	90.00 F
Fin Material	Aluminum fins	Pressure Drop	0.163 in H2O
Fin Type	Delta flo H (Hi efficient)	Face Velocity	461 ft/min
Face Area	20.81 sq ft	Fluid	
Coil (top/single) H x L	43 in. (1092 mm) X 69" (1753 mm) finned length	Flow	26.10 gpm
Casing	Galvanized	Entering	120.00 F
Turbulators	Not Included	Leaving	100.00 F
Rigging Weight	142.2 lb	Pressure Drop	2.73 ft fluid
Installed Weight	186.3 lb	Tube Velocity	2.63 ft/s
Coil Section Options		Reynolds Number	16696.36
Extended Drain and Vent	YES	Type	Water
Drain Pan Size	Small	Fouling Factor	0.00025 hr-sq ft-deg F/Btu
Door Location	Right	Volume	5.30 gal
		AHRI 410 Classification	
		AHRI 410 Classification	AHRI ACHC Certified
		Data Generation Date	7/30/2024
		Trane Select Assist update number	2850

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Supply fan section - Position: 5

Fan Data		Motor Data	
Wheel Diameter/Type/Class	18.25in. dd plenum, full width, M press	Power / Fan	7.5 hp
Fan Quantity	2	Voltage	460/3
Discharge Location	Top front	Speed	1800
Motor Location	Right side drive	Class	NEMA premium compliant ODP
Blades	Higher eff.(some bands lower,more spike)	Efficiency	91.08 %
Drive Service Factor	Direct drive	Part Load Efficiency	83.26 %
Fan K-factor	1822.00	Fan electrical power (FEP)	8.09 kW
Fan Performance		FEI	1.33
Airflow	9600 cfm	Wire to air static efficiency	55.51 %
Total Static Pressure	3.985 in H2O	Note: Field provided VFD efficiency not included. DOL motor fan electrical power calculated in accordance with AHRI 430.	
Total Brake Power	9.928 hp	Note: Certified airflow performance per AHRI 430	
Operating Speed	2302 rpm	Fan Section Options	
AMCA FEG	FEG85	Fan Wheel Balance	Inverter balance with shaft grounding
Bare fan peak total efficiency	72.20 %	Door Location	Right
Unit Static Efficiency	60.75 %	Window	Right - thermal
Motor Interface Options		Door Guard	Yes
Selection Type	Overload box	Marine Light	Marine LED light
Voltage	460/3	One Fan Down	
Motor Wire In Conduit	Motor wiring conduit	Redundancy	64.18 %
VFD Frequency	78.00 Hz	Operating Speed	2714 rpm

Fan Discharge Options							
Face	Type	Airflow	Face Velocity	Area	Pressure Drop	Exhaust Hood	Damper Torque Requirement
Top Face Feature	Sizeable rectangular opening	9600 cfm	1349 ft/min	7.12 sq ft	0.227 in H2O	N/A	N/A

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Job Name: OIA Hyatt Ballrooms

CSAA
Quantity: 1
Tags: AHU-LS5-113



Pressure Drop in (in w.g.)	
Supply fan	
Filter section	1.42
Coil section	0.67
Coil section	0.16
Fan section	0.23
Internal Static Pressure	2.49
External Static Pressure	1.50
Total Static Pressure	3.99