



Submittal

Prepared For:
MEEC

Date: April 22, 2026

Sold To:
Brighton Area Schools
Attn: Mr. Scott Jacobs

Job Name:
Brighton Area Schools - HS Science and Chiller Upg

Opportunity ID: 8568674

Trane U.S. Inc. is pleased to provide the following submittal for your review and approval.

Product Summary

Qty Product

14 Performance Climate Changer (CSAA)

Tag(s)

RTU-C-01 to C-10, C-12, C-18, C-20, C-22

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The attached information describes the equipment we propose to furnish for this project and is submitted for your approval.

Submittal acceptance and return is a critical step, so please ensure submittals are returned with approval to release to production within 14 days of submittal date.

MECHANICAL ELECTRICAL ENGINEERING CONSULTANTS, P.C.

Review is only for conformance with the design concept on the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication processes or to techniques of construction, and for coordination of his work with all other trades.

☒ No Exceptions Taken INITIALS: ZS
☐ Note Markings
☐ Rejected DATE: 6/2/26
☐ Resubmit

Product performance and submittal data is valid for a period of 6 months from the date of submittal generation. If six months or more has elapsed between submittal generation and equipment release, the product performance and submittal data will need to be verified. It is the customer's responsibility to obtain such verification.

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Tag Data - Performance Climate Changer (CSAA) (Qty: 14)

Item	Tag(s)	Qty	Description	Model Number
A1	RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22	14	Performance Climate Changer (CSAA)	CSAA004UB

Product Data - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

Unit level options

Unit size 4
 6in. integral base frame
 UL listed unit
 Single metal handle - ganged latches
 Right side drive
 181.479 Total unit length
 Field Provided (mtrs, lights, controls)

Controls and VFD/starter

Variable volume control system
 Symbio controller - BACnet
 Supply fan VFD

Pipe cabinet section

Pipe cabinet 1 standard depth
 One side door

Air mixing section (Pos #1)

Mixing box w/o filter
 Door- right side
 Marine LED light
 Back damper TRAQ airflow monitoring station
 Front full face opening
 Bottom damper - parallel blade

Filter section (Pos #2)

Cartridge filter
 Door- both sides
 Bag/cartridge filter frame
 12in. cartridge - 65% eff (Field Installed)
 MERV 11
 2" Pleated media (Field Installed)
 MERV 8

Chilled Water Cooling Coil section (Pos #4)

Door- left side
Stainless steel drain pan
Right side - drain connection
Right side - coil supply
Service panel opposite connection side
Unit coil height
Chilled water
Type "UW" coil
6 rows
135 Coil fins per foot
Aluminum fins
Delta flo H (Hi efficient)
.016" (0.406 mm) copper tubes
1/2in. tube diameter (12.7 mm)
Galvanized steel coil casing
Turbulators
Marine LED light
Coil connections - Standard

Hot Water Heating Coil section (Pos #5)

Door- left side
Right side - coil supply
Service panel opposite connection side
Unit coil height
Hot water
Type "3W" coil
2 rows
84 Coil fins per foot
Aluminum fins
Omega flo H (Hi efficient)
.012" (0.305 mm) copper tubes
3/8in. tube diameter (9.5 mm)
Galvanized steel coil casing
No turbulators
Marine LED light
Coil connections - Standard

Fan section (Pos #7)

Supply fan
Door- both sides
Door guard
Perforated panels
10.5in. dd plenum, full width, H press
1 Fan quantity
Plenum fan
Voltage 460/3
3 hp
3600 RPM
Inverter balance with shaft grounding
Standard transmitter flow meter
Marine LED light
VFD

Controls section (Pos #8)

Controls and starter/VFD
Supply section
Internal NEMA
Controller door- left
Supply high volt. door - right

Performance Data - Performance Climate Changer (CSAA)

Tags	RTU-C-XX	
Unit level options		
Position		
Length (in)	181.479	
Width (in)	44.000	
Overall unit height (in)	34.825	
Rigging weight (lb)	1974.1	
Installed weight (lb)	2013.6	
Roof curb weight (lb)	0.0	
Actual airflow (cfm)	1800	
Unit elevation (ft)	0.00	
Shipping split 1 weight (lb)	2013.6	
Controls section		
Position	#8	
Section length (in)	23.830	
Section weight (lb)	215.0	
Greatest discharge PD (in H2O)	0.000	
Controls section static pressure (in H2O)	0.000	
Custom length section		
Position	#3, #6	
Section length (in)	4.000	
Section weight (lb)	25.6	
Fan section		
Position	#7	
Section length (in)	31.573	
Section weight (lb)	592.0	
Fan airflow (cfm)	1800	
Elevation (ft)	0.00	
Overall ESP (in H2O)	1.000	
Total static pressure (in H2O)	3.551	
Maximum TSP @ 60 Hz (in H2O)	3.551	
Fan pressure drop (in H2O)	1.173	
Speed (rpm)	4575	
Total brake horsepower (hp)	1.982	
Unit static efficiency (%)	50.83	
Motor hertz (Hz)	78.00	
Discharge 1 bottom - airflow (cfm)	1800	
Discharge 1 bottom - face velocity (ft/min)	1176	
Discharge 1 bottom - pressure drop (in H2O)	0.173	
Discharge 1 bottom - area (sq ft)	1.53	
Coil section		
Position	#4	#5
Section length (in)	31.281	28.171
Section weight (lb)	414.5	316.3
Coil performance airflow (cfm)	1800	1800
Unit airflow (cfm)	1800	1800
Coil face area (sq ft)	4.51	4.51
Coil face velocity (ft/min)	399	399
Air pressure drop (in H2O)	0.604	0.113
Coil section pressure drop (in H2O)	0.604	0.113
Coil rigging weight (lb)	86.6	32.3
Coil installed weight (lb)	116.6	41.7
Top or single coil dry weight (lb)	86.6	32.3
Leaving dry bulb (F)	54.00	78.00
Leaving wet bulb (F)	53.90	-

Tags	RTU-C-XX	
Entering dry bulb (F)	85.00	0.00
Entering wet bulb (F)	76.00	-
Fluid type	Ethylene glycol	Water
Coil fluid percentage (%)	30.00	100.00
Entering fluid temperature (F)	42.00	180.00
Leaving fluid temperature (F)	54.22	157.30
Fluid temperature rise (F)	12.22	-
Fluid temperature drop (F)	-	22.70
Standard fluid flow rate (gpm)	25.50	13.40
Fluid pressure drop (ft fluid)	7.91	0.89
Fluid velocity (ft/s)	2.92	2.12
Fluid volume (gal)	3.03	1.13
Sensible capacity (MBh)	62.19	-
Total capacity (MBh)	136.73	152.26
Filter section		
Position	#2	
Section length (in)	24.500	
Section weight (lb)	155.6	
Filter airflow (cfm)	1800	
Filter area (sq ft)	5.56	
Pre-filter area (sq ft)	5.56	
Filter condition	Mid-life	
Filter pressure drop (in H2O)	0.672	
Pre-filter pressure drop (in H2O)	0.582	
Filter section pressure drop (in H2O)	1.254	
Filter face velocity (ft/min)	324	
Pre-filter face velocity (ft/min)	324	
Air mixing section		
Position	#1	
Section length (in)	34.000	
Section weight (lb)	268.9	
Opening 1 back - airflow (cfm)	1800	
Back Traq minimum measurable airflow (cfm)	276	
Opening 1 front - airflow (cfm)	1800	
Opening 1 bottom - airflow (cfm)	1800	
Opening 1 back - area (sq ft)	0.92	
Opening 1 front - area (sq ft)	6.25	
Opening 1 bottom - area (sq ft)	1.87	
Opening 1 back - face velocity (ft/min)	1957	
Opening 1 bottom - face velocity (ft/min)	963	
Opening 1 back - pressure drop (in H2O)	0.339	
Opening 1 bottom - pressure drop (in H2O)	0.277	
Opening 1 back total pressure drop (in H2O)	0.339	
Opening 1 bottom total pressure drop (in H2O)	0.277	
Back hood pressure drop (in H2O)	0.068	
Back hood area (sq ft)	4.56	
Back inlet type	Unducted	
Bottom inlet type	Ducted	
Greatest entry PD (in H2O)	0.408	
Total mixing section pressure drop (in H2O)	0.408	
Front total pressure drop (in H2O)	0.000	
Back total pressure drop (in H2O)	0.408	
Top total pressure drop (in H2O)	0.000	
Bottom total pressure drop (in H2O)	0.277	
Right side total pressure drop (in H2O)	0.000	

Tags	RTU-C-XX	
Left side total pressure drop (in H2O)	0.000	

Product Report - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

Trane Performance Climate Changer Air Handler

Unit Overview - RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

Application	Unit Size	External Dimensions			Weight	
		Height	Width	Length	Installed	Rigging
Outdoor unit	CSAA004	34.8 in	44.0 in	181.480 in	2013 lb	1974 lb
Quantity of Shipping Sections		Largest Ship Split			Heaviest Ship Split	Elevation
		Height	Width	Length		
1 piece(s)		34.8 in	44.0 in	181.4 in	2013 lb	0.00 ft
Supply Fan						
Airflow	1800 cfm	Total Static Pressure: 3.551 in H ₂ O				

Note: Height includes air handler sloped roof panel and standing seam.

Construction Features

Panel	Zin, foam injected R-13 with thermal break
Panel Material	All unit inner panels - galvanized
Integral Base Frame	Gin, integral base frame
Paint	State gray
Agency Approval	UL listed unit
Roof Curb Type	Field supplied roof curb

Unit Electrical

Circuit	Voltage/Phase/Frequency	FLA	MCA	Max Fuse Size	SCCR
Circuit number 1 Supply fan + controls-LL + lights+switch	460/3/60	6.10 A	7.30	15.00	5 kA
Circuit number 2 Receptacle	115/1/60	8.00 A	10.00	15.00	N/A

Unit Controls

Factory Controls Package	Variable volume
Controller Type	Symbio
Controller mounting	Unit mounted
Controller location	Left
Factory programmed	Yes

Pipe cabinet section

Pipe Cabinet	Front Door	Back Door	Side Door	Weight
Pipe Cabinet 1			One side door	190.4 lb

Air mixing section - Position: 1

Openings							
Face	Path	Type	Airflow	Face Velocity	Area	Pressure Drop	Hood
Back	Outside	Std TRAQ	1800 cfm	1957 ft/min	0.92 sq ft	0.406 in H ₂ O	Yes
Bottom	Return	Parallel blade damper	1800 cfm	963 ft/min	1.67 sq ft	0.277 in H ₂ O	N/A
Section Options							
Door Location			Right				
Marine Light			Marine LED light				

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Filter section - Position: 2

Primary Filter									
Type	Frame	Loading	Airflow	Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size
12in. cartridge - 65% eff - MERV 11	Bag/cartridge filter frame	Side load filters	1800 cfm	5.56 sq ft	324 ft/min	Mid-life	0.672 in H ₂ O	2.00	20x20
Prefilter									
Type	Airflow		Face Area	Face Velocity	Condition	Pressure Drop	Filter Quantity	Filter Size	
2" Pleated media - MERV 11	1800 cfm		5.56 sq ft	324 ft/min	Mid-life	0.582 in H ₂ O	2.00	20x20	
Filter Section Options									
Door Location					Both				

Custom length section - Position: 3

Section Length	4.000 in
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Cooling coil section - Position: 4

Coil Construction		Coil Performance	
Model	Chilled water - 1/2" Unit Optimized, General (UW)	Capacity	
Rows	8	Total	136.73 MBH
Tube Diameter	1/2in. tube diameter (12.7 mm)	Sensible	62.19 MBH
Coil Connection	Standard	Air	
Tube Mat/Wall Thickness	0.016" (0.406 mm) copper tubes	Flow	1800 cfm
Fin Spacing	135 Per Foot	Entering Dry Bulb	85.00 F
Fin Material	Aluminum fins	Entering Wet Bulb	76.00 F
Fin Type	Delta fin H (H efficient)	Leaving Dry Bulb	54.00 F
Face Area	4.51 sq ft	Leaving Wet Bulb	53.90 F
Coil (top/side) H x L	20 in. (508 mm) X 33" (838 mm) finned length	Pressure Drop	0.604 in H ₂ O
Casing	Galvanized	Face Velocity	389 ft/min
Turbulators	Yes	Fluid	
Rigging Weight	86.8 lb	Flow	25.50 gpm
Installed Weight	116.0 lb	Entering	42.00 F
Coil Section Options		Leaving	54.22 F
Extended Drain and Vent	Holes only	Pressure Drop	7.91 ft fluid
Drain Pan	Stainless steel	Tube Velocity	2.92 ft/s
Drain Pan Size	Medium	Reynolds Number	3545.77
Drain Connection	Right	Type	Ethylene glycol
Minimum Trap Height (L)	8.067 in	Concentration	30.00 %
H Trap Dimension	4.712 in	Fouling Factor	0.00000 hr-sq ft-deg F/Btu
J Trap Dimension	2.356 in	Volume	3.03 gal
Service Panel	Opposite coil connection side	AHRI 410 Classification	
Door Location	Left	AHRI 410 Classification	AHRI ACHC Certified
Marine Light	YES	Data Generation Date	4/22/2026
		Trane Select Asst update number	26040

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.



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Heating coil section - Position: 5

Coil Construction		Coil Performance	
Model	Hot water - 3/8" Unit Optimized, General (3W)	Capacity	
Rows	2	Total	152.26 MBh
Tube Diameter	3/8in. tube diameter (9.5 mm)	Air	
Coil Connection	Standard	Flow	1800 cfm
Tube Mat/Wall Thickness	.012" (0.305 mm) copper tubes	Entering Dry Bulb	0.00 F
Fin Spacing	84 Per Foot	Leaving Dry Bulb	76.00 F
Fin Material	Aluminum fins	Pressure Drop	0.113 in H ₂ O
Fin Type	Omega flo H (Hi efficient)	Face Velocity	399 ft/min
Face Area	4.51 sq ft	Fluid	
Coil (top/angle) H x L	20 in. (508 mm) X 33" (838 mm) finned length	Flow	13.40 gpm
Casing	Galvanized	Entering	180.00 F
Turbulators	Not Included	Leaving	157.30 F
Rigging Weight	32.3 lb	Pressure Drop	0.89 ft fluid
Installed Weight	41.7 lb	Tube Velocity	2.12 ft/s
Coil Section Options		Reynolds Number	16619.20
Extended Drain and Vent	Holes only	Type	Water
Drain Pan Size	Small	Fouling Factor	0.00025 hr-sq ft-deg F/Btu
Service Panel	Opposite coil connection side	Volume	1.13 gal
Door Location	Left	AHRI 410 Classification	
Marine Light	YES	AHRI 410 Classification	AHRI ACHC Certified
		Data Generation Date	4/22/2025
		Trane Select Assist update number	26040

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.

**Custom length section - Position: 6**

Section Length 4.000 in

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

TRANE
TECHNOLOGIES

Mechanical Specifications - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

GENERAL

Outdoor air handling units will be shipped with all openings covered to protect unit interior from in-transit debris.

Installing contractor is responsible for long term storage in accordance with the Installation, Operation, and Maintenance manual (CLCH-SVX07*-EN).

Unit shall be UL and C-UL Listed.

Supply fans within the scope of AHRI Standard 430 are "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".

Unit sound performance data shall be reported as sound power. Trane, in providing this program and data, does not certify or warrant NC levels. These levels are affected by factors specific to each application and/or installation and therefore unable to be predicted or certified by Trane. Refer to product data for specific fan footnote references.

Refer to product data for AHRI certification status. Propylene glycol and calcium chloride, or mixtures thereof, are outside the scope of AHRI Standard 410 and, therefore, do not require AHRI rating or certification. For coils within the scope of AHRI Standard 410 cooling coil performance is 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 performance for heat pump or condenser mode is not certified.

Manufacturer provided VFDs shall be certified to AHRI Standard 1210 "Performance Rating of Variable Frequency Drives" to ensure documented and reliable VFD efficiency.

Unit Construction

Outdoor unit roofs shall incorporate a standing seam on the exterior to ensure a rigid roof construction and prevent water infiltration. Roof assembly shall overhang all walls by 1.5-inch minimum to prevent sheeting from roof to side panels. Rain gutters shall also be provided over all doors shorter than total unit height to direct rain away from the door assembly. Outdoor roofs shall be sloped, not less than 0.125 inches per foot, for water drainage. Where outdoor units are shipped in multiple sections, provide standing-seam joiners at each split with adhesive, hardware, and cover strips for field joining by the installing contractor.

All unit panels shall be 2" solid, double-wall construction to facilitate cleaning of unit interior. Unit panels shall be provided with a mid-span, no-through-metal, internal thermal break. Casing thermal performance shall be such that under 55°F supply air temperature and design conditions on the exterior of the unit of 81°F dry bulb and 73°F wet bulb, condensation shall not form on the casing exterior. Casing construction will comply with NFPA 90A.

All outdoor AHU interior casing panels will be made of galvanized steel.

Unit Paint

External surface of unit casing will be coated with water-based polyurethane paint. Color to be standard "Slate Gray". Factory-painted units will be able to withstand a salt spray test in accordance with ASTM B117 for a minimum of 500 consecutive hours and shall meet the following requirements following the salt-spray test:

- Mean scribe creepage rating of at least 6 per ASTM D1654 procedure A
- Blister size no larger than #6 per ASTM D714
- Blister density no greater than Medium per ASTM D714
- No onset of red rust

Casing Deflection

The casing shall not exceed 0.0042 inch deflection per inch of panel span at 1.00 times design static pressure. Maximum design static shall not exceed +8 inches w.g. in all positive pressure sections and -8 inches w.g. in all negative pressure sections.

Floor Construction

The unit floor shall be of sufficient strength to support a 300.0 lb load during maintenance activities and shall deflect no more than 0.0042 inch per inch of panel span.

Unit Base

Manufacturer to provide a full perimeter integral base frame for either ceiling suspension of units or to support and raise all sections of the unit for proper trapping. Indoor unit base frame will either be bolted construction or welded construction. All outdoor unit base frames shall be welded construction. For indoor units, refer to schedule for base height and construction type. Contractor will be responsible for providing a housekeeping pad when unit base frame is not of sufficient height to properly trap unit. Unit base frames not constructed of galvanized steel shall be chemically cleaned and coated with both a rust-inhibiting primer and finished coat of rust-inhibiting enamel. Unit base height to be included in total height required for proper trap height.

Insulation

Panel insulation shall provide a minimum thermal resistance (R) value of 13 ft²-h-°F/Btu throughout the entire unit. Insulation shall completely fill the panel cavities in all directions so that no voids exist and settling of insulation is prevented.

Drain Pan

In sections provided with a drain pan, the drain pan shall be designed in accordance with ASHRAE 62.1. To address indoor air quality (IAQ) the drain pan shall be sloped in two planes promoting positive drainage to eliminate stagnant water conditions. Drain pan shall be insulated, and of double wall construction. The outlet shall be the lowest point on the pan, and shall be of sufficient diameter to preclude drain pan overflow under normally expected operating conditions. All drain pans connections shall have a threaded connection, extending a minimum of 2-1/2" beyond the unit base, and shall be made from the same material as the drain pan. Drain pan located under a cooling coil shall be of sufficient size to collect all condensate produced from the coil.

Refer to Product Data for specific information on which sections are supplied with a drain pan, the drain pan material and connection location.

Access Door Construction

Access doors shall be 2" double wall construction. Interior and exterior door panels shall be of the same construction as the interior and exterior wall panels respectively. All doors shall be provided with a thermal break construction of door panel and door frame. Gasketing shall be provided around the full perimeter of the doors to prevent air leakage. Surface mounted handles shall be provided to allow quick access to the interior of the functional section and to prevent through cabinet penetrations that could likely weaken the casing leakage and thermal performance. Handle hardware shall be designed to prevent unintended closure. Outswing doors shall have easily removable hinges and handles that can be relocated to change the door swing if needed. Door hinges shall be made of galvanized steel.

All doors shall be a minimum of 60" high when sufficient height is available or the maximum height allowed by the unit height.

Door handles shall be provided for each latching point of the door necessary to maintain the specified air leakage integrity of the unit. An optional shatterproof window shall be provided in access doors where indicated on the plans. Window shall either be single pane, or thermal dual pane, as defined on schedule. Window shall be capable of withstanding unit operating pressures and shall be safe for viewing UV-C lamps.

Refer to Product Data for specific information on which sections are supplied with an access door, the door location, a single handle and a window.

Field supplied Curb

Outdoor AHU is to be mounted on field-supplied specialty curb. Refer to the specialty curb manufacturer's installation requirements for any curb assembly, curb mounting to roof structure, or unit-to-curb attachment. For units requiring external piping cabinet(s), the specialty curb manufacturer is to also provide a curb for external pipe chase(s). For seismic units, a VMC seismic curb is required.

Marine Light

A factory-mounted, weather resistant (enclosed and gasketed to prevent water and dust intrusion), light emitting diode (LED) fixture shall be provided in sections of the unit as specified for maintenance and service visibility. Fixture shall be complete with aluminum die cast housing, polycarbonate lens designed for maximum light output, and LEDs wired to a single switch within a factory provided service module. LED lighting shall provide instant-on "white" light and have a minimum 25,000 hour life. Fixtures shall be designed for flexible positioning during maintenance and service activities for optimal location. All lights within the unit shall be wired to a single switch within the factory provided service module. The service module shall include a GFCI receptacle separate from the load side of the equipment. Electrical contractor shall be required to provide a 120V supply to the factory-mounted service module for the marine light circuit per NEC. The GFCI receptacle can be fed by the same 120V feed (via jumper) or a separate 120V supply must be brought to the service module for the GFCI receptacle circuit per NEC. Service module shall be provided on the fan section.

Refer to the Product Data section of the submittal for sections with marine lights.

Lifting Instructions

The air handling units must be rigged, lifted, and installed in strict accordance with the Installation, Operation, and Maintenance manual (CLCH-SVX07G-EN). The units are also to be installed in strict accordance with the specifications. Units may be shipped fully assembled or disassembled to the minimum functional section size in accordance with shipping and job site requirements.

Outdoor units shall be shipped on frame for the purpose of mounting units on a roof curb or field-supplied pier support system. Refer to the Product Data section for type of the base frame provided (for roof curb or pier-mount).

All units will be shipped with an integral base frame designed with the necessary number of lift points for safe installation. All lifting lugs are to be utilized during lift. The lift points will be designed to accept standard rigging devices and be removable after installation.

MIXING SECTION

A mixing section shall be provided to support the damper assembly for outdoor, return, and/or exhaust air.

External Pipe Cabinets

Piping cabinet is supplied factory-assembled of the same construction as the main unit casing. Piping cabinets are shipped separate to be field installed on the side of the unit.

Refer to the unit As-Built and Product Data section for specific information on which sections are supplied with a corresponding pipe cabinet and pipe cabinet access doors.

Dampers

Dampers shall modulate the volume of outdoor, return, or exhaust air. The dampers shall be of double-skin airfoil design with metal, compressible jamb seals and flexible blade-edge seals on all blades. The blades shall rotate on stainless-steel sleeve bearings. The dampers shall be rated for a maximum leakage rate of 3 cfm/ft² at 1 in. w.g. complying with ASHRAE 90.1 maximum damper leakage. All leakage testing and pressure ratings shall be based on AMCA Standard 500-D. Dampers may be arranged in a parallel or opposed-blade configuration.

Inlet Hoods

Inlet hoods are provided on the outside air openings and equipped with high performance moisture eliminators to minimize water carryover from the outside into the unit casing. Eliminators also perform the function of a bird screen to prevent nesting.

Refer to the unit As-Built and Product Data section for specific information on which sections are supplied with inlet hood.

Airflow Measurement Station (Std. TRAQ Dampers)

A factory-mounted airflow measurement station tested in accordance with AMCA Standard 611 for Airflow Measurement Performance shall be provided in the outdoor and/or return air opening to measure airflow. The damper blades shall be galvanized steel, housed in a galvanized steel frame and mechanically fastened to a rotating axle rod. The dampers shall be rated for a maximum leakage rate of 4 cfm/ft² at 1 in. w.g. complying with ASHRAE 90.1 maximum damper leakage. The standard airflow measurement station shall be capable of measuring from 15 percent to 100 percent of unit nominal airflow. The airflow measurement station shall adjust for temperature variations and provide a 2 to 10 Vdc signal that corresponds to actual airflow for controlling and documenting airflow. The accuracy of the airflow measurement station shall be ± 5 percent.

Title 24

The following specifications apply only to units with outside air and return air dampers, with actuators. The 5 year warranty applies only to these items.

This unit contains Economizer that meets or exceeds all mandatory requirements prescribed by Title 24, including but not limited to:

- 5 yr parts only warranty
- Successfully tested to 60,000 Actuations
- Less than 10 cfm/sq.ft. of damper leakage at 1" WG per AMCA 500L

Averaging Temperature Sensor

An averaging temperature sensor shall be serpentine across the module. All capillaries bends shall be radiused and fastened with capillary clips to prevent crimping and minimize wear.

A 10,000 ohm, Type II thermistor is the sensor material that shall be mounted.

Mixing Section Damper Actuators

Spring return actuators shall be mounted with the outside air damper normally closed and the return air damper normally open. Actuator feedback will be wired to the unit controls system.

FILTER SECTION

A section shall be provided to support the filter rack as indicated throughout the unit. Refer to Product Data and As-Built sections of the submittal for specific locations within each unit.

Primary Filters**Cartridge Filters**

The filters shall be 12-inch cartridge filters constructed with a continuous sheet of fine-fiber media made into uniformly spaced pleats. The filters shall be capable of operating up to 625 fpm face velocity without loss of filter efficiency and holding capacity. The filters shall be sealed into a metal frame assembled in a rigid manner. A gasket material shall be installed on the metal header of the filter to prevent filter bypass where the metal headers meet on the side-access racks. All cartridge filters shall be furnished with a 2-inch prefilter to provide extended cartridge filter life. The manufacturer shall supply a side-access filter rack capable of holding cartridge filters and prefilters.

The cartridge filters shall have a MERV 11 rating when tested in accordance with the ANSI/ASHRAE Standard 52.2.

Prefilter Type

2-inch pleated media filters made with 100% synthetic fibers that are continuously laminated to a supported steel-wire grid with water repellent adhesive shall be provided. Filters shall be capable of operating up to 625 fpm face velocity without loss of filter efficiency and holding capacity. The filters shall have a MERV 8 rating when tested in accordance with the ANSI/ASHRAE Standard 52.2.

Differential Pressure Gage

A differential pressure gage shall be flush-mounted with casing outer wall with probes piped to both sides of the filter bank to indicate status. Combination filter frames will be provided with a separate differential pressure gage piped across each of the high-efficient and pre-filter banks. The gage shall be diaphragm-actuated dial-type and shall maintain a +/- 5 percent accuracy within operating temperature limits of the air handler. Range shall be 0 - 2.0 in. w.g,

Dirty Filter Switch

A differential pressure switch piped to both sides of the filter shall indicate filter status.

COIL SECTION WITH FACTORY INSTALLED COIL

The coil section shall be provided complete with coil and coil holding frame. The coils shall be installed such that headers and return bends are enclosed by unit casings. If two or more cooling coils are stacked in the unit, an intermediate drain pan shall be installed between each coil and be of the same material as the primary drain pan. Like the primary drain pan, the intermediate drain pan shall be designed being of sufficient size to collect all condensation produced from the coil and sloped to promote positive drainage to eliminate stagnant water conditions. The intermediate pan shall begin at the leading face of the water-producing device and be of sufficient length extending downstream to prevent condensate from passing through the air stream of the lower coil. Intermediate drain pan shall include downspouts to direct condensate to the primary drain pan. The outlet shall be located at the lowest point of the pan and shall be sufficient diameter to preclude drain pan overflow under any normally expected operating condition.

Coil with Inspection

The coil section complete with a double-wall, shall include a removable door downstream of the coil for inspection, cleaning, and maintenance. Interior and exterior door panels shall be of the same construction as the interior and exterior wall panels, respectively. All doors shall be provided with a thermal break construction of door panel and door frame.

An easily removable service panel shall be provided in sections as specified, to facilitate access to unit for periodic servicing, or for removal and replacement of coils. Removal of service panel will not impact the structural integrity of the unit.

Casing penetrations supplied for hydronic drain and vents. Piping contractor shall provide extended piping.

Water Coils (UP, WP, UW, UU, UA, 3W, 3U, W, 5W, 5A, WD, 5D, D1, D2, P, or TT)

The coils shall have aluminum fins and seamless copper tubes. Copper fins may be applied to coils with 5/8-inch tubes. Fins shall have collars drawn, belled, and firmly bonded to tubes by mechanical expansion of the tubes. The coil casing may be galvanized or stainless steel. Refer to the Product Data section of the submittal for the coil casing material.

The coils shall be proof-tested to 300 psig and leak-tested under water to 200 psig. Refer to the Product Data section of the submittals for AHRI certification status.

Coil connections are constructed of cast iron with female connections, steel block with female connections or steel pipe with male connections. Type P or TT coil connections do not extend out of unit casing. All other water coil types have connections that extend out beyond unit casing. Headers on downstream coil bank of staggered coil sections do not extend beyond the unit casing and must be completed by the on-site piping contractor.

Tubes are 1/2" [13 mm] OD 0.016" [0.406 mm] thick copper.

Tubes are 3/8" [9.5 mm] OD 0.012" [0.305 mm] thick copper.

Averaging Temperature Sensor

An averaging temperature sensor shall be serpentine across the module. All capillaries bends shall be radiused and fastened with capillary clips to prevent crimping and minimize wear.

Low Limit

A double-pole single throw (1 NO, 1 NC) low limit switch shall be wired to a momentary push-button manual reset circuit (without Trane wiring the device is auto-resetting). Low Limit Switch circuit will be wired as Normally Closed, and will trip a lockout circuit upon temperature dropping below the set point, or general failure of the circuit. Lockout circuit will be factory wired into the Fan VFDs or Starters if present. Set point is default set to 35F at factory, but is adjustable if increased set point is needed due to installation site ducting to coil causing cold spot in a unique location of the coil. Capillaries are serpentine across the entering or leaving side of the coil with routing Trane designed to maximize coil coverage and cover critical top and bottom 3 inches of the coil for any given capillary and coil area configuration (Trane designed and historically proven capillary routing does not necessarily match device manufacturer's generic installation recommendations). The bends of the capillaries shall be curved and fastened with capillary clips to prevent crimping and minimize wear. A separate low limit shall be provided for each coil in a coil stack.

A 10,000 ohm, Type II thermistor is the sensor material that shall be mounted.

DIRECT-DRIVE PLENUM FAN SECTION

The fan type shall be provided as required for stable operation and optimum energy efficiency. The fan shall be a single-width, single-inlet, multiblade-type direct-drive plenum fan. Motor bearing life of the direct-drive plenum fan shall be not less than L-10 250,000 hrs. *Refer to the Product Data section for fan quantity and number of blades selected within each unit.* Central Station Air Handling Unit Supply Fans are "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" Central Station Air Handling Unit Supply Fans shall be tested and rated in-accordance with AHRI Standard 260 for sound performance.

Fans that are selected with inverter balancing shall first be dynamically balanced at design RPM. The fans then will be checked in the factory from 25% to 100% of design RPM to insure they are operating within vibration tolerance specifications, and that there are no resonant frequency issues throughout this operating range. Inverter balancing that requires lockout frequencies inputted into a variable frequency drive to in order to bypass resonant frequencies shall not be acceptable. If supplied in this manner by the unit manufacturer, the contractor will be responsible for rebalancing in the field after unit installation. Fans selected with inverter balancing shall have a maintenance free grounding assembly installed on the fan motor to discharge both static and induced shaft currents to ground.

On units supplied with plenum or motorized impeller fans, door guard(s) shall be supplied on the access door(s) to the fan and those downstream access door(s) where unintended access to the plenum or motorized impeller fan could occur. Door guard is intended to deter unauthorized entry and incidental contact with rotating components. *Refer to the Product Data section for fans with access door guard(s).*

Motor Frame

The motor shall be mounted integral to the isolated fan assembly and furnished by the unit manufacturer. The motor is mounted inside the unit casing on an adjustable base to permit adjustment of drive belt tension (not applicable for direct drive plenum fans). The motor shall meet or exceed all NEMA Standards Publication MG 1 requirements and comply with NEMA Premium efficiency levels when applicable except for fractional horsepower motors which are not covered by the NEMA classification. The motor shall be T-frame, squirrel cage with size, type, and electrical characteristics as shown on the equipment schedule. *Refer to the Product Data section for selected fan motors within each unit.*

Two-Inch Spring Isolators

Direct-drive fan and motor assemblies shall be internally isolated from the unit casing with 2-inch (50.8 mm) deflection spring isolators. The isolation system shall be designed to resist loads produced by external forces, such as earthquakes, and conform to the current IBC seismic requirements.

Fan Discharge Temperature Sensor

A button or probe temperature sensor shall be mounted in the fan discharge.

A 10,000 ohm, Type II thermistor is the sensor material that shall be mounted.

Airflow Switch

A differential pressure switch piped to the discharge and suction sides of the fan shall indicate fan status.

Single Transmitter

The fan shall have an airflow measurement system to measure fan airflow directly or to measure differential pressure that can be used to calculate fan airflow. The system shall predict airflow within +/5 percent total accuracy (device & transmitter) when operating within the stable operating region of the fan curve. On units supplied with multiple direct drive fans, one fan is tubed and one transmitter is supplied for the total array. The submitted fan airflow performance and noise levels shall not be affected by the installation of the device. Any device that provides an obstruction to the fan inlet will not be accepted. *Refer to the Product Data section for fans with flow meters.*

Combination VFD / Disconnect

A combination Variable Frequency Drive (VFD) / disconnect shall be provided when variable air volume control is required for fan operation. Whether for single fan, dual fan, or fan array applications, a single VFD shall be provided to ensure proper operation and to optimize operating life. Each VFD / disconnect shall be properly sized, factory mounted in a full metal enclosure, wired to the fan motor(s), and commissioned to facilitate temporary heating, cooling, ventilation, and/or timely completion of the project. VFD / disconnects shall include a circuit breaker disconnect with a through-the-door interlocking handle and shall be lockable. The VFD package shall also include:

- a) Electronic manual speed control
- b) Hand-Off-Auto (H-O-A) selector switch
- c) Inlet fuses to provide maximum protection against inlet short circuit
- d) Current limited stall prevention
- e) Auto restart after momentary power loss
- f) Speed search for starting into rotating motor
- g) Anti-windmill w/DC injection before start
- h) Phase-to-phase short circuit protection
- i) Ground fault protection
- j) Manual motor protection MMP

Units with factory-mounted controls shall include power wiring from the VFD panel to the control system transformers, binary output on/off wiring, analog output-speed-signal wiring, and all interfacing wiring between the VFD and the direct digital controller.

The VFD shall be UL508C listed and CSA certified and conform to applicable NEMA, ICS, NFPA, & IEC standards.

The supply fan's Starter/VFD shall be mounted internal of unit casing in the controls section. The internal enclosure shall be an integral part of the unit casing to allow for thermal venting to casing interior, but shall be accessible from unit exterior through access door. Internally mounted starters shall have doors with the same construction as other doors on unit. An external disconnect shall be mounted through the door to the starter/VFD to disconnect full power from starter/VFD.

Variable Volume Control System

Factory-mounted direct-digital control (DDC) systems shall be engineered, mounted, wired, and tested by the air handler manufacturer to reduce installed costs, improve reliability, and save time at unit startup. Each control system shall be fully functional in a stand-alone mode or may be tied to a building automation system with a single pair of twisted wires. All factory-mounted controls shall be covered by the air handler manufacturer's standard warranty.

Field Programmable Symbio

A dedicated programmable Symbio Controller with the appropriate point capabilities shall be unit mounted on the air handling unit. Point expansion is accomplished using expansion modules with the capacity to add points in 4 to 18 point increments. The controller will utilize the latest graphical programming methods that are easy to learn, powerful, self-documenting. Graphical programming will help minimize programming costs, aid in program troubleshooting, and save time at unit startup. Programmable controllers optimize unit control flexibility. 120V power wiring to the control system transformer, which provides 24VAC to the Symbio controller and to the end devices, shall be customer supplied. The Symbio controller communicates using the BACnet protocol. The Symbio controller has USB Host Port, USB Service Tool Port, two 100M Ethernet Ports, and uSD Card Socket for expandable flash memory. Other advanced features include automated controller back-up, and optional features such as secure remote connectivity, wireless building communications, mobile device connectivity, and custom programming with expandable I/O.

Unit Mounted Control System

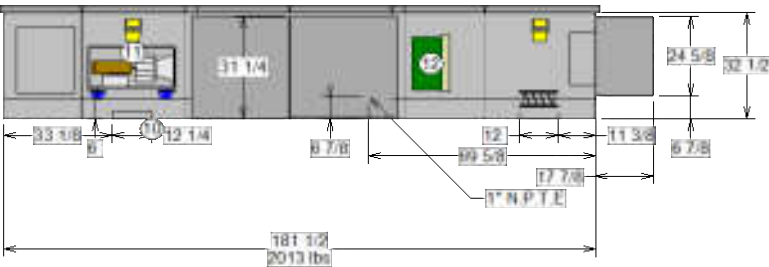
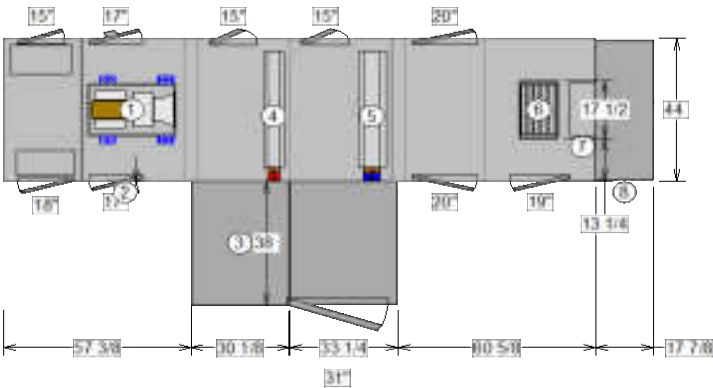
All factory installed end devices shall be wired and terminated to expansion modules throughout the unit. The expansion modules will communicate to the DDC controller with a communication bus.

Standard Factory Programming

Standard Factory Programming installed to unit per specific unit selections.

Dimensional Drawings - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-XX



- 1 Plenum fan - 10.5m. dsl
- 2 plenum, full width, H press
- 3 Supply fan 3 hp 460/3
- 4 Light switch and/or receptacle RH
- 5 Pipe cabinet right (2)
- 6 Heating coil - 2 Rows
- 7 Coil type 3/8" Unit
- 8 Optimized, General (3W)
- 9 Cooling coil - 6 Rows
- 10 Coil type 1/2" Unit
- 11 Optimized, General (RW)
- 12 Damper bottom parallel blade
- 17.5 x 12
- Standard Traq damper back
- 16.125 x 16.125
- Hood back
- 1" N.P.T.E.
- Opening bottom
- 24 x 12.25
- Marine light
- Cartridge filter - 12in cartridge - 65% eff - MERV 11
- Doors
- 18 width x 22 height
- 15 width x 22 height
- 17 width x 22 height
- 31 width x 21 height
- 20 width x 22 height
- 19 width x 22 height

For maneuvering purposes, include 1.125 inches to each ship split length for overlapping panel flange. Flange will not add to overall installed unit length shown.

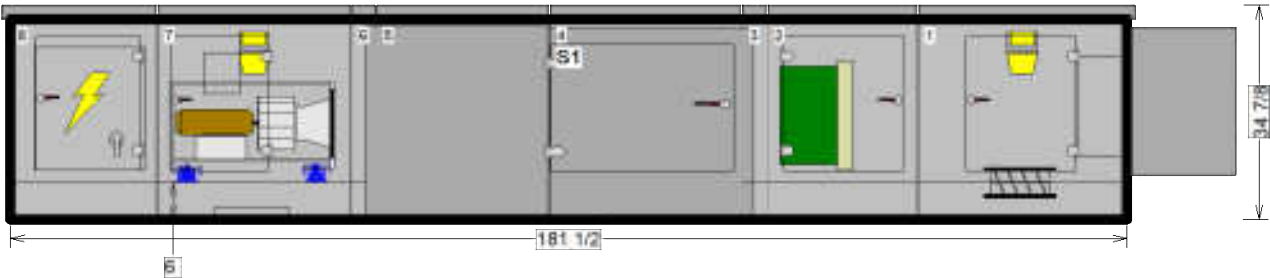
OPENING AND DIMENSIONS MAY VARY FROM CONTRACT DOCUMENTS / RETURN OF APPROVED DRAWINGS CONSTITUTES ACCEPTANCE OF THESE VARIANCES / NOT TO SCALE

Unit size: 4	Job Name: Brighton Area Schools - HS Science and Chiller Upg	Unit Casing: 2in Double Wall Foam
Product group: Outdoor unit	Actual airflow: 1800 cfm	Proposal Number:
Integral base frame: 6in. integral base frame	Sales Office: FLINT TCS SO MI	Tags: RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22
Paint: Slate gray		Rigging/Installed Weight: 1974.1 lb / 2013.5 lb



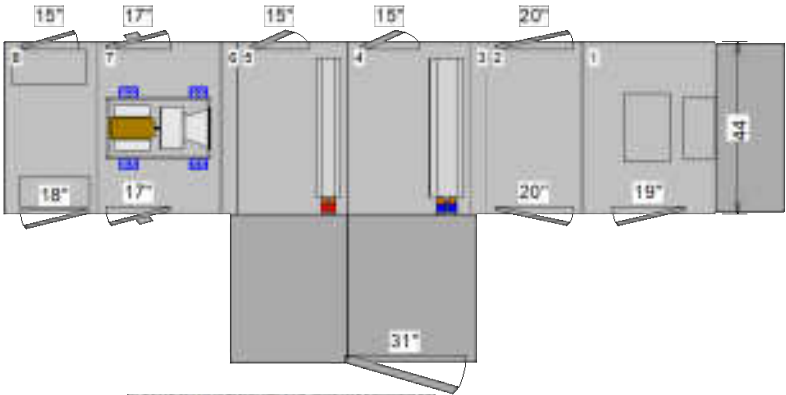
Dimensional Drawings - Performance Climate Changer (CSAA)
Item: A1 Qty: 14 Tag(s): RTU-C-XX

Shipping splits are indicated by thick black lines



For maneuvering purposes, include 1.125 inches to each ship split length for overlapping panel flange. Flange will not add to overall installed unit length shown.

Pos #	Module	Length	Weight
1	Air mixing section	34	268.86
2	Filter section	24 1/2	155.58
3	Custom length section	4	25.60
4	Coil section	31 3/8	414.50
5	Coil section	28 1/4	316.31
6	Custom length section	4	25.60
7	Fan section	31 5/8	592.02
8	Controls section	23 7/8	215.02
			Installed Unit Weight 2013.48 lbs

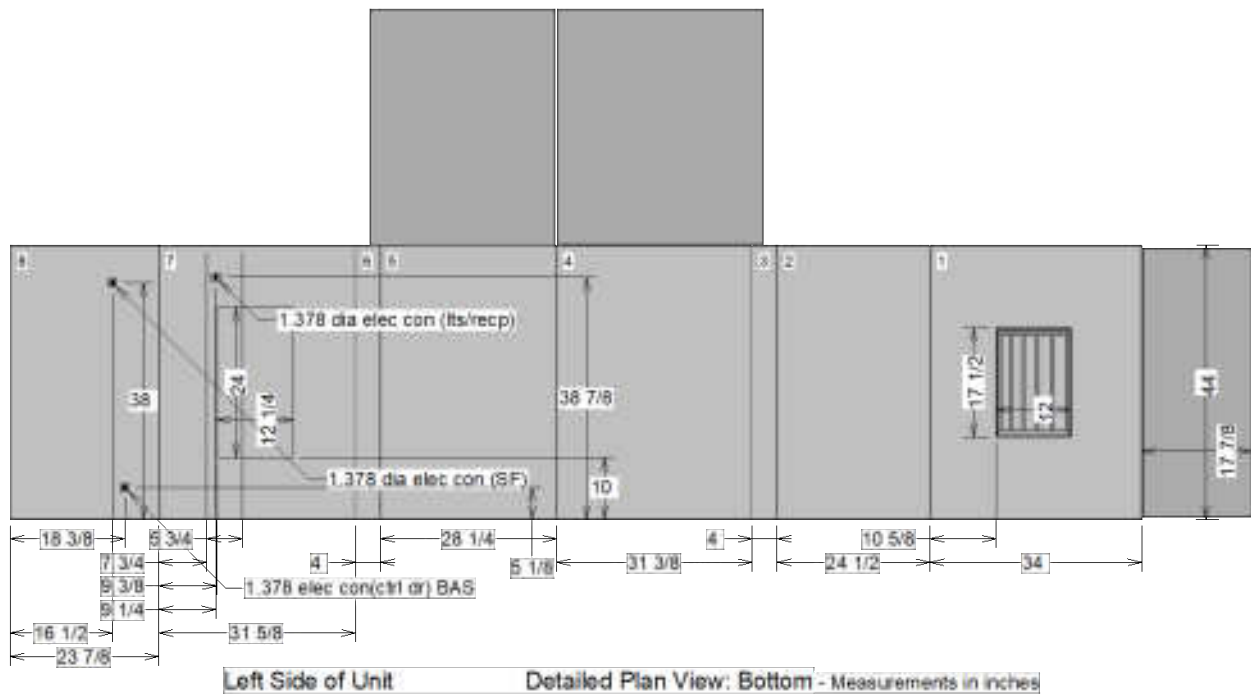
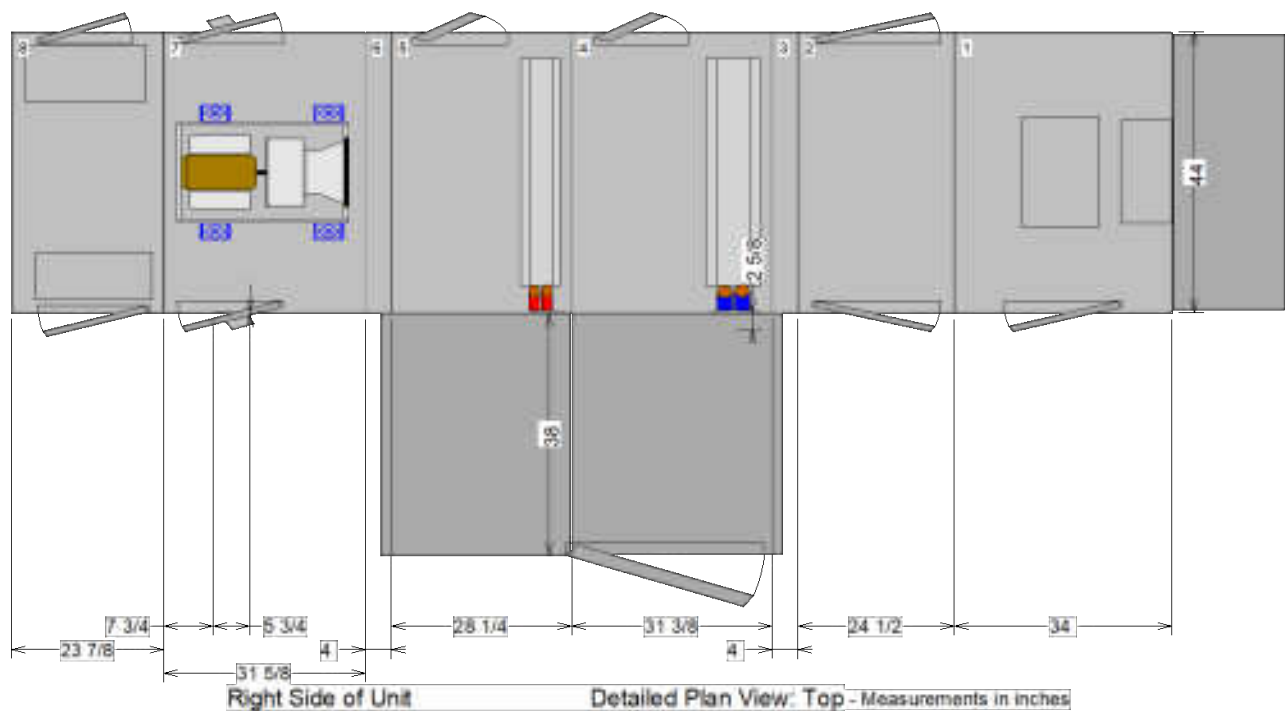


Basic Overall Plan View: Top - Measurements in inches

OPENING AND DIMENSIONS MAY VARY FROM CONTRACT DOCUMENTS / RETURN OF APPROVED DRAWINGS CONSTITUTES ACCEPTANCE OF THESE VARIANCES / NOT TO SCALE

Unit size: 4	Job Name: Brighton Area Schools - HS Science and Chiller Upp	Unit Casing: 2in Double Wall Foam	
Product group: Outdoor unit	Actual airflow: 1800 cfm	Proposal Number:	
Integral base frame: 6in. integral base frame	Sales Office: FLINT TCS SO MI	Tags: RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22	
Paint: Slate gray		Rigging/Installed Weight: 1974.1 lb / 2013.5 lb	

Dimensional Drawings - Performance Climate Changer (CSAA)
Item: A1 Qty: 14 Tag(s): RTU-C-XX

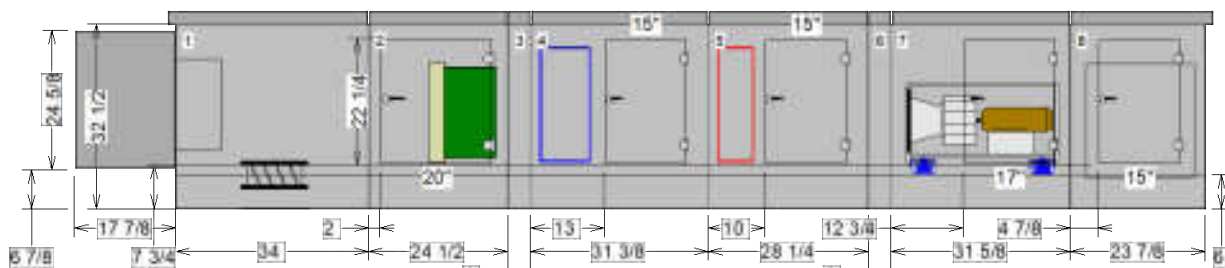
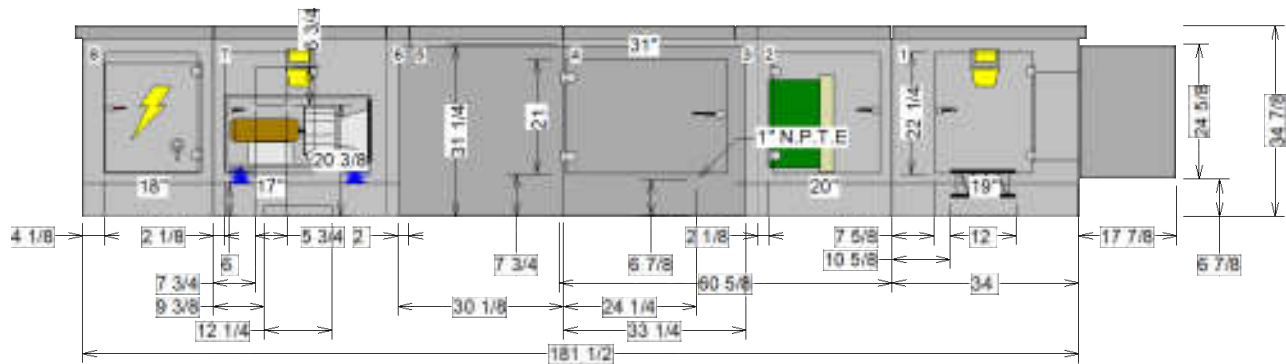


****Placement of electrical conduit may vary by a tolerance of 8" in any direction.**

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Unit size: 4	Job Name: Brighton Area Schools - HS Science and Chiller Upg	Unit Casing: 2in Double Wall Foam	
Product group: Outdoor unit	Actual airflow: 1800 cfm	Proposal Number:	
Integral base frame: 6in. integral base frame	Sales Office: FLINT TCS SO MI	Tags: RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22	
Paint: Slate gray		Rigging/Installed Weight: 1974.1 lb / 2013.5 lb	

Dimensional Drawings - Performance Climate Changer (CSAA)
Item: A1 Qty: 14 Tag(s): RTU-C-XX

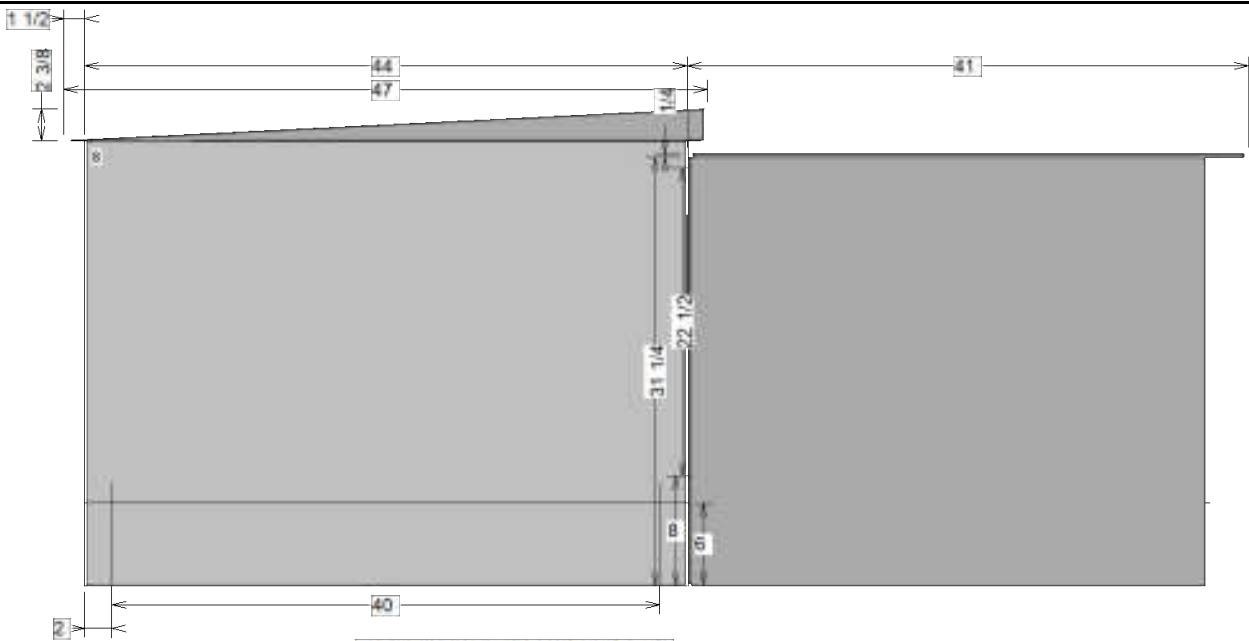


Detailed Elevation View: Left - Measurements in inches

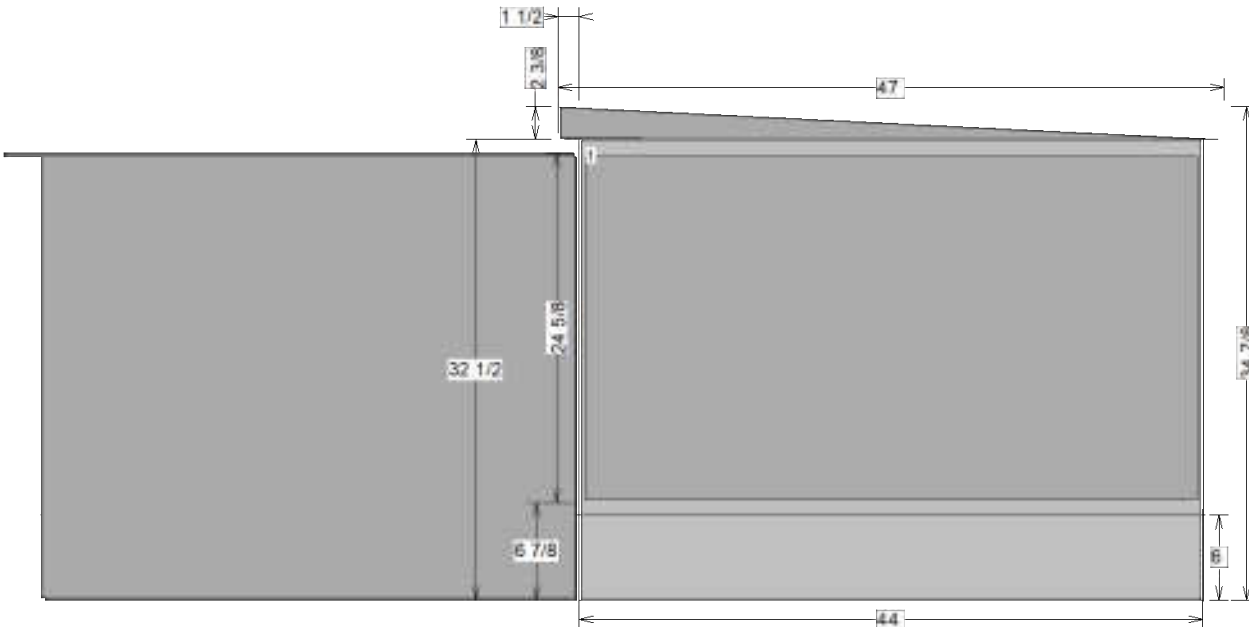
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Unit size: 4	Job Name: Brighton Area Schools - HS Science and Chiller Upg	Unit Casing: 2in Double Wall Foam	
Product group: Outdoor unit	Actual airflow: 1800 cfm	Proposal Number:	
Integral base frame: 6in. integral base frame	Sales Office: FLINT TCS SO MI	Tags: RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22	
Paint: Slate gray		Rigging/Installed Weight: 1974.1 lb / 2013.5 lb	

Dimensional Drawings - Performance Climate Changer (CSAA)
Item: A1 Qty: 14 Tag(s): RTU-C-XX



Detailed Elevation View: Front - Measurements in inches



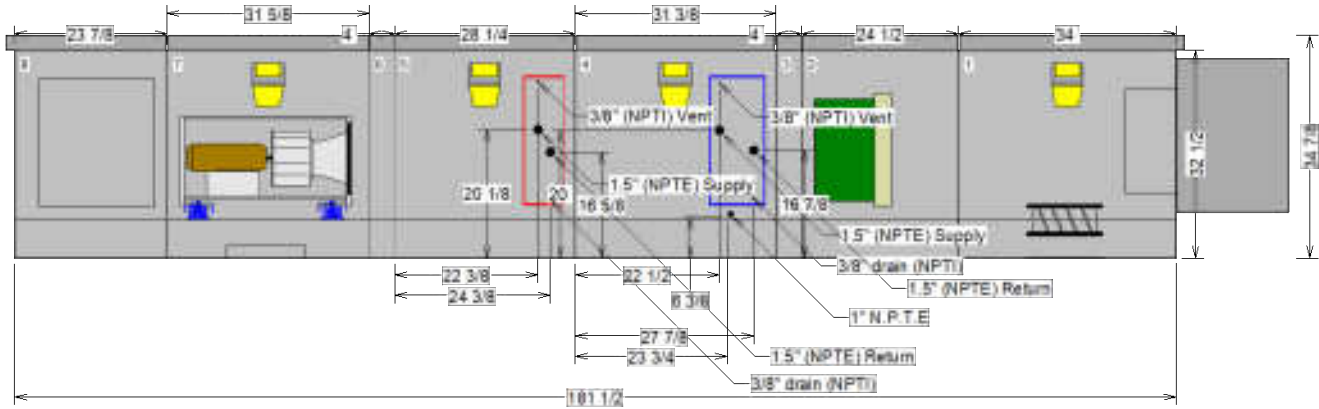
Detailed Elevation View: Back - Measurements in inches

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Product group: Outdoor unit	Actual airflow: 1800 cfm	Proposal Number:	
Integral base frame: 6in. integral base frame	Sales Office: FLINT TCS SO MI	Tags: RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22	
Paint: Slate gray		Rigging/Installed Weight: 1974.1 lb / 2013.5 lb	

Dimensional Drawings - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-XX

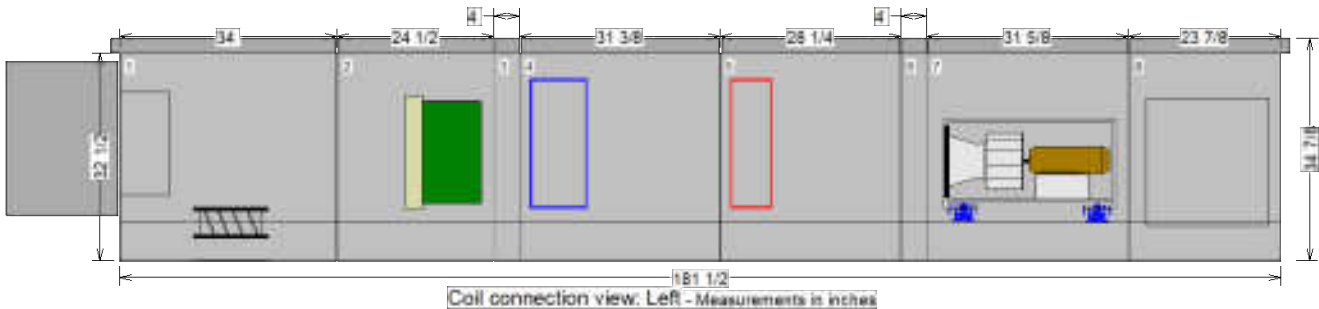


NPTI : National Pipe Thread Internal Connection
NPTE : National Pipe Thread External Connection

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Paint: Slate gray		Rigging/Installed Weight: 1974.1 lb / 2013.5 lb	

Dimensional Drawings - Performance Climate Changer (CSAA)
Item: A1 Qty: 14 Tag(s): RTU-C-XX



NPTI : National Pipe Thread Internal Connection
NPTE : National Pipe Thread External Connection

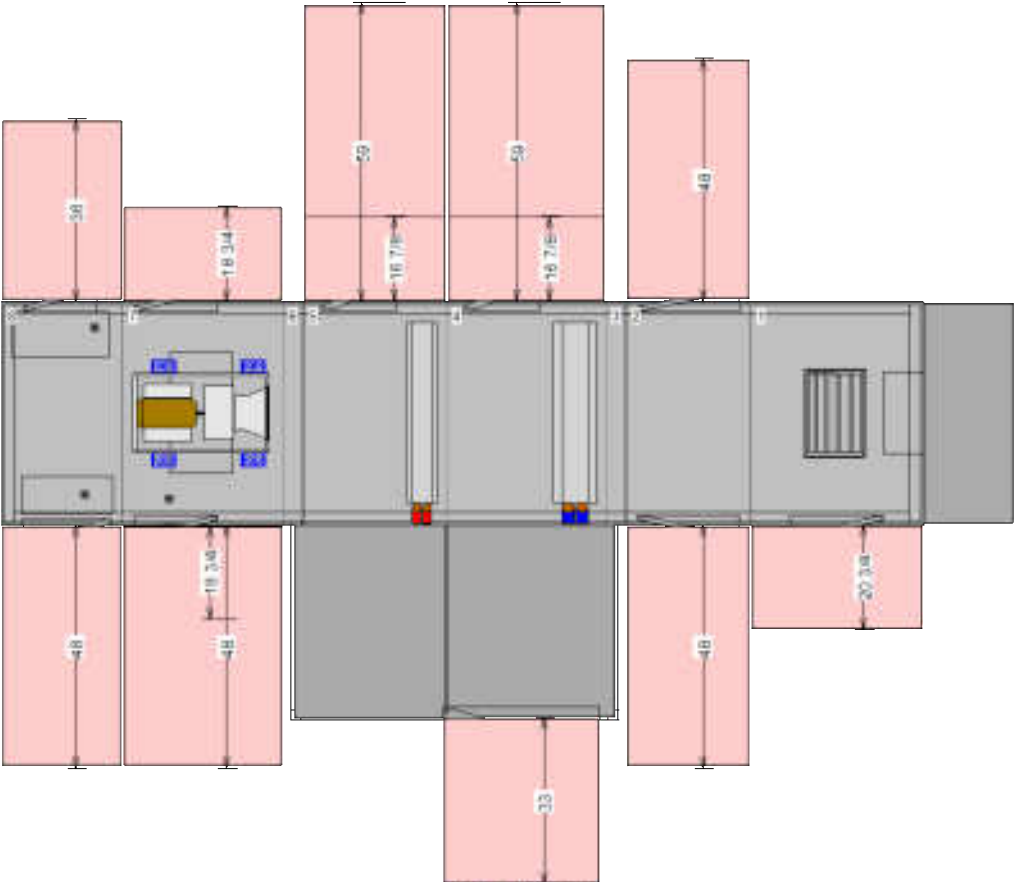
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Unit size: 4	Job Name: Brighton Area Schools - HS Science and Chiller Upg	Unit Casing: 2in Double Wall Foam
Product group: Outdoor unit	Actual airflow: 1800 cfm	Proposal Number:
Integral base frame: 6in. integral base frame	Sales Office: FLINT TCS SO MI	Tags: RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22
Paint: Slate gray		Rigging/Installed Weight: 1974.1 lb / 2013.5 lb



Dimensional Drawings - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-XX



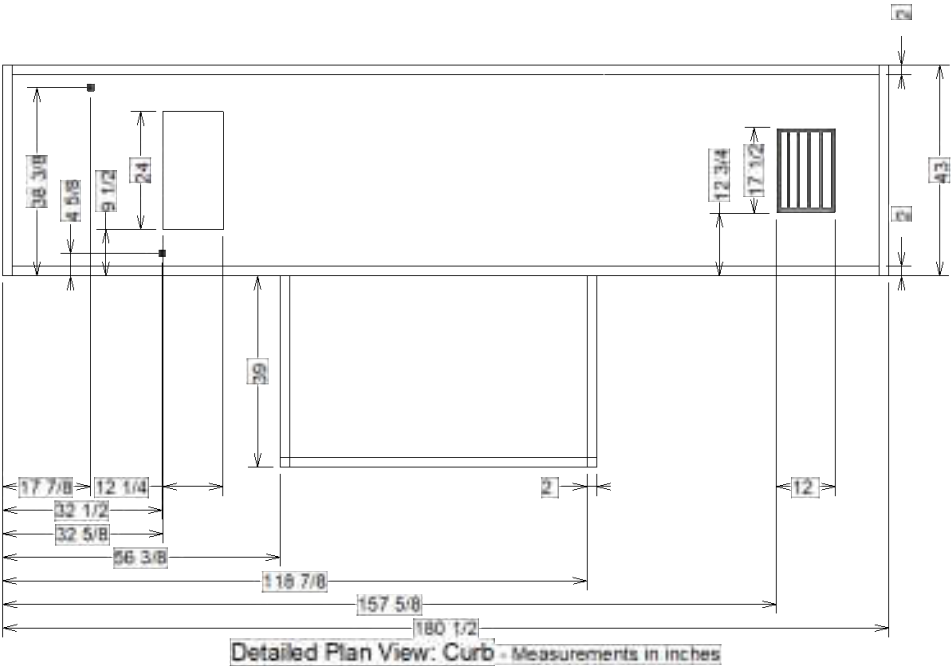
Basic Service Clearance - Plan - Measurements in inches

OPENING AND DIMENSIONS MAY VARY FROM CONTRACT DOCUMENTS / RETURN OF APPROVED DRAWINGS CONSTITUTES ACCEPTANCE OF THESE VARIANCES / NOT TO SCALE

Unit size: 4	Job Name: Brighton Area Schools - HS Science and Chiller Upg	Unit Casing: 2in Double Wall Foam	
Product group: Outdoor unit	Actual airflow: 1800 cfm	Proposal Number:	
Integral base frame: 6in. integral base frame	Sales Office: FLINT TCS SO MI	Tags: RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22	
Paint: Slate gray		Rigging/Installed Weight: 1974.1 lb / 2013.5 lb	

Dimensional Drawings - Performance Climate Changer (CSAA)
Item: A1 Qty: 14 Tag(s): RTU-C-XX

Roof curb details included are intended to show dimensions for mounting unit to "A" roof curb on a flat roof.
All special curb details such as isolation curbs, adapter curbs and pitched roof curbs are to be provided by others.



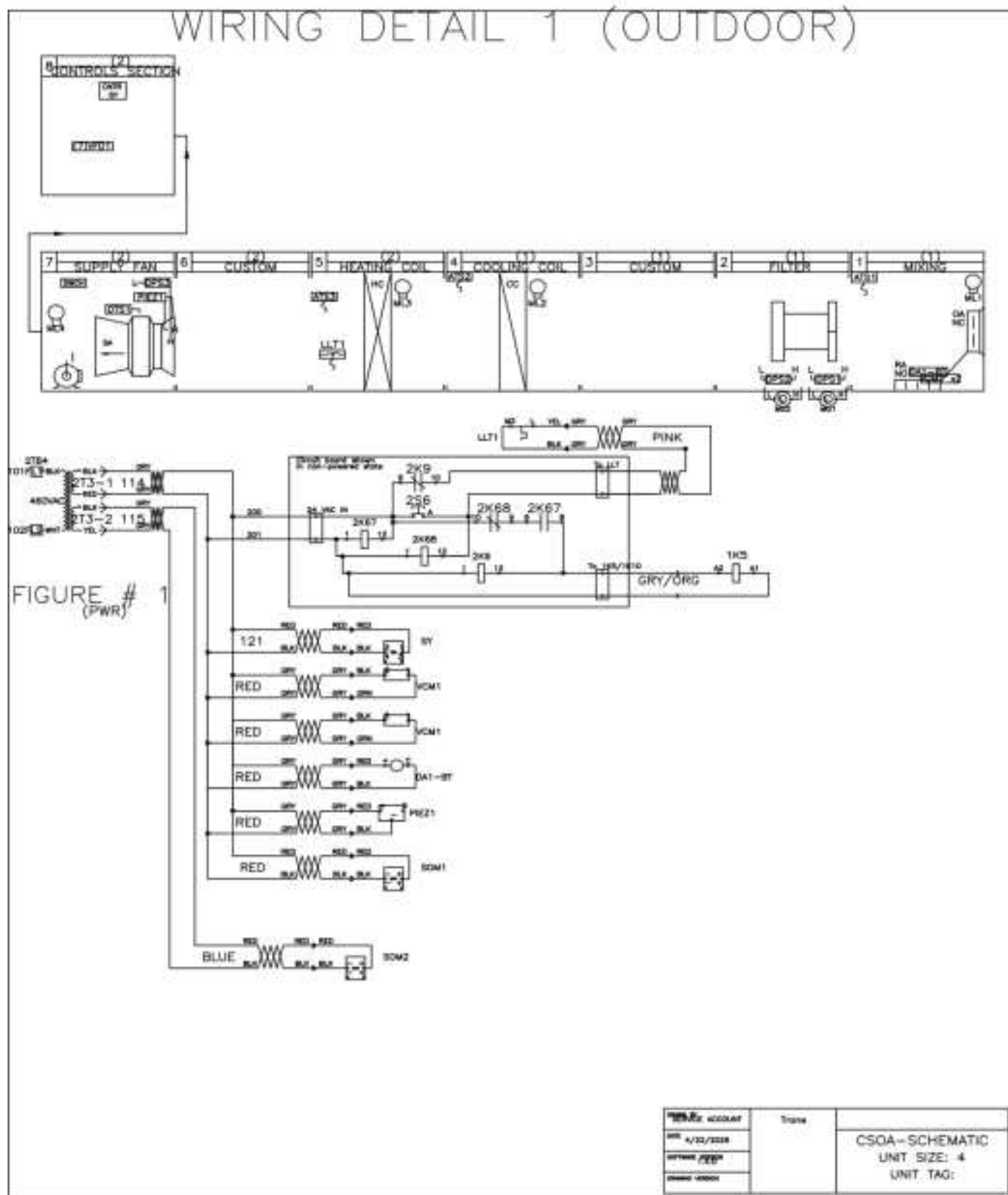
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Unit size: 4	Job Name: Brighton Area Schools - HS Science and Chiller Upg	Unit Casing: 2in Double Wall Foam
Product group: Outdoor unit	Actual airflow: 1800 cfm	Proposal Number:
Integral base frame: 6in. integral base frame	Sales Office: FLINT TCS SO MI	Tags: RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22
Paint: Slate gray		Rigging/Installed Weight: 1974.1 lb / 2013.5 lb

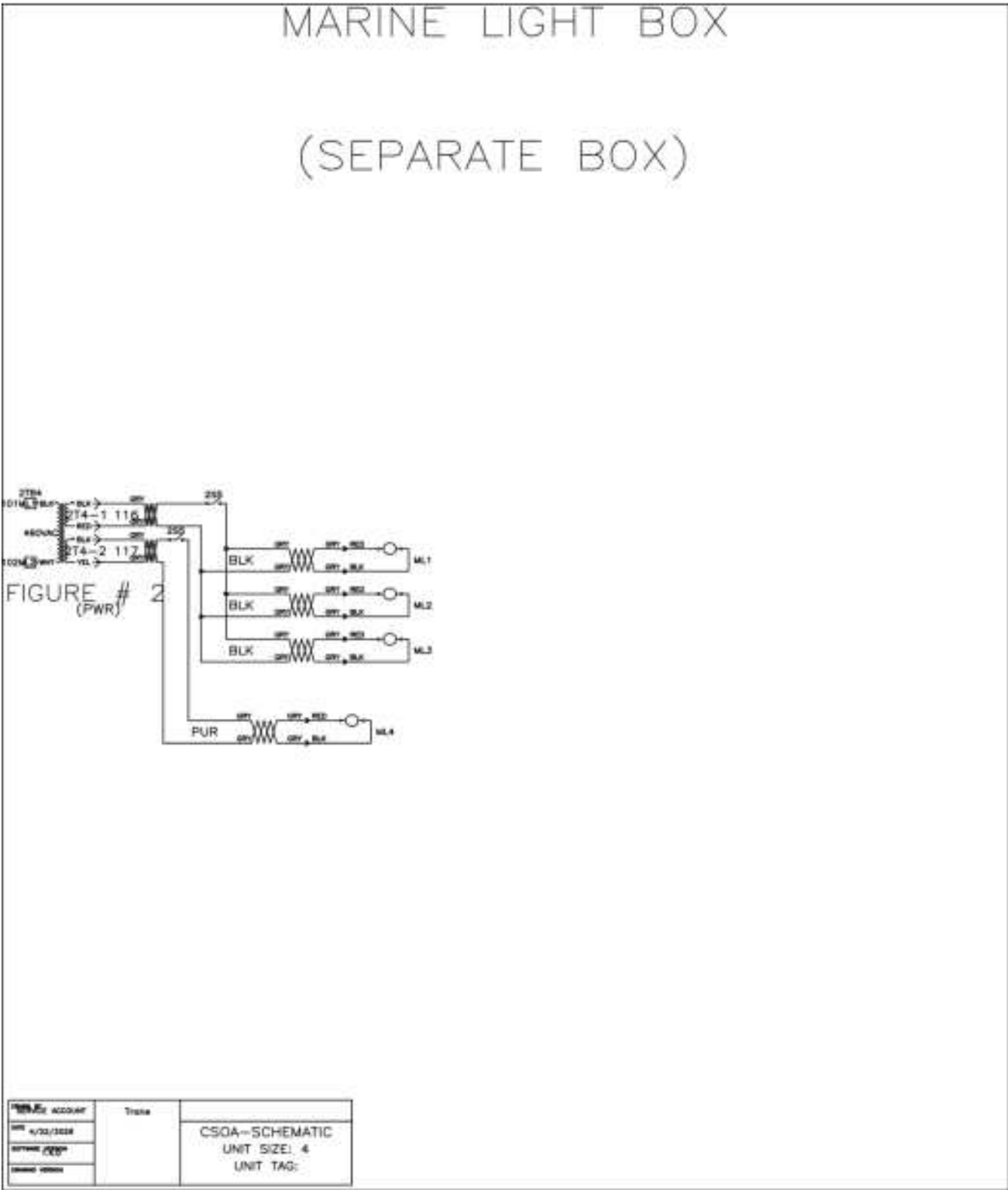


Controls Wiring Diagrams - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22



Controls Wiring Diagrams - Performance Climate Changer (CSAA)
Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22



Controls Wiring Diagrams - Performance Climate Changer (CSAA)

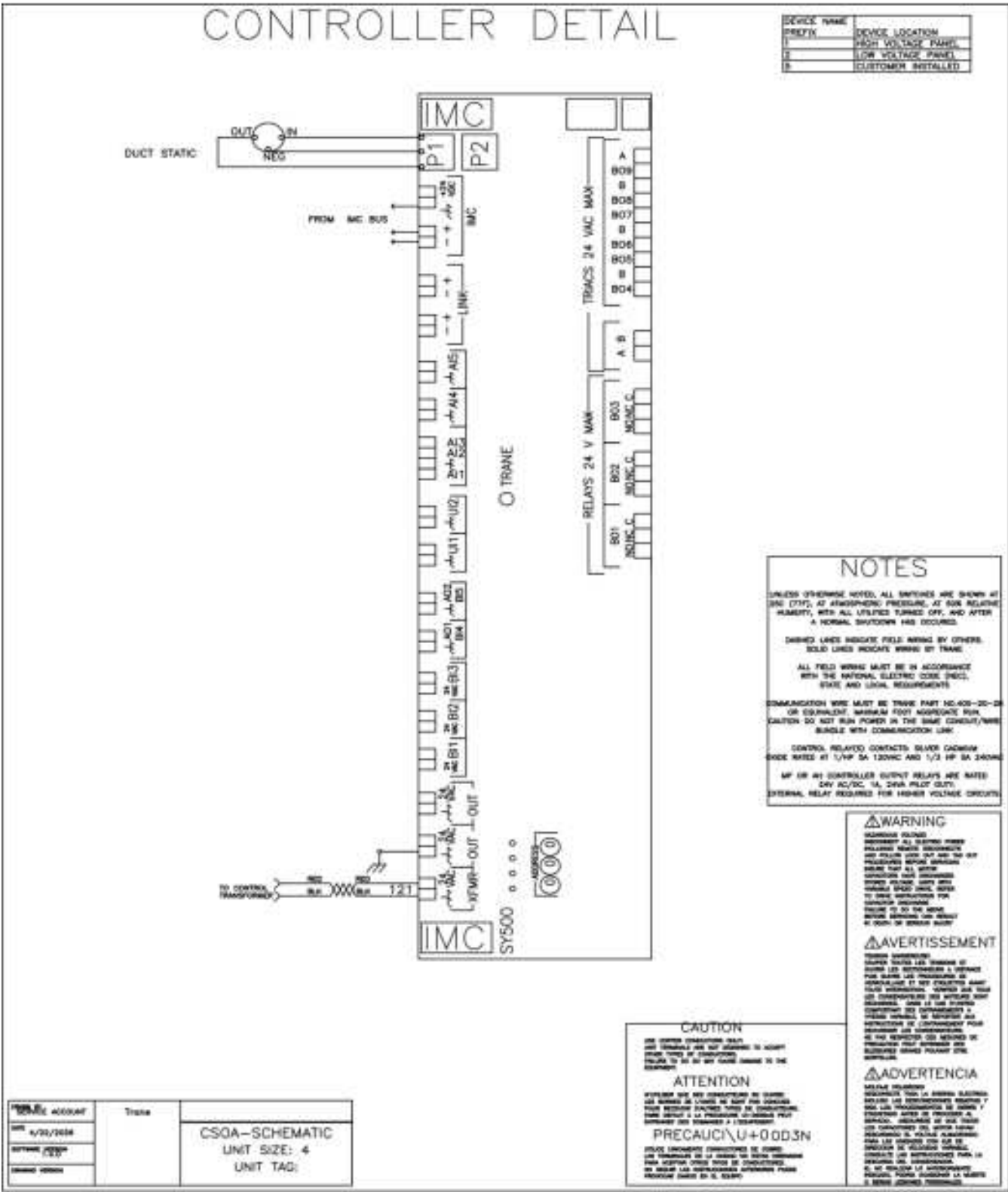
Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

LEGEND DETAIL 1 (OUTDOOR)

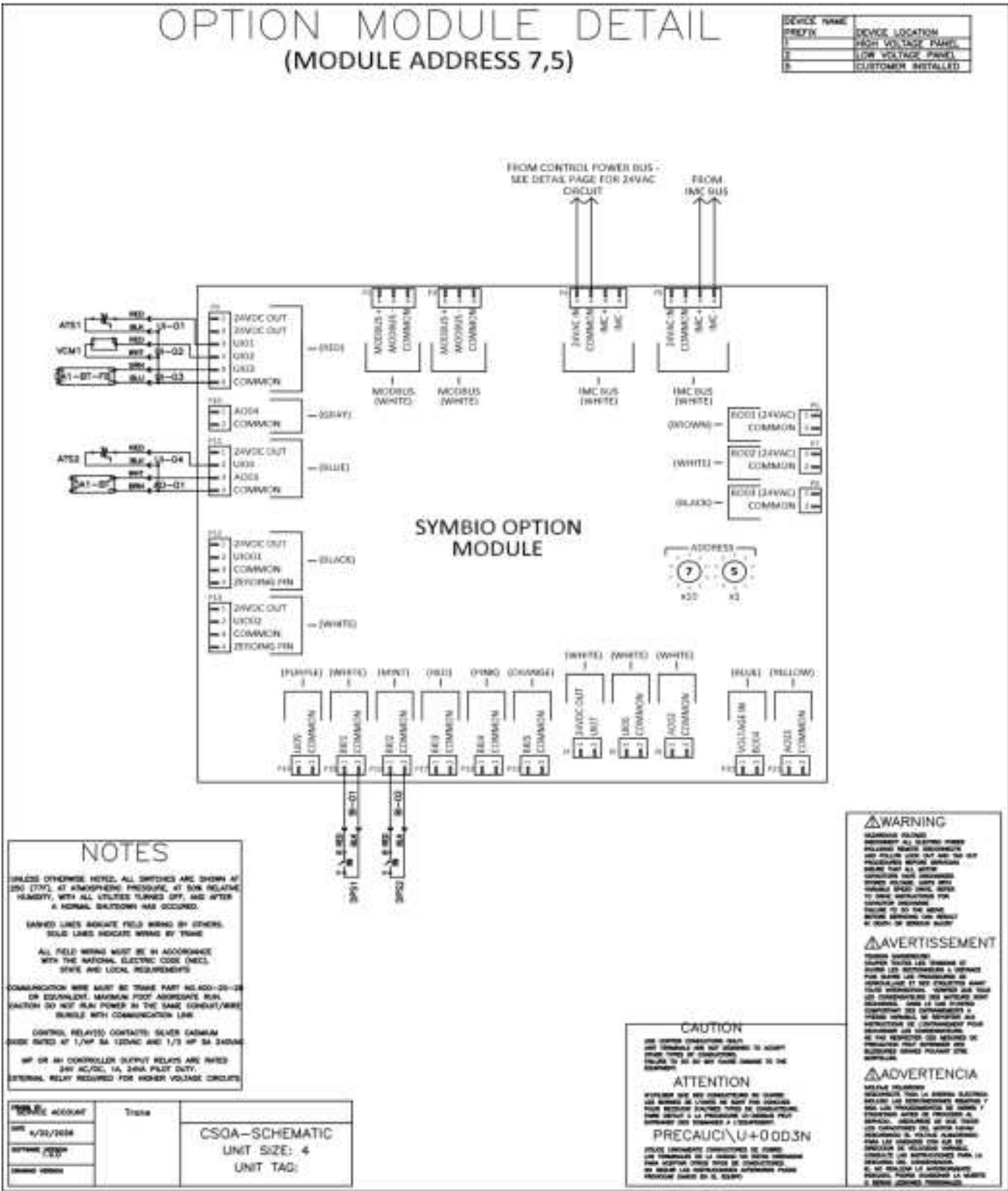
POS#	BUILD GROUP	DESCRIPTION	LABEL	PWR HR-WIRE	SIGNAL HR-WIRE	POWER FMR VA
0		150VA TRANSFORMER	2T3			
0		150VA TRANSFORMER	2T4			
0		Duct Static Pressure Local	2U3			
0		Symbio500 Controller	SY	121		2T3-1 26
	1	Option Module #1 [Address 7,5]	SOM1	RED		2T3-1 13
1	1	Marine Light	ML1	BLACK		2T4-1 22
1	1	Averaging Temperature Sensor (10K Type 2)	ATS1		UI-01	
1	1	Ventilation Control Module	VCM1	RED	UI-02	2T3-1 16
1	1	Bottom Damper Actuator	DA1-BT	RED	AO-01	2T3-1 7
1	1	Feedback Damper Actuator	DA1-BT		UI-03	
2	1	Dirty Filter Switch	DPS1		BI-01	
2	1	Dirty Filter Switch	DPS2		BI-02	
2	1	Minihelic Gauge	MG1			
2	1	Minihelic Gauge	MG2			
4	1	Marine Light	ML2	BLACK		2T4-1 22
4	1	Averaging Temperature Sensor (10K Type 2)	ATS2		UI-04	
	2	Option Module #2 [Address 7,6]	SOM2	BLUE		2T3-2 13
5	2	Marine Light	ML3	BLACK		2T4-1 22
5	2	Averaging Temperature Sensor (10K Type 2)	ATS3		UI-01	
5	2	Low Limit (Leaving)	LLT1	PINK		
7	2	Marine Light	ML4	PURPLE		2T4-2 22
7	2	Flow meter	PIEZ1	RED	UI-02	2T3-1 2
7	2	Discharge Air Sensor (10K Type 2)	DTS1		UI-03	
7	2	Supply Fan Air Flow Switch	DPS3		BI-01	
8	2	Supply Fan Low Limit Circuit Relay	1K5	GRY/ORG		2T3-1 1
8	2	Low Limit Reset Circuit Relay	2K9	201	BI-02	2T3-1 2
8	2	Supply Fan S/S	1K3		BO-01	
8	2	Supply Fan Speed	VFD1		AO-01	

PREPARED BY	DATE	DESCRIPTION
ACCOUNT	4/22/2026	CSAA--SCHEMATIC
UNIT SIZE: 4		UNIT TAG:
THRU DATE		

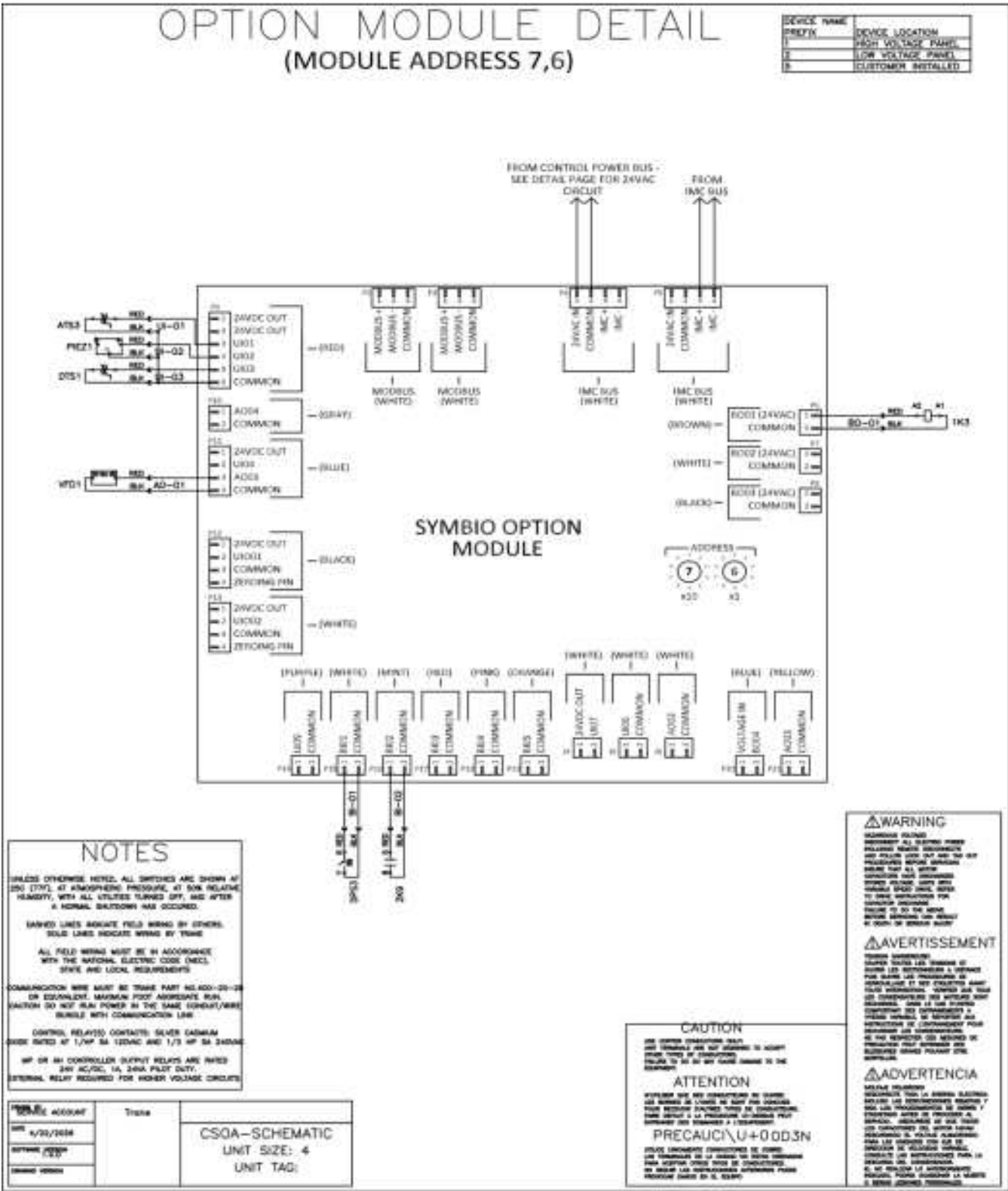
Controls Wiring Diagrams - Performance Climate Changer (CSAA)
Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22



Controls Wiring Diagrams - Performance Climate Changer (CSAA)
Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

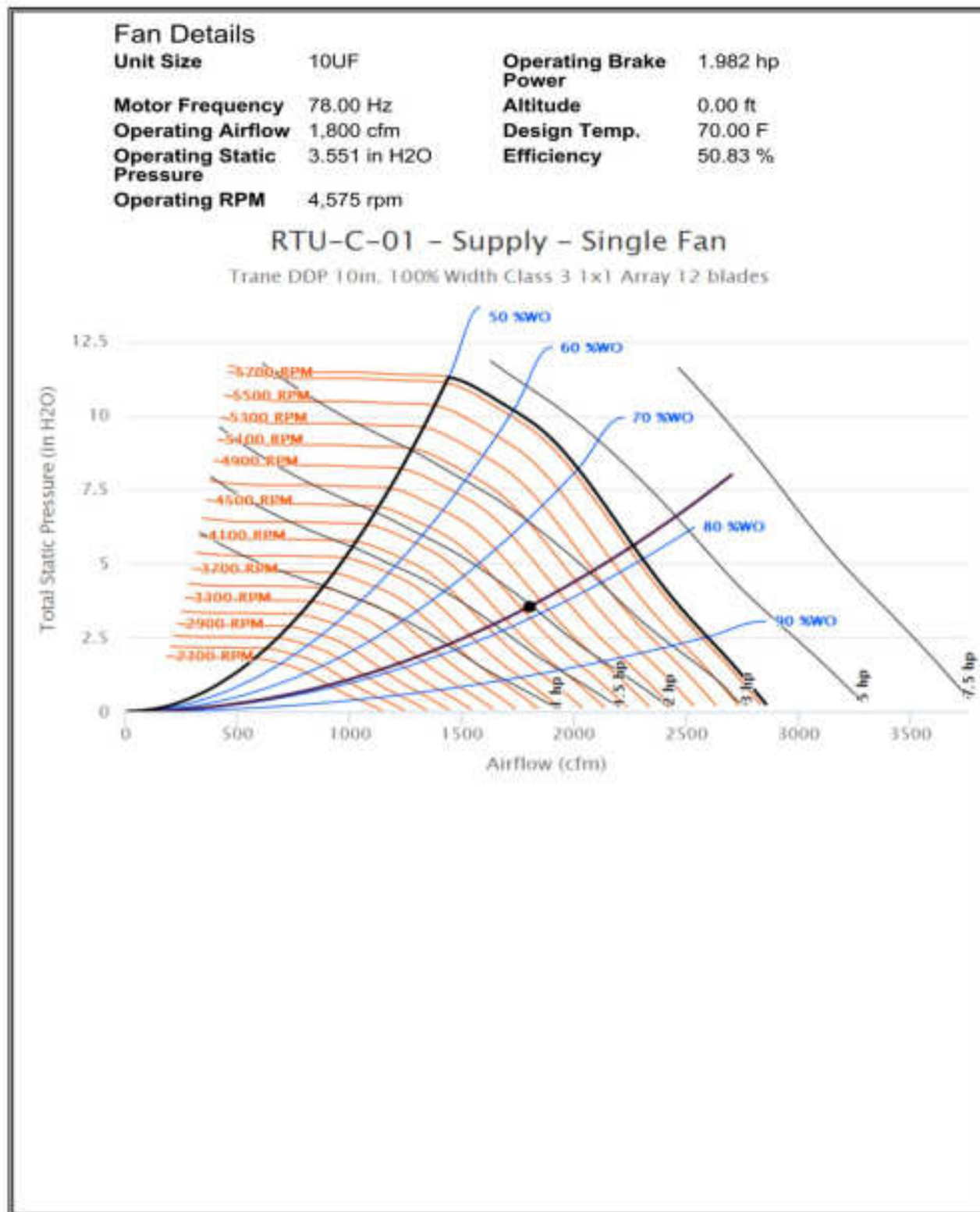


Controls Wiring Diagrams - Performance Climate Changer (CSAA)
Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22



Fan Curve - Performance Climate Changer (CSAA)

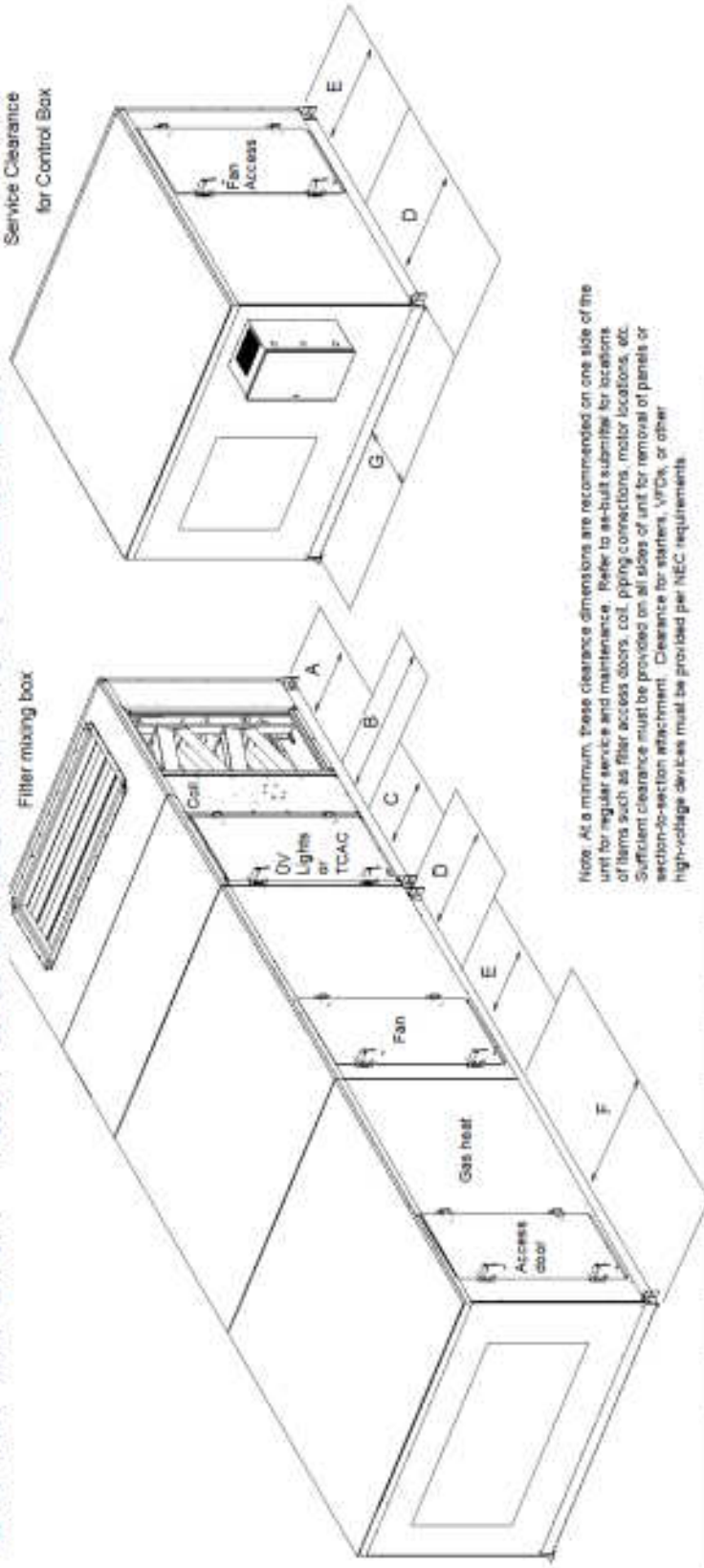
Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22



Accessory - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

EXAMPLE UNIT - NOT CONFIGURED AS SELECTED.

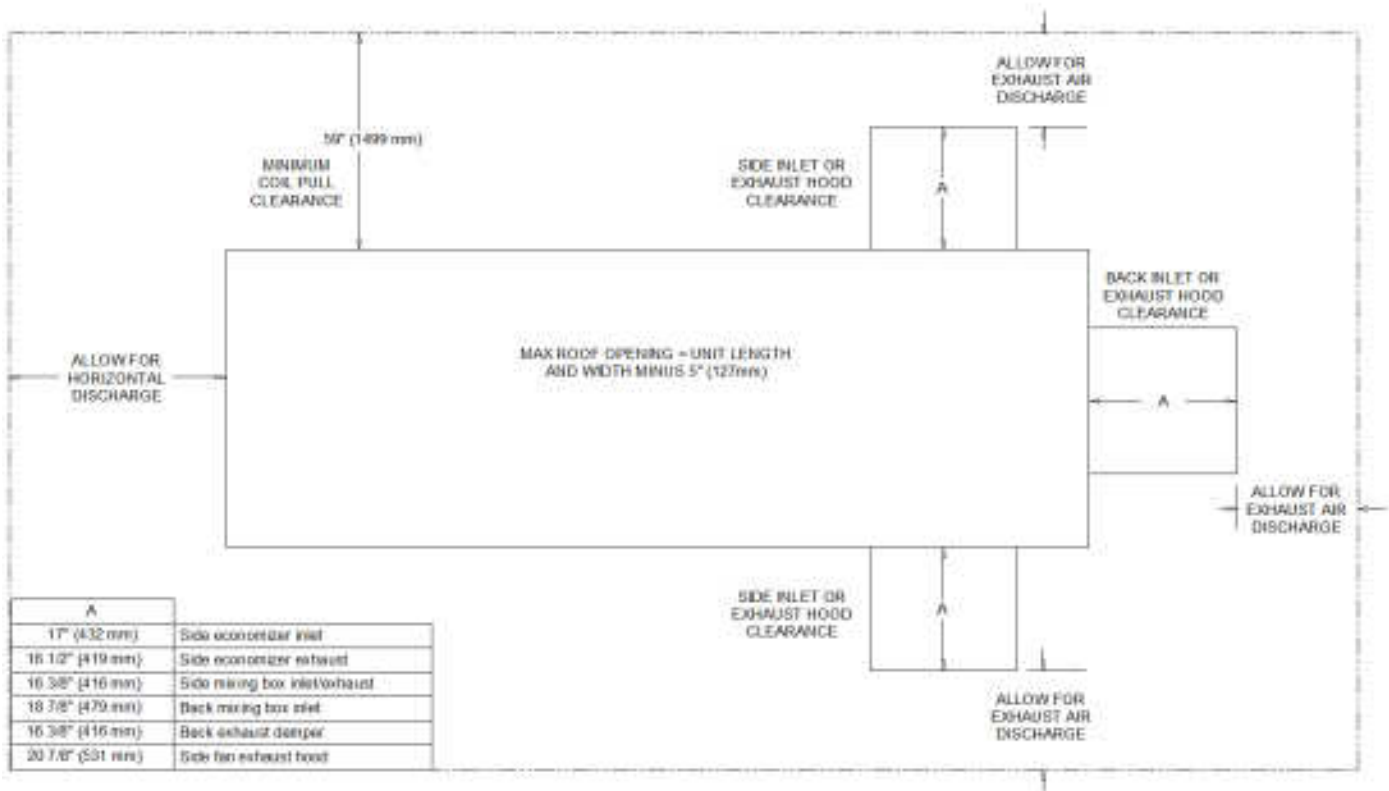


Component	3	4	6	8	10	12	14	17	21	25	30	35	40	50	57	66	80	100	120
A (filter)	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	52	56	58	58
B (coil, humidifier)	48	59	59	66	77	82	87	87	95	95	109	115	128	141	141	156	156	170	197
B (staggered coil)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	67	67	76	80	88	96	96	105	105	113	129
C (UV Lights)	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	52	56	58	58
C (TCAC)	43	59	59	63	75	81	83	83	58	58	83	75	83	83	83	83	83	75	83
D (External Starter, VFD, LV box or Overload box)	61	61	61	61	61	61	61	61	64	64	64	64	64	64	64	64	64	64	64
D (Internal Starter or VFD)	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48	48
E (fan)	48	48	48	48	51	54	58	61	60	66	66	68	70	77	77	93	93	101	101
F (Gas Heat, Ext Vestibule)	N/A	N/A	89	90	108	100	100	105	115	115	118	136	140	156	156	170	179	180	N/A
F (Gas Heat Int Vestibule)	N/A	N/A	56	63	74	79	84	84	92	92	106	112	125	138	138	153	153	167	194

Component	All Sizes
G (Side mount LV box)	36
G (Front mount LV box)	13

Accessory - Performance Climate Changer (CSAA)

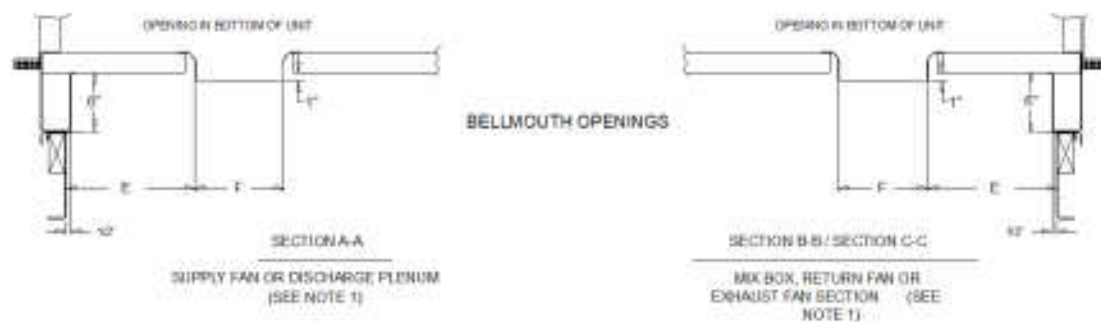
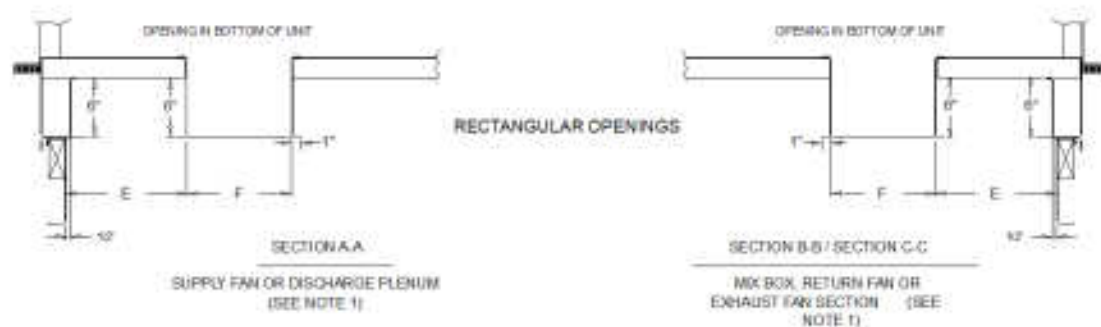
Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22



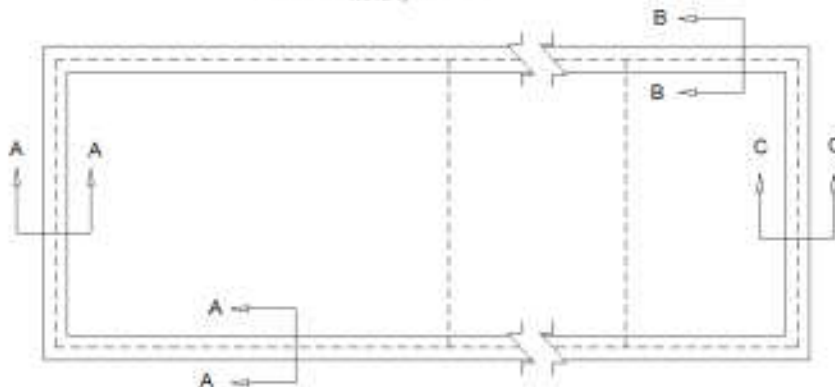
Accessory - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

RELATIONSHIP OF CURB TO UNIT AS-BUILT

**NOTE:**

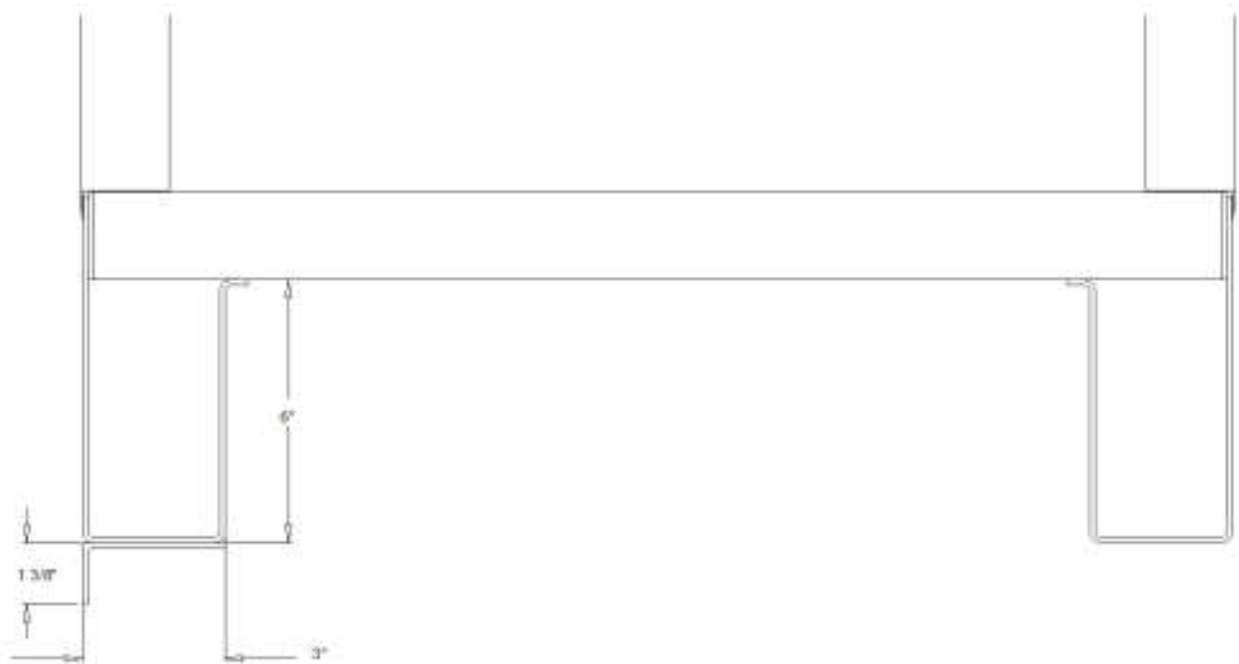
1. E and F are representative of dimensions on the accessory as-built used to locate opening(s) in the roof surface.



Accessory - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

Base Detail

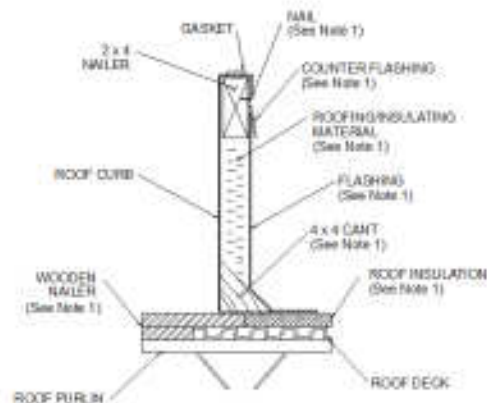
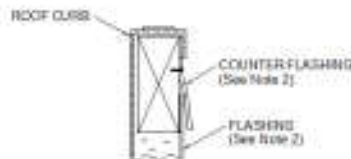
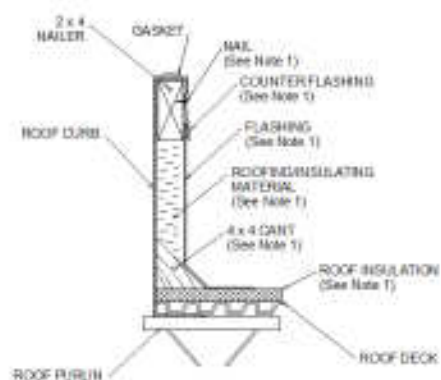


Accessory - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

Recommendation for Roof Curb Installation

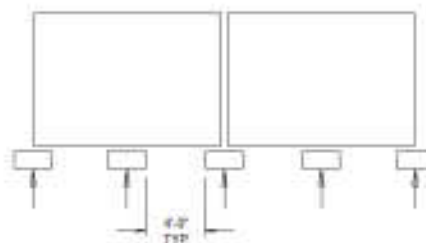
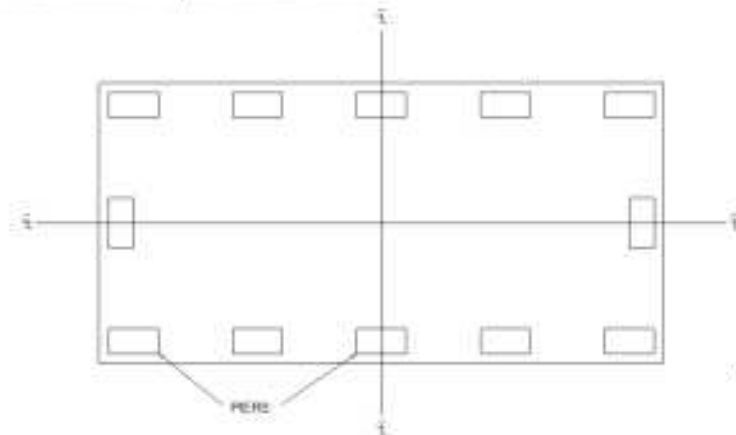
Refer to Performance IOM for specific installation instructions

**Note:**

1. Materials to attach roof curb to roof are to be supplied by the installer.
2. Flashing or counter flashing should not come to or over top of curb.
3. Roof curb must be mechanically fastened to roof surface.

Recommendation for Pier Mounting

Refer to Performance IOM for specific installation instructions

**Note:**

1. Pier supports should be inside 3" (3 - 50) or 4" (57 - 120) flat of unit base. Unit cannot be supported by unit base drip leg.
2. Piers beneath shipping splits must be structurally sound to support the weight of the unit.

Accessory - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

Low Limit Switch

SPECIFICATIONS:

CONTACT ACTION: DPST, AUTO

RESET

ELECTRICAL:

4-WIRE, 2-CIRCUIT (SEE NOTE)								
POLE NUMBER	LINE-M2 (MAIN)				LINE-M1 (AUXILIARY)			
MOTOR RATING	120V	208V	240V	277V	120V	208V	240V	277V
AC FULL LOAD AMP	16.0	9.2	8.0	--	6.0	3.3	3.0	--
AC LOCKED ROTOR AMP	96.0	55.2	48.0	--	36.0	19.8	18.0	--
AC NON-INDUCTIVE AMP	16.0	9.2	8.0	7.2	6.0	6.0	6.0	6.0
PILOT DUTY-BOTH POLES	125VA, 120 TO 600 VAC 57.5VA, 120 TO 300 VDC							

CAPILLARY: Ø.187 (STYLE 9)

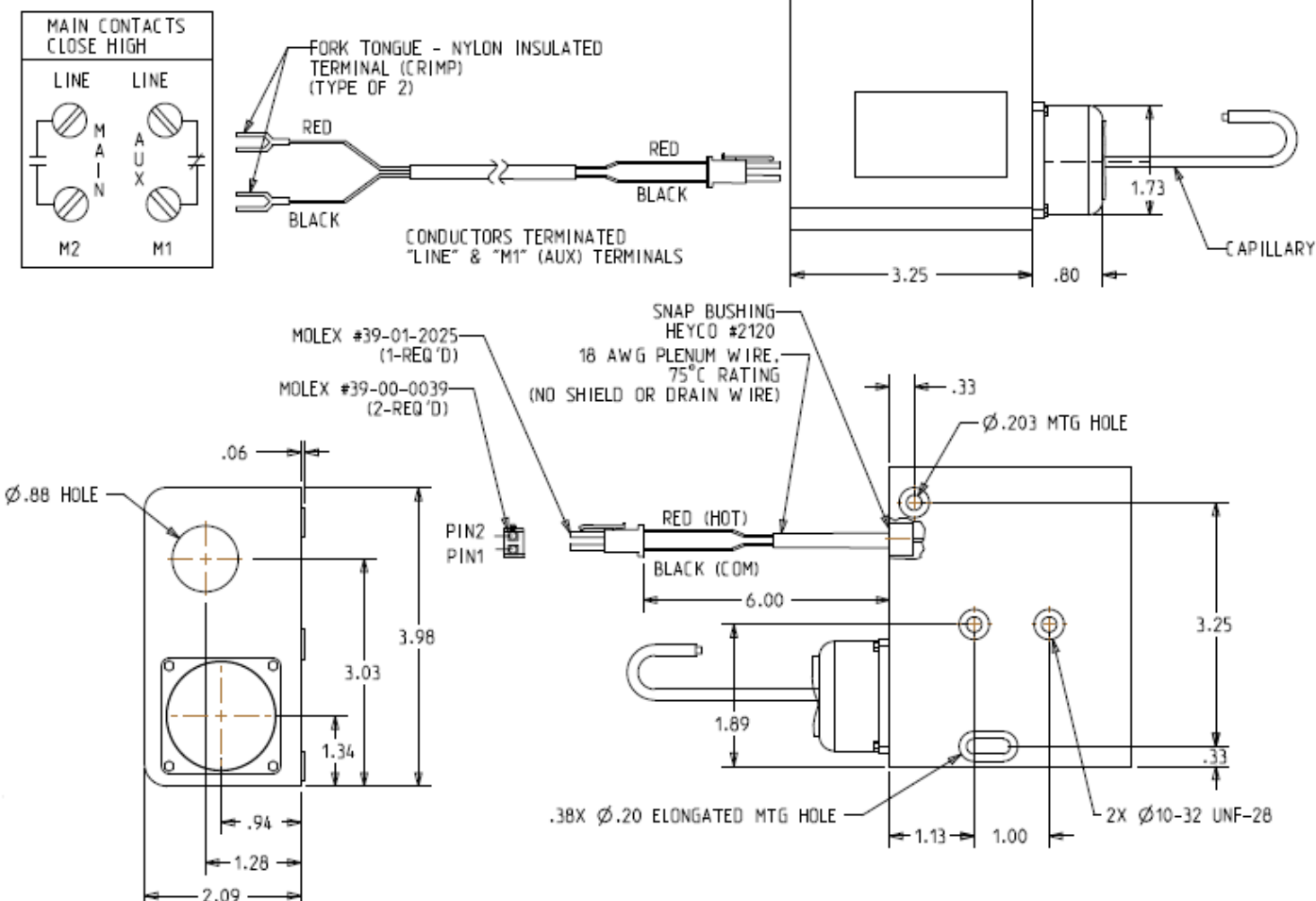
MATERIAL: COLD ROLLED STEEL

FINISH: GRAY BAKED ENAMEL

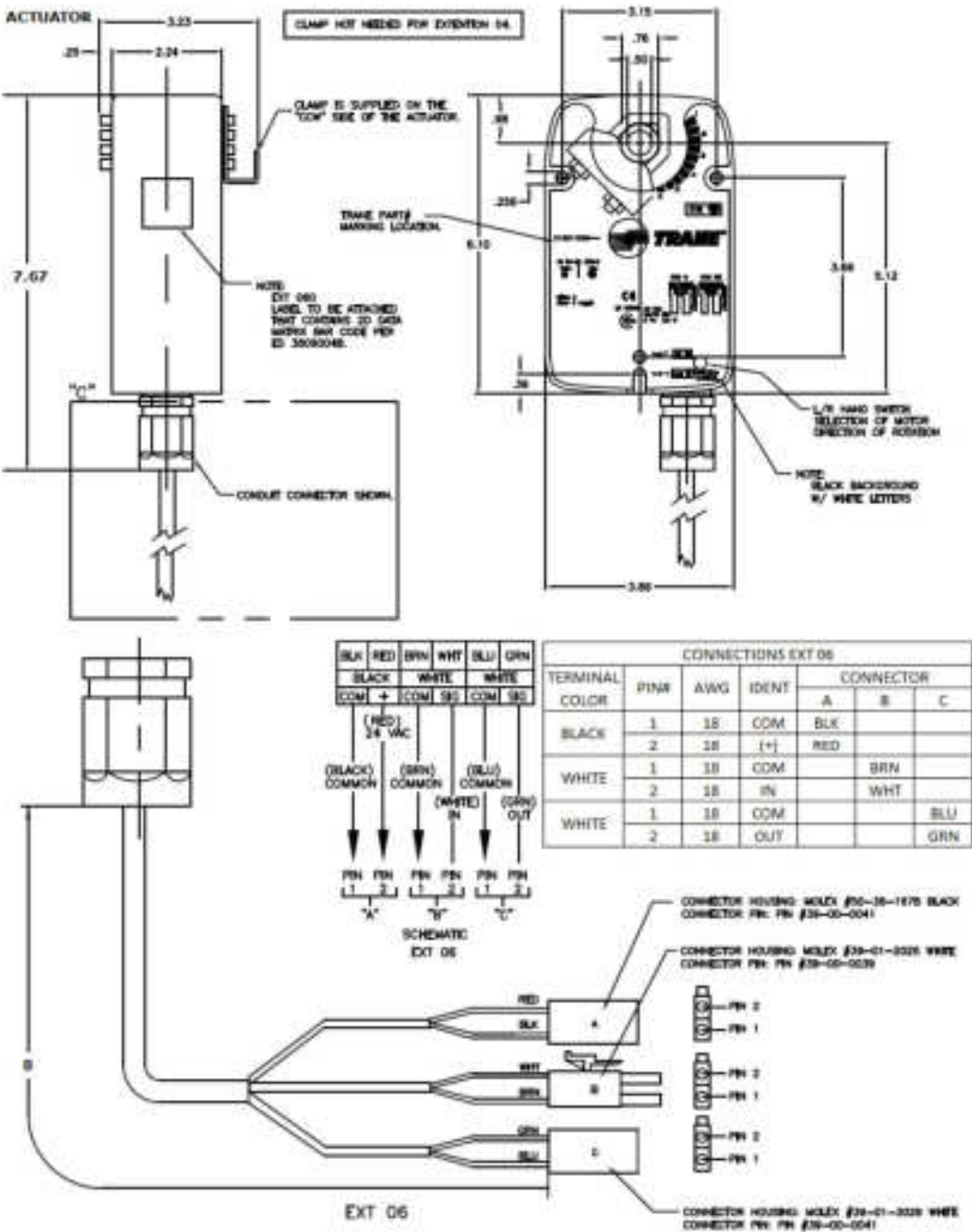
MOUNTING: COME WITH MOUNTING BRACKET

NOTE: THESE ELECTRICAL CHARACTERISTICS ONLY APPLY WHEN THE WIRE ASSEMBLY IS REMOVED. THE SWITCH IS LIMITED TO 100VA @ 30VAC WITH THE WIRE ASSEMBLY ATTACHED.

CONTACT SWITCH ACTION
(AUTO RESET)
ON TEMP INCREASE ABOVE
SET POINT:
M1 - OPENS
M2 - CLOSES



Accessory - Performance Climate Changer (CSAA)
Item: A1 Qty: 14 Tag(s): RTU-C-XX



Accessory - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

Thermal Sensor

Resistance Temperature Characteristics			
Temperature	Resistance		Temp Coeff
	Min.	Max.	
-40°C	320.9K	369.0K	-6.61 % / °C
-25°C	125.6K	142.3K	-6.04% / °C
0°C	31.17K	34.6K	-5.16 % / °C
25°C	9.56K	10.44K	-4.40 % / °C
65°C	2.012K	2.158K	-3.5 % / °C

Specifications:

Probe to be permanently identified with the Trane part number, vendor part number and date code or lot code.

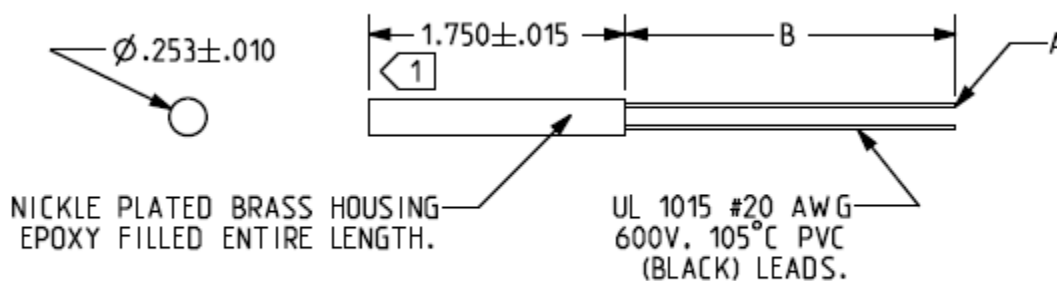
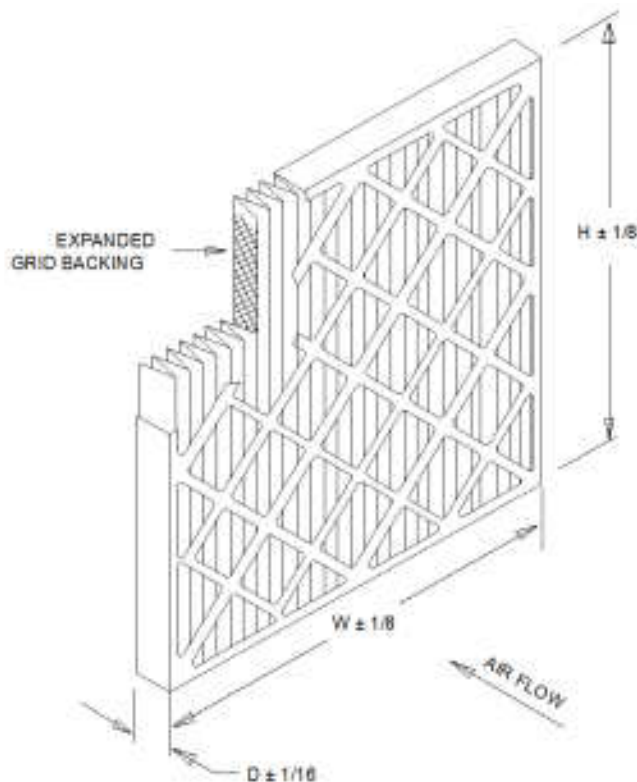


FIGURE 1

Accessory - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

**STANDARD CONSTRUCTION**

1. 100 % Synthetic White Un-Dyed Media
2. 10.0 Pleats Per Foot
3. Expanded Metal Pleat Supports
4. Moisture Resistant Beverage Board Frame
5. Double Wall Frame

NOTES

1. MERV 8-A Per ASHRAE 52.2-2007 Appendix J.
2. Final Resistance: 1/0" W.G.
3. Rated Velocity: 500 FPM
4. Class 2 Filter Per U.L. Standard 900
5. Maximum Operating Temperature: 225 DEG. F

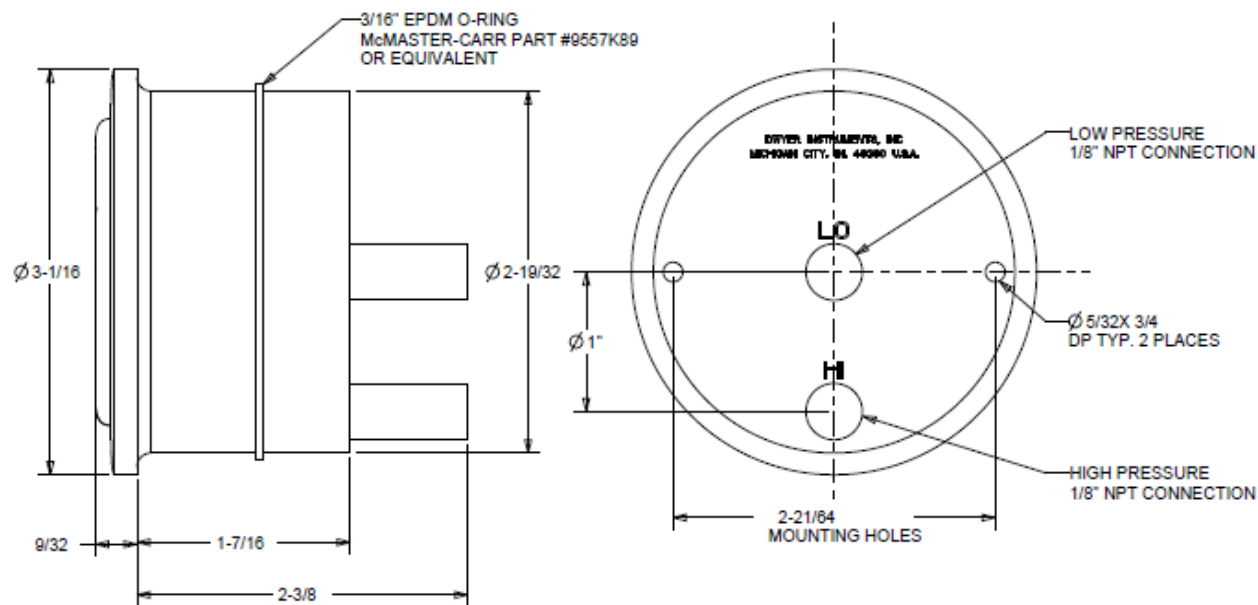
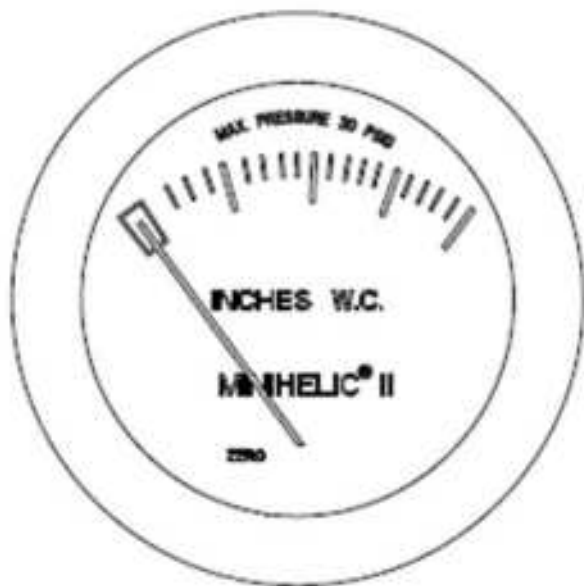
MODEL NUMBER	NOMINAL SIZE IN. W X H X D	ACTUAL SIZE IN. W X H X D	RATED AIR FLOW CFM	INITIAL RESISTANCE IN. W.G.	MEDIA AREA SQ. FT.
MX40-STD2-217	10 X 20 X 2	9-1/2 X 19-1/2 X 1-3/4	700	0.29	4.7
MX40-STD2-220	12 X 20 X 2	11-1/2 X 19-1/2 X 1-3/4	840	0.29	5.5
MX40-STD2-210	12 X 24 X 2	11-3/8 X 23-3/8 X 1-3/4	1000	0.29	6.2
MX40-STD2-239	14 X 20 X 2	13-1/2 X 19-1/2 X 1-3/4	980	0.29	5.7
MX40-STD2-241	14 X 25 X 2	13-1/2 X 24-1/2 X 1-3/4	1220	0.29	7.1
MX40-STD2-245	15 X 20 X 2	14-1/2 X 19-1/2 X 1-3/4	1050	0.29	6.2
MX40-STD2-201	16 X 20 X 2	15-1/2 X 19-1/2 X 1-3/4	1120	0.29	6.7
MX40-STD2-216	16 X 24 X 2	15-3/8 X 23-3/8 X 1-3/4	1340	0.29	8.0
MX40-STD2-202	16 X 24 X 2	15-1/2 X 24-1/2 X 1-3/4	1400	0.29	8.0
MX40-STD2-280	15 X 20 X 2	17-1/2 X 19-1/2 X 1-3/4	1260	0.29	7.8
MX40-STD2-212	18 X 24 X 2	17-3/8 X 23-3/8 X 1-3/4	1500	0.29	9.3
MX40-STD2-285	18 X 25 X 2	17-1/2 X 24-1/2 X 1-3/4	1570	0.29	9.7
MX40-STD2-203	20 X 20 X 2	19-1/2 X 19-1/2 X 1-3/4	1400	0.29	8.3
MX40-STD2-211	20 X 24 X 2	19-3/8 X 23-3/8 X 1-3/4	1670	0.29	9.9
MX40-STD2-204	20 X 25 X 2	19-1/2 X 24-1/2 X 1-3/4	1750	0.29	10.3
MX40-STD2-205	24 X 24 X 2	23-3/8 X 23-3/8 X 1-3/4	2000	0.29	11.7
MX40-STD2-225	25 X 25 X 2	24-1/2 X 24-1/2 X 1-3/4	2170	0.29	13.6

Accessory - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

Dirty Filter Status

EXT	MODEL	RANGE
01	2-5002-NPT	0-2" WC
03	2-5003-NPT	0-3" WC
04	2-5005-NPT	0-5" WC

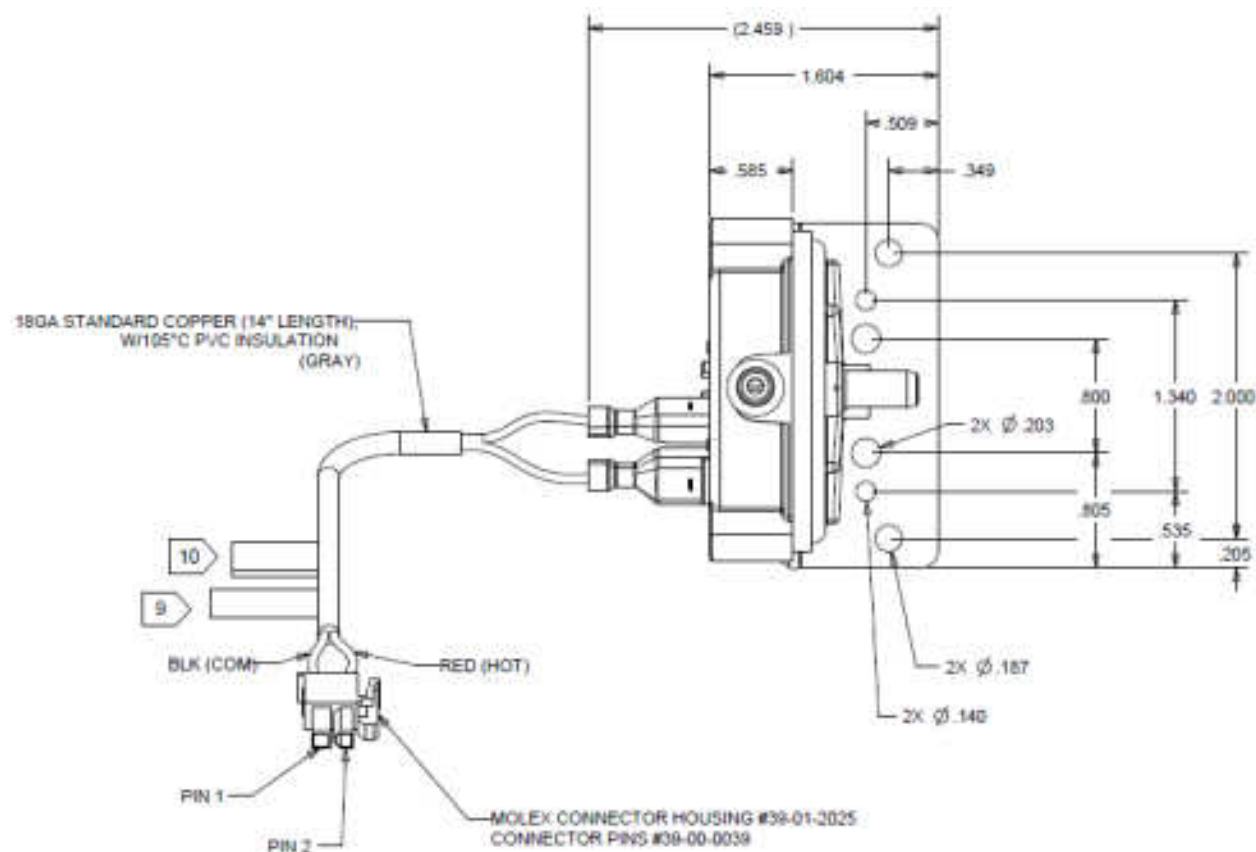


Accessory - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

EA Pressure Differential Switch**Specifications:**

1. Body: Glass Filler Polyester.
2. Diaphragm: Post-Cured Silicon Rubber.
3. Terminals: 0.032" X 0.250" Copper Alloy.
4. Contacts: Silver Alloy, Beryllium Copper.
5. Actuator: Stainless Steel.
6. Springs: Stainless Steel, Phosphor Bronze.
7. Operating Temperature: -40°C to 85°C (-40°F to 185°F).
8. Mounting: Mount With The Diaphragm.
Perpendicular to Level

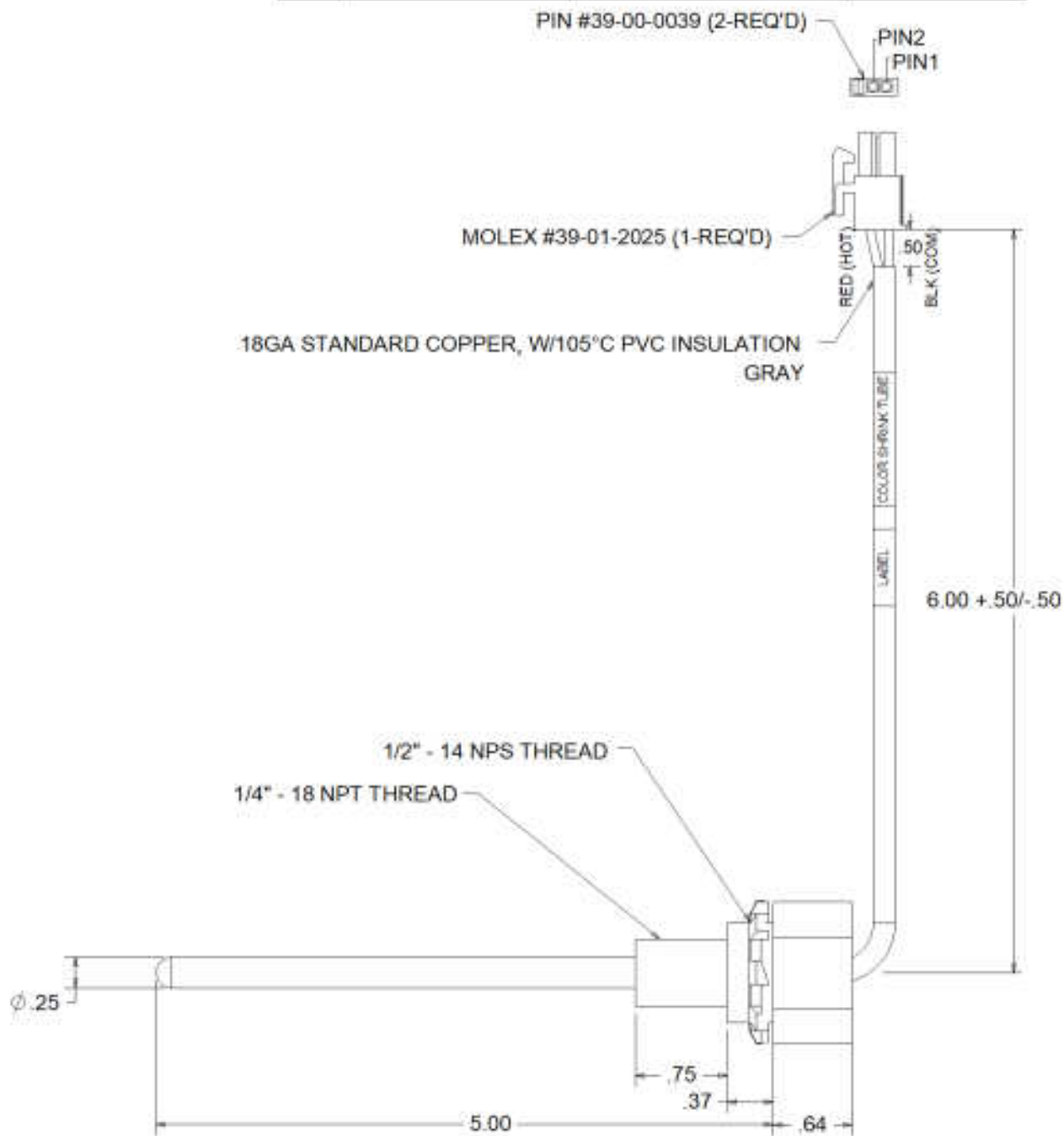


Accessory - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

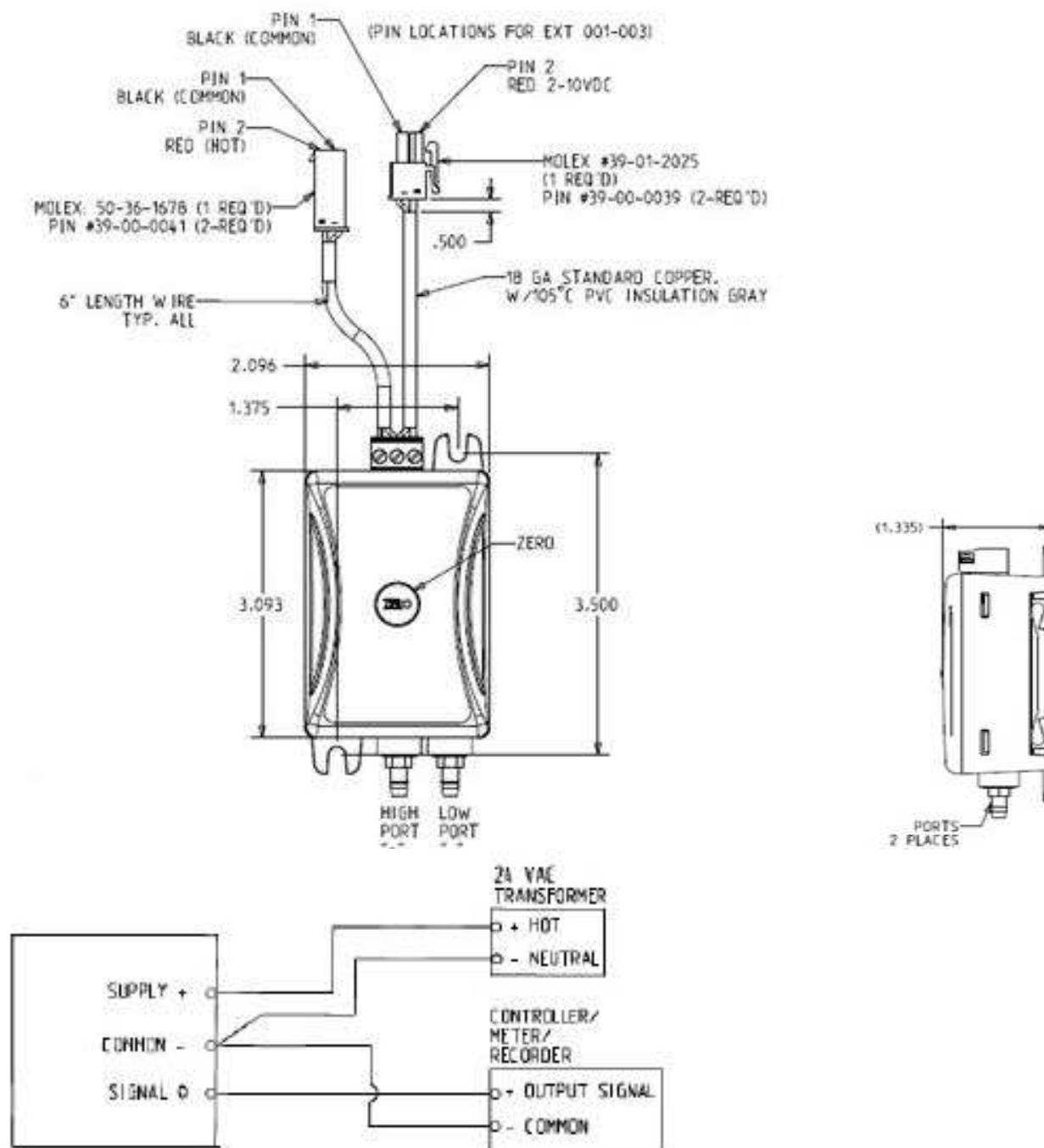
Discharge Temperature Sensor

EXT	SENSOR RATING	SHRINK TUBE COLOR	SENSOR
01	10,000 Ω TYPE II	YELLOW	THERMISTOR



Accessory - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

**NOTE:**

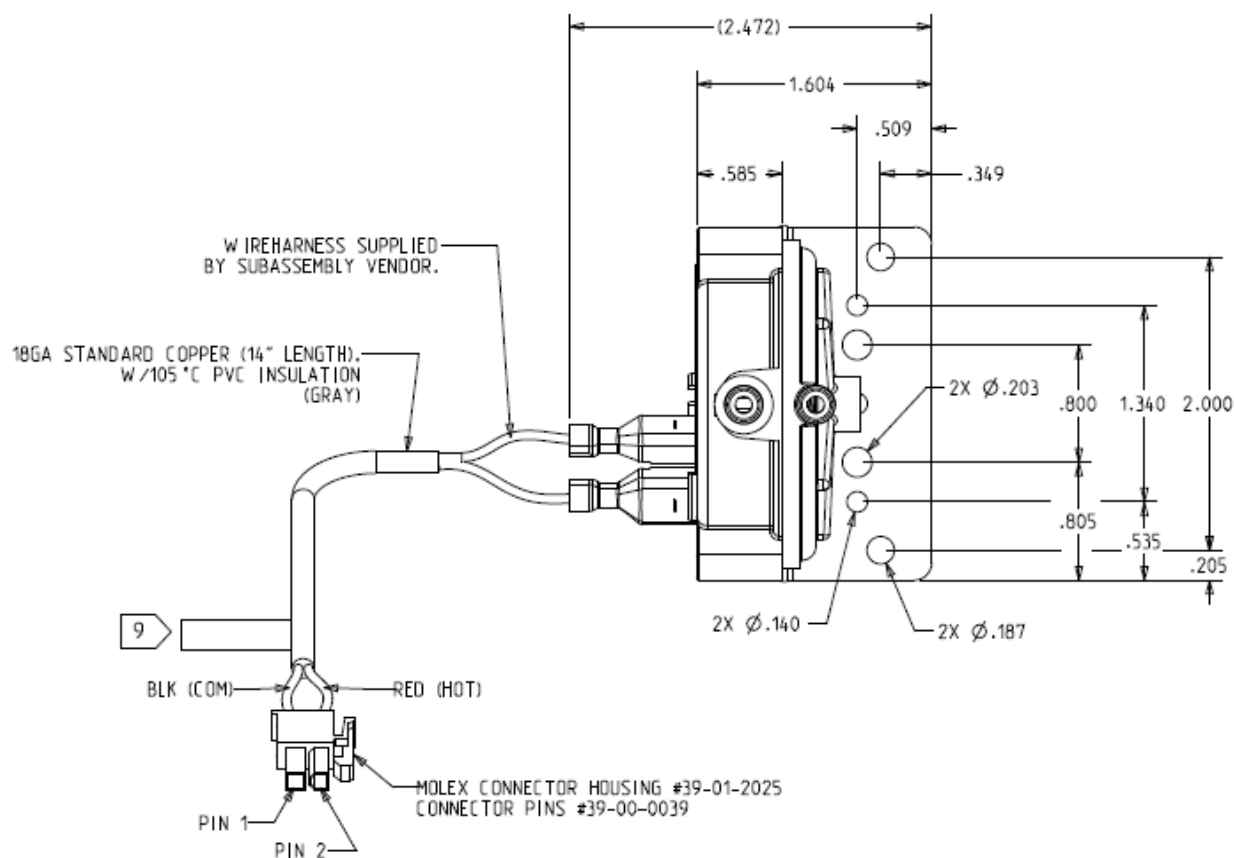
1. PRESSURE CONNECTIONS: 3/16" OD BARBED FITTING FOR 1/4" TUBING
2. OPERATING TEMPERATURE: 0 - 85 C
3. COMPENSATED TEMPERATURE: 0 - 50 C
4. LOAD IMPEDANCE: 500 OHMS
5. TERMINATION: SCREW TERMINAL BLOCK
6. ACCURACY: 0.25%
7. INPUT VOLTAGE: 24VAC (NOMINAL)

Accessory - Performance Climate Changer (CSAA)

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

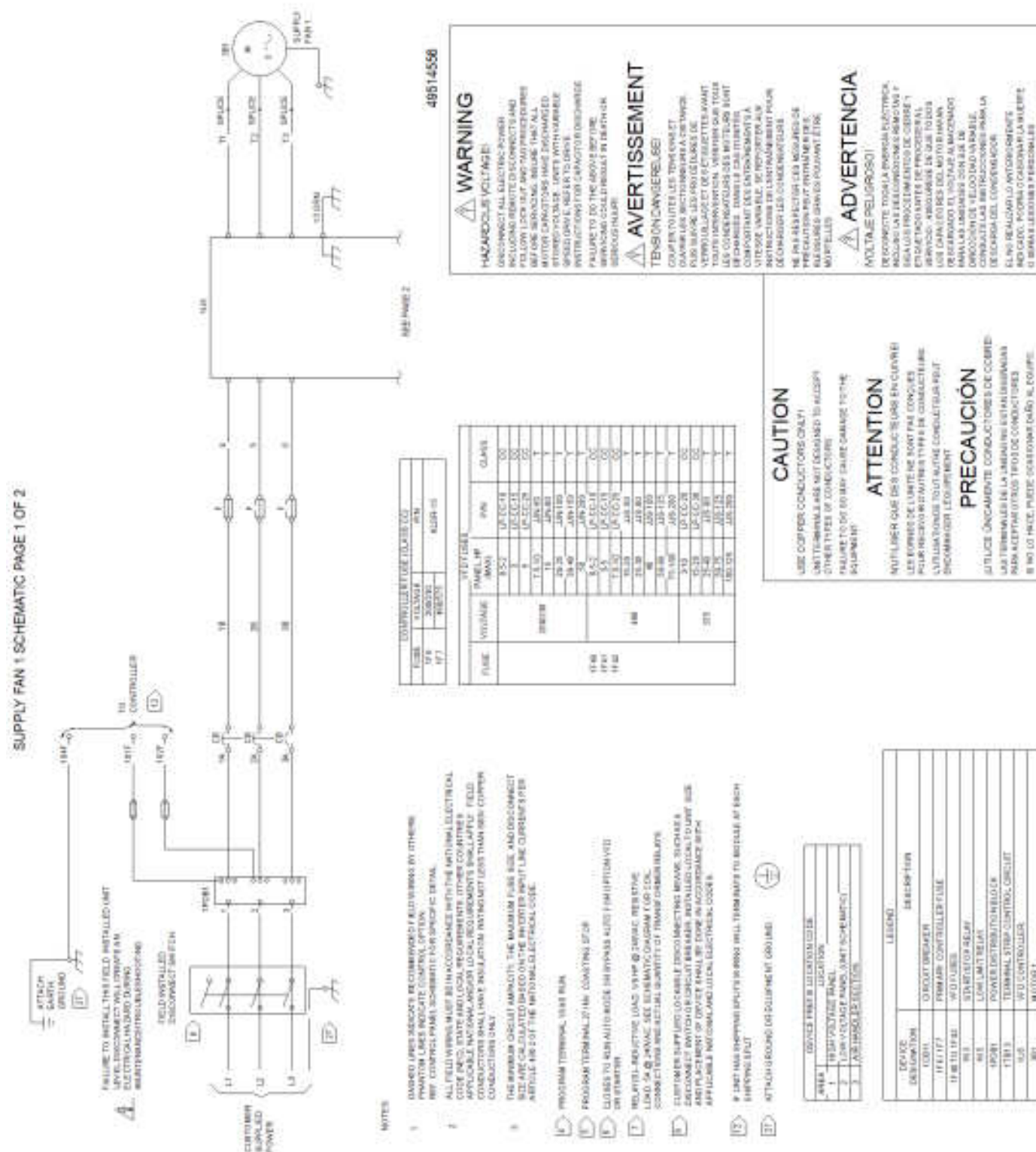
Airflow Switch**SPECIFICATIONS:**

1. BODY: GLASS-FILLER POLYESTER, GRADE SEO.
2. DIAPHRAGM: POST-CURED SILICON RUBBER.
3. TERMINALS: 0.032" X 0.250" COPPER ALLOY.
4. CONTACTS: SILVER ALLOY. BERYLLIUM COPPER.
5. ACTUATOR: STAINLESS STEEL.
6. SPRINGS: STAINLESS STEEL. PHOSPHOR BRONZE.
7. OPERATING TEMPERATURE: -40C TO 85 C (-40F TO 185F).
8. MOUNTING: MOUNT WITH THE DIAPHRAGM PERPENDICULAR TO LEVEL.



Accessory - Performance Climate Changer (CSAA)

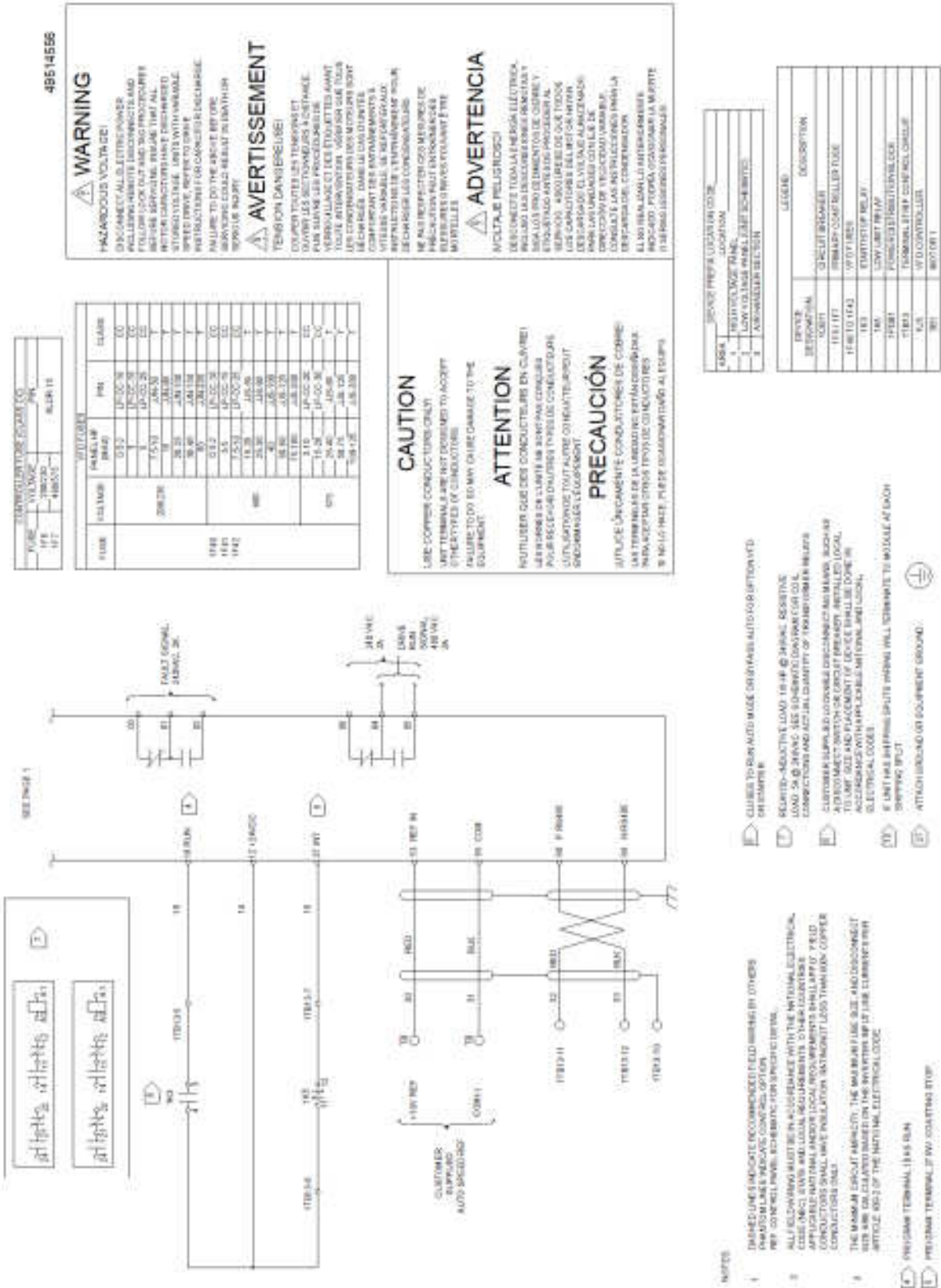
Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22



Accessory - Performance Climate Changer (CSAA)

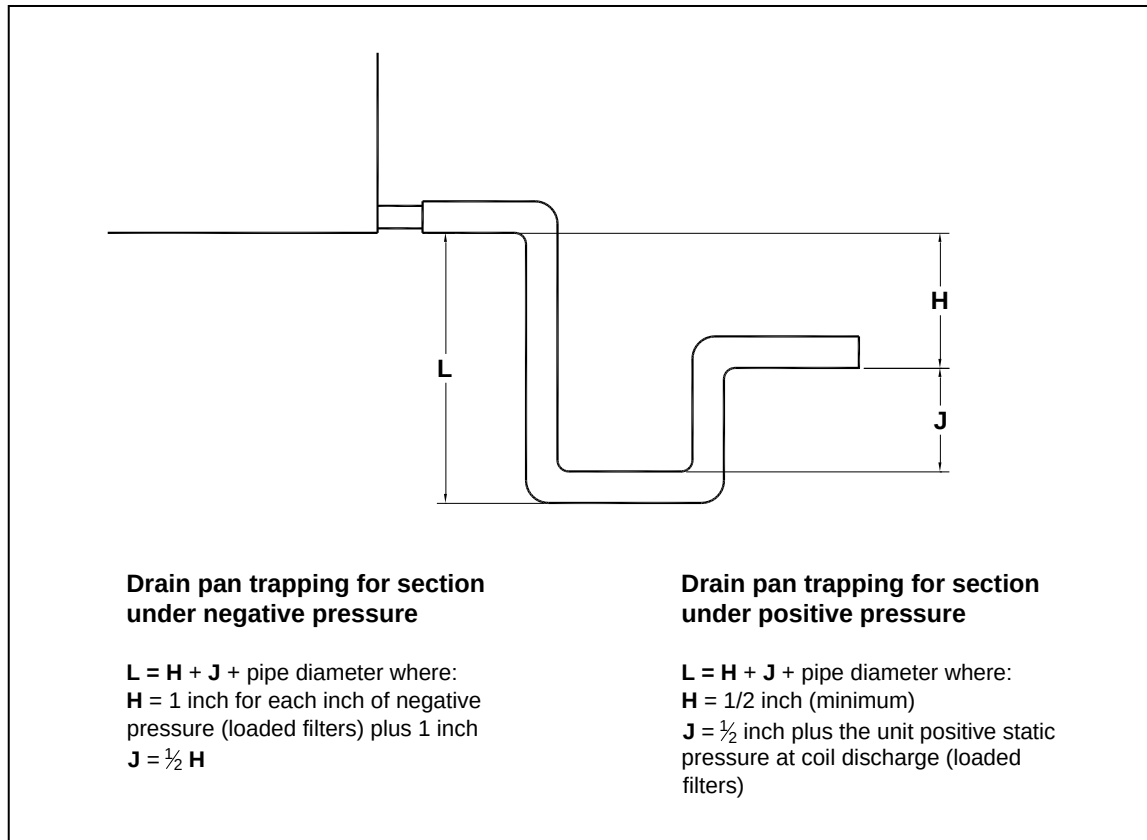
Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

SUPPLY PAN 1 SCHEMATIC PAGE 2 OF 2



Accessory - Performance Climate Changer (CSAA)**Trap Schedule**

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22



Unit Tag(s)	Unit Size	Entering Ext. Static Pressure (in H ₂ O)	Discharge Ext. Static Pressure (in H ₂ O)	Drain pan Section Location	Recommended Trap Dimensions ¹			Selected Baserail Height (in) ¹
					H (in)	J (in)	L (in)	
RTU-C-01 ² , RTU-C-02 ² , RTU-C-03 ² , RTU-C-04 ² , RTU-C-05 ² , RTU-C-06 ² , RTU-C-07 ² , RTU-C-08 ² , RTU-C-09 ² , RTU-C-10 ² , RTU-C-12 ² , RTU-C-18 ² , RTU-C-20 ² , RTU-C-22 ²	Unit size 4	0.500	0.500	Coil section [4]	4.712	2.356	8.067	6.000

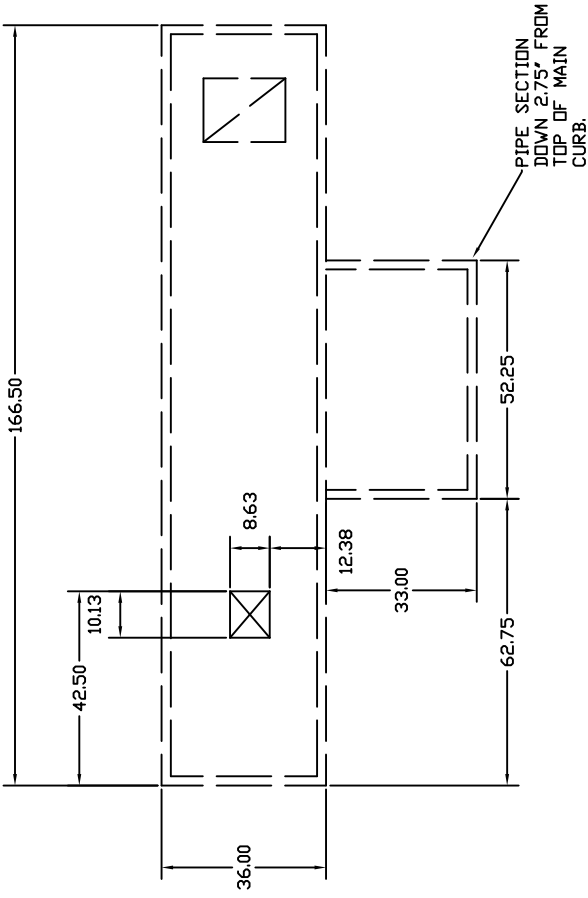
¹ To ensure proper condensate trapping the field installed housekeeping pad height is the responsibility of the contractor.

² The external static pressure used for fan selection was assumed to be divided 50% to entering duct external static pressure and 50% discharge external static pressure.

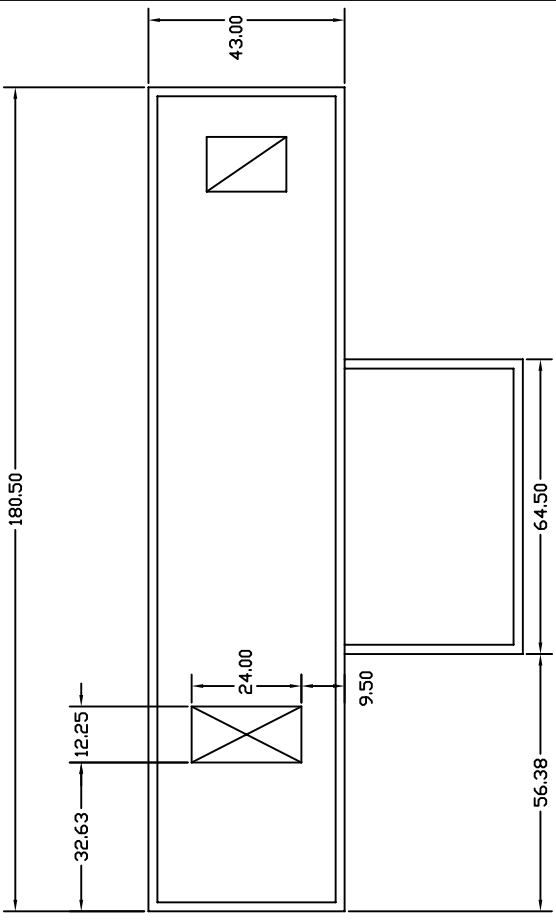
Field Wiring - Performance Climate Changer (CSAA)**MCA MOP Schedule**

Item: A1 Qty: 14 Tag(s): RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22

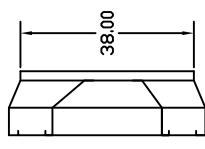
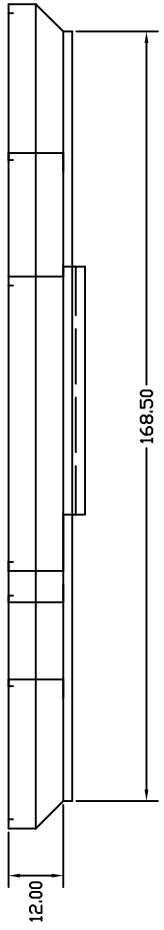
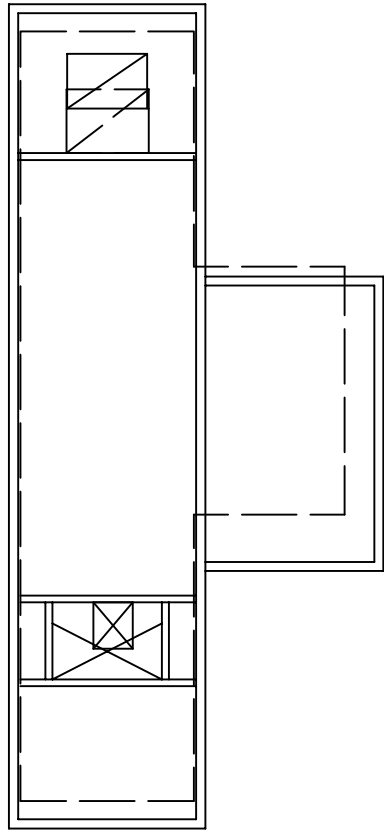
Unit Tag(s)	Circuit	Circuit Description	Voltage/Phase/Hz	FLA (A)	MCA (A)	MOP (A)
RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22	1	Supply fan + controls-LL + lights+switch	460/3/60	6.10	7.30	15.00
	2	Receptacle	115/1/60	8.00	10.00	15.00



EXISTING TRANE TSCX003 CURB



TOP OF ADAPTOR- TRANE CSAA004 CURB



ADAPTOR OVERLAY,
SIDE VIEW AND
END VIEW.



TAG: BRIGHTON H.S.- RTU-C1 - RTU-C22	
CUSTOMER - TRANE	
P.O. # -	
DATE - 4-29-26	
QTY (14)	PLATE: DNP

Field Installed Options - Part/Order Number Summary

This is a report to help you locate field installed options that arrive at the jobsite. This report provides part or order numbers for each field installed option, and references it to a specific product tag. It is NOT intended as a bill of material for the job.

Product Family - Performance Climate Changer (CSAA)

Item	Tag(s)	Qty	Description	Model Number
A1	RTU-C-01, RTU-C-02, RTU-C-03, RTU-C-04, RTU-C-05, RTU-C-06, RTU-C-07, RTU-C-08, RTU-C-09, RTU-C-10, RTU-C-12, RTU-C-18, RTU-C-20, RTU-C-22	14	Performance Climate Changer (CSAA)	CSAA004UB

Field Installed Option Description	Part/Ordering Number
12in. cartridge - 65% eff	
2" Pleated media	