



Kohrs Lonnemann Heil Engineers, Inc.

Fort Thomas Office
1538 Alexandria Pike, Suite 11
Ft. Thomas, KY 41075
859-442-8050 telephone
859-442-8058 fax

Product Data

Project Name:	Sharonville Convention Center Expansion	Submittal Code:	236500.00-PD-00	REV: 00
Document Set:	Bid/Construction			
KLH Project #:	21108.00-Bid	Received Date:	02/15/2022	
Section Name:	Cooling Towers			
Section Number:	236500.00			
Submitted By:	CT Consultants, Inc.			
Authored By:	Driekast Piping Corp			
Client Name:	CT Consultants, Inc.			

SUBMITTAL REVIEW

No Exceptions

By: Daniel R. Sharp **Date:** 03/14/2022

ENGINEER'S REVIEW IS FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS. COMMENTS DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR REMAINS RESPONSIBLE FOR ACCURACY OF QUANTITIES, DIMENSIONS, DETAILS AND COORDINATION WITH OTHER TRADES.

General

1.1 No exceptions taken.

End of Submittal Review

Note: Review is for general conformance only. Submittal reviews featuring the "No Exceptions" designation shall not be interpreted as permission to deviate from the contract. Modifications to the contract are based on express written request and approval and submittal reviews do not satisfy this requirement.

*This Page
Intentionally
Left Blank*



DRIEKAST PIPING CORP

11290 SEBRING DRIVE CINCINNATI, OHIO 45240
PH. (513) 674-9110 FAX (513) 674-9113



SUBMITTAL

Project Name: Sharonville Convention Center Expansion		
Project Address: 11355 Chester Road	City, State: Cincinnati	Zip Code: 41016

General Contractor: Megan Construction			
Project Manager: Wes Dorger		Prepared By: Wes Dorger	
HVAC <input type="checkbox"/>	Plumbing <input type="checkbox"/>	Submittal #:	Date: 2/3/2022
Specification #: 23-7713		Description: Cooling Tower	

Reviewed

Reviewed as Noted

Revise & Resubmit

Sharonville Convention Center Expansion
City of Sharonville
11355 Chester Rd, Cincinnati, OH 45246

Cooling Tower Submittal
Specification Section:
236500
Unit Tag(s):
CT-4

Prepared for:
KLH Engineers
1538 Alexandria Pike, Suite 11
Ft. Thomas, KY 41075

Sold To:
Driekast Piping Corporation
11290 Sebring Drive
Cincinnati, OH 45240

2/2/2022

Project Engineer:
Casey Topp
ElitAire
caseytopp@elitaire.com
cell 614-203-9908

Project Manager:
Max Rouse
ElitAire
mrouse@elitaire.com
cell 513-578-4430



General Notes:

CTI Certified
Stainless steel casing panels and support structure
Fully welded 304 stainless steel cold water basin
PVC hot water distribution header
Single side inlet connection
304 stainless steel sump strainer
PVC sheet fill for continuous duty up to 130 F water
FRP intake louvers
Propeller fan w/ polycomposite ultra low sound fan blades
Belt drive system
Single speed, TEAO premium efficient inverter-duty motor
Extended lubrication lines
Stainless steel electric basin heaters w/ LWCO and thermostat- **Field Installed**
Basin heater control panel w/ non-fused disconnect- **Field Installed**
Electric probe water level control w/ high and low level alarm- **Field Installed**
NEMA 4X fan vibration switch- **Field Installed**
Fan deck access platform and aluminum ladder w/ safety cage - **Field Installed**
Fan VFD
1-Year parts only warranty
Start-up

Notes/Clarifications

Disconnect switches are not included
Control panel furnished by TCC
Spring isolators or spring rails are not included
Wiring between drives and motors is not included and provided by others
Labor for installation, rigging, wiring, or piping of towers is not included
Installation and wiring of basin heaters is not included
Installation and wiring of basin level controls and valve is not included
Installation and wiring of vibration switch to control panel is not included
Piping heat trace is not included
Automatic balance valves are not included



**BALTIMORE
AIRCOIL COMPANY**

Submittal Data Form

1-10-2022

Sold To : Kohrs Lonneman Heil
1538 Alexandria Pike
Suite 11
Fort Thomas, KY 41075
United States

Project: Sharonville Convention Center
Purchase Order No:
Engineer:
BAC Order # Q22001164401
Representative: ElitAire, Inc.

All Information is per Unit

Quantity: 1 Model PT2-1009A-3L1 COOLING TOWER

Certified Capacity: 750.00 USGPM of water from 95.00°F to 85.00°F at 78.00°F entering air wet bulb and 5.12 PSIG of total (static lift + spray) pump head from the unit base.

Fan Motor(s): One (1) 15 HP fan motor(s): Totally Enclosed, Air Over (TEAO),
1 Speed/1 Winding - Premium Efficiency (Inverter Duty), suitable for 460 volt, 3 phase,
60 hertz electrical service and Space Heater.
Drives are based on 0 inches ESP.

NOTE: Inverter Duty fan motors, furnished in accordance with NEMA Standard Mg.1 -- Part 31, are required for applications using variable frequency drives for fan motor control.

Submittal Information	Equipment Summary
<p>BAC Terms and Conditions of Sale Mechanical Specifications Submittal Drawings/Diagrams</p> <p>UP-Q22001164401 Unit Print SS-Q22001164401 Unit Support CG-Q22001164401 Center of Gravity BC-Q22001164401 Bottom Connections BA-Q22001164401 Basin Accessories HW-Q22001164401 Heater Wiring EW-Q22001164401 EWLC Wiring VL-Q22001164401 VCOS Location VW-Q22001164401 VCOS Wiring MR-Q22001164401 Motor Removal EA-Q22001164401 External Access SW-Q22001164401 Space Heater Wiring IC-Q22001164401 IBC Certificate</p>	<p>Induced Draft, Counterflow Cooling Tower Quality Assurance - ISO 9001 Compliant Unit Energy Efficiency per ASHRAE Standard 90.1-2016 CTI Certified Thermal Performance All Stainless Steel Construction Standard Fan driven by the BALTIDRIVE® Power Train Galvanized Steel Fan Guard PVC Film Wet Deck Material Structure Designed in accordance with the IBC and ASCE/SEI 7 Standard End or Side Inlet Pump Suction Connection Bottom Equalizer Type 304 Stainless Steel Strainer Electric Water Level Control Package with High & Low Level Alarm Electric Immersion Heater(s) Sized to Maintain +40°F water at a 0°F Ambient with Electrical Requirements Matching Fan Motor(s) Stainless Steel Heater Elements Heater Control Panel with Contactor and Disconnect Mechanical Vibration Cutout Switch with Alarm Contact Davit Arm & Support Access Platform with Safety Gate, Ladder & Safety Cage 3' Ladder and Cage (if provided) Extension(s) for each Ladder</p>

THANK YOU FOR YOUR BUSINESS!

Rigging and Installation Instructions, as well as Operating and Maintenance Instructions are available at www.baltimoreaircoil.com



Terms and Conditions of Sale

Pricing: Prices set forth in Seller's quotation shall remain firm for thirty (30) days. Within such period, the quotation shall convert into an order provided that all of the following have occurred: (1) Buyer submits either a purchase order or a copy of Seller's quotation displaying an authorized signature of Buyer within that thirty (30)-day period; (2) Buyer provides a release for fabrication; and (3) Buyer requests a shipment date that is no later than twelve (12) weeks from the date of Buyer's submission of a purchase order or signed quotation. In the event Buyer's requested shipment date is later than twelve (12) weeks beyond such submission date, Seller's price in effect twelve (12) weeks prior to such shipment date shall apply. In the event that Buyer requests for its convenience that Seller delay delivery of products subject to an order beyond the scheduled shipment date, pricing shall be subject to the same adjustment.

Payments: Terms of payment shall be net cash in thirty (30) days from date of invoice, subject to Seller's prior credit approval. If the Buyer shall fail to make any payments in accordance with the terms and conditions of sale, the Seller, in addition to its other rights and remedies but not in limitation thereof, may, at its option, without prior notice, cancel this order as to any undelivered products or defer shipments or deliveries hereunder, or under any other agreement between Buyer and Seller, except upon Seller's receipt of cash before shipment or such security as Seller considers satisfactory. Seller reserves the right to impose an interest charge (not exceeding the lawful maximum) on the balance of each invoice not paid on its due date for the period from the due date to the date of receipt of payment by Seller. In the event Buyer's failure to make timely payments to Seller results in Seller incurring additional costs, including but not limited to collection expenses and attorneys' fees, said costs shall be added to the amount due Seller from Buyer. Buyer shall have no right to any discount or retainage and shall not withhold payment as a set-off on Seller's invoice in any amount.

Taxes: Unless listed on the front (reverse) side of this document, prices do not include any federal, state or local sales, use or value-added taxes payable in connection with this order. All such taxes shall be paid by Buyer. Buyer shall indemnify Seller from and against such taxes, plus interest and penalties thereon, including, but not limited to, tax, interest and penalties resulting from a failure to collect such taxes because of Seller's reliance upon an invalid exemption certificate provided to Seller.

Allocation of Risk: Deliveries shall be considered made when the products subject to this order are loaded on the carrier. At such time, title to the goods and all risk of loss, damage or shortage shall pass to Buyer, and any claims based thereon must be filed by Buyer with the carrier.

Force Majeure: Seller shall under no circumstances be liable for any loss or damage resulting from delay or failure in the performance of its obligations under this contract to the extent that such performance is delayed or prevented by: fires, floods, war, terrorist activities, riots, strikes, freight embargoes or transportation delays, shortage of labor, inability to secure fuel, material, supplies or power at current prices, or on account of shortages thereof; acts of God or of the public enemy; any existing or future laws or acts of the federal, state or local government (including specifically, but not exclusively, any orders, rules or regulations issued by any official or agency of any such government) affecting the conduct of Seller's business with which Seller in its judgment and discretion deems it advisable to comply as a legal or patriotic duty, or to any case beyond the Seller's reasonable control.

Warranties: Seller warrants that the equipment sold under this contract shall be free from defects in material and workmanship for a period of twelve (12) months from the date of equipment startup or eighteen (18) months from the date of shipment, whichever occurs first. The following original equipment components only are warranted against defects in materials and workmanship for a period of five (5) years from date of shipment: fans, fan shafts, fan motors, bearings, sheaves, gearboxes, driveshafts, couplings, and mechanical equipment support. Details of option-specific warranties follow:

Welded 304 Stainless Steel Cold Water Basins are warranted against leaks for a period of five (5) years from date of shipment. Only leaks from the factory seams of the cold water basin are covered; this warranty does not apply to cold water basin field connections, field installed options or modifications by others.

Original Equipment Fan Motors are warranted against defects in materials and workmanship for a period of seven (7) years from date of shipment when space heaters are field-wired at time of initial installation per the motor nameplate.

Replacement Parts provided by Seller under its original equipment warranty obligations are warranted against defects in materials and workmanship for a period of twelve (12) months from date of shipment or until expiration of their original warranty, whichever occurs first. Parts purchased after expiration of the original equipment warranty are warranted against defects in materials and workmanship for a period of twelve (12) months from date of shipment.

Written notice of any defect shall be given to Seller immediately upon discovery by Buyer, and shall fully describe the claimed defect. Defective parts shall be repaired or replaced F.O.B. point of shipment, provided that inspection by Seller verifies the claimed defect(s). This shall be Buyer's exclusive remedy. **This warranty does not cover the costs of removing, shipping or reinstalling the equipment. Repairs made without the prior written approval of Seller shall void all warranties covering material and workmanship.** Any descriptions of the product(s) in the contract are for the sole purpose of identification and do not constitute a warranty. In the interest of product improvement, Seller reserves the right to change specifications and product design without incurring any liability therefore. The foregoing express warranties or those set forth elsewhere on this document are the only warranties of Seller applicable to the product(s) sold under this contract. **All other warranties, whether verbal or written, and all warranties implied by law, including any warranties of merchantability or fitness for a particular purpose, are hereby excluded. Failure on the part of Buyer or of other parties to properly maintain the product(s) sold under this contract, or the operation of such product(s), by Buyer and/or other parties under conditions more severe than those for which such product(s) were designed, shall void all warranties covering materials and workmanship. Seller's warranties do not apply to defects in product(s) for which payment in full has not been received by Seller, and said warranties do not cover normal wear and tear or the erosion, corrosion and/or deterioration of the product(s) from unusual causes. No warranties by Seller shall apply to accessories manufactured by others,** inasmuch as they are warranted separately by their respective manufacturers, except as stated above. Buyer

assumes liability for and shall bear the costs of compliance with all laws, regulations, codes standards or ordinances applicable to the location, operation and maintenance of the product(s) sold under this contract, including those requirements pertaining to the distances between such product(s) and air-conditioning system duct intakes. No representative or agent of Seller is authorized to enlarge upon the express warranties of Seller.

Cancellation/Changes/Returns: Cancellation of or changes in any order by Buyer shall not be effective without Buyer's notice thereof received, agreed to, and confirmed in writing by Seller. If Seller, in its absolute discretion, approves Buyer's cancellation of an order, Buyer agrees to pay a reasonable cancellation charge. Seller's prior written consent must be obtained before Buyer returns any products, and when so returned will be subject to a handling charge and transportation costs payable by Buyer.

Liability/Indemnification: Seller shall not be liable for any damages caused by delay in delivery of the products. Buyer shall hold harmless and indemnify Seller from and against all liability, claims, losses, damages, and expenses (including attorneys' fees) for personal injury and property damage arising out of Buyer's improper unloading, handling, or use of the products subject to this order, and for Buyer's infringement of another's property rights. The Seller's maximum liability from any causes whatsoever, whether in breach of contract, tort (including negligence), strict liability, or otherwise, shall not exceed the contract price. Neither Buyer nor Seller shall in any event be liable to the other, whether such liability arises out of breach of contract, tort (including negligence), strict liability or any other cause or form of action, for any consequential, special, indirect or incidental damages, including but not limited to loss of actual or anticipated profits or loss of use arising out of this contract, other than such damages resulting from the willful misconduct of Buyer or Seller.

Storage: In the event that Buyer is unable to accept delivery of goods and the Seller is required to hold goods beyond two (2) working days from fabrication completion, a storage fee equal to the greater of \$200/day or 0.20% of the total order value/day will be assessed by Seller for every day beyond two (2) working days from fabrication date which it is required to store goods on behalf of Buyer. Storage will be assessed monthly and will need to be paid in full prior to a new shipment date being scheduled.

Government Contracts: If Buyer's purchase order is for products to be used in the performance of a U.S. Government contract, those clauses of applicable procurement regulations mandatorily required by federal law to be included in U.S. Government subcontracts shall be incorporated herein by reference.

Export Transactions: Buyer shall comply with all applicable export laws and regulations of the U.S. Government, and shall hold harmless and indemnify Seller from and against all liability, damages, and expenses (including attorneys' fees) incurred by Seller as a result of Buyer's violation of any U.S. Government export and/or international antiboycott laws or regulations. Buyer certifies that it will be the recipient of the products to be delivered by seller. Buyer acknowledges that products are subject to export/import control laws of various countries, including the Export Administration Regulations of the United States. Products sold by seller cannot be transferred, sold or re-exported to any party on the Entity List or Restricted Persons list of the US Department of Commerce Bureau of Industry and Security, any party designated by the US Treasury Department Office of Foreign Asset Control and any party debarred or sanctioned for proliferation or terrorism reasons by the US State Department.

Agreement of Sale: Buyer's order is accepted on the terms and conditions stated herein and Seller's acceptance of Buyer's order is expressly made conditional upon Buyer's assent to such terms and conditions, including any of Seller's terms and conditions which may be additional to or different from those contained in Buyer's purchase order or otherwise. Such assent shall be deemed to have been given unless written notice of objection to any such terms and conditions (including inconsistencies between Buyer's purchase order and this acceptance) is given by Buyer to Seller promptly upon receipt of this acknowledgment. Any agreement or understanding, oral or written, which modifies or waives the terms and conditions herein (whether contained in Buyer's purchase order or other documentation) shall be deemed material and shall be rejected unless hereafter agreed to in writing and signed by Seller's authorized officer. Waiver by Seller of any breach or default hereunder shall not be deemed a waiver by Seller of any other or subsequent breach or default which may thereafter occur. Neither the rights nor the obligations of either Buyer or Seller are assignable without the prior written consent of the other party. This agreement of sale and all rights and obligations of Buyer and Seller shall be governed by and construed in accordance with the laws of the State of Maryland.

Electronic copy of the latest version is available online at <http://baltimoreaircoil.com/english/terms>.

(Revised – 06/26/2014)



Mechanical Specifications

1-10-2022

Customer: Kohrs Lonneman Heil
Project: Sharonville Convention Center
Purchase Order No:
Engineer:
BAC Order # Q22001164401

All Information is per Unit

Quantity: 1 **Model PT2-1009A-3L1 COOLING TOWER**

Unit Type:

Factory fabricated, induced draft, counterflow cooling tower with vertical discharge.

Quality Assurance:

Each unit is manufactured under closely-controlled conditions using standardized parts to ensure each unit is built precisely to the same high-quality design and construction standards. The design, manufacture, and business processes of Baltimore Aircoil Company are ISO 9001 compliant.

Unit Efficiency:

The unit(s) will comply with the energy efficiency requirements established by ASHRAE Standard 90.1-2016.

CTI Certification:

The thermal performance of this BAC unit has been certified through performance tests conducted by the Cooling Technology Institute in accordance with their standard STD-201 RS. Your equipment may be selected for factory-testing to verify CTI certified performance. Such certification by an independent third party assures engineers and users that the published thermal capacities accurately reflect the actual unit performance. CTI certification eliminates the additional costs of on-site, individual unit testing, oversizing the equipment or operating cost penalties from deficient equipment.

Materials of Construction:

All structural steel components are constructed from Type 304 stainless steel. All factory seams in the cold water basin will be welded to ensure watertight construction and shall be warranted against leaks for a period of five (5) years from date of shipment. Cold water basin includes a depressed section with drain/clean-out connection and the area under the fill sections is sloped toward the depressed section for easy cleaning.

Hot water distribution system is pressurized and constructed of Schedule 40 PVC. Polypropylene metering orifices are provided to assure even distribution of water over the fill.

Fan & Drive System:

The fan is driven by a one-piece multi-groove, neoprene/polyester belt designed specifically for evaporative cooling equipment service. Motor is mounted on an adjustable motor base. Fan and motor sheaves are non-corrosive cast aluminum. The BALTIDRIVE® Power Train fan drive system, including fan motor, is warranted against defects in materials and workmanship for five (5) years from date of shipment.

Fan and steel fan shaft are supported by heavy-duty, self-aligning, grease-packed, relubricatable ball bearings with special seals for protection against dust and moisture. All bearings are designed for a minimum L10 life of 80,000 hours (280,000 hours average life) and are provided with extended lubrication lines.

Fan Guard:

A heavy gauge, hot-dip galvanized steel wire fan guard is provided over the fan cylinder. The fan guard is shipped loose for field installation.

Wet Deck Material:

The wet deck surface is formed from self-extinguishing (per ASTM D-568) polyvinyl chloride (PVC), having a flame spread rating of ≤ 25 per ASTM Standard E84-77a, and are impervious to rot, decay, and fungus or biological attack. This wet deck is suitable for a maximum entering water temperature of 140°F (60°C).

Equipment Structure:

The structure of this product has been designed and analyzed in accordance with the wind and seismic load requirements of the 2006 IBC, 2009 IBC, 2012 IBC, 2015 IBC, 2018 IBC, ASCE/SEI 7-05, ASCE/SEI 7-10, and ASCE/SEI 7-16. Seismic qualification is based on analysis. For more information and specific wind and seismic load capacity ratings, please see the Certificate of Wind and Seismic Load Capacity.

Water Inlet(s):

Water enters the unit through a single inlet connection on the end or side of the unit.

Water Outlet(s):

A pipe stub connection(s) of a metal compatible with the cold water basin material and appropriately sized for design flow is provided. Please see the submittal package for the connection type, size and location. Also included is a large area, lift out strainer which matches the cold water basin material of construction and has perforated openings sized smaller than the water distribution nozzle orifices. Strainer includes anti-vortexing baffle to prevent air entrainment.

Equalizer Connection:

The unit will be provided with a bottom equalizer connection. Please see the submittal drawing package for the size and location of the connection.

Upgrade Strainer or Trash Screen:

Large area, lift-out, Type 304 stainless steel, strainer screen has perforated openings sized smaller than the water distribution nozzle orifices. Strainer includes anti-vortexing baffle to prevent air entrainment.

Basin Water Level Control:

Probe-type electric water level control package including solid-state relay, electrode head, stainless steel electrodes, and a solenoid valve in the make-up water connection. The electrodes are make-up on, make-up off, high level alarm, low level alarm, and ground. Field wiring is by others.

Basin Heater(s):

A minimum number of high-watt-density electric immersion heater elements, sized to maintain +40°F (+4°C) basin water at 0°F (-18°C) ambient with a 15 mph (24.1 km/h) wind speed, is provided. Electrical requirements match fan motor. Wiring is not included.

Heater Element Material of Construction:

The unit is supplied with stainless steel heater elements.

Basin Heater Control:

An electric immersion heater control package which includes a control panel in a NEMA 4X enclosure is provided. It includes contactor(s), disconnect, thermostat, 24V transformer, and Type 316 stainless steel probe for water level and water temperature sensing. Panel ships loose for field mounting and wiring by others.

Vibration Cutout Switch:

Fan system is provided with a vibration cutout switch to limit damage to the unit in the event of a high vibration condition. The vibration switch, including external alarm capability, is mechanically tripped with a frequency range of 0 to 3,600 RPM and trip point of 0.2 to 2.0 g's. Switch rating is 10 amperes at a maximum 480 VAC, and 1/4 ampere at 250 Vdc. The remote reset and bypass time delay on start-up solenoid coil is powered by 110 Vac. Field wiring is by others.

Motor Removal System:

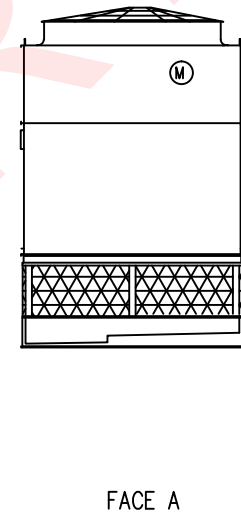
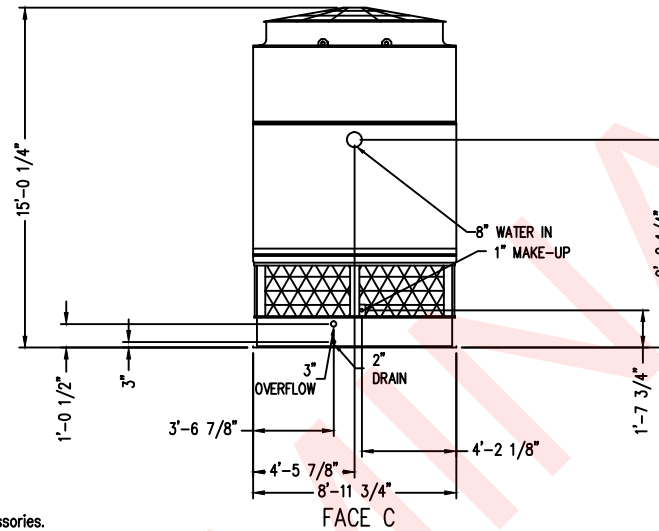
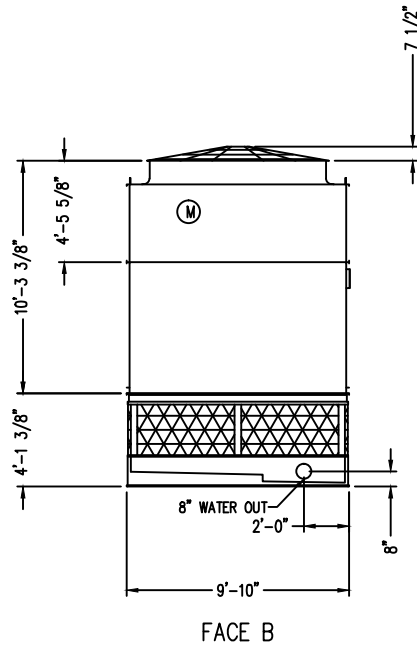
Units are supplied with a Motor Removal System, which consists of a field-installed galvanized steel davit arm and mounting bracket. The system is designed to lift the fan motor.

External Access:

An external platform provides access to the access door. An aluminum ladder, safety gate, galvanized steel safety cage, and 1-1/4" (32 mm) galvanized steel pipe safety railing is included with the platform. Supports are compatible with the basic unit material of construction. Field assembly and installation is by others. This option will meet pertinent OSHA standards.

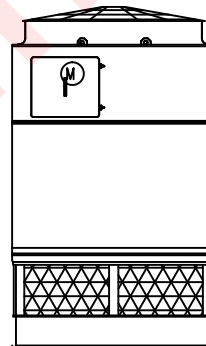
Ladder Extension(s):

3' Ladder and Cage (if provided) Extension(s) for each Ladder



Notes

- 1) All dimensions are in feet and inches. Weights are in pounds and include options and accessories.
- 2) Unless otherwise indicated, connections 3" and smaller are NPT. Connections 4" and larger are grooved to suit a mechanical coupling and beveled for welding.
- 3) For weight loadings and support requirements, refer to the suggested steel support drawing.
- 4) The area above the fan discharge must be unobstructed.
- 5) Piping must not be supported by the tower inlet or outlet connections.
- 6) M = Motor location.
- 7) Field piping should be fabricated at time of installation. Pre-fabrication of pipe work is not recommended.



Model Number	Shipping Weight	Operating Weight	Heaviest Section
PT2-1009A-3L1	5290	8730	3900

ORDER NO: **Q22001164401**

DATE: **1/10/2022 6:57:09 PM ConfigVer=18**



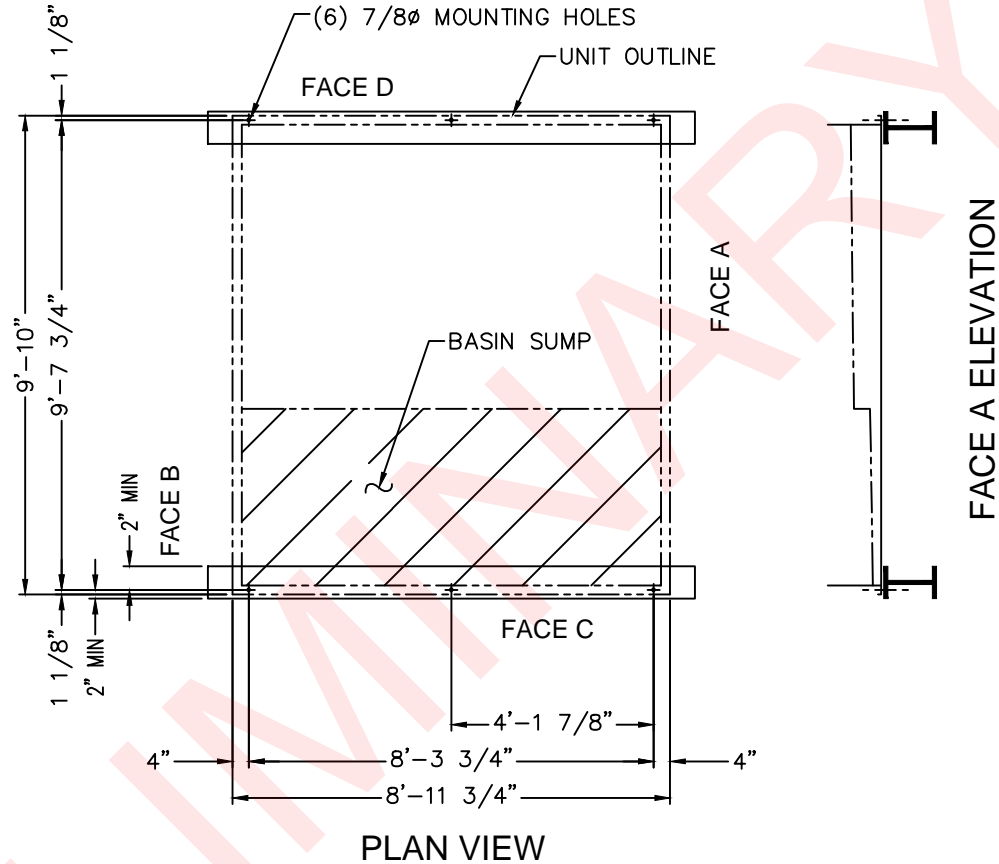
BALTIMORE AIRCOIL COMPANY

**PT2 Single Cell Unit Print
Internal Belt Drive**

DRAWING NUMBER:
UP-Q22001164401

Notes

- 1) All dimensions are in feet and inches. Weights are in pounds and include options and accessories.
- 2) Operating weight and weight loading are for units with water level in basin at overflow.
- 3) Unit support beams and anchor bolts to be designed and furnished by others.
- 4) Support beams must be flush and level at top.
- 5) All supporting steelwork must be designed in accordance with accepted structural practice. Maximum deflection of steelwork under unit to be 1/360 of span, not to exceed 1/2".
- 6) Each beam should be designed, as a minimum, for 65% of the total unit operation weight applied as a uniformly distributed load.



PLAN "A" STEEL

Model Number	Shipping Weight	Operating Weight
PT2-1009A-3L1	5290	8730

ORDER NO: **Q22001164401**

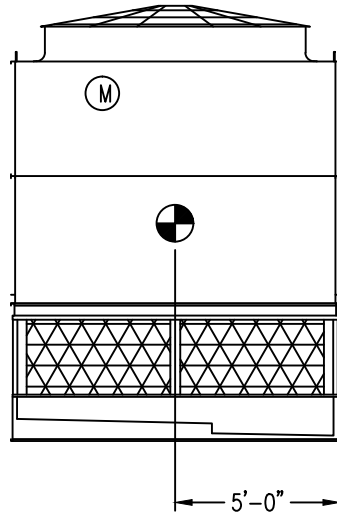
DATE: **1/10/2022 6:57:26 PM ConfigVer=18**



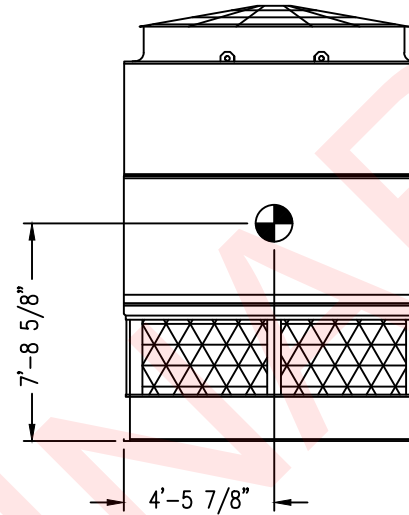
BALTIMORE AIRCOIL COMPANY

**PT2 Single Cell Unit Support
Internal Belt Drive**

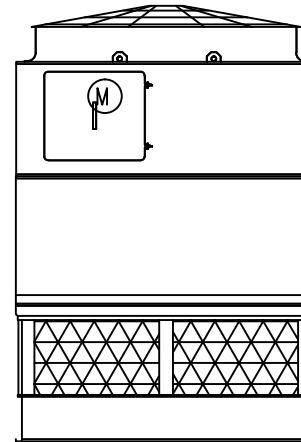
DRAWING NUMBER:
SS-Q22001164401



FACE B



FACE C



FACE D

Notes

- 1) Drawings are not to scale.
- 2) All Dimensions are in feet and inches.
- 3) Center of gravity location is based on dry weight of unit without accessories.

ORDER NO: **Q22001164401**

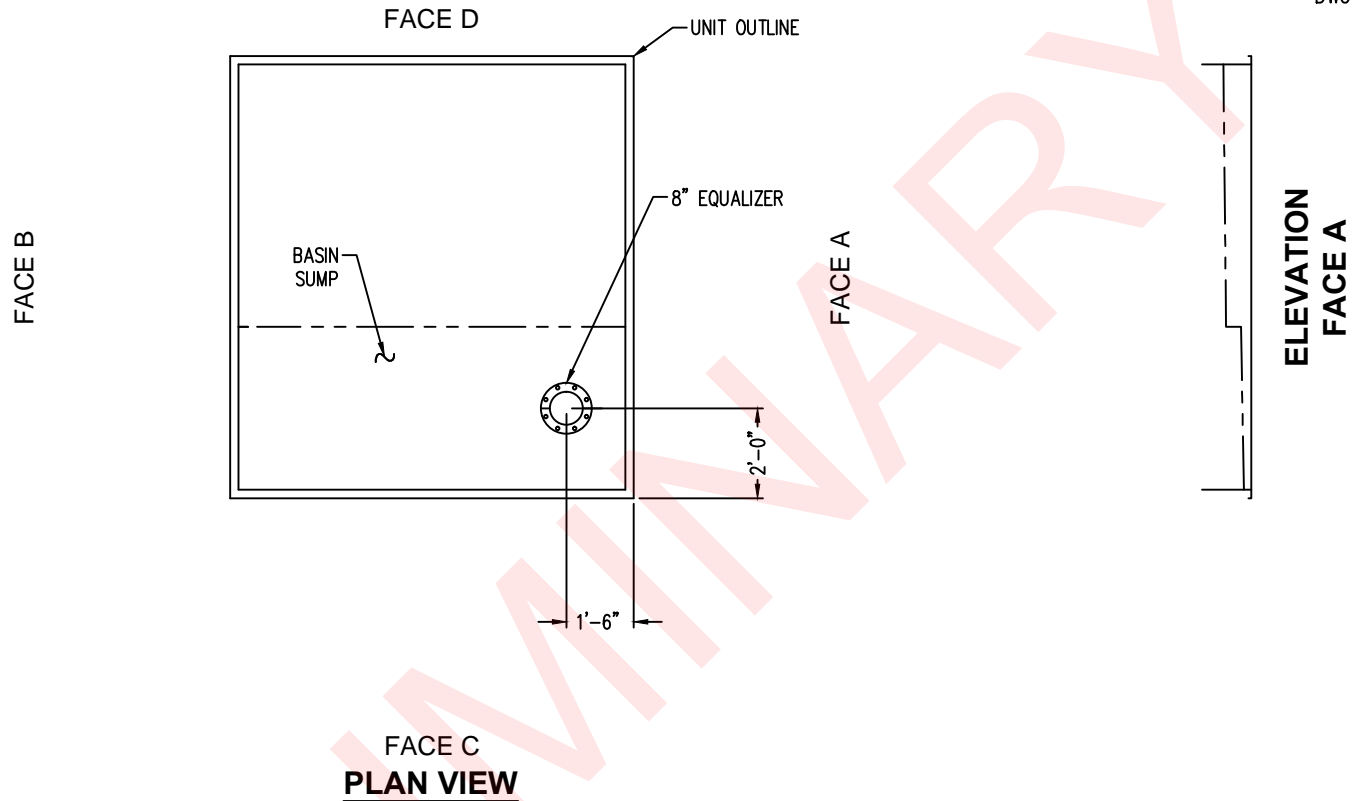
DATE: **1/10/2022 7:00:47 PM ConfigVer=18**



**BALTIMORE
AIRCOIL COMPANY**

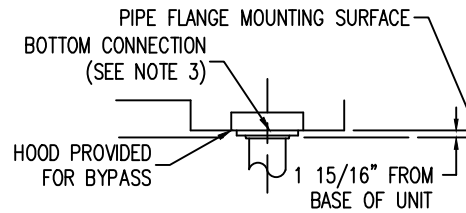
PT2 Center of Gravity

DRAWING NUMBER:
CG-Q22001164401



Notes

- 1) Do not support piping from cooling tower. All necessary piping supplied by others.
- 2) Field piping should be fabricated at time of installation. Pre-fabrication of pipe work is not recommended.
- 3) The bolt hole pattern is drilled to mate with an ASME Class 150 flat face flange. The flat face flange and full face gasket are to be furnished by others for mating with the unit.
- 4) Connections 3" and smaller are NPT. Connections 4" and larger are grooved to suit a mechanical coupling and beveled for welding unless stated otherwise.



DETAIL A
ELEVATION VIEW
BOTTOM EQUALIZER OR BYPASS

ORDER NO: **Q22001164401**

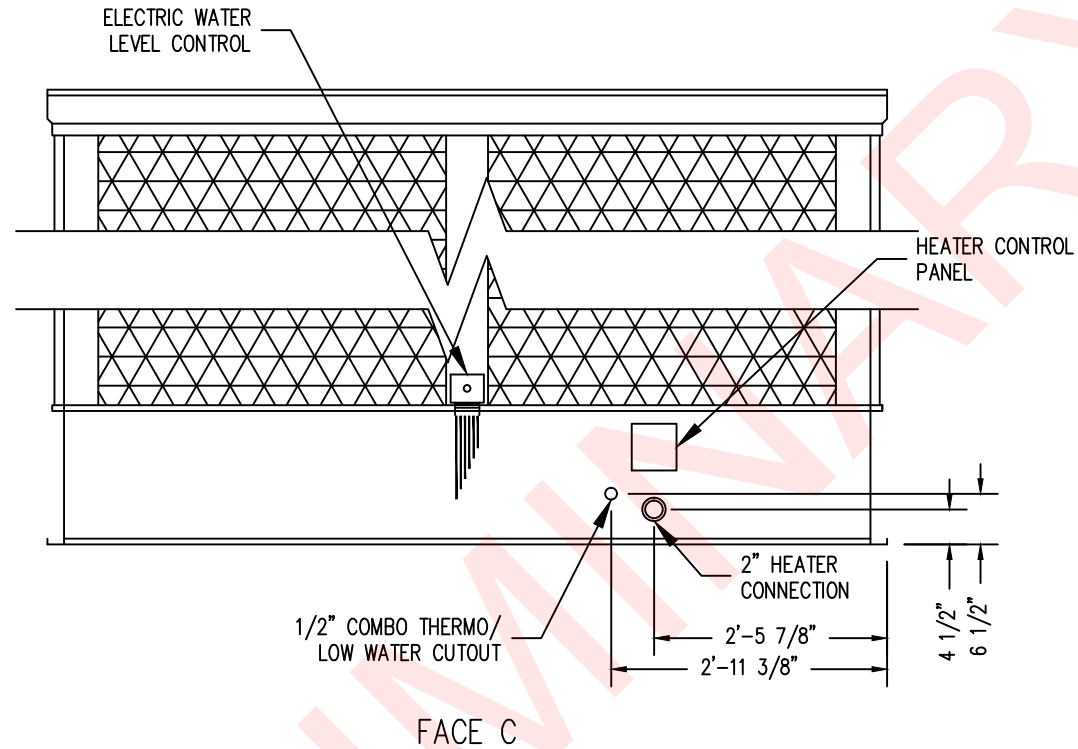
DATE: **1/10/2022 7:01:29 PM ConfigVer=18**



**BALTIMORE
AIRCOIL COMPANY**

PT2 Single Cell Bottom Connections

DRAWING NUMBER:
BC-Q22001164401



Notes

- 1) Refer to the appropriate wiring diagram for electric water level control wiring details.
- 2) Refer to the appropriate wiring diagram for heater wiring details.

Ambient Temperature: 0deg. F
Heater Power: 8KW
Volts: 460V
Phase: 3
Frequency: 60HZ

ORDER NO: **Q22001164401**

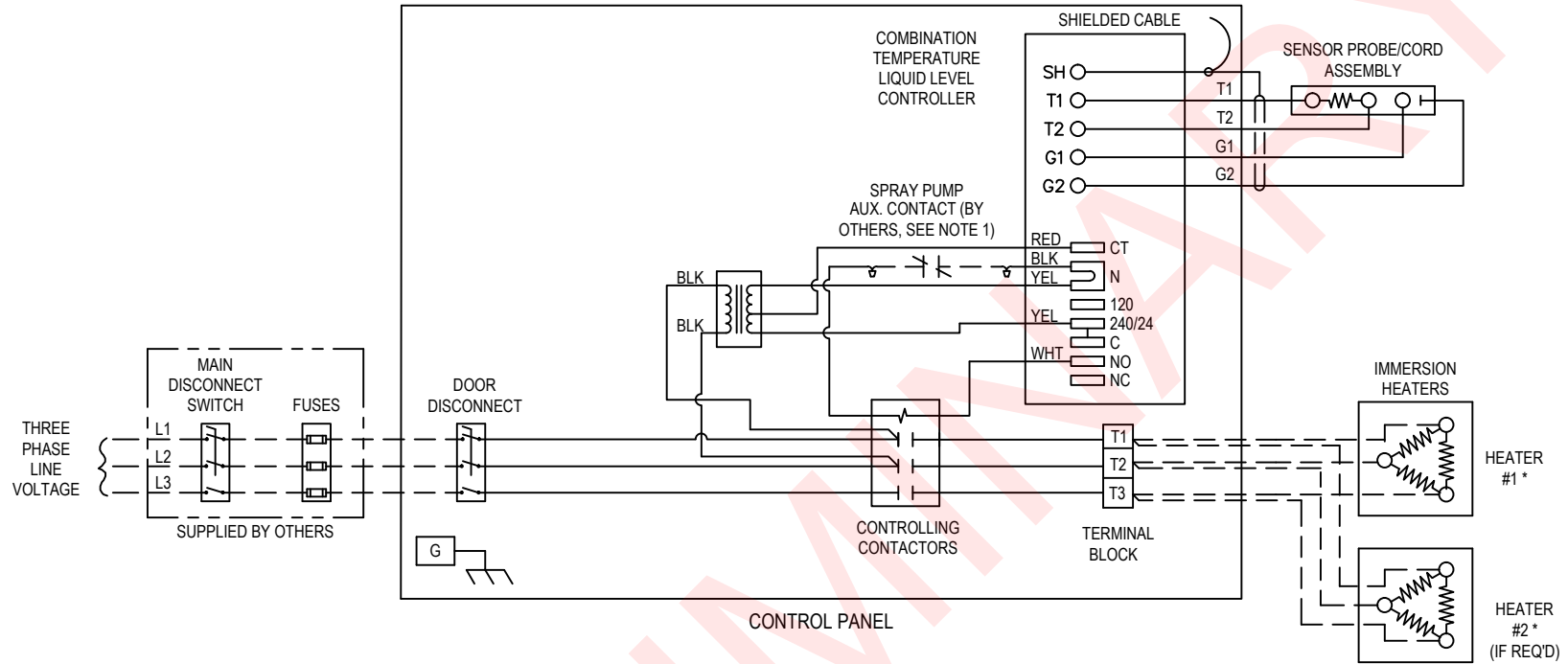
DATE: **1/10/2022 7:02:13 PM ConfigVer=18**



**BALTIMORE
AIRCOIL COMPANY**

PT2 Single Cell Basin Accessories

DRAWING NUMBER:
BA-Q22001164401



NOTES:

1. INTERLOCK IMMERSION HEATERS WITH SPRAY WATER CIRCULATING PUMP TO DE-ENERGIZE HEATERS WHEN SPRAY PUMP IS RUNNING.
2. CONTROL THERMOSTAT IS TO BE AT 40°F. DO NOT SET THERMOSTAT LOWER THAN 40°F.
3. FUSE PROTECTION AND POWER SUPPLY WIRING ARE TO BE SIZED TO MATCH HEATER REQUIREMENTS. WIRING MUST COMPLY WITH APPLICABLE CODES AND ORDINANCES.

* Refer to heater package drawings for heater power values.

SYMBOLS

DESCRIPTION

- BROKEN LINES INDICATE WIRING AND COMPONENTS SUPPLIED BY OTHERS.
- SOLID LINES INDICATE WIRING AND COMPONENTS SUPPLIED BY BAC.

ORDER NO: **Q22001164401**

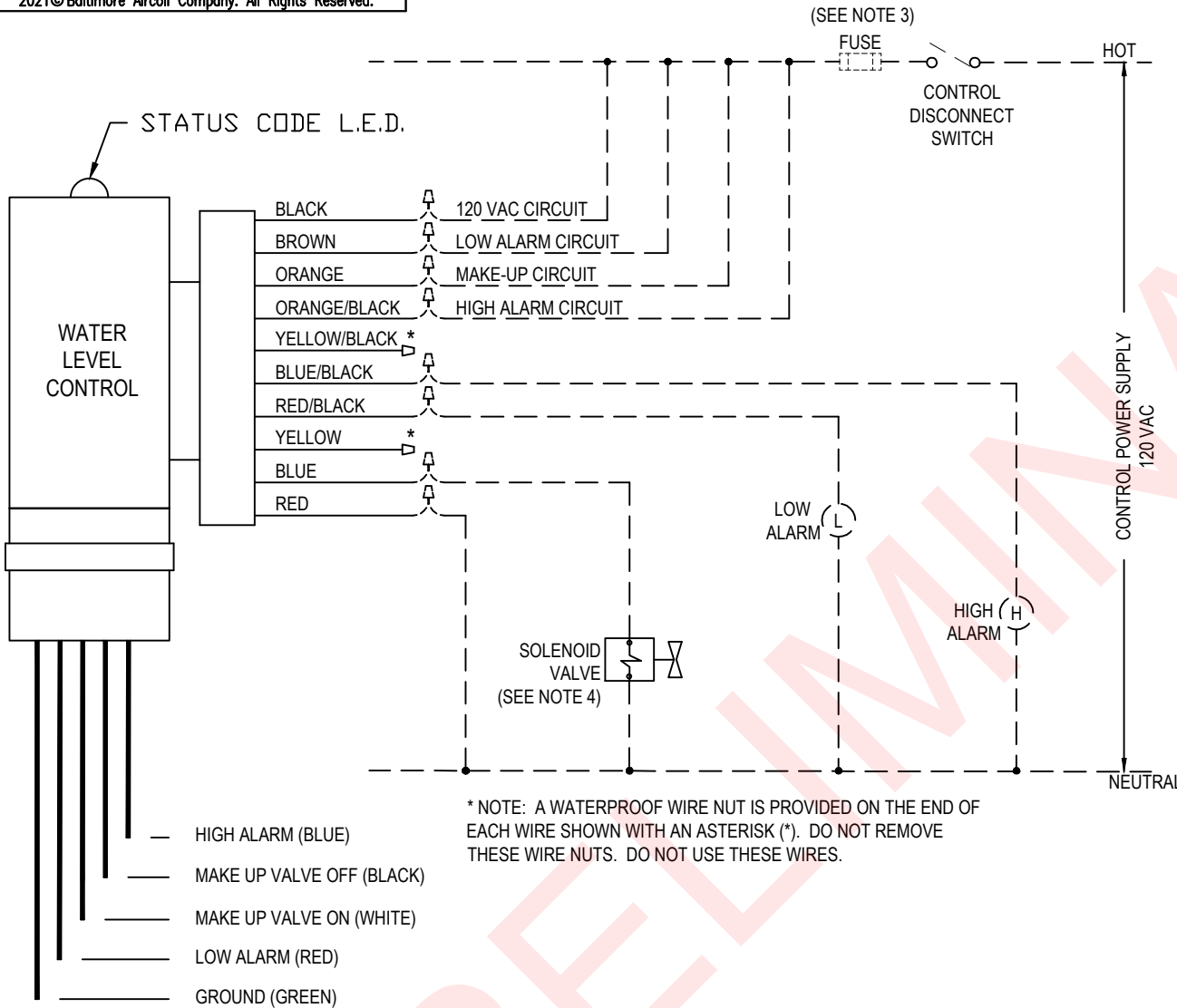
DATE: **1/10/2022 7:05:41 PM ConfigVer=18**



BALTIMORE AIRCOIL COMPANY

**Electric Immersion Heater Wiring
Single Contactor with Terminal Block**

DRAWING NUMBER:
HW-Q22001164401



NOTES:

1. WIRING AND COMPONENTS INDICATED BY DASHED LINES ARE TO BE SUPPLIED BY FIRMS OTHER THAN BAC. ALL WIRING MUST COMPLY WITH APPLICABLE CODES AND ORDINANCES.
2. THE WATER LEVEL CONTROL BOARD IS WIRED IN THE INVERSE MODE SO THAT THE SOLENOID MAKE-UP VALVE WILL CLOSE IF THERE IS A LOSS OF POWER TO THE CONTROL BOARD. WHEN THE WATER LEVEL RISES TO THE BOTTOM OF THE MAKE-UP VALVE OFF PROBE AND MAINTAINS CONTACT FOR AT LEAST 6 SECONDS, THE CONTROL DE-ENERGIZES THE VALVE. THE VALVE REMAINS DE-ENERGIZED UNTIL THE WATER LEVEL RECEDES BELOW THE BOTTOM OF THE MAKE-UP VALVE ON PROBE AND REMAINS AT THAT LEVEL FOR AT LEAST 6 SECONDS. THE CONTROL THEN ENERGIZES THE VALVE.
3. ANY INCOMING POWER SOURCE MUST HAVE A 3A FUSE FOR COMPONENT PROTECTION. USING A FUSE OVER 3A WILL VOID BAC WARRANTY.
4. THE SOLENOID ACTUATED MAKE-UP VALVE IS RATED AT 6.1 WATTS, 16 VA HOLDING, 30 VA INRUSH.
5. THE NORMALLY CLOSED SOLENOID VALVE HAS A SLOW CLOSING FEATURE WHICH MINIMIZES WATER HAMMER AND IS DESIGNED TO OPERATE AT MAKE-UP WATER LINE PRESSURES OF 10 TO 125 PSIG. TO FURTHER MINIMIZE THE POTENTIAL FOR WATER HAMMER, MAKE-UP WATER LINE PRESSURES AT THE HIGHER END OF THE RANGE SHOULD BE AVOIDED, AND MAKE-UP PIPING SHOULD BE WELL SUPPORTED.
6. INTERLOK IMMERSION HEATERS WITH CIRCULATING PUMP TO DE-ENERGIZE HEATERS WHEN PUMP IS RUNNING.
7. CONTROL THERMOSTAT IS TO BE SET FOR 40°F. DO NOT SET THERMOSTAT LOWER THAN 40°F.
8. A STRAINER IS REQUIRED BEFORE THE SOLENOID MAKE-UP VALVE

L.E.D. STATUS CODES:

1. L.E.D. ON STEADY:
INDICATES NORMAL OPERATION
2. STEADY ONE SECOND FLASHING:
DIRTY PROBES - OVERRIDES ALL OTHER STATUS CODES
3. TWO FLASHES AND OFF FOR 5 SECONDS:
MAKE-UP ON FOR MORE THAN 1 HOUR
4. THREE FLASHES AND OFF FOR 5 SECONDS:
SHORTED OR HIGH CONDUCTIVITY WATER
5. FOUR FLASHES AND OFF FOR 5 SECONDS:
SHORT FILL CYCLE - WHITE PROBE IS DIRTY OR NONFUNCTIONAL
6. L.E.D. DOES NOT COME ON AFTER POWER UP OR RESETTING POWER: INDICATES UNIT INOPERATIVE

ORDER NO: **Q22001164401**

DATE: **1/10/2022 7:02:28 PM ConfigVer=18**



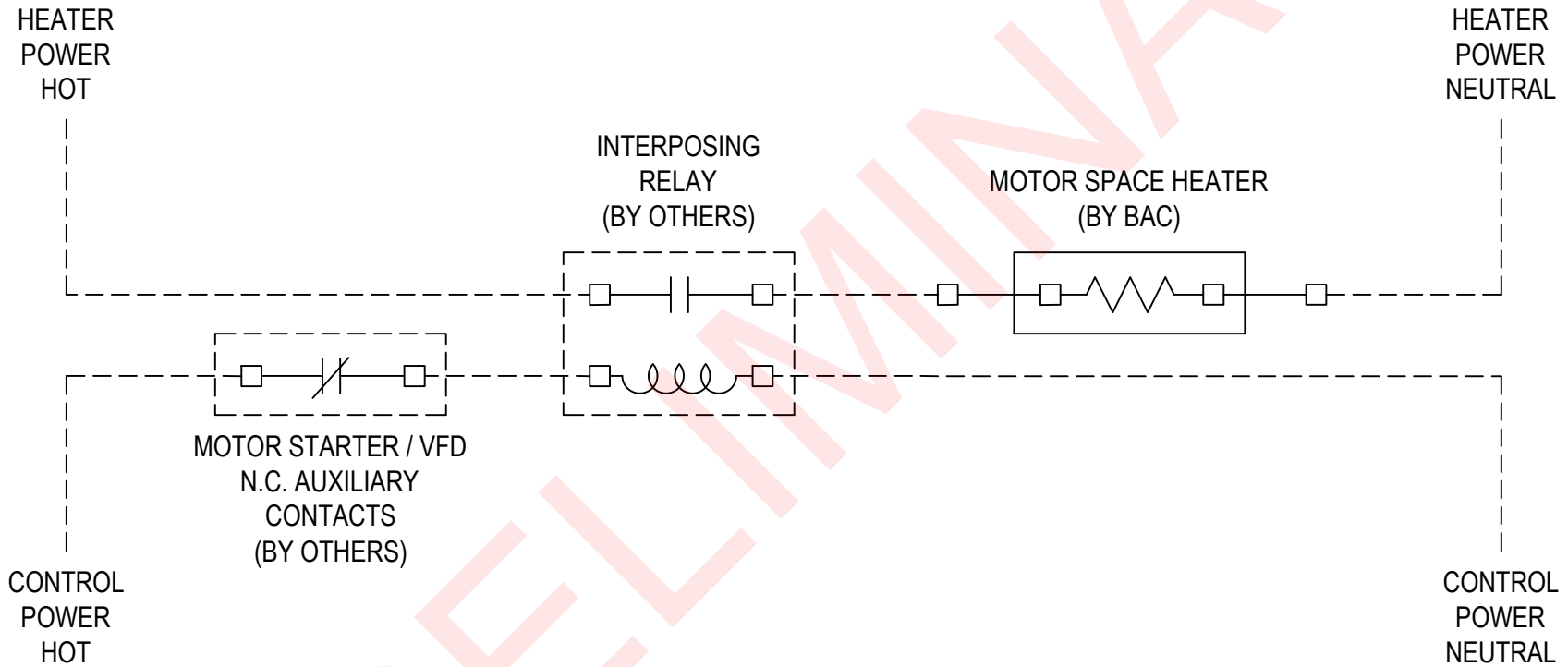
BALTIMORE AIRCOIL COMPANY

EWLC Wiring High & Low Alarm

DRAWING NUMBER:
EW-Q22001164401

Notes

- 1) Motor Heater should only be energized when the fan is stopped (0% fan speed).
- 2) Interposing relay must be sized per the heater power consumption.
- 3) Heater sizes shown below are maximum values. Refer to the motor nameplate for final power requirements.
- 4) General heater wiring details shown, see diagram on motor for specific details.
- 5) All wiring must comply with all codes and standards applicable for the installed jurisdiction, which may include requirements for additional disconnects, over current protection, and/or other safety devices.
- 6) Dashed lines represent field supplied wiring.
- 7) Space heater wiring leads may be located in either the main outlet box, or an auxiliary box if so equipped.



For units that ship from the US, heaters are 110-120 VAC/ 50 or 60 Hz based on motor configuration.
For units that ship from China, heaters are 200-240 VAC/ 50 or 60 Hz based on motor configuration.

ORDER NO: **Q22001164401**

DATE: **1/10/2022 7:01:42 PM ConfigVer=18**



**BALTIMORE
AIRCOIL COMPANY**

**Fan Motor Space Heater
Wiring Schematic - General**

DRAWING NUMBER:
SW-Q22001164401

OPERATING INSTRUCTIONS:

Follow the installation drawings and wiring diagram to ensure the proper operation of the vibration switch. Direct any questions to your local BAC Representative.

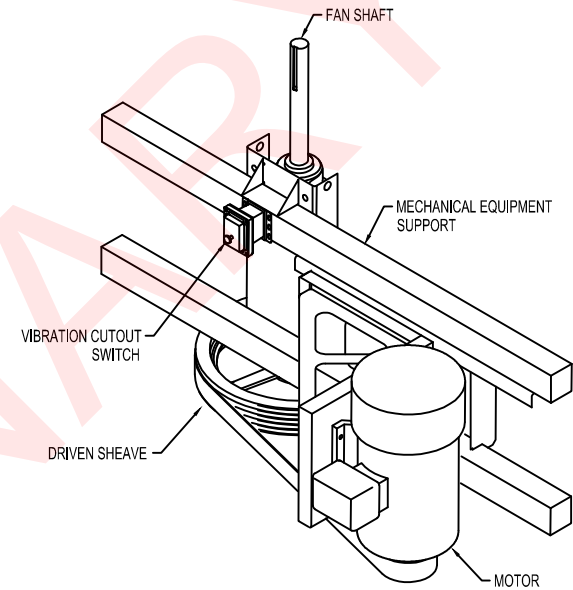
NOTE:

Moisture inside the switch can lead to switch failure. Care must be taken when replacing the cover on the vibration switch to ensure that the proper watertight seal is obtained.

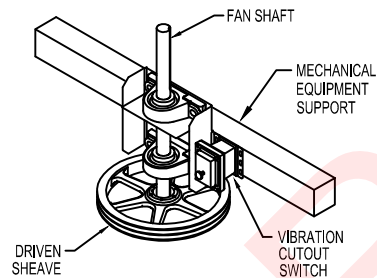
CAUTION:

Before performing any maintenance, adjustment or inspection of the switch, make certain that all power has been disconnected and locked in the off position.

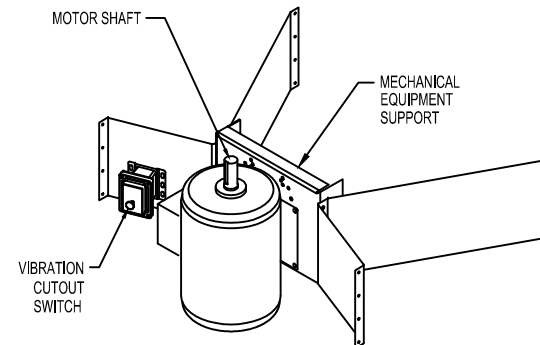
**SWITCH LOCATION
INTERNAL BELT DRIVE**



**SWITCH LOCATION
EXTERNAL BELT DRIVE**



**SWITCH LOCATION
DIRECT DRIVE**



ORDER NO: **Q22001164401**

DATE: **1/10/2022 7:06:19 PM ConfigVer=18**



**BALTIMORE
AIRCOIL COMPANY**

**MECHANICAL VCOS LOCATION
PT2**

DRAWING NUMBER:
VL-Q22001164401

NOTES:

1. LOCAL PUSH BUTTON RESET.
2. TO MAINTAIN HAZARDOUS DUTY RATINGS, THE FACTORY INSTALLED WATER TIGHT CONNECTION FITTINGS MUST BE REMOVED AND THE NINE CONDUCTOR CABLE MUST BE ROUTED INSIDE OF A SUITABLE EXPLOSION PROOF CONDUIT. NOTE: THE CONNECTORS CAN EASILY BE REMOVED WITHOUT HAVING TO UN-WIRE THE CONDUCTORS FROM INSIDE THE CUTOUT SWITCH.
3. THE MECHANICAL VIBRATION CUTOUT SWITCH COMES WITH TWO WATER TIGHT CONDUIT/CABLE CONNECTORS. ONE CONNECTOR IS USED TO PROVIDE A WATER TIGHT CONNECTION TO THE VIBRATION CUTOUT SWITCH AND THE OTHER IS PROVIDED FOR THE ELECTRICIAN TO CONNECT THE WIRE CABLE TO A JUNCTION BOX LOCATED IN THE VICINITY OF THE VIBRATION CUTOUT SWITCH.
4. THE SWITCHES IN THE NORMALLY CLOSED CIRCUITS (BLACK WIRE FOR SW-1 AND YELLOW WIRE FOR SW-2) WILL OPEN WHEN THE DEVICE EXPERIENCES VIBRATION LEVELS ABOVE THE SETPOINT VALUE. IF REVERSE CONTROL LOGIC IS DESIRED, CUT OFF BUTT END CONNECTORS ON WHITE AND/OR BROWN WIRES AND THEN INSTALL WIRE NUT OR BUTT CONNECTOR ON NORMALLY CLOSED WIRES (BLACK AND/OR YELLOW).
5. THIS MECHANICAL VIBRATION CUTOUT SWITCH COMES WITH TWO SINGLE POLE DOUBLE THROW SWITCHES. BOTH SWITCH CONTACTS ARE "DRY CONTACTS" WHICH CAN BE SUCCESSFULLY USED DIRECTLY IN THE FAN STARTER CONTROL CIRCUIT (TYPICALLY A/C VOLTAGE) CIRCUIT OR IN A BUILDING MANAGEMENT SYSTEM (TYPICALLY D/C VOLTAGE). CONTACT RATINGS: 3 AMPS@ 125 OR 480 VAC, 1/2 AMP@ 125 VDC, 1/4 AMP@ 250 VDC.
6. **CAUTION:** MOISTURE INSIDE THE SWITCH CAN LEAD TO SWITCH FAILURE. CARE MUST BE TAKEN WHEN REPLACING THE COVER ON THE VIBRATION SWITCH TO ENSURE THAT THE PROPER WATERTIGHT SEAL IS OBTAINED.

ADJUSTMENTS OF BAC MECHANICAL VIBRATION CUTOUT SWITCH

BAC RECOMMENDS THAT EACH VIBRATION CUTOFF SWITCH BE FIELD ADJUSTED AT START-UP TO OPTIMIZE THE TRIP POINT RELATIVE TO THE FINAL MOUNTING POSITION AND VIBRATION CHARACTERISTICS OF THE INSTALLED EQUIPMENT.

NOTE: INSTALLATION AND ADJUSTMENT MUST BE PERFORMED BY QUALIFIED, COMPETENT TECHNICIAN

1. FOR YOUR SAFETY, TURN OFF, THEN LOCK & TAG-OT THE ELECTRICAL SUPPLY TO THE FAN MOTOR(S).
2. PUSH IN THE MANUAL RESET SWITCH TO ENSURE UNIT IS IN UNTRIP STATE (USING AN OHMMETER, VERIFY THE CIRCUIT BETWEEN "COMMON" AND "N.C." IS CLOSED. THE SWITCH COMES WITH PRE-WIRED CABLE SO OPENING THE SWITCH IS **NOT** NECESSARY TO PERFORM THIS TASK. IF CIRCUIT IS OPEN (TRIPPED STATE) SKIP STEP 3 AND GO TO STEP 4.
3. TURN ADJUSTMENT SCREW COUNTERCLOCKWISE (CCW) 1/8 TURN AT A TIME UNTIL THE CIRCUIT BETWEEN "COMMON" AND "N.C." IS OPEN (TRIPPED STATE)
4. ONCE TRIPPED, ROTATE ADJUSTMENT SCREW 1/4 TURN CLOCKWISE (CW) AND THEN PUSH IN MANUAL RESET BUTTON (THE CIRCUIT BETWEEN "COMMON" AND "N.C." IS CLOSED)
5. START UP FAN(S) TO DETERMINE IF THE START-UP WILL CAUSE THE CUT-OUT SWITCH TO TRIP.
 - a. IF THE VIBRATION CUTOUT SWITCH DOES NOT TRIP:
 - i. START AND STOP THE FAN TWO MORE TIMES AND IF THE CUTOUT SWITCH STILL DOES NOT TRIP, THEN CALIBRATION IS COMPLETE.
 - b. IF THE VIBRATION CUTOUT SWITCH DID TRIP:
 - i. TURN OFF, THEN LOCK & TAG-OUT THE ELECTRICAL SUPPLY TO THE FAN MOTOR(S).
 - ii. ADJUST THE SET POINT SCREW AN ADDITIONAL 1/4 TURN CW AND THEN PUSH IN THE RESET BUTTON.
 - iii. RE-START THE FAN(S) TO DETERMINE IF THE START-UP WILL CAUSE THE SWITCH TO TRIP.

NOTE: REPEAT THIS ADJUSTMENT PROCESS (STEP 5.b.i-5.b.iii) UNTIL THE UNIT DOES NOT TRIP.

- iv. ONCE THE FINAL ADJUSTMENT HAS BEEN MADE, START AND STOP THE FAN TWO MORE TIMES AND IF THE CUTOUT SWITCH STILL DOES NOT TRIP, THEN CALIBRATION IS COMPLETE.

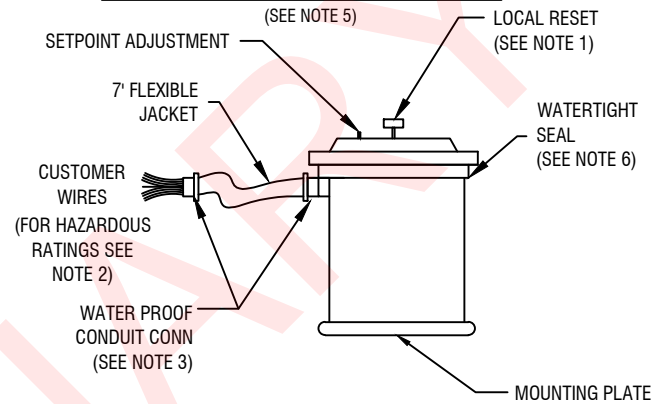
COMBINATION REMOTE ELECTRICAL RESET AND TIME DELAY START-UP:

1. THE REMOTE RESET AND TIME DELAY ON START-UP SOLENOID ELECTRICAL CIRCUIT SHOULD BE ENERGIZED (VOLTAGE APPLIED) WHENEVER THE FAN IS ON AND DE-ENERGIZED WHENEVER THE FAN IS OFF.
2. THE REMOTE RESET AND TIME DELAY ON START-UP CIRCUIT CONSISTS OF AN ELECTRICAL SOLENOID IN SERIES WITH A THERMISTOR. WHEN THE RATED VOLTAGE IS CONTINUALLY PROVIDED TO THE SOLENOID CIRCUIT AT START-UP, THE RESET SOLENOID BECOMES ENERGIZED FOR APPROXIMATELY 30 SECONDS AFTER WHICH TIME THE HEATED THERMISTOR CAUSES THE SOLENOID TO AUTOMATICALLY BECOME DE-ENERGIZED. THIS ACTION PROVIDES A TRIP LOCKOUT (BYPASS) DURING MACHINE START-UP FOR APPROXIMATELY 30 SECONDS.
3. WHEN THE FAN(S) IS SHUT DOWN, THE VOLTAGE TO THE SOLENOID ELECTRICAL CIRCUIT MUST BE REMOVED TO ALLOW THE THERMISTOR TIME TO COOL OTHERWISE THE START-UP DELAY WILL BE BYPASSED. ONCE THE THERMISTOR COOLS DOWN, THE SWITCH CAN BE REMOTELY RESET BY MOMENTARILY APPLYING VOLTAGE TO THE SOLENOID ELECTRICAL CIRCUIT. IT CAN ALSO BE RESET MANUALLY BY DEPRESSING THE PUSH BUTTON SWITCH. IF START-UP BYPASS IS UNDESIRED, THEN THE VOLTAGE MAY BE LEFT ON WHEN THE FAN IS OFF HOWEVER THE REMOTE RESET WILL NOT FUNCTION UNTIL THE VOLTAGE IS REMOVED AND THE THERMISTOR HAS HAD TIME TO COOL DOWN.

WIRING OF VIBRATION CUTOUT SWITCHES ON UNITS WITH MULTIPLE MOTORS OR CUTOUT SWITCHES:

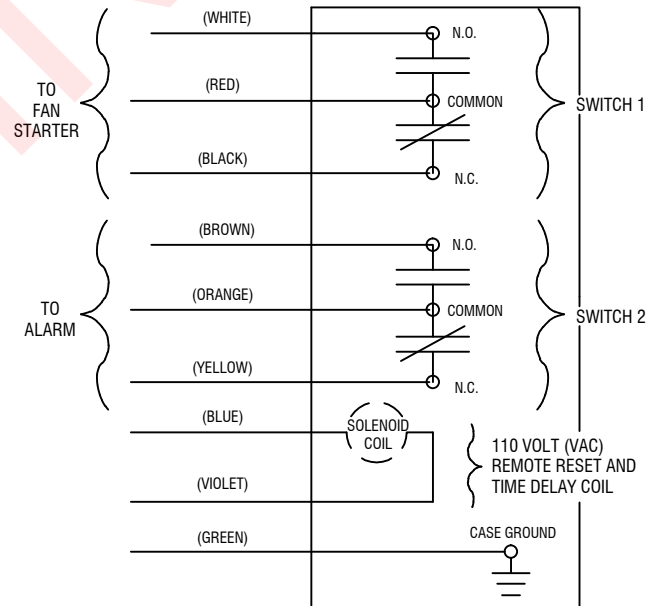
VIBRATION CUTOUT SWITCHES SHOULD BE WIRED TO SHUT OFF ALL MOTORS ON THE ASSOCIATED FAN DRIVE SYSTEM. THIS MAY REQUIRE WIRING MULTIPLE CUTOUT SWITCHES TO SHUT OFF A SINGLE MOTOR OR WIRING A SINGLE CUTOUT SWITCH TO SHUT OFF MULTIPLE MOTORS. CONTACT YOUR CONTROLS INTEGRATOR FOR DETAILS ON HOW TO WIRE MULTIPLE SWITCHES.

MECHANICAL VIBRATION CUT-OUT SWITCH



WIRING DIAGRAM

(TWO-SINGLE POLE DOUBLE THROW SWITCHES - SEE NOTE 5)



BEFORE PERFORMING ANY MAINTENANCE, ADJUSTMENT OR INSPECTION OF THE SWITCH, MAKE CERTAIN THAT ALL POWER HAS BEEN DISCONNECTED AND LOCKED IN THE OFF POSITION.

Data Version 1.12
DWG Version 1.10

ORDER NO: **Q22001164401**

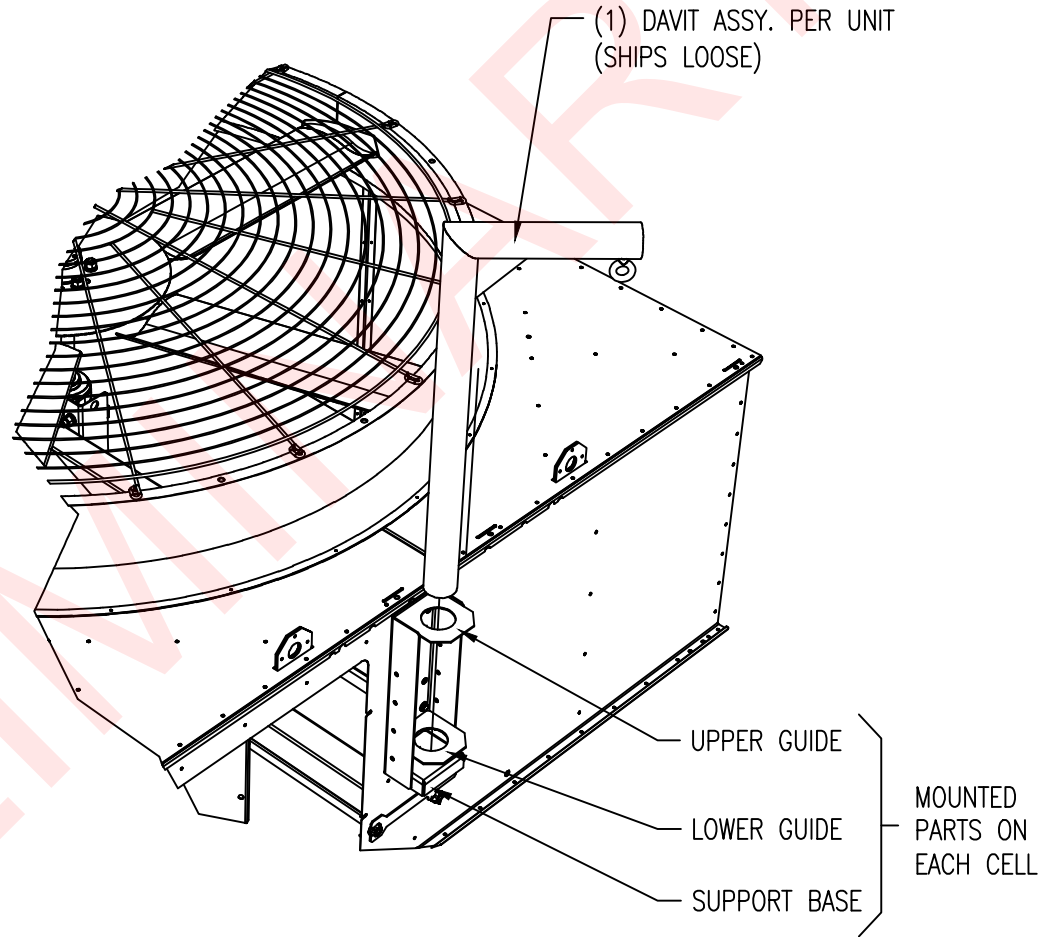
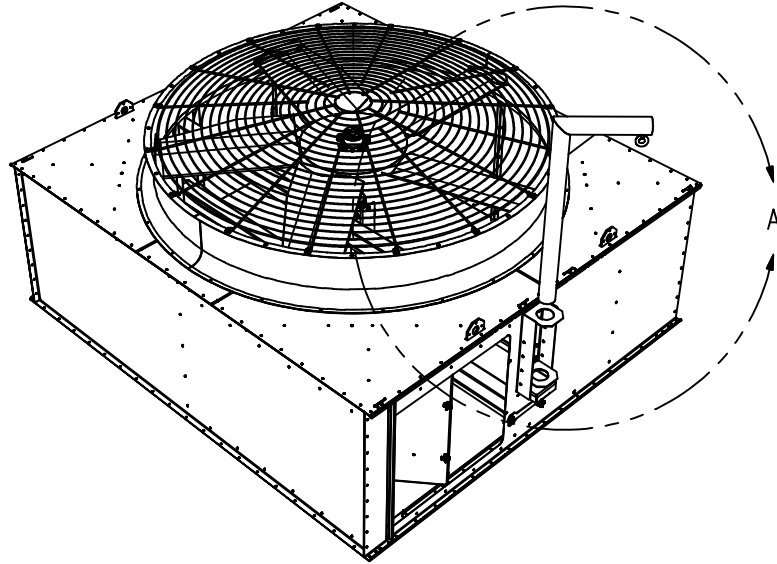
DATE: **1/10/2022 7:05:56 PM ConfigVer=18**



BALTIMORE AIRCOIL COMPANY

**Mechanical VCOS Wiring
With Remote/Local Reset, Alarm & Delay (110 VAC)**

DRAWING NUMBER:
VW-Q22001164401



DETAIL A

MOTOR DAVIT ASSY. 830lbs. MAX. LOAD

NOTE:

1) Drawing is not to scale.

CAUTION:

Do not exceed weight capacity printed on davit.

ORDER NO: **Q22001164401**

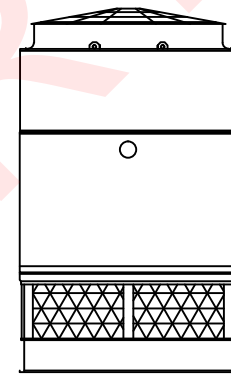
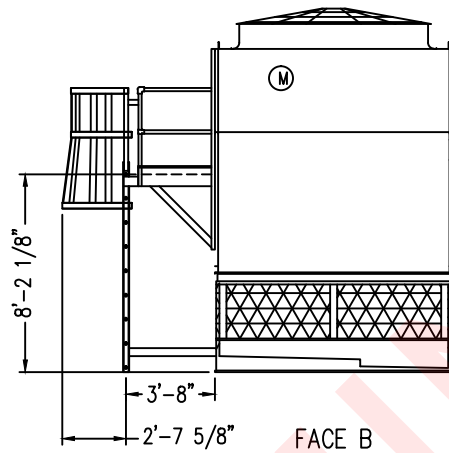
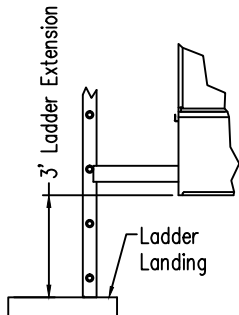
DATE: **1/10/2022 7:05:19 PM ConfigVer=18**



**BALTIMORE
AIRCOIL COMPANY**

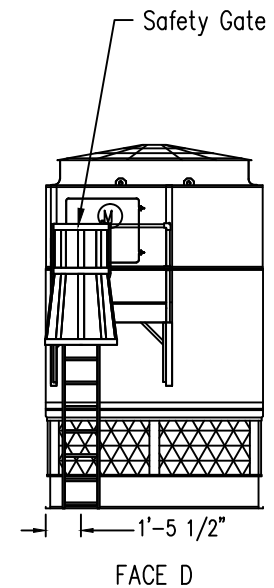
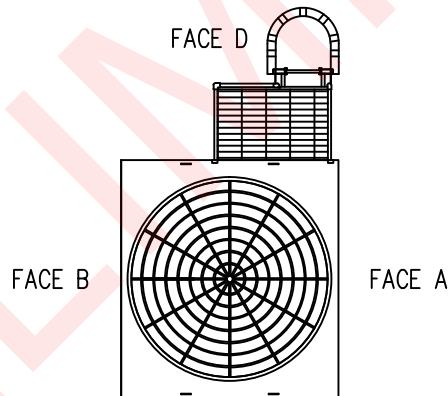
**PT2 Davit Assembly
Internal Motor Belt Drive**

DRAWING NUMBER:
MR-Q22001164401



Notes

- 1) External unit access accessories ship loose for field installation (by others).
- 2) Field piping must be kept clear and supported independently of all unit access accessories.
- 3) Intermediate support(s) below the unit must be provided by others to secure all ladder extensions.



FACE C
PLAN VIEW

ORDER NO: **Q22001164401**

DATE: **1/10/2022 7:00:27 PM ConfigVer=18**



**BALTIMORE
AIRCOIL COMPANY**

PT2 Single Cell External Accessories

DRAWING NUMBER:
EA-Q22001164401

Certificate of Wind and Seismic Load Capacity

2006, 2009, 2012, 2015, and 2018 International Building Codes (IBC)

Product Line:	PT2 Open Cooling Tower
Model:	PT2-1009A-3L1



The Baltimore Aircoil Company evaporative cooling product referenced in this certificate has been designed and analyzed in accordance with the wind and seismic load requirements of the 2006 IBC, 2009 IBC, 2012 IBC, 2015 IBC, 2018 IBC, ASCE/SEI 7-05, ASCE/SEI 7-10, and ASCE/SEI 7-16. Seismic qualification is based on analysis.

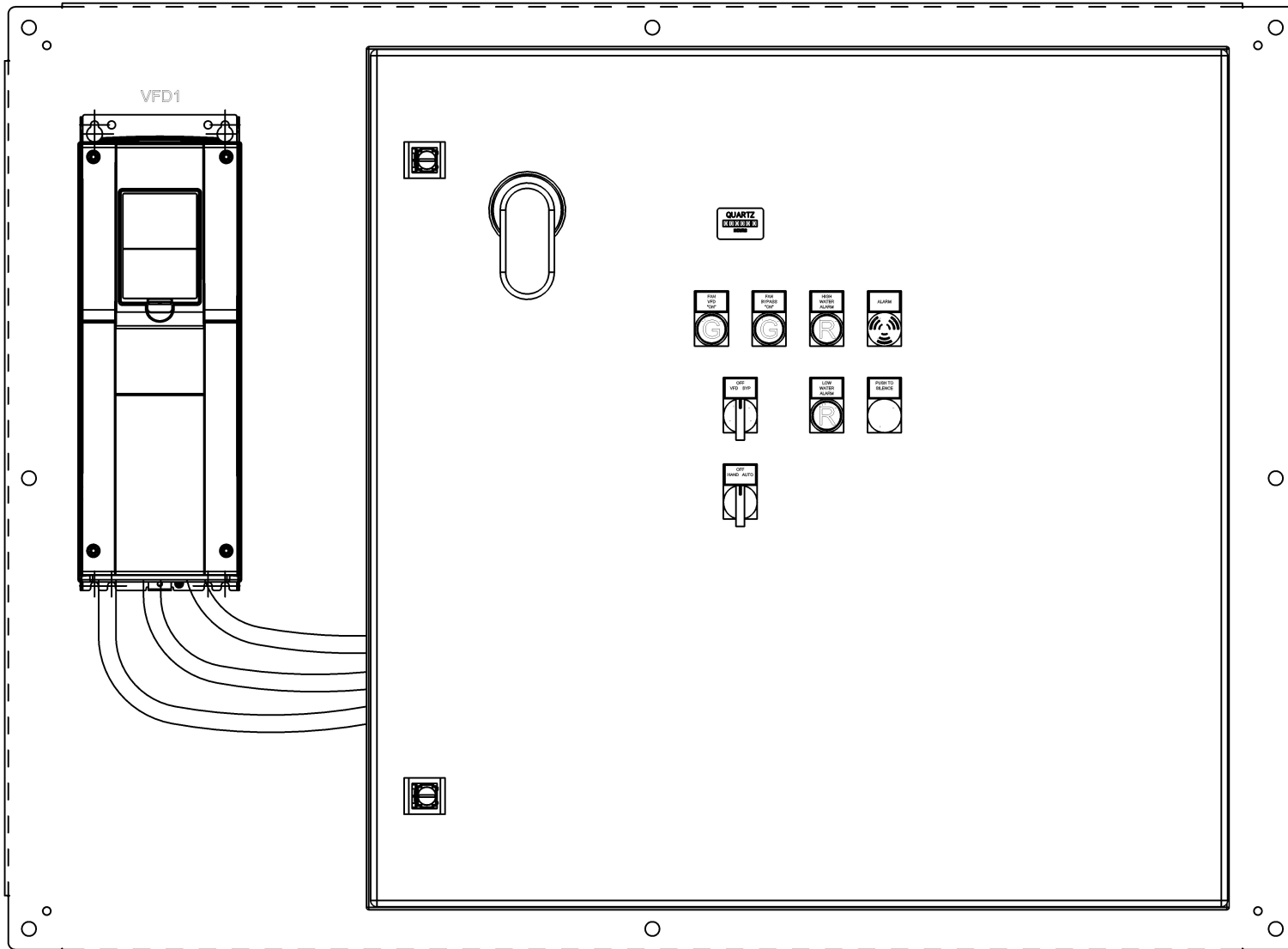
Wind and seismic load capacities for the referenced unit are provided below. It is the responsibility of the purchaser to determine the suitability of this unit for the specific application. Field modifications to the unit may void this certificate.

Wind Load Rating		
Horizontal Pressure (psf):	$p_h = 30$	in accordance with ASCE/SEI 7-05
Horizontal Pressure (psf):	$p_h = 50$	in accordance with ASCE/SEI 7-10 / 7-16
Vertical Uplift Pressure (psf):	$p_v = 39$	
Conditions:	The unit is supported and anchored as recommended. Anchor bolts are 3/4" diameter, SAE J429 Grade 5 or equivalent.	
Seismic Load Rating		
Design Spectral Acceleration (g) for Component Importance Factor, $I_p = 1.0$:	$S_{DS} = 1.71$	on grade ($z/h = 0.0$), rigid mount
	$S_{DS} = 0.57$	on rooftop ($z/h = 1.0$), rigid mount
	$S_{DS} = 0.38$	on rooftop ($z/h = 1.0$), spring-isolation mount
Conditions:	The unit is installed outside and not within an occupied space.	
	The unit is supported and anchored as recommended. Anchor bolts are 3/4" diameter, SAE J429 Grade 5 or equivalent.	
	All piping provided by others is supported and restrained independently of the unit.	

ORDER NO: **Q22001164401**DATE: **1/10/2022 7:01:57 PM ConfigVer=18**

**BALTIMORE
AIRCOIL COMPANY**

DRAWING NUMBER:
IC-Q22001164401



Note: Basin heater panel is powered directly from "Panel HPP4" CKT 7,9,11

ASSEMBLY DIMENSIONS: 33"H x 45W x 11"D

ENVIRONMENTAL RATING: TYPE 1

SCHERER CONTROLS, LLC
INDUSTRIAL CONTROL PANELS

2575 Bellbranch Ct. Cincinnati, OH 45231
Phone: 513-674-1321

PROPRIETARY NOTICE

This document and the data disclosed herein shall not be reproduced, copied, used or disclosed in whole or in part to anyone without the written permission of Scherer Controls, LLC.

⊗ BELDON 8762 OR EQUAL TWISTED PAIR W/ SHIELD

⊗ BELDON 8205 OR EQUAL TWISTED PAIR

~ PROVIDED BY SCHERER CTRLS WIRED & INSTALLED BY OTHERS

* PROVIDED, WIRED, & INSTALLED BY OTHERS.

\$ PROVIDED OTHERS, WIRED & INSTALLED BY SCHERER CTRLS

--- AC FIELD WIRING BY OTHERS IN SEPARATE AC CONDUIT

..... DC FIELD WIRING BY OTHERS IN SEPARATE DC CONDUIT

^ REMOVE FACTORY JUMPER IF DEVICE IS USED.

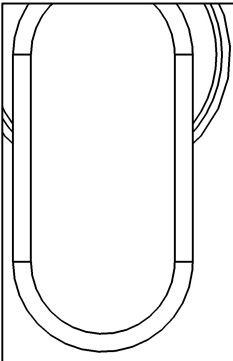
PROJECT:

SHARONVILLE CONVENTION CENTER

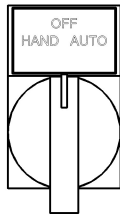
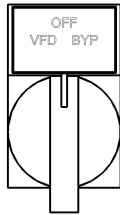
DWG: COOLING TOWER CONTROL PANEL ENCLOSURE LAYOUT

REV.#	DESCRIPTION
REV.#0	DESCRIPTION: SUBMITTAL DRAWING - FOR APPROVAL
REV.#1	DESCRIPTION:
REV.#2	DESCRIPTION:
REV.#3	DESCRIPTION:
REV.#4	DESCRIPTION:
REV.#5	DESCRIPTION:

BY:	DATE:	REPRESENTATIVE:	PHONE:
BY: MBS	DATE: 01/29/22	REPRESENTATIVE: ELITAIRE, INC	PHONE: 513-475-3800
BY:	DATE:	APPROVED BY:	DWG#: 22-1639_R0
BY:	DATE:		SCALE: NONE
BY:	DATE:		PAGE: 1 OF: 5
BY:	DATE:		DRAWN BY: MBS



QUARTZ
000000
HOURS



SCHERER CONTROLS, LLC
INDUSTRIAL CONTROL PANELS

2575 Bellbranch Ct. Cincinnati, OH 45231
Phone: 513-674-1321

PROPRIETARY NOTICE

This document and the data disclosed herein shall not be reproduced, copied, used or disclosed in whole or in part to anyone without the written permission of Scherer Controls, LLC.

⊗ BELDON 8762 OR EQUAL TWISTED PAIR W/ SHIELD
⊗ BELDON 8205 OR EQUAL TWISTED PAIR

~ PROVIDED BY SCHERER CTRLS WIRED & INSTALLED BY OTHERS
* PROVIDED, WIRED, & INSTALLED BY OTHERS.
\$ PROVIDED OTHERS. WIRED & INSTALLED BY SCHERER CTRLS

--- AC FIELD WIRING BY OTHERS IN SEPARATE AC CONDUIT
..... DC FIELD WIRING BY OTHERS IN SEPARATE DC CONDUIT
^ REMOVE FACTORY JUMPER IF DEVICE IS USED.

PROJECT:

SHARONVILLE CONVENTION CENTER

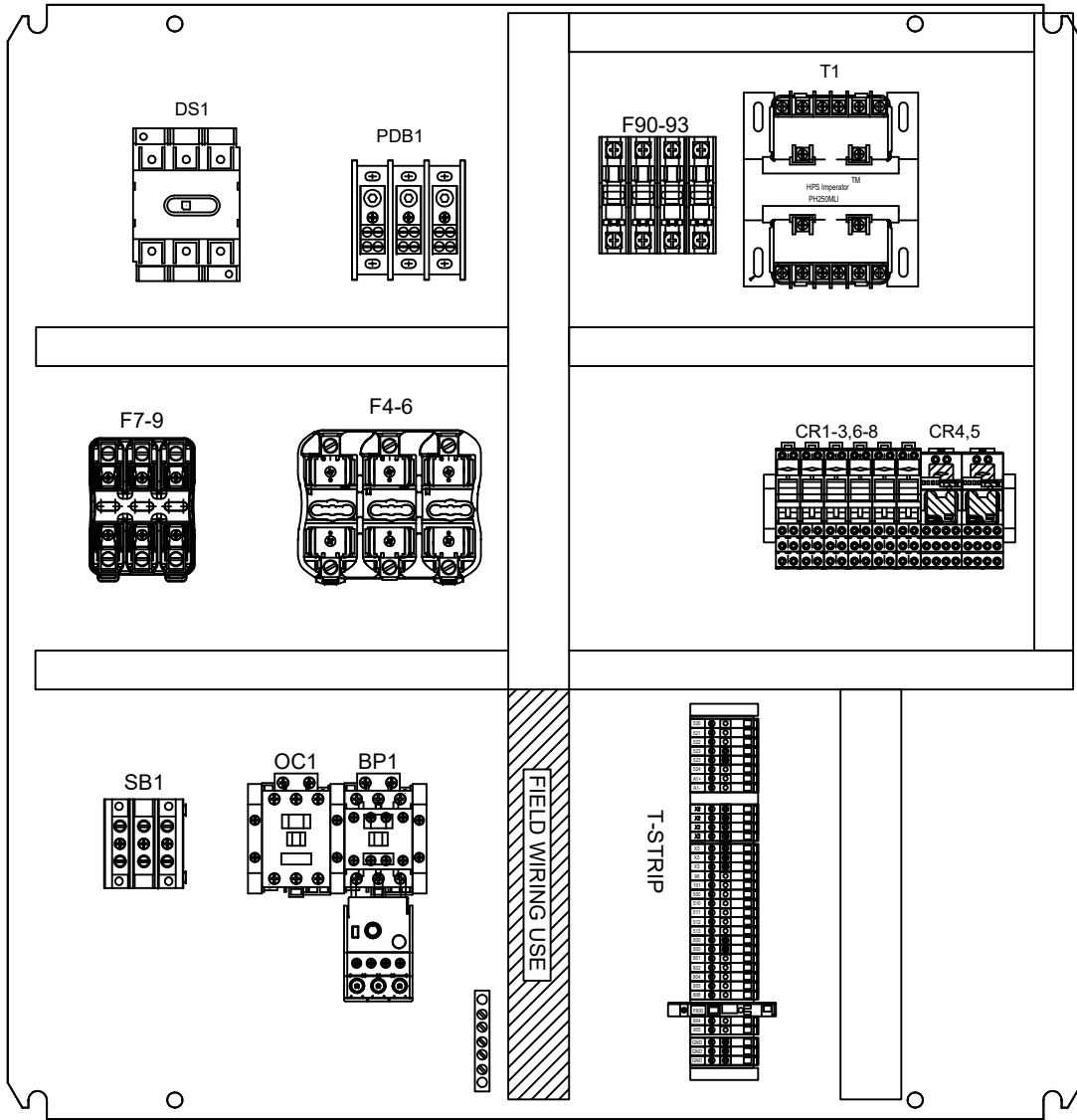
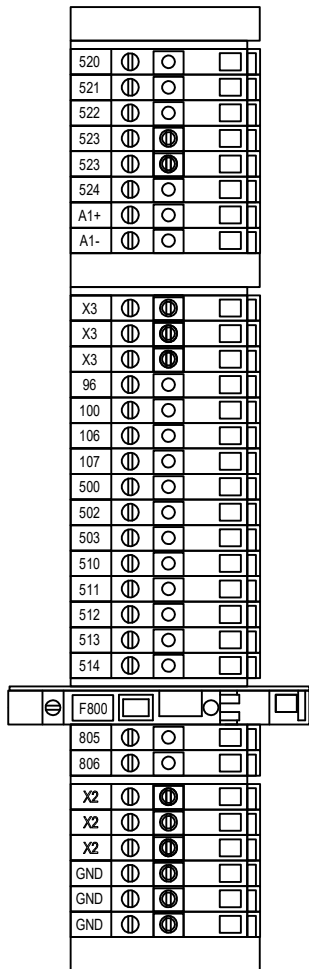
DWG: COOLING TOWER CONTROL PANEL
DOOR DETAIL

REV.#	DESCRIPTION:
REV.#0	DESCRIPTION: SUBMITTAL DRAWING - FOR APPROVAL
REV.#1	DESCRIPTION:
REV.#2	DESCRIPTION:
REV.#3	DESCRIPTION:
REV.#4	DESCRIPTION:
REV.#5	DESCRIPTION:

BY:	DATE:
MBS	01/29/22

REPRESENTATIVE:	PHONE:
ELITAIRE, INC	513-475-3800
APPROVED BY:	DWG#: 22-1639 R0
	SCALE: NONE
	PAGE: 2 OF: 5
	DRAWN BY: MBS

T-STRIP DETAIL



SCHERER CONTROLS, LLC
INDUSTRIAL CONTROL PANELS

2575 Bellbranch Ct. Cincinnati, OH 45231
Phone: 513-674-1321

PROPRIETARY NOTICE
This document and the data disclosed herein shall not be reproduced, copied, used or disclosed in whole or in part to anyone without the written permission of Scherer Controls, LLC.

⊗ BELDON 8762 OR EQUAL TWISTED PAIR W/ SHIELD
⊗ BELDON 8205 OR EQUAL TWISTED PAIR

~ PROVIDED BY SCHERER CTRLS WIRED & INSTALLED BY OTHERS
* PROVIDED, WIRED, & INSTALLED BY OTHERS.
\$ PROVIDED OTHERS. WIRED & INSTALLED BY SCHERER CTRLS

--- AC FIELD WIRING BY OTHERS IN SEPARATE AC CONDUIT
..... DC FIELD WIRING BY OTHERS IN SEPARATE DC CONDUIT
^ REMOVE FACTORY JUMPER IF DEVICE IS USED.

PROJECT: SHARONVILLE CONVENTION CENTER

DWG: COOLING TOWER CONTROL PANEL SUBPLATE LAYOUT

REV.#	DESCRIPTION
REV.#0	DESCRIPTION: SUBMITTAL DRAWING - FOR APPROVAL
REV.#1	DESCRIPTION:
REV.#2	DESCRIPTION:
REV.#3	DESCRIPTION:
REV.#4	DESCRIPTION:
REV.#5	DESCRIPTION:

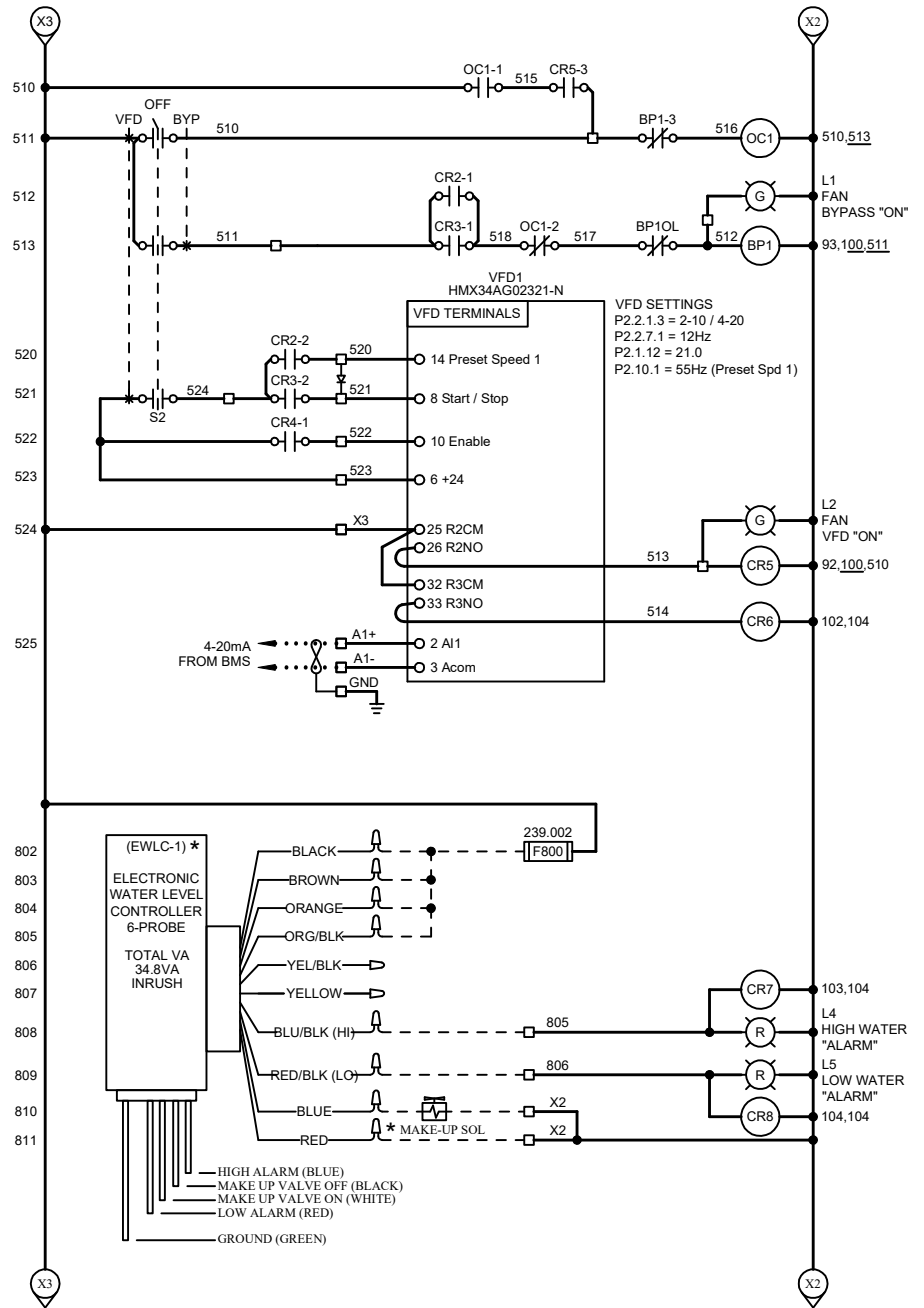
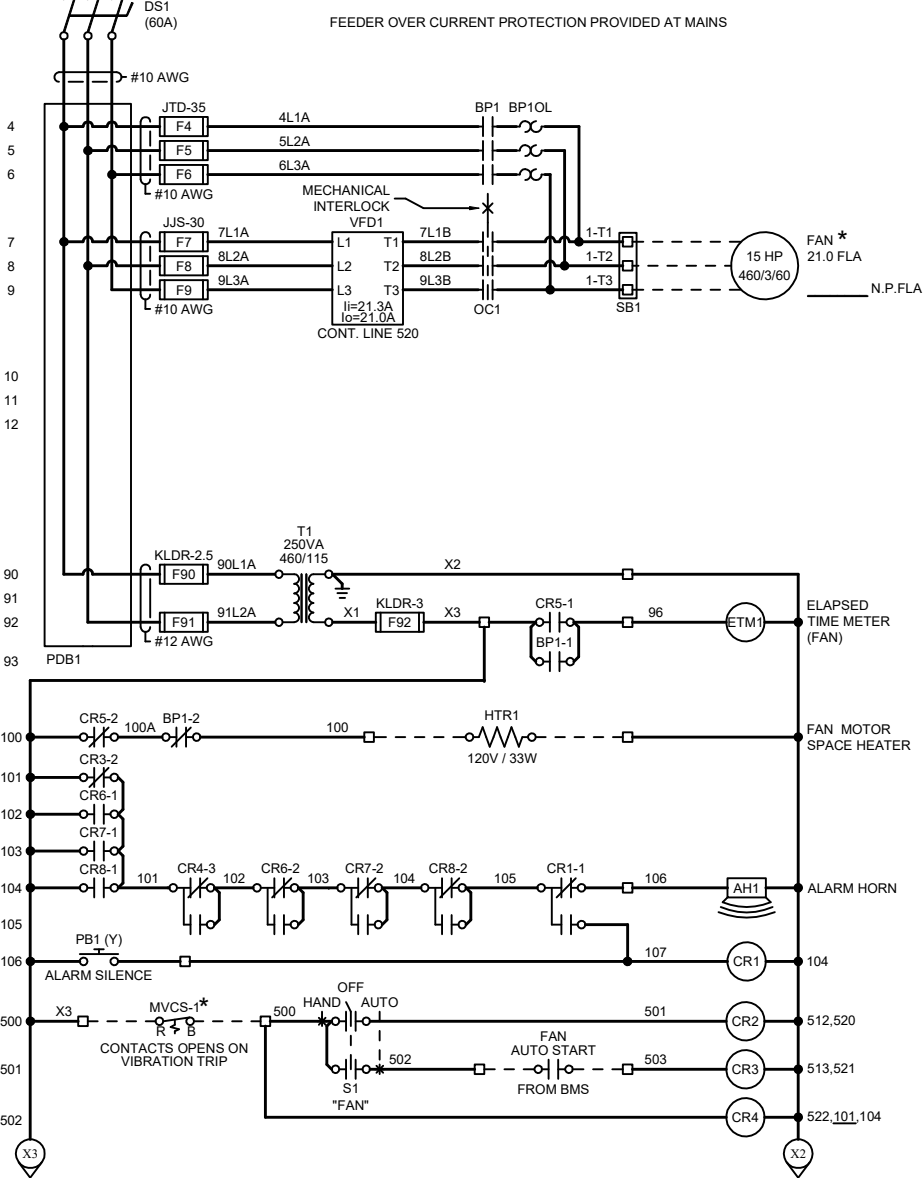
BY:	DATE:	REPRESENTATIVE:	PHONE:
BY: MBS	DATE: 01/29/22	REPRESENTATIVE: ELITAIRE, INC	PHONE: 513-475-3800
BY:	DATE:	APPROVED BY:	DWG#: 22-1639 R0
BY:	DATE:		SCALE: NONE
BY:	DATE:		PAGE: 3 OF: 5
BY:	DATE:		DRAWN BY: MBS

460/3/60
 TOTAL PANEL FLA = 22A
 MCA = 28A
 MOCP = 40A

INDIVIDUAL LOAD DISCONNECTS ARE SUPPLIED, INSTALLED, AND WIRED BY OTHERS, UNLESS THIS PANEL IS LOCATED SUCH THAT DS-1 MEETS NEC. AND ALL STATE AND LOCAL CODES REGARDING THE POINT OF USE DISCONNECTING.

*OVERLOADS SELECTED BASED ON UL508 TABLE 50.1
 ALL OVERLOADS SHALL BE FIELD SET TO NAMEPLATE FLA

FEEDER OVER CURRENT PROTECTION PROVIDED AT MAINS



SCHERER CONTROLS, LLC
INDUSTRIAL CONTROL PANELS

2575 Bellbranch Ct. Cincinnati, OH 45231
 Phone: 513-674-1321

PROPRIETARY NOTICE
 This document and the data disclosed herein shall not be reproduced, copied, used or disclosed in whole or in part to anyone without the written permission of Scherer Controls, LLC.

⊗ BELDON 8762 OR EQUAL TWISTED PAIR W/ SHIELD
 ⊗ BELDON 8205 OR EQUAL TWISTED PAIR

~ PROVIDED BY SCHERER CTRLS WIRED & INSTALLED BY OTHERS
 * PROVIDED, WIRED, & INSTALLED BY OTHERS.
 \$ PROVIDED OTHERS. WIRED & INSTALLED BY SCHERER CTRLS

--- AC FIELD WIRING BY OTHERS IN SEPARATE AC CONDUIT
 DC FIELD WIRING BY OTHERS IN SEPARATE DC CONDUIT
 ^ REMOVE FACTORY JUMPER IF DEVICE IS USED.

PROJECT: SHARONVILLE CONVENTION CENTER

DWG: COOLING TOWER CONTROL PANEL WIRING DIAGRAM

REV.#0	DESCRIPTION: SUBMITTAL DRAWING - FOR APPROVAL	BY: MBS	DATE: 01/29/22	REPRESENTATIVE: ELITAIRE, INC	PHONE: 513-475-3800
REV.#1	DESCRIPTION:	BY: DATE:	DATE:	APPROVED BY:	DWG#: 22-1639 R0
REV.#2	DESCRIPTION:	BY: DATE:	DATE:		SCALE: NONE
REV.#3	DESCRIPTION:	BY: DATE:	DATE:		PAGE: 4 OF: 5
REV.#4	DESCRIPTION:	BY: DATE:	DATE:		DRAWN BY: MBS
REV.#5	DESCRIPTION:	BY: DATE:	DATE:		

Certificate Of Warranty

FAN MOTOR
 A HAND / OFF / AUTO SWITCH IS SUPPLIED TO ALLOW THE OPERATOR TO SELECT THE MODE OF OPERATION.

HAND MODE: IN THE HAND MODE THE FOLLOWING CONDITIONS MUST BE MET IN ORDER TO ENERGIZE THE FAN MOTOR.
 VFD * IN THIS MODE VFD SPEED IS SET VIA PARAMETER 2.10.1.
 * VIBRATION CUTOUT SWITCH MUST BE IN THE RESET POSITION (IF USED)

BYP * BP10L MUST BE IN THE RESET POSITION.
 * VIBRATION CUTOUT SWITCH MUST BE IN THE RESET POSITION (IF USED)

AUTO MODE: IN THE AUTO MODE THE FOLLOWING CONDITIONS MUST BE MET IN ORDER TO ENERGIZE THE FAN MOTOR.
 VFD * FAN AUTO START CONTACT FROM BMS MUST BE ENGAGED
 * IN THIS MODE VFD SPEED IS AUTOMATICALLY CONTROLLED BY BMS (4-20mA).
 * VIBRATION CUTOUT SWITCH MUST BE IN THE RESET POSITION (IF USED)

BYP * BP10L MUST BE IN THE RESET POSITION.
 * FAN AUTO START CONTACT FROM BMS MUST BE ENGAGED
 * VIBRATION CUTOUT SWITCH MUST BE IN THE RESET POSITION (IF USED)

* WHEN SWITCHING BETWEEN VFD AND BYPASS MODES, VFD WILL RAMP TO STOP PRIOR TO BYPASS ENGAGING.

FAN MOTOR SPACE HEATER (S)
 THE HEATER WILL ENERGIZED ANY TIME THE MOTOR IS NOT RUNNING (VFD OR BYPASS).

Scherer Controls warrants that the equipment sold under this contract shall be free from defects in material and workmanship for a period of twelve (12) months from the date of shipment.

Written notice of any defect shall be given to Seller immediately upon discovery by Purchaser, and shall fully describe the claimed defect. Defective parts shall be repaired or replaced F.O.B. factory, provided that inspection by Seller verifies the claimed defect(s). This warranty does not cover the costs of removing, shipping or reinstalling the equipment. Repairs made without the prior written approval of Seller shall void all warranties covering material and workmanship. Any description of the product(s) in the contract are for the sole purpose of identification and do not constitute a warranty. In the interest of product improvement, seller reserves the right to change specifications and product design without incurring any liability thereof. The foregoing express warranties are the only warranties of Seller applicable to the product (s) sold under this contract. Scherer Controls must conduct warranty repairs. If any is done by others warranty is void. All other warranties, whether verbal or written, and all warranties implied by law, including any warranties of merchantability or fitness for a particular purpose, are hereby excluded. Failure on the part of Buyer or of other parties to properly maintain the product(s) sold under this contract, or operations of such product(s), by purchaser and/or other parties under conditions more severe than those for which such product(s) were designed, shall void all warranties covering materials and workmanship. Seller's warranties do not apply to defects in product(s) for which payment in full has not been received by Seller, and said warranties do not cover normal wear and tear or the erosion, corrosion and/or deterioration of the product(s) from unusual causes. Seller shall in no event be liable for consequential, incidental or special damages arising out of a breach of any of its warranties or obligations hereunder. No warranties by Seller shall apply to accessories manufactured by others, inasmuch as their respective manufacturers warrant them separately, except as stated above. Purchaser assumes liability for and shall bear the costs of compliance with all laws, regulations, codes, standards or ordinances applicable to the location, operation and maintenance of the product(s) sold under this contract. No representative or agent of Seller is authorized to enlarge upon the express warranties of Seller.

SCHERER CONTROLS, LLC INDUSTRIAL CONTROL PANELS	PROPRIETARY NOTICE This document and the data disclosed herein shall not be reproduced, copied, used or disclosed in whole or in part to anyone without the written permission of Scherer Controls, LLC.	PROJECT: SHARONVILLE CONVENTION CENTER	DWG: COOLING TOWER CONTROL PANEL SEQUENCE OF OPERATION / WARRANTY																									
	BELDON 8762 OR EQUAL TWISTED PAIR W/ SHIELD PROVIDED BY SCHERER CTRLS WIRED & INSTALLED BY OTHERS PROVIDED, WIRED, & INSTALLED BY OTHERS. PROVIDED OTHERS, WIRED & INSTALLED BY SCHERER CTRLS	AC FIELD WIRING BY OTHERS IN SEPARATE AC CONDUIT DC FIELD WIRING BY OTHERS IN SEPARATE DC CONDUIT REMOVE FACTORY JUMPER IF DEVICE IS USED.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>REV.#</th> <th>DESCRIPTION:</th> <th>BY:</th> <th>DATE:</th> </tr> <tr> <td>REV.#1</td> <td>DESCRIPTION: SUBMITTAL DRAWING - FOR APPROVAL</td> <td>BY: MBS</td> <td>DATE: 01/29/22</td> </tr> <tr> <td>REV.#2</td> <td>DESCRIPTION:</td> <td>BY:</td> <td>DATE:</td> </tr> <tr> <td>REV.#3</td> <td>DESCRIPTION:</td> <td>BY:</td> <td>DATE:</td> </tr> <tr> <td>REV.#4</td> <td>DESCRIPTION:</td> <td>BY:</td> <td>DATE:</td> </tr> <tr> <td>REV.#5</td> <td>DESCRIPTION:</td> <td>BY:</td> <td>DATE:</td> </tr> </table>	REV.#	DESCRIPTION:	BY:	DATE:	REV.#1	DESCRIPTION: SUBMITTAL DRAWING - FOR APPROVAL	BY: MBS	DATE: 01/29/22	REV.#2	DESCRIPTION:	BY:	DATE:	REV.#3	DESCRIPTION:	BY:	DATE:	REV.#4	DESCRIPTION:	BY:	DATE:	REV.#5	DESCRIPTION:	BY:	DATE:	REPRESENTATIVE: ELITAIRE, INC APPROVED BY:
REV.#	DESCRIPTION:	BY:	DATE:																									
REV.#1	DESCRIPTION: SUBMITTAL DRAWING - FOR APPROVAL	BY: MBS	DATE: 01/29/22																									
REV.#2	DESCRIPTION:	BY:	DATE:																									
REV.#3	DESCRIPTION:	BY:	DATE:																									
REV.#4	DESCRIPTION:	BY:	DATE:																									
REV.#5	DESCRIPTION:	BY:	DATE:																									
2575 Bellbranch Ct. Cincinnati, OH 45231 Phone: 513-674-1321																												