CALL FOR COST PROPOSALS

Wausau City Hall
Chiller Replacement Project

City of Wausau will receive cost proposals for the following:

Replacement of the existing roof mounted Chiller on City Hall until **10:30 AM on Tuesday, August 18th, 2020**. Late proposals will be rejected.

Proposals shall be submitted on the form provided using forms included in this documents. The completed Cost Proposal Form shall be submitted without alterations, additions or erasures.

Lump sum costs for this work are being solicited from equipment suppliers specializing in, and highly experienced in described Scope of Work.

The City of Wausau reserves the right to accept or reject any or all bids or parts of bids and waive any formalities or irregularities in the bidding. No bid may be withdrawn for a period of forty-five (45) days after bid opening without consent of the City of Wausau.

Please contact Brian Bartkowiak, Project Manager, from the City of Wausau with any questions at 715-261-6690.

Wausau City Hall

Chiller Replacement Project

MECHANICAL EQUIPMENT BID PACKAGE

EQUIPMENT ONLY SCOPE OF WORK

Work shall include:

Provision of City purchased Equipment and Factory Start Up for the Packaged Air Cooled Chiller Unit and any additional equipment as shown on the attached and/or detailed in the specifications and equipment schedule. These units will be sold directly to City of Wausau. Do not include sales tax in your bid.

Coordinate with Project Manager for delivery of all the equipment. See each specification section for specific delivery dates for each piece of equipment. Plan and schedule equipment production to meet the time frames indicated in specification section.

Deliveries shall be to the applicable site or specified storage location in the Wausau area:

Job Site Address:

Wausau City Hall – 407 Grant Street Wausau, WI 54401

Include shipping and handling costs associated with the delivery of equipment. Equipment is to be shipped in weather protective plastic suitable for extended outside storage and to protect equipment from elements and during transportation. The Mechanical contractor is responsible to unload all equipment at the site or specified shipping location.

Shop drawings and equipment data shall be supplied within 72 hours in PDF format upon receipt of notice to proceed. Provide Operation and Maintenance Manuals in PDF format for all equipment.

Provide insurance certificate upon successful award of project.

END OF SECTION

INSTALLATION OF OWNER SUPPLIED EQUIPMENT

SCOPE OF WORK

Work shall include:

- Remove existing McQuay ALR-175C Packaged Air Cooled Chiller Unit from roof.
- Disconnect electrical service and control wiring from existing chiller.
- Drain water piping for removal of existing chiller. (Existing Glycol from cooling system can be recovered and used to refill the system once new chiller piping has been completed.)
- Disposal/recycling of existing chiller unit along with proper recovery and disposal of the existing refrigerant charge is the responsibility of this contractor.
- Additional refrigerant, if required, shall be the responsibility of this contractor.
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- Modifications to existing chiller's roof mounting base for new owner supplied chiller.
- Permits and Road Closure Signage for setting and rigging new chiller during non-occupied building hours for City Hall. (All rigging and lifting work must be done on a Saturday.)
- Rigging and setting of new owner provided Air Cooled Chiller.
- Contractor shall be responsible for accepting delivery of the City purchased chiller and transport the new chiller to the site for installation.
- Equipment supplier is responsible for delivery of chiller to a location as specified by this contractor. Delivery will be made during regular business hours Monday-through Friday (8:00AM through 3:00 PM).
- Provide new piping as required to the new chiller from the existing building piping. If existing chilled water isolation valves are no longer able to shut off 100%, contractor shall provide and install new valves.
- Refill chilled water piping system with recovered (or new) propylene glycol. New Glycol concentration to be 40% or higher.
- Reconnect 480/3 power wiring to new chiller. If existing conductors are not long enough, new conductors can be added from a junction box (Outdoor NEMA 3R).
- Conductor connectors shall be NSI Polaris connectors.
- The new owner provided chiller will include a non-fused factory mounted disconnect switch.
- Coordinate with the existing building automation control contractor for any temperature or pressure wells that need to be added.
- Temperature Controls work will be outside of this scope of work and will be contracted directly to the owner.
- If any asbestos is discovered immediately contact the owner. Asbestos abatement will be outside the scope of work and will be contracted directly to the owner.

Note the existing 7 ½ HP chilled water pump is to be re-used under the base bid.

- Furnish B&G model E-1531 pump with 7½ horse motor to have as a spare pump. To furnish only; no install.
- Furnish Liberty Model 331 Glycol Transfer pump and hoses, or an equivalent equal.

Coordinate with Project Manager for installation of all the equipment.

Plan and schedule equipment installation to meet the time frames indicated by owner.

Deliveries shall be to the applicable site in which the equipment is to be installed:

Wausau City Hall – 407 Grant Street Wausau, WI 54401

Include shipping and handling costs associated with the equipment. The Mechanical contractors to unload all equipment at the site and to include costs to wrap equipment in weather protective plastic if stored outside.

Shop drawings and equipment data shall be supplied within 72 hours in PDF format upon receipt of notice to proceed. Provide Operation and Maintenance Manuals in PDF format for all equipment.

Provide insurance certificate upon successful award of project.

END OF SECTION

(Proposer may copy this form on company's letterhead)

COST PROPOSAL

PROPOSAL TO:

City of Wausau
Attention: Brian Bartkowiak
Phone: 715-261-6690
Email: brian.bartkowiak@ci.wausau.wi.us

PROPOSAL FROM: _____

_____

_____

_____

In accordance with the Call for Proposals and the Scope of Work prepared by City of Wausau, dated August 5, 2020, relating to:

Wausau City Hall Chiller

Replace Mechanical Equipment package:

The City of Wausau shall purchase all mechanical Equipment directly and will be available for installation with the approved proposal. We submit the following bid:

The City of Wausau reserves the right to reject any or all proposals, to waive informalities or irregularities in the proposals and act in its own best interests.

The undersigned, having visited the proposed construction site and having become thoroughly familiar with local conditions affecting the cost and performance of the Work and with all the requirements of the Scope of Work, Addenda, as well as the information issued, hereby proposes and agrees to provide all labor and identified materials in the Scope of Work required to remove/dispose of the existing chiller and install the new chiller for City Hall. Work will include being present for startup and testing. The proposed Work will be completed for the following Lump Sum amount:

Successful proposer shall provide their certificate of insurance.

COST PROPOSAL (Lump Sum):

_____
(written amount)

_____
$ (numerical amount)

Addenda: Receipt of the following Addenda and their costs being incorporated in the proposal is acknowledged (provide Addenda numbers below, if applicable):

Addenda: _____

Proposal Acceptance: If written notice of the acceptance of this Proposal is received by the undersigned within 60 days after date set for opening of proposals, or at any other time thereafter before Proposal is withdrawn, the undersigned agrees to enter into and execute an Agreement with the Owner in accordance with the Proposal as accepted and in a form acceptable to Owner.

Closeout documents shall be provided by the successful supplier for each piece of equipment including AIA G706 and G706A Forms and IC 134 Form.

Execution of Proposal: The entity(ies) signing this proposal is fully authorized to sign on behalf of the named firm and to fully bind the named firm to all the conditions and provisions of the Agreement. This proposal shall remain valid and not be withdrawn for sixty calendar days after the due date.

Submitted this _____ day of _____, 20_____

Name of Firm: _____

Street Address: _____

City: _____ State: _____ Zip:_____

Phone Number: _____ Fax Number: _____

Proposer is: (Check One)

_____ Individual _____ Partnership _____ Corporation

If Proposer is a corporation, give the legal name of the corporation, state where incorporated, and the names of the President and Secretary. If Proposer is a partnership, give the names of all individual co-partners composing the firm. If Proposer is an individual, give the first and last name in full.

_____

Name (typed or printed):_____

Signature:_____ Title:_____

END OF SECTION

SUBMITTAL DATA

for

Wausau City Hall Chiller Replacement

Prepared for

City of Wausau

Brian Bartkowiak

Job Number: PGXS1Q	Customer PO#:

Prepared by

Masters Building Solutions

Dan Bohm

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Technical Data Sheet for AGZ-170

Job Information	*Technical Data Sheet*
Job Name	Wausau City Hall Chiller Replacement
Date	6/23/2020
Submitted By	Daniel Bohm
Software Version	11.02
Unit Tag	AGZ-170


Image may not represent ordered unit

Unit Overview

Model Number	Capacity ton	Voltage	Unit Starter Type	ASHRAE 90.1	LEED Enhanced Refrigerant Management Credit
AGZ170E	153.5	460 V / 60 Hz / 3 Ph	Across the Line	'07, '10, '13 & '16	Pass

Unit

Unit Type	Platform	Unit Revision
Air-Cooled Scroll Compressor Chiller	High Efficiency Packaged	0A

Head Pressure	Tubing
VFD's w/Control Box Heaters Only [High Efficiency]	Replaceable Filter Dryer with Discharge & Liquid Valves, no HGBP

Unit Controls	Display
Electronic Expansion Valve	On Controller only

Refrigerant Type	Refrigerant Weight
R410A	160 lb (per unit)

Pump Controls
Dual Evaporator Pumps - Dual Control Output

Approval
ETL/cETL, AHRI & ASHRAE 90.1

Evaporator

Water Volume:	17.1 gal
Connection Hand:	Universal Connection - Facing out back
Connection Size:	4.0 in
Insulation:	Single Layer Insulation to Suction at each Compressor

Entering Fluid Temperature	Leaving Fluid Temperature	Fluid Type	Glycol Concentration	Fluid Flow	Fluid Flow (with glycol) Min / Max	Pressure Drop	Pressure Drop (with glycol) Min / Max	Fouling Factor
54.30 °F	42.00 °F	Water & Propylene	35.0 %	323.0 gpm	164.1 / 683.9 gpm	14.7 ft H_2O	3.00 / 47.9 ft H_2O	0.000100 °F.ft².h/Btu

Note: Evaporator Pressure Drop includes Factory Installed Strainer. Pressure drop without strainer is 11.2. Minimum flow is based on a Variable Flow Pumping System Type and applies to part load conditions only.

Condenser

Coil Fins:	MicroChannel
Guards:	Condenser Coil Louvers only

Design Ambient Air Temperature	Altitude	Fan Diameter	Minimum Design Ambient Temperature
95.0 °F	0.000 ft	30.0 in	32.0 °F

Technical Data Sheet for AGZ-170

Unit Performance

Design

Capacity	Input Power	Efficiency (EER)	IPLV.IP* (EER)
153.5 ton	194.1 kW	9.492 Btu/W.h	17.21 Btu/W.h

Performance Points rated at AHRI Ambient Relief

Unit					Evaporator				Condenser	
Point #	% Load	Capacity ton	Input Power kW	Efficiency (EER) Btu/W.h	Fluid Flow gpm	Pressure Drop ft H_2O	Entering Fluid °F	Leaving Fluid °F	Ambient Air °F	Altitude ft
1	100.0	153.5	194.1	9.492	323.0	11.2	54.30	42.00	95.0	0.000
2	75.0	115.1	100.1	13.80	323.0	11.2	51.20	42.00	80.0	0.000
3	50.0	76.77	51.38	17.93	323.0	11.1	48.10	42.00	65.0	0.000
4	25.0	38.38	22.13	20.81	323.0	11.1	45.10	42.00	55.0	0.000

** IPLV reflects AHRI standard rating conditions with water and does not change with user defined conditions*

Note: Evaporator Pressure Drop in this table does Not include strainer. For strainer pressure drop data see 'Evaporator' table on page 1.

Sound (without insulation)

Sound Pressure (*at 30 feet*)

63 Hz dB	125 Hz dB	250 Hz dB	500 Hz dB	1 kHz dB	2 kHz dB	4 kHz dB	8 kHz dB	Overall dBA	75% Load dBA	50% Load dBA	25% Load dBA
69	71	69	67	64	61	60	58	**70**	69	67	66

Sound Power

63 Hz dB	125 Hz dB	250 Hz dB	500 Hz dB	1 kHz dB	2 kHz dB	4 kHz dB	8 kHz dB	Overall dBA	75% Load dBA	50% Load dBA	25% Load dBA
96	98	96	94	91	88	88	85	**97**	96	94	93

Octave band is non 'A' weighted and overall readings are 'A' weighted. Sound data rated in accordance with AHRI Standard-370.

Physical

Unit

Length*	Height	Width*	Shipping Weight*	Operating Weight*
238 in	99 in	88 in	7670 lb	7807 lb

**Shipping and Operating Weights include the below Option weights only and do not include the weights of any Accessories. Contact Chiller Applications for additional information.*

Option Weights

Louvers:	500 lb
Total:	500 lb

Technical Data Sheet for AGZ-170

Electrical

Unit Electrical Data

Voltage	Starter Type	Fan Motor Quantity	LRA Fan Motor (each)	FLA Fan Motors (each)
460 V / 60 Hz / 3 Ph	Across the Line	10	18 A	3.6 A

Power Connection Type:	Single Point Disconnect Switch with Circuit Protection
Short Circuit Current Rating:	5 kA
Phase Voltage:	Phase & Under/Over Voltage Protection with LED

Single Point Power Connection

Minimum Circuit Ampacity (MCA):	361 A
Recommended Overcurrent Protection Size:	400 A
Maximum Overcurrent Protection Size(MOCP):	400 A
Lug Connection Size:	(2) 3/0-500MCM

Compressor Electrical Data

Compressor Type	Compressor Quantity	Starter Type
Scroll	6	Across the Line

Circuit #:	1			2		
Compressor #:	**1**	**3**	**5**	**2**	**4**	**6**
Rated Load Amps (RLA):	37.8 A	37.8 A	57.2 A	57.2 A	57.2 A	57.2 A
Inrush Current:	320 A	320 A	310 A	310 A	310 A	310 A

Note: Power wiring connections to the chiller may be done with either copper or aluminum wiring. Wire should be sized per NEC and/or local codes. Wire sizing and wire count must fit in the power connection lug sizing listed in latest installation manual. Please contact your local sales office for more information.

Options

Basic Unit

Control Box Ambient:	High Ambient with Exhaust Fans (125ºF maximum)
Suction Shut-off Valve:	Included
Evaporator Strainer:	Factory Installed Evaporator Strainer – 175 PSI Pressure Rating

Control

Communication:	BACnet MS/TP

Electrical

Unit Options:	115V Convenience Outlet
Water Flow Indicator:	Thermal Dispersion Type

Warranty

Unit Startup	By Others
Standard Warranty:	1st Year Entire Unit Parts & Labor
Extended Compressor Warranty:	Compressor Only; extended 4 years parts only (5 Years Total)
Refrigerant Warranty	1 Year Total

AHRI Certification

Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI). Unit contains freeze protection fluids In the evaporator With a leaving chilled fluid temperature above 32°F [0°C] and is certified When rated per the Standard With water. Certified units may be found In the AHRI Directory at www.ahridirectory.org.

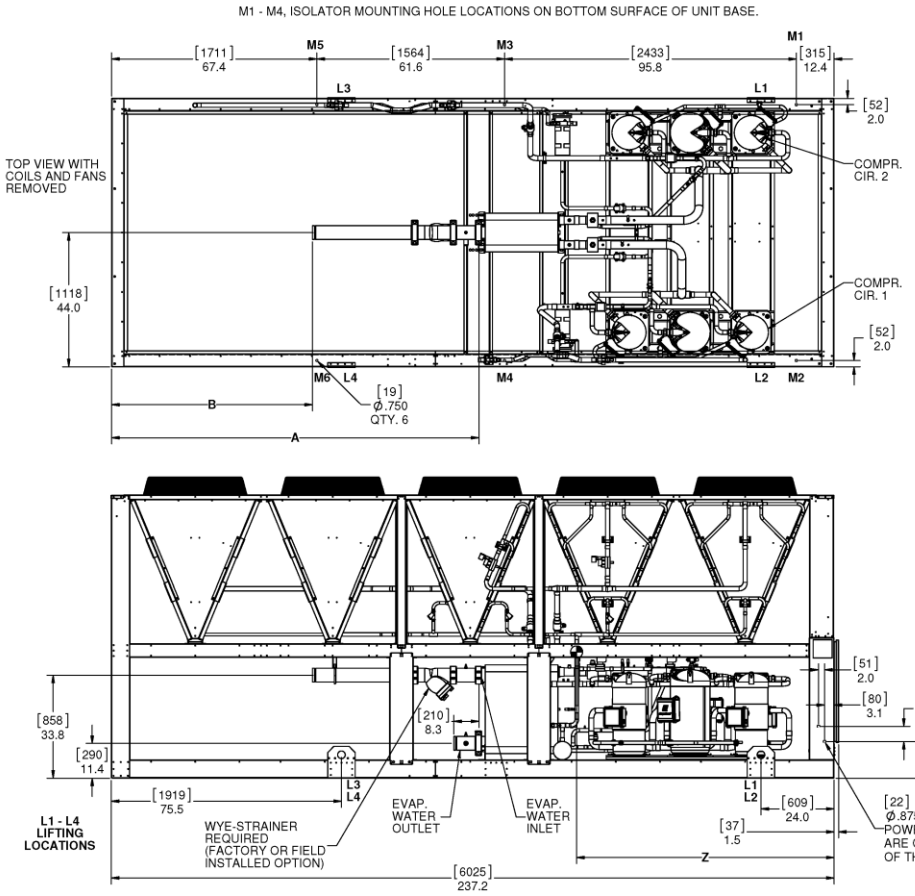
Accessories

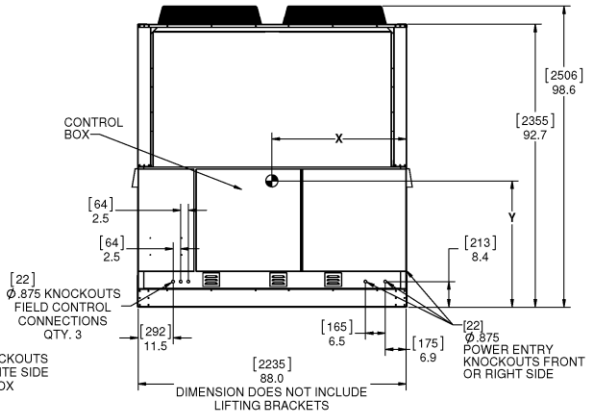
Optional

Part Number	Description
332320111	Spring Isolator Kit; AGZ160-180E PKGD (non-Seismic);AGZ130E Dual Pump; AGZ110-130C/D Cu Fin

AGZ170E Packaged (Microchannel Condenser)

0A





Unit Weight Data

Units	Weight		Lifting Weight				Mounting Weight					
	Shipping	Operating	L1	L2	L3	L4	M1	M2	M3	M4	M5	M6
lb	7170	7307	2072	1995	1581	1522	1571	1512	1197	1152	956	920
kg	3252	3314	940	905	717	690	713	686	543	523	434	417

Unit and Center of Gravity Dimensions

Units	A (No Strainer)	B (With Strainer)	Connection Size (Victaulic)	Center of Gravity		
				X	Y	Z
in	119.0	64.3	4.0	43.2	40.4	83.6
mm	3022	1634	102	1096	1025	2123

NOTE

A water strainer must be installed at the inlet of the evaporator to protect it from damage. Please refer to the IOM for additional details.
IT IS RECOMMENDED THAT THE SIDE LOCATIONS BE USED FOR POWER ENTRY WIRE SIZES LARGER THAN 350 MCM.

Product Drawing	Unit Tag: AGZ-170			Sales Office: Masters Building Solutions		
Product: Air-Cooled Scroll Chiller	Project Name: Wausau City Hall Chiller			Sales Engineer: Daniel Bohm		
Model: AGZ170E	June 23, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 1.0"	Dwg Units: in [mm]

DAIKIN
13600 Industrial Park Blvd. Minneapolis, MN 55441
www.DaikinApplied.com Software Version: 11.02

AGZ-E Guards: Condenser Coil Louvers, Painted Base

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Diagram Notes
Diagram simulates wrap, grille and louver options as selected only. Refrigeration components may vary depending on selected options.

Product Drawing	Unit Tag: AGZ-170			Sales Office: Masters Building Solutions			DAIKIN
Product: Air-Cooled Scroll Chiller	Project Name: Wausau City Hall Chiller			Sales Engineer: Daniel Bohm			13600 Industrial Park Blvd. Minneapolis, MN 55441
Model: AGZ140-180E	June 23, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: N/A	Tolerance: N/A	Dwg Units: N/A	www.DaikinApplied.com Software Version: 11.02

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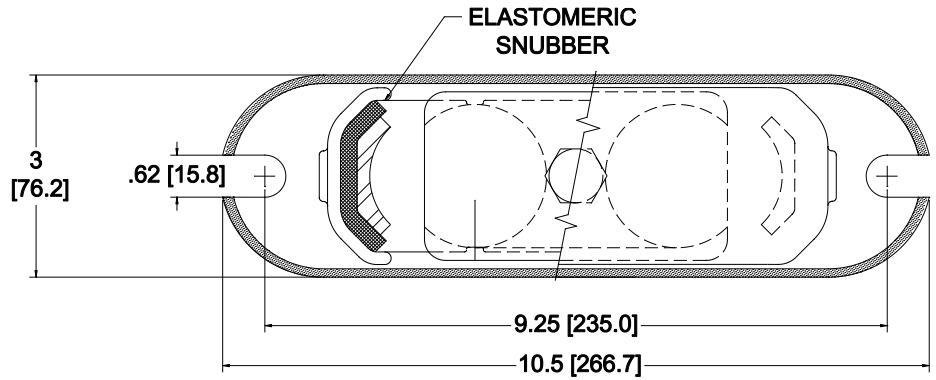
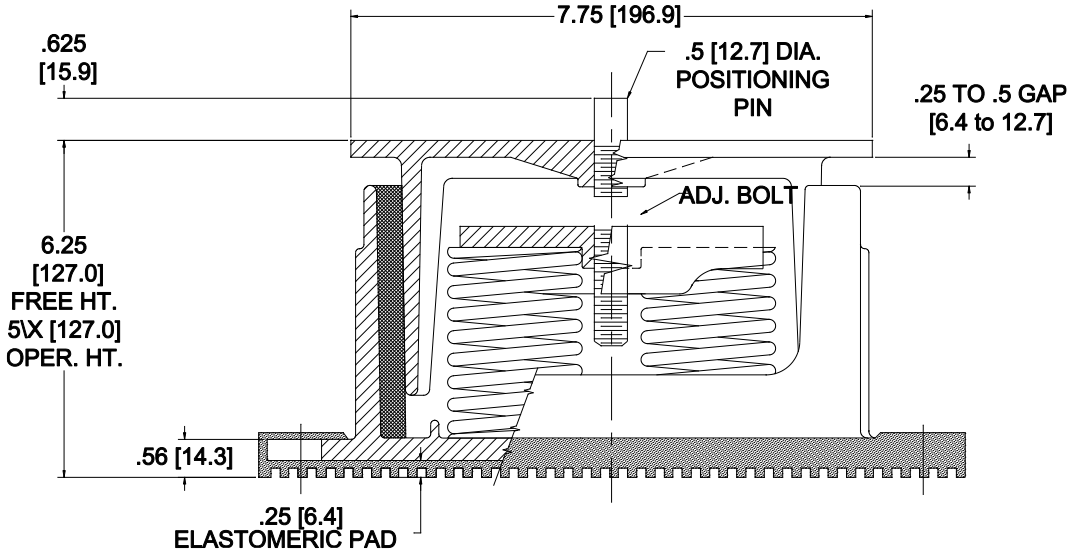
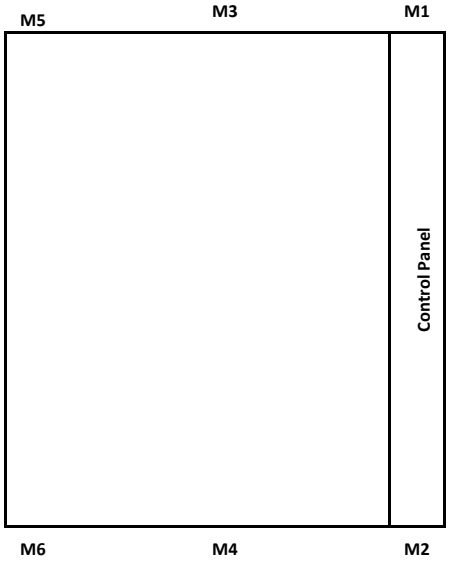
Spring Isolator Kit

Dimensions and Placement

Mounting Location					
M1	M2	M3	M4	M5	M6
Gray	Gray	Dark Green	Dark Green	Dark Green	Dark Green







Product Drawing	Unit Tag: AGZ-170			Sales Office: Masters Building Solutions			DAIKIN
Accessory: Spring Isolator Kit	Project Name: Wausau City Hall Chiller			Sales Engineer: Daniel Bohm			13600 Industrial Park Blvd. Minneapolis, MN 55441
Kit Part Number: 332320111	June 23, 2020	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 1.0"	Dwg Units: in [mm]	www.DaikinApplied.com Software Version: 11.02

AGZ030-241E Single-Point Connection Field Wiring Diagram

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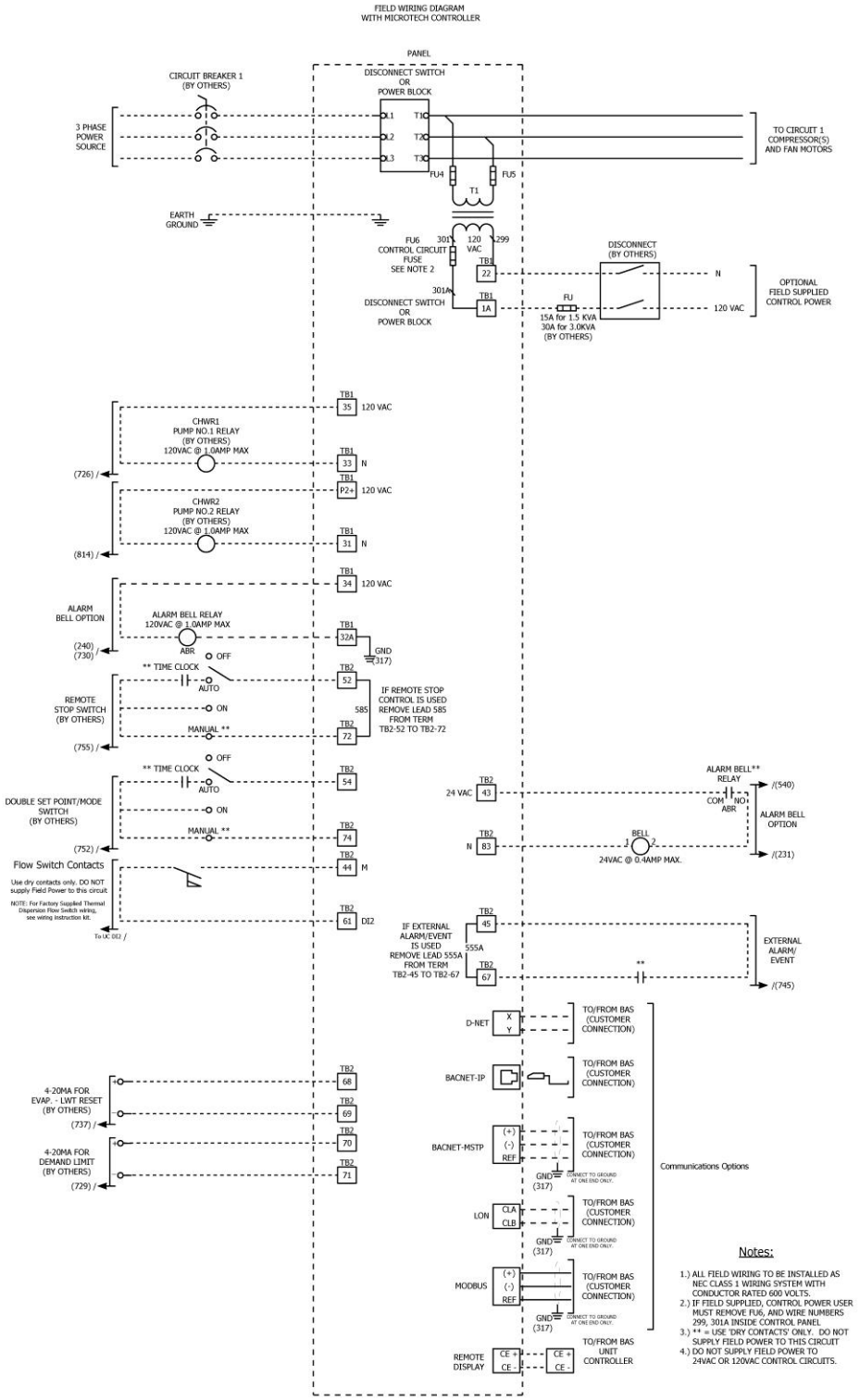

Field Wiring Diagram	Unit Tag: AGZ-170			DAIKIN		
Product: Air-Cooled Scroll	Project Name: Wausau City Hall Chiller			13600 Industrial Park Blvd. Minneapolis, MN 55441		
Model: AGZ030-241E Single-Point	Sales Office: Masters Building Solutions			www.DaikinApplied.com	Software Version: 11.02	
Sales Engineer: Daniel Bohm	June 23, 2020	Ver/Rev:	Sheet 1 of 1	Scale: N/A	Tolerance: N/A	Dwg Units: N/A