



## SUBMITTAL DATA

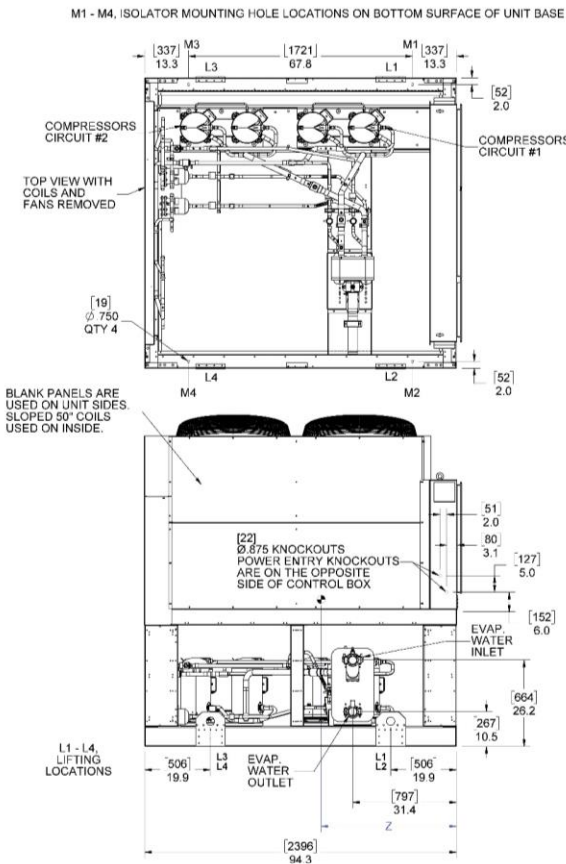
Job Name	ALR030 Replacement
For	
Sold To	
Prepared For	
Customer PO#	
Prepared By	Doug Franklin
Date	12/7/2022

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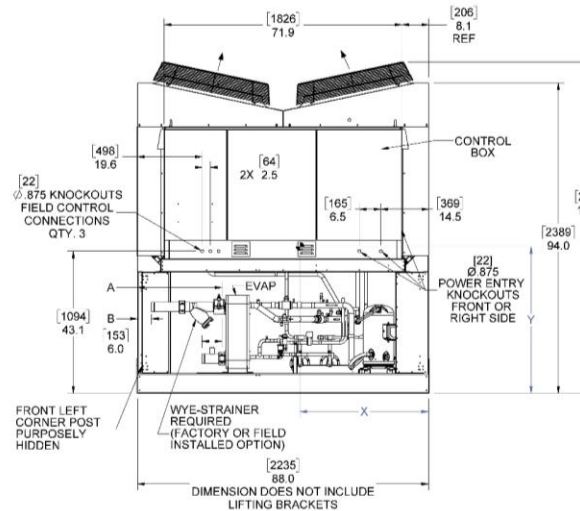
## AGZ031E Packaged (Microchannel Condenser)

## Unit Dimensions



PACKAGE UNITS WITH MICROCHANNEL COILS			
UNIT MODEL	CG LOCATION, IN (MM)		
	X	Y	Z
AGZ031E	38.9 (988)	44.5 (1130)	40.9 (1039)
AGZ036E	39.7 (1008)	45.5 (1156)	38.1 (968)


UNIT MODEL	EVAP. DIMENSIONS IN (MM)		CONNECTION SIZE (VICTAULIC)
	A (NO STRAINER)	B (WITH STRAINER)	
AGZ031E	25.5 (648)	4.3 (109)	2.5 (64)
AGZ036E	24.5 (622)	3.3 (84)	2.5 (64)



**NOTE**

LIFTING WEIGHTS ARE BASED ON UNIT SHIPPING WEIGHT. MOUNTING WEIGHTS ARE BASED ON UNIT OPERATING WEIGHT WITH EVAPORATOR WATER INCLUDED. SHIPPING AND OPERATING WEIGHTS DO NOT INCLUDE THE WEIGHTS OF ANY OPTIONS OR ACCESSORIES.

PACKAGE UNITS WITH MICROCHANNEL COILS										
UNIT MODEL	SHIPPING WEIGHT	OPERATING WEIGHT	LIFTING (SHIPPING) WEIGHT BY CORNER LBS (KG)				MOUNTING (OPERATING) WEIGHT LBS (KG)			
	LBS (KG)	LBS (KG)	L1	L2	L3	L4	M1	M2	M3	M4
AGZ031E	2947 (1337)	2960 (1343)	1011 (459)	799 (362)	635 (288)	502 (228)	980 (445)	775 (352)	673 (305)	532 (241)
AGZ036E	2873 (1303)	2887 (1310)	1051 (477)	861 (391)	528 (240)	433 (196)	1005 (456)	824 (374)	581 (264)	476 (216)

<b>Product Drawing</b>		Unit Tag: CH-1			Sales Office: Stinebaugh & Company			 13600 Industrial Park Blvd. Minneapolis, MN 55441 www.DaikinApplied.com      Software Version: 13.40
Product: Air-Cooled Scroll Chiller		Project Name: ALR030 Replacement			Sales Engineer: Doug Franklin			
Model: AGZ031E		Dec. 07, 2022	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/- 1.0"	Dwg Units: in [mm]	
No change to this drawing may be made unless approved in writing by Daikin Applied. Purchaser must determine that the equipment is fit and sufficient for the job specifications.								

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Job Information		Technical Data Sheet
Job Name	ALR030 Replacement	
Date	12/7/2022	
Submitted By	Doug Franklin	
Software Version	13.40	
Unit Tag	CH-1	



Image may not represent ordered unit

Unit Overview					
Model Number	Capacity ton	Voltage	Unit Starter Type	ASHRAE 90.1	LEED Enhanced Refrigerant Management Credit
AGZ031E	27.85	208 v / 60 Hz / 3 Ph	Across the Line	'07, '10, '13 & '16	Pass

Unit								
Unit Type				Platform			Unit Revision	
Air-Cooled Scroll Compressor Chiller				Packaged			0B	
Head Pressure				Tubing				
VFD w/Control Box Heaters Only [Low Ambient]				Replaceable Filter Dryer with Discharge & Liquid Valves and HGBP Ready				
Unit Controls				Display				
Electronic Expansion Valve				On Controller only				
Refrigerant Type				Refrigerant Weight				
R410A				34 lb (per unit)				
Pump Controls								
Dual Evaporator Pumps - Dual Control Output								
Approval								
ETL/cETL, AHRI & ASHRAE 90.1								
Evaporator								
Fluid Volume:		1.6 gal						
Connection Hand:		Left Hand Connections						
Connection Size:		2.5 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
54.00 °F	44.00 °F	Propylene Glycol	40.0 %	73.20 gpm	45.9 / 122.3 gpm	10.4 ft H <sub>2</sub> O	4.60 / 25.8 ft H <sub>2</sub> O	0.000100 °F.ft².h/Btu
Note: Evaporator Pressure Drop does not include a strainer. Minimum flow is based on a Constant Flow Pumping System Type.								
Condenser								
Coil Fins:		MicroChannel (Epoxy Coating)						
Guards:		None						
Design Ambient Air Temperature		Altitude		Fan Diameter			Minimum Design Ambient Temperature	
95.0 °F		0.000 ft		30.0 in			32.0 °F	

## Unit Performance

Design										
Capacity			Input Power		Efficiency (EER)			IPLV/IP (EER)*		
27.85 ton			33.34 kW		10.02 Btu/W.h			17.01 Btu/W.h		
Performance Points rated at AHRI Ambient Relief - with Glycol										
Unit					Evaporator				Condenser	
Point #	% Load	Capacity ton	Input Power kW	Efficiency (EER) Btu/W.h	Fluid Flow gpm	Pressure Drop ft H <sub>2</sub> O	Entering Fluid °F	Leaving Fluid °F	Ambient Air °F	Altitude ft
1	100.0	27.85	33.34	10.02	73.20	10.4	54.00	44.00	95.0	0.000
2	75.0	20.89	18.22	13.75	73.20	10.4	51.50	44.00	80.0	0.000
3	50.0	13.92	9.119	18.32	73.20	10.4	49.00	44.00	65.0	0.000
4	25.0	6.962	4.016	20.80	73.20	10.4	46.50	44.00	55.0	0.000

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

## 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
65	64	61	60	56	51	46	41	<b>61</b>	60	58	57
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
92	91	88	87	83	78	73	68	<b>88</b>	87	85	84

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*
94 in	100 in	88 in	2947 lb	2960 lb

\* Shipping and operating weights are based on 'worst case' unit configuration variations but do not include the weights of any Options or Accessories. Contact Chiller Applications for additional information.

**Electrical**

Unit Electrical Data				
Voltage	Starter Type	Fan Motor Quantity	LRA Fan Motor (each)	FLA Fan Motors (each)
208 v / 60 Hz / 3 Ph	Across the Line	4	23.3 A	5.8 A
Power Connection Type:	High Short Circuit Current Rating with Single Point Disconnect Switch and Circuit Protection			
Short Circuit Current Rating:	65 kA			
Phase Voltage:	None (PVM included as part of Solid State / VFD)			
Single Point Power Connection				
Minimum Circuit Ampacity (MCA):	163 A			
Recommended Overcurrent Protection Size:	175 A			
Maximum Overcurrent Protection Size(MOCP):	175 A			
Lug Connection Size:	(1) 4 - 300 MCM			
Compressor Electrical Data				
Compressor Type		Compressor Quantity		Starter Type
Scroll		4		Across the Line
Circuit #:	1		2	
Compressor #:	1	3	2	4
Rated Load Amps (RLA):	29.5 A	29.5 A	29.5 A	29.5 A
Inrush Current:	195 A	195 A	195 A	195 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 above. Please contact your local sales office for more information.				

**Options**

Basic Unit	
Control Box Ambient:	High Ambient with Exhaust Fans (125°F maximum)
Electrical	
Unit Options:	115V Convenience Outlet
Water Flow Indicator:	Thermal Dispersion Type

**Warranty**

Unit Startup	By Others
Standard Warranty:	1st Year Entire Unit Parts only

**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). Certified units may be found in the AHRI Directory at [www.ahridirectory.org](http://www.ahridirectory.org). Unit contains freeze protection liquids in the evaporator and is certified when rated per the Standard with water.

Performance at AHRI Standard Condition – with Water										
Unit					Evaporator			Condenser		
% Load	Capacity ton	Input Power kW	Efficiency (EER) Btu/W.h	IPLV/IP* (EER) Btu/W.h	Fluid Flow gpm	Pressure Drop ft H <sub>2</sub> O	Entering Fluid °F	Leaving Fluid °F	Ambient Air °F	Altitude ft
100	28.89	33.78	10.26	17.01	69.10	6.10	54.00	44.00	95.0	0.000

*Note: Performance with water given as reference only to show compliance with AHRI Standard 550/590. Unit will be configured from the factory to support glycol performance as rated. The unit must not operate with water only without consulting the factory.*