

Performance Specification

 Project Name: **Stock Scrolls for Ordering Stock 4-22-25**

 Unit Tag: **YLAA0048HJ46VSD**

Qty.: 1

 Model: **YLAA0048HJ46XC**

Full Load - Design

PIN

YLAA0048HJ	46XCBBCTXA	SXBLXCXX44	SELXXHXXX	YUXGXXX3XX	XVGNXXXXXX			
...5...10	...5...20	...5...30	...5...40	...5...50	...5...60	...5...70	...5...80	...5...90

Unit	
Model No.	YLAA0048HJ46XCB
Number of Compressors	4
Compressor Type	Scroll - Hermetic
Number of Compressor Circuits	2
Refrigerant	R454B
Performance Data	
Cooling Capacity [tons.R]	48.25
Total Power Input [kW]	51.88
EER [Btu/W.h]	11.16
IPLV/IP [Btu/W.h]	17.59
A-Weighted Sound Power [dB(A)]	94.0
Sound Pressure (Hemispherical Method) [dB(A)]	65.0
Sound Pressure Measured at [ft]	30.0
Electrical Data	
Nominal Voltage / Voltage Limits	460/3/60 / 414-506
Compressor RLA (each circuit) [A]	20.6 / 20.6 / - / 20.6 / 20.6 / -
High LRA Current (each circuit) [A]	141.0 / 141.0 / - / 141.0 / 141.0 / -
Fan QTY (each circuit)	2 / 2
Fan FLA (each circuit) [A]	3.4 / 3.4
Min. Circuit Ampacity [A]	106.0
Recommended Fuse / CB Rating [A]	125.0
Max. Inverse Time CB Rating [A]	125.0
Max. Dual Element Fuse Size [A]	125.0
Unit Short Circuit Withstand [kA]	65 kA/460
Wires Per Phase	1
Wire Range (Lug Size)	#4 AWG - 300 kcmil
Compressor kW	45.16



Performance Impacting Options

Starter Type	Across the line starter
Power Factor Correction Capacitor	No Power Capacitor required
Remote Evaporator	Standard Cooler required
Sound Kit	No Acoustic Blanket required
Fan	Low Sound Fans with VSD

Weight & Dimensional Data

Shipping Weight [lbs]	3675
Operating Weight [lbs]	3704
Refrigerant Charge [lbs]	66
Length [in]	101.4
Width [in]	88.3
Height [in]	94.2

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Heat Exchanger Performance

Evaporator		Condenser (Air Cooled)	
Heat Exchanger Type	Plate Heat Exchanger	Ambient Air Temperature* [°F]	95.0
Entering Fluid Temperature* [°F]	54.00	Altitude* [ft]	0.00
Leaving Fluid Temperature* [°F]	44.00	Condensing Temperature [°F]	114.55 / 114.55
Flow Rate [USGPM]	115.2	Number of Fans	2 / 2
Fouling Factor* [h ft ² F/Btu]	0.000100	Total Air Flow [cfm]	60000
Fluid Type*	Water	Total Fan Power [kW]	6.720
Fluid Volume [USGAL]	3.6		
Evaporating Temperature [°F]	37.97		
Evaporator Pressure Drop [ft H ₂ O]	7.26		
Strainer Pressure Drop [ft H ₂ O]	1.38		
Extension Kit Pressure Drop [ft H ₂ O]	0.842		
Total Pressure Drop [ft H ₂ O]	9.48		
Fluid Connection Diameter [in]	3		
Minimum Flow Rate [USGPM]	48.00		
Maximum Flow Rate [USGPM]	224.0		

* Designates user specified input

Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Using Vapor Compression Cycle 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.



Part Load Performance (Based on Standard AHRI Unloading)

Percent Load	Ambient [°F]	Capacity [tons.R]	Power Input [kW]	Unit Efficiency [Btu/W.h]
100.0	95.0	48.25	51.88	11.16
82.4	80.0	39.75	33.06	14.43
55.6	80.0	26.82	20.56	15.66
60.6	65.0	29.23	18.08	19.40
29.0	65.0	13.99	8.750	19.19
30.7	55.0	14.80	8.063	22.03
30.7	55.0	14.80	8.063	22.03

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Model: **YLAA0048HJ46XC**

Sound Power Levels (In Accordance with AHRI 370)

Percent Load	Ambient [°F]	Octave Band Center Frequency [Hz]								LWA
		63	125	250	500	1000	2000	4000	8000	
100.0	95.0	98.0	96.0	93.0	93.0	88.0	85.0	82.0	80.0	94.0
82.4	80.0	96.0	93.0	91.0	91.0	86.0	83.0	80.0	78.0	92.0
55.6	80.0	93.0	89.0	87.0	88.0	82.0	80.0	76.0	75.0	89.0
60.6	65.0	93.0	89.0	87.0	88.0	82.0	80.0	76.0	75.0	89.0
29.0	65.0	90.0	86.0	84.0	85.0	79.0	77.0	73.0	72.0	86.0
30.7	55.0	90.0	86.0	84.0	85.0	79.0	77.0	73.0	72.0	86.0
30.7	55.0	90.0	86.0	84.0	85.0	79.0	77.0	73.0	72.0	86.0

Note: Unit is equipped with Low Sound Fans with VSD.

Measurement of sound pressure used to obtain the sound power data presented is based on AHRI-370.

Air-cooled chillers are rated in terms of sound power not sound pressure. Johnson Controls provides estimates of sound pressure, but this is not the rating metric.

For an air-cooled chiller, sound pressure calculated from sound power varies depending on how the chiller is assumed to behave, i.e. the radiation model. In other words, determining sound pressure from sound power requires making assumptions that result in different answers at a given distance from the chiller. The environment also influences sound pressure in the field installation. Sound pressure estimation radiation models pertaining to air-cooled chillers include the 'traditional' hemispherical model, parallelepiped model and equivalent hemispherical model.

Regarding sound power, Johnson Controls references tolerance limits based on ASHRAE guidelines. These are +/- 6dB in the 63Hz octave band, +/- 4dB in all other octave bands and +/- 3dB for the overall dBA.

Tolerance limits are based on uncertainties associated with:

1. Measurement Test Procedure
2. Repeatability
3. Production / Manufacturing Variability

Standard deviation associated with air-cooled chiller sound data is a measure of spread i.e. it indicates the range of probability of sound levels. Note that for operating conditions other than AHRI's Standard Rating Condition, higher levels of uncertainty can be expected.

Lead times for factory performance testing depend on test laboratory availability. Please confirm with Johnson Controls Customer Service.

Estimated Sound Pressure Levels at 30.0 ft (Derived from AHRI 370 Sound Power using Hemispherical Method)

Percent Load	Ambient [°F]	Octave Band Center Frequency [Hz]								LpA
		63	125	250	500	1000	2000	4000	8000	
100.0	95.0	69.0	67.0	64.0	64.0	59.0	56.0	53.0	51.0	65.0
82.4	80.0	67.0	64.0	62.0	62.0	57.0	54.0	51.0	49.0	63.0
55.6	80.0	64.0	60.0	58.0	59.0	53.0	51.0	47.0	45.0	60.0
60.6	65.0	64.0	60.0	58.0	59.0	53.0	51.0	47.0	45.0	60.0
29.0	65.0	61.0	57.0	55.0	56.0	50.0	48.0	44.0	42.0	57.0
30.7	55.0	61.0	57.0	55.0	56.0	50.0	48.0	44.0	42.0	57.0
30.7	55.0	61.0	57.0	55.0	56.0	50.0	48.0	44.0	42.0	57.0



Performance Report

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Qty.: **1**

Model: **YLAA0048HJ46XC**

Performance at AHRI Conditions			
Evaporator		Condenser	
EFT [°F]	54.00	Ambient Temp. [°F]	95.0
LFT [°F]	44.00	Altitude [ft]	0.00
Flow Rate [USGPM]	115.2	Performance	
Pressure Drop [ft H2O]	7.26	EER [Btu/W.h]	11.16
Fluid Type	Water	IPLV.IP [Btu/W.h]	17.59
Fouling Factor [h ft2 F/Btu]	0.000100	Net Cooling Capacity [tons.R]	48.25
Fluid Volume [USGAL]	3.6		

Note:Unit rated at design condition capacity.

Part Load Performance (Based on AHRI 550/590 - 2023 (IP))				
Percent Load	Ambient [°F]	Capacity [tons.R]	Power Input [kW]	Unit Efficiency [Btu/W.h]
100.0	95.0	48.25	51.88	11.16
82.4	80.0	39.75	33.06	14.43
55.6	80.0	26.82	20.56	15.66
60.6	65.0	29.23	18.08	19.40
29.0	65.0	13.99	8.750	19.19
30.7	55.0	14.80	8.063	22.03
30.7	55.0	14.80	8.063	22.03

Notes:

Country of Origin:Mexico

Min flow rate is for chillers using water. For glycol chillers please contact the application engineering team.

This unit does not have a coil coating selected.

Compliant with ASHRAE 90.1 - 2010,2013,2016,2019,2022.

Compliant with IECC - 2012,2015,2018.

Compliant with the requirements of the LEED Energy and Atmosphere Enhanced Refrigerant Management Credit (EAc4).

The product image shown is for illustrative purposes only and is not representative of selected options.



YLAA Air Cooled Scroll Chillers

AVM Report

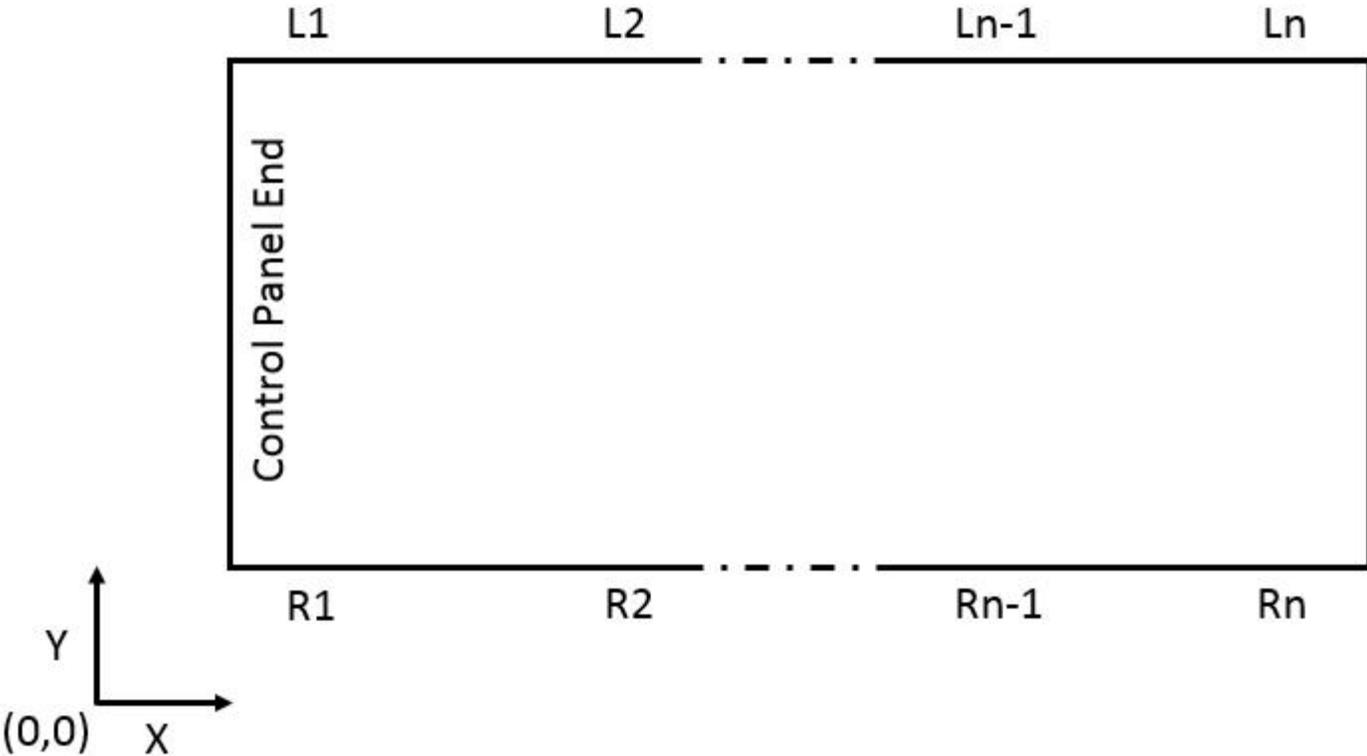
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Unit Tag:
YLAA0048HJ46VSD

Qty.: 1

Model No.: **YLAA0048HJ46XC**

PIN								
YLAA0048HJ	46XCBCTXA	SXBLXCXX44	SE1XXXHXXX	YUXGXXX3XX	XVGNXXXXXX			
....5...105...205...305...405...505...605...705...805...90



AVM Data						
LOCATION	X Distance [in]	Y Distance [in]	JCI PART NUMBER	SAP NUMBER	COLOUR	Operating Weights [lb]
R1	13.1	1.4	029-25335-002	434004	Red	997
R2	87.3	1.4	029-25335-001	434002	Charcoal	699
L1	13.1	86.9	029-25335-002	434004	Red	1119
L2	87.3	86.9	029-25335-002	434004	Red	888

Weight Data			
Total Weight [lb]		Centre of Gravity [in]	
Shipping Weight [lb]	3675.0	Xg [in]	44.9
Operating Weights [lb]	3703	Yg [in]	47.7

Equipment Description

Base Unit/Access. (2862)

Base Unit - YLAA0048HJ

R454B Refrigerant (Fully Charged)

Voltage Code - 460/3/60

Across the line starter

SP Circuit Breaker w/ Lockable Handle, 65kA SCWR

Control Transformer Required

Both Low/High Ambient Kit

Connected Services Ready - SC-Equip Board

English

North American Safety Code (cUL/cETL)

Service Isolation Valves

Electronic Expansion Valves

Hot Gas Bypass required - 1 circuit

Extension Kit

Dispersion Switch

UL Approved Heat Exchanger

Aluminum MCHX Coils

No Heat Recovery

Wire/Louvered Encl Panels (factory)

No Acoustic Blanket required

Low Sound Fans with VSD

Neoprene Isolators

No Pump required

Subtotal

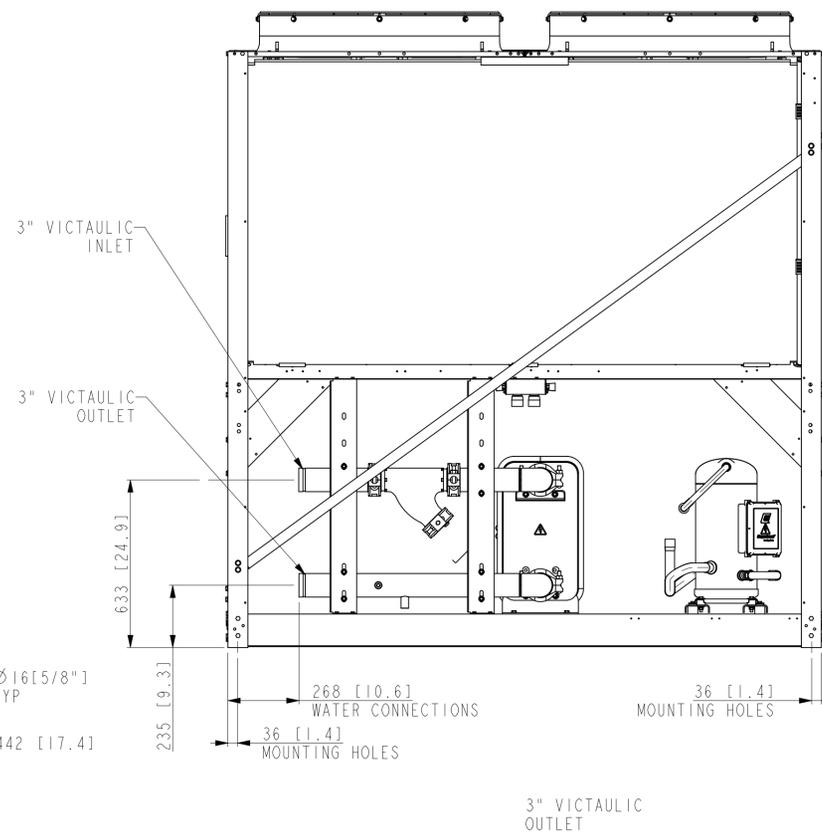
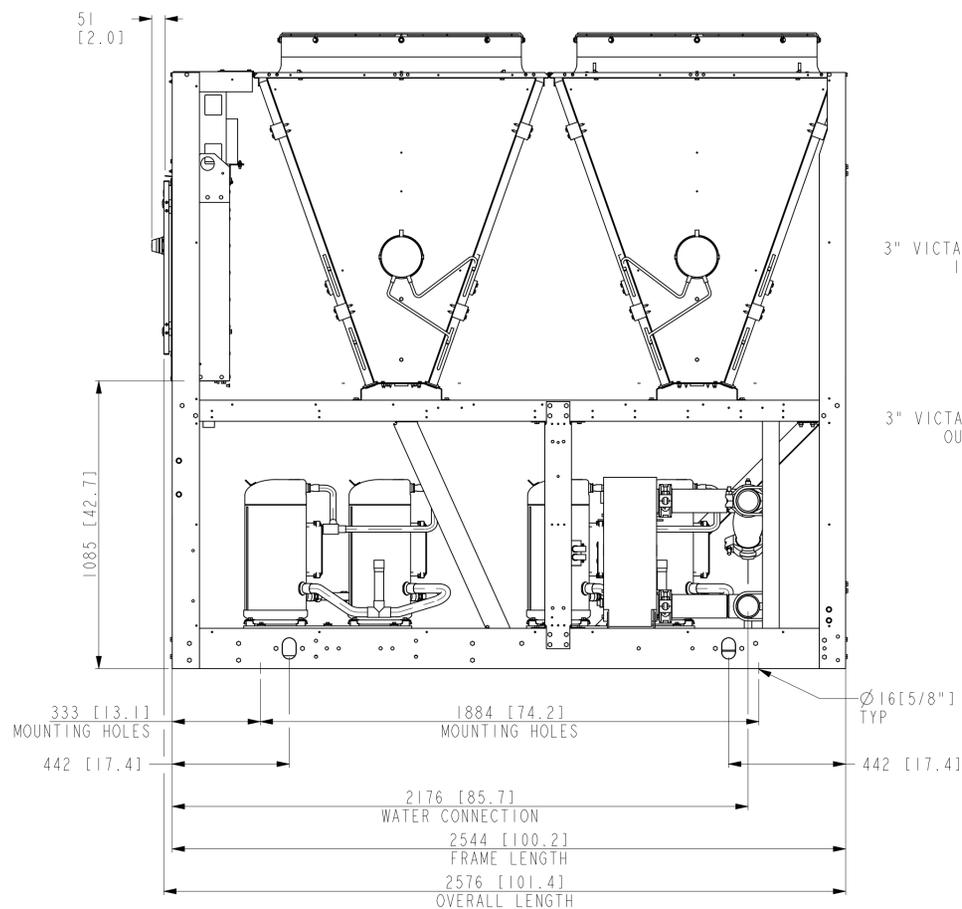
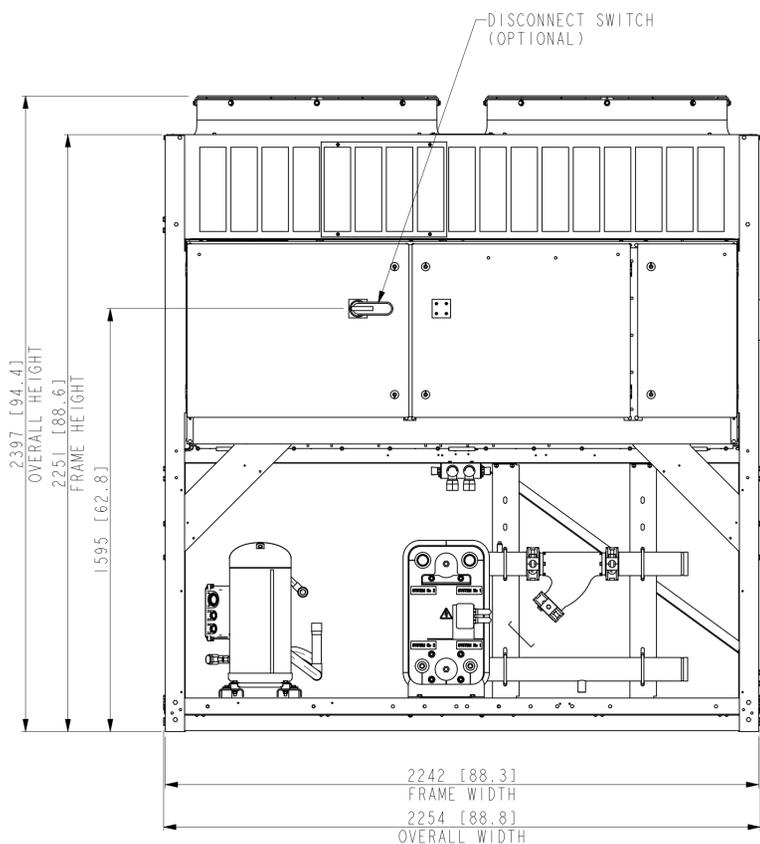
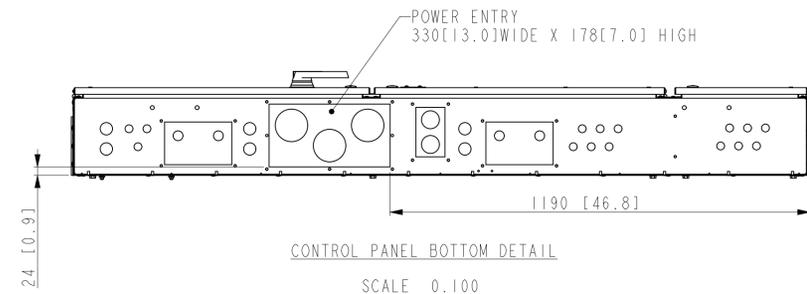
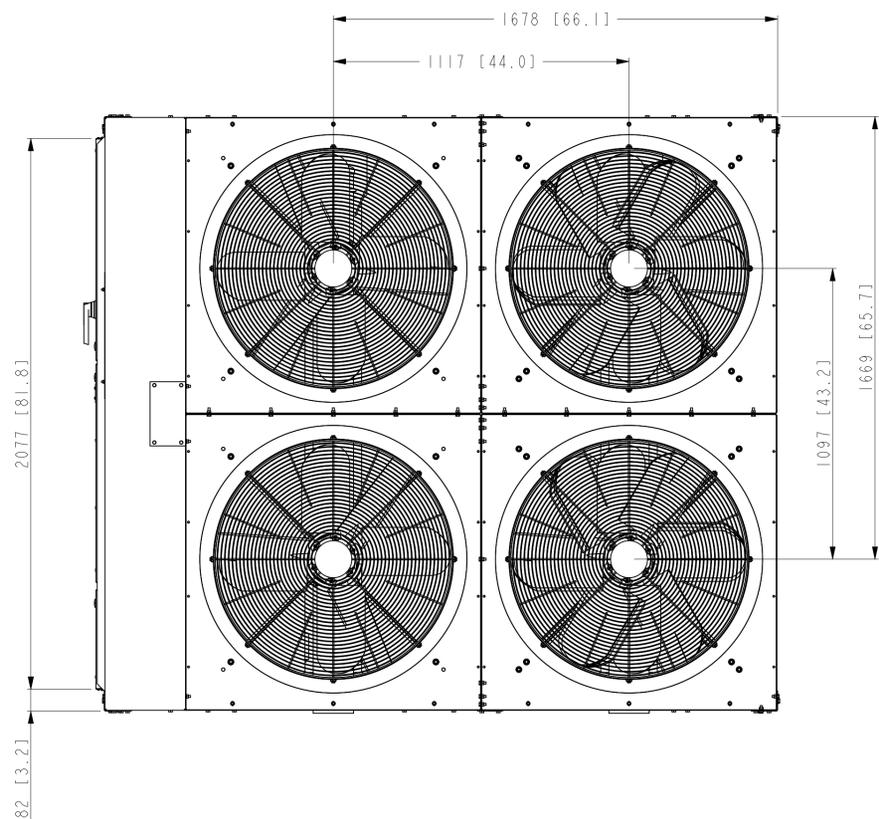
Warranty (Months are from date of shipment/Years are from date of start up, whichever expires first) ()

Unit Warranty: 18 Month (1 Year) (Std) (Parts Only)

NOTES:
 1. PLACEMENT ON A LEVEL SURFACE FREE OF OBSTRUCTIONS (INCLUDING SNOW, FOR WINTER OPERATION) OR AIR RE-CIRCULATION ENSURES RATED PERFORMANCE, RELIABLE OPERATION AND EASE OF MAINTENANCE. SITE RESTRICTIONS MAY COMPROMISE MINIMUM CLEARANCES INDICATED BELOW, RESULTING IN UNPREDICTABLE AIR FLOW PATTERNS AND POSSIBLE DIMINISHED PERFORMANCE. JOHNSON CONTROLS UNIT CONTROLS WILL OPTIMIZE OPERATION WITHOUT NUISANCE HIGH-PRESSURE SAFETY CUTOUT. HOWEVER, THE SYSTEM DESIGNER MUST CONSIDER POTENTIAL PERFORMANCE DEGRADATION.

- 1.1. RECOMMENDED MINIMUM CLEARANCES:
 1.1.1. SIDE TO WALL - 1828.8mm[6']
 1.1.2. REAR TO WALL - 1828.8mm[6']
 1.1.3. CONTROL PANEL TO WALL - 1219.2mm[4']
 1.1.4. TOP - NO OBSTRUCTIONS ALLOWED.
 1.1.5. DISTANCE BETWEEN ADJACENT UNITS - 3048mm[10']
 1.1.6. NO MORE THAN ONE ADJACENT WALL MAY BE HIGHER THAN UNIT.
2. WEIGHT AND CENTER OF GRAVITY - REFER TO AVM REPORT.
3. INSTALLING CONTRACTOR MUST INCLUDE VENT AND DRAIN ACCOMMODATIONS IN CHILLED WATER PIPING NEAR THE EVAPORATOR.
4. NUMBER OF COMPRESSORS MAY VARY FROM DRAWING.
 4.1. REFER TO YORKworks REPORTS.

THIS DRAWING IS FOR THE FOLLOWING MODELS	
YLAA 0041 HE	
YLAA 0048 HE	
YLAA 0041 HJ	
YLAA 0048 HJ	

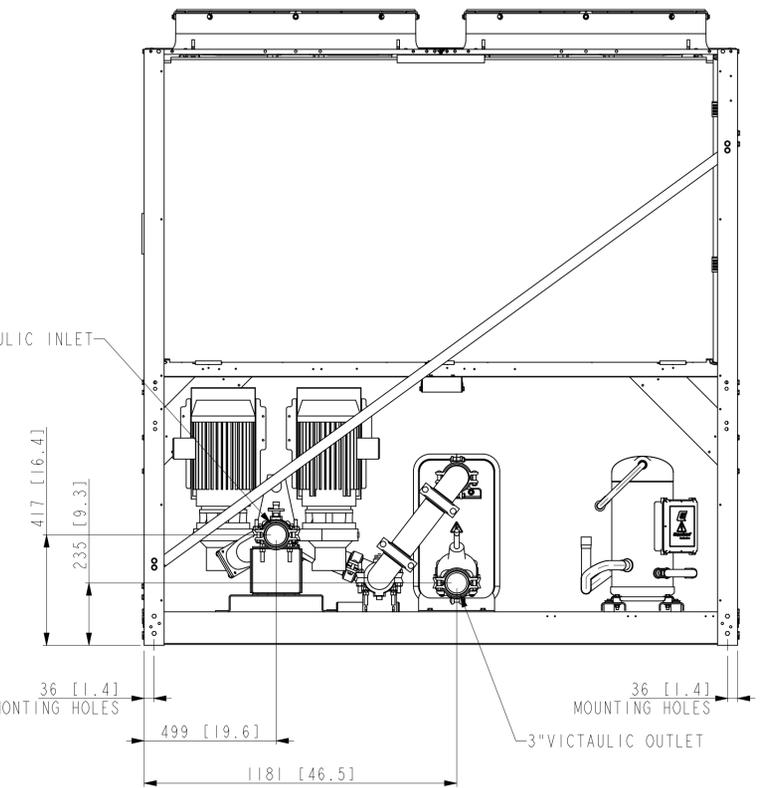
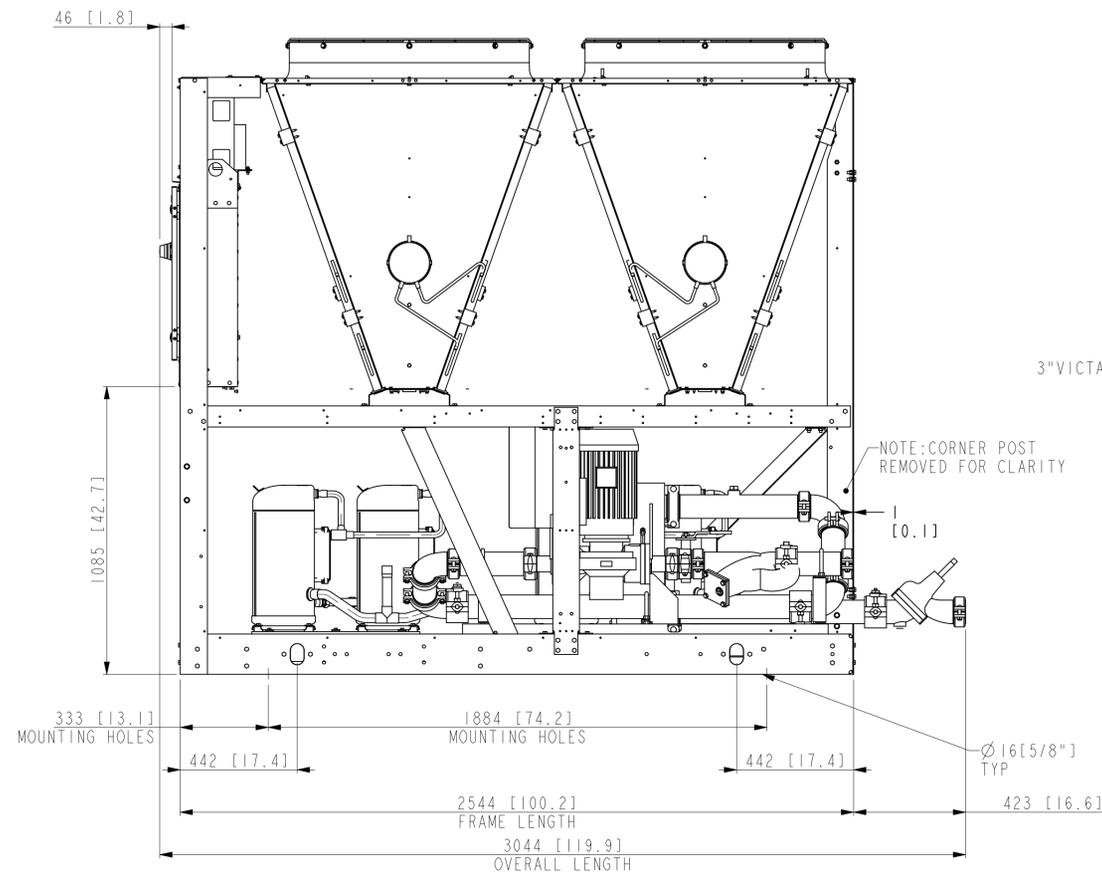
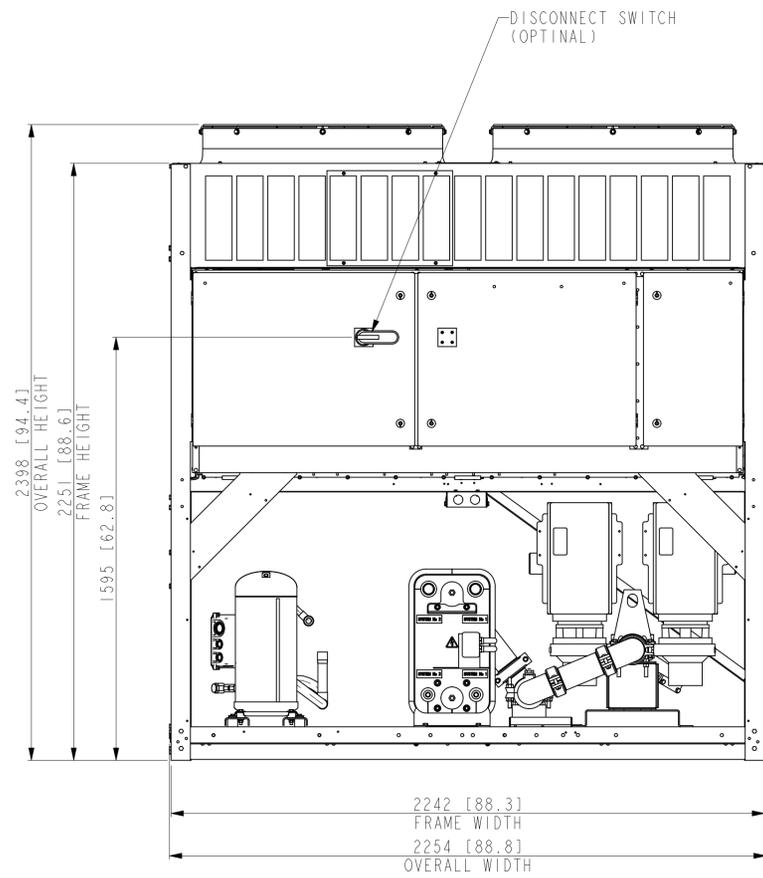
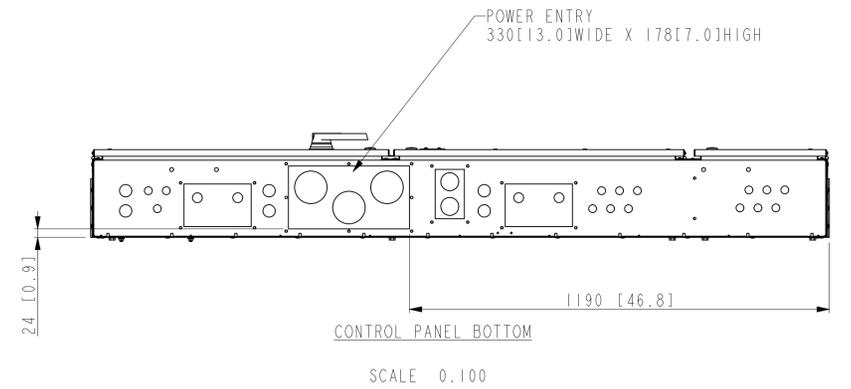
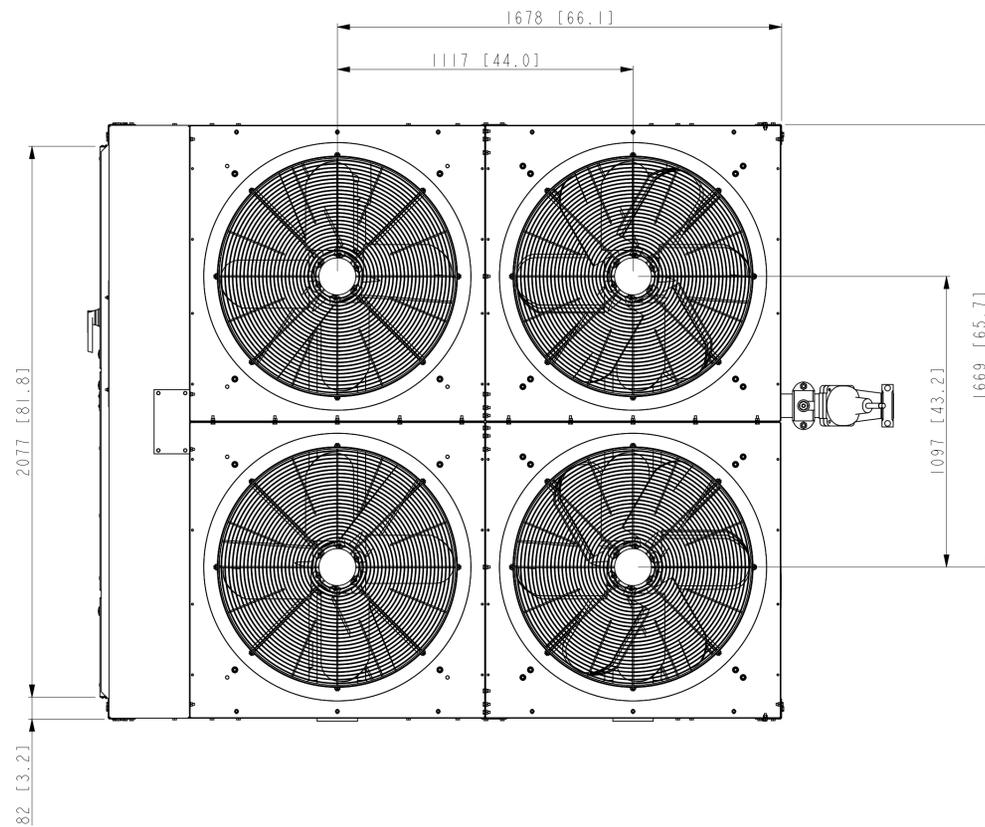


REV.	DATE	EC. NO.	DR.	CHK.	ENG.
C	09-MAY-2023	ECN23-0279	RWA	DBN	AR
UPDATE TABLE TO INCLUDE YLAA 0041/0048 "HJ" MODELS					
REVISION	CONTINUED				

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		JOHNSON CONTROLS - BUILDING EFFICIENCY 507 EAST MICHIGAN STREET, MILWAUKEE, WI, 53202 USA	
THIRD ANGLE DO NOT SCALE	YLAA 4-FAN 60HZ UNITS	MATERIAL ENG. STD. PART NO. CUT SIZE	
DRAWN E. JONES 27-NOV-2018 MODELER E. JONES 27-NOV-2018 CHKD A. SAYCH 27-NOV-2018 ENG	CAGE NUMBER A1 66935	DRAWING NUMBER 035-24059-018	REVISION C VERSION 2 Eng Chg
SCALE: 0.075 MASS (kg): 0.000	ORIG. NO.:	SHEET 1 OF 2	

UNIT WITH OPTIONAL PUMP KIT



REV.	DATE	EC. NO.	DR.	CHK.	ENG.
C	09-MAY-2023	ECN23-0279	RWA	DBN	AR
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Johnson Controls - BUILDING EFFICIENCY
507 EAST MICHIGAN STREET, MILWAUKEE, WI, 53202 USA

YLAA 4-FAN 60HZ UNITS

DO NOT SCALE

SCALE: 0.075 MASS (kg): 0.000 ORIG. NO.:

MATERIAL ENG. STD. PART NO. CUT SIZE

DRAWN E. JONES 27-NOV-2018
MODELER E. JONES 27-NOV-2018
CHKD A. SAYCH 27-NOV-2018
ENG

CAGE NUMBER 66935

DRAWING NUMBER 035-24059-018

REVISION C
VERSION 2
Eng Chg

SHEET 2 OF 2