

## **Design Conditions Datasheet**

Unit Tag	Qty	Model No	Net Cooling Capacity (ton.R)	Nominal Voltage	Refrigerant Type
YLAA0100SE46VSD	1	YLAA0100SE46XFBSDTX	96.49	460-3-60.0	R410A

PIN:								
YLAA0100SE	46XFBSDTXA	SXBLXCXX44	SE1XXXHXXX	YAXGXXX3XX	XXXXXXXXX			
510	520	530	540	550	560	570	580	590

Evaporator Data		Evaporator Da	ta (Cont.)	Performance Data	
EWT (°F)	54.00	Fluid Volume (USGAL)	8.771	EER (Btu/W·h)	9.711
LWT (°F)	44.00	Min. Flow Rate (USGPM)	99.86	IPLV.IP (Btu/W·h)	16.92
Design Flow Rate (USGPM)	230.3	Max. Flow Rate (USGPM)	400.1		
Evap. Press. Drop (ft H2O)	9.14				
Fluid	Water	Condense	r Data	Physical Da	nta
Strainer Press. Drop (ft H2O)	0.000	Ambient Temp. Design (°F)	95.0	Rigging Wt. (lb)	5172
Ext. Kit Press. Drop (ft H2O)	0.000	Altitude (ft)	0.000	Operating Wt. (lb)	5247
Total Press. Drop (ft H2O)	9.14	Compressor Type	Scroll - Hermetic	Refrigerant Charge (lb)	93.9
Fouling Factor (h.ft².F/Btu)	0.000100				·
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Electrical Data							
Circuit	1	2	3	4			
Compressor RLA	27 / 27 / 27	53 / 53					
Fan QTY/FLA (each)	2/4	3 / 4					
High LRA Current	180 / 180 / 180	316 / 316					

Single Point							
Min. Circuit Ampacity	225						
Recommended Fuse/CB Rating	250						
Max. Inverse Time CB Rating	250						
Max. Dual Element Fuse Size (A)	250	Operating	Operating Condition Electrical Data				
Unit Short Circuit Withstand (STD)	5 [kA]	Compressor kW	110.8				
Wires Per Phase	2 + 1	Total Fan kW	8.400				
Wire Range (Lug Size)	#3/0 AWG - 250 kcmil + 250 - 500 kcmil	Total kW	119.2				
Starter Type	Across The Line						

Notes:

This unit does not have a coil coating selected.

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. Auxiliary components included in total KW - Oil heaters, Chiller controls. Auxiliary power is already included in the compressor and fan power



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



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	Part Load Rating Data							
Stage	Ambient (°F)	Capacity (ton.R)	Total kW	Unit Efficiency (Btu/W·h)				
1	95.0	96.49	119.2	9.711				
2	89.1	87.04	94.35	11.07				
3	74.8	63.99	49.70	15.45				
4	66.3	50.40	32.79	18.44				
5	55.0	16.07	8.520	22.64				

	Sound Power Levels (In Accordance with AHRI 370)									
Stage	Ambient (°F)	63 Hz (dB)	125 Hz (dB)	250 Hz (dB)	500 Hz (dB)	1 kHz (dB)	2 kHz (dB)	4 kHz (dB)	8 kHz (dB)	LWA
1	95.0	97	96	92	93	89	87	83	80	95
2	89.1	96	95	91	91	88	86	82	79	94
3	74.8	91	90	86	87	85	83	78	75	90
4	66.3	88	87	83	85	83	81	76	74	88
5	55.0	81	80	76	78	75	77	69	64	82

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

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.

Performance at AHRI Conditions						
Evaporator Da	ata	Condense	Condenser Data		ice Data	
EWT (°F)	54.00	Ambient Temp. (°F)	95.0	EER (Btu/W·h)	9.711	
LWT (°F)	44.00	Altitude (ft)	0.000	IPLV.IP (Btu/W·h)	16.92	
Flow Rate (USGPM)	230.3			Net Cooling Capacity (ton.R)	96.49	
Pressure Drop (ft H2O)	9.14					
Fluid	Water					
Fouling Factor (h.ft².F/Btu)	0.000100					
Fluid Volume (USGAL)	8.771					

Note: Unit rated at design condition capacity.



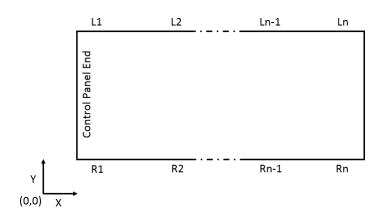
Unit Tag	Qty	Model No
YLAA0100SE46VSD	1	YLAA0100SE46XFBSDTX

Line #	Equipment Details
1	Base Unit (2954) YLAA0100SE R-410A Refrigerant (Fully Charged) Voltage Code - (460/3/60) SP NF Disconnect Switch w/Lockable Handle Control Transformer Both Low/High Ambient Kit Required Connected Services Ready – BACnet/Modbus/N2 English cUL/cETL Listing Service Isolation Valves Electronic Expansion Valves Hot Gas Bypass (1 circuit) Flow Switch + Extension Kit ASME Pressure Vessel & Associated Codes Thermal Dispersion Flow Switch All Aluminum Microchannel Coils No Heat Recovery Wire / Louvered Enclosure Panels No Sound Kit Low Sound Fans with VSD Control No Pump Kit



## **AVM Report**

Project Name	Unit Tag	Date	Chiller Type
Stock YLAA 9-28-21	YLAA0100SE46VS D	2021-10-06	Air Cooled Scroll Chillers
PIN	Version		
YLAA0100SE46XFBSDTXASXBLXCXX44SE1XXXHXXXYAXG	E.21.3.26974.0-D.92.0003		



LOCATION	X Distance (in)	Y Distance (in)	Vendor Isolator Part Number	COLOUR	Operating Weights (lb)
R1	7.6	1.4	N/A	N/A	736
R2	76.6	1.4	N/A	N/A	926
R3	124.7	1.4	N/A	N/A	575
L1	7.6	86.9	N/A	N/A	814
L2	76.6	86.9	N/A	N/A	1457
L3	124.7	86.9	N/A	N/A	736

Total Weight (lb)		Centre of Gravity (in)	
Operating	5247	Xg	68.2
Shipping	5172	Yg	50.4

All values are de-rated by 15% apart from those which have part number. (029-25334-013 and 029-25336-014: 0% de-rated), (029-25335-004: 10% de-rated), (029-25335-001 and 029-25335-003: 25% de-rated)

