

Unit Tag	Qty	Model No	Net Cooling Capacity (ton.R)	Nominal Power Volts-Ph-Hz	Refrigerant Type
CH-4	1	YVAA0233BSV46BAVNXX	272.6	460-3-60.0	R134a

PIN:								
YVAA0233BS	V46BAVNXXX	SAXLAXXX60	55XOTXXV21	0X1SXXA2BM	XV3XNXGXXX	XOXSDX		
...5...10	...5...20	...5...30	...5...40	...5...50	...5...60	...5...70	...5...80	...5...90

Evaporator Data		Evaporator Data (Cont.)		Performance Data	
EWT (°F)	65.00	Fluid Volume (USGAL)	58.12	EER (Btu/W-h)	11.21
LWT (°F)	55.00	Min. Design Flow Rate (USGPM)*	250.0	IPLV.IP (Btu/W-h)	18.29
Design Flow Rate (USGPM)	654.4	Max. Flow Rate (USGPM)	980.0	NPLV.IP (Btu/W-h)	22.18
Total Press. Drop (ft H2O)	16.7	Condenser Data		Physical Data	
Fluid	Water	Ambient Temp. Design (°F)	95.0	Rigging Wt. (lb)	14255
Fouling Factor (h.ft ² .F/Btu)	0.000100	Altitude (ft)	0.000	Operating Wt. (lb)	14718
Number Passes	2	Compressor Type	VSD Screw - Semi Hermetic	Refrigerant Charge (lb)	401.2

Electrical Data				
Circuit	1	2	3	4
Compressor kW	147.6	124.1		
Compressor RLA	195	164		
Fan QTY/FLA (each)	7 / 2.4	5 / 2.4		

Single Point				
Min. Circuit Ampacity	441			
Max. Fuse / CB Rating (A)	600			
Unit Short Circuit Withstand (STD)	50 [kA]			
Wires Per Phase	3			
Wire Range (Lug Size)	#2 - 600 kcmil			
Displacement Power Factor	0.95			
Control kVA	2			
			Operating Condition Electrical Data	
			Compressor kW	271.7
			Total kW	291.8

Notes:

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



Min DSD (Factory Purpose/Use only): 80 psig
 Use Copper Conductors only
 Displacement Power Factor refers to compressor only. Unit Power Factor depends on fan option selected. Calculated value is available by request.

Minimum and maximum evaporator flow information are for full load ratings with Water.
 Evaporator Passes: 2, Condenser Type: M, Fan Type: V
 Actuated suction service valves ARE selected
 Exclusion of actuated suction service valves will require incorporation of additional freeze protection including use of glycol, pump control or draining the evaporator.
 This unit does not have a coil coating selected.
 Minimum Chilled Water Flow Rate is for full load selections; Variable Primary Flow ratings as low as 50% of the minimum are permitted. Glycol limits are higher. To obtain minimum flow with Variable Primary Flow, run rating with Variable Primary Flow Partload Type.

ASHRAE Standard 90.1-2010 and ASHRAE Standard 90.1-2013 & 2016 Compliant.



Air Cooled Screw Chiller Performance Datasheet

IECC 2012 and IECC 2015/2018 Compliant.

Part Load Rating Data				
Load %	Ambient (°F)	Capacity (ton.R)	Total kW	Unit Efficiency (Btu/W-h)
100	95.0	272.6	291.8	11.21
75	80.1	204.5	146.1	16.80
50	65.1	136.3	64.48	25.37
25	55.0	68.15	27.26	30.00

Sound Power Levels (In Accordance with AHRI 370)										
Load %	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
100	95.0	97	97	98	102	98	93	88	85	103
75	80.1	95	95	96	95	92	87	83	78	97
50	65.1	90	91	91	92	89	82	78	74	93
25	55.0	87	87	87	88	86	79	75	70	90

Note: Unit is equipped with Low Sound Fans with Variable Speed 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 Data		Condenser Data		Performance Data	
EWT (°F)	54.00	Ambient Temp. (°F)	95.0	EER (Btu/W-h)	10.09
LWT (°F)	44.00	Altitude (ft)	0.000	IPLV.IP (Btu/W-h)	18.29
Flow Rate (USGPM)	555.1			Net Cooling Capacity (ton.R)	231.9
Pressure Drop (ft H2O)	12.9				
Fluid	Water				
Fouling Factor (h.ft².F/Btu)	0.000100				
Fluid Volume (USGAL)	58.12				

Note: Unit rated at design condition compressor frequency.

Part Load Rating Data at AHRI Conditions				
Load %	Ambient (°F)	Capacity (ton.R)	Total kW	Unit Efficiency (Btu/W-h)
100	95.0	231.9	275.9	10.09
75	80.0	174.0	144.4	14.46
50	65.0	116.0	67.69	20.56
25	55.0	57.99	29.12	23.90