

SKYMARK JCL-Series Water Source Heat Pump

Models JCH/V – 6-25 Tons – 15 EER

Advantages of the JCL-Series:

- Exceeds ASHRAE 90.1 efficiencies.
- Optional Variable Frequency Drive for optimal fan motor energy efficiency.
- Optional Waterside Economizer (WSE).
- Water can be connected to either side.
- Field convert supply air configurations with no additional parts.
- Electrical box is on right side and can be field converted to left side of unit.
- Microprocessor controls standard (optional DDC controls).
- Painted galvanized or stainless steel drain pan.
- Dual Copeland scroll compressors (All Models).
- Dual refrigeration circuits (All Models).
- Suitable for extended range (geothermal) applications.
- Optional dual point power.

The SKYMARK JCL-Series is the ultimate in large capacity performance in a small package. Despite its compact size, the JCL-Series packs in energy-saving options such as waterside economizers and variable frequency drives. Water piping can be connected to either side of the unit. This design allows multiple units to be placed side-to-side in close proximity, saving mechanical room space as well. The JCL-Series boasts many standard features and options, and can deliver efficiencies up to 15 EER (boiler/tower).

Unit Size

Horizontal Model		W	D	H
072 - 120	in.	36.3	84.9	21.6
	cm	92.2	215.6	54.9

Vertical Model		W	D	H
072 - 120	in.	41.0	29.0	69.8
	cm	104.1	73.7	177.2
160 - 300	in.	82.0	29.0	69.8
	cm	208.2	73.7	177.2



Physical Data

JCL-Series	072	096	120	160	192	240	300
Compressor	Scroll						
Number of Circuits (Compressors)	2						
Factory Charge R410a - (oz) [kg] per circuit	60 [1.70]	76 [2.15]	80 [2.27]	112 [3.18]	136 [3.86]	196 [5.56]	224 [6.35]
Blower Motor							
Blower Motor Quantity	1						
Standard Motor (hp) [kw]	1 [.75]	1.5 [1.12]	3 [2.23]	3 [2.24]	3 [2.24]	5 [3.73]	7.5 [5.60]
No. of Blowers	1			2			3
Water Connection Size							
FPT (in) [mm]	1-1/4" [31.8]		1-1/2" [38.1]	2" [50.8]			2-1/2" [63.5]
Condensate Connection Size	3/4" [19.1]						
FPT (in) [mm]							
Miscellaneous Data							
Filter Standard - 1" [25.4mm] Throwaway (qty) (in) [cm]	(QTY.2 EA.) 20 x30 [50.80 x 76.2] and 10 x 20 [25.4 x 40.64]			(QTY.4) 20 x 25 [50.80 x 63.5] and (QTY.2) 20 x 30 [50.80 x 76.2]			
Weight - Operating (lbs) [kg]	586 [265.8]	644 [292.1]	698 [316.6]	1069 [484.9]	1164 [528.0]	1184 [537.1]	1297 [588.3]
Weight - Packaged (lbs) [kg]	626 [283.9]	684 [310.3]	738 [334.8]	1149 [521.2]	1244 [564.3]	1264 [573.3]	1377 [624.6]

Physical data table is for vertical configuration models. Please see product engineering guide for horizontal configuration physical data table.

Tested To ASHRAE/AHRI/ISO 13256-1 English (I-P) Units

Model	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
	Cooling 86 °F		Heating 68 °F		Cooling 59 °F		Heating 50 °F		Cooling 77 °F		Heating 32 °F	
	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP
JCH/V072 - Part	35,000	14.7	46,000	5.4	40,000	22.5	37,000	4.6	37,500	18.5	31,500	4.1
JCH/V072 - Full	69,000	14.5	92,500	5.2	78,500	22.0	75,500	4.6	71,000	15.6	56,000	3.6
JCH/V096 - Part	47,500	14.5	59,500	5.1	52,300	20.7	48,500	4.3	52,000	18.2	42,000	3.8
JCH/V096 - Full	95,000	13.8	123,000	5.0	105,000	20.4	101,000	4.4	98,000	15.4	77,000	3.6
JCH/V120 - Part	60,000	13.8	78,500	4.7	67,500	19.7	64,500	4.0	63,000	16.6	53,800	3.5
JCH/V120 - Full	119,000	13.3	160,000	4.6	134,000	19.3	132,500	4.0	122,500	14.7	103,000	3.3
JCV160 - Part	78,500	14.4	98,500	4.9	86,500	19.7	84,000	4.4	83,200	17.3	70,300	3.9
JCV160 - Full	157,000	14.3	207,000	4.9	172,000	19.6	168,000	4.4	162,000	15.6	125,000	3.6
JCV192 - Part	95,800	14.5	118,500	5.1	106,500	19.7	96,500	4.5	102,700	17.3	83,000	3.9
JCV192 - Full	191,500	14.3	243,000	5.1	211,000	19.5	196,500	4.5	199,000	15.8	149,000	3.7
JCV240 - Part	117,000	14.1	157,000	5.1	132,900	19.6	128,000	4.4	127,500	17.3	111,000	3.8
JCV240 - Full	233,000	13.9	318,000	5.0	263,500	19.2	260,500	4.4	240,000	14.9	198,500	3.5
JCV300 - Part	153,000	14.2	192,300	4.9	171,000	19.2	156,500	4.3	164,000	16.9	137,400	3.8
JCV300 - Full	300,000	13.5	395,000	4.8	341,500	18.7	321,500	4.3	310,000	14.5	240,000	3.4

Cooling capacities based upon 80.6°F DB, 66.2°F WB entering air temperature. Heating capacities based upon 68°F DB, 59°F WB entering air temperature. All ratings based upon operation at lower voltage of dual voltage rated models.



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