

# HKV Series

The award-winning HKV Series raises the bar for water-source heat pump efficiencies, features and application flexibility. Not only does the HKV Series exceed ASHRAE 90.1 efficiencies, but it also uses EarthPure® (HFC-410A) zero ozone depletion refrigerant, making it an extremely environmentally-friendly option.

## ADVANTAGE OF THE HIGH EFFICIENCY HKV SERIES

- Unit configuration can be ordered with, or converted to front or back return and top, front, or back discharge. Field conversion uses all existing parts including panels and belts
- Electrical box can be field converted to be on front or back of unit
- Electric power can enter from any side of unit
- Water and drain can be connected to either side
- Dual refrigeration circuits (HKV168, 192, 240, 300)
- Exceeds ASHRAE 90.1 efficiencies
- TXV metering device
- Extended range (20 to 120°F, -6.7 to 48.9°C operation)
- Microprocessor controls standard (optional DXM and/or DDC controls)
- LonWorks, BACnet, Modbus and Johnson N2 compatibility options for DDC controls
- Unit Performance Sentinel performance monitoring system

### UNIT SIZE

Vertical Model	Overall Cabinet			
	W	D	H	
084 -150	in.	53.1	34.0	79.0
	cm	134.9	86.4	200.7
168 -300	in.	106.7	34.0	79.0
	cm	270.9	86.4	200.7



## WATER SOURCE HEAT PUMPS

*7 to 25 Tons  
Energy Efficient Heating & Cooling  
for Commercial Applications*



**Warranty**—5 years on compressor, 1 years on parts  
(Some limitations apply; see printed warranty for details.)

[www.marsdelivers.com](http://www.marsdelivers.com)

## PHYSICAL DATA

Model	084	096	120	150	168	192	240	300
Compressor Quantity	Scroll (1)				Scroll (2)			
Factory Charge HFC-410a (oz) [kg] per circuit	140 [3.97]	156 [4.42]	224 [6.35]	248 [7.03]	140 [3.97]	156 [4.42]	224 [6.35]	248 [7.03]
<b>Blower Motor</b>								
Blower Motor Quantity	1							
Standard Motor (hp) [kW]	1.0 [.75]	1.5 [1.12]	2 [1.49]	3 [2.24]	2 [1.49]	3 [2.24]	5 [3.73]	5 [3.73]
Large Motor (hp) [kW]	1.5 [1.12]	2.0 [1.49]	3 [2.24]	5 [3.73]	3 [2.24]	5 [3.73]	7.5 [5.60]	7.5 [5.60]
<b>Blower</b>								
No. of Blowers	1				2			
Blower Wheel Size D x W (in) [cm]	15 x 11 [38.1 x 38.1]			15 x 15 [38.1 x 38.1]	15 x 11 [38.1 x 38.1]			15 x 15 [38.1 x 38.1]
<b>Water Connection Size</b>								
FPT (in) [mm]	1-1/2" [38.1]			2" [50.8]			2-1/2" [63.5]	
<b>Coax Volume</b>								
Volume (US Gallons) [liters]	2.19 [8.28]		2.48 [9.37]	3.46 [13.11]		4.83 [18.29]	6.36 [24.08]	7.39 [27.98]
<b>Condensate Connection Size</b>								
FPT (in) [mm]	1" [25.4]							
<b>Air Coil Data</b>								
Air Coil Dimensions H x W (in) [cm]	36 x 48 [91.4 x 121.9]				2 - 36 x 48 [91.4 x 121.9]			
Air Coil Total Face Area (ft²) [m²]	12 [1.11]				24 [2.22]			
<b>Miscellaneous Data</b>								
Filter Standard - 1" [25.4mm] Throwaway (qty) (in) [cm]	(QTY.4) 18 x 25 [45.74 x 63.5]				(QTY.8) 18 x 25 [45.74 x 63.5]			
Weight - Operating (lbs) [kg]	880 [399]		930 [422]	960 [435]		1600 [725]	1665 [755]	1695 [769]
Weight - Packaged (lbs) [kg]	895 [406]		945 [429]	975 [442]		1630 [739]	1695 [769]	1725 [782]

All units have grommet compressor mountings, and 1/2" & 1-3/4" electrical knockouts.  
For ClimaDry® option, add 125 lbs [57 kg] for 084-150 and 250 lbs [114 kg] for 168-300.

## TESTED TO ASHRAE/AHRI/ISO 13256-1 ENGLISH 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
HKV084	82,000	15.2	101,000	4.8	87,500	21.0	83,500	4.3	83,000	16.5	65,500	3.6
HKV096	94,000	15.0	118,000	4.7	102,500	20.5	96,500	4.2	97,500	16.5	76,500	3.6
HKV120	118,000	15.0	144,000	5.0	133,000	21.0	118,000	4.2	120,000	16.5	93,000	3.7
HKV150	150,000	14.0	186,000	4.7	170,000	20.0	155,000	4.2	156,000	15.8	122,000	3.6
HKV168	166,000	15.5	204,020	4.9	177,000	21.4	169,000	4.4	168,000	16.8	132,500	3.7
HKV192	190,000	15.3	238,360	4.8	207,000	20.9	195,000	4.3	197,000	16.8	155,000	3.7
HKV240	238,500	15.3	291,000	5.1	269,000	21.4	238,500	4.3	242,500	16.8	188,000	3.8
HKV300	300,000	14.0	372,000	4.7	340,000	20.0	310,000	4.2	312,000	15.8	244,000	3.6

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.  
All HKV084 ratings at 2800 CFM with sheave settings at 3.5 turns open.  
All HKV096 ratings at 3200 CFM with sheave settings at 3.0 turns open.  
All HKV120 ratings at 4000 CFM with sheave settings at 2.5 turns open.

Due to ongoing product improvements, specifications and dimensions are subject to change and correction without notice or incurring obligations. Determining the application and suitability for use of any product is the responsibility of the installer. Additionally, the installer is responsible for verifying dimensional data on the actual product prior to beginning any installation preparations.

Third party incentive and rebate programs have precise requirements as to product performance and certification.

All products meet applicable regulations in effect on date of manufacture; however, certifications are not necessarily granted for the life of a product. Therefore, it is the responsibility of the applicant to determine whether a specific model qualifies for these incentive/rebate programs.

"This product complies with all California product labeling laws including, but not limited to, the Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65."