

AHP060

Commercial Heat Pump Water Heating Systems

AIR SOURCE HEAT PUMP



DESIGNED ★ ENGINEERED ★ ASSEMBLED

USA



AHP060

Specifications



Operating Conditions	Model Number		AHP060					
	Recovery Rate [†]		77 Gal/hr					
	Compressor Type		Scroll					
	Refrigerant		R134a					
	Max Water Temperature		160° F					
	Ambient Operating Range		40° F - 120° F					
	Max Working Water Pressure		100 psig					
Multi-Pass Unit Sizing	Water Connections				1" FPT Copper			
	Water Flow Rate				13 GPM			
	Condenser Pressure Drop				7.41 ft Head			
	External Head Pressure Allowed by Unit				5.41 ft Head / 50 ft run of 1" pipe			
Single-Pass Unit Sizing	Water Connections				1" FPT Copper			
	Average Water Flow Rate				6 GPM			
	Condenser Pressure Drop				1.88 ft Head			
	External Head Pressure Allowed by Unit				7.17 ft Head / 50 ft run of 1" pipe			
Unit Specifications	Air Flow Rate				2,800 CFM			
	Dry Weight				500 lbs			
	Operating Weight				520 lbs			
	Model		Dimensions (L x W x H)		Ext. Static Pressure (in H ² O)		Standard Sound Rating	
	Axial		64" x 32 ⁵ / ₈ " x 64 ¹ / ₄ "		N/A		84 dB	
	Blower		64" x 29 ⁵ / ₈ " x 64 ¹ / ₄ "		1.81		79 dB	
Power Requirements	Voltage	Compressor LRA	Total RLA ^{††} (Compressor + Fan)		Wire and Disconnect Sizing ^{†††}			
					MCA		MCOP / MFS	
			Axial	Blower	Axial	Blower	Axial	Blower
	208-230/1/60	129	33.1	36.3	41	44	15	15
	208-230/3/60	156	25	26.5	29	32	30	35
	440-480/3/60	75	12	13.2	15	16	20	20
	575/3/60	54	10	10.8	12	13	15	15

[†] Water heated from 50° F to 150° F with 75° F entering air temperature and 60 % relative humidity

^{††} Axial fan is standard, high-static blower is optional.

^{†††} Single point electric service

Legend

LRA: Locked Rotor Amps

RLA: Rated Load Amps

MCA: Maximum Current Ampacity (used for wire sizing)

MCOP: Minimum Overcurrent Protection (minimum disconnect size to be used)

Performance Data

Model	Entering Air Condition	Air Cooling Capacity (Btu/hr)	Entering Water Temp (°F)	Leaving Water Temp (°F)	Supply Heating Capacity (Btu/hr)	Power Input (kW)
AHP060 - Axial	40°F 60% RH	33900	50	56	41300	2.35
		33500	60	66	41200	2.43
		32200	70	76	40700	2.65
		30800	80	86	40100	2.90
		29300	90	96	39600	3.18
		27600	100	106	39100	3.53
		25900	110	116	38600	3.90
		24300	120	126	38500	4.32
		22600	130	136	38400	4.80
		20900	140	146	38200	5.32
	50°F 60% RH	40700	50	57	48300	2.40
		40000	60	67	48000	2.51
		38700	70	77	47500	2.74
		37200	80	87	46800	3.02
		35400	90	97	46000	3.28
		33500	100	107	45200	3.61
		31600	110	117	44600	3.99
		29400	120	127	43900	4.41
		27300	130	137	43500	4.89
		25300	140	147	43200	5.42
	60°F 60% RH	47900	50	59	55700	2.45
		47100	60	69	55400	2.60
		45600	70	78	54700	2.83
		43900	80	88	53900	3.09
		42000	90	98	53000	3.39
		39900	100	108	52100	3.73
		37700	110	118	51100	4.11
		35300	120	128	50200	4.54
		32800	130	138	49400	5.03
		30100	140	148	48500	5.57
	70°F 60% RH	56000	50	60	64100	2.53
		55000	60	70	63700	2.71
		53500	70	80	63000	2.94
		51500	80	90	61800	3.20
		49600	90	99	61000	3.50
		47200	100	109	59800	3.85
		44800	110	119	58700	4.23
		42000	120	129	57400	4.67
		39100	130	139	56200	5.17
		36100	140	149	55000	5.72
	80°F 60% RH	64500	50	61	73400	2.78
		64000	60	71	73100	2.84
		62500	70	81	72400	3.07
		60500	80	91	71300	3.33
		58000	90	101	69800	3.63
		55500	100	111	68500	3.98
		52500	110	120	66800	4.37
		49800	120	130	65700	4.82
		46500	130	140	64000	5.32
		43300	140	150	62800	5.87
	90°F 60% RH	74500	50	63	82100	3.1
		73000	60	73	80500	3.15
		72000	70	83	78500	3.2
		69000	80	92	76900	3.46
		66000	90	102	75700	3.75
		62500	100	112	74900	4.09
		59000	110	121	73700	4.47
		54500	120	131	71200	4.91
		50500	130	140	68200	5.4
		46300	140	150	66000	5.9

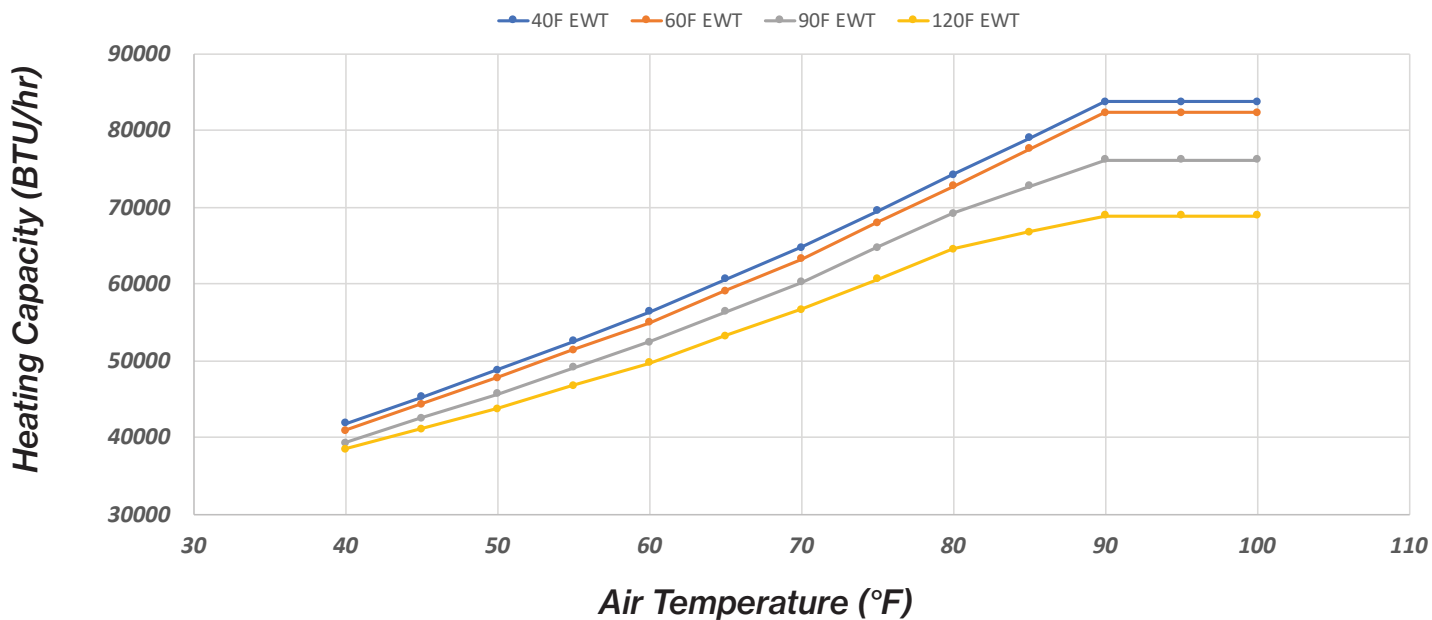
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Model	Entering Air Condition	Air Cooling Capacity (Btu/hr)	Entering Water Temp (°F)	Leaving Water Temp (°F)	Supply Heating Capacity (Btu/hr)	Power Input (kW)
AHP060 - Blower	40°F 60% RH	33900	50	56	41300	3.26
		33500	60	66	41200	3.34
		32200	70	76	40700	3.56
		30800	80	86	40100	3.81
		29300	90	96	39600	4.09
		27600	100	106	39100	4.44
		25900	110	116	38600	4.81
		24300	120	126	38500	5.23
		22600	130	136	38400	5.71
		20900	140	146	38200	6.23
	50°F 60% RH	40700	50	57	48300	3.31
		40000	60	67	48000	3.42
		38700	70	77	47500	3.65
		37200	80	87	46800	3.93
		35400	90	97	46000	4.19
		33500	100	107	45200	4.52
		31600	110	117	44600	4.90
		29400	120	127	43900	5.32
		27300	130	137	43500	5.80
		25300	140	147	43200	6.33
	60°F 60% RH	47900	50	59	55700	3.36
		47100	60	69	55400	3.51
		45600	70	78	54700	3.74
		43900	80	88	53900	4.00
		42000	90	98	53000	4.30
		39900	100	108	52100	4.64
		37700	110	118	51100	5.02
		35300	120	128	50200	5.45
		32800	130	138	49400	5.94
		30100	140	148	48500	6.48
	70°F 60% RH	56000	50	60	64100	3.44
		55000	60	70	63700	3.62
		53500	70	80	63000	3.85
		51500	80	90	61800	4.11
		49600	90	99	61000	4.41
		47200	100	109	59800	4.76
		44800	110	119	58700	5.14
		42000	120	129	57400	5.58
		39100	130	139	56200	6.08
		36100	140	149	55000	6.63
	80°F 60% RH	64500	50	61	73400	3.69
		64000	60	71	73100	3.75
		62500	70	81	72400	3.98
		60500	80	91	71300	4.24
		58000	90	101	69800	4.54
		55500	100	111	68500	4.89
		52500	110	120	66800	5.28
		49800	120	130	65700	5.73
		46500	130	140	64000	6.23
		43300	140	150	62800	6.78
	90°F 60% RH	73000	50	63	82100	4.01
		73000	60	73	80500	4.05
		72000	70	83	78500	4.11
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		66000	90	102	75700	4.66
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		59000	110	121	73700	5.38
		54500	120	131	71200	5.82
		50500	130	140	68200	6.28
		46300	140	150	66000	6.83

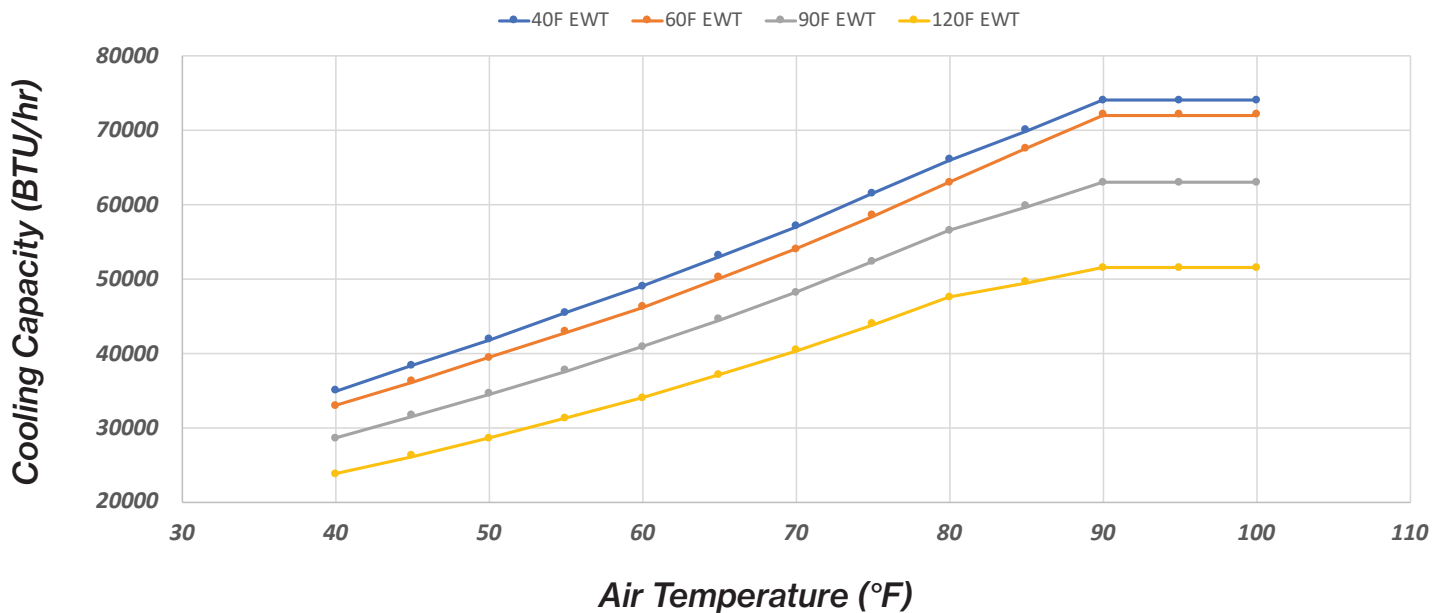
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Performance Graphs

Heating Capacity vs. Air Temperature



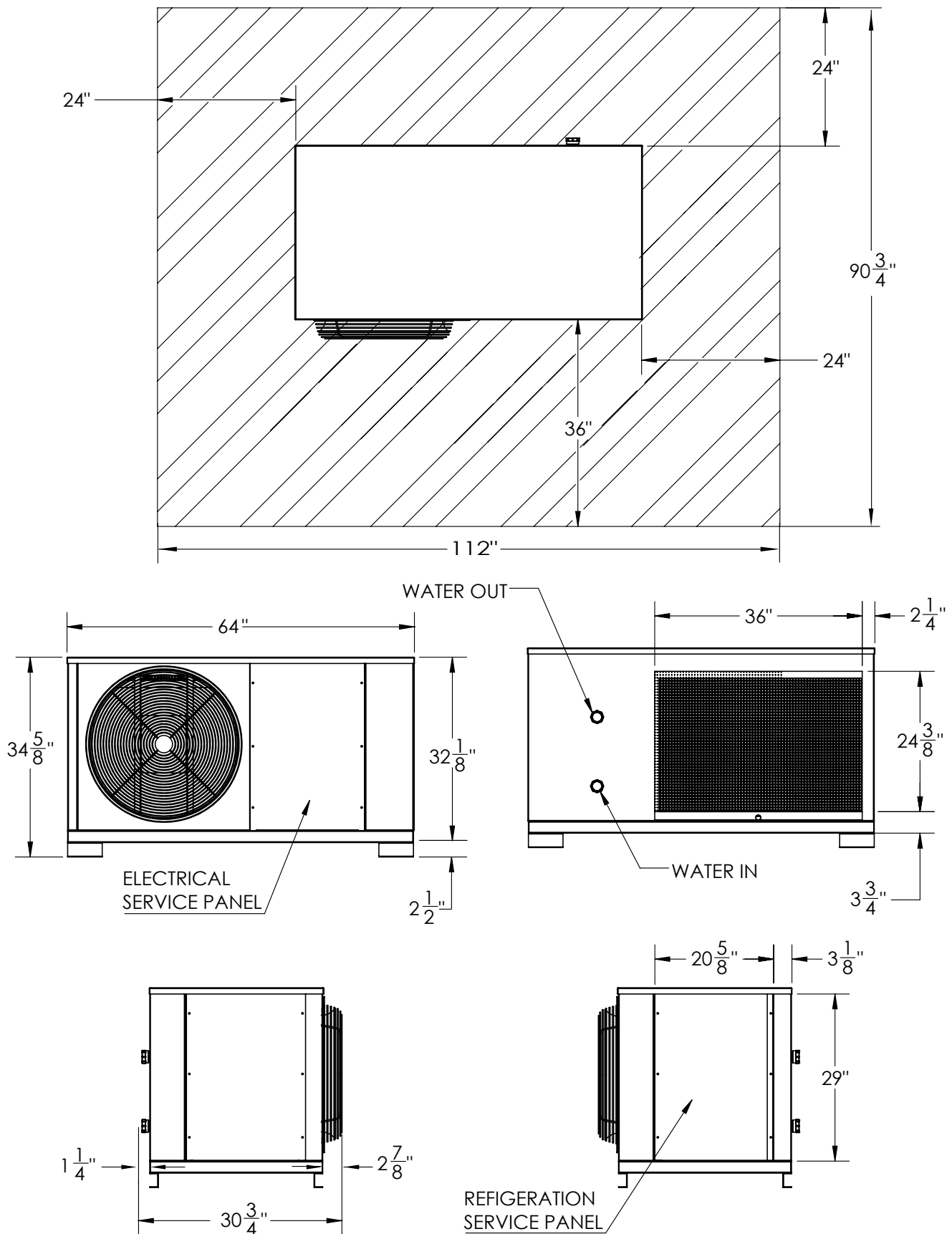
Cooling Capacity vs. Air Temperature



Water heated from 50°F to 150°F with 75°F dry bulb, 60% RH ambient air

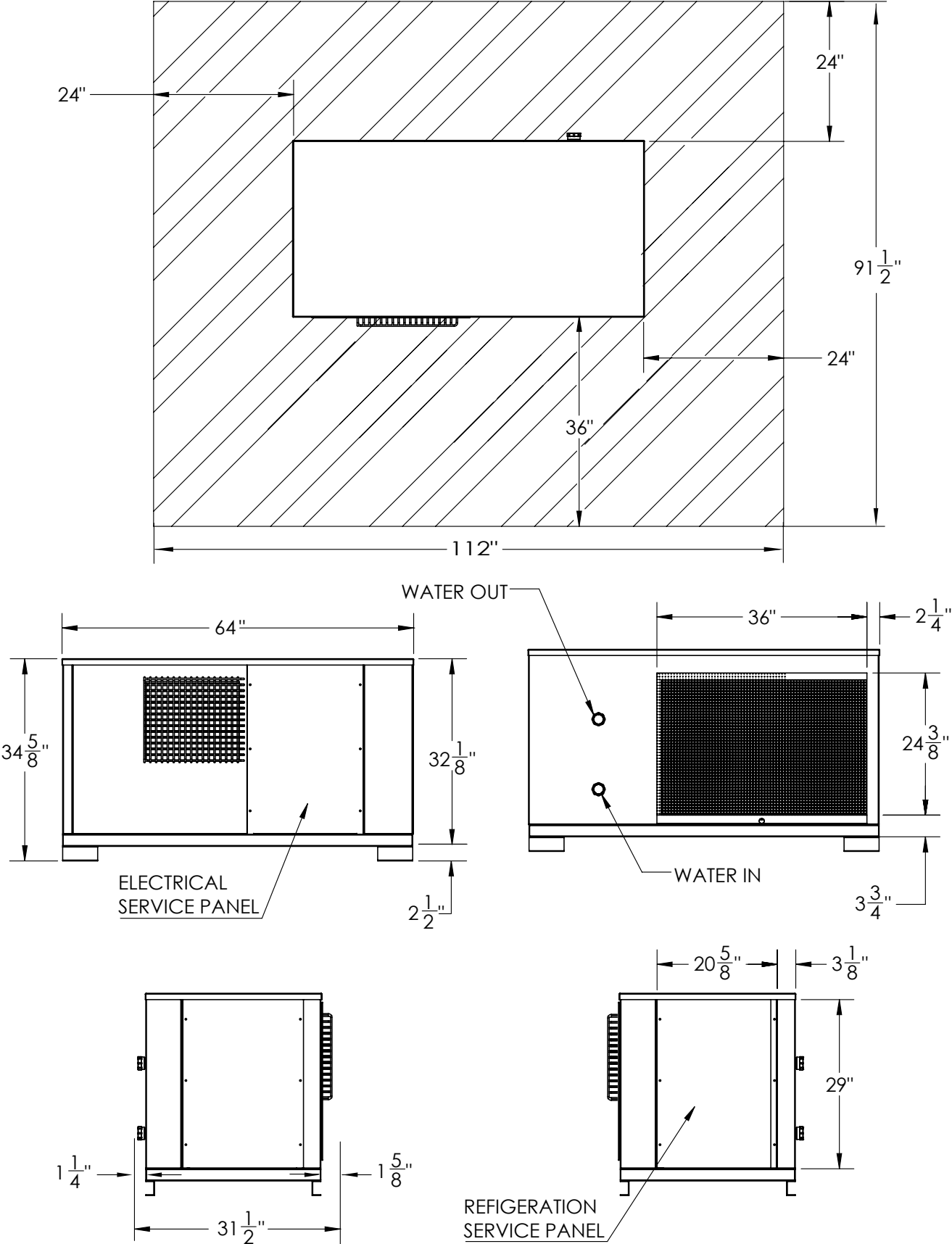
Dimensions

Axial Model



NOTE: 36" electrical service clearance per NEC 110.26(A)(1) Working Spaces for "Condition 1". Check with local codes for additional requirements.

Blower Model



NOTE: 36" electrical service clearance per NEC 110.26(A)(1) Working Spaces for "Condition 1". Check with local codes for additional requirements.



AHP060-01

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