

WT and WW Model Series Commercial Water Source Heat Pumps

Engineering
Submittal
Sheet



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- ▶ 2 to 35 ton capacities
- ▶ Modular design gives you the flexibility to install units individually or in any combination
- ▶ Single or two stage scroll compressors for quiet operation
- ▶ Excellent option for snow melt and pool heating
- ▶ Low GWP ready (R-454B refrigerant)

Commercial WSHP Product Portfolio

Product		Water-to-Air						Water-to-Water	
		CP	CP Splits	CF	CL	CA	EC	MC	
Price		\$\$\$	\$\$\$	\$\$	\$	\$	\$\$	\$\$	
Model Sizes <6 Ton	007			X	X				
	009			X	X	X			
	012			X	X	X			
	015			X	X	X			
	018			X	X	X			
	024	X	X	X	X				
	025								X
	030			X	X				
	035								X
	036	X	X	X	X				
	041								
	042			X	X				
	048	X	X	X	X				
	049								X
	060	X	X	X	X				X
Model Sizes >6 Ton	061								X
	070	X		X	X				X
	071								
	072						X		
	096						X		
	120						X		X
	122								X
	150						X		
	151						X		
	180						X		X
	181						X		
	210						X		X
	240						X		X
	300						X		
	360						X	X	X
	420							X	X
	480							X	
	600							X	
	720							X	

☐ Featured model

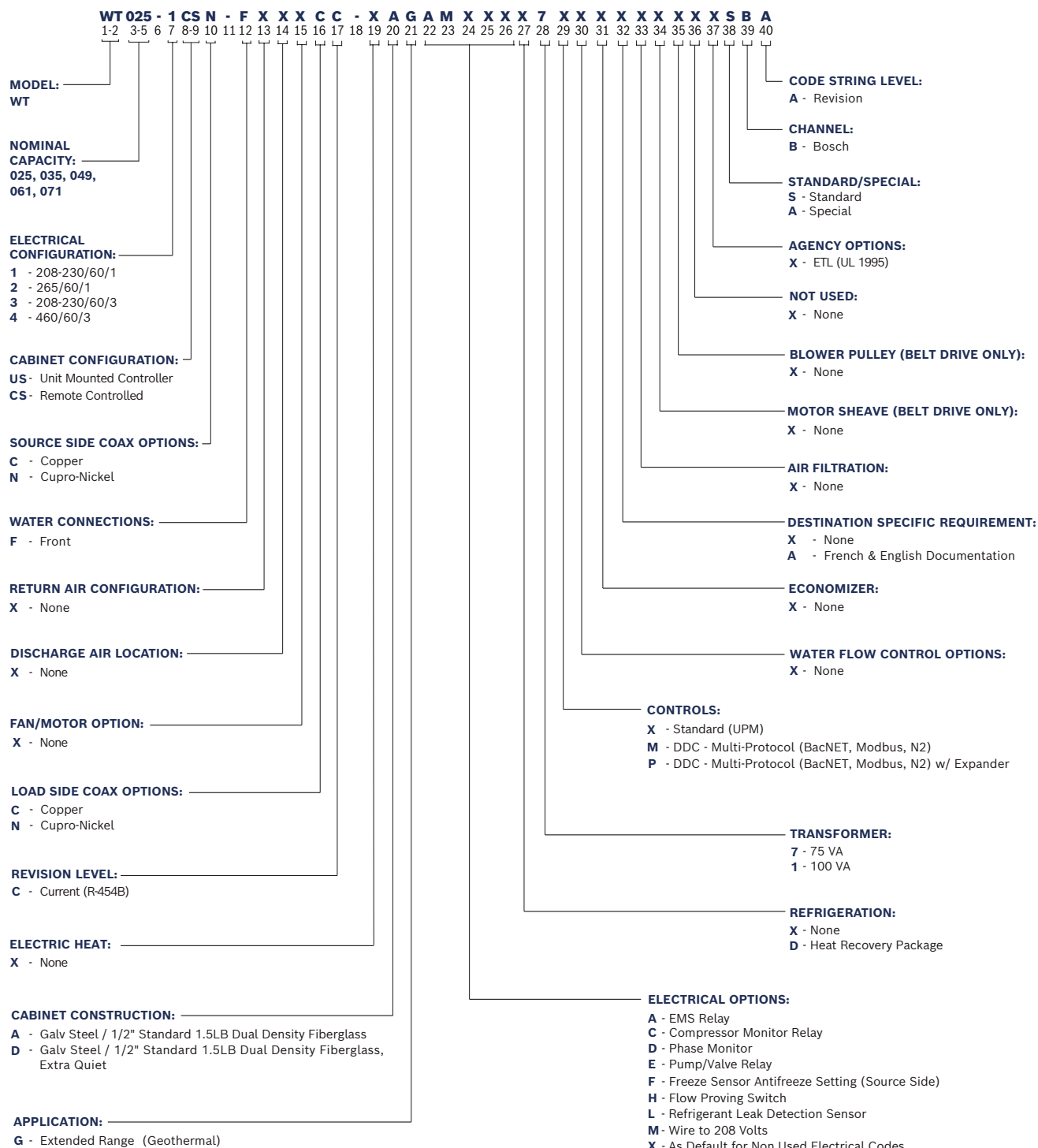
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WT and WW Model Series - Commercial Water Source Heat Pumps



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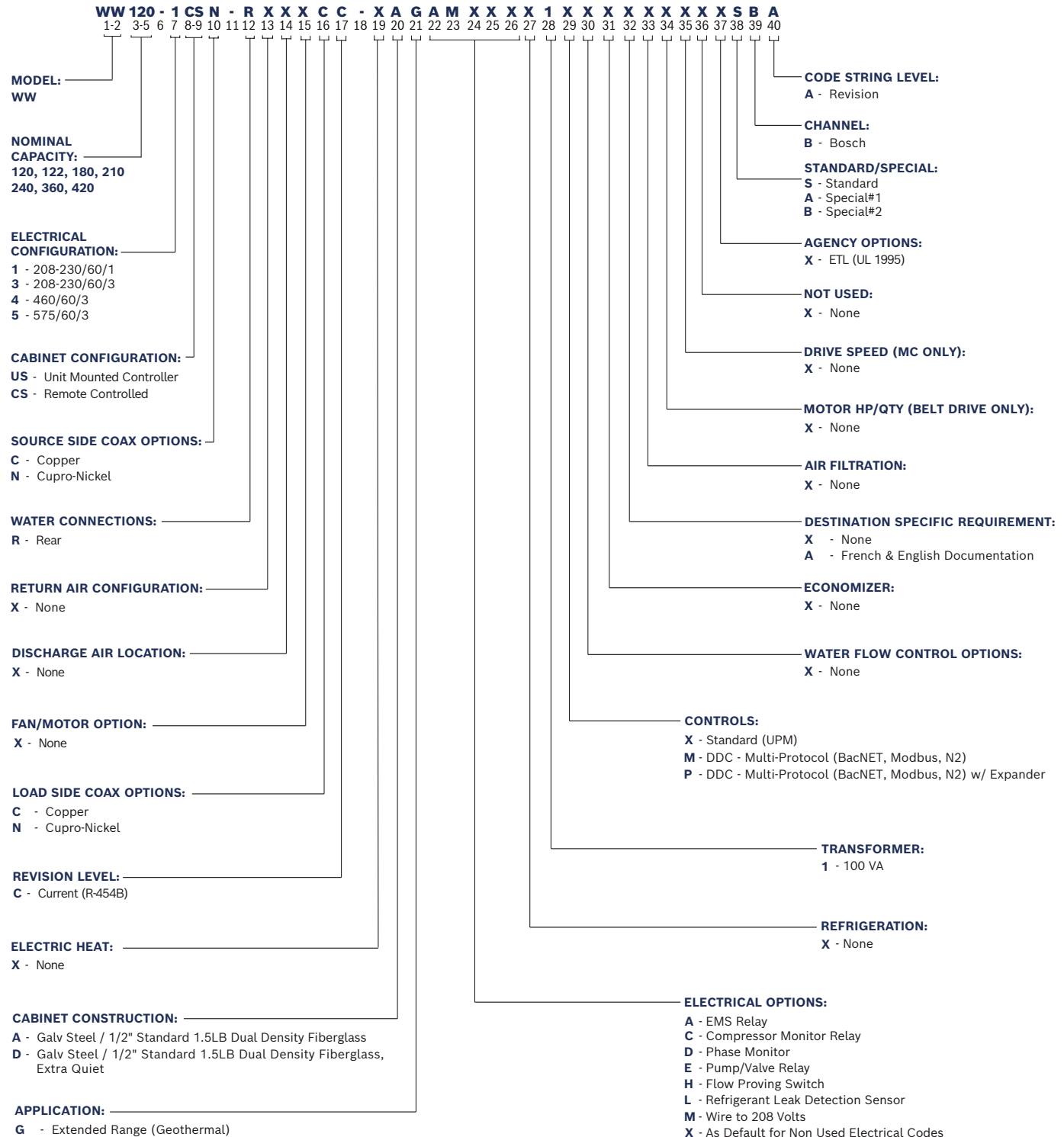
Model Nomenclature - WT



WT and WW Model Series - Commercial Water Source Heat Pumps



Model Nomenclature - WW



WT and WW Model Series - Commercial Water Source Heat Pumps



AHRI Ratings (13256-1) - WT Model

Model Number	Load	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump				GPM
		Cooling 86 deg.F		Heating 68 deg.F		Cooling 59 deg.F		Heating 50 deg.F		FL Cooling 77 deg.F PL Cooling 68 deg.F		FL Heating 32 deg.F PL Heating 41 deg.F		
		Capacity Btu/h	"EER Btuh/W-h"	Capacity Btu/h	COP	Capacity Btu/h	"EER Btuh/W-h"	Capacity Btu/h	COP	Capacity Btu/h	"EER Btuh/W-h"	Capacity Btu/h	COP	
025	Full	22,600	15.80	31,400	5.09	24,400	24.40	25,600	4.25	23,600	18.70	19,800	3.26	8
	Part	16,500	17.00	22,800	5.48	18,100	29.20	17,900	4.05	17,900	25.00	15,800	3.46	
035	Full	32,400	14.50	45,000	4.80	34,600	21.50	37,200	3.96	33,000	16.50	28,800	3.16	9
	Part	22,400	14.70	31,600	4.90	25,000	24.90	25,600	3.86	24,600	21.20	22,200	3.26	
049	Full	40,500	12.50	55,000	4.11	45,500	19.80	46,500	3.56	42,500	14.70	38,000	2.97	10
	Part	27,200	12.80	37,400	4.21	32,000	22.80	31,200	3.36	30,800	19.10	27,200	2.97	
061	Full	52,500	13.00	71,000	4.31	59,000	20.10	60,000	3.66	55,500	15.30	49,500	3.06	13
	Part	38,500	13.60	52,500	4.41	43,600	22.90	44,000	3.66	42,000	19.50	39,500	3.26	
071	Full	60,500	13.50	84,000	4.50	69,000	20.80	70,000	3.76	64,000	15.80	57,000	3.06	15
	Part	45,500	13.70	63,000	4.50	52,500	23.40	52,000	3.66	51,000	19.80	46,000	3.16	

AHRI Ratings (13256-1) - WW Model

Model Number	Load	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump				GPM
		Cooling 86 deg.F		Heating 68 deg.F		Cooling 59 deg.F		Heating 50 deg.F		FL Cooling 77 deg.F PL Cooling 68 deg.F		FL Heating 32 deg.F PL Heating 41 deg.F		
		Capacity Btu/h	"EER Btuh/W-h"	Capacity Btu/h	COP	Capacity Btu/h	"EER Btuh/W-h"	Capacity Btu/h	COP	Capacity Btu/h	"EER Btuh/W-h"	Capacity Btu/h	COP	
120	Full	108,000	13.40	152,000	4.44	120,000	20.90	126,000	3.78	111,000	15.40	101,000	3.12	30
122	Full	115,000	13.70	152,000	4.43	130,000	21.00	128,000	3.74	120,000	15.90	102,000	3.00	30
	Part	57,500	12.90	76,000	4.23	65,000	19.40	64,500	3.58	63,500	16.40	57,500	3.20	
180	Full	124,000	12.90	174,000	4.10	135,000	19.80	140,000	3.42	130,000	15.00	109,000	2.85	34
210	Full	156,000	12.30	224,000	4.10	172,000	18.80	182,000	3.43	162,000	14.20	146,000	2.78	40
240	Full	212,000	13.00	304,000	4.27	228,000	19.60	250,000	3.64	216,000	14.80	204,000	3.08	56
360	Full	244,000	13.00	348,000	4.27	276,000	20.50	284,000	3.56	256,000	15.20	226,000	2.92	68
420	Full	312,000	12.00	465,000	4.10	338,000	19.00	366,000	3.43	316,000	14.40	292,000	2.72	80

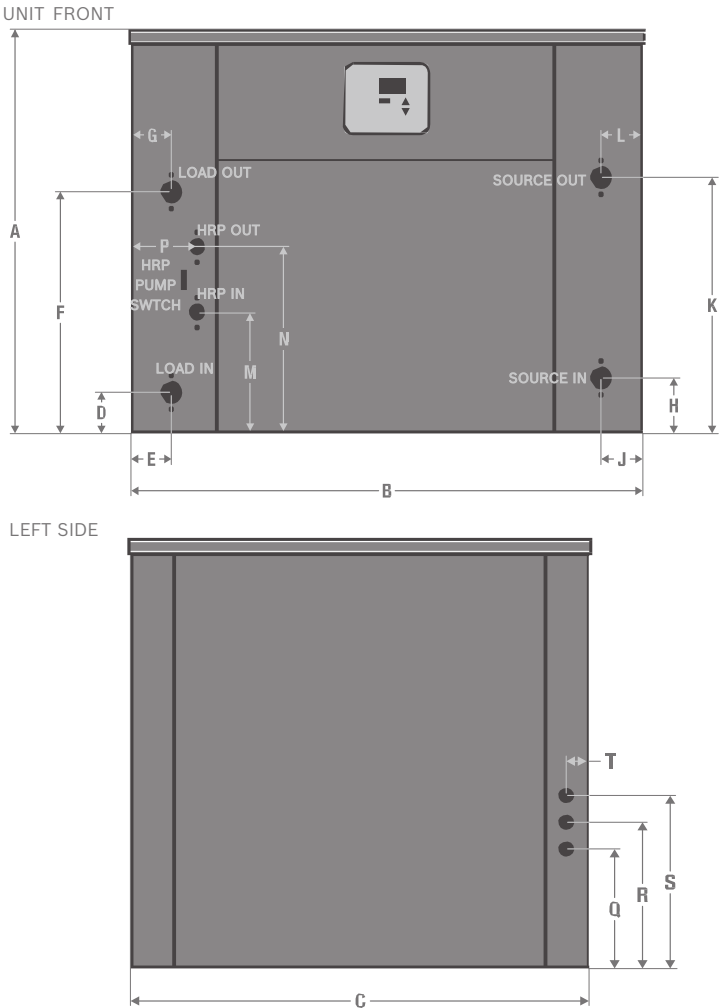
NOTES: WW180-WW420 are rated in accordance with ASHRAE/AHRI/ISO 13256-1. English (I-P) Units

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Unit Dimensions and Connections - WT Model



Unit Dimensions - WT Model

Model Number	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	Water Connections	HRP Connections
	Height	Width	Depth	Load Side Water In Height	Left Side to Load Side Water In	Load Side Water Out Height	Left Side to Load Side Water Out	Source Side Water In Height	Right Side to Source Side Water In	Source Side Water Out Height	Right Side to Source Side Water Out	HRP Water In Height	HRP Water Out Height	Left Side to HRP Water Out	Electrical Knockout Heights			Left Side to Electrical Knockouts		
025	24.00	32.50	24.00	2.20	1.70	13.20	1.70	3.75	1.50	14.25	1.95	7.15	11.00	4.25	6.55	8.05	9.55	1.25	3/4" FPT	1/2" FPT
035	24.00	32.50	24.00	2.30	2.30	14.30	2.50	3.70	2.55	15.70	2.55	7.15	11.00	4.25	6.55	8.05	9.55	1.25	3/4" FPT	1/2" FPT
049	24.00	32.50	24.00	2.30	2.10	14.30	2.65	2.75	2.65	14.75	2.65	7.15	11.00	4.25	6.55	8.05	9.55	1.25	1" FPT	1/2" FPT
061	24.00	32.50	24.00	2.80	1.38	14.80	2.63	2.51	2.00	14.38	3.40	7.15	11.00	4.25	6.55	8.05	9.55	1.25	1" FPT	1/2" FPT
071	24.00	32.50	24.00	3.00	2.25	17.25	2.25	3.25	2.25	17.00	2.25	7.15	11.00	4.25	6.55	8.05	9.55	1.25	1" FPT	1/2" FPT

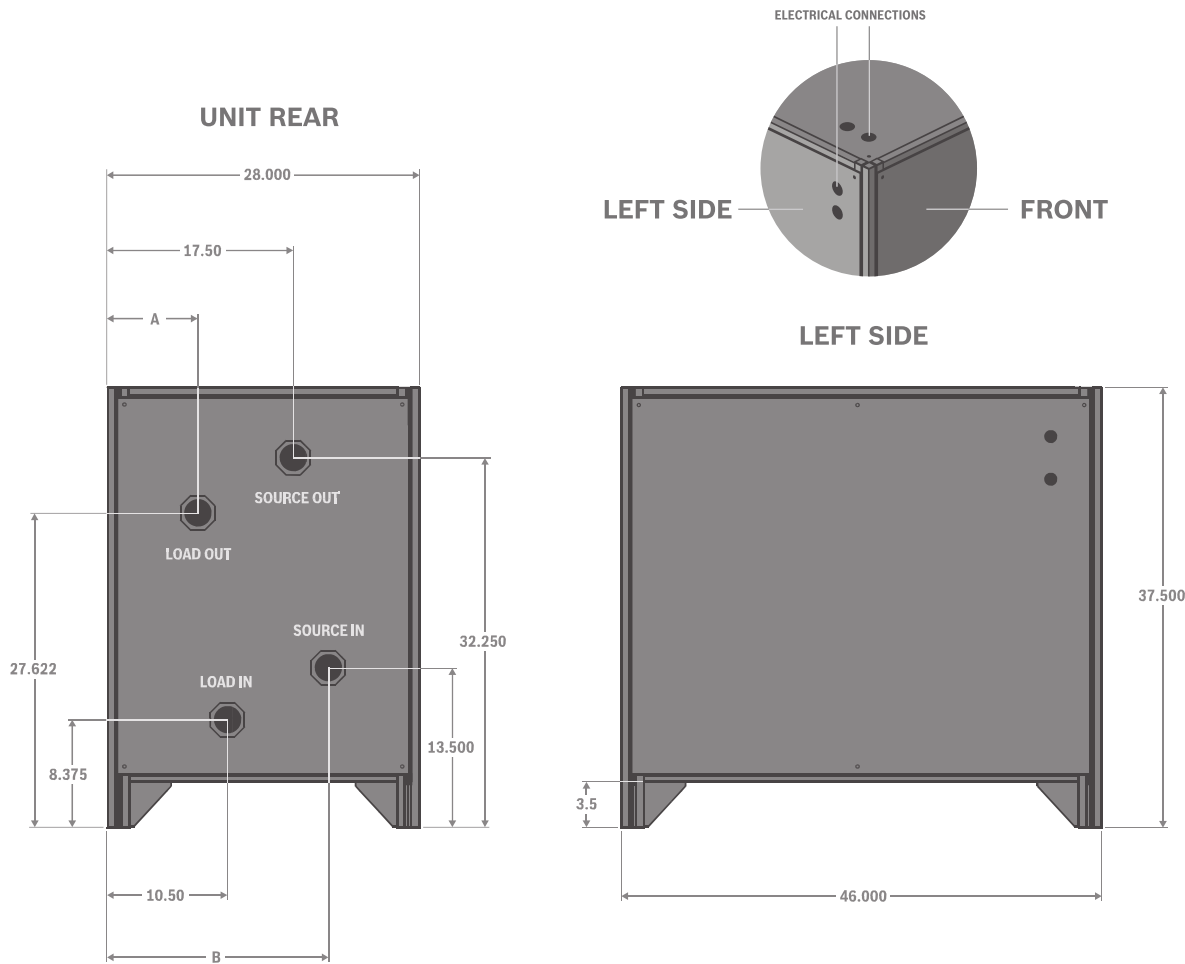
NOTES: All dimensions in inches unless otherwise noted. All dimensions within +/- 0.125". Specifications subject to change without notice.

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WT and WW Model Series - Commercial Water Source Heat Pumps



Unit Dimensions and Connections - WW120-210 Model



Unit Dimensions - WW120-210 Model

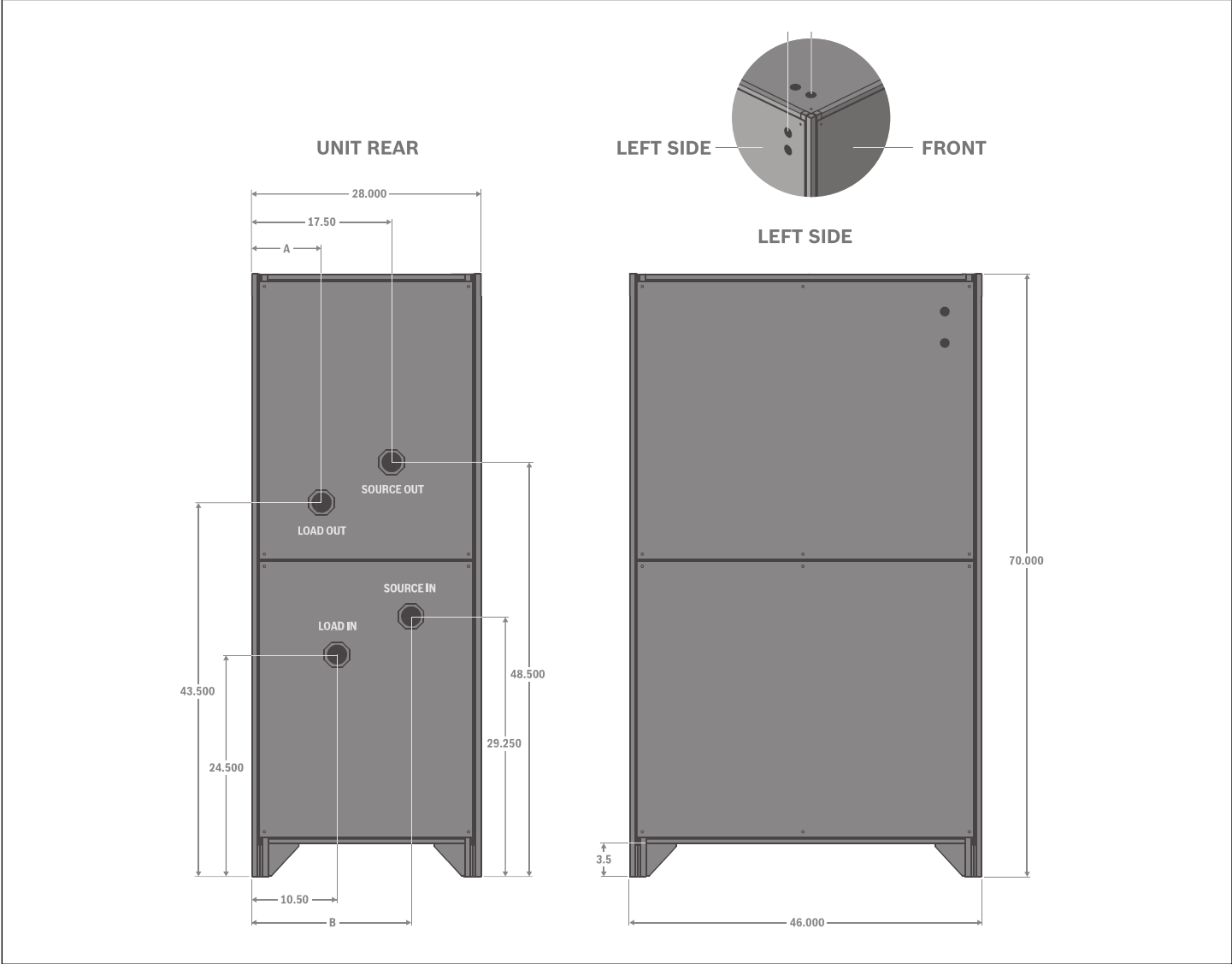
Model	Height	Width	Depth	A	B	Source Water In Height	Source Water Out Height	Right Side to Source Water Out	Load Water Out Height	Load Water In Height	Right Side to Load Water In	Unit Leg Height	Water Connections	HRP Connections
				Right Side to Load Water Out	Right Side to Source Water In									
120	37.50	28.00	46.00	8.50	19.50	13.50	32.25	17.50	27.62	8.37	10.50	3.50	1-1/4" FPT	-
122	37.50	28.00	46.00	8.50	19.50	13.50	32.25	17.50	27.62	8.37	10.50	3.50	1-1/4" FPT	1/2" FPT
180	37.50	28.00	46.00	4.50	23.50	13.50	32.25	17.50	27.62	8.37	10.50	3.50	1-1/2" FPT	-
210	37.50	28.00	46.00	4.50	23.50	13.50	32.25	17.50	27.62	8.37	10.50	3.50	1-1/2" FPT	-

NOTES: All dimensions in inches unless otherwise noted. All dimensions within +/- 0.125". Specifications subject to change without notice.

WT and WW Model Series - Commercial Water Source Heat Pumps



Unit Dimensions and Connections - WW240-420 Model



Unit Dimensions - WW240-420 Model														
Model	Height	Width	Depth	A	B	Source Water In Height	Source Water Out Height	Right Side to Source Water Out	Load Water Out Height	Load Water In Height	Right Side to Load Water In	Unit Leg Height	Water Connections	HRP Connections
				Right Side to Load Water Out	Right Side to Source Water In									
240	70.00	28.00	46.00	8.50	19.50	29.25	48.50	17.50	43.50	24.50	10.50	3.50	2" FPT	-
360	70.00	28.00	46.00	4.50	23.50	29.25	48.50	17.50	43.50	24.50	10.50	3.50	2" FPT	-
420	70.00	28.00	46.00	4.50	23.50	29.25	48.50	17.50	43.50	24.50	10.50	3.50	2" FPT	-

NOTES: All dimensions in inches unless otherwise noted. All dimensions within +/- 0.125". Specifications subject to change without notice.

WT and WW Model Series - Commercial Water Source Heat Pumps



Operating Limits - Heating and Cooling						
Limit			Cooling		Heating	
Minimum Ambient Air			50°F		40°F	
Maximum Ambient Air			100°F		85°F	
Rated Ambient Air			80°F		68°F	
Antifreeze Protection Required LWT / EWT			-		< 40/< 50°F	
Minimum Water Coil Entering Fluid			45°F		30°F	
Maximum Water Coil Entering Fluid			110°F		90°F	
Rated Water Coil Entering Fluid	Water Loop Application	Load	53.6°F		104°F	
		Source	86°F		68°F	
	Ground Loop Application	Load	53.6°F		104°F	
		Source	77°F (FL) 68°F (PL)		32°F (FL) 41°F (PL)	
	Ground Water Application	Load	53.6°F		104°F	
		Source	59°F		50°F	
Maximum Operating Water Pressure			450psi / 3,103kPA			
Minimum Operating Water Flow Rate			1.5 GPM per ton			

* Antifreeze solution is required at these fluid temperatures.

NOTES: Maximum and minimum fluid conditions are at unit rated flow rate. Maximum and minimum operating limits may not be combined. If one value is at either maximum or minimum, the other value(s) must be within normal operating range.

Antifreeze Correction							
Antifreeze Type	Antifreeze Volume %	Cooling			Heating		WPD Correction Factor EWT 30 °F
		EWT 90 Deg.F			EWT 30 Deg. F		
		Total Cap.	Sens. Cap	Power	Htg. Cap	Power	
Water	0	1.000	1.000	1.000	1.000	1.000	1.000
Propylene Glycol	5	0.997	0.997	1.004	0.989	0.997	1.060
	10	0.994	0.994	1.006	0.986	0.995	1.125
	15	0.990	0.990	1.009	0.978	0.988	1.190
	25	0.983	0.983	1.016	0.960	0.979	1.300
Methanol	5	0.997	0.997	1.003	0.990	0.997	1.060
	10	0.996	0.996	1.005	0.979	0.993	1.100
	15	0.994	0.994	1.008	0.970	0.990	1.140
Ethanol	5	0.998	0.998	1.002	0.981	0.994	1.160
	10	0.996	0.996	1.004	0.960	0.988	1.230
	15	0.992	0.992	1.006	0.944	0.983	1.280
	25	0.986	0.986	1.009	0.917	0.974	1.400
Ethylene Glycol	5	0.997	0.997	1.003	0.993	0.998	1.060
	10	0.995	0.995	1.004	0.986	0.996	1.120
	15	0.992	0.992	1.005	0.980	0.993	1.190
	25	0.988	0.988	1.009	0.970	0.990	1.330
	30	0.985	0.985	1.012	0.965	0.987	1.400

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Waterside Pressure Drop - WT Model					
Model Number	GPM	Chilled Fluid Side (55°F)		Cond. Fluid Side (85°F)	
		Pressure Drop (PSIG)	Pressure Drop (ft of H2O)	Pressure Drop (PSIG)	Pressure Drop (ft of H2O)
025	3.0	0.4	0.9	0.3	0.7
	4.0	0.6	1.4	0.5	1.2
	5.0	0.9	2.1	0.7	1.7
	6.0	1.2	2.8	1.0	2.4
	8.0	2.0	4.6	1.7	3.9
035	4.5	0.8	1.8	0.7	1.5
	6.0	1.3	2.9	1.1	2.5
	7.5	1.8	4.2	1.6	3.7
	9.0	2.5	5.7	2.2	5.1
	12.0	4.1	9.4	3.6	8.4
049	6.0	0.9	2.1	1.1	2.5
	8.0	1.5	3.4	1.8	4.2
	10.0	2.2	5.1	2.7	6.2
	12.0	3.0	6.9	3.7	8.6
	16.0	5.0	11.4	6.2	14.2
061	7.5	2.2	5.1	1.8	4.2
	10.0	3.6	8.2	3.0	7.0
	12.5	5.2	12.0	4.5	10.3
	15.0	7.1	16.4	6.2	14.3
	20.0	11.7	27.1	10.3	23.7
071	9.0	2.0	4.6	1.7	3.8
	12.0	3.3	7.5	2.8	6.4
	15.0	4.8	11.0	4.1	9.5
	18.0	6.5	15.1	5.7	13.1
	24.0	10.8	25.0	9.4	21.8

NOTE: All values based upon pure water at the indicated temperature.

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WT and WW Model Series - Commercial Water Source Heat Pumps



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Waterside Pressure Drop - WW Model					
Model Number	GPM	Chilled Fluid Side (55°F)		Cond. Fluid Side (85°F)	
		Pressure Drop (PSIG)	Pressure Drop (ft of H2O)	Pressure Drop (PSIG)	Pressure Drop (ft of H2O)
120	18.0	1.1	2.4	0.9	2.1
	22.0	1.5	3.4	1.3	3.0
	26.0	2.0	4.6	1.7	4.0
	30.0	2.5	5.8	2.2	5.2
	34.0	3.1	7.3	2.8	6.4
122	18.0	2.0	4.6	1.7	3.8
	22.0	2.8	6.4	2.4	5.4
	26.0	3.7	8.6	3.2	7.3
	30.0	4.7	11.0	4.1	9.4
	34.0	5.9	13.6	5.1	11.7
180	22.0	1.5	3.4	1.3	3.0
	26.0	2.0	4.6	1.7	4.0
	30.0	2.5	5.9	2.2	5.1
	34.0	3.2	7.3	2.8	6.4
	38.0	3.8	8.8	3.4	7.8
210	25.0	1.9	4.3	1.6	3.7
	30.0	2.5	5.9	2.2	5.1
	35.0	3.3	7.7	2.9	6.8
	40.0	4.2	9.7	3.7	8.6
	45.0	5.2	11.9	4.6	10.6
240	36.0	1.1	2.4	0.9	2.1
	44.0	1.5	3.4	1.3	3.0
	52.0	2.0	4.6	1.7	4.0
	60.0	2.5	5.8	2.2	5.2
	68.0	3.1	7.3	2.8	6.4
360	44.0	1.5	3.4	1.3	3.0
	52.0	2.0	4.6	1.7	4.0
	60.0	2.5	5.9	2.2	5.1
	68.0	3.2	7.3	2.8	6.4
	76.0	3.8	8.8	3.4	7.8
420	50.0	1.9	4.3	1.6	3.7
	60.0	2.5	5.9	2.2	5.1
	70.0	3.3	7.7	2.9	6.8
	80.0	4.2	9.7	3.7	8.6
	90.0	5.2	11.9	4.6	10.6

NOTE: All values based upon pure water at the indicated temperature.

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WT and WW Model Series - Commercial Water Source Heat Pumps



Electrical Data - WT Model									
Model Number	Voltage Code	Voltage/ Hz/ Phase	Voltage Min/ Max	Compressor			Total Unit		
				QTY	RLA	LRA	Min Circuit Amps	MOP calculation	Max Fuse/ HACR
025	1	208-230/1/60	197/253	1	10.3	62.0	12.8	23.1	20
	2	265-277/1/60	239/291	1	7.8	52.0	9.8	17.6	15
	3	208-230/3/60	197/253	1	6.3	56.0	7.9	14.1	15
	4	460/3/60	414/506	1	3.8	29.0	4.7	8.5	15
035	1	208-230/1/60	197/253	1	14.6	90.0	18.2	32.7	30
	2	265-277/1/60	239/291	1	12.5	79.0	15.6	28.1	25
	3	208-230/3/60	197/253	1	9.9	82.0	12.3	22.2	20
	4	460/3/60	414/506	1	4.8	44.3	6.0	10.8	15
049	1	208-230/1/60	197/253	1	18.3	138.0	22.9	41.3	40
	3	208-230/3/60	197/253	1	11.9	112.0	14.9	26.8	25
	4	460/3/60	414/506	1	6.8	61.8	8.5	15.3	15
061	1	208-230/1/60	197/253	1	25.2	147.3	31.5	56.7	50
	3	208-230/3/60	197/253	1	13.8	161.0	17.2	31.0	30
	4	460/3/60	414/506	1	6.9	58.0	8.6	15.4	15
071	1	208-230/1/60	197/253	1	28.0	166.0	35.0	63.0	60
	3	208-230/3/60	197/253	1	18.9	162.3	23.6	42.5	40
	4	460/3/60	414/506	1	9.1	70.8	11.4	20.5	20

NOTES: Resistance value tolerance +/- 7%. All resistance values must be measured with compressor at room temperature.

Electrical Data - WW Model									
Model Number	Voltage Code	Voltage/ Hz/ Phase	Voltage Min/ Max	Compressor			Total Unit		
				QTY	RLA	LRA	Min Circuit Amps	MOP calculation	Max Fuse/ HACR
120	3	208-230/3/60	197/253	1	33.3	255.0	41.6	74.9	70
	4	460/3/60	414/506	1	15.4	140.0	19.3	34.7	30
	5	575/3/60	518/632	1	12.9	107.6	16.1	29.0	25
122	1	208-230/1/60	197/253	2	27.6	170.0	62.1	89.7	80
	3	208-230/3/60	197/253	2	19.2	156.5	43.2	62.4	60
	4	460/3/60	414/506	2	9.0	74.8	20.3	29.3	25
	5	575/3/60	518/632	2	7.7	47.8	17.3	25.0	25
180	3	208-230/3/60	197/253	1	40.8	270.0	51.0	91.8	90
	4	460/3/60	414/506	1	19.4	147.0	24.3	43.7	40
	5	575/3/60	518/632	1	13.7	109.0	17.1	30.8	30
210	3	208-230/3/60	197/253	1	49.0	386.3	61.3	110.3	110
	4	460/3/60	414/506	1	24.0	182.0	30.0	54.0	50
	5	575/3/60	518/632	1	19.2	131.0	24.0	43.2	40
240	3	208-230/3/60	197/253	2	33.3	255.0	74.9	108.2	100
	4	460/3/60	414/506	2	15.4	140.0	34.7	50.1	50
	5	575/3/60	518/632	2	12.9	107.6	29.0	41.9	40
360	3	208-230/3/60	197/253	2	40.8	270.0	91.8	132.6	125
	4	460/3/60	414/506	2	19.4	147.0	43.7	63.1	60
	5	575/3/60	518/632	2	13.7	109.0	30.8	44.5	40
420	3	208-230/3/60	197/253	2	49.0	386.3	110.3	159.3	150
	4	460/3/60	414/506	2	24.0	182.0	54.0	78.0	70
	5	575/3/60	518/632	2	19.2	131.0	43.2	62.4	60

NOTES: Resistance value tolerance +/- 7%. All resistance values must be measured with compressor at room temperature.

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WT and WW Model Series - Commercial Water Source Heat Pumps



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Physical Data - WT Model						
Description	Unit	Value				
		025	035	049	061	071
Compressor Type	Qty 1	Scroll	Scroll	Scroll	Scroll	Scroll
Max Water Working Pressure	PSIG/kPa	450/3100	450/3100	450/3100	450/3100	450/3100
Water Connection Size (Load and Source)						
FPT	Inch	0.75	0.75	1.00	1.00	1.00
Coaxial Coil Volume	Gal	0.49	0.49	0.64	0.77	1.05
Unit Cabinet						
Refrigeration Charge	Oz	49	46	50	60	74
Weight - Operating	Lbs	240	250	280	310	430
Weight - Shipping	Lbs	260	270	300	330	450

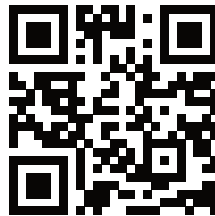
Physical Data - WW Model								
Description	Unit	Value						
		120	122	180	210	240	360	420
Compressor Type	Qty 1	Scroll (1)	Scroll (2)	Scroll (1)	Scroll (1)	Scroll (2)	Scroll (2)	Scroll (2)
Max Water Working Pressure	PSIG/kPa	450/3100	450/3100	450/3100	450/3100	450/3100	450/3100	450/3100
Water Connection Size (Load and Source)								
FPT	Inch	1.25	1.25	1.50	1.50	2.00	2.00	2.00
Coaxial Coil Volume	Gal	1.00	1.00	3.31	3.31	1.00	3.31	3.31
Unit Cabinet								
Refrigeration Charge	Oz	142	71	238	224	150	236	216
Weight - Operating	Lbs	648	720	850	890	1230	1550	1700
Weight - Shipping	Lbs	670	740	870	910	1260	1580	1730

Capacity Data - WT & WW Models



For authorized users only.

- ▶ For extended performance data please access Bosch Select Tool 2.0 (BST2.0) in your device
- ▶ To obtain an access, please scan the QR code and enter your information (for authorized users with login credentials)



Scan QR Code