

Air-to-Water Heat Pumps

R407C

Description/Model Number	RTHW010KS-JEV-1 Single wall / thermostat control / vertical discharge	RTHW010KS-JQV-1 Single wall / Rheem IQ control / vertical discharge	RTHW015KS-JEV-1 Single wall / thermostat control / vertical discharge	RTHW015KS-JQV-1 Single wall / Rheem IQ control / vertical discharge
ELECTRICAL INPUT				
Voltage/Phase	220 - 240 Volts / 1 Phase / 50 Hz		220 - 240 Volts / 1 Phase / 50 Hz	
Full Load / Locked Rotor (Amps Per Phase)	14.2 FLA / 61 LRA		19.9 FLA / 97 LRA	
Min. Circuit Size	16.0 Amps		25.0 Amps	
Refrigerant	R407C		R407C	
Nominal Heating capacity	10.32 kW		15.00 kW	
Power input	2.13 kW		3.00 kW	
COP	4.85 COP		5.00 COP	
Noise Level	59 dBa @ 3 m		59 dBa @ 3 m	
Rated Load Amps @ 12°C SST / 51°C SCT	10.08 Amps		14.61 Amps	
TECHNICAL DATA				
	Compressor	Fan	Compressor	Fan
Make	Copeland	EBM-Papst	Copeland	EBM-Papst
Type	Scroll 20077	Axial	Scroll 20104	Axial
Number Per Unit	1	1	1	1
FLA (Full Load Amps)	13.60 Amps (Each)	0.64 Amps (Each)	19.30 Amps (Each)	0.64 Amps (Each)
Voltage / Phase	220 - 240 / 1	220 - 240 / 1	220 - 240 / 1	220 - 240 / 1
Pole/RPM	2/2,900	6/890	2/2,900	6/890
Air Flow	N/A	800 L/s	N/A	800 L/s
HEAT EXCHANGER (Water Side)				
Type of Water Tube	Single Wall		Single Wall	
Design	Shell and Tube		Shell and Tube	
Flow Rate Excl. By Pass	0.60 L/s		0.60 L/s	
Max. Outlet Water Temp	61°C / 65°C*		61°C / 65°C*	
Design Pressure Drop	40 kPa		40 kPa	
Max. Operating Pressure	2,450 kPa		2,450 kPa	



Air-to-Water Heat Pumps

R407C

Description/Model Number	RTHW025 KS-DEV-1	RTHW025 KV-DEV-1	RTHW025 KS-DQV-1	RTHW025 KV-DQV-1	RTHW030 KS-DEV-1	RTHW030 KV-DEV-1	RTHW030 KS-DQV-1	RTHW030 KV-DQV-1
ELECTRICAL INPUT								
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz				380 - 415 Volts / 3 Phase / 50 Hz			
Full Load / Locked Rotor (Amps Per Phase)	12.5 FLA / 74 LRA				14.9 FLA / 101 LRA			
Min. Circuit Size	20.0 Amps				20.0 Amps			
Refrigerant	R407C				R407C			
Nominal Heating capacity	25.43 kW				29.08 kW			
Power input	4.98 kW				5.77 kW			
COP	5.11 COP				5.04 COP			
Noise Level	59 dBa @ 3 m				59 dBa @ 3 m			
Rated Load Amps @ 12°C SST / 51°C SCT	9.64 Amps				11.71 Amps			
TECHNICAL DATA								
	Compressor		Fan		Compressor		Fan	
Make	Copeland		EBM-Papst		Copeland		EBM-Papst	
Type	Scroll 20012		Axial		Scroll 20014		Axial	
Number Per Unit	1		2		1		2	
FLA (Full Load Amps)	11.2 Amps		0.64 Amps (Each)		13.6 Amps		0.64 Amps (Each)	
Voltage / Phase	380 - 415 / 3		220 - 240 / 1		380 - 415 / 3		220 - 240 / 1	
Pole/RPM	2/2,900		6/890		2/2,900		6/890	
Air Flow	N/A		1600 L/s		N/A		1600 L/s	
HEAT EXCHANGER (Water Side)								
Type of Water Tube	Single Wall		Double Wall		Single Wall		Double Wall	
Design	Shell and Tube		Co-axial Vented		Shell and Tube		Co-axial Vented	
Flow Rate Excl. By Pass	1.01 L/s				1.16 L/s			
Max. Outlet Water Temp	61°C / 65°C*				61°C / 65°C*			
Design Pressure Drop	80 kPa		50 kPa		50 kPa			
Max. Operating Pressure	2,450 kPa				2,450 kPa			



Air-to-Water Heat Pumps

R407C

Description/Model Number	RTHW040 KS-DEV-1	RTHW040 KV-DEV-1	RTHW040 KS-DQV-1	RTHW040 KV-DQV-1	RTHW050 KS-DEV-1	RTHW050 KV-DEV-1	RTHW050 KS-DQV-1	RTHW050 KV-DQV-1
ELECTRICAL INPUT								
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz				380 - 415 Volts / 3 Phase / 50 Hz			
Full Load / Locked Rotor (Amps Per Phase)	19.0 FLA / 111 LRA				24.2 FLA / 118 LRA			
Min. Circuit Size	25.0 Amps				40.0 Amps			
Refrigerant	R407C				R407C			
Nominal Heating capacity	39.35 kW				52.64 kW			
Power input	7.59 kW				10.58 kW			
COP	5.18 COP				4.98 COP			
Noise Level	62 dBa @ 3 m				69 dBa @ 3 m			
Rated Load Amps @ 12°C SST / 51°C SCT	15.46 Amps				19.01 Amps			
TECHNICAL DATA								
	Compressor		Fan		Compressor		Fan	
Make	Copeland		EBM-Papst		Copeland		EBM-Papst	
Type	Scroll 20016		Axial		Scroll 20018		Axial	
Number Per Unit	1		2		1		2	
FLA (Full Load Amps)	16.6 Amps		1.18 Amps (Each)		21.8 Amps		1.2 Amps (Each)	
Voltage / Phase	380 - 415 / 3		220 - 240 / 1		380 - 415 / 3		380 - 415 / 3	
Pole/RPM	2/2,900		6/890		2/2,900		6/890	
Air Flow	N/A		2300 L/s		N/A		4700 L/s	
HEAT EXCHANGER (Water Side)								
Type of Water Tube	Single Wall		Double Wall		Single Wall		Double Wall	
Design	Shell and Tube		Co-axial Vented		Shell and Tube		Co-axial Vented	
Flow Rate Excl. By Pass	1.57 L/s				2.09 L/s			
Max. Outlet Water Temp	61°C / 65°C*				61°C / 65°C*			
Design Pressure Drop	50 kPa				80 kPa		50 kPa	
Max. Operating Pressure	2,450 kPa				2,450 kPa			



Air-to-Water Heat Pumps

R407C

Description/Model Number	RTHW065 KS-DEV-1	RTHW065 KV-DEV-1	RTHW065 KS-DQV-1	RTHW065 KV-DQV-1	RTHW080 KS-DEV-1	RTHW080 KV-DEV-1	RTHW080 KS-DQV-1	RTHW080 KV-DQV-1
ELECTRICAL INPUT								
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz				380 - 415 Volts / 3 Phase / 50 Hz			
Full Load / Locked Rotor (Amps Per Phase)	33.6 FLA / 174 LRA				35.6 FLA / 111 LRA			
Min. Circuit Size	50.0 Amps				63.0 Amps			
Refrigerant	R407C				R407C			
Nominal Heating capacity	68.01 kW				78.70 kW			
Power input	13.93 kW				15.30 kW			
COP	4.88				5.14 COP			
Noise Level	69 dBa @ 3 m				69 dBa @ 3 m			
Rated Load Amps @ 12°C SST / 51°C SCT	27.7 Amps				28.6 Amps			
TECHNICAL DATA								
	Compressor		Fan		Compressor		Fan	
Make	Copeland		EBM-Papst		Copeland		EBM-Papst	
Type	Scroll 20056		Axial		Scroll 20016		Axial	
Number Per Unit	1		2		2		2	
FLA (Full Load Amps)	31.2 Amps		1.2 Amps (Each)		16.6 Amps (Each)		1.2 Amps (Each)	
Voltage / Phase	380 - 415 / 3		220 - 240 / 1		380 - 415 / 3		380 - 415 / 3	
Pole/RPM	2/2,900		6/890		2/2,900		6/890	
Air Flow	N/A		4700 L/s		N/A		4700 L/s	
HEAT EXCHANGER (Water Side)								
Type of Water Tube	Single Wall		Double Wall		Single Wall		Double Wall	
Design	Shell and Tube		Co-axial Vented		Shell and Tube		Co-axial Vented	
Flow Rate Excl. By Pass	2.71 L/s				3.13 L/s			
Max. Outlet Water Temp	61°C / 65°C*				61°C / 65°C*			
Design Pressure Drop	50 kPa				50 kPa			
Max. Operating Pressure	2,450 kPa				2,450 kPa			



Air-to-Water Heat Pumps

R407C

Description/Model Number	RTHW105 KS-DEV-1	RTHW105 KV-DEV-1	RTHW105 KS-DQV-1	RTHW105 KV-DQV-1	RTHW135 KS-DEV-1	RTHW135 KV-DEV-1	RTHW135 KS-DQV-1	RTHW135 KV-DQV-1
ELECTRICAL INPUT								
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz				380 - 415 Volts / 3 Phase / 50 Hz			
Full Load / Locked Rotor (Amps Per Phase)	47.0 FLA / 118 LRA				65.8 FLA / 174 LRA			
Min. Circuit Size	63.0 Amps				80.0 Amps			
Refrigerant	R407C				R407C			
Nominal Heating capacity	105.28 kW				136.02 kW			
Power input	20.64 kW				27.34 kW			
COP	5.10 COP				4.98 COP			
Noise Level	69 dBa @ 3 m				69 dBa @ 3 m			
Rated Load Amps @ 12°C SST / 51°C SCT	36.6 Amps				54.0 Amps			
TECHNICAL DATA								
	Compressor		Fan		Compressor		Fan	
Make	Copeland		EBM-Papst		Copeland		EBM-Papst	
Type	Scroll 20018		Axial		Scroll 20056		Axial	
Number Per Unit	2		2		2		2	
FLA (Full Load Amps)	21.8 Amps (Each)		1.7 Amps (Each)		31.2 Amps (Each)		1.7 Amps (Each)	
Voltage / Phase	380 - 415 / 3		380 - 415 / 3		380 - 415 / 3		380 - 415 / 3	
Pole/RPM	2/2,900		6/890		2/2,900		6/890	
Air Flow	N/A		7334 L/s		N/A		7334 L/s	
HEAT EXCHANGER (Water Side)								
Type of Water Tube	Single Wall		Double Wall		Single Wall		Double Wall	
Design	Shell and Tube		Co-axial Vented		Shell and Tube		Co-axial Vented	
Flow Rate Excl. By Pass	4.19 L/s				5.41 L/s			
Max. Outlet Water Temp	61°C / 65°C*				61°C / 65°C*			
Design Pressure Drop	80 kPa		50 kPa		50 kPa			
Max. Operating Pressure	2,450 kPa				2,450 kPa			



Air-to-Water Heat Pumps

R407C

Description/Model Number	RTHW182 KS-DEV-1	RTHW182 KV-DEV-1	RTHW182 KS-DQV-1	RTHW182 KV-DQV-1	RTHW204 KS-DEV-1	RTHW204 KV-DEV-1	RTHW204 KS-DQV-1	RTHW204 KV-DQV-1
ELECTRICAL INPUT								
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz				380 - 415 Volts / 3 Phase / 50 Hz			
Full Load / Locked Rotor (Amps Per Phase)	81.9 FLA / 225 LRA				100.8 FLA / 174 LRA			
Min. Circuit Size	100.0 Amps				120.0 Amps			
Refrigerant	R407C				R407C			
Nominal Heating capacity	182.82 kW				204.03 kW			
Power input	37.58 kW				41.79 kW			
COP	4.86 COP				4.88 COP			
Noise Level	69 dBa @ 3 m				69 dBa @ 3 m			
Rated Load Amps @ 12°C SST / 51°C SCT	63.8 Amps				83.1 Amps			
TECHNICAL DATA								
	Compressor		Fan		Compressor		Fan	
Make	Copeland		EBM-Papst		Copeland		EBM-Papst	
Type	Scroll 20092		Axial		Scroll 20056		Axial	
Number Per Unit	2		4		3		6	
FLA (Full Load Amps)	37.5 Amps (Each)		1.7 Amps (Each)		31.2 Amps (Each)		1.2 Amps (Each)	
Voltage / Phase	380 - 415 / 3		380 - 415 / 3		380 - 415 / 3		380 - 415 / 3	
Pole/RPM	2/2,900		6/890		2/2,900		6/890	
Air Flow	N/A		14668 L/s		N/A		14100 L/s	
HEAT EXCHANGER (Water Side)								
Type of Water Tube	Single Wall		Double Wall		Single Wall		Double Wall	
Design	Shell and Tube		Co-axial Vented		Shell and Tube		Co-axial Vented	
Flow Rate Excl. By Pass	7.29 L/s				8.14 L/s			
Max. Outlet Water Temp	61°C / 65°C*				61°C / 65°C*			
Design Pressure Drop	80 kPa		50 kPa		50 kPa			
Max. Operating Pressure	2,450 kPa				2,450 kPa			



Air-to-Water Heat Pumps

R407C

Description/Model Number	RTHW270 KS-DEV-1	RTHW270 KV-DEV-1	RTHW270 KS-DQV-1	RTHW270 KV-DQV-1	RTHW365 KS-DEV-1	RTHW365 KV-DEV-1	RTHW365 KS-DQV-1	RTHW365 KV-DQV-1
ELECTRICAL INPUT								
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz				380 - 415 Volts / 3 Phase / 50 Hz			
Full Load / Locked Rotor (Amps Per Phase)	134.4 FLA / 174 LRA				163.8 FLA / 225 LRA			
Min. Circuit Size	150.0 Amps				200.0 Amps			
Refrigerant	R407C				R407C			
Nominal Heating capacity	272.04 kW				365.64 kW			
Power input	55.72 kW				75.16 kW			
COP	4.88 COP				4.98 COP			
Noise Level	69 dBa @ 3 m				73 dBa @ 3 m			
Rated Load Amps @ 12°C SST / 51°C SCT	110.8 Amps				127.5 Amps			
TECHNICAL DATA								
	Compressor		Fan		Compressor		Fan	
Make	Copeland		EBM-Papst		Copeland		EBM-Papst	
Type	Scroll 20056		Axial		Scroll 20092		Axial	
Number Per Unit	4		8		4		8	
FLA (Full Load Amps)	31.2 Amps (Each)		1.2 Amps (Each)		37.5 Amps (Each)		1.7 Amps (Each)	
Voltage / Phase	380 - 415 / 3		380 - 415 / 3		380 - 415 / 3		380 - 415 / 3	
Pole/RPM	2/2,900		6/890		2/2,900		6/890	
Air Flow	N/A		18800 L/s		N/A		29336 L/s	
HEAT EXCHANGER (Water Side)								
Type of Water Tube	Single Wall		Double Wall		Single Wall		Double Wall	
Design	Shell and Tube		Co-axial Vented		Shell and Tube		Co-axial Vented	
Flow Rate Excl. By Pass	10.85 L/s				14.58 L/s			
Max. Outlet Water Temp	61°C				61°C			
Design Pressure Drop	50 kPa				50 kPa			
Max. Operating Pressure	2,450 kPa				2,450 kPa			



Air-to-Water Heat Pumps

R407C

Description/Model Number	RTHW540 KS-DEV-1	RTHW540 KV-DEV-1	RTHW540 KS-DQV-1	RTHW540 KV-DQV-1
ELECTRICAL INPUT				
Voltage/Phase	380 - 415 Volts / 3 Phase / 50 Hz			
Full Load / Locked Rotor (Amps Per Phase)	246.2 FLA / 310 LRA			
Min. Circuit Size	300.0 Amps			
Refrigerant	R407C			
Nominal Heating capacity	549.28 kW			
Power input	107.81 kW			
COP	5.09 COP			
Noise Level	73 dBa @ 3 m			
Rated Load Amps @ 12°C SST / 51°C SCT	191.1 Amps			
TECHNICAL DATA				
	Compressor		Fan	
Make	Copeland		EBM-Papst	
Type	Scroll 20105		Axial	
Number Per Unit	4		6	
FLA (Full Load Amps)	57.5 Amps (Each)		2.7 Amps (Each)	
Voltage / Phase	380 - 415 / 3		380 - 415 / 3	
Pole/RPM	2/2,900		6/890	
Air Flow	N/A		34956 L/s	
HEAT EXCHANGER (Water Side)				
Type of Water Tube	Single Wall		Double Wall	
Design	Shell and Tube		Co-axial Vented	
Flow Rate Excl. By Pass	21.90 L/s			
Max. Outlet Water Temp	61°C			
Design Pressure Drop	50 kPa			
Max. Operating Pressure	2,450 kPa			

Air-to-Water Heat Pumps COP Table

Water Out °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	5.35 kW 2.40 COP	6.72 kW 3.05 COP	8.20 kW 3.77 COP	8.68 kW 4.01 COP	9.20 kW 4.27 COP	9.74 kW 4.56 COP	10.32 kW 4.85 COP	10.57 kW 4.98 COP
50 °C	4.98 kW 1.97 COP	6.61 kW 2.65 COP	8.03 kW 3.27 COP	8.50 kW 3.48 COP	9.00 kW 3.70 COP	9.51 kW 3.94 COP	10.04 kW 4.19 COP	10.29 kW 4.30 COP
55 °C	4.72 kW 1.68 COP	6.28 kW 2.28 COP	7.91 kW 2.92 COP	8.35 kW 3.10 COP	8.83 kW 3.30 COP	9.32 kW 3.50 COP	9.86 kW 3.71 COP	10.09 kW 3.81 COP
60 °C	N/A	6.17 kW 2.07 COP	7.81 kW 2.66 COP	8.26 kW 2.83 COP	8.72 kW 3.00 COP	9.18 kW 3.18 COP	9.72 kW 3.38 COP	9.93 kW 3.46 COP

RTHW010

Water Out °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	7.78 kW 2.49 COP	9.85 kW 3.18 COP	11.94 kW 3.90 COP	12.65 kW 4.15 COP	13.40 kW 4.42 COP	14.18 kW 4.71 COP	15.00 kW 5.00 COP	15.36 kW 5.14 COP
50 °C	7.22 kW 2.04 COP	9.60 kW 2.75 COP	11.70 kW 3.39 COP	12.38 kW 3.61 COP	13.11 kW 3.84 COP	13.86 kW 4.07 COP	14.63 kW 4.32 COP	14.99 kW 4.44 COP
55 °C	6.83 kW 1.75 COP	9.15 kW 2.37 COP	11.54 kW 3.03 COP	12.19 kW 3.22 COP	12.89 kW 3.42 COP	13.61 kW 3.62 COP	14.34 kW 3.84 COP	14.68 kW 3.94 COP
60 °C	N/A	8.96 kW 2.15 COP	11.37 kW 2.77 COP	12.05 kW 2.94 COP	12.73 kW 3.13 COP	13.43 kW 3.31 COP	14.16 kW 3.51 COP	14.49 kW 3.60 COP

RTHW015

Water Out °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	9.71 kW 1.95 COP	14.14 kW 2.84 COP	18.74 kW 3.78 COP	20.26 kW 4.08 COP	21.91 kW 4.41 COP	23.62 kW 4.75 COP	25.43 kW 5.11 COP	26.22 kW 5.27 COP
50 °C	8.47 kW 1.50 COP	13.66 kW 2.43 COP	18.34 kW 3.26 COP	19.81 kW 3.52 COP	21.38 kW 3.80 COP	22.98 kW 4.08 COP	24.76 kW 4.40 COP	25.49 kW 4.53 COP
55 °C	7.55 kW 1.22 COP	12.64 kW 2.04 COP	17.92 kW 2.89 COP	19.35 kW 3.13 COP	20.90 kW 3.38 COP	22.50 kW 3.63 COP	24.20 kW 3.91 COP	24.94 kW 4.03 COP
60 °C	N/A	12.22 kW 1.83 COP	17.53 kW 2.63 COP	18.99 kW 2.85 COP	20.49 kW 3.09 COP	22.05 kW 3.32 COP	23.69 kW 3.57 COP	24.41 kW 3.68 COP

RTHW025

Water Out °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	14.15 kW 2.49 COP	18.34 kW 3.22 COP	22.50 kW 3.94 COP	23.98 kW 4.19 COP	25.61 kW 4.46 COP	27.30 kW 4.73 COP	29.08 kW 5.04 COP	29.86 kW 5.16 COP
50 °C	13.39 kW 2.09 COP	17.87 kW 2.79 COP	22.00 kW 3.44 COP	23.39 kW 3.65 COP	24.94 kW 3.89 COP	26.55 kW 4.12 COP	28.23 kW 4.38 COP	28.97 kW 4.49 COP
55 °C	11.96 kW 1.70 COP	16.87 kW 2.40 COP	21.63 kW 3.07 COP	22.95 kW 3.26 COP	24.42 kW 3.47 COP	25.95 kW 3.69 COP	27.55 kW 3.91 COP	28.25 kW 4.01 COP
60 °C	N/A	16.32 kW 2.16 COP	21.32 kW 2.82 COP	22.65 kW 3.00 COP	24.05 kW 3.18 COP	25.50 kW 3.38 COP	27.10 kW 3.59 COP	27.75 kW 3.67 COP

RTHW030

Water Out °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	15.28 kW 2.44 COP	25.25 kW 3.35 COP	30.91 kW 4.09 COP	32.80 kW 4.33 COP	34.85 kW 4.60 COP	36.98 kW 4.88 COP	39.35 kW 5.18 COP	40.29 kW 5.31 COP
50 °C	18.95 kW 2.27 COP	24.53 kW 2.93 COP	30.17 kW 3.59 COP	31.96 kW 3.80 COP	33.92 kW 4.04 COP	35.96 kW 4.28 COP	38.15 kW 4.54 COP	39.07 kW 4.65 COP
55 °C	17.09 kW 1.88 COP	23.22 kW 2.54 COP	29.58 kW 3.24 COP	31.30 kW 3.43 COP	33.16 kW 3.63 COP	35.09 kW 3.84 COP	37.19 kW 4.07 COP	38.06 kW 4.17 COP
60 °C	N/A	22.65 kW 2.33 COP	29.13 kW 2.99 COP	30.85 kW 3.17 COP	32.65 kW 3.35 COP	34.50 kW 3.54 COP	36.54 kW 3.75 COP	37.38 kW 3.84 COP

RTHW040

Water Out °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	25.54 kW 2.45 COP	33.36 kW 3.18 COP	41.35 kW 3.92 COP	43.94 kW 4.16 COP	46.73 kW 4.42 COP	49.63 kW 4.69 COP	52.64 kW 4.98 COP	53.99 kW 5.10 COP
50 °C	23.30 kW 2.00 COP	32.15 kW 2.75 COP	40.19 kW 3.43 COP	42.71 kW 3.64 COP	45.38 kW 3.86 COP	48.10 kW 4.09 COP	51.06 kW 4.34 COP	52.32 kW 4.44 COP
55 °C	21.81 kW 1.70 COP	30.40 kW 2.37 COP	39.24 kW 3.07 COP	41.65 kW 3.25 COP	44.23 kW 3.46 COP	46.90 kW 3.66 COP	49.70 kW 3.88 COP	50.94 kW 3.98 COP
60 °C	N/A	29.36 kW 2.14 COP	38.30 kW 2.80 COP	40.80 kW 2.98 COP	43.35 kW 3.16 COP	45.94 kW 3.35 COP	48.68 kW 3.55 COP	49.91 kW 3.64 COP

RTHW050

Air-to-Water Heat Pumps COP Table

Water Out °C	Ambient Temperature					
	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	61.82 kW 4.06 COP	65.60 kW 4.30 COP	69.71 kW 4.57 COP	73.96 kW 4.84 COP	78.70 kW 5.14 COP	80.59 kW 5.27 COP
50 °C	60.34 kW 3.57 COP	63.93 kW 3.78 COP	67.85 kW 4.01 COP	71.92 kW 4.25 COP	76.30 kW 4.50 COP	78.15 kW 4.61 COP
55 °C	59.16 kW 3.22 COP	62.59 kW 3.40 COP	66.33 kW 3.61 COP	70.18 kW 3.82 COP	74.38 kW 4.05 COP	76.13 kW 4.14 COP
60 °C	58.26 kW 2.97 COP	61.71 kW 3.15 COP	65.30 kW 3.33 COP	69.00 kW 3.52 COP	73.08 kW 3.73 COP	74.75 kW 3.81 COP

RTHW080

Water Out °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	33.26 kW 2.43 COP	43.13 kW 3.14 COP	53.29 kW 3.86 COP	56.64 kW 4.10 COP	60.27 kW 4.35 COP	64.01 kW 4.61 COP	68.01 kW 4.88 COP	69.73 kW 5.00 COP
50 °C	30.19 kW 1.99 COP	41.63 kW 2.72 COP	51.75 kW 3.38 COP	54.97 kW 3.58 COP	58.45 kW 3.81 COP	62.04 kW 4.03 COP	65.82 kW 4.28 COP	67.49 kW 4.38 COP
55 °C	28.13 kW 1.69 COP	39.14 kW 2.35 COP	50.53 kW 3.03 COP	53.65 kW 3.21 COP	57.00 kW 3.41 COP	60.40 kW 3.62 COP	64.10 kW 3.84 COP	65.68 kW 3.93 COP
60 °C	N/A	37.82 kW 2.13 COP	49.46 kW 2.78 COP	52.60 kW 2.95 COP	55.86 kW 3.13 COP	59.20 kW 3.32 COP	62.78 kW 3.52 COP	64.33 kW 3.60 COP

RTHW065

Water Out °C	Ambient Temperature					
	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	82.69 kW 4.02 COP	87.87 kW 4.27 COP	93.47 kW 4.53 COP	99.26 kW 4.81 COP	105.28 kW 5.10 COP	107.98 kW 5.23 COP
50 °C	80.38 kW 3.51 COP	85.42 kW 3.72 COP	90.76 kW 3.95 COP	96.20 kW 4.18 COP	102.12 kW 4.44 COP	104.63 kW 4.54 COP
55 °C	78.48 kW 3.13 COP	83.30 kW 3.32 COP	88.47 kW 3.53 COP	93.80 kW 3.74 COP	99.40 kW 3.96 COP	101.88 kW 4.06 COP
60 °C	76.63 kW 2.85 COP	81.60 kW 3.04 COP	86.71 kW 3.23 COP	91.88 kW 3.42 COP	97.36 kW 3.62 COP	99.81 kW 3.71 COP

RTHW105

Water Out °C	Ambient Temperature					
	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	106.58 kW 3.94 COP	113.28 kW 4.18 COP	120.54 kW 4.43 COP	128.02 kW 4.70 COP	136.02 kW 4.98 COP	139.46 kW 5.09 COP
50 °C	103.49 kW 3.43 COP	109.94 kW 3.65 COP	116.91 kW 3.87 COP	124.08 kW 4.10 COP	131.64 kW 4.35 COP	134.98 kW 4.46 COP
55 °C	101.06 kW 3.08 COP	107.30 kW 3.26 COP	114.00 kW 3.47 COP	120.80 kW 3.67 COP	128.20 kW 3.90 COP	131.35 kW 3.99 COP
60 °C	98.91 kW 2.82 COP	105.20 kW 3.00 COP	111.72 kW 3.18 COP	118.40 kW 3.37 COP	125.56 kW 3.57 COP	128.65 kW 3.66 COP

RTHW135

Water Out °C	Ambient Temperature					
	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	141.47 kW 3.82 COP	150.27 kW 4.04 COP	159.82 kW 4.28 COP	169.62 kW 4.53 COP	182.82 kW 4.86 COP	186.53 kW 4.95 COP
50 °C	138.25 kW 3.36 COP	146.66 kW 3.56 COP	155.80 kW 3.77 COP	165.24 kW 3.98 COP	177.97 kW 4.26 COP	181.50 kW 4.34 COP
55 °C	135.80 kW 3.04 COP	143.90 kW 3.21 COP	152.73 kW 3.39 COP	161.80 kW 3.58 COP	174.20 kW 3.84 COP	177.57 kW 3.91 COP
60 °C	133.17 kW 2.78 COP	142.10 kW 2.96 COP	150.69 kW 3.13 COP	159.52 kW 3.30 COP	171.56 kW 3.54 COP	174.85 kW 3.60 COP

RTHW182

Water Out °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	98.46 kW 2.40 COP	129.39 kW 3.14 COP	159.87 kW 3.86 COP	169.92 kW 4.10 COP	180.81 kW 4.35 COP	192.03 kW 4.61 COP	204.03 kW 4.88 COP	209.19 kW 5.00 COP
50 °C	84.05 kW 1.84 COP	123.97 kW 2.70 COP	155.24 kW 3.38 COP	164.91 kW 3.58 COP	175.36 kW 3.81 COP	186.12 kW 4.03 COP	197.46 kW 4.28 COP	202.46 kW 4.38 COP
55 °C	78.17 kW 1.56 COP	112.83 kW 2.25 COP	151.59 kW 3.03 COP	160.95 kW 3.21 COP	171.00 kW 3.41 COP	181.20 kW 3.62 COP	192.30 kW 3.84 COP	197.03 kW 3.93 COP
60 °C	N/A	112.14 kW 2.10 COP	148.11 kW 2.77 COP	157.80 kW 2.95 COP	167.58 kW 3.13 COP	177.60 kW 3.32 COP	188.34 kW 3.52 COP	192.98 kW 3.60 COP

RTHW204

Air-to-Water Heat Pumps COP Table

Water Out °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	146.05 kW 2.67 COP	181.04 kW 3.28 COP	213.16 kW 3.86 COP	226.56 kW 4.10 COP	241.08 kW 4.35 COP	256.04 kW 4.61 COP	272.04 kW 4.88 COP	278.92 kW 5.00 COP
50 °C	134.16 kW 2.20 COP	174.64 kW 2.85 COP	206.98 kW 3.38 COP	219.88 kW 3.58 COP	233.81 kW 3.81 COP	248.16 kW 4.03 COP	263.28 kW 4.28 COP	269.95 kW 4.38 COP
55 °C	124.26 kW 1.87 COP	164.39 kW 2.47 COP	202.12 kW 3.03 COP	214.60 kW 3.21 COP	228.00 kW 3.41 COP	241.60 kW 3.62 COP	256.40 kW 3.84 COP	262.71 kW 3.93 COP
60 °C	NA 2.23 COP	158.32 kW 2.78 COP	197.67 kW 2.78 COP	210.40 kW 2.95 COP	223.44 kW 3.13 COP	236.80 kW 3.32 COP	251.12 kW 3.52 COP	257.30 kW 3.60 COP

RTHW270

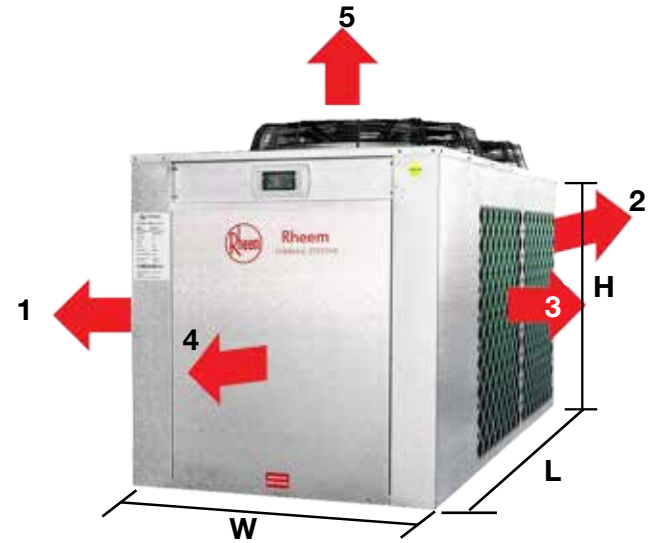
Water Out °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	197.21 kW 2.71 COP	238.91 kW 3.26 COP	282.94 kW 3.82 COP	300.54 kW 4.04 COP	319.64 kW 4.28 COP	339.24 kW 4.53 COP	365.64 kW 4.86 COP	373.06 kW 4.95 COP
50 °C	178.47 kW 2.23 COP	232.72 kW 2.85 COP	276.50 kW 3.36 COP	293.32 kW 3.56 COP	311.60 kW 3.77 COP	330.48 kW 3.98 COP	355.94 kW 4.26 COP	362.99 kW 4.34 COP
55 °C	166.16 kW 1.89 COP	220.25 kW 2.48 COP	271.60 kW 3.04 COP	287.80 kW 3.21 COP	305.47 kW 3.39 COP	323.60 kW 3.58 COP	348.40 kW 3.84 COP	355.14 kW 3.91 COP
60 °C	NA 2.22 COP	210.82 kW 2.80 COP	267.71 kW 2.80 COP	284.20 kW 2.96 COP	301.39 kW 3.13 COP	319.04 kW 3.30 COP	343.12 kW 3.54 COP	349.70 kW 3.60 COP

RTHW365

Water Out °C	Ambient Temperature							
	0 °C	5 °C	10 °C	15 °C	20 °C	25 °C	30 °C	35 °C
45 °C	291.54 kW 2.78 COP	359.36 kW 3.40 COP	430.08 kW 4.03 COP	457.76 kW 4.28 COP	488.00 kW 4.55 COP	519.20 kW 4.83 COP	549.28 kW 5.09 COP	564.60 kW 5.23 COP
50 °C	265.02 kW 2.27 COP	347.12 kW 2.95 COP	417.94 kW 3.52 COP	444.48 kW 3.74 COP	473.33 kW 3.97 COP	503.20 kW 4.21 COP	531.88 kW 4.44 COP	546.52 kW 4.56 COP
55 °C	247.01 kW 1.92 COP	330.18 kW 2.56 COP	407.76 kW 3.15 COP	433.60 kW 3.34 COP	461.60 kW 3.55 COP	490.40 kW 3.77 COP	518.26 kW 3.98 COP	532.43 kW 4.09 COP
60 °C	NA 2.30 COP	318.48 kW 2.88 COP	398.83 kW 2.88 COP	425.08 kW 3.06 COP	452.40 kW 3.25 COP	480.56 kW 3.46 COP	507.74 kW 3.64 COP	521.57 kW 3.74 COP

RTHW540

Air-to-Water Heat Pumps Dimensions



Direction	Description	Minimum Clearance Required (mm)														
		RTHW 010	RTHW 015	RTHW 025	RTHW 030	RTHW 040	RTHW 050	RTHW 065	RTHW 080	RTHW 105	RTHW 135	RTHW 182	RTHW 204	RTHW 270	RTHW 365	RTHW 540
1	Evaporator Coil	500	500	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
2	Water Connections	200	200	500	500	500	500	500	500	500	500	850	500	500	850	850
3	Compressor Access	850	850	Nil	Nil	Nil	Nil	Nil	1000	1000	1000	1000	1000	1000	1000	1000
4	Side Access	300	300	850	850	850	850	850	850	850	850	850	850	1000	1000	1000
5	Fan Clearance	2500	2500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500