

# GreenSource CDI series

## Model TW

### Residential Water to Water Heat Pump

Engineering  
Submittal  
Sheet



# BOSCH

#### Overview and Certifications



#### Standard Features

##### Standard Features

- ▶ **White Pre-Painted Sheet Metal Cabinets**
  - Appliance white for a clean - durable look
- ▶ **High Efficiency**
  - Up to 26.3 EER @ PL GWHP
  - Up to 22.1 EER @ FL GWHP
  - Compliant with Energy Star Tier 3
  - Standard scroll compressor(s)
  - Dual-stage refrigerant circuit
- ▶ **Remote Mounted Control RMC with Unit Protection Module UPM**
  - LCD Display - for easy view of unit operation (models TW025-061 only)
  - Low Pressure Switch Protection
  - High Pressure Switch Protection
  - Alarm Output
  - Anti-Short Cycling
  - 5 minute Delay
  - Low Pressure Bypass at Start Up
  - Random Start of Unit
  - Brown Out Protection
  - Water Coil/Coaxial Coil/Condenser Freeze Protection
- ▶ **Insulation and Construction**
  - 1/2" dual density 1.5# fiberglass insulation
  - Multi-density sound compressor blanket
  - Patented floating base pan
  - Front water connections (rear water connections on TW122)
  - Single point electrical connection
  - Insulated coaxial heat exchangers and refrigerant piping
- ▶ **Reliability - Durability - Serviceability**
  - Alert Communicating Circuit Board
  - Schrader access ports
  - High & low pressure switches
  - Lockout circuit
  - Unit protection module (UPM) standard in -CSC, -CSN models
  - Unit mounted controller (UMC) standard on -USC, -USN model
- ▶ **Standard Warranty**
  - 10 Year All Parts Limited Warranty
  - 10 Year Labor Limited Warranty

\* for complete warranty details see:  
<https://www.bosch-thermotechnology.us/us/en/residential/service/product-warranty-library/>

### Factory Installed Options, Field Installed Options, and Control Options

#### Factory Installed Options

- ▶ **Cupro-Nickel Coil:**
  - Recommended in conditions anticipating moderate scale formation or in brackish water (available on source-side).
- ▶ **Domestic Hot Water Heat Recovery Package (HRP):**
  - Utilizes the compressor's superheated discharge gas to preheat domestic hot water
  - The HRP reduces the amount of electricity or fossil fuels otherwise used for hot water
- ▶ **Unit Mounted Controller (UMC):**
  - Tactile touchpad and digital temperature display
  - LED display provides indication of unit operating mode and fault indication
  - Adjustable temperature set point and differential



UMC option removes Remote Mounted Control and Unit Protection Module.

#### Field Installed Options

- ▶ **Stainless Steel Hose Kits**
  - Available in various lengths and diameters depending on the need for your application
- ▶ **Flow Center Kits**
  - Built for easy installation and are available in a wide variety of combinations.
  - 10 year limited warranty
    - \* for complete warranty details see:  
<https://www.bosch-thermotechnology.us/us/en/residential/service/product-warranty-library/>
- ▶ **Flow Proving Switch (DPS)**
  - Shuts down the WSHP before unit can go into hard lockout faults due to water flow issues (ie. High head pressure, etc.)
  - Building managers and homeowners alike do not have to manually reset the WSHP by entering tenant space or private residence
- ▶ **Pump/Valve Relay Kit**
  - This relay is used to energize a supply pump or solenoid valve when there is a call for compressor operation. This relay can be used to switch either high or low voltage power

#### Control Options

There are two main choices when designating controllability for the water-to-water models. There is either a factory installed unit mounted controller (UMC - unit protection module and touchpad all-in-one) or a UPM with third-party controls field supplied (RMC - Remote Mounted Control). For further explanation contact the local sales office to receive a better understanding of the control-ability choices.

- ▶ **Unit Mounted Controller (UMC):**

Designed to enhance the unit operation with more flexibility, accurate control and operating models. The unit mounted controller provides an increased level of comfort in the conditioned space together with solid-state reliability and ease of operation. When UMC is used, Freeze Protection is set from the factory at 40degF. Some functionality of our proven UPM module are incorporated into the unit mounted controller for unit protection. The unit mounted controller is available on all Bosch Thermotechnology water-to-water units except for remote controller/thermostat designation.

  - **Tactile Touchpad** for temperature and mode adjustment.
  - **Digital Display** of temperature in either degrees Fahrenheit or Celsius.
  - **LED Display** provides indication for unit operating mode and fault indication for high or low pressure lockout.
  - **Adjustable Temperature Set Point** from 60° F through 80° F (15.5° C through 26.7° C ).
  - **Adjustable Temperature Differential** between 1° F and 6° F (0.6° C and 3.3° C).
  - **Selectable Options:**
    - Manual/Automatic changeover
  - **Additional Features**
    - 5 minute anti short cycling delay
    - Random start
    - 90 second low pressure bypass timer prevents nuisance lockouts during cold winter start up
    - Intelligent reset allows the unit to automatically restart after 5 minutes if a fault is no longer active
- ▶ **Remote Mounted Control (RMC):**

This feature provides the flexibility to connect a variety of appropriate remote mounted controllers to a low voltage terminal strip within the water-to-water unit. All water-to-water models come with Freeze Protection internal to the unit.

### Control Options continued..

#### ► **Unit Protection Module (UPM)**

When selecting the remote mounted controller, the TW Models are built in the factory with a Unit Protection Module (UPM) that controls the unit operation and monitors the safety controls that protect the unit. The UPM interfaces with the appropriate controller. The main purpose of the UPM is to protect the compressor by monitoring the different states of switches and sensors. This module provides time delays and helps protect the unit against freezing of the water-to-water heat exchangers. This level of protection helps provide the peace of mind that comes with offering a Bosch product to the customer.

#### – **UPM Control Board Features:**

- **Anti-Short Cycle Timer** – 5 minute delay on break timer to prevent compressor short cycling.
- **Random Start** – Each controller has a unique random start delay ranging from 270 to 300 seconds after power is applied to the board. This will prevent the simultaneous start of multiple units after a power outage.
- **Low Pressure Bypass Timer** – The low pressure switch is bypassed for 120 seconds after a call for compressor operation to prevent nuisance low pressure lockouts during cold start-up in the heating mode.
- **Brownout/Surge/Power Interruption Protection**– Prevents compressor operation should the voltage drop below 10% of unit rated value. The unit will restart once the voltage is within tolerance and the random start has timed out.
- **Malfunction (Alarm) Output** – The controller has a set of contacts for remote fault indication. This can be either a steady output or can be set to pulse with the fault code. Two connections are available – one to provide a 24 volt output, the other to provide a dry contact.
- **Test Service Mode** – A dip switch setting is provided to reduce all time delay settings to 10 seconds maximum during troubleshooting for verification of unit operation.
- **LED Fault Indication** – Two LED indicators are provided as follows:
  - **Green:** Power LED indicates 18 – 30 VAC present at the board.
  - **Red:** Fault indicator with blink codes identifying the particular fault. This information is available via the malfunction (alarm) output contacts.

- **Intelligent Reset** – If a fault condition is initiated, the 5 minute delay on break time period is initiated and the unit will restart after this delay expires. The UPM is configurable for either 2 or 4 fault occurrences before going into a hard lockout. The selection is made through a dip switch setting on the board. If the fault condition still exists or reoccurs twice or four times within one hour, the unit will go into a hard lockout and requires a manual lockout reset.
- **Lockout Reset** – A hard lockout can be reset by turning the unit thermostat off and then back on or by shutting off unit power at the circuit breaker.

#### ► **Additional Features:**

- 75VA transformer
- TXV
- Dual freeze sensor (with RMC)
- Remote reset at thermostat
- Fault LED indication
- Four-way reversing valve
- Filter drier

# GreenSource TW Series

## Residential Water to Water Heat Pumps



### Model Nomenclature

**TW 025 - 1 CS N - F X X X C B - X K G X X X X X X 7 X X X X X X X S B A**  
 1-2 3-5 6 7 8-9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

**MODEL:**  
TW

**NOMINAL CAPACITY:**  
025, 035, 049  
061, 122

**ELECTRICAL CONFIGURATION:**  
1 - 208-230/60/1

**CABINET CONFIGURATION:**  
US - Unit Mounted Controller  
CS - Remote Controlled

**SOURCE SIDE COAX OPTIONS:**  
C - Copper  
N - Cupro-nickel

**WATER CONNECTIONS:**  
F - Front

**RETURN AIR CONFIGURATION:**  
X - None

**DISCHARGE AIR LOCATION:**  
X - None

**FAN/MOTOR OPTION:**  
X - None

**LOAD SIDE COAX OPTIONS:**  
C - Copper

**REVISION LEVEL:**  
A - Legacy  
B - Current

**ELECTRIC HEAT:**  
X - None

**CABINET CONSTRUCTION:**  
K - Pre Paint Steel / 1/2" Standard 1.5LB Dual Density Fiberglass / EQ

**APPLICATION:**  
G - Extended Range (Geothermal)

**CODE STRING LEVEL:**  
A - Revision

**STANDARD/SPECIAL:**  
SB - Bosch

**NOT USED:**  
X - None

**NOT USED:**  
X - None

**BLOWER PULLEY (BELT DRIVE ONLY):**  
X - None

**MOTOR SHEAVE (BELT DRIVE ONLY):**  
X - None

**AIR FILTRATION:**  
X - None

**NOT USED:**  
X - None

**ECONOMIZER:**  
X - None

**WATER FLOW CONTROL OPTIONS:**  
X - None

**CONTROLS:**  
X - Standard (UPM)

**TRANSFORMER:**  
7 - 75 VA

**REFRIGERATION:**  
X - None  
D - Heat Recovery Package

**GENERAL ELECTRICAL OPTIONS (up to 5 available per unit):**  
X - As default for non used electrical codes

# GreenSource TW Series

## Residential Water to Water Heat Pumps



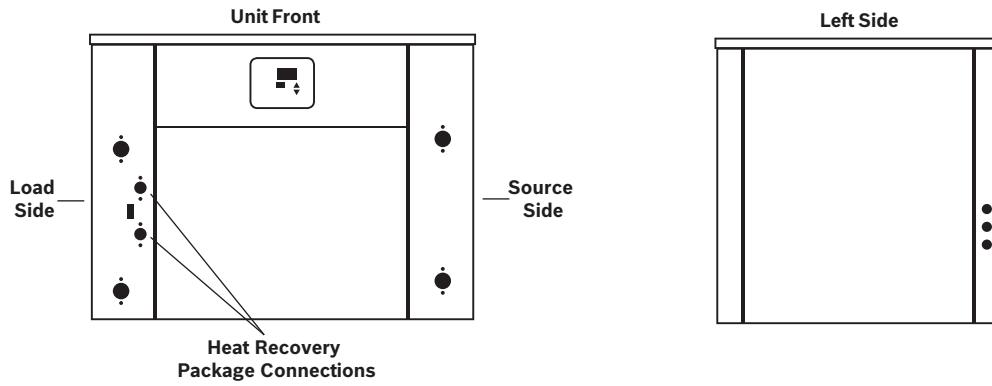
Physical Data						
Description	Unit	TW025	TW035	TW049	TW061	TW122
Compressor Type (Qty)	–	Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)	Scroll (2)
Refrigeration Charge	Oz.	54	59	72	72	162
Max Water Working Pressure	PSIG/kPa	450/3100	450/3100	450/3100	450/3100	450/3100
Load - Water Connection Size						
FPT	Inch	3/4	3/4	1.0	1.0	1-1/4
Coaxial Coil Volume	Gal	0.47	0.64	1.00	1.00	2.06
Source - Water Connection Size						
FPT	Inch	3/4	3/4	1.0	1.0	1-1/4
Coaxial Coil Volume	Gal	0.47	0.64	1.00	1.00	2.06
Cabinet						
Weight - Operating (lbs)	lbs	290	290	360	360	700
Weight - Shipping (lbs)	lbs	310	310	380	380	720

ASHRAE/AHRI/ISO 13256-1. English (I-P) Units														
Models	Load	GPM	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
			Cooling 86 deg.F		Heating 68 deg.F		Cooling 59 deg.F		Heating 50 deg.F		Cooling 77 deg.F		Heating 32 deg.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
TW025	Full	8	22200	14.45	29700	4.55	25400	22.10	23800	3.70	23400	16.90	18700	3.05
	Partial	8	16900	15.55	22200	4.85	19400	25.50	17600	3.70	18800	22.10	15300	3.15
TW035	Full	9	32500	13.80	44100	4.60	37200	21.30	35800	3.70	34100	16.10	28300	3.05
	Partial	9	23700	14.60	32500	4.90	27600	25.50	25500	3.70	26400	21.30	22100	3.15
TW049	Full	12	42700	14.40	55800	4.50	48500	22.10	46200	3.60	44800	16.70	37300	3.05
	Partial	12	31600	15.10	40800	4.60	36600	26.30	33500	3.60	35200	22.10	29800	3.15
TW061	Full	13	52000	13.90	67500	4.40	58500	21.00	55900	3.60	54400	16.20	45400	3.05
	Partial	13	38500	14.50	49600	4.50	44100	25.00	41100	3.60	42300	21.00	36700	3.15
TW122	Full	30	108400	13.80	148400	4.60	122900	20.55	120600	3.70	113800	16.00	95800	3.05
	Partial	30	80200	14.40	109900	4.80	90400	21.65	88300	3.70	87900	19.60	78500	3.15

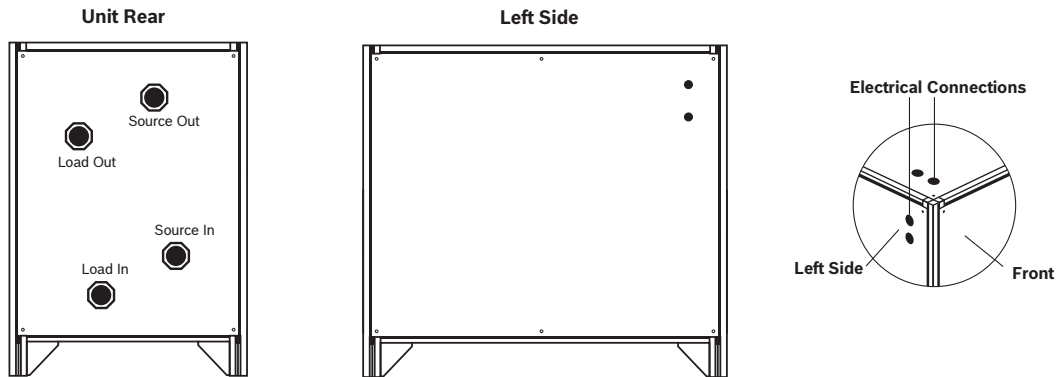
Electrical Data										
Models	Voltage Code	Rated Voltage	Voltage Min/Max	Compressor						
				QTY	RLA	LRA	Min Circuit Amps	MOP Calculation	Max Fuse/ HACR	
TW025	1	208-230/60/1	197/253	1	11.7	58.3	14.6	26.2	25	
TW035	1	208-230/60/1	197/253	1	15.6	83.0	19.5	35.1	35	
TW049	1	208-230/60/1	197/253	1	21.2	104.0	26.4	47.6	45	
TW061	1	208-230/60/1	197/253	1	26.9	139.0	33.6	60.5	60	
TW122	1	208-230/60/1	197/253	2	26.9	139.0	60.5	87.4	80	

**Unit Configurations**

**TW Model**



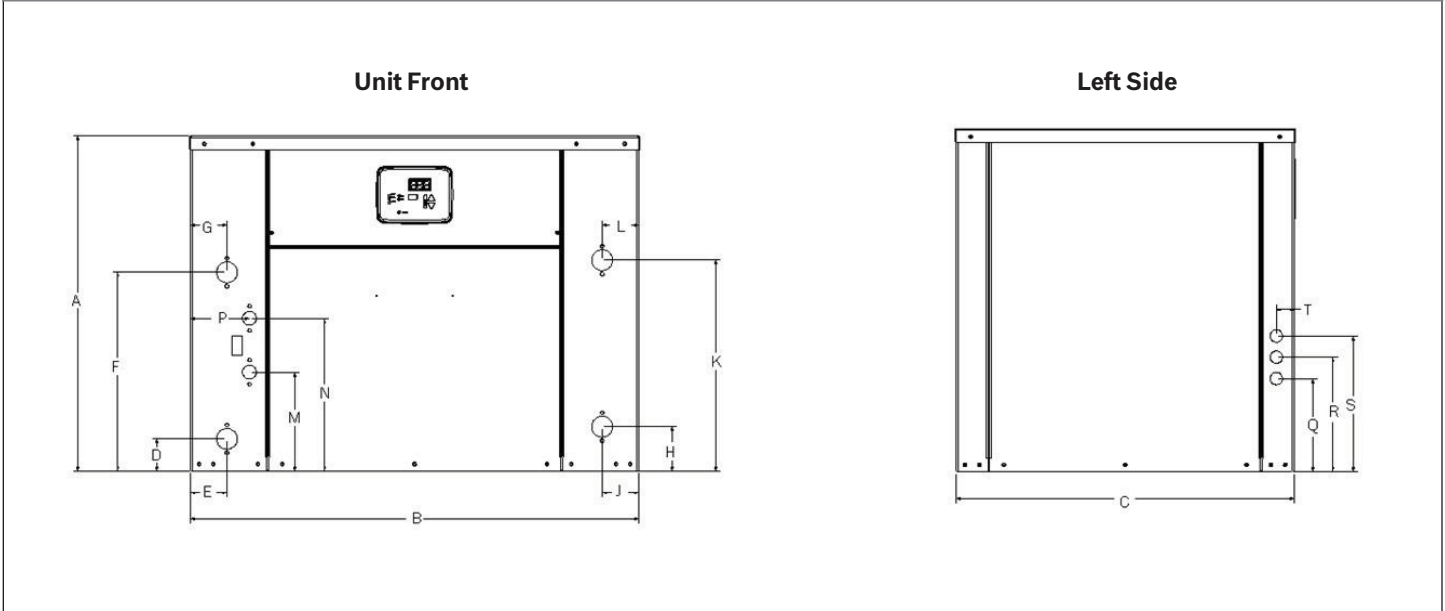
**TW Model 10 tons**



# GreenSource TW Series Residential Water to Water Heat Pumps



## TW025-061 Dimensions and Connections



## TW025-061 Dimensions and Connections

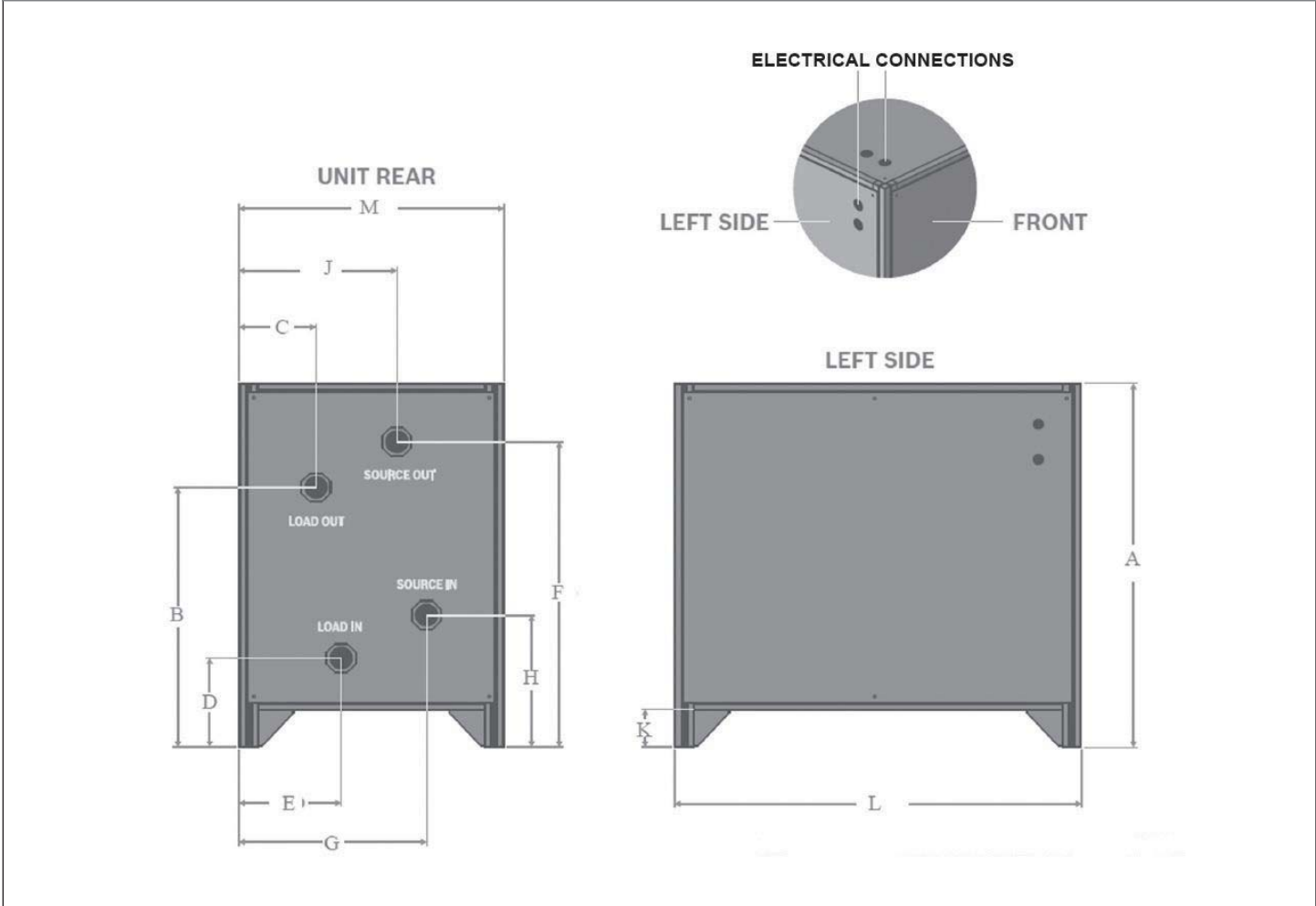
Model	A Height	B Width	C Depth	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	Water Conn.	HRP Conn.
TW025	24.00	32.50	24.00	2.30	2.55	14.30	2.65	3.80	2.67	15.80	2.67	7.24	11.12	4.31	5.80	8.05	10.30	1.25	3/4 FPT	1/2 FPT
TW035	24.00	32.50	24.00	2.30	2.55	14.30	2.65	3.80	2.67	15.80	2.67	7.24	11.12	4.31	5.80	8.05	10.30	1.25	3/4 FPT	1/2 FPT
TW049	24.00	32.50	24.00	2.90	2.19	16.90	2.19	3.12	2.17	17.12	2.17	7.24	11.12	4.31	5.80	8.05	10.30	1.25	1 FPT	1/2 FPT
TW061	24.00	32.50	24.00	2.90	2.19	16.90	2.19	3.10	2.17	17.10	2.17	7.24	11.12	4.31	5.80	8.05	10.30	1.25	1 FPT	1/2 FPT

## TW025-061 Overall Cabinet Dimensions

Models	Units	Width	Depth	Height
TW025 - 061	in	32.50	24.00	24.00
	mm	825	610	613

**i** All dimensions within +/- 0.125".  
Specifications subject to change without notice.

**TW122 Dimensions and Connections**



**TW122 Dimensions and Connections**

Model	A	B	C	D	E	F	G	H	J	K	L	M	Water Conn.
TW122	37.75	27.25	8.13	8.00	10.63	32.75	20.13	13.50	17.63	3.75	46.00	28.00	1-1/4" FPT

**TW122 Overall Cabinet Dimensions**

Models	Units	Width	Depth	Height
TW122	in	28.00	46.00	37.75
	mm	711	1168	960

**i** All dimensions within +/- 0.125".  
Specifications subject to change without notice.



# GreenSource TW Series

## Residential Water to Water Heat Pumps



### Unit Operating Limits

The water-to-water models are capable of operating over a wide range of conditions. For operation in a geothermal application or any other installation where the loop fluid temperature may drop below the ambient dew point, the extended range option is recommended. This consists of additional insulation on the piping to prevent condensation.

- ▶ 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 two should be at normal operating range.
- ▶ Entering fluid temperatures below 45°F in the heating mode require antifreeze.

To ensure that you get the optimal performance from your Bosch heat pump it is important that they be selected accurately to match your design conditions.

Prior to making equipment selections the zone conditions need to be determined. Bosch Thermotechnology Corp. recommends using a building load program to determine the heating and cooling loads.

This engineering submittal sheet provides water conditions that will meet most applications. The unit performance can be determined by referring to the extended performance data tables.

### Operating Limits – Cooling & Heating

Cooling	Source	Load
Minimum ambient air temperature °F	50	
Maximum ambient air temperature °F	110	
Minimum water coil entering fluid temperature °F	50	50
Water loop typical coil entering fluid range temperature °F	70-90	40-60
Maximum water coil entering fluid temperature °F	110	90
Heating	Source	Load
Minimum ambient air temperature °F	50	
Maximum ambient air temperature °F	110	
Minimum water coil entering fluid temperature °F	50	50
Water loop typical coil entering fluid range temperature °F	70-90	40-60
Maximum water coil entering fluid temperature °F	110	90

\*Antifreeze solution is required at these fluid temperatures.

**i** Minimum / maximum limits are only for start up conditions. Only one parameter out of these three: entering source temperature, entering load temperature, or flow rate is permissible at minimum or maximum conditions at the same time. Refer to the extended performance data tables to determine allowable operating limits.

**GreenSource** TW Series  
Residential Water to Water Heat Pumps



Antifreeze Correction							
Antifreeze Type	Antifreeze %	Cooling			Heating		WPD Correction Factor EWT 30 °F
		Avg. Water Temp. 90 °F			Avg. Water Temp. 30 °F		
		Total Cap.	Sens. Cap	Power	Htg. Cap	Power	
<b>Water</b>	0	1.000	1.000	1.000	1.000	1.000	1.000
<b>Propylene Glycol</b>	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
<b>Methanol</b>	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
<b>Ethanol</b>	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
<b>Ethylene Glycol</b>	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

**GreenSource** TW Series  
Residential Water to Water Heat Pumps



**BOSCH**

Waterside Pressure Drop					
Model	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)
<b>TW025</b>	3.0	0.56	1.30	0.51	1.18
	4.0	0.95	2.18	0.86	1.98
	5.0	1.41	3.26	1.28	2.95
	6.0	1.96	4.52	1.78	4.10
	8.0	3.29	7.59	2.98	6.88
<b>TW035</b>	4.5	1.85	4.26	1.67	3.86
	6.0	3.10	7.14	2.81	6.47
	7.5	4.63	10.68	4.19	9.67
	9.0	6.43	14.82	5.82	13.43
	12.0	10.78	24.88	9.77	22.54
<b>TW049</b>	6.0	1.10	2.54	1.00	2.30
	8.0	1.85	4.26	1.67	3.86
	10.0	2.76	6.37	2.50	5.77
	12.0	3.83	8.85	3.47	8.01
	16.0	6.44	14.85	5.83	13.45
<b>TW061</b>	7.5	1.41	3.24	1.27	2.94
	10.0	2.36	5.44	2.14	4.93
	12.5	3.53	8.13	3.19	7.37
	15.0	4.89	11.29	4.43	10.23
	20.0	8.21	18.95	7.44	17.17
<b>TW122</b>	18.0	2.36	5.5	2.05	4.7
	22.0	3.39	7.8	2.94	6.8
	26.0	4.58	10.6	3.97	9.2
	30.0	5.93	13.7	5.14	11.9
	34.0	7.43	17.1	6.44	14.8

**i** All values based upon pure water at the indicated temperature.

# GreenSource TW Series

## Residential Water to Water Heat Pumps



### Capacity Data - TW025 - Full Load - Cooling

SOURCE			LOAD																					
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	4 GPM					6 GPM					8 GPM										
				Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)			
50	4	0.4	50	■																				
			60	■																				
			70	■																				
	6	0.9	80	■																				
			90	36.6	1.09	39.9	71.6	33.7	0.4	35.5	1.08	38.8	68.2	32.9	0.8	37.1	1.10	40.5	70.7	33.6	1.3			
			50	■																				
		8	1.4	60	■																			
				70	■																			
				80	■																			
			70	4	0.4	50	20.5	1.19	23.9	39.8	17.2	0.4	21.3	1.21	24.8	42.9	17.7	0.9	21.9	1.22	25.5	44.6	17.9	1.5
						60	23.9	1.23	27.4	48.1	19.4	0.4	25.4	1.25	29.1	51.6	20.3	0.9	25.9	1.26	29.6	53.5	20.5	1.4
						70	26.6	1.26	30.3	56.7	21.2	0.4	28.4	1.28	32.1	60.5	22.2	0.8	29.7	1.30	33.5	62.6	22.8	1.4
6	0.8	80		30.6	1.30	34.4	64.7	23.7	0.4	■														
		90		■																				
		50		20.5	1.15	23.9	39.8	17.9	0.4	22.1	1.16	25.5	42.7	19.0	0.9	21.9	1.17	25.4	44.5	18.7	1.5			
	8	1.3		60	24.3	1.18	27.8	47.9	20.7	0.4	25.3	1.19	28.8	51.6	21.3	0.9	26.6	1.21	30.2	53.4	22.0	1.4		
				70	27.3	1.20	30.9	56.4	22.8	0.4	29.5	1.22	33.1	60.2	24.1	0.8	30.0	1.23	33.7	62.5	24.3	1.4		
				80	31.0	1.23	34.6	64.5	25.3	0.4	■													
		90		4	0.4	50	20.7	1.13	24.0	39.7	18.3	0.4	22.5	1.15	25.9	42.5	19.6	0.9	23.2	1.16	26.7	44.2	20.0	1.5
						60	24.0	1.15	27.4	48.0	20.8	0.4	26.3	1.17	29.8	51.3	22.4	0.9	27.1	1.19	30.6	53.3	22.8	1.4
						70	27.5	1.18	31.0	56.3	23.4	0.4	29.4	1.19	32.9	60.2	24.6	0.8	29.3	1.20	32.9	62.7	24.4	1.4
6	0.8		80	29.4	1.19	32.9	65.3	24.8	0.4	■														
			90	■																				
			50	18.5	1.49	22.7	40.8	12.4	0.4	18.6	1.50	22.9	43.8	12.4	0.9	20.1	1.53	24.5	45.0	13.2	1.5			
	8		1.3	60	21.5	1.53	25.9	49.3	14.1	0.4	22.7	1.55	27.1	52.4	14.7	0.9	23.5	1.57	28.0	54.1	15.0	1.4		
				70	24.9	1.57	29.4	57.5	15.9	0.4	26.2	1.59	30.8	61.3	16.5	0.8	27.0	1.61	31.6	63.2	16.8	1.4		
				80	■																			
			110	4	0.3	50	18.5	1.44	22.6	40.8	12.8	0.4	19.9	1.46	24.1	43.4	13.6	0.9	20.7	1.48	24.9	44.8	14.0	1.5
						60	20.8	1.47	25.0	49.6	14.2	0.4	23.4	1.49	27.7	52.2	15.7	0.9	24.0	1.51	28.3	54.0	15.9	1.4
						70	25.5	1.50	29.9	57.3	17.0	0.4	27.0	1.52	31.4	61.0	17.8	0.8	27.7	1.54	32.2	63.1	18.1	1.4
6	0.7	80		■																				
		90		■																				
		50		19.2	1.43	23.2	40.5	13.4	0.4	20.0	1.44	24.2	43.4	13.9	0.9	20.6	1.46	24.7	44.9	14.1	1.5			
	8	1.2		60	21.7	1.45	25.8	49.2	15.0	0.4	23.4	1.47	27.6	52.2	16.0	0.9	24.2	1.48	28.5	54.0	16.3	1.4		
				70	25.1	1.47	29.3	57.5	17.1	0.4	27.2	1.49	31.6	60.9	18.3	0.8	27.6	1.50	32.0	63.1	18.4	1.4		
				80	28.6	1.49	33.0	65.7	19.2	0.4	■													
		110		4	0.3	50	16.5	1.88	21.7	41.8	8.8	0.4	17.5	1.90	22.8	44.2	9.2	0.9	18.0	1.91	23.4	45.5	9.4	1.5
						60	19.6	1.92	25.0	50.2	10.2	0.4	20.5	1.93	25.9	53.2	10.6	0.9	21.1	1.95	26.6	54.7	10.8	1.4
						70	22.6	1.96	28.1	58.7	11.6	0.4	23.7	1.97	29.3	62.1	12.0	0.8	■					
6	0.7		80	■																				
			90	■																				
			50	15.5	1.81	20.5	42.3	8.6	0.4	17.8	1.84	22.9	44.1	9.7	0.9	18.4	1.85	23.5	45.4	9.9	1.5			
	8		1.2	60	20.0	1.85	25.2	50.0	10.8	0.4	20.9	1.86	26.1	53.1	11.2	0.9	21.6	1.88	26.9	54.6	11.5	1.4		
				70	22.9	1.88	28.2	58.5	12.2	0.4	24.2	1.89	29.6	61.9	12.8	0.8	■							
				80	■																			
			8	1.2	50	17.1	1.80	22.1	41.5	9.5	0.4	17.9	1.81	23.0	44.1	9.9	0.9	18.5	1.83	23.7	45.4	10.2	1.5	
					60	20.0	1.82	25.1	50.0	11.0	0.4	20.9	1.83	26.0	53.1	11.4	0.9	21.8	1.85	27.0	54.6	11.8	1.4	
					70	23.2	1.84	28.4	58.4	12.6	0.4	24.6	1.86	29.8	61.8	13.2	0.8	■						
80	■																							
90	■																							

■ Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.  
 Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL

# GreenSource TW Series

## Residential Water to Water Heat Pumps



Capacity Data - TW025 - Full Load - Heating																							
SOURCE			LOAD																				
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	4 GPM						6 GPM						8 GPM							
				Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)		
30*	4	0.5	60																				
			80	18.0	1.32	14.3	89.0	4.0	0.4	18.1	1.29	14.5	86.1	4.1	0.8	18.2	1.28	14.6	84.6	4.2	1.3		
			100	17.1	1.66	12.6	108.6	3.0	0.3	17.2	1.62	12.8	105.8	3.1	0.7	17.2	1.61	12.9	104.3	3.2	1.3		
			120	16.3	2.12	10.8	128.3	2.3	0.3	16.4	2.08	10.9	125.5	2.3	0.7	16.5	2.06	11.0	124.2	2.3	1.2		
	6	1.0	60																				
			80	18.8	1.34	15.0	89.4	4.1	0.4	18.9	1.30	15.3	86.3	4.3	0.8	19.1	1.29	15.4	84.8	4.3	1.3		
			100	17.7	1.67	13.2	108.9	3.1	0.3	17.8	1.63	13.4	106.0	3.2	0.7	17.9	1.62	13.5	104.5	3.3	1.3		
			120	16.9	2.13	11.2	128.5	2.3	0.3	16.9	2.09	11.4	125.7	2.4	0.7	17.0	2.07	11.5	124.3	2.4	1.2		
	8	1.6	60																				
			80	19.2	1.35	15.4	89.7	4.2	0.4	19.4	1.32	15.7	86.5	4.3	0.8	19.5	1.31	15.8	84.9	4.4	1.3		
			100	18.1	1.69	13.5	109.1	3.1	0.3	18.2	1.64	13.7	106.1	3.2	0.7	18.3	1.63	13.8	104.6	3.3	1.3		
			120	17.1	2.15	11.4	128.7	2.3	0.3	17.2	2.10	11.6	125.8	2.4	0.7	17.3	2.08	11.7	124.4	2.4	1.2		
50	4	0.4	60	24.0	1.12	20.7	72.0	6.3	0.4														
			80	23.3	1.39	19.3	91.7	4.9	0.4	23.4	1.35	19.6	87.8	5.1	0.8	23.6	1.33	19.8	85.9	5.2	1.3		
			100	22.2	1.73	17.4	111.2	3.8	0.3	22.4	1.68	17.7	107.5	3.9	0.7	22.5	1.66	17.8	105.7	4.0	1.3		
			120	21.3	2.20	15.3	130.8	2.8	0.3	21.4	2.14	15.5	127.2	2.9	0.7	21.5	2.11	15.7	125.4	3.0	1.2		
	6	0.9	60	25.7	1.14	22.4	72.9	6.6	0.4														
			80	24.5	1.41	20.4	92.3	5.1	0.4	24.7	1.36	20.8	88.3	5.3	0.8	24.9	1.34	21.0	86.2	5.4	1.3		
			100	23.2	1.75	18.3	111.7	3.9	0.3	23.4	1.69	18.7	107.9	4.1	0.7	23.5	1.67	18.8	105.9	4.1	1.3		
			120	22.1	2.22	16.0	131.2	2.9	0.3	22.2	2.15	16.3	127.5	3.0	0.7	22.3	2.12	16.4	125.6	3.1	1.2		
	8	1.5	60	26.6	1.16	23.2	73.3	6.7	0.4														
			80	25.2	1.43	21.1	92.6	5.2	0.4	25.5	1.38	21.5	88.5	5.4	0.8	25.6	1.36	21.7	86.4	5.5	1.3		
			100	23.7	1.77	18.8	112.0	3.9	0.3	24.0	1.71	19.2	108.1	4.1	0.7	24.1	1.68	19.4	106.1	4.2	1.3		
			120	22.5	2.23	16.4	131.4	3.0	0.3	22.7	2.16	16.7	127.7	3.1	0.7	22.8	2.14	16.9	125.8	3.1	1.2		
70	4	0.4	60	29.9	1.18	26.4	75.0	7.4	0.4	30.4	1.12	27.1	70.1	7.9	0.8								
			80	29.6	1.47	25.4	94.9	5.9	0.4	29.9	1.41	25.8	90.0	6.2	0.8	30.1	1.38	26.1	87.5	6.4	1.3		
			100	28.3	1.81	23.2	114.3	4.6	0.3	28.5	1.74	23.6	109.6	4.8	0.7	28.7	1.71	23.8	107.2	4.9	1.3		
			120	27.0	2.28	20.6	133.7	3.5	0.3	27.2	2.20	21.0	129.2	3.6	0.7	27.3	2.15	21.3	126.9	3.7	1.2		
	6	0.8	60	32.8	1.22	29.2	76.4	7.9	0.4	33.8	1.16	30.4	71.3	8.6	0.8								
			80	31.3	1.49	27.0	95.7	6.2	0.4	31.8	1.43	27.6	90.6	6.5	0.8	32.0	1.40	27.9	88.0	6.7	1.3		
			100	29.6	1.83	24.4	114.9	4.7	0.3	30.0	1.75	25.0	110.1	5.0	0.7	30.2	1.72	25.3	107.6	5.1	1.3		
			120																				
	8	1.4	60	34.1	1.24	30.4	77.0	8.1	0.4	34.5	1.17	31.0	71.5	8.7	0.8	34.7	1.14	31.3	68.7	8.9	1.4		
			80	32.2	1.51	27.9	96.2	6.3	0.4	32.7	1.44	28.5	91.0	6.7	0.8	33.0	1.41	28.9	88.3	6.9	1.3		
			100																				
			120																				
90	4	0.4	60																				
			80																				
			100																				
			120																				
	6	0.8	60																				
			80																				
			100																				
			120																				
	8	1.3	60																				
			80																				
			100																				
			120																				

- Extended Range - Anti-freeze required
- Operation not recommended
- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

# GreenSource TW Series

## Residential Water to Water Heat Pumps



Capacity Data - TW025 - Part Load - Cooling																								
SOURCE				LOAD																				
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	4 GPM						6 GPM						8 GPM								
				Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)			
50	4	0.4	50	[Data obscured]																				
			60	[Data obscured]																				
			70	[Data obscured]																				
			80	[Data obscured]																				
			90	[Data obscured]																				
	6	0.9	50	[Data obscured]																				
			60	[Data obscured]																				
			70	[Data obscured]																				
			80	[Data obscured]																				
			90	[Data obscured]																				
	8	1.4	50	[Data obscured]																				
			60	[Data obscured]																				
70			[Data obscured]																					
80			[Data obscured]																					
90			[Data obscured]																					
70	4	0.4	50	14.1	0.80	16.3	43.0	17.6	0.4	16.8	0.80	19.0	44.4	20.9	0.9	17.2	0.81	19.5	45.7	21.4	1.5			
			60	18.8	0.78	20.9	50.7	23.9	0.4	19.5	0.79	21.7	53.5	24.9	0.9	20.2	0.79	22.4	55.0	25.5	1.4			
			70	21.7	0.77	23.8	59.2	28.4	0.4	22.7	0.76	24.8	62.4	29.8	0.8	23.3	0.77	25.4	64.2	30.4	1.4			
			80	[Data obscured]																				
			90	[Data obscured]																				
	6	0.8	50	16.2	0.77	18.4	41.9	21.0	0.4	16.8	0.77	19.0	44.4	21.7	0.9	17.5	0.78	19.7	45.6	22.5	1.5			
			60	19.0	0.75	21.1	50.5	25.2	0.4	20.1	0.75	22.2	53.3	26.8	0.9	20.6	0.76	22.7	54.9	27.3	1.4			
			70	22.0	0.73	24.0	59.0	30.1	0.4	23.1	0.72	25.2	62.3	31.9	0.8	[Data obscured]								
			80	[Data obscured]																				
			90	[Data obscured]																				
	8	1.3	50	16.4	0.77	18.5	41.9	21.4	0.4	17.1	0.77	19.3	44.3	22.4	0.9	17.7	0.77	19.9	45.6	23.0	1.5			
			60	19.0	0.75	21.2	50.5	25.5	0.4	19.6	0.75	21.7	53.5	26.3	0.9	20.7	0.75	22.8	54.8	27.8	1.4			
70			22.1	0.72	24.2	58.9	30.8	0.4	23.5	0.71	25.5	62.2	33.0	0.8	[Data obscured]									
80			[Data obscured]																					
90			[Data obscured]																					
90	4	0.4	50	14.5	1.09	17.4	42.8	13.4	0.4	15.3	1.09	18.2	44.9	14.0	0.9	15.7	1.10	18.6	46.1	14.3	1.5			
			60	17.1	1.08	20.0	51.5	15.9	0.4	18.0	1.08	20.9	54.0	16.8	0.9	18.5	1.08	21.4	55.4	17.1	1.4			
			70	19.8	1.06	22.7	60.1	18.7	0.4	[Data obscured]														
			80	[Data obscured]																				
			90	[Data obscured]																				
	6	0.8	50	14.8	1.06	17.6	42.7	14.0	0.4	15.6	1.06	18.4	44.8	14.8	0.9	16.0	1.06	18.8	46.0	15.0	1.5			
			60	17.3	1.04	20.2	51.4	16.7	0.4	18.4	1.03	21.2	53.9	17.8	0.9	18.9	1.04	21.7	55.3	18.2	1.4			
			70	20.2	1.01	23.0	59.9	20.0	0.4	[Data obscured]														
			80	[Data obscured]																				
			90	[Data obscured]																				
	8	1.3	50	14.9	1.05	17.7	42.6	14.2	0.4	15.7	1.04	18.5	44.8	15.0	0.9	16.1	1.05	19.0	46.0	15.4	1.5			
			60	17.5	1.02	20.3	51.3	17.1	0.4	18.5	1.02	21.3	53.8	18.2	0.9	19.1	1.02	21.9	55.2	18.7	1.4			
70			20.4	1.00	23.1	59.8	20.5	0.4	[Data obscured]															
80			23.6	0.96	26.2	68.2	24.5	0.4	[Data obscured]															
90			[Data obscured]																					
110	4	0.3	50	12.7	1.40	16.4	43.7	9.1	0.4	13.3	1.41	16.9	45.6	9.4	0.9	13.6	1.42	17.3	46.6	9.6	1.5			
			60	15.1	1.40	18.8	52.5	10.8	0.4	15.8	1.40	19.5	54.7	11.3	0.9	16.2	1.41	19.9	56.0	11.5	1.4			
			70	[Data obscured]																				
			80	[Data obscured]																				
			90	[Data obscured]																				
	6	0.7	50	12.9	1.37	16.5	43.6	9.4	0.4	13.5	1.37	17.1	45.5	9.9	0.9	13.8	1.38	17.4	46.6	10.0	1.5			
			60	15.4	1.36	19.0	52.3	11.4	0.4	16.1	1.36	19.7	54.6	11.9	0.9	16.5	1.36	20.1	55.9	12.1	1.4			
			70	[Data obscured]																				
			80	[Data obscured]																				
			90	[Data obscured]																				
	8	1.2	50	13.0	1.36	16.6	43.5	9.6	0.4	13.6	1.36	17.2	45.5	10.0	0.9	13.9	1.37	17.5	46.5	10.2	1.5			
			60	15.5	1.34	19.1	52.3	11.6	0.4	16.3	1.34	19.9	54.6	12.1	0.9	16.7	1.35	20.3	55.8	12.4	1.4			
70			[Data obscured]																					
80			[Data obscured]																					
90			[Data obscured]																					

\* Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI / ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.  
 Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL

# GreenSource TW Series

## Residential Water to Water Heat Pumps



### Capacity Data - TW025 – Part Load – Heating

SOURCE			LOAD																					
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	4 GPM					6 GPM					8 GPM										
				Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)			
30*	4	0.5	60	[REDACTED]																				
			80	13.0	1.00	10.4	86.5	3.8	0.4	[REDACTED]														
			100	12.0	1.30	8.8	106.0	2.7	0.3	[REDACTED]														
			120	11.0	1.64	7.1	125.6	2.0	0.3	13.1	0.98	10.5	84.4	3.9	0.8	13.2	0.98	10.6	83.3	4.0	1.3			
	6	1.0	60	[REDACTED]																				
			80	13.5	1.01	10.8	86.8	3.9	0.4	13.6	0.99	11.0	84.5	4.0	0.8	13.7	0.98	11.1	83.4	4.1	1.3			
			100	12.4	1.30	9.1	106.2	2.8	0.3	13.9	1.00	11.2	84.6	4.1	0.8	13.9	0.99	11.3	83.5	4.1	1.3			
			120	11.3	1.65	7.4	125.7	2.0	0.3	12.5	1.28	9.3	104.2	2.9	0.7	12.5	1.28	9.3	103.2	2.9	1.3			
	8	1.6	60	[REDACTED]																				
			80	13.7	1.02	11.0	86.9	3.9	0.4	11.1	1.62	7.2	123.7	2.0	0.7	11.2	1.62	7.3	122.8	2.0	1.2			
			100	12.6	1.31	9.3	106.3	2.8	0.3	11.4	1.63	7.5	123.8	2.1	0.7	11.5	1.62	7.5	122.9	2.1	1.2			
			120	11.5	1.66	7.5	125.8	2.0	0.3	11.6	1.64	7.6	123.9	2.1	0.7	11.6	1.63	7.7	122.9	2.1	1.2			
50	4	0.4	60	[REDACTED]																				
			80	17.7	0.98	15.0	88.9	5.3	0.4	[REDACTED]														
			100	16.5	1.28	13.1	108.3	3.8	0.3	[REDACTED]														
			120	15.4	1.65	11.2	127.8	2.7	0.3	17.8	0.95	15.3	86.0	5.5	0.8	18.0	0.94	15.4	84.5	5.6	1.3			
	6	0.9	60	[REDACTED]																				
			80	18.4	0.99	15.7	89.2	5.5	0.4	18.6	0.95	16.0	86.2	5.7	0.8	18.7	0.94	16.1	84.7	5.8	1.3			
			100	17.1	1.28	13.7	108.6	3.9	0.3	19.0	0.96	16.4	86.4	5.8	0.8	19.1	0.95	16.5	84.8	5.9	1.3			
			120	15.9	1.65	11.6	128.0	2.8	0.3	16.6	1.25	13.4	105.6	3.9	0.7	16.7	1.24	13.5	104.2	4.0	1.3			
	8	1.5	60	[REDACTED]																				
			80	18.8	0.99	16.1	89.4	5.5	0.4	17.2	1.25	13.9	105.8	4.0	0.7	17.3	1.24	14.1	104.4	4.1	1.3			
			100	17.4	1.29	14.0	108.8	4.0	0.3	17.6	1.26	14.2	105.9	4.1	0.7	17.7	1.24	14.4	104.5	4.2	1.3			
			120	16.1	1.66	11.8	128.2	2.8	0.3	15.5	1.62	11.4	125.2	2.8	0.7	16.0	1.62	11.8	125.4	2.9	0.7	16.1	1.60	11.9
70	4	0.4	60	24.3	0.71	22.3	72.1	10.1	0.4	24.6	0.67	22.7	68.2	10.7	0.8	[REDACTED]								
			80	22.8	0.93	20.2	91.4	7.2	0.4	25.9	0.67	24.0	68.6	11.4	0.8	[REDACTED]								
			100	21.3	1.24	18.0	110.7	5.0	0.3	26.6	0.67	24.7	68.9	11.7	0.8	[REDACTED]								
			120	[REDACTED]									23.1	0.89	20.6	87.7	7.6	0.8	23.3	0.88	20.8	85.8	7.8	1.3
	6	0.8	60	25.5	0.70	23.5	72.7	10.6	0.4	24.1	0.88	21.7	88.1	8.0	0.8	24.3	0.87	21.9	86.1	8.2	1.3			
			80	23.8	0.93	21.2	91.9	7.5	0.4	[REDACTED]														
			100	[REDACTED]									21.5	1.19	18.3	107.2	5.3	0.7	21.7	1.17	18.5	105.5	5.4	1.3
			120	[REDACTED]									[REDACTED]											
	8	1.4	60	26.2	0.70	24.2	73.1	10.9	0.4	[REDACTED]														
			80	24.3	0.93	21.7	92.2	7.6	0.4	[REDACTED]														
			100	[REDACTED]									[REDACTED]											
			120	[REDACTED]									[REDACTED]											
90	4	0.4	60	[REDACTED]																				
			80	[REDACTED]																				
			100	[REDACTED]																				
			120	[REDACTED]																				
	6	0.8	60	[REDACTED]																				
			80	[REDACTED]																				
			100	[REDACTED]																				
			120	[REDACTED]																				
	8	1.3	60	[REDACTED]																				
			80	[REDACTED]																				
			100	[REDACTED]																				
			120	[REDACTED]																				

\* Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

# GreenSource TW Series

## Residential Water to Water Heat Pumps



Capacity Data - TW035 - Full Load - Cooling																						
SOURCE				LOAD																		
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	4.5 GPM						6.75 GPM						9 GPM						
				Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	
50	4.5	0.5	50	31.9	1.47	36.4	35.9	21.6	0.6	34.5	1.52	39.2	39.9	22.7	1.1	36.0	1.55	40.8	42.1	23.1	1.8	
			60	36.6	1.54	41.4	43.8	23.7	0.5	39.7	1.60	44.7	48.3	24.9	1.1	41.5	1.63	46.7	50.8	25.5	1.8	
			70	41.7	1.61	46.7	51.5	25.9	0.5	45.4	1.66	50.6	56.6	27.3	1.0	47.6	1.70	52.9	59.4	28.0	1.7	
			80	47.0	1.68	52.3	59.1	28.1	0.5	51.4	1.74	56.8	64.8	29.5	1.0	53.9	1.79	59.5	68.0	30.2	1.6	
	6.75	1.1	50													36.9	1.47	41.5	41.9	25.0	1.8	
			60	37.4	1.46	42.0	43.4	25.7	0.5	40.7	1.51	45.5	48.0	27.1	1.1	42.7	1.54	47.6	50.5	27.8	1.8	
			70	42.7	1.52	47.5	51.1	28.2	0.5	46.7	1.56	51.7	56.2	29.9	1.0	49.1	1.60	54.2	59.1	30.6	1.7	
			80	48.3	1.57	53.3	58.5	30.7	0.5	53.0	1.64	58.2	64.3	32.4	1.0	55.8	1.68	61.1	67.6	33.2	1.6	
	9	1.8	50																			
			60																			
			70																			
			80	49.0	1.54	53.9	58.2	31.9	0.5	53.9	1.60	59.0	64.0	33.7	1.0	56.8	1.65	62.0	67.4	34.5	1.6	
70	4.5	0.5	50	29.5	1.84	35.1	37.0	16.0	0.6	31.8	1.88	37.5	40.7	16.9	1.1	33.0	1.91	38.9	42.7	17.3	1.8	
			60	34.0	1.91	39.8	45.0	17.8	0.5	36.7	1.95	42.7	49.2	18.8	1.1	38.3	1.98	44.4	51.5	19.3	1.8	
			70	38.8	1.97	44.8	52.8	19.8	0.5	42.1	2.01	48.3	57.5	21.0	1.0	44.1	2.04	50.3	60.2	21.6	1.7	
			80	44.0	2.02	50.1	60.4	21.8	0.5	47.8	2.07	54.2	65.8	23.2	1.0							
	6.75	1.0	50	30.0	1.76	35.4	36.7	17.1	0.6	32.5	1.79	37.9	40.4	18.1	1.1	33.9	1.82	39.4	42.5	18.6	1.8	
			60	34.7	1.81	40.3	44.6	19.3	0.5	37.7	1.84	43.3	48.9	20.4	1.1	39.4	1.87	45.1	51.3	21.1	1.8	
			70	39.8	1.85	45.5	52.4	21.5	0.5	43.4	1.88	49.2	57.2	23.1	1.0	45.5	1.91	51.4	59.9	23.8	1.7	
			80	45.2	1.89	51.0	59.9	24.0	0.5	49.4	1.93	55.3	65.3	25.6	1.0	51.8	1.96	57.9	68.5	26.4	1.6	
	9	1.6	50	30.3	1.74	35.6	36.6	17.4	0.6	32.8	1.76	38.2	40.3	18.6	1.1	34.2	1.78	39.7	42.4	19.2	1.8	
			60	35.1	1.77	40.5	44.5	19.8	0.5	38.1	1.80	43.7	48.7	21.2	1.1	39.9	1.82	45.6	51.2	21.9	1.8	
			70	40.2	1.81	45.8	52.1	22.3	0.5	44.0	1.83	49.6	57.0	24.0	1.0	46.2	1.86	51.9	59.7	24.9	1.7	
			80	45.8	1.83	51.5	59.6	25.0	0.5	50.1	1.87	56.0	65.1	26.8	1.0	52.7	1.91	58.7	68.3	27.7	1.6	
90	4.5	0.4	50	26.8	2.33	33.7	38.2	11.5	0.5	28.7	2.37	35.8	41.5	12.2	1.1	29.8	2.40	37.0	43.4	12.4	1.8	
			60	31.0	2.39	38.2	46.3	13.0	0.5	33.4	2.43	40.7	50.1	13.8	1.1	34.8	2.46	42.2	52.3	14.1	1.8	
			70	35.6	2.45	43.0	54.2	14.6	0.5	38.4	2.49	46.0	58.6	15.5	1.0	40.1	2.52	47.7	61.1	15.9	1.7	
			80	40.5	2.50	48.0	62.0	16.2	0.5	43.8	2.54	51.6	67.0	17.3	1.0							
	6.75	1.0	50	27.3	2.24	34.0	38.0	12.2	0.5	29.3	2.27	36.1	41.4	12.9	1.1	30.5	2.29	37.4	43.3	13.3	1.8	
			60	31.7	2.28	38.6	46.0	13.9	0.5	34.2	2.31	41.2	49.9	14.8	1.1	35.7	2.33	42.7	52.1	15.3	1.8	
			70	36.5	2.32	43.5	53.8	15.7	0.5	39.5	2.34	46.7	58.3	16.9	1.0	41.3	2.36	48.5	60.8	17.5	1.7	
			80	41.6	2.35	48.7	61.5	17.7	0.5	45.2	2.37	52.5	66.6	19.1	1.0							
	9	1.6	50	27.3	2.26	34.1	37.9	12.1	0.5	29.6	2.24	36.3	41.3	13.2	1.1	30.8	2.26	37.6	43.2	13.7	1.8	
			60	32.0	2.24	38.8	45.8	14.3	0.5	34.6	2.27	41.5	49.8	15.3	1.1	36.1	2.28	43.0	52.0	15.8	1.8	
			70	36.9	2.27	43.7	53.6	16.3	0.5	40.1	2.28	47.0	58.1	17.6	1.0	41.9	2.30	49.0	60.7	18.2	1.7	
			80	42.1	2.28	49.1	61.3	18.5	0.5	45.9	2.30	53.0	66.4	19.9	1.0							
110	4.5	0.4	50	23.9	2.94	32.6	39.4	8.2	0.5	25.5	2.97	34.3	42.5	8.6	1.1	26.4	2.99	35.3	44.2	8.8	1.8	
			60	27.9	2.99	36.8	47.6	9.3	0.5	29.9	3.02	38.9	51.2	9.9	1.1	31.0	3.05	40.2	53.1	10.2	1.8	
			70	32.2	3.05	41.3	55.7	10.6	0.5	34.6	3.09	43.9	59.7	11.2	1.0							
			80	36.8	3.11	46.1	63.6	11.8	0.5													
	6.75	0.9	50	24.3	2.84	32.7	39.3	8.6	0.5	26.0	2.87	34.5	42.3	9.1	1.1	27.0	2.89	35.6	44.0	9.4	1.8	
			60	28.5	2.88	37.1	47.4	9.9	0.5	30.7	2.90	39.3	50.9	10.6	1.1	31.8	2.92	40.6	52.9	10.9	1.8	
			70	33.0	2.91	41.7	55.4	11.4	0.5	35.6	2.93	44.4	59.5	12.1	1.0							
			80	37.8	2.94	46.6	63.2	12.9	0.5													
	9	1.5	50	24.4	2.85	32.8	39.2	8.6	0.5	26.2	2.86	34.7	42.3	9.2	1.1	27.3	2.85	35.7	44.0	9.6	1.8	
			60	28.7	2.84	37.2	47.3	10.1	0.5	30.9	2.86	39.5	50.9	10.8	1.1	32.2	2.87	40.8	52.9	11.2	1.8	
			70	33.3	2.86	41.9	55.2	11.7	0.5	36.0	2.88	44.6	59.3	12.5	1.0							
			80	38.2	2.87	46.8	63.0	13.3	0.5	41.4	2.89	50.1	67.7	14.3	1.0							

\* Extended Range - Anti-freeze required

■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.

Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL



# Greensource TW Series

## Residential Water to Water Heat Pumps



### Capacity Data - TW035 – Full Load – Heating

SOURCE			LOAD																			
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	4.5 GPM						6.75 GPM						9 GPM						
				Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	
30*	4.5	0.6	60	26.9	1.60	22.1	71.9	4.9	0.5	27.1	1.54	22.4	68.0	5.1	1.0							
			80	26.0	2.03	20.0	91.6	3.8	0.5	26.2	1.97	20.4	87.8	3.9	1.0	26.3	2.00	20.4	85.9	3.9	1.6	
			100	25.2	2.56	17.8	111.3	2.9	0.4	25.7	2.50	18.5	107.7	3.0	0.9	25.1	2.47	18.0	105.6	3.0	1.5	
			120	25.3	3.22	16.1	131.4	2.3	0.4	25.0	3.16	16.0	127.5	2.3	0.9	25.3	3.14	16.3	125.7	2.4	1.5	
	6.75	1.2	60	28.5	1.63	23.5	72.6	5.1	0.5	28.7	1.57	23.9	68.5	5.4	1.0	28.8	1.54	24.1	66.4	5.5	1.7	
			80	27.3	2.06	21.3	92.2	3.9	0.5	27.9	2.00	22.0	88.3	4.1	1.0	27.6	1.97	21.8	86.2	4.1	1.6	
			100	27.2	2.61	19.6	112.2	3.1	0.4	26.5	2.52	19.2	107.9	3.1	0.9	26.6	2.50	19.4	106.0	3.1	1.5	
			120	26.5	3.26	17.1	131.9	2.4	0.4	26.5	3.20	17.3	128.0	2.4	0.9	26.6	3.18	17.5	126.0	2.5	1.5	
	9	2.0	60	29.5	1.66	24.5	73.1	5.2	0.5	29.7	1.59	24.9	68.8	5.5	1.0	29.9	1.57	25.1	66.6	5.6	1.7	
			80	28.5	2.09	22.3	92.7	4.0	0.5	28.7	2.02	22.7	88.5	4.2	1.0	28.6	1.99	22.6	86.4	4.2	1.6	
			100	27.6	2.63	20.0	112.4	3.1	0.4	27.8	2.55	20.3	108.3	3.2	0.9	27.7	2.56	20.1	106.2	3.2	1.6	
			120	27.1	3.29	17.6	132.2	2.4	0.4	27.2	3.22	17.9	128.2	2.5	0.9	27.3	3.20	18.0	126.1	2.5	1.5	
50	4.5	0.5	60	35.5	1.70	30.3	75.8	6.1	0.5	36.0	1.62	31.0	70.6	6.5	1.0	36.2	1.58	31.3	68.0	6.7	1.7	
			80	34.2	2.13	27.8	95.3	4.7	0.5	34.4	2.04	28.3	90.2	5.0	1.0	34.6	2.00	28.6	87.7	5.1	1.6	
			100	31.0	2.65	23.2	113.9	3.4	0.4	33.5	2.58	25.9	110.0	3.8	0.9	32.3	2.52	24.9	107.2	3.8	1.5	
			120	31.9	3.34	22.1	134.4	2.8	0.4	33.1	3.25	23.5	129.9	3.0	0.9	32.5	3.22	23.0	127.3	3.0	1.5	
	6.75	1.1	60	38.1	1.75	32.7	76.9	6.4	0.5	38.6	1.65	33.5	71.4	6.9	1.0	39.0	1.62	34.0	68.7	7.1	1.7	
			80	34.2	2.15	27.8	95.3	4.7	0.5	36.4	2.06	30.2	90.8	5.2	1.0	37.0	2.02	30.8	88.3	5.4	1.6	
			100	34.7	2.72	26.6	115.6	3.7	0.4	35.9	2.62	28.1	110.7	4.0	0.9	35.3	2.56	27.7	107.9	4.0	1.5	
			120	33.2	3.37	23.3	134.9	2.9	0.4	34.3	3.27	24.6	130.3	3.1	0.9	32.2	3.21	22.8	127.3	2.9	1.5	
	9	1.8	60	39.5	1.78	34.1	77.6	6.5	0.5	40.2	1.68	35.0	71.9	7.0	1.0	40.6	1.65	35.5	69.0	7.2	1.7	
			80	37.6	2.21	31.0	96.8	5.0	0.5	38.1	2.09	31.7	91.3	5.3	1.0	38.1	2.05	31.9	88.5	5.5	1.6	
			100	36.0	2.75	27.8	116.1	3.8	0.4	36.3	2.63	28.4	110.8	4.0	0.9	36.6	2.58	28.9	108.2	4.2	1.5	
			120	35.0	3.41	25.0	135.8	3.0	0.4	35.9	3.30	26.1	130.8	3.2	0.9	35.1	3.25	25.5	127.9	3.2	1.5	
70	4.5	0.5	60	44.8	1.84	39.1	79.9	7.1	0.5	45.6	1.73	40.3	73.5	7.7	1.0	46.0	1.69	40.8	70.2	8.0	1.7	
			80	39.2	2.23	32.6	97.5	5.2	0.5	44.0	2.14	37.5	93.1	6.0	1.0	44.0	2.08	37.7	89.8	6.2	1.6	
			100	41.3	2.81	32.9	118.5	4.3	0.4	41.7	2.66	33.7	112.5	4.6	0.9	42.6	2.62	34.7	109.5	4.8	1.5	
			120	39.9	3.48	29.6	138.0	3.4	0.4	40.1	3.34	30.2	132.0	3.5	0.9	40.9	3.28	31.0	129.2	3.7	1.5	
	6.75	1.0	60	48.5	1.89	42.7	81.6	7.5	0.5	49.5	1.77	44.0	74.7	8.2	1.0	50.0	1.73	44.6	71.1	8.5	1.7	
			80	43.1	2.28	36.3	99.3	5.5	0.5	47.4	2.17	40.8	94.1	6.4	1.0	46.8	2.10	40.4	90.4	6.5	1.6	
			100	44.3	2.85	35.8	119.9	4.6	0.4	45.2	2.70	37.0	113.5	4.9	0.9	44.9	2.63	37.0	110.1	5.0	1.5	
			120	42.0	3.52	31.5	138.9	3.5	0.4	43.8	3.37	33.7	133.1	3.8	0.9	42.1	3.29	32.3	129.5	3.8	1.5	
	9	1.7	60	50.6	1.93	44.7	82.5	7.7	0.5	51.8	1.81	46.2	75.3	8.4	1.0	52.4	1.76	46.9	71.6	8.7	1.7	
			80	48.0	2.34	40.8	101.4	6.0	0.5	47.7	2.18	41.0	94.2	6.4	1.0	49.3	2.13	42.8	91.0	6.8	1.6	
			100	46.0	2.88	37.3	120.6	4.7	0.4	47.9	2.73	39.7	114.3	5.1	0.9	44.9	2.64	36.9	110.1	5.0	1.5	
			120	43.7	3.55	33.1	139.7	3.6	0.4	44.5	3.39	34.3	133.4	3.8	0.9	44.1	3.32	34.1	129.9	3.9	1.5	
90	4.5	0.5	60	55.9	1.97	49.8	84.9	8.3	0.5	56.9	1.84	51.2	76.9	9.1	1.0	58.5	1.80	52.9	73.0	9.5	1.7	
			80	53.5	2.38	46.3	103.9	6.6	0.5	54.8	2.22	48.0	96.3	7.3	1.0	54.5	2.14	47.9	92.2	7.5	1.6	
			100																			
			120																			
	6.75	1.0	60																			
			80																			
			100																			
			120																			
	9	1.6	60																			
			80																			
			100																			
			120																			

\* Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.  
 Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL

# GreenSource TW Series

## Residential Water to Water Heat Pumps



Capacity Data - TW035 - Part Load - Cooling																						
SOURCE			LOAD																			
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	4.5 GPM						6.75 GPM						9 GPM						
				Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	
50	4.5	0.5	50	[Data obscured]																		
			60	[Data obscured]																		
			70	32.5	0.90	35.3	55.6	36.1	0.5	34.9	0.90	37.7	59.7	38.7	1.0	31.4	0.93	34.3	53.0	34.0	1.8	
			80	37.0	0.89	39.7	63.5	41.6	0.5	[Data obscured]												
			90	[Data obscured]																		
			90	[Data obscured]																		
	6.75	1.1	50	[Data obscured]																		
			60	[Data obscured]																		
			70	[Data obscured]																		
			80	[Data obscured]																		
			90	[Data obscured]																		
			90	[Data obscured]																		
9	1.8	50	[Data obscured]																			
		60	[Data obscured]																			
		70	[Data obscured]																			
		80	[Data obscured]																			
		90	[Data obscured]																			
		90	[Data obscured]																			
70	4.5	0.5	50	22.0	1.19	25.6	40.3	18.5	0.5	23.5	1.20	27.0	43.1	19.6	1.1	24.3	1.21	27.9	44.6	20.1	1.8	
			60	25.9	1.19	29.4	48.5	21.8	0.5	27.6	1.20	31.2	51.8	23.1	1.1	28.6	1.21	32.2	53.7	23.7	1.8	
			70	29.9	1.19	33.5	56.7	25.3	0.5	32.0	1.19	35.6	60.5	26.9	1.0	33.2	1.20	36.8	62.6	27.6	1.7	
			80	34.2	1.18	37.7	64.8	28.9	0.5	[Data obscured]												
			90	[Data obscured]																		
			90	[Data obscured]																		
	6.75	1.0	50	22.5	1.15	25.9	40.1	19.6	0.5	24.0	1.15	27.4	42.9	20.9	1.1	24.8	1.16	28.3	44.5	21.4	1.8	
			60	26.4	1.14	29.8	48.3	23.3	0.5	28.3	1.14	31.7	51.6	24.9	1.1	29.3	1.15	32.8	53.5	25.6	1.8	
			70	30.6	1.12	34.0	56.4	27.3	0.5	32.9	1.12	36.2	60.3	29.3	1.0	34.1	1.13	37.5	62.4	30.3	1.7	
			80	35.0	1.11	38.3	64.4	31.7	0.5	[Data obscured]												
			90	[Data obscured]																		
			90	[Data obscured]																		
9	1.7	50	22.7	1.14	26.0	40.0	19.9	0.5	24.2	1.14	27.6	42.9	21.3	1.1	25.1	1.15	28.5	44.5	21.9	1.8		
		60	26.7	1.12	30.1	48.2	23.9	0.5	28.6	1.12	32.0	51.5	25.6	1.1	29.7	1.12	33.1	53.4	26.4	1.8		
		70	31.0	1.10	34.3	56.2	28.2	0.5	33.3	1.09	36.6	60.1	30.4	1.0	34.6	1.10	37.9	62.3	31.5	1.7		
		80	35.5	1.08	38.7	64.2	33.0	0.5	[Data obscured]													
		90	[Data obscured]																			
		90	[Data obscured]																			
90	4.5	0.5	50	19.6	1.64	24.3	41.3	12.0	0.5	20.8	1.64	25.5	43.9	12.7	1.1	21.4	1.65	26.2	45.3	13.0	1.8	
			60	23.2	1.63	27.9	49.7	14.2	0.5	24.7	1.64	29.5	52.7	15.1	1.0	25.5	1.65	30.3	54.3	15.4	1.8	
			70	27.0	1.63	31.8	58.0	16.5	0.5	28.8	1.64	33.6	61.5	17.5	1.0	29.8	1.66	34.6	63.4	18.0	1.7	
			80	[Data obscured]																		
			90	[Data obscured]																		
			90	[Data obscured]																		
	6.75	1.0	50	20.0	1.58	24.5	41.2	12.6	0.5	21.2	1.58	25.8	43.7	13.4	1.1	21.9	1.59	26.5	45.2	13.8	1.8	
			60	23.7	1.56	28.3	49.5	15.2	0.5	25.3	1.57	29.8	52.5	16.2	1.0	26.1	1.57	30.7	54.2	16.6	1.8	
			70	27.7	1.55	32.2	57.7	17.8	0.5	29.5	1.55	34.1	61.3	19.0	1.0	30.6	1.56	35.2	63.2	19.6	1.7	
			80	31.8	1.54	36.3	65.9	20.6	0.5	[Data obscured]												
			90	[Data obscured]																		
			90	[Data obscured]																		
9	1.6	50	20.1	1.57	24.6	41.1	12.9	0.5	21.4	1.56	25.9	43.7	13.7	1.1	22.1	1.57	26.7	45.1	14.1	1.8		
		60	24.0	1.54	28.4	49.4	15.6	0.5	25.6	1.54	30.0	52.4	16.6	1.0	26.4	1.55	31.0	54.1	17.1	1.8		
		70	28.0	1.52	32.4	57.6	18.4	0.5	29.9	1.52	34.4	61.1	19.7	1.0	31.0	1.53	35.5	63.1	20.3	1.7		
		80	32.2	1.50	36.6	65.7	21.4	0.5	[Data obscured]													
		90	[Data obscured]																			
		90	[Data obscured]																			
110	4.5	0.4	50	17.0	2.13	23.0	42.5	8.0	0.5	18.0	2.14	24.0	44.7	8.4	1.1	18.5	2.15	24.6	45.9	8.6	1.8	
			60	20.4	2.13	26.5	51.0	9.6	0.5	21.6	2.14	27.7	53.6	10.1	1.0	22.2	2.15	28.4	55.1	10.4	1.8	
			70	23.9	2.13	30.1	59.4	11.2	0.5	25.4	2.14	31.6	62.5	11.9	1.0	26.3	2.15	32.4	64.2	12.2	1.7	
			80	[Data obscured]																		
			90	[Data obscured]																		
			90	[Data obscured]																		
	6.75	0.9	50	17.3	2.08	23.2	42.4	8.3	0.5	18.3	2.08	24.2	44.6	8.8	1.1	18.9	2.09	24.8	45.8	9.0	1.8	
			60	20.8	2.06	26.7	50.8	10.1	0.5	22.1	2.06	28.0	53.5	10.7	1.0	22.8	2.07	28.7	55.0	11.0	1.8	
			70	24.5	2.05	30.4	59.1	12.0	0.5	26.1	2.05	32.0	62.3	12.8	1.0	26.9	2.05	32.9	64.0	13.1	1.7	
			80	[Data obscured]																		
			90	[Data obscured]																		
			90	[Data obscured]																		
9	1.5	50	17.4	2.07	23.3	42.3	8.4	0.5	18.5	2.06	24.3	44.6	9.0	1.1	19.0	2.07	24.9	45.8	9.2	1.8		
		60	21.0	2.03	26.8	50.7	10.3	0.5	22.3	2.03	28.1	53.4	11.0	1.0	23.0	2.04	28.9	54.9	11.3	1.8		
		70	24.7	2.01	30.5	59.0	12.3	0.5	26.4	2.01	32.2	62.2	13.1	1.0	27.3	2.01	33.1	63.9	13.5	1.7		
		80	[Data obscured]																			
		90	[Data obscured]																			
		90	[Data obscured]																			

- \* Extended Range - Anti-freeze required
- Operation not recommended
- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.  
Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL

# GreenSource TW Series

## Residential Water to Water Heat Pumps



### Capacity Data - TW035 - Part Load - Heating

SOURCE			LOAD																			
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	4.5 GPM					6.75 GPM					9 GPM								
				Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	
30*	4.5	0.6	60	[REDACTED]																		
			80	18.4	1.48	14.3	88.2	3.6	0.5	18.3	1.45	14.2	85.4	3.7	1.0	18.2	1.47	14.1	84.1	3.6	1.6	
			100	17.6	1.95	12.3	107.9	2.6	0.4	17.6	1.92	12.4	105.3	2.7	0.9	17.7	1.94	12.4	104.0	2.7	1.6	
			120	16.9	2.55	10.2	127.6	2.0	0.4	17.0	2.52	10.3	125.1	2.0	0.9	17.0	2.54	10.3	123.8	2.0	1.5	
	6.75	1.2	60	[REDACTED]																		
			80	19.2	1.49	15.0	88.6	3.8	0.5	19.3	1.45	15.2	85.7	3.9	1.0	19.4	1.44	15.3	84.3	3.9	1.6	
			100	18.3	1.95	13.0	108.2	2.7	0.4	18.4	1.92	13.1	105.5	2.8	0.9	18.4	1.94	13.1	104.1	2.8	1.6	
			120	17.5	2.55	10.7	127.9	2.0	0.4	17.5	2.52	10.8	125.3	2.0	0.9	17.6	2.51	10.9	124.0	2.1	1.5	
	9	1.9	60	[REDACTED]																		
			80	19.7	1.50	15.5	88.8	3.9	0.5	19.9	1.46	15.7	85.9	4.0	1.0	20.0	1.45	15.8	84.5	4.0	1.6	
			100	18.7	1.97	13.3	108.4	2.8	0.4	18.8	1.93	13.5	105.6	2.9	0.9	18.9	1.91	13.6	104.2	2.9	1.5	
			120	17.7	2.56	10.9	128.0	2.0	0.4	17.8	2.53	11.1	125.3	2.1	0.9	17.9	2.55	11.0	124.0	2.1	1.5	
50	4.5	0.5	60	28.9	1.31	25.0	72.9	6.5	0.5	29.5	1.25	25.7	68.7	6.9	1.0	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	
			80	27.5	1.69	22.6	92.3	4.8	0.5	28.3	1.61	23.5	88.4	5.1	1.0	28.6	1.59	23.9	86.4	5.3	1.6	
			100	26.2	2.19	19.9	111.7	3.5	0.4	26.8	2.11	20.7	108.0	3.7	0.9	26.9	2.08	20.9	106.0	3.8	1.5	
			120	25.8	2.83	17.8	131.6	2.7	0.4	25.9	2.75	18.0	127.8	2.8	0.9	26.0	2.73	18.2	125.8	2.8	1.5	
	6.75	1.1	60	31.0	1.32	27.1	73.8	6.9	0.5	31.2	1.26	27.4	69.2	7.3	1.0	31.9	1.24	28.1	67.1	7.5	1.7	
			80	29.7	1.70	24.7	93.3	5.1	0.5	30.1	1.62	25.3	89.0	5.5	1.0	29.7	1.59	25.0	86.6	5.5	1.6	
			100	28.0	2.20	21.6	112.5	3.7	0.4	28.3	2.12	22.2	108.5	3.9	0.9	28.4	2.08	22.3	106.4	4.0	1.5	
			120	27.1	2.84	18.9	132.2	2.8	0.4	27.2	2.75	19.3	128.2	2.9	0.9	27.3	2.72	19.5	126.1	2.9	1.5	
	9	1.8	60	32.4	1.34	28.3	74.4	7.1	0.5	32.7	1.27	28.8	69.7	7.5	1.0	32.6	1.25	28.8	67.2	7.6	1.7	
			80	30.6	1.71	25.6	93.7	5.2	0.5	30.8	1.63	26.0	89.2	5.5	1.0	30.7	1.60	26.0	86.9	5.6	1.6	
			100	28.7	2.22	22.3	112.9	3.8	0.4	29.5	2.13	23.3	108.8	4.1	0.9	29.0	2.09	22.9	106.5	4.1	1.5	
			120	27.7	2.85	19.6	132.5	2.9	0.4	27.9	2.76	20.0	128.4	3.0	0.9	28.0	2.73	20.2	126.3	3.0	1.5	
70	4.5	0.5	60	34.3	1.11	30.9	75.2	9.1	0.5	35.8	1.05	32.6	70.6	10.0	1.0	33.7	1.04	30.5	67.5	9.5	1.7	
			80	33.0	1.43	28.8	94.7	6.8	0.5	30.6	1.36	26.6	89.1	6.6	1.0	33.0	1.33	29.1	87.4	7.3	1.6	
			100	31.6	1.88	26.3	114.2	4.9	0.4	32.0	1.79	26.8	109.5	5.2	0.9	31.0	1.75	26.0	106.9	5.2	1.5	
			120	30.0	2.42	23.1	133.5	3.6	0.4	30.0	2.33	23.4	129.0	3.8	0.9	29.9	2.29	23.4	126.7	3.8	1.5	
	6.75	1.0	60	37.4	1.11	34.0	76.6	9.9	0.5	37.3	1.05	34.1	71.0	10.4	1.0	38.6	1.02	35.5	68.6	11.1	1.7	
			80	35.0	1.44	30.8	95.6	7.1	0.5	34.1	1.36	30.2	90.2	7.4	1.0	36.0	1.32	32.1	88.0	8.0	1.6	
			100	33.0	1.89	27.6	114.8	5.1	0.4	33.8	1.79	28.6	110.1	5.5	0.9	33.3	1.75	28.2	107.5	5.6	1.5	
			120	31.4	2.42	24.5	134.1	3.8	0.4	31.6	2.33	25.0	129.5	4.0	0.9	31.1	2.29	24.6	127.0	4.0	1.5	
	9	1.7	60	38.3	1.12	35.0	77.0	10.0	0.5	38.6	1.05	35.5	71.4	10.8	1.0	39.1	1.03	36.0	68.7	11.1	1.7	
			80	36.2	1.45	31.9	96.2	7.3	0.5	36.6	1.36	32.6	90.9	7.9	1.0	32.9	1.34	29.0	87.3	7.2	1.6	
			100	34.0	1.90	28.6	115.3	5.3	0.4	33.9	1.80	28.7	110.1	5.5	0.9	34.6	1.76	29.5	107.8	5.8	1.5	
			120	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
90	4.5	0.5	60	[REDACTED]																		
			80	[REDACTED]																		
			100	[REDACTED]																		
			120	[REDACTED]																		
	6.75	1.0	60	[REDACTED]																		
			80	[REDACTED]																		
			100	[REDACTED]																		
			120	[REDACTED]																		
	9	1.6	60	[REDACTED]																		
			80	[REDACTED]																		
			100	[REDACTED]																		
			120	[REDACTED]																		

\* Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

# GreenSource TW Series

## Residential Water to Water Heat Pumps



Capacity Data - TW049 - Full Load - Cooling																																		
SOURCE			LOAD																															
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	6 GPM						9 GPM						12 GPM																		
				Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)													
50	6	0.8	50	[Blank]																			45.9	1.99	52.1	42.4	23.1	2.9						
			60	47.2	1.96	53.4	44.3	24.1	0.8	51.1	2.01	57.4	48.7	25.4	1.7	53.2	2.06	59.7	51.2	25.9	2.8													
			70	54.0	2.02	60.3	52.0	26.7	0.8	58.5	2.07	65.0	57.0	28.2	1.6	61.1	2.12	67.7	59.8	28.8	2.7													
			80	61.0	2.08	67.5	59.7	29.4	0.8	66.2	2.13	72.9	65.3	31.2	1.6	69.3	2.17	76.1	68.4	32.0	2.6													
	90	68.0	2.12	74.6	67.3	32.1	0.7	[Blank]																										
	9	1.7	50	[Blank]																			[Blank]											
			60	[Blank]																			[Blank]											
			70	[Blank]																			68.3	1.97	74.6	64.8	34.7	1.6	71.6	2.00	78.0	68.0	35.8	2.6
			80	70.2	1.96	76.4	66.5	35.8	0.7	[Blank]																								
	12	2.8	50	[Blank]																			[Blank]											
			60	[Blank]																			[Blank]											
			70	[Blank]																			[Blank]											
80			[Blank]																			[Blank]												
70	6	0.7	50	37.9	2.39	45.2	37.5	15.9	0.9	40.6	2.44	48.1	41.0	16.6	1.7	42.1	2.49	49.7	43.0	16.9	2.9													
			60	43.8	2.47	51.3	45.5	17.7	0.8	47.1	2.51	54.8	49.6	18.8	1.7	49.0	2.56	56.9	51.9	19.2	2.8													
			70	50.2	2.52	57.9	53.3	19.9	0.8	54.2	2.57	62.2	58.0	21.1	1.6	56.5	2.62	64.6	60.6	21.6	2.7													
			80	56.8	2.58	64.7	61.0	22.1	0.8	61.6	2.63	69.8	66.3	23.5	1.6	[Blank]																		
	9	1.6	50	38.7	2.28	45.7	37.2	17.0	0.9	41.6	2.33	48.8	40.8	17.9	1.7	43.2	2.38	50.5	42.8	18.2	2.9													
			60	44.8	2.35	52.0	45.1	19.1	0.8	48.4	2.38	55.8	49.3	20.3	1.7	50.5	2.42	58.0	51.6	20.9	2.8													
			70	51.5	2.38	58.8	52.9	21.6	0.8	55.8	2.42	63.3	57.6	23.1	1.6	58.3	2.45	65.9	60.3	23.8	2.7													
			80	58.5	2.41	66.0	60.5	24.3	0.8	63.7	2.45	71.3	65.8	26.0	1.6	[Blank]																		
	12	2.6	50	39.1	2.25	46.1	37.0	17.4	0.9	42.1	2.29	49.2	40.7	18.4	1.7	43.7	2.34	51.0	42.8	18.7	2.9													
			60	45.3	2.31	52.5	44.9	19.7	0.8	49.1	2.33	56.3	49.1	21.0	1.7	51.2	2.37	58.6	51.5	21.6	2.8													
			70	52.1	2.33	59.4	52.6	22.4	0.8	56.7	2.36	64.0	57.4	24.0	1.6	59.3	2.39	66.7	60.1	24.8	2.7													
			80	59.4	2.35	66.7	60.2	25.2	0.8	64.7	2.38	72.1	65.6	27.2	1.6	67.7	2.41	75.3	68.7	28.1	2.6													
90	6	0.7	50	34.1	3.01	43.1	38.7	11.3	0.9	36.4	3.06	45.6	42.0	11.9	1.7	37.6	3.11	47.0	43.8	12.1	2.9													
			60	39.7	3.09	49.0	46.8	12.8	0.8	42.5	3.14	52.0	50.6	13.5	1.7	44.0	3.18	53.7	52.7	13.8	2.8													
			70	45.4	3.15	54.9	54.9	14.4	0.8	49.2	3.21	58.9	59.1	15.3	1.6	51.1	3.25	61.0	61.5	15.7	2.7													
			80	51.9	3.22	61.7	62.7	16.1	0.8	56.1	3.28	66.1	67.5	17.1	1.6	[Blank]																		
	9	1.5	50	34.9	2.89	43.6	38.5	12.1	0.9	37.3	2.94	46.1	41.8	12.7	1.7	38.5	2.98	47.5	43.6	12.9	2.9													
			60	40.6	2.96	49.5	46.5	13.7	0.8	43.6	2.99	52.7	50.3	14.6	1.7	45.3	3.02	54.5	52.5	15.0	2.8													
			70	46.9	2.99	56.0	54.4	15.7	0.8	50.7	3.02	59.9	58.7	16.8	1.6	52.7	3.06	62.1	61.2	17.2	2.7													
			80	53.8	3.03	63.1	62.0	17.8	0.8	58.0	3.06	67.3	67.1	18.9	1.6	[Blank]																		
	12	2.5	50	35.2	2.85	43.8	38.3	12.4	0.9	37.8	2.89	46.5	41.7	13.1	1.7	39.1	2.93	48.0	43.5	13.3	2.9													
			60	41.1	2.91	49.9	46.4	14.1	0.8	44.2	2.93	53.2	50.2	15.1	1.7	46.0	2.96	55.1	52.4	15.5	2.8													
			70	47.6	2.93	56.5	54.2	16.3	0.8	51.4	2.95	60.5	58.6	17.4	1.6	53.6	2.99	62.7	61.1	17.9	2.7													
			80	54.3	2.95	63.3	61.9	18.4	0.8	58.9	2.98	68.1	66.9	19.8	1.6	[Blank]																		
110	6	0.7	50	30.2	3.77	41.4	40.0	8.0	0.8	32.2	3.84	43.6	42.9	8.4	1.7	33.0	3.88	44.5	44.5	8.5	2.9													
			60	35.5	3.87	47.1	48.2	9.2	0.8	37.8	3.92	49.6	51.6	9.7	1.6	39.1	3.96	51.0	53.5	9.9	2.8													
			70	41.5	3.96	53.4	56.2	10.5	0.8	43.7	4.00	55.8	60.3	10.9	1.6	45.5	4.06	57.8	62.4	11.2	2.7													
			80	47.4	4.05	59.7	64.2	11.7	0.8	[Blank]																								
	9	1.4	50	30.9	3.67	41.8	39.8	8.4	0.9	32.8	3.70	43.8	42.8	8.9	1.7	33.9	3.74	45.1	44.4	9.1	2.9													
			60	36.3	3.71	47.4	47.9	9.8	0.8	38.9	3.75	50.1	51.4	10.4	1.6	40.2	3.79	51.6	53.3	10.6	2.8													
			70	42.1	3.76	53.4	56.0	11.2	0.8	45.2	3.81	56.7	60.0	11.9	1.6	46.9	3.85	58.6	62.2	12.2	2.7													
			80	48.1	3.82	59.7	64.0	12.6	0.8	[Blank]																								
	12	2.3	50	31.2	3.63	41.9	39.7	8.6	0.9	33.2	3.65	44.1	42.7	9.1	1.7	34.3	3.68	45.4	44.3	9.3	2.9													
			60	36.7	3.65	47.7	47.8	10.1	0.8	39.3	3.69	50.4	51.3	10.7	1.6	40.7	3.72	51.9	53.2	10.9	2.8													
			70	42.7	3.69	53.9	55.8	11.6	0.8	43.3	3.71	54.5	60.4	11.7	1.6	47.6	3.76	59.0	62.1	12.6	2.7													
			80	49.4	3.73	60.7	63.5	13.2	0.8	[Blank]																								
90	[Blank]																																	

\* Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.  
 Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL

# GreenSource TW Series

## Residential Water to Water Heat Pumps



Capacity Data - TW049 - Full Load - Heating																							
SOURCE				LOAD																			
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	6 GPM						9 GPM						12 GPM							
				Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)		
30*	6	0.9	60	35.9	2.02	29.8	71.9	5.2	0.8	Operation not recommended													
			80	34.6	2.60	27.0	91.6	3.9	0.7	34.9	2.52	27.4	87.8	4.1	1.5	35.1	2.49	27.7	85.9	4.1	2.6		
			100	33.5	3.31	23.9	111.3	3.0	0.7	33.7	3.21	24.3	107.6	3.1	1.4	33.9	3.19	24.6	105.7	3.1	2.4		
			120	32.7	4.22	20.6	131.0	2.3	0.6	32.8	4.13	20.9	127.4	2.3	1.4	32.9	4.09	21.1	125.6	2.4	2.3		
			60	38.0	2.07	31.7	72.7	5.4	0.8	Operation not recommended													
			80	36.4	2.64	28.5	92.2	4.0	0.7	36.7	2.55	29.1	88.2	4.2	1.5	36.9	2.52	29.4	86.2	4.3	2.6		
	9	1.9	100	34.9	3.35	25.2	111.7	3.1	0.7	35.2	3.25	25.7	107.9	3.2	1.4	35.4	3.21	25.9	105.9	3.2	2.4		
			120	33.8	4.26	21.5	131.4	2.3	0.6	33.9	4.16	21.9	127.6	2.4	1.4	34.1	4.12	22.1	125.7	2.4	2.3		
			60	39.2	2.12	32.7	73.1	5.4	0.8	Operation not recommended													
			80	37.4	2.69	29.4	92.5	4.1	0.7	37.7	2.59	30.0	88.4	4.3	1.5	38.0	2.56	30.3	86.4	4.3	2.6		
			100	35.7	3.39	25.8	112.0	3.1	0.7	36.0	3.28	26.3	108.1	3.2	1.4	36.2	3.25	26.6	106.1	3.3	2.4		
			120	34.4	4.30	22.0	131.6	2.3	0.6	34.6	4.19	22.4	127.8	2.4	1.4	34.7	4.16	22.6	125.9	2.5	2.3		
12	3.1	60	45.8	2.15	39.2	75.3	6.3	0.8	46.2	2.04	39.9	70.3	6.6	1.6	46.5	2.01	40.3	67.7	6.8	2.7			
		80	44.1	2.69	36.0	94.8	4.8	0.7	44.5	2.58	36.8	89.9	5.1	1.5	44.8	2.54	37.1	87.5	5.2	2.6			
		100	42.5	3.38	32.5	114.3	3.7	0.7	42.8	3.26	33.2	109.6	3.9	1.4	43.1	3.21	33.5	107.2	3.9	2.4			
		120	41.2	4.27	28.7	133.9	2.8	0.6	41.4	4.14	29.2	129.3	2.9	1.4	41.6	4.08	29.5	127.0	3.0	2.3			
		60	48.8	2.20	42.1	76.3	6.5	0.8	49.4	2.10	43.0	71.0	6.9	1.6	49.8	2.06	43.4	68.3	7.1	2.7			
		80	46.6	2.74	38.4	95.6	5.0	0.7	47.2	2.62	39.2	90.5	5.3	1.5	47.5	2.58	39.7	88.0	5.4	2.6			
50	6	0.9	100	44.6	3.43	34.4	115.0	3.8	0.7	45.0	3.30	35.2	110.1	4.0	1.4	45.3	3.25	35.6	107.6	4.1	2.4		
			120	42.9	4.31	30.2	134.5	2.9	0.6	43.2	4.17	30.9	129.7	3.0	1.4	43.4	4.11	31.2	127.3	3.1	2.3		
			60	50.5	2.26	43.6	76.8	6.6	0.8	51.3	2.14	44.6	71.4	7.0	1.6	51.7	2.10	45.1	68.6	7.2	2.7		
			80	48.0	2.79	39.6	96.1	5.0	0.7	48.7	2.67	40.6	90.9	5.4	1.5	49.1	2.62	41.1	88.2	5.5	2.6		
			100	45.7	3.47	35.4	115.4	3.9	0.7	46.2	3.34	36.2	110.4	4.1	1.4	46.5	3.29	36.7	107.8	4.2	2.4		
			120	43.8	4.35	31.0	134.8	3.0	0.6	44.2	4.21	31.7	129.9	3.1	1.4	44.4	4.15	32.1	127.5	3.1	2.3		
	9	1.7	60	57.5	2.26	50.6	79.2	7.5	0.8	58.2	2.13	51.6	72.9	8.0	1.6	58.6	2.08	52.2	69.8	8.3	2.7		
			80	55.2	2.79	46.8	98.5	5.8	0.7	55.9	2.65	47.8	92.5	6.2	1.5	56.3	2.59	48.4	89.4	6.4	2.5		
			100	53.0	3.48	42.5	117.8	4.5	0.7	53.5	3.32	43.6	112.0	4.7	1.4	53.9	3.25	44.1	109.1	4.9	2.4		
			120	51.1	4.38	38.1	137.3	3.4	0.6	51.5	4.20	39.0	131.6	3.6	1.4	51.7	4.12	39.4	128.7	3.7	2.3		
			60	61.5	2.30	54.4	80.5	7.8	0.8	63.0	2.16	56.3	74.0	8.5	1.6	63.0	2.11	56.4	70.5	8.8	2.7		
			80	58.6	2.83	50.0	99.6	6.1	0.7	59.5	2.67	51.3	93.3	6.5	1.5	60.0	2.61	52.0	90.0	6.7	2.5		
12	2.9	100	55.9	3.53	45.2	118.8	4.6	0.7	56.6	3.35	46.5	112.7	5.0	1.4	57.0	3.27	47.1	109.6	5.1	2.4			
		120	53.5	4.44	40.3	138.1	3.5	0.6	54.0	4.24	41.3	132.2	3.7	1.4	54.3	4.16	41.9	129.2	3.8	2.3			
		60	63.7	2.34	56.5	81.2	8.0	0.8	64.9	2.19	58.0	74.4	8.7	1.6	65.6	2.14	58.9	70.9	9.0	2.7			
		80	60.5	2.87	51.7	100.3	6.2	0.7	61.5	2.71	53.2	93.7	6.7	1.5	62.1	2.64	54.0	90.4	6.9	2.5			
		100	57.5	3.58	46.7	119.3	4.7	0.7	58.2	3.38	48.0	113.1	5.0	1.4	58.7	3.31	48.7	109.9	5.2	2.4			
		120	54.8	4.48	41.4	138.5	3.6	0.6	55.4	4.28	42.6	132.5	3.8	1.4	55.8	4.20	43.2	129.4	3.9	2.3			
70	6	0.8	60	57.5	2.26	50.6	79.2	7.5	0.8	58.2	2.13	51.6	72.9	8.0	1.6	58.6	2.08	52.2	69.8	8.3	2.7		
			80	55.2	2.79	46.8	98.5	5.8	0.7	55.9	2.65	47.8	92.5	6.2	1.5	56.3	2.59	48.4	89.4	6.4	2.5		
			100	53.0	3.48	42.5	117.8	4.5	0.7	53.5	3.32	43.6	112.0	4.7	1.4	53.9	3.25	44.1	109.1	4.9	2.4		
			120	51.1	4.38	38.1	137.3	3.4	0.6	51.5	4.20	39.0	131.6	3.6	1.4	51.7	4.12	39.4	128.7	3.7	2.3		
			60	61.5	2.30	54.4	80.5	7.8	0.8	63.0	2.16	56.3	74.0	8.5	1.6	63.0	2.11	56.4	70.5	8.8	2.7		
			80	58.6	2.83	50.0	99.6	6.1	0.7	59.5	2.67	51.3	93.3	6.5	1.5	60.0	2.61	52.0	90.0	6.7	2.5		
	9	1.6	100	55.9	3.53	45.2	118.8	4.6	0.7	56.6	3.35	46.5	112.7	5.0	1.4	57.0	3.27	47.1	109.6	5.1	2.4		
			120	53.5	4.44	40.3	138.1	3.5	0.6	54.0	4.24	41.3	132.2	3.7	1.4	54.3	4.16	41.9	129.2	3.8	2.3		
			60	63.7	2.34	56.5	81.2	8.0	0.8	64.9	2.19	58.0	74.4	8.7	1.6	65.6	2.14	58.9	70.9	9.0	2.7		
			80	60.5	2.87	51.7	100.3	6.2	0.7	61.5	2.71	53.2	93.7	6.7	1.5	62.1	2.64	54.0	90.4	6.9	2.5		
			100	57.5	3.58	46.7	119.3	4.7	0.7	58.2	3.38	48.0	113.1	5.0	1.4	58.7	3.31	48.7	109.9	5.2	2.4		
			120	54.8	4.48	41.4	138.5	3.6	0.6	55.4	4.28	42.6	132.5	3.8	1.4	55.8	4.20	43.2	129.4	3.9	2.3		
90	6	0.7	60	Operation not recommended																			
			80	Operation not recommended																			
			100	Operation not recommended																			
			120	Operation not recommended																			
			60	Operation not recommended																			
			80	Operation not recommended																			
	9	1.5	100	Operation not recommended																			
			120	Operation not recommended																			
			60	Operation not recommended																			
			80	Operation not recommended																			
			100	Operation not recommended																			
			120	Operation not recommended																			
12	2.5	60	Operation not recommended																				
		80	Operation not recommended																				
		100	Operation not recommended																				
		120	Operation not recommended																				
		60	Operation not recommended																				
		80	Operation not recommended																				

- \* Extended Range - Anti-freeze required
- Operation not recommended
- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

# GreenSource TW Series

## Residential Water to Water Heat Pumps



### Capacity Data - TW049 – Part Load – Cooling

SOURCE			LOAD																								
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	6 GPM						9 GPM						12 GPM											
				Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)						
50	6	0.8	50																								
			60																								
			70																								
			80	49.6	1.06	52.8	63.5	46.7	0.8													47.4	1.12	50.9	62.1	42.2	2.7
			90																								
			90																								
	9	1.7	50																								
			60																								
			70																								
			80																								
			90																								
			90																								
12	2.8	50																									
		60																									
		70																									
		80																									
		90																									
		90																									
70	6	0.8	50	29.2	1.57	33.9	40.3	18.6	0.9	30.2	1.58	34.9	43.3	19.1	1.7	31.7	1.61	36.5	44.7	19.7	2.9						
			60	34.0	1.56	38.6	48.7	21.9	0.8	36.3	1.56	40.9	52.0	23.2	1.6	37.1	1.59	41.9	53.8	23.4	2.8						
			70	40.0	1.53	44.6	56.7	26.1	0.8	42.1	1.54	46.7	60.6	27.4	1.6	42.7	1.56	47.4	62.9	27.3	2.7						
			80	44.7	1.51	49.2	65.1	29.7	0.8																		
			90																								
			90																								
	9	1.6	50	30.0	1.51	34.5	40.1	19.8	0.9	31.9	1.52	36.4	43.0	21.0	1.7	32.4	1.54	37.1	44.6	21.1	2.9						
			60	35.0	1.48	39.5	48.4	23.6	0.8	36.4	1.49	40.8	51.9	24.5	1.6	38.4	1.50	43.0	53.6	25.6	2.8						
			70	40.6	1.45	44.9	56.5	28.0	0.8	40.7	1.45	45.1	61.0	28.0	1.6	43.5	1.46	47.9	62.8	29.7	2.7						
			80																								
			90																								
			90																								
	12	2.6	50	30.6	1.50	35.1	39.9	20.4	0.9	31.9	1.51	36.4	43.0	21.2	1.7	32.9	1.53	37.5	44.5	21.6	2.9						
			60	34.7	1.47	39.1	48.5	23.6	0.8	37.5	1.46	41.9	51.7	25.7	1.7	39.1	1.48	43.5	53.5	26.4	2.8						
			70	40.3	1.43	44.6	56.6	28.3	0.8	43.4	1.42	47.7	60.4	30.6	1.6	44.6	1.43	49.0	62.6	31.2	2.7						
			80	47.1	1.36	51.2	64.3	34.5	0.8																		
			90																								
			90																								
	90	6	0.7	50	25.8	2.15	32.0	41.5	12.0	0.8	27.2	2.17	33.4	44.0	12.5	1.7	27.9	2.19	34.2	45.4	12.7	2.9					
				60	30.3	2.14	36.6	49.9	14.2	0.8	32.1	2.15	38.3	52.9	14.9	1.6	33.0	2.18	39.3	54.5	15.1	2.8					
				70	35.2	2.13	41.4	58.3	16.5	0.8	37.3	2.14	43.5	61.7	17.4	1.6	38.4	2.16	44.7	63.6	17.8	2.7					
				80																							
				90																							
				90																							
9		1.5	50	26.3	2.08	32.3	41.3	12.6	0.8	27.8	2.09	33.9	43.9	13.3	1.7	28.5	2.11	34.7	45.3	13.5	2.9						
			60	30.9	2.06	36.9	49.7	15.0	0.8	32.8	2.06	38.8	52.7	15.9	1.6	33.8	2.08	39.9	54.4	16.2	2.8						
			70	36.3	2.03	42.2	57.9	17.9	0.8	38.1	2.03	44.0	61.5	18.8	1.6	39.4	2.05	45.4	63.4	19.2	2.7						
			80																								
			90																								
			90																								
12		2.5	50	26.5	2.07	32.5	41.2	12.9	0.8	28.1	2.07	34.1	43.8	13.6	1.7	28.9	2.09	35.0	45.2	13.8	2.9						
			60	31.3	2.03	37.3	49.6	15.4	0.8	33.2	2.03	39.1	52.7	16.3	1.6	34.2	2.05	40.2	54.3	16.7	2.8						
			70	36.4	2.00	42.3	57.9	18.3	0.8	38.7	1.99	44.6	61.4	19.4	1.6	39.8	2.01	45.8	63.4	19.8	2.7						
			80																								
			90																								
			90																								
110		6	0.7	50	22.0	2.81	30.0	42.7	7.8	0.8	23.1	2.82	31.1	44.9	8.2	1.7	23.6	2.85	31.7	46.1	8.3	2.9					
				60	26.4	2.80	34.4	51.2	9.4	0.8	27.7	2.81	35.8	53.9	9.9	1.6	28.4	2.84	36.6	55.3	10.0	2.8					
				70	31.1	2.78	39.2	59.6	11.2	0.8	32.8	2.78	40.9	62.7	11.8	1.6											
				80																							
				90																							
				90																							
	9	1.4	50	22.5	2.73	30.2	42.6	8.2	0.8	23.6	2.74	31.4	44.8	8.6	1.7	24.2	2.77	32.1	46.0	8.7	2.9						
			60	27.0	2.71	34.8	51.0	10.0	0.8	28.4	2.72	36.2	53.7	10.5	1.6	29.1	2.74	37.0	55.2	10.7	2.8						
			70	31.9	2.67	39.7	59.4	12.0	0.8	33.7	2.67	41.4	62.5	12.6	1.6												
			80																								
			90																								
			90																								
	12	2.3	50	22.7	2.71	30.4	42.5	8.4	0.8	23.9	2.72	31.6	44.7	8.8	1.7	24.5	2.74	32.3	45.9	8.9	2.9						
			60	27.3	2.68	35.0	50.9	10.2	0.8	28.8	2.68	36.5	53.6	10.7	1.6	29.5	2.70	37.3	55.1	10.9	2.8						
			70	32.2	2.64	39.9	59.3	12.2	0.8	34.1	2.63	41.7	62.4	13.0	1.6												
			80																								
			90																								
			90																								

\* Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.

Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL

# GreenSource TW Series

## Residential Water to Water Heat Pumps



Capacity Data - TW049 - Part Load - Heating																						
SOURCE			LOAD																			
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	6 GPM						9 GPM						12 GPM						
				Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	
30*	6	0.9	60	[Data obscured]																		
			80	25.4	1.93	19.9	88.5	3.9	0.7	25.7	1.88	20.3	85.7	4.0	1.5	25.9	1.88	20.6	84.3	4.0	2.6	
			100	23.2	2.50	16.4	107.8	2.7	0.7	23.5	2.46	16.7	105.3	2.8	1.4	23.6	2.45	16.9	104.0	2.9	2.4	
			120	21.3	3.25	12.7	127.2	1.9	0.6	21.5	3.21	13.0	124.8	2.0	1.4	21.6	3.21	13.1	123.6	2.0	2.3	
	9	1.9	60	[Data obscured]																		
			80	26.4	1.94	20.8	88.8	4.0	0.7	26.7	1.90	21.3	86.0	4.1	1.5	27.0	1.89	21.5	84.5	4.2	2.6	
			100	24.0	2.52	17.1	108.1	2.8	0.7	24.3	2.47	17.4	105.4	2.9	1.4	24.5	2.46	17.6	104.1	2.9	2.4	
			120	21.9	3.27	13.2	127.4	2.0	0.6	22.1	3.22	13.5	125.0	2.0	1.4	22.2	3.22	13.6	123.7	2.0	2.3	
	12	3.1	60	[Data obscured]																		
			80	26.9	1.97	21.3	89.0	4.0	0.7	27.3	1.92	21.8	86.1	4.2	1.5	27.5	1.92	22.0	84.6	4.2	2.6	
			100	24.4	2.55	17.4	108.2	2.8	0.7	24.7	2.50	17.8	105.5	2.9	1.4	24.9	2.49	18.0	104.2	2.9	2.4	
			120	22.2	3.30	13.4	127.5	2.0	0.6	22.4	3.25	13.7	125.0	2.0	1.4	22.6	3.25	13.8	123.8	2.0	2.3	
50	6	0.8	60	36.0	1.44	31.6	72.0	7.3	0.8	[Data obscured]												
			80	33.4	1.90	27.9	91.2	5.2	0.7	33.9	1.83	28.6	87.6	5.4	1.5	34.2	1.81	28.9	85.7	5.5	2.6	
			100	31.1	2.48	24.0	110.4	3.7	0.7	31.4	2.41	24.6	107.0	3.8	1.4	31.6	2.39	24.8	105.3	3.9	2.4	
			120	29.0	3.23	20.0	129.8	2.6	0.6	29.2	3.16	20.4	126.6	2.7	1.4	29.4	3.14	20.6	125.0	2.7	2.3	
	9	1.7	60	37.8	1.45	33.4	72.6	7.6	0.8	[Data obscured]												
			80	35.0	1.91	29.4	91.7	5.4	0.7	35.5	1.83	30.1	87.9	5.7	1.5	35.8	1.82	30.5	86.0	5.8	2.6	
			100	32.3	2.50	25.2	110.9	3.8	0.7	32.7	2.42	25.8	107.3	4.0	1.4	33.0	2.39	26.1	105.5	4.0	2.4	
			120	30.0	3.24	20.9	130.1	2.7	0.6	30.2	3.17	21.3	126.8	2.8	1.4	30.4	3.15	21.6	125.1	2.8	2.3	
	12	2.9	60	38.8	1.47	34.4	72.9	7.7	0.8	[Data obscured]												
			80	35.8	1.93	30.2	92.0	5.4	0.7	36.4	1.86	30.9	88.1	5.7	1.5	36.7	1.84	31.3	86.1	5.9	2.6	
			100	33.0	2.52	25.8	111.1	3.8	0.7	33.4	2.44	26.4	107.5	4.0	1.4	33.7	2.42	26.7	105.7	4.1	2.4	
			120	30.5	3.27	21.3	130.3	2.7	0.6	30.8	3.19	21.8	126.9	2.8	1.4	31.0	3.17	22.0	125.2	2.9	2.3	
70	6	0.8	60	44.6	1.35	40.6	74.9	9.7	0.8	45.4	1.26	41.5	70.1	10.5	1.6	45.8	1.24	42.0	67.6	10.8	2.7	
			80	41.7	1.82	36.4	94.0	6.7	0.7	42.4	1.72	37.3	89.5	7.2	1.5	42.8	1.69	37.8	87.2	7.4	2.6	
			100	39.1	2.40	32.2	113.1	4.8	0.7	39.6	2.30	32.9	108.9	5.0	1.4	39.9	2.27	33.3	106.7	5.2	2.4	
			120	36.7	3.13	27.8	132.4	3.4	0.6	37.1	3.03	28.4	128.3	3.6	1.4	37.3	2.99	28.8	126.3	3.7	2.3	
	9	1.6	60	47.0	1.35	43.0	75.7	10.2	0.8	47.9	1.25	44.1	70.6	11.2	1.6	48.4	1.23	44.7	68.1	11.6	2.7	
			80	43.8	1.82	38.5	94.7	7.1	0.7	44.6	1.72	39.5	89.9	7.6	1.5	45.0	1.69	40.0	87.5	7.8	2.6	
			100	40.8	2.41	33.9	113.7	5.0	0.7	41.4	2.30	34.7	109.3	5.3	1.4	41.7	2.27	35.2	107.0	5.4	2.4	
			120	[Data obscured]																		
	12	2.7	60	48.4	1.36	44.3	76.1	10.4	0.8	49.3	1.27	45.5	71.0	11.4	1.6	49.9	1.24	46.1	68.3	11.8	2.7	
			80	[Data obscured]																		
			100	[Data obscured]																		
			120	[Data obscured]																		
90	6	0.7	60	[Data obscured]																		
			80	[Data obscured]																		
			100	[Data obscured]																		
			120	[Data obscured]																		
	9	1.5	60	[Data obscured]																		
			80	[Data obscured]																		
			100	[Data obscured]																		
			120	[Data obscured]																		
	12	2.5	60	[Data obscured]																		
			80	[Data obscured]																		
			100	[Data obscured]																		
			120	[Data obscured]																		

\* Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.  
 Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL

# GreenSource TW Series

## Residential Water to Water Heat Pumps



### Capacity Data - TW061 – Full Load – Cooling

SOURCE			LOAD																			
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	6.5 GPM						9.8 GPM						13 GPM						
				Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	
50	6.5	0.9	50	49.4	2.34	56.8	34.9	21.1	1.0	53.4	2.41	61.1	39.1	22.2	2.0	55.7	2.47	63.6	41.5	22.6	3.3	
			60	56.7	2.42	64.4	42.6	23.4	1.0	61.6	2.50	69.6	47.4	24.7	1.9	64.4	2.57	72.6	50.1	25.1	3.2	
			70	64.5	2.51	72.5	50.2	25.7	0.9	70.3	2.61	78.6	55.6	27.0	1.9	73.7	2.68	82.2	58.7	27.5	3.1	
			80	72.7	2.62	81.0	57.6	27.8	0.9	79.5	2.73	88.2	63.7	29.2	1.8	83.4	2.81	92.4	67.1	29.7	3.0	
	9.8	1.9	50	[Data obscured]																		
			60	[Data obscured]																		
			70	66.2	2.36	73.7	49.7	28.0	0.9	72.4	2.44	80.3	55.2	29.7	1.9	76.1	2.52	84.2	58.3	30.3	3.1	
			80	74.7	2.45	82.6	57.0	30.5	0.9	82.1	2.55	90.2	63.1	32.2	1.8	86.4	2.63	94.8	66.7	32.9	3.0	
	13	3.2	50	[Data obscured]																		
			60	[Data obscured]																		
			70	[Data obscured]																		
			80	83.4	2.49	91.4	62.9	33.6	1.8	87.9	2.57	96.2	66.4	34.3	3.0	83.4	2.49	91.4	62.9	33.6	1.8	
70	6.5	0.9	50	45.9	2.95	55.1	36.0	15.6	1.0	49.5	3.01	58.9	39.9	16.5	2.0	51.5	3.06	61.1	42.1	16.8	3.3	
			60	53.0	3.02	62.4	43.8	17.5	1.0	57.4	3.09	67.0	48.3	18.6	1.9	59.8	3.15	69.7	50.8	19.0	3.2	
			70	60.5	3.11	70.2	51.4	19.5	0.9	65.7	3.19	75.7	56.5	20.6	1.9	68.6	3.26	78.9	59.4	21.0	3.1	
			80	68.3	3.21	78.4	59.0	21.3	0.9	74.4	3.30	84.8	64.7	22.5	1.8	77.8	3.39	88.5	68.0	23.0	3.0	
	9.8	1.8	50	76.4	3.31	86.8	66.4	23.1	0.9	[Data obscured]												
			60	47.0	2.81	55.7	35.6	16.7	1.0	50.8	2.85	59.7	39.7	17.8	2.0	52.9	2.90	62.0	41.9	18.2	3.3	
			70	54.3	2.86	63.3	43.4	19.0	1.0	59.0	2.91	68.1	47.9	20.2	1.9	61.6	2.97	71.0	50.5	20.8	3.2	
			80	62.1	2.92	71.3	50.9	21.3	0.9	67.7	2.99	77.2	56.1	22.7	1.9	70.9	3.05	80.6	59.1	23.3	3.1	
	13	3.0	50	70.3	2.99	79.8	58.3	23.5	0.9	76.9	3.08	86.6	64.2	25.0	1.8	80.8	3.15	90.7	67.6	25.7	3.0	
			60	78.9	3.08	88.6	65.7	25.6	0.9	[Data obscured]												
			70	47.5	2.76	56.2	35.5	17.2	1.0	51.4	2.80	60.2	39.5	18.4	2.0	53.7	2.85	62.6	41.8	18.8	3.3	
			80	55.0	2.80	63.8	43.1	19.6	1.0	59.8	2.85	68.8	47.8	21.0	1.9	62.6	2.90	71.8	50.4	21.6	3.2	
90	6.5	0.8	50	63.0	3.96	75.3	60.6	15.9	0.9	68.3	4.05	80.9	66.0	16.8	1.8	71.2	4.13	84.0	69.0	17.2	3.0	
			60	48.5	3.77	60.2	45.1	12.9	1.0	52.3	3.84	64.2	49.3	13.6	1.9	54.4	3.90	66.4	51.7	14.0	3.2	
			70	55.6	3.86	67.6	52.9	14.4	0.9	60.1	3.94	72.3	57.7	15.3	1.9	62.6	4.01	75.0	60.4	15.6	3.1	
			80	63.0	3.96	75.3	60.6	15.9	0.9	68.3	4.05	80.9	66.0	16.8	1.8	71.2	4.13	84.0	69.0	17.2	3.0	
	9.8	1.7	50	41.9	3.70	53.2	37.2	11.3	1.0	44.9	3.75	56.4	40.8	12.0	2.0	46.6	3.80	58.3	42.9	12.3	3.3	
			60	42.8	3.54	53.7	36.9	12.1	1.0	46.1	3.58	57.1	40.6	12.9	2.0	47.9	3.63	59.1	42.7	13.2	3.3	
			70	49.8	3.58	60.9	44.7	13.9	1.0	53.8	3.63	65.1	49.0	14.8	1.9	56.0	3.68	67.5	51.4	15.2	3.2	
			80	57.2	3.64	68.5	52.4	15.7	0.9	62.0	3.70	73.5	57.3	16.8	1.9	64.7	3.76	76.5	60.0	17.2	3.1	
	13	2.8	50	64.9	3.71	76.5	60.0	17.5	0.9	70.6	3.78	82.4	65.5	18.7	1.8	73.9	3.84	85.9	68.6	19.2	3.0	
			60	73.0	3.78	84.8	67.5	19.3	0.9	[Data obscured]												
			70	43.3	3.48	54.0	36.8	12.4	1.0	46.7	3.52	57.5	40.5	13.3	2.0	48.5	3.56	59.6	42.6	13.6	3.3	
			80	50.4	3.51	61.3	44.6	14.3	1.0	54.6	3.55	65.6	48.8	15.4	1.9	56.9	3.60	68.1	51.3	15.8	3.2	
110	6.5	0.8	50	57.9	3.55	69.0	52.2	16.3	0.9	63.0	3.60	74.3	57.1	17.5	1.9	65.9	3.66	77.3	59.9	18.0	3.1	
			60	65.9	3.61	77.2	59.7	18.3	0.9	71.9	3.67	83.4	65.2	19.6	1.8	75.3	3.72	87.0	68.4	20.2	3.0	
			70	74.2	3.67	85.7	67.1	20.2	0.9	[Data obscured]												
			80	37.6	4.58	51.5	38.5	8.2	1.0	40.1	4.64	54.2	41.8	8.6	2.0	40.1	4.64	54.2	41.8	8.6	2.0	
	9.8	1.6	50	43.8	4.67	58.1	46.6	9.4	1.0	46.9	4.75	61.4	50.4	9.9	1.9	46.9	4.75	61.4	50.4	9.9	1.9	
			60	50.3	4.78	65.0	54.5	10.5	0.9	54.1	4.86	69.1	58.9	11.1	1.9	54.1	4.86	69.1	58.9	11.1	1.9	
			70	57.2	4.89	72.3	62.4	11.7	0.9	61.4	4.99	76.9	67.4	12.3	1.8	[Data obscured]						
			80	[Data obscured]																		
	13	2.7	50	38.4	4.40	51.8	38.3	8.7	1.0	41.1	4.45	54.7	41.6	9.2	2.0	41.1	4.45	54.7	41.6	9.2	2.0	
			60	44.9	4.48	58.6	46.2	10.0	1.0	48.2	4.53	62.1	50.2	10.6	1.9	48.2	4.53	62.1	50.2	10.6	1.9	
			70	51.7	4.54	65.7	54.1	11.4	0.9	55.8	4.60	70.0	58.6	12.1	1.9	55.8	4.60	70.0	58.6	12.1	1.9	
			80	58.9	4.61	73.2	61.8	12.8	0.9	63.8	4.68	78.3	66.9	13.6	1.8	[Data obscured]						
13	2.7	50	66.4	4.69	81.0	69.5	14.2	0.9	[Data obscured]													
		60	38.8	4.35	52.1	38.1	8.9	1.0	41.6	4.39	55.0	41.5	9.5	2.0	41.6	4.39	55.0	41.5	9.5	2.0		
		70	45.4	4.40	58.9	46.1	10.3	1.0	48.8	4.44	62.5	50.0	11.0	1.9	48.8	4.44	62.5	50.0	11.0	1.9		
		80	52.4	4.45	66.2	53.9	11.8	0.9	56.7	4.49	70.5	58.4	12.6	1.9	56.7	4.49	70.5	58.4	12.6	1.9		

\* Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.  
 Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL



# Greensource TW Series

## Residential Water to Water Heat Pumps



### Capacity Data - TW061 – Full Load – Heating

SOURCE			LOAD																				
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	6.5 GPM						9.8 GPM						13 GPM							
				Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)		
30*	6.5	1.0	60	44.4	2.60	36.3	73.6	5.0	0.9	45.0	2.50	37.3	69.2	5.3	1.9								
			80	42.5	3.25	32.6	93.1	3.8	0.9	42.9	3.14	33.3	88.8	4.0	1.7	43.1	3.11	33.6	86.7	4.1	2.9		
			100	40.8	4.03	28.7	112.7	3.0	0.8	40.8	3.91	29.0	108.4	3.1	1.6	41.2	3.88	29.5	106.4	3.1	2.8		
			120	41.4	5.05	26.4	132.9	2.4	0.8	41.5	4.93	26.8	128.6	2.5	1.6	41.6	4.89	27.1	126.5	2.5	2.6		
	9.8	2.2	60	47.1	2.67	38.8	74.5	5.2	0.9	47.7	2.55	39.7	69.8	5.5	1.9	48.1	2.52	40.2	67.4	5.6	3.1		
			80	44.9	3.31	34.8	93.9	4.0	0.9	45.1	3.19	35.3	89.3	4.1	1.7	45.5	3.15	35.8	87.0	4.2	2.9		
			100	42.6	4.10	30.3	113.2	3.1	0.8	44.0	3.99	32.0	109.1	3.2	1.6	43.2	3.93	31.3	106.7	3.2	2.8		
			120	43.0	5.11	27.8	133.4	2.5	0.8	43.2	4.98	28.3	129.0	2.5	1.6	43.0	4.93	28.2	126.7	2.6	2.6		
	13	3.6	60	48.6	2.73	40.1	74.9	5.2	0.9	49.3	2.61	41.1	70.1	5.5	1.9	49.7	2.57	41.6	67.6	5.7	3.1		
			80	46.1	3.37	35.8	94.3	4.0	0.9	46.4	3.25	36.4	89.6	4.2	1.7	47.2	3.21	37.3	87.3	4.3	2.9		
			100	44.8	4.18	32.1	113.9	3.1	0.8	45.3	4.05	33.0	109.4	3.3	1.6	45.9	4.01	33.7	107.1	3.4	2.8		
			120	43.9	5.16	28.4	133.7	2.5	0.8	44.1	5.02	29.0	129.2	2.6	1.6	44.3	4.98	29.3	126.9	2.6	2.6		
50	6.5	1.0	60	56.1	2.77	47.4	77.3	5.9	0.9	56.8	2.63	48.5	71.6	6.3	1.9	57.3	2.59	49.1	68.8	6.5	3.1		
			80	53.8	3.44	43.2	96.6	4.6	0.9	54.3	3.28	44.2	91.2	4.9	1.7	54.8	3.23	44.8	88.5	5.0	2.9		
			100	52.5	4.26	39.5	116.3	3.6	0.8	54.0	4.11	41.5	111.2	3.9	1.6	51.0	4.02	38.8	107.9	3.7	2.8		
			120	51.7	5.28	35.8	136.1	2.9	0.8	52.1	5.10	36.6	130.8	3.0	1.6	52.5	5.04	37.3	128.2	3.1	2.6		
	9.8	2.0	60	60.1	2.84	51.2	78.5	6.2	0.9	61.0	2.68	52.6	72.5	6.7	1.9	61.6	2.63	53.3	69.5	6.9	3.1		
			80	57.3	3.49	46.5	97.7	4.8	0.8	58.0	3.32	47.7	92.0	5.1	1.7	58.6	3.26	48.5	89.1	5.3	2.9		
			100	56.9	4.35	43.6	117.7	3.8	0.8	55.0	4.14	42.3	111.4	3.9	1.6	55.7	4.07	43.2	108.6	4.0	2.8		
			120	52.9	5.30	36.8	136.5	2.9	0.8	52.6	5.11	37.1	130.9	3.0	1.6	55.2	5.09	39.7	128.6	3.2	2.6		
	13	3.3	60	62.3	2.89	53.2	79.2	6.3	0.9	63.6	2.74	54.9	73.0	6.8	1.9	64.3	2.69	55.7	69.9	7.0	3.1		
			80	59.4	3.55	48.4	98.4	4.9	0.8	60.2	3.38	49.8	92.4	5.2	1.7	60.8	3.31	50.5	89.4	5.4	2.9		
			100	56.2	4.37	42.8	117.4	3.8	0.8	57.2	4.19	44.4	111.8	4.0	1.6	57.6	4.11	44.9	108.9	4.1	2.8		
			120	54.9	5.40	38.5	137.1	3.0	0.8	55.8	5.20	39.9	131.6	3.1	1.6	56.7	5.14	41.1	128.8	3.2	2.6		
70	6.5	0.9	60	69.3	2.93	60.1	81.3	6.9	0.9	70.5	2.76	61.8	74.5	7.5	1.9	71.5	2.71	62.9	71.0	7.7	3.1		
			80	67.0	3.59	55.9	100.7	5.5	0.8	67.7	3.39	57.1	93.9	5.9	1.7	71.6	3.33	61.2	91.1	6.3	2.9		
			100	66.8	4.48	53.0	120.7	4.4	0.8	67.2	4.23	54.2	113.9	4.7	1.6	66.9	4.12	54.2	110.4	4.8	2.8		
			120	64.2	5.53	47.3	140.0	3.4	0.8	64.7	5.28	48.4	133.4	3.6	1.6	63.3	5.16	47.4	129.9	3.6	2.6		
	9.8	1.9	60	75.2	3.03	65.7	83.2	7.3	0.9	76.4	2.84	67.4	75.7	7.9	1.9	77.2	2.77	68.4	71.9	8.2	3.1		
			80	71.4	3.67	60.0	102.1	5.7	0.8	69.1	3.42	58.5	94.2	5.9	1.7	71.3	3.35	60.8	91.0	6.2	2.9		
			100	70.7	4.55	56.7	122.0	4.6	0.8	69.6	4.26	56.4	114.4	4.8	1.6	69.5	4.16	56.7	110.8	4.9	2.8		
			120	66.7	5.59	49.5	140.8	3.5	0.8	68.5	5.34	52.1	134.2	3.8	1.6	66.7	5.21	50.7	130.4	3.8	2.6		
	13	3.1	60	78.1	3.10	68.4	84.1	7.4	0.9	79.8	2.90	70.6	76.4	8.1	1.8	80.9	2.84	71.8	72.4	8.4	3.1		
			80	73.9	3.74	62.3	102.9	5.8	0.8	75.6	3.51	64.6	95.6	6.3	1.7	80.0	3.44	69.2	92.4	6.8	2.9		
			100	73.7	4.63	59.5	122.9	4.7	0.8	71.5	4.31	58.1	114.8	4.9	1.6	72.1	4.20	59.1	111.2	5.0	2.8		
			120	66.7	5.60	49.5	140.8	3.5	0.8	70.5	5.40	53.9	134.6	3.8	1.6	70.7	5.27	54.5	131.0	3.9	2.6		
90	6.5	0.9	60	90.7	3.22	80.5	87.9	8.3	0.9	92.2	2.99	82.7	78.9	9.0	1.8	89.6	2.87	80.5	73.8	9.2	3.1		
			80									87.7	3.58	76.5	98.1	7.2	1.7	89.4	3.47	78.5	93.8	7.5	2.9
			100															81.0	4.22	67.9	112.6	5.6	2.7
			120																				
	9.8	1.8	60																				
			80																				
			100																				
			120																				
	13	3.3	60																				
			80																				
			100																				
			120																				

\* Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.  
 Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL

# GreenSource TW Series

## Residential Water to Water Heat Pumps



Capacity Data - TW061 - Part Load - Cooling																						
SOURCE			LOAD																			
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	6.5 GPM						9.8 GPM						13 GPM						
				Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	
50	6.5	0.9	50	■																		
			60	■																		
			70	51.1	1.40	55.5	54.3	36.5	0.9	54.9	1.39	59.3	58.7	39.4	1.9	■						
			80	57.8	1.36	62.1	62.2	42.6	0.9	62.3	1.35	66.5	67.2	46.2	1.8	■						
			90	■																		
			90	■																		
	9.8	1.9	50	■																		
			60	■																		
			70	■																		
			80	■																		
			90	■																		
			90	■																		
13	3.2	50	■																			
		60	■																			
		70	■																			
		80	■																			
		90	■																			
		90	■																			
70	6.5	0.9	50	34.9	1.91	40.7	39.3	18.3	1.0	37.1	1.93	43.0	42.4	19.2	2.0	38.2	1.97	44.2	44.2	19.4	3.3	
			60	40.6	1.91	46.4	47.6	21.2	1.0	43.2	1.93	49.1	51.2	22.4	1.9	44.8	1.96	50.7	53.1	22.9	3.2	
			70	46.7	1.89	52.5	55.6	24.7	0.9	50.1	1.89	55.9	59.7	26.5	1.9	51.9	1.92	57.8	62.0	27.1	3.1	
			80	53.3	1.86	58.9	63.6	28.7	0.9	■												
			90	■																		
			90	■																		
	9.8	1.8	50	35.8	1.84	41.4	39.0	19.5	1.0	38.1	1.85	43.8	42.2	20.6	2.0	39.4	1.88	45.2	44.0	20.9	3.3	
			60	41.7	1.82	47.3	47.2	22.9	1.0	44.5	1.83	50.2	50.9	24.3	1.9	46.2	1.85	51.9	52.9	25.0	3.2	
			70	48.1	1.79	53.6	55.2	27.0	0.9	51.7	1.77	57.1	59.4	29.2	1.9	53.7	1.79	59.2	61.7	30.0	3.1	
			80	54.9	1.73	60.2	63.1	31.7	0.9	■												
			90	■																		
			90	■																		
13	3.0	50	36.3	1.82	41.9	38.9	19.9	1.0	38.7	1.83	44.3	42.1	21.1	2.0	40.0	1.86	45.7	43.9	21.5	3.3		
		60	42.3	1.80	47.8	47.0	23.5	1.0	45.2	1.80	50.8	50.7	25.1	1.9	47.0	1.82	52.6	52.8	25.8	3.2		
		70	48.8	1.75	54.2	55.0	27.9	0.9	52.5	1.74	57.9	59.2	30.3	1.9	54.6	1.75	60.0	61.6	31.3	3.1		
		80	55.8	1.69	61.0	62.8	33.0	0.9	■													
		90	■																			
		90	■																			
90	6.5	0.8	50	31.4	2.62	39.2	40.4	12.0	1.0	33.4	2.64	41.2	43.2	12.6	2.0	34.3	2.68	42.3	44.7	12.8	3.3	
			60	37.1	2.63	44.9	48.6	14.1	1.0	39.4	2.66	47.4	51.9	14.9	1.9	40.7	2.68	48.8	53.7	15.2	3.2	
			70	43.2	2.62	51.0	56.7	16.5	0.9	46.2	2.63	54.1	60.5	17.6	1.9	47.8	2.65	55.8	62.6	18.0	3.1	
			80	49.6	2.59	57.4	64.7	19.1	0.9	■												
			90	■																		
			90	■																		
	9.8	1.7	50	32.3	2.53	39.8	40.1	12.8	1.0	34.4	2.54	42.0	43.0	13.5	2.0	35.4	2.58	43.1	44.6	13.7	3.3	
			60	38.1	2.52	45.7	48.3	15.1	1.0	40.7	2.54	48.3	51.7	16.0	1.9	42.1	2.56	49.9	53.5	16.5	3.2	
			70	44.5	2.49	52.0	56.3	17.9	0.9	47.8	2.48	55.3	60.2	19.3	1.9	49.5	2.50	57.1	62.4	19.8	3.1	
			80	51.2	2.44	58.6	64.2	21.0	0.9	■												
			90	■																		
			90	■																		
13	2.8	50	32.7	2.50	40.2	40.0	13.1	1.0	34.9	2.51	42.4	42.9	13.9	2.0	36.0	2.55	43.7	44.5	14.2	3.3		
		60	38.6	2.49	46.1	48.2	15.5	1.0	41.4	2.49	48.9	51.5	16.6	1.9	42.9	2.51	50.5	53.4	17.1	3.2		
		70	45.1	2.44	52.5	56.1	18.5	0.9	48.6	2.43	55.9	60.0	20.0	1.9	50.4	2.44	57.9	62.2	20.7	3.1		
		80	52.1	2.38	59.3	64.0	21.9	0.9	■													
		90	■																			
		90	■																			
110	6.5	0.8	50	27.0	3.34	36.8	41.7	8.1	1.0	28.0	3.37	37.8	44.3	8.3	2.0	28.0	3.37	37.8	44.3	8.3	2.0	
			60	31.8	3.35	41.7	50.2	9.5	1.0	33.7	3.37	43.7	53.1	10.0	1.9	33.7	3.37	43.7	53.1	10.0	1.9	
			70	38.1	3.35	48.0	58.3	11.4	0.9	40.1	3.36	50.1	61.8	12.0	1.9	40.1	3.36	50.1	61.8	12.0	1.9	
			80	43.1	3.33	53.1	66.7	12.9	0.9	■												
			90	■																		
			90	■																		
	9.8	1.6	50	27.3	3.24	36.8	41.7	8.4	1.0	29.0	3.27	38.6	44.1	8.9	2.0	29.0	3.27	38.6	44.1	8.9	2.0	
			60	32.9	3.24	42.4	49.9	10.1	1.0	34.9	3.24	44.5	52.9	10.7	1.9	34.9	3.24	44.5	52.9	10.7	1.9	
			70	38.5	3.21	48.1	58.2	12.0	0.9	41.2	3.21	50.8	61.6	12.8	1.9	41.2	3.21	50.8	61.6	12.8	1.9	
			80	45.0	3.17	54.4	66.1	14.2	0.9	■												
			90	■																		
			90	■																		
13	2.7	50	27.6	3.22	37.1	41.6	8.6	1.0	29.2	3.23	38.8	44.0	9.0	2.0	29.2	3.23	38.8	44.0	9.0	2.0		
		60	33.4	3.20	42.9	49.8	10.4	1.0	35.3	3.21	44.8	52.8	11.0	1.9	35.3	3.21	44.8	52.8	11.0	1.9		
		70	39.2	3.16	48.7	57.9	12.4	0.9	41.9	3.16	51.4	61.4	13.3	1.9	41.9	3.16	51.4	61.4	13.3	1.9		
		80	45.6	3.11	54.9	66.0	14.6	0.9	■													
		90	■																			
		90	■																			

- \* Extended Range - Anti-freeze required
- Operation not recommended
- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.  
Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL

# GreenSource TW Series

## Residential Water to Water Heat Pumps



Capacity Data - TW061 - Part Load - Heating																							
SOURCE			LOAD																				
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	6.5 GPM						9.8 GPM						13 GPM							
				Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)		
30*	6.5	1.0	60	33.9	1.90	28.1	70.4	5.2	0.9	[REDACTED]													
			80	31.9	2.42	24.8	89.8	3.9	0.9	32.3	2.36	25.3	86.7	4.0	1.8	32.6	2.35	25.7	85.0	4.1	2.9		
			100	29.1	3.09	20.3	109.0	2.8	0.8	29.5	3.03	20.8	106.1	2.9	1.6	29.7	3.02	21.1	104.6	2.9	2.8		
			120	26.4	3.91	15.6	128.2	2.0	0.8	26.6	3.86	15.9	125.5	2.0	1.6	26.8	3.85	16.1	124.2	2.0	2.6		
	9.8	2.1	60	36.4	1.93	30.5	71.2	5.5	0.9	[REDACTED]													
			80	33.3	2.45	26.1	90.3	4.0	0.9	33.8	2.38	26.8	87.0	4.2	1.8	34.2	2.37	27.1	85.3	4.2	2.9		
			100	30.3	3.12	21.3	109.4	2.9	0.8	30.7	3.05	21.9	106.3	3.0	1.6	31.0	3.04	22.2	104.8	3.0	2.8		
			120	27.3	3.94	16.3	128.5	2.0	0.8	27.5	3.88	16.7	125.7	2.1	1.6	27.7	3.88	16.9	124.3	2.1	2.6		
	13	3.5	60	37.4	1.97	31.4	71.5	5.6	0.9	[REDACTED]													
			80	34.1	2.49	26.8	90.6	4.0	0.9	34.7	2.42	27.5	87.1	4.2	1.8	35.0	2.41	27.8	85.4	4.3	2.9		
			100	30.9	3.16	21.8	109.6	2.9	0.8	31.3	3.09	22.4	106.5	3.0	1.6	31.6	3.07	22.7	104.9	3.0	2.8		
			120	27.7	3.98	16.6	128.6	2.0	0.8	28.0	3.92	17.0	125.8	2.1	1.6	28.3	3.91	17.2	124.4	2.1	2.6		
50	6.5	1.0	60	45.5	1.90	39.7	74.0	7.0	0.9	45.2	1.82	39.6	69.3	7.3	1.9	[REDACTED]							
			80	41.8	2.44	34.5	92.9	5.0	0.9	42.3	2.34	35.3	88.7	5.3	1.7	42.6	2.32	35.6	86.6	5.4	2.9		
			100	39.1	3.12	29.9	112.1	3.7	0.8	39.6	3.02	30.6	108.2	3.8	1.6	39.9	2.99	31.0	106.2	3.9	2.8		
			120	36.4	3.97	24.8	131.3	2.7	0.8	36.7	3.87	25.5	127.6	2.8	1.6	37.0	3.85	25.8	125.8	2.8	2.6		
	9.8	2.0	60	46.9	1.92	41.0	74.4	7.2	0.9	47.8	1.83	42.1	69.8	7.7	1.9	48.0	1.81	42.4	67.4	7.8	3.1		
			80	44.0	2.46	36.6	93.6	5.2	0.9	44.7	2.36	37.6	89.2	5.6	1.7	45.1	2.33	38.1	87.0	5.7	2.9		
			100	40.9	3.15	31.6	112.7	3.8	0.8	41.5	3.04	32.4	108.6	4.0	1.6	41.8	3.01	32.9	106.5	4.1	2.8		
			120	37.8	3.99	26.2	131.8	2.8	0.8	38.2	3.89	26.9	127.9	2.9	1.6	38.5	3.86	27.2	126.0	2.9	2.6		
	13	3.3	60	48.7	1.95	42.7	75.0	7.3	0.9	48.8	1.86	43.0	70.0	7.7	1.9	48.7	1.84	43.0	67.5	7.8	3.1		
			80	45.3	2.50	37.8	94.0	5.3	0.9	46.0	2.39	38.8	89.5	5.7	1.7	46.5	2.36	39.3	87.2	5.8	2.9		
			100	41.9	3.19	32.4	113.0	3.9	0.8	42.5	3.08	33.4	108.8	4.1	1.6	42.9	3.04	33.8	106.7	4.1	2.8		
			120	38.6	4.02	26.8	132.0	2.8	0.8	39.0	3.92	27.5	128.1	2.9	1.6	39.4	3.89	27.9	126.1	3.0	2.6		
70	6.5	0.9	60	55.3	1.82	49.8	77.0	8.9	0.9	56.2	1.70	51.0	71.5	9.7	1.9	57.2	1.67	52.0	68.8	10.1	3.1		
			80	52.0	2.37	44.9	96.1	6.4	0.9	52.8	2.24	46.0	90.9	6.9	1.7	53.2	2.20	46.6	88.2	7.1	2.9		
			100	49.0	3.06	39.9	115.2	4.7	0.8	49.7	2.93	41.0	110.3	5.0	1.6	50.1	2.88	41.5	107.8	5.1	2.8		
			120	46.0	3.89	34.5	134.3	3.5	0.8	46.5	3.76	35.4	129.7	3.6	1.6	46.9	3.70	36.0	127.3	3.7	2.6		
	9.8	1.9	60	58.9	1.81	53.3	78.1	9.5	0.9	59.2	1.69	53.9	72.1	10.3	1.9	58.8	1.67	53.6	69.0	10.3	3.1		
			80	55.0	2.37	47.8	97.0	6.8	0.8	55.9	2.23	49.2	91.5	7.4	1.7	56.5	2.18	49.8	88.7	7.6	2.9		
			100	51.4	3.07	42.3	116.0	4.9	0.8	52.2	2.92	43.5	110.8	5.2	1.6	52.7	2.87	44.2	108.2	5.4	2.8		
			120	48.0	3.90	36.4	134.9	3.6	0.8	48.6	3.76	37.5	130.1	3.8	1.6	49.1	3.70	38.1	127.6	3.9	2.6		
	13	3.1	60	59.8	1.84	54.1	78.4	9.6	0.9	60.1	1.72	54.8	72.3	10.3	1.9	62.5	1.66	57.3	69.6	11.0	3.1		
			80	56.6	2.39	49.4	97.5	6.9	0.8	57.7	2.24	50.9	91.9	7.6	1.7	58.4	2.19	51.7	89.0	7.8	2.9		
			100	52.8	3.09	43.5	116.4	5.0	0.8	53.7	2.94	44.9	111.1	5.4	1.6	54.2	2.88	45.6	108.4	5.5	2.8		
			120	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	
90	6.5	0.9	60	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		
			80	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		
			100	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		
			120	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		
	9.8	1.8	60	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		
			80	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		
			100	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		
			120	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		
	13	2.9	60	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		
			80	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		
			100	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		
			120	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]		

\* Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.  
 Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL

# Greensource TW Series

## Residential Water to Water Heat Pumps



Capacity Data - TW0122 – Full Load – Cooling																						
SOURCE			LOAD																			
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	15 GPM						22.5 GPM						30 GPM						
				Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	
50	15	1.2	50	106.1	4.72	121.2	36.0	22.5	1.3	114.1	4.86	129.6	39.9	23.5	2.6	118.5	5.02	134.5	42.1	23.6	4.4	
			60	122.0	4.88	137.6	43.8	25.0	1.3	131.7	5.05	147.9	48.3	26.1	2.6	137.1	5.21	153.8	50.9	26.3	4.2	
			70	138.9	5.07	155.1	51.5	27.4	1.2	150.4	5.27	167.3	56.6	28.6	2.5	156.9	5.45	174.4	59.5	28.8	4.1	
			80	156.5	5.28	173.4	59.1	29.6	1.2	170.0	5.51	187.7	64.9	30.9	2.4	177.6	5.70	195.9	68.1	31.1	4.0	
	22.5	2.5	50								154.5	5.00	170.7	56.3	30.9	2.5	161.6	5.17	178.3	59.2	31.2	4.1
			60								175.1	5.22	192.0	64.4	33.6	2.4	183.4	5.41	201.0	67.7	33.9	4.0
			70																			
			80	160.6	5.00	176.7	58.6	32.1	1.2	175.1	5.22	192.0	64.4	33.6	2.4	183.4	5.41	201.0	67.7	33.9	4.0	
	30	4.2	50																			
			60																			
			70																			
			80	182.4	5.15	199.1	65.6	35.4	1.2													
70	15	1.1	50	97.9	5.90	116.3	37.0	16.6	1.3	104.8	6.02	123.7	40.7	17.4	2.6	108.6	6.16	128.0	42.8	17.6	4.4	
			60	113.0	6.04	132.0	45.0	18.7	1.3	121.6	6.18	141.0	49.2	19.7	2.6	126.2	6.33	146.2	51.6	19.9	4.2	
			70	129.1	6.20	148.6	52.8	20.8	1.2	139.3	6.37	159.3	57.6	21.9	2.5	144.9	6.54	165.5	60.3	22.2	4.1	
			80	145.9	6.39	166.0	60.5	22.8	1.2	157.7	6.59	178.5	66.0	24.0	2.4							
	22.5	2.4	50	163.3	6.60	184.2	68.2	24.7	1.1													
			60	99.9	5.67	117.6	36.8	17.6	1.3	107.3	5.77	125.4	40.5	18.6	2.6	111.3	5.90	129.9	42.6	18.9	4.4	
			70	115.6	5.76	133.7	44.7	20.1	1.3	124.7	5.89	143.3	49.0	21.2	2.6	129.7	6.03	148.8	51.4	21.5	4.2	
			80	132.3	5.89	151.0	52.4	22.5	1.2	143.2	6.03	162.3	57.3	23.7	2.5	149.3	6.19	169.0	60.1	24.1	4.1	
	30	4.0	50	168.2	6.20	187.9	67.5	27.1	1.1													
			60	100.9	5.63	118.6	36.6	17.9	1.3	108.5	5.72	126.5	40.4	19.0	2.6	112.7	5.85	131.2	42.5	19.3	4.4	
			70	116.9	5.71	135.0	44.5	20.5	1.3	126.2	5.82	144.7	48.8	21.7	2.6	131.5	5.95	150.4	51.3	22.1	4.2	
			80	133.9	5.81	152.4	52.2	23.1	1.2	145.2	5.94	164.1	57.1	24.5	2.5	151.6	6.09	171.0	59.9	24.9	4.1	
90	15	1.1	50	151.8	5.93	170.7	59.7	25.6	1.2	165.2	6.09	184.7	65.3	27.1	2.4	172.8	6.26	192.8	68.5	27.6	4.0	
			60	88.8	7.43	111.7	38.2	12.0	1.3	94.8	7.54	118.1	41.6	12.6	2.6	97.9	7.68	121.7	43.5	12.8	4.4	
			70	103.2	7.56	126.6	46.3	13.6	1.3	110.4	7.70	134.3	50.2	14.4	2.6	114.3	7.84	138.7	52.4	14.6	4.2	
			80	118.2	7.72	142.2	54.3	15.3	1.2	126.9	7.88	151.4	58.7	16.1	2.5	131.6	8.04	156.7	61.2	16.4	4.1	
	22.5	2.2	50	134.0	7.91	158.6	62.1	16.9	1.2	144.1	8.09	169.4	67.2	17.8	2.4							
			60	90.7	7.16	112.8	38.0	12.7	1.3	97.0	7.25	119.4	41.4	13.4	2.6	100.3	7.38	123.2	43.4	13.6	4.4	
			70	105.5	7.24	128.0	46.0	14.6	1.3	113.3	7.35	136.1	50.0	15.4	2.6	117.5	7.48	140.8	52.2	15.7	4.2	
			80	121.2	7.34	144.1	53.9	16.5	1.2	130.6	7.47	154.0	58.4	17.5	2.5	135.7	7.61	159.6	61.0	17.8	4.1	
	30	3.7	50	137.7	7.47	161.1	61.6	18.4	1.2	148.8	7.62	172.7	66.8	19.5	2.4							
			60	91.6	7.10	113.6	37.9	12.9	1.3	98.0	7.18	120.3	41.3	13.7	2.6	101.5	7.30	124.2	43.3	13.9	4.4	
			70	106.7	7.15	128.9	45.8	14.9	1.3	114.7	7.24	137.3	49.8	15.8	2.6	119.1	7.37	142.1	52.1	16.2	4.2	
			80	122.8	7.23	145.5	53.6	17.0	1.2	132.5	7.34	155.5	58.2	18.1	2.5	137.8	7.47	161.3	60.8	18.4	4.1	
110	15	1.0	50	139.6	7.33	162.6	61.4	19.1	1.2	151.1	7.46	174.6	66.5	20.3	2.4							
			60	79.6	9.23	107.7	39.5	8.6	1.3	84.4	9.35	113.0	42.5	9.0	2.6	86.9	9.50	116.0	44.2	9.1	4.4	
			70	92.7	9.42	121.7	47.7	9.9	1.3	98.7	9.55	128.1	51.3	10.3	2.6	101.8	9.69	131.8	53.2	10.5	4.2	
			80	106.8	9.59	136.3	55.8	11.1	1.2	113.9	9.74	144.0	59.9	11.7	2.5	117.7	9.89	148.4	62.2	11.9	4.1	
	22.5	2.1	50	121.3	9.78	151.6	63.8	12.4	1.2													
			60	81.1	8.95	108.5	39.3	9.1	1.3	86.2	9.06	114.0	42.4	9.5	2.6	88.9	9.19	117.2	44.1	9.7	4.4	
			70	94.8	9.07	122.7	47.4	10.5	1.3	101.2	9.17	129.5	51.0	11.0	2.6	104.6	9.30	133.4	53.0	11.3	4.2	
			80	109.5	9.17	137.9	55.4	11.9	1.2	117.2	9.29	146.0	59.6	12.6	2.5	121.3	9.42	150.6	61.9	12.9	4.1	
	30	3.5	50	124.7	9.29	153.5	63.4	13.4	1.2													
			60	81.9	8.89	109.1	39.2	9.2	1.3	87.1	8.99	114.8	42.3	9.7	2.6	89.9	9.11	118.0	44.0	9.9	4.4	
			70	95.8	8.96	123.4	47.3	10.7	1.3	102.5	9.05	130.4	50.9	11.3	2.6	106.0	9.17	134.4	53.0	11.6	4.2	
			80	110.8	9.04	138.8	55.2	12.3	1.2	118.8	9.13	147.2	59.4	13.0	2.5	123.2	9.25	152.0	61.8	13.3	4.1	

- \* Extended Range - Anti-freeze required
- Operation not recommended
- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.

Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL

# GreenSource TW Series

## Residential Water to Water Heat Pumps



Capacity Data - TW0122 - Full Load - Heating																									
SOURCE			LOAD																						
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	15 GPM						22.5 GPM						30 GPM									
				Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)				
30*	15	1.4	60	93.8	5.15	77.7	72.5	5.3	1.2	94.8	4.99	79.1	68.4	5.6	2.5										
			80	89.5	6.44	69.9	92.0	4.1	1.1	90.3	6.27	71.1	88.1	4.2	2.3	91.0	6.27	71.7	86.1	4.3	3.9				
			100	85.9	8.02	61.8	111.6	3.1	1.1	86.5	7.85	62.8	107.8	3.2	2.2	87.0	7.84	63.3	105.8	3.3	3.7				
	22.5	2.8	60	98.9	5.28	82.3	73.2	5.5	1.2	100.0	5.10	84.0	68.9	5.7	2.5										
			80	94.0	6.57	73.8	92.6	4.2	1.1	94.9	6.39	75.3	88.5	4.4	2.3	95.6	6.37	76.0	86.4	4.4	3.9				
			100	89.6	8.15	64.9	112.0	3.2	1.1	89.8	7.96	65.7	108.0	3.3	2.2	90.4	7.94	66.2	106.1	3.3	3.7				
			120	85.7	10.09	55.6	131.6	2.5	1.0	86.0	9.92	56.3	127.7	2.5	2.1	87.3	10.00	57.2	125.9	2.6	3.5				
			30	4.7	60	101.7	5.43	84.7	73.6	5.5	1.2	103.1	5.25	86.5	69.2	5.8	2.5	104.0	5.23	87.4	66.9	5.8	4.1		
					80	96.4	6.72	75.8	92.9	4.2	1.1	97.5	6.53	77.3	88.7	4.4	2.3	98.2	6.50	78.1	86.6	4.4	3.9		
	50	15	1.3	60	121.0	5.53	103.6	76.1	6.4	1.2	122.5	5.30	105.7	70.9	6.8	2.5	123.5	5.26	106.8	68.2	6.9	4.1			
				80	115.9	6.85	94.7	95.5	5.0	1.1	117.2	6.59	96.7	90.5	5.2	2.3	118.0	6.53	97.6	87.9	5.3	3.9			
				100	111.4	8.53	85.3	115.0	3.8	1.0	112.4	8.23	87.0	110.1	4.0	2.2	113.0	8.16	87.9	107.6	4.1	3.6			
22.5		2.6	60	107.8	10.57	75.6	134.6	3.0	1.0	108.4	10.29	77.1	129.8	3.1	2.1	109.0	10.22	77.8	127.4	3.1	3.5				
			80	129.1	5.67	111.2	77.2	6.7	1.2	131.0	5.42	113.7	71.6	7.1	2.5	132.2	5.37	115.1	68.8	7.2	4.1				
			100	122.9	6.98	101.2	96.5	5.2	1.1	124.5	6.69	103.6	91.1	5.5	2.3	125.5	6.62	104.8	88.4	5.6	3.9				
			120	117.3	8.65	90.7	115.8	4.0	1.0	118.5	8.33	92.8	110.6	4.2	2.2	119.4	8.24	93.9	108.0	4.2	3.6				
			30	4.4	60	133.7	5.82	115.3	77.8	6.7	1.2	135.9	5.56	118.2	72.1	7.2	2.5	137.3	5.51	119.6	69.1	7.3	4.1		
					80	126.9	7.12	104.7	97.0	5.2	1.1	128.7	6.82	107.4	91.5	5.5	2.3	129.8	6.75	108.6	88.7	5.6	3.9		
70		15	1.2	60	151.2	5.87	132.7	80.2	7.6	1.2	153.6	5.57	135.9	73.7	8.1	2.4	155.1	5.50	137.5	70.3	8.3	4.1			
				80	144.7	7.16	122.3	99.4	5.9	1.1	146.7	6.80	125.3	93.1	6.3	2.3	148.0	6.70	126.9	89.9	6.5	3.9			
				100	138.5	8.84	111.1	118.6	4.6	1.0	140.1	8.43	113.9	112.6	4.9	2.2	141.1	8.30	115.3	109.5	5.0	3.6			
	22.5	2.5	60	133.2	11.01	99.4	138.0	3.6	1.0	134.3	10.58	101.7	132.1	3.7	2.1	135.2	10.44	103.0	129.1	3.8	3.5				
			80	162.7	6.06	143.5	81.7	7.9	1.2	165.8	5.74	147.4	74.7	8.5	2.4	167.6	5.66	149.4	71.2	8.7	4.1				
			100	154.6	7.33	131.7	100.7	6.2	1.1	157.2	6.94	135.4	94.0	6.6	2.3	158.8	6.82	137.3	90.6	6.8	3.9				
			120	147.1	9.00	119.1	119.8	4.8	1.0	149.2	8.56	122.5	113.4	5.1	2.2	150.5	8.41	124.3	110.1	5.2	3.6				
			30	4.1	60	139.9	11.15	105.6	138.9	3.7	1.0	141.5	10.70	108.4	132.7	3.9	2.1	142.5	10.54	109.9	129.6	4.0	3.5		
					80	169.1	6.23	149.3	82.6	8.0	1.2	172.7	5.91	153.8	75.4	8.6	2.4	174.8	5.82	156.1	71.7	8.8	4.1		
	90	15	1.1	60	160.2	7.49	136.8	101.5	6.3	1.1	163.3	7.09	141.0	94.6	6.8	2.3	165.1	6.97	143.1	91.1	7.0	3.9			
				80	151.7	9.16	123.2	120.4	4.9	1.0	154.1	8.70	127.0	113.8	5.2	2.2	155.6	8.54	128.9	110.5	5.3	3.6			
				100	144.0	11.31	109.1	139.5	3.7	1.0	145.1	10.83	111.6	133.1	3.9	2.1	146.8	10.66	113.8	129.9	4.0	3.5			
22.5		2.3	60	187.4	6.31	167.5	85.0	8.7	1.2	191.4	5.95	172.4	77.0	9.4	2.4	193.7	5.85	174.9	72.9	9.7	4.1				
			80	178.7	7.57	155.0	104.0	6.9	1.1	182.4	7.12	160.0	96.3	7.5	2.3	184.2	6.96	162.2	92.3	7.8	3.8				
			100														175.3	8.52	148.6	111.8	6.0	3.6			
			120																						
			30	3.9	60																				
					80																				
				100																					
				120																					

\* Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.  
 Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL

# GreenSource TW Series

## Residential Water to Water Heat Pumps



Capacity Data - TW0122 - Part Load - Cooling																							
SOURCE			LOAD																				
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	15 GPM					22.5 GPM					30 GPM									
				Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	Cooling Capacity (MBH)	Power, kW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)		
50	15	1.2	50																				
			60																				
			70																				
			80																				
			90																				
	22.5	2.5	50																				
			60																				
			70																				
			80																				
			90																				
	30	4.2	50																				
			60																				

\* Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

# Greensource TW Series

## Residential Water to Water Heat Pumps



### Capacity Data - TW0122 – Part Load – Heating

SOURCE			LOAD																			
Entering Fluid Temp (°F)	Water Flow (GPM)	Pressure Drop (PSI)	EWT	15 GPM						22.5 GPM						30 GPM						
				Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)	
30*	15	1.4	60	74.2	3.77	62.6	69.9	5.8	1.2													
			80	66.6	4.80	52.4	88.9	4.1	1.1	64.4	4.70	50.5	85.7	4.0	2.3	66.4	4.73	52.3	84.4	4.1	3.9	
			100	61.7	6.11	44.1	108.3	3.0	1.1	62.4	6.03	45.0	105.6	3.0	2.2	62.9	6.05	45.4	104.2	3.1	3.7	
			120	56.0	7.76	34.2	127.6	2.1	1.0	56.5	7.70	34.9	125.1	2.2	2.1	57.0	7.73	35.2	123.8	2.2	3.5	
	22.5	2.8	60	77.7	3.83	65.9	70.4	5.9	1.2													
			80	70.4	4.87	55.8	89.4	4.2	1.1	70.7	4.77	56.4	86.3	4.3	2.3	71.5	4.79	57.1	84.8	4.4	3.9	
			100	64.1	6.19	46.2	108.6	3.0	1.1	64.9	6.09	47.2	105.8	3.1	2.2	65.5	6.11	47.6	104.4	3.1	3.7	
			120	57.8	7.84	35.7	127.8	2.2	1.0	58.4	7.76	36.4	125.3	2.2	2.1	58.8	7.79	36.7	124.0	2.2	3.5	
	30	4.7	60	79.7	3.95	67.5	70.6	5.9	1.2													
			80	70.9	4.98	56.0	89.5	4.2	1.1	66.0	4.87	51.5	85.9	4.0	2.3	73.2	4.90	58.4	84.9	4.4	3.9	
			100	65.5	6.31	47.1	108.8	3.0	1.1	66.3	6.21	48.1	105.9	3.1	2.2	66.9	6.22	48.6	104.5	3.2	3.7	
			120	58.7	7.96	36.2	127.9	2.2	1.0	59.4	7.88	36.9	125.3	2.2	2.1	59.9	7.90	37.3	124.0	2.2	3.5	
50	15	1.3	60	96.8	3.76	85.1	72.9	7.5	1.2	98.6	3.63	87.2	68.8	8.0	2.5							
			80	88.9	4.83	74.3	91.9	5.4	1.1	90.3	4.68	76.1	88.1	5.7	2.3	91.4	4.67	77.2	86.1	5.7	3.9	
			100	81.3	6.19	63.0	110.9	3.9	1.1	83.4	6.03	65.4	107.5	4.1	2.2	83.7	6.02	65.7	105.6	4.1	3.7	
			120	77.4	7.87	54.4	130.5	2.9	1.0	78.1	7.72	55.5	127.0	3.0	2.1	78.7	7.71	56.0	125.3	3.0	3.5	
	22.5	2.6	60	102.2	3.82	90.3	73.6	7.8	1.2	104.4	3.67	92.8	69.3	8.3	2.5	105.7	3.66	94.2	67.0	8.5	4.1	
			80	93.6	4.89	78.7	92.5	5.6	1.1	95.3	4.73	80.8	88.5	5.9	2.3	96.4	4.71	82.0	86.5	6.0	3.9	
			100	85.3	6.26	66.7	111.5	4.0	1.1	85.5	6.09	67.3	107.7	4.1	2.2	87.6	6.07	69.4	105.9	4.2	3.7	
			120	80.4	7.93	57.1	130.9	3.0	1.0	81.3	7.77	58.3	127.3	3.1	2.1	82.0	7.75	59.1	125.5	3.1	3.5	
	30	4.3	60	105.2	3.90	93.0	74.0	7.9	1.2	107.5	3.75	95.7	69.6	8.4	2.5	109.1	3.74	97.3	67.3	8.6	4.1	
			80	96.1	5.00	80.8	92.9	5.6	1.1	98.2	4.83	83.4	88.8	6.0	2.3	99.2	4.81	84.4	86.6	6.1	3.9	
			100	86.9	6.38	67.9	111.7	4.0	1.1	89.0	6.19	70.4	108.0	4.2	2.2	89.8	6.17	71.2	106.0	4.3	3.6	
			120	82.0	8.03	58.2	131.1	3.0	1.0	83.0	7.87	59.7	127.5	3.1	2.1	83.7	7.85	60.4	125.6	3.1	3.5	
70	15	1.2	60	120.5	3.57	109.4	76.1	9.9	1.2	123.0	3.38	112.4	70.9	10.7	2.5	124.6	3.36	114.0	68.3	10.9	4.1	
			80	111.7	4.67	97.5	95.0	7.0	1.1	114.1	4.44	100.5	90.2	7.5	2.3	116.1	4.39	102.6	87.8	7.7	3.9	
			100	104.5	6.06	86.3	114.1	5.1	1.0	106.2	5.82	88.7	109.5	5.4	2.2	106.5	5.77	89.0	107.2	5.4	3.6	
			120	97.8	7.73	74.9	133.2	3.7	1.0	100.1	7.48	77.8	129.0	3.9	2.1	99.1	7.44	76.8	126.7	3.9	3.5	
	22.5	2.5	60	128.0	3.58	116.9	77.1	10.5	1.2	131.1	3.37	120.5	71.6	11.4	2.5	132.9	3.34	122.3	68.9	11.7	4.1	
			80	118.5	4.69	104.2	95.9	7.4	1.1	120.8	4.44	107.2	90.8	8.0	2.3	122.4	4.39	108.9	88.2	8.2	3.9	
			100	109.4	6.08	91.1	114.7	5.3	1.0	111.3	5.82	93.7	110.0	5.6	2.2	112.5	5.76	95.0	107.6	5.7	3.6	
			120	102.6	7.77	79.5	133.9	3.9	1.0	105.0	7.50	82.6	129.5	4.1	2.1	102.7	7.46	80.4	126.9	4.0	3.5	
	30	4.1	60	132.5	3.65	121.0	77.7	10.6	1.2	135.7	3.43	124.9	72.1	11.6	2.4	137.7	3.39	126.9	69.2	11.9	4.1	
			80	122.0	4.76	107.5	96.3	7.5	1.1	124.8	4.51	110.9	91.1	8.1	2.3	126.6	4.45	112.8	88.5	8.3	3.9	
			100	112.0	6.17	93.4	115.1	5.3	1.0	114.6	5.89	96.8	110.3	5.7	2.2	115.8	5.82	98.2	107.8	5.8	3.6	
			120	104.8	7.86	81.3	134.2	3.9	1.0	106.4	7.59	83.8	129.6	4.1	2.1	107.1	7.52	84.6	127.2	4.2	3.5	
90	15	1.1	60																			
			80																			
			100																			
			120																			
	22.5	2.3	60																			
			80																			
			100																			
			120																			
	30	3.8	60																			
			80																			
			100																			
			120																			

\* Extended Range - Anti-freeze required  
 ■ Operation not recommended

- Interpolation is permissible. Not extrapolation
- Tabulated unit performance does not include fan or pump power corrections required for AHRI/ ISO standard performance ratings.
- Unit performance may be interpolated. Extrapolation is not allowed.
- For conditions other than rating conditions provided, consult the BST selection software.
- Ratings below 40°F are with a methanol solution.

**DISCLAIMER:** The performance reported herein is based on testing by FHP. Variations in the installation and operational environment may alter performance. Bosch disclaims all warranties, express and implied, that the performance will be as reported, including the warranty of merchantability and fitness for purpose. In addition, continuous research and development may result in a change to an appliances design and specifications at the time of order, which Bosch may change without notice. Before purchase, confirm the design specifications of the appliance.

Bosch Thermotechnology Corp.  
 Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL

Cooling Mode Operating Pressures (PSIG)						
Entering Load/Evap Temp. °F.	Entering Source Condenser Temperature Deg. °F					
	75 °F		85 °F		95 °F	
	Suction Pressure	Discharge Pressure	Suction Pressure	Discharge Pressure	Suction Pressure	Discharge Pressure
65	99-116	290-320	107-123	325-358	107-123	370-400
55	91-107	265-311	91-107	303-350	99-116	370-400
45	76-91	265-311	76-91	295-345	83-99	358-390

**i** TW R410A Units.

Heating Mode Operating Pressures (PSIG)			
Entering Load Degree °F.	Entering Source	Suction Pressure	Discharge Pressure
70	40	68-83	255-290
	60	99-116	270-305
	80	130-145	290-325
90	40	76-91	350-380
	60	99-116	358-390
	80	30-165	370-400
110	40	76-91	455-480
	60	99-116	470-500
	80	139-165	480-575

**i** TW R410A Units.

**i** Above ratings are based on water flow rates stated in specification sheets. 2.4 GPM/ton on evaporator side and 10°F Δ T on condensor side when in the chiller mode. Boiler mode conditions are 2.4 GPM/ton on the source side and 10°F Δ T on load side. The values are typical and may vary between models.



# GreenSource TW Series

## Residential Water to Water Heat Pumps



Field Installed Accessory - Pump/Valve Relay Kit					
Part Number	TW025	TW035	TW049	TW061	TW122
7738003204	•	•	•	•	•

Field Installed Accessory - Flow Proving Switch (Differential Pressure) Kit					
Part Number	TW025	TW035	TW049	TW061	TW122
8733920264	•	•	•	•	•

Field Installed Accessory - Stainless Steel Hose Kits						
Options	Option 1	Option 2	Option 3**	Option 4**,***	Option 5**, ***	Option 6**, ***
Hose Size (Length, Diameter)	Hoses Only with Swivel	Hose Kit Hoses with Ported Ball Valves, Swivel and One P/T*	Hose Kit with Automatic Flow Valve (AFV)*	Hose kit with AFV, Y-Strainer & Blow Down Valve*	Hose Kit with AFV and Electric Valve*	Hose Kit with AFV, Y-Strainer, BDV and Electric Valve*
	Part #	Part #	Part #	Part #	Part #	Part #
<b>12 Inch</b>						
1/2" L	T111H02121	T111H02122	T111H02123	T111H02124	T111H02125	T111H02126
<b>24 Inch</b>						
3/4" S	T111H03241	T111H03242	T111H03243	T111H03244	T111H03245	T111H03246
1" L	T111H04241	T111H04242	T111H04243	T111H04244	T111H04245	T111H04246
1" S	T111H04241	T111H04242	T111H04247	T111H04248	T111H04249	T111H04240
1 - 1/4" S	T111H05241	T111H05242	T111H05243	T111H05244	T111H05245	T111H05246
1 - 1/2" L	T111H06241	T111H06242	T111H06243	T111H06244	T111H06245	T111H06246
1 - 1/2" S	T111H06241	T111H06242	T111H06247	T111H06248	T111H06249	T111H06240
2" S	T111H08241	T111H08242	T111H08243	T111H08244	T111H08245	T111H08246
<b>36 Inch</b>						
3/4" S	T111H03361	T111H03362	T111H03363	T111H03364	T111H03365	T111H03366
1" L	T111H04361	T111H04362	T111H04363	T111H04364	T111H04365	T111H04366
1" S	T111H04361	T111H04362	T111H04367	T111H04368	T111H04369	T111H04360
1 - 1/4" S	T111H05361	T111H05362	T111H05363	T111H05364	T111H05365	T111H05366
1 - 1/2" L	T111H06361	T111H06362	T111H06363	T111H06364	T111H06365	T111H06366
1 - 1/2" S	T111H06361	T111H06362	T111H06367	T111H06368	T111H06369	T111H06360
2" S	T111H08361	T111H08362	T111H08363	T111H08364	T111H08365	T111H08366

\* All Hose Kits include S/R ported ball valves with swivel and P/T port.

\*\* 'L' and 'S' only apply to kit options 3 through 6

\*\*\* GMP's are required for hose kits in options 3-6

Hose Kit Flow Rates by Size
Please see Technical Service Bulletin: Heat Pump Hose Kits – Water Flow Rates. This document is located at <a href="http://www.bosch-climate.us">www.bosch-climate.us</a> under Support Center > Downloads > Downloads for Bosch Products > Service Bulletins.