

# QV Model Series Commercial Water Source Heat Pumps

Engineering  
Submittal  
Sheet



# BOSCH

## Overview and Certifications



- ▶ 2 to 5 Ton Capacities
- ▶ Single Stage Ultra Compact Cabinet
- ▶ New and Improved Scroll and Rotary Compressors
- ▶ Option Rich Features and Components
- ▶ Significant Sound Attenuation

## Commercial WSHP Product Portfolio

Product	Water-to-Air						Water-to-Water				
	LM	ES	EP	LV	QV	LM Splits	CA	EC	MC	WT	WW
Price	\$\$\$	\$\$	\$+	\$	\$	\$\$\$	\$	\$\$	\$\$	\$\$	\$\$
Model Sizes <6 Ton	007		X	X							
	009		X	X			X				
	012		X	X			X				
	015		X	X			X				
	018		X	X			X				
	024	X		X	X	X	X				
	025		X								X
	030	X		X	X	X					
	035		X								X
	036	X		X	X	X	X				
	041				X						
	042			X	X	X					
	048	X		X	X	X	X				
	049		X								X
060	X		X	X	X	X					
061		X								X	
070	X		X	X							
071		X								X	
Model Sizes >6 Ton	072							X			
	096							X			
	120							X			X
	122										X
	150							X			
	151							X			
	180							X			X
	181							X			
	210							X			X
	240							X			X
	300							X			
	360							X	X		X
420										X	
480									X		
600									X		
720									X		
<b>Capacities (WLHP)</b>	EER 14.8 - 20.8 COP 4.9 - 6.5	13.2 - 17.5 3.8 - 5.4	14.2 - 17.5 5.0 - 5.8	12.2 - 14.9 4.3 - 5.1	13.5-14.9 4.3 - 5.1	14.1 - 18.2 4.9 - 6.0	12.2 - 12.7 4.3 - 4.6	13.0 - 16.0 4.2 - 5.6	18.6 - 19.0 5.4 - 5.5	12.6 - 14.7 4.2 - 4.7	12.3 - 13.8 4.2 - 4.6

Featured model

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

# QV Model Series - Commercial Water Source Heat Pumps



# BOSCH

## Model Nomenclature

**QV 024 - 1 VT C - F L T D D A - X W T X X X X X 7 X X X X 1 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:**  
QV

**NOMINAL CAPACITY:**  
024, 030, 036, 042, 048, 060

**ELECTRICAL CONFIGURATION:**  
1 - 208-230/60/1  
2 - 277/60/1  
3 - 208-230/60/3  
4 - 460/60/3

**CABINET CONFIGURATION:**  
HZ - Horizontal  
VT - Vertical

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

**WATER CONNECTIONS:**  
F - Front

**RETURN AIR CONFIGURATION:**  
L - Left  
R - Right

**DISCHARGE AIR LOCATION:**  
T - Top  
S - Straight  
E - End

**FAN/MOTOR OPTION:**  
D - ECM DecStar EON

**AIR COIL:**  
U - Uncoated  
D - DuoGuard

**REVISION LEVEL:**  
A - Current

**ELECTRIC HEAT:**  
X - None

**CABINET CONSTRUCTION:**  
W - Galv 1/2" FG+WQ Package

**APPLICATION:**  
T - TXV Option  
G - Extended Range (Geothermal)

**CODE STRING LEVEL:**

A - Revision

**CHANNEL:**  
B - Bosch

**STANDARD/SPECIAL:**  
S - Standard

**AGENCY OPTIONS:**

X - ETL (UL 1995)

D - Dual Power (under ETL) (Must used in combination with Electrical option "K" (Dual Power))

**NOT USED:**

X - None

**DRIVE SPEED (MC ONLY)**

X - N/A

**MOTOR HP/QTY (BELT DRIVE ONLY)**

X - N/A

**AIR FILTRATION:**

1 - 1" Standard Throwaway Filter w/ 2-sided Filter Rack<sup>1</sup>

4 - MERV8 - 2" w/ 4-Sided Filter Rack

5 - MERV13 - 2" w/ 4-Sided Filter Rack

**NOT USED:**

X - None

**ECONOMIZER:**

X - None

E - Economizer With 3 Way Valve and Controls

**WATER FLOW CONTROL OPTIONS:**

X - None

2 - 2 Way Solenoid Valve

3 - MeasureFlow (3 GPM/Ton)

4 - 2 Way Solenoid + MeasureFlow

6 - Water Regulating Valve Connection

**CONTROLS:**

X - Standard

M - DDC - Multi-Protocol (BacNET, Modbus, N2)

L - DDC - LonWorks

**TRANSFORMER:**

7 - 75 VA

1 - 100 VA

**REFRIGERATION:**

X - None

**ELECTRICAL OPTIONS:**

A - EMS relay

C - Compressor Monitor Relay

E - Pump/valve relay

H - Flow proving switch

K - Fire Alarm Relay/Dual Power

X - As default for non used electrical codes

B - Blower Monitor Relay

D - Phase Monitor

G - Boilerless control

J - Disconnect Switch

M - Wire transformer to 208 volts

# QV Model Series - Commercial Water Source Heat Pumps

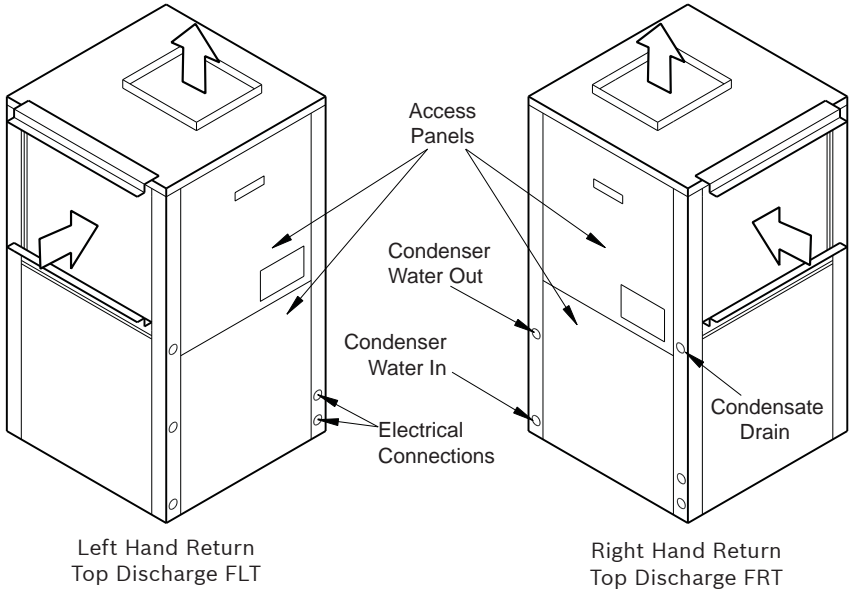


AHRI Ratings (13256-1) - QV Series Copper Water Coil											
Model Number	Cabinet	Water Loop Heat Pump				Ground Loop Heat Pump				CFM	GPM
		Cooling 86 deg.F		Heating 68 deg.F		Cooling 77 deg.F		Heating 32 deg.F			
		Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP		
024	VT	24550	15.00	27150	4.85	25650	17.95	17750	3.40	800	6
024	HZ	24200	14.75	26800	5.15	25300	17.65	17850	3.70	800	6
030	VT	28650	14.50	32150	4.95	29950	17.00	21050	3.60	950	7
030	HZ	28650	14.60	32150	4.95	29950	17.10	21050	3.60	950	7
036	VT	36400	15.05	38400	4.85	37950	17.55	26700	3.70	1200	9
036	HZ	36400	14.85	38450	4.80	38000	17.40	26750	3.65	1200	9
042	VT	39950	14.70	42150	4.70	41800	17.20	29350	3.40	1400	10
042	HZ	38350	13.95	42350	4.60	41100	16.80	29550	3.35	1400	10
048	VT	46450	14.35	58200	4.65	48650	16.85	38900	3.50	1600	12
048	HZ	46450	14.35	58300	4.75	48000	16.55	39000	3.45	1600	12
060	VT	58500	14.20	77000	4.70	61250	16.50	52050	3.70	1850	15
060	HZ	58900	14.20	66200	4.35	61000	16.25	46000	3.35	1850	15

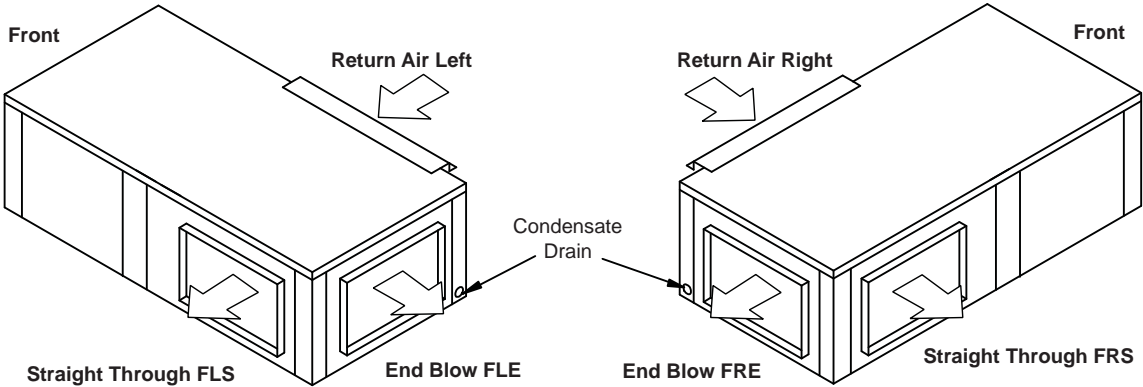
AHRI Ratings (13256-1) - QV Series Cupro-Nickel Water Coil											
Model Number	Cabinet	Water Loop Heat Pump				Ground Loop Heat Pump				CFM	GPM
		Cooling 86 deg.F		Heating 68 deg.F		Cooling 77 deg.F		Heating 32 deg.F			
		Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP		
024	VT	24450	15.10	26650	4.85	25550	17.80	17550	3.40	800	6
024	HZ	24200	14.90	26650	5.15	25300	17.55	17550	3.70	800	6
030	VT	28350	14.35	31350	4.95	29650	17.05	20650	3.60	950	7
030	HZ	28350	14.45	31350	4.95	29650	17.15	20650	3.60	950	7
036	VT	36350	14.95	37800	4.70	37900	17.30	26400	3.60	1200	9
036	HZ	36350	14.85	37850	4.65	37900	17.30	26450	3.55	1200	9
042	VT	38700	14.55	40050	4.65	40200	16.95	28750	3.50	1400	10
042	HZ	38350	14.30	40250	4.55	40100	16.70	28950	3.40	1400	10
048	VT	46650	13.95	56700	4.65	48750	16.45	38100	3.35	1600	12
048	HZ	46650	13.90	56800	4.65	48000	16.20	38200	3.30	1600	12
060	VT	58500	14.20	77000	4.70	61250	16.50	52050	3.70	1850	15
060	HZ	58900	14.20	66200	4.35	61000	16.25	46000	3.35	1850	15



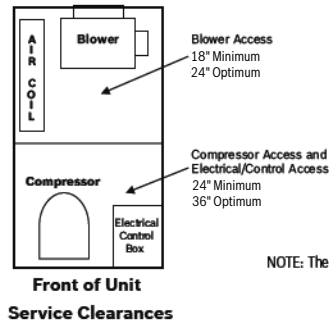
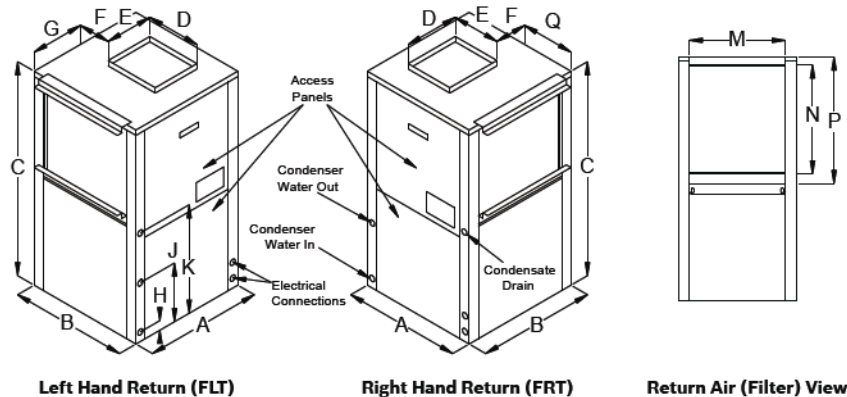
**Vertical Unit Configurations**



**Horizontal Unit Configurations**



**QV Vertical Unit Dimensions and Connections**



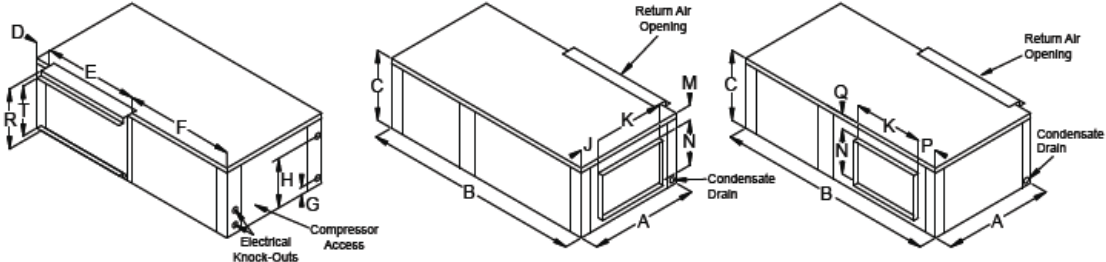
NOTE: The local electric codes may require 36" or more clearance at the electrical control box.

**QV Vertical Unit Dimensions**

Model	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	Condenser Water Connections	Recommended Replacement Nominal Filter Size
	Width	Depth	Height	Discharge Depth	Discharge Width	Cabinet Edge to Discharge	Left Side to Discharge	Water Inlet	Water Outlet	Condensate Drain	R/A Duct Width	R/A Duct Flange Height	Filter Rack Height			
QV024	21.5	21.5	39.25	14.0	16.0	3.8	0.6	2.80	8.45	18.87	20.0	18.0	20.0	4.9	3/4"FPT	20 × 20 × 1
QV030	21.5	21.5	39.25	14.0	16.0	3.8	0.6	2.80	8.45	18.87	20.0	18.0	20.0	4.9	3/4"FPT	20 × 20 × 1
QV036	21.5	26.0	43.25	14.0	16.0	6.0	0.6	2.75	10.77	18.87	24.0	22.0	24.0	4.9	3/4"FPT	24 × 24 × 1
QV042	21.5	26.0	44.25	14.0	16.0	6.0	0.6	2.75	10.77	18.87	24.0	22.0	24.0	4.9	3/4"FPT	24 × 24 × 1
QV048	24.0	32.5	45.25	18.0	16.0	7.3	0.8	3.26	13.20	20.87	30.0	22.0	24.0	7.3	1"FPT	24 × 30 × 1
QV060	24.0	32.5	45.25	18.0	16.0	7.3	0.8	3.26	13.20	20.87	30.0	22.0	24.0	7.3	1"FPT	24 × 30 × 1

All dimensions within  $\pm 0.125"$ . All condensate drain connections are 3/4" FPT. Specifications subject to change without notice. 1" filter rack extends 1.23" beyond the side of the unit. 2" filter rack extends 2.89" beyond the side of the unit. The 2" filter rack is 4 sided with a filter access door on one end and can accept either a 1" or 2" filter.

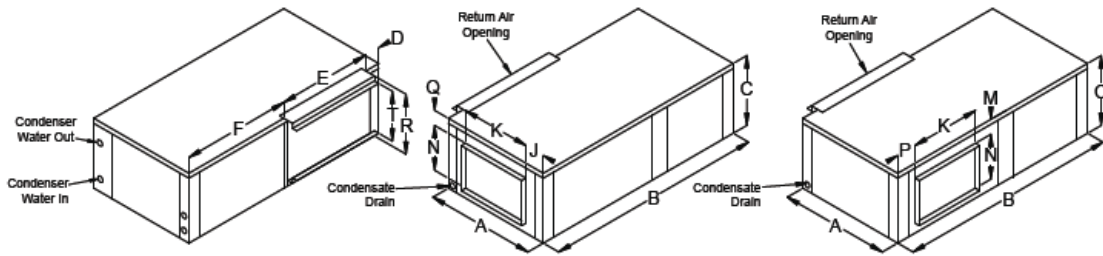
**QV Horizontal Unit Dimensions and Connections**



**Left Hand Return End Blow (FLE)**

NOTE: Models IQV 48 & 060 Left Hand Return units have condenser water connections on the front right and electrical knockouts on the front left.

**Left Hand Return Straight Through (FLS)**



**Right Hand Return End Blow (FRE)**

**Right Hand Return Straight Through (FRS)**

**QV Horizontal Left Hand Unit Dimensions**

Model	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	T	Condenser Water Connections	Recommended Replacement Nominal Filter Size
	Width	Depth	Height	Cabinet End to Filter Rack	R/A Duct Width	Cab Front to Filter Rack	Water Inlet	Water Outlet	Side to Discharge (End)	Discharge Width	Top to Discharge (FLE & FRS)	Discharge Height	End to Discharge (Straight)	Top to Discharge (FRE & FLS)	Filter Rack Height	R/A Duct Flange Height		
<b>QV024</b>	22.0	43.0	18.0	1.5	25.0	16.5	2.86	14.13	5.44	9.13	1.25	6.85	4.93	9.80	16.8	15.0	3/4" FPT	16 × 25 × 1
<b>QV030</b>	22.0	43.0	18.0	1.5	25.0	16.5	2.86	14.1	5.44	9.13	1.25	6.85	4.93	9.80	16.8	15.0	3/4" FPT	16 × 25 × 1
<b>QV036</b>	22.0	54.5	19.0	1.5	30.15	22.86	2.86	16.13	7.43	9.13	1.7	6.85	4.94	10.30	18.8	18.3	3/4" FPT	18 × 30 × 1
<b>QV042</b>	22.0	54.5	19.0	1.5	30.11	22.86	2.86	18.52	5.44	9.13	1.9	6.85	4.94	10.30	18.8	16.4	3/4" FPT	18 × 30 × 1
<b>QV048</b>	25.0	54.5	21.0	1.5	34.6	18.4	2.86	18.52	4.30	13.22	1.50	9.31	3.71	10.19	20.7	18.4	1" FPT	20 × 34.5 × 5 × 1
<b>QV060</b>	25.0	54.5	21.0	1.5	34.6	18.4	2.86	18.52	6.32	11.76	7.16	12.5	5.82	1.68	20.6	18.4	1" FPT	20 × 34.5 × 5 × 1

**QV Horizontal Right Hand Unit Dimensions**

<b>QV024</b>	22.0	43.0	18.0	1.5	25.0	16.5	2.47	15.00	5.43	9.13	9.79	6.85	4.93	1.36	16.7	16.3	3/4" FPT	16 × 25 × 1
<b>QV030</b>	22.0	43.0	18.0	1.5	25.0	16.5	2.47	15.0	5.43	9.13	9.79	6.85	4.93	1.36	16.7	16.3	3/4" FPT	16 × 25 × 1
<b>QV036</b>	22.0	54.5	19.0	1.5	30.15	22.86	2.86	16.13	5.43	9.13	10.3	6.85	4.83	1.75	18.8	17.0	3/4" FPT	18 × 30 × 1
<b>QV042</b>	22.0	54.5	19.0	1.5	30.15	22.85	2.86	16.13	5.30	9.13	10.30	6.9	4.93	1.86	18.8	17.0	3/4" FPT	18 × 30 × 1
<b>QV048</b>	25.0	54.5	21.0	1.5	34.6	18.4	2.86	18.52	5.48	13.22	10.19	9.31	4.98	1.50	20.2	18.4	1" FPT	20 × 34.5 × 5 × 1
<b>QV060</b>	25.0	54.5	21.0	1.5	34.6	18.4	2.86	18.52	5.48	13.22	10.19	9.3	4.98	1.50	20.2	18.4	1" FPT	20 × 34.5 × 5 × 1

NOTES: All dimensions within  $\pm 0.125"$ . All condensate drain connections are 3/4" FPT. QV / WQ015-070 can be field converted between end blow and straight through supply air configurations. Specifications subject to change without notice. 1" filter rack extends 1.23" beyond the side of the unit. 2" filter rack extends 2.89" beyond the side of the unit. The 2" filter rack is 4 sided with a filter access door on one end and can accept either a 1" or 2" filter.



Operating Limits – Heating and Cooling	
<b>Heating</b>	<b>Extended Range</b>
Minimum ambient air temperature °F	40
Maximum ambient air temperature °F	85
Minimum evaporator entering air db/wb °F	50
Rated air coil entering air db/wb °F	68
Maximum evaporator entering air db/wb °F	80
Normal water coil entering fluid range °F	25-80
Minimum water coil entering fluid °F	20*
<b>Cooling</b>	<b>Extended Range</b>
Minimum ambient air temperature °F	50
Maximum ambient air temperature °F	100
Minimum evaporator entering air db/wb °F	68/57
Rated air coil entering air db/wb °F	80/67
Maximum evaporator entering air db/wb °F	95/85
Minimum water coil entering fluid temperature °F	50
Water loop typical coil entering fluid range temperature °F	70/90
Maximum water coil entering fluid temperature °F	110

\* Antifreeze solution is required at these fluid temperatures.

Antifreeze Correction							
Antifreeze Type	Antifreeze Volume %	Cooling			Heating		WPD Correction Factor EWT 30 °F
		EWT 90 Deg.F			EWT 30 Deg. F		
		Total Cap.	Sens. Cap	Power	Htg. Cap	Power	
<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

# QV Model Series - Commercial Water Source Heat Pumps



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Waterside Pressure Drop			
Model	Water Flow Rate (GPM)	Water Side Pressure Drop without Internal Valve (PSI)	Water Side Pressure Drop with Internal Valve (PSI)
QV024	3.0	1.7	2.0
	4.0	2.8	3.4
	6.0	5.8	7.2
QV030	4.0	2.0	2.6
	6.0	4.2	5.6
	8.0	7.0	9.6
QV036	4.5	1.6	2.4
	6.0	2.6	4.0
	9.0	5.4	8.6
QV042	5.0	2.0	3.0
	8.0	4.6	7.2
	11.0	8.2	13.0
QV048	6.0	0.8	1.4
	8.0	1.4	2.5
	12.0	2.8	5.4
QV060	7.5	1.4	2.4
	10.0	2.3	4.1
	15.0	4.8	8.8

- All values based on pure water at 70° F.



# QV Model Series - Commercial Water Source Heat Pumps



Capacity Data QV024 (800 CFM)																			
Cooling									Heating										
Entering Water Temp (°F)	Water flow (GPM)	Pressure Drop PSI	Entering Air Temp DB/WB (°F)	Total Capacity (MBTUH)	Sensible Capacity (MBTUH)	Heat of Rejection (MBTUH)	Power Input (kW)	EER	Entering Fluid Temp (°F)	Pressure Drop PSI	Entering Air Temp (°F)	Total Capacity (MBTUH)	Heat of Absorption (MBTUH)	Power Input (kW)	COP				
50	3	1.2	75/63	26.4	20.1	30.3	1.1	23.4	30	1.3	2.7	60	17.3	13.3	1.3	3.8			
			80/67	28.1	20.7	32.0	1.1	24.6				70	17.1	12.6	1.5	3.4			
			85/71	29.8	21.2	33.8	1.2	25.9				80	16.9	11.8	1.6	3.0			
	4.5	2.5	75/63	27.1	20.3	30.7	1.1	25.8				60	18.2	14.2	1.3	4.0			
			80/67	28.8	21.0	32.5	1.0	27.5				70	17.9	13.4	1.5	3.5			
			85/71	30.7	21.5	34.3	1.1	29.2				80	17.6	12.5	1.7	3.1			
	6	4.2	75/63	27.1	20.1	30.7	1.1	25.6				60	18.7	14.6	1.4	4.0			
			80/67	29.2	21.2	32.7	1.0	29.0				70	18.3	13.8	1.5	3.6			
			85/71	31.1	21.6	34.6	1.0	30.9				80	18.0	12.9	1.7	3.2			
	60	3	1.2	75/63	25.3	19.6	29.6	1.3			19.9	40	1.3	2.6	60	19.7	15.3	1.4	4.2
				80/67	27.0	20.2	31.3	1.3			21.0				70	19.4	14.7	1.5	3.7
				85/71	28.6	20.7	33.0	1.3			22.0				80	19.2	13.9	1.7	3.3
60		4.5	75/63	25.9	19.8	30.0	1.2	21.6	60	20.7	16.5				1.4	4.4			
			80/67	27.6	20.6	31.7	1.2	23.1	70	20.3	15.7				1.5	3.9			
			85/71	29.4	21.0	33.5	1.2	24.4	80	20.0	14.8				1.7	3.4			
60		6	75/63	26.0	19.7	30.1	1.2	21.8	60	21.3	17.2				1.4	4.5			
			80/67	27.7	20.1	31.8	1.2	23.0	70	20.9	16.2				1.6	3.9			
			85/71	29.8	20.9	33.8	1.2	25.4	80	20.5	15.3				1.7	3.5			
70		3	1.2	75/63	24.2	19.2	28.9	1.4	17.0	50	1.1			2.2	60	22.3	17.4	1.4	4.6
				80/67	25.7	19.8	30.6	1.4	17.9						70	21.8	17.0	1.6	4.1
				85/71	27.4	20.3	32.3	1.5	18.8						80	21.7	16.2	1.8	3.6
	70	4.5	75/63	24.7	19.3	29.3	1.4	18.3	60			23.4	19.0		1.4	4.8			
			80/67	26.4	19.9	31.0	1.4	19.5	70			23.2	18.2		1.6	4.2			
			85/71	28.1	20.5	32.7	1.4	20.6	80			22.8	17.2		1.8	3.8			
	70	6	75/63	25.0	19.8	29.4	1.3	19.3	60			24.1	19.9		1.5	4.9			
			80/67	26.5	19.7	31.0	1.4	19.6	70			23.9	18.8		1.6	4.4			
			85/71	28.4	20.7	32.9	1.3	21.5	80			23.4	17.8		1.8	3.8			
	80	3	1.2	75/63	23.0	18.7	28.3	1.6	14.6			60	1.0	2.2	60	24.5	20.1	1.5	4.9
				80/67	24.5	19.3	29.9	1.6	15.3						70	24.4	19.3	1.6	4.4
				85/71	26.1	19.9	31.5	1.6	16.1						80	24.5	18.7	1.8	4.0
80		4.5	75/63	23.5	18.9	28.6	1.5	15.6	60	26.5	21.9				1.5	5.2			
			80/67	25.1	19.4	30.2	1.5	16.4	70	26.1	20.9				1.6	4.7			
			85/71	26.8	20.0	31.9	1.5	17.4	80	25.8	20.0				1.8	4.2			
80		6	75/63	23.6	18.9	28.6	1.5	15.7	60	27.3	22.8				1.5	5.4			
			80/67	25.4	19.9	30.4	1.5	17.2	70	26.8	22.0				1.7	4.7			
			85/71	27.0	20.7	32.1	1.5	18.3	80	26.5	20.7				1.8	4.2			
90		3	1.1	75/63	21.8	18.2	27.7	1.8	12.4	70	1.0			2.1	60	28.0	23.4	1.5	5.4
				80/67	23.2	18.9	29.2	1.8	13.1						70	27.2	21.9	1.7	4.8
				85/71	24.7	19.5	30.7	1.8	13.7						80	27.2	21.5	1.8	4.3
	90	4.5	75/63	22.3	18.5	27.9	1.7	13.2	60			29.9	25.5		1.5	5.7			
			80/67	23.8	19.0	29.4	1.7	13.9	70			29.2	23.9		1.7	5.0			
			85/71	25.4	19.6	31.1	1.7	14.8	80			28.8	22.7		1.9	4.5			
	90	6	75/63	22.4	18.5	28.0	1.7	13.4	60			30.5	25.8		1.5	5.8			
			80/67	24.0	19.4	29.6	1.7	14.5	70			30.1	24.8		1.7	5.1			
			85/71	25.5	19.4	31.2	1.7	15.0	80			29.5	23.9		1.9	4.6			
	100	3	1.1	75/63	20.6	17.8	27.1	2.0	10.5			80	1.0	2.1	60	30.9	26.1	1.6	5.8
				80/67	22.0	18.3	28.6	2.0	11.1						70	30.5	25.2	1.7	5.2
				85/71	23.4	19.0	30.1	2.0	11.7						80	30.2	24.3	1.9	4.6
100		4.5	75/63	20.9	17.9	27.2	1.9	11.0	60	33.1	28.6				1.6	6.1			
			80/67	22.4	18.3	28.8	1.9	11.7	70	32.5	27.0				1.8	5.4			
			85/71	23.9	19.2	30.3	1.9	12.5	80	31.9	26.1				2.0	4.8			
100		6	75/63	21.2	18.0	27.4	1.9	11.4	60	34.3	28.9				1.6	6.2			
			80/67	22.6	18.7	28.9	1.9	12.1	70	33.6	28.0				1.8	5.5			
			85/71	24.2	19.2	30.4	1.9	12.8	80	32.9	26.7				2.0	4.9			
110		3	1.1	75/63	19.3	17.3	26.5	2.2	8.8	Extended Range - Anti-freeze required	1.0			3.5	60	30.9	26.1	1.6	5.8
				80/67	20.7	17.8	28.0	2.2	9.3						70	30.5	25.2	1.7	5.2
				85/71	22.1	18.4	29.4	2.2	9.9						80	30.2	24.3	1.9	4.6
	110	4.5	75/63	19.8	17.4	26.7	2.1	9.3	60			33.1	28.6		1.6	6.1			
			80/67	21.1	18.0	28.2	2.1	9.9	70			32.5	27.0		1.8	5.4			
			85/71	22.5	18.6	29.6	2.2	10.5	80			31.9	26.1		2.0	4.8			
	110	6	75/63	20.1	17.5	26.8	2.1	9.7	60			34.3	28.9		1.6	6.2			
			80/67	21.4	18.1	28.3	2.1	10.3	70			33.6	28.0		1.8	5.5			
			85/71	22.9	18.8	29.8	2.1	11.0	80			32.9	26.7		2.0	4.9			

Extended Range - Anti-freeze required

AHRI/ISO13256-1 certified performance is rated at entering air conditions of 80.6°F DB and 66.2°F WB in cooling and 68°F DB in heating.

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.**

# QV Model Series - Commercial Water Source Heat Pumps



Capacity Data QV030 (950 CFM)															
Cooling									Heating						
Entering Water Temp (°F)	Water flow (GPM)	Pressure Drop PSI	Entering Air Temp DB/WB (°F)	Total Capacity (MBTUH)	Sensible Capacity (MBTUH)	Heat of Rejection (MBTUH)	Power (kW)	EER	Entering Fluid Temp (°F)	Pressure Drop PSI	Entering Air Temp (°F)	Total Capacity (MBTUH)	Heat of Absorption (MBTUH)	Power Input (kW)	COP
50	3.8	1.8	75/63	32.1	24.2	37.2	1.5	21.7	30	1.6	60	20.6	15.4	1.6	3.7
			80/67	34.2	24.9	39.3	1.5	23.1			70	20.5	14.6	1.8	3.3
			85/71	36.3	25.6	41.4	1.5	24.6			80	20.3	14.0	2.0	3.0
	6.3	4.4	75/63	33.0	24.9	37.8	1.4	24.1			60	22.2	16.7	1.7	3.9
			80/67	35.3	25.3	40.0	1.4	25.7			70	21.7	16.0	1.9	3.4
			85/71	37.5	26.1	42.2	1.4	27.6			80	21.4	14.9	2.1	3.1
	7.5	6.1	75/63	32.9	23.8	37.7	1.4	23.1			60	22.4	17.2	1.7	3.9
			80/67	35.5	25.8	40.1	1.3	26.6			70	22.1	16.3	1.9	3.5
			85/71	37.7	26.5	42.4	1.3	28.5			80	21.7	15.2	2.1	3.1
60	3.8	1.7	75/63	30.8	23.8	36.3	1.6	18.9	40	1.6	60	23.4	17.7	1.7	4.0
			80/67	32.8	24.5	38.4	1.6	20.1			70	22.9	16.6	1.9	3.6
			85/71	34.9	25.1	40.5	1.6	21.4			80	23.0	16.2	2.1	3.2
	6.3	4.3	75/63	31.7	24.1	36.9	1.5	20.7			60	24.6	19.5	1.7	4.2
			80/67	33.8	24.8	39.0	1.5	22.2			70	24.5	18.5	1.9	3.7
			85/71	36.0	25.5	41.2	1.5	23.8			80	24.4	17.6	2.1	3.3
	7.5	6.0	75/63	31.6	23.3	36.8	1.6	20.1			60	25.7	19.9	1.7	4.3
			80/67	34.0	24.9	39.1	1.5	22.7			70	25.1	18.9	1.9	3.8
			85/71	36.3	25.6	41.4	1.5	24.4			80	24.6	18.0	2.1	3.4
70	3.8	1.7	75/63	29.4	23.2	35.5	1.8	16.3	50	1.8	60	26.2	20.7	1.8	4.4
			80/67	31.4	23.9	37.5	1.8	17.4			70	26.3	20.2	1.9	4.0
			85/71	33.4	24.6	39.6	1.8	18.6			80	25.7	19.0	2.1	3.5
	6.3	4.2	75/63	30.0	22.7	35.8	1.8	17.0			60	25.6	24.3	1.7	4.3
			80/67	32.3	24.5	38.0	1.7	19.2			70	27.4	20.9	2.0	4.1
			85/71	34.5	24.7	40.2	1.7	20.4			80	27.5	20.6	2.2	3.7
	7.5	5.9	75/63	30.2	22.8	36.0	1.7	17.5			60	28.4	22.8	1.8	4.6
			80/67	32.3	23.4	38.1	1.7	18.8			70	28.2	22.4	2.0	4.2
			85/71	34.7	25.0	40.4	1.7	21.0			80	28.1	21.0	2.2	3.8
80	3.8	1.7	75/63	28.0	22.6	34.7	2.0	14.0	60	1.7	60	30.3	24.7	1.8	4.9
			80/67	29.9	23.3	36.7	2.0	15.0			70	29.0	22.7	2.0	4.3
			85/71	31.9	24.1	38.7	2.0	16.0			80	28.6	21.4	2.2	3.8
	6.3	4.2	75/63	28.6	22.2	35.0	1.9	14.7			60	31.6	25.6	1.8	5.0
			80/67	30.6	22.8	37.0	1.9	15.8			70	31.0	24.5	2.0	4.5
			85/71	32.9	23.8	39.2	1.9	17.3			80	31.0	23.9	2.2	4.1
	7.5	5.8	75/63	28.8	22.3	35.2	1.9	15.1			60	32.7	27.3	1.9	5.2
			80/67	30.9	22.9	37.2	1.9	16.2			70	31.4	25.3	2.0	4.5
			85/71	33.0	23.5	39.3	1.9	17.4			80	31.7	24.7	2.2	4.1
90	3.8	1.6	75/63	26.6	22.0	34.0	2.2	12.0	70	1.7	60	33.2	27.7	1.9	5.2
			80/67	28.5	22.6	35.9	2.2	12.8			70	32.7	25.9	2.0	4.7
			85/71	30.4	23.3	37.9	2.2	13.7			80	31.9	24.8	2.3	4.2
	6.3	4.1	75/63	27.2	22.3	34.3	2.1	12.9			60	35.4	30.2	1.9	5.5
			80/67	29.2	23.0	36.3	2.1	13.9			70	35.2	28.9	2.1	5.0
			85/71	31.2	24.2	38.3	2.1	15.0			80	34.9	27.4	2.3	4.5
	7.5	5.7	75/63	27.4	22.5	34.4	2.1	13.1			60	36.1	30.4	1.9	5.6
			80/67	29.4	23.4	36.4	2.1	14.2			70	35.9	29.5	2.1	5.0
			85/71	31.4	24.3	38.4	2.1	15.3			80	35.5	27.7	2.3	4.5
100	3.8	1.6	75/63	25.2	21.3	33.4	2.5	10.2	80	1.7	60	37.0	31.5	1.9	5.7
			80/67	27.0	22.1	35.2	2.5	10.9			70	36.2	29.9	2.1	5.1
			85/71	28.8	22.8	37.1	2.5	11.6			80	35.5	28.2	2.3	4.5
	6.3	4.0	75/63	25.7	21.3	33.6	2.4	10.8			60	39.5	33.7	1.9	6.0
			80/67	27.6	22.6	35.5	2.4	11.7			70	39.7	31.9	2.1	5.5
			85/71	29.5	23.2	37.4	2.4	12.5			80	37.6	30.8	2.3	4.7
	7.5	5.5	75/63	25.8	21.6	33.6	2.4	10.9			60	41.0	34.9	1.9	6.2
			80/67	27.6	22.3	35.5	2.4	11.7			70	39.4	32.3	2.1	5.4
			85/71	29.7	22.7	37.5	2.4	12.6			80	39.4	31.1	2.3	4.9
110	3.8	1.6	75/63	23.7	20.8	32.9	2.8	8.6	Extended Range - Anti-freeze required	5.8	60	41.0	34.9	1.9	6.2
			80/67	25.4	21.5	34.6	2.8	9.2			70	39.4	32.3	2.1	5.4
			85/71	27.2	22.2	36.4	2.8	9.8			80	39.4	31.1	2.3	4.9
	6.3	3.9	75/63	24.2	21.0	33.0	2.7	9.1			60	41.0	34.9	1.9	6.2
			80/67	26.0	21.7	34.8	2.7	9.7			70	39.4	32.3	2.1	5.4
			85/71	27.7	22.4	36.7	2.7	10.4			80	39.4	31.1	2.3	4.9
	7.5	5.5	75/63	24.3	21.1	33.1	2.6	9.2			60	41.0	34.9	1.9	6.2
			80/67	26.1	21.9	34.9	2.6	9.9			70	39.4	32.3	2.1	5.4
			85/71	28.0	22.5	36.8	2.6	10.7			80	39.4	31.1	2.3	4.9

Extended Range - Anti-freeze required  
 AHR/ISO13256-1 certified performance is rated at entering air conditions of 80.6°F DB and 66.2°F WB in cooling and 68°F DB in heating.  
 Tabulated unit performance does not include fan or pump power corrections required for AHR/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.**

# QV Model Series - Commercial Water Source Heat Pumps



Capacity Data QV036 (1200 CFM)																
Cooling									Heating							
Entering Water Temp (°F)	Water flow (GPM)	Pressure Drop PSI	Entering Air Temp DB/WB (°F)	Total Capacity (MBTUH)	Sensible Capacity (MBTUH)	Heat of Rejection (MBTUH)	Power (kW)	EER	Entering Fluid Temp (°F)	Pressure Drop PSI	Entering Air Temp (°F)	Total Capacity (MBTUH)	Heat of Absorption (MBTUH)	Power Input (kW)	COP	
50	4.5	1.5	75/63	40.1	30.6	46.1	1.8	22.9	30	1.7	60	25.4	19.6	1.9	4.0	
			80/67	42.9	31.5	48.9	1.8	24.4				70	24.9	18.4	2.1	3.5
			85/71	45.7	32.4	51.7	1.8	25.9				80	24.6	17.1	2.4	3.1
	6	2.6	75/63	40.7	31.1	46.4	1.7	24.3		2.8	60	26.1	20.2	1.9	4.1	
			80/67	43.5	32.0	49.2	1.7	26.0				70	25.5	18.9	2.1	3.5
			85/71	46.5	32.5	52.2	1.7	27.7				80	25.1	17.6	2.4	3.1
	9	5.2	75/63	41.3	31.0	46.8	1.6	25.4		5.7	60	26.8	20.9	1.9	4.1	
			80/67	44.1	31.9	49.6	1.6	27.3				70	26.1	19.5	2.1	3.6
			85/71	47.1	33.2	52.6	1.6	29.7				80	25.7	18.2	2.4	3.2
60	4.5	1.5	75/63	38.4	29.9	45.1	2.0	19.4	40	1.6	60	29.1	23.1	1.9	4.4	
			80/67	41.0	30.8	47.8	2.0	20.7				70	28.5	21.7	2.2	3.9
			85/71	43.8	31.8	50.6	2.0	22.0				80	28.1	20.5	2.4	3.4
	6	2.5	75/63	38.9	30.3	45.4	1.9	20.4		2.6	60	29.9	23.8	2.0	4.5	
			80/67	41.7	31.0	48.1	1.9	21.9				70	29.3	22.5	2.2	3.9
			85/71	44.4	32.1	51.0	1.9	23.4				80	28.8	21.1	2.4	3.5
	9	5.1	75/63	39.4	30.2	45.7	1.8	21.3		5.4	60	30.8	24.7	2.0	4.6	
			80/67	42.2	31.4	48.5	1.8	23.1				70	30.1	23.3	2.2	4.0
			85/71	45.1	32.2	51.4	1.8	24.7				80	29.5	21.9	2.4	3.5
70	4.5	1.5	75/63	36.7	29.3	44.1	2.2	16.7	50	1.5	60	33.1	26.8	2.0	4.8	
			80/67	39.3	30.1	46.7	2.2	17.8				70	32.6	25.5	2.2	4.3
			85/71	41.9	30.9	49.4	2.2	18.7				80	32.0	24.1	2.5	3.8
	6	2.4	75/63	37.2	29.2	44.4	2.1	17.4		2.6	60	34.2	27.8	2.0	4.9	
			80/67	39.8	30.4	47.0	2.1	18.6				70	33.6	26.4	2.3	4.4
			85/71	42.5	31.2	49.8	2.2	19.7				80	33.0	25.0	2.5	3.9
	9	5.0	75/63	37.6	29.8	44.6	2.1	18.3		5.2	60	35.3	28.9	2.0	5.1	
			80/67	40.3	30.6	47.3	2.1	19.4				70	34.5	27.4	2.3	4.5
			85/71	43.1	31.3	50.1	2.1	20.7				80	33.9	25.9	2.5	4.0
80	4.5	1.5	75/63	35.1	28.4	43.3	2.4	14.4	60	1.5	60	37.4	30.9	2.1	5.3	
			80/67	37.5	29.4	45.8	2.5	15.2				70	36.7	29.5	2.3	4.7
			85/71	40.0	30.3	48.4	2.5	16.1				80	36.2	28.0	2.6	4.1
	6	2.4	75/63	35.5	28.8	43.5	2.4	15.0		2.5	60	38.7	32.2	2.1	5.4	
			80/67	37.9	29.8	46.0	2.4	15.9				70	38.0	30.6	2.3	4.8
			85/71	40.6	30.5	48.7	2.4	16.9				80	37.3	29.1	2.6	4.2
	9	4.9	75/63	35.8	28.7	43.7	2.3	15.4		5.1	60	40.2	33.5	2.1	5.5	
			80/67	38.4	29.7	46.3	2.3	16.5				70	39.3	31.9	2.4	4.9
			85/71	41.1	30.4	49.0	2.3	17.5				80	38.5	30.2	2.6	4.3
90	4.5	1.4	75/63	33.3	27.8	42.5	2.7	12.2	70	1.5	60	42.1	35.2	2.2	5.7	
			80/67	35.6	29.0	44.9	2.7	13.0				70	41.2	33.7	2.4	5.0
			85/71	38.1	29.9	47.4	2.8	13.8				80	40.5	32.1	2.7	4.5
	6	2.3	75/63	33.7	28.0	42.6	2.7	12.7		2.4	60	43.7	36.7	2.2	5.8	
			80/67	36.1	28.8	45.1	2.7	13.5				70	42.7	35.1	2.4	5.2
			85/71	38.6	29.8	47.7	2.7	14.4				80	41.9	33.4	2.7	4.6
	9	4.7	75/63	34.1	28.5	42.8	2.6	13.2		5.0	60	45.3	38.3	2.2	6.0	
			80/67	36.5	28.8	45.3	2.6	13.9				70	44.3	36.6	2.5	5.3
			85/71	39.0	28.9	47.9	2.7	14.5				80	43.4	34.8	2.7	4.7
100	4.5	1.4	75/63	31.5	26.9	41.7	3.1	10.2	80	1.5	60	46.8	39.7	2.3	6.1	
			80/67	33.8	28.0	44.1	3.1	11.0				70	46.1	38.1	2.5	5.4
			85/71	36.2	29.0	46.6	3.1	11.7				80	45.1	36.4	2.8	4.8
	6	2.2	75/63	31.8	27.4	41.9	3.0	10.6		2.4	60	48.8	41.5	2.3	6.2	
			80/67	34.2	28.6	44.2	3.0	11.4				70	47.7	39.7	2.5	5.5
			85/71	36.6	29.5	46.7	3.0	12.2				80	46.7	37.9	2.8	4.9
	9	4.6	75/63	31.9	27.8	41.7	2.8	11.2		4.9	60	50.7	43.4	2.3	6.3	
			80/67	34.2	25.7	44.4	3.1	10.9				70	49.6	41.4	2.6	5.6
			85/71	36.9	28.6	46.9	3.0	12.3				80	48.5	39.5	2.9	5.0
110	4.5	1.3	75/63	29.6	26.1	41.2	3.5	8.5	Extended Range - Anti-freeze required	1.3	60	31.5	25.5	2.3	5.0	
			80/67	31.8	27.2	43.4	3.5	9.1				70	31.5	25.5	2.3	5.0
			85/71	34.1	28.2	45.8	3.5	9.8				80	31.5	25.5	2.3	5.0
	6	2.2	75/63	29.9	27.0	41.2	3.4	8.9		2.2	60	31.5	25.5	2.3	5.0	
			80/67	32.1	27.4	43.5	3.4	9.4				70	31.5	25.5	2.3	5.0
			85/71	34.5	28.8	45.9	3.4	10.1				80	31.5	25.5	2.3	5.0
	9	4.5	75/63	29.9	27.0	41.0	3.2	9.4		4.5	60	31.5	25.5	2.3	5.0	
			80/67	32.2	25.0	43.6	3.5	9.1				70	31.5	25.5	2.3	5.0
			85/71	34.8	29.6	46.0	3.3	10.6				80	31.5	25.5	2.3	5.0

Extended Range - Anti-freeze required  
 AHR/ISO13256-1 certified performance is rated at entering air conditions of 80.6°F DB and 66.2°F WB in cooling and 68°F DB in heating.  
 Tabulated unit performance does not include fan or pump power corrections required for AHR/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.**

# QV Model Series - Commercial Water Source Heat Pumps



# BOSCH

Capacity Data QV042 (1400 CFM)																
Cooling									Heating							
Entering Water Temp (°F)	Water flow (GPM)	Pressure Drop PSI	Entering Air Temp DB/WB (°F)	Total Capacity (MBTUH)	Sensible Capacity (MBTUH)	Heat of Rejection (MBTUH)	Power (kW)	EER	Entering Fluid Temp (°F)	Pressure Drop PSI	Entering Air Temp (°F)	Total Capacity (MBTUH)	Heat of Absorption (MBTUH)	Power Input (kW)	COP	
50	6	3.0	75/63	43.5	34.0	50.7	2.1	20.5	30	3.3	60	60	29.0	21.7	2.4	3.6
			80/67	46.6	34.8	53.8	2.1	22.0				70	28.6	20.5	2.6	3.2
			85/71	49.8	35.8	56.9	2.1	23.6				80	28.4	19.3	2.9	2.9
	8	4.9	75/63	44.1	33.6	51.1	2.1	21.1		5.5		60	29.6	22.2	2.4	3.6
			80/67	47.2	34.8	54.2	2.1	22.8				70	29.2	21.0	2.6	3.3
			85/71	50.3	36.3	57.3	2.0	24.6				80	28.8	19.8	2.9	2.9
	10	7.2	75/63	44.3	33.6	51.2	2.1	21.4		8.2		60	30.0	22.6	2.4	3.7
			80/67	47.4	35.8	54.3	2.0	23.6				70	29.5	21.3	2.6	3.3
			85/71	50.6	36.7	57.6	2.0	25.3				80	29.2	20.1	2.9	3.0
60	6	2.8	75/63	41.7	33.2	49.6	2.3	17.9	40	3.1	60	60	33.1	25.5	2.4	4.0
			80/67	44.7	34.1	52.5	2.3	19.2				70	32.6	24.2	2.7	3.6
			85/71	47.6	35.3	55.5	2.3	20.6				80	32.2	23.0	2.9	3.2
	8	4.6	75/63	42.2	33.0	49.9	2.3	18.4		5.2		60	33.8	26.2	2.5	4.0
			80/67	45.2	34.2	52.8	2.3	19.8				70	33.3	24.9	2.7	3.6
			85/71	48.2	35.4	55.9	2.3	21.4				80	32.8	23.6	2.9	3.3
	10	6.9	75/63	42.4	32.9	50.0	2.3	18.6		7.7		60	34.3	26.6	2.5	4.1
			80/67	45.4	34.8	53.0	2.2	20.4				70	33.7	25.3	2.7	3.7
			85/71	48.5	35.5	56.1	2.2	21.8				80	33.2	24.0	2.9	3.3
70	6	2.7	75/63	39.9	32.0	48.5	2.6	15.4	50	3.0	60	60	37.5	29.7	2.5	4.4
			80/67	42.6	33.4	51.2	2.6	16.6				70	37.0	28.3	2.7	4.0
			85/71	45.5	34.3	54.2	2.6	17.8				80	36.5	26.9	3.0	3.6
	8	4.4	75/63	40.2	32.4	48.7	2.5	15.9		4.9		60	38.5	30.6	2.5	4.5
			80/67	43.1	33.5	51.6	2.5	17.2				70	37.8	29.2	2.8	4.0
			85/71	46.0	34.9	54.5	2.5	18.5				80	37.3	27.7	3.0	3.6
	10	6.6	75/63	40.5	32.8	48.8	2.5	16.3		7.2		60	39.1	31.2	2.5	4.5
			80/67	43.4	33.7	51.7	2.5	17.5				70	38.3	29.7	2.8	4.1
			85/71	46.4	34.5	54.7	2.5	18.8				80	37.8	28.2	3.0	3.7
80	6	2.6	75/63	38.1	31.5	47.5	2.8	13.4	60	2.8	60	60	42.3	34.3	2.6	4.8
			80/67	40.7	32.6	50.1	2.8	14.4				70	41.5	32.7	2.8	4.4
			85/71	43.4	33.6	52.8	2.8	15.3				80	40.9	31.2	3.1	3.9
	8	4.2	75/63	38.4	31.8	47.7	2.8	13.9		4.6		60	43.4	35.4	2.6	5.0
			80/67	41.1	32.6	50.4	2.8	14.8				70	42.6	33.8	2.8	4.4
			85/71	43.9	33.7	53.1	2.8	15.8				80	41.9	32.1	3.1	4.0
	10	6.3	75/63	38.6	31.6	47.7	2.8	14.0		6.9		60	44.2	36.1	2.6	5.0
			80/67	41.3	32.8	50.5	2.7	15.0				70	43.3	34.4	2.8	4.5
			85/71	44.1	34.3	53.3	2.7	16.2				80	42.4	32.7	3.1	4.0
90	6	2.5	75/63	36.2	30.8	46.5	3.1	11.6	70	2.7	60	60	47.3	39.3	2.6	5.3
			80/67	38.7	31.8	49.1	3.1	12.4				70	46.3	37.3	2.9	4.8
			85/71	41.3	32.9	51.7	3.1	13.3				80	45.4	35.6	3.1	4.3
	8	4.1	75/63	36.5	31.0	46.7	3.1	11.9		4.4		60	48.7	40.4	2.6	5.4
			80/67	39.1	31.7	49.3	3.1	12.7				70	47.6	38.6	2.9	4.9
			85/71	41.7	32.7	51.9	3.1	13.6				80	46.6	36.7	3.1	4.4
	10	5.9	75/63	36.7	31.5	46.8	3.0	12.2		6.6		60	49.5	41.2	2.6	5.5
			80/67	39.3	31.8	49.4	3.0	12.9				70	48.4	39.3	2.9	4.9
			85/71	41.8	31.8	52.0	3.1	13.5				80	47.3	37.4	3.1	4.4
100	6	2.4	75/63	34.3	29.9	45.7	3.4	10.0	80	2.6	60	60	52.5	44.1	2.7	5.8
			80/67	36.6	31.4	48.1	3.4	10.7				70	51.3	42.1	2.9	5.2
			85/71	39.1	32.1	50.6	3.4	11.4				80	50.2	40.2	3.2	4.6
	8	3.9	75/63	34.6	30.2	45.8	3.4	10.2		4.2		60	54.1	45.6	2.7	5.9
			80/67	37.0	30.8	48.2	3.4	10.8				70	52.7	43.6	2.9	5.3
			85/71	39.4	33.3	50.7	3.3	11.8				80	51.5	41.5	3.2	4.7
	10	5.8	75/63	34.3	27.3	45.8	3.6	9.6		6.3		60	55.0	46.6	2.7	6.0
			80/67	37.2	32.3	48.3	3.3	11.3				70	53.6	44.4	2.9	5.4
			85/71	39.6	34.2	50.8	3.3	12.1				80	52.4	42.3	3.2	4.8
110	6	2.3	75/63	32.2	28.2	44.9	3.9	8.2	Extended Range - Anti-freeze required	3.8	60	60	58.5	50.5	2.6	6.4
			80/67	34.4	29.9	47.1	3.9	8.9				70	57.3	48.3	2.8	5.8
			85/71	36.7	31.5	49.4	3.8	9.6				80	56.1	46.1	3.0	5.2
	8	3.8	75/63	32.3	30.4	44.7	3.7	8.8		5.6		60	59.5	51.5	2.6	6.6
			80/67	34.6	31.9	47.1	3.7	9.4				70	58.3	49.3	2.8	6.0
			85/71	37.1	31.6	49.6	3.8	9.8				80	57.1	47.1	3.0	5.4
	10	5.6	75/63	32.4	30.5	44.7	3.6	9.0		6.6		60	60.5	52.5	2.6	6.8
			80/67	34.6	31.9	47.0	3.6	9.6				70	59.3	50.3	2.8	6.2
			85/71	37.2	33.4	49.6	3.6	10.2				80	58.1	48.1	3.0	5.6

Extended Range - Anti-freeze required

AHR/ISO13256-1 certified performance is rated at entering air conditions of 80.6°F DB and 66.2°F WB in cooling and 68°F DB in heating.

Tabulated unit performance does not include fan or pump power corrections required for AHR/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.**

QV Model Series -  
Commercial Water Source Heat Pumps



**BOSCH**

Capacity Data QV048 (1600 CFM)																						
Cooling									Heating													
Entering Water Temp (°F)	Water flow (GPM)	Pressure Drop PSI	Entering Air Temp DB/WB (°F)	Total Capacity (MBTUH)	Sensible Capacity (MBTUH)	Heat of Rejection (MBTUH)	Power (kW)	EER	Entering Fluid Temp (°F)	Pressure Drop PSI	Entering Air Temp (°F)	Total Capacity (MBTUH)	Heat of Absorption (MBTUH)	Power Input (kW)	COP							
50	6	1.0	75/63	52.0	40.1	60.5	2.5	21.2	30	1.1	60	36.1	26.2	3.2	3.35							
			80/67	55.4	41.2	63.9	2.5	22.4				70	35.5	24.7	3.5	2.99						
			85/71	58.8	42.3	67.4	2.5	23.6				80	35.0	23.1	3.8	2.68						
	8	1.7	75/63	53.0	40.4	61.1	2.3	22.6				30	1.9	60	37.3	27.2	3.2	3.43				
			80/67	56.4	41.6	64.6	2.4	23.9							70	36.6	25.6	3.5	3.06			
			85/71	60.0	42.7	68.2	2.4	25.3							80	36.0	23.9	3.8	2.74			
	12	3.5	75/63	53.9	40.8	61.7	2.2	24.0							30	3.8	60	38.7	28.4	3.2	3.53	
			80/67	57.5	42.0	65.3	2.2	25.6										70	37.9	26.8	3.5	3.14
			85/71	61.2	43.1	69.0	2.3	27.2										80	36.9	24.6	3.9	2.79
60	6	1.0	75/63	50.1	39.2	59.3	2.7	18.6	40	1.1	60							40.9	30.4	3.3	3.68	
			80/67	53.3	40.4	62.6	2.7	19.6										70	40.4	28.8	3.6	3.3
			85/71	56.6	41.5	66.1	2.7	20.7										80	39.7	27.5	3.9	2.95
	8	1.7	75/63	51.0	39.6	59.9	2.6	19.7				40	1.8	60				42.2	31.9	3.3	3.76	
			80/67	54.3	40.8	63.2	2.6	20.9										70	41.8	29.9	3.6	3.39
			85/71	57.8	41.9	66.8	2.6	22.2										80	41.3	28.6	4.0	3.04
	12	3.5	75/63	51.9	40.0	60.4	2.5	21.0							40	3.6	60	43.9	33.3	3.3	3.87	
			80/67	55.3	41.2	63.9	2.5	22.3										70	43.0	31.6	3.6	3.45
			85/71	59.0	42.0	67.5	2.5	23.8										80	42.8	29.7	4.0	3.12
70	6	1.0	75/63	48.0	38.4	58.2	3.0	16.1	50	2.1	60							46.0	35.2	3.4	4.01	
			80/67	51.1	39.6	61.4	3.0	17.1										70	45.5	33.6	3.7	3.6
			85/71	54.3	40.7	64.7	3.0	18.0										80	45.3	31.4	4.1	3.25
	8	1.7	75/63	48.9	38.7	58.6	2.9	17.1				50	3.5	60				47.7	37.0	3.4	4.12	
			80/67	52.1	39.9	61.9	2.9	18.2										70	47.3	35.0	3.7	3.71
			85/71	55.5	41.1	65.4	2.9	19.3										80	46.5	33.5	4.1	3.31
	12	3.4	75/63	49.7	39.1	59.1	2.7	18.1							50	7.1	60	49.7	38.6	3.4	4.24	
			80/67	53.1	40.3	62.5	2.7	19.4										70	48.9	37.1	3.8	3.79
			85/71	56.6	41.2	66.0	2.7	20.6										80	48.2	34.3	4.1	3.41
80	6	1.0	75/63	45.9	37.5	57.1	3.3	13.9	60	2.1	60							51.5	40.8	3.5	4.34	
			80/67	48.9	38.7	60.2	3.3	14.8										70	51.0	38.9	3.8	3.91
			85/71	52.1	39.6	63.4	3.3	15.6										80	50.5	37.0	4.2	3.51
	8	1.6	75/63	46.7	37.9	57.5	3.2	14.8				60	3.4	60				53.6	42.8	3.5	4.47	
			80/67	49.8	39.1	60.6	3.2	15.7										70	52.9	40.9	3.9	4.0
			85/71	53.1	40.0	64.0	3.2	16.7										80	52.4	38.5	4.3	3.6
	12	3.3	75/63	47.5	38.4	57.9	3.0	15.6							60	7.0	60	56.2	44.8	3.6	4.62	
			80/67	50.8	39.0	61.2	3.1	16.6										70	55.0	43.0	3.9	4.11
			85/71	54.1	40.6	64.6	3.0	17.8										80	54.3	40.8	4.3	3.69
90	6	0.9	75/63	43.7	36.6	56.0	3.7	12.0	70	2.0	60							57.4	46.4	3.6	4.68	
			80/67	46.6	37.6	59.1	3.7	12.7										70	56.8	44.3	4.0	4.21
			85/71	49.6	38.9	62.2	3.7	13.4										80	56.2	42.1	4.4	3.78
	8	1.5	75/63	44.5	36.9	56.4	3.5	12.6				70	3.3	60				59.9	48.8	3.6	4.81	
			80/67	47.5	37.9	59.5	3.5	13.5										70	59.2	46.3	4.0	4.33
			85/71	50.7	39.1	62.7	3.5	14.3										80	58.4	44.2	4.4	3.87
	12	3.2	75/63	45.0	36.3	56.7	3.5	12.9							70	6.8	60	62.8	51.5	3.7	4.96	
			80/67	48.3	37.9	59.9	3.4	14.1										70	61.8	48.8	4.1	4.45
			85/71	51.6	39.3	63.2	3.4	15.1										80	60.7	46.7	4.5	3.97
100	6	0.9	75/63	41.4	35.7	55.1	4.1	10.2	80	2.0	60							63.9	51.8	3.7	5.03	
			80/67	44.2	36.8	58.0	4.1	10.8										70	62.8	50.1	4.1	4.49
			85/71	47.0	38.1	61.0	4.1	11.5										80	62.0	47.9	4.5	4.03
	8	1.5	75/63	42.2	35.7	55.4	3.9	10.7				80	3.3	60				66.5	55.1	3.8	5.14	
			80/67	45.1	37.0	58.4	3.9	11.4										70	65.7	52.2	4.2	4.62
			85/71	48.1	38.2	61.4	4.0	12.2										80	64.7	49.8	4.6	4.14
	12	3.1	75/63	42.7	36.5	55.6	3.8	11.3							80	6.7	60	69.7	58.0	3.9	5.3	
			80/67	45.6	36.6	58.6	3.9	11.7										70	68.4	55.6	4.2	4.73
			85/71	48.9	38.6	61.8	3.8	12.8										80	67.4	52.7	4.6	4.25
110	6	0.9	75/63	39.0	34.8	54.3	4.5	8.6	Extended Range - Anti-freeze required	2.0	60							69.7	58.0	3.9	5.3	
			80/67	41.7	35.9	57.1	4.6	9.1										70	68.4	55.6	4.2	4.73
			85/71	44.3	37.3	59.9	4.6	9.7										80	67.4	52.7	4.6	4.25
	8	1.5	75/63	39.7	34.9	54.5	4.4	9.0				Extended Range - Anti-freeze required	3.3	60				69.7	58.0	3.9	5.3	
			80/67	42.5	36.0	57.3	4.4	9.6										70	68.4	55.6	4.2	4.73
			85/71	45.3	37.2	60.3	4.4	10.2										80	67.4	52.7	4.6	4.25
	12	3.1	75/63	40.2	34.7	54.7	4.3	9.3							Extended Range - Anti-freeze required	6.7	60	69.7	58.0	3.9	5.3	
			80/67	43.1	36.8	57.6	4.3	10.1										70	68.4	55.6	4.2	4.73
			85/71	46.1	37.6	60.6	4.3	10.8										80	67.4	52.7	4.6	4.25

  Extended Range - Anti-freeze required

AHRI/ISO13256-1 certified performance is rated at entering air conditions of 80.6°F DB and 66.2°F WB in cooling and 68°F DB in heating.

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.**

# QV Model Series - Commercial Water Source Heat Pumps



Capacity Data QV060 (1900 CFM)																		
Cooling									Heating									
Entering Water Temp (°F)	Water flow (GPM)	Pressure Drop (PSI)	Entering Air Temp DB/WB (°F)	Total Capacity (MBTUH)	Sensible Capacity (MBTUH)	Heat of Rejection (MBTUH)	Power (kW)	EER	Entering Fluid Temp (°F)	Pressure Drop (PSI)	Entering Air Temp (°F)	Total Capacity (MBTUH)	Heat of Absorption (MBTUH)	Power Input (kW)	COP			
50	7.5	2.0	75/63	62.4	47.2	73.4	3.2	19.5	30	2.1	60	47.6	35.2	3.9	3.6			
			80/67	66.5	48.4	77.7	3.2	20.5				70	46.9	33.4	4.3	3.2		
			85/71	70.7	49.7	82.1	3.3	21.5				80	46.4	31.4	4.7	2.9		
	12	4.6	75/63	64.2	47.9	74.5	3.0	21.6			30	4.9	60	50.2	37.8	4.0	3.7	
			80/67	68.4	49.3	78.9	3.0	22.8						70	49.3	35.7	4.4	3.3
			85/71	72.9	50.5	83.5	3.0	24.0						80	48.8	33.4	4.8	3.0
	15	6.8	75/63	64.7	48.2	74.8	2.9	22.3			30	7.3	60	51.2	38.7	4.0	3.8	
			80/67	69.1	49.5	79.3	2.9	23.7						70	50.3	36.6	4.4	3.4
			85/71	73.7	50.4	84.0	3.0	25.0						80	49.7	34.2	4.8	3.0
60	7.5	2.0	75/63	60.0	46.1	72.1	3.5	17.1	40	2.0	60	53.8	40.8	4.0	3.9			
			80/67	63.9	47.4	76.2	3.6	18.0				70	53.0	39.0	4.5	3.5		
			85/71	68.0	48.7	80.5	3.6	18.9				80	52.4	37.0	4.9	3.1		
	12	4.5	75/63	61.7	46.8	73.0	3.3	18.7			40	4.7	60	57.0	44.1	4.1	4.1	
			80/67	65.8	48.2	77.3	3.3	19.8						70	56.2	41.9	4.5	3.6
			85/71	70.3	49.2	81.8	3.4	20.9						80	55.4	39.7	5.0	3.3
	15	6.7	75/63	62.2	47.0	73.3	3.2	19.3			40	7.0	60	58.4	45.4	4.2	4.1	
			80/67	66.5	48.1	77.7	3.3	20.5						70	57.4	43.1	4.6	3.7
			85/71	70.9	49.4	82.2	3.3	21.7						80	56.5	40.7	5.0	3.3
70	7.5	1.9	75/63	57.5	45.0	70.7	3.9	14.9	50	2.0	60	60.6	47.4	4.2	4.2			
			80/67	61.3	46.4	74.7	3.9	15.7				70	60.0	45.0	4.6	3.8		
			85/71	65.2	47.7	78.9	4.0	16.5				80	59.2	43.1	5.1	3.4		
	12	4.4	75/63	59.1	45.7	71.6	3.6	16.3			50	4.6	60	64.7	51.3	4.3	4.4	
			80/67	63.1	47.1	75.7	3.7	17.2						70	63.7	48.9	4.7	3.9
			85/71	67.4	48.1	80.1	3.7	18.2						80	62.8	46.5	5.2	3.5
	15	6.5	75/63	59.7	45.6	71.9	3.6	16.7			50	6.8	60	66.4	52.8	4.4	4.5	
			80/67	63.8	46.9	76.1	3.6	17.7						70	65.3	50.3	4.8	4.0
			85/71	68.1	48.3	80.5	3.6	18.8						80	64.2	47.7	5.3	3.6
80	7.5	2.0	75/63	54.8	44.0	69.3	4.2	12.9	60	2.0	60	68.1	54.3	4.4	4.5			
			80/67	58.5	45.4	73.2	4.3	13.6				70	67.2	52.2	4.8	4.1		
			85/71	62.4	46.4	77.3	4.3	14.4				80	66.4	49.7	5.3	3.7		
	12	3.3	75/63	56.4	44.6	70.1	4.0	14.0			60	4.5	60	73.1	59.0	4.5	4.7	
			80/67	60.3	45.7	74.2	4.0	14.9						70	71.9	56.4	5.0	4.2
			85/71	64.4	47.1	78.4	4.1	15.8						80	70.8	53.7	5.5	3.8
	15	4.9	75/63	56.8	45.0	70.3	3.9	14.4			60	6.7	60	75.0	60.8	4.6	4.8	
			80/67	60.9	45.8	74.5	4.0	15.3						70	73.7	58.0	5.0	4.3
			85/71	65.0	47.0	78.7	4.0	16.2						80	72.5	55.2	5.5	3.9
90	7.5	1.4	75/63	52.1	42.9	68.1	4.7	11.1	70	1.9	60	76.1	61.7	4.6	4.8			
			80/67	55.7	44.1	71.9	4.7	11.8				70	75.1	59.3	5.1	4.3		
			85/71	59.4	45.5	75.7	4.8	12.4				80	74.4	56.3	5.6	3.9		
	12	3.2	75/63	53.6	43.1	68.8	4.5	12.0			70	4.4	60	81.9	67.2	4.8	5.0	
			80/67	57.4	44.5	72.6	4.5	12.8						70	80.6	64.3	5.2	4.5
			85/71	61.2	46.1	76.6	4.5	13.6						80	79.1	61.4	5.7	4.0
	15	4.7	75/63	54.0	42.9	69.0	4.4	12.2			70	6.5	60	84.2	69.2	4.8	5.1	
			80/67	57.8	44.5	72.9	4.4	13.1						70	82.7	66.2	5.3	4.6
			85/71	61.8	46.3	77.0	4.4	14.0						80	81.0	63.2	5.8	4.1
100	7.5	1.4	75/63	49.4	41.6	67.0	5.2	9.5	80	2.0	60	84.5	69.3	4.8	5.1			
			80/67	52.8	43.1	70.6	5.2	10.1				70	83.3	66.7	5.3	4.6		
			85/71	56.4	44.2	74.3	5.3	10.7				80	81.9	64.1	5.8	4.1		
	12	3.1	75/63	50.7	41.9	67.5	5.0	10.2			80	3.3	60	91.2	75.6	5.1	5.3	
			80/67	54.3	43.5	71.2	5.0	10.9						70	89.5	72.5	5.5	4.8
			85/71	57.9	45.1	75.0	5.0	11.6						80	88.0	69.4	6.0	4.3
	15	4.6	75/63	51.0	42.4	67.6	4.9	10.5			80	4.9	60	93.8	78.0	5.1	5.4	
			80/67	54.8	43.7	71.4	4.9	11.2						70	91.9	74.7	5.6	4.8
			85/71	58.4	45.3	75.3	4.9	11.9						80	89.5	71.5	6.1	4.3
110	7.5	1.3	75/63	46.4	40.4	66.0	5.8	8.0	Extended Range - Anti-freeze required	4.9	60	89.5	71.5	6.1	4.3			
			80/67	49.8	41.7	69.5	5.8	8.5				70	88.0	69.4	6.0	4.3		
			85/71	53.0	43.4	73.0	5.9	9.0				80	86.5	67.3	6.5	3.8		
	12	3.1	75/63	47.6	40.7	66.4	5.6	8.6			110	3.1	60	93.8	78.0	5.1	5.4	
			80/67	51.1	42.1	69.9	5.6	9.2						70	91.9	74.7	5.6	4.8
			85/71	54.5	43.9	73.5	5.6	9.8						80	90.4	72.6	6.1	4.3
	15	4.5	75/63	47.9	41.3	66.5	5.5	8.8			110	4.5	60	93.8	78.0	5.1	5.4	
			80/67	51.4	42.7	70.0	5.5	9.4						70	91.9	74.7	5.6	4.8
			85/71	55.1	43.5	73.8	5.5	10.0						80	90.4	72.6	6.1	4.3

**Extended Range - Anti-freeze required**  
 AHRI/ISO13256-1 certified performance is rated at entering air conditions of 80.6°F DB and 66.2°F WB in cooling and 68°F DB in heating.  
 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.

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# QV Model Series - Commercial Water Source Heat Pumps



# BOSCH

QV024 - Temperature Pressure Operating Data									
Enter Fluid Temp (°F)	Water Flow (GPM/Ton)	Cooling				Heating			
		Suction Pressure (PSIG)	Discharge Pressure (PSIG)	Water Temp Rise °F	Air Temp Drop °F	Suction Pressure (PSIG)	Discharge Pressure (PSIG)	Water Temp Drop °F	Air Temp Rise °F
30	4	Operation Not Recommended				69-79	276-296	5-6	19-23
	6					73-83	281-301	3-4	20-24
40	4	123-140	216-234	17-19	22-26	83-93	291-311	7-8	22-26
	6	122-139	196-214	11-13	22-26	87-97	296-316	4-5	23-27
50	4	124-141	234-252	15-17	21-25	100-110	310-330	7-8	25-29
	6	123-140	218-236	10-12	22-26	106-116	316-336	5-6	26-30
60	4	126-143	269-287	15-17	21-25	118-128	329-349	9-10	28-32
	6	125-142	252-270	10-12	21-25	125-135	336-356	6-7	29-33
70	4	128-145	307-325	15-17	20-24	139-149	347-367	10-11	31-35
	6	127-144	290-308	9-11	20-24	147-157	354-374	7-8	33-37
80	4	130-147	349-367	14-16	19-23	160-170	364-384	11-12	35-39
	6	129-146	333-351	9-11	20-24	171-181	372-392	8-9	36-40
90	4	132-149	396-414	14-16	19-23	185-195	382-402	13-14	38-42
	6	131-148	380-398	9-11	19-23	199-209	391-411	9-10	40-44
100	4	134-151	449-467	14-16	18-22	Operation Not Recommended			
	6	133-150	432-450	9-11	18-22				

QV030 - Temperature Pressure Operating Data									
Enter Fluid Temp (°F)	Water Flow (GPM/Ton)	Cooling				Heating			
		Suction Pressure (PSIG)	Discharge Pressure (PSIG)	Water Temp Rise °F	Air Temp Drop °F	Suction Pressure (PSIG)	Discharge Pressure (PSIG)	Water Temp Drop °F	Air Temp Rise °F
30	4	Operation Not Recommended				64-74	289-309	7-8	19-23
	7					70-80	295-315	4-5	20-24
40	4	120-138	233-251	20-22	21-25	77-87	305-325	8-9	22-26
	7	118-136	200-218	11-13	22-26	84-94	314-334	5-6	23-27
50	4	121-139	249-267	18-20	21-25	94-104	327-347	9-10	25-29
	7	120-138	223-241	10-12	21-25	103-113	336-356	5-6	27-31
60	4	123-141	283-301	18-20	21-25	111-121	344-364	10-11	28-32
	7	122-140	257-275	10-12	21-25	122-132	354-374	6-7	30-34
70	4	125-143	323-341	17-19	20-24	130-140	361-381	12-13	32-36
	7	123-141	295-313	10-12	20-24	143-153	373-393	7-8	34-38
80	4	127-145	366-384	17-19	19-23	150-160	378-398	14-15	35-39
	7	126-144	341-359	9-11	19-23	167-177	392-412	8-9	38-42
90	4	129-147	414-432	17-19	19-23	173-183	397-417	16-17	39-43
	7	128-146	388-406	9-11	19-23	193-203	413-433	9-10	41-45
100	4	131-149	466-484	17-19	18-22	Operation Not Recommended			
	7	130-148	441-459	9-11	18-22				

# QV Model Series - Commercial Water Source Heat Pumps



# BOSCH

QV036 - Temperature Pressure Operating Data									
Enter Fluid Temp (°F)	Water Flow (GPM/Ton)	Cooling				Heating			
		Suction Pressure (PSIG)	Discharge Pressure (PSIG)	Water Temp Rise °F	Air Temp Drop °F	Suction Pressure (PSIG)	Discharge Pressure (PSIG)	Water Temp Drop °F	Air Temp Rise °F
30	4.5	Operation Not Recommended				60-70	278-298	7-8	17-21
	9					66-76	285-305	3-4	18-22
40	4.5	119-135	226-250	23-25	22-26	72-82	292-312	9-10	19-23
	9	116-132	183-207	11-13	23-27	81-91	302-322	4-5	21-25
50	4.5	121-137	259-283	22-24	21-25	86-96	308-328	10-11	22-26
	9	118-134	214-238	11-13	22-26	97-107	319-339	5-6	24-28
60	4.5	123-139	295-319	22-24	21-25	101-111	323-343	12-13	25-29
	9	120-136	248-272	11-13	21-25	115-125	335-355	6-7	27-31
70	4.5	124-140	335-359	22-24	20-24	117-127	337-357	14-15	28-32
	9	122-138	285-309	10-12	21-25	135-145	352-372	7-8	31-35
80	4.5	126-142	378-402	21-23	20-24	135-145	352-372	16-17	31-35
	9	124-140	327-351	10-12	20-24	157-167	370-390	8-9	34-38
90	4.5	128-144	425-449	20-22	19-23	155-165	369-389	17-18	34-38
	9	126-142	372-396	10-12	20-24	181-191	390-410	9-10	38-42
100	4.5	130-146	477-501	20-22	19-23	Operation Not Recommended			
	9	128-144	423-447	10-12	19-23				

QV042 - Temperature Pressure Operating Data									
Enter Fluid Temp (°F)	Water Flow (GPM/Ton)	Cooling				Heating			
		Suction Pressure (PSIG)	Discharge Pressure (PSIG)	Water Temp Rise °F	Air Temp Drop °F	Suction Pressure (PSIG)	Discharge Pressure (PSIG)	Water Temp Drop °F	Air Temp Rise °F
30	6	Operation Not Recommended				65-75	280-304	6-7	18-22
	10					69-79	285-309	3-4	19-23
40	6	120-136	209-233	18-20	21-25	77-87	294-318	7-8	20-24
	10	119-135	182-206	11-13	22-26	83-93	301-325	4-5	21-25
50	6	122-138	241-265	18-20	21-25	91-101	309-333	8-9	23-27
	10	120-136	212-236	11-13	21-25	99-109	316-340	5-6	24-28
60	6	124-140	276-300	17-19	20-24	107-117	322-346	10-11	26-30
	10	122-138	245-269	10-12	21-25	116-126	330-354	6-7	27-31
70	6	126-142	315-339	17-19	20-24	123-133	336-360	11-12	28-32
	10	124-140	282-306	10-12	20-24	136-146	346-370	7-8	30-34
80	6	127-143	357-381	17-19	19-23	142-152	351-375	13-14	31-35
	10	126-142	323-347	10-12	20-24	158-168	363-387	8-9	33-37
90	6	129-145	403-427	17-19	19-23	163-173	367-391	14-15	34-38
	10	128-144	369-393	9-11	19-23	182-192	380-404	9-10	37-41
100	6	Operation Not Recommended				Operation Not Recommended			
	10								



# QV Model Series - Commercial Water Source Heat Pumps



# BOSCH

QV048 - Temperature Pressure Operating Data									
Enter Fluid Temp (°F)	Water Flow (GPM/Ton)	Cooling				Heating			
		Suction Pressure (PSIG)	Discharge Pressure (PSIG)	Water Temp Rise °F	Air Temp Drop °F	Suction Pressure (PSIG)	Discharge Pressure (PSIG)	Water Temp Drop °F	Air Temp Rise °F
30	6	Operation Not Recommended				62-82	326-346	8-9	19-23
	12					68-88	334-354	4-5	21-25
40	6	113-129	216-236	22-24	22-26	74-94	341-361	9-10	22-26
	12	110-126	179-199	11-13	22-26	82-102	351-371	5-6	23-27
50	6	115-131	247-267	22-24	21-25	88-108	357-377	11-12	24-28
	12	112-128	208-228	11-13	22-26	98-118	369-389	6-7	27-31
60	6	116-132	282-302	21-23	21-25	102-122	374-394	12-13	28-32
	12	114-130	240-260	10-12	21-25	116-136	390-410	7-8	30-34
70	6	119-135	320-340	20-22	20-24	118-138	393-413	14-15	31-35
	12	116-132	276-296	10-12	21-25	135-155	412-432	8-9	33-37
80	6	121-137	361-381	20-22	20-24	136-156	413-433	16-17	34-38
	12	118-134	315-335	10-12	20-24	157-177	436-456	9-10	37-41
90	6	122-138	406-426	20-22	19-23	156-176	434-454	18-19	37-41
	12	120-136	358-378	10-12	20-24	181-201	461-481	10-11	41-45
100	6	125-141	454-474	19-21	19-23	Operation Not Recommended			
	12	122-138	406-426	10-12	19-23				

QV060 - Temperature Pressure Operating Data									
Enter Fluid Temp (°F)	Water Flow (GPM/Ton)	Cooling				Heating			
		Suction Pressure (PSIG)	Discharge Pressure (PSIG)	Water Temp Rise °F	Air Temp Drop °F	Suction Pressure (PSIG)	Discharge Pressure (PSIG)	Water Temp Drop °F	Air Temp Rise °F
30	8	Operation Not Recommended				68-84	256-313	5-7	19-23
	12					73-89	261-319	4-5	20-25
40	8	113-138	173-212	18-22	19-23	81-99	277-339	7-8	22-26
	12	110-134	162-198	12-14	20-24	86-105	283-346	5-6	23-28
50	8	116-142	207-253	17-21	19-23	93-114	299-365	8-9	24-29
	12	112-137	193-236	12-14	19-24	99-121	305-373	6-7	25-31
60	8	118-145	240-293	17-21	18-23	106-129	321-392	9-11	26-32
	12	115-140	224-274	11-14	19-23	113-138	327-400	7-8	28-34
70	8	121-148	273-334	17-21	18-22	118-145	342-418	10-12	29-35
	12	117-143	255-312	11-14	19-23	126-154	349-427	8-9	30-37
80	8	123-151	307-375	16-20	18-22	131-160	364-444	11-14	31-38
	12	120-146	287-350	11-13	19-23	139-170	371-454	8-10	33-40
90	8	126-154	340-416	16-20	18-22	143-175	385-471	12-15	33-41
	12	122-149	318-388	11-13	18-22	152-186	393-480	9-11	35-43
100	8	128-157	373-456	16-19	17-21	Operation Not Recommended			
	12	125-152	349-426	11-13	18-22				

# QV Model Series - Commercial Water Source Heat Pumps



# BOSCH

Electrical Data - ECM EON Constant CFM Blower Motor												
Model	Voltage Code	Voltage/ Hz/ Phase	Voltage Min/Max	Compressor			Blower Motor		Total Unit			
				Qty	RLA	LRA	FLA	HP	Total Unit FLA	Min. Circuit Amps	MOP CALC	MOP
QV024	1	208-230/1/60	197/253	1	13.5	58.3	5.0	0.50	18.5	21.9	35.4	35
	2	265/1/60	238/292	1	9.0	54	4.1	0.50	13.1	15.4	24.4	20
	3	208-230/3/60	197/253	1	7.1	55.4	5.0	0.50	12.1	13.9	21.0	20
	4	460/3/60	414/506	1	3.5	28	4.1	0.50	7.6	8.5	12.0	15
QV030	1	208-230/1/60	197/253	1	12.8	64	5.0	0.50	17.8	21.0	33.8	30
	2	265/1/60	238/292	1	10.9	60	4.1	0.50	15.0	17.7	28.6	25
	3	208-230/3/60	197/253	1	8.3	58	5.0	0.50	13.3	15.4	23.7	20
	4	460/3/60	414/506	1	5.1	28	4.1	0.50	9.2	10.5	15.6	15
QV036	1	208-230/1/60	197/253	1	15.4	83.9	5.0	0.50	20.4	24.3	39.7	35
	2	265/1/60	238/292	1	13.5	72	4.1	0.50	17.6	21.0	34.5	30
	3	208-230/3/60	197/253	1	10.4	73	5.0	0.50	15.4	18.0	28.4	25
	4	460/3/60	414/506	1	5.8	38	4.1	0.50	9.9	11.4	17.2	15
QV042	1	208-230/1/60	197/253	1	16.7	109	5.0	0.50	21.7	25.9	42.6	40
	3	208-230/3/60	197/253	1	11.2	84	5.0	0.50	16.2	19.0	30.2	30
	4	460/3/60	414/506	1	5.6	44	4.1	0.50	9.7	11.1	16.7	15
QV048	1	208-230/1/60	197/253	1	19.6	130	7.3	0.75	26.9	31.8	51.4	50
	3	208-230/3/60	197/253	1	13.7	83.1	7.3	0.75	21.0	24.4	38.1	35
	4	460/3/60	414/506	1	6.2	41	5.5	0.75	11.7	13.3	19.5	15
QV060	1	208-230/1/60	197/253	1	24.7	166	7.3	0.75	32.0	38.2	62.9	60
	3	208-230/3/60	197/253	1	15.6	110	7.3	0.75	22.9	26.8	42.4	40
	4	460/3/60	414/506	1	7.8	52	5.5	0.75	13.3	15.3	23.1	20

# QV Model Series - Commercial Water Source Heat Pumps



Blower Performance CFM																	
Model	Motor Speed Tab	Adjust	Default Factory Motor Setting	External Static Pressure (in. of Water)													
				0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	1.10	1.20		
QV024	A	-		680	680	680	680	680	680	680	680	655	610	-	-		
		Normal	X	780	800	800	800	800	800	800	800	800	770	720	-	-	
		+		890	900	920	920	920	920	920	920	850	820	775	-	-	
QV030	B	-		805	805	805	805	805	805	805	805	805	780	725	-	-	
		Normal	X	915	930	950	950	950	950	950	950	950	880	850	800	-	-
		+		1045	1045	1060	1060	1060	1060	1060	1060	1000	960	890	860	-	-
QV036	A	-		1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	1020	-	-	
		Normal	X	1200	1200	1200	1200	1200	1200	1200	1200	1200	1160	1120	-	-	
		+		1380	1380	1380	1380	1380	1380	1380	1330	1290	1250	1215	-	-	
QV042	A	-		1190	1190	1190	1190	1190	1190	1190	1190	1190	1190	1190	-	-	
		Normal	X	1400	1400	1400	1400	1400	1400	1400	1400	1400	1350	1315	1270	-	-
		+		1555	1555	1570	1570	1570	1570	1535	1500	1460	1415	1375	1330	-	-
QV048	A	-		1360	1360	1360	1360	1360	1360	1360	1360	1360	1360	1360	-	-	
		Normal	X	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	-	-
		+		1840	1840	1840	1840	1840	1840	1840	1840	1840	1840	1840	1840	-	-
QV060 VT	A	-		1575	1575	1575	1575	1575	1575	1575	1575	1575	1575	1575	1575	1575	
		Normal	X	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
		+		2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	1930	1890	-
QV060 HZ	A	-		-	1575	1575	1575	1575	1575	1575	1575	1575	1575	1575	1575	1575	
		Normal	X	-	-	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
		+		-	-	-	2015	2015	2015	2015	2015	2015	2015	1920	1885	1840	1840

Note: Air flow is 70% of tabulated values during fan only operation.  
Air flow is 85% of tabulated value during passive dehumidification mode when enabled.

# QV Model Series - Commercial Water Source Heat Pumps



# BOSCH

Physical Data													
Description	Unit	Value											
		024		030		036		042		048		060	
		Cu	CuNi	Cu	CuNi	Cu	CuNi	Cu	CuNi	Cu	CuNi	Cu	CuNi
Compressor Type (Qty 1)	–	Scroll		Scroll		Scroll		Scroll		Scroll		Scroll	
Max Water Working Pressure	PSIG/kPa	400		400		400		400		400		400	
<b>ECM Fan Motor &amp; Blower</b>													
Fan Motor Type/Speeds	–	ECM DecStar		ECM DecStar		ECM DecStar		ECM DecStar		ECM DecStar		ECM DecStar	
Fan Motor	HP	0.50		0.50		0.50		0.50		0.75		0.75	
Blower Wheel Size		9x7		9x7		9x7		9x7		10x10		10x10	
<b>Water Connection Size</b>													
FPT	Inch	0.75		0.75		0.75		0.75		1		1	
Coaxial Coil Volume	Gal	0.24		0.24		0.27		0.27		0.49		0.62	
<b>Vertical Cabinet</b>													
Refrigeration Charge	Oz	35	33	35	33	44	40	47	52	59			
Air Coil Dimensions (H x W)	Inch	20x16.5		20x16.5		24x20.2		24x20.2		24x26.75		24x26.75	
Standard Filter - 1" Throwaway (L x H)	Inch	20x20		20x20		24x24		24x24		24x30		24x30	
Optional Filter - 2" MERV 8 or 13 Throwaway (L x H)	Inch	20x20		20x20		24x24		24x24		24x30		24x30	
Weight - Operating	lbs	202		219		247		252		311		337	
Weight - Shipping	lbs	230		246		273		279		336		361	
<b>Horizontal Cabinet</b>													
Refrigeration Charge	Oz	35	33	35	33	40	40	43	42	51	62		
Air Coil Dimensions (H x W)	Inch	16x20.5		16x20.5		18x27.5		18x27.5		20x32		20x32	
Standard Filter - 1" Throwaway (L x H)	Inch	16x25		16x25		18x30		18x30		20x34.5		20x34.5	
Optional Filter - 2" MERV 8 or 13 Throwaway (L x H)	Inch	16x25		16x25		18x30		18x30		20x34.5		20x34.5	
Weight - Operating	lbs	206		219		244		245		298		318	
Weight - Shipping	lbs	233		245		271		271		323		342	

# QV Model Series - Commercial Water Source Heat Pumps



# BOSCH

Horizontal Cabinet Corner Weights										
Configuration			Left Hand Evaporator				Right Hand Evaporator			
Model	Unit	Total	Left Front*	Right Front*	Left Back	Right Back	Left Front*	Right Front*	Left Back	Right Back
QV 024	Lbs	205.8	56.0	67.4	57.8	24.6	67.4	56.0	24.6	57.8
	kg	93.4	25.4	30.6	26.2	11.2	30.6	25.4	11.2	26.2
QV 030	Lbs	218.8	59.0	71.4	60.8	27.6	71.4	59.0	27.6	60.8
	kg	99.3	26.8	32.4	27.6	12.5	32.4	26.8	12.5	27.6
QV 036	Lbs	244.2	85.8	56.0	42.6	59.8	56.0	85.8	59.8	42.6
	kg	110.9	39.0	25.4	19.3	27.1	25.4	39.0	27.1	19.3
QV 042	Lbs	244.8	86.8	69.8	37.8	50.4	69.8	86.8	50.4	37.8
	kg	111.1	39.4	31.7	17.2	22.9	31.7	39.4	22.9	17.2
QV 048	Lbs	298.2	110.4	74.8	91.6	21.4	74.8	110.4	21.4	91.6
	kg	135.4	50.1	34.0	41.6	9.7	34.0	50.1	9.7	41.6
QV 060	Lbs	318.2	111.4	80.0	99.3	27.5	80.0	111.4	27.5	99.3
	kg	144.5	50.6	36.3	45.1	12.5	36.3	50.6	12.5	45.1

\*Front is control box end