BOSCH
Invented for life

Bosch Heat Pump

WQ Model: i Series

The Greensource i Series WQ Model is the quietest heat pump in the Bosch line and an industry leader in noise reduction. At 53dB[1], the WQ is so muffled that consumers will hardly hear it—or even notice it.

NEW 2021

So Quiet, You Forget It's There

Bosch WQ Model

The i Series Greensource water source heat pump is a cost-effective solution for residential and commercial retrofits, as well as for new construction. This single stage product comes equipped with a state-of-the-art noise insulation package that was designed using the quality and innovative technology that only Bosch can provide.

Features

▶ Bosch patented noise insulation technology

▶ Whisper Quiet operation[1]

▶ Bosch-patented compressor encapsulation

▶ Constant Airflow ECM DEC Star® Blower

▶ Energy efficient – Meets ASHRAE 90.1 compliance

▶ Space saving technology – Small footprint cabinet

▶ Specifically designed for replacement applications

▶ Available in Vertical and Horizontal

▶ Standard copper or cupro-nickel coaxial heat exchanger

▶ High and low pressure switches

▶ Electronic circuit board with alert display which can also be displayed via a thermostat

▶ DuoGuard evaporator with coated fin coil – Providing environmental corrosion protection

▶ 75 VA transformer

▶ Galvanized steel cabinet

▶ Condensate overflow switch

▶ Water coil freeze protection

▶ Evaporator coil freeze protection

▶ Brownout low voltage protection

▶ Standard Throwaway filter w/ 2- sided filter rack

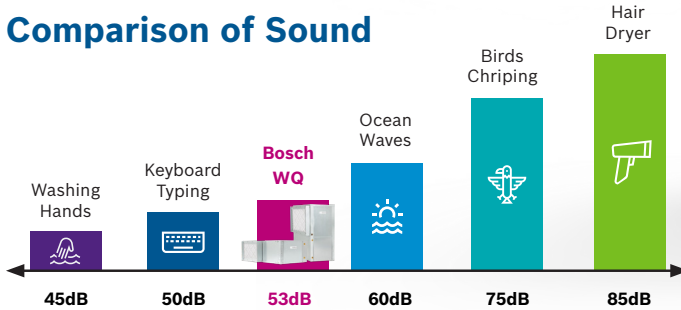▶ 1 year limited parts & 5 year compressor limited warranty§

Equipped with innovative Bosch Patented Technology for noise reduction

§Please go to boschheatingandcooling.com for full limited warranty details

Bosch WQ Model Features

Whisper Quiet Operation

The WQ comes equipped with Bosch-patented compressor encapsulation. The unit's unique sound package includes an insulated blower and cabinet insulation, which dampen unwanted noise. The product also includes an elevated compressor floating base plate, ensuring air-tight encapsulation around the compressor and optimal sound performance.

Comparison of Sound

Washing Hands	Keyboard Typing	Bosch WQ	Ocean Waves	Birds Chriping	Hair Dryer
45dB	50dB	53dB	60dB	75dB	85dB

Experience the difference between the Bosch WQ decibel levels and these familiar sounds. Bosch leverages noise reduction technologies to make heat pumps that are quiet enough to provide comfort you can feel without the noise.

Cabinet

The WQ unit cabinetry is constructed using galvanized steel, providing superior corrosion protection for indoor units. All interior surfaces are lined with 1/2" thick, 1.5 lb./cu.ft. density, Micromat insulation for thermal insulation and acoustical attenuation. This insulation is non-combustible, non-hydroscopic, and anti-fungal. The insulation meets NFPA 90A and 90B standards for fire protection and is certified to meet the GREENGUARD Indoor Air Quality Standard for Low-Emitting Products.
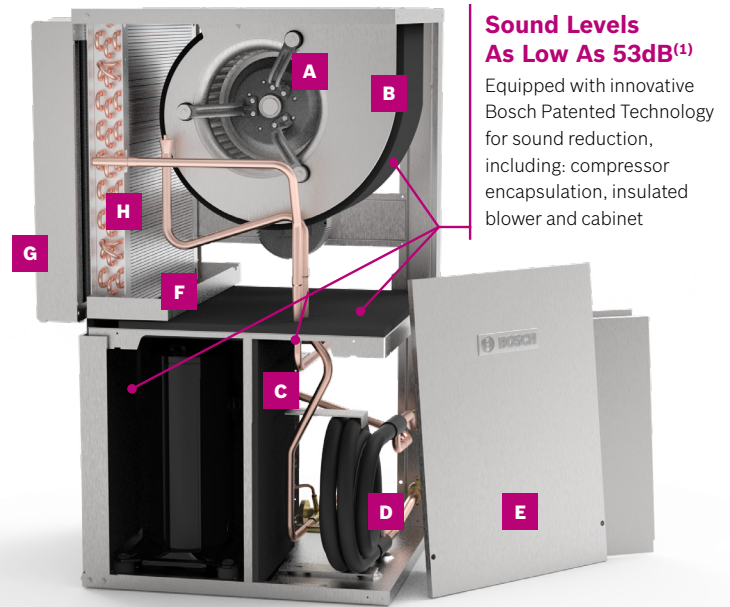
Serviceability

All vertical units are serviced from the front. Hz models have access from sides. Schrader valves for high and low pressure gauges and the electrical box components are easily accessible for diagnosing and servicing each unit.

Two-Door Front Panel

The WQ includes two front panels, which allow technicians to troubleshoot the unit while it is operating.

Hanging Brackets

For some applications, hanging brackets may be needed. All horizontal units come standard with hanging bracket kits for suspending the unit from field-supplied hanger rods. These kits include heavy duty steel brackets and rubber grommets for sound and vibration isolation from the building structure.

Sound Levels As Low As 53dB[1]

Equipped with innovative Bosch Patented Technology for sound reduction, including: compressor encapsulation, insulated blower and cabinet

A Constant Airflow with high efficiency ECM DEC Star® blower driven by Axial Flux BLAC motor with ECM EON motor control technology, delivers desired air flow with reduced RPMs

B High density vinyl insulated sound blocker blower jacket

C Bosch patented compressor encapsulation uses high density mass loaded vinyl sound blocker and heavy gauge sheet metal panels which provides whisper quiet operation

D Copper & Cupro-Nickel Coaxial Heat Exchangers Available

E High density mass loaded vinyl sound blocker insulated panels in condensing section minimizing compressor noise

F Corrosion-Resistant stainless steel drain pan

G Units come standard with a standard Throwaway 1" filter with a 2- sided filter rack

H Standard Duoguard™ Air Coil

Water Connections

All water connections are heavy duty bronze 3/4" or 1" FPT fittings securely fastened to the unit corner post. This allows installers to connect to a Bosch Flexbile Hose Kit Accessory without needing a backup wrench, making for easier, faster installation.

(1) The lowest overall sound rating is 53 dBA for the Bosch WQ. Based on a weighted overall (dBA), according to ARI-260:2017 (63Hz-8kHz). Actual sound rating may vary depending on system setting, equipment maintenance, and other factors that may affect the sound rating.

Refrigerant Circuit

WQ Model units are designed using the optimum combination of a heavy duty scroll compressor (sizes 024-060), plus water & air coils to provide peak performance.

COAX Coil

Refrigerant to water heat exchangers are coaxial tube-in-tube copper/steel type, providing a robust construction and ensuring years of trouble-free operation. Optional Cupro-Nickel coils are available for applications where the water is of lower quality.

Evaporator Coil

The DuoGuard™ tin-plated coil protection comes standard with the unit. The Tin Electro-Plated Copper Tubing hair pins with High-Tech Polymer Coated Aluminum Fins will protect the evaporator coil from all forms of corrosive elements in the air stream.

Evaporator coils employ lanced fin and rifled tubing for maximum heat transfer. Large face areas result in lower face velocity, reducing sound while ensuring high latent heat removal for maximum dehumidification in the cooling mode.

DEC Star® Blower

Each unit comes standard with a Constant Airflow ECM DEC Star® Blower. Highly efficient, the DEC Star® blower produces the same CFM as the LV but at a lower RPM, resulting in decreased power consumption, lower sound levels, and optimal sound performance. The DEC Star® blower's high efficiency and improved airflow also keeps maintenance costs to a minimum.

Unit Protection Module

Each WQ includes a factory-provided Unit Protection Module (UPM) that controls unit operationand monitors the safety controls that protect the unit. The main purpose of the UPM is to protect the compressor by monitoring the different states of switches and sensors. It also provides time delays and protects the unit against freezing of the water coil and evaporator coil. The UPM interfaces with the thermostat.

UPM Control Board Features

▶ Anti-Short Cycle Timer—5 minute delay

▶ High and low pressure protection

▶ Water and evaporator freeze protection

▶ Condensate overflow protection

▶ Brownout/Surge/Power Interruption Protection

▶ The controller has a set of contacts for fault indication

Safety Controls

▶ High pressure switch in the refrigerant discharge line

▶ Low pressure switch in the refrigerant suction line

▶ Standard low fluid temperature (freeze) protection sensor. The freeze protection sensor is designed to disable compressor operation when the unit is in the heating mode, should the refrigerant temperature fall below either 26°F (-3.3°C) or 15°F (-9.4°C)

▶ Condensate overflow protection sensor is standard and factory mounted in the drain pan of the unit

▶ Low air coil temperature (freeze) protection sensor disables the compressor when the refrigerant entering the air coil drops below 26°F (-3.3°C)

LED Fault Indication

Two LED indicators are provided on the circuit board

▶ Green: Power

▶ Red: Fault indicator with blink codes: High pressure, Low pressure, Freeze protection, Condensate overflow, Brownout condition

We have developed a Whisper Quiet water source heat pump, at a cost-effective price for residential and commercial retrofits, as well as for new construction.
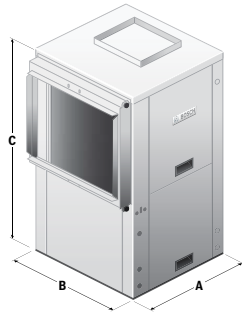
WQ Horizontal (HZ) Models			
Size	**Coax Coil**	**Return Air**	**Part Number**
WQ024	C	L	7-735-092-050
		R	7-735-092-052
	N	L	7-735-092-053
		R	7-735-092-054
WQ030	C	L	7-735-092-063
		R	7-735-092-064
	N	L	7-735-092-065
		R	7-735-092-066
WQ036	C	L	7-735-092-084
		R	7-735-092-085
	N	L	7-735-092-086
		R	7-735-092-087
WQ042	C	L	7-735-092-092
		R	7-735-092-093
	N	L	7-735-092-094
		R	7-735-092-095
WQ048	C	L	7-735-092-100
		R	7-735-092-101
	N	L	7-735-092-102
		R	7-735-092-103
WQ060	C	L	7-735-092-108
		R	7-735-092-109
	N	L	7-735-092-110
		R	7-735-092-111

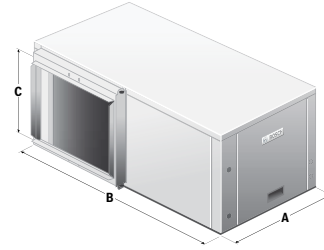| WQ Vertical (VT) Models			
Size	**Coax Coil**	**Return Air**	**Part Number**
WQ024	C	L	7-735-092-055
		R	7-735-092-056
	N	L	7-735-092-057
		R	7-735-092-059
WQ030	C	L	7-735-092-067
		R	7-735-092-068
	N	L	7-735-092-069
		R	7-735-092-070
WQ036	C	L	7-735-092-088
		R	7-735-092-089
	N	L	7-735-092-090
		R	7-735-092-091
WQ042	C	L	7-735-092-096
		R	7-735-092-097
	N	L	7-735-092-098
		R	7-735-092-099
WQ048	C	L	7-735-092-104
		R	7-735-092-105
	N	L	7-735-092-106
		R	7-735-092-107
WQ060	C	L	7-735-092-112
		R	7-735-092-113
	N	L	7-735-092-114
		R	7-735-092-115

C = Copper, N = Cupronickel, L = Left, R = Right

System & Technical Information

Vertical

Horizontal

Vertical Cabinet WQ Model Dimensions				
Model	Unit	Width (A)	Depth (B)	Height (C)
WQ024 - 030	in	21.5	21.5	39.3
	cm	54.6	54.6	99.7
WQ036 - 042	in	21.5	26	44.3
	cm	54.6	66	109.9
WQ048 - 060	in	24	32.5	45.3
	cm	61	82.6	114.9

Horizontal Cabinet WQ Model Dimensions				
Model	Unit	Width (A)	Depth (B)	Height (C)
WQ024 - 030	in	22	43	18
	cm	55.9	109.2	43.2
WQ036 - 042	in	22	54.5	19
	cm	55.9	138.4	48.3
WQ048 - 060	in	25	54.5	21
	cm	63.5	138.4	53.3

AHRI RATINGS (13256-1) - WQ SERIES COPPER WATER COIL										
		Water Loop Heat Pump				Ground Loop Heat Pump					
		Cooling 86 °F		Heating 68 °F		Cooling 77 °F		Heating 32 °F		CFM	GPM
Models	Cabinet	Capacity (Btuh)	EER (Btuh/W)	Capacity (Btuh)	COP	Capacity (Btuh)	EER (Btuh/W)	Capacity (Btuh)	COP		
WQ024	VT	24550	15.00	27150	4.85	25650	17.95	17750	3.40	800	6
WQ024	HZ	24200	14.75	26800	5.15	25300	17.65	17850	3.70	800	6
WQ030	VT	28650	14.50	32150	4.95	29950	17.00	21050	3.60	950	7
WQ030	HZ	28650	14.60	32150	4.95	29950	17.10	21050	3.60	950	7
WQ036	VT	36400	15.05	38400	4.85	37950	17.55	26700	3.70	1200	9
WQ036	HZ	36400	14.85	38450	4.80	38000	17.40	26750	3.65	1200	9
WQ042	VT	39950	14.70	42150	4.70	41800	17.20	29350	3.40	1400	10
WQ042	HZ	38350	13.95	42350	4.60	41100	16.80	29550	3.35	1400	10
WQ048	VT	46450	14.35	58200	4.65	48650	16.85	38900	3.50	1600	12
WQ048	HZ	46450	14.35	58300	4.75	48000	16.55	39000	3.45	1600	12
WQ060	VT	58500	14.20	77000	4.70	61250	16.50	52050	3.70	1850	15
WQ060	HZ	58900	14.20	66200	4.35	61000	16.25	46000	3.35	1850	15
AHRI RATINGS (13256-1) - WQ SERIES CUPRO-NICKEL WATER COIL											
WQ024	VT	24550	15.00	27150	4.85	25650	17.95	17750	3.40	800	6
WQ024	HZ	24200	14.75	26800	5.15	25300	17.65	17850	3.70	800	6
WQ030	VT	28650	14.50	32150	4.95	29950	17.00	21050	3.60	950	7
WQ030	HZ	28650	14.60	32150	4.95	29950	17.10	21050	3.60	950	7
WQ036	VT	36400	15.05	38400	4.85	37950	17.55	26700	3.70	1200	9
WQ036	HZ	36400	14.85	38450	4.80	38000	17.40	26750	3.65	1200	9
WQ042	VT	39950	14.70	42150	4.70	41800	17.20	29350	3.40	1400	10
WQ042	HZ	38350	13.95	42350	4.60	41100	16.80	29550	3.35	1400	10
WQ048	VT	46450	14.35	58200	4.65	48650	16.85	38900	3.50	1600	12
WQ048	HZ	46450	14.35	58300	4.75	48000	16.55	39000	3.45	1600	12
WQ060	VT	58500	14.20	77000	4.70	61250	16.50	52050	3.70	1850	15
WQ060	HZ	58900	14.20	66200	4.35	61000	16.25	46000	3.35	1850	15

Notes: All dimensions within +− 0.125". All condensate drain connections are 3/4" FPT. Horizontal models 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. GLHP ratings require an extended range option. Ratings based upon A HRI/ANSI 13256-1 with 1" disposable filter.

A Zero Energy Capable Home
for Peace of Mind

The Bosch Zero Energy Capable Home initiative aims to create homes that protect the planet. By engineering an innovative technology suite, Bosch can help homeowners to both reduce their monthly utility bills and protect the environment.

When installed, Bosch's heating, cooling, water heating, and energy-efficient appliances help to reduce home energy usage due to intelligent product designs and higher efficiencies. Homeowners then are able to save enough power to offset the already reduced energy demand, meaning virtually a zero energy bill.

Ask your Contractor or visit Boschexperiencecenter.com to learn more about how Bosch products can work together for your ultimate peace of mind.

Before Everything, There's Bosch.
Simple. Reliable. Innovative.

About Bosch

Bosch Group

The Bosch Group is a leading global supplier of technology and services in the areas of Automotive, Industrial Technology, Consumer Goods and Building Technology. The company was founded in Stuttgart, Germany, in 1886 and presently has more than 440 subsidiaries and is represented in over 150 countries.

In the U.S., Canada and Mexico, the Bosch Group manufactures and markets automotive original equipment and aftermarket solutions, industrial drives and control technology, power tools, security and communication systems, packaging technology, thermotechnology, household appliances and software solutions. The Bosch Group's products and services are designed to improving quality of life by providing innovative and beneficial solutions. In this way, the company offers technology worldwide that is "Invented for life." Additional information is available online at boschheatingandcooling.com and bosch.ca.

Bosch Thermotechnology in North America

Bosch Thermotechnology is a leading source of high quality water heating and comfort systems. The company offers gas tankless, electric whole house and point-of-use water heaters, Bosch and Buderus floor-standing and wall mounted boilers, Bosch and FHP geothermal, water-source and air-source systems as well as controls and accessories for all product lines. Bosch Thermotechnology is committed to being Simply Smart by offering products that work together as integrated systems that enhance quality of life in an ultra-efficient and environmentally friendly manner. For more information, visit boschheatingandcooling.com.

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