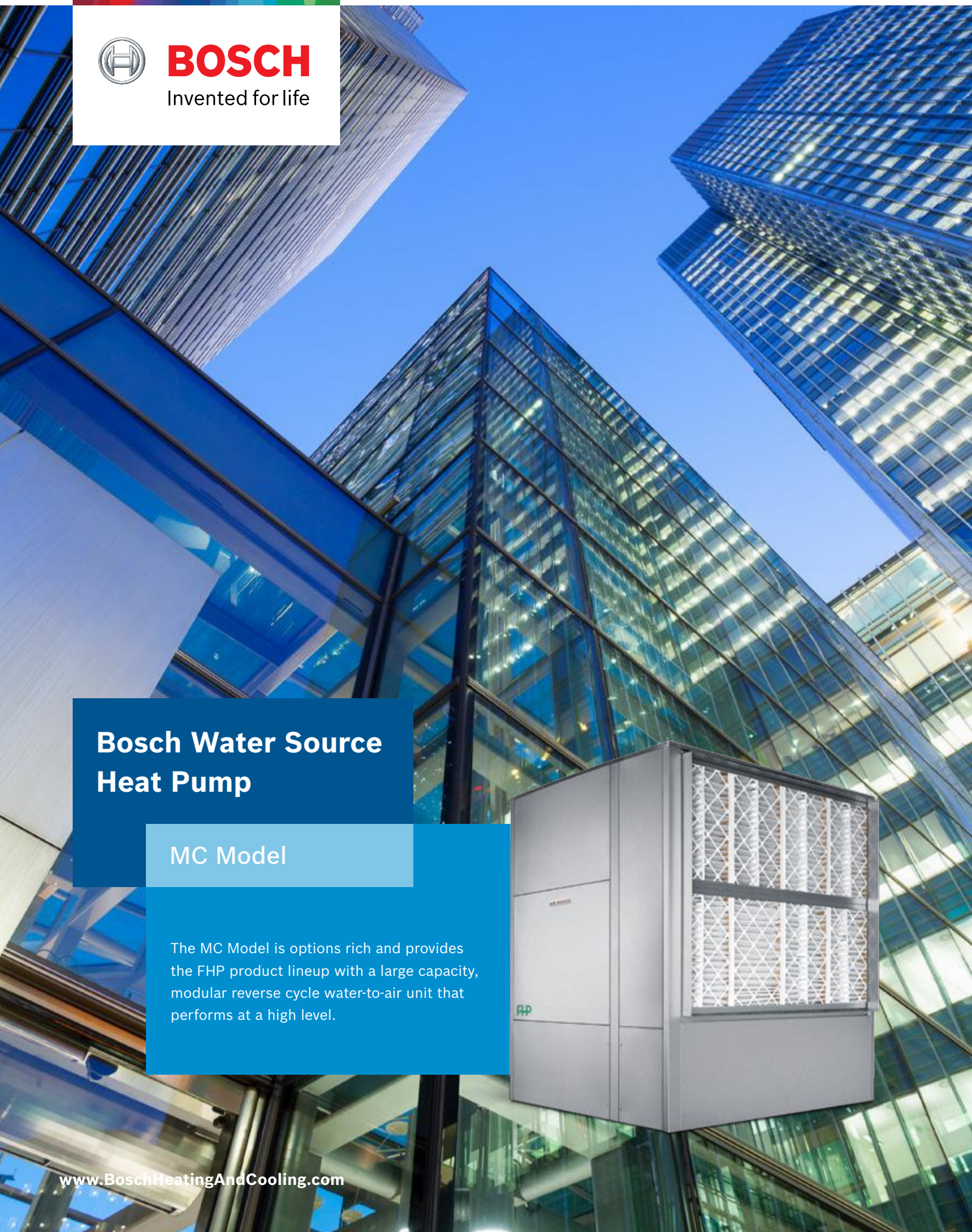
BOSCH
Invented for life

Bosch Water Source Heat Pump

MC Model

The MC Model is options rich and provides the FHP product lineup with a large capacity, modular reverse cycle water-to-air unit that performs at a high level.



www.BoschHeatingAndCooling.com

Option Rich, Large Capacity

Meet the Bosch MC

This large capacity water-to-air heat pumps offer high efficiency, value added features and multi-levels of capacity. Equipped with standard features like scroll compressors, variable air volume and 100% outside air capability giving you the flexibility, performance and quiet operation needed to exceed the expectations of your clients.

Quiet Comfort

- **Heavy-duty Construction** - Proper acoustical considerations are a critical part of every systems design and operation. Multiple scroll compressors, equipment liners, balanced fans, and heavy-duty construction makes the unit inherently quiet
- **Closed-cell Foam Insulation (option)** - Helps to provide cleaner, fiber-free air and reduces sound transmission
- **Hot Gas Reheat (HGR) (option)** - Allows for the control of space temperature and humidity levels within conditioned space

Service Friendly

- **Unit Arrangement -** All units are designed to be serviced from the front of the unit. Schrader valves for the high and low pressure gauges are standard, along with easily accessible electrical box components, or make diagnosing and servicing the unit a simple task.

Robust and Durable Construction

- **Galvanized Steel Cabinet** - Provides strength and corrosion protection against the elements
- **Cupro-nickel Coaxial Heat Exchanger (option)** - Protects against corrosion when water conditions are of low quality
- **Scroll Compressors** - Provides durability and ensures that each unit will provide many years of trustworthy performance

Safety

- **Flow Proving Switch (option)** - Prevents the continued operation of the compressor should the water supply fail
- **Unit Protection Module (UPM)** - Monitors the unit operation and safety controls that protect the unit
- **Dual Refrigerant Freeze Sensors** - Monitors if refrigerant temperatures reach freeze limitations and disables unit to protect it
- **Condensate Overflow Protection** - Continuously monitors the drain pan for high condensate water level, and if this exceeds normal operating levels, the compressor operation is interrupted to protect against drain pan overflow

Quality Design & Efficiency

- **Boilerless Control (option)** - Disables the compressor and/or activates electric heater should the water temperature drop below set point
- **Water Side Economizer (option)** - Provides free-cooling without the use of mechanical cooling (compressors)
- **Hot Water Coils (option)** - Provides preheating or heating while controlling humidity under a wide variation of conditions

Options Designed for any Application

Flexible Installation

All units are available in two different configurations.

Vertical High Configuration (high-boy)

The VH design concept is to provide a unit that will facilitate on site handling and can be installed in locations difficult to access. All units can be broken down into separate sections that can pass through a 36" wide standard size door or service elevator. The MC360 ships in two sections and can be easily broken down into three separate sections; the fan section, main heating/cooling section and the economizer/ filter bank section. The MC480 through MC720 ships in four sections and can be broken into six separate sections, two each as previously mentioned. Very few competitive equipment manufacturers have this capability.

Vertical Low Configuration (low-boy)

The VL is designed for those applications where there is a restriction in the height of the unit. In this unit the blower is dropped into the main coil section reducing the unit's overall height and increasing unit depth. The MC360 ships in one section and can be separated into two sections, the main refrigeration and blower sections and the filter/ economizer section. Unit sizes MC480 through MC720 ships in two sections and can be separated into four sections for transportation and access into the plant room.

DDC Controls, Room & Zone Sensors

The optional factory mounted DDC Controller is preprogrammed and installed on the unit with the Unit Protection Module (UPM) to be job site ready. The unit will operate in a 100% stand-alone control mode or connect to a Building Automation System (BAS) using open protocols BACnetTM, Modbus, N2 or LonWorks® (with an optional Lon card). To complement the controller, Bosch Thermotechnology offers a line of intelligent ZS Series Zone Sensors, which provide precision measurement and communication capabilities in an attractive low profile enclosure.

Additional Features

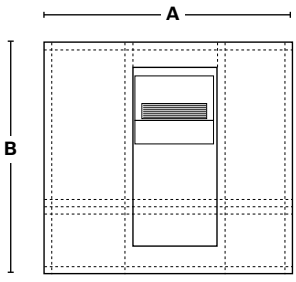
- 100VA transformer
- Belt drive, inverter duty fan motor
  - HP 7.5, 10, 15, 20
  - Up to sixteen different belt drives selectable
- TXV
- Reverse cycle

Additional Options

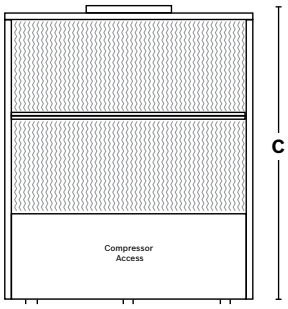
- VFD controlled VAV
- 100% outside air capability
- Hot gas bypass
- Relays - EMS, blower & compressor monitor, pump/valve

Technical Specifications

Top View



Rear View



NOTES: 1. All dimensions in inches unless otherwise noted. All dimensions within +-0.125". Specifications subject to change without notice. 2. Height does not include 1.5" for the lifting support rails.

Model	Vertical High Configuration Unit Dimensions (in inches)		
	A (width)	B (depth)	C (height)
MC360	69.50	51.63	111.00
MC480	139.00	51.63	111.00
MC600	139.00	51.63	111.00
MC720	139.00	51.63	111.00

Model	Vertical Low Configuration Unit Dimensions (in inches)		
	A (width)	B (depth)	C (height)
MC360	69.50	64.75	80.00
MC480	139.00	64.75	80.00
MC600	139.00	64.75	80.00
MC720	139.00	64.75	80.00

Performance in Accordance with ARI/ISO 13256-1 ISO corrected (with fan & pump power)						
Model	GPM	CFM	Water Loop Heat Pump			
			Cooling 86º F		Heating 68º F	
			CAP	EER	CAP	COP
MC360	90	12,000	395,246	13.1	475,212	4.7
MC480	120	16,000	555,796	16.1	622,608	5.2
MC600	150	20,000	642,387	15.4	751,701	5.4
MC720	180	24,000	790,649	13.1	950,439	4.7

NOTE: The performance data results alter depending on application design; use Bosch Selection Tools software for specific performance data per the application, selection and specifications. http://bst.fhp-mfg.com/eRep/

About **Bosch**

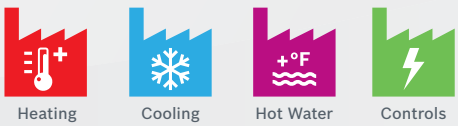
Bosch Group

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.



www.BoschHeatingAndCooling.com

Bosch Thermotechnology Corp.
Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL
General Inquiries: 1-866-642-3198

76H992824A 7-18