BOSCH

Bosch SM Heat Pump

The most efficient units with the quality only Bosch can provide

30% Geothermal Tax Credit

Bosch Geothermal Systems

▶ Environmentally Friendly

▶ Best-in-Class Performance

▶ Reliable & Unmatched Quality

▶ Earth Coupling Options

▶ Lower Operating Cost

▶ Quiet Operation

Bosch SM Model Rev C

The SM Model is our premium, high efficiency, residential water source heat pump, available in sizes of 2 to 6 tons to suit your needs. ENERGY STAR certified for ground water and ground loop applications, the SM boasts a two-stage scroll compressor and ECM constant air motor for superior comfort and efficiency. All SM Model units are now equipped with our new local wifi connected service and diagnostic tool, the Bosch EasyStart.

30% Geothermal Tax Credit

Features

Bosch EasyStart App & Local Wireless Communication
Installers can effortlessly start up and commission the unit using the app. While Service Technicians can easily service, monitor, and diagnose without ever having to open the unit.

Heat Pump Control Board (HPC)
New microprocessor-based control board integrates with Bosch EasyStart app to provide real-time feedback of faults, component statuses, and more. The new HPC board has integrated control for configurable variable speed blower, 8 x temperature sensors, refrigeration system safeties, Smart HRP, loop pump/valve, auxiliary electric heat, heartbeat/power/critical diagnostic information (status) LED, compressor/brownout/blower protection, alarm output, condensate overflow detection, antishort cycling, and random start of unit.

Variable Speed ECM Constant CFM Motor
Maintains a constant and comfortable airflow by adjusting to external air pressure drop.

2 Stage Scroll Compressor Technology
Lowers operating costs while maximizing efficiency and comfort by adjusting to varying heating and cooling.

Air-tight and Quiet Cabinetry*
Includes close-cell foam insulation and compressor blanket which offers sound levels as low as 52 dB.

Stainless Steel Drain Pan
Improves indoor air quality by preventing standing water where mold, bacteria and viruses could grow.

Filter Drier
Removes moisture and contaminants from the refrigeration circuit, increasing reliability and product life.

Easy Access Filter Rack and 2" MERV-8 Filter*
Easily change your filter and remove 80-95% of airborne particles and other allergens as small as 3 microns.

Heat Recovery Package/Desuperheater
This optional feature enables your heat pump to heat domestic hot water, reducing the amount of electricity or fossil fuels otherwise used for your hot water.

Copper or Cupro-Nickel Coil
Option between copper or cupro-nickel heat exchanger, cupro-nickel recommended in conditions anticipating moderate scale formation or brackish water.

*Applies to vertical orientation only

Limited Residential Warranty

Coverage for your Geothermal Heat Pump

You receive peace-of-mind knowing you will receive replacement parts protection for up to 10 years.

This warranty covers all components incorporated into the unit cabinet at the time of manufacture. Many units also come with a standard 10 year labor-allowance included for the replacement of any defective component to help offset labor expenses if a component should fail. For heat pump warranties and details visit www.bosch-homecomfort.us

30% Geothermal Tax Credit

Being Green Means Saving Green

Homeowners who install Bosch ENERGY STAR qualified geothermal heat pumps are eligible for a 30% tax credit, including the cost of installation for systems placed in service by 1/1/2033*, a 26% tax credit for systems placed in service after 12/31/2032 and before 01/01/2034, and a 22% tax credit for systems placed in service after 12/31/2033 and before 01/01/2035. All tax credits are on the cost of the geothermal system, including installation costs.

Additionally, many areas offer local incentives for utilities, counties, or states. Visit the DOE's "Database of State Incentives for Renewable Energy" (DSIRE) at dsireusa.org to find out just what is in store for you!

Connected Solutions

Bosch has assembled a comprehensive suite of heating, cooling, water heating, and energy-efficient appliances. Pair your new Geothermal Heat Pump with The Bosch Connected Control tp receive Alert Messages directly from your new WSHP. It is the perfect solution to help achieve maximum comfort from anywhere! Ask your Bosch contractor or go to www.bosch-homecomfort.us to learn more about how Bosch products can work together for your ultimate comfort.

Bosch BCC100

*All information here within is pending and subject to change upon release of the product.

Bosch Geothermal Heat Pumps
Sharing Energy with the Earth

Bosch Geothermal Systems bring your home in harmony with nature, while providing unmatched energy efficiency at a price that can't be beat. Our geothermal systems work in concert with the stable earth temperatures to provide heating in the winter, and cooling in the summer.

Much like the way the roots of a tree exchange the essentials of life with their leaves and branches, a Bosch geothermal heat pump provides superior comfort and a more tranquil environment to your home and family via our system's smooth operation and consistent temperatures. You will experience amazing peace and tranquility, and efficiency while your Bosch geothermal system saves energy for generations to come. That's because Bosch is Invented for Life.

Operation Modes of a Heat Pump

Outside, temperatures fluctuate with the changing seasons, but underground temperatures don't change nearly as dramatically, thanks to the mass of the earth. Four to eight feet below the ground, the temperature remains relatively constant year round. A Bosch geothermal system, which typically consists of an indoor heat pump and a buried system of pipes called a ground loop, and/or a well system, capitalizes on these constant temperatures to provide "free" energy.

Summer Cooling Mode

In summer time, the process reverses, and the cooler earth absorbs the heat from the home, returning cooler fluid to the Bosch geothermal heat pump. This fluid is typically cooler than the outside temperatures, providing a more efficient operation and energy savings.

Winter Heating Mode

In winter time, fluid circulating through the earth loop (or well) absorbs stored heat from the ground and carries it indoors. The Bosch geothermal heat pump compresses the heat to a higher temperature and distributes it throughout the home.

Optional Field Install Accessories

Internal Electric Heat
The internal electric heat kit includes 5, 10, 15,or 20 kilowatt back up or an emergency heater can be used on the geothermal heat pump.

Dehumidification Options
Dehumidification can be achieved with the Variable Speed CFM Motor combined with a Bosch humidity control thermostat.

Horizontal (HZ) Discharge Air Conversion Kit
The horizontal (HZ) conversion kit allows end blow to straight through conversion of discharge air, as the straight through configuration for horizontal is not factory available.

SmartStart Assist
This device reduces starting (inrush) current for compressors by 45% to 65%, minimizing "light flickering" during compressor starts and extending the life of the compressor. Designed for single phase scroll compressors.

Hose Kits
Our kits are designed specifically for Geothermal/Water Source applications where high quality components are desired.

Flow Centers
Bosch Pressurized, Non-Pressurized and Dual Circuit Flow Centers are built for easy, time-saving installation and are available in a wide variety of combinations to suit the contractor or system designer's needs.

SM Consolidation
The Bosch SM is now offered in a new consolidated list of part numbers, providing options suited for every homeowners needs.

Vertical (VT)				
Model	Heat Recovery Package	Coax Coil	Return Air	Part Number
SM024	X	C	L	7-735-091-939
			R	7-735-091-940
		N	L	7-735-091-941
			R	7-735-091-942
	D	C	L	7-735-074-013
			R	7-735-074-014
		N	L	7-735-074-015
			R	7-735-074-017
SM036	X	C	L	7-735-091-943
			R	7-735-091-944
		N	L	7-735-091-945
			R	7-735-091-946
	D	C	L	7-735-074-018
			R	7-735-074-020
		N	L	7-735-074-021
			R	7-735-074-022
SM048	X	C	L	7-735-091-947
			R	7-735-0919-48
		N	L	7-735-091-949
			R	7-735-091-950
	D	C	L	7-735-074-023
			R	7-735-074-024
		N	L	7-735-074-025
			R	7-735-074-026
SM060	X	C	L	7-735-091-951
			R	7-735-091-952
		N	L	7-735-091-953
			R	7-735-091-954
	D	C	L	7-735-074-027
			R	7-735-074-028
		N	L	7-735-074-029
			R	7-735-074-030
SM070	X	C	L	7-735-091-955
			R	7-735-091-956
		N	L	7-735-091-957
			R	7-735-091-958
	D	C	L	7-735-074-031
			R	7-735-074-032
		N	L	7-735-074-033
			R	7-735-074-034

| Horizontal (HZ)				
Model	Heat Recovery Package	Coax Coil	Return Air	Part Number
SM024	X	C	L	7-735-091-959
			R	7-735-091-960
		N	L	7-735-091-961
			R	7-735-091-962
	D	C	L	7-735-074-042
			R	7-735-074-043
		N	L	7-735-074-050
			R	7-735-074-051
SM036	X	C	L	7-735-091-963
			R	7-735-091-964
		N	L	7-735-091-965
			R	7-735-091-966
	D	C	L	7-735-074-052
			R	7-735-074-053
		N	L	7-735-074-054
			R	7-735-074-056
SM048	X	C	L	7-735-091-967
			R	7-735-091-968
		N	L	7-735-091-969
			R	7-735-091-970
	D	C	L	7-735-074-057
			R	7-735-074-058
		N	L	7-735-074-059
			R	7-735-074-060
SM060	X	C	L	7-735-091-971
			R	7-735-0919-72
		N	L	7-735-091-973
			R	7-735-091-974
	D	C	L	7-735-074-061
			R	7-735-074-062
		N	L	7-735-074-063
			R	7-735-074-064
SM070	X	C	L	7-735-091-975
			R	7-735-091-976
		N	L	7-735-091-977
			R	7-735-091-978
	D	C	L	7-735-074-065
			R	7-735-074-066
		N	L	7-735-074-068
			R	7-735-074-072

Bosch
Easy*Start*

The Easy*Start* App was developed to save time diagnosing & troubleshooting the new Bosch SM Model Geothermal Heat Pump.
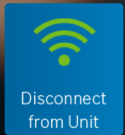
Disconnect from Unit — Connect unit through local unit wifi, no need for Technicians to open the physical unit to configure.
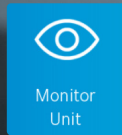
Monitor Unit — View real time status of components and system temperatures to aid in start-up, troubleshooting and diagnostics.

Configure Unit Settings — Set freeze protection setting based on application & configure up to 24 optional settings for customizable comfort.

App Features

Click on Data to see real-time temperature readings throughout system to aid in set-up and diagnostics

Click on Fault History to view up to the 70 latest faults that occurred

At any time, if the user needs help, they can click on the question mark and a definition of the screen and what can be done is explained

Technicians can set system to test mode to automatically run a troubleshooting sequence. Test Mode shortens all the timers to 10 seconds for each component

Click on Graph to see real-time temperature readings throughout system to aid in set-up and diagnostics

Unit operation mode shown in real-time

Click on Components to get basic information

Technicians can click on icons to view active faults and affects on system operation. The Red stop sign is hard lockout and the Yellow stop sign is a warning/soft lockout
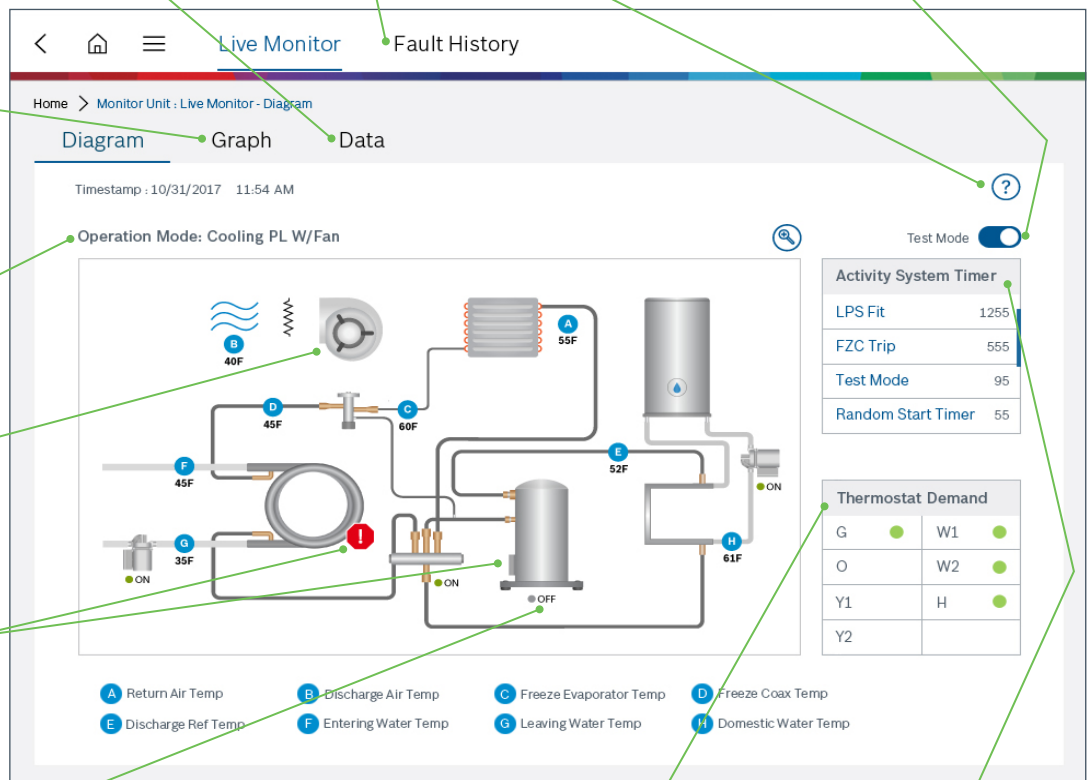
View on/off status of component operation

For troubleshooting purposes, thermostat demand can be viewed in real time along with operation mode and component status

Technicians can see the Active System Timers for what the unit is processing

Live Monitor | Fault History

Home > Monitor Unit : Live Monitor - Diagram

Diagram | Graph | Data

Timestamp : 10/31/2017 11:54 AM

Operation Mode: Cooling PL W/Fan

Test Mode

Activity System Timer

LPS Fit	1255
FZC Trip	555
Test Mode	95
Random Start Timer	55

Thermostat Demand

G	●	W1	●
O		W2	●
Y1		H	●
Y2			

A Return Air Temp
B Discharge Air Temp
C Freeze Evaporator Temp
D Freeze Coax Temp
E Discharge Ref Temp
F Entering Water Temp
G Leaving Water Temp
H Domestic Water Temp

40F · 55F · 45F · 60F · 52F · 45F · 35F · 61F · ON · OFF

*Android/iOS Tablet not included with unit

Unit Dimensions[1]

Model	Vertical/Counterflow			Horizontal		
	W (width)	D (depth)	H (height)	W (width)	D (depth)	H (height)
SM024	22.5	26.0	43.3	25.1	64.1	19.7
SM036	24.5	33.3	54.0	28.0	76.0	22.7
SM048	24.5	33.3	54.0	28.0	76.0	22.7
SM060	26.0	33.3	60.1	28.0	83.0	22.7
SM070	26.0	33.3	60.1	28.0	83.0	22.7
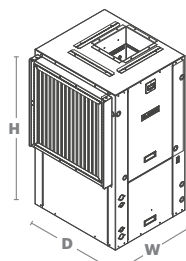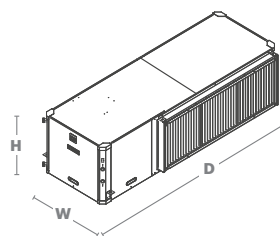
Vertical   **Horizontal**

VT Specifications   ASHRAE/AHRI/ISO 13256-1. English (I-P) Units

FULL LOAD

Model	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump				Fluid Flow GPM
	Cooling 86°F		Heating 68°F		Cooling 59°F		Heating 50°F		Cooling 77°F		Heating 32°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	
SM024	26200	16.2	30300	5.6	29400	24.9	24700	4.9	26900	18.9	18700	4.1	6
SM036	39300	18.6	46300	6.2	44300	27.1	36700	5.4	40200	21.0	28200	4.3	10
SM048	50500	16.0	60300	5.5	56900	24.3	49200	4.9	51800	18.6	38200	4.2	12
SM060	62500	15.4	78300	5.4	71600	24.0	62400	4.7	63900	18.6	48600	4.0	15
SM070	69700	14.3	88900	5.0	78900	22.1	72600	4.4	71500	17.3	56000	3.7	18

PART LOAD

Model	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump				Fluid Flow GPM
	Cooling 86°F		Heating 68°F		Cooling 59°F		Heating 50°F		Cooling 77°F		Heating 32°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	
SM024	19600	18.3	22800	6.5	22400	32.2	18200	5.3	21300	29.9	15500	4.5	6
SM036	28900	20.4	33100	7.2	32800	35.1	26000	5.6	31600	30.0	22000	4.7	10
SM048	37100	17.8	44200	6.2	42600	31.5	35500	5.1	40100	26.4	30600	4.4	12
SM060	46400	17.7	57600	6.0	53500	30.6	45900	4.9	51100	25.2	39900	4.4	15
SM070	52900	16.4	67700	5.5	61200	26.9	53800	4.6	58100	23.3	46100	4.1	18

HZ Specifications   ASHRAE/AHRI/ISO 13256-1. English (I-P) Units

FULL LOAD

Model	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump				Fluid Flow GPM
	Cooling 86°F		Heating 68°F		Cooling 59°F		Heating 50°F		Cooling 77°F		Heating 32°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	
SM024 Copper	25500	16.6	29200	5.6	29000	25.8	23500	5.0	26600	19.9	18000	3.7	6
SM024 CuNi	25500	15.7	29200	5.6	29000	24.1	23500	5.0	26600	18.3	18000	3.7	6
SM036	38100	17.5	42800	5.1	43300	26.0	35900	4.6	39900	20.2	28400	4.0	9
SM048 Copper	49200	16.1	56100	5.4	55300	24.4	46300	4.8	51300	18.8	36900	4.1	12
SM048 CuNi	49200	15.5	56100	5.3	55300	23.8	46300	4.8	51300	18.0	36900	4.1	12
SM060	63800	15.5	73300	4.8	70200	22.3	60300	4.4	65100	17.6	45500	3.7	15
SM070	71600	14.1	84000	4.8	78700	21.2	70000	4.4	73700	16.4	55300	3.6	18

PART LOAD

Model	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump				Fluid Flow GPM
	Cooling 86°F		Heating 68°F		Cooling 59°F		Heating 50°F		Cooling 77°F		Heating 32°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	
SM024 Copper	18500	18.4	21200	6.2	21700	31.9	16700	5.2	21000	27.0	14400	4.1	6
SM024 CuNi	18500	17.5	21200	6.4	21700	29.9	16700	5.2	21000	25.7	14400	4.1	6
SM036	27500	19.9	31000	5.6	31300	33.2	25200	4.7	30000	26.0	22400	4.1	9
SM048 Copper	36700	18.3	40900	6.3	42000	31.8	33700	5.3	39900	26.9	29800	4.7	12
SM048 CuNi	36700	17.5	40900	6.1	42000	30.8	33700	5.0	39900	26.0	29800	4.5	12
SM060	47500	17.2	53600	5.7	53300	29.3	44300	4.7	51600	25.0	37200	4.1	15
SM070	55200	15.3	64900	5.2	60800	26.4	48400	4.5	60300	22.0	46900	4.0	18

(1) All dimensions in inches unless otherwise noted. All dimensions within +-0.125". Specifications subject to change without notice.
(2) Ratings based upon AHRI/ANSI 13256-1 with 1" disposable filter

About Bosch

Bosch Home Comfort Group in North America

Bosch Home Comfort Group 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 Home Comfort 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 bosch-homecomfort.us.

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, home comfort solutions, 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 www.bosch.com

Bosch Home Comfort Group

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