



BOSCH

Invented for life

Bosch Heat Pump

BP Model: i Series

The Greensource i Series BP Model single stage geothermal heat pump offers best-in-class energy efficiency and lower operating costs, providing you the ultimate value for your money.





Equip Your Home With Quality & Innovative Comfort

Bosch BP Model

The Greensource i Series BP Model geothermal heat pump comes in a horizontal or vertical configuration. This packaged solution can individually replace your old system or be used for a new installation. The BP model comes equipped with the quality and innovative technology that only Bosch can provide.

Features

- ▶ Single-stage rotary (sizes 012, 018) and scroll (sizes 024-048) compressors
- ▶ Available in 1 through 4 tons
- ▶ PSC motor standard on size 012 only
- ▶ ECM motors standard for sizes 018, 024, 030, 036, 042, 048
- ▶ Mid-range performance and low operation costs
- ▶ Environmentally friendly R410-A refrigerant
- ▶ White pre-painted sheet metal cabinet – for durability & look
- ▶ Quiet operation – 1/2" 1.5lb. Dual Density Fiberglass Insulation
- ▶ Electronic circuit board with alert LED display which can also display fault information on the thermostat
- ▶ Evaporator Coil - Tin-plated copper tubing hair pins with high-tech polymer coated Aluminum Fins for durability & reliability



Why Bosch Geothermal Heat Pumps?

Being Green Means Saving Green

This fully featured single-stage heat pump offers an appliance-style cabinet in sizes of 1 to 4 tons. The Bosch Greensource geothermal heat pump requires less energy to produce the equivalent cooling and heating output of other conventional heat pumps on the market. This saves energy and reduces the cost to stay comfortable in your home. You can save up to 65% on your energy bills, plus payback on this investment can be as short as 5 to 7 years.

Reliable and High Quality

Bosch's Unit Protection Module (UPM) aids in troubleshooting and helps reduce the time required to diagnose the operation of the unit in order to keep it running at optimal conditions. The UPM circuit board can send automatic alerts to be displayed on a Bosch thermostat therefore expediting any maintenance that is required.

Quiet Operation

Greensource is equipped with an advanced sound package comprising of a unique floating base pan to isolate internal components from the exterior cabinet thereby reducing sound and vibration. Combined with dual density fiberglass cabinet insulation makes the Greensource one of the quietest units on the market.



Features BP Model

Cabinet

Cabinetry is constructed using white pre-painted, galvanized steel for a sleek appliance aesthetic.

Quiet Operation

All panels are insulated with ½" thick, 1.5 lb./cu.ft. density micromat fiberglass insulation for both thermal insulation and noise reduction thereby keeping your home quieter and temperature regulated.

Serviceability

- ▶ Designed to be serviced from the front of the unit.
- ▶ Insulated bulkheads allow the unit to be serviced during operation.

High Efficiency Motors

- ▶ PSC (standard) for size 012
- ▶ ECM Constant Torque (standard) for sizes 018-048

Hanging Brackets for Easy Installation

All horizontal (HZ) units come standard with hanging bracket kits for suspending the unit from field supplied hanger rods.

Quality Water Connections

All water connections are heavy duty bronze FPT fittings securely fastened to the unit corner post.

Refrigerant Circuit

Designed using the optimum combination of compressor, water and copper tin plate and aluminum fin evaporator coils with TXV to provide peak performance and improved efficiency.

TXV (Thermal Expansion Valve)

Improves refrigerant management and efficiencies.

Superior Warranty

10 Year Limited Parts & Labor Warranty⁽¹⁾

Improved Air Filtration with 4 Sided Filter Rack & 2" MERV-8 Filter

Allows you to change your filter easily and improve your home's indoor air quality by removing 80% of airborne particles and other allergens as small as 1 micron.



DuoGuard™ Air Coil

Tin electro-plated copper tubing with high-tech polymer coated aluminum fins will protect the evaporator coil from all forms of corrosive elements in the air-stream.

Intuitive Alerts and Protection via the Electronic Circuit Board

- ▶ Low pressure switch protection
- ▶ High pressure switch protection
- ▶ Alarm output
- ▶ Condensate overflow protection
- ▶ Anti-short cycling
- ▶ 5 minute delay - low pressure bypass at start up
- ▶ Random start of unit
- ▶ Brown out protection
- ▶ Evaporator freeze protection
- ▶ Water coil/coaxial coil/condenser freeze protection

BP MODELS				
SIZE	CABINET CONFIGURATION	COAX COIL	RETURN AIR	PART NUMBER
012	HZ	C	L	7735034028
012			R	7735059015
018	HZ	C	L	7735069605
018			R	7735071213
018		N	L	7735070779
018			R	7735070780
018	VT	C	L	7735070781
018			R	7735070005
018		N	L	7735070782
018			R	7735070176
024	HZ	C	L	7735050138
024			R	7735058025
024	VT	C	L	7735030746
024			R	7735030412
030	HZ	N	L	7735045120
030			R	7735039297
030	VT	C	L	7735032070
030			R	7735051681
030		N	L	7735035382
030			R	7735030884
036	HZ	C	L	7735051680
036			R	7735034921
036		N	L	7735037439
036			R	7735036361
036	VT	C	L	7735041458
036			R	7735055608
036		N	L	7735032549
036			R	7735032551
042	HZ	N	L	7735037449
042			R	7735033945
042	VT	C	L	7735030747
042			R	7735051683
042		N	L	7735030704
042			R	7735034127
048	HZ	N	L	7735040032
048			R	7735039812
048	VT	C	L	7735037627
048			R	7735055609
048		N	L	7735028878
048			R	7735030885

Optional Features

Field Install Internal Electric Heat Kit

The field installed internal electric heat kit includes 5, 10, 15, or 20 kilowatt back up or an emergency heater that can be used depending on the size of the geothermal pump.

Field Install SmartStart Assist Kit

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.

Field Install Pump/Valve Relay Kit

The pump relay kit can be used to energize a supply pump or solenoid valve when there is a call for compressor operation. This relay can be used to switch either high or low voltage power.

Cupro-nickel Coil

A cupro-nickel heat exchanger is recommended in conditions anticipating moderate scale formation or in brackish water.

Horizontal (HZ) Unit - Field Convertible Discharge Air

All HZ units come standard with End Blow Discharge Air configuration. Straight Through Discharge Air can be easily field configured.



Warranty

Coverage for your Geothermal Heat Pump Limited Residential Warranty⁽¹⁾

With the limited residential warranty, you receive peace-of-mind knowing you will receive replacement parts protection for up to 10 years. This warranty offering covers all components incorporated into the unit cabinet at the time of manufacture, including a 10 year labor-allowance for defective components to help offset labor expenses if a component should fail. Other components or parts that are purchased from Bosch and installed in the field have a one year replacement parts limited warranty.

(1) For complete warranty details please visit boschheatingandcooling.com



A Zero Energy Capable Home for Peace of Mind

The Bosch zero energy capable home is a full systems approach to creating a house that is not an energy drain on the planet's finite resources. This technology helps homeowners to reduce their monthly utility bills and protect the environment.

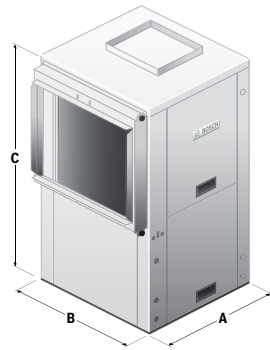
Bosch has assembled a comprehensive suite of heating, cooling, water heating, and energy-efficient appliances that, when installed in a home, reduces home energy usage due to intelligent product designs and higher efficiencies. In addition, this approach enables the homeowner to save enough power to offset the already reduced energy demand, meaning virtually a zero energy bill for the homeowner.

Ask your Bosch Contractor or go to Boschexperiencecenter.com to learn more about how Bosch products can work together for your ultimate comfort.

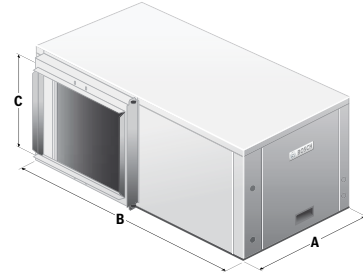


System & Technical Information

Vertical



Horizontal



Vertical Cabinet BP Model Dimensions				
Model	Unit	Width (A)	Depth (B)	Height (C)
012	in	21.75	21.75	32.75
	cm	55.25	55.25	83.19
018	in	21.75	21.75	39.25
	cm	55.25	55.25	99.70
024	in	21.75	26.25	47.25
	cm	55.25	66.68	120.02
030	in	24.25	33.50	47.25
	cm	61.60	85.09	120.02
036	in	24.25	33.50	47.25
	cm	61.60	85.09	120.02
042	in	26.25	33.50	58.25
	cm	66.68	85.09	147.96
048	in	26.25	33.50	58.25
	cm	66.68	85.09	147.96

Horizontal Cabinet BP Model Dimensions				
Model	Unit	Width (A)	Depth (B)	Height (C)
012	in	22.25	45.25	19.75
	cm	56.52	114.94	50.17
018	in	26.26	45.25	19.75
	cm	66.70	114.94	50.17
024	in	30.25	54.75	22.00
	cm	76.84	139.07	55.88
030	in	30.25	68.25	22.00
	cm	76.84	173.36	55.88
036	in	30.25	68.25	22.00
	cm	76.84	173.36	55.88
042	in	30.25	79.00	22.00
	cm	76.84	200.66	55.88
048	in	30.25	79.00	22.00
	cm	76.84	200.66	55.88

ASHRAE / AHRI / ISO 13256-1. English (I-P) Units														
Model Number	Entering Water Temperatures												Fluid Flow Rate (GPM)	Air Flow Rate (CFM)
	Water Loop (WLHP)				Ground Water (GWHP)				Ground Loop (GLHP)					
	Cooling 86 °F		Heating 68 °F		Cooling 59 °F		Heating 50 °F		Cooling 77 °F		Heating 32 °F			
	Capacity and Efficiency Data													
	Cooling Capacity (Btu/hr)	EER	Heating Capacity (Btu/hr)	COP	Cooling Capacity (Btu/hr)	EER	Heating Capacity (Btu/hr)	COP	Cooling Capacity (Btu/hr)	EER	Heating Capacity (Btu/hr)	COP		
BP with PSC Motor														
BP012	12200	14.90	14600	5.00	14200	22.70	12000	4.30	12600	17.50	9300	3.60	4.0	400
BP with ECM Motor (Constant Torque or Constant Air Flow)														
BP015	15200	17.50	17500	5.60	17000	28.80	13000	4.60	16200	20.60	11000	3.90	4.0	650
BP018 VT	19500	15.90	21300	5.00	21300	25.30	17700	4.40	20500	18.50	14800	3.70	5.0	650
BP018 HZ	19500	15.40	21300	5.00	21300	24.70	17700	4.40	20500	17.90	14800	3.65	5.0	650
BP024	24500	16.95	28500	5.15	28400	27.35	23700	4.50	26000	19.80	18000	3.70	6.0	850
BP030	27000	16.60	31000	5.70	31000	27.00	25000	4.95	28500	19.40	20300	3.95	7.0	1000
BP036 VT	36000	17.10	41000	5.50	40200	25.90	34400	4.90	37500	19.70	26000	3.90	10.0	1200
BP036 HZ	36000	16.10	41000	5.35	40200	24.30	34400	4.70	37500	18.70	26000	3.90	10.0	1200
BP042 VT	38400	15.20	42400	5.50	44100	25.60	35000	4.65	40600	19.40	26800	3.70	10.5	1400
BP042 HZ	38400	17.15	42400	5.80	44100	27.20	35000	5.00	40600	19.50	26800	4.00	10.5	1400
BP048 VT	44400	15.00	50000	5.25	51100	24.00	40500	4.30	46800	17.75	33400	3.70	12.0	1600
BP048 HZ	44400	15.00	50000	5.25	51100	24.00	40500	4.50	46800	17.80	33400	3.70	12.0	1600

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.



Heating



Cooling



Hot Water



Controls

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