



Residential Geothermal Heat Pumps

Geo 3000 WA

Geothermal Heating & Cooling



BOSCH
Invented for life

About the Bosch Group



The Bosch Group has been a leading global supplier of technology and services in the areas of Automotive, Industrial Technology, Consumer Goods and Building Technology for over 100 years. The company was founded in Stuttgart, Germany, in 1886 and today has more than 300 subsidiaries in over 150 countries. Every Bosch product is built with one goal in mind; to enhance quality of life by providing innovative technological solutions. Bosch is highly regarded for its development of automotive braking and steering safety systems (ABS) which have been improving automotive performance for over 30 years, helping reduce the number of accidents on North America's roads and highways. Environmental stewardship inspires and drives Bosch product development. Bosch is a leader in the development of next-generation technologies that deliver improved performance and efficiency while conserving natural resources. In the area of sustainable mobility, we're helping reduce the fuel consumption and CO₂ emissions of new vehicles. Energy efficiency and environmental protection are also shaping our

Industrial Technology, Consumer Goods and Building Technology products. Green technologies, such as gas tankless water heaters, heat pump electric water heaters, solar thermal systems, photovoltaics, wind power and geothermal heat pumps are perhaps the best examples of smart technologies growing in demand and shaping the future of Bosch.

Bosch Thermotechnology in North America

Bosch Thermotechnology is a leading source of high quality water heating and comfort heating systems. In particular, the company offers Bosch tankless, point-of-use water heaters, Bosch solar thermal systems, Buderus floor-standing and wall-hung boilers, Bosch geothermal heat pumps as well as controls and accessories for every product line. As illustrated in this catalog and at www.bosch-climate.us, Bosch Thermotechnology is committed to reinventing energy efficiency by offering smart products that work together as integrated systems which enhance quality of life in an ultra-efficient and environmentally friendly manner.

Visit www.125.bosch.com to learn even more about Bosch's past, present and future.



Why Bosch Geothermal Heat Pumps?

Our Geothermal Heat Pump systems are the most energy and cost efficient systems on the market and therefore the greenest technology for heating and cooling. This technology uses the relatively constant temperature of the earth which makes it extremely efficient all year long in virtually any temperature.

Advantages of Bosch's Geothermal Systems

Environmentally Friendly

Bosch's green technology is the most environmentally friendly way to cool and heat your home. The system has no carbon dioxide emissions or any other negative effects on the environment. Bosch's geothermal installations reduce greenhouse gas emissions which are responsible for climate change.

Reliability

Ground loop systems have a life expectancy in excess of 50 years. Your Bosch heat pump is manufactured with rigorous standards ensuring a high efficient operation over the life of the unit. Our residential warranty offer is among the best you will find on the market.

Lower Operating Cost

Bosch's technology helps to save up to 70% on your energy bills for heating, cooling and hot water because of the more efficient operation compared to conventional systems. Simple payback could be as short as 5 to 7 years and you can experience costs savings from the beginning.

Earth Coupling Options

Geothermal systems use the earth as a heat source and heat sink. In order to transfer heat to or from the house, heat exchangers (ground loops) are installed in the ground. These consist of high density polyethylene plastic pipes. The loops are then connected to the heat pump and fluid is circulated between them transferring the heat between the heat pump and the earth.



Cooling mode



Heating mode



Vertical Ground Loop System

Horizontal Ground Loop System

Well Water System

Pond/Lake Loop System

New! CP Bosch Series

Benefits



More value for your money

With even greater energy efficiency, these single stage heat pump units available from 2 up to 6 tons offer best-in-class operational cost savings and help the consumer by reducing monthly utility bills. Compared to other manufacturers' single stage products, many of our units need less energy on the front end to achieve the same output in the heating or cooling mode of operation.



Quiet Operation and Space Savings

For sound sensitive applications, the standard sound package features a high-density compressor sound blanket covering the UltraTech™ Scroll Compressor, making the Bosch brand one of the quietest on the market. With one of the smallest footprint in its class, installed in vertical or horizontal configurations this series allows the use of living space to be more efficient while making your home a better place to live.



Quality

An exclusive Silver Brushed Aluminum front finish completes the modern design of these compact single stage units. Standard 2" Merv 11 air filters improve the indoor air quality (IAQ) and contribute to improved comfort in your living area. Rigorous factory testing along with Bosch's almost 40 years of experience in designing geothermal heat pumps are your assurance of a state of the art quality product. Bosch's ISO 9001 - 2008 certified facilities provide consistent quality in every unit we build.

Tax Credit for Geothermal Heat Pumps

As of December 1, 2009, home owners who install ENERGY STAR qualified geothermal heat pumps are eligible for a 30% tax credit on the investment in the geothermal system including installation costs. There is no cap on the federal tax credit. New requirements for water-to-air and direct geo-exchange GHP models will take effect on January 1, 2011. Even more stringent levels will go into effect for water-to-water and water-to-air models on January 1, 2012.

30% Tax Credit
Now Available

For more information please visit
www.bosch-climate.us



Key Features

CP **New!** SERIES



Standard



Filter Drier



Floating Base Pan



Service Connections



R410-A Refrigerant



Coaxial Heat Exchanger Copper



Coated Air Coils



Blower Housing



Geothermal



Unit Protection Module 1



Four Sided Filter Rack



Foil Faced Insulation



Compressor Blanket



Stainless Steel Drain Pan



TXV Valve



Scroll Compressor**



2" MERV 11 Filter

Optional



Coaxial Heat Exchanger Cupronickel



Hot Gas Reheat



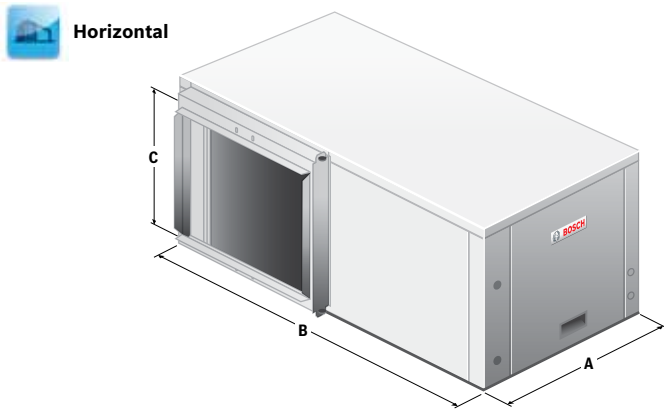
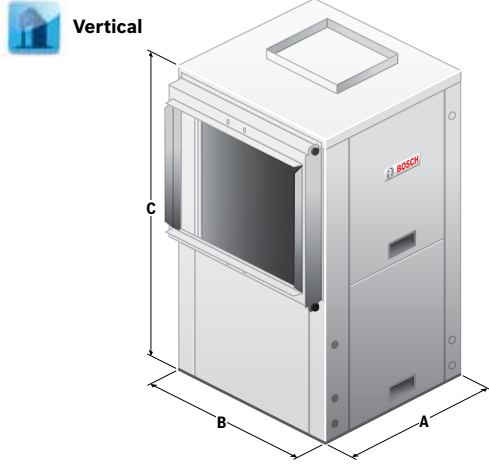
Desuperheater



Comfort Alert Diagnostic Module



For full description of features please visit www.bosch-climate.us, where you will also find helpful tools like our savings calculators and learn more about the most efficient technology for heating and cooling your home.



Model	Dimensions					
	Vertical			Horizontal		
	A (width)	B (depth)	C (height)	A (width)	B (depth)	C (height)
CP024	21.50	26.25	47.50	26.00	54.50	22.00
CP030	24.25	33.50	47.50	30.00	68.00	22.00
CP036	24.25	33.50	47.50	30.00	68.00	22.00
CP042	26.00	33.50	58.50	30.00	79.00	22.00
CP048	26.00	33.50	58.50	30.00	79.00	22.00
CP060	26.00	33.50	66.50	30.00	89.00	22.00
CP070	26.00	33.50	66.50	30.00	89.00	22.00

		ARI/ISO 13256-1 Performance Data											
		Entering Water Temperatures											
Model	Fluid Flow Rate	Water Loop (WLHP)				Ground Water (GWHP)				Ground Loop (GLHP)			
		86°F		68°F		59°F		50°F		77°F		32°F	
		Capacity And Efficiency Data											
		Cooling Capacity	EER	Heating Capacity	COP	Cooling Capacity	EER	Heating Capacity	COP	Cooling Capacity	EER	Heating Capacity	COP
CP024	6.0	24,500	18.20	28,500	5.70	28,400	28.1	23,700	4.6	26,000	21.10	18,000	4.00
CP030	7.0	27,000	16.60	31,000	5.90	31,700	27.0	25,000	5.2	28,500	19.40	20,500	4.30
CP036	10.0	36,000	17.20	41,000	5.60	40,200	25.9	34,400	4.9	37,500	19.70	28,000	4.10
CP042	10.5	40,600	17.90	42,000	5.90	46,200	25.7	35,000	4.4	42,000	21.20	28,000	4.10
CP048	12.0	48,000	17.10	50,000	5.30	53,600	25.5	40,500	4.3	50,200	19.80	33,400	3.70
CP060	15.0	62,000	17.10	72,000	5.80	67,600	24.4	56,700	4.9	64,500	19.50	47,000	4.30
CP070	17.0	68,000	16.20	86,000	5.60	71,400	22.4	71,400	5.0	70,500	18.50	56,500	4.20

All units are ENERGY STAR RATED for Ground Water and Ground Loop installation.

CE Bosch Series

Benefits

Powerful Performance

For great performance, Bosch's Energy Star rated CE series is equipped with a two stage compressor and comes with a variety of standard features. An Electronically Commutated Motor (ECM) is factory programmed to vary the airflow based on full or part load compressor operation, resulting in additional energy savings of up to 60% and a greater level of comfort in the living areas. These 2 to 6 ton units are available in Vertical, Horizontal, Counterflow or Split system configurations, providing a modern design to satisfy every application.



Quiet Operation

The unique sound package with its high density compressor sound blanket covering the UltraTech™ Scroll Compressor has been engineered for sound reduction, making the CE Series one of the quietest ever. Standard on all Bosch units is the floating base pan technology which separates the compressor from the cabinet and reduces vibration transmission to an absolute minimum, resulting in even quieter operation.



Quality

An exclusive Silver Brushed Aluminum front finish completes the modern design of this series. Standard 2" Merv 11 air filters improve indoor air quality (IAQ) and contribute to improved comfort in your living area. Rigorous factory testing along with Bosch's 40 years of experience in designing geothermal heat pumps are your assurance of a state of the art quality product. Bosch's ISO 9001:2000 certified facilities provide consistent quality in every unit we build.



Financing Information

The smarter way to heat and cool your home is more affordable than ever thanks to special financing options. Qualified homeowners can choose from a variety of loans with a low fixed rate or established fixed monthly rates towards the installation and purchase of Bosch Geothermal Heat Pumps. Depending on model and installation costs, homeowners may be able to borrow as little as \$2,500 or up-to \$20,000 with a 10-year repayment window. A Bosch approved contractor must perform the installation in order to be eligible for the financing. For a complete listing of Bosch installers in your area, log onto www.bosch-climate.us

Additional benefits of financing include:

- ▶ No lien requirements filed on your home
- ▶ No home equity required at the time of application
- ▶ No points, fees, or closing costs associated with the loan process
- ▶ No prepayment penalty
- ▶ Fast, preferred rate unsecured financing
- ▶ New homeowners welcomed

APR, actual rate and payment subject to credit approval by AFC First. Rates subject to change. All loans are made directly to the consumer by AFC First Financial Corporation or Nova Bank on behalf of AFC First.



Key Features

CE SERIES



Standard

-  Coated Air Coils
-  Four Sided Filter Rack
-  Stainless Steel Drain Pan
-  Filter Drier
-  Floating Base Pan
-  TXV Valve
-  R410-A Refrigerant

-  Coaxial Heat Exchanger Copper
-  Geothermal
-  Scroll Compressor 2 Stage
-  Compressor Blanket
-  Unit Protection Module 1
-  Motor Control Interface
-  ECM Motor

-  2" MERV 11 Filter

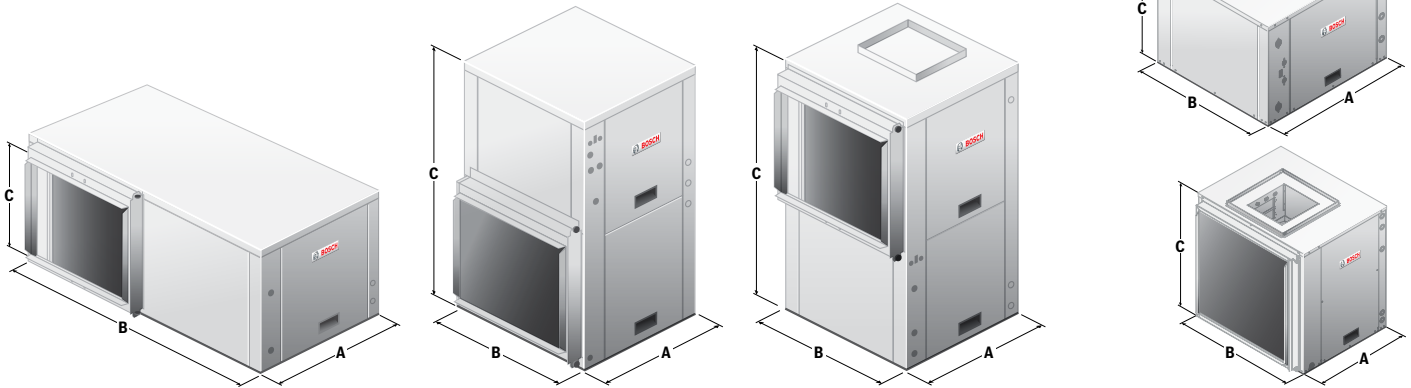
Optional

-  Coaxial Heat Exchanger Cupronickel
-  Hot Gas Reheat
-  Desuperheater
-  Comfort Alert Diagnostic Module
-  Electric heat



For full description of features please visit www.bosch-climate.us, where you will also find helpful tools like our savings calculators and learn more about the most efficient technology for heating and cooling your home.

CE SERIES



Model	Dimensions CE						Dimensions CE Split Systems								
	Vertical/Counterflow			Horizontal			VT Air Handler			HZ Air Handler			Condensing Section		
	A (width)	B (depth)	C (height)	A (width)	B (depth)	C (height)	A (width)	B (depth)	C (height)	A (width)	B (depth)	C (height)	A (width)	B (depth)	C (height)
CE025	21.50	26.00	47.25	26.00	54.50	21.75	21.50	26.00	25.75	26.00	33.00	21.75	21.50	21.50	21.75
CE035	21.50	26.00	47.25	26.00	54.50	21.75	21.50	26.00	25.75	26.00	33.00	21.75	21.50	26.00	21.75
CE049	24.00	32.75	47.25	30.00	68.00	21.75	24.00	32.75	25.75	38.50	30.00	21.75	24.00	32.75	21.75
CE061	26.00	33.25	51.25	30.00	68.00	21.75	26.00	33.25	27.75	38.50	30.00	21.75	26.00	33.25	21.75
CE071	26.00	33.25	58.25	30.00	78.00	21.75	26.00	33.25	35.75	49.00	30.00	21.75	26.00	33.25	21.75

Model	Fluid Flow Rate	ARI/ISO 13256-1 Performance Data											
		Entering Water Temperatures											
		Water Loop (WLHP)				Ground Water (GWHP)				Ground Loop (GLHP)			
		86°F		68°F		59°F		50°F		77°F		32°F	
		Cooling Capacity	EER	Heating Capacity	COP	Cooling Capacity	EER	Heating Capacity	COP	Cooling Capacity	EER	Heating Capacity	COP
CE025													
Part Load	6.0	18,800	17.5	20,500	5.1	21,000	30.0	18,000	4.6	20,000	24.5	15,500	4.0
Full Load	6.0	26,000	16.0	30,000	5.0	29,000	24.0	25,000	4.6	27,500	18.7	19,000	3.8
CE035													
Part Load	9.0	24,000	17.0	27,000	5.3	27,000	28.0	22,500	4.5	27,000	24.5	20,500	4.0
Full Load	9.0	36,000	14.6	43,000	4.8	42,000	21.6	36,000	4.2	38,000	17.2	28,000	3.8
CE049													
Part Load	12.0	34,000	16.0	39,000	5.4	38,000	24.0	32,000	4.6	36,000	21.8	28,500	4.0
Full Load	12.0	48,000	13.5	58,000	4.8	54,000	19.0	48,000	4.2	49,000	15.5	38,000	3.6
CE061													
Part Load	14.0	42,000	17.0	48,000	5.4	48,000	26.0	40,000	4.6	45,000	23.5	36,500	4.0
Full Load	14.0	60,000	14.0	72,000	4.7	68,000	19.7	61,000	4.3	62,000	15.7	49,000	3.6
CE071													
Part Load	18.0	51,000	15.8	55,000	4.4	57,000	25.2	47,000	4.0	56,000	21.8	42,000	3.6
Full Load	18.0	72,000	14.5	80,000	4.5	77,000	19.6	68,000	4.2	74,000	16.3	53,000	3.48

Follow The Leader

Bosch's Limited Residential Warranty* Coverage for your Geothermal Heat Pump

Your Bosch Geothermal Heat Pump system is a smart investment not only in clean and renewable energy, but also in your future - which is the reason why our geothermal heat pump products, engineered with more than 40 years of experience, come with a warranty you can rely on.

With the limited residential warranty, you receive peace-of-mind knowing you will receive replacement parts protection for up to 10 years. This standard offering covers all components incorporated into the unit cabinet at the time of manufacture. Other components or parts that are purchased from FHP/Bosch and installed in the field have a 1 year replacement parts warranty** from proof of certificate of occupancy date or proof of certified start up date.

Additionally, a standard 10 year labor-allowance*** is included for the replacement of any defective component to help offset labor expenses if a component should fail. This is the freedom consumers expect when purchasing products listed in the Energy Star program.

After all, you bought the best - the ultimate freedom the Bosch brand offers.

Bosch Group's Limited Residential Warranty* includes the following:

Components

- ▶ Compressor: 10 years
- ▶ Refrigerant circuit: 10 years
- ▶ All other internal parts assembled by Bosch: 10 years

Labor allowance***

- ▶ Refrigeration circuit parts: 10 years
- ▶ All other internal parts: 10 years

If you are ready for the peace-of-mind that Bosch's warranty coverage provides, it is easy to get started. Take the First Step and contact a Bosch Group certified representative near you. For a contractor listing go to www.bosch-climate.us.



**For complete Warranty details please review the warranty card provided with the product or visit www.bosch-climate.us.

Bosch system integration reinventing energy efficiency



Bosch Tankless Water Heaters

Whether you are building your dream home or simply remodeling your current home, there's a Bosch tankless water heater designed for your needs. Every unit delivers ultra high efficiency and is built to stringent Bosch quality standards. With a Bosch tankless water heater you will get an endless supply of hot water and can cut your current water heating bill in half.



Bosch Solar Thermal Systems

Bosch solar hot water solutions bring the first-class technology, innovation, reliability, quality and environmental sustainability that Bosch is known for world-wide, to the next level. These systems are designed for superior energy efficiency. This is especially true when combined with a Bosch high efficiency tankless water heater as a back-up system. There is no better choice for your home than a solar thermal system from Bosch to reduce your energy expenses and your carbon foot print.



Bosch Controls

We supply a wide selection of advanced controls to ensure that your heating and domestic hot water system delivers high efficiency and reliable heating year after year. Bosch controls give the heating engineer quick and easy access to all functions of the heating system and also allows the integration of multiple heating products.



Buderus Boilers

Our extensive boiler line includes energy efficient cast iron boilers, as well as the very latest aluminum condensing boilers and multiple boiler cascade systems for maximum energy efficiency.



Bosch Geothermal Heat Pumps

Our high efficiency water source heat pump systems provide the most flexible and lowest installation costs of virtually any HVAC system. These systems are the most energy and cost efficient systems on the market making them the greenest technology and the smartest investment for residential heating and cooling applications.



Geothermal, solar, tankless and boiler solutions from Bosch

Bosch is committed to reinventing energy efficiency by offering smart geothermal, solar, tankless and boiler products that produce domestic hot water and indoor comfort solutions. Bosch products work alone or together as an integrated system to provide contractors, mechanical engineers and architects the opportunity to customize unique energy efficient systems for your home.

To learn more about these products and Bosch systems visit the Energy Efficiency Home at www.bosch-climate.us



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