



Residential Geothermal Heat Pumps

Geo 6000 WA/WW

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 applications. This technology uses the relatively constant temperature of the earth, which makes it extremely efficient all year long in virtually any climate.

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 high efficient operation over the life of the unit. Our residential warranty offering 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 its more efficient operation when 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

TA Bosch Series

Benefits



More Value for your Money

The ultimate in performance! This luxurious two-stage unit features a black cabinet with silver brushed aluminum front and is available in Vertical, Horizontal, Counterflow and Split system configurations from 2 to 6 tons. Its energy efficiency makes this unit the best-in-class in operating cost savings. Requiring less energy compared to other manufacturers, these two-stage units achieve the same output to cool or heat your home, helping you reduce your energy costs.



Quiet Operation

To provide the best in quiet comfort, the TA Series is equipped with an exclusive sound package. The compressor is surrounded by a multi-density sound blanket and the units come standard with a floating base pan, which separates the vibrating compressor from the exterior cabinet. The compressor is mounted on a heavy-gauge steel base pan that floats on a unique high density, visco-elastic material, reducing sound and vibration to an absolute minimum.



Quality

A Comfort Alert Diagnostics module is standard to improve serviceability and to reduce maintenance compared to systems without this feature. The service tool monitors data from the thermostat and compressor and provides a record for the service technician of any malfunction in the system. Thorough factory testing combined 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 9001:2008 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

TA SERIES



Standard

-  Coated Air Coils
-  Four Sided Filter Rack
-  Stainless Steel Drain Pan
-  Filter Drier
-  Foil Faced Insulation
-  Floating Base Pan
-  TXV Valve

-  R410-A Refrigerant
-  ECM Motor
-  Coaxial Heat Exchanger Copper
-  Geothermal
-  Compressor Blanket
-  Scroll Compressor 2 Stage
-  Unit Protection Module 1

-  Motor Control Interface
-  Comfort Alert Diagnostic Module
-  2" MERV 11 Filter

Optional

-  Coaxial Heat Exchanger Cupronickel
-  Desuperheater
-  Electric Heat



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

TA SERIES



Horizontal



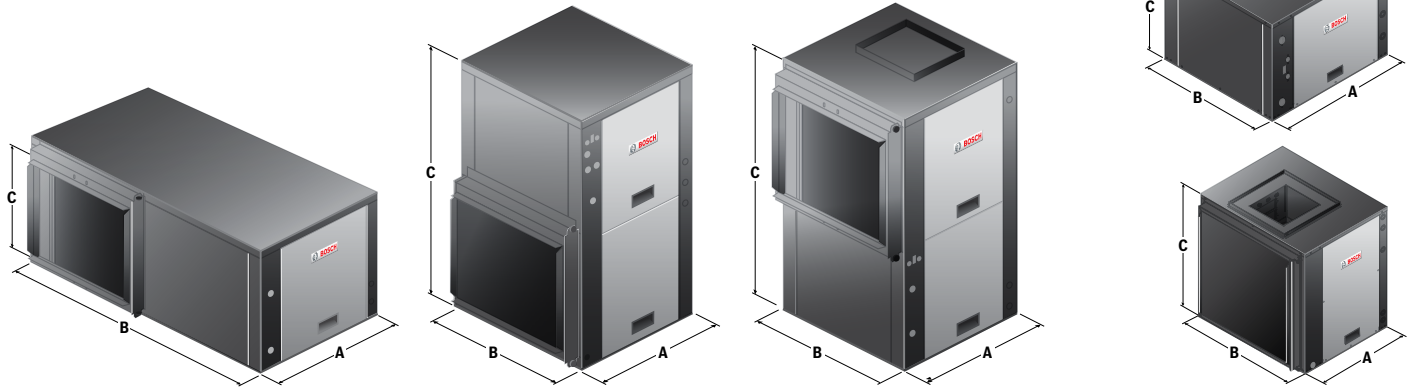
Counter-Flow



Vertical



Split Systems



Model	Dimensions TA						Dimensions TA 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)
TA025*	21.50	26.00	47.25	26.00	54.50	22.00	22.00	26.25	25.75	26.25	34.75	22.50	30.25	28.25	22.00
TA035*	24.00	33.25	47.25	30.00	68.00	22.00	24.25	33.50	25.75	30.25	39.00	22.50	30.25	28.25	22.00
TA049	26.00	33.25	58.00	30.00	68.00	22.00	26.25	33.50	33.00	30.25	51.50	22.50	30.25	28.25	22.00
TA061	26.00	33.25	66.25	30.00	89.00	22.00	26.25	33.50	42.25	33.25	60.25	22.50	30.25	28.25	22.00
TA071	26.00	33.25	66.25	30.00	89.00	22.00	26.25	33.50	42.25	33.25	60.25	22.50	30.25	28.25	22.00

* Add 0.500" height on TA025 and TA035 for base rails on horizontal configuration

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	
		Capacity and Efficiency Data	Capacity and Efficiency Data	Capacity and Efficiency Data	Capacity and Efficiency Data	Capacity and Efficiency Data	Capacity and Efficiency Data	Capacity and Efficiency Data	Capacity and Efficiency Data	Capacity and Efficiency Data	Capacity and Efficiency Data	Capacity and Efficiency Data	Capacity and Efficiency Data
	Cooling Capacity	EER	Heating Capacity	COP	Cooling Capacity	EER	Heating Capacity	COP	Cooling Capacity	EER	Heating Capacity	COP	
TA025													
Part Load	8.0	20,000	19.3	23,000	6.5	22,500	32.5	19,500	5.5	22,000	27.8	16,600	4.7
Full Load	8.0	27,000	16.2	32,500	5.3	31,000	25.1	26,500	4.8	28,500	19.2	20,400	4.1
TA035													
Part Load	9.0	25,700	19.8	29,500	6.3	29,500	34.0	24,300	5.3	28,200	28.5	22,000	4.8
Full Load	9.0	36,600	16.0	43,000	5.1	41,200	23.5	36,200	4.7	38,200	18.4	28,200	4.1
TA049													
Part Load	12.0	37,000	20.0	38,500	5.9	41,200	32.5	31,500	5.0	40,200	28.0	28,000	4.6
Full Load	12.0	50,000	16.9	53,000	5.2	56,000	24.0	45,500	4.8	52,000	19.0	38,000	4.1
TA061													
Part Load	14.0	47,000	19.0	56,500	6.2	53,000	33.0	45,000	5.2	51,000	27.7	39,000	4.6
Full Load	14.0	64,000	16.2	78,500	5.4	71,000	23.8	65,000	5.0	67,000	18.5	49,000	4.1
TA071													
Part Load	18.0	53,000	18.2	65,800	5.2	59,000	28.8	53,700	4.6	57,500	25.2	47,000	4.1
Full Load	18.0	72,000	16.0	89,000	5.2	78,000	21.8	73,000	4.7	74,000	18.0	58,000	3.9

TW Bosch Series

Benefits

Extreme Efficiency

While Bosch's TW Series with its exclusive design boasts industry leading efficiency at full load heating and cooling, it is even more efficient during part load operation. Unless peak capacity is required, the unit can run at roughly 2/3 capacity at significantly higher efficiencies than competitive products, maintaining maximum comfort with minimum energy use. This increases your energy savings even further, saving you money and providing you peace-of-mind.



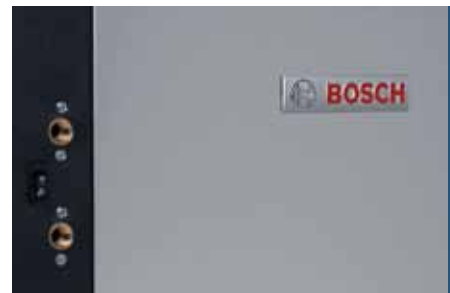
Quiet Operation

These units employ Bosch's sound package as standard to ensure that they provide peaceful, quiet operation. The entire refrigerant system is supported by a heavy gauge base that floats on a unique high density, visco-elastic sound barrier. The compressor is covered in a multi-density sound blanket and the heavy gauge steel cabinet is fully insulated. When employed as the heat source for radiant floor systems, this unit is the most efficient and has the quietest means available to heat and cool your home.



Quality

The unit is covered in a high quality and luxurious black cabinet with a silver brushed aluminum front. 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 9001-2008 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




TW SERIES




Standard

-  Geothermal
-  Scroll Compressor 2 Stage
-  R410-A Refrigerant
-  Coaxial Heat Exchanger Copper
-  Floating Base Pan
-  Unit Protection Module 1
-  TXV
-  Filter Drier
-  Comfort Alert Diagnostics Module
-  Compressor Blanket

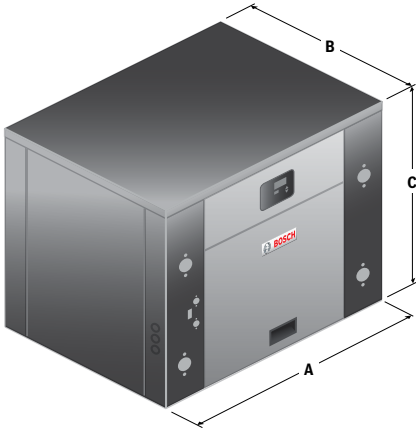
Optional

-  Coaxial Heat Exchanger Cupronickel
-  Solid State Water to Water Unit Control
-  Desuperheater



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

TW
SERIES



Model	Dimensions		
	A (width)	B (depth)	C (height)
TW025	32.50	24.00	24.12
TW035	32.50	24.00	24.12
TW049	32.50	24.00	24.12
TW061	32.50	24.00	24.12
TW071	32.50	24.00	24.12

ALL TWs are Energy Star compliant												
TW SERIES	Load Temperature											
	Water Loop (WLHP)				Ground Water (GWHP)				Ground Loop (GLHP)			
	53.6°F		104°F		53.6°F		104°F		53.6°F		104°F	
	Source Temperature											
	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
TW025												
Part Load	15,500	14.7	22,000	4.6	18,500	25.7	17,000	3.7	18,000	22.1	15,500	3.1
Full Load	21,000	13.4	31,000	4.4	24,500	21.2	25,000	3.6	22,500	15.9	19,500	2.8
TW035												
Part Load	22,500	14.5	31,000	4.7	25,500	24.5	25,000	3.6	24,000	20.6	22,000	3.1
Full Load	29,000	12.6	43,000	4.3	34,000	20.2	34,000	3.5	30,000	14.5	27,000	2.8
TW049												
Part Load	29,000	13.8	42,000	4.5	33,500	23.5	34,500	3.8	32,500	20.1	30,500	3.2
Full Load	39,000	12.8	58,000	4.1	45,000	19.7	47,000	3.6	41,000	14.9	37,500	2.9
TW061												
Part Load	37,000	14.2	55,000	4.7	42,500	23.3	41,500	3.6	41,000	19.8	36,500	3.0
Full Load	49,000	12.9	74,500	4.2	56,000	19.9	59,000	3.4	51,000	14.8	44,500	2.7
TW071												
Part Load	43,500	13.5	65,500	4.4	50,500	21.8	52,000	3.5	48,500	18.7	45,000	3.1
Full Load	57,500	12.4	86,500	4.1	64,000	18.8	70,000	3.4	60,000	14.8	53,000	2.9

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 customers 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.

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 geothermal 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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