



# **BOSCH**

Invented for life

## **Bosch Heat Pump**

Inverter Ducted Split System

The robust Bosch Inverter Ducted Split Air Source Heat Pump system utilizes just the right amount of energy to achieve ultimate comfort and maximum efficiency while keeping sound levels to a minimum.







# The Comfort Your Home is Waiting For

## Meet the Bosch Inverter Ducted Split System

The Bosch Inverter Ducted Split system provides supremely-efficient comfort by adjusting operating speeds rather than a simple on/off control like other units, thereby reducing operating costs and saving you money. These robust and durable units are made with the Bosch quality you expect and deserve. The system's intelligent features work in tandem with your thermostat to automatically learn your preferences, while integrated sound dampening features keep the units nice and quiet for your peace of mind.

### Features

- ▶ Ultra-efficient inverter drive system delivers up to 18 SEER outperforming less efficient 1 and 2-stage systems
- ▶ Variable capacity control to precisely match the cooling/heating load - no more no less
- ▶ One of the quietest and most compact air-to-air systems with outdoor sound levels as low as 56 dBA<sup>(1)</sup>
- ▶ Delivers ultimate comfort through stable room temperature using your choice of thermostat
- ▶ 10-year Residential Limited Warranty<sup>(2)</sup>
- ▶ Smoothly ramps up operation, which avoids spikes in energy use and protects the system's life-cycle



Outdoor Condensing Section

Indoor Air Handler

(1) 56 dBA sound level is based on outdoor unit. (2) Please go to [boschheatingandcooling.com](http://boschheatingandcooling.com) for full limited warranty details



## Why Bosch Inverter Ducted Split System

### Consistent Room Temperature

Conventional heat pump's frequent cycling on and off can result in uncomfortable temperature fluctuations. While Inverter-driven pumps are able to self-adjust, providing consistent room temperature, even when the outdoor temperature dips to 50 F.

### Consume Only the Energy You Need

Modulating inverter systems deliver only the amount of hot or cool air needed to achieve the desired temperature – no more, no less. With an 18 SEER rating and 9.5 HSPF, the Inverter Ducted Split system can provide you with maximum comfort levels at a minimum cost.

### Quiet Comfort Achieved

The Bosch Inverter Ducted Split system is one of the quietest air-to-air systems on the market. Through the use of silent blade technology, sound isolating mounts and outdoor condensing section placement - the system can deliver outdoor sound levels as low as 56 dBA - which is far superior to any standard system on the market.

### Residential Limited Warranty<sup>(2)</sup>

With the residential limited 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 heat pump system at the time of manufacture. All other components or parts that are purchased from Bosch and installed in the field have a 1-year parts warranty.

### Heats Up Quickly for Fast Response

It takes traditional systems a long time to reach the homeowner's desired temperature, while the boosted compressor speed of inverter systems allow for quicker, smoother and more efficient heating and cooling.

### Intelligent Control

The system, along with an appropriate thermostat, can learn your preferences and adjust the output capacity to match your ideal temperature levels. The units are also compatible with any traditional 24 VAC thermostat.

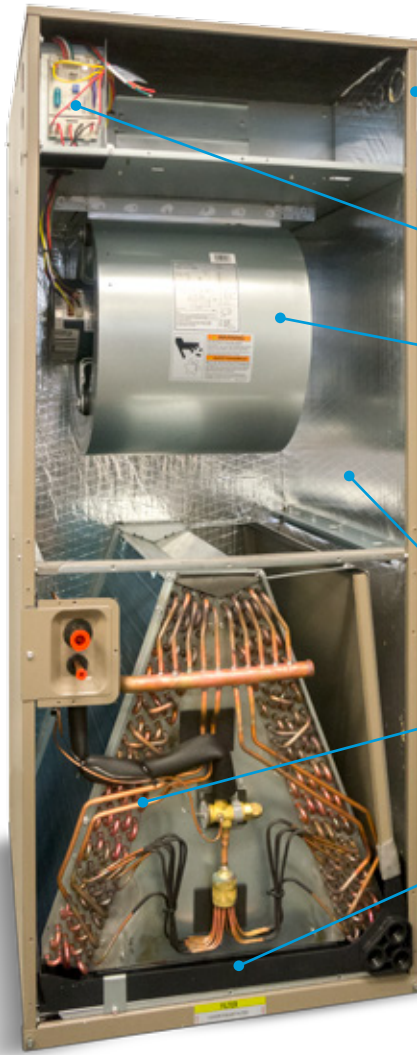
### Energy Use is Even and Steady

The frequent on and off of traditional units creates an in-rush current surge which uses more energy and causes unneeded wear and tear on your system. The Bosch inverter system smoothly ramps up operation, avoiding spikes in energy use and protecting the system's life-cycle.





## Robust & Reliable Indoor Air Handler (BVA Model)



- Bosch offers a complete range of air handler units from 2 through 5 ton sizes. These units are robust and constructed with a commercial-grade, powder-coated steel for durability. The unit comes standard for upflow applications. These cabinets are field convertible for horizontal right, horizontal left, or downflow/counterflow applications.
- Electric heat can be added to the air handler for additional heat on-demand when you need it most.
- The blower motor is a constant torque ECM motor and comes standard in all unit size. These intuitive motors can deliver comfortable air flow at quiet sound levels, while adapting to changing conditions in your home. Additionally, the unit is a true modulating unit by varying the compressor speed for smooth temperature transitions and ultimate humidity control within the home.
- Foil faced insulation helps to prevent fibers from entering the air stream and prevents energy loss through the cabinet.
- The A-Coil is a specifically designed evaporator coil shape that has a low static pressure drop and high efficiency heat transfer capabilities along with latent heat (humidity) removal.
- Bosch's A-Coil includes two drain pans to accommodate vertical or horizontal installation. Auxiliary drain connections are available should local code require an auxiliary drain pan. The drain pans are made of corrosion-resistant composite material for strength and durability rated to withstand 400° F. For your protection, both drain pans have also been tested to resist UVC light.

## High-Efficiency Outdoor Condensing Section (BOVA Model)



- Intelligent control features help adjust the output capacity allowing the unit to keep the temperature at your desired level without fluctuation and to keep humidity in check during the summer months. Whether it be the summer or winter, the system keeps your home comfortable and the living conditions to your desired taste.
- The air coil design provides exceptional heat transfer and low air-resistance for high-efficiency operation that can help lower your energy costs.
- The direct-drive fan blades provide vortex suppression to reduce sound of airflow exiting the condensing section, thereby retaining relatively low noise at high speed - with sound levels as low as 56 dBA.
- The high-efficiency variable capacity inverter compressor can adjust output to any level between 25% and 110%, to perfectly cool and heat your home using minimal energy for maximum comfort.
- The condensing units come standard with an electronic expansion valve (EEV) to ensure proper refrigerant flow during all conditions in order to optimize the unit's process to the highest efficiency possible.



Note: Plenum section may be required based on flow configuration.

## Dependable and Multi-Positional Cased Coils

The Inverter Ducted Split Evaporator Coil, when paired with a furnace or a Bosch hydronic air handler along with an IDS outdoor condensing section, will deliver some of the best comfort levels and efficiency on the market today. Bosch offers a complete range of cased evaporator coils to fit your needs.

### Cased Evaporator Coil



The cased evaporator coils include easy-to-clean foil-back insulation which helps to ensure against energy loss through the cabinet as well as keeping the unit quiet.

Bosch offers a complete range of 10 evaporator coil models from 2 through 5 ton sizes, in all orientations including upflow, downflow and horizontal to fit all duct sizes and meet your needs. Bosch cased coils can be easily installed for retrofit using simple slide-out feature or new construction applications.

The cased evaporator coils are constructed with heavy duty commercial grade powder-coated steel for durability.

### Cased Evaporator Coil Displaying Dual Drain Pan

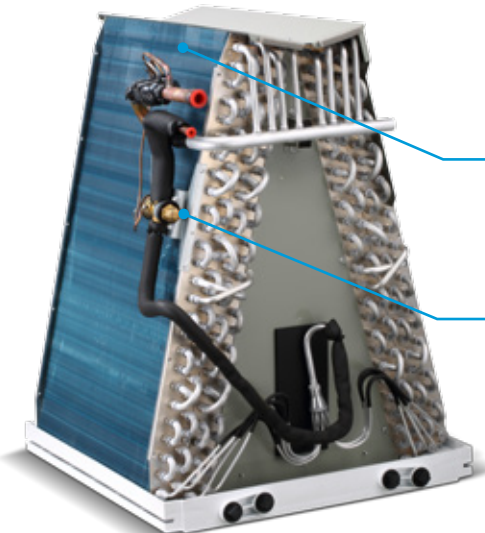
Bosch's cased coil includes bottom and side drain pans so the unit can be mounted horizontally or vertically. The pans help reduce the build-up of mold, bacteria and airborne pollutants no matter the orientation. The pans are made of a strong, 94-5V (QMFZ2) rated plastic, and poly-vinyl chloride (PVC) for strength and durability. For your protection, both drain pans have also been tested to resist UVC light.



### Slide-out For Uncased Coil Application

All-Aluminum fins with aluminum tubing help to prevent formicary corrosion while maintaining the high heat transfer efficiency thereby increasing longevity and cost savings of the unit.

The A-Coil is a specifically designed evaporator coil shape that allows for low static pressure drop and high efficiency heat transfer capabilities along with optimum latent (water) removal. The units come standard with a thermal expansion valve (TXV) to ensure proper refrigerant flow during all conditions in order to optimize the highest efficiency possible.





## Bosch IDS | Simply Smart

- ▶ 18 SEER / 9.5 HSPF
- ▶ Fully-modulating inverter drive
- ▶ Sound levels as low as 56 dBA
- ▶ 4 Air handlers – 2, 3, 4, 5 Ton
- ▶ 2 Condensing units – 3 and 5 Ton
- ▶ No special thermostat needed
- ▶ Operates down to 5° F
- ▶ Bosch quality
- ▶ 10-year residential limited warranty\*

## Field Friendly

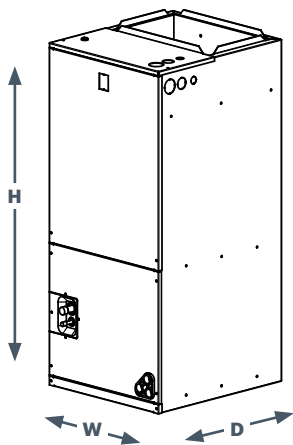
- ▶ Designed for easy installation
- ▶ Simple to set up
- ▶ Intuitive controls
- ▶ Support readily available
- ▶ Field installed electric heater kits

## Bosch IDS

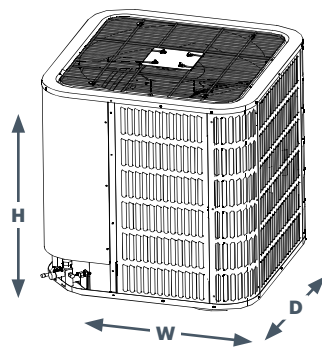
The robust Bosch Inverter Ducted Split air-source heat pump system utilizes just the right amount of energy to achieve ultimate comfort and maximum efficiency while keeping sound levels to a minimum.

## System & Technical Information

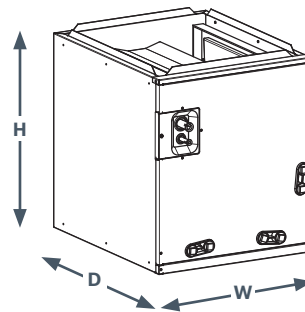
Condensing Section



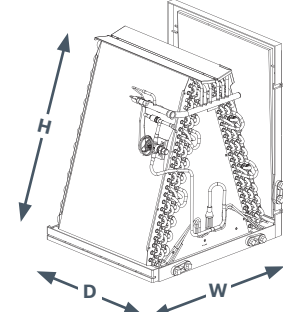
Air Handler



Cased Coil



Uncased Coil



CASED COIL DIMENSIONS (IN INCHES)

MODEL NUMBER	PART NUMBER	WIDTH (W)	HEIGHT (H)	DEPTH (D)
BMAC2430ANTD	8733947947	14.5	20.0	21.0
BMAC2430BNTD	8733947948	17.5	20.0	21.0
BMAC3036ANTD	8733947950	14.5	20.0	21.0
BMAC3036BNTD	8733947951	17.5	20.0	21.0
BMAC3036CNTD	8733947952	21.0	20.0	21.0
BMAC4248BNTF	8733947953	17.5	30.0	21.0
BMAC4248CNTF	8733947954	21.0	30.0	21.0
BMAC4248DNTF	8733947955	24.5	30.0	21.0
BMAC4860CNTF	8733947956	21.0	30.0	21.0
BMAC4860DNTF	8733947957	24.5	30.0	21.0

UNCASED COIL DIMENSIONS (IN INCHES)

CORRESPONDING MODEL NUMBER	WIDTH (W)	HEIGHT (H)	DEPTH (D)
BMAC2430ANTD	13.375	15.625	20.5
BMAC2430BNTD	16.375	15.375	20.5
BMAC3036ANTD	13.375	15.625	20.5
BMAC3036BNTD	16.375	15.375	20.5
BMAC3036CNTD	19.875	15.25	20.5
BMAC4248BNTF	16.375	26.88	21.0
BMAC4248CNTF	19.875	26.8	21.0
BMAC4248DNTF	23.625	26.6	21.0
BMAC4860CNTF	19.875	27.0	21.0
BMAC4860DNTF	23.625	26.8	21.0

AIR HANDLER DIMENSIONS (IN INCHES)

MODEL SIZE	PART NUMBER	WIDTH (W)	HEIGHT (H)	DEPTH (D)
024	7739832071	19.625	46.5	21.625
036	7738005278	19.625	46.5	21.625
048	7739832073	22.0	54.5	24.0
060	7739832074	22.0	54.5	24.0

CONDENSING SECTION DIMENSIONS (IN INCHES)

MODEL SIZE	PART NUMBER	WIDTH (W)	HEIGHT (H)	DEPTH (D)
036	7739832068	29.125	24.9375	29.125
060	7739832070	29.125	33.1875	29.125

\*Please go to [boschheatingandcooling.com](http://boschheatingandcooling.com) for full limited warranty details

BOSCH BOVA MODEL OUTDOOR UNIT		
MODEL NUMBER	PART NUMBER	DESCRIPTION
BOVA-036HDN1-M18M	7739832068	36 kBTU/hr (3 ton), Inverter Condensing Unit
BOVA-060HDN1-M18M	7739832070	60 kBTU/hr (5 ton), Inverter Condensing Unit

BOSCH BVA MODEL AIR HANDLER		
MODEL NUMBER	PART NUMBER	DESCRIPTION
BVA-024WN1-M18	7739832071	24 kBTU/hr (2 ton), Air Handler Unit
BVA-036WN1-M18	7738005278	36 kBTU/hr (3 ton), Air Handler Unit
BVA-048WN1-M18	7739832073	48 kBTU/hr (4 ton), Air Handler Unit
BVA-060WN1-M18	7739832074	60 kBTU/hr (5 ton), Air Handler Unit

FIELD INSTALLED ELECTRIC HEAT KITS		
MODEL NUMBER	PART NUMBER	DESCRIPTION
EHK-05A	7739832075	5 kW Electric Strip heater
EHK-08A	7739832076	8 kW Electric Strip heater
EHK-10A	7739832077	10 kW Electric Strip heater
EHK-15A	7739832078	15 kW Electric Strip heater
EHK-20A	7739832079	20 kW Electric Strip heater

INVERTER DUCTED SPLIT AHRI 210/240 PERFORMANCE DATA								
OUTDOOR UNIT MODEL	INDOOR AIR HANDLER MODEL	COOLING CAPACITY (BTU/H)			HEATING CAPACITY			CFM
		TOTAL	SEER <sup>(3)</sup>	EER <sup>(4)</sup>	HI	HSPF <sup>(5)</sup>	LOW	
BOVA-036HDN1-M18M	BVA-024WN1-M18	24000	18.5	13.0	24000	9.5	19000	800
BOVA-036HDN1-M18M	BVA-036WN1-M18	34600	17.5	11.4	34200	9.0	24000	1120
BOVA-060HDN1-M18M	BVA-048WN1-M18	47000	18.5	12.5	46500	9.5	35000	1560
BOVA-060HDN1-M18M	BVA-060WN1-M18	57000	17.5	11.2	55000	9.5	40000	1700

CASED COIL AHRI 210/240 PERFORMANCE DATA										
SYSTEM TONNAGE	MODEL NUMBER	PAIRING BOSCH ODU MODEL NUMBER	PAIRING FURNACES	COOLING CAPACITY (BTU/H)			HEATING CAPACITY			CFM
				TOTAL	SEER <sup>(3)</sup>	EER <sup>(4)</sup>	HI	HSPF <sup>(5)</sup>	LOW	
2	BMAC2430ANTD	BOVA-036HDN1-M18M	14-1/2" Wide Furnaces	23400	15.0	11.5	24000	9.0	17200	700
2	BMAC2430BNTD	BOVA-036HDN1-M18M	17-1/2" Wide Furnaces	23400	15.0	11.5	24000	9.0	17200	700
3	BMAC3036ANTD	BOVA-036HDN1-M18M	14-1/2" Wide Furnaces	32000	14.5	10.0	35000	9.0	22000	900
3	BMAC3036BNTD	BOVA-036HDN1-M18M	17-1/2" Wide Furnaces	32400	14.5	10.0	35000	9.0	23000	1000
3	BMAC3036CNTD	BOVA-036HDN1-M18M	21" Wide Furnaces	32400	14.5	10.0	35000	9.0	23000	1000
4	BMAC4248BNTF	BOVA-060HDN1-M18M	17-1/2" Wide Furnaces	44500	16	11.0	45500	9.5	31000	1150
4	BMAC4248CNTF	BOVA-060HDN1-M18M	21" Wide Furnaces	46000	16	11.0	47000	9.5	32000	1300
4	BMAC4248DNTF	BOVA-060HDN1-M18M	24-1/2" Wide Furnaces	46000	16	11.0	48000	9.5	32000	1400
5	BMAC4860CNTF	BOVA-060HDN1-M18M	21" Wide Furnaces	54000	16	10.5	55500	9.5	32000	1300
5	BMAC4860DNTF	BOVA-060HDN1-M18M	24-1/2" Wide Furnaces	55000	16	10.5	56000	9.5	39000	1500

(3) Seasonal Energy Efficiency Ratio; Certified per AHRI 210/240

(4) Energy Efficiency Ratio; Certified per AHRI 210/240

(5) HSPF = Heating Seasonal Performance Factor; Certified per AHRI 210/240

• Always check the rating plate for electrical data on the unit being installed.

• The listed data is for reference only. Please consult [boschheatingandcooling.com](http://boschheatingandcooling.com) for further details.

# 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](http://boschheatingandcooling.com) and [bosch.ca](http://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](http://boschheatingandcooling.com).

## **Bosch Water-Source Heat Pumps: Made in the U.S.A.**

Bosch and FHP water-source and geothermal heat pumps are made by highly trained and skilled workers in our factory based in Fort Lauderdale, Florida. They are manufactured with rigorous standards and factory testing ensuring high efficient operation over the life of the unit. Bosch's ISO 9001 and ISO 14001 certified facilities provide consistent quality in every unit built.



Heating



Cooling



Hot Water



Controls

### **Bosch Thermotechnology Corp.**

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