BOSCH
Invented for life

Bosch Heat Pump

CDi Series: SM Split Model

SM Split Models can individually replace your existing HVAC equipment or both can be used in a new system application. Bosch engineers designed this product for tight spaces and where a package unit can not be used.

www.BoschHeatingAndCooling.com

AHRI CERTIFIED
ENERGY STAR

Bosch Geothermal Systems

- Environmentally Friendly
- Best-in-Class Performance
- Reliable & Unmatched Quality
- Geothermal Ready
- Lower Operating Cost
- Quiet Operation

Bosch Geothermal SM Split System

The SM Split Model is our premium, high efficiency, residential water source heat pump, available in sizes of 2 to 5 tons to suit your needs. ENERGY STAR certified for ground water and ground loop applications, the SM Split boasts a two-stage scroll compressor and ECM constant air motor (AH/AV models) for superior comfort and efficiency.

Features

Air Handler Flexibility
Choose between AHRI rated small "box" style SM air handler with either VT or HZ discharge air outlets or multi-positional air handler.(1)

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

Compact Cabinet Design
Bosch engineered the cabinet to be one of the smallest condensing sections in the industry which makes it perfect for replacement in tight spaces.

Copper or Cupro-Nickel Coax Coil
Option between insulated Copper or Cupro-Nickel heat exchanger. Cupro-Nickel is recommended in conditions anticipating moderate scale formation or brackish water (open loop applications).

Pump/Valve Relay
Energizes the loop pump or valve from the heat pump control circuit.

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. That's like free hot water!

10 Year Warranty
Bosch SM Split condensing section and air handlers come standard with a 10 year limited warranty on all parts and labor. (2)

Engineered for Quiet Operation
Includes 1/2" close-cell foam insulation combined with our floating compressor base pan offers sound levels as low as 52 dB.

Bosch Quality
Bosch products are built using top-grade materials and are tested to meet the highest standards for performance and sustainability. Bosch has been producing products since 1886.

Choose comfort, choose Bosch comfort solutions!

(1)Product sold separately (2) Please go to boschheatingandcooling.com for full limited warranty details

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 models 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 boschheatingandcooling.com.(1)

10 Year Warranty

26% Tax Credit Being Green Means Saving Green

Homeowners who install ENERGY STAR qualified geothermal heat pumps are eligible for a 26% tax credit* for systems placed in service by 12/31/2020, a 26% tax credit for systems placed in service and a 22% tax credit for systems placed in service after 12/31/2020 and before 01/01/2022. 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 (BCC50 or BCC100) to 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 BoschHeatingAndCooling.com to learn more about how Bosch products can work together for your ultimate comfort.

Bosch BCC100

(1) Please go to boschheatingandcooling.com for full limited warranty details. *All information here within is pending and subject to change upon release of the product.

Bosch Geothermal Systems

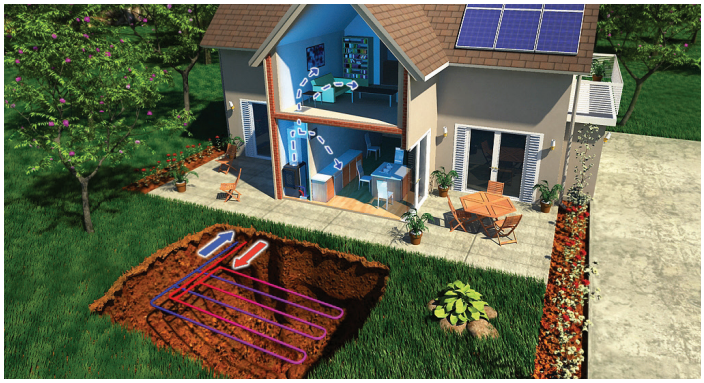
Sharing Energy with the Earth

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.

Bosch System Options

Dependable & Highly Efficient Solutions For Heating and Cooling Your Home

Options

Bosch's SM Split Condensing Section (CS) + Options 1-3

Use any of the following options to make a complete heating and cooling system

A **Bosch SM Split CS**

The robust Bosch SM Split Water Source Heat Pump system utilizes just the right amount of energy to achieve ultimate comfort and maximum efficiency while fitting in your existing space constraints.

Option 1

Bosch's SM Split CS + Bosch's SM Split Air Handler

B **Bosch's SM Split AH/AV Air Handler***

The AH (HZ air handler)/AV (VT air handler) is Bosch's air handler section adaptable for compact spaces and comes standard with variable speed ECM constant airflow blower motor for reduced noise and increased comfort.

Option 2

Bosch's SM Split CS + Bosch's BVA2.0 Air Handler

C **Bosch's BVA2.0 Air Handler***

The BVA2.0 is Bosch's robust & reliable Indoor multi-position air handler that can be mounted vertically, horizontally, or field configured downflow.

Option 3

Bosch's SM Split CS + Bosch Cased Coil + Furnace

D **Fossil Fuel Furnace (Dual Fuel)**

A Bosch or third-party furnace can be used in applications where homeowner prefers to use gas heat on very cold days.

E **Bosch's BMAC Cased Coil***

The BMAC air coil, when paired with a Furnace and SM Split condensing section, delivers some of the best comfort levels and efficiency on the market today. Bosch offers a complete range of air coils to fit your needs.

*Product sold separately

SM Split Model Components

Features & Benefits

The Bosch SM Split condensing section provides best-in-class efficiency ratings and provides maximum comfort at minimum cost

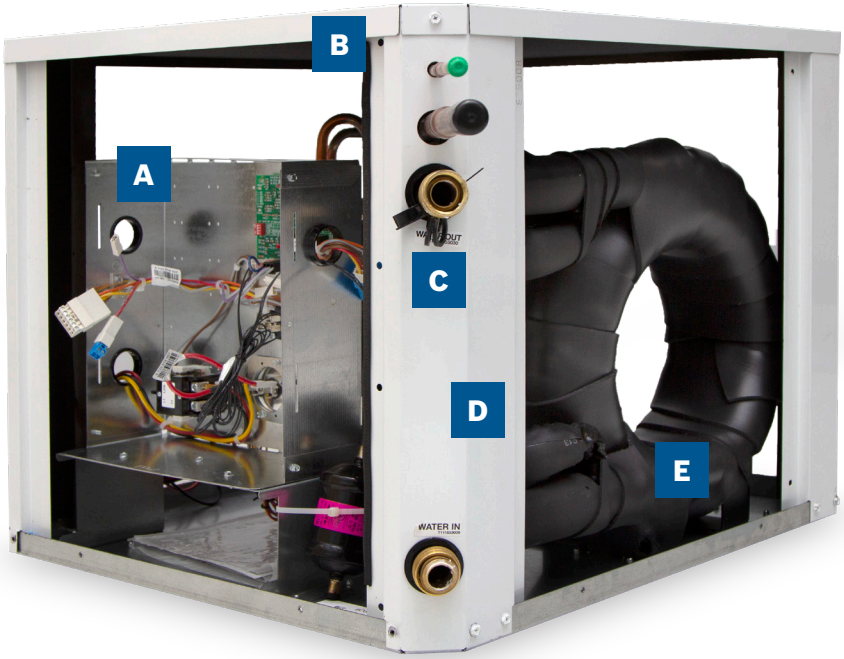
A The Bosch SM Split CS heat pump comes with a large electrical box to mount any Bosch field mount accessories.

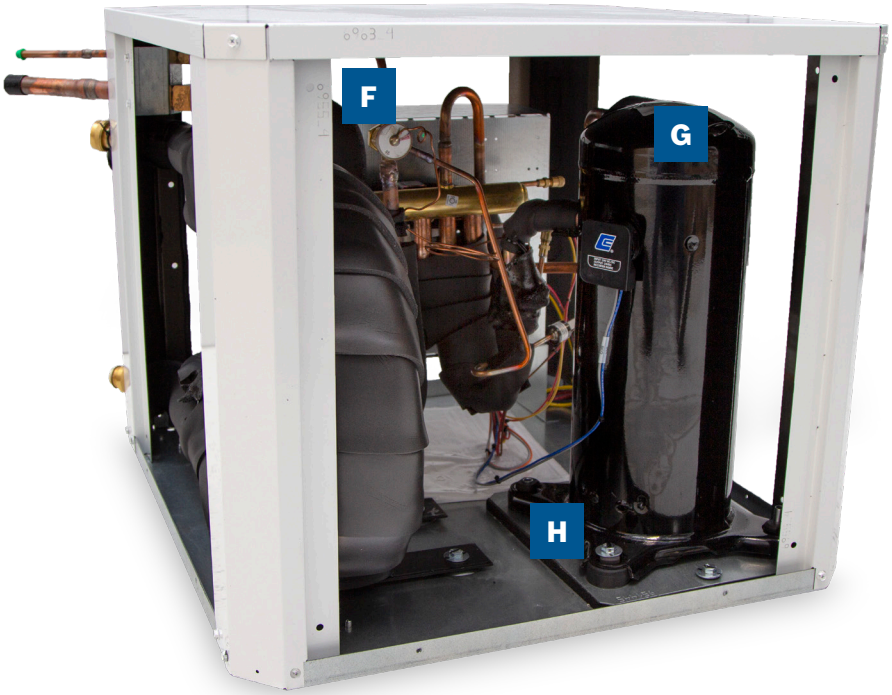
B 1/2" closed cell foam insulation helps to attenuate low frequency noise from the compressor.

C All connections (water, refrigerant, and domestic hot water) are located on corner post for easy access. Water connections come standard with swivel fittings.

D The compact cabinet is constructed out of durable powdered coat white G90 Galvanized Steel.

E The Coaxial water coil is wrapped in 1/2" closed cell foam insulation for superior moisture protection.





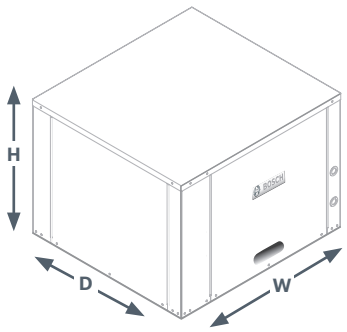
F The thermal expansion valve (TXV) is adjustable and bi-directional and controls the refrigerant flow providing optimum superheat to the compressor.

G The two stage high-efficiency scroll compressor provides maximum comfort and quiet operation using minimal energy.

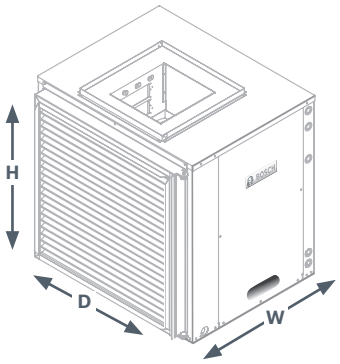
H The unique floating base uses heavy steel plate combined with high density rubber pad and grommets to isolate the compressor from the cabinet. This double isolation prevents vibration and noise transmission.

System & Technical Information

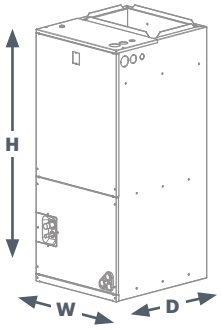
SM SPLIT CS DIMENSIONS (IN INCHES)			
MODEL SIZE	**WIDTH (W)**	**HEIGHT (H)**	**DEPTH (D)**
SM024-CS	24	21.5	27.4
SM036-CS	24	21.5	27.4
SM048-CS	24	21.5	27.4
SM060-CS	27	23.3	33.4



SM SPLIT AV DIMENSIONS (IN INCHES)			
MODEL SIZE	**WIDTH (W)**	**HEIGHT (H)**	**DEPTH (D)**
SM024-AV	21.5	25.75	26
SM036-AV	21.5	25.75	26
SM048-AV	24	25.75	32.75
SM060-AV	26	27.75	33.25
SM SPLIT AH DIMENSIONS (IN INCHES)			
MODEL SIZE	**WIDTH (W)**	**HEIGHT (H)**	**DEPTH (D)**
SM024-AH	26	21.75	33
SM036-AH	26	21.75	33
SM048-AH	30	21.75	38.5
SM060-AH	30	21.75	38.5



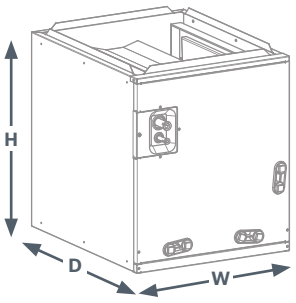
BVA2.0 AIR HANDLER DIMENSIONS (IN INCHES)				
MODEL SIZE	**PART NUMBER**	**WIDTH (W)**	**HEIGHT (H)**	**DEPTH (D)**
024	8733952439	19.625	46.5	21.625
036	8733952440	19.625	46.5	21.625
048	8733952441	22.0	54.5	24.0
060	8733952442	22.0	54.5	24.0



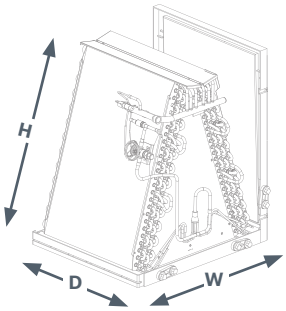
BMAC CASED COIL DIMENSIONS (IN INCHES)				
MODEL NUMBER	**PART NUMBER**	**WIDTH (W)**	**HEIGHT (H)**	**DEPTH (D)**
BMAC2430BNTD	8733947948	17.5	20.0	21.0
BMAC3036BNTD	8733947951	17.5	20.0	21.0
BMAC4248CNTF	8733947954	21.0	30.0	21.0
BMAC4860CNTF	8733947956	21.0	30.0	21.0

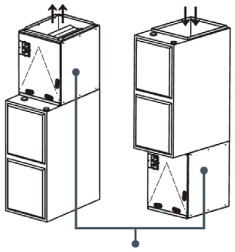
BMAC UNCASED COIL DIMENSIONS (IN INCHES)			
CORRESPONDING MODEL NUMBER	**WIDTH (W)**	**HEIGHT (H)**	**DEPTH (D)**
BMAC2430BNTD	16.375	15.375	20.5
BMAC3036BNTD	16.375	15.375	20.5
BMAC4248CNTF	19.875	26.8	21.0
BMAC4860CNTF	19.875	27.0	21.0

Cased Coil



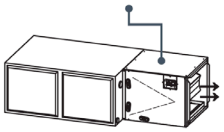
Uncased Coil





Upflow and downflow cased coil orientation with furnace

Horizontal cased coil orientation with furnace



*Please go to boschheatingandcooling.com for full limited warranty details

Option 1

Bosch's SM Split CS + Bosch's SM Split Air Handler

			WATER LOOP HEAT PUMP				GROUND WATER HEAT PUMP				GROUND LOOP HEAP PUMP				
			COOLING 86°F		HEATING 68°F		COOLING 86°F		HEATING 68°F		COOLING 86°F		HEATING 68°F		
	CONDENSING SECTION	AIR HANDLER PART NUMBER	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	FLUID FLOW GPM
FULL LOAD	SM024-1CS	SM024-1AV/AH	23100	15.00	26400	5.20	28500	22.20	22200	4.50	26200	17.00	17700	3.75	6
	SM036-1CS	SM036-1AV	36100	14.05	44100	4.85	40900	21.05	35200	4.40	37900	16.25	27400	3.65	9
		SM036-1AH	36100	14.85	44100	5.00	40900	22.20	35200	4.50	37900	17.15	27400	3.80	9
	SM048-1CS	SM048-1AV	46900	14.90	56800	5.00	52800	21.25	46600	4.60	48900	16.20	37800	3.90	12
		SM048-1AH	46900	14.25	56800	4.80	52800	21.15	46600	4.40	48900	16.20	37800	3.70	12
	SM060-1CS	SM060-1AV	56100	14.10	74500	5.00	64500	20.50	60500	4.40	58900	16.10	49000	3.80	15
		SM060-1AH	56100	14.45	74500	4.80	64500	20.50	60500	4.30	58900	16.25	49000	3.65	15
PART LOAD	SM024-1CS	SM024-1AV/AH	17200	16.50	19900	5.50	21600	28.60	16200	4.60	20000	23.80	13800	3.90	6
	SM036-1CS	SM036-1AV	27000	16.65	32000	5.85	30600	27.65	25250	4.80	29300	23.60	22400	4.25	9
		SM036-1AH	27000	15.85	32000	6.00	30600	27.00	25250	4.95	29300	22.90	22400	4.35	9
	SM048-1CS	SM048-1AV	35600	18.20	40400	5.50	39400	29.80	34200	4.70	38400	24.25	30200	4.20	12
		SM048-1AH	35600	16.55	40400	5.40	39400	27.85	34200	4.60	38400	23.80	30200	4.10	12
	SM060-1CS	SM060-1AV	42800	16.00	54500	5.70	49600	27.00	44200	4.70	47900	23.30	39400	4.20	15
		SM060-1AH	42800	16.35	54500	5.60	49600	27.10	44200	4.50	47900	23.15	39400	3.95	15

SM SPLIT CONDENSING SECTION			
MODEL	SM SPLIT CONDENSING SECTION PART NUMBER	COAXIAL WATER COIL	HEAT RECOVERY PACKAGE (HRP)
SM024-1CS	7735053064	C	D
	7735033742	N	
SM036-1CS	7735070887	C	
	7735074646	N	
SM048-1CS	7735037836	C	
	7735029232	N	
SM060-1CS	7735029435	C	
	7735032365	N	
SM024-1CS	7735067767	C	X
	7735066870	N	
SM036-1CS	7735082750	C	
	7735074361	N	
SM048-1CS	7735037841	C	
	7735053340	N	
SM060-1CS	7735034678	C	
	7735077745	N	

SM SPLIT AIR HANDLER SECTION				
MODEL	CABINET CONFIGURATION	RETURN AIR CONFIGURATION	DISCHARGE AIR CONFIGURATION	INTERNAL ELECTRIC HEAT
SM024-1AV	7735030102	L	T	X
	7735036004	R		
SM024-1AH	7735028881	L	S	
	7735037262	L	E	
	7735029124	R	S	
	7735035887	R	E	
SM036-1AV	7735071018	L	T	
	7735071234	R		
SM036-1AH	7735073879	L	S	
	7735073880	L	E	
	7735075759	R	S	
	7735074522	R	E	
SM048-1AV	7735030520	L	T	
	7735032393	R		
SM048-1AH	7735030351	L	S	
	7735034627	L	E	
	7735032373	R	S	
	7735028988	R	E	
SM060-1AV	7735028932	L	T	
	7735036177	R		
SM060-1AH	7735032382	L	S	
	7735052901	L	E	
	7735034261	R	S	
	7735033289	R	E	
SM024-1AV	7735033642	L	T	A (5kW)
	7735032874	R		
SM024-1AH	7735078087	L	S	
	7735030074	L	E	
	7735079431	R	S	
	7735031236	R	E	
SM024-1AV	7735035874	L	T	C (10kW)
	7735040714	R		
SM024-1AH	7735079432	L	S	
	7735032883	L	E	
	7735079433	R	S	
	7735036337	R	E	

SM SPLIT AIR HANDLER SECTION				
MODEL	CABINET CONFIGURATION	RETURN AIR CONFIGURATION	DISCHARGE AIR CONFIGURATION	INTERNAL ELECTRIC HEAT
SM036-1AV	7735072379	L	T	A (5kW)
	7735079434	R		
SM036-1AH	7735079435	L	S	
	7735073881	L	E	
	7735078088	R	S	
	7735079436	R	E	
SM036-1AV	7735071240	L	T	C (10kW)
	7735071241	R		
SM036-1AH	7735078089	L	S	
	7735071277	L	E	
	7735078129	R	S	
	7735077007	R	E	
SM048-1AV	7735033825	L	T	C (10kW)
	7735034671	R		
SM048-1AH	7735078080	L	S	
	7735029436	L	E	
	7735078131	R	S	
	7735028989	R	E	
SM048-1AV	7735036935	L	T	D (15kW)
	7735043243	R		
SM048-1AH	-	L	S	
	7735037865	L	E	
	-	R	S	
	7735029623	R	E	
SM060-1AV	7735030850	L	T	C (10kW)
	7735029715	R		
SM060-1AH	7735078130	L	S	
	7735038204	L	E	
	7735078348	R	S	
	7735041409	R	E	
SM060-1AV	7735038045	L	T	D (15kW)
	7735059899	R		
SM060-1AH	-	L	S	
	7735029904	L	E	
	-	R	S	
	7735038281	R	E	

Option 2

Bosch's SM Split CS + Bosch's BVA2.0 Air Handler

							WATER LOOP HEAT PUMP				GROUND WATER HEAT PUMP				GROUND LOOP HEAP PUMP				
							COOLING 86°F		HEATING 68°F		COOLING 86°F		HEATING 68°F		COOLING 86°F		HEATING 68°F		
	CONDENSING SECTION	CONDENSING SECTION PART NUMBER	WATER COAXIAL COIL	HEAT RECOVERY PACKAGE	AIR HANDLER	AIR HANDLER PART NUMBER	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	FLUID FLOW GPM
FULL LOAD	SM024-1CS	7735053064	C	D	BVA-24WN1-M20	8733952439	25400	15.00	29700	5.50	28600	22.10	24200	4.80	26500	16.60	19000	4.00	6
		7735067767	C	X															
	SM036-1CS	7735070887	C	D	BVA-36WN1-M20	8733952440	35000	14.00	44500	5.20	38400	21.30	36500	4.50	36400	16.80	29200	3.95	9
		7735082750	C	X															
	SM048-1CS	7735037836	C	D	BVA-48WN1-M20	8733952441	49500	15.70	56200	5.30	54000	23.10	47000	4.80	51700	18.10	38000	4.00	12
		7735037841	C	X															
	SM060-1CS	7735029435	C	D	BVA-60WN1-M20	8733952442	60400	15.40	75300	5.25	64800	21.80	62300	4.60	62900	17.70	50100	4.00	15
		7735034678	C	X															
PART LOAD	SM024-1CS	7735053064	C	D	BVA-24WN1-M20	8733952439	18300	16.00	21900	5.70	20800	27.30	17700	4.80	19900	22.80	15600	4.20	6
		7735067767	C	X															
	SM036-1CS	7735070887	C	D	BVA-36WN1-M20	8733952440	25300	15.20	32000	5.60	28600	26.90	26200	4.70	27600	22.60	23300	4.25	9
		7735082750	C	X															
	SM048-1CS	7735037836	C	D	BVA-48WN1-M20	8733952441	36400	17.50	40900	5.70	40900	29.90	34100	4.80	39600	25.10	30800	4.40	12
		7735037841	C	X															
	SM060-1CS	7735029435	C	D	BVA-60WN1-M20	8733952442	44000	16.80	54600	5.75	49800	28.00	44200	4.80	48100	23.90	39400	4.40	15
		7735034678	C	X															

Option 3

Bosch's SM Split CS + Bosch Cased Coil + Furnace

							WATER LOOP HEAT PUMP				GROUND WATER HEAT PUMP				GROUND LOOP HEAP PUMP				
							COOLING 86°F		HEATING 68°F		COOLING 86°F		HEATING 68°F		COOLING 86°F		HEATING 68°F		
	CONDENSING SECTION	CONDENSING SECTION PART NUMBER	WATER COAXIAL COIL	HEAT RECOVERY PACKAGE	CASED COIL	CASED COIL PART NUMBER	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	FLUID FLOW GPM
FULL LOAD	SM024-1CS	7735053064	C	D	BMAC2430BNTD	8733947948	24400	15.70	29200	5.40	27400	23.20	24000	4.80	25500	18.10	18900	3.95	6
		7735067767	C	X															
	SM036-1CS	7735070887	C	D	BMAC3036BNTD	8733947951	35300	13.90	43100	5.00	39600	20.50	36000	4.60	37100	16.40	29800	4.05	9
		7735082750	C	X															
	SM048-1CS	7735037836	C	D	BMAC4248CNTF	8733947954	48400	15.10	54000	5.00	52000	21.60	45500	4.50	50300	17.50	37200	3.90	12
		7735037841	C	X															
	SM060-1CS	7735029435	C	D	BMAC4860CNTF	8733947956	59500	14.80	67700	4.80	63600	20.50	58600	4.40	61800	16.90	47700	3.80	15
		7735034678	C	X															
PART LOAD	SM024-1CS	7735053064	C	D	BMAC2430BNTD	8733947948	18000	16.30	21900	5.80	20600	28.00	18000	4.80	19700	23.30	16000	4.25	6
		7735067767	C	X															
	SM036-1CS	7735070887	C	D	BMAC3036BNTD	8733947951	26200	16.50	30900	5.40	30000	27.90	25900	4.80	28700	23.40	23500	4.35	9
		7735082750	C	X															
	SM048-1CS	7735037836	C	D	BMAC4248CNTF	8733947954	36200	17.10	40200	5.00	40500	28.20	33500	4.70	39100	24.30	30500	4.30	12
		7735037841	C	X															
	SM060-1CS	7735029435	C	D	BMAC4860CNTF	8733947956	43800	16.20	50700	5.20	49900	26.90	42800	4.60	47700	22.30	38500	4.20	15
		7735034678	C	X															

Blue Text = ENERGY STAR Certified. (3) Energy Efficiency Ratio; Certified per AHRI 210/240. (4) Seasonal Energy Efficiency Ratio; Certified per AHRI 210/240. (5) HSPF = Heating Seasonal Performance Factor; Certified per AHRI 210/240. Note: Always check the rating plate for electrical data on the unit being installed. The listed data is for reference only. Please consult boschheatingandcooling.com for further details.

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.

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.

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.

www.BoschHeatingAndCooling.com

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