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When you own a home, there are a lot of decisions that go into making it the perfect place for you and your family. Something that people may not always think about, but that can have a big impact, is the cooling system for their home. In addition to ceiling fans, you probably want to consider a heat pump or air conditioner unit. Several different options are available, and you need to take the time to discuss your options and the pros and cons of using each one to make the best choice for your home. Heat pumps are a great choice for many homes, but they are not suitable for every climate. Though heat pumps can be a good alternative to an AC unit, they can't do the work of a furnace when it comes to heating your home. In the summer, heat pumps will move the warm air outside, leaving your house cool. In the winter, the opposite will happen and your heat pump will warm your house instead. If you live somewhere that gets extremely cold, a heat pump will not be enough to keep you comfortable during the winter months. You will probably need another type of heater as well, so choosing to go with an AC unit and furnace may be a more practical option. Heat pumps can save you money! Heat pumps don't generate heat, they simply move it from one place to another, which can be a more cost-efficient way to cool your home. Installation costs of heat pumps can be high, and while they may save you money in the long-run, an expensive upfront cost is not possible for everyone. You should also consider that the larger your house, the more indoor units you'll need for the air to move efficiently, and so the more expensive installation becomes. Using a heat pump vs. AC is a more environmentally friendly way of heating and cooling your house. Geothermal heat pumps can be especially energy-efficient. Because heat pumps make use of both an indoor and an outdoor unit, the installation process can be difficult and time-consuming and may disrupt your house and daily life. The average lifespan of a heat pump is between 10-15 years. If you notice that your heating or cooling bills have become more expensive or if the unit becomes noisy and starts rattling, it is probably time to look into a replacement. Air Conditioners Pros & Cons ProsCentral air conditioning units are the best way to keep your house at a consistently cool temperature. If you live in a climate that can get extremely hot, having central air can be the most reliable way to keep your home comfortable in warmer months. Maintenance and upkeep can be a major hassle with conditioning units. ACs do use ductwork to operate, and your home does not already have it, installing ductwork is a major and expensive renovation. You are also in control of just how cool your house will get. You can choose and adjust the temperature based on the weather outside and your own preference so that your house is cooled exactly how you like it. The filters and coils in AC units usually need to be cleaned on a regular basis. Keeping up with them can be time-consuming, but if it isn't done, your air conditioner will not work as well as it should. It is possible that air conditioning can be better for your health. The process used by AC units to cool your home can also filter out pollen, grass, and other common allergies and keep them from getting inside. Being able to set one temperature for your whole house can be a good thing if you live alone or your whole family likes the air the same. But the drawback to central AC is that you can't change the temperature for each individual room, so someone may end up too hot or too cold. If you only have a small space that you want to air condition, window units are an affordable option. They are not expensive to buy or maintain and work very well for cooling any room where they're installed. Besides the cost of your conditioner and its installation, you will probably need a separate heating unit to use in your home during the colder months. This means that you should also consider the cost of installing and maintaining a furnace when you're looking at your overall budget. Heat PumpsBefore you can decide on a heat pump vs. AC, it's important to understand what each is and how it works. Heat pump systems move heat from a cool space to a warm space using electricity. In warm months this means that warm air is being moved outside, which leaves your house nice and cool. There are three different kinds of heat pumps that could be used in your home: Air-source

SystemsThe majority of heat pump systems found in homes are air-source systems. These systems are made up of two different parts. There's an indoor unit called the air handler and an outdoor unit which is called the heat pump. Tubing connects the two units, and the heat is absorbed from one area (such as inside your house) and then released in another area (outside your house). Split-systemsSplit air-source heat pumps also are made up of an indoor and an outdoor unit. A compressor unit, a condenser is used outside, and any other parts are inside. The indoor units are installed somewhat high, like up on a wall or on the ceiling. They are operated by remote control. Then, just like with the air-source systems, the air is passed between the two units by the tubing that connects them. Geothermal heat pumpsThe third type of heat pump is called a geothermal heat pump. Geothermal heat pumps use pipes to move heat from inside your house to outside. These pipes have a water solution inside them that is always warmed to 50 or 60 degrees Fahrenheit. AC UnitsUnderstanding air conditioning units will play a big role in helping you decide on a heat pump vs. an AC. Air conditioning units are common in many homes, but most people don't understand how they actually work. The air conditioning unit in your home works a lot like your refrigerator does to keep things cold. The process can be complicated, but the bottom line is that unwanted heat is removed from your house through a set of coils and fans. Your home is then left comfortably cool. There are several different options for air conditioners, and knowing more about each may help you in your decision to choose a heat pump vs. AC. Window unitsFor smaller apartments or single rooms, window units are the most common type of air conditioner. With a window air conditioning unit, all of the components used to cool the room are held inside of a single box. Split air conditionerTo cool several rooms, a split air conditioner can be a good option because it typically does not take up as much room as a window unit. These air conditioners have both an indoor and outdoor unit, which work together to cool the space. Central air conditioningIf you're cooling a bigger building or entire home, central air conditioning makes the most sense. These units are made up of large compressors that can produce lots of cool air at once to distribute throughout a space. Making Your Decision: Heat Pump vs. ACDepending on where you live, how big your home is and what kind of budget you're working with, you may have an easy decision to make when it comes to a heat pump vs. AC. If the choice is not clear, though, it is important to consider the pros and cons of both options. If you have

experience with either of these systems and like to share your thoughts, please feel free to leave us a comment below! Air conditioners are generally more efficient than furnaces. Heat pumps are capable of both cooling and heating by transferring heat between the indoors and outdoors. They achieve their efficiency through a cycle that can be reversed to extract heat from the outside air (even in colder temperatures) and transfer it indoors. This process requires less energy compared to generating heat through electrical resistance or burning fossil fuels, which is typically used in conventional heating systems. As a result, heat pumps can provide both heating and cooling with lower energy consumption, making them more efficient overall. One potential downside of heat pumps is their reduced heating efficiency in extremely cold climates. As the outdoor temperature drops, the heat pumps ability to extract heat from the outside air decreases. In such conditions, the system may be used on supplemental heating methods, like electrical resistance heating, which can be less energy-efficient and more expensive to operate. Additionally, heat pumps require a significant upfront investment compared to traditional heating and cooling systems. However, these costs can be offset by long-term energy savings. Yes, a heat pump can be used as an air conditioner. In fact, one of the primary functions of a heat pump is to provide cooling during hot weather. Heat pumps have a reversible refrigeration cycle that allows them to extract heat from indoor spaces and release it outside, thereby cooling the indoor environment. By reversing the cycle, heat pumps can switch between cooling and heating modes, making them versatile for year-round use. This ability to provide both heating and cooling is one of the advantages of heat pumps over traditional air conditioners, which only offer cooling capabilities. When deciding between a heat pump and AC for your home, you should consider your climate, energy efficiency needs, and budget. A heat pump is a great choice if you live in a moderate climate and want an energy-efficient option for both heating and cooling. However, if you live in an area with very cold winters, a heat pump will struggle to keep you warm in the winter, and an AC paired with a furnace would be a better fit. On the other hand, if you only need cooling and live in a hot area, a heat pump may be a more cost-effective choice. Understanding the pros and cons of both options will help you make an informed decision. Heat pumps are better for homes in moderate climates without extreme outdoor temperature fluctuations between seasons. You live in a colder climate with harsh winters, you'll be better served by an air conditioner and gas furnace combo. Throughout the rest of this article, we'll restrict our discussion to air-source heat pumps, which are much more common for home heating and significantly more affordable than other types of heat pumps like geothermal heat pumps and dual fuel heat pumps. Read More: Our Top 10 Heat Pump Brands The video below explains the difference between heat pumps and air conditioners nicely if you need a visual aid: Both heat pumps and air conditioners have their advantages and disadvantages, so there isn't one right answer for everyone. Choosing between a heat pump and an air conditioner comes down to deciding how much you want to pay and whether you mind having a separate system for heating. The climate where you live also plays a role in determining which type of HVAC system is the better option, as does what type of system you currently have. Heat pumps are more versatile than air conditioners since they can act as a type of heating and cooling system at the same time, conditioning your home by changing the refrigerant flow direction depending on the season. This flexibility is convenient but also means that a heat pump must work in all seasons compared to an air conditioner, which you just turn on during the warm months. This leads to higher maintenance costs and shorter lifespans. Heat pumps are also more expensive since they double as a heating and cooling system. Remember that the combined cost of an air conditioner and a furnace is almost always higher than that of a heat pump. You might want to check out our article for some essential heat pump information. 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Depending on the type of service contract you have with your HVAC company, the cumulative costs of maintaining a heat pump or dealing with heat pump problems may exceed the cost of maintaining an air conditioner. Another consideration is that heat pumps are eligible for tax incentives unavailable for air conditioners. You can claim 30% of the total project cost up to \$2,000 if you install a mini-split with a SEER2 (Seasonal Energy Efficiency Ratio explained below) rating greater than 16 or a ducted heat pump that qualifies for the ENERGY STAR label. This tax credit can make heat pumps more affordable than a similarly-sized ducted air conditioner. No matter which type of HVAC system you choose, you'll have to choose a unit with enough capacity to handle the space you're heating or cooling. Larger homes require beefier systems, which, of course, cost more. The following table compares heat pump costs (both before and after the tax credit) to air conditioner costs for several different home sizes: Home SizeHeat PumpHeat Pump After Tax CreditAir Conditioner1,000 sq. ft. \$3,354\$2,347\$3,0491,500 sq. ft. \$3,951\$2,766\$3,4042,000 sq. ft. \$4,611\$3,228\$4,1922,500 sq. ft. \$6,112\$4,279\$5,6203,000 sq. ft. \$8,218\$5,753\$8,598 Don't forget that you'll have to pay several thousand dollars more if your home doesn't have existing ductwork when you install a heat pump or central air conditioning system. Ductless mini-split air conditioning units, window heat pumps and air conditioners, and wall ACs are all significantly cheaper than central air conditioners and heat pumps, making them more attractive to homeowners on a tight budget. Finally, keep in mind that you'll have to replace a heat pump sooner than you'll have to replace an air conditioner, so the lifetime cost of choosing a heat pump over an air conditioner will still likely be higher over several replacement cycles, even after considering the tax credit. Heat pumps are usually more efficient than central ACs, using less energy for a given cooling capacity. Higher efficiency means lower monthly electric bills and energy costs, making heat pumps more affordable in the long run than air conditioners. Any given heat pump may be more or less efficient than a particular air conditioner, even though heat pumps are more efficient than air conditioners overall. Using the Seasonal Energy Efficiency Ratio (SEER2), you can compare specific products. Higher SEER ratings indicate greater energy efficiency. As of January 1, 2023, all heat pumps and air conditioners must have a SEER2 value of at least 13.4 in the northern part of the U.S., and 14.3 in the southern part of the U.S. SEER2 values above 19 are considered exceptional. In addition, the heating efficiency of air-source heat pumps measured by the equipments Heating Seasonal Performance Factor (HSPF) must be a minimum of 8.8. Generally speaking, heat pumps don't last as long as air conditioners, all else being equal. The average lifespan for a heat pump is between 10 and 15 years, while the average lifespan for a comparable air conditioner is usually between 15 and 20 years, with the best AC brands lasting up to 25 years. These averages represent many types of heat pumps and air conditioners, but specific circumstances can affect your heating equipments longevity. The primary reason heat pumps don't last as long as air conditioners is that heat pumps are used year-round, while air conditioners are only used during warmer weather. This means that heat pumps accumulate wear and tear roughly twice as fast as air conditioners. Another factor that affects your HVAC systems longevity is upkeep. Air conditioners need annual tune-ups to continue functioning smoothly and maintain their efficiency. Most HVAC contractors recommend servicing your heat pump at least once per year, although many suggest that biannual service is a safer bet. Following your HVAC technicians advice is a good way to extend your systems lifespan and avoid problems as it ages. Heat pumps and air conditioners each have their places, and which is right for you depends on your current living conditions. Buying an air conditioner is a great way to save money if you already have a relatively new furnace. Air conditioners are less efficient than heat pumps but cost less and last longer, making them a good choice for budget-conscious homeowners. On the other hand, if you're considering replacing an aging furnace and you live in a milder climate, going with a heat pump can kill two birds with one stone and take over both heating and cooling duty. Even though heat pumps cost a bit more up-front than air conditioners, you won't have to spring for a separate heating system, making them effectively cheaper when considering the combined cost of an AC system and furnace. However, if you live in an area with harsh, cold winters that get below 0F, I (and virtually all HVAC experts) recommend going with a furnace and air conditioner to keep your indoor air warm enough in the winter. Conversely, if you live in a state that is almost always warm (above 50-60F all year), you'll likely just need an AC unit in your home to keep it cool. Heat pumps are also more efficient than air conditioners, saving money on your monthly utility bills. The drawbacks of choosing a heat pump are: The higher up-front cost (disregarding any tax credit) The shorter life span The reduced efficiency in cold climates. Regardless of which you choose, don't forget to check out our HVAC company comparison tool to find the best local installers near you. Switching a heat pump system from cooling to heating is as easy as flipping a switch, thanks to the built-in reversing valve. It just comes down to changing your thermostat from heating to cooling mode. Your heat pump should change from cooling to heating mode immediately, so contact your HVAC service company if it doesn't switch immediately. Most jurisdictions require an inspection and permit to install a heat pump or AC unit. Your local HVAC installers should be able to help you navigate the legal requirements of installing a new HVAC system. Check with your local jurisdiction for the details if you're concerned. Unless you have experience working with heat pumps and AC units, we highly recommend using a professional HVAC company to install your HVAC unit. Choosing the right heat pump or AC for your home is complicated, and installing it even more so. Navigating local laws, installing specialty equipment like evaporator coils, and charging the refrigerant are all delicate operations that are dangerous and best left to a professional. Heat pumps with adequate efficiency ratings are eligible for a federal tax credit of 30% of the total cost, including labor, up to \$2,000. Some local governments may also offer tax credits or rebates for installing a new heat pump, so check your local laws to avoid missing out. Air conditioners are not eligible for the same credits, although some air conditioners may be eligible for discounts through an Energy Star home appliance rebate program. Reviewed for accuracy, cost data, industry best practices, and expert advice by Jonathon Jachura. 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Discover the difference between air conditioners and heat pumps to find the perfect one for your home, even if they appear alike. Exploring these systems closely will guide you in making a wise decision for cooling your place. The guide will help you understand how each system works and dive into factors such as installation and running costs, efficiency, environmental friendliness, lifespan and effectiveness. A heat pump is a 2-in-1 heating and cooling device which functions by transferring heat rather than generating it. Heat pumps use a similar mechanism to that of refrigerators. They simply move heat energy from cool to warm spaces. Working Mechanism During the hot season, a heat pump transfers heat from the homes interior to the warm outdoors. In the cold season, the pump transfers heat energy from the cool outdoors to the interior of your home. Heat pumps don't generate heat or undergo any combustion process. Thus, they are considered to be sustainable and renewable energy solutions. Furthermore, these devices transfer a significant amount of heat. Yet, their power consumption remains at a minimum to keep your home comfortable. On the other hand, you'll notice that the former costs a higher initial cost. On average, you will pay nearly twice as much for heat pump installation than an air conditioning unit. This is because a heat pump vs AC comparison ultimately, you want to figure out which device works best for your climate. Air Conditioners Generally, air conditioners are ideal for hot climates where homes don't need a heater setup. Alternatively, AC units are ideal for climates like Kansas and northern California, where the summers are hot, and the winters are frigid. In this case, you can include an AC unit and furnace or gas-style heaters to complete your homes HVAC system. The AC unit takes care of the cooling needs while these heaters jump in to tackle the cooler winters. After all, a heat pump loses its efficiency in very cold climates. Heat Pumps On the other hand, a heat pump works best in areas with moderate climates, efficiently cooling your home during the warm season and warming it during the cold season. With a moderate climate, you don't have to pair your heat pump with auxiliary heaters, allowing you to save significantly on additional installation and energy bill costs. The bottom line when doing a heat pump vs AC / air conditioner comparison for your home is to consider key factors such as costs and installation. However, you also want to pay attention to the climate where you live. Once you've taken these factors into account, making a decision will be much easier. cdc.govenergy.gov When deciding between a heat pump and AC for your home, you should consider your climate, energy efficiency needs, and budget. A heat pump is a great choice if you live in a moderate climate and want an energy-efficient option for both heating and cooling. However, if you live in an area with very cold winters, a heat pump will struggle to keep you warm in the winter, and an AC paired with a furnace would be a better fit. On the other hand, if you only need cooling and live in a hot climate, a traditional AC unit will be more cost-effective. Ultimately, the best choice depends on your local weather throughout the year. If you're unsure which is right for you, this article will help make your decision easier. We cover the advantages and disadvantages of both heat pumps and ACs and compare them based on cost, maintenance requirements, and longevity. Once you've finished reading, use our handy tool to find the best local HVAC installers near you. Today's homeowner works with an independent reviews team to create evidence-based research that helps our readers make informed decisions. The reviews are always independent. For transparency, we may be compensated if you purchase through a link. The biggest difference between a heat pump and an air conditioner is that a heat pump can be used for heating and cooling, whereas an air conditioner can only be used for cooling. Heat pumps function exactly the same as air conditioners with just one major difference. Heat pumps have a reversing valve that allows the refrigerant to move in the opposite direction and add heat to your home instead of just removing it. Air conditioners are designed only for one-way operation, which makes them suitable only for cooling. Heat pumps use the temperature difference between the inside and outside air around your home to heat or cool the air as needed. An air handler (indoor unit) pumps air into the system, allowing it to pass over evaporator coils filled with warm refrigerant, which then flows back to the condenser outside and collects heat. The compressor in the outdoor unit squeezes the refrigerant, causing it to heat up before its passed back over the evaporator coils. Cool air from inside your home blows over the warm coils and collects heat. The now warm air is then pumped in throughout your home. Air conditioners also use a compressor, condenser, and evaporator coil to remove heat from the air inside your home. It then blows cold air through your ductwork and releases the heat from the condenser coils outside. However, the refrigerant flow in an air conditioner can be reversed, so homes with ACs need another heating method, such as a natural gas furnace. Purchasing an air conditioner and a furnace is usually more expensive than purchasing a heat pump. An important consequence of how heat pumps work is that their efficiency dramatically decreases when the outside air temperature drops below freezing. Heat pumps are better for homes in moderate climates without extreme outdoor temperature fluctuations between seasons. If you live in a colder climate with harsh winters, you'll be better served by an air conditioner and gas furnace combo. 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Depending on the type of service contract you have with your HVAC company, the cumulative costs of maintaining a heat pump or dealing with heat pump problems may exceed the cost of maintaining an air conditioner. Another consideration is that heat pumps are eligible for tax incentives unavailable for air conditioners. You can claim 30% of the total project cost up to \$2,000 if you install a mini-split with a SEER2 (Seasonal Energy Efficiency Ratio explained below) rating greater than 16 or a ducted heat pump that qualifies for the ENERGY STAR label. This tax credit can make heat pumps more affordable than a similarly-sized ducted air conditioner. No matter which type of HVAC system you choose, you'll have to choose a unit with enough capacity to handle the space you're heating or cooling. Larger homes require beefier systems, which, of course, cost more. The following table compares heat pump costs (both before and after the tax credit) to air conditioner costs for several different home sizes: Home SizeHeat PumpHeat Pump After Tax CreditAir Conditioner1,000 sq. ft. \$3,354\$2,347\$3,0491,500 sq. ft. \$3,951\$2,766\$3,4042,000 sq. ft. \$4,611\$3,228\$4,1922,500 sq. ft. \$6,112\$4,279\$5,6203,000 sq. ft. \$8,218\$5,753\$8,598 Don't forget that you'll have to pay several thousand dollars more if your home doesn't have existing ductwork when you install a heat pump or central air conditioning system. Ductless mini-split air conditioning units, window heat pumps and air conditioners, and wall ACs are all significantly cheaper than central air conditioners and heat pumps, making them more attractive to homeowners on a tight budget. Finally, keep in mind that you'll have to replace a heat pump sooner than you'll have to replace an air conditioner, so the lifetime cost of choosing a heat pump over an air conditioner will still likely be higher over several replacement cycles, even after considering the tax credit. Heat pumps are usually more efficient than central ACs, using less energy for a given cooling capacity. Higher efficiency means lower monthly electric bills and energy costs, making heat pumps more affordable in the long run than air conditioners. Any given heat pump may be more or less efficient than a particular air conditioner, even though heat pumps are more efficient than air conditioners overall. Using the Seasonal Energy Efficiency Ratio (SEER2), you can compare specific products. Higher SEER ratings indicate greater energy efficiency. As of January 1, 2023, all heat pumps and air conditioners must have a SEER2 value of at least 13.4 in the northern part of the U.S., and 14.3 in the southern part of the U.S. SEER2 values above 19 are considered exceptional. In addition, the heating efficiency of air-source heat pumps measured by the equipments Heating Seasonal Performance Factor (HSPF) must be a minimum of 8.8. Generally speaking, heat pumps don't last as long as air conditioners, all else being equal. The average lifespan for a heat pump is between 10 and 15 years, while the average lifespan for a comparable air conditioner is usually between 15 and 20 years, with the best AC brands lasting up to 25 years. These averages represent many types of heat pumps and air conditioners, but specific circumstances can affect your heating equipments longevity. The primary reason heat pumps don't last as long as air conditioners is that heat pumps are used year-round, while air conditioners are only used during warmer weather. This means that heat pumps accumulate wear and tear roughly twice as fast as air conditioners. Another factor that affects your HVAC systems longevity is upkeep. Air conditioners need annual tune-ups to continue functioning smoothly and maintain their efficiency. Most HVAC contractors recommend servicing your heat pump at least once per year, although many suggest that biannual service is a safer bet. Following your HVAC technicians advice is a good way to extend your systems lifespan and avoid problems as it ages. Heat pumps and air conditioners each have their places, and which is right for you depends on your current living conditions. Buying an air conditioner is a great way to save money if you already have a relatively new furnace. Air conditioners are less efficient than heat pumps but cost less and last longer, making them a good choice for budget-conscious homeowners. On the other hand, if you're considering replacing an aging furnace and you live in a milder climate, going with a heat pump can kill two birds with one stone and take over both heating and cooling duty. Even though heat pumps cost a bit more up-front than air conditioners, you won't have to spring for a separate heating system, making them effectively cheaper when considering the combined cost of an AC system and furnace. However, if you live in an area with harsh, cold winters that get below 0F, I (and virtually all HVAC experts) recommend going with a furnace and air conditioner to keep your indoor air warm enough in the winter. Conversely, if you live in a state that is almost always warm (above 50-60F all year), you'll likely just need an AC unit in your home to keep it cool. Heat pumps are also more efficient than air conditioners, saving money on your monthly utility bills. The drawbacks of choosing a heat pump are: The higher up-front cost (disregarding any tax credit) The shorter life span The reduced efficiency in cold climates. Regardless of which you choose, don't forget to check out our HVAC company comparison tool to find the best local installers near you. Switching a heat pump system from cooling to heating is as easy as flipping a switch, thanks to the built-in reversing valve. It just comes down to changing your thermostat from heating to cooling mode. Your heat pump should change from cooling to heating mode immediately, so contact your HVAC service company if it doesn't switch immediately. Most jurisdictions require an inspection and permit to install a heat pump or AC unit. Your local HVAC installers should be able to help you navigate the legal requirements of installing a new HVAC system. Check with your local jurisdiction for the details if you're concerned. Unless you have experience working with heat pumps and AC units, we highly recommend using a professional HVAC company to install your HVAC unit. Choosing the right heat pump or AC for your home is complicated, and installing it even more so. Navigating local laws, installing specialty equipment like evaporator coils, and charging the refrigerant are all delicate operations that are dangerous and best left to a professional. Heat pumps with adequate efficiency ratings are eligible for a federal tax credit of 30% of the total cost, including labor, up to \$2,000. Some local governments may also offer tax credits or rebates for installing a new heat pump, so check your local laws to avoid missing out. Air conditioners are not eligible for the same credits, although some air conditioners may be eligible for discounts through an Energy Star home appliance rebate program. Reviewed for accuracy, cost data, industry best practices, and expert advice by Jonathon Jachura. 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Heat pumps are also more expensive since they double as a heating and cooling system. Remember that the combined cost of an air conditioner and a furnace is almost always higher than that of a heat pump. You might want to check out our article for some essential heat pump information. ProsConsCosts less than an AC plus furnaceDoesn't last as long as an ACProvides both home heating and home coolingHigher up-front cost for equipment and installationWorks well in temperate climatesRequires more maintenance and upkeep Air conditioners have lower up-front costs than heat pumps and generally longer lifespans, but you'll have to pair an air conditioner with a heating system, which will cost more than just buying a heat pump. Most homeowners won't need to run their air conditioner constantly throughout the year, so ACs tend to last longer than heat pumps and require fewer tune-ups. 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Discover the difference between air conditioners and heat pumps to find the perfect one for your home, even if they appear alike. Exploring these systems closely will guide you in making a wise decision for cooling your place. The guide will help you understand how each system works and dive into factors such as installation and running costs, efficiency, environmental friendliness, lifespan and effectiveness. A heat pump is a 2-in-1 heating and cooling device which functions by transferring heat rather than generating it. Heat pumps use a similar mechanism to that of refrigerators. They simply move heat energy from cool to warm spaces. Working Mechanism During the hot season, a heat pump transfers heat from the homes interior to the warm outdoors. In the cold season, the pump transfers heat energy from the cool outdoors to the interior of your home. Heat pumps don't generate heat or undergo any combustion process. Thus, they are considered to be sustainable and renewable energy solutions. Furthermore, these devices transfer a significant amount of heat. Yet, their power consumption remains at a minimum to keep your home comfortable. On the other hand, you'll notice that the former costs a higher initial cost. On average, you will pay nearly twice as much for heat pump installation than an air conditioning unit. This is because a heat pump vs AC comparison ultimately, you want to figure out which device works best for your climate. Air Conditioners Generally, air conditioners are ideal for hot climates where homes don't need a heater setup. Alternatively, AC units are ideal for climates like Kansas and northern California, where the summers are hot, and the winters are frigid. In this case, you can include an AC unit and furnace or gas-style heaters to complete your homes HVAC system. The AC unit takes care of the cooling needs while these heaters jump in to tackle the cooler winters. After all, a heat pump loses its efficiency in very cold climates. Heat Pumps On the other hand, a heat pump works best in areas with moderate climates, efficiently cooling your home during the warm season and warming it during the cold season. With a moderate climate, you don't have to pair your heat pump with auxiliary heaters, allowing you to save significantly on additional installation and energy bill costs. The bottom line when doing a heat pump vs AC / air conditioner comparison for your home is to consider key factors such as costs and installation. However, you also want to pay attention to the climate where you live. Once you've taken these factors into account, making a decision will be much easier. cdc.govenergy.gov When deciding between a heat pump and AC for your home, you should consider your climate, energy efficiency needs, and budget. A heat pump is a great choice if you live in a moderate climate and want an energy-efficient option for both heating and cooling. However, if you live in an area with very cold winters, a heat pump will struggle to keep you warm in the winter, and an AC paired with a furnace would be a better fit. On the other hand, if you only need cooling and live in a hot climate, a traditional AC unit will be more cost-effective. Ultimately, the best choice depends on your local weather throughout the year. If you're unsure which is right for you, this article will help make your decision easier. We cover the advantages and disadvantages of both heat pumps and ACs and compare them based on cost, maintenance requirements, and longevity. Once you've finished reading, use our handy tool to find the best local HVAC installers near you. Today's homeowner works with an independent reviews team to create evidence-based research that helps our readers make informed decisions. The reviews are always independent. For transparency, we may be compensated if you purchase through a link. The biggest difference between a heat pump and an air conditioner is that a heat pump can be used for heating and cooling, whereas an air conditioner can only be used for cooling. Heat pumps function exactly the same as air conditioners with just one major difference. Heat pumps have a reversing valve that allows the refrigerant to move in the opposite direction and add heat to your home instead of just removing it. Air conditioners are designed only for one-way operation, which makes them suitable only for cooling. Heat pumps use the temperature difference between the inside and outside air around your home to heat or cool the air as needed.

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How much more efficient is a heat pump. Are heat pumps more efficient at heating or cooling. Are heat pumps more efficient than air conditioners. Are new heat pumps more efficient. Are heat pumps more than 100 efficient. Are heat pumps more efficient than ac units. Are heat pumps more efficient.