Solar/Inverter Multi Split Systems

Dual...Tri...and Quad up to 19 difference configurations

Sedna Aire USA

Mult-Split Multi-Zone Solar Inverter Systems

Advantage of a Multi Split System Air Conditioner

Rather than spend the money to have air ducts installed throughout your home or commercial space, a multi split system is entirely ductless. The cool air is generated in the same way as with a central system, but it is distributed inside much like a wall/window unit: through multi-directional air circulation. No ducting is required. Multi split systems are available in Energy Star-rated models and usually have a higher EER level than package wall systems.

Useful Features

Many multi split air conditioners, like other multifunctional units, come with an internal heat pump to provide each zone with heat as well as cool air. Fan-only settings, dehumidification and air purifying/deodorizing functions are also featured. Each unit has its own remote control and works independently of the others.

A multi split air conditioning system gives you complete thermostatic control of multiple zones of your home or space, combining elements of central cooling with independence of single zone units.

If you want the convenience and easy installation of a ductless air conditioning system but have several zones you wish to cool, **multi split air conditioners** are the best option. The average multi split air conditioner system can provide conditioned air to 2 to 4 interior wall-mounted air handlers all from a single, slim outdoor compressor and condenser unit that is compact, quiet and easy to install. Requiring a hardwired 240-volt power source, each wall unit can usually extend at least 100 feet from the outdoor condenser.

Solar/Inverter Multi Split Systems

One solar panel one condenser multiple wall units

Solar and DC inverter Technologies

Easy Installation & Gold Fin Protection...32 SEER Multi-Split: ...Dual, Tri and Quad-Zone Systems

Our ductless system is simple, reliable and affordable

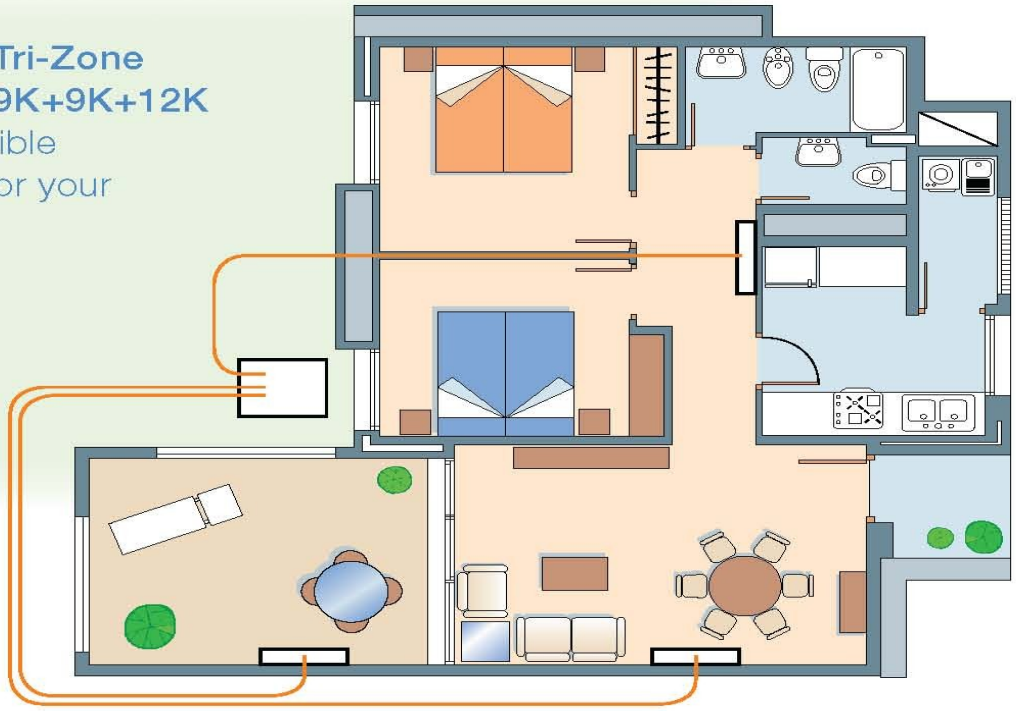
- Flexi-multi design: let installer mix and match evaporators and condensers for different sized spaces
- High efficiency: with an inverter controlled compressor, the system runs at an efficiency up to 37 SEER
- Individually controlled for each zone allows you to save more
- Duct free for easy installation
- Precise temperature control creates a more comfortable zone
- Environmentally friendly R410A prevents depletion of the ozone layer
- Gold Fin protection for anti-corrosion
- Active carbon electrostatic fiber filter to improve the indoor air quality
- Turbo fan speed for cooling or heating quickly
- Indoor fan delay keeps the indoor coil dry to prevent bacteria growing
- Auto swing allows you to adjust the direction of air flow
- 24-hour timer lets you set up the ON/OFF time
- Auto restart lets unit keep the previous setting even during a power failure
- Sleep mode creates a more comfortable environment during the night
- Auto changeover between heating and cooling mode
- Large LED display

The Quad zone systems are a perfect way to add comfort to multiple rooms in your home or office. If you are looking for a complete comfort solution for several rooms, the multi zone systems are the right choice for you. Popular for many years in Europe and Asia, ductless multi zone mini split systems are fast becoming just as popular in the United States, too. The outdoor and indoor units are connected via small refrigerant lines that run through a three inch opening in the wall or ceiling. Our ductless multi zone mini split systems deliver the unmatched comfort of a traditional split system to up to four rooms with only one outdoor unit. Each zone operates independently so people in the kitchen, master bedroom, or living room will all enjoy the temperature that makes them feel the most comfortable. Individual controls allow you to reduce the electricity cost by turning off the air conditioning in an unoccupied area.

Example of a Tri-Zone combination, 9K+9K+12K

one of 19 possible combinations for your home or office.

3



Example of a Dual-Zone combination, 12K+12K

one of 19 possible combinations for your home or office.

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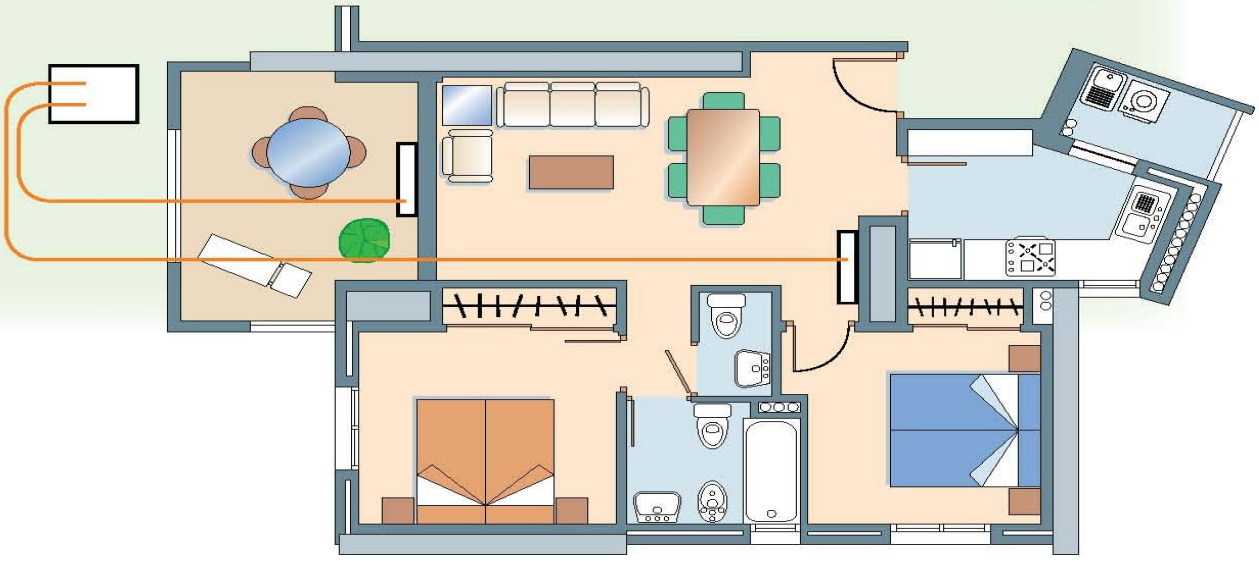

Solar/Inverter Multi Split Systems

Dual Zone	Tri Zone	Quad Zone
9K+9K	9K+9K+9K	9K+9K+9K+9K
9K+12K	9K+9K+12K	9K+9K+9K+12K
12K+12K	9K+12K+12K	9K+9K+12K+12K
9K+18K	12K+12K+12K	9K+12K+12K+12K
12K+18K	9K+9K+18K	9K+9K+9K+18K
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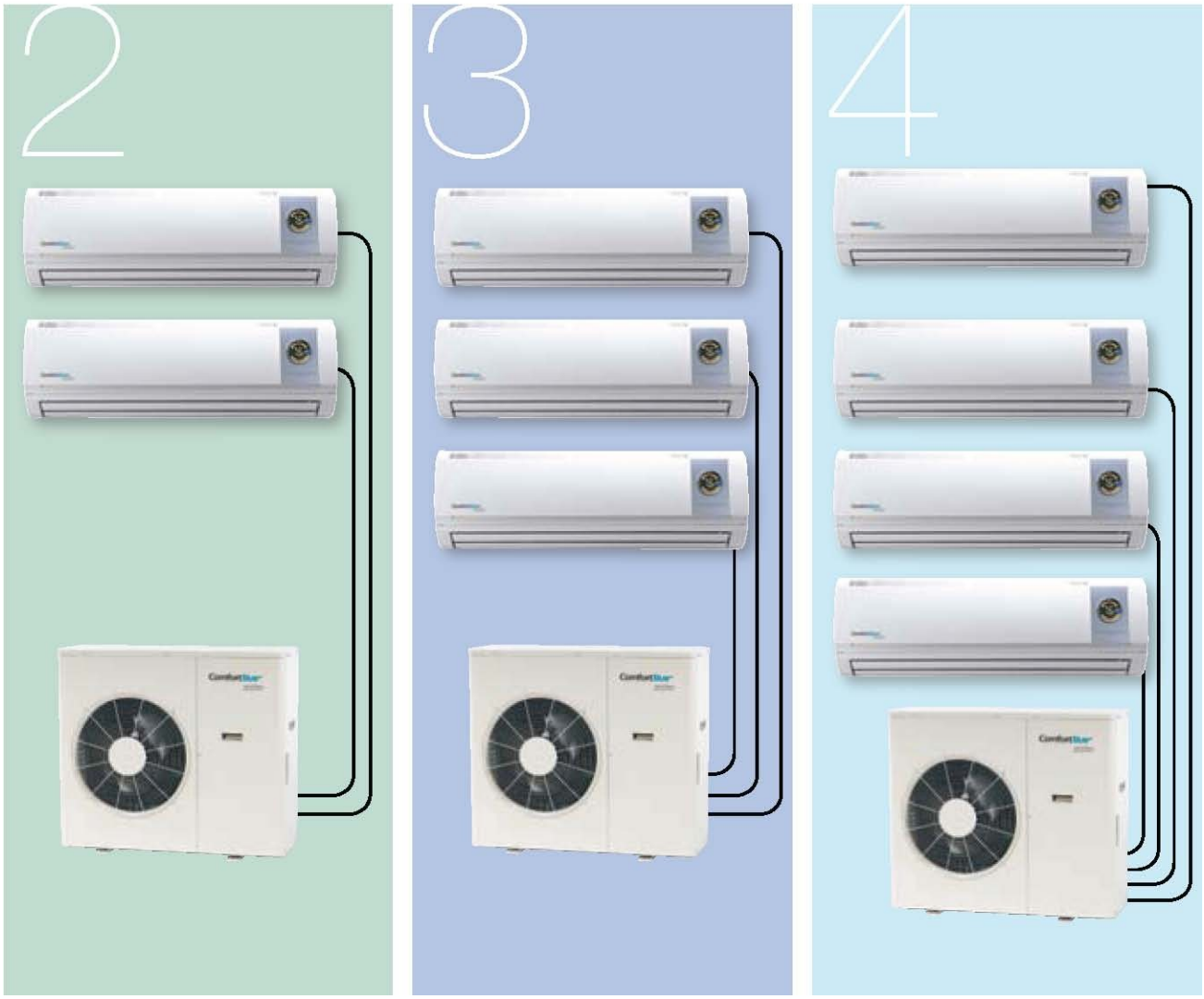
	12K+12K+18K	9K+12K+12K+18K

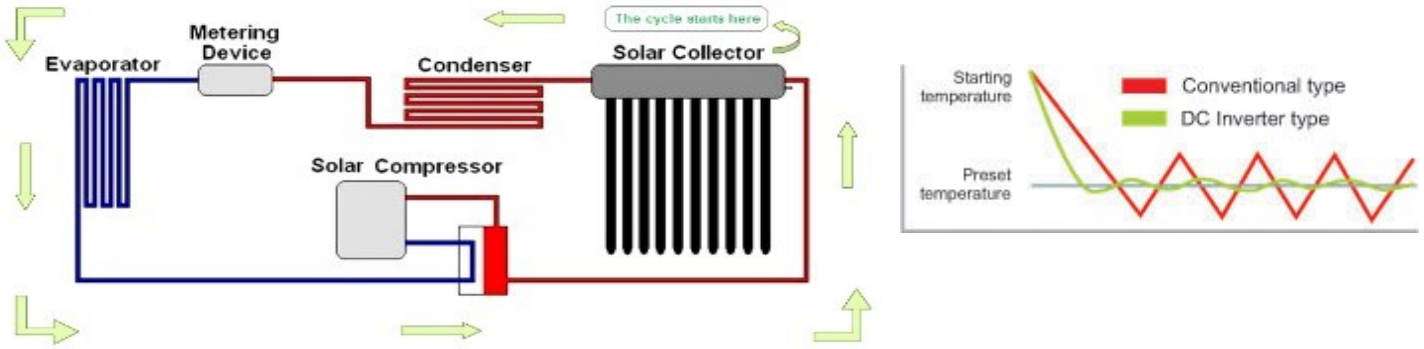


How does a Sedna Aire solar air conditioner work?

The solar collector super heats the refrigerant changing the thermodynamic process of the refrigerant and reduces the required work of the compression operation of the compressor. This then lowers the required electrical consumption, reduces the running time of the entire system and maintains a more comfortable conditioned space.
By "Super Heating" the refrigerant with the aid of the Solar Collector, we are able to increase the temperature difference between the condenser coil and the ambient temperature. By creating this difference, Sedna Aire is able to utilize the entire coil face at the condenser which allows for a better heat exchange throughout the entire system. With a greater heat exchange, Sedna Aire is able to not only reduce the temperature in the conditioned space but also maintain better humidity control which makes the space more comfortable at a higher temperature…in addition your air conditioning unit doesn't run as long and cycles less.

Solar & DC Inverter

They are called a "DC inverter" because the alternative current (AC) is converted to Direct Current (DC) then, direct current inverted back to alternative current with desired frequency. As known, the current supplied through the wall outlet has fixed frequency which is 50/60 Hertz. Different frequencies supplied to the compressor will result in different running speeds of the compressor.
Sedna Aire Inverter control systems use Pulse Amplitude Modulation (PAM) that is the most advanced and energy efficient method of inverting the current. DC Inverter solar air conditioners use special compressors that their speed could be changed by increasing or decreasing the frequency of the supplied power. Therefore, unlike conventional split Air Conditioners/Heat Pumps which cycle between on and off repeatedly, the DC Inverter control system will monitor the room temperature and adjust the compressor speed automatically. Conventional compressors turn on and off to maintain the room temperature at desired level. This will result in a compressor to draw tremendous energy each time it starts up. This will also reduce the life-span of the compressor and other components that are turning on and off. Once a conventional system is running, it runs at its maximum speed, consuming the maximum amount of energy in order to produce the maximum of cooling or heating to maintain the desired temperature. The system will then cycle between on and off in an effort to maintain this temperature. When a DC Inverter compressor initially starts up, it runs with a higher speed to bring the room temperature to desired level rapidly, Once the set temperature is reached, it slows down and adjusts its capacity just to counter the heat loss or heat gain of the building. By this way it will maintain a constant temperature.



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