

Climate control for the smart home



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'Home' for most people is a great deal more than a place to sleep and eat. It's a place where families gather, where people relax and curl up to watch television or sit down to a meal together. The increase in mobile workforces also means that 'home' is also 'work' for many people. It is important, therefore, that people be comfortable at home - and climate control forms an integral part of the perceived comfort of a person's surroundings.



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Connected devices that make life easier – and more comfortable – are readily available on the market today, and the concept of the connected 'smart home' is an appealing reality. People, today, can control every electronic device within their home from a single application on their smart device. They can change security settings, control their lights, or automate absolutely everything based on preferred settings, all from a single touch point. So why should climate control be any different?

Heating and cooling – the smart way

Some air conditioners available today can be easily controlled from your smart device, such as a phone, tablet, smart TV or computer, or from a remote control. By connecting your air conditioner into your smart home management system, it can become a part of your connected digital home experience, enabling you to control the temperature remotely or automatically with ease.

What works in one room, doesn't necessarily make sense in another. You may want a warmer living area, where modern, open plan layouts tends towards the cooler side, while wanting a cooler kitchen, where ovens and stoves can create overly hot environments. With smart air conditioning systems, individual rooms and units can be set to different temperatures to provide consistent ambient temperatures throughout the house ideal for sleeping, studying or working from home, respectively.

Another smart feature of many light residential air conditioners available today, is the ability to automatically adjust based on the occupancy of a room. 'Follow me' functionality allows for air conditioners to automatically switch adjust the temperature in the location where you are sitting. Air conditioners can also be set to maintain a specific temperature, defaulting to standby mode when the temperature is attained, and switching on again when it needs adjusting.

Thanks to this, you never have to worry about waiting for a room to warm up or cool down before being comfortable again.

More than just hot and cold

"But what's wrong with using a fan or heater," you ask? Good question. Fans and heaters do an equitable job when there is no other option, but they tend to take a really, really long time to significantly change the temperature of a room. This not only makes them energy inefficient, but also usually means that by the time you've achieved the right temperature, you either need to leave the room or house again, or it starts becoming too hot or cold. You also get hot and cold spots, with the heater or fan only affecting close range proximity, and making the rest of the house far less comfortable.

Air conditioners that maintain temperatures or auto-adjust based on occupancy and environment are far more energy efficient than fans or heaters. Quite simply, they are faster at achieving desired temperatures, therefore use less energy. This is the case whether a constant temperature is maintained regardless of occupancy, or whether the air conditioner is set to 'follow me'.

Both heaters and fans also tend to dry out the air and, because they merely circulate the existing air – and dust and bacteria – within a room, they prove unsuitable for anyone suffering from allergies or illness. Air conditioners, however, really do condition the air. They use filtration systems which effectively remove dust and bacteria with outgoing air.

Smart does it

Smart homes are fast becoming the norm, with smart devices and features being built into homes from the planning stage already. Many new homes are being built with centralised variable refrigeration air conditioner systems that intelligently adjust the temperature of different rooms in a single house from a central system. However, smart air conditioners can easily be retrofit into older homes, too.

High wall split units are relatively easy to install or move and offer the same intelligence as centralised systems. Being connected into your smart home management system effectively connects the air conditioners and combines them into a single, effective, efficient and intelligent system.

Installing a smart air conditioner not improves the quality of the air you breathe in at home, and the quality of the comfort of your environment. It also adds value to your home. You benefit from a home that offers you better quality of life. Simple, efficient and effective

- Neil Carreron is Johnson Controls area general manager, building efficiency Africa

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