

The Wireless
Structured Media™ Center
is designed to keep your
network cool for maximum
performance.



Leviton's Wireless **Coolnest™** enclosure



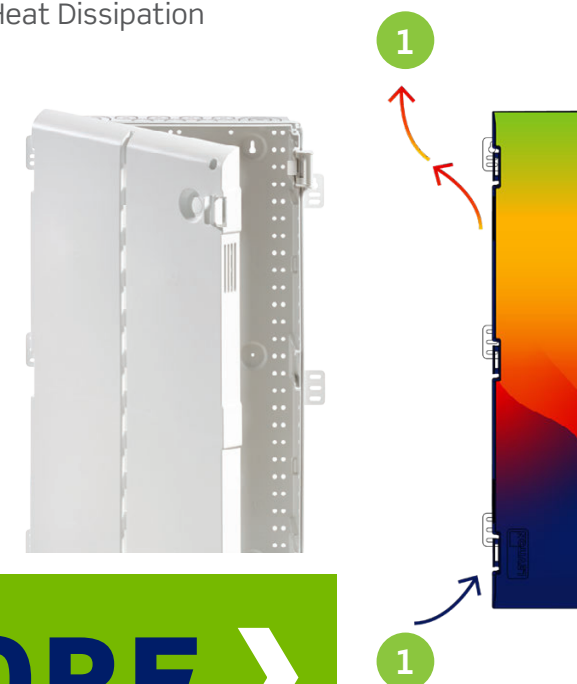
Smart home technology is all the rage, and residential units to be smart homes. The Wireless Structured Media Center (WSMC) not only serves as a focal point for your network need, but also dissipates heat, th

Made to be cool

The WSMC enclosures and hinged door stay less than 15 degrees Celsius when the door is open. This design is to ensure that equipment stays within manufacturer specifications, which are often based on technology called Tri-Plane Heat Dissipation. This technology dissipates warm air (Tri-Plane Heat Dissipation i

Thermal Image Testing

Leviton
28" Enclosure with
Vented Door has Tri-Plane
Heat Dissipation



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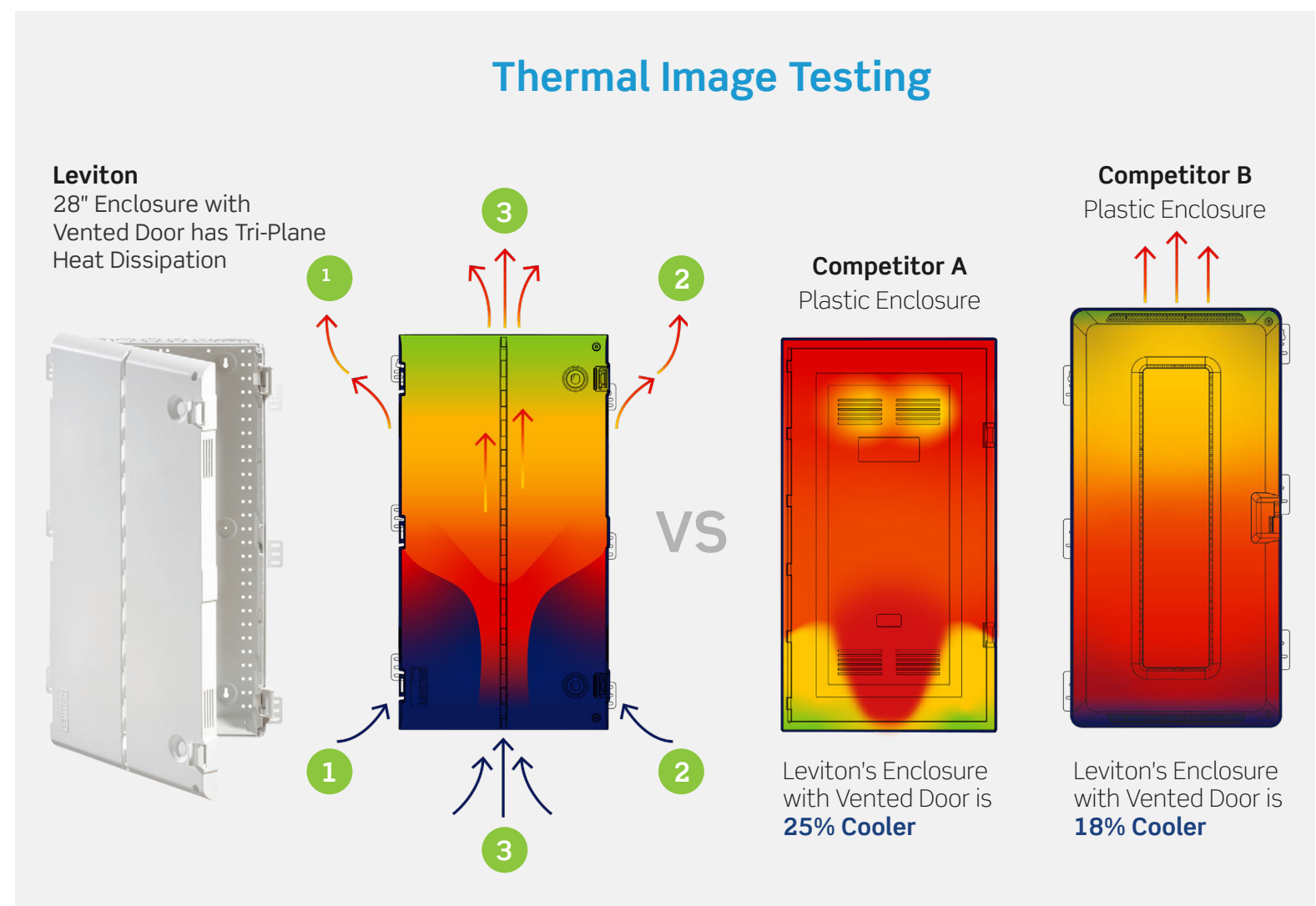
Leviton's Wireless Structured Media™ Center: Coolest enclosure on the market

(both literally and figuratively)

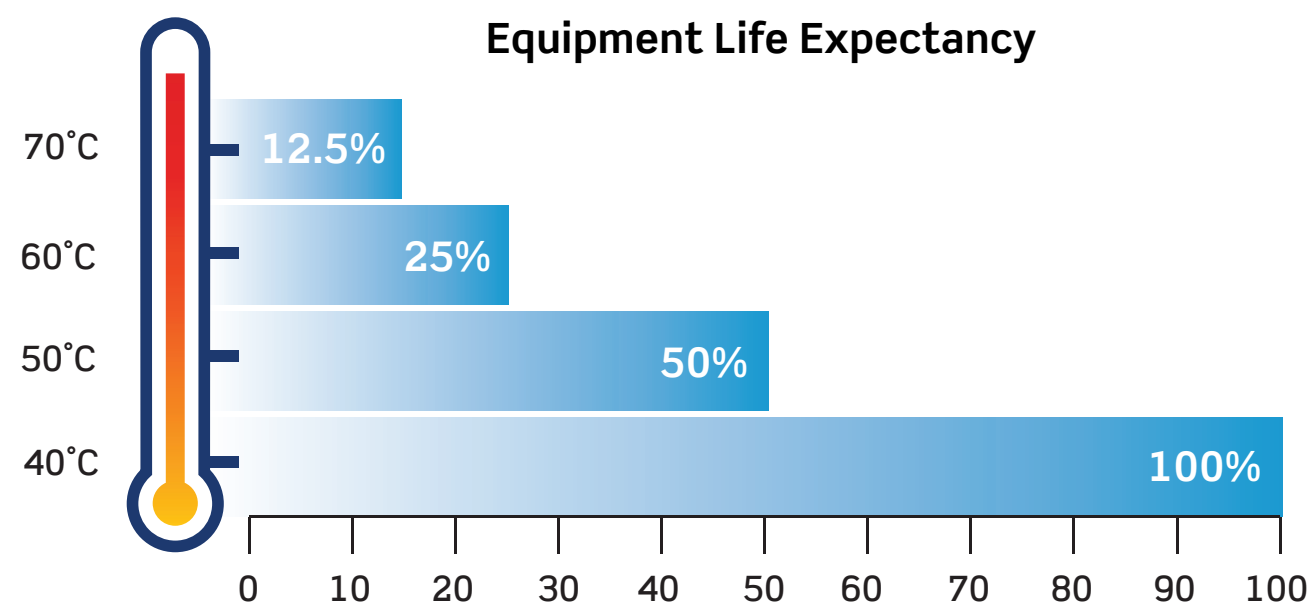
Smart home technology is all the rage these days, and homeowners and renters now expect their residential units to be smart home enabled. Leviton's innovative Wireless Structured Media Center (WSMC) not only serves as a focal point for all the hardware and connectivity that smart homes need, but also dissipates heat, thus extending the life of active gear.

Made to be cool

The WSMC enclosures and hinged door components have been tested to maintain a temperature delta equal to or less than 15 degrees Celsius when the enclosure houses equipment consuming up to 100W of power. The goal of this design is to ensure that equipment installed inside the enclosure is maintained at temperatures no higher than manufacturer specifications, which are typically 40 degrees Celsius. The WSMC achieves this by utilizing a novel technology called Tri-Plane Heat Dissipation — a venting pattern which promotes intake of cool air and outward flow of warm air (Tri-Plane Heat Dissipation is made possible by the WSMC's specially vented door).



Devices that are housed in enclosures made by other manufacturers — which often lack efficient heat dissipation — have temperature deltas as high as 25 degrees Celsius. Every 10 degree Celsius rise above room temperature accelerates aging by twice the amount, which results in half the expected lifetime of the same equipment housed in enclosures made by other manufacturers versus Leviton’s WSMC.



The relationship between equipment reliability and temperature was first discovered in 1898 by the Swedish chemist Arrhenius, who published a proof showing that the rate of chemical reaction is temperature dependent, and that for every 10 degree increase in temperature, the rate of reaction approximately doubled.

According to Steve Robert’s *Book of Knowledge*, in most datasheet specifications, the reference temperature is taken to be nominal room temperature or 25 degrees Celsius. This provides the following acceleration factor according to temperature:

Ambient Temperature	Acceleration Factor
25° C	1
30° C	1.5
40° C	3
50° C	6
60° C	12
70° C	22
80° C	40

From this chart, it can be seen that doubling the ambient temperature from 25 degrees Celsius to 50 degrees Celsius increases the aging effect by a factor of 6. If the temperature were increased even further to 75 degrees Celsius, the aging effect would increase to around 30 times.

Leviton’s WSMC promotes system longevity by keeping equipment well below temperature thresholds. Using a cool enclosure is the most effective way to ensure a long life for the housed products, and to maintain the manufacturers’ warranties.

Better signal propagation, increased capacity and more

Additionally, Leviton's WSMC offers a plethora of benefits other than heat dissipation. The enclosure's plastic construction allows for unimpeded signal propagation, enabling better wireless performance. (Traditional enclosures, made of metal, are a limiting factor with the increased adoption of WiFi technologies.) The door also has a specially designed, tool-free hinge system for fast and easy installation. Moreover, the door has added depth, increasing capacity inside the enclosure.

Leviton's WSMC comes in 14, 28 or 42 inches, and supports a wide range of building types and floor plans. It is compatible with Leviton's full line of Connected Home patch panels, voice, data, video, and audio quick-connect distribution modules.

Easy to use for all

The WSMC was also designed to make life simpler for all customers involved - sellers, distributors, manufacturers, contractors and end-users. The enclosure is easy to install, which makes life easier for contractors, and Leviton's bulk packs make it easier for distributors to deal with logistics.

With the WSMC's pioneering ability to dissipate heat, developers will be able to accommodate smart home trends, ensuring that they stay competitive in the residential marketplace.

For more information, please visit [Leviton.com/WirelessSMC](https://www.leviton.com/WirelessSMC)

