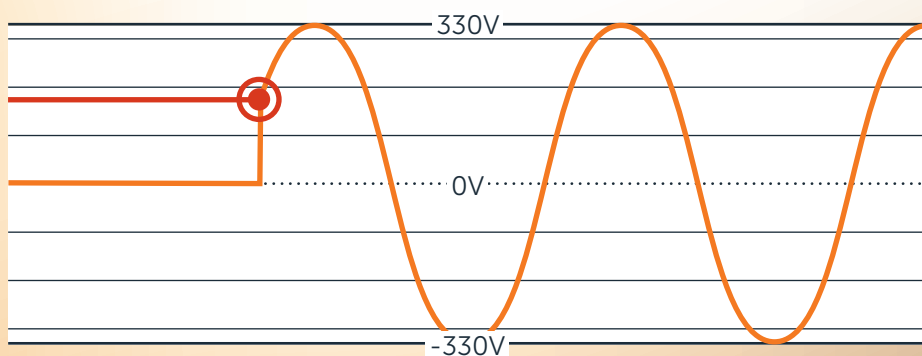
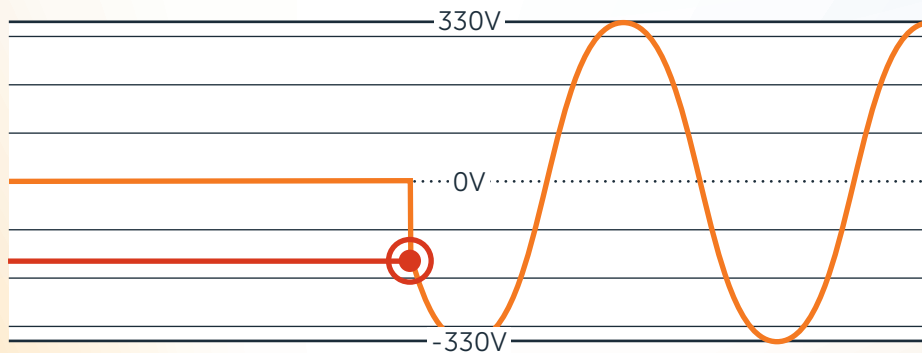


WHAT IS ZEROX DETECTION?

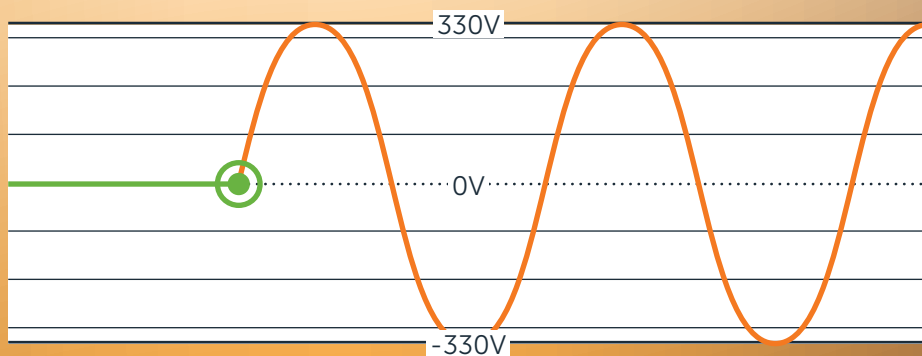


The technology known as ZeroX detection ensures that the relay switches on and off close to 0 volts, minimizing the current passing through the relay during the switching process. This results in an extended lifespan for the relay, leading to a reduction in warranty claims, fewer customer complaints, and increased customer satisfaction.

Most suppliers in the market don't offer this specific technology. Consequently, as depicted below, their thermostats activate carelessly in relation to the sine wave, causing an increased load on the relay.



ZeroX Detection technology guarantees that our devices switch on/off close to 0V, thereby minimizing wear and tear on the relay and significantly extending its lifespan.



When a relay switches state, the physical connection can be switched at any voltage on the AC sine wave.

This means that the relay can physically attempt to switch on or off at anything from 0 to > 330VAC. Although not dangerous, connecting at high voltages creates arcs between the contacts. These arcs can deform and leave soot on the contact surfaces. The soot decreases contact area and increases contact resistance which increases the amount of deformation done by arcs.

Eventually, the deformations can cause partial or permanent welding between the contacts of the relay. Resulting in the output always being on.

On products with ZeroX detection, the device monitors the voltage and adapts the connection to 0V to prevent the deformation of the relay contact surfaces which extends the lifetime and safety of the device.