

Intermatic Education: How homeowners and small businesses can protect themselves from loss



What causes a brownout?

There are many reasons that brownouts occur and most are beyond your control.

- Overloads on the electrical system can trigger a brownout because the generating facility is unable to provide enough power to meet demand. Depending on the source of the problem and how quickly a power utility can generate full power again, brownouts can last anywhere from a few seconds to a few hours.
- Other factors including weather and powerful storms can also disrupt the grid.
- A rise in average global temperatures along with more extreme storms and heat waves lead to an increased threat of blackouts and brownouts.
- In addition, many of the transmission lines that provide Americans with electricity throughout the country are at least 25 years old, making them more susceptible to power disturbances.

In some instances, brownouts are deliberate. Known as voltage reductions, this type of brownout is implemented when utilities sense that a disruption in the grid may lead to serious problems. To decrease the chance of a blackout, the utility may temporarily cut voltage to some customers to stabilize the grid and allow reserves of power to accumulate again.

What is a brownout?

Brownouts affect millions of people across the United States every year. According to the American Society of Civil Engineers, blackouts and brownouts cost U.S. households \$79 billion annually. Despite their prevalence and frequency, in a recent study only 55 percent of U.S. homeowners said they are familiar with what a brownout is.

A brownout is the temporary interruption of power in which electrical power is reduced due to high demand, storms or other problems in the system. If your lights flicker or dim, this usually is an indication that a brownout has occurred. What you may not see is the damage that has been done to your major electrical appliances from this disruption in power.

Blackouts and brownouts cost U.S. households \$79 billion annually



44% of homeowners said they have experienced a brownout

12% had to replace a major appliance



How do brownouts impact the average U.S. Household?

Equipment malfunction is the most obvious impact brownouts have on the average household. In a recent study conducted for Intermatic by Harris Poll, 44 percent of homeowners said they have experienced a brownout in the past year. Of those homeowners, 12 percent had to replace a major appliance. All appliances and electronics – including air conditioners - are susceptible to damage if they are not properly protected.

What often goes unnoticed after a brownout is the wear on appliance motors. When appliance motors get excessively hot due to low voltage, the additional heat reduces the motor insulation life and damages HVAC compressors. This loss in power deteriorates the chemical makeup of refrigerants. Momentary power interruptions that last five minutes or less can actually be more costly than sustained interruptions. In light of that, if you frequently experience signs of a brownout – even if they are short-lived – you should pay closer attention to the potential damage to your appliances.



86% of homeowners at risk of incurring thousands of dollars

How can consumers protect themselves?

Don't wait another minute - take action today to make sure all appliances and electronics are protected from brownouts and surges. And don't forget the big ticket items! Protecting your central air conditioning system is just as important – if not more – than protecting your TV, home audio system or computer. The last thing you want is to find yourself among the 86 percent of homeowners at risk of incurring thousands of dollars in replacement costs because your air conditioning unit is not protected from power supply issues when the next brownout hits.

Intermatic offers all-in-one protection from brownouts, surges and short cycles with the Compressor Defender™ device. This affordable, preventative maintenance solution can be installed inside a condensing unit or externally on an AC disconnect to protect compressors and circuit boards in residential and light commercial applications. Contact your local HVAC technician to find out how you can protect yourself with Compressor Defender today.

Contact us at intermatic.com

©2014 Intermatic incorporated 300AG10053