

Power Protection for the Appliance Market

Appliance Equipment: The Market

According to a recent Appliance Market Research Report, several of the leading appliance technology innovators are focusing Research and Development (R&D) expenditures, equating to billions of dollars, on advanced technologies that will help maximize efficiency and improve technology and services for the end-user. In total, the U.S. household appliance manufacturing industry consists of approximately 300 companies with combined annual revenue of more than \$20 billion, according to Hoover. With the top 20 companies generating about 85 percent of revenue, the industry is highly concentrated.

What does this mean for Appliance Manufacturers?

When it comes to R&D to improve technology and services for appliances, it's important for manufacturers and electronic equipment designers to understand that today's digitally advanced world is hugely impacted by the power grid. When appliances malfunction, it can have an immediate impact on the end-user, consumer or business. Given the high importance of appliance equipment it's necessary to identify the significance of protecting this equipment from chaotic power disturbances.

Protection is Necessary

Today's electronics are pervasive with the vast majority of equipment within the marketplace being deployed with insufficient protection, resulting in damage from disturbances on the power grid that are remarkably frequent and destructive. The sheer monetary value of this equipment makes the need for this type of protection a necessity.

All electronic equipment has one thing in common: it needs power to work and is significantly impacted by power interruptions. Unfortunately, due to the new, highly digital world that we live in, reliability and efficiency cannot always be promised. Digital electronics are much more susceptible to glitches and the evolution of electronics equipment has opened up the gateway for more power-related issues. Power and grid issues worldwide, coupled with the limitations of current technologies, cause most electronics to be:

- Not protected at all
- Under protected
- Protected at too great of a cost

According to the Electronic Power Research Institute, the magnitude of these daily loss-generating disturbances has been referred to as "the most important concern affecting most industrial and commercial customers." Also, they cost hundreds of billions of dollars annually to businesses in the United States alone.

Current Protection Landscape

Historically, electronics power protection choices for consumer appliance manufacturers have been limited to either under-functioning surge protectors primarily for aftermarket consumer use or unwieldy and expensive technologies such as UPS, mainly used by large enterprise systems. Traditionally, UPS technology has proven to be an effective technical solution for power protection. The technology protects against disturbances by physically isolating electronics from the grid and powering them by battery. However, UPSs are prohibitively expensive to acquire, costly to maintain, and increasingly difficult and expensive to dispose of when replaced—which is required every two to

four years—bringing about an additional environmental burden these facilities must manage. Because of these limitations, most appliances are either protected at too great of cost or not protected at all.

The Solution

Atlanta-based Innovolt is an electronics protection leader and the first to bridge the gap between the power protection and asset service markets. Cost-effective, highly scalable and integratable, Innovolt's proprietary and patented electronics protection technology is proven to significantly increase product lifespan and reliability. Innovolt's comprehensive technology platform is proven to help appliances last longer and with fewer service interruptions by keeping them safe from the common power disturbances that most often damage electronics. Innovolt's technology guards against damage from 99.5 percent of power interruptions, including infinite voltage and current variations.

Benefits for Appliance Manufacturers

Innovolt's patented electronics power protection technology can stand alone or be paired with other technologies to produce highly effective and proprietary solution specific to appliance manufacturers. Utilizing Innovolt's solution offers a variety of benefits, including: cost savings, increased productivity, invaluable diagnostics, improved customer satisfaction, improved customer retention, and increased brand loyalty. Innovolt also offers Program Management Services to integrate technology, produce prototypes, and aid in the final production of products.