



**2008 European Uninterruptible Power Supplies
Excellence in Technology Award**



“We accelerate growth”

2008 European Uninterruptible Power Supplies Excellence in Technology Award

Award Description

Frost & Sullivan's Excellence in Technology Award is bestowed upon a company that has pioneered the development and introduction of an innovative technology into the market; a technology that has either impacted or has the potential to impact several market sectors. This award recognizes a company's successful technology development that is expected to bring significant contributions to the industry in terms of adoption, change, and competitive posture. It also recognizes the company's overall technical excellence and its commitment toward technology innovation.

Research Methodology

To choose the award recipient, Frost & Sullivan's analyst team tracks technology innovation in key hi-tech markets. The selection process includes primary participant interviews and extensive primary and secondary research via the bottom-up approach. The analyst team shortlists candidates on the basis of a set of qualitative and quantitative measurements. The analysts also consider the pace of technology innovation, and the potential relevance or significance of the technology to the overall industry. The ultimate award recipient is chosen after a thorough evaluation of this research.

Measurement Criteria

In addition to the methodology described above, there are specific criteria used to determine the final rankings. The recipient of this award has excelled based on one or more of the following criteria:

- Number of new technologies developed or introduced
- Significance of a technology/ technologies in the industry
- Competitive advantage of technology/technologies vis-à-vis competing technologies
- Ease of adoption of new technology/technologies
- Potential of technology/technologies to become an industry standard
- General impact of technology in terms of shifting R&D focus



The “2008 European Uninterruptible Power Supplies (UPS) Excellence in Technology Award” is presented to Newave SA (Newave). Newave, an important participant in the European UPS market, has constantly demonstrated excellence in technology through the launch and popularisation of new technologies in the three-phase UPS range. With its ongoing technological research and product improvement, Newave has been able to raise the standard of technology in the UPS market. The firm has a strong team exclusively dedicated to the research and development of UPS systems which are more energy efficient and compact. In addition to this, Newave works closely with the University of Applied Sciences of Southern Switzerland for the betterment of UPS technology. The company has been a trendsetter in the UPS technology market. Many other market participants have followed Newave’s lead in introducing similar technologies. This is solid testimony to the company’s success in creating and promoting new technologies.

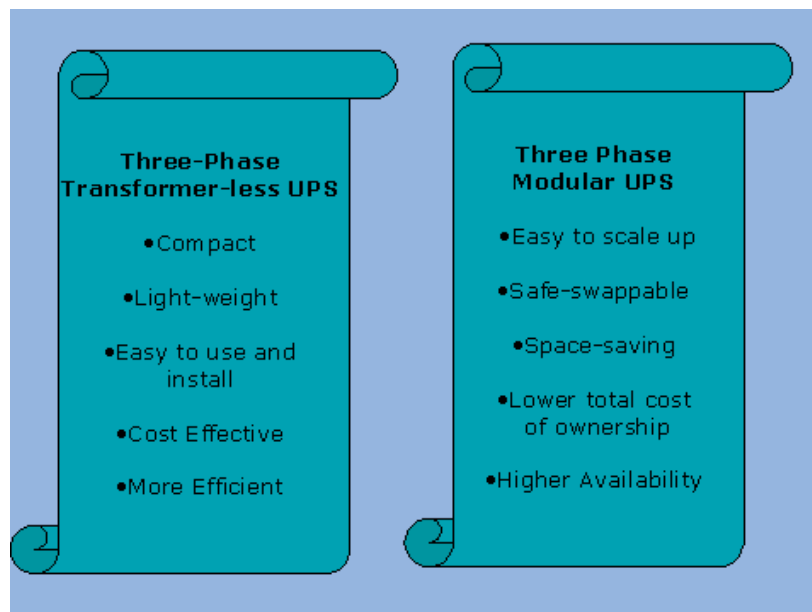
Technology Trump

Newave’s trump card has been technological excellence from the very beginning. Newave introduced two highly successful and popular technologies in the three-phase range; namely the three-phase transformer-less UPS and three-phase modular UPS.

Its market foray was accompanied by the launch of transformer-less three-phase UPS systems in 1994. Newave was one among the two participants in the European UPS market whose portfolio boasted of transformer-less three-phase systems back in 1994. Newave launched this product at a time when transformer-based systems completely dominated the market. However, greater efficiency and better product performance as compared to traditional transformer-based systems not only helped the growth and establishment of Newave, but also turned a large portion of the market in favor of transformer-less topology for three-phase UPS.

Chart I.1 shows the benefits of Newave’s key technologies in the European UPS Technology Market, 2008.

Chart I.1 UPS Technology Market: Benefits of Newave’s Technologies, Europe, 2008



Source: Frost & Sullivan

The company's commitment to technological progress was demonstrated by its continuous and ongoing development of three-phase transformer-less products in higher power ranges. In 2003, Newave launched three-phase transformer-less stand alone UPS in 80-250KVA range. The firm followed with 80-100kVA three-phase modular UPS in 2004 and three-phase transformer-less UPS of 300kVA in 2005. In 2001, Newave was the first company to introduce the three-phase modular UPS. This was followed by bigger industry participants introducing similar three-phase modular systems. Currently, Newave offers up to 300 kVA stand alone transformer-less UPS systems and is constantly striving to push this upper power limit. The company has recently launched a second generation high-power-density modular UPS solution in the power range of 10-45 KVA per module and racks up to 250 kVA. Newave's contribution in tuning the market towards transformer-less topology and modularity in the three-phase range is significant and commendable.

Product Betterment in Focus

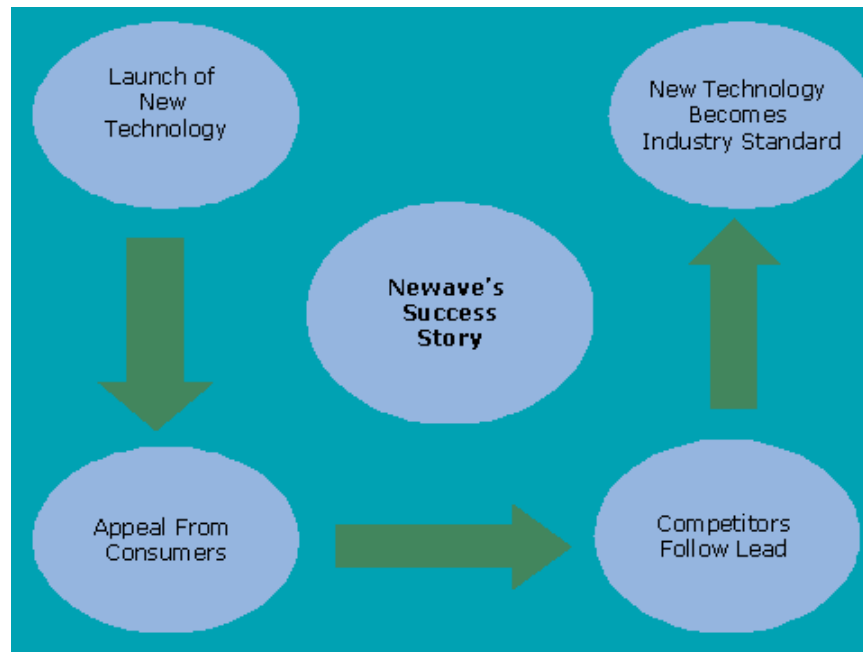
At the core of Newave's technological research lies its commitment to increasing energy efficiency while making UPS systems in three-phase ranges more simple and user-friendly in every way possible. UPS systems were seen as large, heavy, difficult systems which could not be handled by one person alone. However, with its transformer-less technology, Newave demonstrated a new type of three-phase UPS that was light-weight, occupied much lesser space, was easy to carry and install, highly user-friendly, and was more energy efficient and cheaper than traditional transformer-based three-phase systems. With its three-phase modular UPS, the company brought to the market a highly beneficial and simple system that was easy to scale, upgrade and safe-swappable. They are also space-saving as the scaling of modules is done vertically. Owing to its ability to easily add modules with increase in power demand, need for high investment by the end-user at the outset is eliminated. The system is economically feasible as the cost is distributed over the course of a few years. Besides, Newave's three-phase modular UPS also results in low cost of ownership over the lifespan of the product. The company has made a remarkable stride in raising the standard of technology, energy efficiency, economy and user-friendliness in the UPS market via leveraging on technological progress.

Technological Success in a Non Tech-Friendly Market

The rate of technological advancement or change in the European UPS market is slow. Customers are risk-averse and prefer tried and tested systems to new technologies and innovations. Against this unfavorable back-drop, Newave charted its success based on technological progress. Although consumers are initially wary of new technologies, Newave was confident of the benefits outweighing the costs in the medium to long term. This spurred Newave to be at the forefront of technological advancement and offer consumers state-of-the-art products.

Chart 1.2 shows the factors responsible for Newave's technological excellence in the European UPS Technology market.

Chart 1.2 UPS Technology Market: Excellence in Technology Factors, Europe, 2008



Source: Frost & Sullivan

Conclusion

The technologies introduced by Newave have been instrumental in changing the face of European UPS Technology market. Newave has demonstrated continuous technological excellence via successive innovations of modularity and transformer-less topology in the three-phase range. The technologies introduced are noted for their energy efficiency, user-friendliness and economical factor. Over time, these technologies have become industry standards and command enormous appeal in the market. In addition, Newave's persistent amelioration of three-phase systems through technological focus has boosted general interest in technological progress in the European UPS market. These factors combined together make Newave SA the worthy recipient of the "2008 European Uninterruptible Power Supplies Excellence in Technology Award."

About Best Practices

Frost & Sullivan Best Practices Awards recognize companies in a variety of regional and global markets for demonstrating outstanding achievement and superior performance in areas such as leadership, technological innovation, customer service, and strategic product development. Industry analysts compare market participants and measure performance through in-depth interviews, analysis, and extensive secondary research in order to identify best practices in the industry.



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