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BEST PRACTICES

AWARDS

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2020 BEST PRACTICES AWARD

 **socomec**
Innovative Power Solutions

**2020 GLOBAL UPS
NEW PRODUCT INNOVATION AWARD**

Contents

Background and Company Performance	3
<i>Industry Challenges</i>	3
<i>New Product Attributes and Customer Impact</i>	3
<i>Conclusion</i>	7
Significance of New Product Innovation	8
Understanding New Product Innovation	8
<i>Key Benchmarking Criteria</i>	9
Best Practices Award Analysis for Socomec	9
<i>Decision Support Scorecard</i>	9
<i>New Product Attributes</i>	10
<i>Customer Impact</i>	10
<i>Decision Support Matrix</i>	11
Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices.....	12
The Intersection between 360-Degree Research and Best Practices Awards.....	13
<i>Research Methodology</i>	13
About Frost & Sullivan	13

Background and Company Performance

Industry Challenges

One of the key challenges in the UPS market, more specifically in the modular UPS segment is the lack of product knowledge and end-user misconception about modular technology. Given that modular UPS is still in its growth stage, end users display a certain degree of skepticism and a preconceived notion regarding aspects such as reliability, complexity, paralleling capability, and so on. One of the important reasons for this is that some manufacturers in the industry promote their products as modular UPS, when in reality they are not truly modular solutions. This creates a sense of dissatisfaction among end users, creating a negative word of mouth and ultimately, creating a negative impact on market adoption.

New Product Attributes and Customer Impact

Match to Needs

Socomec's deep understanding of end user needs and specific requirements is the foundation of its product development process. The company has a track record of developing products and solutions that perfectly align with end users current needs as well as anticipated future requirements. This is mainly due to the fact that as its product designs are directly inspired and influenced by evolving customer needs. Socomec is always ahead of the competition when it comes to identifying/analyzing market trends and developing products and solutions that effectively address customer pain points. Furthermore, the company has developed a unique knack to strike an optimum balance between price and performance value. As a part of its strategy to achieve this, Socomec increased its focus on identifying customer frustrations and dedicated its R&D efforts to develop products that address these unmet gaps and ultimately enhance customer value. The "MODULYS XL" – a highly innovative modular UPS system was born out of this initiative. The core philosophy behind the development of this cutting edge product was to offer end users with genuinely true modularity in the high power range.

The MODULYS XL is based on 200KW power modules, where a single unit can be scaled up to 1.2MW while allowing up to 4 units to be configured in parallel. One of the critical end user needs pertaining to a modular UPS system is right sizing of the power modules. While designing the MODULYS XL, Socomec has taken utmost care to achieve the most optimum level of granularity by striking a perfect balance between mean time between failure and intrinsic redundancy. By doing so, it is able to effectively eliminate power module losses caused by missing modules or hiked up service costs caused by adding more modules than necessary. The noteworthy aspect here is the fact that MODULYS XL achieves all this while still offering simple and easy serviceability (similar to that of smaller modules). In simple terms, it offers hot-scalability along with rapid, safe and concurrent maintenance whilst maintaining the reliability at highest magnitudes due to right sizing of power modules.

Industry Leading Reliability

Socomec's process design excellence is fortified by its meticulous efforts to develop a highly reliable and robust modular UPS system aimed at providing an exceptional user experience. It is interesting to see Socomec achieving all this while also removing any uncertainties that come with new technologies. Simply put, the level of confidence it instills in its customers is remarkable. Deploying optimum number of power modules to achieve a required high power unit is a crucial requirement for a true modular UPS system, mainly because it has a direct impact on reliability. The number of power modules does not only have a direct correlation with the unit's intrinsic redundancy, but it also influences the mean time between failure and scalability steps. Having mastered the art of modular concepts, Socomec was able to implement these principles to perfection in its MODULYS XL product.

As mentioned in the earlier section, the MODULYS XL uses a 200KW power module which allows it to scale up to 1.2MW by using only 6 modules. This right sizing significantly limits the number of converters and moving parts, thus having a positive impact on mean time between failure (MTBF) of the entire system. The other accentuating aspect pertaining to the 200KW power module is the fact that it is genuinely true to its specifications; as opposed to a few solutions in the market that offer 200KW/250KW modules that are comprised of multiple small converters with a higher degree of electronics involved, which makes them more susceptible for failures. In essence, the MODULYS XL offers the optimum module granularity for large power UPS systems while maintaining the unique features and benefits of a Modular UPS system. The other key factor that further cements MODULYS XL's reliability is the fact that it combines all its assets together through a highly innovative and unique super-standardize inter-connection system. This system leverages a unique design of built in bus bars and right sized copper bars that help eliminate miss-cabling and thereby improving reliability and robustness at the entire Modular UPS level. This is in stark contrast to the other solutions available in the market where all the assets are interconnected through hundreds of cables which makes it more complex and risky.

Excellence in Product Positioning through Technology Leverage

Frost & Sullivan research findings suggest that Socomec has high potential to further fortify its position in the market with its cutting edge UPS solutions, aided by its long-range, macro-level innovation strategies. The company has a razor sharp focus in identifying and analyzing Mega Trends and performing scenario analysis; this empowers it to develop products and solutions that cater to current market requirements as well as anticipated future needs. MODULYS XL's super-standardize system simplifies the installation and onsite deployment process as all the connections are made seamless and straight forward. It also reduces installation time and cost to a high degree, where the pre-engineered inter connections are specifically designed to eliminate unforeseen installation errors. Furthermore, all the assets are embedded with their own independent control DSP so that single points of failure can be avoided. Moreover, the MODULYS XL even compensates for uneven floors as its unique design allows seamless brick positioning and alignment. One of the important aspects that signify MODULYS XL's technology

leverage excellence is minimised mean time to repair (MTTR) and safe interventions. It allows maintenance activities to be performed while the system is online. The design allows the module to be extracted outside the system so that all the interventions (such as replacing caps, fans, etc.) are performed outside the system that is protecting the load. This ensures two things; it significantly improves safety and it minimises the time required to do the repair. On the other hand it offers easy accessibility to components that have to be replaced because they are designed as sub-assemblies. The design principles of MODULYS XL are essentially based on Socomec's highly successful medium power modular UPS range – MODULYS GP. It is noteworthy that this product was not only attested by specialist 3rd party companies for 1 million hours of mean time between failure (MTBF), but it was also found that it even exceeded this unparalleled reliability in real world conditions. While the company has leveraged latest cutting edge technologies in MODULYS XL, it has also integrated the same control platform into the new product in order to take the benefits of the proven market experience. Having said that, there is no doubt that MODULYS XL will do wonders in the market and has all the potential to emerge as the most sought after modular UPS product.

Outstanding Product Design

The most captivating aspect about Socomec is its rock solid determination and relentless pursuit for creating value for the end users. The company leaves no stone unturned when it comes to innovation and customer value enhancement. This is evident from its meticulous initiatives and activities aimed at strengthening and advancing its vision of creating truly modular UPS systems. With its innovative policies and strategies, Socomec has implemented a wide range of best practices that brings in several positive disruptions and offers an immense range of benefits to its customers. The MODULYS XL leverages a highly modern, ergonomic and extremely flexible design that is characterized by three standardized & pre-engineered bricks – A power hub (up to 1200 kVA), a power slot (200 kVA/kW) and a power module (200 kVA/kW). It offers end users the much needed configuration flexibility and simplifies the overall process right from project definition to the UPS being fully operational. With its unique and innovative design, this new product essentially offers the best of both worlds; it provides the highest degree of flexibility that comes with a tailored custom solution and on the other hand, it also offers the benefits of standardized assets. Thus allowing end users to fine tune the system to match the exact project requirements. Furthermore, it reduces customer lead times through production efficiencies. The power hub is adaptable to installation architecture with top/bottom entry. It offers common/separated inputs and is Li-Ion compatible. It also offers a flexible battery connection (shared, distributed or blended). The power slot provides adjustable power and redundancy with a high degree of flexibility and scalability. It is pre-connected to the power hub (power & control) and is in ready state for ready for immediate or future module(s) plug-in.

Premium Customer Ownership Experience

It is Frost & Sullivan's finding that Socomec offers exceptional customer ownership experience through the entirety of its product lifecycle. The crux of this success lies in the fact that it excels in three distinct aspects – product performance, customer service and client relationship. The company's relationship with the customer has been one of its key success factors in building and maintaining a positive experience, resulting in a lasting bond. This is evident from its constantly increasing list of orders and positive customer testimonials. Socomec offers an extensive suit of features that not only ensure easy UPS capacity expansion and optimum operation but also simplifies maintenance and minimizes down time. The 5 minute hot-scale functionality offered by MODULYS XL is one of the fine examples to demonstrate Socomec's exceptional customer ownership experience. Given that its patented connection system eliminates power & control cabling and complex firmware parameter management, it allows users even with minimal engineering skills to plug in a 200KW module with in just 5 minutes. Once the module is plugged in to a pre-wired bay, there is no need to worry about configuration, as it is done automatically.

The MODULYS XL has been created with a disruptive approach when it comes to safety and maintenance. It offers a concurrent serviceability, where maintenance activities can be carried out without impacting the protection level of the load, and the job is performed outside the critical system. The other differentiator that sets MODULYS XL uniquely apart in the market is its ability to pre-test the module with a special and innovative heat-run test which is performed outside the system by just using the efficiency compensation. During this test the module is extracted and supplied with an auxiliary power supply where the input and output are connected together with an internal switch, making the unit run in a loop. The test allows users to stress the power converters at full power (200kW for a predefined amount of hours) in order to remove any risk. This provides them with full confidence on the module before plugging in to the critical system.

Brand Equity

Socomec has gained a reputation of being an iconic brand and a trend setter in the industry; this reputation comes from a long standing history of developing quality products that are not only offer reliability of the highest magnitude, but are also embedded with value added features and functionalities. The company's brand image is synonymous with technology excellence, innovation, and, most importantly, customer focus. Its product positioning has played a crucial role in its brand equity; it has created a sense of delight amongst its customers who are in pursuit of futuristic and cutting edge technologies. Socomec's proven experience in the global UPS market is reflected in the success of its brand image. Its success in the UPS market, more specifically the modular UPS market, is a direct result of its meticulous efforts to develop solutions that are specifically designed to address the local market needs. The company goes to great lengths to research the market view to gauge the take up of its proposed new innovation. This deep-rooted process gives Socomec a significant edge in this highly competitive market.

Conclusion

Since inception, Socomec has had a significant focus on technology and innovation. The company's technology excellence is purely driven and quantified by the value addition it brings to the end user. The company's constant product development efforts by leveraging a strong technical know-how have substantially elevated its position in a highly competitive market. With its new MODULYS XL product, Socomec has created a unique win-win value position mainly driven by its consummate expertise and know how in power electronics and UPS. It brings value addition to end users not just from a product/solution perspective but also from a process perspective.

With its strong overall performance, Socomec has earned Frost & Sullivan's 2020 New Product Innovation Award.

Significance of New Product Innovation

Ultimately, growth in any organization depends on continually introducing new products to the market and successfully commercializing those products. For these dual goals to occur, a company must be best in class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.



Understanding New Product Innovation

Innovation is about finding a productive outlet for creativity—for consistently translating ideas into high-quality products that have a profound impact on the customer.

Key Benchmarking Criteria

For the New Product Innovation Award, Frost & Sullivan analysts independently evaluated 2 key factors—New Product Attributes and Customer Impact—according to the criteria identified below.

New Product Attributes

- Criterion 1: Match to Needs
- Criterion 2: Reliability
- Criterion 3: Quality
- Criterion 4: Positioning
- Criterion 5: Design

Customer Impact

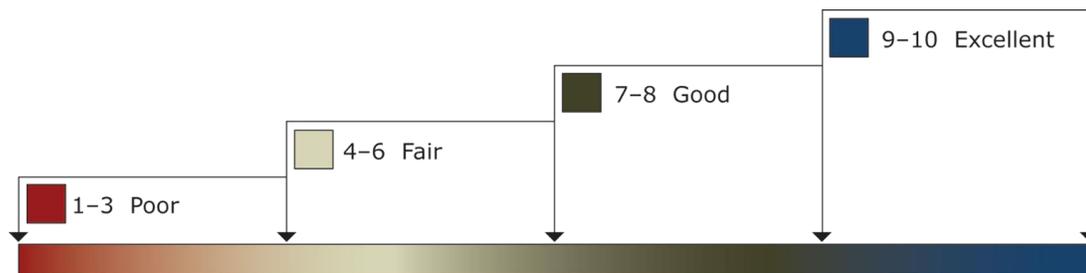
- Criterion 1: Price/Performance Value
- Criterion 2: Customer Purchase Experience
- Criterion 3: Customer Ownership Experience
- Criterion 4: Customer Service Experience
- Criterion 5: Brand Equity

Best Practices Award Analysis for Socomec

Decision Support Scorecard

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Scorecard. This tool allows research and consulting teams to objectively analyze performance according to the key benchmarking criteria listed in the previous section, and to assign ratings on that basis. The tool follows a 10-point scale that allows for nuances in performance evaluation. Ratings guidelines are illustrated below.

RATINGS GUIDELINES



The Decision Support Scorecard considers New Product Attributes and Customer Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criterion are provided beneath the scorecard). The research team confirms the veracity of this weighted scorecard through sensitivity analysis, which confirms that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies.

The results of this analysis are shown below. To remain unbiased and to protect the interests of all organizations reviewed, Frost & Sullivan has chosen to refer to the other key participants as Competitor 1 and Competitor 2.

<i>Measurement of 1-10 (1 = poor; 10 = excellent)</i>			
New Product Innovation	New Product Attributes	Customer Impact	Average Rating
SOCOMEK	8.0	9.0	8.5
Competitor 1	6.0	7.0	6.5
Competitor 2	5.0	5.0	5.0

New Product Attributes

Criterion 1: Match to Needs

Requirement: Customer needs directly influence and inspire the product’s design and positioning.

Criterion 2: Reliability

Requirement: The product consistently meets or exceeds customer expectations for consistent performance during its entire life cycle.

Criterion 3: Quality

Requirement: Product offers best-in-class quality, with a full complement of features and functionalities.

Criterion 4: Positioning

Requirement: The product serves a unique, unmet need that competitors cannot easily replicate.

Criterion 5: Design

Requirement: The product features an innovative design, enhancing both visual appeal and ease of use.

Customer Impact

Criterion 1: Price/Performance Value

Requirement: Products or services offer the best value for the price, compared to similar offerings in the market.

Criterion 2: Customer Purchase Experience

Requirement: Customers feel they are buying the optimal solution that addresses both their unique needs and their unique constraints.

Criterion 3: Customer Ownership Experience

Requirement: Customers are proud to own the company’s product or service and have a positive experience throughout the life of the product or service.

Criterion 4: Customer Service Experience

Requirement: Customer service is accessible, fast, stress-free, and of high quality.

Criterion 5: Brand Equity

Requirement: Customers have a positive view of the brand and exhibit high brand loyalty.

Decision Support Matrix

Once all companies have been evaluated according to the Decision Support Scorecard, analysts then position the candidates on the matrix shown below, enabling them to visualize which companies are truly breakthrough and which ones are not yet operating at best-in-class levels.



Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan analysts follow a 10-step process to evaluate award candidates and assess their fit with select best practices criteria. The reputation and integrity of the awards are based on close adherence to this process.

STEP	OBJECTIVE	KEY ACTIVITIES	OUTPUT
1 Monitor, target, and screen	Identify award recipient candidates from around the world	<ul style="list-style-type: none"> • Conduct in-depth industry research • Identify emerging industries • Scan multiple regions 	Pipeline of candidates that potentially meet all best practices criteria
2 Perform 360-degree research	Perform comprehensive, 360-degree research on all candidates in the pipeline	<ul style="list-style-type: none"> • Interview thought leaders and industry practitioners • Assess candidates' fit with best practices criteria • Rank all candidates 	Matrix positioning of all candidates' performance relative to one another
3 Invite thought leadership in best practices	Perform in-depth examination of all candidates	<ul style="list-style-type: none"> • Confirm best practices criteria • Examine eligibility of all candidates • Identify any information gaps 	Detailed profiles of all ranked candidates
4 Initiate research director review	Conduct an unbiased evaluation of all candidate profiles	<ul style="list-style-type: none"> • Brainstorm ranking options • Invite multiple perspectives on candidates' performance • Update candidate profiles 	Final prioritization of all eligible candidates and companion best practices positioning paper
5 Assemble panel of industry experts	Present findings to an expert panel of industry thought leaders	<ul style="list-style-type: none"> • Share findings • Strengthen cases for candidate eligibility • Prioritize candidates 	Refined list of prioritized award candidates
6 Conduct global industry review	Build consensus on award candidates' eligibility	<ul style="list-style-type: none"> • Hold global team meeting to review all candidates • Pressure-test fit with criteria • Confirm inclusion of all eligible candidates 	Final list of eligible award candidates, representing success stories worldwide
7 Perform quality check	Develop official award consideration materials	<ul style="list-style-type: none"> • Perform final performance benchmarking activities • Write nominations • Perform quality review 	High-quality, accurate, and creative presentation of nominees' successes
8 Reconnect with panel of industry experts	Finalize the selection of the best practices award recipient	<ul style="list-style-type: none"> • Review analysis with panel • Build consensus • Select recipient 	Decision on which company performs best against all best practices criteria
9 Communicate recognition	Inform award recipient of recognition	<ul style="list-style-type: none"> • Announce award to the CEO • Inspire the organization for continued success • Celebrate the recipient's performance 	Announcement of award and plan for how recipient can use the award to enhance the brand
10 Take strategic action	Upon licensing, company is able to share award news with stakeholders and customers	<ul style="list-style-type: none"> • Coordinate media outreach • Design a marketing plan • Assess award's role in strategic planning 	Widespread awareness of recipient's award status among investors, media personnel, and employees

The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of the research process. It offers a 360-degree view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often companies make important growth decisions based on a narrow understanding of their environment, resulting in errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry participants and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS



About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, helps clients accelerate growth and achieve best-in-class positions in growth, innovation, and leadership. The company's Growth Partnership Service provides the CEO and the CEO's growth team with disciplined research and best practices models to drive the generation, evaluation, and implementation of powerful growth strategies. Frost & Sullivan leverages nearly 60 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on 6 continents. To join Frost & Sullivan's Growth Partnership, visit <http://www.frost.com>.