

 Content archived on 2024-06-18



HIGH RELIABILITY, LOW COST, STACKABLE POWER SUPPLY FOR SECURITY SYSTEMS

Results in Brief

A streamlined power source for security systems

Introducing a stackable-type power supply to security and alarm systems could help enhance their reliability and strengthen the industry. This will also help to improve safety and security standards in Europe.



© Thinkstock

From fire alarms to intruder alarms, security systems require a complicated power supply fed by both alternating current (AC) through the national grid and direct current (DC) through chargeable batteries. This AC-DC configuration is not very efficient in terms of cost and performance, prompting technology developers to seek more reliable alternatives.

The EU-funded project 'High reliability, low cost, stackable power supply for security systems' (SECURITAC) envisioned a new kind of power solution to enhance the reliability of such systems. It sought to support small and medium-sized enterprises (SMEs) that produce and install security systems by reducing the burden of manufacturing, control, testing, inventory and maintenance related to the AC-DC model.

To overcome this challenge, the project team worked on developing a unique stackable power supply module for security systems in order to deliver the required total output power of up to 260 Watts. It defined specifications for a stackable power supply system and developed technology to convert the 230-Volt mains input into 26-Volt or 13-Volt output. The work also involved studying, testing, comparing and integrating both analogue and digital controllers into security systems, with the pros and cons of each being documented.

Progress was also made in developing a more sophisticated battery charger, control functions and firmware, as well as better fault detection. Moreover, the project team developed an electromechanical solution that stacks the newly developed SECURITAC modules in an easy, cost-effective manner using industry standard connectors.

Overall, thanks to these outcomes and related cost savings of up to 20 %, the security systems industry is more likely to remain competitive and keep its manufacturing in Europe. The project partners have developed recommendations to exploit and market the technology, helping to strengthen the EU as a key player in the field. Lastly, beyond the commercial implications of the project, the expected enhancements in security systems are set to increase safety and security across the continent.

Project Information

SECURITAC

Grant agreement ID: 222444

Project website

Project closed

Start date

1 November 2008

End date

30 April 2011

Funded under

Specific Programme "Capacities": Research for the benefit of SMEs

Total cost

€ 1 208 036,98

EU contribution

€ 904 481,28

Coordinated by

NTRAM GENERAL S.A.

Spain

This project is featured in...

2 of 3

RESEARCH*EU MAGAZINE



**From the obvious to the
unknown – A new era for
mobile apps**

Last update: 9 January 2014

Permalink: <https://cordis.europa.eu/article/id/92366-a-streamlined-power-source-for-security-systems>

European Union, 2025