



DEHN protects.

Container battery storage system
from VARTA Storage GmbH

Customer



VARTA Storage GmbH

Project overview

Sector

Battery storage systems

Application

Decentralised stationary battery storage system for the efficient use of renewable energies and increased grid stability

Hardware

Depending on the application,

- Type 1 DEHNventil arresters
- Type 1 BLITZDUCTOR XT arresters
- Type 2 DEHNgate arresters

External lightning protection system

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VARTA Storage GmbH

VARTA Storage GmbH, a company of the VARTA Micro Group, is one of the leading companies in the field of energy storage. All developments and the related sales activities of the VARTA Micro Group in this promising market are merged into VARTA Storage GmbH. Based in Nördlingen/Germany, VARTA Storage GmbH is a 100% owned subsidiary of the VARTA Micro Group. It has extensive know-how in energy storage based on long-life lithium-ion batteries and carries out innovative research and development activities in this field. The company's goal is to focus its research and development capabilities on Germany's energy transition and on environmental protection.

Challenge

Energy storage, a key technology of Germany's energy transition, allows locally produced electricity to be used in decentralised locations. Container battery storage systems store renewable energies which are generated e.g. by photovoltaic systems or wind turbines in modern lithium-ion cells and release the electricity back into the grid, whenever required. This decentralised storage supports grid stability.

In order to optimally protect the high-class technologies in the storage container, a comprehensive overall lightning and surge protection concept is required. This is a particularly challenging task since the places of installation and operating conditions of the container may significantly vary due to its mobile design and worldwide use.

Solution

To protect the core components of the battery storage system, for example the grid connection, power electronics, module racks and communication infrastructure, VARTA Storage relies on lightning and surge protection from DEHN. This is on the one hand implemented by powerful DEHNventil lightning current and surge arresters for power supply systems and, on the other hand, by arresters which are tailored to wireless applications for coaxial device and antenna interfaces and two-wire telecommunication and signal lines (e.g. SDSL), for example DEHNgate, BLITZDUCTOR XT and DEHNrapid LSA.



DEHNgate for protecting wireless applications



DEHNventil for protecting power supply systems

Benefits of the DEHN solution

- Laboratory-tested protective effect
- Flexible use of the surge protective devices – according to the type of system and customer's needs
- Modularly expandable system, especially in terms of the lightning protection system
- Space-saving installation
- Floating changeover contact for continuous arrester monitoring
- Optimal technical support and training sessions for all people involved in the project