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## **ACI technology by DEHN – Device safety redefined**

**Safe dimensioning makes the new DEHNguard with ACI technology (Advanced Circuit Interruption) a no-worries package for the user who saves space, time and costs. ACI technology presents a technical solution to dimensioning issues which eliminates the need to select the right back-up fuse or conductor cross-section. ACI fulfils the requirements of tomorrow today. Constant availability of electrical systems is a must. Power cuts and system failure are out of the question. Now and in the future, it is important to consider the ongoing transition in the global power supply. Renewable power generation is creating new grid parameters: Isolated grids and storage systems are changing the short-circuiting conditions. One aspect which the new ACI technology already has well under control.**

The safety and availability of the electrical installation is increased, and valuable space saved. In addition, errors made when selecting or installing the back-up fuse or choosing the right conductor cross-section can be eliminated. The only cross-section which now needs to be considered for the connection cables of DEHNguard ACI is 6mm<sup>2</sup>. This saves the valuable time previously spent on dimensioning the cross-sections. 6mm<sup>2</sup> Cu also makes installation easier because the radiuses are smaller and the wiring shorter. One must, however, ensure that all live conductors are wired so that they are short-circuit and earth fault proof.

Thanks to galvanic separation by the ACI unit, the new DEHNguard ACI enables operation without any leakage current and with a high degree of TOV withstand. The technology in an ACI arrester eliminates the occurrence of leakage current. This prevents mature ageing of the protective device and saves the time and expense of replacing arresters ahead of schedule. DEHNguard ACI also prevents the accidental tripping of the insulation monitoring and contributes towards operational safety. Conventional solutions with fuses or circuit breakers are not ideal for protecting an SPD. High impulse current in normal operation necessitates high trigger current in case of a fault when the back-up fuse has to disconnect. Here, ACI is perfectly coordinated with the surge protection and supply reliability of the system. This is the next evolutionary stage for protecting an SPD whilst also saving time, space and material and, as a result, costs.

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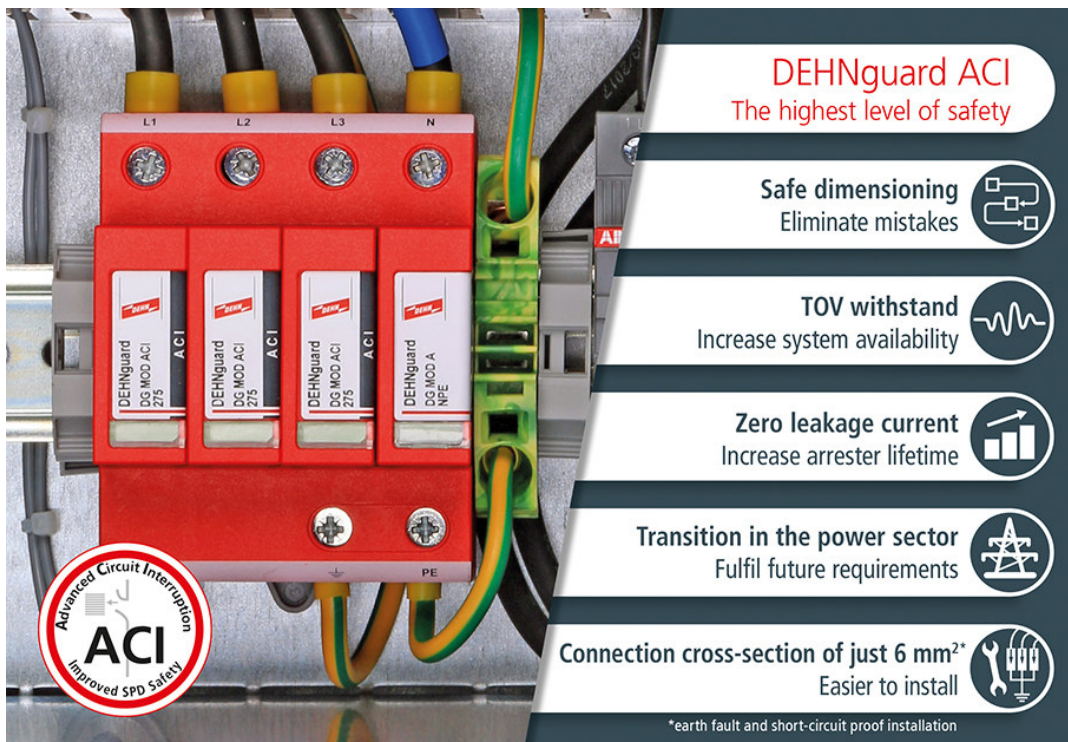


Figure: DEHNGuard with new ACI technology

**DEHN is a leading, globally active family-owned company for electrotechnology** with almost 1,800 employees worldwide. DEHN offers innovative products and solutions as well as comprehensive services in the field of **surge protection, lightning protection and safety equipment**. The focus of DEHN's activities is protecting plant and building technology; transport, telecommunications and process industry systems; or photovoltaic systems and wind turbines in addition to countless other applications. The company's continuous growth is based on more than 100 years of tradition and experience as well as the highest quality standards and consistent customer and market orientation.

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