

# Cable solutions for energy storage

BETAtherm® 145 single-core for a sustainable power supply



The efficient use and storage of energy is crucial for the future. The demand for energy is growing continuously. To ensure the security of supply in an economically efficient and reliable manner, the electricity and supply grids are constantly being expanded. Energy storage systems play a key role, as they offer intelligent solutions for a stable and sustainable energy supply.

## Safety and sustainability in energy storage systems

High current flows and temperatures occur within energy storage systems. In order to protect against these stresses and minimize the risk of fire due to overloading or overheating, halogen-free core cables with short-circuit protection are indispensable. Our products offer precisely these properties and are characterized by their durability, which makes them a sustainable contribution to the energy infrastructure.

## Future-proof solutions for charging stations and more

Our products are ideal for the safe and sustainable wiring of energy storage and charging stations. We meet the stricter legal requirements in the area of fire protection by using cross-linked insulating materials that guarantee operational safety even in the event of a short circuit. Our BETAtherm® cables have been specially developed to meet these challenges and fulfill the highest standards in terms of:

- Security and availability
- Fire protection and protection against consequential damage

## Advantages

- Very high temperature resistance
- Operating temperature -55 °C to +145 °C
- Sustainable due to very long service life (220'000 h at 90 °C, 5'000 h at 145 °C)
- Highest fire protection properties
- Short-circuit-proof (resistant to thermal pressure)
- Electron beam cross-linked
- Halogen-free
- Sustainable
- Fire class BauPV / CPR
- Various approvals (UL 3271/3820, UL/cUL CSA, DNV, BV, LR, VDE)



## Swiss quality and customized solutions

Studer Cables stands for decades of experience and expertise in the development and manufacturing of cable products for:

- Internal wiring
- Electrical machines (thermal class B)
- Switchgear and distribution boards in apparatus, machine and plant engineering

Thanks to our high level of vertical integration and proven Swiss quality, we can also offer customized solutions for specific requirements. Our customers benefit from innovative products that offer maximum safety, long service life and sustainability.

## Research, development and quality

We rely on state-of-the-art production facilities and work continuously in our laboratories on the development of innovative polymer plastics. The result:

- Excellent insulating properties
- Good performance with temperature fluctuations
- Highest fire protection properties
- Longer service life
- Easy handling
- Additional security features

## Single-core

	Nominal voltage	Temperature range	Cross sections	Certifications
<b>BETA</b> therm® 145	600 / 1000 V	-55 °C to +145 °C	0.25 mm <sup>2</sup> to 300 mm <sup>2</sup>	VDE, DNV/GL, Lloyd's Register, BUREAU VERITAS, CPR

## Single-core with UL certification

	Nominal voltage	Temperature range	Cross sections	Certifications
<b>BETA</b> therm® 145 UL/CSA 3266	300 V	-55 °C to +145 °C	AWG24 to AWG12	UL, CSA
<b>BETA</b> therm® 145 UL/CSA/cUL/ 3271/3820	1000 V	-55 °C to +145 °C	0.25 mm <sup>2</sup> to 240 mm <sup>2</sup>	UL, CSA, cUL



Further information can be found in our data sheets on our website: <https://studercables.com/en/products/>

In addition to first-class products, Studer Cables offers comprehensive advice, precise calculations and other services. If you have any questions, please do not hesitate to contact us personally.

**Studer Cables – competent and indispensable.**