ENERGISING THE FUTURE

Battery Energy Storage Systems (BESS) – Our Cable Solutions for Sustainable Technologies

prysmian

The planet's pathways

THE WORLD LEADER IN ENERGY AND TELECOMS CABLE SYSTEMS

We provide high-quality cable solutions with advanced technology for lasting growth and profits. Our commitment to excellence and innovation ensures sustainable profitability. Additionally, we prioritise being a trusted partner, and our values guide our actions. Prysmian, the global leader in the energy and telecom cables sector, scored 100 points in the 2023 Dow Jones Sustainability World Index in the environmental areas of Emissions, Resource Efficiency and Circularity, Waste and Water, reaffirming its focus and attention on these topics.

CARBON FOOTPRINT

Prysmian aims to reduce its environmental impact by minimising emissions across operations, supply chains, and product lifecycles. This involves using renewable energy, energy efficient practices, and optimising production processes. Prysmian also focuses on developing low-carbon solutions to support the global shift to sustainable energy and digitalisation. By integrating sustainability into its business strategies, Prysmian aims to combat climate change while delivering quality products and services.

OUR COMMITMENT

Our commitment to a low-carbon future remains unwavering as we strive to create sustainable solutions while upholding quality standards. We prioritise sustainability and environmental protection in our daily operations, collaborating with local communities to ensure workplace safety and safeguard the areas we operate in.

OUR GOALS

Our goals focus on sustainability leadership, transitioning to a low-carbon world, and fostering an inclusive work environment. Prysmian's Climate Change Ambition aligns with the Paris Agreement, targeting emissions reduction and neutralisation. Our Social Ambition aims to enhance diversity, equality, and inclusion by 2030, empowering women and prioritising community engagement.

WHERE SUSTAINABILITY MEETS INNOVATION

Pioneering Cable Solutions for a Brighter Future

At Prysmian, sustainability is the driving force behind everything we do. Our eco-friendly cable solutions minimise environmental impact while perfectly aligning with our customers' needs. We're leading the charge in green innovation, optimising operations for resource efficiency and promoting responsible practices throughout our supply chain. Prysmian isn't just about making cables, it's about crafting a sustainable future in technology.

Join us in our quest for a greener world, where technology and environmental responsibility go hand in hand.

Did you know?

Our products contain recycled materials such as copper, PE, and PVC. We use low-carbon aluminium for products with Al conductors, and ensure that our solutions are both heat- and energy-efficient.

In the first quarter of 2024, the percentage of recycled content in polyethylene (PE) jackets and copper was 15%.

Our Sustainability Priorities

Enable accessible energy deployment and innovation.

Promote responsible resource use and sustainable supplies.

Support community and people development.

Did you know?

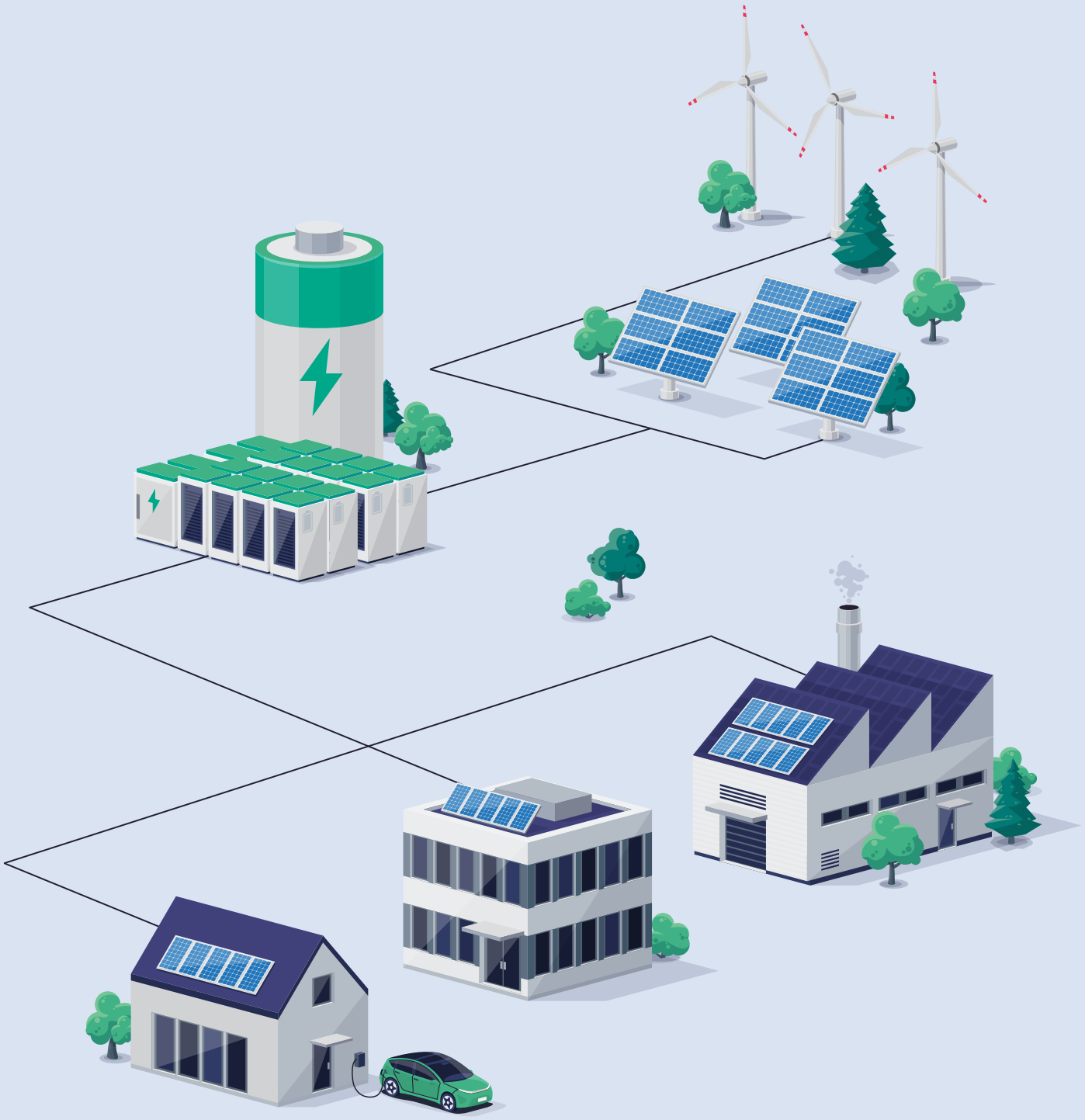
Our plants in the CEE region rely on eco-friendly renewable sources. In 2024, we enhanced our in-house solar energy production capacity from 6 MW to 14 MW, fostering a brighter future for sustainable energy generation.

Sustainable Development Goals – Prysmian aligns its corporate framework with the 17 Sustainable Development Goals (SDGs) defined in the UN 2030 Agenda. The SDGs and their targets identify the global priorities and define an integrated plan of action for people, planet, prosperity and peace.

Science Based Targets – Prysmian's emissions reduction strategy aligns with the guidelines set forth by the Science Based Targets Initiative (SBTi) in accordance with climate objectives.

Responsible Mica Initiative – In 2021, Prysmian joined - as the first cables sector business - the Responsible Mica Initiative (RMI), which is a non-profit organisation dedicated to the elimination of child labour and precarious working conditions in the mica supply chain.

POWERING ENERGY STORAGE.



SUSTAINABLE TECHNOLOGIES FOR TOMORROW'S ENERGY

Advanced Cable Solutions for Battery Energy Storage Systems (BESS)

Battery Energy Storage Systems (BESS) are revolutionising energy management by storing surplus electricity and releasing it when needed. They play a crucial role in stabilising power grids, especially when combined with renewable energy sources like solar and wind.

Building on our expertise in cables and systems for solar and wind installations, Prysmian offers a wide range of solutions for BESS applications. Our high-quality cables and components ensure optimal performance, efficiency, safety, and long-term reliability – from low voltage to medium voltage applications.

Benefits of Prysmian's BESS Cable Solutions

- Enhanced grid stability and reliability
- Seamless integration with renewable energy sources
- Optimised energy efficiency and reduced losses
- Robust and durable products for long-term operation
- Global support network and expertise

PRYSMIAN – SHAPING THE FUTURE OF BESS TECHNOLOGY WORLDWIDE.

FLEXIBLE CABLES

Our halogen-free flexible cables are the perfect match for e.g. the interconnection of the battery modules inside the container as well as the connection of the battery container and the Power Conversion System (PCS). Effortless to install and capable of withstanding temperatures up to 120°C, our flexible cables deliver unmatched performance and reliability.

TECSUN (PV) H1Z2Z2-K
1/1 kV AC | 1,8kV DCmax

High-performance halogene-free, 120°C power cable originally developed for PV systems up to 1,8kV DC. Suitable for applications indoor and / or outdoor, in industrial and agriculture areas, with protective rubber insulation, in explosion hazard areas. May be installed fixed, freely suspended or free movable, suitable for direct burial.

LSOH | 120°C 20,000h | waterproof AD 8+ | UV-resistant | Visit Web Catalogue

TECSUN (PV) S3Z2Z2-K
1,8/3 kV AC | 5,4kV DCmax

High-performance halogene-free, 120°C power cable originally developed for PV systems up to 5,4kV DC. Suitable for applications indoor and / or outdoor, in industrial and agriculture areas, with protective rubber insulation, in explosion hazard areas. May be installed fixed, freely suspended or free movable, suitable for direct burial.

LSOH | 120°C 20,000h | waterproof AD 8+ | UV-resistant | Visit Web Catalogue

BESSFLEX (AS) RZ1-K
1,8/3 kV AC | 5,4kV DCmax

Halogene-free, 90°C power cable especially designed for BESS systems up to 5,4kV DC. Suitable for applications indoor and / or outdoor, in industrial and agriculture areas. With its flexible class 5 conductor it is easy to install in fixed applications. The improved fire reaction class B2ca-s1b,d1,a1 provides, in the event of a fire, reduced fire spread and reduced heat emissions.

LSOH | B2ca CPR | UV-resistant

MOVIS 4GKW
1,8/3 kV AC | 5,4kV DCmax

High-performance, halogen-free, 120°C power cable up to 5,4kV DC. Designed for demanding applications, withstanding extreme conditions. Especially designed for railway applications but also suitable for other industrial applications.

LSOH | 120°C 20,000h | UV-resistant | Visit Web Catalogue

POWER DISTRIBUTION CABLES

Designed for modern infrastructure, our power cables ensure reliable, long-lasting performance indoors, outdoors, and in tough conditions.

SUNCONNECT (N)A2XY-J/O
1.8/3 kV AC | 1,8kV DCmax

Power distribution cable especially designed for use in PV solar plants, for fixed indoor / outdoor electrical installations. Features durable aluminum conductor with cross-linked polyethylene insulation. Compliant with IEC standards, suitable for AC and DC applications. High water resistance, flame-retardant, reliable in extreme temperatures.

UV-resistant

Visit Web Catalogue

PROTODUR NYY-O/-J
0.6/1 KV | 1,8kV DCmax

Power distribution, connecting and installation cable. The laying can be in earth, in tube, free in air, indoors, in concrete and in water. It is also UV-resistant and flame-retardant.

UV-resistant

Visit Web Catalogue

PROTODUR NAYY-O/-J
0.6/1 kV | 1,8kV DCmax

Power distribution cable. The laying is possible directly in ground, in tubes, free in air, indoors, in concrete and in water. It is lead-free, UV-resistant and flame-retardant.

UV-resistant

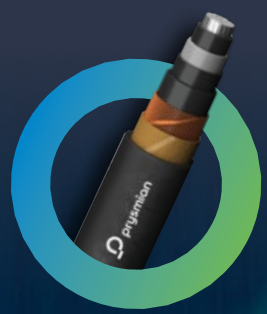
Visit Web Catalogue

PROTOTHEN X NA2XY
0.6/1 KV | 1,8kV DCmax

Power distribution and interconnection cable for industry and power generation networks. Laying: in ground, in tubes, free in air, indoors and in water. UV-resistant.

UV-resistant

Visit Web Catalogue



PROTOTHEN X NA2XS(F)2Y
10 KV | 20 KV | 30 KV

Power distribution cable. Suitable for direct burial, in ducts, in water, outdoors above ground, and indoors. The ingress of water in case of a damaged outer sheath is limited by the longitudinal watertight screen area.

Visit Web Catalogue 10 KV

Visit Web Catalogue 20 KV

Visit Web Catalogue 30 KV

NETWORK COMPONENTS

Comprehensive One-Stop Solutions

At Prysmian, we understand that a seamless data centre cable infrastructure is crucial for its smooth operation. This is why we provide extensive solutions beyond cables: Our expertise extends to a wide spectrum of network components, ensuring that data centres are fully equipped with the highest quality products.

Our portfolio of accessories includes a vast range of joints, terminations, separable connectors and other accessories, e.g. cleats and glands. Whether components for low, medium or high voltage cables: we cover all requirements for a complete cable infrastructure.

DOWNLOAD BROCHURE

We deliver top-quality cables that meet the rigorous standards for building infrastructures. Our cables conform to CPR regulations, ensuring reliability and safety for any building project. With Prysmian, seamless integration and high-performance solutions are guaranteed, providing all necessary components from a single supplier.

Paulina Brzezicha
Product Manager

Innovation is at the heart of what we do. Our R&D team pushes the boundaries of cable technology. By focusing on sustainability and quality, we support the energy transition and provide future-proof solutions for data centres worldwide.

Vitezslav Kunc
R&D Engineer

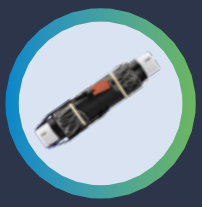
The Top 5 Components for BESS

LOW VOLTAGE JOINTS

- Various types: straight, branching, unarmoured, and armoured
- Ready for immediate energisation after resin injection
- Tested and approved by EN 50393 and IEC 61238 standards

CLICK-FIT FOR HIGH VOLTAGE

- Simple plug-and-power concept for easy and fast assembly
- Maximum reliability with maintenance-free operations
- Leading system for high voltage cable accessories up to 72.5 kV



ELASPEED MEDIUM VOLTAGE JOINTS

- Coldshrink all-in-one EPDM design, available in LS0H outer protection and sensorised (Elaspeed S) versions
- Including shear-bolt connector, no special tools required
- Watertight and suitable for underground networks, cable trays, and overhead networks

ELASCON MEDIUM VOLTAGE JOINTS

- EPDM range-taking separable connectors, suitable for interface C 630A/1250A, indoor and outdoor
- Supplied with shear-bolt lugs
- Compatible with one or three core medium voltage cables, unarmoured, and armoured

ACCESSORIES

BICON CLEATS

- Designed for the highest performance standards
- Ensuring safe and efficient cable installation and operations
- Withstanding short circuits or faults

Choosing Prysmian was a game-changer. Their ‘One Stop Shop’ approach simplified our procurement process, supplying everything from cables to accessories. Their commitment to sustainability and quality confirmed we made the right choice for our business.

Wolfgang Bremikec
Customer

MULTIMEDIA SOLUTIONS

As the worldwide leader in energy and telecom cable solutions, Prysmian believes in the effective, efficient and sustainable supply of energy and information as a primary driver in the development of communities. With this in mind, we provide major global organisations in multiple industries with best-in-class products and services, based on state-of-the-art technology.

Welcome to our world of immersive connectivity where reliability is guaranteed, and flexibility is inherent in every solution. Experience seamless connectivity, expanded bandwidths, and adaptable solutions that evolve with your needs. Explore our diverse range of products, including copper and fibre cables for bustling offices, optical and copper cables for studio essentials, coaxial RF cables for modern communication, and base station and antenna connections redefining mobile networks. Shape the future of connectivity with us, where entertainment and information are at your command.

We support wholesalers, resellers and OEMs with solutions designed to meet both current and future demands - always with absolute reliability and total flexibility.

PRY-CAM ASSET MONITORING SYSTEM

Unlocking the Power of Data-Driven Efficiency

In power distribution, the reliability and safety of electrical systems are crucial. Data centres are especially vulnerable to disruptions from power outages or malfunctions, leading to significant risks and economic losses, estimated at $150 billion annually in the U.S.

PRY-CAM: REVOLUTIONISING POWER MANAGEMENT

PRY-CAM is a groundbreaking technology for electrical system monitoring and condition assessment. It provides online, accurate, and reliable measurements, diagnosing and localising defects remotely. This results in enhanced grid reliability, safety, and cost efficiency for utilities and industries.

Key Features

- **REAL-TIME DATA**
  Monitoring conditions, malfunctions, and overheating without the need for specific expertise.
- **COMPREHENSIVE COVERAGE**
  Suitable for electrical equipment from 3 kV to 600 kV, including cables, transformers, and switchgear.
- **FLEXIBLE SOLUTIONS**
  Configurable for specific maintenance and asset management strategies.
- **INTEGRATED MONITORING**
  Continuous or temporary monitoring of key parameters like partial discharge, temperature, and humidity.
- **ADAPTABLE PLATFORM**
  Compatible with various SCADA protocols, customisable to customer requirements.
- **ADVANCED TECHNOLOGY AND DATABASE**
  Harnessing IoT and a cloud-based system with over three million measurements for effective monitoring and continuous improvement.

Discover more at www.pry-cam.com

SETTING NEW STANDARDS WITH E PATH

An invaluable business growth opportunity fueled by sustainability

Prysmian proudly introduces E Path, a pioneering eco-labelling system tailored specifically for the cable industry. This innovative approach, built upon EU-ecolabel standards, sets a new benchmark for sustainability in cable manufacturing.

prysmian
E Path

E Path uses measurable and known assessment criteria to summarise the contribution that cables can provide, in terms of climate change effect, paving the way for the cable industry to be included into eco or green labelling systems. Sustainability is not just a goal, it's our commitment at Prysmian. We embed sustainability into every strand of our operations, striving not just for excellence but for sustainable excellence. It's who we are, it's what we do.

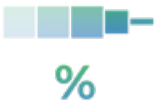
With sustainability rooted in our DNA, each cable family has to pass a rating process based on the following criteria:

CARBON FOOTPRINT

Aimed at defining climate change impacts deriving from cables life cycle

NO TOXIC SUBSTANCES

Absence of CMR or toxic/hazardous to environment substances in the cable



PERFORMANCE EFFICIENCY

The higher the efficiency of the transmission, the more sustainable the performance

RECYCLING INPUT RATE

Presence of recycled materials in cable, both purchased and reused

ENVIRONMENTAL BENEFITS

Low carbon products (including cables used for green energy sources), CPR compliant products

RECYCLABILITY / CIRCULARITY

Presence of potentially recyclable material, possibility to reclaim/recover

PRYSMIAN

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