DATA CENTRE SOLUTIONS

Empowering Tomorrow's World

prysmian

The planet's pathways

CONNECT
TO LEAD

THE ONE-STOP SHOP FOR DATA CENTRES

Comprehensive Solutions for Seamless Operations

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 prioritize 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 minimizing emissions across operations, supply chains, and product lifecycles. This involves using renewable energy, energy efficient practices, and optimizing production processes. Prysmian also focuses on developing low-carbon solutions to support the global shift to sustainable energy and digitalization. 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 prioritize 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 neutralization. Our Social Ambition aims to enhance diversity, equality, and inclusion by 2030, empowering women and prioritizing 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 minimize environmental impact while perfectly aligning with our customers' needs. We're leading the charge in green innovation, optimizing 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 AI 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 enhance 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 Goals - 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.

SETTING NEW STANDARDS WITH E PATH

An invaluable business growth opportunity fueled by sustainability.

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

E Path uses measurable and known assessment criteria to summarize 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:
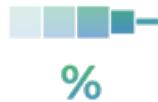
CARBON FOOTPRINT

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

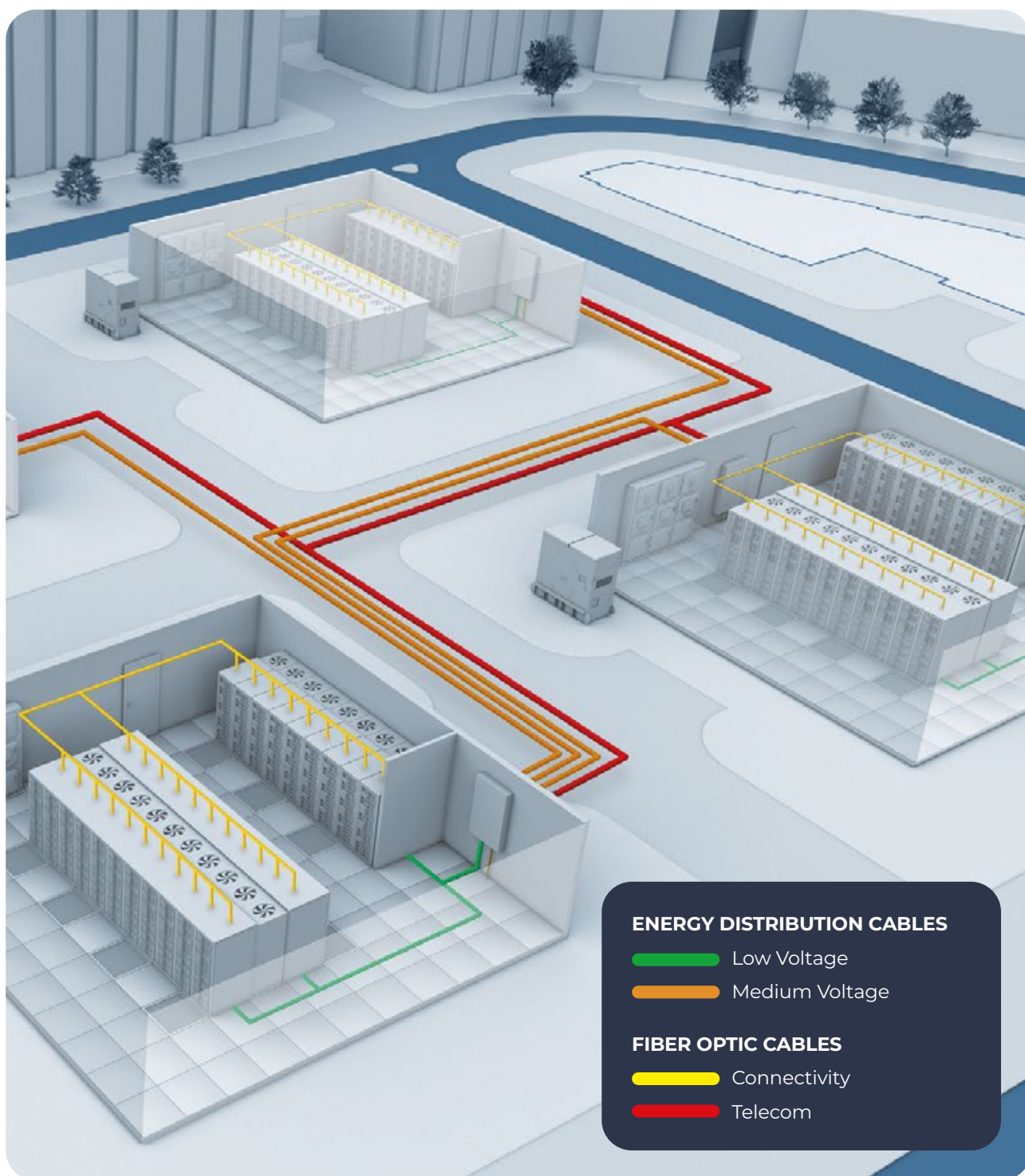Low carbon products (including cables used for green energy sources), CPR compliant products

RECYCLABILITY / CIRCULARITY

Presence of potentially recyclable material, possibility to reclaim/recover

DATA CENTRE

As the world's largest energy and telecoms cable solution provider, Prysmian is uniquely positioned to assist data centre operators in meeting the demands of these new applications and exponential growth, both locally and globally. Your data centre challenges can be addressed.

ENERGY DISTRIBUTION CABLES
— Low Voltage
— Medium Voltage

FIBER OPTIC CABLES
— Connectivity
— Telecom

Prysmian offers comprehensive solutions.

Virtual Reality. Augmented Reality. 5G. IoT. The smart home. Automated cars. Remote surgery. All require enhanced performance, demanding increased fiber optics, faster data transmission, ample power, and robust computing.

Reliable, secure, and adaptable inf rastructure is crucial. Data centres, often overlooked, are vital for communities, storing, communicating, and transporting vast amounts of data. As data volume grows, data centres become even more critical, especially with next-gen applications.

Yet, many current data centres are outdated and inefficient. Slow or unreliable data access leads to decreased customer satisfaction, revenue loss, and inaccessible vital services.

We focus on developing cutting-edge solutions to address the ever-growing bandwidth concerns:

DOWNTIME THREATS

Downtime is a significant issue for data centre operators and business owners alike. Low-quality cables or lengthy installation times are primary causes of downtime.

SCALING CHALLENGES

Scalability is crucial to accommodate next-generation applications, yet many operators struggle to provide adequate infrastructure.

SPACE RESTRICTIONS

Operators must handle increasing volumes of fiber in and out of their data centres, often with legacy infrastructures.

DATACONNECT

Energy Cables for Data Centres

Our cables are ideal for buildings requiring high protection against fire and fire damage, ensuring the safety of both human life and equipment, and meeting stringent security requirements.

ADVANCED SAFETY FEATURES
LS0H with improved fire behaviour, meeting the highest safety standards.

ENHANCED ERGONOMICS FOR EFFICIENCY
User-friendly design that is flexible and easy to strip.

FUTURE-READY DESIGN
Compliant with the latest standards and customer requirements for reliable performance.

PREMIUM QUALITY
Made with best-in-class materials, ensuring maximum durability.

Trust in our commitment to excellence and innovation to keep your data and energy flowing seamlessly. With Prysmian DataConnect, the possibilities are endless.

DATACONNECT

Low Voltage Cables for Data Centres
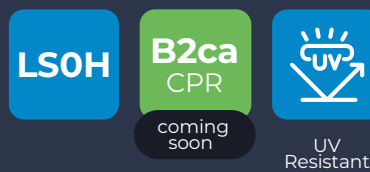
LOW VOLTAGE HALOGEN-FREE INSTALLATION CABLES

N2XH[PRO] B2ca s1a d1 a1

These cables with copper conductors are Low Smoke Zero Halogen (LS0H), recommended for fixed installations in public buildings, industrial complexes and everywhere where people safety is mandatory. **Also available in Dca Version.**

prysmian E Path | **LS0H** | **B2ca** CPR | UV Resistant

N2XCH

These cables are specifically designed with enhanced fire-resistant properties, tailored for critical environments like hospitals, schools, and similar structures. These cables are halogen-free and emit minimal smoke, ensuring safety during fire incidents.

LS0H | **B2ca** CPR coming soon | UV Resistant

NHXMH[PRO] B2ca s1a d1 a1

These cables are designed with improved fire-resistant qualities, suitable for building and industrial installations. **Also available in Dca Version.**

prysmian E Path | **LS0H** | **B2ca** CPR

LOW VOLTAGE FLEXIBLE CABLES

H07ZZ-F^{PRO} B2ca s1a d1 a1

High-performance, flexible power cable that meets the highest safety standards for fire, smoke and toxicity (LS0H). Designed for applications where human life and valuable equipment are at risk from fire hazards. Suited to installation both indoors and outdoors.

LS0H | **B2ca** CPR | UV Resistant | Abrasion Protection

H07RN-F^{PRO}

These Cables are suitable for use in various environments, especially for transportable motors or machines on construction sites or in agricultural settings, even in explosive or flammable atmospheres.

LS0H | UV Resistant | Abrasion Protection

RZ1-K^{PRO} B2ca s1a d1 a1

This cable is a low smoke halogen-free (LS0H) and easy stripable cable, ideal for public places like hospitals, schools, airports and similar. It helps to protect people and electronics from harmful or corrosive gasses in case of fire. **Also available in Dca Version.**

prysmian E Path | **LS0H** | **B2ca** CPR | UV Resistant
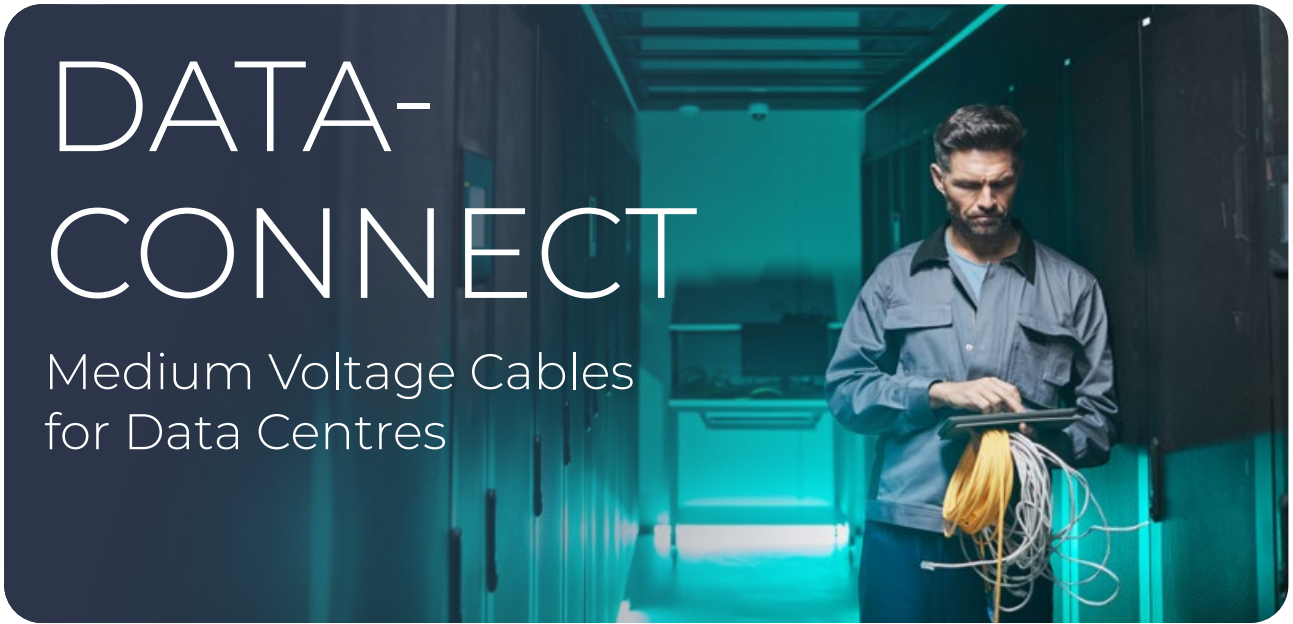
LOW VOLTAGE EARTHING CABLE

H07Z-R^{PRO}

These cables are used for fixed protected installations, including lighting fittings, switch and control gears. They are suitable for environments where the risk of fire, smoke emission, and toxic smoke poses a threat to life and equipment.

LS0H

DATA-CONNECT

Medium Voltage Cables for Data Centres

HIGH FLEXIBLE MEDIUM VOLTAGE CABLES

Prysmian offers a wide range of medium voltage (MV) cables for the commercial, industrial and urban residential networks. Our electrical equipment is manufactured with quality in mind, so you can be sure you are receiving a product which is reliable and delivers peak performance.

RELIABLE CABLE SOLUTIONS FOR LOCAL INFRASTRUCTURE

Constructions like data centers and industrial parks require an efficient, reliable source of power. Our medium voltage cables are manufactured to support constructions at this level, and our customers trust us with supplying the highest standards of electrical equipment.

Key Features

✓ Extreme Flexibility
Perfect for cramped areas

✓ Allows equipment mobility during operation

✓ Operational in temperatures ranging from -50°C to +90°C

✓ Low Smoke
Zero Halogen design for enhanced fire resistance and minimal toxic emissions

FELTOFLEX Grid Connect (N)TMCHXOEU
Bending the Laws of Physics

Experience unparalleled flexibility with our Feltoflex® cable, redefining flexibility standards in the industry. Our cutting-edge technology allows for small bending radii to accomplish remarkable feats, setting a new benchmark in cable performance.

Originally designed for wind power stations, our Feltoflex® cable boasts unrivaled pliability, making it ideal for applications where space is limited and mobility is crucial. Say goodbye to rigid installations — our cable, aptly named At Full Stretch, adapts effortlessly to dynamic environments.

DIGITAL SOLUTIONS

Introducing a trifecta of cutting-edge fiber optic solutions: **SIROCCO** Microcables and **SIROCCO**HD, alongside Prysmian's **Flextube®** Family. **SIROCCO** Microcables offer a 20% size reduction for swift and economical installations, while **SIROCCO**HD boasts higher fiber counts, minimizing civil works costs and environmental impact.

Meanwhile, **Flextube®** revolutionizes cable technology, offering easy fiber access and thermal stability, catering to diverse needs with options ranging from single fiber units to 864-fiber duct cables. Experience the future of connectivity with Sirocco Extreme, featuring unparalleled diameter and fiber density, ensuring faster, more cost-effective installations and meeting stringent international standards.

-20%
Diameters

EXTREME
High fiber density

96 - 864
Fiber counts

BENDBRIGHTXS
180 µm fiber technology

LOW CARBON
Footprint

INTERCONNECTING DATA CENTRES WITH ULTRA-HIGH-DENSITY (UHD) SOLUTIONS

UHD FlexRibbon™ Fibre Cable

OVERVIEW

Data centre operators need high density. So, they must bundle as much fibre as possible into the smallest possible cable, to fit into their existing duct infrastructure.

Originally developed for our hyperscale data centre customers, Prysmian's UHD cables – featuring FlexRibbon™ technology – are designed to maximise fibre density and duct space utilisation, and will support major large-scale data centres worldwide.

FlexRibbon™ is compatible with existing splicing technology (200-250 μm fibre splicing).

CURRENTLY AVAILABLE IN THE FOLLOWING FIBRE COUNTS

864

1,728

3,456

6,912

MassLink and FlexRibbon™ Technology Provide an Ultra-Compact Outside-Plant Cable Design.*

200 µm Fibre optic

200 µm

200 µm Fibre optic

– Supporting bandwidth growth and efficient usage of space for AI applications

– BBXS 200 µm enables cable densification and miniaturisation.

FlexRibbon™

1.25-inch duct

864f

1728f

1728 250 µm Fibre

– A 21% smaller diameter (38% volume reduction) over traditional ribbon designs

– Contains 1,728 bend-insensitive fibres

– Small enough to fit into 31.75 mm/1.25-inch duct

– Ribbons can be rolled up and packed together in small diameter 288-fibre subunits.

FlexRibbon™

1.5-inch duct

1728f

3456f

3456 200 µm Fibre

– Contains 3,456 bend-insensitive fibres

– Small enough to fit into 38.1 mm/1.5-inch duct

– Ribbons can be rolled up and packed together in small diameter 216-fibre subunits

– Enables high packing density while delivering advantages of mass fusion splicing.

FlexRibbon™

2-inch duct

6912f

6912 200 µm Fibre

– Contains 6,912 bend-insensitive fibres

– Small enough to fit into 50.8 mm/2-inch duct

– Ribbons can be rolled up and packed together in small diameter 288-fibre subunits

– Enables high packing density while delivering advantages of mass fusion splicing.

*Ultra-compact indoor and indoor-outdoor versions are available, contact your sales representative for more information

HIGH DENSITY CONNECTIVITY

Our Ultra-High-Density (UHD) suite enables data centre operators to 'scale' their network in limited legacy space quickly, easily and accurately.

Overview

The need for bandwidth has pushed data centre operators to deploy hundreds and thousands of fibres. This makes managing cables very difficult. Installation takes time, and scaling up and down can be particularly challenging.

Prysmian's High-Density (HD) Fibre Panel has been developed in our high-tech connectivity R&D centre, specifically for high-density fibre installations in hyperscale and carrier-based fibre networks.

It's easily deployed in multiple applications: hyperscale cloud, multi-tenant data centres, central offices, edge data centres, CATV headend and enterprise.

Key Features

✓ LESS INSTALLATION TIME
– Tested with data centre installer partners and experts

– can reduce operational error and installation time by almost 30%.*

✓ ULTRA-HIGH-DENSITY
– Available in 1U, 2U, and 4U fibre footprints

– 144 to 576 in relative port counts, primarily using standard LC connectors

– Multi-fibre push on (MPO) and other speciality connectors are also available to raise the densities in line with the demands of specific fibre network operators in each market segment.

✓ MODULAR AND FLEXIBLE
– The panel's cassette-based design enables flexibility and modularity

– Managed fibre count can be raised to up to 432 fibres per unit using high-density MPO connectors and trunks.

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 Fiber 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. Along with reliability and flexibility, ou solutions are designed for greater bandwidths.

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: REVOLUTIONIZING POWER MANAGEMENT

PRY-CAM is a groundbreaking technology for electrical system monitoring and condition assessment. It provides online, accurate, and reliable measurements, diagnosing and localizing 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, customizable 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

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.

RELIABLE CONNECTIONS FOR A GREENER FUTURE

NETWORK COMPONENTS AND ACCESSORIES FOR RENEWABLE POWER APPLICATIONS

prysmian

DOWNLOAD BROSCHURE

> 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 Data Centres

LOW VOLTAGE JOINTS

— Various types: straight, branching, unarmoured, and armoured

— Ready for immediate energization after resin injection

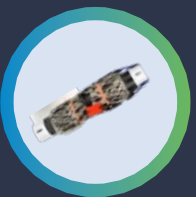— Tested and approved by EN 50393 and IEC 61238 standards

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

BICON CLEATS

— Designed for the highest performance standards

— Ensuring safe and efficient cable installation and operations

— Withstanding short circuits or faults

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

> 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

RESEARCH & DEVELOPMENT (R&D) CENTRES

Our 26 R&D centres globally maintain close proximity to local markets, facilitating the acquisition of crucial technological innovations at competitive costs. We're dedicated to shaping a cleaner, safer future through projects aimed at enhancing energy and information delivery. With sustainability at our core, we invest heavily in R&D, collaborating with 50 universities worldwide to develop skilled professionals capable of keeping us ahead in the industry. Our exceptional R&D capabilities include 26 Centres of Excellence, advanced technologies, over 900 skilled professionals, and more than 5,600 patents. Our ambitious goals include powering wind farms in deeper waters, laying cables at 3,000 meters below sea level, and developing smart cables for maintenance communication.

Collaboration with leading universities is integral to our innovation journey, spanning countries like Italy, Brazil, the USA, and China. Notable successes include Corporate Hangar, an open innovation platform co-founded in 2017, fostering projects beyond our core business. Notable successes include Alesea, Kablee, and Cultifutura, along with Prysmian Electronics' monitoring solutions for cable systems.

5,600+
patents covering the main innovations

298
Product families launched during the year

26
Research centres

900
Professionials

50+
Collaborations with research centres and universities

GOOD ISN'T GOOD ENOUGH

Our commitment to quality is evident in our policies and processes, including the Prysmian Quality Management System (PQMS) based on ISO 9001. We prioritize continuous improvement, challenging objectives, and effective corrective action.

At Prysmian, we're not satisfied with just being good; we strive for outstanding quality in everything we do. Our global Quality Organizational Model ensures market-leading manufacturing excellence through rigorous monitoring processes at every stage of a product's lifecycle.

From raw material procurement to final delivery, we maintain strict quality standards, aiming for "zero defects" and a "right first-time" approach. Our energy and telecoms cables consistently meet the highest standards for customer satisfaction.
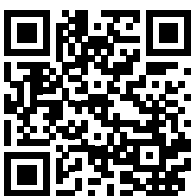

PQMS
Prysmian Quality
Management System

ISO 9001
Globally recognized standard
for quality management

prysmian

www.prysmian.com