RELIABLE CONNECTIONS FOR A GREENER FUTURE

NETWORK COMPONENTS AND ACCESSORIES FOR RENEWABLE POWER APPLICATIONS





The planet's pathways

CONNECTING THE WORLD. TODAY AND IN THE FUTURE

PRYSMIAN

The global cable player leading the energy transition and digital transformation.



CONNECT TO LEAD

We're seizing the opportunities offered by market trends to become a global cable solution provider. From the depths of the ocean to the pinnacles of the world's tallest buildings, we drive new forms of energy and information to each and every corner of the earth. We offer the widest range of services and know-how in the industry. Each year, Prysmian manufactures thousands of miles of underground and submarine cables and systems for power transmission and distribution, as well as medium and low voltage cables for the construction and infrastructure sectors. We also produce a comprehensive range of optical fibres, copper cables and connectivity systems for voice, video and data transmission for the telecommunications sector.

We're not just close to our customers, we're right there with them.





Years of experience



30k

Our employees

As of December, 31st 2023

TOGETHER WE ARE PRYSMIAN

Navigating the way forward.

Leveraging our geographical footprint and breadth of products, valuable customer partnerships, unique people and strong commitment to sustainability and innovation, we're pushing the boundaries of electrification and digitalisation.

Connect, to lead.

Connecting people and businesses everywhere.



ACCESSORIES FOR RENEWABLE POWER **APPLICATIONS**

to the present situation.

grid. And criticalities increase even more when safety and continuity of service.

As the world leader in the cable systems industry, Prysmian takes on the sustainable challenge and the ever-growing need for renewable sourced energy, aiming to be our customers' partner in the energy transition.

At Prysmian, we have spent decades building our expertise and global experience and have developed an unrivalled range of network components and accessories to complement our cable systems portfolio and offer end-to-end and highly reliable solutions for renewable power applications.

From joints to terminations; connectors to glands; cleats, fixings, link boxes and resins – we offer the

The transition towards renewable energy is it comes to wind and Solar PV applications. very much dependent on the capability to Our accessories are vital to connect power transmit power from where clean energy systems and support the development of is produced to where it is consumed or efficient, reliable, and safe power grids. Our stored. Thus, the energy transition demands technical sales teams will help you select the expanding the grid much further with respect right component for your application. For special requests, our engineering and R&D Choosing the right component is critical to any teams will develop the right product to ensure

> widest range of jointing and terminating solutions on the market. Every product is conceived to be fully integrated with our customers' power systems with tailored designs for any installation condition. As leaders in the market, we have taken our knowledge and technology leadership and deployed it to our full range of solutions, as we elevate cable accessories from passive network components, to active, IoT-enabled solutions throughout every voltage class.

> As a global leader, we also uphold a commitment to sustainability, with R&D teams who dedicate their expertise to making our products more sustainable - for business, and for the environment.

A SOLUTION FOR EVERY REQUIREMENT

Our accessories product portfolio includes joints, terminations (indoor and outdoor), connectors, separable connectors, glands, cleats and fixings, low voltage link boxes, tooling and resins tested according to international standards. Prysmian also provides engineering and design support services for all power system specifications and requirements and across all voltage classes for both AC and DC applications. Recently we have also developed solutions that support optical fibre integration and electrical asset monitoring systems.



GLOBAL GROUP LOCAL FORCE

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As world leader in the cable systems industry, we are present to serve both our global and local customers. To offer our tailor-made solutions, we appreciate the importance of understanding local preconditions and special needs. Therefore, we believe that it is crucial to be present within local geographies, while being backed-up by the capacity that only a truly global group possesses.

EASY INSTALLATION AND ENHANCED **RELIABILITY FOR GREATER GRID STABILITY**

- Considering the importance of grid stability, and the diverse environments in which solar and wind energy are produced, our R&D and design teams have been focusing on ensuring ease of installation and the highest reliability.
- Every accessory incorporates more than 140 years of experience in the cable system industry, to guarantee that the highest international standards are met.

TRAINING PROGRAMMES

To complement the accessories product portfolio, Prysmian has established a state-of-the-art Jointer Training Program. With training schools deployed all over the world, Prysmian works to ensure that common methodology, best practices, and proven tools are the standard for jointers around the globe. Training programmes are tailor-designed and delivered at a regional level, both at our Training Centres of Excellence and at customers' premises.

PRODUCT FAMILIES AT A GLANCE

(1) HV SEPARABLE CONNECTORS

2 HV JOINTS

(3) HV INDOOR TERMINATIONS

(4) HV OUTDOOR TERMINATIONS

5 MV INDOOR TERMINATIONS

6 MV OUTDOOR TERMINATIONS



- 7 MV JOINTS
- (8) MV SEPARABLE CONNECTORS
- 9 LV SEPARABLE CONNECTORS
- (10) LV CLEATS AND GLANDS
- 11 LV JOINTS

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PRODUCTS & BRANDS

(CLICK-FIT

Click-Fit is a unique range of products based on a simple plug-and-power concept that enables optimum ease and speed of assembly, maximum reliability, and maintenance-free operations.

Click-Fit represents the leading delivery system for High Voltage cable accessories also in the renewable market up to 72.5 kV for both onshore and offshore applications. It is certified for offshore installation by GL Renewables Certification: UV test, salt fog test, electrical (LI+AC) test. It is protected against rain and dust.

The Click-Fit product range includes:

- Joints can connect all combinations of conductors with minimum effort and in less time than conventional joints.
- Outdoor Terminations are used in HV power grids to connect overhead lines to equipment such as switchgear and transformers.
- Dry-type Connectors are designed to connect extruded HV cables into gas insulated switchgear (GIS) or oil filled power transformers.





SPEED LINE JOINTS

Speed Line joints are based on elastic EPR. Elaspeed Medium Voltage joints feature coldshrink all-in-one EPDM design. Supplied with shear-bolt connector and does not require special tools for installation. Watertight design suitable for underground networks, installation in cable trays and overhead insulated networks. The flexible design makes it perfect for straight joint, transition joint, branch joint and stop-end solutions. LSOH outer protection version and sensorised version (Elaspeed S) customised solutions are available.

(ELASPEED JOINTS



COLDFIT TERMINATIONS

Coldfit slip-on silicone terminations are designed design with factory-assembled moisture sealing explosion proofness. Protected against rain and dust during assembly. Suitable for installation in high-duty environmental conditions.

Pre-expanded Coldfit coldshrink terminations are without armour.

designed to connect Medium Voltage cables to to connect an extruded High Voltage cable to an outdoor apparatuses or overhead lines. They have outdoor apparatus or overhead line. Prefabricated an all-in-one design with the sealing embedded. It is supplied with shear-bolt lugs. Different pollution components. Modular design allowing different classes are available for indoor and outdoor creepage distances prevents leakage and ensures applications. Shedless version available for indoor applications. It can be installed in vertical or angled positions, and it does not require any special tool. Suitable for one and three core cables, with or

PRY-PLUG TERMINATIONS

Pry-Plug terminations are designed to connect The silicone rubber Elasticfit range-taking design extruded High Voltage cables to gas insulated is suitable for Medium Voltage indoor and outdoor switchgear (GIS). Applicable to both single and applications. Different solutions are available to three-phase cable enclosures. Easy installation cover a wide range of pollution class requirements. process and no specific maintenance required. It can be installed in vertical, angled, or inverted Can be provided with a fibre optics integration in position and it does not require any special tools. the end bell or with the integration of PD sensors, Suitable for both one and three core cables, with sheath voltage limiters and extension rods. or without armour. Monobloc solution available up to 12.7/22 (24) kV for indoor applications. Coldshrink breakout solution available for three-core cables applications.



ELASTICFIT TERMINATIONS



(PRY-TEE

Pry-Tee separable High Voltage connectors are designed according to EN 50180 and 50181 type F interface to connect an extruded High Voltage cables to switchgear (GIS), transformers or similar both in indoor and outdoor applications. The conductive outer jacket is safe-to touch for greater personnel safety. Easy installation process and no specific maintenance is required. Protected against rain and dust.

ELASCON

EPDM Elascon range-taking separable connectors are suitable for interface C 630A/1250A for both indoor and outdoor applications. Safe disconnection during maintenance operations is ensured. Full electrical test performed before shipping. Supplied with shear-bolt lugs. Suitable for one or three core Medium Voltage cables, with or without armour. Can be supplied with coupling connector, surge arrester, stand-off plug, and earthing plug. No special tool or heating required.

(FORMFIT DEADBREAK

EPDM screened 600/900A separable connectors suitable for 600A rated bushing according to IEEE 386 both in indoor and outdoor applications. Can be supplied with shear-bolt lug. Full electrical test performed before shipping. No special tool or heating required. Suitable for one or three core Medium Voltage cables, with or without armour.

SLIP-ON SFT TERMINATION

Silicone slip-on Medium Voltage terminations TECPLUG PMC-4 SUN connectors are made of are designed in one single body. They are PPE (Ploluphenylene Ether). Rubber gasket makes prefabricated design prepared in the factory with them suitable for indoor and outdoor installations, moisture sealing components. They are available and for both fixed and mobile connections. with shear-bolt connector as an option. Different Installation is simple, safe, and tool-free allowing pollution classes are available for indoor and to perform operations without power outage. outdoor applications. It can be installed in vertical TECPLUG PMC-4 SUN connectors are successfully or angled positions. Suitable for one and three core tested for electrical, mechanical and UV resistance. cables, with or without armour. Maximum protection from bad weather conditions (IP68) and watertightness ensured when installed in offshore solar parks or on floating platforms.



SOLAR TECPLUG PMC-4 SUN

BICON CLEATS

and manufactured to the highest performance way cable cleats, fire resistant cable cleats, standards to ensure safe and efficient trefoil cable cleats, quad cleats, and other installation and cable operations even in cable fixing solutions including rigid tunnel the event of short circuits or faults. They also allow a neat and orderly arrangement of cables which is aesthetically pleasing.

BiCon cleats, clips and fixings are designed Prysmian offers a wide variety of cleats: single clamping cleats, auxiliary stand-off cable cleats, system repair cleats and installation equipment. LSOH solutions are available as well.

BICON GLANDS

support, earth continuity and protection against requirements of the ATEX Directive -94/9/EC.





PRODUCT MAPPING



llation Temperature	Ambient operating temperature	
n 0 °C / max 40 °C	min -60 °C / max +50 °C	
n 0 °C / max 40 °C	min -40 °C / max +40 °C	
n 0 °C / max 50 °C	min -5 °C / max +55 °C	
llation Temperature	Ambient operating temperature	
n 0 °C / max 40 °C	min -60 °C / max +50 °C	
n 0 °C / max 40 °C	min -60 °C / max +50 °C	
n 0 °C / max 50 °C	-	
n 0 °C / max 50 °C	-	
n 0 °C / max 40 °C	-	

PRODUCT MAPPING

TERMINATIONS									
Product		Standard	Conductor cross section	Conductor material	Rated voltage (Umax)	Approximate weight	Installation Conditions	Installation Temperature	Ambient operating temperature
Click-Fit	Ļ.	IEC-60840 Std.48 NEN-HD632	150 mm² - 2500 mm²	Cu / Al	Up to 72.5 kV (renewable applications)	60 kg	Protected against rain and dust	min 0 °C / max 40 °C	min -60 °C / max +50 °C
Coldfit slip-on		IEC 60840 IEEE Std.48	150 mm² - 2000 mm²	Cu / Al	Up to 72.5 kV	10 kg	Protected against rain and dust installed in very heavy environmental conditions	min 0 °C / max 40 °C	min -60 °C / max +50 °C
Pry-Plug	P	IEC-60840 IEC-60859	150 mm² - 2000 mm²	Cu / Al	Up to 145 kV	45 kg	Protected against rain and dust	min 0 °C / max 40 °C	min -60 °C / max +50 °C
Elasticfit slip-on modular		HD629.1 S1	25 mm² - 1200 mm² stranded or solid	Cu / Al	Up to 19/33 (36) kV	<10 kg	It does not require any special tools nor heating during the installation.	min 0 °C / max 40 °C	min 0 °C / max +50 °C
Coldfit pre-expanded		HD629.1 S2 IEEE 48	25 mm² - 630 mm² stranded or solid	Cu / Al	Up to 19/33 (36) kV Up to IEEE 35 kV	<10 kg	It does not require any special tools nor heating during the installation.	min 0 °C / max 40 °C	min 0 °C / max +50 °C
Slip-on SFT	-0000000	HD629.1 S3 IEC 60502-4	25 mm² - 630 mm²	Cu / Al	Up to 19/33(36) kV	<10 kg	It does not require any special tools nor heating during the installation.	min 0 °C / max 40 °C	min 0 °C / max +50 °C

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