CABLING AND CONNECTIVITY SOLUTION

Photovoltaic

LAPP GROUP

LAPP GROUP

Reliably connecting the world

Headquartered in Stuttgart, Germany, the Lapp Group is a leading supplier of integrated solutions and branded products in the field of cable and connection technology. The Group's portfolio includes standard and highly flexible cables, industrial connectors, customized system solutions, automation technology and robotics solutions for the intelligent factory of the future, as well as technical accessories.

We want to help you become even more productive and successful. This is why we work tirelessly on optimising our processes. We do everything to make sure we always find the best solution for you and also provide you with quick, efficient and effective support.

No matter where you are – we are always by your side. Our plants, sales companies, partners and, above all, our competent teams of advisers ensure that we offer you a comprehensive service in every continent. We do not simply distribute cable technology, but we also manufacture our products ourselves – which represents another advantage for you. As a manufacturer with 18 of our own production facilities, you will benefit from our expertise in the development, design and manufacture of cables, system products and cable accessories. Thanks to this expertise, we can guarantee that Lapp will provide you with the quality that you require and demand for.

You can always rely on quality from Lapp – wherever you are in the world. This is also embodied by our strong brands.

LAPP INDIA


Bangalore factory


Laboratory testing facilities


EndtoEnd System facility for ÖLFLEX® Connect

Reliably connecting India

Lapp India is a 100% subsidiary of the Lapp Group. Having started its operations in 1996, Lapp India provides about 150,000 km per year of power, control, instrumentation and data cables along with connectors, accessories and EndtoEnd Systems to over 5000 customers pan India. Our customers are spread across different industry segments such as automation, textile, automotive, machine tools, oil and gas, renewable energy, process industries, as well as in the infrastructure and building sectors.

- 23 Sales offices close to customers all over India & 5 service points
- 300 employees committed to best serve customers
- Strong network of 150 dealers
- 2 manufacturing units - Bangalore and Bhopal
- 5 Warehouses
- State of the art laboratory
- Fully fledged Innovation and Engineering Centre

BRAND QUALITY FROM STUTTGART

ÖLFLEX®
Power and control cables

UNITRONIC®
Data communication systems

ETHERLINE®
Data communication systems for ETHERNET-Technology

HITRONIC®
Optical transmission systems

EPIC®
Industrial connectors

SKINTOP®
Cable glands

SILVYN®
Protective cable conduit and cable carrier systems

FLEXIMARK®
Cable marking systems

The sun being the most secure and abundant source of energy, it is critical that we effectively harness the potential of its energy- the solar energy. Today, India has a cumulative installed grid connected solar PV capacity of 8 GW. By 2022, India is expected to have 120 GW of solar PV capacity thus making solar industry one of the fastest growing in India. Making a mark in this industry, Lapp in India has catered to over 2.5 GW of grid connected (PV) projects till date.

A pioneer in photovoltaic (PV) cable and connection technology, Lapp Group provides intelligent transmission solutions for reliably connecting the fast growing solar industry. At Lapp Group, we value our customers and provide them with products that offer superior German quality, reliability and technology innovation. We are credited with launching the first permanently waterproof PV cable which is a safe and reliable solution to the challenges faced by installers & EPC's addressing the water menace. Besides, we also have developed a new technology for connection and cabling that is highly suited for delicate OPV modules. With EN certified products, we are future ready to meet the impending statutory requirement for the industry.

The fact that we recognised the potential of this market very early on and have built up specialist expertise in this area demonstrates the innovative tradition of our company. Lapp offers a specifically tailored comprehensive range of cables, connectors and photovoltaic accessories for cabling photovoltaic plants. A variety of tests have been carried out on our OLFLEX® cables, SOLAR cables, SKINTOP® cable glands and EPIC® SOLAR connectors to guarantee highest quality standards. Our products can be used throughout the world and naturally also comply with the RoHS directive.

For over ten years, Lapp has been successfully developing connection systems for photovoltaic modules and has regularly pushed the market forward with its intelligent innovations, for example the well known OLFLEX® SOLAR cable series and the EPIC® SOLAR connector systems. The OPV modules and the innovative connections are made from one cast – unlike the conventional photovoltaic modules, there is no longer a junction box attached; instead, there is a access point which is cast directly onto the flexible OPV film and merges with the film. Additionally, the connection components are 30mm x 20mm in size, considerably smaller than those in conventional systems. The cables to be used by the modules were also selected according to customer-specific requirements and are only 2mm wide. They have been produced in grey for use on the German pavilion so that they can be integrated virtually unnoticeably into the grey wire braiding of the design components.

LAPP PROMISES

Peace of mind
High German Quality | In Compliance with Global Standards | Over 40000+ Products for various applications

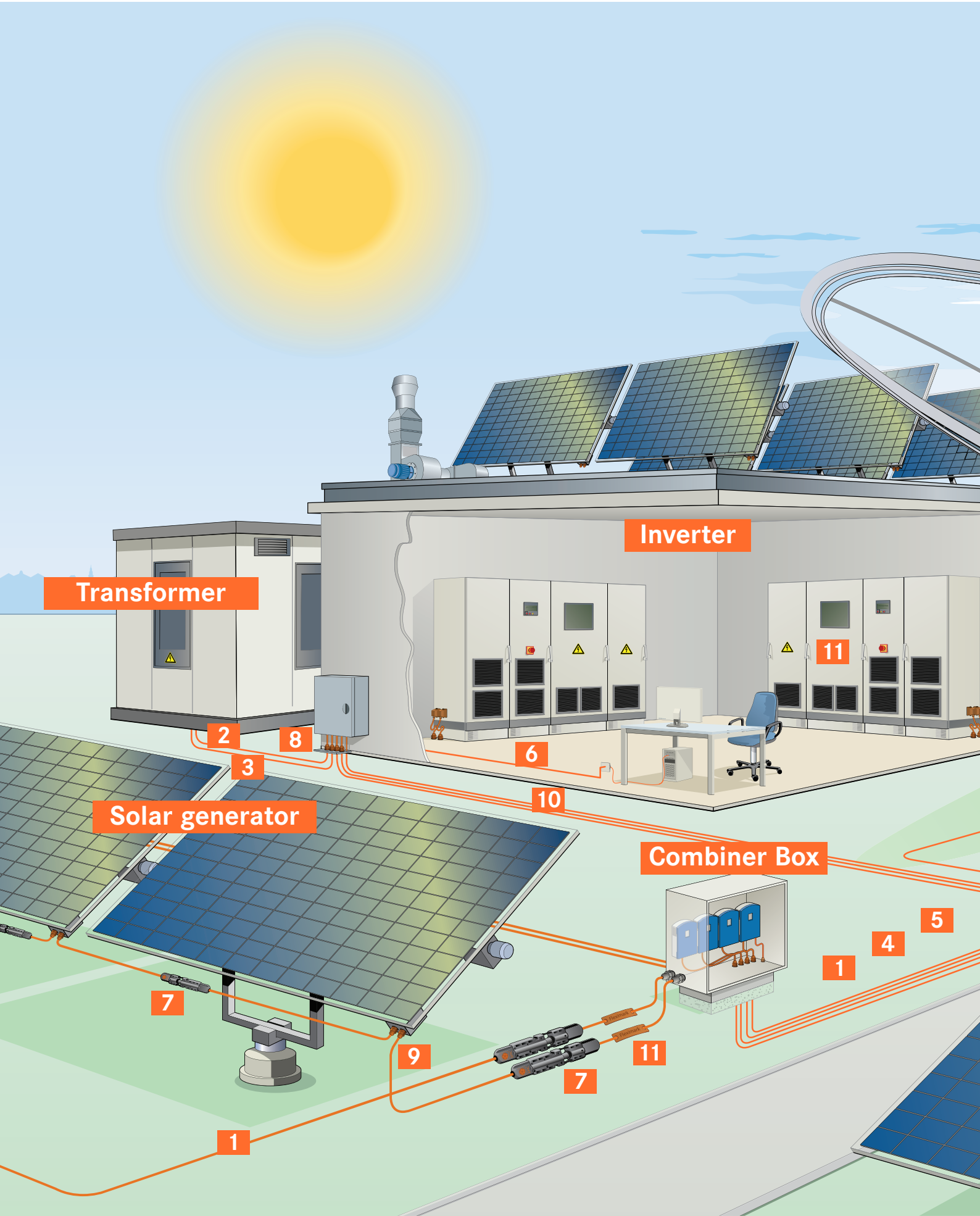
Value for money
Low Maintenance | Long Service Life | Durable & Reliable

We are where you are
23 Sales Offices | 5 Warehouses & 5 Service Points in India | 150 Dealers across India |
First online cable store - www.thelappstore.com

Technology leadership
2 Manufacturing Plants in Bangalore & Bhopal | State of the Art Laboratory | Fully Fledged Innovation & Engineering Centre |
Over 58 years of Manufacturing Excellence & Application Knowledge

LAPP GROUP

System Solutions by Lapp



1 ÖLFLEX® SOLAR
Photovoltaic cables

2 PVC UNDERGROUND CABLE
Power and control cable

3 Medium Voltage Cable

4 UNITRONIC® BUS
Data- and BUS cables

5 UNITRONIC® Feldbus
S/A cabling

6 ETHERLINE®
Ethernet cabling

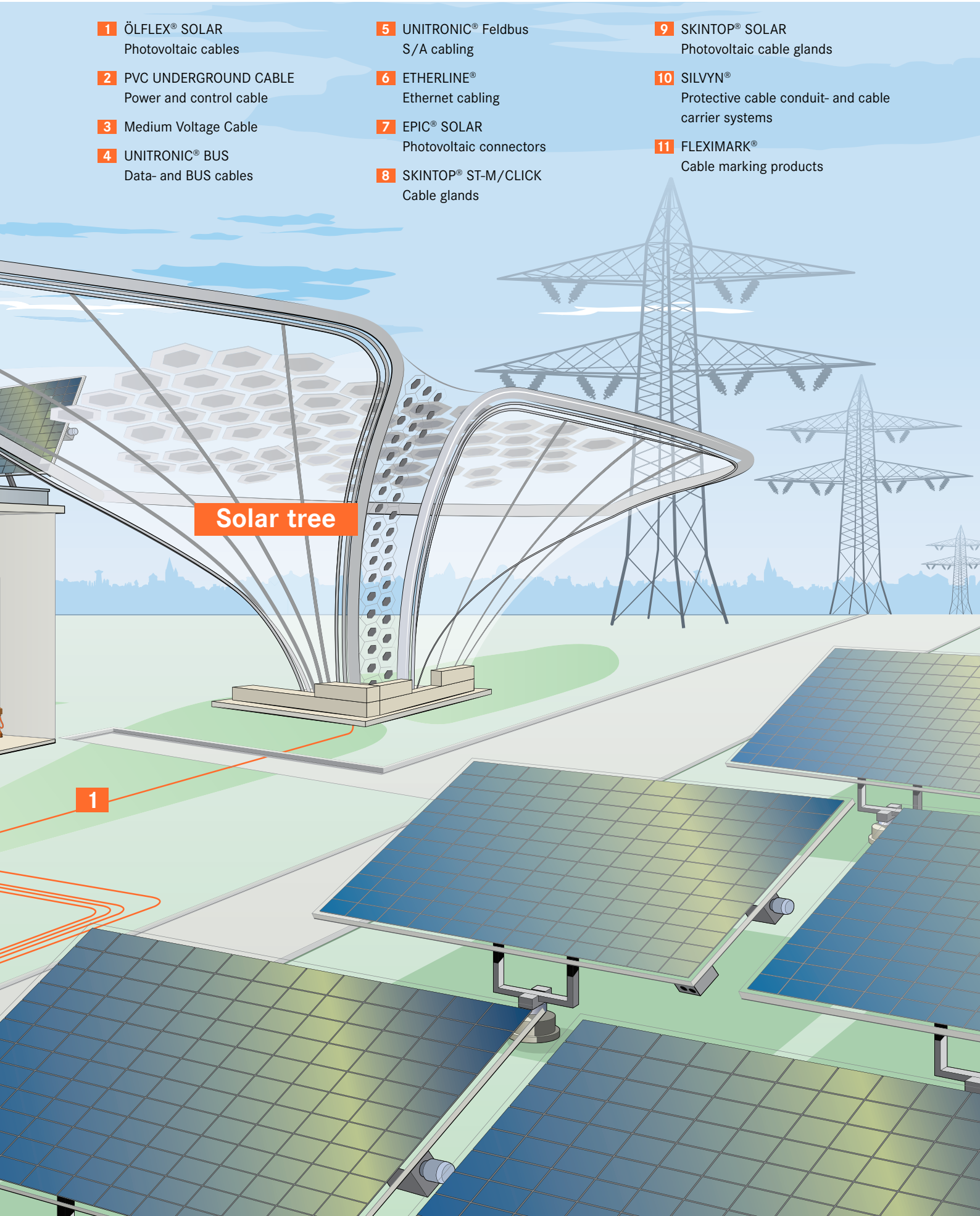
7 EPIC® SOLAR
Photovoltaic connectors

8 SKINTOP® ST-M/CLICK
Cable glands

9 SKINTOP® SOLAR
Photovoltaic cable glands

10 SILVYN®
Protective cable conduit- and cable carrier systems

11 FLEXIMARK®
Cable marking products



ÖLFLEX® SOLAR XLR-R

Electron beam cross-linked solar cables with reduced diameters - TÜV type approved

- Optimised cable design - thin, light and robust
- Available in sizes upto 300 sq. mm.
- Extruded colour stripe serves as reverse polarity protection during installation.
- Certified acc. to TÜV Type PV1-F (2 PfG 1169/08.2007)

ÖLFLEX® SOLAR XLS-R

Electron beam cross-linked solar cables with reduced outer diameters

- Optimised cable design - thin, light and robust
- Extruded colour stripe serves as reverse polarity protection during installation.
- Available in sizes upto 16 sq. mm.

ÖLFLEX® SOLAR XLR-E

Electron beam cross-linked solar cables - type H1Z2Z2-K certified according to EN 50618

- Robust against mechanical impacts
- Extruded colour stripe serves as reverse polarity protection during installation.
- Available in sizes upto 300 sq. mm.
- H1Z2Z2-K (code designation according to EN 50618)
- Substitudes previous ÖLFLEX® SOLAR XLR-R

ÖLFLEX® SOLAR XLWP

Electron beam cross-linked solar cables with optimized performance in water - EN 50618 type

- Optimised cable design - constant high volume resistance even after long-term period in water
- Extruded colour stripe serves as reverse polarity protection during installation.
- Available in sizes upto 300 sq. mm.
- H1Z2Z2-K (code designation according to EN 50618)
- Substitudes previous ÖLFLEX® SOLAR XLR WP

ÖLFLEX® SOLAR XLR-E T

Electron beam cross-linked solar twin-cables, separable - EN 50618 type

- Optimised cable design - thin, light and robust
- Reduced outer diameters enable space and weight saving installation
- Time-saving installation
- Ideal for stand-alone PV power systems
- Available in sizes upto 6 sq. mm.

UNITRONIC® Li2YCYv (TP)

Screened data transmission cable with PE core insulation, reinforced outer sheath and twisted pairs

- Cables for RS485/RS422
- Flame-retardant according IEC 60332-1-2
- Reinforced black outer sheath (Yv) is suitable for indoors and outdoors and provides enhanced protection for direct burial in the ground
- 7-wire bare stranded copper conductor
- Decoupling of circuits by means of twisted-pair (TP) design (crosstalk effects)
- Customized armored versions available

EPIC® SOLAR 4 M/F

- 4 mm connector system with double hook
- Field-mountable solar connector
- Suitable for various OLFLEX® solar cables
- TUV Rheinland certified
- For 4 and 6 sq. mm. cable sizes

EPIC® SOLAR 4 Plus M/F

Connector system for weatherproof cabling of photovoltaic systems

- 4 mm connector system with double hook
- For photovoltaic plants up to 1.5kV system voltage
- Low contact-resistance for efficient power transmission
- For cable sizes upto 10 sq. mm.
- Available 2017

EPIC® SOLAR 4 Splitter

Connector system for weatherproof cabling of photovoltaic systems

- 4 mm connector system with double hook
- Splitter for parallel connection of PV-modules and strings
- Fixing option for a clear installation with a Ø 5mm mounting hole

EPIC® SOLAR 4 Built in socket

Connector system for weatherproof cabling of photovoltaic systems

- 4 mm connector system with double hook
- Built-in fitting for inverters, PV string circuit breakers and fuse boxes
- PV panel connector to be screwed in directly (M12 tapping) or fastening with the included plastic locknut
- Internal plug connector diameter 2.5mm,flush connector pin
- Other types of connection on request

EPIC® CRIMPTOOL

EPIC® CRIMPTOOL

For inserts and modules of the EPIC® rectangular connectors

EPIC® SOLAR TOOL CSC

Cutting, stripping and crimping with just one tool

EPIC® SOLAR TOOL CSC

3 cross section in one tool

- Crimping die for EPIC® SOLAR 4 PV connectors
- Single die for 2.5, 4 and 6 sq. mm cable sizes
- Locator for safe and accurate positioning of crimping contacts
- Also suitable for MC4 connector

- Multifunctional die for cutting, stripping and crimping with just one tool
- Available for cable sizes 4 and 6 sq. mm.
- Also suitable for MC4 connector

UV-stabilised cable ties with steel nose

- Weather-resistant for harsh environmental conditions
- Steel nose ensures secure and durable binding
- Strong Tie with higher pull-out forces
- Used for outdoor installation and maintenance of power plants

SKINTOP® SOLAR/SKINTOP® SOLAR Plus

- Multifunctional die for cutting, stripping and crimping with just one tool
- Available for cable sizes 4 and 6 sq. mm.
- Cable gland for photovoltaic applications, based on EN 50262, EN 50548 and UL 1703.
- Extended temperature range
- UV and ozone - resistant
- UV 746 C - UL F1 outdoor use
- High strain relief
- Extremely flame-retardant according to UL 94V-0/95-5VA
- Regular UV resistant cable glands available in all sizes

SILVYN® SPLIT

- Dimensionally stable, crush resistant, flexible post installation conduit (divisible)
- Very good UV- and Weathering performance suited for upto +135 degrees
- New sizes are available
- Available in sizes from 6.3mm to 87.5mm (ID)

SILVYN® SPLIT COV/GMP-M/COS

- Post installation (divisible) conduit coupler and locknut suitable for SILVYN SPLIT
- UV & weather resistant
- No loose parts

SILVYN® RILL PA 6

- High flame-retardance and self extinguishing in accordance with UL 94V-0
- Halogen and cadmium-free
- Abrasion -resistant and Crush-resistant
- High resistance to oil, petrol, acids and other chemicals

OLFLEX® SOLAR XLR WP

the first permanently waterproof solar cable from Lapp

It is increasingly the case that users want to make use of areas in damp as well as dry surroundings for the installation of photovoltaic systems. Until now, it was not possible to achieve this without special protective measures when using regular photovoltaics cables. This is because when these cables are exposed to the wet for extended periods, there may be an ingress of moisture into the cable. This leads to a reduction in the insulation resistance, which may in turn cause malfunctions and damage to the solar units. The Stuttgart- based Lapp Group has developed the OLFLEX® SOLAR XLR WP, the first permanently waterproof solar cable. The cable in question is an electron beam cross-linked solar cable of type PV1-F in accordance with TUV 2PfG 1169/08.07 for durable, weather-resistant use in photovoltaic systems. Its optimised cable design and the constantly high contact resistance mean that it will still function reliably even after years in water. The OLFLEX® SOLAR XLR WP guarantees continuous system performance – particularly in areas which are prone to flooding, or where cables are installed underground in protective conduits where water, heat and moisture can accumulate.

The design of the “WP”- version is also used for our new product ÖLFLEX® SOLAR XLWP which is certified according to the new standard EN 50618 (type H1Z2Z2-K).

Legend for icons

INDUSTRIES

- Automation
- Mechanical and Plant Engineering
- Solar Energy

PRODUCT CHARACTERISTICS

- Suitable for outdoor use
- Good chemical resistance
- Flame-retardant
- Wide clamping range
- Halogen-free
- Cold-resistant
- Corrosion-resistant
- Maximum vibration protection
- Mechanical resistance
- Assembly time
- Low weight
- Optimum strain relief
- Robust
- Voltage
- Interference signals
- Temperature-resistant
- UV-resistant
- Waterproof
- Variety of approval certifications

Please note: the purpose of the icons is to provide you with a quick overview and a rough indication of the product features to which the corresponding information relates. You can find details of product characteristics in the “technical data” sections on the product pages.

ÖLFLEX®
Power and control cables

UNITRONIC®
Data communication systems

ETHERLINE®
Data communication systems
for ETHERNET technology

HITRONIC®
Optical transmission systems

EPIC®
Industrial connectors

SKINTOP®
Cable glands

SILVYN®
Protective cable conduit systems
and cable carrier systems

FLEXIMARK®
Marking systems

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