



Elektrozubehör
Cable management from E to Z

SOLAR

⇒ cable management



a PennEngineering® Company

Elektrozubehör has been Master Distributor
of Heyco products for more than 50 years.

Solar cable management
BRC-AP-PCE



Elektrozubehör

Cable management from E to Z

Products and solutions for photovoltaic wiring, made with weather-resistant materials to guarantee maximum efficiency and long life of the systems.

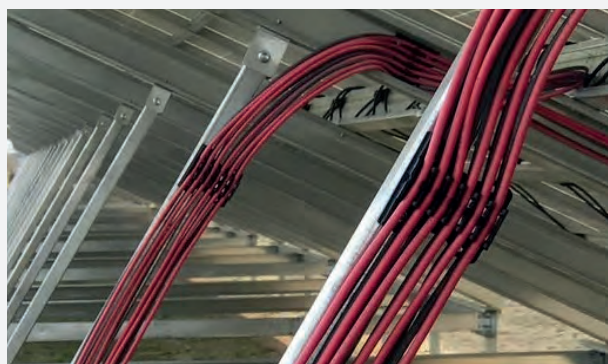


With a focus on resistance, performance and ease of installation, Heyco stainless steel clips provide a reliable solution for cable management in photovoltaic modules.

They ensure protection and solidity, optimize management costs, give a clean and professional look to your solar installations.



Elektrozubehör offers the best solutions for organizing, tying, fixing, protecting, insulating, terminating and marking the wiring of photovoltaic systems.



➤ **Stainless steel clips and accessories**

Cable ties and cable bundlers

Surface-mounted cable holder

➤ **Corrugated conduits, quick connection fittings and accessories**

Protection sleeveings

➤ **Multi-holes cable glands**

➤ **Terminals and end-sleeves**

➤ **Cable marking strips**

Solutions for organizing, tying and holding cables.

Some products displayed in this brochure will be available on our website soon.



STAINLESS STEEL CLIPS AND ACCESSORIES

Made of stainless steel, Heyco clips for cable holding offer a reliable solution for cable management of photovoltaic modules or any other application that requires effective organization of single or multiple cables. They are an excellent alternative to traditional plastic cable holders and cable ties, which tend to deteriorate over time with exposure to atmospheric agents.

Designed to secure and organize cables of various sizes, the clips have rounded edges to prevent potential damage to the cable insulation.

They are available in two versions: frame edge clips and structural profile clips.

The **frame edge clips** can be easily installed by hand with a simple press and, thanks to the locking tab, ensure stable and secure fastening to the structure. For moving or removing the clips, a simple screwdriver is sufficient.

The **structural profile clips** are designed with specific shapes to fit the most common profiles on the market. They can also be easily installed by hand and can be repositioned or removed without the need for tools.

UL certified, Heyco clips offer high quality and a **guaranteed lifespan of at least 20 years!**



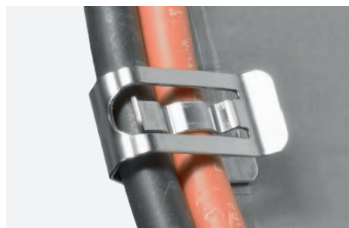
Stainless steel frame edge clips



CMF-2C: Clips for max 2 cables. Clips suitable for cables with diameter 5.1 - 7.6 mm each, for frame thickness 0.64 - 6.4 mm. Also available for shorter frame edges.



CMF-RL: Clips for max 2 cables, for systems without structural profiles. Clips suitable for both photovoltaic module cables up to 7.6 mm diameter and for micro-inverter cables up to 12 mm diameter. For frame thickness 1.3 - 6.4 mm.



CMF-IN: Clips for max 2 cables, with cables inside the frame. Clips oriented so that the cables are hidden inside the photovoltaic module frame. Suitable for cables with diameter 5.1 - 8.4 mm each, for frame thickness 1.4 - 3.2 mm.



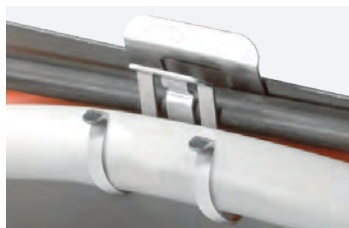
CMF-BI: Bi-directional clips for max 2 cables. Clips with two locking features so that they can be installed both vertically and horizontally. Suitable for cables with diameter 5.1 - 8.4 mm each, for frame thickness 1.1 - 2 mm.



CMF-SF: Clips for max 2 cables, for modules without mounting flange. Clips made for the most recent modules with frames without the typical mounting flange; they are in fact installed directly on the frames. Suitable for cables with diameter 5.1 - 8.4 mm each, for frame thickness 1.3 - 18 mm.



CMF-PV: Clips for max 2 cables, for glass panels. Clips made to be installed directly on the glass panels. Designed to preserve the integrity of the glass surface, they are TPE coated to ensure effective electrical insulation. Suitable for cables with diameter 5.1 - 8.4 mm each, for frame thickness 3.2 - 6.4 mm.



CMF-1S: Clips for max 3 cables (2+1 overlapping cable). Clips suitable for both photovoltaic module cables with diameter 6.6 - 8.4 mm each and for Homerun cables with diameter 9.7 - 14.5 mm. For frame thickness 0.8 - 2 mm.



CMF-4C: Clips for max 4 cables. Clips suitable for cables with diameter 5.1 - 7.6 mm each, for frame thickness 1.4 - 6.4 mm.



CMF-2S: Clips for max 4 cables (2+2 overlapping cables). Clips suitable for cables with diameter 6.6 - 8.4 mm each, for frame thickness 0.8 - 2 mm. They are suitable for shorter frame edges.



CMF-90-1: 90° clips for max 1 cable. Clips designed to secure the cable perpendicular to the photovoltaic module frame. Suitable for a cable with diameter 5.1 - 8.4 mm, for frame thickness 1.4 - 3.2 mm.



CMF-90-2: 90° clips for max 2 cables. Clips designed to secure cables perpendicular to the photovoltaic module frame. Suitable for cables with diameter 5.1 - 8.4 mm each, for frame thickness 0.8 - 3.2 mm. Also available for shorter frame edges.

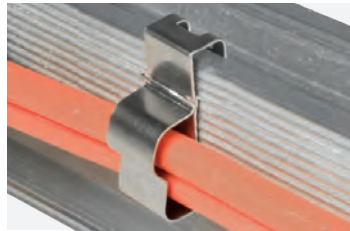


CMF-90-4: 90° clips for max 4 cables. Clips designed to secure cables perpendicular to the photovoltaic module frame. Suitable for cables with diameters of 5.1 - 7.6 mm each, for frame thickness 1.4 - 3.2 mm.



CMF-CM: Modular clips for cable holders. Clips made to be assembled with specific cable holders for modular clips, which allow you to secure and organize cables and cable bundles of various sizes. These clips are suitable for frame thickness 0.8 - 2.1mm.

Stainless steel structural profile clips



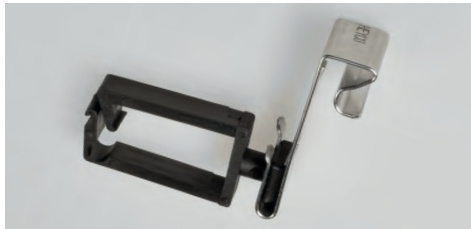
CPS-2C: Clips for max 2 cables. Clips suitable for micro-inverter cables with diameter 7.6 - 12 mm each, for profile edge width 2 - 9.7 mm.



CPS-2C-P: Plastic clips for max 2 cables. Clips suitable for micro-inverter cables with diameter 7.6 - 12 mm each, for profile edge width 2 - 9.7 mm. They are the only ones made of polyamide 66 with excellent mechanical resistance, resistance to UV rays and protection against corrosion.



CPS-CP: Clips for oval cables or multiple round cables. Clips suitable for oval micro-inverter cables with dimension 6.4x25.4 mm and also for round cables, for profile edge width 2 - 6.4 mm. They are made of 410 stainless steel for excellent strength and corrosion protection.



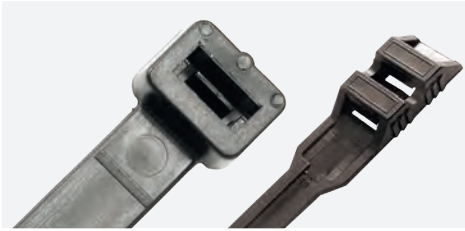
CPS-CM: Modular clips for cable holders. Clips made to be assembled with specific cable holders for modular clips, which allow you to secure and organize cables and cable bundles of various sizes. These clips are suitable for profile edge width 6.4 mm.

Cable holders for modular clips

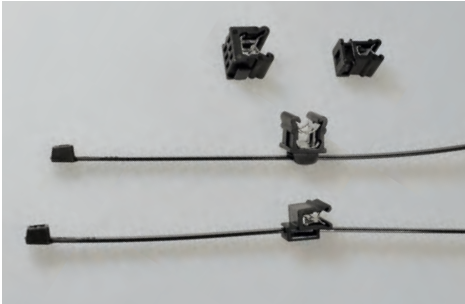


Cable holders for modular clips, available in rectangular shape (also 90°), in round shape with locking closure and in Helios shape (also 90°). They can be mounted to the CMF-CM and CPS-CM modular clips and allow you to secure and organize cables and cable bundles of various sizes.

Cable ties and cable bundlers



UV resistant plastic cable ties. Black and flame-retardant cable ties, also available with double head for a superior hold. They have excellent resistance to atmospheric agents and marine environments.



EDGE-CLIP: Plastic edge-clips with steel clamp for frame edge, for holding cable ties. Made of UV resistant and heat stabilized PA 66, they are easily installed requiring low insertion force and guarantee high resistance to extraction. They allow the assembly of plastic or metal cable ties, oriented parallel or perpendicular to the edge. Also available with integrated plastic cable tie.



FMI-AI: Stainless steel cable ties. They stand out for their greater resistance and better durability over time compared to plastic cable ties. They are also available with polyester coating for greater corrosion resistance. It is also available a plier to tighten the cable ties and cut the excess precisely.



HEYCLIP: Stainless steel clips for frame edge, for holding cable ties. Made of corrosion resistant 304 stainless steel, they are suitable for frame thickness 1.5 - 6.4 mm. They allow the assembly of metal cable ties (up to 8 mm wide), oriented parallel or perpendicular to the edge.



SUNBUNDLER: Stainless steel wire cable ties to be crimped. Innovative cable ties made of 302/304 stainless steel and coated in UV resistant PVC to protect cable insulation. Extremely flexible, to close it, insert the wire into the cavity of the head and crimp it with a universal plier. It is then possible to cut the excess with a wire cutter.



SUNSTRAP: PVC coated stainless steel straps. With a very high tensile strength (over 90 kg), these straps feature a heavy-duty construction for harsh environments. They stand out for the fact that they are releasable and reusable.



HC: **Plastic serrated clamps.** Very useful for tying cables but also for tightening fittings on hoses, these clamps can be installed very quickly by hand or with a plier. They can also be easily reopened for reuse.

For outdoor installations, it is essential to use stainless steel products as they offer excellent resistance to corrosion and UV rays, while ensuring safety and longevity even in extreme environments.



Surface-mounted cable holder



HDLCC/HDLCC-M: **Heavy-duty plastic cable clamps, also available with steel mounting tab.** Flame-retardant and highly durable, they feature a snap-lock closure for quick pre-assembly with cables and simplified wall mounting. They can also be used on corrugated conduits and can be reopened and reused.



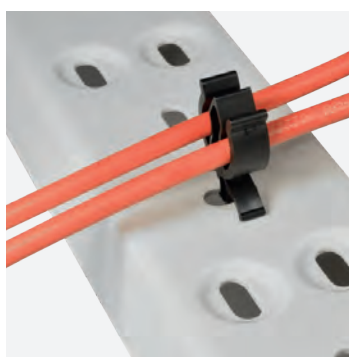
SKM/SKM-E: **Galvanized steel cable clamps with rubber or EPDM lining.** Flame-retardant and self-extinguishing, they are suitable for fixing pipes and cable bundles. The rubber lining offer protection, anti-vibration function, excellent electrical insulation and resistance to ozone, UV rays and atmospheric agents (EPDM).



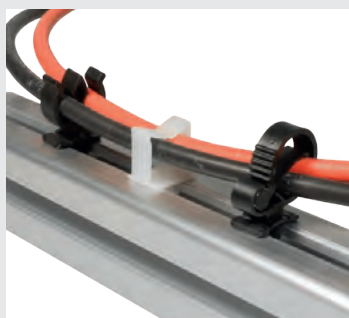
SUNCLAMP: Stainless steel cable clamps. Made from corrosion resistant 304 stainless steel, they are ideal for clamping cables or pipes in outdoor installations. They feature smooth, rounded edges to prevent damage to cable insulation. They are also available with polyolefin coating for excellent dielectric properties.



HELIOS CLIP: Helios cable holders blind mount. They are characterized by pressure fixing in 6.6 mm holes and are suitable for 2 cables with a diameter of 5.8 - 8 mm each. They are made of flame-retardant polyamide 66, heat and UV rays resistant.



HELIOS BI: Helios bi-directional cable holders oval-hole mount. Designed to fit into the oval mounting holes commonly found on many solar panel flanges, they can be fixed along the length of the hole or turned 90°. The exclusive design ensures stability and high pull-out retention preventing unintentional rotation within oval mounting holes. Suitable for 2 cables with diameter 5.8 - 8 mm each. They are made of flame-retardant polyamide 66, heat and UV rays resistant.



Cable holders for industrial slotted profiles. Available in rectangular shape, in round shape with locking closure and in Helios shape, these innovative cable holders can be fixed in the channels of I-, 80/20-, M- and T-shaped profiles. Simple application by hand with quick twist 90° for friction fit swivel hold in place and high pull-out retention. With a simple twist they can be easily removed, displaced and reused. They allow you to secure and organize cables and cable bundles of various sizes.



HELIOS EC: Helios cable holders with steel clamp for frame edge. They are easily installed by pressure on edges with a frame thickness of 1 - 3 mm and guarantee high resistance to extraction. They are suitable for 2 cables with diameter 5.8 - 8 mm each and are made of flame-retardant polyamide, heat and UV rays resistant.

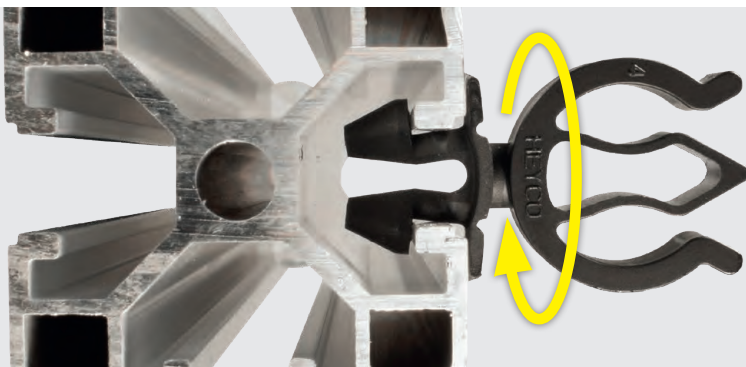


SUNHANGERS: Stainless steel hangers. Made of corrosion resistant 304 stainless steel, these innovative products can be hung from structures or hooked into holes to support and organize bundles of cables and hoses. They can be easily closed with a simple pressure and can be reopened for maintenance or replacements. They are available with horizontal or perpendicular (90°) cable orientation and with PVC coating for additional protection to cables in harsh environments.



MAXRUNNER: Cable holding plates for screw mounting or stainless steel mounting clip. Designed to organize cables safely with locking tabs that ensure a firm hold. They can hold up to 12 cables with diameter 5.2 - 7.2 mm each. The stainless steel clip plate allows mounting on structural profiles with edge width 1.5 - 6.4 mm. Made of UL94-V0 PPE + PS, they offer excellent resistance to outdoor exposure.

A well organized and structured wiring system offer numerous advantages, including: safety, ease of maintenance, long-lasting durability, aesthetics and order.



Quick and easy fixing for our **Cable holders for industrial slotted profiles:** simply insert them into the channels and rotate them 90° to achieve a perfect lock.

Assortment kit



Heyco assortment kits, available in both boxes (LABKIT 9) and bags (LABBAG), are specifically designed to provide a selection of various solar products in small quantities for immediate use. They contain a selection of stainless steel clips, both for frame edges and for structural profiles, a selection of cable ties, cable bundlers, stainless steel and plastic cable clamps and various accessories.

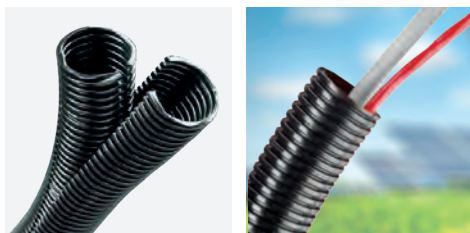
Solutions for cable protection and insulation.



Corrugated conduits, quick connection fittings and accessories



PP: **Polypropylene corrugated conduit (UL94-HB)**. Conduit with good flexibility and high resistance to water, hydrated solutions, alkalis and acids, as well as excellent resistance to solvents. It offers good UV protection and excellent insulation properties since the material characteristics are not affected by moisture. Available with internal diameter 6.9 - 48 mm max.



PP-DUO: **Polypropylene "DUO" corrugated conduit (UL94-V2)**. Double layer conduit with continuous lateral opening; once assembled, it forms a single and closed conduit. Ideal for installation on already wired cables or for replacing damaged conduits. It features good flexibility resistance, good chemical resistance and provides strong UV protection and excellent insulation properties since the material characteristics are not affected by moisture. Available with internal diameter 5.6 - 60.5 mm max.



Quick connection fittings. Wide range of fittings in UL94-V0 self-extinguishing and UV resistant polyamide, available in various threads, both in plastic and metal, and in different types to meet every need. They offer IP 66/IP 68/IP 69 protection and ensure perfect mechanical sealing. The fittings are assembled on the corrugated conduit with a snap-fit connection, fast and immediate; and in case of disassembly, the use of your hands is enough to separate the fitting from the conduit.



Coupling and junction sleeves. Made of soft UV resistant TPE, with a straight, "Y" or "T" shape, these sleeves are to be press-fitted onto the ends of the conduits and, thanks to the internal ribbing, they adhere perfectly to the external profile of the conduits. They are used to create an extension or a branch between conduit sections, even of different sizes.



IP 68/IP 69 repair sleeves. Made of flame-retardant and self-extinguishing UL94-V0 polyamide and TPE, these sleeves are used to create solid and watertight joints between conduit sections. They are very easy to assemble/disassemble, are impact resistant, are suitable for static or dynamic applications and are UV resistant.

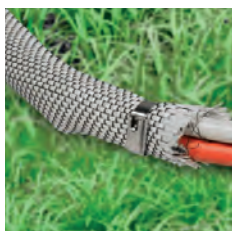
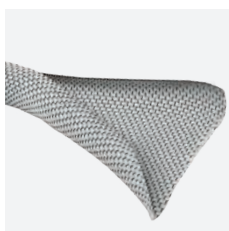


Terminal sleeves and end caps. Suitable for all corrugated conduits, these products are resistant to UV rays and are to be press-fitted onto the ends of the conduits. The terminal sleeves are made of polyamide, they protect the conduit edges and prevent potential damage to the cables. The end caps, made of soft TPE, feature a stepped head that can be cut at any point to create a custom opening for exiting cables.

Protection sleeves



Polyolefin heat-shrinkable and self-extinguishing tubing with internal adhesive. Tubing with 3:1 or 4:1 shrink ratio, internally covered with "eco-friendly" adhesive for maximum adhesion to steel and plastic. Through heat, the adhesive melts creating a single body with the conductor and ensuring a barrier against humidity. The increased wall thickness offers mechanical protection without compromising flexibility. Excellent chemical, physical and electrical properties. Available with internal diameter 3 - 52 mm max.



Anti-rodent self-wrapping braided sleeving. This sleeving has been developed to repel rodents. Composed of polyester and glass fiber filaments, abrasion and UV resistant, it offers high resistance to microbial proliferation. Open along its entire length, it self-closes by overlapping the flaps. Easy to install without tools, it is ideal for protecting already wired or terminated cables. Very flexible, it adapts to irregular shapes without stiffening the wiring and allows branches. Available with internal diameter 13 - 32 mm max. It can be cut with normal scissors.

Elektrozubehör offers a wide range of UV resistant SLEEVINGS.

AMS: Silicone insulating sleeving - "SILAVIA" series. Made of halogen-free silicone and available in many colours, this sleeving resists up to +200°C, offers good dielectric insulation and stands out for its resistance to ozone and aging.

TCP-S A: Expandable braided sleeving with UL certification. Made of UL94-V0 flame-retardant PET and UR and CSA certified, this sleeving is halogen-free, adapts to irregular shapes, dissipates heat and humidity, does not degrade and is resistant to lubricants.

GVS: Braided glass fiber sleeving covered with silicone with UL certification. Resistant up to +250°C, flame-retardant and self-extinguishing, this sleeving has good resistance to chemical agents, oils and excellent resistance to mold and fungus. Available in 3 insulation levels: 1500 / 2500 / 4000 Volts.



Solutions for cable entry holes.



Multi-holes metallic cable glands. Nickel-plated brass cable glands with IP 68 protection, available in various types, with multi-holes sealings featuring open or sealed holes with membrane at the bottom to be pierced (to maintain a watertight seal even if cables are not inserted into all the holes). They are available with Metric and PG thread and come complete with an O-Ring. The excellent compression technology of the internal sealing guarantees maximum tear resistance, even in case of vibrations. Also available with international certifications.



Multi-holes plastic cable glands. Cable glands in polyamide reinforced with glass fiber, UV resistant and with IP 68 protection, available in various types, with multi-holes sealings featuring open or sealed holes with membrane at the bottom to be pierced (to maintain a watertight seal even if cables are not inserted into all the holes). They are available in grey and black, with Metric and PG thread and come complete with an O-Ring. The excellent compression technology of the internal sealing guarantees maximum tear resistance, even in case of vibrations. Also available with international certifications.

Elektrozubehör offers a wide range of UV resistant GROMMETS and PLUGS.

Many of our **soft PVC and EPDM cable grommets** are UV resistant. They are very soft and have excellent dielectric properties. They also have good resistance to water, diluted acids, alkaline solutions, salts, ozone and have excellent aging resistance.

HFP plugs, made of self-extinguishing polyamide free of halogens and phosphorus, offer UL94-V0 flame protection, good resistance to chemicals and excellent electrical properties. In case of fire, they do not burn or release toxic gases.

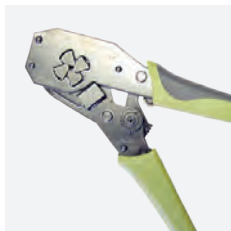
The APM-P threaded plugs made of polyamide and equipped with a PES membrane ensure IP 69 watertight seal, pressure balancing and continuous air exchange, preventing humidity and condensation in the equipment.



Solutions for insulating, terminating and connecting cable ends.



Bare and pre-insulated terminals. Complete range of bare and pre-insulated terminals made from electrolytic tinned copper, resistant to corrosion and reinforced for an optimal and long-lasting crimp. The "Easy-Entry" interior facilitates cable insertion, preventing wire bending. Wide selection of crimping tools for professional terminal crimping; they ensure thousands of precise crimps and are also available in an ergonomic version to reduce the risk of injury.



Pre-insulated end-sleeves. Pre-insulated end-sleeves made of tinned copper, with polypropylene insulation and compliant with DIN 46228-4, offer secure connections, high conductivity and resistance to corrosion. They protect the conductors and facilitate insertion into terminals without fraying. Also available in a version for double cables and for earthing cables. The specific plier for end-sleeves, compact and easy to handle, features a single central cavity, requires minimal effort and is also suitable for left-handed users.

Solutions for cable marking.



Elektrozubehör's extensive range of wiring marking solutions includes plastic and stainless steel strips which are fire-resistant and ideal for cables, cable bundles and large diameter pipes.

Strips with marking rings. Made of UL94-V0 flame-retardant plastic, they support sliding marking rings and are installed with cable ties.

Laser engraved strips. Made of plastic or 316 stainless steel, they offer customizable engravings that are unalterable, abrasion resistant and weatherproof.

Embossed strips with relief engraving. Made of 316 stainless steel, they are perfect for extreme and corrosive environments, ensuring readability even in the presence of dust and liquids. Stainless steel cable ties are recommended for installation.

**From product to service,
from research to solution,
from Elektrozubehör to its customers.**

ELEKTROZUBEHÖR SPA

Headquarters:

Via F.lli Bronzetti, 24
20129 Milano (Italy)

Warehouse:

Via Cadorna, 66/A
20055 Vimodrone MI

Tel.: +39 02 701471

C.F. e P. IVA: 00729140152
Capitale Sociale: € 260.000

Registro imprese: n° 92394 Tribunale di Milano
R.E.A.: 460657 - INTRASTAT: IT 00729140152
Posizione Import: MI 007993



info@elektrozubehor.it
ez@pec.elektrozubehor.it

www.elektrozubehor.it



ACCESS TO
THE WEBSITE