



CHARDON

G R O U P

YOUR CONNECTION TO POWER

PRODUCT GUIDE



CHARDON
GROUP

The Chardon Group was established in Taiwan in 1993 to provide EPDM molded cable accessories to Taiwan Power Company. With technology originally licensed from the United States, Chardon grew rapidly, and is currently the third largest manufacturer of IEEE/ANSI cable accessories in the world. With the addition of IEC cable accessories, Chardon products can be found on utility systems worldwide.

Chardon is one of the few cable accessory manufacturers that compound their own EPDM rubber in house. All the formulations in use today were developed by Chardon. In addition to using these formulations for our products, all our OEM customers have approved Chardon developed compounds for use in their products. In addition to EPDM, Chardon also has the ability to mold polymer products in ESP (EPDM – silicone hybrid), solid silicone, and liquid silicone materials.

The Chardon IEEE/ANSI cable accessory product line consists of 200A loadbreak connectors, and 600/900A deadbreak connectors, in voltage classes from 15 kV to 35 kV. Chardon has demonstrated full interchangeability with all of the major competitors at independent test laboratories. Chardon is the only “non-US” manufacturer to have its products on virtually every utility distribution system in the United States (through our OEM/private label customers).

We have developed a range of IEC cable accessories and arresters up to 72.5 kV for use in renewable energy (wind and solar) markets. In addition to the EPDM cable accessories, Chardon offers an increasingly growing selection of high-quality epoxy bushings that mate to both IEEE/ANSI and IEC cable accessories.

In 2018 Chardon expanded their polymer products line with the addition of cold shrink terminations and joints. These products are molded in liquid silicone and are offered in voltage classes from 15 kV to 35 kV.

Chardon is headquartered in Taiwan, and currently has facilities in Taiwan, China, Mexico, and Brazil. With more than forty (40), 700-ton screw ram injection presses, Chardon can mold products in more than one location. Our hard-earned reputation for quality and outstanding customer service and support makes us ready to earn your business! We are committed to meeting – and exceeding – your requirements. We welcome inquiries from around the world. Our best sales tool is having you visit our facilities and see our capabilities firsthand.

WHY NOT SEE WHAT CHARDON CAN DO FOR YOU? FOR DETAILED PRODUCT INFORMATION, PLEASE SEE OUR WEBSITE AT WWW.CHARDONGROUP.COM.

Standard Interfaces for Separable Connectors, Components and Equipment Bushings

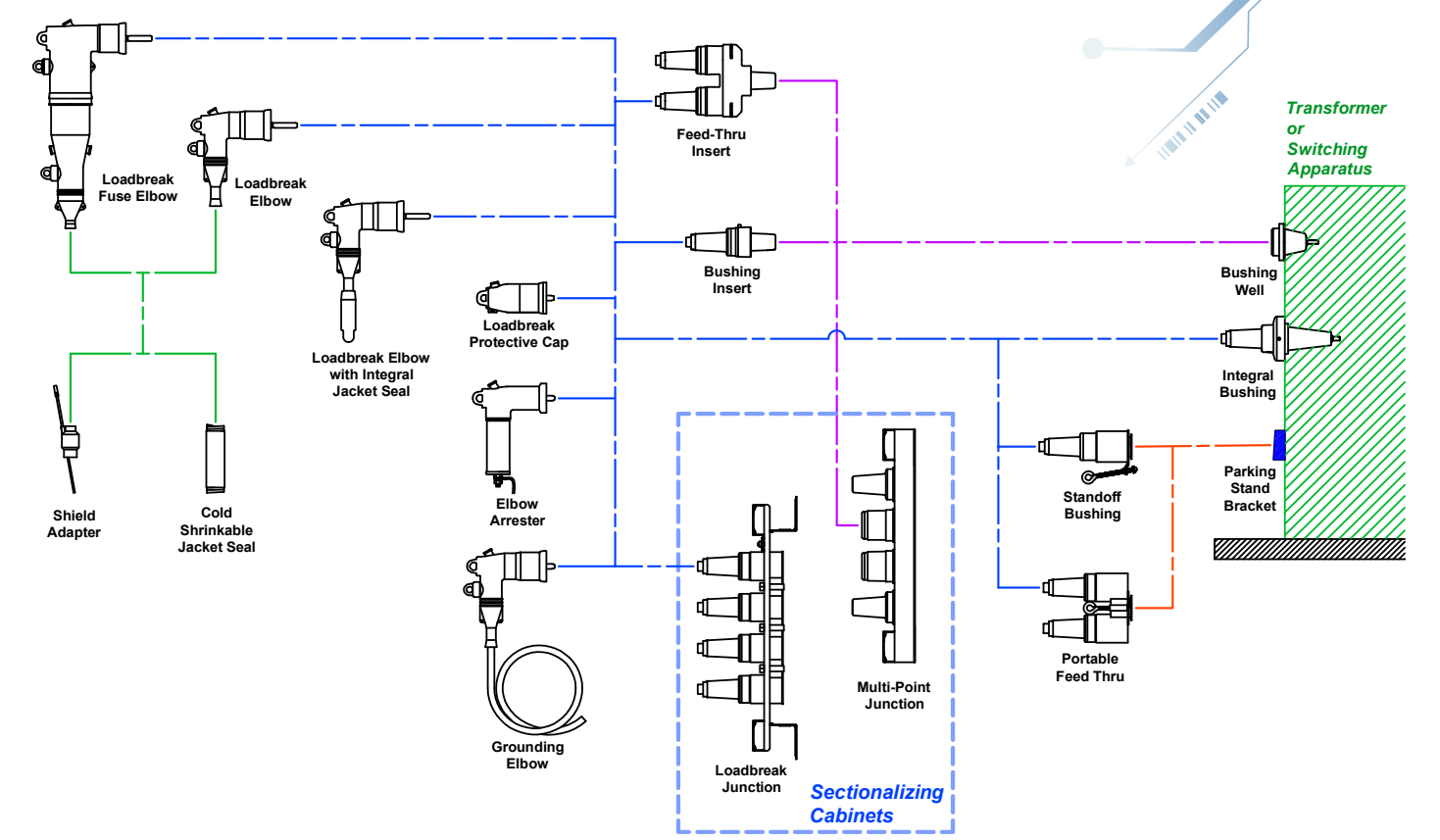
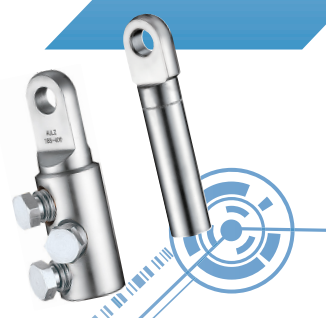
IEEE Standard 386 defines the specific interface dimensions that 200 amp and 600/900 amp series elbows, inserts, junctions, equipment bushings, and any mating components must conform to ensure interchangeability. The table below provides information concerning one of the interfaces for various applications and is useful to ensure proper matching of components.



BUSHING INTERFACE	VOLTAGE CLASS	INTERFACE DESCRIPTION
 CH200BW	15kV, 25kV and 35kV	A 200A Deadbreak Bushing Well Interface, 15kV, 25kV, 28kV and 35kV
 15-LE200 15-LBI200	15kV	A 200A Loadbreak Interface, 15kV
 25-LE200 25-LBI200	25kV	A 200A Loadbreak Interface, 25kV and 28kV
 35-LE200 35-LBI200	35kV	A 200A Loadbreak Interface, 35kV (Small Interface)
 25-DE200 25-DBI200	15kV and 25kV	A 200A Deadbreak Interface, 15kV, 25kV and 28kV
 15/25-TB600 15/25-AB600	15kV and 25kV	A 600A and 900A Deadbreak Interface, 15kV, 25kV, 28kV
 35-TB600 35-AB600	35kV	A 600A and 900A Deadbreak Interface, 35kV

200A/600A Loadbreak & Deadbreak Connectors

Chardon offers a range of connectors and accessories for safe and efficient connection and disconnection of cable to equipment on utility distribution systems. These include 200 amp and 600 amp loadbreak connectors, which are suitable for energized operations using a hotstick, as well as deadbreak connectors, for unenergized operations. They use high-quality, peroxide cured EPDM insulation for long life and reliability. All Chardon connectors meet IEEE Standard 386-2016 requirements and are interchangeable with other compliant manufacturers. Chardon also offers shear bolt and compression lugs for the connectors, based on customer's preference and cable type. These lugs are designed for easy installation and reliable conductivity with either aluminum or copper conductors.





Reclosers & Loadbreak Switch

Chardon automatic circuit reclosers and loadbreak switches offer the ideal solution for safely disconnecting electrical networks during maintenance and repair of power distribution lines without having to shut down the entire system. Chardon reclosers come equipped with advanced software that facilitates automated reclosing functions, enhancing overall control and performance. Compared to traditional oil or air-based reclosers, Chardon reclosers offer better weight and space efficiency, safety, and are more environmentally friendly, requiring less maintenance. Chardon Reclosers are available in voltage levels of 15.5, 27, and 35 kV in both single and three-phase options, Chardon loadbreak switches are also available for three-phase applications at 15.5, 27 and 35 kV voltage levels.



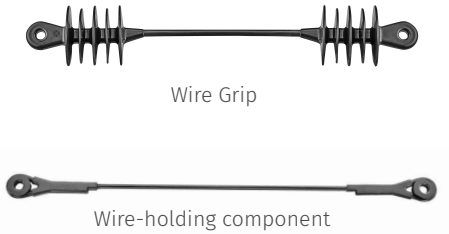
Three-phase



Single-phase

Cable Support Safety Device

Downed power lines are a primary cause of electrical accidents, often resulting from storms or high winds that can force cables from their poles. This leads to power outages and potential hazards for those near the affected lines. The Chardon Cable Support Safety Device is designed to secure overhead power distribution lines, preventing them from hanging low in case of line breakage. Installing the Chardon device is simple, with no special tools or training required. The wire grip is inserted into the wire-holding component and looped around the three phases of the power pole lines. In the event of a line break or fall, the device activates to keep the line from reaching the ground. The wire grip serves as a safety net, holding the wire-holding components, preventing the power line from slipping or falling. This reduces the risk of further damage or injury to pedestrians and animals in the area.



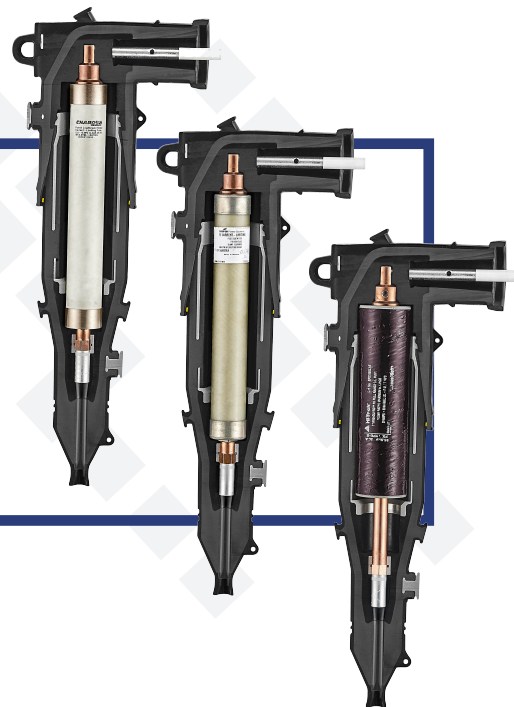
The two components of the cable support safety device are attached to the power lines.



The device holds the power line in place, preventing it from falling to the ground.

Fused Elbows/Fuses

Chardon 200 amp loadbreak fused elbows combine the advantages of a full range current limiting fuse with the convenience of hot stick operable, loadbreak elbow switching. The fused loadbreak elbow provides a fast, convenient and cost-effective way to add fused protection to a distribution system without adding a new piece of switchgear or replacing existing sectionalizing equipment. Chardon loadbreak fused elbows are molded using high-quality, peroxide cured EPDM insulation for extended life and reliable field performance. Chardon fused elbow connectors meet electrical, mechanical, and dimensional requirements of IEEE Standard 386-2016, and are fully interchangeable with other major manufacturers currently complying with IEEE Standard 386.



Chardon 200 amp loadbreak fused elbows are the most versatile fused elbows on the market. With competitor's products you must use their own fuse. With Chardon you have options. You can use the Chardon fuse, or fuses from our competitors! Nobody can compete with Chardon when it comes to offering you the best value in the industry!

Multi Point Junctions



Chardon 200/600 amp multi point junctions are available in 2, 3, 4, 5, or 6 point configurations, with 15 kV, 25 kV, and 35 kV ratings. Chardon multi point junctions give the user maximum flexibility, allowing any combination of 200 amp bushing wells and 600 amp bushing interfaces. The junction's design can eliminate, or minimize, the requirements for 200 amp elbows and 600 amp T bodies. The EPDM molded body, with a stainless-steel bracket, is fully shielded, deadfront and submersible. Chardon multi point junctions provide a convenient, compact design for connecting, looping, and taping of 600 amp and 200 amp T bodies, elbows, and other accessories at a common location where flexibility and operability are important. The products are ideally suited for subsurface, padmount, indoor and outdoor vault applications.



Submersible Low Voltage Connectors



Chardon submersible low voltage connectors meet the requirements of IEEE standard C119.1 and C119.4. The design incorporates an aluminum alloy buss bar for reliable conductivity and strength.

The adaptable cable sleeve design allows application on a wide range of conductor sizes. High quality TPE insulation material provides excellent resistance to UV, Ozone, Acids, and Alkalis.



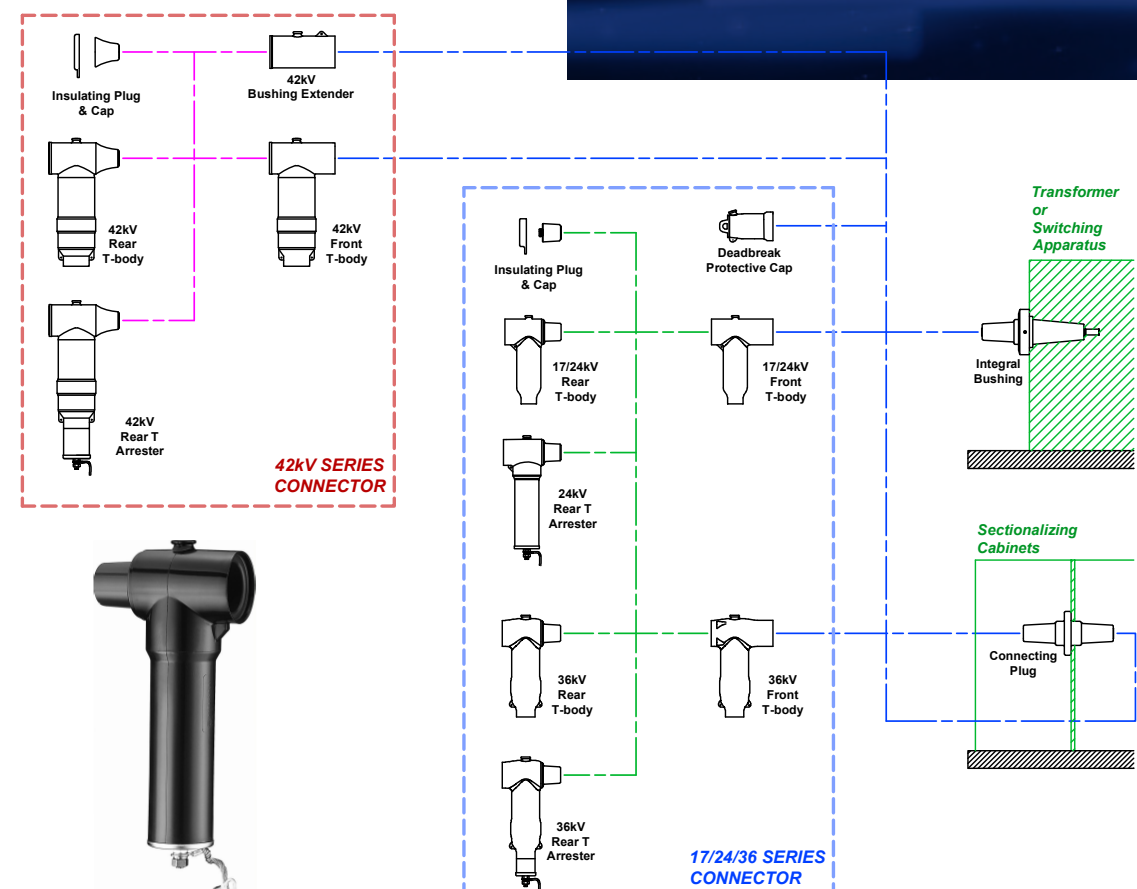
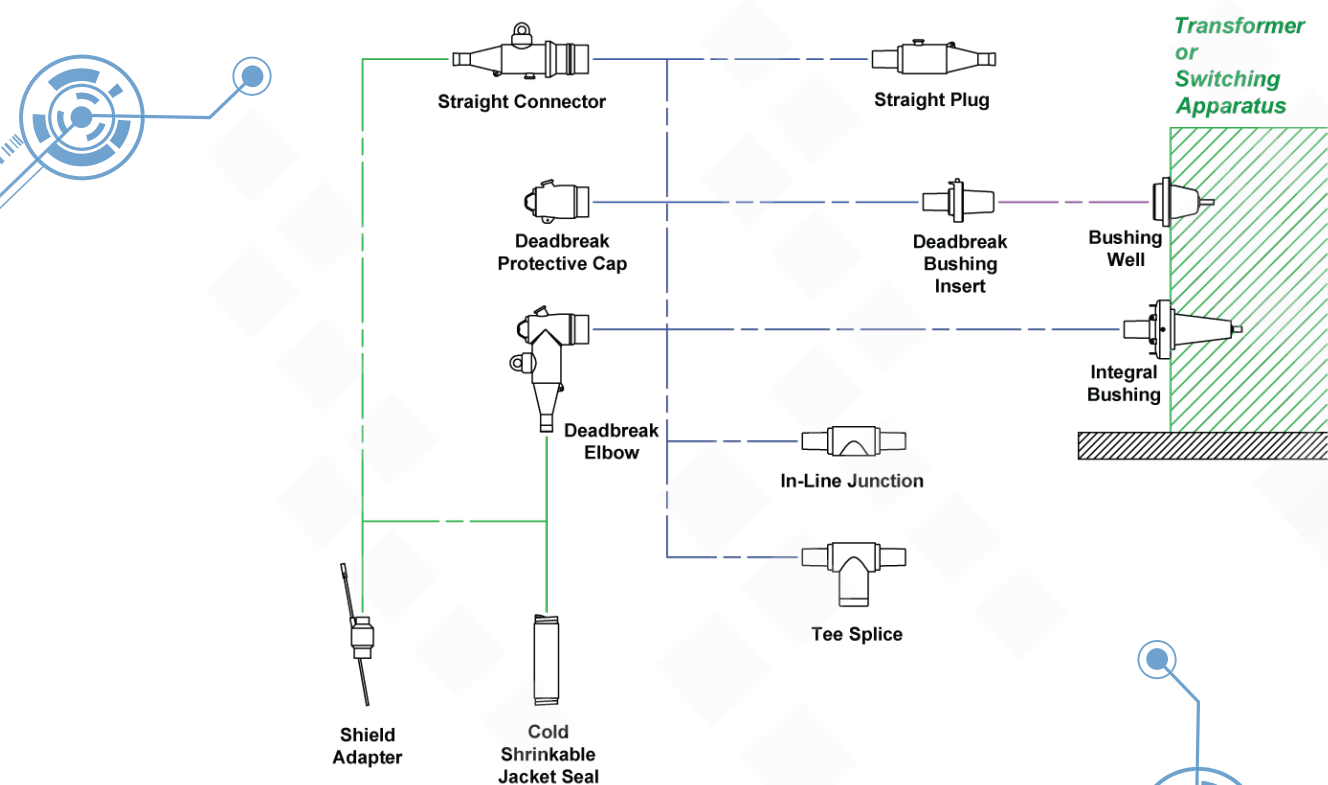
IEC Interface "A" Deadbreak Connectors

Chardon 17.5 kV/24 kV 250 amp deadbreak connectors and accessories provide a safe, efficient method to connect and disconnect cable to equipment on utility distribution systems. Chardon deadbreak connectors are submersible, fully shielded, plug-in terminations, used for connecting underground cable to transformers, switchgear, sectionalizing cabinets, and junctions. Chardon deadbreak connectors are molded using high quality, peroxide-cured EPDM insulation for extended life and reliable field performance. All Chardon 250 amp deadbreak connectors meet the electrical, mechanical, and dimensional requirements of the applicable IEC/ CENELEC standard(s), and are fully interchangeable with other major manufacturers currently complying with the same IEC/ CENELEC standard(s).



IEC Interface "C" Deadbreak Connectors

Chardon interface "C" deadbreak connectors and accessories provide a safe, efficient method to connect and disconnect cable to equipment on utility distribution systems. Chardon deadbreak connectors range from 17.5 kV/24 kV to 42 kV, with current ratings from 400 amps to 1,250 amps. Chardon deadbreak connectors are submersible, fully shielded, plug-in terminations, used for connecting underground cable to transformers, switchgear, sectionalizing cabinets, and junctions. Chardon deadbreak connectors are molded using high quality, peroxide-cured EPDM insulation for extended life and reliable field performance. All Chardon deadbreak connectors meet the electrical, mechanical, and dimensional requirements of the applicable IEC/CENELEC standard(s), and are fully interchangeable with other major manufacturers currently complying with the same IEC/ CENELEC standard(s).





Cable Jumper Links

Chardon jumpers are designed for easy installation, as they come prefabricated with connectors or terminations already installed on each end. They are designed to withstand harsh weather conditions, making them ideal for use in wind turbines, transformers, and other electrical installations. The jumpers are finished with screen wire and come equipped with an earthing lug or other requested features. Additionally, they can be sealed with Chardon's CJS (Cold Shrink Jacket Seal) or Shield adapter, ensuring a secure and reliable connection.



TERMINATION INSTALLATION



COMPLETE JUMPER SET

Turnkey Solution

Chardon cable jumpers are ideal for use as fixed solutions in a variety of applications, including in renewable energy (Wind and Solar). Chardon has the capabilities to assemble and electrically test the cable jumpers in-house and ship them directly to the customer, providing added convenience and peace of mind, knowing that the complete jumper solution will meet their specific requirements and can be installed seamlessly into their system.



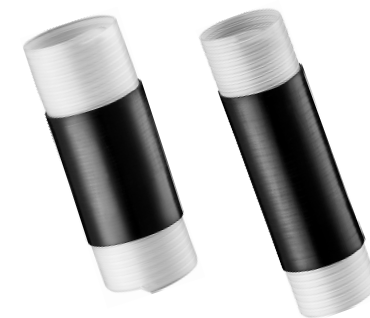
CABLE PREPARATION

Cold Shrink Terminations

Chardon cold shrink terminations offer easy installation and reliable performance when terminating indoor and outdoor medium voltage cable. Made from high quality, UV resistant, silicone rubber, Chardon cold shrink terminations offer a combination of durability and high performance in the field.

Chardon cold shrink terminations include a stress controlling rubber housing, preassembled on a plastic "hold out" tube. As the plastic hold out is removed, the stress relief housing shrinks onto the cable. Chardon terminations are easy to install and have a wide application range. No tools, or heat sources, are required. Chardon terminations are designed to last the entire life of the cable.

Chardon cold shrink terminations are available for both indoor and outdoor applications and are designed to withstand voltages up to 35 kV. They are tested to IEEE/ANSI 48 standard.



Cold Shrink Splices

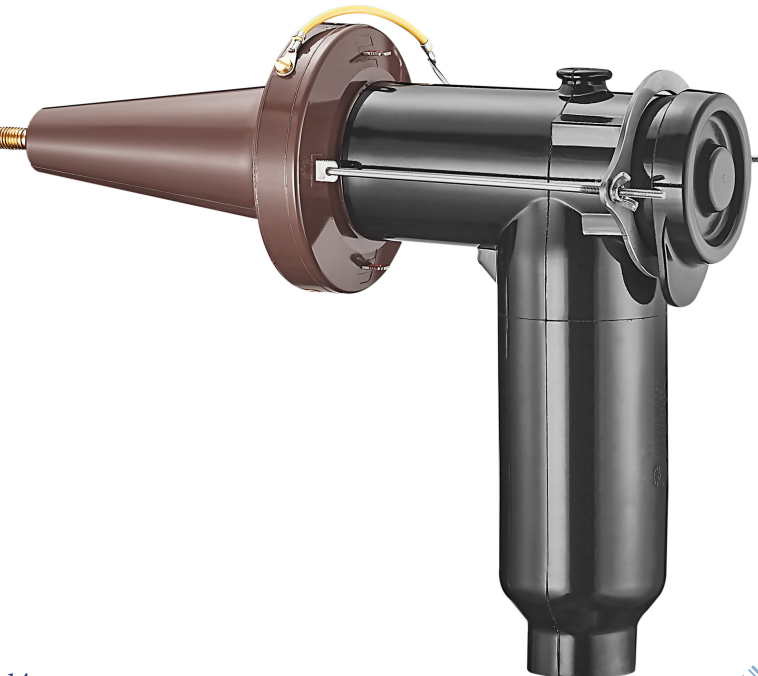
Chardon cold shrink splices are reliable and easy to use solutions for splicing power cables of wide range of voltages and applications. The Chardon splices combine all the necessary components of a shielded power cable splice into one compact and pre-stretched joint that shrinks to fit the cable when the core is removed. This eliminates the need for special tools, heat, or flame, and ensures a consistent and durable seal.



Equipment Bushings

Chardon manufactures various types of bushings for medium voltage applications. These bushings are used in both IEEE and IEC applications to connect cable accessories to transformers, switchgear, etc.

Chardon's equipment bushings are made from high quality epoxy molding resins, and undergo rigorous electrical and mechanical testing, including periodic x-ray analysis, to ensure quality and reliability. The products are fully insulated and submersible. Chardon also offers bushing wells with different voltage ratings, installation configurations, and replaceable interface bolts.



Bushing Well



Equipment Bushings



Connecting Plugs



Transformer Components

Bayonet Fuse Holders

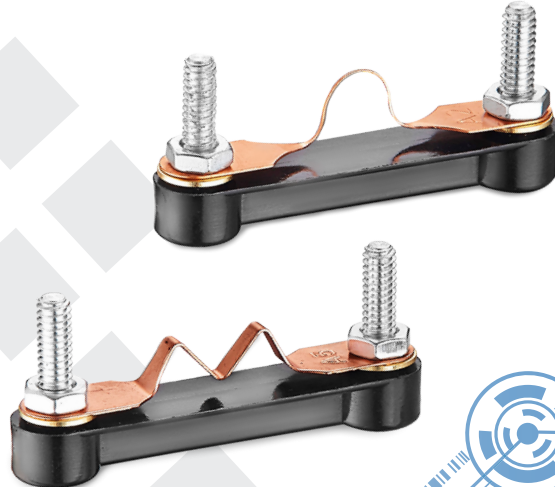
Chardon bayonet fuse holders are used to protect transformers, switchgear, and distribution systems. They are designed for use in oil filled (or approved equivalents) single phase and three phase padmount transformers, switchgear, and submersible transformers. The Chardon bayonet fuse holders combine the ease of hot stick operation with the safety of deadfront construction. When using appropriate safety procedures, the Chardon bayonet fuse holder can be loadbreak operated for disconnecting the transformer from the energized line, making changes to dual voltage or tap changer switches, or working on the transformer's secondary connections.



Bayonet Fuse Holder with Isolation Link

Bayonet Isolation Links

The Chardon bayonet isolation link is used in series with bayonet type expulsion fuses to provide extra protection during re-fusing operations. Isolation links are not fuses and do not have an interrupting rating. During a low impedance transformer failure, the isolation link will melt so that the opened primary circuit of a failed transformer cannot be re-energized by the utility line crew. Chardon isolation links are fully interchangeable with links of other manufacturers.



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152763 1V 200AMP

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