



# RENEWABLE ENERGY

## PRODUCT GUIDE



# WIND AND SOLAR SOLUTIONS



Improving efficiency, reliability and sustainability are keys to success as we find ways to replace fossil fuels with sustainable alternatives that harness the full potential of new power sources.

Hubbell proudly offers a wide selection of products and services that span the entire scope of Wind and Solar renewable energy projects – from solar panels and arrays, wind turbines and towers, to collector systems and to substation and transmission components.

## Partners For A Better Tomorrow

### Reliability



### Smart Technology



### Sustainability



### Technical Performance



## RENEWABLE POWER VALUE CHAIN

Hubbell's success stems from a strong history of listening to our customers and their business needs. We respond by delivering on aggressive schedules to ensure the highest levels of quality and satisfaction, fewer parts and ease of installation. Our market basket of renewable energy solutions are designed with product lifecycle expenses in mind to reduce cost of ownership for:

- Data Centers
- Entertainment
- Educational
- Federal, State and Local Government
- Financial
- Healthcare
- Manufacturing
- Pharmaceutical and Life Sciences
- Retail
- Residential
- Telecom
- Utilities



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Hubbell is a proud supplier of lighting solutions for renewable energy industries. Chalmit's products are globally certified for hazardous, industrial and marine environments, making them ideal for onshore and offshore wind farms, hydroelectric plants and other power generation applications. Killark is an industry leader for hazardous location and explosion proof products offers lighting fixtures certified for hazardous and industrial environments, making them ideal for the renewable energy projects.

**Chalmit** Protecta III Zone 1 - LED Linear



The Protecta III is a proven and reliable T8 fluorescent luminaire. It's rugged, corrosion resistant construction (IP66/IP67) combined with an advanced high frequency ballast ensure minimum product maintenance is required. When access is required the Protecta III features an easy access clamp bar and automatic lamp de-energization to allow quick and easy re-lamping.

**FEATURES**

- Full length easy access diffuser clamp
- Automatic de-energization on opening
- Resistant to voltage fluctuations
- DTS-01 deluge tested
- Advanced control gear gives 50/60Hz Operation
- High Power Correction Factor and Regulated Lamp Output -- 20% greater at -200C than competitors

**CERTIFICATIONS & COMPLIANCE**

- Certified Listed : ATEX
- Hazardous Rating(s) : Zone 1 & 21
- IP Rating  
IP66  
IP67

**Chalmit** Protecta X Industrial- LED Linear



The ideal solution for Industrial Applications - meet the Protecta X. For over 50 years, traditional linear luminaires have dominated lower level lighting applications. But the linear shape, designed for the fluorescent lamps they originally housed, actually inhibits the performance of LEDs. The Protecta X design puts LED technology at the center for superior lumen output and an incredible lifespan. Take a look at some of the incredible features below or visit our dedicated Protecta X landing page to find out more.

**FEATURES**

- Highly Energy Efficient >135lm/W
- Front access cover with screwless mains terminals for easy termination
- Battery management and automatic self test
- >90,000 maintenance free hours at 60°C
- Multiple beam distributions available
- Externally accessible battery stick for ease of maintenance

**CERTIFICATIONS & COMPLIANCE**

- Impact Protection : IK10
- Ingress Protection : IP66/67 to EN 60529
- Surge Protection : 4kV
- Electrical Supply : 110-277V AC, 50

**Chalmit** Scotia Zone 1 - LED Floodlight

The unique characteristics of the Solas offers a versatile luminaire with 100% output in Emergency mode. Built of marine grade aluminum, this robust luminaire is suitable for the harshest of global environments. Using ultra bright LEDs, the Solas produces a more focused light that illuminates safety critical areas in an emergency situation. A manually operated remote inhibition facility is available on all emergency versions. With a self contained battery, it can be used for backup emergency lighting in maintained or non-maintained modes.



**FEATURES**

- Highly Energy Efficient
- No re-lamping required - over 60,000 hours continuous operation
- Emergency inhibition
- Non-Maintained or Maintained modes
- Low ambient temperatures
- Comparable with 100W HPS floodlight

**CERTIFICATIONS & COMPLIANCE**

- Ingress Protection IP66/67 to EN 60529
- Surge Protection 4kV
- Electrical Supply 220-254V AC 50/60Hz

**KILLARK** 60W LED Flood 120-277V 50/60Hz

The KFL Series LED floodlights are designed with a copper-free aluminum housing and painted with a powder epoxy finish for superior corrosion resistance in harsh and hazardous environments. Killark LED floodlights provide a crisp white light that is great for color rendering. The KFL Series floodlights are suitable for marine locations and high ambient areas.

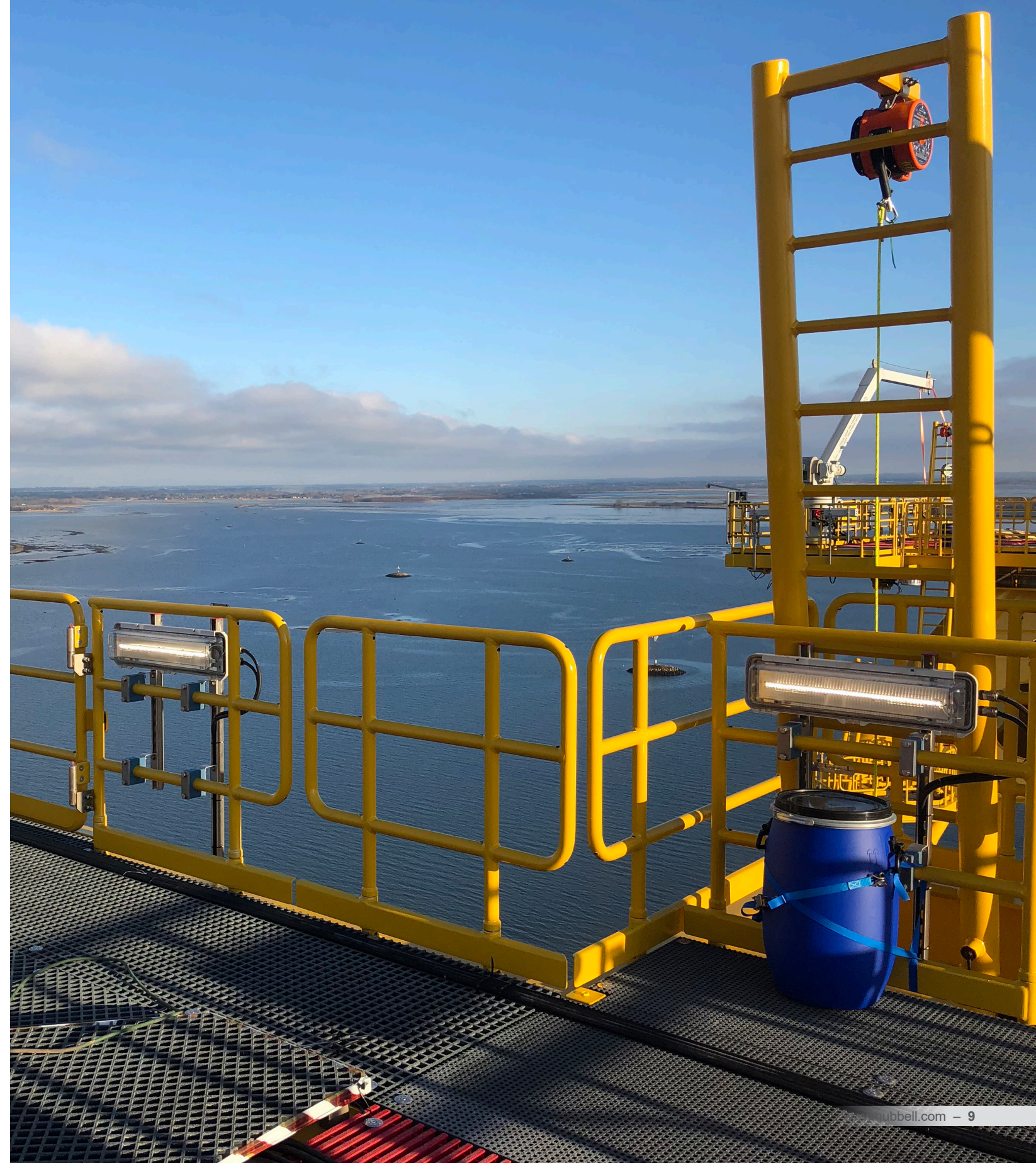


**FEATURES**

- Supplemental 20KA/10KV Surge Protection is standard for 120-277 VAC models & 10KA/10KV Surge Protection is standard for 347-480 VAC models
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000 K (CCT) approx. 70 CRI
- Energy Savings – High lumens per watt
- Long Life – 100,000+ maintenance free hours to 70% initial lumens
- Ambient suitability -50°C to 55°C up to 125W
- Instant On - Including after power interruption
- World Voltage 120 - 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant
- LM80-08 Measurement of lumen maintenance for LED light sources
- LM79-08 Certified “Absolute” Photometry, including Chromaticity Color for Solid State Lighting
- L70 Values - Industry Nomenclature for Hours of use to 70% of Initial Lumens (TM-21+ Cal.)

**CERTIFICATIONS & COMPLIANCE**

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- IP66
- IEX suffix Zone 2/21 to IEC 60079-0, 60079- 15, 60079-31 Standards



# GROUNDING & BONDING CONNECTORS



Strong, reliable telecommunications network infrastructure is what supports the smooth execution of every day business.

Hubbell's offerings in grounding, connectors and tooling deliver a constant flow of advanced technology and solutions to meet our customers' ever-changing requirements.

The most comprehensive offering of systems-engineered grounding connectors that provide the ultimate in system integrity and have the ability to withstand the harshest of environments.

There is virtually no grounding application problem that this diversified line cannot help solve.



Type BIT and BITO (Offset) UNITAP™ Clear Insulated Multi-Tap Connectors



## FEATURES

- Multi-Tap connectors are installed quickly and easily and are suitable for use on code conductor
- UL486B Listed
- Dual-rated AL9CU for any stranded copper or stranded aluminum applications
- 600 Volt, 90° C

## CERTIFICATIONS & COMPLIANCE

- CSA Approved
- UL 486A-486B
- UL Listed
- RoHS



Type BISR UNITAP™ Clear Insulated In-Line Splice/Reducer Connectors



## FEATURES

- In-line splice/reductions are made quickly and easily with the UNITAP™ line of clear insulated connectors for code conductor
- UL486B Listed
- Dual-rated AL9CU for any stranded copper or stranded aluminum applications

## CERTIFICATIONS & COMPLIANCE

- CSA Approved
- UL 486A-486B
- UL Listed
- RoHS



## UNITAP™ Clear Insulated Multi-Port Connectors



### FEATURES

- Used for quick, easy tap connections for code conductor
- UL486B Listed
- Dual-rated AL9CU for any stranded copper or stranded aluminum applications
- 600 Volt, 90° C
- Featuring multiple configurations suitable for most any application

### CERTIFICATIONS & COMPLIANCE

- CSA Approved
- UL 486A-486B
- UL Listed
- RoHS



## TYPE YC-L Thin Wall Copper C-Taps



### FEATURES

- Bare copper range taking C-tap that allows for less inventory as one C-tap can accommodate a multitude of wire combinations
- Reinforced ribs on the outside of the C-tap increases the mechanical holding strength of the connection
- Creates a compact connection that allows for easy taping and insulating
- Connectors include a color dot to ensure proper die and installation tooling is selected
- Manufactured from high conductivity wrought copper providing low resistance for excellent electrical conductivity
- Four sizes are listed for Grounding and Bonding per UL 467 for Direct Burial in Earth or concrete
- UL Listed CSA Certified Wire Connectors per UL 486A-486B

### CERTIFICATIONS & COMPLIANCE

- CSA Approved
- UL 486A-486B
- UL467
- UL Listed
- RoHS



## Type YAZ HYLUG™ Uninsulated Copper Compression Terminals



### FEATURES

- 2-Hole, Narrow Tongue Copper Compression Terminal That Accommodates Flex And AWG Conductor
- Temperature Rating: 90 DEG C
- Conductor Type: Flexible

### CERTIFICATIONS & COMPLIANCE

- CSA Approved
- UL 486A-486B
- UL Listed
- RoHS



## TYPE YA-A HYLUG™ Compression Terminals



### FEATURES

- Type YA-A terminals in 2- and 4-hole designs inhibit connector rotation and increase area contact
- Barrel is designed with an internal chamfer at the wire entry to ensure smooth insertion of the wire, preventing possible damaging of the wire strands during insertion
- Connectors are clearly marked with wire size, die index, color code, and crimp
- location bands
- Dual-rated for use on both aluminum and copper conductors

### CERTIFICATIONS & COMPLIANCE

- CSA Approved
- UL 486A-486B
- UL Listed
- RoHS



TYPE CCSC Clear Cold Shrink



### FEATURES

- Clear Cold Shrink tubing provides a clear way to inspect connections after installation
- The clear cold shrink tubing allows inspectors to verify die index embossments on compression connections
- No installation tools required.

### CERTIFICATIONS & COMPLIANCE

- Operating Temperature 90° C
- cULus Listed



Type YGLR-C GRIDLOK™ Ground Rod to Grid Connectors



### FEATURES

- Ground grid connector for a wide range of copper cable to ground rod
- Provides high torque strength on ground rod
- UL467 Listed
- Acceptable for direct burial in earth and concrete
- Prefilled with PENETROX™ compound and strip sealed

### CERTIFICATIONS & COMPLIANCE

- CSA Approved
- UL Listed Direct Burial
- UL467
- IEEE 837
- IEEE 837 2014 Qualified
- UL Listed
- RoHS



Type YGHC-CHYTAP™ Figure C Connectors



### FEATURES

- Irreversible compression ground tap figure “C” connectors
- Accommodates all cable combinations from #6 solid through 500 kcmil. “C”- shaped opening permits placing two continuous parallel cables into conductor groove
- UL 467 Listed
- Acceptable for direct burial in earth or concrete. Prefilled with PENETROX™ compound and strip sealed
- Certain sizes are also UL467 Listed and CSA Certified for wire to ground rod

### CERTIFICATIONS & COMPLIANCE

- IEEE 837
- UL Listed
- CSA
- DB



Type YGHP-C HYTAP™ Figure 6 Connectors



### FEATURES

- Irreversible compression ground tap figure 6 can be used as a tap connector or as a tap splice connector
- Four die sets and eight connectors can accommodate a conductor range from #8 solid through 500 kcmil plus 1/2”, 5/8” and 3/4” copper bonded ground rods
- Acceptable for direct burial in earth and concrete
- Prefilled with PENETROX™ compound and strip sealed

### CERTIFICATIONS & COMPLIANCE

- CSA Approved
- UL Listed Direct Burial
- UL467
- IEEE 837
- IEEE 837 2014 Qualified
- UL Listed
- RoHS





Type YGHC-C HYTAP™ Figure C Connectors



### FEATURES

- Irreversible compression ground tap figure “C” connectors.
- Accommodates all cable combinations from #6 solid through 500 kcmil.
- “C”- shaped opening permits placing two continuous parallel cables into conductor groove.
- Acceptable for direct burial in earth or concrete. Prefilled with PENETROX™ compound and strip sealed.

### CERTIFICATIONS & COMPLIANCE

- CSA Approved
- UL Listed Direct Burial
- UL467
- IEEE 837
- UL468A-468B
- UL Listed
- RoHS



Type CL50-1TN Copper Lay-in QIKLUG for Copper



### FEATURES

- Manufactured from high strength pure electrolytic copper to ensure maximum strength and conductivity
- The open-faced design allows for fast lay-in of the conductor without the need for cutting or breaking
- Stainless steel screws used for excellent corrosion resistance

### CERTIFICATIONS & COMPLIANCE

- cULus
- UL Listed Direct Burial
- UL467
- UL Listed
- RoHS



Type YGF Grounding Plates



### FEATURES

- Designed to withstand the rigors of concrete construction
- High strength, high-conductivity cast copper alloy body with a pure wrought copper compression element
- Tapped NEMA-size holes and spacing on the face with a tapped hole on the underside for ease of positioning prior to pouring the concrete
- Acceptable for direct burial in earth or concrete
- Prefilled with PENETROX™ compound and strip sealed

### CERTIFICATIONS & COMPLIANCE

- CSA Approved
- UL Listed Direct Burial
- NEMA Size Holes
- UL467
- IEEE 837
- UL Listed
- RoHS EX



Type GAR Mechanical Grounding Connectors



### FEATURES

- High copper alloy ground connector for joining a range of cable, parallel, or at right angles, to rod or tube
- Especially good for fence posts
- DURIUM™ Silicon Bronze U-bolts, nuts, and lockwashers
- One-wrench installation
- Rated for Direct Burial in earth or concrete
- UL467 Listed for US and Canadian Markets

### CERTIFICATIONS & COMPLIANCE

- UL Listed Direct Burial
- UL467
- UL Listed
- RoHS EX



Type GB Ground Connectors



### FEATURES

- High copper alloy ground connector for joining a range of cable to 1/4" thick bar
- Separates the cable from the bar
- Rated for Direct Burial in earth or concrete
- UL467 Listed for the US and Canadian Markets
- One wrench installation

### CERTIFICATIONS & COMPLIANCE

- UL Listed Direct Burial
- UL467
- UL Listed
- RoHS EX



Flexible copper braid jumpers



### FEATURES

- Designed to take up linear expansion and contraction, compensate for misalignment and absorb vibratory movement of electrical equipment and devices

### CERTIFICATIONS & COMPLIANCE

- CSA Approved
- UL467
- UL Listed
- RoHS EX



Type BTCGC-SS Cable Tray Clamps



### FEATURES

- Made of aluminum and tin plated, the BTCGC-SS cable tray clamps accommodate aluminum or copper conductor #14 AWG through 250 kcmil
- SS version is suitable for outdoor applications
- Quick and easy installation requiring no drilling or special tools; use with 1/2" maximum straight rail, aluminum and steel cable trays
- Tin plated for durability and corrosion resistance

### CERTIFICATIONS & COMPLIANCE

- cULus



GROUNDING LUGS Lay-in lug assembly



### FEATURES

- Corrosion resistant, tin-plated copper
- Tin-plated lug assures minimum contact resistance and protection against corrosion
- Low profile allows for a variety of installation positions with one solid or stranded copper wire (14 AWG to 6 AWG), or two copper wires (12 AWG to 10 AWG)
- Copper wire secures by a 1/4-28 stainless steel screw, horizontal to the tang

### CERTIFICATIONS & COMPLIANCE

- ETL
- RoHS
- UL Listed

Stainless Steel Mid Clamps



### FEATURES

- Universal mid-clamp and adjustable end clamp designs accommodate various module thicknesses
- Uses proven WEEB® technology for integrated bonding as well as a quick and easy installation
- Low profile design
- Increased inspectability
- Custom designs and finishes available upon request
- Reliability for use throughout the lifetime of the PV system

### CERTIFICATIONS & COMPLIANCE

- UL Listed



## **BURNDY** Accessories

Type COVERYA Covers for Transformer Connectors

### FEATURES

- These plastisol covers are typically used to cover secondary connections inside a 3-Phase pad mounted transformer
- Offered in orange or black as standard, with availability in a variety of colors
- Can be used in many different applications covering mechanical and compression connections
- Labor saving design features opening on the back end (T-Slit) to fit over Transformer Support Brackets without need for any dangerous “in-field” cutting or manipulation
- 0.88” diameter hole on the back allows for ground stud to fit through easily
- Hot Stick Adapter on top allows for safer removal when necessary
- Covers are manufactured in Black or Orange dielectric grade PVC





From flame retardant nylon to tough stainless steel, Hubbell has just the right type of cable tie needed for any application.

Choose from a wide array of colors, tensile strengths ranging from 18 to 900 pounds and latching mechanisms ready to be secured.

**BURNDY**

UNIRAP™ Stainless Steel Barb Cable Ties  
Type CT-SSB

**FEATURES**

- Nylon 6/6 Standard featuring self-locking stainless steel barb
- Curved tip for faster initial threading and help speed installation
- Available in UV Black and Natural
- Maximum strength and adjustability for versatility
- Chemically resistant to solvents, oils, grease, and diluted acids
- Rounded edges and bent tail for easy installation
- Safe for air handling spaces
- Plenum Rated



**CERTIFICATIONS & COMPLIANCE**

- CSA Approved
- RoHS CM
- cULus

**BURNDY**

Type CT UNIRAP™ Standard Cable Ties

**FEATURES**

- General purpose nylon 6/6 features light weight, high strength and a wide temperature range
- Halogen free -- does not release dangerous gases when burned
- Hydroscopic -- therefore absorbs or releases moisture depending on its environment
- UV Black / UV Black (Mil. Spec.) are 2% Carbon UV Stabilized



**CERTIFICATIONS & COMPLIANCE**

- UL Recognized
- UV Rated
- Military Specified (Mil-Spec) MS3367-10-0
- RoHS CM



Type CTNT UNIRAP™ Nylon 12 Cable Ties

### FEATURES

- Excellent UV, chemical and moisture resistance
- Inside serrations and a bent tail for quick and easy installation
- Manufactured from polyamide 12 with smooth edge to prevent bundle damage
- Especially suitable in high moisture, corrosive (zinc chloride and dilute acids) environments or where low temperatures are a factor
- Indoor or outdoor applications



### CERTIFICATIONS & COMPLIANCE

- RoHS CM



Wiley Coated Wire Management Coated Straps, Coated P-Clips

### FEATURES

- Vinyl coating acts as a shield against vibration and cable insulation damage
- Coated P-Clips easily install into a mounting hole with 1/4" hardware
- Great for general wire fastening applications, such as holding hydraulic hoses, wire harnesses, cables, and everyday solar wire management
- Indoor/Outdoor rated and UV resistant



### CERTIFICATIONS & COMPLIANCE

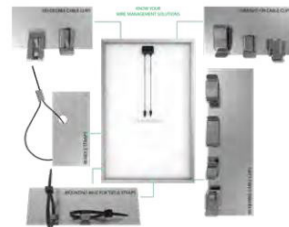
- cULus
- UL Listed



Wiley Cable Clips

### FEATURES

- Accommodates a broad range of cable combinations and sizes (e.g., USE-2, PV, AC module, and micro inverter cables)
- No tools required for installation
- Coined and rolled edges to prevent damage to cable insulation
- Reliability for use throughout the lifetime of the PV system



### CERTIFICATIONS & COMPLIANCE

- UL 1565 Listed
- Environmentally tested - UL 2703 and ASTM B117



RACO® fittings are the perfect solar solution whether you need to couple, connect, fasten, or ground conduit and cable. Our time-saving and versatile products provide flexibility in challenging applications. We offer weatherproof liquidtight connectors and hubs, grounding rings, grounding bushings, and raintight EMT fittings.

RACO 2506 ground clamps are for use with connecting bare copper ground wire to water pipes or ground rods. Bronze clamp and screw assembly permits use in direct burial applications. Conduit hub grounding rings are intended for use with RACO threaded die-cast zinc Rigid/IMC conduit hubs.



## Steel Locknuts



For use in dry locations on threaded Rigid/IMC conduit to secure conduit to a box or enclosure

### FEATURES

- All steel construction ensures mechanical protection
- Zinc-electroplated for corrosion protection

### CERTIFICATIONS & COMPLIANCE

- Standard 514B
- UL Listed E195969
- C22.2 #18



## Insulated Bushings



For use on threaded Rigid/IMC conduit to provide a smooth rounded surface at the entrance of raceways

### FEATURES

- Insuliner temperature rated 150° C
- Malleable iron construction ensures mechanical protection for the raceway
- Zinc-electroplated for corrosion protection
- 1/2" to 1" trade sizes are also available in die-cast zinc

### CERTIFICATIONS & COMPLIANCE

- Standard 514B
- UL Listed E195969
- C22.2 #18

## **RACO** Insulated Grounding Bushings, Lay-in Lug

For use on threaded Rigid/IMC conduit to provide a means of grounding conduit through an insulated bushing



### FEATURES

- Provide an easy means of inserting a ground wire
- Dual rated aluminum grounding lugs may be used with copper or aluminum grounding conductors
- Insuliner temperature rated 150° C
- Malleable iron construction ensures mechanical protection for the raceway
- Zinc-electroplated for corrosion protection

### CERTIFICATIONS & COMPLIANCE

- Standard 514B
- C22.2 #18

## **RACO** One Hole Push Straps Stamped – Steel (cULus)

For use in mounting EMT conduit.



### FEATURES

- All stamped steel construction ensures mechanical protection
- Straps snap on to the conduit, allowing the installer to easily position the strap before mounting
- Oversized bolt holes make alignment of the fastener quick and easy
- All straps are zinc-electroplated for corrosion protection

### CERTIFICATIONS & COMPLIANCE

- UL Listed
- E195968 (2082 - 2088)

## **RACO** One Hole Push Straps - Stamped Steel

RACO® Rigid/IMC conduit straps are suitable for use on liquidtight flexible metal conduit and liquidtight flexible nonmetallic conduit (type B).



### FEATURES

- All stamped steel construction ensures mechanical protection
- Straps snap on to conduit, allowing the installer to easily position the strap before mounting
- All straps are zinc-electroplated for corrosion protection

### CERTIFICATIONS & COMPLIANCE

- xxx

## **RACO** Reducing Washer

For use when a raceway is smaller in trade size than the trade size of the knockout it is intended to enter



### PRODUCT FEATURES

- All steel construction provides installation integrity
- Reducing washer is stamped with trade size information for ease of product identification
- Zinc-electroplated for added corrosion protection

### CERTIFICATIONS & COMPLIANCE

- xxx

## **RACO** Insulating Bushings - Polypropylene



RACO® bushings provide a smooth rounded surface at the entrance of raceways and are made of high impact polypropylene temperature rated 105° C

### FEATURES

- Code-saver
- One-piece design: no fumbling with extra pieces
- Easy, quick installation
- Low profile design
- No more damaged bushings during wire pulling

### CERTIFICATIONS & COMPLIANCE

- cULus

## **RACO** Uninsulated Chase Nipples – Die-Cast Zinc



For use with a conduit coupling to connect conduit to a box or, with a locknut to connect two boxes

### FEATURES

- Rugged metallic construction

### CERTIFICATIONS & COMPLIANCE

- Standard 514B
- UL LISTED E195969
- C22.2 #18

## **RACO** Offset Nipples-Die Cast Zinc



For use when connecting two boxes or panels when the knockouts are not in line

### FEATURES

- Rugged metallic construction provides mechanical protection for the conductors

### CERTIFICATIONS & COMPLIANCE

- Standard 514B
- UL Listed E195973
- C22.2 #18

## **RACO** EMT - Flex Couplings Screw-in/Compression – Die-Cast Zinc



For use in dry locations to couple EMT conduit to flexible metal conduit.

### PRODUCT FEATURES

- Rugged metallic construction ensures mechanical protection
- All steel/malleable components are zinc-electroplated for corrosion protection

### CERTIFICATIONS & COMPLIANCE

- FILE E195969
- LISTED (1852 & 1853)



## **RACO** Threaded Hubs, Insulated Throat - Die-Cast Zinc



For use with threaded Rigid/IMC conduit to connect and bond conduit to a threadless opening in a box or enclosure. May be used in wet or dry locations.

### FEATURES

- Rugged metallic construction ensures mechanical protection
- Insulated throat protects wires and reduces wire pulling effort
- O-ring seals the assembly and provides a raintight seal

### CERTIFICATIONS & COMPLIANCE

- cULus
- UL Listed E195969

## **RACO** Compression Set Screw Connectors - Insulated and Uninsulated Steel



For use in dry locations to bond EMT conduit to a box or enclosure. RACO® steel set-screw connectors provide concrete-tight connections when taped and are suitable for applications above 600V.

### FEATURES

- All steel construction ensures mechanical protection for the raceway
- Tri-head screws (1/2" to 2" trade sizes) may be installed using a slotted, Phillips, or Robertson head screwdriver
- 2-1/2" to 4" trade sizes are also UL Listed for use on Rigid/IMC conduit, allowing for design and installation flexibility
- All components are zinc-electroplated for corrosion protection
- 1/2" to 1" trade sizes have one set-screw, 1-1/4" to 4" trade sizes have two set-screws

### CERTIFICATIONS & COMPLIANCE

- 1/2" - 2"
  - Standard 514B
  - C22.2 # 18
- 2-1/2" - 4"
  - Standard 514B
  - UL Listed E195969, E195970

## **RACO** Compression Connectors – Steel/Malleable Iron



Use to bond unthreaded Rigid/IMC conduit to a box or enclosure. RACO® 1/2" to 4" connectors and couplings provide concrete-tight connections.

### FEATURES

- All steel/malleable iron construction ensures mechanical protection for the raceway
- Hex compression nuts assure easy wrench installation
- All components are zinc-electroplated for corrosion protection

### CERTIFICATIONS & COMPLIANCE

- Standard 514B
- UL FILE E195969
- C22.2 #18

## **RACO** Set Screw Couplings – Steel



For use in dry locations to couple two ends of EMT conduit. RACO® steel set-screw couplings provide concrete-tight connections when taped and are suitable for applications above 600V.

### PRODUCT FEATURES

- All steel construction ensures mechanical protection for the raceway
- Tri-head screws (1/2" to 2" trade sizes) may be installed using a slotted, Phillips, or Robertson head screwdriver
- 2-1/2" to 4" trade sizes are also UL Listed for use on Rigid/IMC conduit, allowing for design and installation flexibility
- All components are zinc-electroplated for corrosion protection

### CERTIFICATIONS & COMPLIANCE

- cULus Standard 514B
- C22.2 # 18
- 2-1/2" - 4"
- UL Standard 514B
- UL Listed E195969, E195970

## **RACO** Compression Connectors, Insulated and Uninsulated -- Steel



For use when bonding EMT conduit to a box or enclosure. RACO® 1/2" to 4" connectors provide concrete-tight connections and are suitable for applications above 600V.

### FEATURES

- All steel construction ensures mechanical protection for the raceway
- All components are zinc-electroplated for corrosion protection

### CERTIFICATIONS & COMPLIANCE

- cULus Standard 514B
- C22.2 # 1
- UL Listed E195970

## **RACO** Compression Couplings – Steel



For use in dry locations to couple two ends of EMT conduit. RACO® steel compression couplings provide concrete-tight connections and are suitable for applications above 600V.

### FEATURES

- All steel construction ensures mechanical protection for the raceway
- All components are zinc-electroplated for corrosion protection

### CERTIFICATIONS & COMPLIANCE

- cULus Standard 514B
- C22.2 # 18
- UL Listed E195970

## **RACO** Raintight Compression Connectors, Insulated and Uninsulated – Steel



For use in wet locations to bond and secure EMT conduit to a box or enclosure. RACO® Raintight Steel EMT compression fittings are designed to comply with new UL raintight test requirements and to comply with the requirements of the 2014 NEC 358.42 and 314.15.

### FEATURES

- All steel construction ensures mechanical protection for the raceway
- All components are zinc-electroplated for corrosion protection
- UPC bar coded fittings are individually polybagged with a preprinted UPC-A bar code and packaged in pre-scored tear top cartons for attractive presentation

### CERTIFICATIONS & COMPLIANCE

- cULus - Standard 514B
- C22.2 # 18
- UL Listed E195970

## **RACO** Raintight Compression Couplings – Steel



For use in wet locations to couple two ends of EMT conduit. RACO® Raintight Steel EMT compression fittings are designed to comply with new UL Raintight test requirements and to comply with the requirements of the 2014 NEC 358.42 and 314.15.

### PRODUCT FEATURES

- All fittings are marked "Wet Locations" to allow inspecting authorities to immediately determine that the installation is up to code.
- No need to disassemble the fitting prior to installation; fittings come ready to install directly on the conduit. No time wasted loosening compression nuts.
- No special tools required.

### CERTIFICATIONS & COMPLIANCE

- cULus Standard 514B
- C22.2 # 18
- UL Listed E195970



## Set Screw Connectors, Insulated and Uninsulated – Die-Cast Zinc

For use in dry locations to bond EMT conduit to a box or enclosure. RACO® die-cast set-screw connectors provide concrete-tight connections when taped and are suitable for applications above 600V.



### FEATURES

- Rugged metallic construction ensures mechanical protection for the raceway
- 2-1/2" to 4" trade sizes are UL Listed for use on Rigid/IMC conduit

### CERTIFICATIONS & COMPLIANCE

- UL FILE E195970



## Compression Connectors, Uninsulated – Die-Cast Zinc

Use to bond EMT conduit to a box. RACO® 1/2" to 4" connectors provide concrete-tight connections. RACO® compression connectors are suitable for applications above 600V.



### FEATURES

- Rugged metallic construction provides mechanical protection for the raceway
- Oversized hex compression nuts assure easy wrench installation

### CERTIFICATIONS & COMPLIANCE

- UL FILE E195970
- CSA - C22.2 # 18



## 90° Handy Ells Coupling, Die-Cast Zinc

For use in dry locations to bond EMT conduit to a box or enclosure, or to couple two ends of EMT conduit. Use handy ells when bending conduit is not practical.



### FEATURES

- Gasket and cover included
- Additional sizes available

### CERTIFICATIONS & COMPLIANCE

- UL -Standard 514B
- UL FILE E195969
- CSA- C22.2 # 18

## **RACO** Conduit Hangers with Bolts – Steel

For use in wet or dry locations to support runs of Rigid/IMC and EMT conduit from ceilings and walls



### FEATURES

- Furnished with nut and bolt to speed installation
- Pre-galvanized finish provides corrosion protection

### CERTIFICATIONS & COMPLIANCE

- cULus
- UL LISTED E195968

## **RACO** Screw-in Type Connectors and Couplings

For use in dry locations to bond flexible metal conduit to a box or enclosure.



### FEATURES

- Rugged metallic construction ensures mechanical protection for the raceway

### CERTIFICATIONS & COMPLIANCE

- UL Standard 514B
- UL LISTED E195969
- CSA - C22.2 #18

## **RACO** 90° Squeeze Connector, Uninsulated – Malleable Iron

For use in dry locations to bond flexible metal conduit to a box or enclosure.



### FEATURES

- All malleable construction ensures mechanical protection for the raceway
- Zinc-electroplated for added corrosion protection

### CERTIFICATIONS & COMPLIANCE

- cULus
- UL Listed E195969 (excludes 3201)

## **RACO** Entrance Heads, Clamp Type for SEU Cable – Aluminum

Use to bring overhead electrical service into buildings.



### PRODUCT FEATURES

- Lightweight aluminum body construction eases installation and provides corrosion resistance
- Plastic insulator snaps out easily for quick cable insertion

### CERTIFICATIONS & COMPLIANCE

- UL -Standard 514B
- UL Listed E195972, E195973

**RACO** Ground Clamps -- Bronze Alloy

For use with grounding wire or conduit to water pipes or ground rods



**FEATURES**

- Furnished with nut and bolt to speed installation
- Pre-galvanized finish provides corrosion protection

**CERTIFICATIONS & COMPLIANCE**

- UL Standard 514B  
UL FILE E195975

**RACO** Connectors for Oval or Round Cable – Die-Cast Zinc

For use with underground feeder (UF) cable to provide a non-watertight connection to meters and enclosures. Rugged metallic construction will last the life of the installation.



**FEATURES**

- Rugged metallic construction ensures mechanical protection for the raceway

**CERTIFICATIONS & COMPLIANCE**

- UL Standard 514B  
UL Listed E195972, E195971

**RACO** 90° Squeeze Type Connector, Uninsulated – Die-Cast Zinc

For use in dry locations to bond armored cable to a box or enclosure. Rugged metallic construction ensures mechanical protection for the raceway.



**FEATURES**

- All malleable construction ensures mechanical protection for the raceway
- Zinc-electroplated for added corrosion protection

**CERTIFICATIONS & COMPLIANCE**

- UL Standard 514B  
UL Listed E195969
- CSA -C22.2 #18



Killark offers a wide variety of explosion proof, hazardous and industrial location fittings for all of your electrical installation needs. Our products include conduit bodies, conduit hubs, flexible couplings, blanking plugs, unions, reducers & adapters, drains & breathers, covers & gaskets, and much more. We have the products you need to move power safely and efficiently with no worry. With most fittings ranging from malleable iron to aluminum, we stand by our superior corrosion resistant fittings for the harshest applications.

## KILLARK Fittings, Conduit Bodies

- For use on threaded rigid/IMC conduit
- Use conduit outlet bodies for connecting conduit sections, for making bends in conduit runs, as pull outlets, or to provide openings for making splices and taps in conductors

### FEATURES

- Lightweight aluminum construction provides corrosion resistance and easy installation
- Covers are furnished with zinc plated screws- no worry about removing a cover once it is installed
- Gasket materials available: neoprene

### CERTIFICATIONS & COMPLIANCE

- UL Standard 514B  
UL LISTED E195969
- CSA - C22.2 #18



E Series Fittings Type C  
-- Aluminum Cover and Gasket



E Series Fittings Type LB  
-- Aluminum Cover and Gasket



E Series Fittings Type LL  
-- Aluminum Covers and Gasket



E Series Fittings Type LR  
-- Aluminum Conduit Bodies



E Series Fittings Type LR  
Aluminum Cover and Gasket



E Series Type T  
Aluminum Cover and Gasket



E Series -- Neoprene Gasket



For any commercial application from enclosures to wireway or accessories, Wiegmann has the product to protect all electrical devices. These applications usually require a Type 1 or Type 3R rating for the enclosure. Wiegmann offers both enclosures, wireway, gutters and associated accessories to support this market requirement. Materials include painted carbon steel, galvanized, aluminum and non metallic that are complimented by a full accessory package. Engineered to order Custom and Modified services are also available for these products. Typically found indoors or in outdoor applications where only falling rain and ice are a concern.



## NEMA 3R Screw-Cover Wall-Mount, Carbon Steel



Designed for use as wiring boxes and junction boxes. Provides protection in outdoor applications against rain, sleet, and snow or indoors against dripping water.

### FEATURES

- Bodies and doors fabricated from 16 gauge carbon steel or pre-galvanized steel
- Knockouts are standard on the bottom of 4.00" and 6.00" deep enclosures (reference table)
- A slip-on reversible cover is securely fastened with screws located along the bottom edge
- No gasketing is required
- Hasp for padlocking or meter seal is provided

### CERTIFICATIONS & COMPLIANCE

- cULus
- Nema Rating 3R



## NEMA 3R Gutters



Designed to protect wiring in outdoor installations against rain, sleet and snow or indoors against dripping water.

### PRODUCT FEATURES

- Trough and cover fabricated from 16 gauge carbon steel
- Drip shield top and smooth seamless sides, front and back, prevent rain, snow and sleet from entering the enclosure
- Embossed mounting holes are conveniently located on the back
- A slip-on removable cover is securely fastened with screws located along the bottom edge
- Knockouts are provided on bottom of enclosure

### CERTIFICATIONS & COMPLIANCE

- cULus
- Nema Rating 3R
- UL Listed



## NEMA 1 HS Series Wireway & Fittings



Designed to protect electrical wiring in applications where dirt, dust, oil and water are not serious problems. All sections are open on one side so wires and cable can be laid in along an entire wireway run. A complete selection of sections and fittings is offered in five sizes.

### FEATURES

- Bodies and covers are fabricated from carbon steel or pre-galvanized steel
- HS Series combination hinge/screw cover design offers easy access to open top for "lay-in" of wiring. Screws do not need to be removed to open top.

### CERTIFICATIONS & COMPLIANCE

- UL 870
- NEMA/EEMAC Type 1
- UL Files E32576
- CSA File LL66078







The BELL brand has become synonymous with weatherproof. In fact, the term “BELL Box” is a generic term used by electricians nationally. BELL is THE leader in commercial and residential weatherproof product solutions. The BELL product portfolio includes an expansive offering of weatherproof boxes, covers, and outdoor lighting solutions. BELL is dedicated to producing quality and innovative weatherproof product solutions for years to come.



## 2-Gang Weatherproof Deep Box, Five 3/4 in. Threaded Outlets, Gray



### FEATURES

- Rugged die-cast aluminum construction
- State-of-the-art powder coat finish provides maximum weatherability and scratch resistance
- Eight box mounting options with detachable lugs
- Includes two 3/4 in. closure plugs
- Internal hub threads comply with NEMA requirements and will accept all threaded fittings and threaded conduit Ground screw installed
- Multi-lingual instructions in each package

### CERTIFICATIONS & COMPLIANCE

- UL Listed
- CSA Certified
- Nema Rating 3R



## 1-Gang Flip Weatherproof Cover, Vertical/Horizontal, 12-in-1, Gray



### PRODUCT FEATURES

- Heavy duty die-cast metal construction with premium powder coat
- Patented Quick-Fit keyhole mounting system allows installation in under a minute
- Patented Universal Fit Adapter System Technology (U-Fast) for 12-in-1 custom device configurations, comes pre-configured for GFCI
- Lockable tab and spring hinge closure
- Includes attached gasket and mounting hardware
- Horizontal or vertical mount

### CERTIFICATIONS & COMPLIANCE

- NEC
- Nema Rating 3R
- UL Listed



## 1-Gang Horizontal Weatherproof Cover, Duplex, Gray



### FEATURES

- State-of-the-art powder coat finish provides maximum weatherability and scratch resistance
- Self closing lids assure weatherproof protection when the receptacle is not in use
- Includes gasket and mounting hardware
- Multi-lingual instructions in each package
- Rugged metallic construction with powder-coat finish resists scratches and wear
- Provides weatherproof protection for an outdoor receptacle
- Designed for a horizontal outlet

### CERTIFICATIONS & COMPLIANCE

- NEC
- Nema Rating 3R
- UL Listed



## 4 in. Square Box, Welded, 2-1/8 in. Deep, Nine 1/2 in. KO's and Five TKOs, FM Bracket



Designed to enclose electrical wiring, switches, receptacles or lighting fixtures. Constructed from 1/16 in. pre-galvanized steel. 8-32 cover mounting screws assembled. Suitable for use without a bonding jumper in circuits up to 600V.

### FEATURES

- FM style bracket, flush
- Combination screw heads allow quick installation
- Welded construction
- Nine 1/2 in. knockouts and Five TKO knockouts
- UL Listed
- 30.3 cu. in. capacity
- Acceptable in 2-hour fire rated walls
- UPC barcoded

### CERTIFICATIONS & COMPLIANCE

- UL Listed



## 2-Gang Weatherproof Cover, Blank, Gray



### FEATURES

- Rugged metallic construction
- State-of-the-art powder coat finish provides maximum weatherability and scratch resistance
- Installation hardware, gasket and multilingual instructions are included
- Vertical mount
- NEMA 3R rated

### CERTIFICATIONS & COMPLIANCE

- Nema Rating 3R
- UL Listed



## 4 in. Square Bracketed Boxes, Welded with Conduit KO's



RACO® Boxes are installed in walls or ceilings for lighting fixtures, switches or receptacles. Square boxes are used where multiple conductor runs are split into two or more directions to bring power to a number of electrical devices

### FEATURES

- Reference the Box Selection section in the front of this catalog for complete description of bracket types and features
- BOX-LOC® (MS) Bracket Box is a snap to install. Place the bracket on the open side of the stud first. Slots in the bracket engage the lip of the stud and actually crimp it as you press the bracket on the stud, quickly locking it in place
- Combination screw heads provide for faster installation
- TKO® knockouts offer greater flexibility with RACO® patented combination 1/2" and 3/4" knockout UBS Support - Welded to box, preset bend points to work with wall thickness 2-1/2" to 6"
- Red boxes, covers and extensions for dedicated life safety alarm circuits

### CERTIFICATIONS & COMPLIANCE

- UL File E195978

## **RACO** 4 in. x 2 in. Handy Box Cover, Blank

RACO® Handy Box covers are designed to match the contours of the box



### FEATURES

- Cover corners are rounded
- All covers have captive screws
- Accommodates 1/2 in. drywall thickness
- Pre-galvanized steel construction

### CERTIFICATIONS & COMPLIANCE

- UL Listed

## **TayMac** Single Gang Weatherproof In-Use Cover, Horizontal/Vertical, 16-in-1, 2-3/4 in. Deep, Clear

Designed to enclose electrical wiring, switches, receptacles or lighting fixtures. Constructed from 1/16 in. pre-galvanized steel. 8-32 cover mounting screws assembled. Suitable for use without a bonding jumper in circuits up to 600V.



### FEATURES

- High-impact polycarbonate construction provides maximum durability
- Patented Quick-Fit keyhole mounting system allows installation in under a minute
- Patented Universal Fit Adapter System Technology (U-Fast) for 16-in-1 custom device configurations, comes pre-configured for GFCI
- Includes attached gasket and mounting hardware
- Lockable tab

### CERTIFICATIONS & COMPLIANCE

- UL Listed
- cULus Listed
- NEC
- NEMA 3R

## **RACO** Double Gang Weatherproof Box, Seven 3/4 in. Threaded Outlets, Gray



### FEATURES

- Rugged die-cast aluminum construction
- State-of-the-art powder coat finish provides maximum weatherability and scratch resistance
- Eight box mounting options with detachable lugs
- Includes two 3/4 in. closure plugs
- Internal hub threads comply with NEMA requirements and will accept all threaded fittings and threaded conduit
- Ground screw installed
- Multi-lingual instructions in each package

### CERTIFICATIONS & COMPLIANCE

- Nema Rating 3R
- UL Listed
- CSA Certified

## **TayMac** Double Gang Weatherproof In-Use Cover, 55-in-1, 2-3/4 in. Deep, Clear

RACO® Boxes are installed in walls or ceilings for lighting fixtures, switches or receptacles. Square boxes are used where multiple conductor runs are split into two or more directions to bring power to a number of electrical devices



### FEATURES

- High-impact polycarbonate construction provides maximum durability
- Patented Quick-Fit keyhole mounting system allows installation in under a minute
- Patented Universal Fit Adapter System Technology (U-Fast) for 55-in-1 custom device configurations
- Pre-configured for GFCI
- Includes attached gasket and mounting hardware
- Lockable tab

### CERTIFICATIONS & COMPLIANCE

- UL Listed
- NEC
- NEMA 3R



The BELL brand has become synonymous with weatherproof. In fact, the term “BELL Box” is a generic term used by electricians nationally. BELL is THE leader in commercial and residential weatherproof product solutions. The BELL product portfolio includes an expansive offering of weatherproof boxes, covers, and outdoor lighting solutions. BELL is dedicated to producing quality and innovative weatherproof product solutions for years to come.



### Dry Type Distribution Transformer - 480r- 208Y/120 - 3Ø 3kVA - 1000 kVA



Core Design. Cores are high-quality electrical steel from industry-leading suppliers 3R Compliant. All new units ship with weather shields already installed. When a weather shield is not needed, it can easily be removed Terminal Lugs. Primary and secondary terminals come standard with lugs (up to 112.5kVA) for quicker, easier connections Isolating Pads. Extra padding reduces noise and vibration, assuring quiet operation Aluminum Windings. Aluminum provides increased insulation life, cooler operation, and lower losses Consistent Fit/Form. Enclosure sizes of DOE 2016 units are identical to TP-1 sizes Electrostatic shield for enhanced protection

#### FEATURES

- Meets DOE 2016 Efficiency requirements
- Removable Weather Shields installed for 3R applications
- Terminal Lugs installed up to 112.5kVA
- Enclosure sizes identical to current TP-1 sizes
- UL listed, CSA certified
- Ten-year limited warranty

#### CERTIFICATIONS & COMPLIANCE

- CSA Standard C22.2 No. 47
- NEMA 3R
- UL 506



### Panel-Tran Zone Power Centers - 480Δ - 120Y/240 - 1Ø 5 kVA to 25 kVA



Zone power centers combine an Acme encapsulated distribution transformer with a power panel assembly in one convenient UL-3R enclosure, for indoor/outdoor use and is suitable for use as service entrance equipment.

#### FEATURES

- Fully compliant with NEC 450-3
- Designed for indoor and outdoor applications
- Electrostatic shield for enhanced protection
- Primary and Secondary main circuit breakers provided

#### CERTIFICATIONS & COMPLIANCE

- UL Listed

### Panel-Tran Zone Power Centers - 480Δ - 208Y/120 3Ø 9kVA - 30kVA



#### FEATURES

- Fully compliant with NEC 450-3
- Designed for indoor and outdoor applications
- Electrostatic shield for enhanced protection
- Primary and Secondary main circuit breakers provided

#### CERTIFICATIONS & COMPLIANCE

- CSA Standard C22.2 No. 47
- NEMA 3R
- UL 1062



Provides protection from damaging voltage drop  
Eliminates nuisance tripping of drives or circuit breakers  
Reduces motor current surges and power line spike currents  
Improves true power factor of capacitor input drives  
Allows for cooler and quieter operation.  
Reduces harmonic distortion  
Increases life for motors and solid state components.



## AC Line Reactor - 480V 3% Impedance 11027 uH - 46 uH

Acme Electric's Line Reactors are designed to protect DC motor drives, AC variable frequency drives and the motors they power from harmful line disturbances, preventing equipment failure and downtime as well as adding years to the life of your sensitive equipment.



### FEATURES

- Protects from damaging voltage drop
- Eliminates nuisance tripping
- Reduces surges and spike currents
- Longer life for motors and solid state components

### CERTIFICATIONS & COMPLIANCE

- CE Marked
- CSA Standard C22.2 No 66
- UL 506



## AC Line Reactor - 480V 5% Impedance - 18378 uH - 61 uH

Acme Electric's Line Reactors are designed to protect DC motor drives, AC variable frequency drives and the motors they power from harmful line disturbances, preventing equipment failure and downtime as well as adding years to the life of your sensitive equipment.

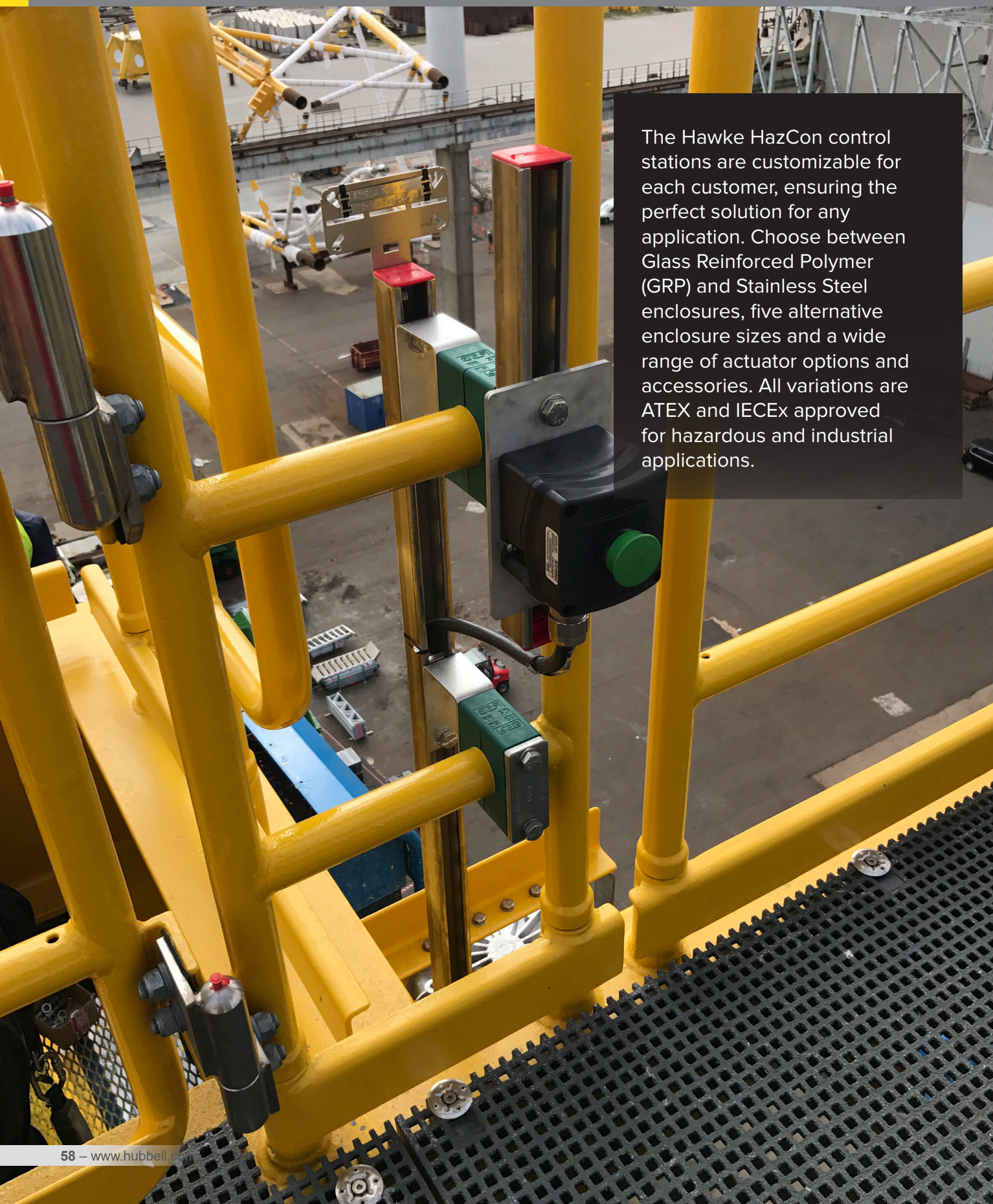


### FEATURES

- Protects from damaging voltage drop
- Eliminates nuisance tripping
- Reduces surges and spike currents
- Longer life for motors and solid state components

### CERTIFICATIONS & COMPLIANCE

- CE Marked
- CSA Standard C22.2 No 66
- UL 506



The Hawke HazCon control stations are customizable for each customer, ensuring the perfect solution for any application. Choose between Glass Reinforced Polymer (GRP) and Stainless Steel enclosures, five alternative enclosure sizes and a wide range of actuator options and accessories. All variations are ATEX and IECEx approved for hazardous and industrial applications.

## **HAWKE** International HazCon Control Stations

Hawke's HazCon Control Stations offer substantial possibilities for customization, and are designed to exceed expectations. Fully ATEX and IECEx certified for Zone 1/21 and Zone 2/22 applications, we provide a universal solution for your control station needs.



### FEATURES

- Easy installation without removing enclosure lid, eliminating ingress of water, dust and insects
- Ambient temperature operational range -50°C to +60°C
- LED indicator with five colored lenses (amber, red, blue, green and clear)
- Single and double pushbuttons, selector switches and ammeters available as options
- Emergency stop button option
- Five options for enclosure sizes
- GRP and stainless steel enclosures available
- IP66 and NEMA 4X ratings

### CERTIFICATIONS & COMPLIANCE

- IP66

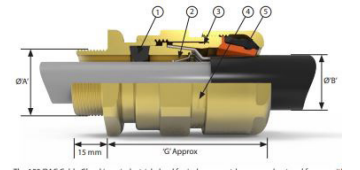


### Why choose Hawke Cable Glands?

All Hawke Cable Glands meet, and in most cases, exceed the test requirements for products used in potentially hazardous areas. With over 60 years of experience manufacturing cable termination products for the most arduous environments, and a reputation built off safety and reliability, Hawke International cable glands offer the safest, most cost-effective glanding product availability today. With a global network of offices and distribution partners, we can offer rivaled technical support, offering peace of mind to installers and owners alike.

### HAWKE International Industrial Cable Gland for Indoor and Outdoor Use

The 153/RAC Cable Gland is an industrial gland for indoor or outdoor use, robust and for use with single wire armor 'W', wire braid 'X', steel tape armor 'Z', elastomer and plastic insulated cables. The gland provides an elastomeric seal on the cable inner sheath, and a low smoke, zero halogen IP and retention seal onto the cable outer sheath.



#### FEATURES

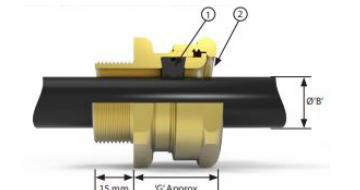
- Elastomeric seal on cable inner sheath
- Fully Inspectable Armor Clamp
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range

#### CERTIFICATIONS & COMPLIANCE

- IP66, IP67 and IP68 (30 meters for 7 days) to IEC/EN 60529 and NEMA 4X

### HAWKE International Industrial Cable Gland for Indoor and Outdoor Use

The 121 industrial cable gland is intended for use on non-armored elastomer and plastic insulated cables in indoor and outdoor applications. This cable gland may be used with braided cables where the braid and outer sheath pass into the enclosure (with the braid terminated inside the enclosure).



#### FEATURES

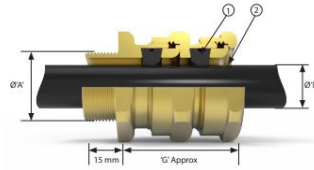
- Elastomeric seal on cable inner sheath
- Rounded Cable entry to prevent cable damage

#### CERTIFICATIONS & COMPLIANCE

- IP66 and IP67 to BS EN 60529

## HAWKE International Industrial Cable Gland for Indoor and Outdoor Use

The 123 dual seal industrial cable gland incorporates two independent seals for use on non-armored elastomer and plastic insulated cables in indoor or outdoor applications. This cable gland may be used with braided cables where the braid and outer sheath pass into the enclosure (with the braid terminated inside the enclosure). The two seals provide superior cable retention over standard unarmored cable glands.



### FEATURES

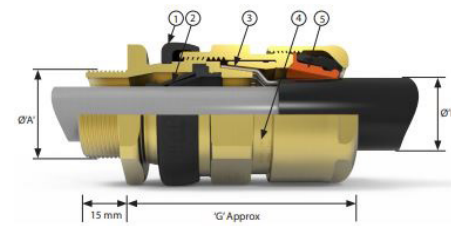
- Elastomeric seal on cable inner sheath
- Rounded Cable entry to prevent cable damage

### CERTIFICATIONS & COMPLIANCE

- IP66 and IP67 to IEC/EN 60529

## HAWKE International Hazardous Area Cable Glands

The 501/453 Universal Cable Gland is dual certified Exe/Exd, robust and for use with single wire armor 'W', wire braid 'X', steel tape armor 'Z', elastomer and plastic insulated cables.



### FEATURES

- Inspectable Deluge Seal - Offering IP66, IP67, IP68 & IP69 Ingress Protection
- Passive diaphragm seal - Suitable for cables exhibiting 'Cold Flow'. Fully inspectable.
- Reversible Armor Clamp - For all types of armor and braid
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening.
- Unique Rear Seal - Offers ultimate sealing over an extremely wide cable acceptance range.

### CERTIFICATIONS & COMPLIANCE

- IP66, IP67 IP68 (30 meters for 7 days, special conditions may apply) and IP69 to IEC/EN 60529 and NEMA 4X
- ATEX/IECEx Protection Class Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Extb IIIC Db
- ATEX Certificate No CML 18ATEX1268X
- CML 19ATEX4507 (Ex nR)
- IECEx Certificate No IECEx CML 18.0131X







200A loadbreak and 600A deadbreak cable accessories offer a wide range of underground separable connection options

- EPDM elastomers supply stress protection under extreme conditions and contribute to reliable, long-time operation.
- Integral jacket seal elbows provide a unique method to seal the outer jacket of underground cable. Available in 15kV and 25kV designs that eliminate the need for separate seal kits.
- Hubbell elbow arresters have two separately molded chambers and full compliance to industry standards in addition to their superior operating performance on underground electrical systems.

## HUBBELL UTILITY SOLUTIONS

### 15 kV 200 Amp Load Break Elbow with Bimetal Contact



#### FEATURES

- Cable Insulation Diameter range = 0.495 - 0.730 inches, 1/0 Solid or Compacted and #1 Stranded or Compressed Meets or Exceeds IEEE Std. 386 and IEEE Std. 592 requirements
- Interchangeable with other products meeting the same requirements
- Fully shielded, insulated and submersible  
Optional features include test point, integral seal, cold shrink jacket seal kit or shield adapter kit"

### 15 kV 200 Amp, Load Break Elbow w/ Integral Seal, Bimetal Contact



#### FEATURES

- Cable Insulation Diameter range = 0.760 - 1.135 inches, 250 Solid or Compacted and 4/0 Stranded or Compressed
- Meets or Exceeds IEEE Std. 386 and IEEE Std. 592 requirements
- Interchangeable with other products meeting the same requirements
- Fully shielded, insulated and submersible  
Optional features include test point, integral seal, cold shrink jacket seal kit or shield adapter kit.

## HUBBELL UTILITY SOLUTIONS

### 35kV 600A T-Body Kit, with Test Point, Cable Insulation



#### FEATURES

- Cable Insulation Diameter Range = 1.935 - 2.055 Inches.
- Kit includes T-body with Testpoint, Cable Adapter, Aluminum Stud, Insulating Plug with Cap, Seal Kit, and Shear Bolt connector for 1000 Stranded or Compressed and 1100 Compact conductor.
- Meets or Exceeds IEEE Std. 386 and IEEE Std. 592 requirements
- Interchangeable with other products meeting the same requirements
- Fully shielded, insulated and submersible  
Optional features include test point, shear bolt connector, cold shrink jacket seal kit or shield adapter kit

### 15 kV Class Elbow Arrester (10.2 kV MCOV)



#### FEATURES

- Hubbell elbow and parking stand lightning arresters are gapless, metal oxide varistor (MOV) type surge arresters. They are designed to provide shielded, dead-front arrester protection for 15/25/28/35 kV underground systems. The arresters limit over-voltages to acceptable levels, protecting equipment and extending service life.



Hubbell Power Systems offers the broadest line of substation connectors in the industry through our Anderson™ and Fargo® brands. Anderson and Fargo product design, manufacturing and management is still based in the Birmingham, Al area where Anderson was established in 1887. The products are designed to perform in a variety of applications, including EHV.

- Terminals, couplers, tees, bus supports, stud connectors and grounding equipment, whether used in traditional or custom applications.
- Technical expertise to design and maintain a product line to meet even the most demanding of specifications.

**ANDERSON Coupler, Bronze Bolted**

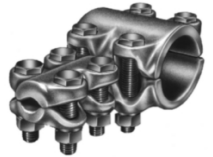


Bronze alloy coupler for connecting copper tubular bus at 45 degrees. Clamping bolts have hex-stops for one-wrench installation

**MATERIAL**

- Casting: bronze aluminum alloy
- Hardware: silicon bronze or stainless steel

**Tee, Aluminum Bolted**



Aluminum alloy, tubing to cable, tee for connecting aluminum-aluminum or aluminum-copper conductor combinations. Clamping bolts have hex-stops for one-wrench installation.

**MATERIAL**

- Castings; 356-T6 aluminum alloy
- Hardware: aluminum alloy

**ANDERSON Bus Support, Aluminum Weldment**

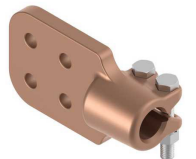


Aluminum alloy horizontal weldment bus support for aluminum tubing. Designed for slip-fit or rigid applications. Cap screws are supplied for upright mounting. Static eliminator spring furnished as standard.

**MATERIAL**

- Castings: 356-T6 aluminum alloy
- Mounting hardware: galvanize steel
- Static spring: stainless steel

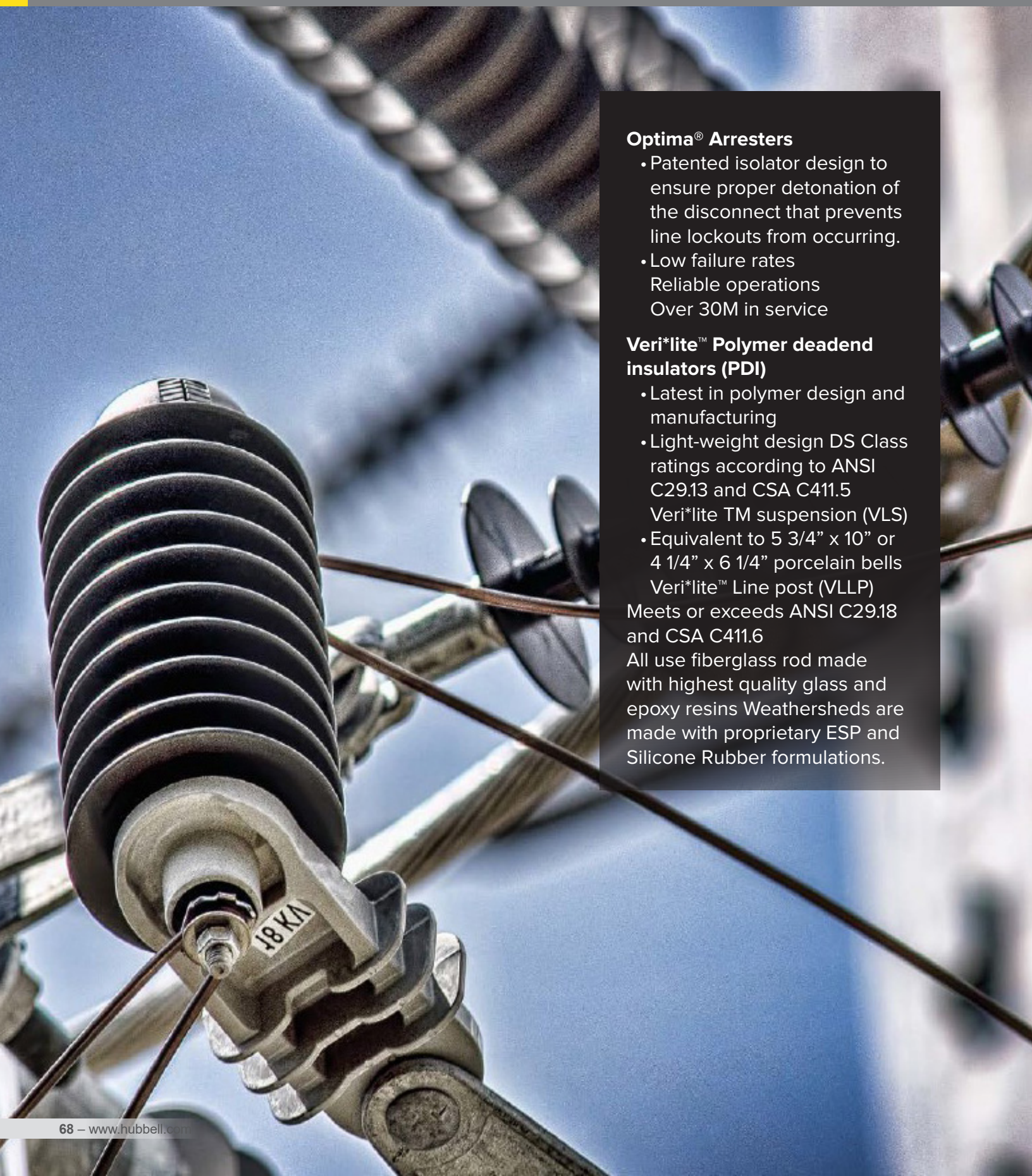
**Stud Connector, Bronze**



Bronze alloy stud connector for connecting copper flat pad to copper stud. Tongue holes have NEMA hole spacing with contact surface on both sides.

**MATERIAL**

- Casting: Bronze Alloy
- Hardware: Silicon Bronze or Stainless Steel



### Optima® Arresters

- Patented isolator design to ensure proper detonation of the disconnect that prevents line lockouts from occurring.
- Low failure rates  
Reliable operations  
Over 30M in service

### Veri\*lite™ Polymer deadend insulators (PDI)

- Latest in polymer design and manufacturing
  - Light-weight design DS Class ratings according to ANSI C29.13 and CSA C411.5  
Veri\*lite™ suspension (VLS)
  - Equivalent to 5 3/4" x 10" or 4 1/4" x 6 1/4" porcelain bells  
Veri\*lite™ Line post (VLLP)
- Meets or exceeds ANSI C29.18 and CSA C411.6  
All use fiberglass rod made with highest quality glass and epoxy resins Weathersheds are made with proprietary ESP and Silicone Rubber formulations.

### OHIO BRASS® EVP, SVN and MVN Arrestors



#### FEATURES

- Ohio Brass® EVP arresters feature an improved sealing system and material usage optimization from over 20 years of polymer arrester experience
- Our silicone rubber housed SVN arresters offer a high strength design and the same proven sealing system used in our porcelain MVN arresters
- Our porcelain MVN arresters are all qualified to high seismic performance

### Optima® Arrester, PDV-100



#### FEATURES

- Over 30 years of excellent field performance with over 36 million distribution arresters installed.
- Long lasting ESPTM housing material with superior mechanical strength and electrical characteristics  
Reliable capacitive disconnect operates at fault currents as low as 1 Amp.
- Dynamic triple sealing system protects internal components from moisture ingress to extend service lifetime.
- High quality MOV discs made in Wadsworth, Ohio since 1978.
- Arresters assembled in Aiken, South Carolina  
100% routine tested.

### OHIO BRASS® Veri\*lite™ Polymer deadend insulators (PDI)



#### FEATURES

- Veri\*Lite Insulators are manufactured with silicone rubber with Ohio Brass proprietary compound, the same proven material used in Quadri\*Sil Transmission Insulators.
- Insulators are available with other ANSI and IEC end fittings. Please refer to the catalog for the configurable options available.

### Hi\*Lite II Station Post Insulators



#### FEATURES

- Proprietary ESP™ polymer material.
- Fiberglass core rod.
- Patented live silicone interface.
- ANSI technical reference dimensional equivalent.



PPCORE Electric is North America's only company 100% focused on the manufacturing of capacitance-graded bushings -and related components -- for transformers and oil circuit breakers in the ANSI and CSA marketplace. In addition to our wide range of precision products, we offer in-factory diagnostic services and bushing repairs that enable our customers to maximize their equipment investment.

Electro Composites is the industry leader in manufacturing high voltage solid dielectric epoxy capacitance graded bushings, offering solutions for applications up to 170kV, as well as a variety of insulators and custom molded parts.



## POC (Paper-Oil-Capacitor) Bushings

POC Series II Guide (115kV-230KV)  
 POC Series II Guide (345kV-500KV)  
 CSA Standard POC Bushings

### FEATURES

- PCORE® POC 88 Series bushings are available from 25kV through 69kV with current ratings from 400/1200A to 7000A. These bushings are interchangeable between transformer and oil circuit breaker applications.
- PCORE POC™ Series II TBI bushings provide a high level of performance in both power transformers and oil circuit breakers. The high seismically certified PCORE POC bushings are available in voltage classes from 115kV through 230kV with current ratings from 800A through 4500A.
- PCORE POC Series II 345kV and 500kV bushings provide a high level of performance in EHV applications. The EHV POC bushings are available in voltage classes from 345kV through 500kV with current ratings from 800A through 3500A.



### CERTIFICATIONS & COMPLIANCE

- Industry Standard(s) IEEE



## SE=DC HV Bushings SDC HV Generator Bushings SDC GSU Bushinas

### FEATURES

- Electro Composites SDC™ composite bushings are designed to provide the toughest, cleanest and safest bushing solution for all your HV applications. We make standard OEM and aftermarket replacement bushings for substation transformers, GSU transformers, oil circuit breakers, switchgear, wall/floor (air-air and oil-oil), HVDC and many more.



### CERTIFICATIONS & COMPLIANCE

- Industry Standard(s) ANSI/IEEE, CSA and IEC



Hubbell manufactures its line of CHANCE® Lineman Grade Tools in Centralia, Missouri. With more than 75 years of engineering expertise, CHANCE is a highly recognized brand in the industry for tools and accessories in the construction and maintenance of power equipment. HPS also wrote the encyclopedia of grounding and have been educating linemen since Tips Tools was acquired in 1937. HPS acquired A. B. Chance in 1994 and its product portfolio includes: hot sticks, clamps, grounding equipment, ladders and rubber gloves.



### Grip-All Clampsticks

External Operating Rod Type



#### FEATURES

- The most versatile tool in a lineworker's hands, the Grip-All stick puts an easy-to-control "finger" on an insulated pole. Although primarily designed for installing hot-line and grounding clamps, it serves both overhead and underground circuits with various end fittings. Easy to care for, Grip-All sticks do not require field stripping to clean. All insulated parts including the operating rod are outside the main pole, readily accessible to wipe dry.

### Conductor Cover

26.4kV Covered-Phase-to-Covered-Phase  
36.6kV Covered-Phase-to-Covered-Phase



#### FEATURES

- These covers provide a highly versatile system of covering up a wide variety of configurations on distribution systems. The conductor covers mate with insulator covers to cover pin-type or post-type insulator construction and also can be used with the deadend cover. The units virtually surround the hot parts and hardware to give the linemen extra protection when rubber gloving or using hot sticks. Conductor covers are made of high-density polyethylene and are bright orange in color. Conductor covers are available with a Grip-All adapter for hot stick application or without adapter for rubber glove application.



### Chance Straight Cuff Rubber Insulating Gloves

Available in four colors: Black under Yellow, Red, Yellow and Black



#### FEATURES

- The ultimate source of protection expected from the Chance name
- Offers a new level of comfort and flexibility
- Constructed for high dielectric and physical strength
- Exceed ASTM D120
- Available in straight cuff lengths of 11" and 14"

### Epoxiglas Heavy Duty Swivel Hook Ladder

Now Certified to IEC 61478-Category 2 Temnor Arv Installation



- Position linemen for live-line maintenance
- Epoxiglas Insulated foam core construction
- Meets ASTM F711 and IEC 61478 - Category 2
- Epoxiglas sand-coated 1-1/4" dia, rungs



Hubbell's diverse family of Underground Enclosures includes Quazite Polymer Concrete, Quazite FRP, and PenCell Plastic. Our designs provide strength and lasting value. Weight reduction over traditional concrete vaults significantly reduces our customers' installation time. We also manufacture fiberglass, plastic and metal sectionalizing cabinets as well as secondary pedestals. After working closely with our customers over the years to understand their needs, we have created a complete assortment of standard sizes and configurations. In addition to a robust line of standard enclosures, we can also engineer an above ground or underground enclosure for customer specific needs.

## **Quazite** Quazite® H2O Assemblies



QUAZITE H2O assemblies are designed to handle frequent loading from vehicular traffic including industrial EE loading zone, parking facilities, roadside utilities or FEA anywhere that enclosures are likely to be hit by frequent traffic.

### FEATURES

- Galvanized steel frame and cover are H2O compliant
- Polymer concrete box is long lasting, easy to modify and install, available in a variety of depths
- Frame and covers available for 13x24 and 17x30 enclosures

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## **HUBBELL UTILITY SOLUTIONS** Sectionalizing Cabinet, Three-Phase, Fiberglass



### FEATURES

- Convenient Install - Integrated ground sleeve
- Robust - Geometric bracing resists sidewall deflection
- Easy Access - Cut-away sides & Cover opens > 90°
- Durable - UV-stabilized gel coat ideal for coastal use
- Low Profile - At 24" burial depth

More than just a product - we pride ourselves in sharing our knowledge, our ideas and our resources. The CHANCE line of anchors and foundations comes with a rich history of teaching, training and application technique. Quality starts with rigorous standards in product design, manufacturing and delivery, and it continues with service, technical support and field support from experienced engineers



## Tough One® Anchor Helix Assemblies Hub (2-1/4" Square Inside)

Torque Ratings: 8,000 ft-lb and 10,000 ft-lb. Use 8,000 ft-lb Tough One Anchor in soft and medium-hard soils. Use High-Strength 10,000 ft-lb Tough One Anchor in hard soils.



### FEATURES

- The C10252 series of Tough One anchors have a smaller inside hub diameter than our C10250 series.
- The smaller hub is designed to be installed with the Chance® Anchor Wrench C1021583.
- The anchor's sloped lead point improves penetration and helps soil flow from below the hub to above the anchor.
- Tough One anchors use standard PISA® rods.
- Tough One anchors are painted with black paint.



## Tough One® Anchor Helix Assemblies Large Hub (2-1/2" Square Inside)

Torque Ratings: 10,000 ft-lb. and 15,000 ft-lb.



### FEATURES

- The anchor's sloped lead point improves penetration and helps soil flow from below the hub to above the anchor.
- Tough One anchors use standard PISA® rods.
- If soil conditions require installations above 10,000 ft-lb, you will need our Tough One wrench system consisting of Drive-End Assembly, Kelly Bar Adapter and Locking Dog Assembly. The high-strength system will also install PISA 6 and 7 anchors.
- Tough One Anchors are painted with black paint.



## Helical Anchors & Piles

The Round-Rod "RR" multi-helix anchors are used in areas where weak soil conditions exist and moderate holding capacities are required. All helix lead sections are 7 ft. long. Extension shafts may be required for installation to proper depth.



### FEATURES

- RR screw anchors consist of three galvanized components: Lead section, extension shaft (which includes an integral coupling), and the guy adapter. Each extension and guy adapter includes a high-strength bolt and nut.



## Adjust-A-Grip® Guy Deadend

Heavy-duty Terminations for Guyed Transmission and Antenna Structures Available for galvanized steel (ASTM A475) and aluminum coated guy strands (ASTM A474 or B416) that range in diameter between 1/2" and 1 1/4" and guy ratings up to 142,900 lbs.



### FEATURES

- Installation with basic hand tools
- Compact design
- Tensioning capabilities that can correlate to the resulting guy tension
- Single package that includes all components
- 50-year service record
- Socket/wedge and helical wire grip design holds 100% of the strands rated breaking strength
- Adjustable U-bolt permits re-tensioning later



## Helical Anchors & Piles

Square-Shaft "SS" multi-helix screw anchors are designed for heavy-guy loading. They have 1-1/2" square steel shafts. Extension shafts must be coupled to the helix section for installation to the proper depth.



### FEATURES

- SS screw anchors consist of three galvanized components: the lead section, the extension shaft, which includes an integral coupling, and the guy adapter. Extensions and guy adapters include a high-strength bolt and nut





Hubbell Power Systems customers can rely on the experience and support of our global customer service team. We implement around-the-clock coverage when our customers need us most by proactively monitoring accounts and keeping a watchful eye on weather, natural disasters and other industry threats that may cause a disruption of service to your customers.

Our e-commerce suite provides an efficient and transparent way of doing business. With vendor managed inventory, you have the reassurance of knowing you will have your products when you need them. At Hubbell Power Systems, service and support is a responsibility that belongs to everyone in the company. Our technical staff is one of the most experienced in the industry and is always available to do whatever it takes to get the job done

## **HUBBELL UTILITY SOLUTIONS**      **Towerpak Kitted Solutions**

TowerPak® eliminates the hassle of material coordination, identification and handling. It provides convenience, component assurance and cost-savings from fewer transactions. All your tower materials are pre-assembled for a perfect fit, bundled, and shipped as one unit. TowerPak® is shipped on time, on spec and on budget — ready when your line crews are ready.

### FEATURES

- Parts customized for the specific needs of your project
- Options for pre-assembly, kitting and/or bulk packaging
- Packaged in wire-bound, weather-resistant crates
- Boxes clearly labeled with itemized lists of materials
- All parts expedited & freight coordinated for on-time delivery
- Shipped directly to your job-site or warehouse
- Project-tracking capabilities
- Assembly drawings included with every box

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## **HUBBELL UTILITY SOLUTIONS**      **“SERVICES Hubbell Emergency Action Team (HEAT) “**

When a storm is moving, our customer service is too. The Hubbell Emergency Action Team (HEAT) works around the clock alongside our distributor partners and customers to do whatever it takes to get product where it's needed.

### FEATURES

- The Hubbell Power Systems, Inc. (HPS) Customer Service team is your first responder. Based in Centralia, Missouri, the HPS Customer Service team provides centralized support for more than 40,000 products and around-the-clock coverage during storms and natural disasters. Throughout the effort, we monitor estimated time of product arrival by satellite communications to ensure you get what you need, where you need it, as expected. 14 years of service, rest assured, we are here when you need us most.



Substations serve as the electrical backbone of Oil & Gas refineries. Ensuring reliable sources of electricity are available for critical operations requires protecting substation assets from unplanned outages. Hubbell offers Greenjacket and Reliaguard cover-up brands to solve the issue of wildlife making contact with energized equipment risk points that result in expensive power outages. Refineries can protect against loss of production and US Wildlife fines for endangered species “takes” with Hubbell wildlife solutions.

## RELIAGUARD® BRUSHING GUARDS

Transformers are the most common perch point for wildlife. Transformer bushing guards protect endangered species, birds, squirrels, raccoons, snakes, feral cats and other wildlife from contact with energized risk points. The contact risk points on a bushing are typically from a phase to ground contact.



### FEATURES

- Based on the 100 years of collective knowledge of the Reliaguard linemen who specialize in wildlife mitigation, designs consider all risk points. A team of CAD designers support our linemen to incorporate features unique to only Reliaguard Bushing Guards.
- Bushing guards are manufactured with a superior latch closure design to ensure the bushing guards stay where they are installed. The latch closure design provides an optimal method of ensuring covers can't be inadvertently dislodged.

## GREENJACKET®

### SUBSTATION COVERS



### FEATURES

- Weather resistant
- Highly UV resistant
- Extremely durable
- Flexible
- Dielectric strength of 609 V/mil
- Removable for maintenance and reusable

## RELIAGUARD®

### TERMINATION GUARD



### FEATURES

- Reliaguard® Termination Guards are designed to stay in place. Retention of the cover once applied is a critical design feature to be considered.
- Guards can accommodate a wide variety of conductor diameters
- Complete coverage of the bolted connection and compression cable connection

Reliaguard is compliant with specific test requirements of IEEE 1656-2010.



## COMMERCIAL AND INDUSTRIAL PRODUCT CATEGORIES

- CONTROL TRANSFORMERS
- DATACOM CONNECTIVITY
- DRY-TYPE TRANSFORMERS
- ELECTRICAL JUNCTION BOXES
- ELECTRICAL MOTOR CONTROLS
- GROUND FAULT DEVICES
- ACCESSORIES
- INDUSTRIAL CONTACTORS
- PIN & SLEEVE DEVICES
  - PLUGS & RECEPTACLES
- RESISTORS
- STEEL & PLASTIC ENCLOSURES
  - SWITCHES & DIMMERS
  - WIRING DEVICES & AC-



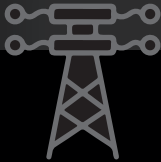
## LIGHTING AND CONTROLS PRODUCT CATEGORIES

- ARCHITECTURAL LIGHTING & SCONCES
- BOLLARDS
- CANOPY LIGHTS
- DECORATIVE LANDSCAPE FIXTURES
- TRACK FIXTURES
- EMERGENCY LIGHTING/EXIT SIGNS
- FLOODLIGHTS & POLES
- LIGHTING COMPONENTS
- PARKING LOT/PARKING GARAGE FIXTURES
- RECESSED, SURFACE MOUNTED &
- SITE & AREA LIGHTING



## CONSTRUCTION AND ENERGY PRODUCT CATEGORIES

- CABLE GLANDS & FITTINGS
- COMPRESSION CONNECTORS
- ELECTRICAL LUGS
- GROUNDING EQUIPMENT
- HAZARDOUS FITTINGS
- INSTALLATION TOOLING
- MINING COMMUNICATION & CONTROLS
- SAFETY EQUIPMENT
  - SPECIALTY LIGHTING
  - WIRE MANAGEMENT



## UTILITY SOLUTIONS PRODUCT CATEGORIES

- ADVANCED METERING INFRASTRUCTURE
- ARRESTERS
- BUSHINGS
- CABLE TERMINATIONS & ACCESSORIES
- CURRENT TRANSFORMERS
- CUTOUTS & FUSE LINKS
- GROUNDING & BONDING EQUIPMENT
- HELICAL ANCHORS & FOUNDATIONS
- INSTRUMENT TRANSFORMERS
- INSULATORS
  - LINEMAN TOOLS, HOSES & GLOVES
  - METERS AND EDGE DEVICES
  - OVERHEAD, PAD MOUNTED & CAPACITOR SWITCHES
- POLYMER CONCRETE & FIBERGLASS ENCLOSURES
  - SECTIONALIZERS
  - SPLICES, TAPS & CONNECTORS
  - WILDLIFE MITIGATION



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