

The PANDUIT logo is rendered in a bold, white, sans-serif font. The letter 'P' is significantly larger and more prominent than the other letters, which are of uniform size. A registered trademark symbol (®) is positioned at the top right of the word.

**PANDUIT**®

# Renewable Energy Solutions Brochure

Connect • Bundle • Protect • Identify

The background of the brochure features a close-up, low-angle view of solar panels. The panels are arranged in a grid pattern, with their cells and interconnecting lines clearly visible. A bright, warm light source, likely the sun, is positioned in the upper right quadrant, creating a strong lens flare and illuminating the scene. The overall color palette is dominated by deep blues and bright yellows, with a prominent diagonal yellow stripe separating the top text area from the solar panel imagery.

[www.panduit.com/solar](http://www.panduit.com/solar)

The Panduit logo is displayed in a bold, white, sans-serif font. A thin yellow horizontal line is positioned directly beneath the text. The background of the top section of the page features a photograph of a solar panel array on a roof, with a network diagram overlay consisting of grey nodes and connecting lines. The sun is visible in the upper right, creating a lens flare effect.

# PANDUIT<sup>®</sup>

## Renewable Energy Solutions

WATCH NOW



## Panduit understands the challenges of today's Renewable Energy Industry

As the solar industry has grown, our physical infrastructure expertise has evolved to play a vital role in renewable energy production facilities around the globe. Over the last decade, Panduit has been leading the way, partnering with EPCs and solar installers on PV installations totaling more than 5GW of capacity.

### **Developers and Operators**

Panduit's solar-specific solutions benefit the entire solar energy industry by making solar power more cost-effective overall.

### **EPCs and Installers**

Panduit's solar-specific solutions are designed with installers in mind to reduce complexity and labor, thus lowering total installed cost.

### **PV Wire Extenders and Harness Manufacturers**

Panduit has the tools to bundle, connect and label your PV wire which provides easy identification when they arrive at the job site.

### **OEMs (Combiner Boxes, Disconnect Boxes, Inverters)**

Panduit offers the broadest solutions for inside-the-panel components, from terminals to wiring duct and everything in between



Panduit has the broadest solutions that cover more ground than any other manufacturer.

Did you know that our solutions can cover up to 75% of a typical Solar BOS?  
**LEARN MORE TODAY!**

## Grounding Connectors



## Power Connectors



## Cable Management



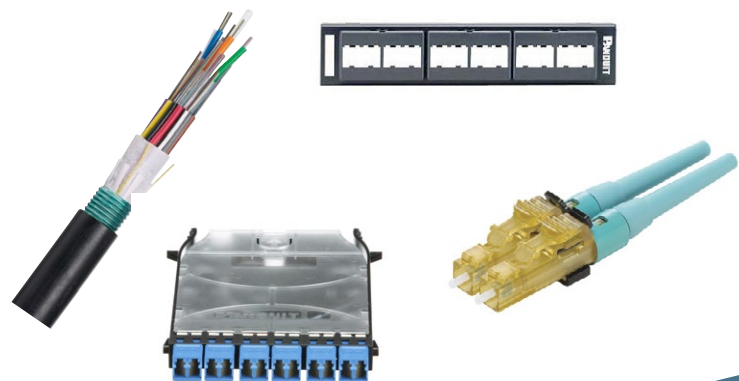
## Identification



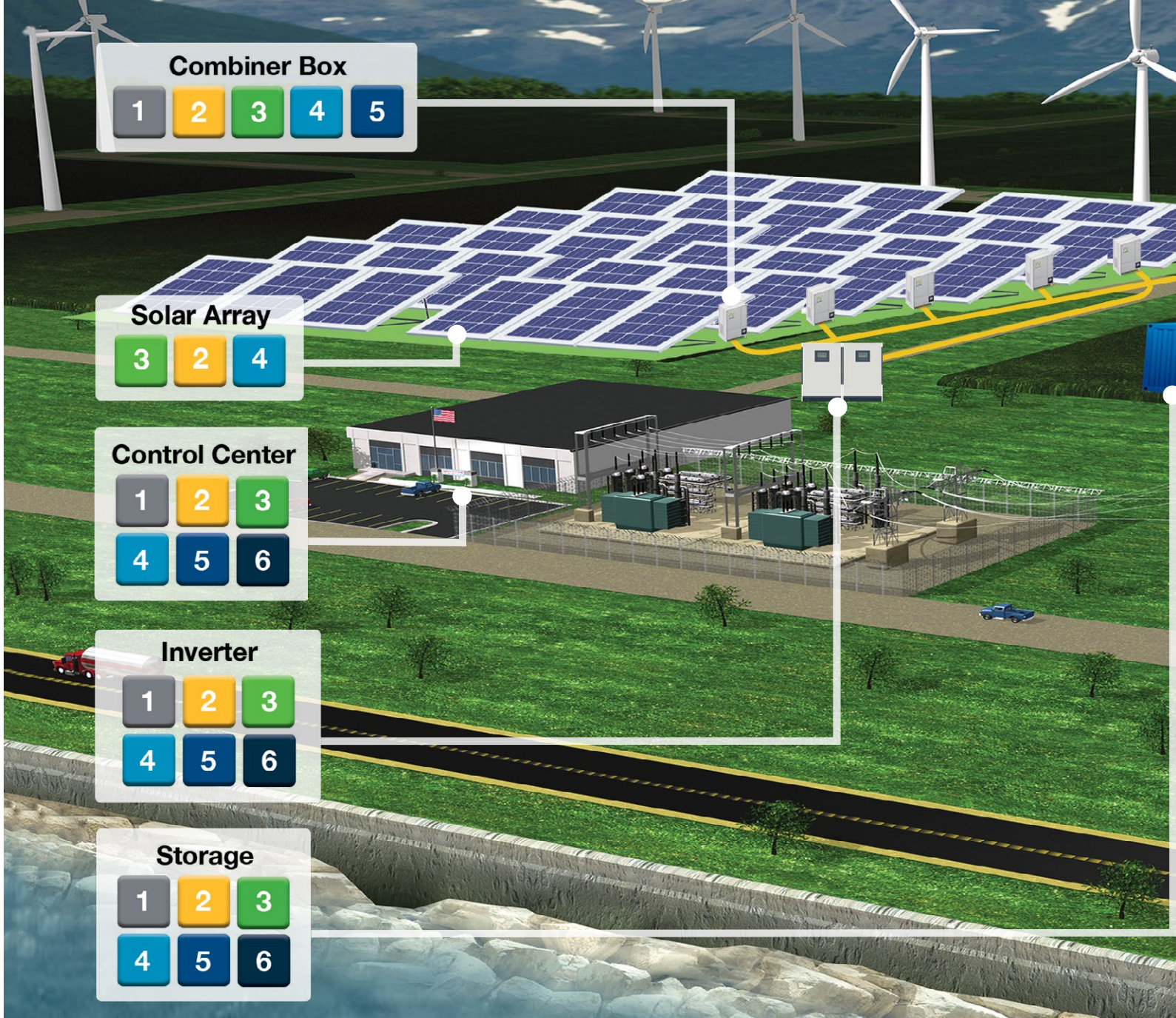
## Safety



## Network Communication







## GROUND 1

### Grounding Solutions

- Reliable grid grounding systems that meets the latest IEEE standards.
- Lowers installation time to help with the accelerated development schedules.

[CTAPR Series Grounding Connector](#)



[Figure 6 Style Grounding Connector](#)



[Mechanical Connector Split Bolt](#)



[Grounding and Fence Clamps](#)



## ROUTE 2

### Cable Management Solutions

- Reduce installation time and improve the operating life of wire and cables in harsh environments.

[UV Resistant CLT](#)



[Weather Resistant Nylon Cable Ties](#)



[Trefoil Configuration](#)



[Metal Edge Clip](#)



[Edge Clip with Cable Tie](#)



[Solar Wire Hanger](#)



## IDENTIFY 3

### Identification Solutions

- Designed and tested to perform for 20 years in outdoor environments.
- Pre-printed and print-on-demand labeling enables NEC compliance solutions.

[MP300 Mobile Printer](#)



[Arch Flash Labels](#)



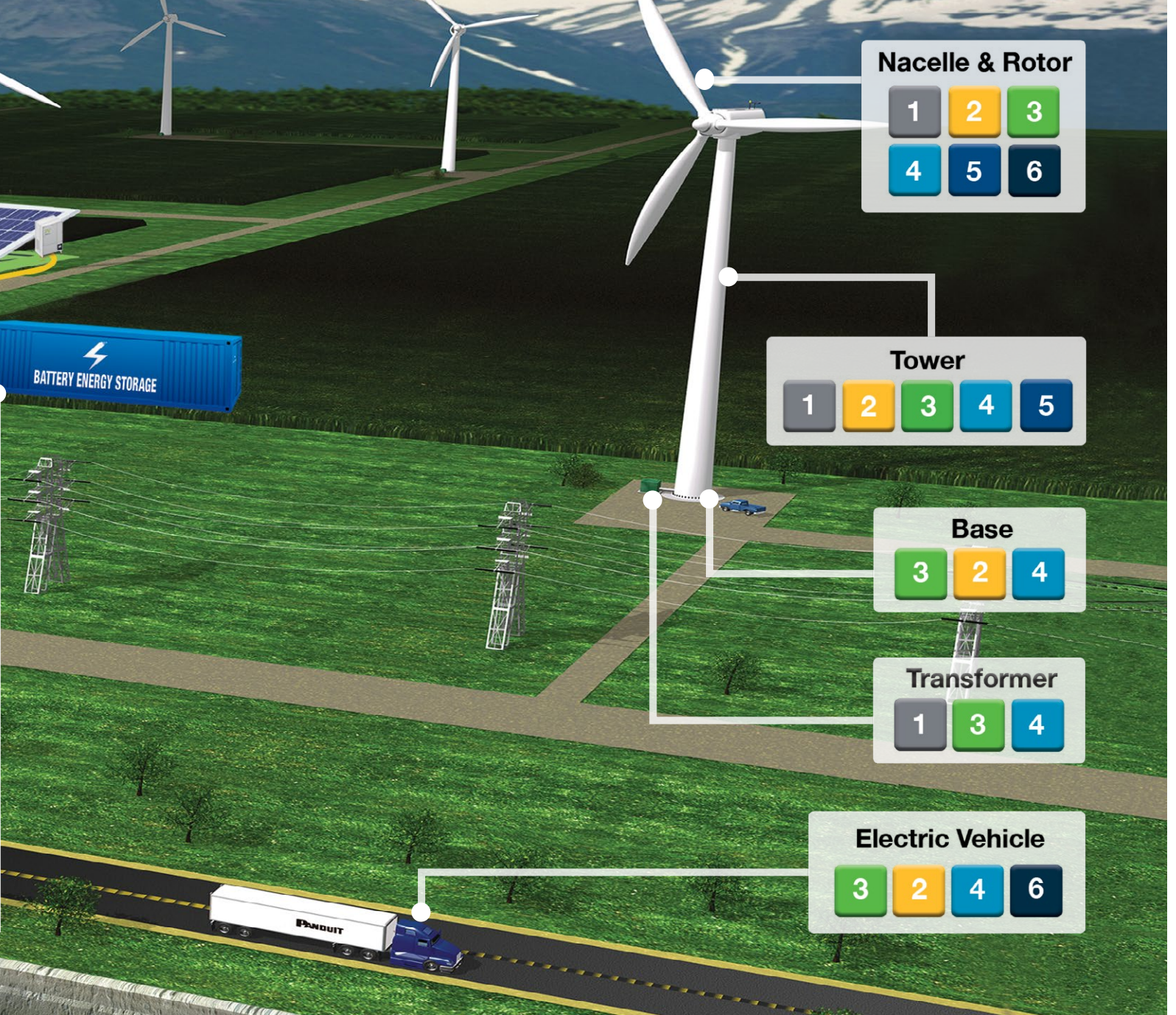
[TDP43ME Desktop Printer](#)



[Continuous Tape](#)







## CONNECT

4

### Power Connector Solutions

- Reduce installation time with our aluminum and copper power connectors.
- Designed to meet all applicable standards and can be crimped with a wide variety of competitors' tools and still maintain UL listed.

[Aluminum and Copper Lugs](#)



[Aluminum Splice](#)



[Braided Bonding Strap](#)



[Loose Piece Ring Terminal](#)



## PROTECT

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### Safety Solutions

- Panduit's electrical safety business is focused on innovating groundbreaking new electrical safety technology that reduces risk, increases safety, and helps industry leaders achieve operational goals.
- VeriSafe™ is the first-of-its-kind voltage tester that determines the absence of voltage with just a push of a button.

[VeriSafe™—Absence of Voltage Tester \(AVT\)](#)



[Electrical Tape](#)



[Data Access Port](#)



[UV Resistant CLT](#)



## COMMUNICATE

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### Communication Solutions

- The Panduit intelligent data center solution encompasses data center advisory services, intelligent software and hardware, energy efficient cabinets, pre-configured infrastructures, physical infrastructure foundation, and high-speed data transport (HSDT) copper and fiber cabling.
- Solutions are modular, scalable, and agile, fully supporting the introduction of state-of-the-art network architectures today or in the future.

[Outside Plant Armored Cable](#)



[SmartKeeper Blockout Device](#)



[Industrial Copper Patch Cord ISTPH Series](#)



[Shielded Field Term Plug](#)





# Grounding Connectors

Most of our grounding and power connectors are UL listed with select competitor's tools and dies. Contact a Panduit Representative for more information.

## CTAPR Series Grounding Connector:

For connecting conductor to conductor and conductor to ground rod applications.

**cULus Listed to UL 467 for direct burial grounding applications.**



## Figure 6 Style Grounding Connector:

Figure 6 Style Grounding Connectors are used to connect conductors to grounding rods and rebar. Broad selection that covers most common applications.

**cULus Listed to UL 467 for direct burial grounding applications.**



## Braided Bonding Strap:

Tin-plated to inhibit corrosive effects and improve termination quality of dissimilar metals.



**cULus Listed to UL 467.**

## Service Post:

Designed for grounding one or two copper code conductor to steel structures, busbars, or transformers or for tapping from busbar with hex nut and washer.

**cULus Listed to UL 467 for direct burial grounding applications.**



## Grounding and Fence Clamps:

Designed to ground copper conductor parallel or at a right angle to a rod, tube, or pipe.

**cULus Listed to UL 467 for direct burial grounding applications.**



## BlackFin Installation Tools:

### CT-2980/STBT Battery Crimp Tool 6.2 ton

Battery Powered Crimping Tool with Bluetooth® technology, crimps with just the touch of a button. Wires can quickly and easily terminate with a rotating flip-top crimp head.



### CT-2931/STBT Battery Crimp Tool 12 ton

Battery Powered Crimping Tool with Bluetooth® technology, crimps with just the touch of a button. The crimp tool has a force of 12 tons.



 Tested by CSA to Meet OSHA safety requirements.

## Mechanical Connector Split Bolts:

Pressure bar provides a secure connection on a full range of conductor combinations assuring wire pull-out strength.

**cULus Listed to UL 467 for direct burial grounding applications.**



# Power Connectors

## Aluminum and Copper Lugs:

Lugs have color-coded barrels marked with Panduit and specified competitor die index numbers for proper crimp die selection. Tin-plated and rated to 35 kV.

**UL Listed & CSA Certified  
Temperature Rated 90°C  
(AL9CU).**

**UL Listed & CSA Certified  
Voltage Rating 35 KV.**



## Aluminum Splice:

Manufactured from high conductivity thick wall wrought aluminum. Color-coded barrel markings with Panduit and specified competitor die index numbers marked on barrel for proper crimp die selection.



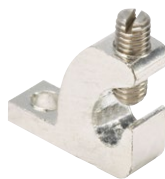
## Lay-in Lugs:

For quick installation of a continuous grounding conductor

Tin Plated Aluminum: LIAS\* and LIAC\* Series

Copper Body: LICC4\* Series  
(Direct Burial Rated)

**cULus Listed to UL 467 for grounding applications.**



## Aluminum Mechanical Lugs:

The plated steel or aluminum set screw provides a durable electrical contact between conductor and connector.

Single barrel lugs: LAMA\*, LAMB\* Series

Two barrel lugs: LAM2\* Series

Three barrel lugs: LAM3\* Series

Four barrel lugs: LAM4\* Series

Splicer - Reducers: SR\* Series

**UL listed and CSA certified for use up to  
600V and temperature rated to 90°C.**



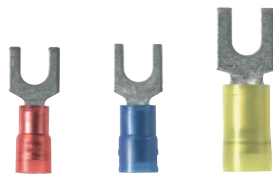
## Fork Terminals:

Fork designs provides a fast and easy installation by not requiring the removal of the fastening stud.

Nylon: PN\*-F\* Series

Vinyl: PV\*-F\* Series

Non-Insulated: P\*-F\* Series



## Ring Terminals:

Ring tongue design assures a secure connection in high vibration applications.

Nylon: PN\*-R Series

Heavy Duty: PN12-\*\*HDR-\* Series

Vinyl: PV\*-R\* Series

Heavy Duty: PV12-\*HDR-\* Series

Heat Shrink: PH\*\*-\*R\* Series

Kynar Insulated: PK\*-R\* Series

Non-Insulated: P\*\*-\*R\* Series

Heavy Duty: P12-\*HDR-L Series

High Temp: P\*\*-\*RHT\*-\* Series



## Terminal Tooling Options:

**BlackFin Battery-Powered Crimping**

**Tool** provides efficient and quality terminations within 1.5 seconds.

**CT-2300/ST Series**

**CT-1550 Crimp Tool** assures high quality, consistent terminations, and the ergonomic features providing comfort, safety, and performance.

**CD-550 Die Insert** is designed for use with the following:

CT-2300/ST BlackFin Crimping Tool

CT-2500/L Crimping Tool

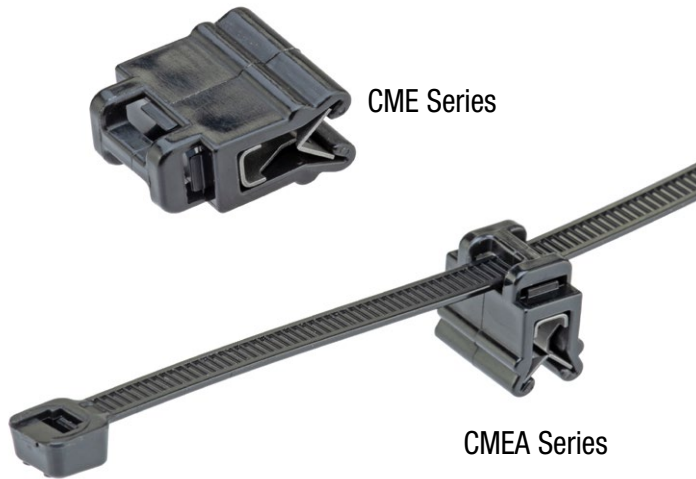
UP14ZLW benchtop press



# Cable Management Solutions

## Edge Clip with Cable Tie Mounts

Mount directly to the solar frame edge without requiring any adhesive or drilling.



## Solar Wire Hanger

- Hooks to pre-drilled holes in PV frame
- Suspend PV wires in the array of routing
- Hanger can be opened for wire maintenance



## UV Resistant CLT

Crush, impact, abrasion, and UV resistant to reduce the risk of damage to wire and cables.



## Metal Solar Edge Clip

Ideal for PV cable management in Solar Construction. Made of durable Stainless Steel suitable for harsh environments.



**Options for 1 to 2 PV wires** for routing wires parallel or perpendicular with reference to the solar panel frame.

**4-wire version** clips provide an option for routing up to 4 wires parallel with reference to the solar panel frame.

## Plastic Solar Edge Clip

Ideal for PV cable management in Solar Construction. Made of durable weather resistant Polyoxymethylene which eliminates the concern of dissimilar metals and prevents scratches to the solar panel frame.



**Teeth lock feature** prevents movement and can handle multiple gauges.

**Provides alternative solutions** for wires to run parallel or perpendicular to the frame as well as inside or outside the frame member.

## Installation Tools:

### GTS-E

Installs subminiature, miniature, intermediate and standard cross section cable ties



### GTH-E

Installs standard, heavy-standard, light-heavy, and heavy cross section cable ties







## Weather Resistant Nylon 612

Black weather resistant locking cable ties are designed to satisfy applications in outdoor environments requiring long weathering life, high resistance to ultraviolet light, resistance to corrosive elements such as zinc chloride, salts, hydrocarbons, chlorinated hydrocarbons, bases and acid rain. Ideal for wire management on galvanized surfaces and frames, while delivering consistent performance and reliability.

PLT\*-\*6120 Series



## Weather Resistant Nylon 6.6

Designed to satisfy the needs of general applications, while delivering consistent performance and reliability. Featuring a curved tip to allow for easy pick up from flat surfaces and faster initial threading.

PLT\*-\*0 Series



## Weather Resistant Nylon 12:

A material of choice for high moisture, corrosive (zinc chloride and dilute acids), and low temperature solar applications that require long weathering life expectancy and greater resistance to damage caused by ultraviolet light. Ideal for wire management on galvanized surfaces/frames.

PLT\*-\*120 Series



## Fully Coated Stainless Cable Ties

Fully coated stainless steel cable ties provide the most durable and lasting solutions for cable management of any other material. This product offers a one-piece, self-locking head design for a permanent installation that, in most cases, will outlast the life-span of a solar plant.



## Cable Cleats and MV Cable Clamps

Available in a variety of sizes and configurations, our extensive line of cable cleat solutions ensures cables remain contained in the event of a short circuit fault. Engineered for ease of installation in a range of applications and harsh environments. Tested to globally recognized IEC 61914:2015 standards to ensure performance and safety during installation and in use.

### MLT Double Loop Configuration



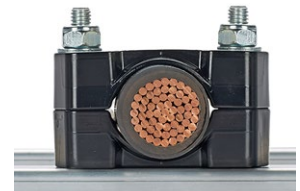
### Polymer Cable Cleat One-Hole Configuration

CCPL1H Series



### Polymer Cable Cleat Two-Hole Configuration

CCPL2H Series



### Polymer Trefoil Cable Cleat Configuration

CCPLTR Series



### Stainless Steel Quad Configuration

CCSDQD Series



# Identification and Safety Solutions

Did you know? The advantage of using Panduit printers is that you have the flexibility of printing labels on-demand, providing higher productivity on the jobsite. To learn more, visit [www.panduit.com](http://www.panduit.com).

## MP300 Mobile Printer:

The Panduit MP300 mobile label printer is the ideal solution for labeling in the field. The printer offers a wide variety of die-cut and continuous label sizes up to 1.5" wide and an automatic cutter with capabilities for full and half cuts.



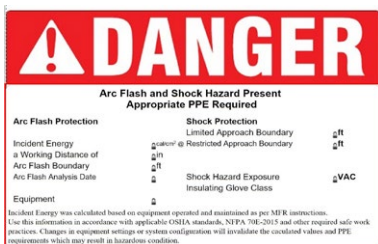
## TDP43ME Desktop Printer:

Print a variety of self-laminating labels, component labels, non-laminated labels, heat-shrink labels, marker plates, and continuous tapes up to 4" wide. It includes Easy-Mark Plus Labeling Software.



## Arc Flash Labels:

Designed to comply with the latest OSHA regulations and standards.



## Self-Laminating Wire Markers:

Available in both cassettes for hand-held printers and in rolls for desktop printers.

Self-laminating: S\*X\*V\* Series



## Continous Tape:

Ideal for safety signage and identification. A resin ribbon is recommended. Designed to be used with the Easy-Mark Plus Labeling Software and TDP printers.



## Heat Shrink:

Offering crisp, clear legends with superior readability for quick and easy label production. Designed to provide a clear, reliable, and durable way to identify wires and cables.

Heat shrink: H\*\*X\*\*H\* Series







### Detectable Tape:

Underground hazard tape used to provide warning of buried utility lines.



### Electrical Tape:

Suitable for primary insulation and splicing up to 600V and can be used as protective jacketing. Offering protection against an array of abrasive and corrosive materials, while providing quality adhesion properties, as well as resistance to UV rays and cold weather.



### Lockout Padlocks:

Each lock keyed differently and some styles are supplied with 2 keys.

PSL-\*



### Barricade Tape:

Barricade tape, 3.00" H x 1000' length, 'Caution' (legend), non-adhesive polyethylene film.



### Nylon Marker Plates:

The Thermal Transfer Polyester/Polyolefin Non-Adhesive Marker Plate allows for mounting flexibility, attachable in a horizontal or vertical orientation.

M200X050Y6T



### Safety Tags:

Pre-printed plastic tags with write-on capability.

PVT\* Series



### VeriSafe™ - Absence of Voltage Tester (AVT):

Automates and simplifies the process of absence of voltage testing. Retrofit kits and connector available as well.



### Data Access Port:

The DAP provides a safe and secure way to maintain and monitor performance of Programmable Logic Controllers (PLCs), Variable Frequency Drives (VFDs), and industrial networks.



# Network Communication Solutions

## Harsh Environment Copper Solutions:

Panduit has a comprehensive line of copper physical layer solutions for the industrial Ethernet.

\*North America

– Other regions have alternate part numbers

### Category 6 Shielded

Horizontal Cables

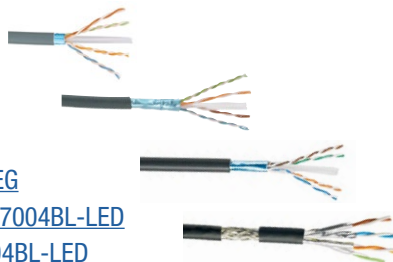
[Indoor: PFR6X04BU-CG](#)

[Indoor: ISFCH6X04ATL-UG](#)

[Outdoor OSP™ PFO6X04BL-CEG](#)

[Outdoor Non-Armored: PSMD7004BL-LED](#)

[Outdoor Armored: PSMDA7004BL-LED](#)



Connectors

[Plug: FPS6X88MTG](#)

[Jack: CJS6X88TGY](#)



Patch Cords

[Patchcord: STP6X5MBU](#)

[Industrial Cord: ISTEPH6X1MTL](#)

[Industrial Bulkhead Cord: ISTEP6X1MBL](#)



### Category 6A Shielded

Horizontal Cables

[Indoor: PFR6X04BU-CG](#)

[Indoor: ISFCH6X04ATL-UG](#)

[Outdoor OSP: PFO6X04BL-CEG](#)

[Outdoor Non-Armored: PSMD7004BL-LED](#)

[Outdoor Armored: PSMDA7004BL-LED](#)



Connectors

[Plug: FPS6X88MTG](#)

[Jack: CJS6X88TGY](#)

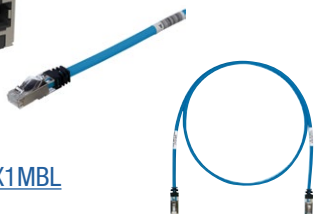


Patch Cords

[Patchcord: STP6X5MBU](#)

[Industrial Cord: ISTEPH6X1MTL](#)

[Industrial Bulkhead Cord: ISTEP6X1MBL](#)



Patching Devices In-Panel

[DIN Rail Single Port: CADIN1IG](#)

[DIN Rail Multiple Port: CDPP8RG](#)



## Fiber Connectivity Solutions:

A complete offering of fiber optic cabling and connectivity for harsh environments

[Horizontal Cable \(OM3 and OM4\)](#)

[Outside Plant \(OSP\) Armored: FSWN\\* Series](#)

[Indoor Distribution Cable: FODP\\* Series](#)

[Armored: FOPP\\* Series](#)

[Dielectric Double Jacketed \(DDJ\):](#)

[FSJD9\\*\\*/ FOJDZ\\*\\*](#)

Connector

[LC \(OM3 and OM4\): FLCDMCXAQY](#)

Patch Cords

[LC to LC \(OM3\): FX2ERLNLNSN\\* Series](#)

[LC to LC \(OM4\): FZ2ELLNLNSN\\* Series](#)



## Industrial Copper Solutions:

The Panduit® TX6A™ Shielded Copper Cabling Solutions for Harsh Environment Applications provide a superior infrastructure with a Channel Headroom Guarantee exceeding the TIA/ISO Standards.

\*North America

– Other regions have alternate part numbers

## Patching Devices In-Panel:

[DIN Rail Single Port: CADIN1IG](#)

[DIN Rail Multiple Port: CDPP8RG](#)



## Network Security Copper and Fiber Lock-In/Block-out:

The innovative designs of the block-out and lock-in devices ensure the safety and security of the network infrastructure.

[Jack module block-out device: PSL-DCJB](#)

[RJ45 Plug lock-in device: PSL-DCPL](#)

[LC duplex adapter block-out device: PSL-LCAB](#)

[SKRJ45RD-X](#)

SmartKeeper RJ45 Blockout Device  
Protects RJ45 Openings

[SKUSBA-V](#)

SmartKeeper USB Type A Blockout device  
Protects USB A Openings

[SKUSBC](#)

SmartKeeper USB Type C Blockout Device  
Protects USB C Openings

[SKMKEY](#)

SmartKeeper Master Key

Used to access or unlock the line of SmartKeeper Blockout Devices

**There are several solutions available for Industrial Fiber such as:**

• Bulk Fiber • Patch Cords • Patch Panels • Connectors





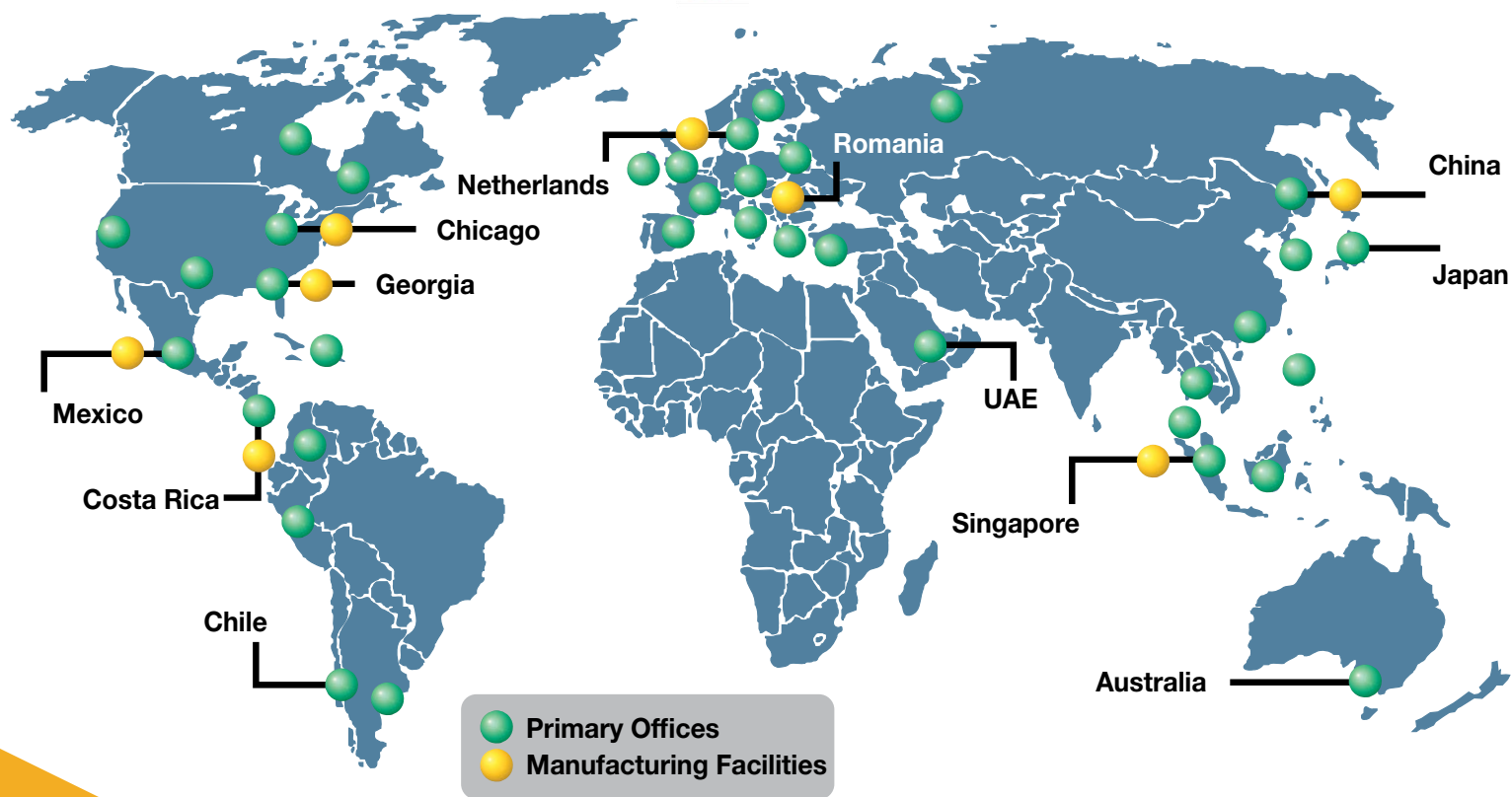
# Global Capabilities

## Global Expertise and Support

Global distribution, manufacturing, sales and technical support teams make Panduit solutions readily accessible, allowing the right products to be delivered when and where they are needed.

## Worldwide Certifications

Panduit solutions hold a variety of the most common heavy industry certifications and approvals worldwide.



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