PANDUIT

Electric Vehicle
SUPPLY EQUIPMENT
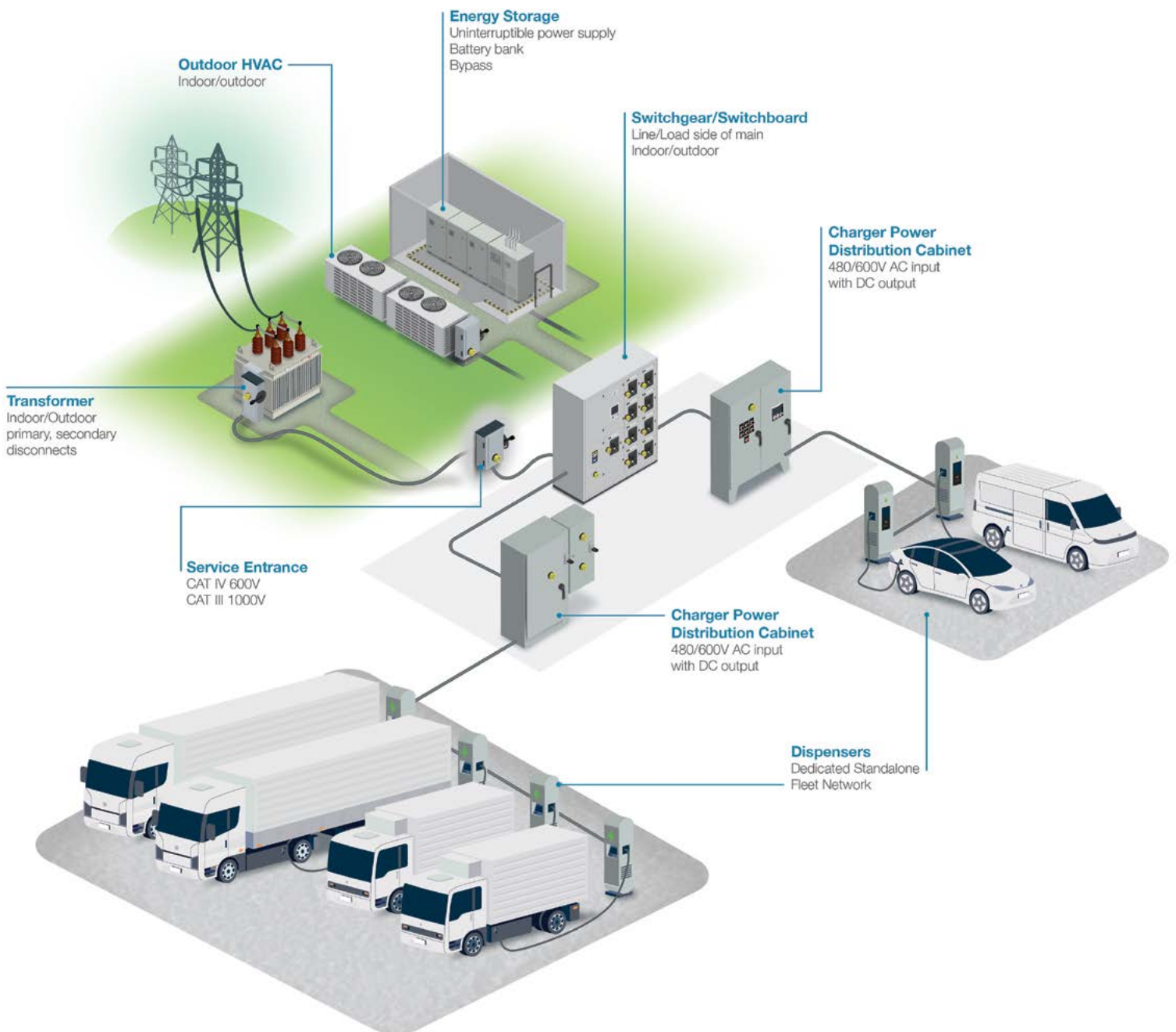
Electrified Transition

As we transition to a world of Electrified products, energy distribution must be modernized, upgraded, and integrated with innovative infrastructure to support our changing demands. Partner with Panduit to bring the most innovative electric vehicle charging solutions to market.

As energy flows from the utility grid into the service entrance and beyond to specific loads, Panduit offers a variety of industrial electrical infrastructure products distributable for every panel, cabinet, and charger. From our VeriSafe Absence of Voltage Tester to our space optimizing duct, our one-stop-shop portfolio breadth provides the most aggregated high-quality solutions for EV Charger design, manufacturing, installation, and operations.

Outdoor HVAC
Indoor/outdoor

Energy Storage
Uninterruptible power supply
Battery bank
Bypass

Switchgear/Switchboard
Line/Load side of main
Indoor/outdoor

Charger Power Distribution Cabinet
480/600V AC input
with DC output

Transformer
Indoor/Outdoor
primary, secondary
disconnects

Service Entrance
CAT IV 600V
CAT III 1000V

Charger Power Distribution Cabinet
480/600V AC input
with DC output

Dispensers
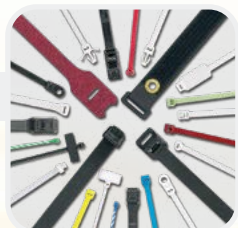Dedicated Standalone
Fleet Network

EVSE Solutions

Flexible and Scalable products for the ultimate charging experience. Panduit offers complete turnkey solutions that are customized to your unique business needs.

Panduit offers a full solution of over 30,000 readily available parts – from grounding and power connectors to absence of voltage testers, terminals to identification, Panduit products are engineered for all aspects of designing, installing, and maintaining infrastructures within the Electric Vehicle Supply Equipment environments.

GROUND 1

2 **ROUTE**

IDENTIFY 3

4 **CONNECT**

PROTECT 5

6 **COMMUNICATE**

Leaders in Innovation

Panduit's portfolio positions the market to accelerate the transition to electric vehicles and charging supply equipment with optimized footprints, productivity, safety, and security.

As charger designs vary from "Fleet Network" to "Dedicated Standalone" solutions, vendor and part consolidation is critical for optimized supply chain logistics and iterative, innovative design churn. Complementary with Panduit's control panel solutions, optimizing layouts are critical to charger designs as it optimizes installation, operation, and equipment performances while minimizing costs. In the connected world where data is top of mind, Panduit's communication solutions ensure best in class speed and security to accompany the suite of electrical components required for maximum charging efficiency.

GROUND:

1. Grounding Straps & DIN Rails
2. Bonding Hardware

ROUTE:

3. Ties
4. Mounts
5. Duct & Basket
6. Cable Entry Systems

IDENTIFY:

7. ID Labels & Printers

CONNECT:

8. Mechanical & Compression Connectors
9. Terminals & Terminal Kits

PROTECT:

10. Security & VeriSafe (with Data Access Ports)
11. Heat Shrink/Abrasion Protection

COMMUNICATE:

12. Connectivity Cable
13. Termination Plugs & Jacks

Dedicated Standalone Charger

Grounding Connectors

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.

Braided Bonding Strap:

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

cULus Listed to UL 467.

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.

  Busbar: GB4B0612TPI-1
  Groundbar: UGB2/0-414-6

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.

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.

BlackFin Installation Tools:

Hydraulic Crimp Tool: CT-3001/STBT
Battery Powered Crimp Tool with Bluetooth™ technology, crimps easily with a rotating flip-top crimp head since adapters can change out quickly. The crimp tool has a force of 6.7 tons and meets OSHA mandated electrical and mechanical product safety requirements for handheld and motor-operated electric tools.

**Battery Crimp Tool
12 ton:** CT-2931/STBT
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.

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.

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.

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: PN10-10R-L
Heavy Duty: PN12-10HDR-D
Vinyl: PV14-10R-M
Heavy Duty PV12: PV12-10HDR-L
Heat Shrink: PH10-14R-E
Kynar: PK8-10R-T
Non Insulated: P4-38R-T
Heavy Duty P12 HDR: P12-10HDR-L
High Temp: P18-10RHT6-C

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.

Aluminum Mechanical Lugs:

The plated steel or aluminum set screw provides a durable electrical contract 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.

Terminal Tooling Options:

BlackFin Battery-Powered Crimping Tools

BlackFin Crimping Tool: CT-2300/ST
The lightweight ergonomic design provides maximum productivity and ease of use. The quick 1.5 second, controlled-cycle crimping mechanism provides efficient and quality terminations.

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

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

BlackFin Crimping Tool: CT-2300/ST
Crimping Tool: CT-2500/L
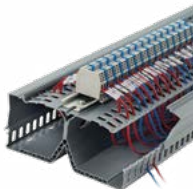Benchtop Press: UP14ZLW

Cable Management Solutions

Wiring Duct:

Panduit Offers the most innovative line of Wiring Duct products. Our Halogen-Free, Polyphenylene Oxide (PPO) products, offer a special purpose material for use in halogen-free or high-temperature applications. It has a UL 94 flame class of V-0 with a UL recognized continuous-use temperature up to 95°C (203°F) and is 20% lighter than PVC.

The halogen-free material is environmentally safe and will not release corrosive or toxic gases.

NE.5X.5WH6

Corrugated Loom Clamps:

Secure and route electrical cables protected by corrugated loom tubing.

CLC88X3S8C370

Edge Clip Cable Tie Mounts:

Mount directly to a panel edge without requiring any adhesive or drilling.

Heat Shrink:

Heat Shrink applications include insulating, protecting, and color coding wires and cables – use with terminals and lugs to provide a clean, safe, secure installation.

HSTT25-C
HSTT25-48-Q

End Caps:

End Caps are designed with adhesive lined inner wall seals and provide excellent protection against moisture.

HSEC0.5-X
HSEC0.8-X

Abrasion Protection Products:

Panduit™ Abrasion Protection Products provide an economical and easy way to insulate, protect, bundle and color-code components and cable. A wide variety of sizes and materials are available to meet a broad range of indoor and outdoor applications.

To help assure optimum quality, Panduit abrasion protection products are designed and manufactured to meet applicable quality standards including International, UL, Military, ISO, and Aerospace.

Braided Sleeving: SE50P-DR0
Braided Sleeving provides continuous abrasion resistance for wires, cables, and tubing. The lightweight, durable protection is highly flexible, and the open weave will not trap heat or humidity.

Spiral Wrap: T50F-C4Y
Spiral Wrap Product provides continuous abrasion protection for wires, cables, and tubing. The spiral wrap harnesses multiple cables into a single manageable bundle while allowing for breakouts of single or multiple cables. Lightweight, flexible, durable protection allows for use with irregular shapes.

Corrugated Loom Tubing: CLT100F-C20
The Polyethylene Corrugated Loom Tubing protects cables from impact and abrasion. Features a slit for easy installation onto a bundle of wires or a pre-assembled harness assembly, increasing productivity. Hold in place with cable ties and accessories. Suitable for indoor applications. UL94-HB flammability rating and a maximum temperature rating of 122°F (50°C). Polyethylene.

Mounts:

Various styles of mounts provide anchoring means for cable ties ranging from miniature to heavy cross-section and beyond. Mounts can be affixed with a screw, adhesive, or attached to, through hole by fir tree design or other.

Screw On: TM3S10-C
Adhesive: ABM2S-A-D
Fir Tree: PUM-049-2S-D30

Cable Management Solutions

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 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.

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-M0 Series

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

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.

Stainless Steel Cable Ties:

Wave-Ty™ Stainless Steel Cable Ties readily expands and contracts to accommodate electric heat trace applications. The patented wave-form spring maintains greater installed tension on non-resilient objects. Built with 304 stainless steel, which is suited for indoor and outdoor environments.

MLT4WH-TL316

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 Trefoil Cable Cleat Configuration
CCPLTR Series

Polymer Cable Cleat One-Hole Configuration
CCPL1H Series

Polymer Cable Cleat Two-Hole Configuration
CCPL2H Series

Stainless Steel Quad Configuration
CCSSQD2226-X Series

Identification and Safety Solutions

TDP43ME/E 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.

Electrical Tape:

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

MP300/E Mobile Printer:

The Panduit MP300/E 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.

Safety Labels:

Designed to comply with the latest OSHA regulations and standards.

Continuous Tapes:

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.

Permanent Identification:

Offering signs and permanent identification solutions to deliver improved productivity and workplace safety.

MEHT187
PES400

MMP350H-M316

Nylon Marker Plates:

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

M200X050Y6T

Heat Shrink Labels:

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.

Self-Laminating Wire Markers:

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

Self-laminating: S*X*V* Series

Identification and Safety Solutions

VeriSafe AVTs can be used in many applications, from power distribution to automation and motor control. Protect your people, your equipment, and processes with VeriSafe AVTs. The first version of VeriSafe Absence of Voltage Tester (AVT) is rated for 600V and the second-generation VeriSafe is rated for 1000V with an enhanced set of features compatible with additional applications. The 2.0 AVT uses new technology for the connectivity test and voltage threshold measurement, making it more robust for many applications as well as applicable for Hazardous locations.

VeriSafe™- Absence of Voltage Tester (AVT):

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

Voltage Markers:

Permanent identification solutions to deliver improved productivity and workplace safety.

PCV-120AY

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.

Underground Hazard Tapes:

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

Lockout Tagout Solutions:

Before repairs, servicing, maintenance, or set-up of machines and equipment can begin, prevent accidental start-up with Lockout/Tagout products.

PVT* Series
PSL Series: PSL-8

Network Communication Solutions

Harsh Environment Copper Solutions:

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

Horizontal Cables

Category 6A Shielded
Indoor: PFL6004DG-KD

Category 6A Shielded
Indoor: NFFY6X04BU-HED
    PFFY6X04BU-HED
    PUFL6X04BU-HED
Outdoor OSP: PFO6X04BL-CEG

Category 7 Shielded
Indoor: PSW7004WH-HED
Outdoor OSP: PFO6X04BL-CEG

Category 7A Shielded
Indoor: PSL7A04BU-KD

Connectors
Plug: FPS6X88MTG
Jack: CJS6X88TGY

Patch Cords
Patchcord: STP6X5MBU

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) Cable: FQUN*, FQTN* Series
Armored: FQSN*, FPQN*, FQQN* Series
Indoor Distribution Cable: FAIC*, FAEC*, FADC* Series
All Dielectric Cable: FAKC*, FACC*, FANC* Series
Steel Armor Cable: FAGC*, FAMC* Series

Connector
LC (OM3 and OM4): FLCDMCXAQY

Patch Cords
LC to LC (OM3): FX2ELLNLNSN* 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.

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

Category 6 Copper Cables
Shielded: ISX6004AYL-LED

Patch Cords
Industrial Cord: ISTPH6X1MTL
Industrial Bulkhead Cord: ISTP6X1MBL

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 USBA Openings

SKUSBC
SmartKeeper USB Type C Blockout Device
Protects USBC 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.

- ● Primary Offices
- ● Manufacturing Facilities

www.panduit.com/renewableenergy