

Grounding & Bonding

Thomas & Betts. Your best connection for innovative solutions.

Thomas & Betts

An improperly installed or grounded electrical system can cause power failure, which often leads to significant safety, production and operational concerns.

Thomas & Betts Solution Sets



Grounding & Bonding



Corrosion & Harsh Environment Protection



Power Quality, Efficiency & Reliability



Safety



Continuous Operation & Sustainability



Hazardous Location Protection



Total Project Cost Reduction



Liquid Ingress Protection



Extreme Temperature Protection

Plagued by Power Issues?

The saying “the devil is in the details” has a perfect application in the areas of grounding and bonding. Ensuring a facility is properly grounded and bonded at the design and construction phase can reduce expensive downtime and equipment failure in the future. Most important, it can eliminate any potential safety issues.

A stable power supply is quite simply the backbone of any building, plant or facility. Power failure or instability as the result of inadequately designed systems can cause major safety, production and operational concerns. All of these things can significantly impact a company’s bottom line.

Ineffective grounding can cause voltage variances that damage electrical equipment or sensitive electronic devices, leading to power loss and costly, unplanned downtime. Most often, power problems stem from the incorrect bonding of electrical transformers, main electrical panels, and sub-panels, uninterruptible power supplies (UPS) and generator systems.

Proper grounding and bonding are crucial factors in any company’s quest for power quality and stringent installation rules established by the Canadian Electrical Code (CEC) must be followed.

Reliable Power Quality Starts with the Right Products

To ensure employee safety, prevent job interruptions and provide electrical continuity and reliability, choosing the right grounding and bonding products is essential. Thomas & Betts has a wide range of proven grounding and bonding products for commercial, industrial and communications applications.

Used together, Thomas & Betts grounding and bonding products will:

- Ensure personnel safety
- Eliminate lightning interruptions
- Protect critical equipment
- Meet IEEE, CSA and UL obligations
- Provide electrical continuity and reliability

Additionally, we support our customers with comprehensive on-site training to ensure smooth, safe operation after installation is complete.

Our goal is to help you increase safety, reduce failure rates, extend the life cycle and effectiveness of your equipment and ensure the product you need is available when you need it. You can trust Thomas & Betts to provide durable, code-compliant grounding and bonding solutions to help optimize productivity in any industry.





Delivering value through system solutions based on engineering innovation

Our Value Commitment

Thomas & Betts is committed to helping you meet the challenges of grounding and bonding with electrical solutions, services and systems that deliver value. These include:

T&B Engineered solutions — Our products are designed to perform dependably under conditions such as constant moisture, harsh chemicals, extreme temperatures, high-pressure washdown, ultraviolet exposure, hazardous areas, high-vibration equipment and continuous operation.

Tested reliability — Our products are rigorously tested for use in harsh environments, with proven results in thousands of installations.

Expert support — Thomas & Betts trained sales representatives and technical services experts are available at every stage of a project, from planning and site preparation through construction and MRO.

Training and certification — Thomas & Betts conducts training programs on specific products and systems and works closely with accredited electrical industry associations. Contact us for details.

Product availability — Our industry-leading distributor network assures you of reliable and on-time delivery. This global electrical product support system ensures that our solutions are available when and where you need them.

Product Platforms

For over a century, Thomas & Betts has provided customers with electrical system solutions to help protect their people and assets, while meeting applicable codes, lowering installed costs and providing overall value.

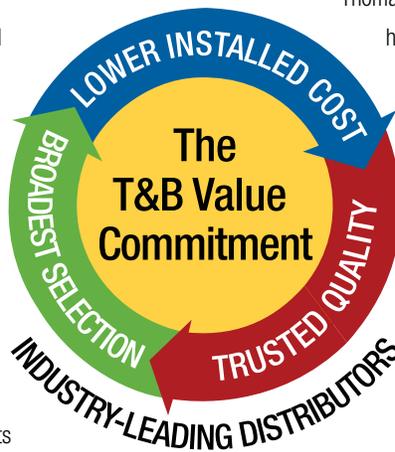
Wire and Cable Management — Thomas & Betts invented Ty-Rap® Cable Ties in 1958 and continues to lead the industry in innovative wire and cable management solutions. From cable tray systems and electrical

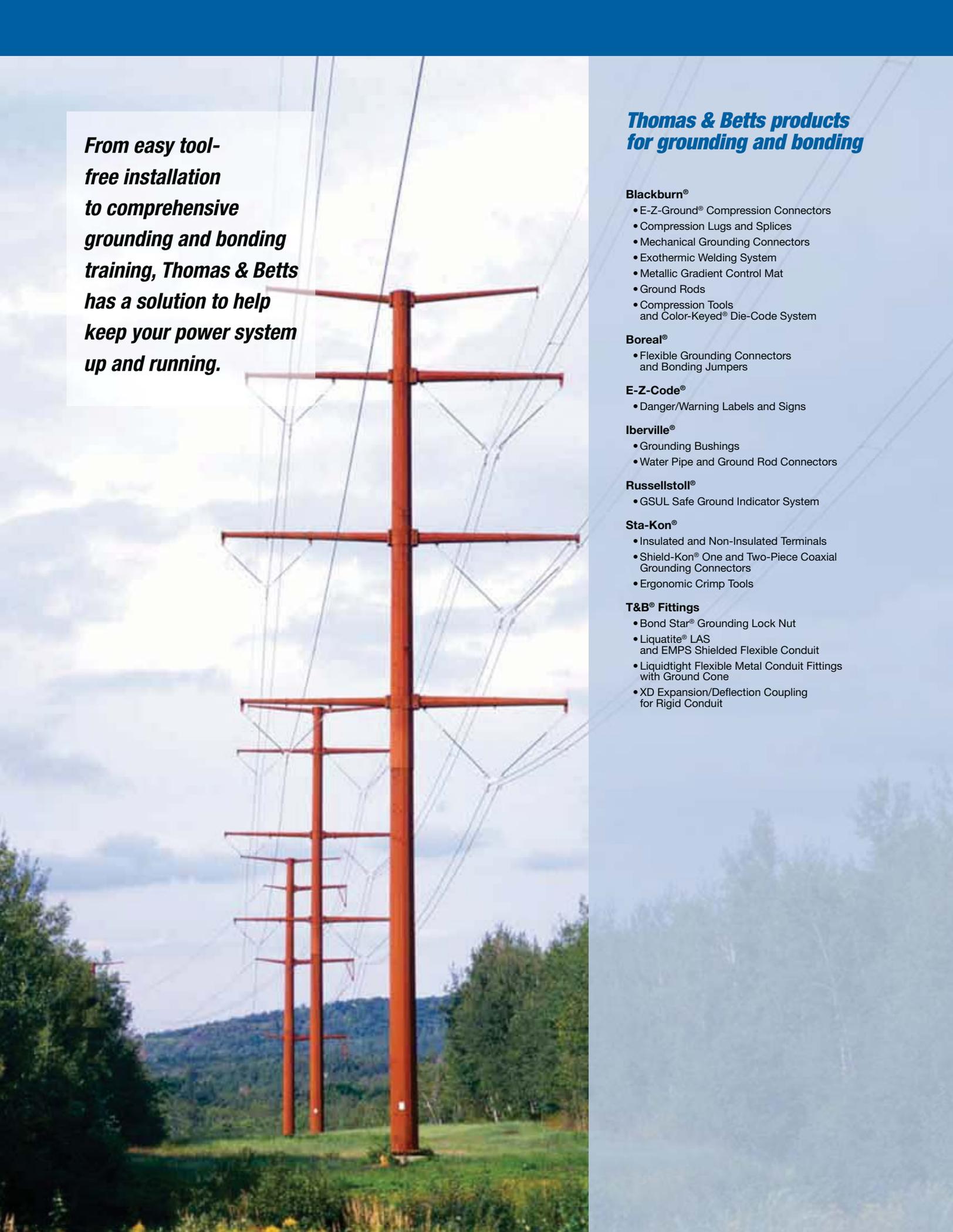
boxes to metal framing and meter sockets, end-users depend on Thomas & Betts products to get the job done right and to help reduce costs and installation time.

Cable Protection Systems — Electrical systems exist in harsh and corrosive environments, extreme temperatures and hazardous locations. Thomas & Betts has engineered, tested and certified cable protection solutions for all types of wires, cables and cords, offering long life and safe, reliable, maintenance-free performance, regardless of environmental conditions.

Power Connection and Control — Advanced electronic and electrical systems require signals and controls to be extremely accurate, consistent and reliable. Our power connection and control system solutions make this expectation a reality for your low-, medium- and high-voltage electrical system needs.

Safety Technology — Thomas & Betts is a worldwide leader in hazardous location lighting, emergency lighting and supporting central battery systems. We use state-of-the-art technologies to design our electrical system solutions so they meet global safety and reliability standards.





From easy tool-free installation to comprehensive grounding and bonding training, Thomas & Betts has a solution to help keep your power system up and running.

Thomas & Betts products for grounding and bonding

Blackburn®

- E-Z-Ground® Compression Connectors
- Compression Lugs and Splices
- Mechanical Grounding Connectors
- Exothermic Welding System
- Metallic Gradient Control Mat
- Ground Rods
- Compression Tools and Color-Keyed® Die-Code System

Boreal®

- Flexible Grounding Connectors and Bonding Jumpers

E-Z-Code®

- Danger/Warning Labels and Signs

Iberville®

- Grounding Bushings
- Water Pipe and Ground Rod Connectors

Russellstoll®

- GSUL Safe Ground Indicator System

Sta-Kon®

- Insulated and Non-Insulated Terminals
- Shield-Kon® One and Two-Piece Coaxial Grounding Connectors
- Ergonomic Crimp Tools

T&B® Fittings

- Bond Star® Grounding Lock Nut
- Liqueatite® LAS and EMPS Shielded Flexible Conduit
- Liquidtight Flexible Metal Conduit Fittings with Ground Cone
- XD Expansion/Deflection Coupling for Rigid Conduit



Grounding & Bonding Solutions

Blackburn®

Grounding and Bonding Connectors

E-Z-Ground® Compression Connectors

- High-conductivity copper and bronze allow connectors for direct burial

Compression Lugs and Splices

- For copper and aluminum conductors
- Featuring the Color-Keyed® compression system
- Compression Tools and Color-Keyed® die-code system



Mechanical Grounding Connectors

- High-strength split-bolt connectors for copper-to-copper connections
- Service post connectors for steel structures, fence posts or transformers using one or two cables
- CTG wide range ground clamp for cable tray and strut applications
- Lay-in lugs
- Ground rod and water pipe clamps



Exothermic Welding System

- Simple, self-contained system to form high-quality electrical connections



Grounding Components

- Ground rods
- Metallic gradient control mats
- Electrode boxes

T&B® Fittings

Grounding Fittings

- Liqueatite® LAS and EMPS flexible metallic conduit with a tinned copper shielding braid located over the inner steel core and under its protective PVC jacket; braid offers a minimum shielding effectiveness of 90% coverage
- Liquidtight flexible metal conduit fittings with ground cone
- XD expansion/deflection bonding jumper coupling for rigid conduit
- Bond Star® grounding locknut for use in data and control applications



XD Fitting



BOND STAR®



Revolver® Grounding Ring with T&B® Fitting

Grounding & Bonding Solutions

Sta-Kon®

Insulated and Non-Insulated Terminals



- Vinyl-insulated and non-insulated terminals feature brazed seam wire barrels which can be crimped at any place on the barrel circumference
- Funnel entry insulators allow for easier insertion of wire into barrel
- Non-insulated ring and fork terminals from #22 - #8 AWG
- Complete line of installation tools, engineered to match tool with terminal
- Colour-coded for easy installation
- Shure-Stake® mechanism prevents the dies from releasing the terminal until the proper compression has been completed

BOREAL

Flexible Grounding Connectors and Bonding Jumpers

- Wide range of grounding straps and bonding jumpers for grounding applications



Blackburn®

Compression Tools and Color-Keyed® Die-Code System



- Blackburn® compression tools, utilizing the Color-Keyed® die-code system, provide proper terminations for grounding and bonding connections

Shield-Kon®

Grounding Connectors for Shielded and Coaxial Cable

- One- and two-piece coaxial connectors for grounding
- Save time and reduces assembly costs
- Safe monitoring and simple operation
- Low profile and compact



Russellstoll®

GSUL Safe Ground Indicator System

- Ensures that a safe ground is established to dissipate static electricity from tank vehicles, carriers, drums and other conductive material before transfer of volatile materials
- Instant visual confirmation of safe ground
- Intrinsically safe circuitry
- Pumps will not operate until safe ground is established



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Visit the Thomas & Betts world of electrical product solutions

Visit our web site for more information about Thomas & Betts solutions and our newest products. For a user-friendly catalogue and competitive part number search, application and technical support and other useful information, go to: www.tnb.ca

Industry codes and specifications

All Thomas & Betts products meet or exceed applicable industry specifications or codes detailed in the appropriate Thomas & Betts product literature.



Online CAD library

Thomas & Betts offers free download of two- and three-dimensional CAD models of many of its products in more than 90 native CAD formats at: www.tnb.com/cadlibrary



All information and specifications contained in this catalogue are subject to change due to engineer design, errors and omissions. Illustrations and diagrams within this catalogue may vary from actual products.

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Wire & Cable Management • Cable Protection Systems • Power Connection & Control • Safety Technology

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