

# Finding success with Data Centers

ABB Installation Products offers system solutions designed to address critical issues for data center electrical systems.



## 1

### Where to begin

Data center market trends

**\$301.8B**



value of the data center market in 2023.<sup>1</sup>

**10.5%**



compound annual growth rate predicted for 2024–2030.<sup>1</sup>

**AI**



is driving demand across most major markets. Many AI startups are seeking large requirements between 5 to 25 MW.<sup>2</sup>

Infrastructure and uptime are paramount for data center operation. With ABB solutions, you can help them create reliable electrical systems with a focus on efficiency and sustainability.

## 2

### Understanding challenges

Downtime is costly.

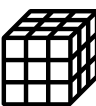
Electrical system components must support a data center's need for:



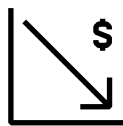
**Continuous operation**



**Security and reliability**



**Scalability and flexibility**



**2/3**

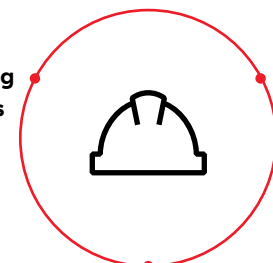
of data center outages cost  $\geq$ \$100K<sup>3</sup>

## 3

### Delivering solutions

Preventing downtime is in the best interest of:

Specifying engineers





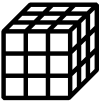
Data center operators

Contractors

**The faster an expansion is complete, the sooner it contributes to profitability. Emphasize how ABB solutions reduce installation time to help avoid construction delays.**



# Conversation guide

Critical customer issue	Common roadblock	Approach	ABB Installation Products solution
Continuous operation 	Disorganized, tangled cables	Clean, organized cable management, including proper bundling and routing, at the beginning helps save time and prevent costly mistakes later, during future maintenance and expansion	<b>Ty-Grip™ hook-and-loop cable ties</b> <ul style="list-style-type: none"> <li>Won't damage delicate fiber optic cables or the jacket and insulation of copper cables</li> <li>Quick bundling, re-adjustable tension and re-usability</li> </ul> <b>Ty-Duct® wiring duct</b> <ul style="list-style-type: none"> <li>Neat, organized cable routing</li> <li>Fast and simple installation with covers that go on and off easily but won't slip off</li> </ul>
Security and reliability 	Safe grounding grid installation	Use compression connectors instead of exothermic welding for grounding grids. They're more cost effective, easy to install with industry-standard compression tools and involve no black powder or explosive charges.	<b>Blackburn® EZGround® grid ground compression connectors</b> <ul style="list-style-type: none"> <li>Install quickly and safely — in any weather</li> <li>Meet all applicable NEC, UL and IEEE requirements for grounding grid installations</li> <li>Range-taking design reduces the number of connectors and crimp dies required</li> </ul>
Scalability and flexibility 	Ease and speed of future expansion	Take a design-agnostic approach to electrical layout with systems that can accommodate day-two expansion quickly and easily.	<b>T&amp;B® cable tray</b> <ul style="list-style-type: none"> <li>Cost effective, reliable and adaptable</li> <li>Extensive range of accessories allows for varied layouts and easy expansion</li> <li>Open rung design eliminates moisture build-up and cable damage points</li> </ul> <b>Kindorf® modular metal framing</b> <ul style="list-style-type: none"> <li>1½" width requires fewer fittings, yet is compatible with 1⅝" strut</li> <li>Punched channels reduce installation time by up to 40%</li> <li>Integrated measurement system allows for exact cuts, reducing waste and scrap</li> </ul>

## What you need to know...

### About cable ties

Traditional nylon cable ties, such as those from ABB's industry-leading Ty-Rap® brand, are fine for use with heavier power cabling. However, for data cabling — particularly fiber optic cable, which is fragile — cable ties made from hook-and-loop material (the generic terminology for what is commonly known by the trademarked name Velcro) are the norm, because they are less likely to damage the cables.

### About grounding grid connections

The grounding grid, located under the building foundation, is installed before the facility is built. Exothermic welding is the traditional method for grounding grid connections, but compression is steadily gaining ground. Blackburn EZGround compression connectors were developed in the 1960s and have proven themselves reliable over time. One factor in their popularity is the skilled labor shortage. EZGround connectors require less experience to install properly and safely than exothermic welds.

### About metal framing

Industry-standard metal framing, also known as strut, has a 1⅝" dimension. Kindorf modular metal framing has a 1½" dimension. If the customer is reluctant to abandon the industry-standard dimension, reiterate the time savings and waste reduction the Kindorf system offers, and its compatibility with 1⅝" strut. If the customer insists on 1⅝" modular framing despite the Kindorf advantages, offer them ABB's Superstrut® brand framing instead, which uses the 1⅝" dimension.

ABB Installation Products Inc.  
 Electrification Business  
 860 Ridge Lake Blvd.  
 Memphis, TN 38120

ABB has made every attempt to ensure the accuracy and reliability of the contents of this document. However, all content is provided for general informational purposes only, and ABB makes no guaranty or warranty, express or implied, as to the accuracy of any technical content, or that the information contained in this publication will be error free and all such guarantees or warranties are expressly disclaimed. ABB may change or modify

the contents at any time, without prior notice. We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction or utilization of its contents — in whole or in parts — is forbidden without prior written consent of ABB.  
 © 2024 ABB Installation Products Inc. and/or its affiliated companies.  
 All rights reserved.