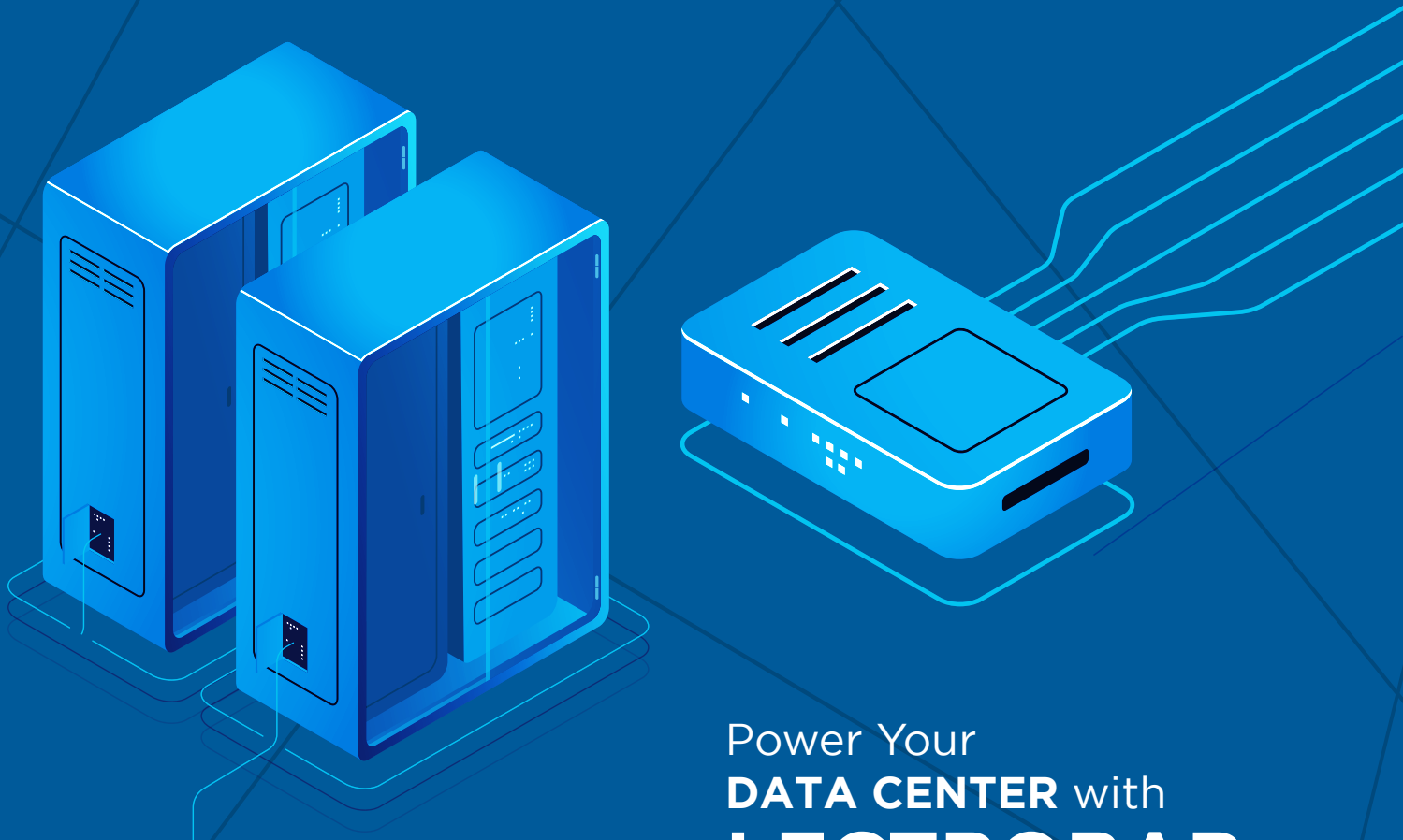
Lectrobar

OPTIMUM DESIGN

DATA CENTERS



Power Your
DATA CENTER with
LECTROBAR
BUSDUCT SOLUTIONS

ABOUT LECTROBAR

Lectro Egypt is a specialized manufacturer of type tested Busduct (Busway). Since 1975, Lectro has manufactured thousands of meters of installed busducts (Busways) covering a huge number of industries both in Egypt and abroad. Lectro factories provide a state of the art ISO certified manufacturing facility . With a thirty thousands square meters industrial complex, Lectro produces the highest quality Busducts (Busways) in the region. The complex is located in Alexandria,Egypt.

Fifteen years ago, Lectro has expanded in UAE with an assembly line. In 2023, Lectro started its presence in the Kingdom of Saudia Arabia. End of 2024, Lectro established its first production line in KSA.

Lectro Busduct (Busway) is an innovative product with state of the art material from the best suppliers in the world. Lectro Bar competes with the most famous international brands.

Lectro Products are known for their high safety factor and long life span. Lectro products comply with the IEC standards and are tested and approved by different laboratories and agencies worldwide.

Lectrobar is fully type tested at DEKRA laboratories and certified for KEMA KEUR, DEKRA mark.Lectro Bar is tested for operation in 50°C ambient temperature in DEKRA laboratories

POWER YOUR DATA CENTER WITH LECTROBAR BUSWAY SOLUTIONS

In the rapidly evolving landscape of data centers, efficient and reliable power distribution is paramount. Lectrobar's advanced busduct systems offer a cutting-edge solution, ensuring seamless power delivery tailored to the unique demands of modern data centers

Choose Lectrobar Busway for YourData Center?

1 Unmatched Reliability

- Decades of expertise in power distribution solutions
- Trusted by leading data center operators worldwide
- Engineered for 24/7 operation to support critical data center loads
- Robust construction ensures durability and long-term performance
- Minimal maintenance requirements for uninterrupted power distribution

2 Superior Quality and Safety

- **High-Quality Components:** Lectrobar busduct systems are constructed with premium materials, ensuring durability and longevity
- **Rigorous Testing:** Our products undergo stringent testing in state-of-the-art facilities, adhering to the latest IEC61439 standards and earning the prestigious KEMA KEUR DEKRA quality mark
- Fire rated IP68 Option for added safety
- Commitment to quality, innovation, and customer satisfaction

3 Scalability to Meet Growing Demands

- **Wide Current Range:** currents from 300A to 6400A, accommodating various power requirements. Both in copper and bimetal
- Easily expandable to accommodate growing power demands
- Plug-and-play design allows for quick modifications and upgrades

4 Enhanced Energy Efficiency

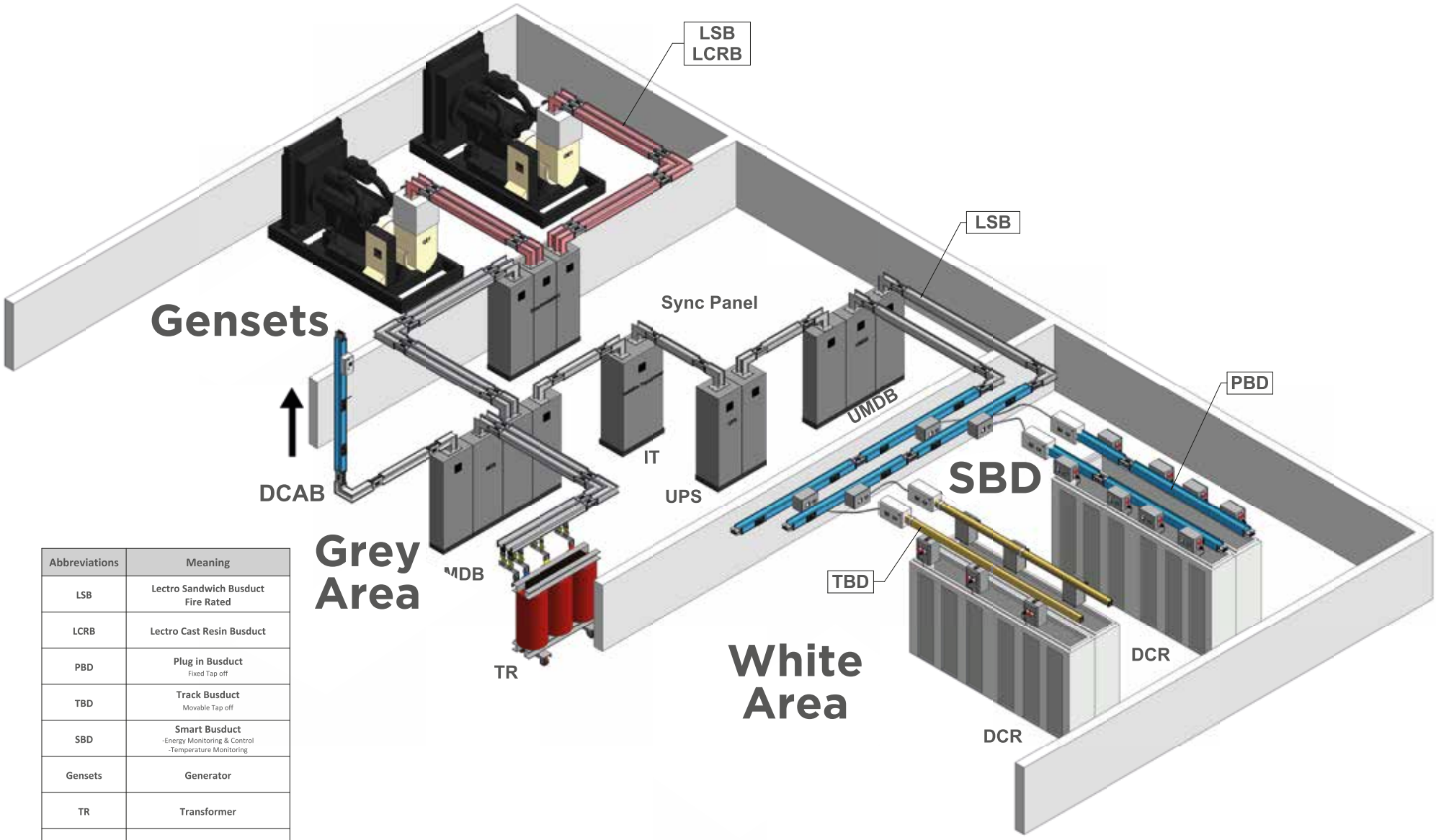
- **Optimized Design:** Lectrobar's busduct systems are engineered to minimize power losses, ensuring efficient energy utilization
- **Reduced Cooling Needs:** The efficient design leads to lower heat generation, decreasing the burden on cooling systems and resulting in energy savings

5 Space-Saving Design

- Compact and modular design frees up valuable floor space
- Ideal for high-density data center environments

6 Simplified Installation and Maintenance

- **Precision Manufacturing:** Utilizing CNC automation and robotics, our busduct systems are crafted for easy installation and minimal maintenance.
- **Plug-and-Play Modules:** The modular components allow for quick deployment and straightforward scalability, reducing operational disruptions.



Abbreviations	Meaning
LSB	Lectro Sandwich Busduct Fire Rated
LCRB	Lectro Cast Resin Busduct
PBD	Plug in Busduct Fixed Tap off
TBD	Track Busduct Movable Tap off
SBD	Smart Busduct -Energy Monitoring & Control -Temperature Monitoring
Gensets	Generator
TR	Transformer
IT	Isolation Transformer
DCAB	Data Center Administrator Building
Sync Panel	Synchronization
DCR	Data Center Racks

WHITE AREA

Smart Busduct

REAL-TIME MONITORING OF ELECTRICITY CONSUMPTION DATA

The system supports real-time monitoring of power consumption data, and can accurately capture key parameters such as current and voltage to provide power and information. This feature helps users get a complete picture of the systems electricity usage, optimize energy efficiency, and reduce unnecessary energy consumption, thereby reducing operating costs. The system automatically Collect and store data.

KEY FEATURES

- **Advanced Monitoring:** Real-time data on power consumption, load balancing, and system health
- **Modular Design:** Facilitates easy installation, scalability, and maintenance
- **High Efficiency:** Optimized for minimal energy loss and superior performance
- **Safety Compliance:** Meets international standards for electrical safety and reliability

OPTIONAL

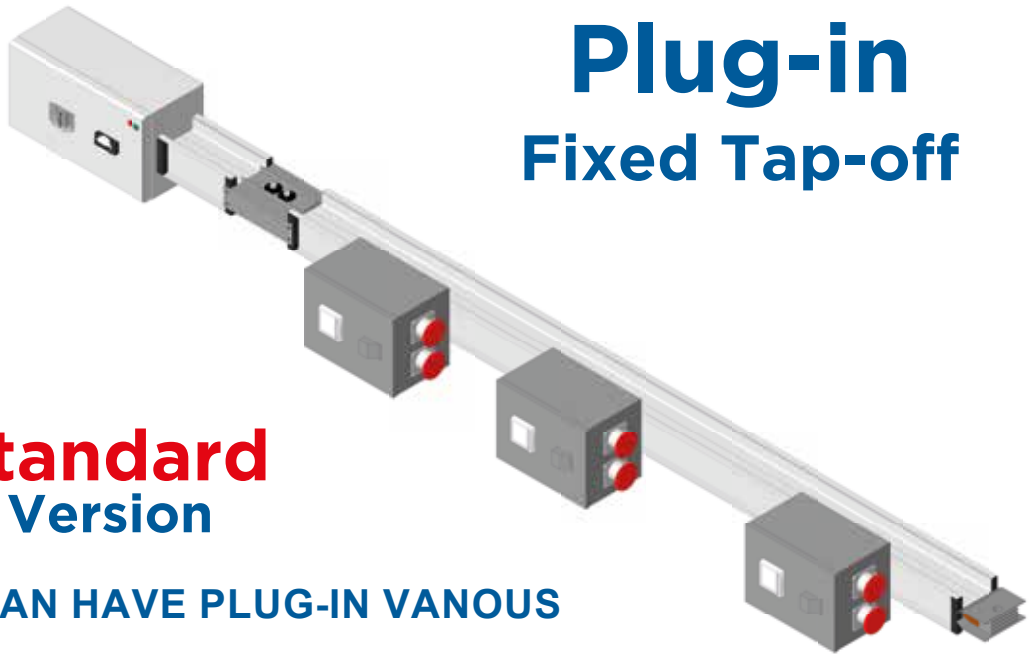
Full section temperature monitoring

The busduct built-in full section temperature measurement function can monitor the temperature change of the entire busduct system in real time.
Through temperature monitoring, users can detect possible overheating in time to ensure the safety of power transmission or monitoring joint temperature

Joint temperature monitoring

Through real-time monitoring temperature changes, the system can issue an alarm when there is an anomaly, timely notify the user for inspection and maintenance, and avoid downtime or safety accidents caused by equipment failure

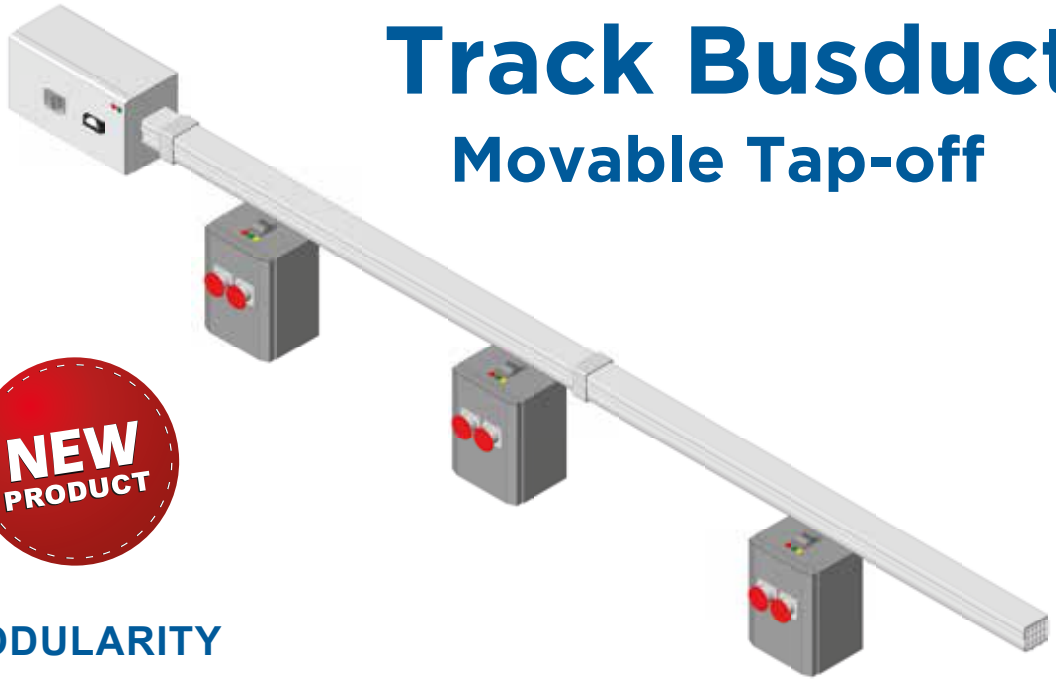
Plug-in
Fixed Tap-off



Standard
Version

- ✓ CAN HAVE PLUG-IN VANOUS
- HOLE CONFIGURATION TAP-OFF
- MADE DESIGN

Track Busduct
Movable Tap-off



NEW PRODUCT

- ✓ MODULARITY
- ✓ RAPID DEPLOYMENT
- ✓ FLEXIBLE CONFIGURATION
- ✓ ALLOWS QUICK CONNECTION AND CONFIGURATION

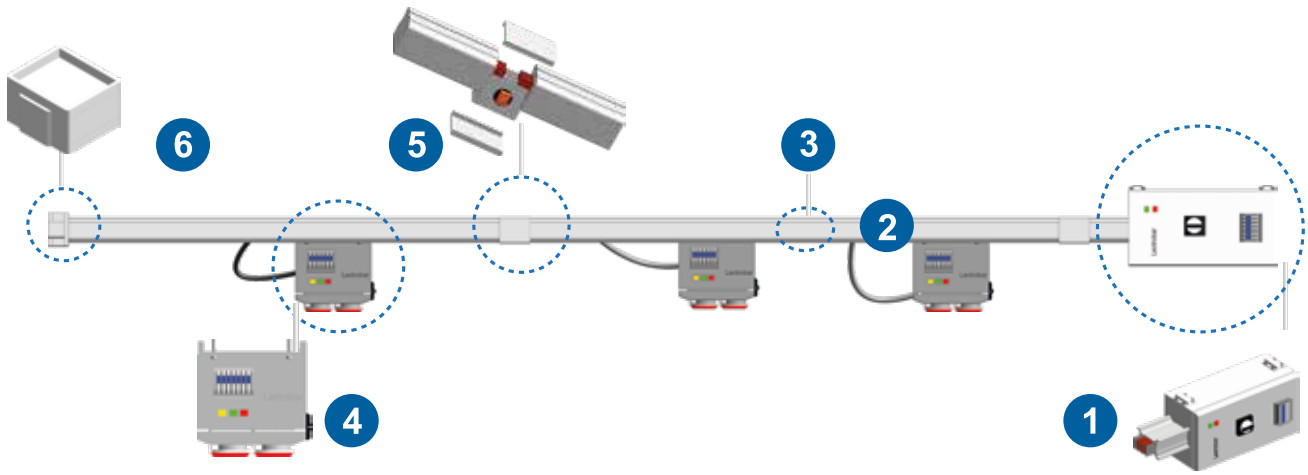
WHAT IS A TRACK BUSDUCT?

A track Busduct is an advanced power distribution system designed for modern data centers. It provides a flexible, modular, and energy-efficient alternative to traditional power distribution methods like cable trays and PDUs. Track busways ensure seamless power delivery, enabling rapid scalability and reduced downtime

HOW TRACK BUSDUCT WORKS?

A track Busduct consists of an overhead or underfloor metal-enclosed busbar system that delivers power to IT racks. Plug-in units can be connected at any point along the Busduct, allowing for a customizable power distribution setup that grows with your data center

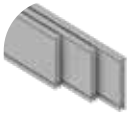
LTB LECTRO TRACK BUSDUCT



1. Feed Unit
2. Straight section
3. Communication Line Interface
4. Track Type Plug-in Box
5. Joint
6. End Seal

Special shape copper busbar increase the contact area with air for optimum heat dissipation

The Enclosure structure is compact and occupies little installation space



Insulation sleeve is made of polyamide material high temperature resistance 130 C

Lectrobar
OPTIMUM DESIGN

DATA CENTERS

PRODUCT **HIGHLIGHTS**

High Current Busduct

- Designed for high-density data centers with demanding power requirements
- Supports currents up to **6300A** amps
- Water and dust proof busduct for outdoor application IP68
- Fire rated for 3 hourse as per IEC 603311
- Maintains power integrity during emergencies.

Low Voltage Busduct

- Ideal for standard data center power distribution.
- Available in various current ratings to suit your needs.

GREY AREA

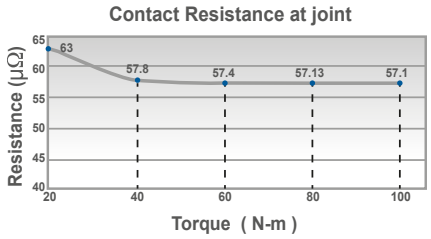
12 Technical Advantage of Lectro Busduct

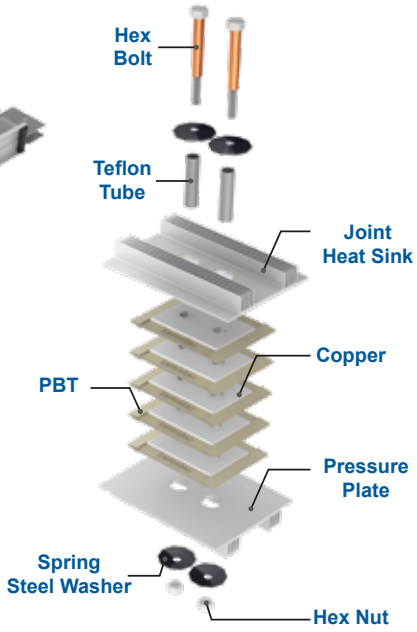
1 Tested for Ambient 50°C at

DEKRA

Ambient 50°C

2 Unique Joint Design





Double Head Bolt (Optional)

One head breaks at the required torque
No need for torque wrench
Best tightening for the joint

Spring Washer

Maintenance free joint using special heat treated spring steel conical shape washers

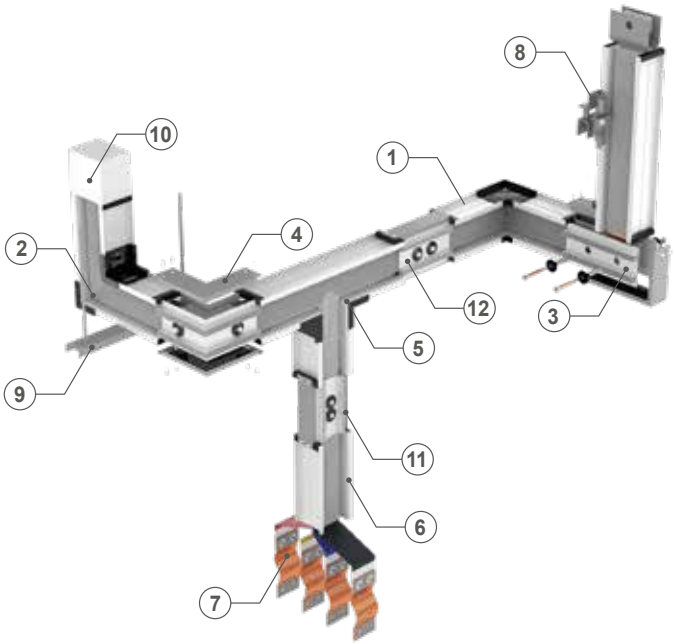
Heat Sink

Unique design for the joint to make its temperature less than the rest of the bus duct

Two bolt patent joint design

- More than two tons pressure on overlapping busbars at each bolt.
- Adjacent phases separated with non-flammable(V-0) PBT UL listed (RTI :140°C,Dielectric Strength 23kV/mm)
- Joint alignment with two bolts instead of one in the single bolt to ensure correct installation even with non skilled labor

3 Maximum Layout Flexibility



Accessories

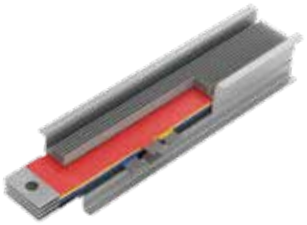
1. Edgewise Elbows
2. Flat Elbows
3. Corner Flat Elbows
4. Corner Edgewise Elbows
5. Tees & Crosses
6. Transformer & Switchboard Flanges
7. Flexible Joints
8. Spring Riser
09. Angle Hanger
10. End Closure
11. Standard Joint
12. Long Joint

5 Safe and Versatile Design

- Busduct meet the requirement of IEC 61 - 439
- Tested and approved by different accredible laboratories
- Manufactured in an ISO 9001 / 2000 certified facility to ensure highest quality control
- Fully type tested at DEKRA Laboratories
- Product certified for KEMA KEUR Mark
- Since 1975 in the Market

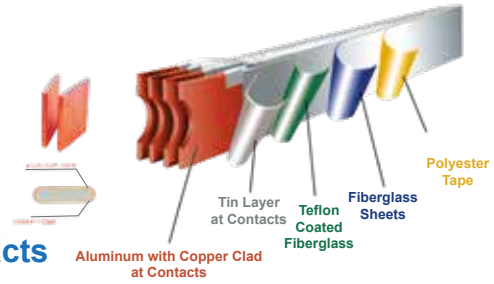
6 True Sandwich for Both Feeder and Plug-in

- No need to separate or flare the bars at the outlet
- High short circuit withstand for both feeder and plug-in
- Low impedence and low voltage drop
- No need to use internal fire barrier
- No flame , smoke or gas propagation in the housing " Chimney Effect "



7 A- Tin Coated High Purity Copper Bars

- Oxygen free high purity ⩾ 99.99 %
- High Conductivity ⩾ 99.95 %
- Surface Protection with tin coating at contacts
- Good Contact



7 B- Bimetal Aluminum with Copper Clad at Contacts

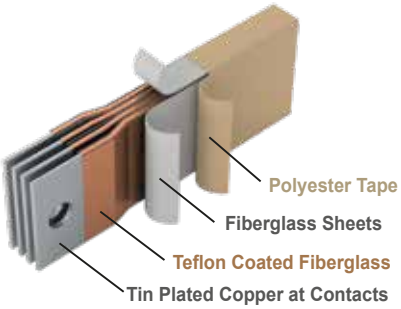
- Bimetallic with copper cladding covering an aluminum core
- Combines the optimum properties of both metals

8 Aluminum Casing

- Excellent heat dissipation
- Significant reduction in reactance and magnetic flux leakage
- Excellent ground return path
- Excellent water and dust protection

9 High Insulation Tested at 3500V

- Two Insulation Layers used
- Main Insulation is Telflon Coated Fiberglass (5000V , non flammable, 260 degree working Temp.)
- All insulation used better than class H
- Working temperature 50 C, no deration required



10 Grounding and Neutral Flexibility

- Integral casing ground as standard, 50% Additional ground bar
- 200%. 100% (full), 50% (Half) neutral available
- No need for earth bar the aluminum housing ground conductor is carried through the joint

11 Quick Delivery and Easy Ordering

- Quickest delivery to meet project requirement
- Accurate layout done by Lectro Group
- Detailed drawing in one week from receiving the order

SOME OF OUR PROJECTS SAMPLES

Mohamed Naguib Military Base

NN1 - NN2 | **Etisalat**

Ras Khaimah Data Center - Oman Data Park

New Capital

COC - CCC | **Vodafone**

Regional Data Center HUB Amazon

WHITE AREA

SOME OF OUR PROJECTS SAMPLES

amazon vodafone we etisalat and

GREY AREA

Lectrobar

OPTIMUM DESIGN **EGYPT - UAE - KSA**

Fifth industrial Zone (C) piece (3&4) Borg El Arab, Alexandria, Egypt

New Industrial Area, Umm Al Quwain, UAE.

Riyadh, KSA

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To visit our website

SCAN ME!