

# BUSWAY BROCHURE

**ELSEWEDY  
ELECTRIC**

BUSWAY



ELSEWEDY  
ELECTRIC

BUSWAY

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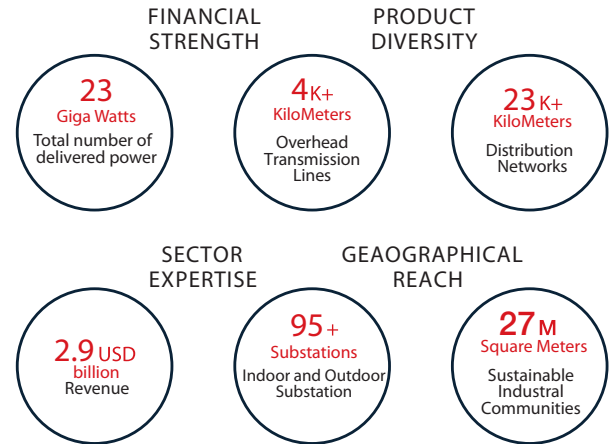
## Group strategy and market opportunities

ELSEWEDY ELECTRIC 80 years ago, we started with a clear vision to position ELSEWEDY ELECTRIC for successful growth, inspired by innovation, determination and spirit of hard-working staff, empowered and liberated by a strong enterprise system. Since our start, we made the decision of never sacrificing integrity for growth & this same motto did not change till today.

Behind our success is professional dedicated team and the latest technologies which deliver comprehensive product portfolio and unmatched services. ELSEWEDY ELECTRIC always delivers top-rated products & services that customers need with the highest quality.

ELSEWEDY ELECTRIC is a conglomerate that specializes in Infrastructure, products and solutions. We are segmented to 5 divisions: Wire & Cable, Electrical Products, Engineering & Contracting, Smart Infrastructure and Infrastructure Investments. Our founding fathers started the journey back in 1938 and we have been growing ever since to be what we are now, the biggest infrastructure solutions provider in the Middle East and Africa.

Behind our success is 15,000 professionals located in 45 countries using the latest technologies to design and engineer a vast product portfolio and unmatched services. We strive to deliver top-quality products & services that meet our customers' expectations while adding value to the communities we serve.



## Factory Brief

### ELSEWEDY ELECTRIC Busway

Our factory is located in the 10th of Ramadan city- Egypt, built on 36,271 meter square with 50% covered area; projected to be one of the largest factories in MEA region with a production capacity of sandwiched non-ventilated busway from 800A to 6300A copper conductor and 800 A to 5000 A Aluminium (Bi-metal) conductor.

**36,271m<sup>2</sup>**  
**Factory Total area**

### QUALITY SYSTEM & ENVIRONMENTAL MANAGEMENT



## Services



Pre-sales Customer Services

Site take off, technical review, design check & customer data analysis, etc.



Full Design Package (Busway software)



Emergency Production Teams



Fast Response & Delivery Time



24/7 After Sales Hotline (Services van)



After sales Customer Services

Site supervision, installation, testing & commissioning

## R&D and Test Lab

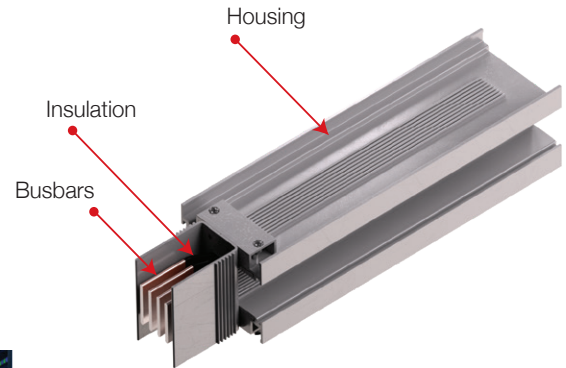
- In house R&D team
- **Elsewedy Certified Laboratory Capable of:**
  - 1- Temperature Rise Test
  - 2- Impulse Test
  - 3- Epoxy Insulation Tests
  - 4- Dielectric Test
- High Precision Electrical Measurements

## Product Overview

The busway is a prefabricated electrical distribution system consisting of dielectric insulated bus bars in a protective enclosure / housing, including straight lengths, fittings, devices, and accessories.

## Busway Advantages

- Easy Installation
- Compact Design
- Distribution of loads
- Space Saving
- Long Life
- Low Fire Load
- Flexibility
- Excellent short Circuit
- Economical and cost saving
- Low Voltage Drop
- Maintenance Free



## Busway System Applications



Commercial and residential structures



High rise buildings



Airports and high security installations



Data centers



Oil & Gas



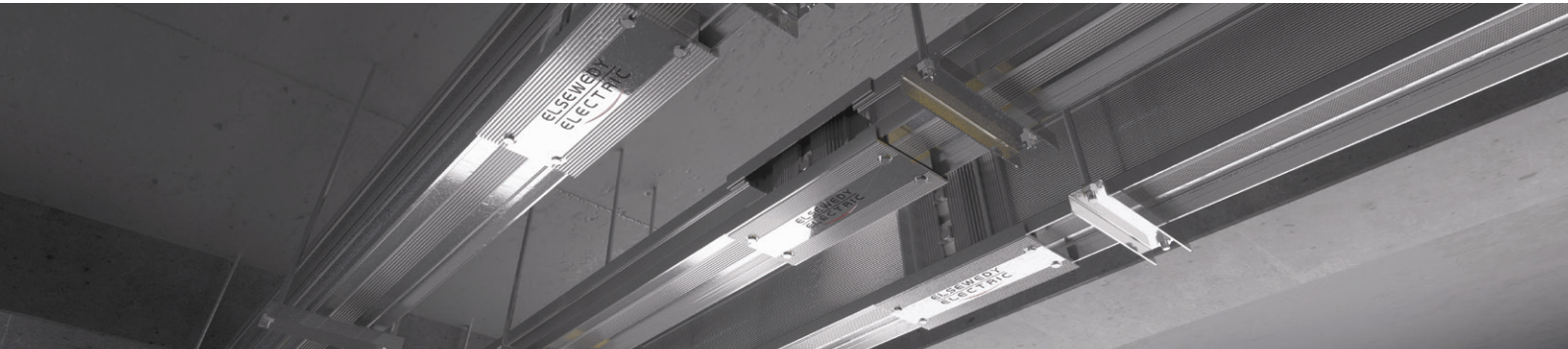
Hospitals



Plants / Factories

## Why Elsewedy Electric Busway?

- First Busway Dielectric Epoxy Insulation facility in Africa (PET upon request).
- Highest caliber services team with total of 90 years of accumulated experiences.
- 24/7 Service hotline **19159**.
- In-house certified test lab.
- In-house Bars Electro-Plating (Tin/ Silver).
- Special software for design by REVIT (BIM) and AutoCAD.
- Elsewedy Electric Busway is designed as per IEC 61439-1/6.
- Certified by ASTA/UL for all our current ratings.
- Smart design for easy, fast and safe installation.
- Busway Joint with temperature monitoring allows you to monitor your busway. (Optional)
- Elsewedy tap off boxes can be equipped with many Type/ Model/ brand of breakers.





## Product Range

- Our Busway complies to IEC 61439-1&6 and is certified by ASTA/ UL.
- Available with TPN as standard configuration and TPNE with 100% or 200% neutral and 50 % or 100% earth upon request.

### POWER LINK Copper

### SPINE Aluminium Bi-metal

#### Housing Material

Al



#### Conductor

Cu

Al

#### Current Rating (A)

800 1000 1250 1350 1600 2000 2250 2500 3200 4000 5000 6300



#### Insulation Type

Epoxy  
PET

#### Insulation Class

B/F  
B/F

#### IP

54/ 55 & 65  
54/ 55 & 65

#### Frequency

50/ 60  
50/ 60

#### Voltage

Up to 1000 V  
Up to 1000 V

- Copper Conductor with end Tin/Silver Plating
- Aluminium Bi-metal Conductor with end Silver Plating

## Product Features

### 1- Housing:

- Powder coated extruded aluminium housing.
- Lightweight aluminium is easier to handle and install which in return saves more labor cost, installation time and serves best heat dissipation.
- High efficiency compact (sandwiched) design, totally enclosed, non-ventilated.
- Internal ground bar 50% available for both aluminium and copper bars busway. (Optional)

### 2- Conductors:

#### Copper:

- Highly Conductive, electrical Grade Copper 99,999 %
- Mill Certificate for each batch upon request.
- Tin / Silver Plating.

#### Aluminium Bi-metal:

- Highly Conductive, electrical Grade Aluminium.
- Silver Plating.

### 3- Tin/ Silver Plating:

- Tin plating is standard on all busway copper conductors at all contact points, and silver plating is available upon request.
- Silver plating system is standard on all busway aluminium (Bi-metal) conductors at all contact points.
- The plating process takes place in house.

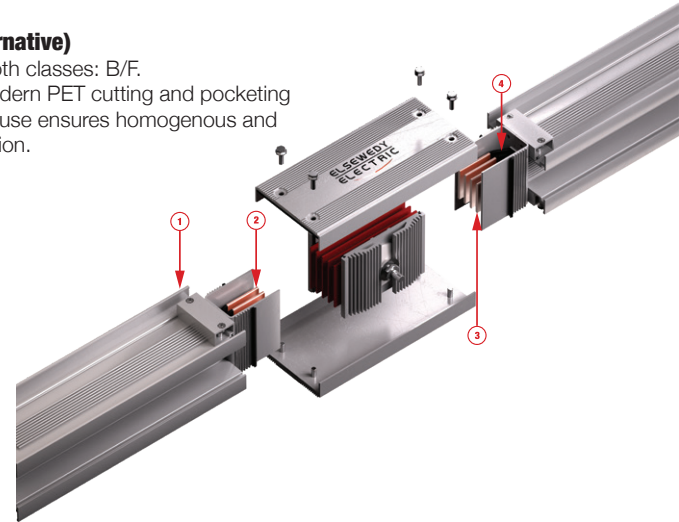
### 4- Insulations:

#### Epoxy (As standard)

- Elsewedey Electric Busway plant is the first and the largest factory in Africa that provide Epoxy insulation.
- Available in both classes: B/F.
- Most sophisticated automatic electrostatic epoxy coating plant in house ensures homogenous and reliable insulation.
- Halogen & toxic free.
- V0 flammability class.
- All products are 100% brush tested.

#### PET Film (Alternative)

- Available in both classes: B/F.
- Automatic modern PET cutting and pocketing machine in house ensures homogenous and reliable insulation.



## Busway Main Components

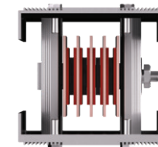
Straight Length (400 - 4000 mm):

- Feeder  
No opening.
- Plug in  
Openings on both sides, openings located on both sides for optimum utilization.
- Riser  
Openings on one side. Unusable plug-in outlets in vertical position are eliminated.



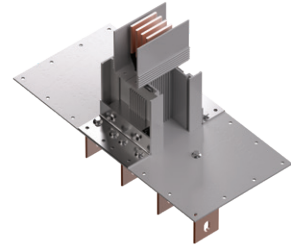
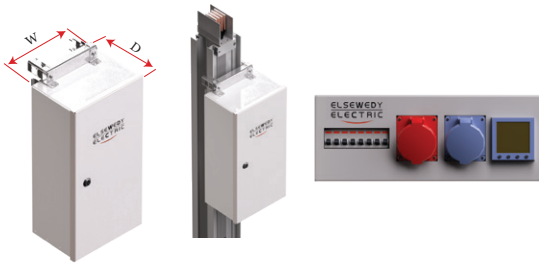
## Joint Pack:

- Joint-Pak is standard on Elsewedy Busway system.
- Single bolt connection makes installation faster.
- Belleville washer provides equal pressure across the complete joint contact area to assure proper electrical contact.
- Double surface contact guarantees good current continuity.
- Joint temperature monitoring (optional solution).



### Flanged End:

- Flanged-end unit allows the busway to be connected to a switchboard's bus-bar or to the terminals of an transformer, generator set, etc.



### Tap Off Boxes:

- Easy and reliable installation.
- Eliminates forces against plugs during installation.
- Absolute safety solution.
- smart design to accept many type/ model/ brand of standard breakers.
- Equipped with mechanical interlock mechanism; cannot be removed from the busway when the box is at 'on' position.
- IP54 protection.
- Plugin Contacts silver plated.
- Customized design for the data center tap off.

### Hangers (Trapeze Hanger & Spring):

There are two types of support for installing the Busway:

- Trapeze hanger for horizontal installation.
- Spring hanger for vertical installation.

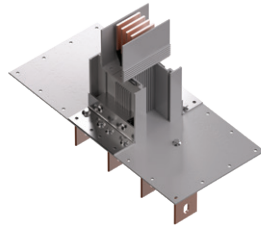
For installing the busway vertically, they ensure:

- Height and depth adjustment.
- Load sharing.
- Absorption of expansions, vibrations, etc.

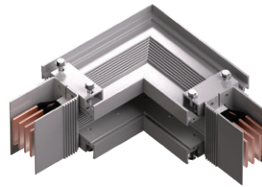


**Accessories (Compact sizes):**

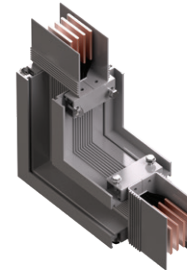
- Elbow
- Tee
- End Flange
- Combination
- Reducer
- Offset
- Expansion
- End cap



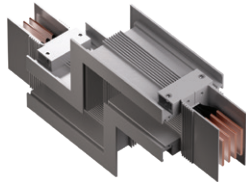
Flanged End



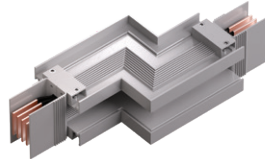
Elbow , Flat



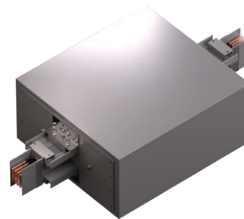
Elbow , Edge



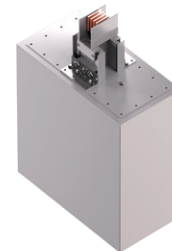
Z- Edge



Z- Flat



Expansion



Cable Box

## Certificates

ELSEWEDY ELECTRIC Busway is certified by ASTA per IEC 61439-1&6:

Verification of Strength of materials and parts according to Cl. no: 10.2

- Resistance to corrosion- Severity test A (Clause 10.2.2)
- Properties of insulating materials (Clause 10.2.3).
- Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects (Clause 10.2.3.2).
- Lifting (Clause 10.2.5) for the highest rating in Single stack, double stack & triple stack
- Mechanical Impact (Clause 10.2.6)
- Marking (Clause 10.2.7)
- Ability to withstand mechanical loads (clause 10.2.101)

Verification of degree of protection according to Cl. no: 10.3

Verification of clearances and creepage distances according to Cl. No: 10.4

Verification of the effectiveness of the protective circuit according to Cl. no: 10.5

Verification of dielectric properties according to Cl. no:10.9

Verification of temperature rise according to Cl.no: 10.10

Verification of short circuit withstand strength according to Cl.no:10.11

Resistance to flame-propagation Cl. no: 10.101

Fire resistance in building penetrations Cl. no 10.102

Verification of phase conductor characteristics according to Annexure BB, CC & DD



**ELSEWEDY ELECTRIC for Electrical Products S.A.E**

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