ELSEWEDY ELECTRIC

BUSWAY

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About ELSEWEDY ELECTRIC:

A global leader that has evolved from a local manufacturer of electrical products into an integrated infrastructure solutions provider; with over 19,000 employees and with recorded revenues of more than USD 5.13 billion in 2024. We Operate in five key business sectors: Wire, Cable & Accessories, Electrical Products, Engineering & Construction, Digital Solutions, and Infrastructure Investments. With a strong presence in 19 different countries, 34 production facilities spread across African and Asian countries including Egypt, Algeria, KSA, Qatar, Indonesia, Pakistan, and Tanzania. We export a wide range of high-end products to over 110 countries worldwide. At the heart of our approach is an all-in-one integrated Engineering, Procurement & Construction (EPC) service, enabling us to deliver the most complex turnkey projects on time and with the highest efficiency.

A vital part of our mission is ensuring that the communities where we operate develop and flourish. We work to facilitate the global transition toward a sustainable energy future, whereby we established green energy projects and smart cities across Africa, the Middle East, and Eastern Europe. In alignment with our 2030 sustainability strategy, we aim to extend and enhance our positive impact, provide energy services to a growing customer base, and drive decarbonization, digitalization, and sustainable transition in Egypt and beyond.

23
Giga Watts
Total number of delivered power

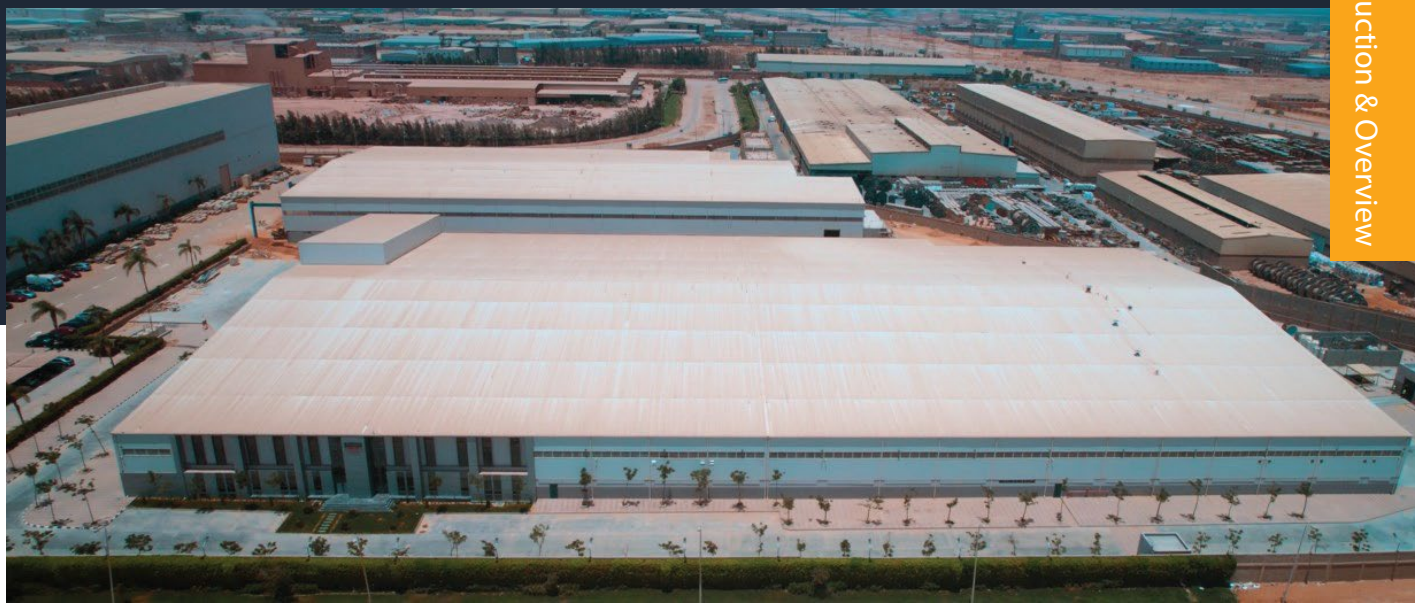
4K+
KiloMeters
Overhead Transmission Lines

23K+
KiloMeters
Distribution Networks

5.13 USD
billion
Revenue

95+
Substations
Indoor and Outdoor Substation

30M
Square Meters
Sustainable Industral Communities

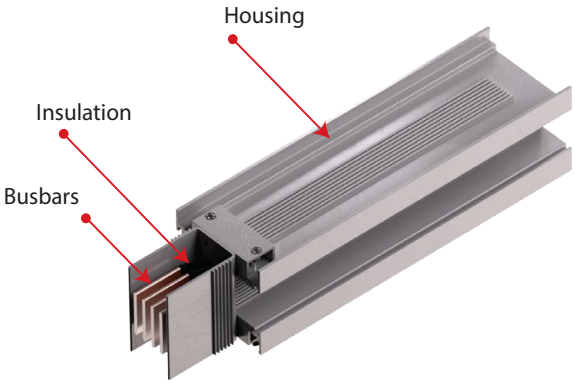


Factory Overview

Our state-of-the-art production facility in Egypt spans over 70,000 square meters, making it one of the largest in the Middle East & Africa (MEA) region. Equipped with cutting-edge technology, the factory specializes in manufacturing sandwiched non-ventilated busway systems.

Product Overview

Our busway system is a next generation prefabricated electrical distribution solution, designed for efficiency, flexibility, and safety. Encased in a durable protective housing, it integrates dielectric-insulated bus bars, straight lengths, fittings, devices, and accessories.



Ranging from 800A to 6300A Presented in two lines:

- Power Link Busway – Pure Copper Conductor.
- Spine Busway – Aluminum Bimetal Conductor.
- Versatile configurations: Standard TPN, with TPNE options (100% or 200% neutral, 50% or 100% earth) available upon request.

Comprehensive Services

Pre-Sales Support: Site assessments, technical reviews, design validation, and data analysis.

Rapid Production & Delivery: Emergency production teams for 24/7 fast response.

Custom Design Package: Advanced busway design software integration.

After-Sales Support: Dedicated hotline, service vans for on-site supervision, installation, testing & commissioning.

Research & Development (R&D) and Testing

Our in-house R&D team continuously innovates to enhance efficiency, safety, and performance. Our certified testing laboratory is equipped for:

- Temperature Rise Testing – Ensuring optimal performance under load.
- Impulse Testing – Verifying system endurance under high-voltage surges.
- Epoxy Insulation Tests – Guaranteeing superior dielectric insulation.
- Dielectric Testing – Ensuring robust insulation and safety compliance.

Features

Quick and Hassle-Free Installation

The plug-and-play design ensures a smooth installation process, reducing project time and labor costs significantly.

Compact Design for Modern Spaces

Sleek and streamlined, the busway system fits seamlessly into tight spaces while maintaining high functionality.

Efficient Load Distribution

Ensures even power delivery to multiple points, preventing overloads and maintaining system efficiency.

Maximized Space Utilization

Our busway system frees up valuable floor and ceiling space for other uses, unlike traditional cables.

Engineered for Longevity

Designed with durable materials to withstand wear and tear, ensuring a long, trouble-free operational life.

Low Fire Load for Maximum Safety

Built with fire-resistant components, the system minimizes fire risks, offering unmatched safety for critical environments.

Unmatched Flexibility

Easily adaptable to layout changes, upgrades, or expansions, making it a future-proof solution for dynamic projects.

Superior Short-Circuit Resistance

Engineered to handle high fault currents without damage, ensuring safety and reliability in all conditions.

Economical Solution with Proven Savings

Lower upfront costs, reduced installation time, and minimal energy losses combine for excellent cost efficiency.

Minimized Voltage Drop for Stable Power

Ensures consistent power delivery across long distances, maintaining optimal equipment performance.

Truly Maintenance-Free Operation

Designed to be self-sufficient, reducing the need for regular maintenance and lowering long-term operational costs.

Versatile Applications Across Sectors

Busway systems provide efficient, flexible, and reliable power distribution for commercial, industrial, and data center applications. Their modular design allows for easy installation, scalability, and optimized space utilization. With superior short-circuit resistance, fire safety, and minimal maintenance needs, busway systems ensure stable and cost-effective energy distribution in high-demand environments.

Sectors Include:

- Residential & Commercial
- Data Centers & Technology
- Industrial
- Healthcare

Residential & Commercial

Empowering Modern Commercial Spaces

- Malls
- Office Buildings
- Hotels
- High Rise Buildings

Benefits: Aesthetic integration, flexible configurations for expansions, quick installation for large-scale

Industrial

Reliability in High-Demand Environments

- Factories
- Production Facilities

Benefits: High power capacity, durability under harsh conditions, flexible configurations for expansions, reduced downtime

Healthcare

Uninterrupted Power for Critical Operations

Benefits: Seamless power distribution for critical systems like MRI machines, surgical theaters, and data backups, where there is no tolerance for a chance of error.

Data Centers and Technology

Efficient Solutions for the Digital Age

Benefits: High load capacity, scalability for future growth, and reduced cooling requirements, reduced downtime, consumption tracking in every rack.

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 platting.

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.

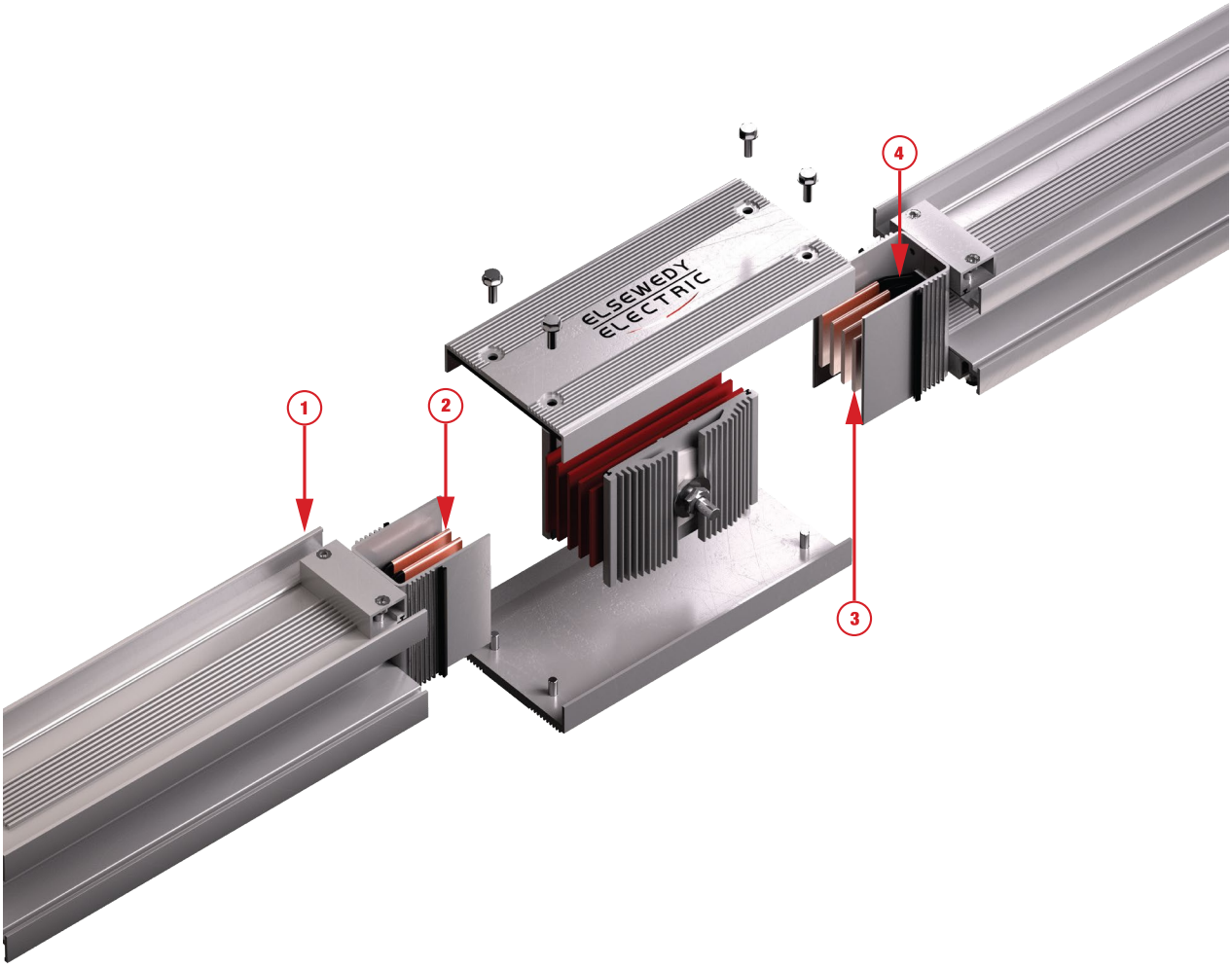
4- Insulations:

Epoxy

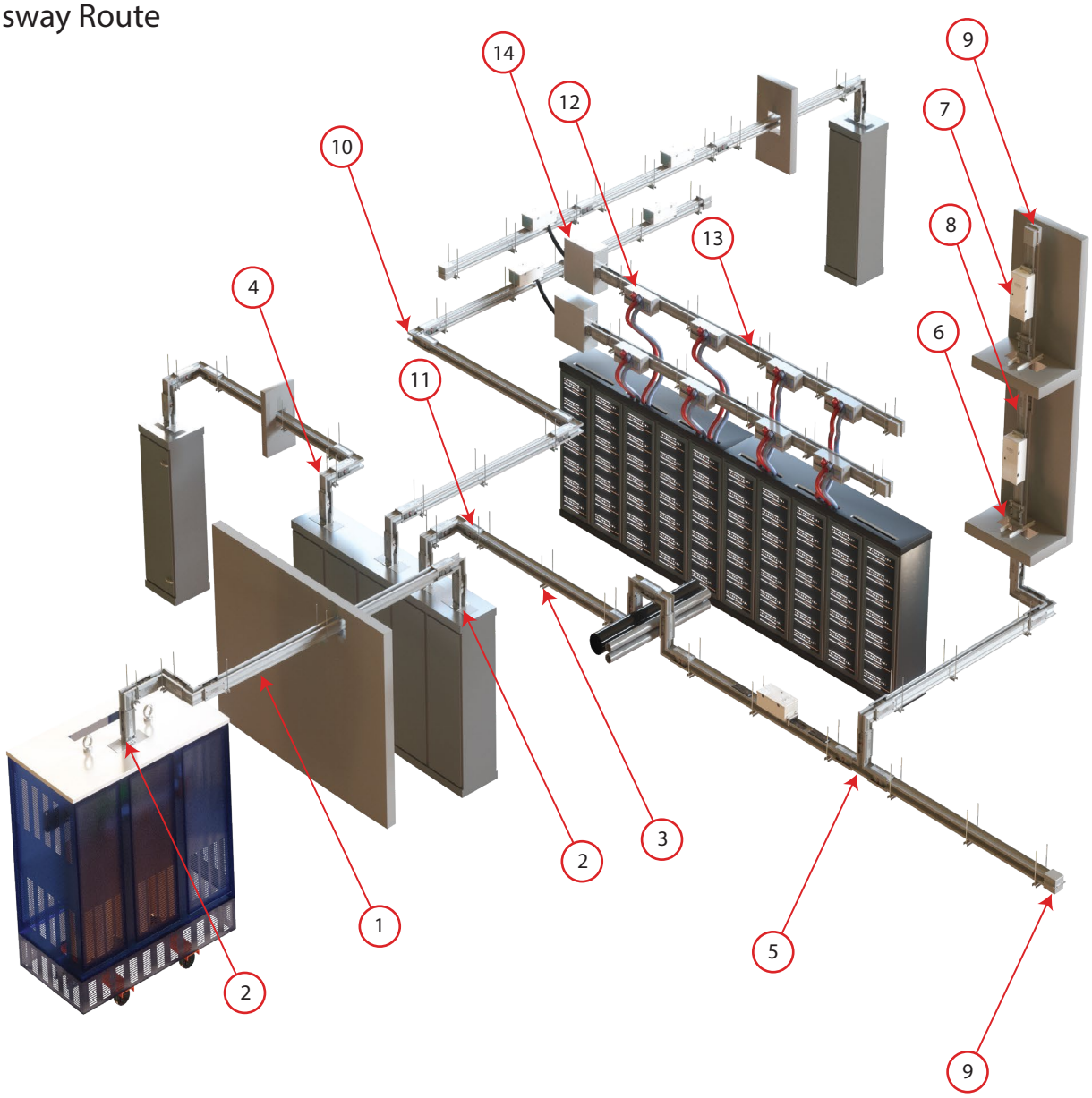
- Elsewedy Electric Busway plant is the first and largest factory in Africa that provides Epoxy insulation.
- Available in both classes: B/F.
- Most sophisticated automatic electrostatic epoxy coating plant in house ensures homogenous and reliable insulation.
- Halogen & toxic free.
- V0 flammability 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 Route



1: FEEDER BUSWAY
2: FLANGE END
3: TRAPEZE HANGAR
4: EDGEWISE ELBOW
5: T-SECTION
6: SPRING HANGAR
7: TAP-OFF UNIT
8: RISER BUSWAY
9: END CAP
10: FLATWISE ELBOW
11: JOINT PACK
12: DATA CENTER TAP-OFF UNIT
13: PLUG-IN BUSWAY
14: CABLE BOX

Elsewedy Electric Busway Numbering System

Example	ES	H	C	10	I	P	4	F	55	ST	4000	000	000	000
	ES	Category	Conductor	Rating	Insulation	Plating	Polarity	Type	IP	Item	A (mm)	B (mm)	C (mm)	Z (Angle)

Category [*] — H

High Power	H
Cast Resin	C
Open Track	T
Lighting	L

Conductor [*] — C

Aluminium Bi-metal	A
Copper	C

Rating [**] — 10

800A	08
1000A	10
1250A	12
1600A	16
2000A	20
2500A	25
3200A	32
4000A	40
5000A	50
6300A	63

Insulation [*] — I

Epoxy	E
PET	P

Plating [*] — P

Silver	S
Tin	T

Polarity [*] — 4

3L	3
3L+N	4
3L+N+E	5
3L+N2+E	6
3L2+N	7
3L2+N+E	8

Dimensions (A-B-C-Z)

A	(mm)
B	(mm)
C	(mm)
Z (Angle)	(<90° < 180°)

Item [**] — ST

Straight Length	ST
Flange End Straight	FS
Flange End Flat Elbow	FF
Flange End Edge Elbow	FE
Flange End Dry-TR	FT
Elbow Flatwise	EF
Elbow Edgewise	EE
Z-Unit Flatwise	ZF
Z-Unit Edgewise	ZE
Offset Flatwise	OF
Offset Edgewise	OE
Expansion Joint	EJ
Phase Rotation	PR
Reducer	RE
Cable Box	CB
T-Section	TS
End Cap	EC
Flexible Link	FL
Hanger Support	HS
Tap-Off Unit	TO

Degree Of Protection [**] — 54

IP54 Plug- In	54
IP55 Feeder	55
IP65 Outdoor-Feeder	65

Type [*] — F

Feeder	F
Plug-In	P
Riser	R

Power Link Copper Conductor

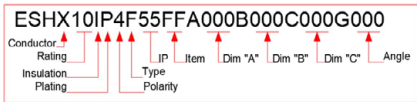
Run Section

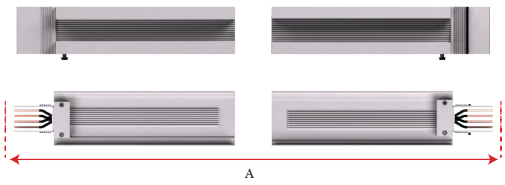
Straight Length Feeder

- The feeders transport the current without tap-off points.
- Available in 4 meter fixed lengths or made to measure from 400 to 3000 mm

Type (A)	Length A (mm)	Catalogue no.
Fixed length	3000	ESHC**IP*F55ST3000
Made to measure length	400 : 3000	ESHC**IP*F55ST****

To complete the Catalogue Number:



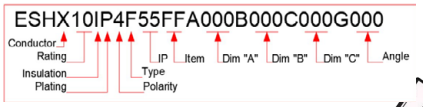


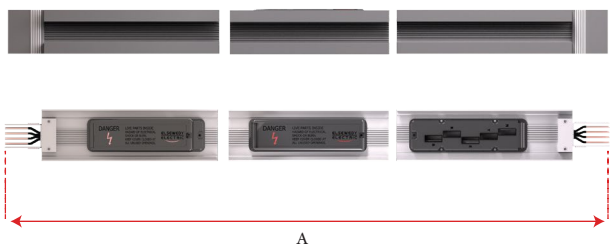
Straight Length Plug-In

- The plug in are for current distribution.
- Available in a 2 meter fixed length with two tap-off point or a 4 meter fixed length with 5 tap-off points.

Type	Length A (mm)	Max No. Tap Offs Per Side	Catalogue no.
Plug-In Fixed length	3000	3	ESHC**IP*P55O123SP3000
	2000	2	ESHC**IP*P55O12SP2000
	1200	1	ESHC**IP*P55O1SP1200
Plug-in made to measure length is upon request			
Riser tap-offs will be on one side			

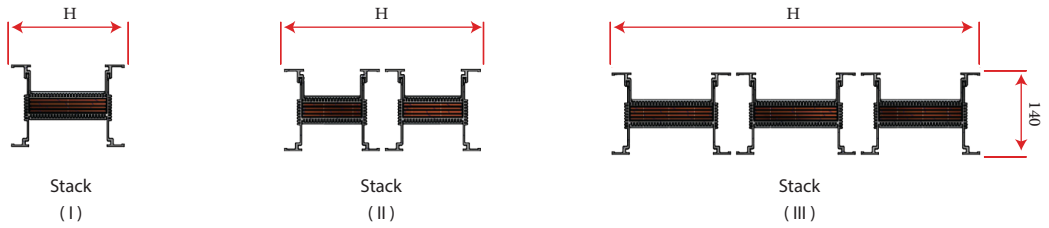
To complete the Catalogue Number:





Trunking Cross Section

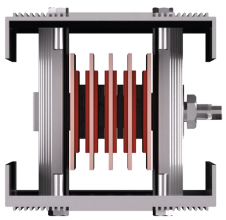
Rating (A)	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Width (H) m.m	115	120	140	160	220	260	380	450	530	800
Stack	I	I	I	I	I	I	II	II	II	III



Stack (I) Stack (II) Stack (III)

Joint Pack:

- Joint-Pack 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).



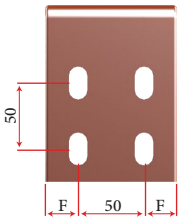
Accessories

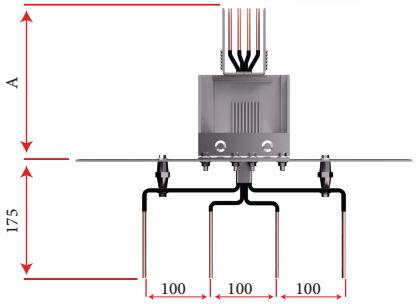
Flange End Straight (FS)

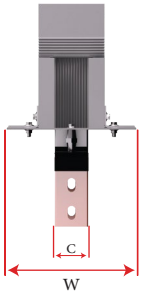
Flanged-end unit allows the busway to be connected to a switchboard's bus-bar or to the terminals of a transformer, generator set, etc.

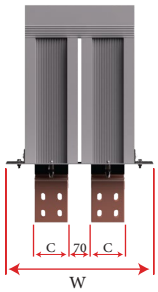
Rating	References	Stack (I)				Stack (II)				Stack (III)			
(A)		A	W	C	F	A	W	C	F	A	W	C	F
800	ESHC08IP*F55FSA***	All Rating 250mm standard length	225	45		All Rating 250mm standard length				All Rating 250mm standard length			
1000	ESHC10IP*F55FSA***		230	60									
1250	ESHC12IP*F55FSA***		250	80									
1600	ESHC16IP*F55FSA***		270	100									
2000	ESHC20IP*F55FSA***		330	160									
2500	ESHC25IP*F55FSA***		370	200									
3200	ESHC32IP*F55FSA***						490	125					
4000	ESHC40IP*F55FSA***						560	160					
5000	ESHC50IP*F55FSA***						640	200					
6300	ESHC63IP*F55FSA***										910	200	
	Made to measure	≥ 250 ≥710				≥ 250 ≥710				≥ 250 ≥710			

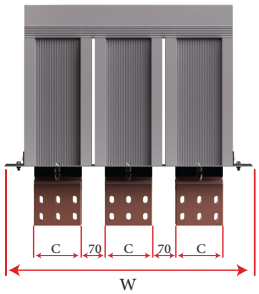
To complete the Catalogue Number:

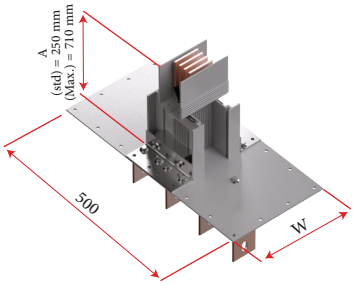




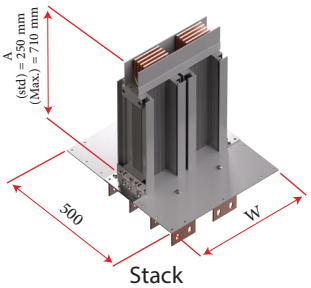








Stack (I)



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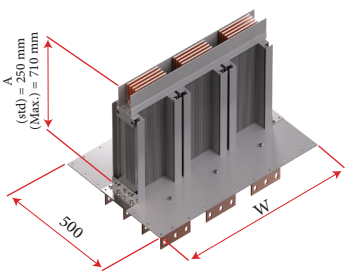

Stack (III)

Combination Flange End, Flat Elbow (FF)

Rating	References	Stack (I)					Stack (II)					Stack (III)				
(A)		A	B	W	C	F	A	B	W	C	F	A	B	W	C	F
800	ESHC08IP*F55FFA***B***	All Rating 140mm standard length	All Rating 250mm standard length	225	45		All Rating 140mm standard length	All Rating 250mm standard length				All Rating 140mm standard length	All Rating 250mm standard length			
1000	ESHC10IP*F55FFA***B***			230	60											
1250	ESHC12IP*F55FFA***B***			250	80											
1600	ESHC16IP*F55FFA***B***			270	100											
2000	ESHC20IP*F55FFA***B***			330	160											
2250	ESHC22IP*F55FFA***B***			370	200											
2500	ESHC25IP*F55FFA***B***															
3200	ESHC32IP*F55FFA***B***															
4000	ESHC40IP*F55FFA***B***								490	125						
5000	ESHC50IP*F55FFA***B***								560	160						
6300	ESHC63IP*F55FFA***B***								640	200						
	Made to measure (Max.)													910	200	
		710 1000					710 1000					710 1000				

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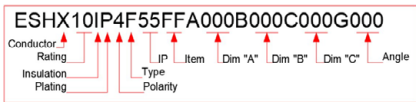
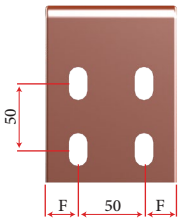
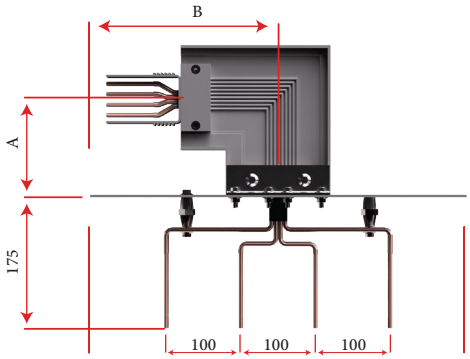
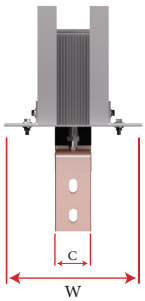
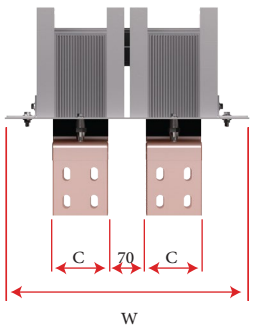
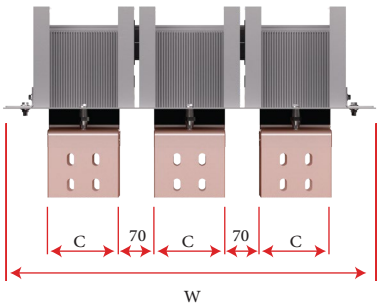


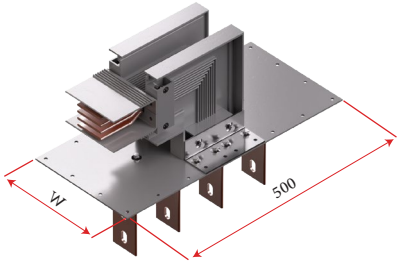




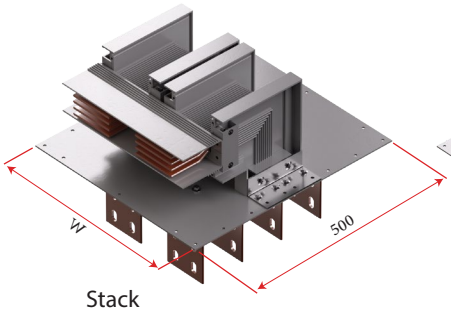








Stack (I)



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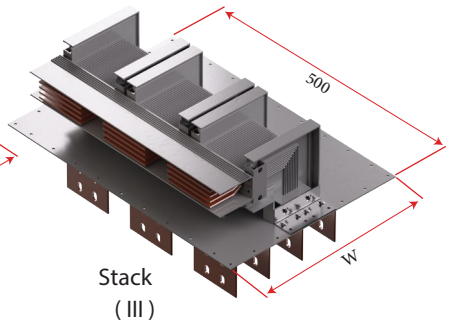

Stack (III)

Combination Flange End, Edge Elbow (FE)

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.

Rating	References	Stack (I)					Stack (II)					Stack (III)				
(A)		A	B	W	C	F	A	B	W	C	F	A	B	W	C	F
800	ESHC08IP*F55FEA***B***	181	298	225	45											
1000	ESHC10IP*F55FEA***B***	183	300	230	60											
1250	ESHC12IP*F55FEA***B***	193	310	250	80											
1600	ESHC16IP*F55FEA***B***	203	320	270	100											
2000	ESHC20IP*F55FEA***B***	233	350	330	160											
2500	ESHC25IP*F55FEA***B***	253	370	370	200											
3200	ESHC32IP*F55FEA***B***						313	430	490	125						
4000	ESHC40IP*F55FEA***B***						348	465	560	160						
5000	ESHC50IP*F55FEA***B***						463	580	640	200						
6300	ESHC63IP*F55FEA***B***															
	Made to measure A&B (Max.)															
												523	640	910	200	
		710	1000					710	1000				710	1000		

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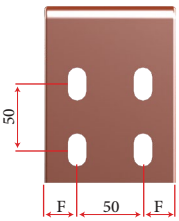
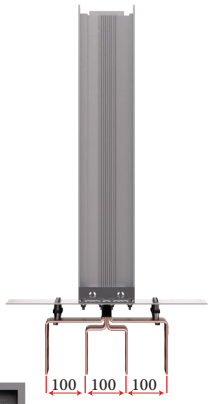
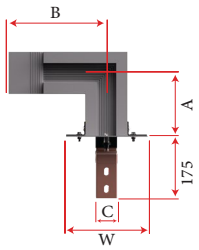
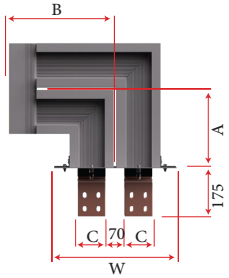
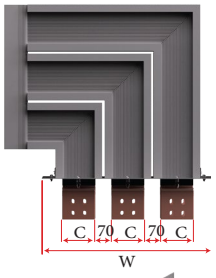
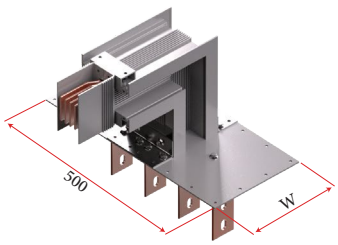




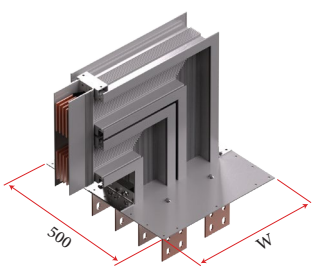




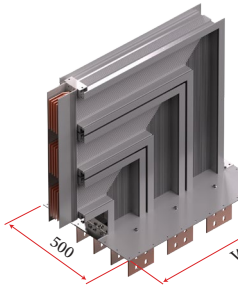




Stack (I)



Stack (II)



Stack (III)

Flexible Link

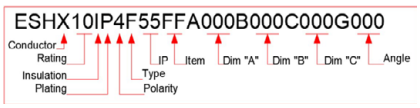
Flexible connections are used to connect the transfomer/ generator to the connection interface of the busbar when mechanically uncoupling the two elements is required, to prevent the transmission of vibrations.
These connectors are manufactured from highly flexible tapes, braided from annealed Cu-ETP wires, and seamless contacts pressed from seamless Cu-ETP tubes.
Braids
0,10 mm Annealed Cu-ETP wires, uncoated or tinned or silvered upon request.
Contract Areas
Seamless Cu-ETP tubes, uncoated or tinned or silvered upon request solderless pressed.

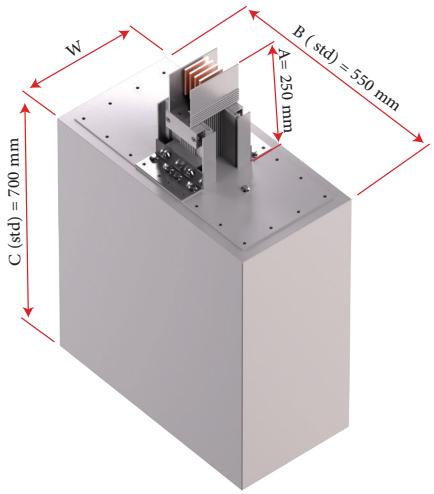
*Note: Copper Foil Avaliable Upon Request

Cable Box

Rating	References	Stack (I)			Stack (II)			Stack (III)		
(A)		A	B	C	A	B	C	A	B	C
800	ESHC08IP*F55CB	750	505	275						
1000	ESHC10IP*F55CB	750	505	280						
1250	ESHC12IP*F55CB	750	505	300						
1600	ESHC16IP*F55CB	750	505	320						
2000	ESHC20IP*F55CB	750	505	380						
2500	ESHC25IP*F55CB	750	505	420						
3200	ESHC32IP*F55CB				750	505	540			
4000	ESHC40IP*F55CB				750	505	610			
5000	ESHC50IP*F55CB				750	505	690			
6300	ESHC63IP*F55CB							750	505	960

To complete the Catalogue Number:

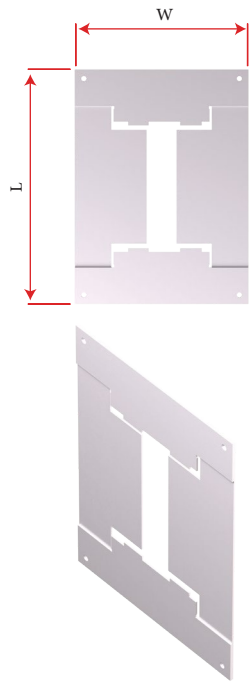




Wall & Floor Flange

Wall and floor flange should be used in case the busway passes through a roof, wall or celling.

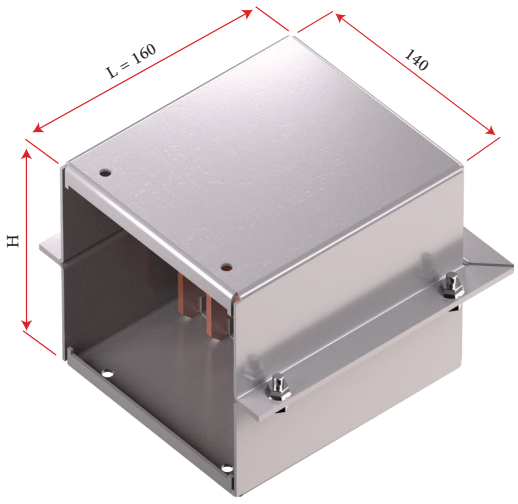
Rating	Catalogue no.		
(A)	Ref.	Width (W)	Length (L)
800	WF408	300	375
1000	WF410	300	280
1250	WF412	300	300
1600	WF416	300	320
2000	WF420	300	380
2500	WF425	300	420
3200	WF432	300	540
4000	WF440	300	610
5000	WF450	300	690
6300	WF463	300	960



End Cap

- End cap safely terminates the busway run , protects and insulates the conductor ends.
  It is fitted to the last section.

Rating (A)	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Width (H)	115	120	140	160	220	260	380	450	530	800
Stack	I	I	I	I	I	I	II	II	II	III

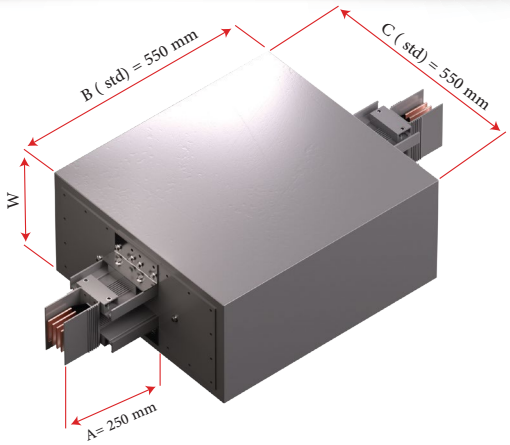


Expansion Joint

Expansion joint controls and absorbs the expansion of the busway runs and must be used on runs over 40 meters and each time the bus-bar trunking through a building expansion joint.

Rating	References	Stack (I)				Stack (II)				Stack (III)			
(A)		A	B	C	W	A	B	C	W	A	B	C	W
800	ESHC08IP*F55CB	250	700	550	265								
1000	ESHC10IP*F55CB	250	700	550	280								
1250	ESHC12IP*F55CB	250	700	550	300								
1600	ESHC16IP*F55CB	250	700	550	320								
2000	ESHC20IP*F55CB	250	700	550	345								
2500	ESHC25IP*F55CB	250	700	550	380								
3200	ESHC32IP*F55CB					250	700	505	450				
4000	ESHC40IP*F55CB					250	700	505	500				
5000	ESHC50IP*F55CB					250	700	505	570				
6300	ESHC63IP*F55CB									250	750	505	920

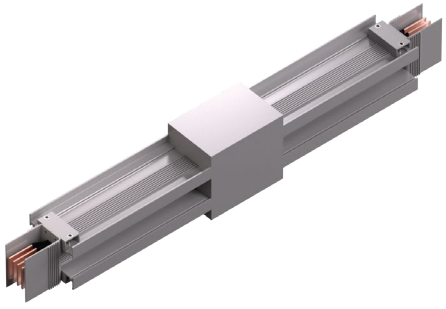
To complete the Catalogue Number:

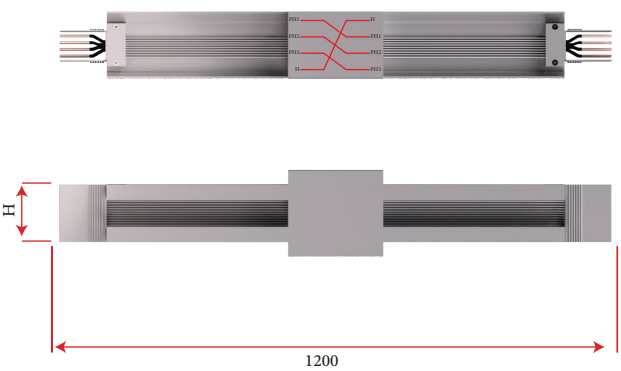


Neutral Rotation

Neutral rotation fitting can be used when the application requires a neutral rotation in the power supply.

Rating (A)	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Width (H)	115	120	140	160	220	260	380	450	530	800

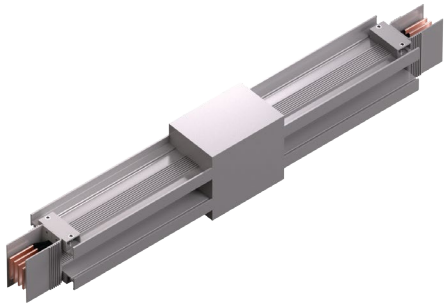


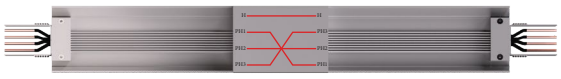


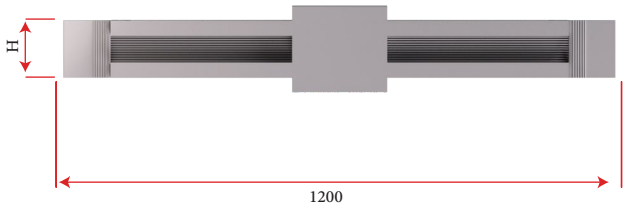
Phase Rotation

Used when the phase order of the switchboard is different than that of the transformer.

Rating (A)	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Width (H)	115	120	140	160	220	260	380	450	530	800





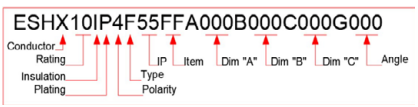


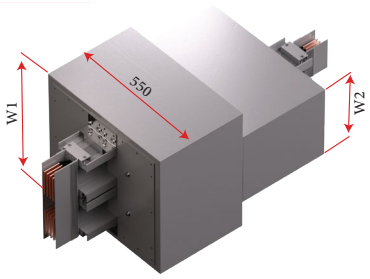
Reducer

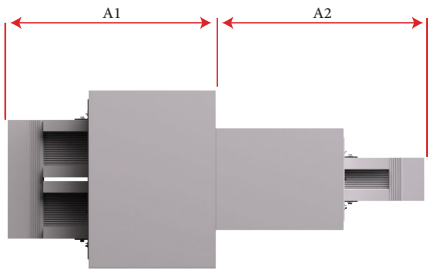
- A reducer is used to connect a high rating busway to a lower one.
- An overcurrent circuit breaker can be installed upon request.

Rating	References	Stack (I)				Stack (II)				Stack (III)			
(A)		A1	A2	W1	W2	A1	A2	W1	W2	A1	A2	W1	W2
800	ESHC08IP*F55RE	600	600	700	265								
1000	ESHC10IP*F55RE	600	600	700	280								
1250	ESHC12IP*F55RE	600	600	700	300								
1600	ESHC16IP*F55RE	600	600	700	320								
2000	ESHC20IP*F55RE	600	600	700	345								
2500	ESHC25IP*F55RE	600	600	700	380								
3200	ESHC32IP*F55RE					600	600	700	490				
4000	ESHC40IP*F55RE					600	600	700	540				
5000	ESHC50IP*F55RE					600	600	700	610				
6300	ESHC63IP*F55RE									600	600	700	780

To complete the Catalogue Number:







Elbow Flatwise

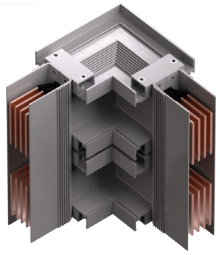
Elbow sections are used for busway directional changes (Left, Right, Up & Down).

Type	Catalogue no.
Fixed length A= 300mm, B= 300mm	ESHC**IP*EF55EFA300B300
Made to measure length	ESHC**IP*F55EFA***B***

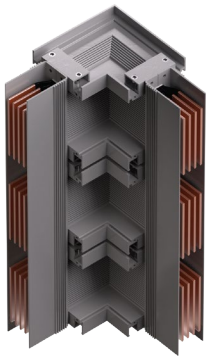
Dimensions (A & B)	Dim. (A)	Dim. (B)
Min. Length	300	300
Made to measure	300 :1000	300 :1000

To complete the Catalogue Number:

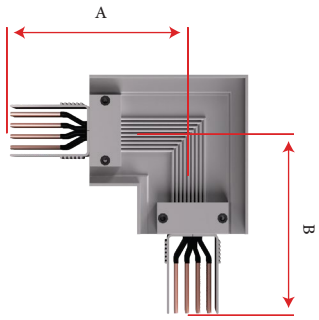
Stack (I)



Stack (II)



Stack (III)



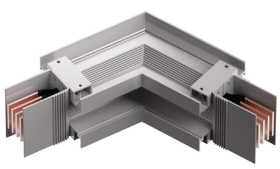
Elbow Flatwise with Angle

Elbow sections are used for busway directional changes (Left, Right, Up & Down) with various angles (90° : 180°).

Type	Catalogue no.
Fixed length A= 300mm, B= 300mm	ESHC**IP*EF55EFA300B300G***
Made to measure length	ESHC**IP*EF55EFA***B***G***

Dimensions (A & B)	Dim. (A)	Dim. (B)	Dim. (G)
Min. Length	300	300	90 °+
Made to measure	300 :1000	300 :1000	Up to 179 °

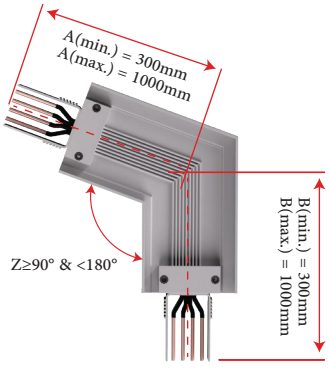
To complete the Catalogue Number:



Stack (I)

Stack (II)

Stack (III)



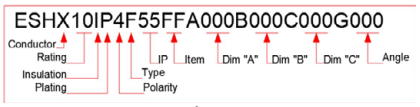
Elbow Edgewise

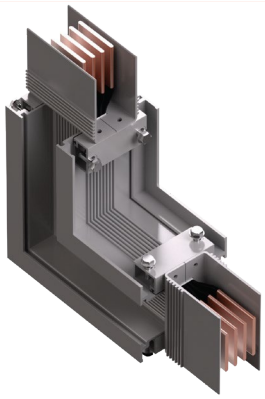
Elbow sections are used for busway directional changes (Left, Right, Up & Down).

Rating	References	Stack (I)		Stack (II)		Stack (III)	
(A)		A	B	A	B	A	B
800	ESHC08IP*F55EEA***B***	298	298				
1000	ESHC10IP*F55EEA***B***	300	300				
1250	ESHC12IP*F55EEA***B***	310	310				
1600	ESHC16IP*F55EEA***B***	320	320				
2000	ESHC20IP*F55EEA***B***	350	350				
2500	ESHC25IP*F55EEA***B***	370	370				
3200	ESHC32IP*F55EEA***B***			430	430		
4000	ESHC40IP*F55EEA***B***			465	465		
5000	ESHC50IP*F55EEA***B***			505	505		
6300	ESHC63IP*F55EEA***B***					640	640

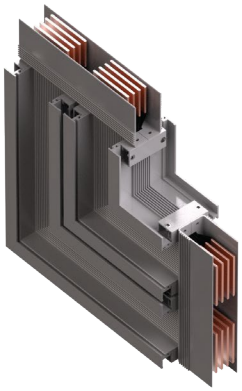
Dimensions (A & B)	Dim. (A)	Dim. (B)
Made to measure	min ~ 1000	min ~ 1000

To complete the Catalogue Number:

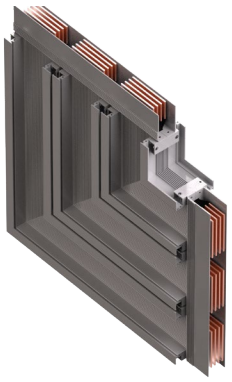




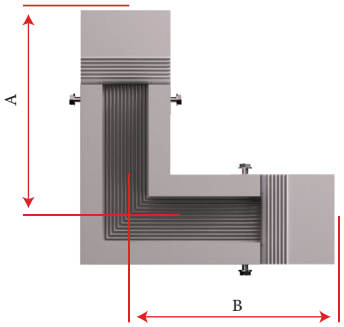
Stack
(I)



Stack
(II)



Stack
(III)

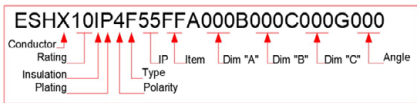


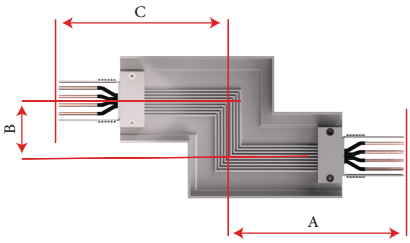
Z-Unit Flatwise

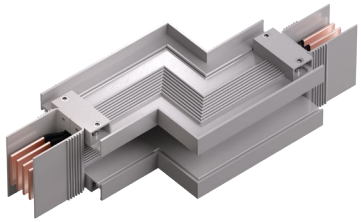
In applications where space does not allow for two connected elbows, zed-units can be utilized to solve the problem and save space.

Type		Catalogue no.
Fixed length A= 300, B= 140, C= 300		ESHC**IP*F55ZFA300B140C300
Fixed length A= 300, B= 170, C= 300	(6300A)	ESHC63IP*F55ZFA300B170C300
Made to measure length		ESHC**IP*F55ZFA***B***C***
Made to measure		(A=1000, B=1000, C=1000) Max.

To complete the Catalogue Number:





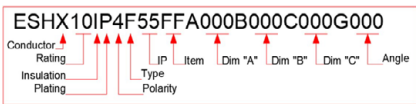


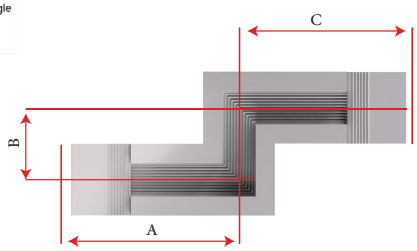
Z-Unit Edgewise

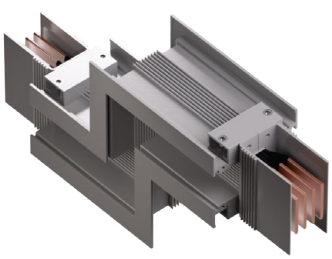
In applications where space does not allow for two connected elbows, zed-units can be utilized to solve the problem and save space.

Rating	References	Stack (I)			Stack (II)			Stack (III)		
(A)		A	B	C	A	B	C	A	B	C
800	ESHC08IP*F55ZEA***B***C***	298	170	298						
1000	ESHC10IP*F55ZEA***B***C***	300	170	300						
1250	ESHC12IP*F55ZEA***B***C***	310	170	310						
1600	ESHC16IP*F55ZEA***B***C***	320	170	320						
2000	ESHC20IP*F55ZEA***B***C***	350	170	350						
2500	ESHC25IP*F55ZEA***B***C***	370	170	370						
3200	ESHC32IP*F55ZEA***B***C***									
4000	ESHC40IP*F55ZEA***B***C***				430	170	430			
5000	ESHC50IP*F55ZEA***B***C***				465	170	465			
6300	ESHC63IP*F55ZEA***B***C***				580	170	580			
								640	170	640
Made to measure Dim. (A, B & C) Max.		1000	1000	1000	1000	1000	1000	1000	1000	1000

To complete the Catalogue Number:





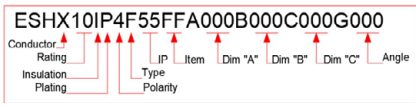


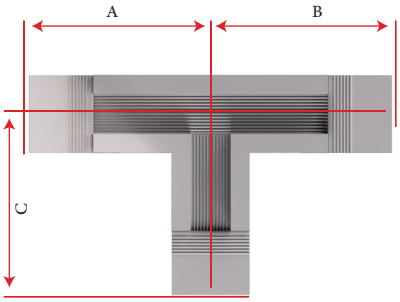
T-Section

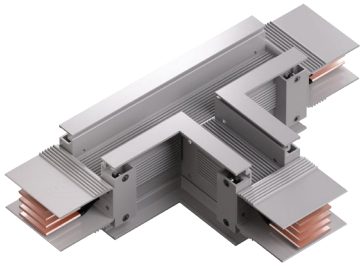
T-section are used to create two 90° branches (Left, Right, Up & Down).

Rating	References	Stack (I)			Stack (II)			Stack (III)		
(A)		A	B	C	A	B	C	A	B	C
800	ESHC08IP*F55TSA***B***C***	298	298	298						
1000	ESHC10IP*F55TSA***B***C***	300	300	300						
1250	ESHC12IP*F55TSA***B***C***	310	310	310						
1600	ESHC16IP*F55TSA***B***C***	320	320	320						
2000	ESHC20IP*F55TSA***B***C***	350	350	350						
2500	ESHC25IP*F55TSA***B***C***	370	370	370						
3200	ESHC32IP*F55TSA***B***C***				430	430	430			
4000	ESHC40IP*F55TSA***B***C***				465	465	465			
5000	ESHC50IP*F55TSA***B***C***				505	505	505			
6300	ESHC63IP*F55TSA***B***C***							640	640	640
Made to measure Dim. (A, B & C) Max.		1000	1000	1000	1000	1000	1000	1000	1000	1000

To complete the Catalogue Number:





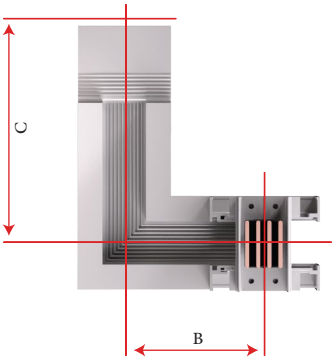


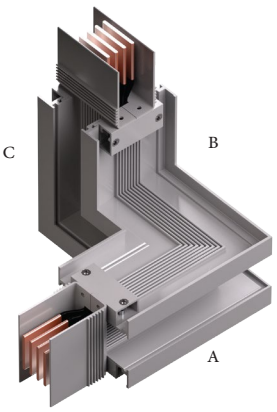
Offset Flatwise

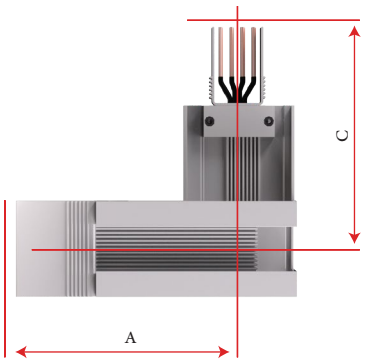
Offset sections are used to change directions (Edge to Flat - Flat to Edge).

Rating	References	Stack (I)			Stack (II)			Stack (III)		
(A)		A	B	C	A	B	C	A	B	C
800	ESHC08IP*F55OFA***B***C***	300	298	298						
1000	ESHC10IP*F55OFA***B***C***	300	300	300						
1250	ESHC12IP*F55OFA***B***C***	300	310	310						
1600	ESHC16IP*F55OFA***B***C***	300	320	320						
2000	ESHC20IP*F55OFA***B***C***	300	350	350						
2500	ESHC25IP*F55OFA***B***C***	300	370	370						
3200	ESHC32IP*F55OFA***B***C***				300	430	430			
4000	ESHC40IP*F55OFA***B***C***				300	465	465			
5000	ESHC50IP*F55OFA***B***C***				300	505	505			
6300	ESHC63IP*F55OFA***B***C***							300	640	640
Made to measure Dim. (A, B & C) Max.		1000	1000	1000	1000	1000	1000	1000	1000	1000

To complete the Catalogue Number:





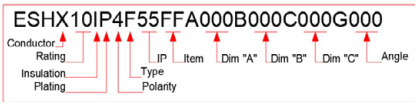


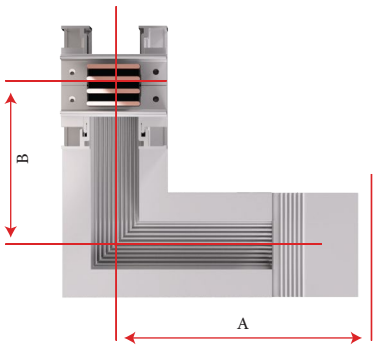
Offset Edgewise

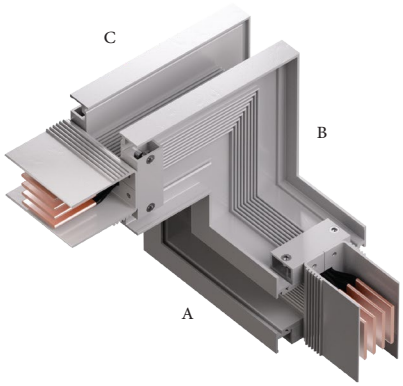
Offset sections are used to change directions (Edge to Flat - Flat to Edge).

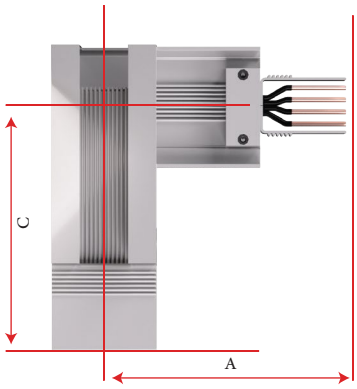
Rating	References	Stack (I)			Stack (II)			Stack (III)		
(A)		A	B	C	A	B	C	A	B	C
800	ESHC08IP*F55OEA***B***C***	298	298	300						
1000	ESHC10IP*F55OEA***B***C***	300	300	300						
1250	ESHC12IP*F55OEA***B***C***	310	310	300						
1600	ESHC16IP*F55OEA***B***C***	320	320	300						
2000	ESHC22IP*F55OEA***B***C***	350	350	300						
2500	ESHC25IP*F55OEA***B***C***	370	370	300						
3200	ESHC32IP*F55OEA***B***C***				430	430	300			
4000	ESHC40IP*F55OEA***B***C***				465	465	300			
5000	ESHC50IP*F55OEA***B***C***				505	505	300			
6300	ESHC63IP*F55OEA***B***C***							640	640	300
Made to measure Dim. (A, B & C) Max.		1000	1000	1000	1000	1000	1000	1000	1000	1000

To complete the Catalogue Number:









Hanger Support

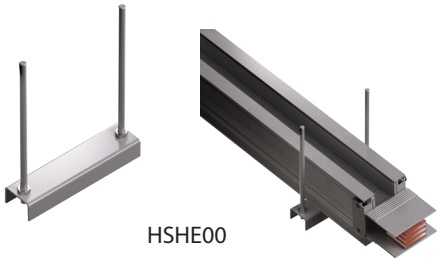
There are two types of support for installing the busway:

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

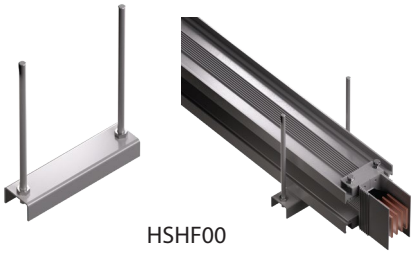
For installing the busway vertically, they ensure:

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

Rating	Catalogue no.			
(A)	Vertical Spring	Horizontal Flatwise	Horizontal Flatwise Corner	Horizontal Edgewise
800	HSVS21-80	HSHF-C508	HSHFC-C508	HSHE00
1000	HSVS21-80	HSHF-C510	HSHFC-C510	HSHE00
1250	HSVS21-80	HSHF-C512	HSHFC-C512	HSHE00
1600	HSVS21-80	HSHF-C516	HSHFC-C516	HSHE00
2000	HSVS21-80	HSHF-C520	HSHFC-C520	HSHE00
2500	HSVS21-80	HSHF-C525	HSHFC-C525	HSHE00
3200	(2X) HSVS21-100	HSHF-C532	HSHFC-C532	HSHE00
4000	(2X) HSVS21-100	HSHF-C540	HSHFC-C540	HSHE00
5000	(2X) HSVS21- 100	HSHF-C550	HSHFC-C550	HSHE00
6300	(3X) HSVS21-100	HSHF-C563	HSHFC-C563	HSHE00



HSHE00



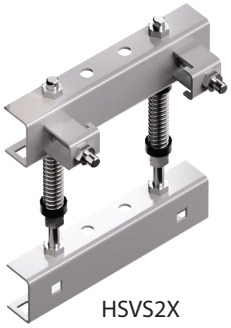
HSHF00

Spring Hanger

- Spring hangers are supporting vertical sectors.They fix sections of a vertical run to the building's structure.

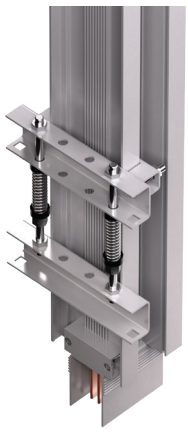
This type of fixing support has the following advantages:

- Could be assembled to a wall bracket or to the floor, height and depth adjustment.
- Spring adjustment to ensure distribution of the load at each floor.
- Avoids the transmission of building forces to the busbar trunking.



HSVS2X

HSVX00



Spine (Aluminium Bi-metal)

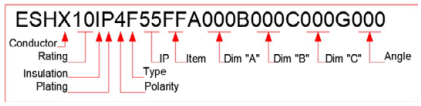
Run Section

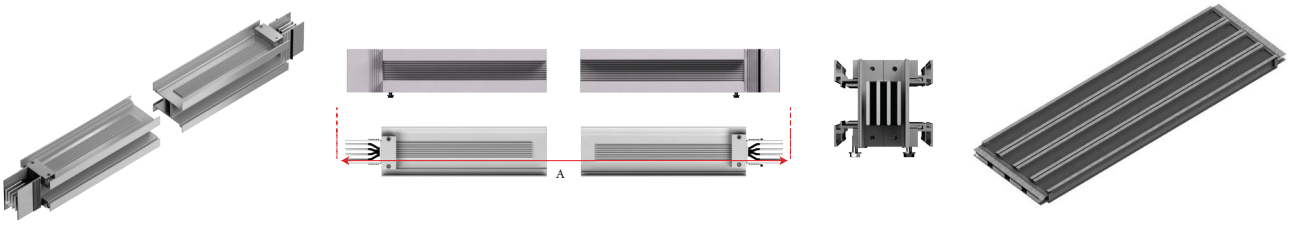
Straight Length Feeder

- The feeders transport the current without tap-off points.
- Available in 4 meter fixed lengths or made to measure from 400 to 3000 mm

Type (A)	Length A (mm)	Catalogue no.
Fixed length	3000	ESHA**IP*F55ST3000
Made to measure length	400 : 3000	ESHA**IP*F55ST****

To complete the Catalogue Number:



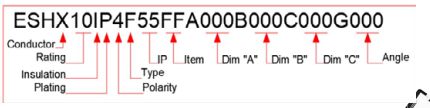


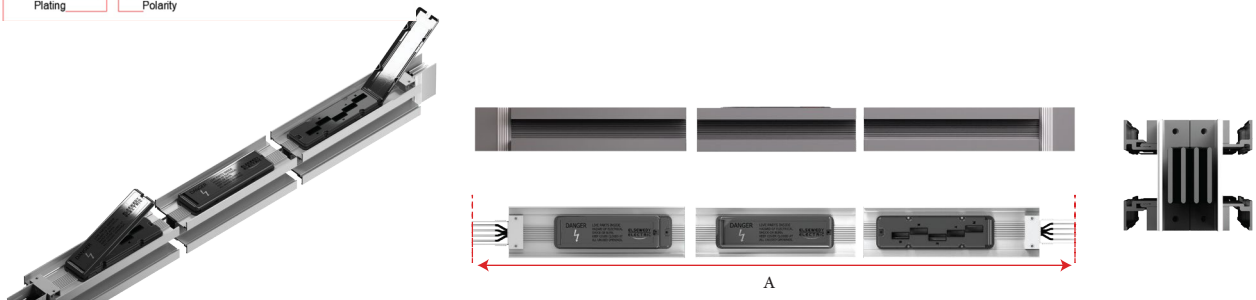
Straight Length Plug-In

- The plug in are for current distribution.
- Available in a 2 meter fixed length with two tap-off point or a 4 meter fixed length with 5 tap-off points.

Type	Length A (mm)	Max No. Tap Offs Per Side	Catalogue no.
Plug-In Fixed length	3000	3	ESHA**IP*P55O123SP3000
	2000	2	ESHA**IP*P55O123SP2000
	1200	1	ESHA**IP*P55O123SP1200
Plug-In made to measure length is upon request			
Riser tap-offs will be on one side			

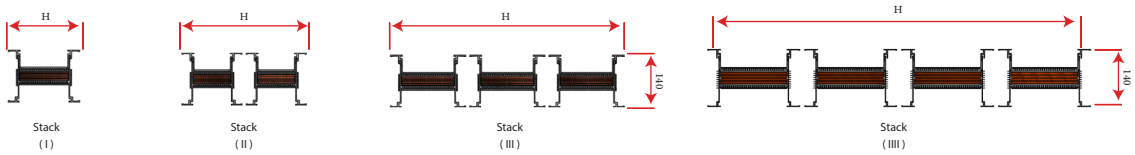
To complete the Catalogue Number:





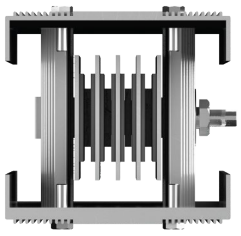
Trunking Cross Section

Rating (A)	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Width (H)	115	140	170	205	260	380	420	530	680	910
Stack	I	I	I	I	I	II	II	II	III	III



Joint Pack:

- Joint-Pack is standard on Elsewedy Electric 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).

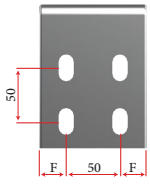


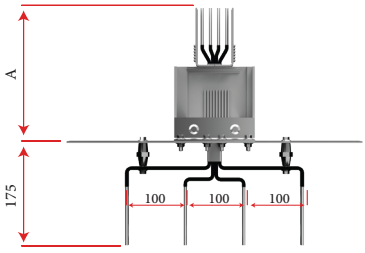
Accessories
Flange End Straight (FS)

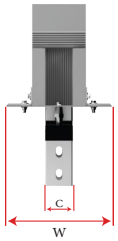
Flanged-end unit allows the busway to be connected to a switchboard's bus-bar or to the terminals of a transformer, generator set, etc.

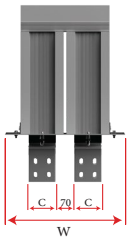
Rating	References	Stack (I)				Stack (II)				Stack (III)				Stack (IIII)			
(A)		A	W	C	F	A	W	C	F	A	W	C	F	A	W	C	F
800	ESHA08IP*F55FS***	All Rating 250mm standard length	225	55		All Rating 250mm standard length				All Rating 250mm standard length				All Rating 250mm standard length			
1000	ESHA10IP*F55FS***		250	80													
1250	ESHA12IP*F55FS***		280	110													
1600	ESHA16IP*F55FS***		315	145													
2000	ESHA20IP*F55FS***		370	200													
2500	ESHA25IP*F55FS***						490	125									
3200	ESHA32IP*F55FS***						530	145									
4000	ESHA40IP*F55FS***						640	200									
5000	ESHA50IP*F55FS***										790	160					
6300	ESHA63IP*F55FS***														1020	160	
	Made to measure	≥ 250 ≯710				≥ 250 ≯710				≥ 250 ≯710				≥ 250 ≯710			

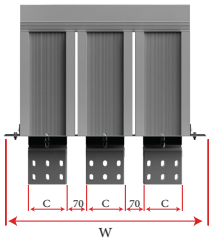
To complete the Catalogue Number:

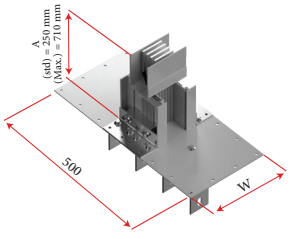




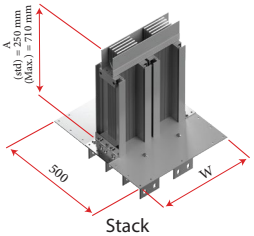




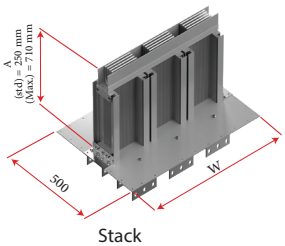




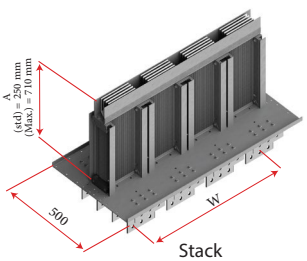
Stack
(I)



Stack
(II)



Stack
(III)

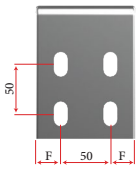


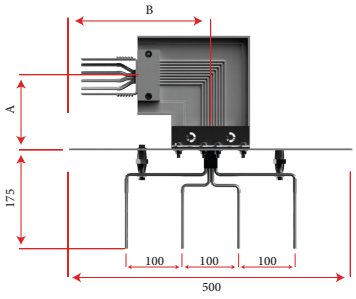
Stack
(IIII)

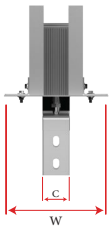
Combination Flange End, Flat Elbow (FF)

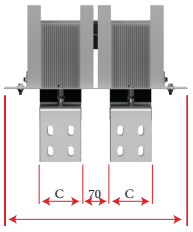
Rating	References	Stack (I)				Stack (II)				Stack (III)				Stack (IIII)			
(A)		A	B	W	C	A	B	W	C	A	B	W	C	A	B	W	C
800	ESHA08IP*F55FFA***B***	All Rating 140mm standard length	All Rating 250mm standard length	225	55	All Rating 140mm standard length	All Rating 250mm standard length			All Rating 140mm standard length	All Rating 250mm standard length			All Rating 140mm standard length	All Rating 250mm standard length		
1000	ESHA10IP*F55FFA***B***			250	80												
1250	ESHA12IP*F55FFA***B***			280	110												
1600	ESHA16IP*F55FFA***B***			315	145												
2000	ESHA20IP*F55FFA***B***			370	200												
2500	ESHA25IP*F55FFA***B***							490	125								
3200	ESHA32IP*F55FFA***B***							530	145								
4000	ESHA40IP*F55FFA***B***							640	200								
5000	ESHA50IP*F55FFA***B***											790	160				
6300	ESHA63IP*F55FFA***B***															1020	160
	Made to measure (Max.)		170				170				170						
		710	1000			710	1000			710	1000			710	1000		

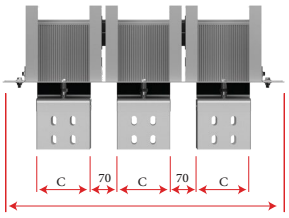
To complete the Catalogue Number:

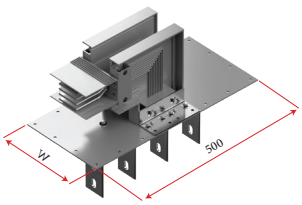




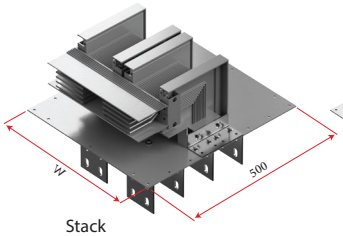




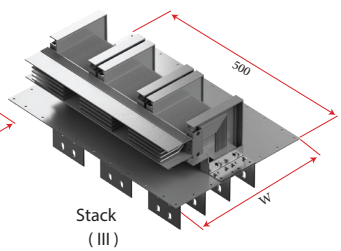




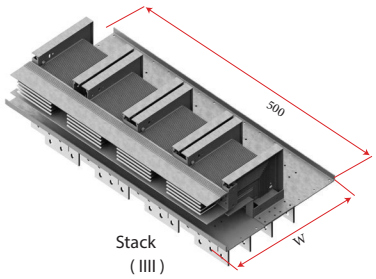
Stack (I)



Stack (II)



Stack (III)



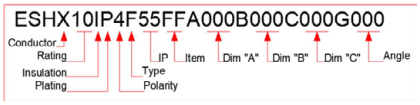
Stack (IIII)

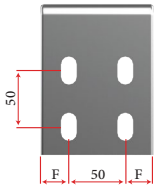
Spine

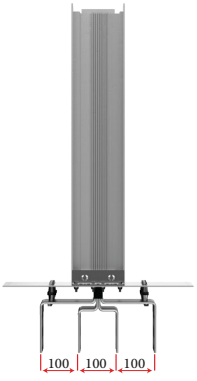
Combination Flange End, Edge Elbow (FE)

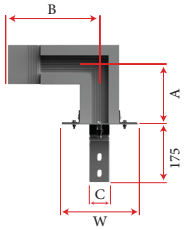
Rating	References	Stack (I)				Stack (II)				Stack (III)				Stack (IIII)			
(A)		A	B	W	C	A	B	W	C	A	B	W	C	A	B	W	C
800	ESHA08IP*F55FEA***B***	181	298	225	55												
1000	ESHA10IP*F55FEA***B***	193	310	250	80												
1250	ESHA12IP*F55FEA***B***	208	325	280	110												
1600	ESHA16IP*F55FEA***B***	226	343	315	145												
2000	ESHA20IP*F55FEA***B***	253	370	370	200												
2500	ESHA25IP*F55FEA***B***					313	430	490	125								
3200	ESHA32IP*F55FEA***B***					333	450	530	145								
4000	ESHA40IP*F55FEA***B***					388	505	640	200								
5000	ESHA50IP*F55FEA***B***									463	580	790	160				
6300	ESHA63IP*F55FEA***B***													578	695	1020	160
	Made to measure A&B (Max.)																
		710	1000			710	1000			710	1000			710	1000		

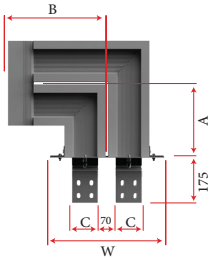
To complete the Catalogue Number:

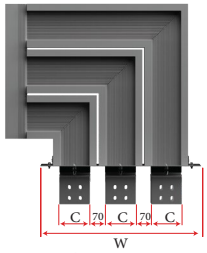


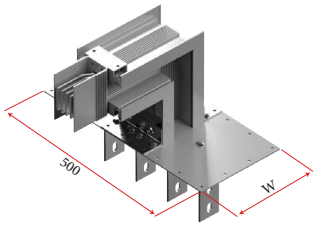




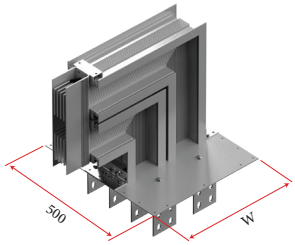




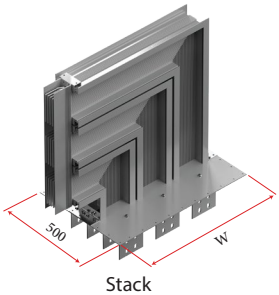




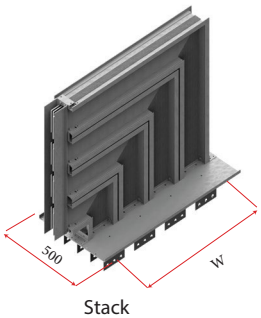
Stack (I)



Stack (II)



Stack (III)



Stack (IIII)

Flexible Link

Flexible connections are used to connect the transfomer/ generator to the connection interface of the busbar when mechanically uncoupling the two elements is required, to prevent the transmission of vibrations.
These connectors are manufactured from highly flexible tapes, braided from annealed Cu-ETP wires, and seamless contacts pressed from seamless Cu-ETP tubes.

Braids
0,10 mm annealed Cu-ETP wires, uncoated, tinned or silvered upon request.

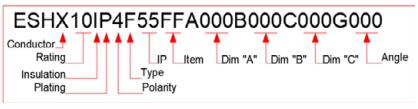
Contract Areas
Seamless Cu-ETP tubes, uncoated, tinned or silvered upon request solderless pressed.

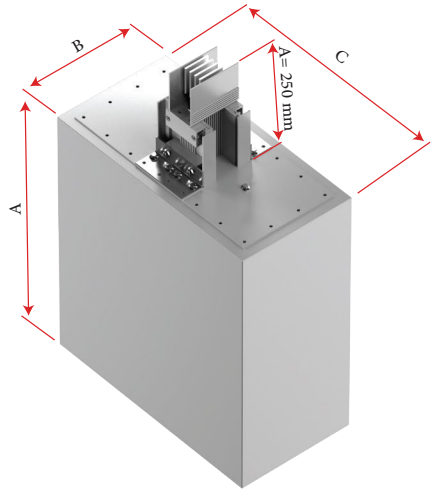
*Note: Copper Foil Avaliable Upon Request

Cable Box

Rating	References	Stack (I)			Stack (II)			Stack (III)			Stack (IIII)		
(A)		A	B	C	A	B	C	A	B	C	A	B	C
800	ESHA08IP*F55CB	750	505	275									
1000	ESHA10IP*F55CB	750	505	300									
1250	ESHA12IP*F55CB	750	505	330									
1600	ESHA16IP*F55CB	750	505	365									
2000	ESHA20IP*F55CB	750	505	420									
2500	ESHA25IP*F55CB				750	505	540						
3200	ESHA32IP*F55CB				750	505	580						
4000	ESHA40IP*F55CB				750	505	690						
5000	ESHA50IP*F55CB				750	505	840	750	505	840			
6300	ESHA63IP*F55CB				750	505	1070				750	505	1070

To complete the Catalogue Number:

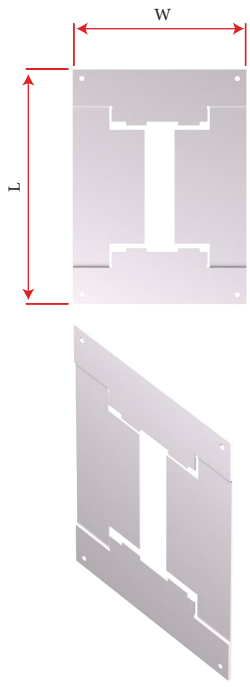




Wall & Floor Flange

Wall and floor flange should be used in case the busway passes through a roof, wall or celling.

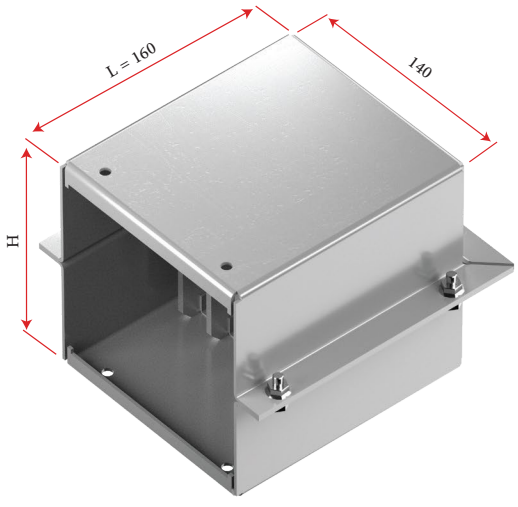
Rating	Catalogue no.		
(A)	Ref.	Width	Length
800	BW-WF-A6E08	300	275
1000	BW-WF-A6E10	300	300
1250	BW-WF-A6E12	300	330
1600	BW-WF-A6E16	300	365
2000	BW-WF-A6E20	300	420
2500	BW-WF-A6E25	300	540
3200	BW-WF-A6E32	300	580
4000	BW-WF-A6E40	300	690
5000	BW-WF-A6E50	300	840
6300	BW-WF-A6E63	300	1070



End Cap

End cap safely terminates the busway run, protects and insulates the conductor ends. It is fitted to the last section.

Rating (A)	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Width (H)	115	140	170	205	260	280	420	530	680	910
Stack	I	I	I	I	I	II	II	II	III	III

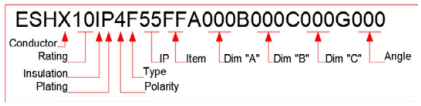


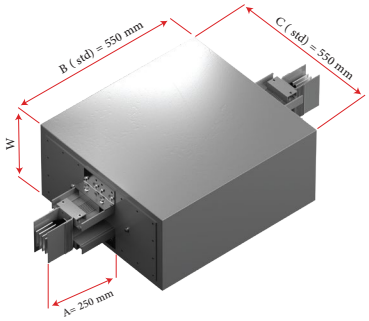
Expansion Joint

Expansion joint controls and absorbs the expansion of the busway runs and must be used on runs over 40 meters and each time the busbar trunking through a building expansion joint.

Rating	References	Stack (I)				Stack (II)				Stack (III)				Stack (IIII)			
(A)		A	B	C	W	A	B	C	W	A	B	C	W	A	B	C	W
800	ESHC08IP*F55CB	250	750	505	235												
1000	ESHC10IP*F55CB	250	750	505	260												
1250	ESHC12IP*F55CB	250	750	505	290												
1600	ESHC16IP*F55CB	250	750	505	325												
2000	ESHC20IP*F55CB	250	750	505	380												
2500	ESHC25IP*F55CB					250	750	505	500								
3200	ESHC32IP*F55CB					250	750	505	540								
4000	ESHC40IP*F55CB					250	750	505	650								
5000	ESHC50IP*F55CB									250	750	505	800				
6300	ESHC63IP*F55CB													250	750	505	1030

To complete the Catalogue Number:

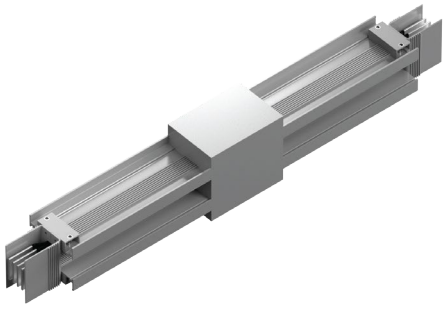


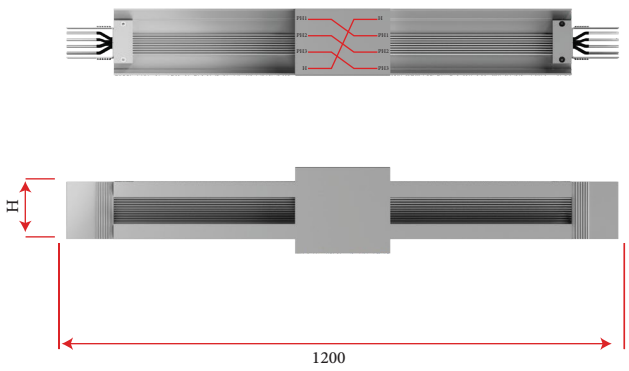


Neutral Rotation

Neutral rotation fitting can be used when the application requires a neutral rotation in the power supply.

Rating (A)	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Width (H)	115	140	170	205	260	380	420	530	680	910

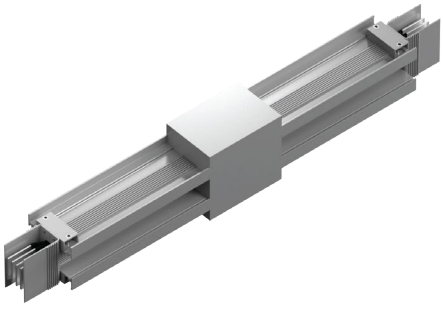


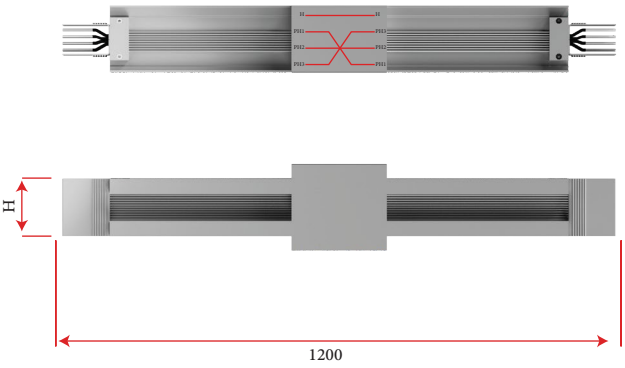


Phase Rotation

Used when the phase order of the switchboard is different than that of the transformer.

Rating (A)	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Width (H)	115	140	170	205	260	380	420	530	680	910



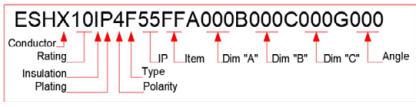


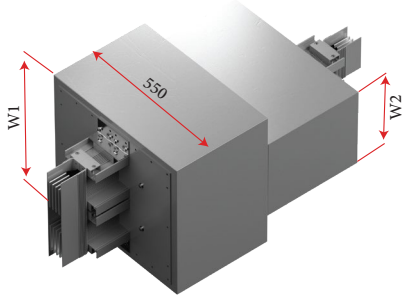
Reducer

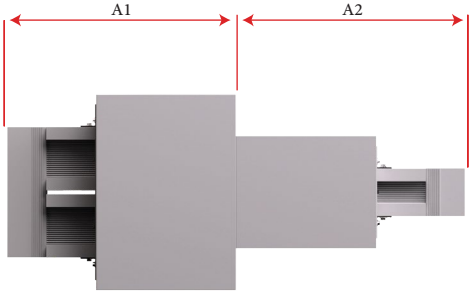
A reducer is used to connect a high rating busway to a lower one . An overcurrent circuit breaker can be installed upon request .

Rating	References	Stack (I)				Stack (II)				Stack (III)				Stack (IIII)			
(A)		A1	A2	W1	W2	A1	A2	W1	W2	A1	A2	W1	W2	A1	A2	W1	W2
800	ESHA08IP*F55RE	600	600	700	265												
1000	ESHA10IP*F55RE	600	600	700	280												
1250	ESHA12IP*F55RE	600	600	700	300												
1600	ESHA16IP*F55RE	600	600	700	320												
2000	ESHA20IP*F55RE	600	600	700	345												
2500	ESHA25IP*F55RE	600	600	700	380												
3200	ESHA32IP*F55RE																
4000	ESHA40IP*F55RE					600	600	700	490								
5000	ESHA50IP*F55RE									600	600	700	540				
6300	ESHA630IP*F55RE													600	600	700	780

To complete the Catalogue Number:







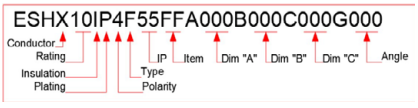
Elbow Flatwise

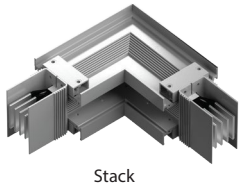
Elbow sections are used for busway directional changes (Left, Right, Up & Down).

Type	Catalogue no.
Fixed length A= 300mm, B= 300mm	ESHA**IP*EF55EFA300B300
Made to measure length	ESHA**IP*F55EFA***B***

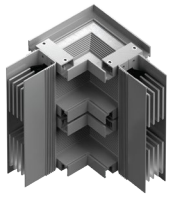
Dimensions (A & B)	Dim. (A)	Dim. (B)
Min. Length	300	300
Made to measure	1000 ~300	1000 ~300

To complete the Catalogue Number:

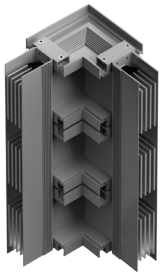




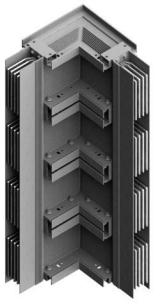
Stack (I)

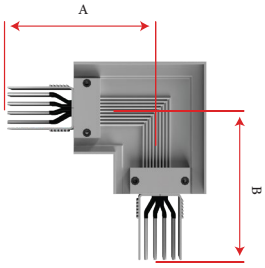


Stack (II)



Stack (III)





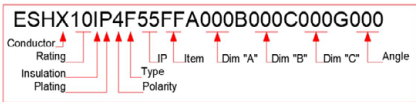
Elbow Flatwise with Angle

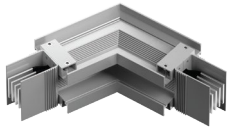
Elbow sections are used for busway directional changes (Left, Right, Up & Down) with various angles (90° : 180°).

Type	Catalogue no.
Fixed length A= 300mm, B= 300mm	ESHA**IP*EF55EFA300B300G***
Made to measure length	ESHA**IP*EF55EFA***B***G***

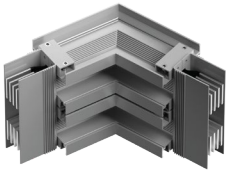
Dimensions (A & B)	Dim. (A)	Dim. (B)	Dim. (G)
Min. Length	300	300	90 °+
Made to measure	1000~300	1000~300	Up to 179 °

To complete the Catalogue Number:

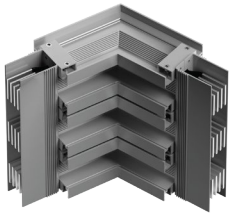




Stack (I)

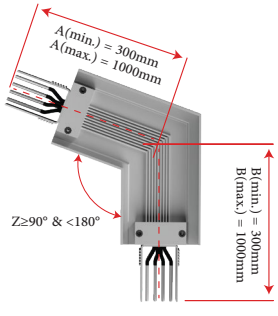


Stack (II)



Stack (III)

Stack (IIII)



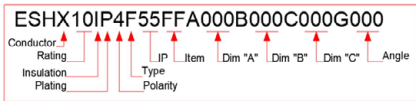
Elbow Edgewise

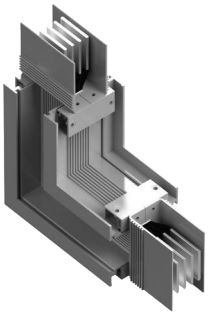
Elbow sections are used for busway directional changes (Left, Right, Up & Down).

Rating	References	Stack (I)		Stack (II)		Stack (III)		Stack (IIII)	
(A)		A	B	A	B	A	B	A	B
800	ESHA08IP*F55EEA***B***	298	298						
1000	ESHA10IP*F55EEA***B***	310	310						
1250	ESHA12IP*F55EEA***B***	325	325						
1600	ESHA16IP*F55EEA***B***	343	343						
2000	ESHA20IP*F55EEA***B***	370	370						
2500	ESHA25IP*F55EEA***B***			430	430				
3200	ESHA32IP*F55EEA***B***			450	450				
4000	ESHA40IP*F55EEA***B***			505	505				
5000	ESHA50IP*F55EEA***B***					580	580		
6300	ESHA63IP*F55EEA***B***							695	695

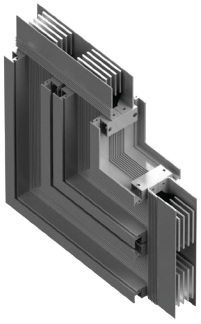
Dimensions (A & B)	Dim. (A)	Dim. (B)
Made to measure	min ~ 1000	min ~ 1000

To complete the Catalogue Number:

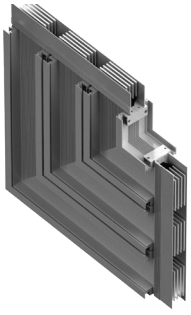




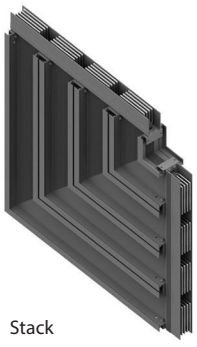
Stack
(I)



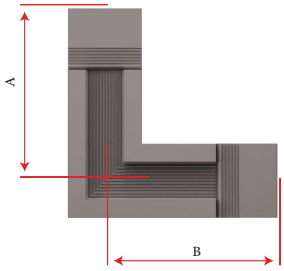
Stack
(II)



Stack
(III)



Stack
(IIII)

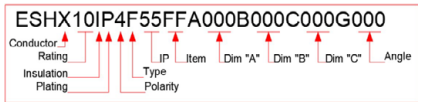


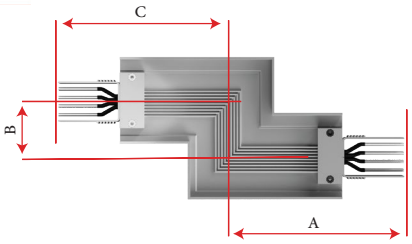
Z-Unit Flatwise

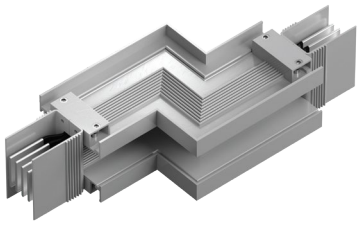
In applications where space does not allow for two connected elbows, zed-units can be utilized to solve the problem and save space.

Type		Catalogue no.
Fixed lengthA= 300, B= 140, C= 300		ESHA**IP*F55ZFA300B140C300
Fixed lengthA= 300, B= 170, C= 300	(6300A)	ESHA**IP*F55ZFA300B170C300
Made to measure length		ESHA**IP*F55ZFA***B***C***
Made to measure		(A=1000, B=1000, C=1000) Max.

To complete the Catalogue Number:





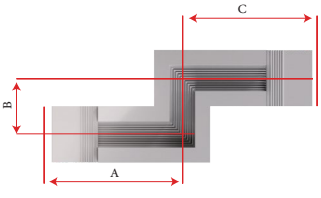


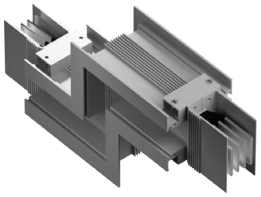
Z-Unit Edgewise

In applications where space does not allow for two connected elbows, zed-units can be utilized to solve the problem and save space.

Rating	References	Stack (I)			Stack (II)			Stack (III)			Stack (IIII)		
(A)		A	B	C	A	B	C	A	B	C	A	B	C
800	ESHA08IP*F55ZEA***B***C***	298	170	298									
1000	ESHA10ET*F55ZEA***B***C***	310	170	310									
1250	ESHA12IP*F55ZEA***B***C***	325	170	325									
1600	ESHA16IP*F55ZEA***B***C***	343	170	343									
2000	ESHA20IP*F55ZEA***B***C***	370	170	370									
2500	ESHA25IP*F55ZEA***B***C***				430	170	430						
3200	ESHA32IP*F55ZEA***B***C***				450	170	450						
4000	ESHA40IP*F55ZEA***B***C***				505	170	505						
5000	ESHA50IP*F55ZEA***B***C***												
6300	ESHA63IP*F55ZEA***B***C***							580	170	580			
											695	170	695
Made to measure Dim. (A, B & C) Max.		1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

To complete the Catalogue Number:





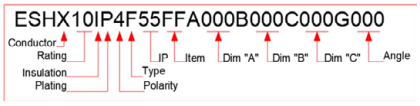
Spine

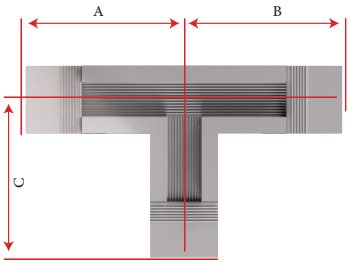
T-Section

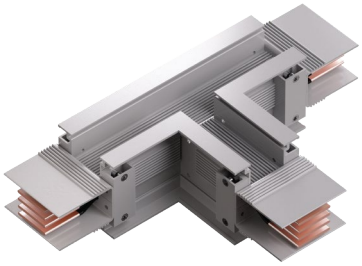
T-sections are used to create two 90° branches (Left, Right, Up & Down).

Rating	References	Stack (I)			Stack (II)			Stack (III)			Stack (IIII)		
(A)		A	B	C	A	B	C	A	B	C	A	B	C
800	ESHA08IP*F55TSA***B***C***	298	298	298									
1000	ESHA10IP*F55TSA***B***C***	310	310	310									
1250	ESHA12IP*F55TSA***B***C***	325	325	325									
1600	ESHA16IP*F55TSA***B***C***	343	343	343									
2000	ESHA20IP*F55TSA***B***C***	370	370	370									
2500	ESHA25IP*F55TSA***B***C***				430	430	430						
3200	ESHA32IP*F55TSA***B***C***				450	450	450						
4000	ESHA40IP*F55TSA***B***C***				505	505	505						
5000	ESHA50IP*F55TSA***B***C***							580	580	580			
6300	ESHA63IP*F55TSA***B***C***										695	695	695
Made to measure Dim. (A, B & C) Max.		1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

To complete the Catalogue Number:





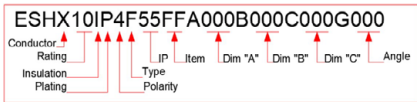


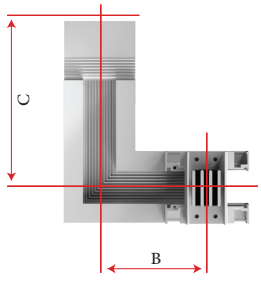
Offset Flatwise

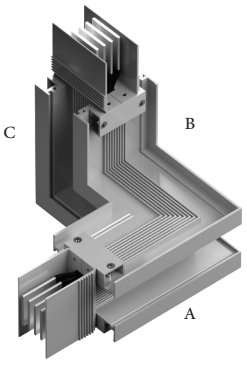
Offset section are used to change directions (edge to flat & flat to edge).

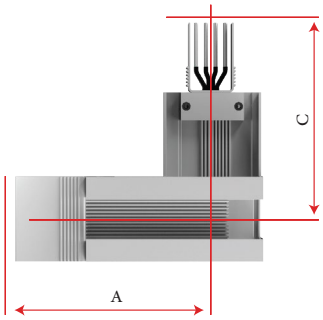
Rating	References	Stack (I)			Stack (II)			Stack (III)			Stack (IIII)		
(A)		A	B	C	A	B	C	A	B	C	A	B	C
800	ESHA08IP*F55OFA300B90C300	300	298	298									
1000	ESHA10IP*F55OFA300B90C300	300	310	310									
1250	ESHA12IP*F55OFA300B90C300	300	325	325									
1600	ESHA16IP*F55OFA300B90C300	300	342.5	343									
2000	ESHA20IP*F55OFA300B90C300	300	370	370									
2500	ESHA25IP*F55OFA300B90C300				300	430	43						
3200	ESHA32IP*F55OFA300B90C300				300	450	450						
4000	ESHA40IP*F55OFA300B90C300				300	505	505						
5000	ESHA50IP*F55OFA300B90C300							300	580	580			
6300	ESHA63IP*F55OFA300B90C300										300	695	695
Made to measure Dim. (A, B & C) Max.		1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

To complete the Catalogue Number:









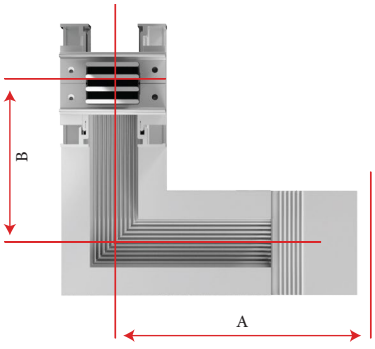
Spine

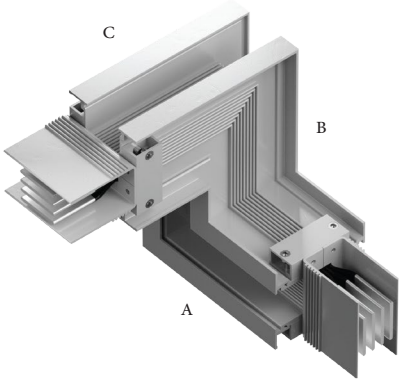
Offset Edgewise

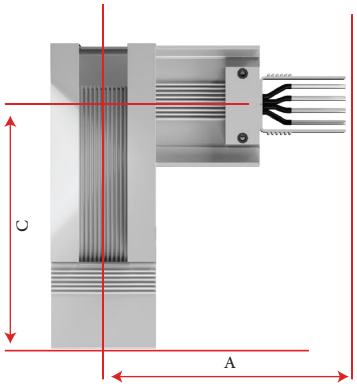
- Offset sections are used to change directions (Edge to Flat - Flat to Edge).

Rating	References	Stack (I)			Stack (II)			Stack (III)			Stack (IIII)		
(A)		A	B	C	A	B	C	A	B	C	A	B	C
800	ESHA08IP*F55OEA***B***C***	298	298	300									
1000	ESHA10IP*F55OEA***B***C***	310	310	300									
1250	ESHA12IP*F55OEA***B***C***	325	325	300									
1600	ESHA16IP*F55OEA***B***C***	343	343	300									
2000	ESHA20IP*F55OEA***B***C***	370	370	300									
2500	ESHA25IP*F55OEA***B***C***				430	430	300						
3200	ESHA32IP*F55OEA***B***C***				450	450	300						
4000	ESHA40IP*F55OEA***B***C***				505	505	300						
5000	ESHA50IP*F55OEA***B***C***							580	580	300			
6300	ESHA63IP*F55OEA***B***C***										695	695	300
Made to measure Dim. (A, B & C) Max.		1000	1000	1000	1000	1000	1000	1000	1000	1000			

To Complete the Catalogue Number:
- Replace * by the polarity from 3 to 8
-Replace *** by (A), (B) & (C) length values (Min as mentioned to Max 1000)
- Replace I by E or P based on insulation material
- Replace P by S or T based on Plating material







Hanger Support

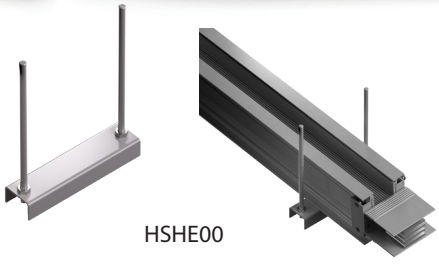
There are two types of support for installing the busway:

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

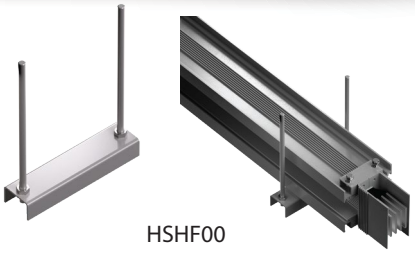
For installing the busway vertically, they ensure:

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

Rating	Catalogue no.			
(A)	Vertical Spring	Horizontal Flatwise	Horizontal Flatwise Corner	Horizontal Edgewise
800	HSVS21-80	HSHF-A608	HSHFC-A608	HSHE00
1000	HSVS21-80	HSHF-A610	HSHFC-A610	HSHE00
1250	HSVS21-80	HSHF-A612	HSHFC-A612	HSHE00
1600	HSVS21-80	HSHF-A616	HSHFC-A616	HSHE00
2000	HSVS21-80	HSHF-A620	HSHFC-A620	HSHE00
2500	(2X) HSVS21-100	HSHF-A625	HSHFC-A625	HSHE00
3200	(2X) HSVS21-100	HSHF-A632	HSHFC-A632	HSHE00
4000	(2X) HSVS21-100	HSHF-A640	HSHFC-A640	HSHE00
5000	(3X) HSVS21-100	HSHF-A650	HSHFC-A650	HSHE00
6300	(4X) HSVS21-100	HSHF-A663	HSHFC-A663	HSHE00



HSHE00



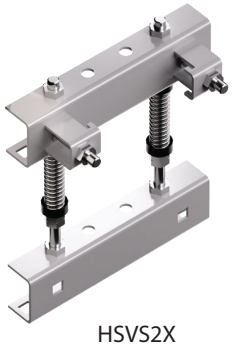
HSHF00

Spring Hanger

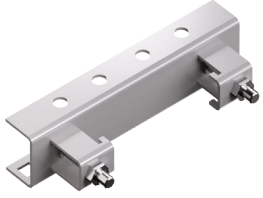
Spring hangers are supporting vertical sectors.They fix sections of a vertical run to the building's structure.

This type of fixing support has the following advantages:

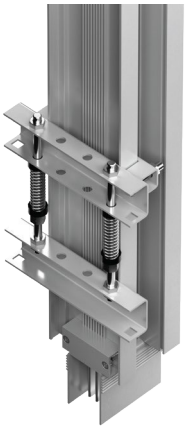
- Could be assembled to a wall bracket or to the floor, height and depth adjustment.
- Spring adjustment to ensure distribution of the load at each floor.
- Avoids the transmission of building forces to the busbar trunking.



HSVS2X



HSVX00



Tap-Off Units
ES PIU Coding System

ES5	P2	3VM123	250	43	F	100	S	54
ES5	Code	Circuit Breaker Code	C.B Rating	Polarity	Trip Mode	S.C. Level	Operation	IP
ES5	••	••••••	••••	••	•	•••	•	••

Code [**]
P2

15 A - 100 A	P1
125 A - 160 A	P2
200 A - 250 A	P3
400 A - 630 A	P4
800 A - 1250 A	P5

Trip Mod [*]
F

Fixed	F
Adjustable	A

Short Circuit [KA]
100

S.C Level	***

Circuit Breaker Code [******]
3VM123

Slemens C.B.	******
ABB C.B.	******
Schneider C.B.	******

Operation [*]
S

Side Handle	S
Front Handle	R

Circuit Breaker Rating [****]
250

15 A UP To 1250 A	1250 - 15

IP [**]
54

IP 55	55

Polarity [*]
43

3 Pole PIU , 3 Pole Breaker	33
4 Pole PIU , 3 Pole Breaker	43
4 Pole PIU , 4 Pole Breaker	44

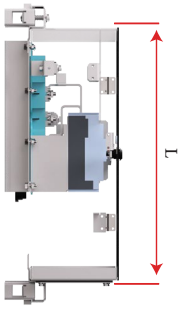
Tap-Off Unit

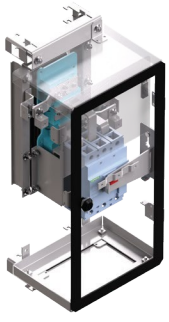
- Easy and reliable installation.
- Eliminates forces against plugs during installation.
- Absolute safety solution.
- Smart design to accept many types/ models/ brands of standard breakers.
- Equipped with mechanical interlock mechanism; cannot be removed from the busway when the box is at 'on' position.
- IP55 protection.
- Plugin contacts sliver platted.

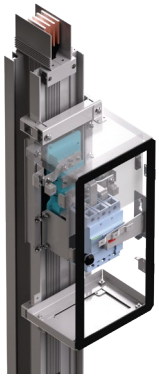
Rating	Circuit Breaker Type	Reference	Interrupting Current kA(380/415V)	Dimension		
(A)				L	W	D
100A	Schneider Electric / Siemens /ABB		25- 36 - 50 - 70	500	250	275
160A			25- 36 - 50 - 70	500	250	275
250A			25- 36 - 50 - 70	500	250	275
400A			25- 36 - 50 - 70	900	350	360
630A			25- 36 - 50 - 70	900	350	360

Power Take off

Rating	Circuit Breaker Type	Reference	Interrupting Current kA(380/415V)	Dimension		
800A	Schneider Electric / Siemens /ABB		36 - 50 - 70	1150	550	375
1000A			36 - 50 - 70	1150	550	375
1250A			36 - 50 - 70	1150	550	375

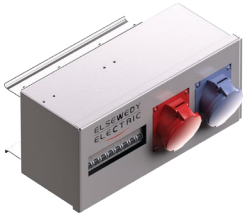






Data Center Custom Mode Tap-off Unit

Rating	Number of modules		Catalogue no.					Accessories
(A)	9mm	18mm	Reference	Interrupting Current kA(380/415V)	L	W	D	
32A	16	8	ES5DC3254	Up to 36	370	250	250	2 Industrial Sockets
32A	16	8	ES5DC3254	Up to 36	470	250	250	2 Industrial Sockets + Metering





Data Center Busway Advantages

Improving Power Availability
- Architecture and hardware with maximum reliability, Pre-engineered & qualified architecture and hardware with maximum reliability
- IT room under control by final circuit monitoring
- Fast servicing

Maximum Energy Efficiency
- Measure the energy consumption up to racks level to evaluate the PUE (Power Usage Effectiveness) in real time
- Reduce copper losses

Maximum flexibility
- To be able to move, add and change IT equipment as its performance needs evolve
- To be able to spread the investments over time

Maximum speed of deployment
- Standardized design and process
- Modular solution approach
- One-stop shopping

Elsewedy Electric Busway for Data Center is:

1- A final distribution for servers and IT equipment:
Based on prefabricated Power Link and Spine range busway systems and specific tap-off for data center

2- A flexible and monitored distribution to match the equipment renewal rate with:
- A variety of tap-off units with built-in current energy metering for low to high density
- IT environment
- Industrial sockets for easy connection with the PDU units

3- A system ready to a speed deployment along with a portfolio of services:
- Site Survey, full design package
- Operational service: installation and commissioning
- Tested and provided with a warranty by Elsewedy Electric

Smart Busway Joint

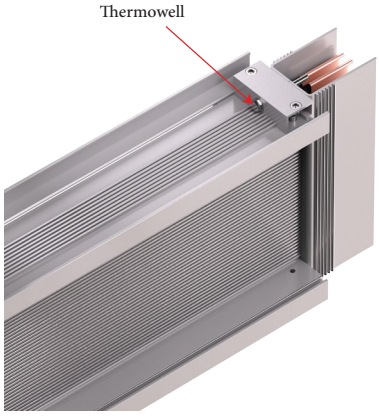
Because safety is not just an option, Elsewedy Electric provides, along its market-leading busway solutions, cutting-edge Joint Temperature Monitoring (JTM) devices.
The JTM is a highly accurate wireless temperature transmitter, designed specifically to complement Elsewedy Electric Busway.

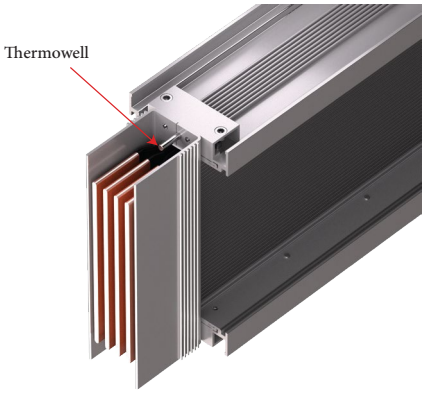
Not only does it mitigate the risk of busway joint overheating, but it also optimizes the Return on Investment (ROI) by cutting on the operational expenses of manual inspection.

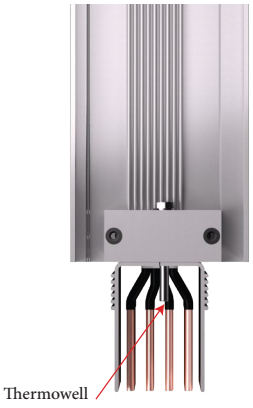
Elsewedy Electric's JTM device is a perfect example of the power of Internet of Things (IoT) with its out-of-the-box compatibility with Elsewedy Electric's IoT and Busway solutions, employment of already existing WiFi networks, reliability in the harshest operating conditions, and minimal bandwidth requirements.

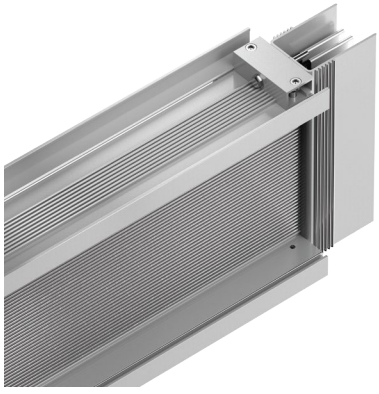
Key Features:

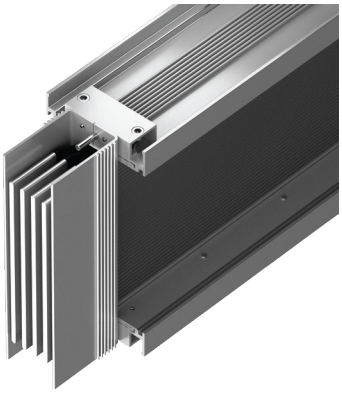
- Compact Design: optimized for Elsewedy Electric Busway products.
- Directly monitor busbars joints.
- No need for IR CAMs, no maintenance planning
- Battery powered: no need for trays and conduits.
- Wireless data transfer.
- Connect over regular WiFi: no need to invest in a separate network.
- Over-The-Air Updates: seamless updates to the firmware.
- High accuracy: ADC resolution of 15 bits.
- Supports 2,3 or 4 wire platinum 100-ohm RTD.
- Designed for industrial and other harsh environments.



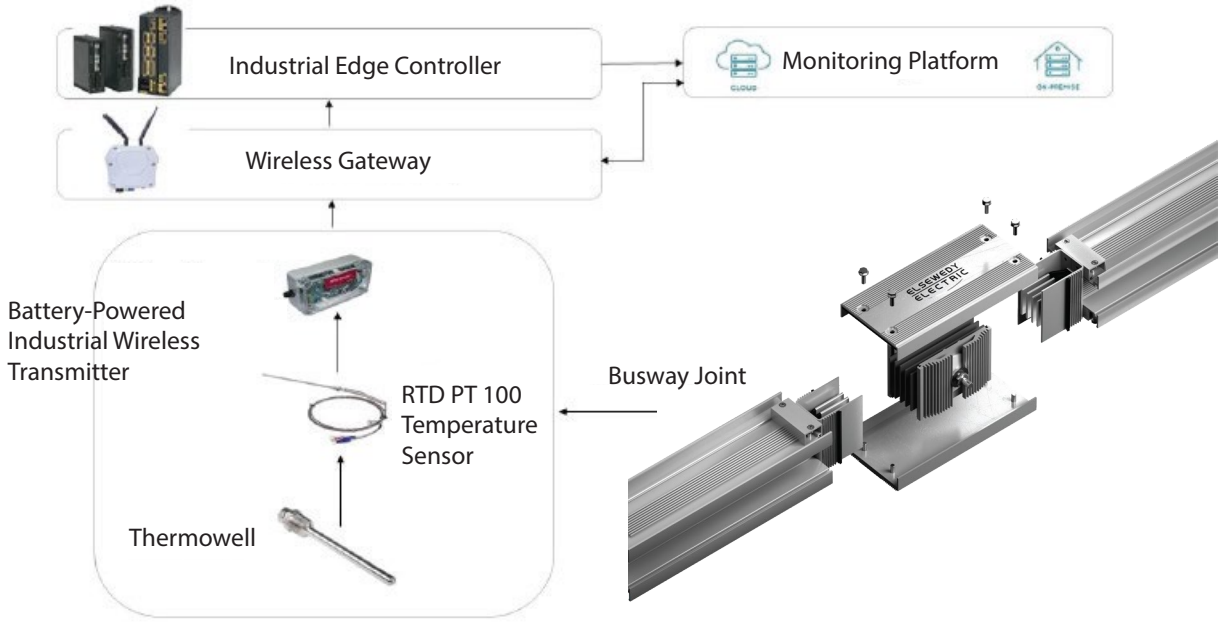








Catalogue no.	
Software Features	Battery Life Monitoring - OTA Firmware Updates
Analog-to-Digital Converter Resolution	15 bits
PT100 Connection	2, 3 or 4 Wire Connection with PG7 Gland
Wifi Connectivity	IEEE802.11 b/g/n, 2.4 GHz, +20dBm output power in 802.11b mode
Network Protocols	IPv4, TCP/UDP/HTTP/FTP
Security	WPA/WPA2
Encryption	WEP/TKIP/AES
Battery Life (with 4 AA batteries)	At least a year (3 readings per hour)
Power	4 AA Batteries
Enclosure Transmitter	IP66, UL-508, NEMA 1,2,4,4X,12,13
Enclosure Material Flammability Rating	UL94 HB
Mounting	Flanged Mount



Design Guide

General Technical Specifications

Power Link (CU) HPB with Copper Conductors, Aluminium Enclosure.

Rating

Busway Rating	In	A	800	1000	1250	1600	2000	2500	3200	3500	4000	5000_2	5000_3	6000	6300
Standards & Specifications			IEC 61439-1&6												
Degree of Protection	IP		IP 55 & 65												
Frequency	F	Hz	50 / 60												
Ambient Temperature Min. / Max.*	T	C°	-5 / +55												
Rated Insulation Voltage Ui	Ui	V	1000												
Rated Operational Voltage Ue	Ue	V	1000												
Mechanical Impacts	IK		10												
Rated Short-Time Current for Three Phases Fault (1s)	I cw	kA	36	50	50	65	80	100	120	120	120	150	150	150	150
Peak Withstand Short Circuit Current	I pk	kA	75.6	105	105	105	143	176	176	176	220	264	264	264	264
Resistance (R_{20} μΩ/m)	R_{20}	μΩ/m	77.2	51	47.2	30.5	21.3	15.1	12.9	12.9	10	7.2	6	6	5
Reactance (X μΩ/m)	X		97.9	24	21	17.9	13.7	10.9	4.8	4.8	4.6	3.7	2.5	2.5	3.6
Impedance (Z μΩ/m)	Z		124.6	56.4	51.6	35.4	25.3	18.6	13.8	13.8	11	8.1	6.5	6.5	6.2
Voltage Drop(V/100m)	cosØ	0.8	16.69	9.56	10.89	9.74	8.74	8.06	7.32	8	7.45	6.91	5.46	6.55	6.77
		0.9	15.54	9.76	11.17	9.77	8.70	7.94	7.59	8.31	7.62	7.01	5.62	6.74	6.67
		1.0	10.69	8.83	10.21	8.45	7.36	6.54	7.15	7.82	6.93	6.24	5.20	6.24	5.49
Stack			I	I	I	I	I	I	II	II	II	II	III	III	III
Dimensions (mm)	W	mm	140	140	140	140	140	140	140	140	140	140	140	140	140
	H	mm	115	120	140	160	220	260	330	330	450	530	680	680	800
Approximate Weights	Wt	Kg/m	14	18	22	25	35	48	60	60	74	95	112	112	144

Design Guide

General Technical Specifications

Spine (AL) HPB with Aluminum Conductors, Aluminium Enclosure.

Rating

Busway Ratings	In	A	800	1000	1250	1600	2000	2500	3200	4000	5000	6300
Standards & Specifications			IEC 61439-1&6									
Degree of Protection	IP		IP 55 & 65									
Frequency	F	Hz	50 / 60									
Ambient Temperature Min. / Max.*	T	C°	-5 / +55									
Rated Insulation Voltage Ui	Ui	V	1000									
Rated Operational Voltage Ue	Ue	V	1000									
Mechanical Impacts	IK		10									
Rated Short-Time Current for Three Phases Fault (1s)	I cw	kA	36	36	50	65	80	100	100	120	120	150
Peak Withstand Short Circuit Current	I pk	kA	75.6	75.6	105	105	143	176	176	220	264	330
Resistance (R_{20} μΩ/m)	R_{20}	μΩ/m	96.7	63.2	55	43.3	23.9	20.5	18.8	12.3	11.4	8.6
Reactance (X μΩ/m)	X		124.1	55	43.3	37.1	15.4	12.9	12.5	10.9	9.5	7.1
Impedance (Z μΩ/m)	Z		157.3	83.8	70	57	28.4	24.2	22.5	16.4	14.8	11.1
Voltage Drop(V/100m	cosØ	0.8	21.03	14.47	15.14	15.77	9.82	10.45	12.47	11.35	12.83	12.13
		0.9	19.55	14	14.80	15.28	9.78	10.42	12.38	10.96	12.47	11.79
		1.0	13.40	10.95	11.90	11.99	8.28	8.88	10.40	8.52	9.87	9.33
Stack			I	I	I	I	I	II	II	II	III	IV
Dimensions (mm)	W	mm	140	140	140	140	140	140	140	140	140	140
	H	mm	115	140	170	205	260	380	420	530	680	910
Approximate Weights	Wt	Kg/m	10	12.5	15	17.5	26.5	30	35	43	52	69.8

Temperature Impact on the Rating of the Busbar Trunking System:

The ambient temperature where the busbar trunking system is installed impacts on its rating During the design stages, it will be necessary to consider the reference temperature by a correction rating value referred to the final site operating temperature.
All Elsewedy products have been sized and tested for an average specific ambient temperature for each rating.
For installation in environments with different average daily temperatures, the rated current of the busbar must be corrected as per following table.

Deration Tables

Power Link

Rating	Rating Amps @ 40/35˚C (50 Hz)	Rating Amps @ 45/40˚C (50Hz)	Rating Amps @ 50/45˚C (50Hz)	Rating Amps @ 55/50˚C (50Hz)
CU-800	928	864	840	800
CU-1000	1160	1080	1050	1000
CU-1250	1450	1350	1313	1250
CU-1600	1856	1728	1680	1600
CU-2000	2320	2160	2100	2000
CU-2500	2900	2700	2625	2500
CU-3200	3712	3456	3360	3200
CU-4000	4640	4320	4200	4000
CU-5000	5800	5400	5250	5000

Spine

Rating	Rating Amps @ 40/35˚C (50 Hz)	Rating Amps @ 45/40˚C (50Hz)	Rating Amps @ 50/45˚C (50Hz)	Rating Amps @ 55/50˚C (50Hz)
Al-800	928	864	840	800
Al-1000	1160	1080	1050	1000
Al-1250	1450	1350	1313	1250
Al-1600	1856	1728	1680	1600
Al-2000	2320	2160	2100	2000
Al-2500	2900	2700	2625	2500
Al-3200	3712	3456	3360	3200
Al-4000	4640	4320	4200	4000
Al-5000	5800	5400	5250	5000
Al-6300	6767	6300	6125	5833

Voltage drop

Voltage drop is the decrease of electrical potential along the path of a current flowing in an electrical circuit. Voltage drops in the internal resistance of the source, passive elements, across conductors, across contacts, and across connectors are undesirable because some of the energy supplied is dissipated. Due to low impedance, the voltage drop of the busway system is low compared to the conventional cable system. Therefore, the busway system is a more efficient power transmission media as compared to conventional cable system.
Voltage Drop Calculation :

$$VD=K\times L\times\sqrt{3}\times I\times(R\cos\emptyset+X\sin\emptyset)$$

Where:
VD= Voltage drop of the system (V)
L = Length of the Busway being considered (m)
X = Average reactance (ohms)
K = Load distribution factor (K=1 in feeder Busway , K= $\frac{n+1}{2n}$ distributed n loads)
I = Current of the system being considered (A)
R = Average resistance (ohms)

Short-circuit Current

Definitions

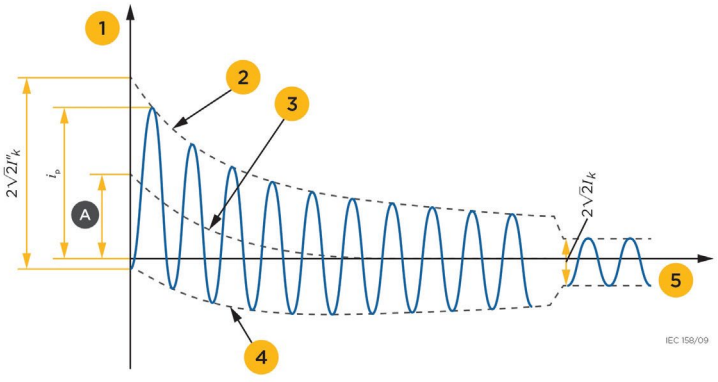
A C Short-circuit current:

It is the effective value RMS of the symmetrical short current, it is variable with time and is known by another term (power frequency component of the short current)

Ip Peak short-circuit current:

AC short-circuit represents Thermal withstand (expressed in rms kA for 1 to 3 seconds), characterizing maximum permissible heat rise. The maximum instantaneous value that short-circuit current can reach is the peak value Ip of the first half cycle. This peak value can be higher than 2 • Ik because of the demand DC component IDC that can be super-imposed on the AC component.

Peak short-circuit current represents Electrodynamic withstand (expressed in kA peak), characterizing mechanical resistance to electrodynamic stress.



KEY
1 Current
2 Top envelope
3 Decaying d.c. component, *i* d.c. of the short circuit current
4 Bottom envelope
5 Time
A Initial value of the d.c. component, *i* d.c. of the short circuit current

Design Guide

Electromagnetic Stresses

Busbars are subject to mechanical forces since each is carrying a current through the magnetic fields caused by currents in other bars. When alternating currents are flowing, the forces have a steady component, but also a vibrational component at twice the frequency of the alternating current. Under normal working conditions these forces are of little consequence.

However, if the bars are mounted on supports, each section will have a resonant frequency. If this frequency is close to twice the supply current (or any significant harmonic current), then resonant vibration of these beams may occur. This rather special and uncommon circumstance can lead to high vibrational displacements and possibly to metal fatigue or loosening of joints and connections. The problem may be avoided by choosing an appropriate spacing of the supports or cured by introducing additional intermediate supports.

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


intertek
ASTA TYPE CERTIFICATE
VERIFICATION OF TEST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VERIFICATION OF TEST


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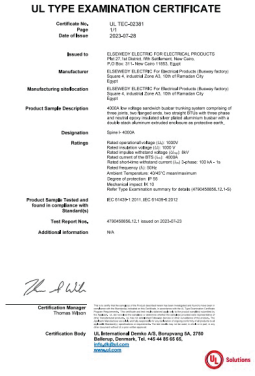
VERIFICATION OF TEST

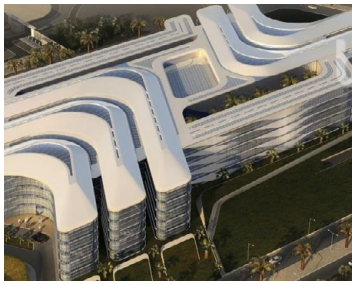

UL TYPE EXAMINATION CERTIFICATE

ELSEWEDY ELECTRIC

Project Reference List

Egypt, Adly Mansour Mall Station project falls under the commercial segment and was commissioned by the National Authority for Tunnels (NAT). The project's design was handled by Archplan, while Concord served as the direct contractor. It involved the installation of Copper busways with a 4-wire (4W) configuration, rated at 3200A and 2000A, covering a total of 1115 meters.

Kuwait, Financial & Administrative Affairs Sector Building project, categorized under the utility segment, was initiated by the Ministry of Public Works - Ministry of Interior. The project was executed by MBS Electrical Integration / Elsewedy Electric Kuwait. It utilized Copper busways with a 5-wire (5W) configuration, featuring current ratings of 1600A, 1250A, and 800A, and spanned a total length of 1475 meters.



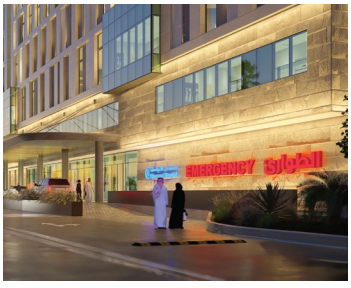
Egypt, FAB Misr Bank project, part of the banking sector, was developed by FAB Misr Bank itself. The design was managed by KEM Consultant, with Elsewedy Digital serving as the contractor. The project utilized Copper busways in a 4-wire (4W) configuration, with current ratings of 1000A, 1600A, 3200A, and 800A, covering a total length of 1118 meters.

Egypt, Beko Factory project, classified under the industrial segment, was initiated by Beko - Arcelik Turkey. Shaker Consultancy Group handled the consulting work, while Hassan Allam Construction served as the main contractor. The project employed Aluminum busways with a 5-wire (5W) configuration, featuring current ratings of 2000A, 5000A, and 1600A, and extended over 1795 meters.

Egypt, Alamein Downtown Towers D project—comprising two towers and classified under commercial high-rise buildings—was undertaken by the Authority of New Alamein City. The consultancy was provided by Dar Al Handasah, and the project was executed by CSCEC. It involved the use of Aluminum busways with both 4-wire and 5-wire (4W/5W) configurations. The system supported multiple current ratings, including 3200A, 4000A, 1250A, 1600A, 2000A, 2500A, 1000A, and 800A, across a total length of 9712 meters.

Bahrain, Golden Gate Towers project, a commercial high-rise development consisting of two towers, was executed for EMCO, with Arab Architects as the consultant and Rukn Al Yakeen (RAY) as the contractor. It featured Copper busways in a 5-wire (5W) configuration, rated at 1250A and 1600A, and extended over 872 meters.

Saudi Arabia (KSA), Al Mouwasah Hospital - Jeddah project, part of the hospitality segment, was developed by Al Mouwasah Hospital. Afnia served as the consultant, with Mfahem El Emaar as the contractor. The installation used Copper busways in a 4-wire (4W) setup with current ratings of 1350A, 2000A, 2500A, 3200A, and 4000A, totaling 2478 meters.



Also in KSA, Jawharet Mall Al Ryadh commercial project was developed by Cenomi. Consultants included Shaker Consultancy Group, Echo, and Khatib & Alami, while Lynx was the contractor. The project used Aluminum busways (5W), covering a wide range of current ratings from 800A to 6300A, over an extensive 14673 meters.

Kenya, Safer Power Project, categorized under industrial, was handled by Safer Power. It used Aluminum busways with a 4-wire (4W) configuration and current ratings of 1250A, 1600A, 2000A, 3200A, and 4000A, over 118 meters.

Nigeria, Nigeria Data Center project fell under the datacenter segment and was executed by Toptech Engineering LTD. It used Copper busways (4W) rated at 800A, with a total length of 250.69 meters.

Pakistan Serena Hotel project used Aluminum busways in a 4-wire (4W) configuration, rated at 2000A and 1000A, across a modest 17 meters.

Iraq, Rixos Hotel project, owned by Rixos Hotel, was carried out by Raneen Energy Trading & Construction. It featured Copper busways in a 5-wire (5W) setup with ratings of 4000A, 2500A, 1600A, 1250A, and 1000A, extending over 3710 meters.

Another industrial project in KSA, Lucid Motors facility, was undertaken by ALBAWANI. The installation utilized Copper busways with a 6-wire (6W) setup and current ratings of 5000A, 1600A, 1250A, and 800A, totaling 5655 meters.

UAE, Wave Development of Seawater Treatment Plant and Water Transportation System project was led by ADNOC, with ILF Consulting Engineers as the consultant and Orascom JV Metito as the contractor. The project implemented Copper busways (4W), rated at 2500A, 5000A, and 6300A, covering 313 meters.

Figures

	Countries	Number of Projects	Number of Meters Supplied
	KSA	25	
	UAE	2	
	EGYPT	97	
	BAHRAIN	1	
	KENYA	1	
	KUWAIT	1	
	NIGERIA	1	
	PAKISTAN	1	
	IRAQ	1	
Total	9	130	90210.23

130
Total Projects

90210.23
Total Supply

9
Total Countries

ELSEWEDY ELECTRIC | BUSWAY

ELSEWEDY ELECTRIC for Electrical Products S.A.E
Head Office: Plot No. 27, 1st district, 5th Settlement,
P.O. Box 311, New Cairo 11853, - Egypt
Factory: 3rd Industrial Zone A4, 10th of Ramadan City
Info.Busway@elsewedy.com

Busway Catalogue

Corporate Brochure

Corporate Website

Corporate Presentation