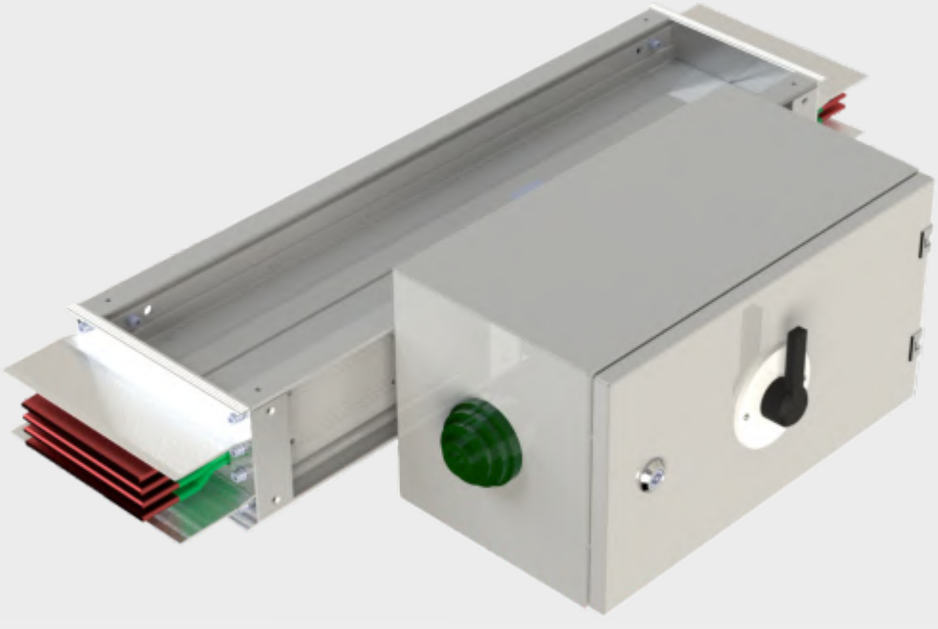
PitON



PitON E3-SERIES BUSDUCT SYSTEM

400 - 7500A

8 800 500 62 88

www.pitonelectric.ru

info@pitonelectric.ru

CONTENTS

55 General guidelines

PitON is a company of enthusiasts who are committed to modern and future-oriented electrical solutions. The leaders of PitON are professionals with more than 20 years of experience in designing and developing electrical engineering products.

As the leaders on the Russian electrotechnical market, the PitON is now moving to the next stage of technological and innovative development.

PitON equipment line:

- Busducts
- Busbars
- Uninterruptible Power Supplies
- Uninterruptible Power Supply Cabinets
- Cable Carrier Systems
- Industrial Lighting

Our goals:

- To create desirable, innovative, efficient electrical solutions and improve the reliability and quality of power supply
- To make our products known and appreciated in other countries.

Every year the company invests significant amount of funds in research and development.
This is why PitON's solutions are innovative and unique.

Currently, our solutions are used in more than 100 facilities in Russia and CIS countries. Some of our clients: Yekaterinburg ARENA stadium, JSC Kalashnikov Concern, JSC Almaz-Antey Concern, JSC Research and Production Corporation UralVagonZavod and many others.

We welcome all interested enterprises to work with us!

10000 METERS

PitON is manufacturing up to 10000 meters of busways every month

E3-SERIES - DISTRIBUTION AND TRUNKING BUSBAR SYSTEMS FOR 400-7500A CURRENTS (UP TO 1 KV)

The E3-series range has a very compact design and uses an innovative housing construction made of a special aluminum alloy. This design has a large heat transfer surface and high efficiency of heat dissipation. The busbar trunking enclosure also acts as a protection for the conductors from possible mechanical influences and is by default a grounding busbar.

PitON busducts have the same functional and object purpose as power cable systems in power transmission, but have the number of advantages:

TECHNICAL DESCRIPTION

- Wide range of currents: from 400 to 7500A
- Low voltage drop
- High short-circuit currents resistance
- Composite insulation
- Available fireproof version (optional)
- Exceptional toughness
- Effective cooling
- Fire resistant and halogen-free
- Wide variety of trunking and PTO units
- 2 weeks delivery
- Various color options

ECONOMICAL ADVANTAGES

- Low design costs
  Low installation costs
- Maintenance-free
- Low power consumption
- Lower cost of compatible busduct trunking distribution
- systems
  Flexibility and scalability of the system
- Professional technical support and engineering
- Substantial cost savings in comparison to cable sys-
- tems
- 2 weeks minimum delivery time
- 5 years warranty

PitON BUSDUCT SYSTEMS APPLICATIONS


OIL AND GAS INDUSTRY


DATA CENTERS


DEFENSE INDUSTRY

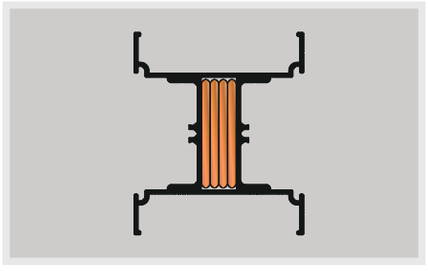

RESIDENTIAL COMPLEXES


INFRASTRUCTURAL FACILITIES


METALLURGY


CHEMICAL INDUSTRY

PitON BUSDUCTS



BUSDUCT HOUSING

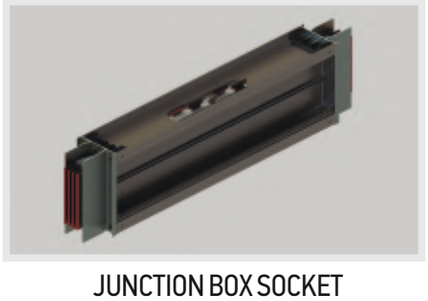
Consists of four parts made of aluminum alloy.

BUSBARS

Made from AD0 electrical aluminum or M1 copper with a radius curve.

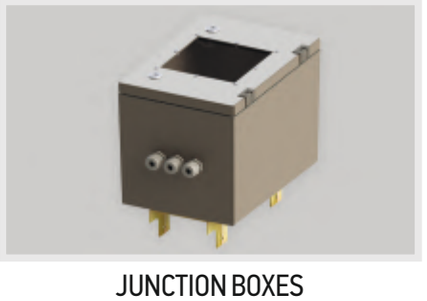
INSULATION

Seamless composite insulation of the latest generation, applied by automated means, insulation class F.



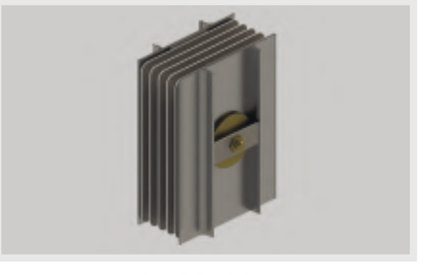
JUNCTION BOX SOCKET

- Contacts are separated for better cooling
- All contacts are treated with a special tin plating to reduce the transient resistance
- The socket is equipped with a protective frame and cover



JUNCTION BOXES

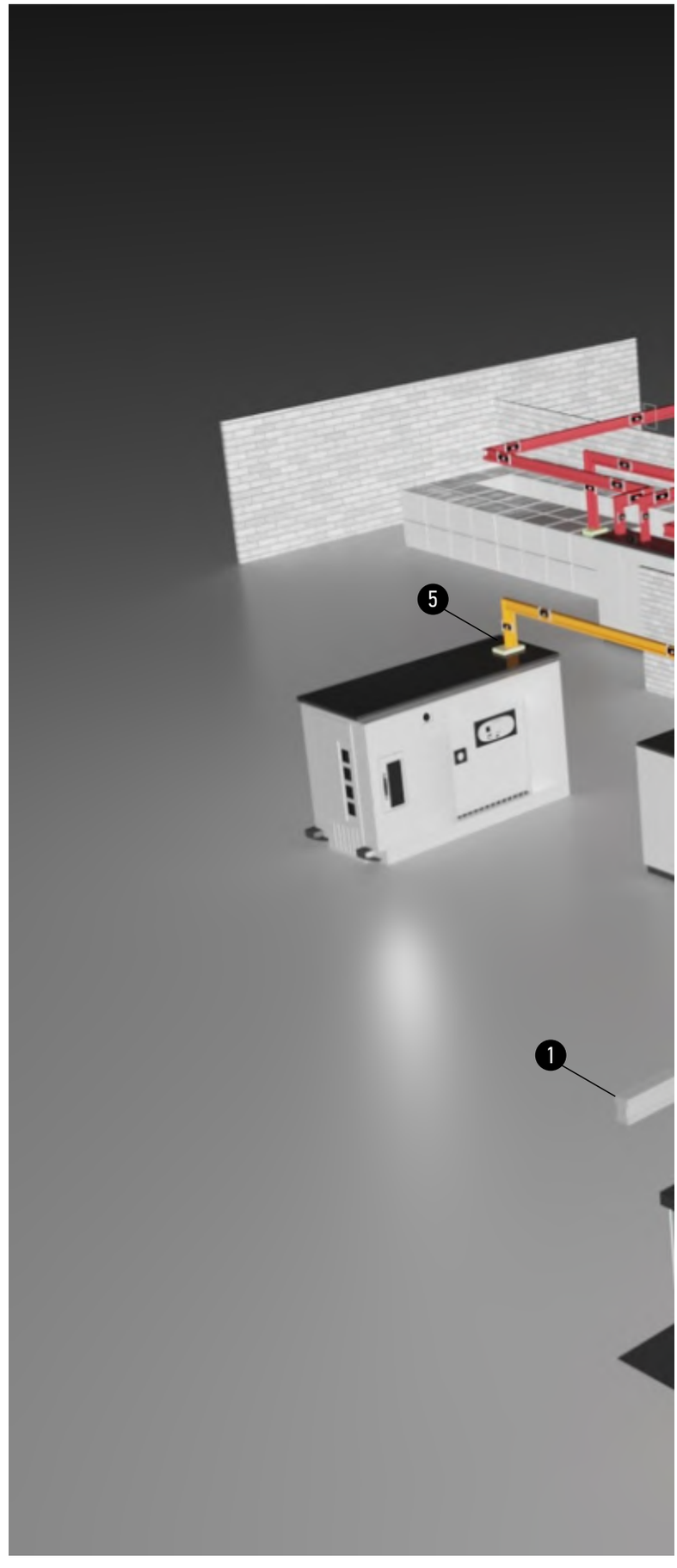
- For 160-400A currents (Plug-in design)
- For currents up to 1600A (Fixed design)
- Multibox designs

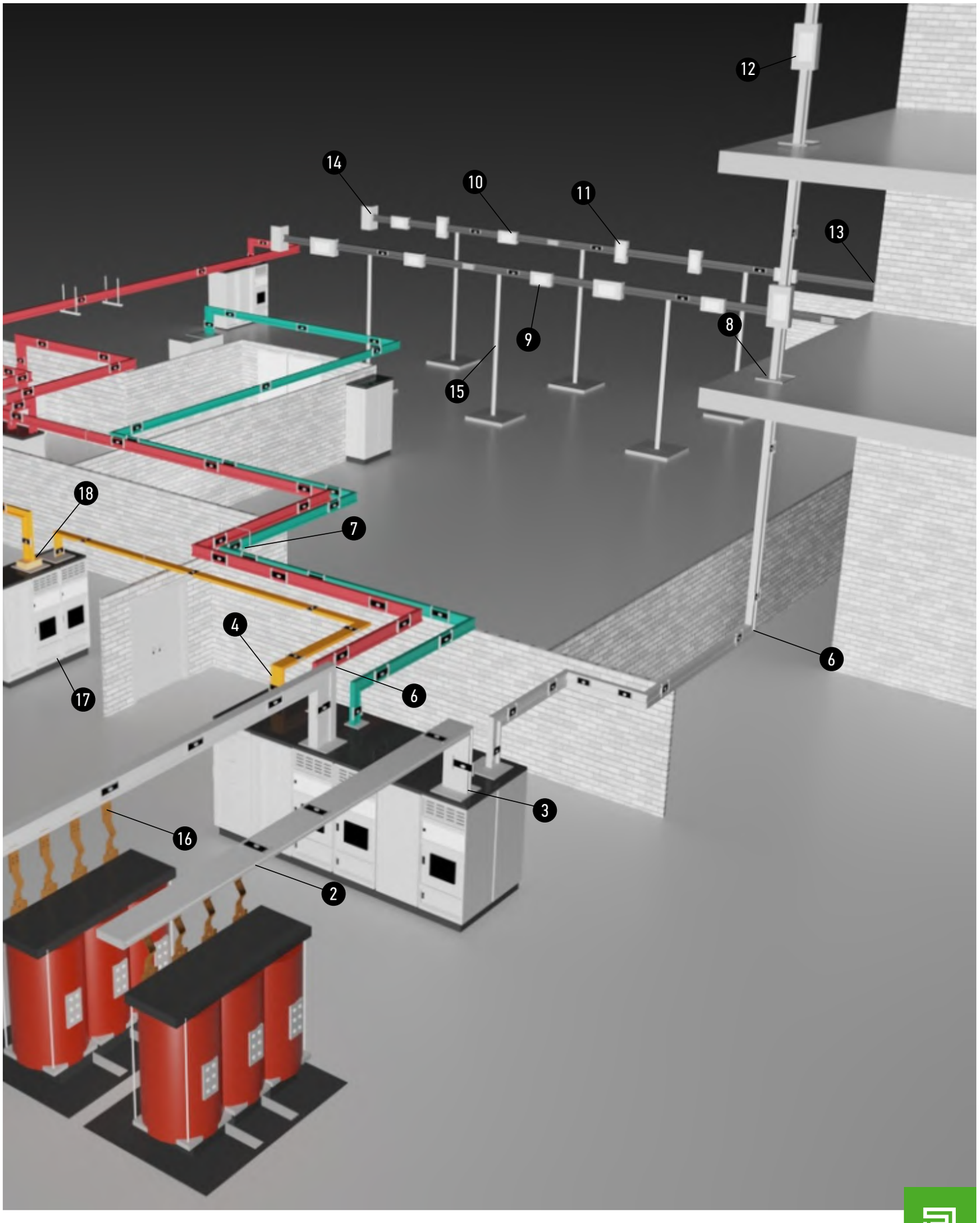


JOINT BLOCK

- Monoblock design provides compensation for longitudinal and transverse expansion of the busbars
- Visual temperature control of the coupling unit
- Increased contact area by 50% compared to a male-female connection
- Shear-head bolt
- Thanks to the second bolt head, the bolt is reusable with the use of a torque wrench

№	Catalogue numbers
1	Vertical transformer module, T-connection
2	Horizontal transformer module, T-connection
3	Flanged connection unit
4	Flanged connection unit with box
5	Horizontal angle
6	Vertical angle
7	Wall flange
8	Fire barrier
9	Junction box Type 2 — Multibox
10	Junction box Type 2
11	Junction box Type 3
12	Junction box Type 1 — Multibox
13	End cap
14	Flange unit with box for cable connection
15	Supporting bracket
16	Flexible busbar set
17	Sectional cabinet with ACB
18	Flanged connection unit with corrugated cover




12
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2

Straight unit

Function:

- The construction of straight sections of the busway route

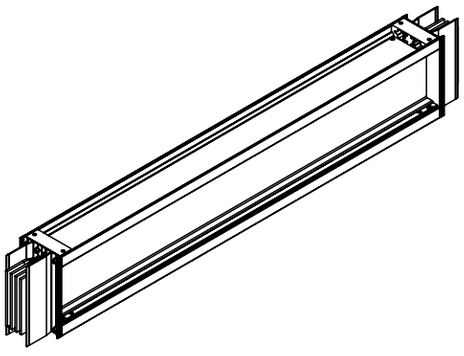
Features:

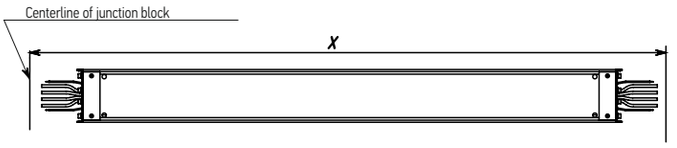
- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors are available on request
- Aluminum housing as a PE-conductor
- Given lengths indicate the length between the axes of the joint blocks
- Individual design of the distribution unit is possible with 0.5-3m element lengths.

Al Rating	400	630	800	1000	1250	1600
Length: 0.5m	E3-55-Al-4-400-pt0.5	E3-55-Al-4-630-pt0.5	E3-55-Al-4-800-pt0.5	E3-55-Al-4-1000-pt0.5	E3-55-Al-4-1250-pt0.5	E3-55-Al-4-1600-pt0.5
Length: 0.5-1m	E3-55-Al-4-400-pt0.9	E3-55-Al-4-630-pt0.9	E3-55-Al-4-800-pt0.9	E3-55-Al-4-1000-pt0.9	E3-55-Al-4-1250-pt0.9	E3-55-Al-4-1600-pt0.9
Length: 1m	E3-55-Al-4-400-pt1.0	E3-55-Al-4-630-pt1.0	E3-55-Al-4-800-pt1.0	E3-55-Al-4-1000-pt1.0	E3-55-Al-4-1250-pt1.0	E3-55-Al-4-1600-pt1.0
Length: 1-1.5m	E3-55-Al-4-400-pt1.4	E3-55-Al-4-630-pt1.4	E3-55-Al-4-800-pt1.4	E3-55-Al-4-1000-pt1.4	E3-55-Al-4-1250-pt1.4	E3-55-Al-4-1600-pt1.4
Length: 1.5m	E3-55-Al-4-400-pt1.5	E3-55-Al-4-630-pt1.5	E3-55-Al-4-800-pt1.5	E3-55-Al-4-1000-pt1.5	E3-55-Al-4-1250-pt1.5	E3-55-Al-4-1600-pt1.5
Length: 1.5-2m	E3-55-Al-4-400-pt1.9	E3-55-Al-4-630-pt1.9	E3-55-Al-4-800-pt1.9	E3-55-Al-4-1000-pt1.9	E3-55-Al-4-1250-pt1.9	E3-55-Al-4-1600-pt1.9
Length: 2m	E3-55-Al-4-400-pt2.0	E3-55-Al-4-630-pt2.0	E3-55-Al-4-800-pt2.0	E3-55-Al-4-1000-pt2.0	E3-55-Al-4-1250-pt2.0	E3-55-Al-4-1600-pt2.0
Length: 2-2.5m	E3-55-Al-4-400-pt2.4	E3-55-Al-4-630-pt2.4	E3-55-Al-4-800-pt2.4	E3-55-Al-4-1000-pt2.4	E3-55-Al-4-1250-pt2.4	E3-55-Al-4-1600-pt2.4
Length: 2.5m	E3-55-Al-4-400-pt2.5	E3-55-Al-4-630-pt2.5	E3-55-Al-4-800-pt2.5	E3-55-Al-4-1000-pt2.5	E3-55-Al-4-1250-pt2.5	E3-55-Al-4-1600-pt2.5
Length: 2.5-3m	E3-55-Al-4-400-pt2.9	E3-55-Al-4-630-pt2.9	E3-55-Al-4-800-pt2.9	E3-55-Al-4-1000-pt2.9	E3-55-Al-4-1250-pt2.9	E3-55-Al-4-1600-pt2.9
Length: 3m	E3-55-Al-4-400-pt3.0	E3-55-Al-4-630-pt3.0	E3-55-Al-4-800-pt3.0	E3-55-Al-4-1000-pt3.0	E3-55-Al-4-1250-pt3.0	E3-55-Al-4-1600-pt3.0
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU rating	630	800	1000	1250	1600	2000
Length: 0.5-3 m	E3-55-Cu-4-400-pt0.5	E3-55-Cu-4-630-pt0.5	E3-55-Cu-4-800-pt0.5	E3-55-Cu-4-1000-pt0.5	E3-55-Cu-4-1600-pt0.5	E3-55-Cu-4-2000-pt0.5
Length: 3m	E3-55-Cu-4-400-pt3.0	E3-55-Cu-4-630-pt3.0	E3-55-Cu-4-800-pt3.0	E3-55-Cu-4-1000-pt3.0	E3-55-Cu-4-1250-pt3.0	E3-55-Cu-4-1600-pt3.0
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure





Al Rating	2000	2500	3200	4000	5000	6400
Length: 0.5m	E3-55-Al-4-2000-pt0.5	E3-55-Al-4-2500-pt0.5	E3-55-Al-4-3200-pt0.5	E3-55-Al-4-4000-pt0.5	E3-55-Al-4-5000-pt0.5	E3-55-Al-4-6400-pt0.5
Length: 0.5-1m	E3-55-Al-4-2000-pt0.9	E3-55-Al-4-2500-pt0.9	E3-55-Al-4-3200-pt0.9	E3-55-Al-4-4000-pt0.9	E3-55-Al-4-5000-pt0.9	E3-55-Al-4-6400-pt0.9
Length: 1m	E3-55-Al-4-2000-pt1.0	E3-55-Al-4-2500-pt1.0	E3-55-Al-4-3200-pt1.0	E3-55-Al-4-4000-pt1.0	E3-55-Al-4-5000-pt1.0	E3-55-Al-4-6400-pt1.0
Length: 1-1.5m	E3-55-Al-4-2000-pt1.4	E3-55-Al-4-2500-pt1.4	E3-55-Al-4-3200-pt1.4	E3-55-Al-4-4000-pt1.4	E3-55-Al-4-5000-pt1.4	E3-55-Al-4-6400-pt1.4
Length: 1.5m	E3-55-Al-4-2000-pt1.5	E3-55-Al-4-2500-pt1.5	E3-55-Al-4-3200-pt1.5	E3-55-Al-4-4000-pt1.5	E3-55-Al-4-5000-pt1.5	E3-55-Al-4-6400-pt1.5
Length: 1.5-2m	E3-55-Al-4-2000-pt1.9	E3-55-Al-4-2500-pt1.9	E3-55-Al-4-3200-pt1.9	E3-55-Al-4-4000-pt1.9	E3-55-Al-4-5000-pt1.9	E3-55-Al-4-6400-pt1.9
Length: 2m	E3-55-Al-4-2000-pt2.0	E3-55-Al-4-2500-pt2.0	E3-55-Al-4-3200-pt2.0	E3-55-Al-4-4000-pt2.0	E3-55-Al-4-5000-pt2.0	E3-55-Al-4-6400-pt2.0
Length: 2-2.5m	E3-55-Al-4-2000-pt2.4	E3-55-Al-4-2500-pt2.4	E3-55-Al-4-3200-pt2.4	E3-55-Al-4-4000-pt2.4	E3-55-Al-4-5000-pt2.4	E3-55-Al-4-6400-pt2.4
Length: 2.5m	E3-55-Al-4-2000-pt2.5	E3-55-Al-4-2500-pt2.5	E3-55-Al-4-3200-pt2.5	E3-55-Al-4-4000-pt2.5	E3-55-Al-4-5000-pt2.5	E3-55-Al-4-6300-pt2.5
Length: 2.5-3m	E3-55-Al-4-2000-pt2.9	E3-55-Al-4-2500-pt2.9	E3-55-Al-4-3200-pt2.9	E3-55-Al-4-4000-pt2.9	E3-55-Al-4-5000-pt2.9	E3-55-Al-4-6400-pt2.9
Length: 3m	E3-55-Al-4-2000-pt3.0	E3-55-Al-4-2500-pt3.0	E3-55-Al-4-3200-pt3.0	E3-55-Al-4-4000-pt3.0	E3-55-Al-4-5000-pt3.0	E3-55-Al-4-6400-pt3.0
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU rating	2500	3200	4000	5000	6400	7500
Length: 0.5-3 m	E3-55-Cu-4-2500-pt0.5	E3-55-Cu-4-3200-pt0.5	E3-55-Cu-4-4000-pt0.5	E3-55-Cu-4-5000-pt0.5	E3-55-Cu-4-6400-pt0.5	E3-55-Cu-4-7500-pt0.5
Length: 3m	E3-55-Cu-4-2500-pt3.0	E3-55-Cu-4-3200-pt3.0	E3-55-Cu-4-4000-pt3.0	E3-55-Cu-4-5000-pt3.0	E3-55-Cu-4-6400-pt3.0	E3-55-Cu-4-7500-pt3.0
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125

Straight distribution unit for tap-off box with plug-in connector

Function:

- Distribution in straight sections of the busway route
- Allows to disconnect and connect the power tap-off box in hot mode (without disconnecting the busbar track)

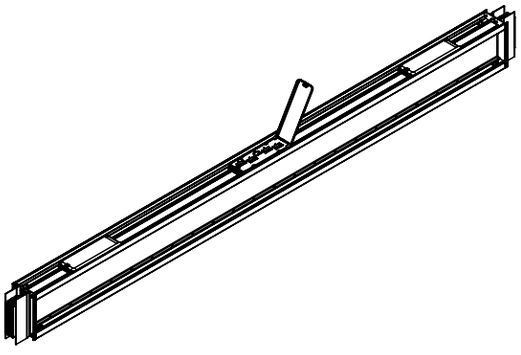
Features:

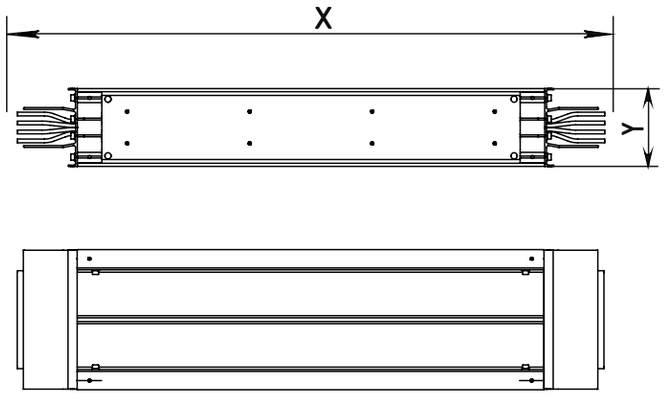
- IP55 protection with the option of upgrading to IP65
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the joint blocks
- Maximum number of sockets on one side — 3 pcs. Total on both sides - 6 pcs. With the 6 sockets option there can be simultaneously installed three power tap-off boxes rated no more than 160A each
- Individual design of the distribution unit is possible with 0.5-3m element length. Please contact PitON Electric for advice.

Al Rating	400	630	800	1000	1250	1600
Length: 3m/1S	E3-55-Al-4-400-pr1-3.0	E3-55-Al-4-630-pr1-3.0	E3-55-Al-4-800-pr1-3.0	E3-55-Al-4-1000-pr1-3.0	E3-55-Al-4-1250-pr1-3.0	E3-55-Al-4-1600-pr1-3.0
Length: 3m/2S	E3-55-Al-4-400-pr2-3.0	E3-55-Al-4-630-pr2-3.0	E3-55-Al-4-800-pr2-3.0	E3-55-Al-4-1000-pr2-3.0	E3-55-Al-4-1250-pr2-3.0	E3-55-Al-4-1600-pr2-3.0
Length: 3m/3S	E3-55-Al-4-400-pr3-3.0	E3-55-Al-4-630-pr3-3.0	E3-55-Al-4-800-pr3-3.0	E3-55-Al-4-1000-pr3-3.0	E3-55-Al-4-1250-pr3-3.0	E3-55-Al-4-1600-pr3-3.0
Length: 3m/4S	E3-55-Al-4-400-pr4-3.0	E3-55-Al-4-630-pr4-3.0	E3-55-Al-4-800-pr4-3.0	E3-55-Al-4-1000-pr4-3.0	E3-55-Al-4-1250-pr4-3.0	E3-55-Al-4-1600-pr4-3.0
Length: 3m/5S	E3-55-Al-4-400-pr5-3.0	E3-55-Al-4-630-pr5-3.0	E3-55-Al-4-800-pr5-3.0	E3-55-Al-4-1000-pr5-3.0	E3-55-Al-4-1250-pr5-3.0	E3-55-Al-4-1600-pr5-3.0
Length: 3m/6S	E3-55-Al-4-400-pr6-3.0	E3-55-Al-4-630-pr6-3.0	E3-55-Al-4-800-pr6-3.0	E3-55-Al-4-1000-pr6-3.0	E3-55-Al-4-1250-pr6-3.0	E3-55-Al-4-1600-pr6-3.0
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Length: 3m/3S	E3-55-Cu-4-630-pr3-3.0	E3-55-Cu-4-630-pr6-3.0	E3-55-Cu-4-800-pr3-3.0	E3-55-Cu-4-1000-pr3-3.0	E3-55-Cu-4-1250-pr3-3.0	E3-55-Cu-4-1600-pr3-3.0
Length: 3m/6S	E3-55-Cu-4-630-pr6-3.0	E3-55-Cu-4-630-pr1-3.0	E3-55-Cu-4-800-pr6-3.0	E3-55-Cu-4-1000-pr6-3.0	E3-55-Cu-4-1250-pr6-3.0	E3-55-Cu-4-1600-pr6-3.0
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

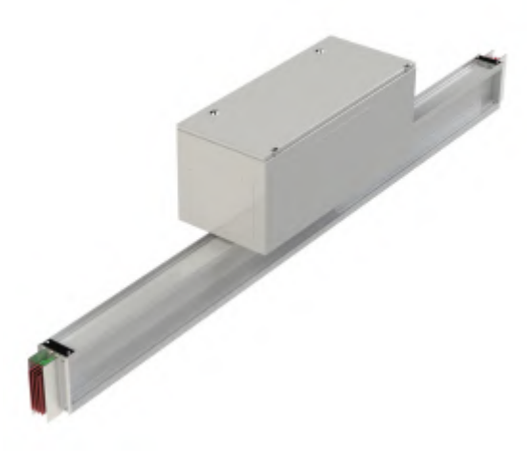
*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69





Al Rating	2000	2500	3200	4000	5000	6400
Length: 3m/1S	E3-55-Al-4-2000-pr1-3.0	E3-55-Al-4-2500-pr1-3.0	E3-55-Al-4-3200-pr1-3.0	E3-55-Al-4-4000-pr1-3.0	E3-55-Al-4-5000-pr1-3.0	E3-55-Al-4-6400-pr1-3.0
Length: 3m/2S	E3-55-Al-4-2000-pr2-3.0	E3-55-Al-4-2500-pr2-3.0	E3-55-Al-4-3200-pr2-3.0	E3-55-Al-4-4000-pr2-3.0	E3-55-Al-4-5000-pr2-3.0	E3-55-Al-4-6400-pr2-3.0
Length: 3m/3S	E3-55-Al-4-2000-pr3-3.0	E3-55-Al-4-2500-pr3-3.0	E3-55-Al-4-3200-pr3-3.0	E3-55-Al-4-4000-pr3-3.0	E3-55-Al-4-5000-pr3-3.0	E3-55-Al-4-6400-pr3-3.0
Length: 3m/4S	E3-55-Al-4-2000-pr4-3.0	E3-55-Al-4-2500-pr4-3.0	E3-55-Al-4-3200-pr4-3.0	E3-55-Al-4-4000-pr4-3.0	E3-55-Al-4-5000-pr4-3.0	E3-55-Al-4-6400-pr4-3.0
Length: 3m/5S	E3-55-Al-4-2000-pr5-3.0	E3-55-Al-4-2500-pr5-3.0	E3-55-Al-4-3200-pr5-3.0	E3-55-Al-4-4000-pr5-3.0	E3-55-Al-4-5000-pr5-3.0	E3-55-Al-4-6400-pr5-3.0
Length: 3m/6S	E3-55-Al-4-2000-pr6-3.0	E3-55-Al-4-2500-pr6-3.0	E3-55-Al-4-3200-pr6-3.0	E3-55-Al-4-4000-pr6-3.0	E3-55-Al-4-5000-pr6-3.0	E3-55-Al-4-6400-pr6-3.0
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Length: 3m/3S	E3-55-Cu-4-2500-pr3-3.0	E3-55-Cu-4-3200-pr6-3.0	E3-55-Cu-4-4000-pr3-3.0	E3-55-Cu-4-5000-pr3-3.0	E3-55-Cu-4-6400-pr3-3.0	E3-55-Cu-4-7500-pr3-3.0
Length: 3m/6S	E3-55-Cu-4-2500-pr6-3.0	E3-55-Cu-4-3200-pr1-3.0	E3-55-Cu-4-4000-pr6-3.0	E3-55-Cu-4-5000-pr6-3.0	E3-55-Cu-4-6400-pr6-3.0	E3-55-Cu-4-7500-pr6-3.0
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125



Straight distribution unit for the fixed tap-off box

Function:

- Distribution in straight sections of the busduct route, connection of fixed boxes.

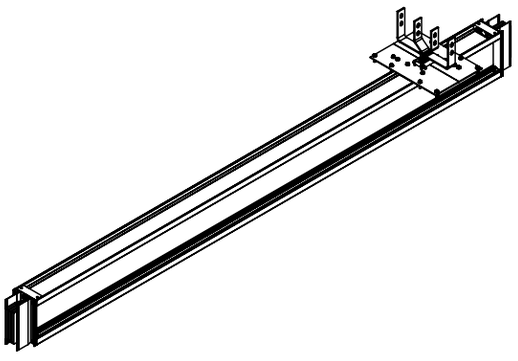
Features:

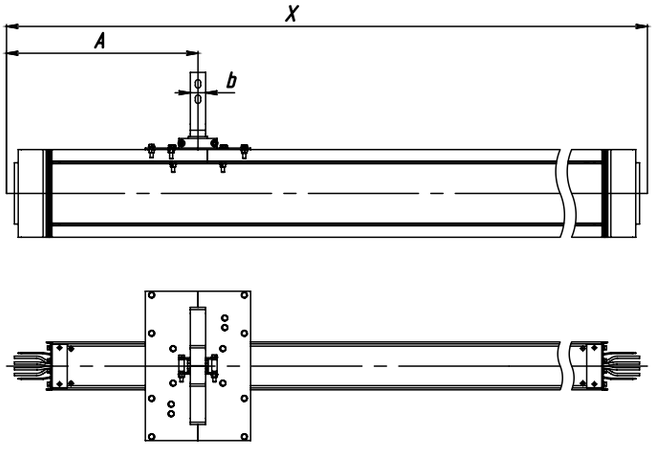
- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the joint blocks
- The distance between the boxes should be at least 1m. If the outlet is not positioned correctly, the box will be positioned in the middle. If the tap needs to be placed differently, please contact PitON Electric
- If your project needs a box for higher power (up to 1600A), please contact PitON Electric

Al Rating	400	630	800	1000	1250	1600
Length: 3m/1	E3-55-Al-4-400-prf1-3.0	E3-55-Al-4-630-prf1-3.0	E3-55-Al-4-800-prf1-3.0	E3-55-Al-4-1000-prf1-3.0	E3-55-Al-4-1250-prf1-3.0	E3-55-Al-4-1600-prf1-3.0
Length: 3m/2	E3-55-Al-4-400-prf2-3.0	E3-55-Al-4-630-prf2-3.0	E3-55-Al-4-800-prf2-3.0	E3-55-Al-4-1000-prf2-3.0	E3-55-Al-4-1250-prf2-3.0	E3-55-Al-4-1600-prf2-3.0
Length: 3m/4	E3-55-Al-4-400-prf4-3.0	E3-55-Al-4-630-prf4-3.0	E3-55-Al-4-800-prf4-3.0	E3-55-Al-4-1000-prf4-3.0	E3-55-Al-4-1250-prf4-3.0	E3-55-Al-4-1600-prf4-3.0
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Length: 3m/1	E3-55-Cu-4-630-prf1-3.0	E3-55-Cu-4-800-prf1-3.0	E3-55-Cu-4-1000-prf1-3.0	E3-55-Cu-4-1250-prf1-3.0	E3-55-Cu-4-1600-prf1-3.0	E3-55-Cu-4-2000-prf1-3.0
Length: 3m/2	E3-55-Cu-4-630-prf2-3.0	E3-55-Cu-4-800-prf2-3.0	E3-55-Cu-4-1000-prf2-3.0	E3-55-Cu-4-1250-prf2-3.0	E3-55-Cu-4-1600-prf2-3.0	E3-55-Cu-4-2000-prf2-3.0
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69





AI Rating	2000	2500	3200	4000	5000	6400
Length: 3m/1	E3-55-Al-4-2000-prf1-3.0	E3-55-Al-4-2500-prf1-3.0	E3-55-Al-4-3200-prf1-3.0	E3-55-Al-4-4000-prf1-3.0	E3-55-Al-4-5000-prf1-3.0	E3-55-Al-4-6400-prf1-3.0
Length: 3m/2	E3-55-Al-4-2000-prf2-3.0	E3-55-Al-4-2500-prf2-3.0	E3-55-Al-4-3200-prf2-3.0	E3-55-Al-4-4000-prf2-3.0	E3-55-Al-4-5000-prf2-3.0	E3-55-Al-4-6400-prf2-3.0
Length: 3m/4	E3-55-Al-4-2000-prf4-3.0	E3-55-Al-4-2500-prf4-3.0	E3-55-Al-4-3200-prf4-3.0	E3-55-Al-4-4000-prf4-3.0	E3-55-Al-4-5000-prf4-3.0	E3-55-Al-4-6400-prf4-3.0
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Length: 3m/1	E3-55-Al-4-2500-prf1-3.0	E3-55-Al-4-3200-prf1-3.0	E3-55-Al-4-4000-prf1-3.0	E3-55-Al-4-5000-prf1-3.0	E3-55-Al-4-6400-prf1-3.0	E3-55-Al-4-7500-prf1-3.0
Length: 3m/2	E3-55-Al-4-2500-prf2-3.0	E3-55-Al-4-3200-prf2-3.0	E3-55-Al-4-4000-prf2-3.0	E3-55-Al-4-5000-prf2-3.0	E3-55-Al-4-6400-prf2-3.0	E3-55-Al-4-7500-prf2-3.0
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125

Vertical elbow unit

Function:

- Changing the direction of the busduct track

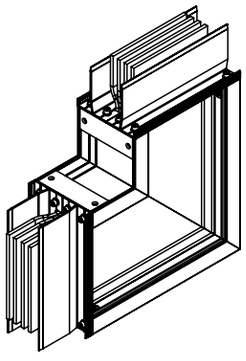
Features:

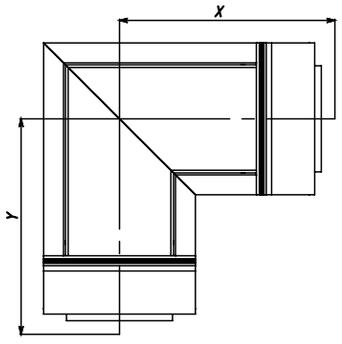
- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the enclosure and the joint block
- The unit can be made with different arm lengths — from 300 to 800mm
- The unit's angle can range from 60° to 160° degrees. Please contact PitON Electric for consultation

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-uv	E3-55-Al-4-630-uv	E3-55-Al-4-800-uv	E3-55-Al-4-1000-uv	E3-55-Al-4-1250-uv	E3-55-Al-4-1600-uv
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-4-630-uv	E3-55-Cu-4-800-uv	E3-55-Cu-4-1000-uv	E3-55-Cu-4-1250-uv	E3-55-Cu-4-1600-uv	E3-55-Cu-4-2000-uv
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69





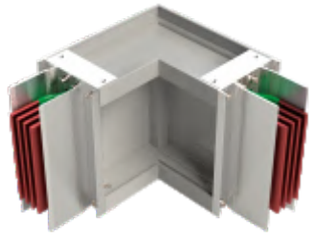
Al rating	Minimum size		Maximum size	
	X	Y	X	Y
400-1250	300	300	800	800
1600-2500	350	350	800	800
3200	400	400	800	800
4000-5000	450	450	800	800
6400	650	650	800	800

CU rating	Minimum size		Maximum size	
	X	Y	X	Y
630-1600	300	300	800	800
2000-3200	350	350	800	800
4000-5000	400	400	800	800
6400	600	600	800	800
7500	650	650	800	800

Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-uv	E3-55-Al-4-2500-uv	E3-55-Al-4-3200-uv	E3-55-Al-4-4000-uv	E3-55-Al-4-5000-uv	E3-55-Al-4-6400-uv
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-4-2500-uv	E3-55-Cu-4-3200-uv	E3-55-Cu-4-4000-uv	E3-55-Cu-4-5000-uv	E3-55-Cu-4-6400-uv	E3-55-Cu-4-7500-uv
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125

Horizontal elbow unit



Function:

- Changing the direction of the straight sections of busduct track.

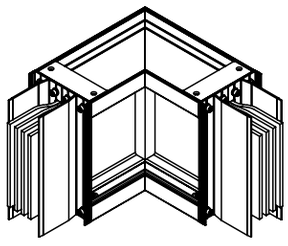
Features:

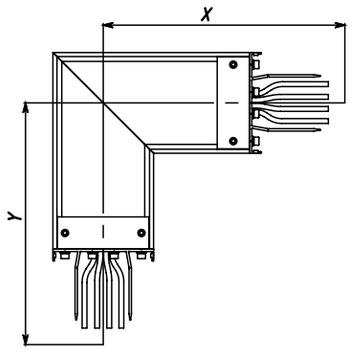
- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the enclosure and the joint block
- Standard dimensions: 90° angle and 500mm arm length
- The unit can be made with different arm lengths — from 300 to 800mm
- The unit's angle can range from 60° to 160° degrees. Please contact PitON Electric for consultation

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-ug	E3-55-Al-4-630-ug	E3-55-Al-4-800-ug	E3-55-Al-4-1000-ug	E3-55-Al-4-1250-ug	E3-55-Al-4-1600-ug
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-4-630-ug	E3-55-Cu-4-800-ug	E3-55-Cu-4-1000-ug	E3-55-Cu-4-1250-ug	E3-55-Cu-4-1600-ug	E3-55-Cu-4-2000-ug
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69





Al rating	Minimum size		Maximum size	
	X	Y	X	Y
400-1250	300	300	800	800
1600-2500	300	300	800	800
3200	300	300	800	800
4000	300	300	800	800
5000-6400	300	300	800	800

CU rating	Minimum size		Maximum size	
	X	Y	X	Y
630-1600	300	300	800	800
2000-3200	300	300	800	800
4000-5000	300	300	800	800
6400	300	300	800	800
7500	300	300	800	800

Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-ug	E3-55-Al-4-2500-ug	E3-55-Al-4-3200-ug	E3-55-Al-4-4000-ug	E3-55-Al-4-5000-ug	E3-55-Al-4-6400-ug
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-4-2500-ug	E3-55-Cu-4-3200-ug	E3-55-Cu-4-4000-ug	E3-55-Cu-4-5000-ug	E3-55-Cu-4-6400-ug	E3-55-Cu-4-7500-ug
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125

Z-shaped (double elbow) vertical unit

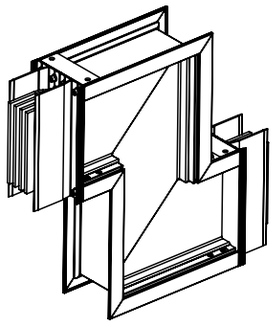
Function:
- Changing the direction of the of busduct route.

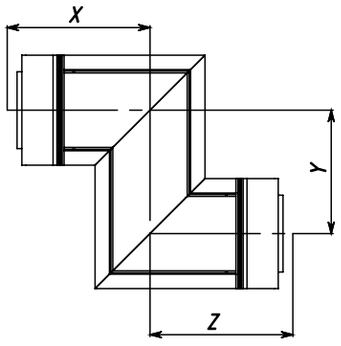
Features:
- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the enclosure and the joint block
- Matches the 3L+N+PE (Enclosure) configuration
- Standard dimensions: 90° angle and 500mm arm length
- The unit can be made with different lengths of x, z, and y-axes. The length of each arm can be from 300 to 1200mm. The non-standard angle can be made in the range from 60° to 160° degrees. Please contact PitON Electric for consultation.

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-zv	E3-55-Al-4-630-zv	E3-55-Al-4-800-zv	E3-55-Al-4-1000-zv	E3-55-Al-4-1250-zv	E3-55-Al-4-1600-zv
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-4-630-zv	E3-55-Cu-4-800-zv	E3-55-Cu-4-1000-zv	E3-55-Cu-4-1250-zv	E3-55-Cu-4-1600-zv	E3-55-Cu-4-2000-zv
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69





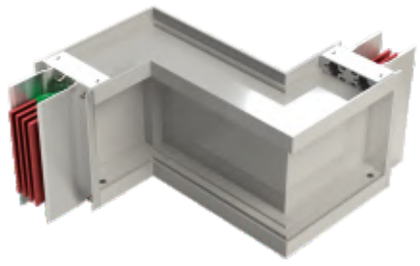
Al rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
400-1250	300	200	300	800	800	800
1600-2500	350	300	350	800	800	800
3200	450	350	450	1200	1200	1200
4000-5000	550	400	550	1200	1200	1200
6400	650	500	650	1200	1200	1200

CU rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
630-1600	300	200	300	800	800	800
2000-3200	350	300	350	800	800	800
4000-5000	450	350	450	1200	1200	1200
6400	600	450	600	1200	1200	1200
7500	650	500	650	1200	1200	1200

Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-zv	E3-55-Al-4-2500-zv	E3-55-Al-4-3200-zv	E3-55-Al-4-4000-zv	E3-55-Al-4-5000-zv	E3-55-Al-4-6400-zv
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-4-2500-zv	E3-55-Cu-4-3200-zv	E3-55-Cu-4-4000-zv	E3-55-Cu-4-5000-zv	E3-55-Cu-4-6400-zv	E3-55-Cu-4-7500-zv
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125

Z-shaped (double elbow) horizontal unit



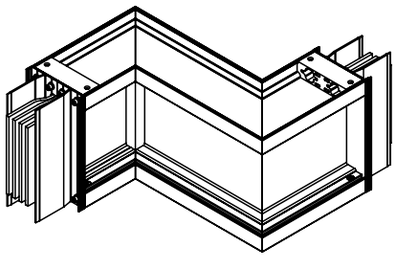
Function:
- Changing the direction of the of busduct route.

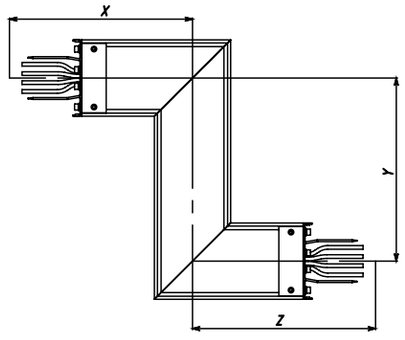
Features:
- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the enclosure and the joint block
- Matches the 3L+N+PE (enclosure) configuration
- Standard dimensions: 90° angle and 500mm arm length
- The unit can be made with different lengths of x, z, and y-axes. The length of each arm can be from 300 to 1200mm. The non-standard angle can be made in the range from 60° to 160° degrees. Please contact PitON Electric for consultation.

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-zg	E3-55-Al-4-630-zg	E3-55-Al-4-800-zg	E3-55-Al-4-1000-zg	E3-55-Al-4-1250-zg	E3-55-Al-4-1600-zg
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-4-630-zg	E3-55-Cu-4-800-zg	E3-55-Cu-4-1000-zg	E3-55-Cu-4-1250-zg	E3-55-Cu-4-1600-zg	E3-55-Cu-4-2000-zg
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69



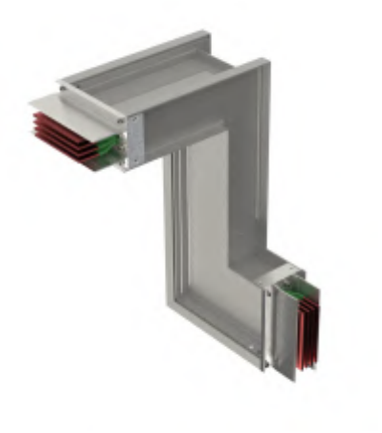


Al rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
400-1250	300	200	300	800	800	800
1600-2500	300	200	300	800	800	800
3200	300	200	300	800	800	800
4000-5000	300	200	300	800	800	800
6400	300	200	300	800	800	800

CU rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
630-1600	300	200	300	800	800	800
2000-3200	300	200	300	800	800	800
4000-5000	300	200	300	800	800	800
6400	300	200	300	800	800	800
7500	300	200	300	800	800	800

Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-zg	E3-55-Al-4-2500-zg	E3-55-Al-4-3200-zg	E3-55-Al-4-4000-zg	E3-55-Al-4-5000-zg	E3-55-Al-4-6400-zg
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-4-2500-zg	E3-55-Cu-4-3200-zg	E3-55-Cu-4-4000-zg	E3-55-Cu-4-5000-zg	E3-55-Cu-4-6400-zg	E3-55-Cu-4-7500-zg
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125



Combination unit

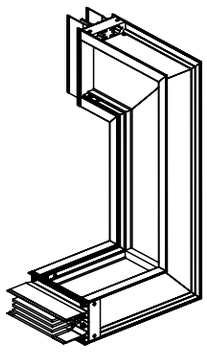
Function:
- Changing the direction of the of busduct route;
- Combines both vertical and horizontal angles.

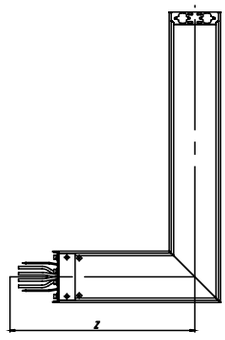
Features:
- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the enclosure and the joint block
- Standard dimensions: 90° angle and 500mm arm length
- The unit can be made with different lengths of x, z, and y-axes. The length of each arm can be from 300 to 1200mm.

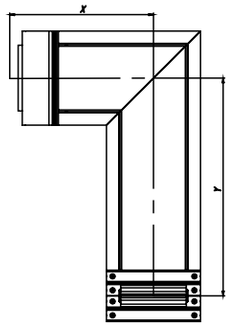
Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-kp	E3-55-Al-4-630-kp	E3-55-Al-4-800-kp	E3-55-Al-4-1000-kp	E3-55-Al-4-1250-kp	E3-55-Al-4-1600-kp
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-4-630-kp	E3-55-Cu-4-800-kp	E3-55-Cu-4-1000-kp	E3-55-Cu-4-1250-kp	E3-55-Cu-4-1600-kp	E3-55-Cu-4-2000-kp
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69





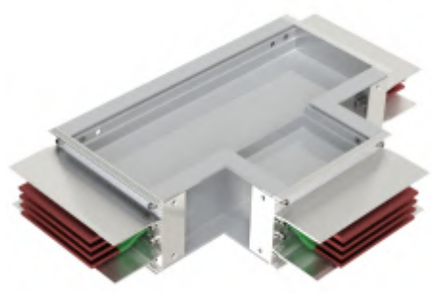


Al rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
400-1250	300	200	300	800	800	800
1600-2500	350	250	300	800	800	800
3200	400	300	300	1200	1200	1200
4000-5000	450	350	300	1200	1200	1200
6400	650	500	300	1200	1200	1200

CU rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
630-1600	300	200	300	800	800	800
2000-3200	350	250	300	800	800	800
4000-5000	400	300	300	1200	1200	1200
6400	600	450	300	1200	1200	1200
7500	650	500	300	1200	1200	1200

Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-kp	E3-55-Al-4-2500-kp	E3-55-Al-4-3200-kp	E3-55-Al-4-4000-kp	E3-55-Al-4-5000-kp	E3-55-Al-4-6400-kp
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-4-2500-kp	E3-55-Cu-4-3200-kp	E3-55-Cu-4-4000-kp	E3-55-Cu-4-5000-kp	E3-55-Cu-4-6400-kp	E3-55-Cu-4-7500-kp
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125



Vertical T-shaped unit

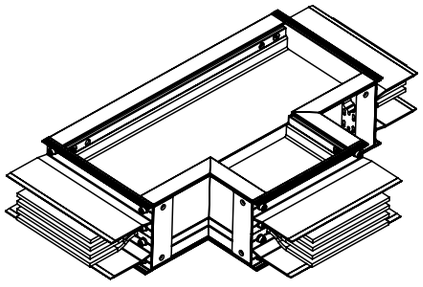
Function:
- Changing the direction of the of busduct route.

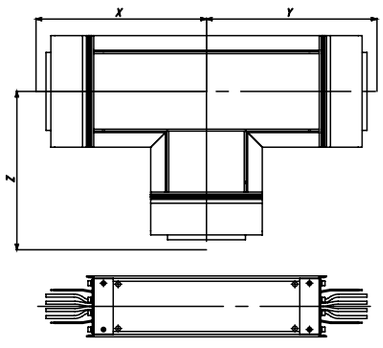
Features:
- IP55 protection with the option of upgrading to Ip67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the joint blocks
- Standard dimensions: 90° angle and 500mm length on x, y and z axes.
- This unit can be made with different elbow lengths. The length of each elbow can range from 300 to 1200mm
- The angles can range from 60° to 160° degrees
- Please contact PitON Electric for consultation

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-tv	E3-55-Al-4-630-tv	E3-55-Al-4-800-tv	E3-55-Al-4-1000-tv	E3-55-Al-4-1250-tv	E3-55-Al-4-1600-tv
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-4-630-tv	E3-55-Cu-4-800-tv	E3-55-Cu-4-1000-tv	E3-55-Cu-4-1250-tv	E3-55-Cu-4-1600-tv	E3-55-Cu-4-2000-tv
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69



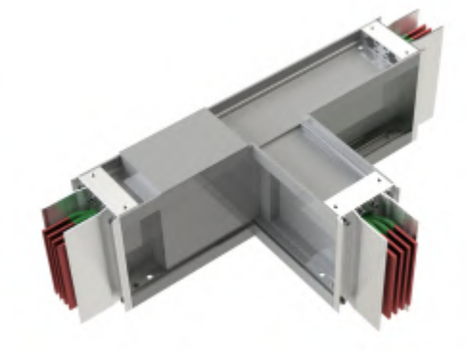


Al rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
400-1250	300	300	300	800	800	800
1600-2500	350	350	350	800	800	800
3200	400	400	400	1200	1200	1200
4000	450	450	450	1200	1200	1200
4000-6400	650	650	650	1200	1200	1200

CU rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
630-1600	300	300	300	800	800	800
2000-3200	350	350	350	800	800	800
4000-5000	400	400	400	1200	1200	1200
6400	600	600	600	1200	1200	1200
7500	650	650	650	1200	1200	1200

Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-tv	E3-55-Al-4-2500-tv	E3-55-Al-4-3200-tv	E3-55-Al-4-4000-tv	E3-55-Al-4-5000-tv	E3-55-Al-4-6400-tv
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-4-2500-tv	E3-55-Cu-4-3200-tv	E3-55-Cu-4-4000-tv	E3-55-Cu-4-5000-tv	E3-55-Cu-4-6400-tv	E3-55-Cu-4-7500-tv
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125



Horizontal T-shaped unit

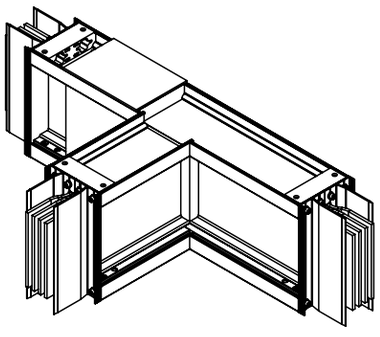
Function:
- Changing the direction of the of busduct route.

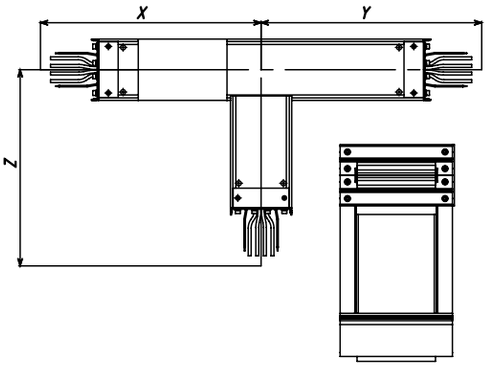
Features:
- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the joint blocks
- Standard dimensions: 90° angle and 350mm x,y,z length
- The length of each arm can be from 350 to 650mm.

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-tg	E3-55-Al-4-630-tg	E3-55-Al-4-800-tg	E3-55-Al-4-1000-tg	E3-55-Al-4-1250-tg	E3-55-Al-4-1600-tg
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-4-630-tg	E3-55-Cu-4-800-tg	E3-55-Cu-4-1000-tg	E3-55-Cu-4-1250-tg	E3-55-Cu-4-1600-tg	E3-55-Cu-4-2000-tg
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69





Al rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
630-1250	450	450	400	450	450	400
1600-2500	550	550	400	550	550	400
3200-5000	600	600	400	600	600	400

CU rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
630-1600	450	450	400	450	450	400
2000-3200	550	550	400	550	550	400
4000-5000	600	600	400	600	600	400

Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-tg	E3-55-Al-4-2500-tg	E3-55-Al-4-3200-tv	E3-55-Al-4-4000-tg	E3-55-Al-4-5000-tg	E3-55-Al-4-6400-tg
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-4-2500-tg	E3-55-Cu-4-3200-tg	E3-55-Cu-4-4000-tg	E3-55-Cu-4-5000-tg	E3-55-Cu-4-6400-tg	E3-55-Cu-4-7500-tg
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125

Flanged connection unit

Function:

- Universal unit designed for connection to the switchboard.

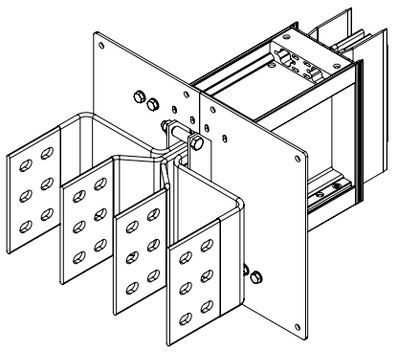
Features:

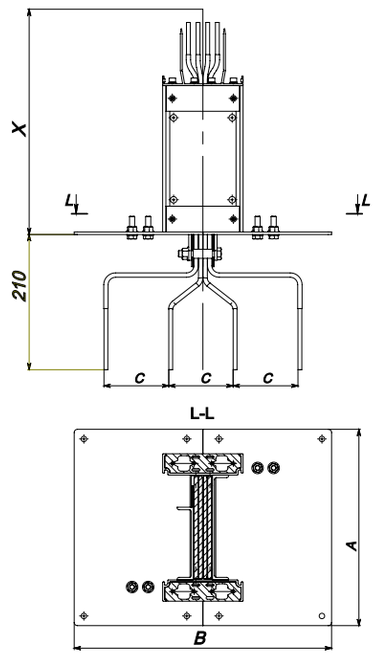
- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the joint blocks
- The total length of unit is 700mm: 500mm in the enclosure and 200mm for connection to the busbar system of the low-voltage switchgear and controlgear assembly
- When connecting to a switchgear and controlgear cabinet, it is presumed that the skirt of the flange unit is aligned with the surface of the cabinet, into which the flange unit enters. This surface may be the roof, the bottom, the sidewalls or the rear wall.

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-pf	E3-55-Al-4-630-pf	E3-55-Al-4-800-pf	E3-55-Al-4-1000-pf	E3-55-Al-4-1250-pf	E3-55-Al-4-1600-pf
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-4-630-pf	E3-55-Cu-4-800-pf	E3-55-Cu-4-1000-pf	E3-55-Cu-4-1250-pf	E3-55-Cu-4-1600-pf	E3-55-Cu-4-2000-pf
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69





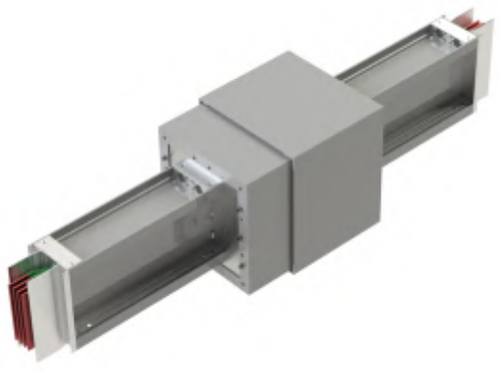
Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-pf	E3-55-Al-4-2500-pf	E3-55-Al-4-3200-pf	E3-55-Al-4-4000-pf	E3-55-Al-4-5000-pf	E3-55-Al-4-6400-pf
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-4-2500-pf	E3-55-Cu-4-3200-pf	E3-55-Cu-4-4000-pf	E3-55-Cu-4-5000-pf	E3-55-Cu-4-6400-pf	E3-55-Cu-4-7500-pf
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125

	A	B	X
630	182	400	350
800	200	400	350
1000	226	400	350
1250	249	400	350
1600	305	400	350
2000	351	400	350
2500	351	490	350
3200	504	490	350
4000	596	490	350
5000	596	490	350
6400	763	490	350

	A	B	X
630	182	400	350
800	182	400	350
1000	200	400	350
1250	226	400	350
1600	249	400	350
2000	305	400	350
2500	305	400	350
3200	428	490	350
4000	504	490	350
5000	504	490	350
6400	635	490	350

*The customer specifies the C size



Compensation unit

Function:

- Designed to compensate for thermal expansion in straight sections, as well as to compensate for displacements of individual sections of the busbar in the areas of extension joints.

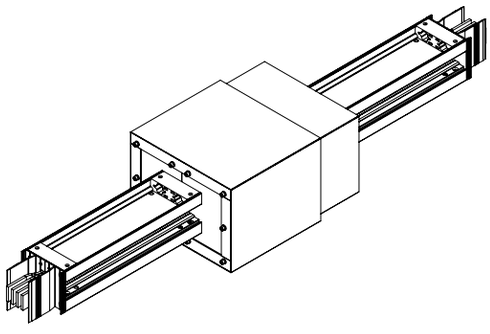
Feature:

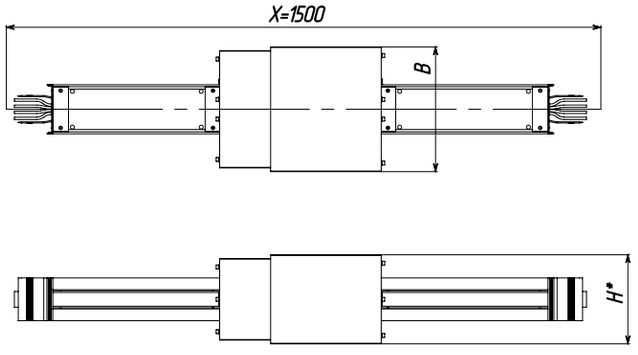
- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the joint blocks
- Matches the 3L+N+PE (enclosure) configuration
- Standard length: 1500mm
- Please contact PitON Electric for consultation.

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-sk	E3-55-Al-4-630-sk	E3-55-Al-4-800-sk	E3-55-Al-4-1000-sk	E3-55-Al-4-1250-sk	E3-55-Al-4-1600-sk
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-4-630-sk	E3-55-Cu-4-800-sk	E3-55-Cu-4-1000-sk	E3-55-Cu-4-1250-sk	E3-55-Cu-4-1600-sk	E3-55-Cu-4-2000-sk
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69





Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-sk	E3-55-Al-4-2500-sk	E3-55-Al-4-3200-sk	E3-55-Al-4-4000-sk	E3-55-Al-4-5000-sk	E3-55-Al-4-6400-sk
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-4-2500-sk	E3-55-Cu-4-3200-sk	E3-55-Cu-4-4000-sk	E3-55-Cu-4-5000-sk	E3-55-Cu-4-6400-sk	E3-55-Cu-4-7500-sk
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125

Phase transposition unit

Function:

- Designed for switching the position of the conductors in the busbar.

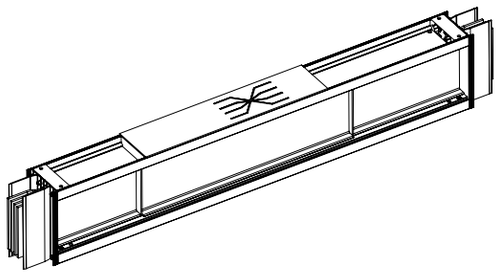
Features:

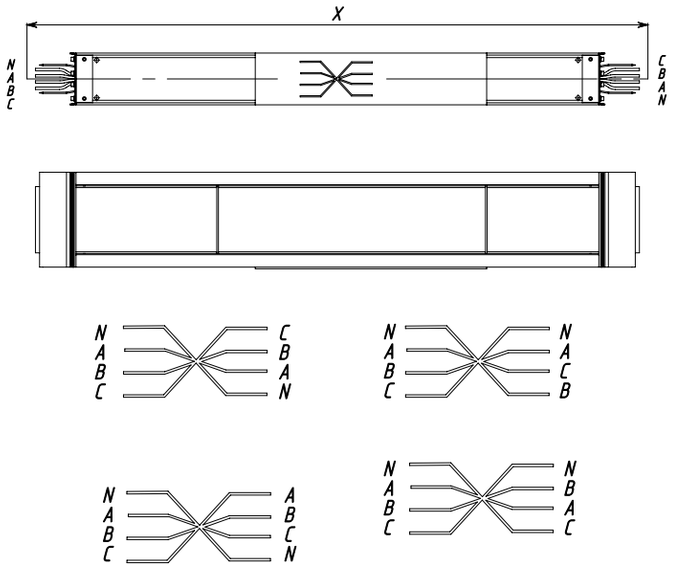
- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the joint blocks
- Standard length: 1500mm
- Please contact PitON Electric for consultation.

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-spf	E3-55-Al-4-630-spf	E3-55-Al-4-800-spf	E3-55-Al-4-1000-spf	E3-55-Al-4-1250-spf	E3-55-Al-4-1600-spf
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-4-630-spf	E3-55-Cu-4-800-spf	E3-55-Cu-4-1000-spf	E3-55-Cu-4-1250-spf	E3-55-Cu-4-1600-spf	E3-55-Cu-4-2000-spf
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69

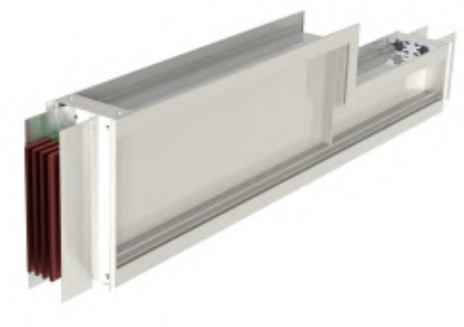




Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-spf	E3-55-Al-4-2500-spf	E3-55-Al-4-3200-spf	E3-55-Al-4-4000-spf	E3-55-Al-4-5000-spf	E3-55-Al-4-6400-spf
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-4-2500-spf	E3-55-Cu-4-3200-spf	E3-55-Cu-4-4000-spf	E3-55-Cu-4-5000-spf	E3-55-Cu-4-6400-spf	E3-55-Cu-4-7500-spf
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125

Reducer without outgoing line protection



Function:

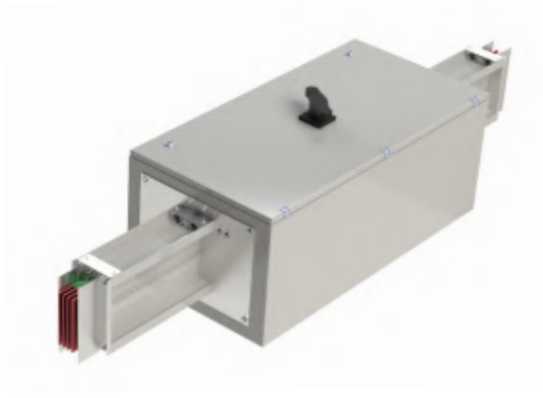
- Designed for connection to a busbar of a lower power (without the use of a protective device, the rating can be downgraded by a factor of two or less).

Features:

- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the joint blocks
- Standard length: 1500mm
- Please contact PitON Electric for consultation
- Example of ordering number: E3-55-Al-4-4000-200-rp (see table «Coding system» on page 54).

Al, CU Rating	4000-200	4000-320	3200-1600	3200-200	2000-1600	2000-1000	1000-800	800-630
Al, CU Rating	1600-1250	1600-1000	1600-800	1250-1000	1250-800	1250-630	1000-630	

Sectionalizer unit with automatic circuit breaker



Function:

- Used for sectioning between various local power sources.

Feature:

- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the joint blocks
- Standard length: 1500mm
- Custom dimensions of the unit are specified in the project
- Please contact PitON Electric for consultation

Example of ordering number: E3-55-Al-4-400-ss (see table «Coding system» on page 54).

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69

Sectionalizer cabinet with ACB

Functio:

- Used for sectioning between various local power sources.

Features:

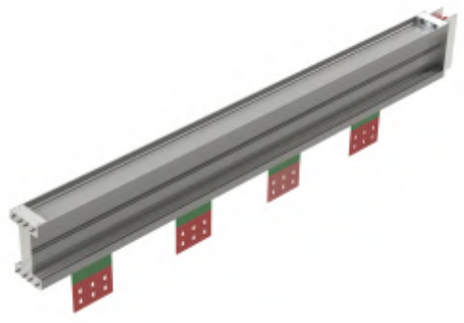
- IP55 protection with the option of upgrading to IP67
- RAL7035 powder coating, various RAL colors available on request
- The cabinet has two compartments — switching board and busbar compartment
- The busbar system of the cabinet corresponds to a 3L+N+PE configuration
- The height of the cabinet including plinth is 2100mm, the height of the plinth is 100mm
- Equipped with circuit breakers by ABB, Schneider Electric, Siemens, Legrand, LSIS, Contactor, KEAZ, OEZ or other vendors
- Busbar feeding into the cabinet is possible from above, from the side, through the rear wall, from below through the bottom
- The height of the entry and the position of the busbar entry axis relative to the cabinet, as well as the position of the busbars relative to the floor are made according to the project requirements
- Cabinet can be rephased according to the project requirements. For more information, please contact PitON Electric.

AI Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-shsav	E3-55-Al-6-shsav	E3-55-Al-8-shsav	E3-55-Al-10-shsav	E3-55-Al-12-shsav	E3-55-Al-16-shsav
Weight (kg/m)	373	385	396	423	454	493
Height H (mm)	2100	2100	2100	2100	2100	2100
Width W (mm)	600	600	600	600	600	600
Depth D (mm)	600	600	600	600	600	600

AI Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-20-shsav	E3-55-Al-25-shsav	E3-55-Al-32-shsav	E3-55-Al-40-shsav	E3-55-Al-50-shsav	E3-55-Al-64-shsav
Weight (kg/m)	516	633	714	941	1273	1373
Height H (mm)	2100	2100	2100	2100	2100	2100
Width W (mm)	1200	1200	1200	1200	2000	2000
Depth D (mm)	800	800	800	800	1000	1000

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-6-shsav	E3-55-Cu-8-shsav	E3-55-Cu-10-shsav	E3-55-Cu-12-shsav	E3-55-Cu-16-shsav	E3-55-Cu-20-shsav
Weight (kg/m)	385	396	423	454	493	516
Height H (mm)	2100	2100	2100	2100	2100	2100
Width W (mm)	600	600	600	600	600	1200
Depth D (mm)	600	600	600	600	600	800

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-25-shsav	E3-55-Cu-32-shsav	E3-55-Cu-40-shsav	E3-55-Cu-50-shsav	E3-55-Cu-64-shsav	E3-55-Cu-75-shsav
Weight (kg/m)	633	714	941	1273	1373	1373
Height H (mm)	2100	2100	2100	2100	2100	2100
Width W (mm)	1200	1200	1200	2000	2000	2000
Depth D (mm)	800	800	800	1000	1000	1000



Vertical transformer joint unit (Type 1)

Function:

- Designed for connection to a transformer and other devices with vertical conduction plates connection.

Features:

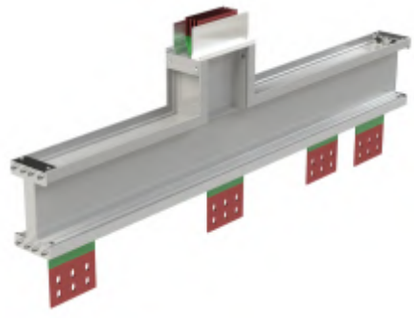
- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- The length of the unit and the position of the conduction plates are determined by the dimensions of the receiver
- This unit can be manufactured in combination with an angled unit, in this case please contact PitON Electric.

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-tsv	E3-55-Al-4-630-tsv	E3-55-Al-4-800-tsv	E3-55-Al-4-1000-tsv	E3-55-Al-4-1250-tsv	E3-55-Al-4-1600-tsv
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-4-630-tsv	E3-55-Cu-4-800-tsv	E3-55-Cu-4-1000-tsv	E3-55-Cu-4-1250-tsv	E3-55-Cu-4-1600-tsv	E3-55-Cu-4-2000-tsv
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

Note regarding the part numbers:
Vertical transformer joint unit — tsv
Vertical transformer joint unit with vertical angle — tsvvu
Vertical transformer joint unit with horizontal angle — tsvgu
Vertical transformer joint unit with T-connector — tstv

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69



Vertical transformer joint unit with T-connection (Type 2)

Function:

- Designed for connection to a transformer and other devices with vertical conduction plates connection.

Features:

- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- The length of the unit and the position of the conduction plates are determined by the dimensions of the receiver
- This unit can be manufactured in combination with an angled unit, in this case please contact PitON Electric.

Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-tstv	E3-55-Al-4-2500-tstv	E3-55-Al-4-3200-tstv	E3-55-Al-4-4000-tstv	E3-55-Al-4-5000-tstv	E3-55-Al-4-6400-tstv
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

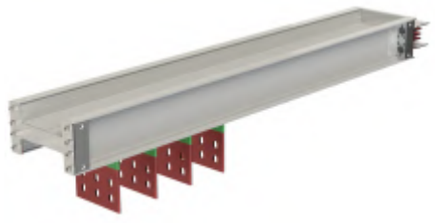
CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-4-2500-tstv	E3-55-Cu-4-3200-tstv	E3-55-Cu-4-4000-tstv	E3-55-Cu-4-5000-tstv	E3-55-Cu-4-6400-tstv	E3-55-Cu-4-7500-tstv
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125

Al rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
400-1250	300	300	300	800	800	800
1600-2500	350	350	350	800	800	800
3200	400	400	400	1200	1200	1200
4000	450	450	450	1200	1200	1200
4000-6400	650	650	650	1200	1200	1200

CU rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
630-1600	300	300	300	800	800	800
2000-3200	350	350	350	800	800	800
4000-5000	400	400	400	1200	1200	1200
6400	600	600	600	1200	1200	1200
7500	650	650	650	1200	1200	1200

Note regarding the part numbers:
Vertical transformer joint unit — tsv
Vertical transformer joint unit with vertical angle — tsvvu
Vertical transformer joint unit with horizontal angle — tsvgu
Vertical transformer joint unit with T-connector — tstv

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69



Horizontal transformer joint unit (Type 3)

Function:

- Designed for connection to a transformer and other devices with vertical conduction plates connection.

Features:

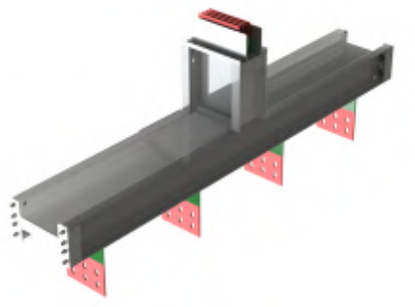
- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- The length of the unit and the position of the conduction plates are determined by the dimensions of the receiver
- This unit can be manufactured in combination with an angled unit, in this case please contact PitON Electric.

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-tsg	E3-55-Al-4-630-tsg	E3-55-Al-4-800-tsg	E3-55-Al-4-1000-tsg	E3-55-Al-4-1250-tsg	E3-55-Al-4-1600-tsg
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-4-630-tsg	E3-55-Cu-4-800-tsg	E3-55-Cu-4-1000-tsg	E3-55-Cu-4-1250-tsg	E3-55-Cu-4-1600-tsg	E3-55-Cu-4-2000-tsg
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

Note regarding the part numbers:
Vertical transformer joint unit — tsv
Vertical transformer joint unit with vertical angle — tsvvu
Vertical transformer joint unit with horizontal angle — tsvgu
Vertical transformer joint unit with T-connector — tstv

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69



Horizontal transformer joint unit with T-connection (Type 4)

Function:

- Designed for connection to a transformer and other devices with vertical conduction plates connection.

Features:

- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- The length of the unit and the position of the conduction plates are determined by the dimensions of the receiver
- This unit can be manufactured in combination with an angled unit, in this case please contact PitON Electric.

Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-tstg	E3-55-Al-4-2500-tstg	E3-55-Al-4-3200-tstg	E3-55-Al-4-4000-tstg	E3-55-Al-4-5000-tstg	E3-55-Al-4-6400-tstg
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-4-2500-tstg	E3-55-Cu-4-3200-tsg	E3-55-Cu-4-4000-tstg	E3-55-Cu-4-5000-tstg	E3-55-Cu-4-6400-tstg	E3-55-Cu-4-7500-tstg
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125

Al rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
630-1250	450	450	400	450	450	400
1600-2500	550	550	400	550	550	400
3200-5000	600	600	400	600	600	400

CU rating	Minimum size			Maximum size		
	X	Y	Z	X	Y	Z
630-1600	450	450	400	450	450	400
2000-3200	550	550	400	550	550	400
4000-5000	600	600	400	600	600	400

Note regarding the part numbers:
Vertical transformer joint unit — tsv
Vertical transformer joint unit with vertical angle — tsvvu
Vertical transformer joint unit with horizontal angle — tsvgu
Vertical transformer joint unit with T-connector — tstv

*The table shows the values for configurations with 4 conductors (busbars) inside the enclosure
**Design elements and dimensions: pages 63-69

Cable connection cabinet

Function:

- Designed for easy connection of difficult-to-bend cables and switching to a busbar system.

Features:

- IP55 protection with the option of upgrading to IP67
- The cabinet has two compartments — switching board and busbar compartment
- The height of the cabinet including plinth is 2100mm, the height of the plinth is 100mm
- The cabinet is especially useful when using and connecting aluminum armored cables
- The cabinet provides is made spacious for easy operation, connection and maintenance
- The cabinet is ideal for high currents of 2000A and higher
- The buses inside the cabinet are perforated for cable connection and equipped with screws and fasteners
- Busbar feeding into the cabinet is possible from above, from the side, through the rear wall, from below through the bottom
- The height of the entry and the position of the busbar entry axis relative to the cabinet, as well as the position of the busbars relative to the floor are made according to the project
- Cabinet can be rephased according to the project requirements.

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-shkp	E3-55-Al-6-shkp	E3-55-Al-8-shkp	E3-55-Al-10-shkpr	E3-55-Al-12-shkp	E3-55-Al-16-shkp
Weight (kg/m)	253	265	276	303	334	373
Height H (mm)	2100	2100	2100	2100	2100	2100
Width W (mm)	600	600	600	600	600	600
Depth D (mm)	600	600	600	600	600	600

Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-20-shkp	E3-55-Al-25-shkp	E3-55-Al-32-shkp	E3-55-Al-40-shkp	E3-55-Al-50-shkp	E3-55-Al-64-shkp
Weight (kg/m)	374	479	562	675	779	829
Height H (mm)	2100	2100	2100	2100	2100	2100
Width W (mm)	600	600	600	600	800	800
Depth D (mm)	800	800	800	800	1000	1000

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-6-shkp	E3-55-Cu-8-shkp	E3-55-Cu-10-shkp	E3-55-Cu-12-shkp	E3-55-Cu-16-shkp	E3-55-Cu-20-shkp
Weight (kg/m)	265	276	303	334	373	374
Height H (mm)	2100	2100	2100	2100	2100	2100
Width W (mm)	600	600	600	600	600	600
Depth D (mm)	600	600	600	600	600	800

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-25-shkp	E3-55-Cu-32-shkp	E3-55-Cu-40-shkp	E3-55-Cu-50-shkp	E3-55-Cu-64-shkpr	E3-55-Cu-75-shkp
Weight (kg/m)	479	562	675	779	829	829
Height H (mm)	2100	2100	2100	2100	2100	2100
Width W (mm)	600	600	600	800	800	800
Depth D (mm)	800	800	800	1000	1000	1000

Sectionalizer cabinet with disconnecting switch

Function:

- Used for sectioning between various local power sources.

Features:

- IP55 protection with the option of upgrading to IP67
- RAL7035 powder coating, various RAL colors available on request
- The cabinet has two compartments — switching board and busbar compartment
- The busbar system of the cabinet corresponds to a 3L+N+PE configuration
- The height of the cabinet including plinth is 2100mm, the height of the plinth is 100mm
- Equipped with circuit breakers by ABB, C&S, KEAZ, OEZ or other vendors
- For currents of 5000A and 6400A a disconnecting switch is installed in the circuit breaker housing
- Busbar feeding into the cabinet is possible from above, from the side, through the rear wall, from below through the bottom
- The height of the entry and the position of the busbar entry axis relative to the cabinet, as well as the position of the busbars relative to the floor are made according to the project requirements
- Cabinet can be rephased according to the project requirements
- For more information, please contact PitON Electric.

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-shsvr	E3-55-Al-6-shsvr	E3-55-Al-8-shsvr	E3-55-Al-10-shsvr	E3-55-Al-12-shsvr	E3-55-Al-16-shsvr
Weight (kg/m)	353	365	376	403	434	473
Height H (mm)	2100	2100	2100	2100	2100	2100
Width W (mm)	600	600	600	600	600	600
Depth D (mm)	600	600	600	600	600	600

Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-20-shsvr	E3-55-Al-25-shsvr	E3-55-Al-32-shsvr	E3-55-Al-40-shsvr	E3-55-Al-50-shsvr	E3-55-Al-64-shsvr
Weight (kg/m)	494	613	696	911	1273	1373
Height H (mm)	2100	2100	2100	2100	2100	2100
Width W (mm)	1200	1200	1200	1200	2000	2000
Depth D (mm)	800	800	800	800	1000	1000

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-6-shsvr	E3-55-Cu-8-shsvr	E3-55-Cu-10-shsvr	E3-55-Cu-12-shsvr	E3-55-Cu-16-shsvr	E3-55-Cu-20-shsvr
Weight (kg/m)	365	376	403	434	473	494
Height H (mm)	2100	2100	2100	2100	2100	2100
Width W (mm)	600	600	600	600	600	1200
Depth D (mm)	600	600	600	600	600	800

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-25-shsvr	E3-55-Cu-32-shsvr	E3-55-Cu-40-shsvr	E3-55-Cu-50-shsvr	E3-55-Cu-64-shsvr	E3-55-Cu-75-shsvr
Weight (kg/m)	613	696	911	1273	1373	1373
Height H (mm)	2100	2100	2100	2100	2100	2100
Width W (mm)	1200	1200	1200	2000	2000	2000
Depth D (mm)	800	800	800	1000	1000	1000

IP68/IP55 Adapter

Function

- Used for connecting a CR1-series busbar (IP68) to an E3-series busbar (IP55)

Features:

- IP55 protection with the option of upgrading to IP67
- Class C insulation (over 180°C), halogen-free
- RAL7035 powder coating, various RAL colors available on request
- Aluminum housing as PE-conductor
- Given lengths indicate the length between the axes of the joint blocks
- Please contact PitON Electric for consultation

Al Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-ad	E3-55-Al-4-630-ad	E3-55-Al-4-800-ad	E3-55-Al-4-1000-ad	E3-55-Al-4-1250-ad	E3-55-Al-4-1600-ad
Weight (kg/m)	7,2	7,2	8,7	10,7	13,2	17,2
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

Al Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-ad	E3-55-Al-4-2500-ad	E3-55-Al-4-3200-ad	E3-55-Al-4-4000-ad	E3-55-Al-4-5000-ad	E3-55-Al-4-6400-ad
Weight (kg/m)	20,2	24,6	32,9	38,9	47,7	70,8
Height H (mm)	269	269	396	476	476	681
Width W (mm)	125	125	125	125	125	125

CU Rating	630	800	1000	1250	1600	2000
Part number	E3-55-Cu-4-630-ad	E3-55-Cul-4-800-ad	E3-55-Cu-4-1000-ad	E3-55-Cu-4-1250-ad	E3-55-Cu-4-1600-ad	E3-55-Cu-4-2000-ad
Weight (kg/m)	12,0	12,0	16,7	22,3	29,2	40,8
Height H (mm)	109	109	124	149	179	229
Width W (mm)	125	125	125	125	125	125

CU Rating	2500	3200	4000	5000	6400	7500
Part number	E3-55-Cu-4-2500-ad	E3-55-Cu-4-3200-ad	E3-55-Al-4-4000-ad	E3-55-Cu-4-5000-ad	E3-55-Cu-4-6400-ad	E3-55-Cu-4-7500-ad
Weight (kg/m)	52,6	56,9	80,1	102,5	153	189,6
Height H (mm)	229	295	395	395	561	681
Width W (mm)	125	125	125	125	125	125

Коробка отбора мощности (Тип 1)

Function:

- Drawing power for currents from 16 to 400A, with the option to adjust the rating up to 630A.

Features:

- The box is connected to a distribution unit socket, no other connection options are provided
- The box can be equipped with a circuit breaker or any kind of disconnecting switch and has an external knob with interlocking mechanism
- By default the box is supplied without switchgear
- The hatch of the box has a hinged opening — a convenient solution for vertical mounting
- The box is available with a glazed hatch
- The box can be manufactured as a distribution box (multi-box) and additionally equipped according to project requirements
- IP55 protection

Rating	100	160	250	400	630
Part number	E3-55-Al-4-100-om1	E3-55-Al-4-160-om1	E3-55-Al-4-250-om1	E3-55-Al-4-400-om1	E3-55-Al-4-630-om1

Tap-off box (Type 2)

Function:

- Drawing power for currents from 16 to 400A, with the option to adjust the rating up to 630A.

Features:

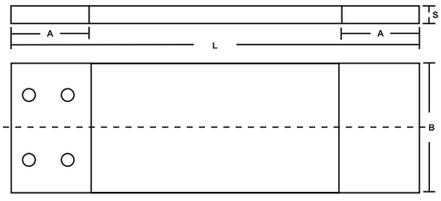
- The box is connected to a distribution unit socket, no other connection options are provided
- The box can be equipped with a circuit breaker or any kind of disconnecting switch and has an external knob with interlocking mechanism
- By default the box is supplied without switchgear
- The hatch of the box has a landscape-oriented hinged opening — a convenient solution for horizontal mounting
- The box is available with a glazed hatch
- The box can be manufactured as a distribution box (multi-box) and additionally equipped according to project requirements
- IP55 protection

Rating	100	160	250	400	630
Part number	E3-55-Al-4-100-om2	E3-55-Al-4-160-om2	E3-55-Al-4-250-om2	E3-55-Al-4-400-om2	E3-55-Al-4-630-om2

Flexible busbar set for busway-transformer connection (Cu)

Function:
- Used for the connection to the switchboard and transformer or DPP

Features:
- Current carrying capacity: 630-7500A
- Conductors: aluminum or copper
- Insulation made of black self-extinguishing polyvinylchloride UL 94 V0
- Operating temperature -55°C to +280°C
- Compliant with: GOST, EAS, CEI EN 61439 1-6, IEC 439 1-2, CEI EN 60529, IEC 529
- Halogen-free
- Standard length: 0.5m (custom dimensions on request)



Rating A, Al	A, mm	B, mm	S, mm
630	110	40	7
800	110	40	7
1000	110	55	7
1250	110	80	7
1600	110	110	7
2000	110	160	7
2500	110	160	9
3200	110	110	7*2
4000	110	160	7*2
5000	110	160	9*2
6400	110	160	7*3
7500	110	160	9*3

Rating A, Cu	A, mm	B, mm	S, mm
630	110	40	7
800	110	55	7
1000	110	80	7
1250	110	110	7
1600	110	160	7
2000	110	200	7
2500	110	200	9
3200	110	160	7*2
4000	110	200	7*2
5000	110	200	9*2
6400	110	200	9*3

Joint cover set (2 pcs. per joint)

Function:
- Connection of busbar trunking sections

Features:
- Example of catalogue number for ordering: Al-4-400-ksb

Joint block

Function:
- Connects all types of busbar sections

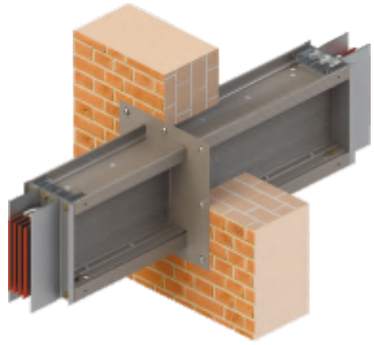
Features:
- Shear-head bolt for easy installation
- Compensation for thermal expansion of busbars (thermal indicator)
- Example of catalogue number for ordering: E3-55-Al-4-400-sb

End cap

Function:
- Protection of busbars at the end of the track

Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-kz	E3-55-Al-4-630-kz	E3-55-Al-4-800-kz	E3-55-Al-4-1000-kz	E3-55-Al-4-1250-kz	E3-55-Al-4-1600-kz

Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-kz	E3-55-Al-4-2500-kz	E3-55-Al-4-3200-kz	E3-55-Al-4-4000-kz	E3-55-Al-4-5000-kz	E3-55-Al-4-6400-kz

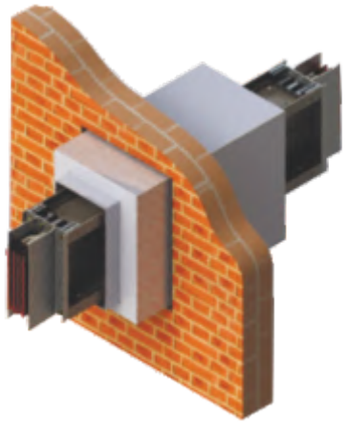


Wall flange

Function:
- For framing the opening at the wall opening
- The set includes two flanges

Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-nf	E3-55-Al-4-630-nf	E3-55-Al-4-800-nf	E3-55-Al-4-1000-nf	E3-55-Al-4-1250-nf	E3-55-Al-4-1600-nf

Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-nf	E3-55-Al-4-2500-nf	E3-55-Al-4-3200-nf	E3-55-Al-4-4000-nf	E3-55-Al-4-5000-nf	E3-55-Al-4-6400-nf



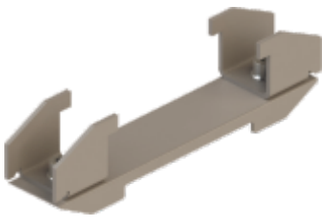
Fire barrier

Function:
- Routing of busducts through floors and walls with a standardized fire-resistance rating

Features:
- Assembled from a group of «Fireproof partitions» system according to the instructions

Rating	400	630	800	1000	1250	1600
Part number	E3-55-Al-4-400-op	E3-55-Al-4-630-op	E3-55-Al-4-800-op	E3-55-Al-4-1000-op	E3-55-Al-4-1250-op	E3-55-Al-4-1600-op

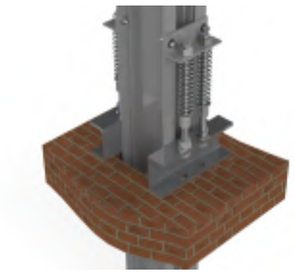
Rating	2000	2500	3200	4000	5000	6400
Part number	E3-55-Al-4-2000-op	E3-55-Al-4-2500-op	E3-55-Al-4-3200-op	E3-55-Al-4-4000-op	E3-55-Al-4-5000-op	E3-55-Al-4-6400-op



Fixing clamp

Function:
- Attachment of busduct sections to supporting structures

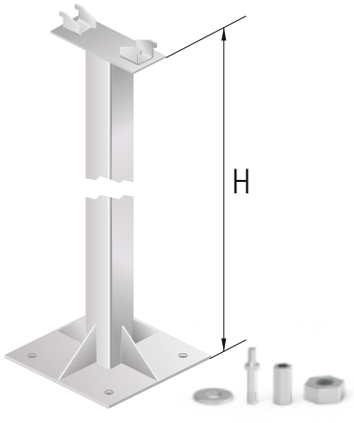
Rating	
Part number	E3-ks



Spring hanger for vertical mounting

Function:
- For securing busduct sections in a vertical position

Rating	
Part number	E3-55-Al-4-630-pp



Support stand for horizontal mounting

Function:
- For mounting the busduct when no other support structures are available

Features:
- Default height: 2500 mm, size can be changed on request

Rating	
Part number	E3-sgm

Rigid hanger for vertical mounting

Function:
- For mounting busduct sections in an upright position

Rating	
Part number	E3-kvm

Mounting bracket

Function:
- For mounting busduct sections in a horizontal position

Rating	
Part number	E3-kgm

C-shaped profile (L=500 mm, 40x40 mm)

Function:
- дFor mounting busduct sections in a horizontal position

Rating	
Part number	E3-cpr.40.40

Assembly mount (L=450 mm, 40x40 mm)

Function:
- For mounting busduct sections in a horizontal position

Rating	
Part number	E3-k.40.40

Rigid mount for horizontal mounting

Function:
- For mounting busduct sections in a horizontal position

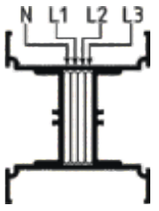
Rating	
Part number	E3-kgm10

Threaded rod (M10x2000, DIN975)

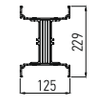
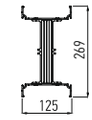
Function:
- For mounting busduct sections in a vertical position

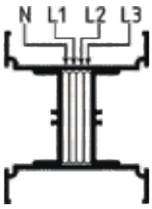
Rating	
Part number	Sm102000

Al



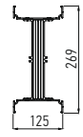
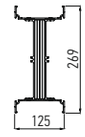
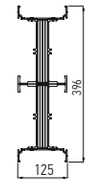
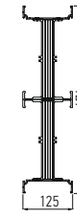
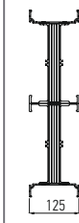
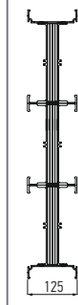
TECHNICAL SPECIFICATIONS

Aluminum	Symbol	Unit	400	630	800	1000	1250	1600
Rated current	I_n	A						
Rated insulation voltage	$U_i = U_e$	W	1000	1000	1000	1000	1000	1000
Frequency	f	Hz	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time withstand current (t=1s)	I_{cw}	кA	25	25	35	50	60	80
Rated peak current	I_{pk}	кA	53	53	73,5	105	132	176
Resistance at an ambient temperature of 20°C	R_{20}	mΩ/m	0,119	0,119	0,086	0,059	0,043	0,029
Reactance at 50Hz	X	mΩ/m	0,024	0,024	0,021	0,015	0,013	0,012
Resistance at a temperature of 35°C	R_{35}	mΩ/m	0,126	0,126	0,091	0,062	0,045	0,032
Impedance	Z_1	mΩ/m	0,163	0,163	0,124	0,079	0,060	0,041
Voltage drop of distributed load (ΔV (V/100m/A) x 10-4)	cos φ	0,70	173,40	135,99	128,86	115,51	81,50	58,50
		0,80	190,60	147,95	139,72	124,35	87,28	63,05
		0,90	206,20	158,54	148,29	132,33	92,86	66,34
		1,00	212,35	158,62	147,73	131,44	91,64	64,79
Conductor cross-sectional area	S_c	mm^2	240	240	330	480	660	960
Housing cross-sectional area	S_h	mm^2	1373,00	1373,00	1501,00	1553,00	1641,00	2029,00
Degree of protection	IP		55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67
Weight (3L+N+PE)	m	kg/m	7,2	7,2	8,7	10,7	13,2	17,2
Height	H	mm	109	109	124	149	179	229
Width	W	mm	125	125	125	125	125	125
									

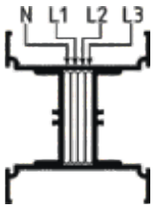


Al

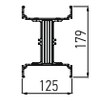
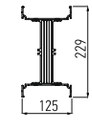
TECHNICAL SPECIFICATIONS

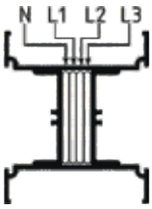
Aluminum	Symbol	Unit	2000	2500	3200	4000	5000	6400
Rated current	I_n	A						
Rated insulation voltage	$U_i = U_e$	W	1000	1000	1000	1000	1000	1000
Frequency	f	Hz	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time withstand current (t=1s)	I_{cw}	кА	80	100	120	120	120	120
Rated peak current	I_{pk}	кА	176	220	264	264	264	264
Resistance at an ambient temperature of 20°C	R_{20}	mΩ/m	0,024	0,021	0,015	0,012	0,008	0,006
Reactance at 50Hz	X	mΩ/m	0,008	0,007	0,005	0,004	0,003	0,002
Resistance at a temperature of 35°C	R_{35}	mΩ/m	0,025	0,022	0,016	0,013	0,008	0,006
Impedance	Z_1	mΩ/m	0,032	0,027	0,022	0,017	0,011	0,008
Voltage drop of distributed load (ΔV (V/100m/A) x 10-4)	cos φ	0,70	58,12	39,89	32,25	29,10	19,90	15,10
		0,80	62,56	43,10	43,10	31,44	21,55	17,56
		0,90	66,68	45,75	45,75	33,61	22,76	18,62
		1,00	65,71	44,93	44,93	32,92	22,45	18,06
Conductor cross-sectional area	S_c	mm²	1200	1600	1920	2400	3200	4800
Housing cross-sectional area	S_h	mm²	2259,00	3282,00	3868,00	4518,00	6387,00	6777,00
Degree of protection	IP		55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67
Weight (3L+N+PE)	m	kg/m	20,2	24,6	32,9	38,9	47,7	70,8
Height	H	mm	269	269	396	476	476	681
Width	W	mm	125	125	125	125	125	125
									

CU



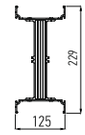
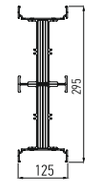
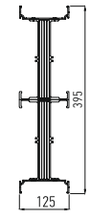
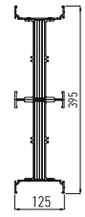
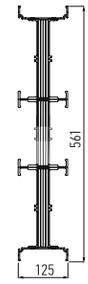
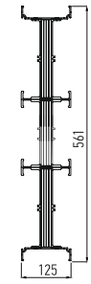
TECHNICAL SPECIFICATIONS

Copper	Symbol	Unit	630	800	1000	1250	1600	2000
Rated current	I_n	A						
Rated insulation voltage	$U_i = U_e$	W	1000	1000	1000	1000	1000	1000
Frequency	f	Hz	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time withstand current (t=1s)	I_{cw}	кА	25	35	50	60	80	80
Rated peak current	I_{pk}	кА	53	73,5	105	132	176	176
Resistance at an ambient temperature of 20°C	R_{20}	mΩ/m	0,119	0,086	0,059	0,033	0,029	0,024
Reactance at 50Hz	X	mΩ/m	0,024	0,021	0,015	0,013	0,012	0,008
Resistance at a temperature of 35°C	R_{35}	mΩ/m	0,125	0,090	0,062	0,035	0,030	0,025
Impedance	Z_1	mΩ/m	0,163	0,124	0,079	0,060	0,044	0,025
Voltage drop of distributed load (ΔV (V/100m/A) x 10-4)	cos φ	0,70	135,99	128,86	115,51	81,50	58,50	58,12
		0,80	147,95	139,72	124,35	87,28	63,05	62,56
		0,90	158,54	148,29	132,33	92,86	66,34	66,68
		1,00	158,62	147,73	131,44	91,64	64,79	65,71
Conductor cross-sectional area	S_c	mm²	240	240	330	480	660	960
Housing cross-sectional area	S_h	mm²	1373,00	1501,00	1553,00	1641,00	2029,00	2259,00
Degree of protection	IP		55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67
Weight (3L+N+PE)	m	kg/m	12,0	12,0	16,7	22,3	29,2	40,8
Height	H	mm	109	109	124	149	179	229
Width	W	mm	125	125	125	125	125	125
									



CU

TECHNICAL SPECIFICATIONS

Copper	Symbol	Unit	2500	3200	4000	5000	6400	7500
Rated current	I_n	A						
Rated insulation voltage	$U_i = U_e$	W	1000	1000	1000	1000	1000	1000
Frequency	f	Hz	50/60	50/60	50/60	50/60	50/60	50/60
Rated short-time withstand current (t=1s)	I_{cw}	кА	100	120	120	120	120	120
Rated peak current	I_{pk}	кА	220	264	264	264	264	264
Resistance at an ambient temperature of 20°C	R_{20}	mΩ/m	0,013	0,012	0,008	0,006	0,005	0,004
Reactance at 50Hz	X	mΩ/m	0,007	0,005	0,004	0,003	0,002	0,002
Resistance at a temperature of 35°C	R_{35}	mΩ/m	0,014	0,013	0,009	0,006	0,006	0,004
Impedance	Z_1	mΩ/m	0,020	0,016	0,012	0,010	0,008	0,006
Voltage drop of distributed load (ΔV (V/100m/A) x 10-4)	cos φ	0,70	39,89	32,25	29,10	19,90	15,10	15,10
		0,80	43,10	43,10	31,44	21,55	17,56	17,56
		0,90	45,75	45,75	33,61	22,76	18,62	18,62
		1,00	44,93	44,93	32,92	22,45	18,06	18,06
Conductor cross-sectional area	Sc	mm²	1280	1320	1920	2560	2880	3840
Housing cross-sectional area	Sh	mm²	3282,00	3868,00	4518,00	6387,00	6777,00	6777,00
Degree of protection	IP	55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67	55/65/66/67
Weight (3L+N+PE)	m	kg/m	52,6	56,9	80,1	102,5	120,2	154,5
Height	H	mm	229	295	395	395	561	561
Width	W	mm	125	125	125	125	125	125
									

Example of a coding system

E3-55-AI-2000-4-pt0.5

Series	IP	Conductor material	Current, A	Number of conductors in the enclosure	Unit type code
E3	55	AI/CU	2000	4	pt

Unit type	
Unit names	Code
Straight unit	pt
Straight unit with a flange	pf
Straight unit with a closed flange	pfk
Straight distribution unit with fixed outlet	prf
Straight distribution unit with a socket	pr
Horizontal elbow unit	ug
Horizontal elbow unit with flange	ugf
Vertical elbow unit	uv
Vertical elbow unit with flange	uvf
Right-hand combination unit	kp
Right-hand horizontal combination unit with flange	kpfug
Right-hand vertical combination unit with flange	kpfuv
Left-hand combination unit	kl
Left-hand horizontal combination unit flange	klfug
Left-hand vertical combination unit with flange	klfuv
Double elbow (Z-shaped) vertical unit with flange	zvf
Double elbow (Z-shaped) vertical unit	zv
Double elbow (Z-shaped) horizontal unit with flange	zgf
Double elbow (Z-shaped) horizontal unit	zg
T-shaped vertical unit	tv
T-shaped vertical unit with flange	tvf
T-shaped horizontal unit	tg
T-shaped horizontal unit with flange	tgf
Compensation unit	sk
Phase transposition unit	spf
Neutral transposition unit	pn
Tap-off unit	om
Tap-off unit (fixed)	omf
Vertical transformer unit	tsv
Vertical transformer unit with vertical angle	tsvvu
Vertical transformer unit with horizontal angle	tsvgu
Vertical transformer unit with T-connection	tstv
Horizontal transformer unit	tsg
Horizontal transformer unit with vertical angle	tsgvu
Horizontal transformer unit with horizontal angle	tsggu
Horizontal transformer unit with T-connection	tstg
Sectionalizer cabinet	shsav
Sectionalizer cabinet with disconnecting switch	shsvr
Cable connection cabinet	shkp

Code	Unit length
0,4	400-499
0,5	500
0,9	501-999
1,0	1000
1,4	1001-1499
1,5	1500
1,9	1501-1999
2,0	2000
2,4	2001-2499
2,5	2500
2,9	2501-2999
3,0	3000

	L1	L2	L3	N (100%)	N (200%)	FE (100%)	FE (50%)	PE (корпус)
A	×	×	×	×				×
B	×	×	×	×		×		×
C	×	×	×	×			×	×
E	×	×	×	×	×			×

The E3-series busducts are available in four different configurations with different neutral and protective conductor cross sections, shown below with their corresponding codes.

To order the desired configuration, replace the fifth character in the desired configuration code with the third bold character.
Example: E3-55-Al-4-400-pt0.5

Configuration (A)

3L+N+PE (4P)

The cross-sectional area of the neutral equals the cross-sectional area of the conductor.
The equivalent housing cross-sectional area (PE) is greater than the phase conductor cross-sectional area.

Configuration (B)

3L+N+FE+PE (5P)

The cross-sectional area of the neutral conductor is equal to the cross-sectional area of the phase conductor.
The area of the insulated functional earthing conductor (FE) is equal to the cross-sectional area of the phase conductor.
The equivalent housing cross-sectional area (PE) is larger than the phase conductor cross-sectional area.

Configuration (C)

3L+N+FE(50%)+PE (5P)

The cross-sectional area of the neutral equals the cross-sectional area of the phase conductor.
The area of the functional earthing conductor (FE) connected to the housing is 50% of the cross-sectional area of the phase conductor.
The equivalent cross-sectional area of the housing (PE) is greater than the cross-sectional area of the phase conductor.

Configuration (D)

3L+2N+PE (5P)

The cross-sectional area of the neutral conductor is 2 times the cross-sectional area of the phase conductor.
The equivalent cross-sectional area of the housing (PE) is greater than the cross-sectional area of the phase cross-section.

1. Calculate the rated current (In) of an E3-series busbar using the following formula:

$$I_n = \frac{P \times F}{\sqrt{3} \times Ue \times \cos\varphi}$$

P — Total installed capacity (W)
F — Diversity factor

The diversity factor is calculated according to the nature of the loads (industrial, residential or office buildings) and the number of consumers.

The value of the factor is determined on a case-by-case basis, following recommendations are given for the selection of the factor based on the information about the number of consumers and the equipment layout.

Type of consumer	Number of consumers	Diversity factor (F)
Industry	1-10	0,8 - 0,9
Industry	10-20	0,7 - 0,8
Industry	20-40	0,6 - 0,7
Industry	>40	0,5 - 0,4
Infrastructure	Large facilities	0,7 - 0,8
Infrastructure	Shopping malls	0,8 - 0,9

Ue - Rated operational voltage (W)

Example	Placement	Diversity factor (F)
	Number of consumers	27
	Power per consumer	80 кВт
	Operational voltage	400 В
	cos φ	0,95

$$I_n = \frac{P \times F}{\sqrt{3} \times Ue \times \cos\varphi}$$

Total capacity: 27x80=2160 kW / 2160000W (P)
Diversity factor: 0.6 (F)

$$I_n = \frac{2160000 \times 0.6}{1.73 \times 400 \times 0.95} = 1971.4A$$

It is recommended when selecting the rated current of the busbar trunking in case of changes in the route and increase in the number of consumers to ensure a reserve equal to 20% of the calculated value.

$$1971.4A + 20\% = 2365.68A$$

For the E3-series busbar trunking it is possible to use the following rating:

2500A Al

2. Derating factor

Before installing a busbar trunking system, it is necessary to know the ambient temperature of the room through which the busbar runs. E3-series conductors are rated for a maximum average daily ambient temperature of 40°C.

In accordance with the ambient temperature, the rated current of the conductor must be adjusted as follows:

Ambient temperature (°C)	35	40	45	50	55	60
Directivity coefficient (K)	1,06	1	0,96	0,84	0,75	0,6

K -correction factor according to the ambient temperature (°C).

Example:
Average daily ambient temperature 50°C. The current rating of E3-series conductors must be adjusted to a K-factor of 0.75.

$$2500 \times 0{,}75 = 1875A$$

At an ambient temperature of 55°C, conductors rated for a maximum current of 2500A can be used for currents not exceeding 1875A.
In the case where the maximum current exceeds the value required, a conductor with a higher rating should be selected.

3. Selection of E3-series conductors in relation to voltage drop

Selection of E3-series busducts is based on the maximum permitted voltage drop value, which is determined on the basis of specific requirements. Calculation of the voltage drop (Δ V in percent) for the three-phase E3-series busbar trunking system is calculated according to the following formula:

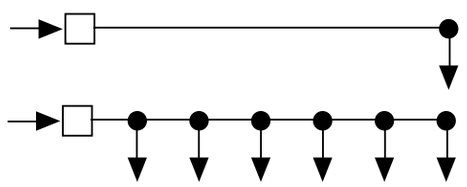
$$\Delta V\% = \frac{D \times t \times I_n \times L}{Ue} \times 100$$

D - Current distribution factor.

Depending on how the busbar is fed and how the load is distributed, the coefficient will be approximately equal:

D=1 Power is supplied on one side of the busway, the load is taken from the other side of the line.

D=0,5 Power supplied on one side of the busway, the load distributed along the entire length of the line.



t - Voltage drop under concentrated load.

In accordance with the value of cos φ below you will find a table with the values of voltage drop under concentrated load (μV), occurring in an E3-series busbar conductor with a length of 1m and a current of 1A.

Aluminium		400	630	800	1000	1250	1600
cos φ	0,70	173,40	135,99	128,86	115,51	81,50	58,50
	0,80	190,60	147,95	139,72	124,35	87,28	63,05
	0,90	206,20	158,54	148,29	132,33	92,86	66,34
	1,00	212,35	158,62	147,73	131,44	91,64	64,79

Aluminium		2000	2500	3200	4000	5000	6400
cos φ	0,70	58,12	39,89	32,25	29,10	19,90	15,10
	0,80	62,56	43,10	35,15	31,44	21,55	17,56
	0,90	66,68	45,75	37,18	33,61	22,76	18,62
	1,00	65,71	44,93	36,13	32,92	22,45	18,06

In - Total current load (A)
L - Total length of the busbar trunking system (m)
Ue - Voltage feeding the busbar trunking (V)

Example:
E3-series 2500A busbar trunking system with distribution load

Symbol	Description	Unit of measure
L	Busway length	120 m
In	Total current load	3285A
Ue	Busbar trunking system voltage	400W
	cos φ	0,9
D	Current distribution factor	0,5
T	Voltage drop under concentrated load of 2500A (Al)	45,75 (W) 10^{6}
Δ V	Maximum voltage drop	4%

$$\Delta V\% = D \times \frac{t \times I_n \times L}{Ue} \times 100$$

$$\Delta V\% = 0{,}5 \times \frac{45.75 \times 10^{-6} \times 1875 \times 120}{400} \times 100 = 1.28\%$$

The value is less than the maximum acceptable value (4%), so the test passed successfully.

The choice of the busbar trunking system in terms of current, material, degree of protection, etc. is made according to the environmental conditions in the environment where the busbar trunking system is to be installed and the electrical characteristics that are dictated by the requirements of the system. In order to select the right busbar trunking system, it is necessary to know all the details upfront.

Below you will find a questionnaire which will help you to choose the right busbar trunking system. Please fill it out and e-mail it to info@pitonelectric.ru to our engineering department, where you will be provided with the perfect solution.

Ambient conditions	
Indoor installation	
Outdoor installation under a canopy	
Outdoor installation without a canopy	
Minimum ambient temperature	Indoor .....°C
Maximum ambient temperature	Outdoor.....°C
	Indoor.....°C
24 hour ambient average ambient temperature (24h)	Outdoor.....°C
	Indoor.....°C
Relative humidity	Min .....°C
	Max .....°C

Electrical Specifications	
Rated current	..... A
Operating current	..... A
Product types	3L+Pe
	3L+N+Pe
	3L+Pen
	3L+2N+Pe
	3L+2N+Pe
	3L+N+Fe/2+Pe
	3L+N+Fe+Pe
Rated operational voltage	..... W Constant / Alternating
Short circuit current withstand (Iwc)	.....kW (t=1s)
Maximum voltage drop	Δ V..... %
Minimum degree of protection	IP.....
Conductor material	Al Cu

Busbar trunking type	
Feed from transformer to switchboard	
Feed from one switchboard to another	
Feed from generator to switchboard	
Distribution (with tap-off units)	
Special purpose	.....
Overall length	
Feeder sections	..... m
Distribution sections	..... m
Vertical sections	..... m

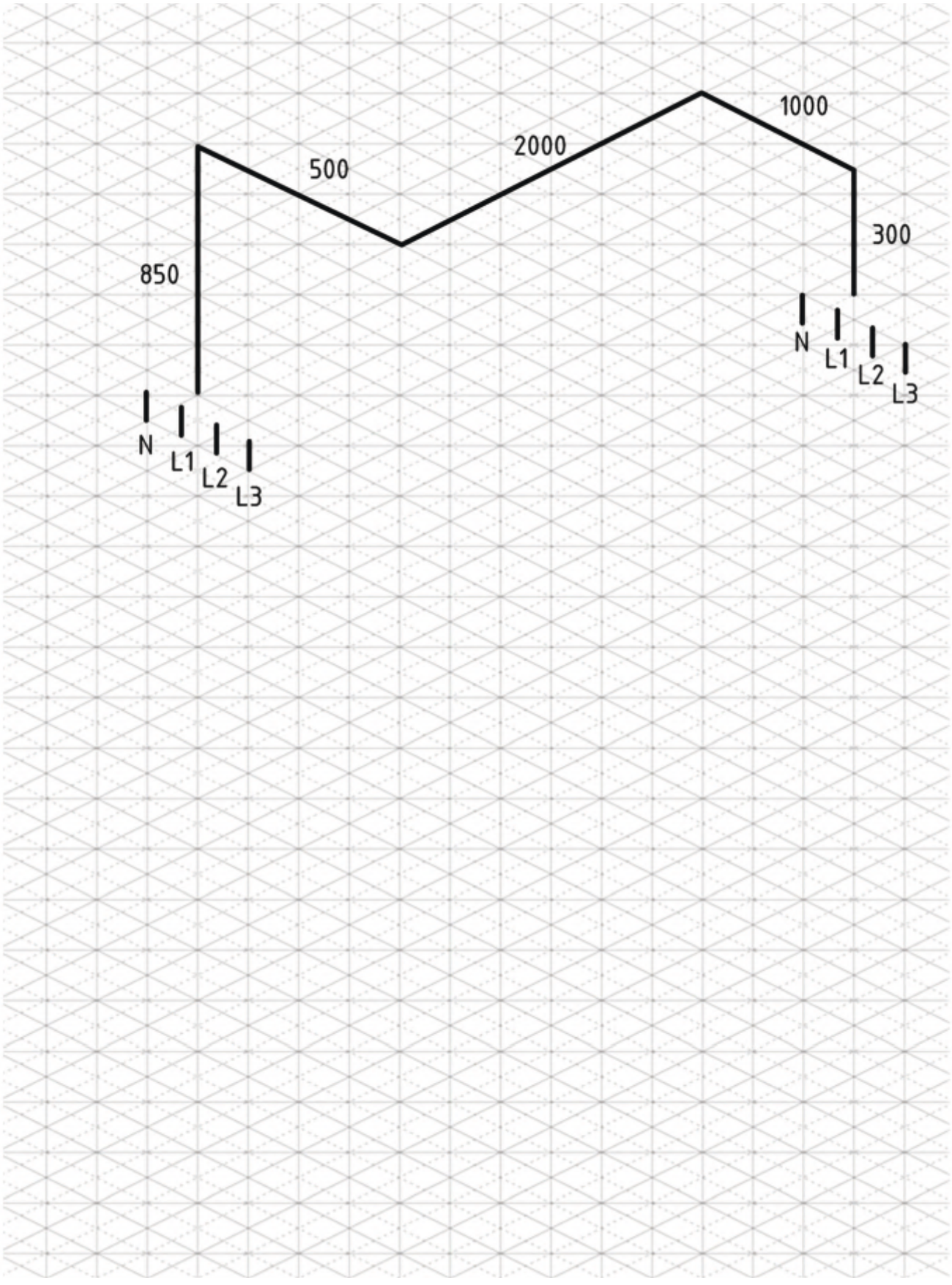
Busbar trunking connection		
Connection between busbar trunking and switchboard	Yes	No
Connection between busbar trunking and transformer	Yes	No
Cast resin dry transformer		
Cast resin dry transformer with enclosure		
Oil transformer		
Flexible connection between transformer and busbar trunking	Yes	No

Tap-off units	
Empty boxes	
With fuse	
With disconnector and fuse holder	
Tap-off box for circuit breakers (circuit breaker included)	

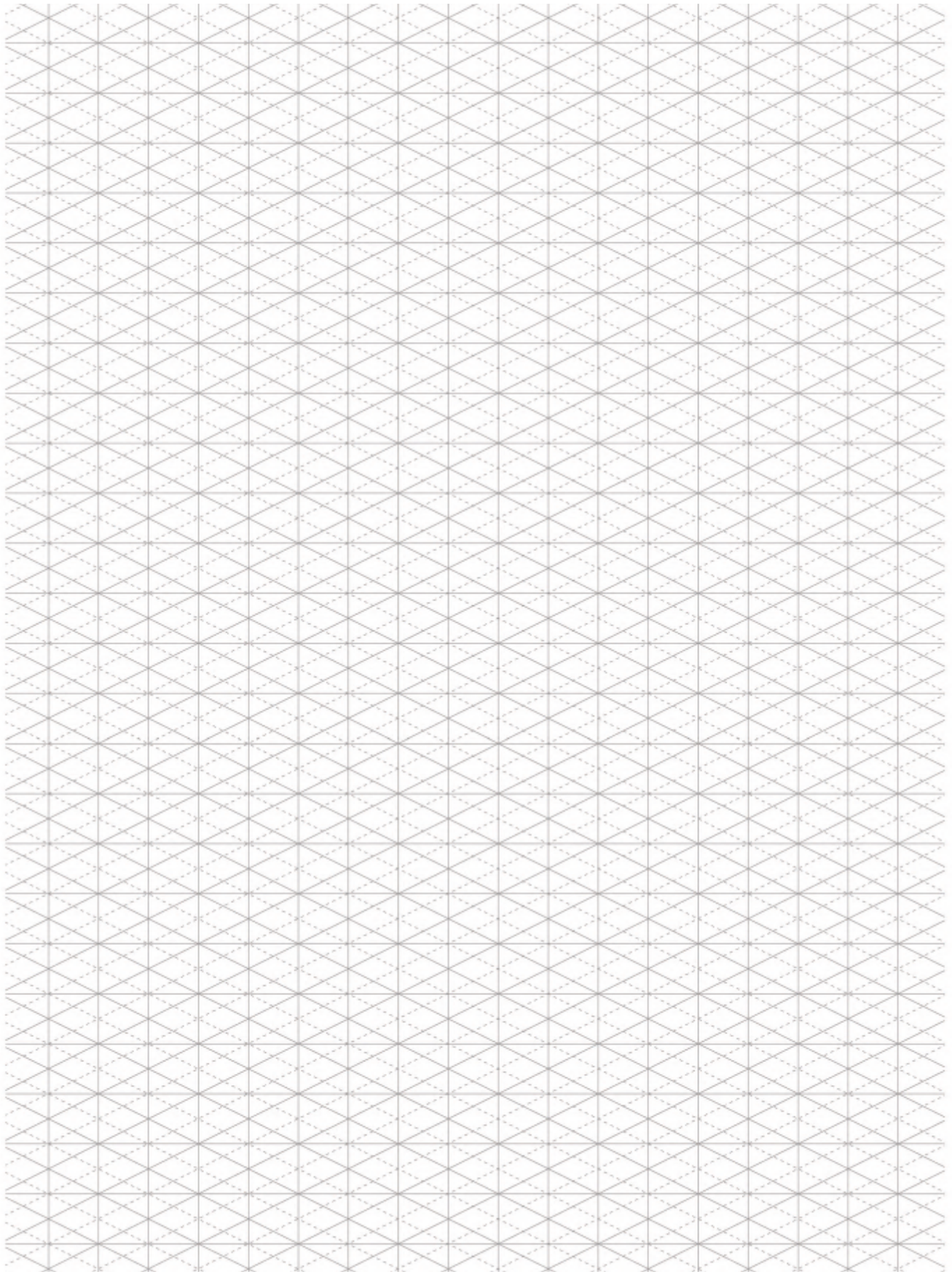
Mounting accessories		
	For horizontal route	For vertical route

Fire barrier, protection time	
	..... minutes

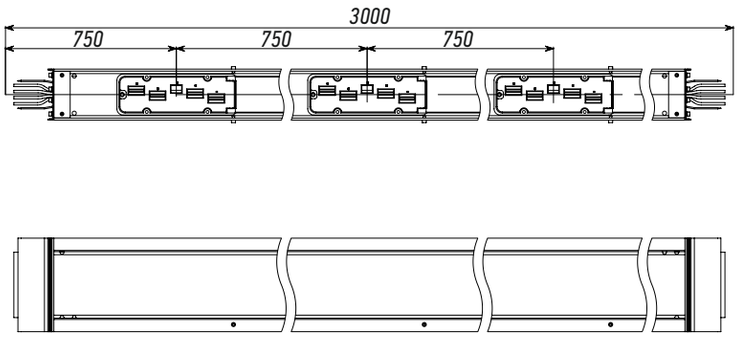
Example of creating a 3D model of a system



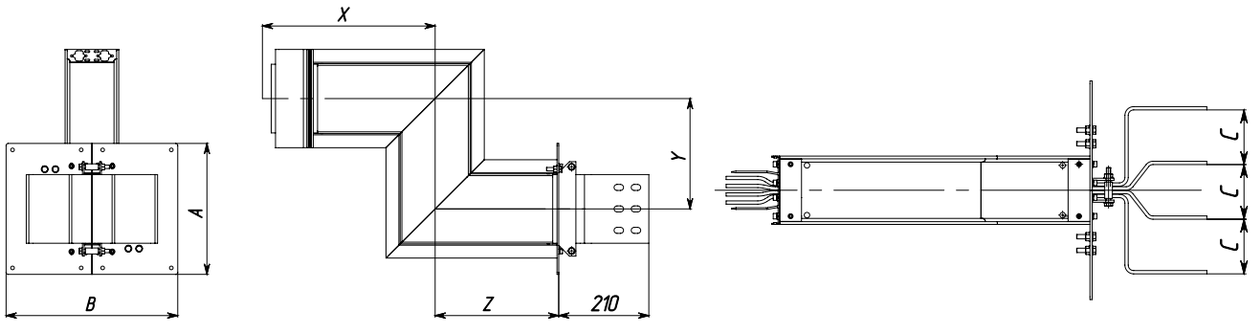
Draft for creating a 3D model of a system



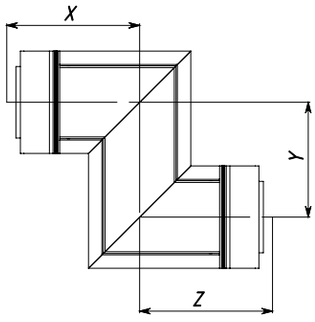
Power take-off section with plug-in contact



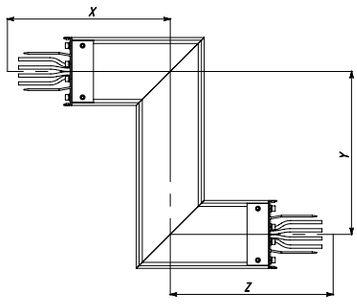
Double elbow (Z-shaped) vertical unit with flange



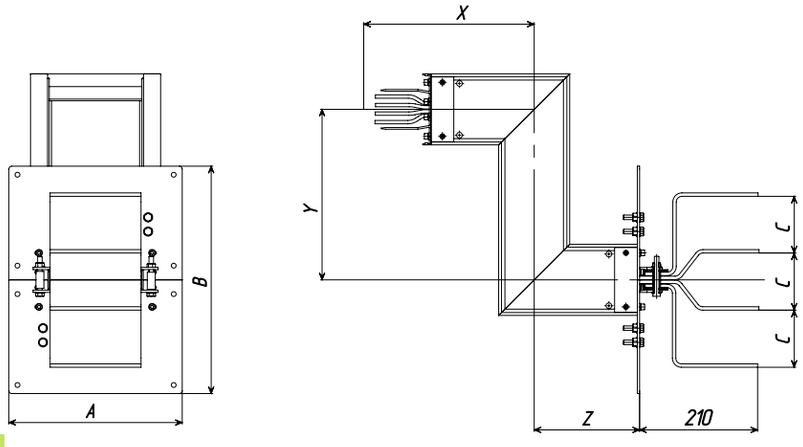
Double elbow (Z-shaped) vertical unit



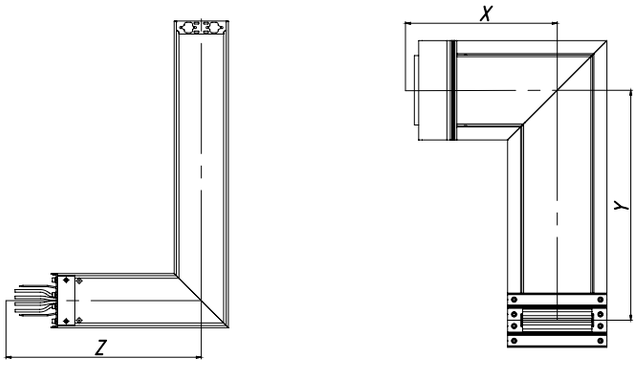
Double elbow (Z-shaped) horizontal unit



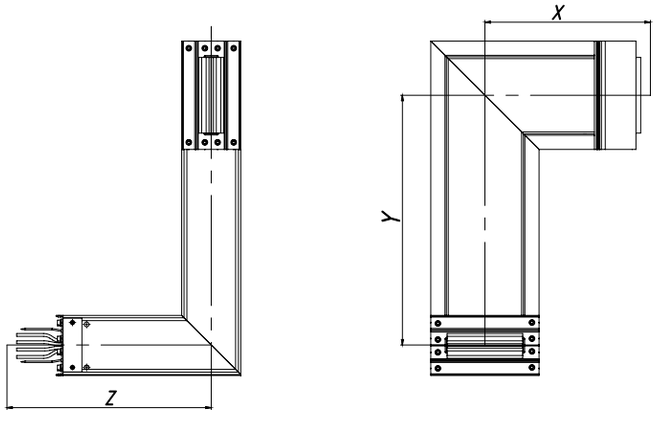
Double elbow (Z-shaped) horizontal unit with flange



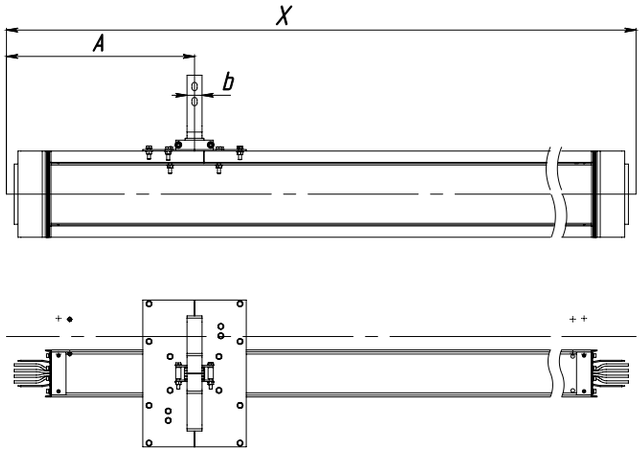
Left-hand combination unit



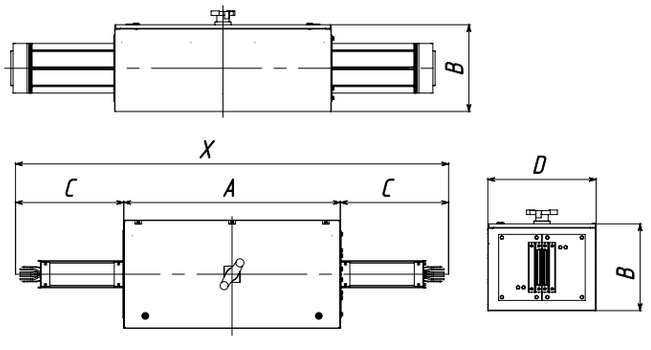
Right-hand combination unit



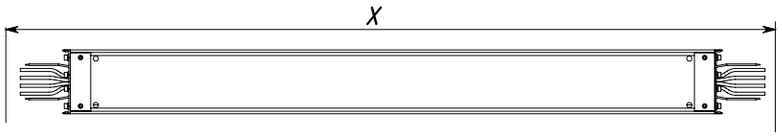
Tap-off unit (fixed)



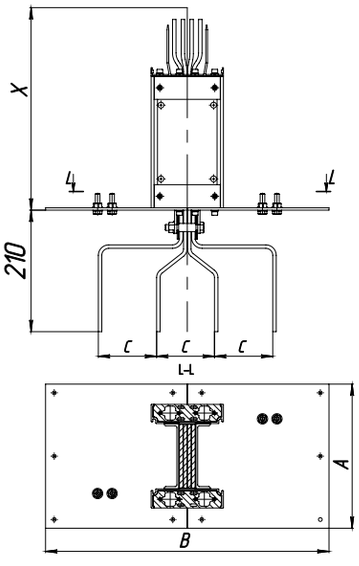
Sectionalizer unit



Power take-off section with plug-in contact

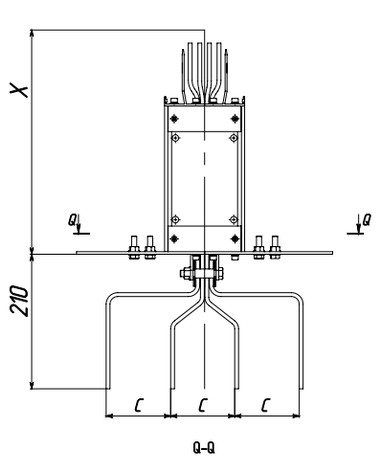


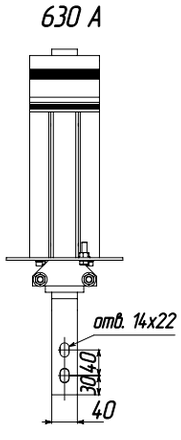
Straight unit with flange

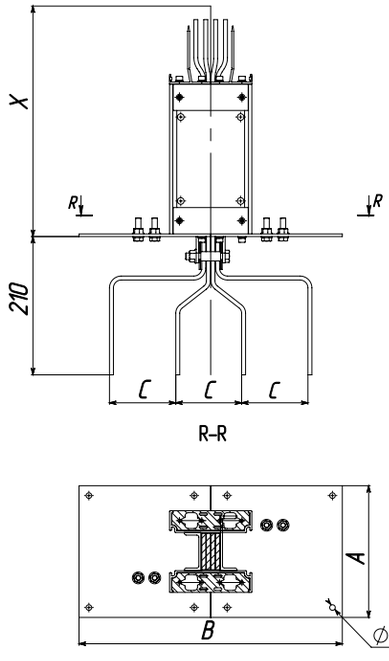


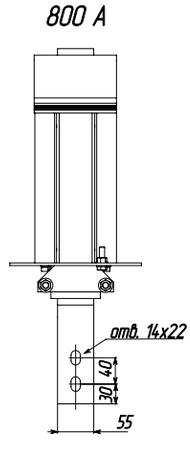
Rating A	A	B	X
630	182	400	350
800	200	400	350
1000	226	400	350
1250	249	400	350
1600	305	400	350
2000	351	400	350
2500	351	490	350
3200	504	490	350
4000	596	490	350
5000	596	490	350
6400	763	490	350

*The customer specifies the C size

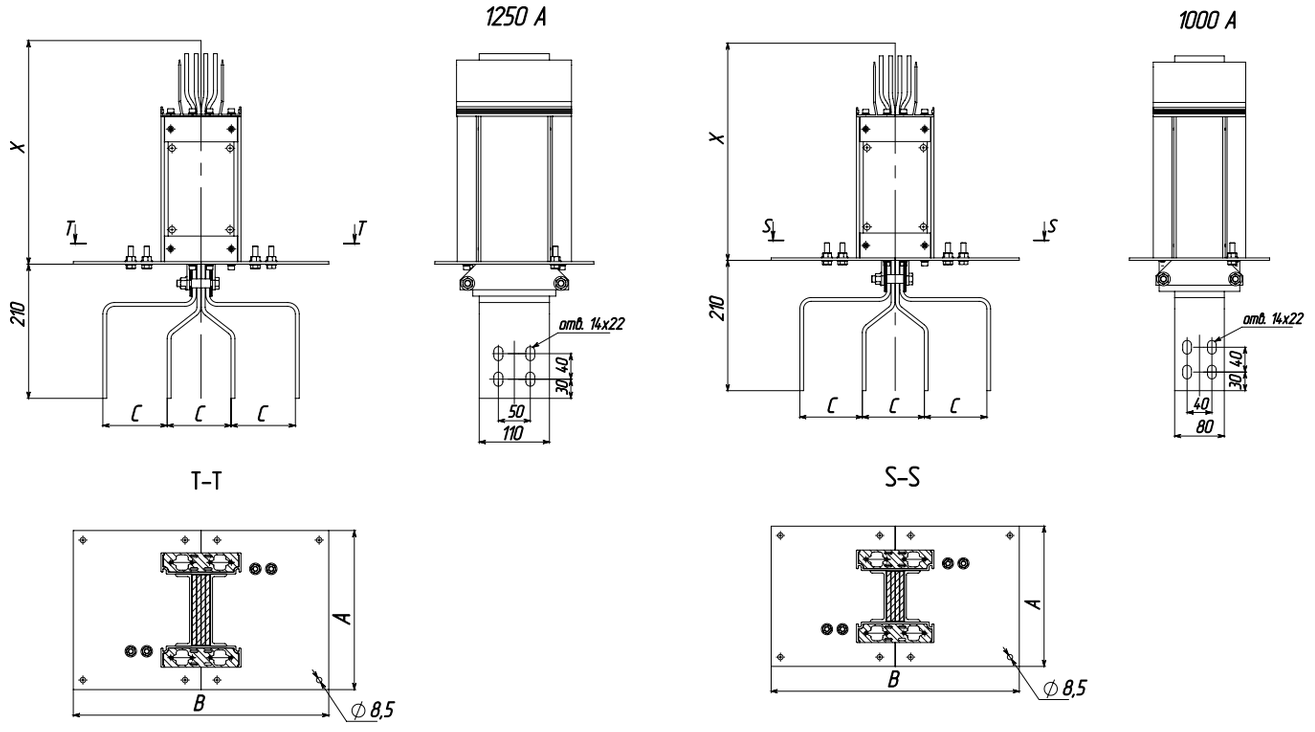


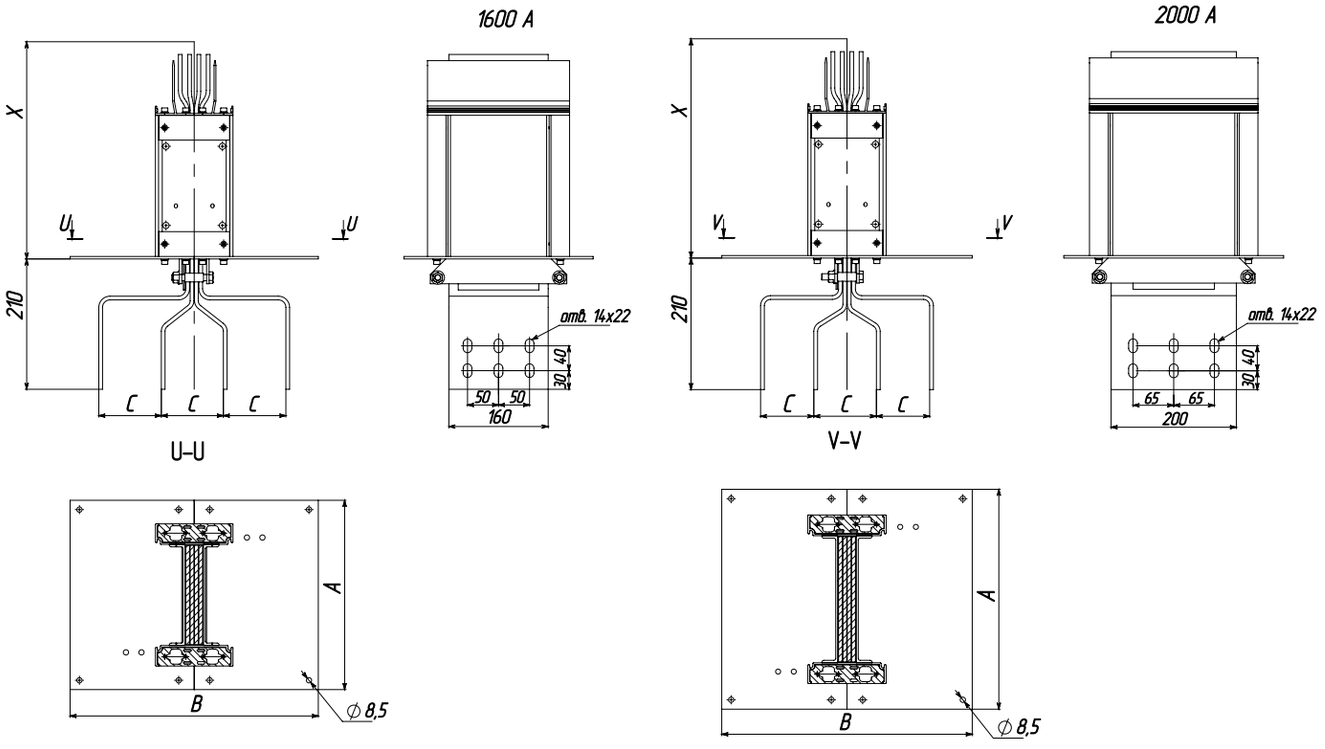




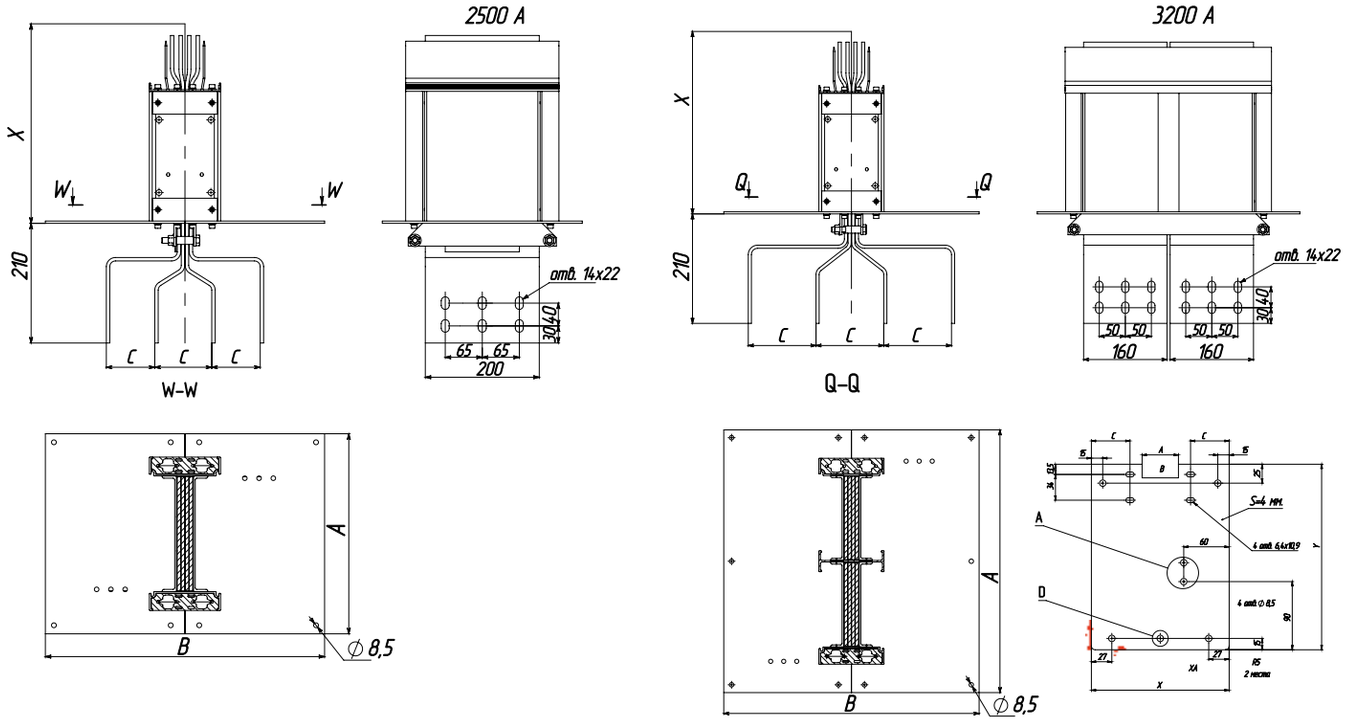


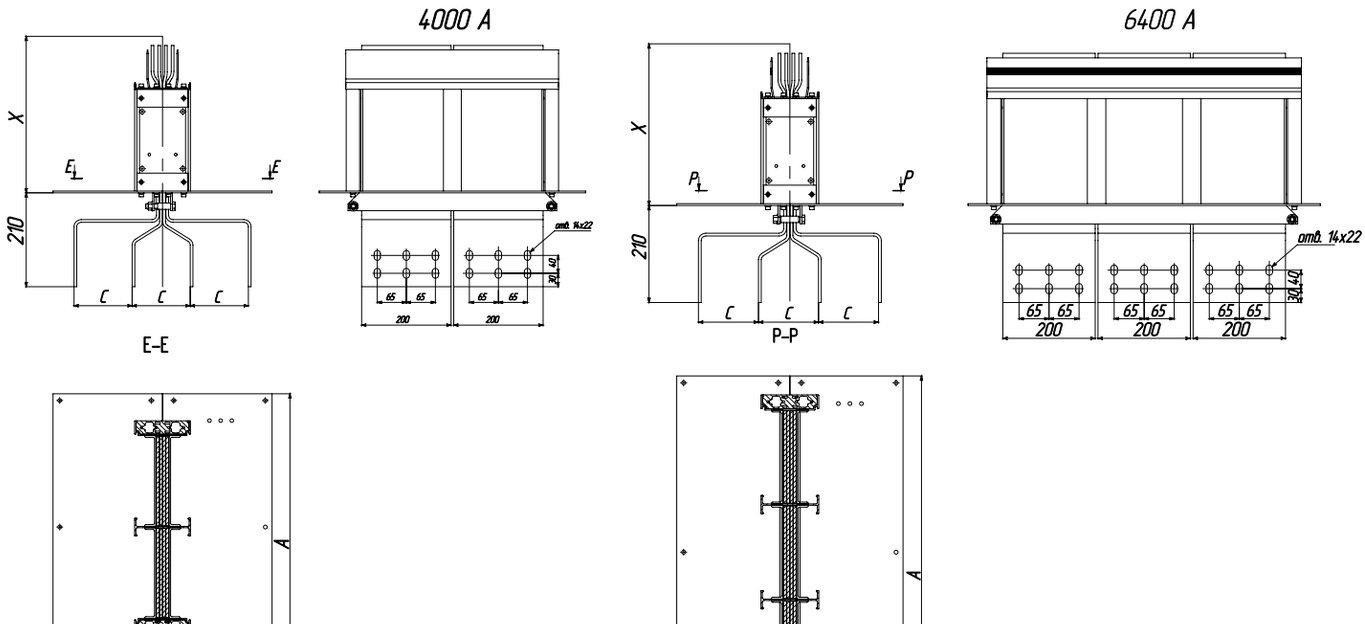
Straight unit with flange



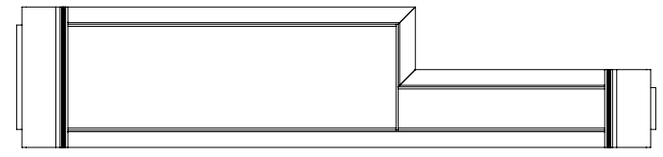


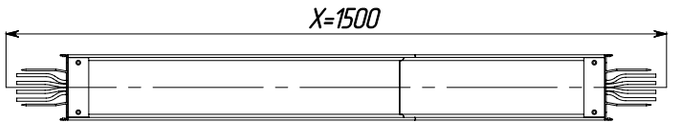
Straight unit with flange



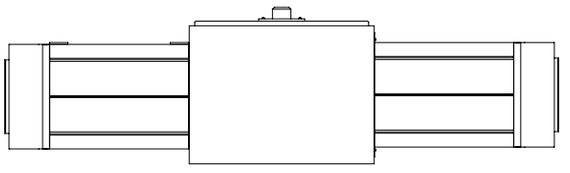


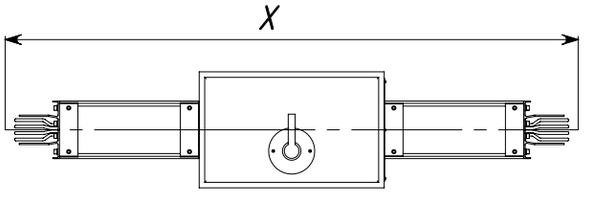
Reducer



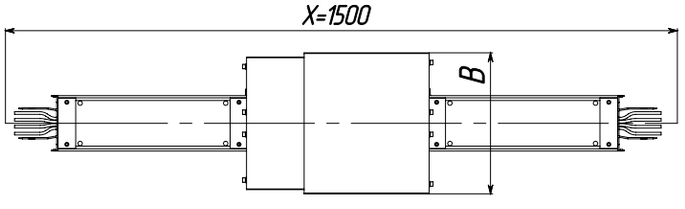


Sectionalizer unit





Compensation unit



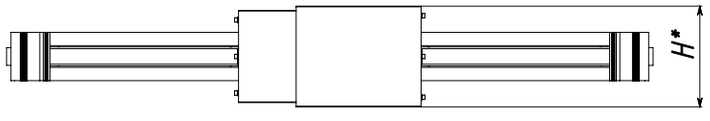
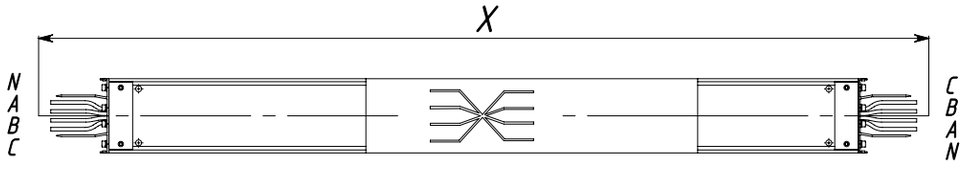


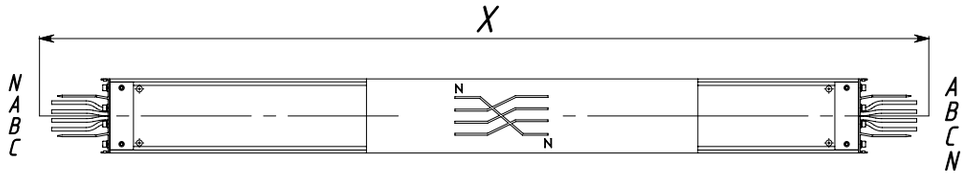
Table 2 Dimensions

Rating, A	H	H1	B
630	227	110	318
800	242	125	
1000	257	150	
1250	287	180	
1600	337	230	
2000	377	270	
2500	377	270	328

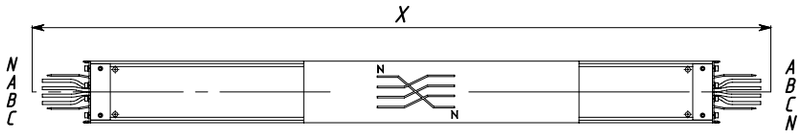
Compensation unit



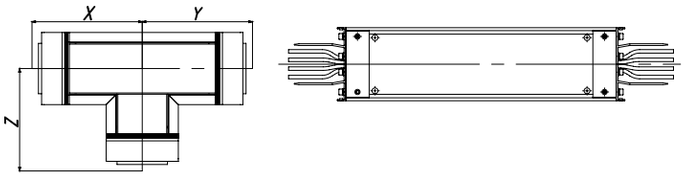
Compensation unit



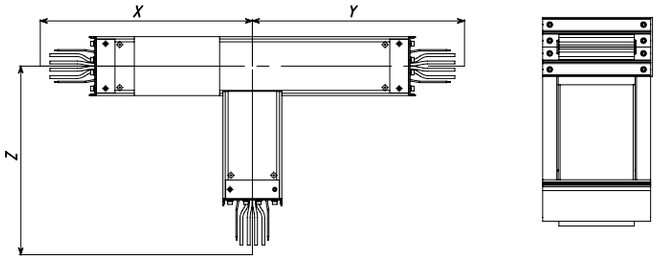
Phase transposition unit



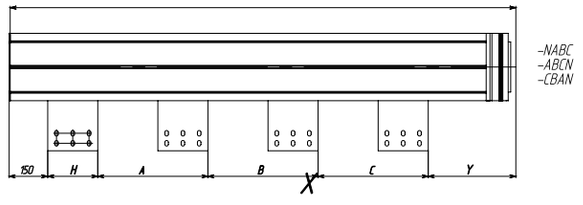
T-shaped vertical unit

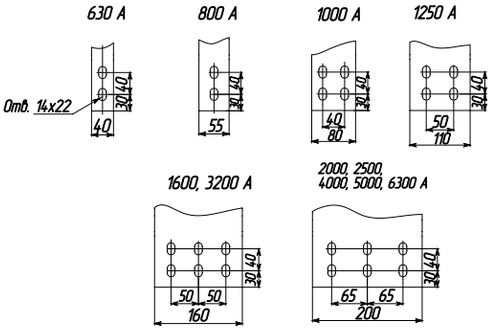


T-shaped vertical unit

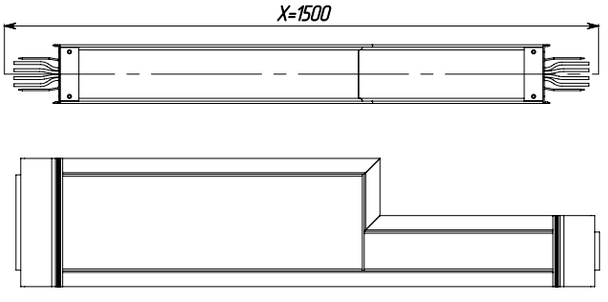


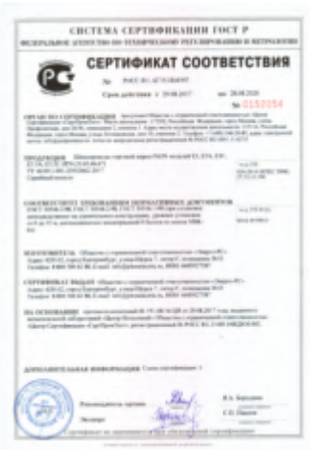
Transformer section vertical





Reducer







INSTALLATION INSTRUCTIONS FOR E3-SERIES BUSBAR TRUNKUNG

Safety instructions

Safety precautions during installation of the busbar trunking must comply with the requirements of the "Instructions on Safety Regulations for Electrical Installation Work". Personnel must wear rubber gloves, hardhat, safety glasses and protective clothing in accordance with established safety regulations.

1 Preparation

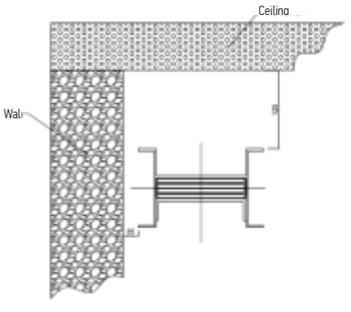
The first step is to mark the axes and locations of the mounting structures at the site of installation. The choice of the type of mounting structures is determined by the method of installation of busbar trunking. For example, wall brackets are used when installing the busbar along the walls, brackets together with hangers are used when installing along the columns, floor stands or hangers are used for installation above the floor, etc.
Carefully check the routing for obstacles, heat sources, moisture and other obstructions.

Install mounting hardware and accessories. Set the standard distance between the fasteners to support one busway element in two positions.

It is recommended to start by connecting the conductors of the busbar trunking to the transformer or switchboard. If this is not possible, determine the exact position of the corners, T-connectors, and other elements that serve as starting points when installing the busway, and then begin the assembly.

Minimum clearance for heat dissipation during installation

А



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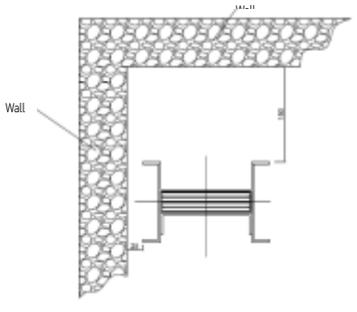

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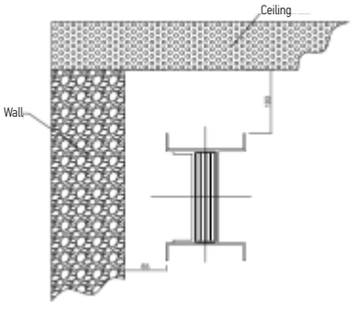
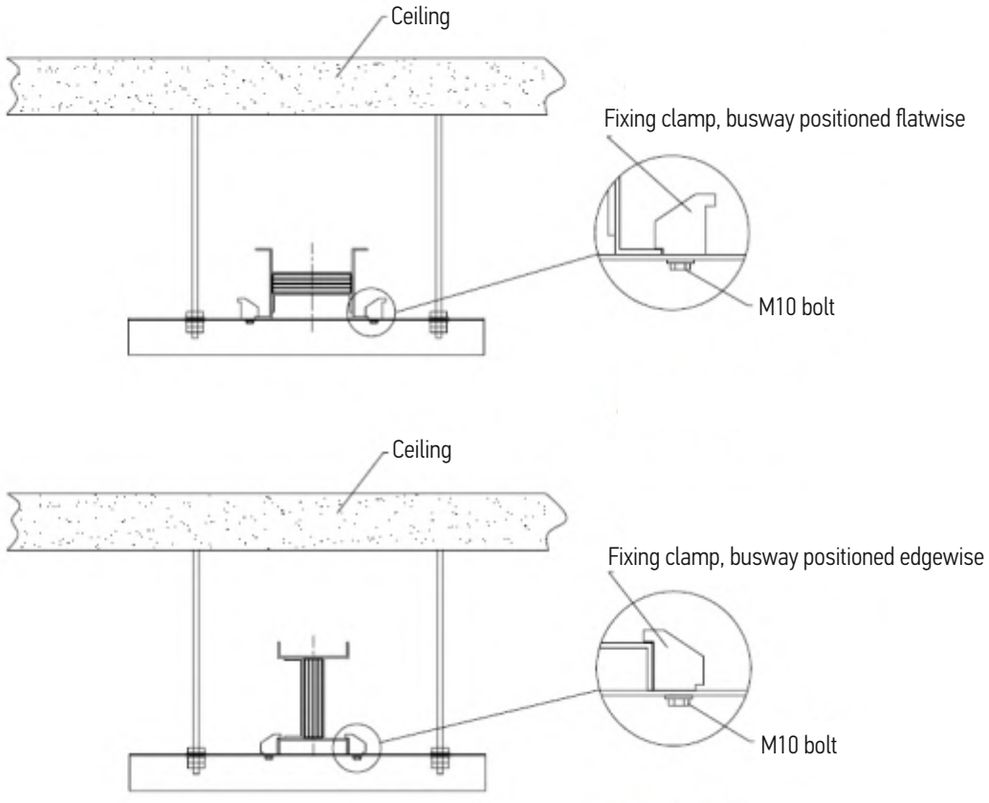
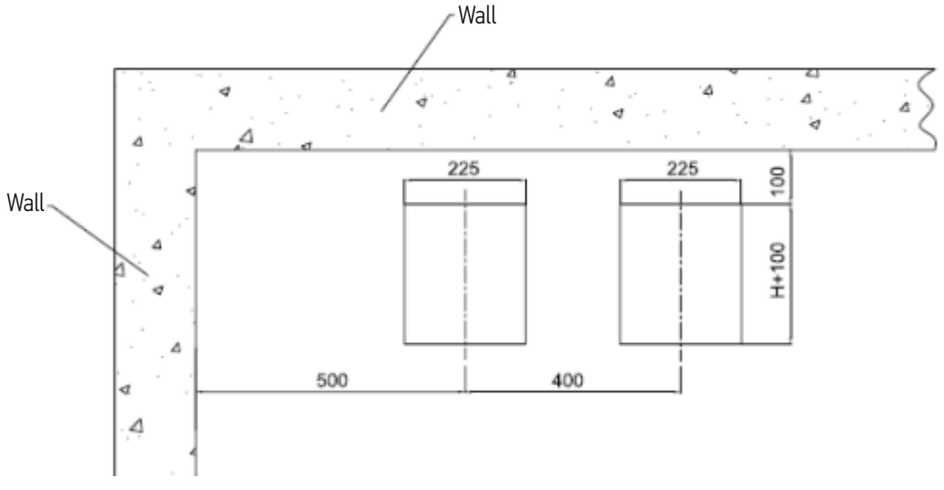


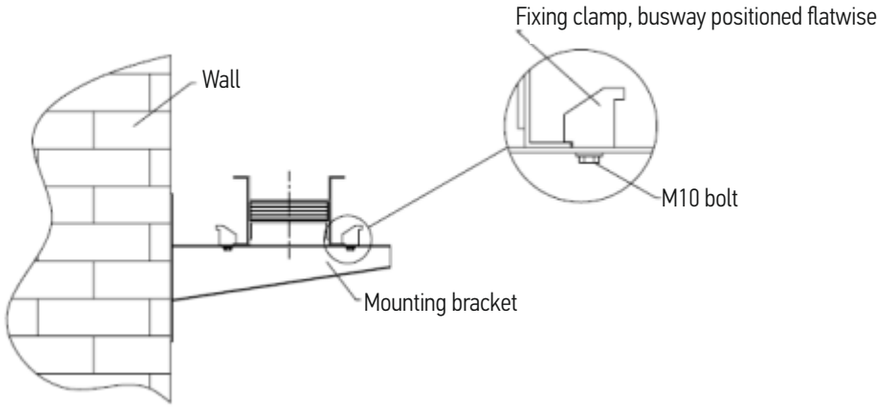
Mounting on a horizontal plane

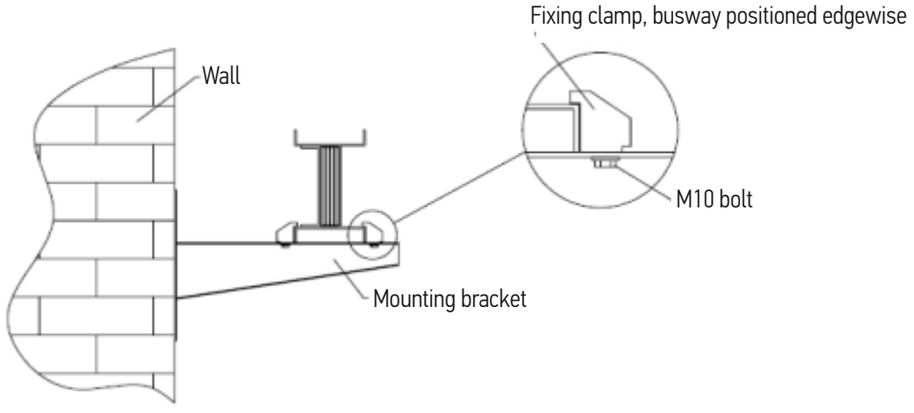


Mounting in a vertical plane

The dimensions of the mounting entry openings in vertical installation are given in the Figure. Make sure that the distance between two adjacent busways is no less than 350mm; pay special attention if they are at the same junction.



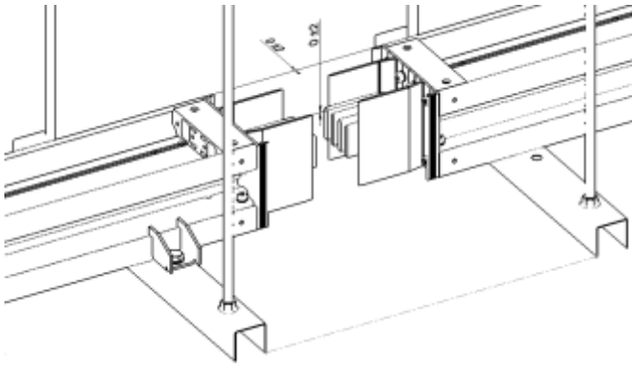


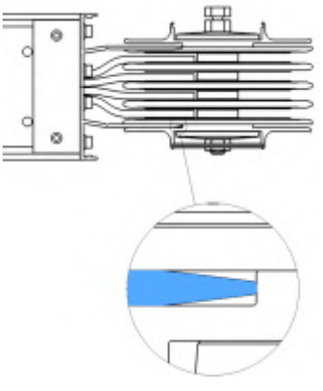


2 Installing the joint

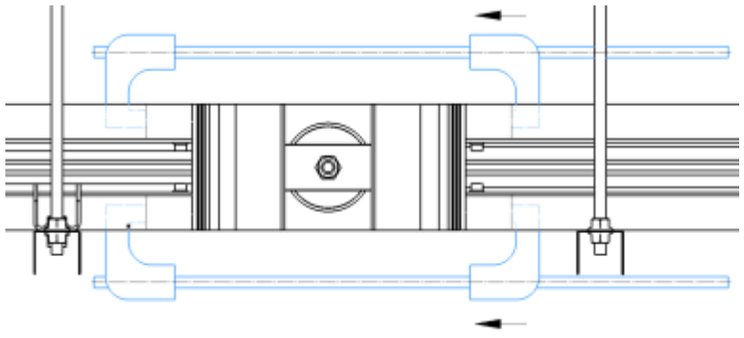
The busway sections must be on the same level with each other. Maximum allowed margin is 2mm.

Once one of the sections is fixed, it is necessary to install the joint block, having previously loosened the bolt a few turns, but so that the nut is pressed on the double-headed bolt. The joint block must press against the section as shown in the illustration.

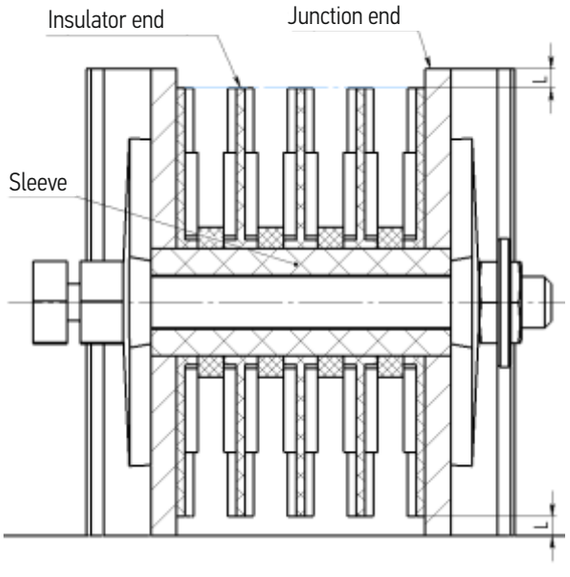




The conductive plates of the joint block must never contact the busbar insulation.
On the other side of the joint block, install the second section. If necessary, clamps can be used to install the second section.



Make sure that the insulators of the joint block are level and the distance from the end of the insulator to the end of the joint block is the same on both sides (dimension L).



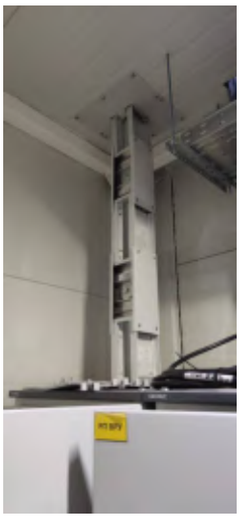
Tighten the bolt three to four turns without shearing the head, then make sure there is no play in the joint block and tighten the bolt until the head comes off. Tightening torque for the shear-head bolt should be between 85 and 95 Nm.

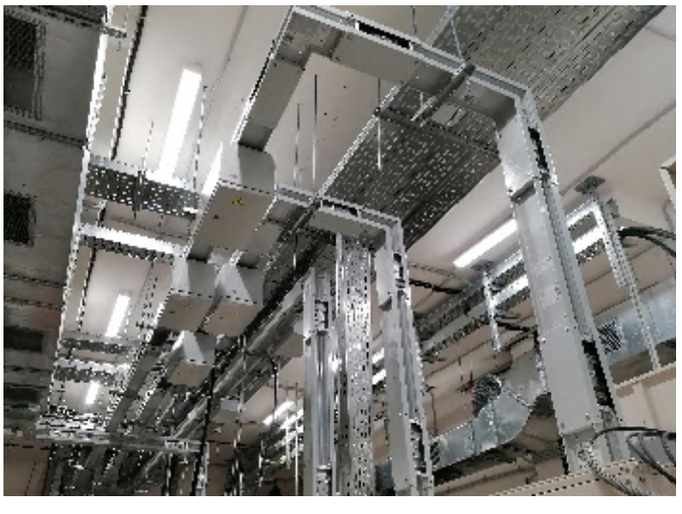
3 Installing the protective covers

Mount the joint protection covers with the screws previously unscrewed from the sections. The tightening torque of the screws should not exceed 5...7 Nm. Four M6x16 screws are required per cover.

Make sure that the joint covers fit tightly to the sections and joint blocks, without gaps and warping of the joint covers.





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