EAE
ELEKTRİK

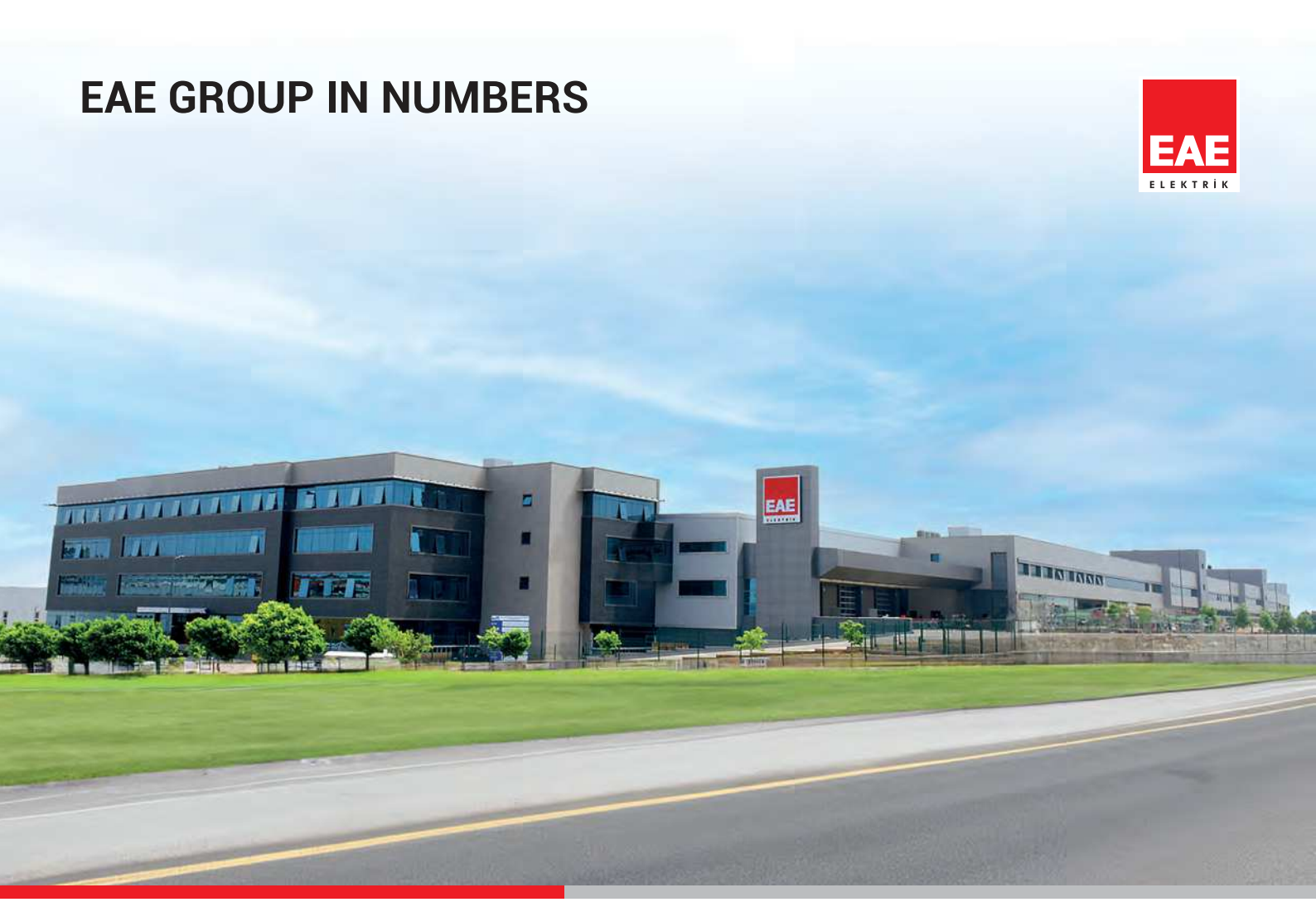


E-LINE KD

Data Rack Busbar Systems 160A...1000A

www.eaeelectric.com

EAE GROUP IN NUMBERS



Since 1973

EAE Group of Companies started its journey in the electrical sector in 1973 with the establishment of EAE Elektrik. Since its founding, EAE has grown rapidly, expanding its production and areas of operation by incorporating EAE Lighting in 1983, EAE Machinery in 1996, EAE Electrotechnics in 2004, and EAE Technology in 2009.

EAE carries out its production activities in accordance with ISO 9001 Quality Management, ISO 14001 Environmental Management, ISO 14064-1 Greenhouse Gas Management System, ISO 45001 Occupational Health and Safety Management, ISO 10002 Customer Satisfaction Management, ISO 50001 Energy Management System, and ISO 27001 Information Security Management System standards.

50+
Years Experience

7
Active Factories

360.000m²
Enclosed Space

3
R&D Centers

150+
Countries Exported To

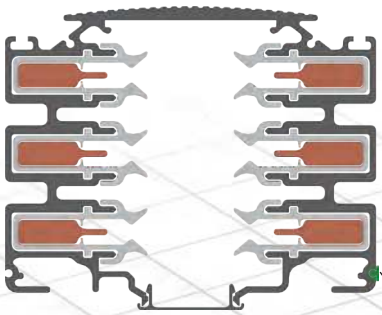
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E-LINE KD

Overview

To power the mission critical IT infrastructures on the Data Rack Cabinets, EAE offers a highly flexible and reliable Busbar System to meet the “Scalability” challenge in the Data Centers finding the way to Moves, Adds and Changes (MACs).



Al or Cu conductor options with whisker free coating

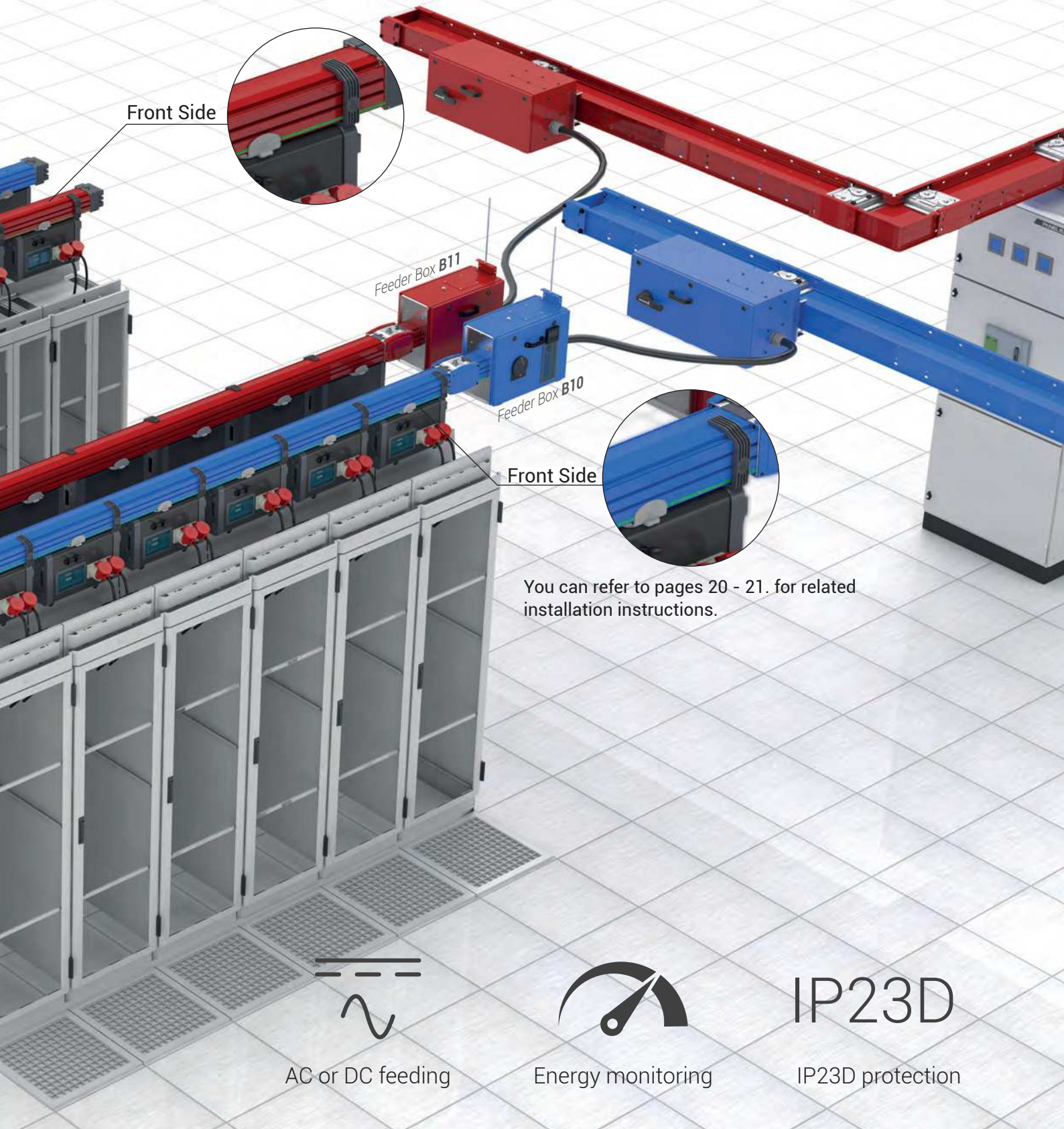


Front Side

Feeder Box **B10**

Feeder Box **B11**

Whisker free and tin plated solid form conductors ensure for better heat dissipation, higher short circuit values and longer operation life while significantly contributing to the “Availability” challenge in the data center environments



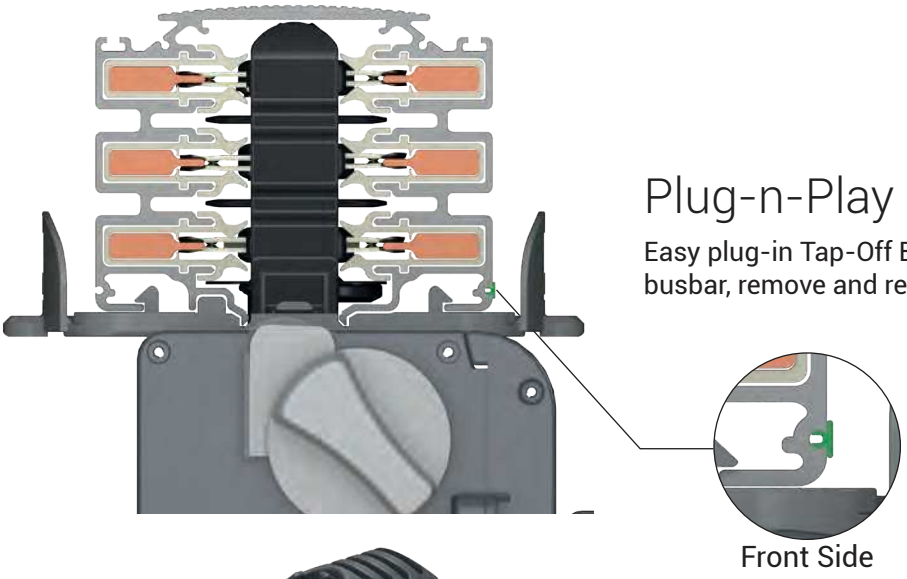
You can refer to pages 20 - 21. for related installation instructions.

AC or DC feeding

Energy monitoring

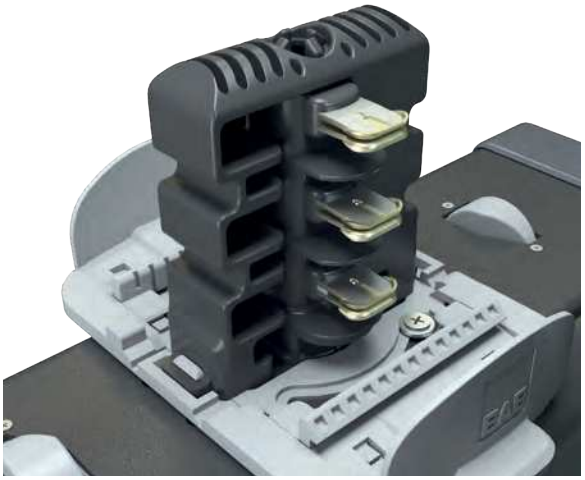
IP23D

IP23D protection



Plug-n-Play

Easy plug-in Tap-Off Boxes on any point along the busbar, remove and relocate wherever necessary



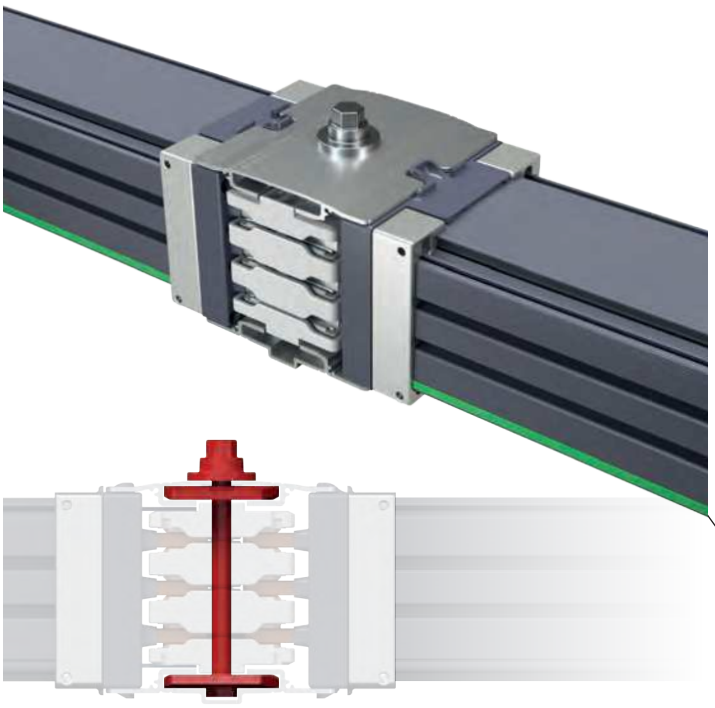
Tap-Off Contacts

Constant contact pressure with double sided spring system and safe locking mechanism on Tap-Off Box contacts



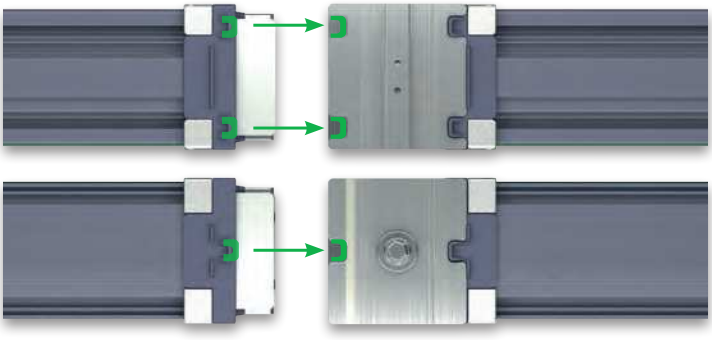
Snap-In Suspension Mechanism

Easy and fast structural mounting thanks to Snap-In Fixing Unit



Joint Mechanism

Safe alignment mechanism with a single bolt monoblock joint for correct installation and operation



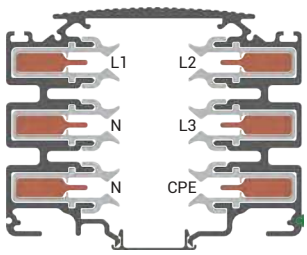
Easy and Safe Installation

Patented EAE Alignment Solution, ideal alignment of the block joint element and busbar thanks to the alignment guides on the joint area

E-LINE KD

Technical Characteristics

Standards	IEC 61439-6, TS EN 61439-6, IEC 61439-1, TS EN 61439-1			
Rated Isolation Voltage	Ui: 1000 V at Cat IV			
Max. Rated Operational Voltage	Ue: 1000 Vac			
Rated Impulse Withstand Voltage	Uimp: 12 kV			
Rated Frequency	f: 50 Hz			
Pollution Degree	III			W
Protection Degree	IP23D			
External Mechanical Impacts (IK Code)	IK08			
Protection for Safety	Basic Protection (HD 60364-4-41, Clause A1)			



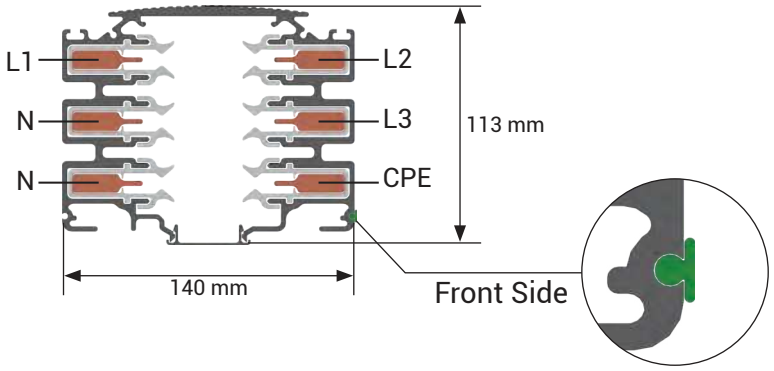
			Al				
RATED CURRENT	**I_n**	**A**	160	250	400	630	800
BUSBAR CODE			01	02	04	06	08
MEAN PHASE CONDUCTOR CHARACTERISTICS AT RATED CURRENT	ENT I_n						
Resistance at a conductor temperature of 20 °C	R_{20}	mΩ/m	0,358	0,352	0,234	0,159	0,115
Average resistance at In, thermal balance	R	mΩ/m	0,403	0,426	0,299	0,220	0,156
Reactance (Independent from Temperature)	X	mΩ/m	0,098	0,100	0,087	0,077	0,064
Positive and negative sequence impedances at an ambient air temperature of 35 °C	Z	mΩ/m	0,415	0,437	0,311	0,233	0,168
Positive and negative sequence impedances at a conductor temperature of 20 °C	Z_{20}	mΩ/m	0,371	0,366	0,249	0,177	0,131
Rated Power Loss at In		W/m	30,1	76,9	140,0	252,4	299,5
Aluminium Housing Section (Aluminium)		mm²	3302	3302	3302	3302	3302
Busbar Weight (4 Conductors)		kg/m	11,1	11,1	12,3	12,6	16,3
Busbar Weight (5 Conductors)		kg/m	11,4	11,4	11,8	13,3	17,3
Busbar Weight (6 Conductors)		kg/m	11,6	11,6	12,3	14,0	18,3
MEAN FAULT-LOOP CHARACTERISTICS							
ZERO-SEQUENCE IMPEDANCE							
Zero-sequence impedance at a conductor temperature of 20 °C	$Z_{(0)b20phN}$	mΩ/m	1,482	1,482	1,016	0,725	0,538
Zero-sequence impedance at a conductor temperature of 20 °C (Housing)	$Z_{(0)b20phPE}$	mΩ/m	0,701	0,701	0,350	0,287	0,193
Zero-sequence impedance at a conductor temperature of 20 °C (Double Notr)	$Z_{(0)b20ph2N}$	mΩ/m	0,988	0,988	0,686	0,510	0,368
Zero-sequence impedance at a conductor temperature of 20 °C (CPE)	$Z_{(0)20phCPE}$	mΩ/m	1,509	1,509	1,039	0,743	0,518
Zero-sequence impedance at an ambient temperature of 35 °C	$Z_{(0)bphN}$	mΩ/m	1,659	1,775	1,272	0,968	0,699
Zero-sequence impedance at an ambient temperature of 35 °C (Housing)	$Z_{(0)bphPE}$	mΩ/m	0,787	0,844	0,441	0,389	0,255
Zero-sequence impedance at an ambient temperature of 35 °C (Double Notr)	$Z_{(0)bph2N}$	mΩ/m	1,106	1,184	0,856	0,680	0,479
Zero-sequence impedance at an ambient temperature of 35 °C (CPE)	$Z_{(0)bphCPE}$	mΩ/m	1,689	1,807	1,300	0,989	0,672
RESISTANCES AND REACTANCES							
Resistance at a conductor temperature of 20 °C	$R_{b20phph}$	mΩ/m	0,722	0,722	0,483	0,346	0,251
Resistance at a conductor temperature of 20 °C	R_{b20phN}	mΩ/m	0,718	0,718	0,479	0,342	0,248
Resistance at a conductor temperature of 20 °C (Double Notr)	$R_{b20ph2N}$	mΩ/m	0,558	0,558	0,373	0,274	0,192
Resistance at a conductor temperature of 20 °C (Housing)	$R_{b20phPE}$	mΩ/m	0,473	0,473	0,271	0,207	0,143
Resistance at a conductor temperature of 20 °C (CPE)	$R_{b20phCPE}$	mΩ/m	0,723	0,723	0,485	0,343	0,236
Resistance at an ambient air temperature of 35 °C	R_{bphph}	mΩ/m	0,815	0,875	0,618	0,479	0,340
Resistance at an ambient air temperature of 35 °C	R_{bphN}	mΩ/m	0,809	0,869	0,613	0,473	0,337
Resistance at an ambient air temperature of 35 °C (Double Notr)	R_{bph2N}	mΩ/m	0,629	0,676	0,478	0,378	0,261
Resistance at an ambient air temperature of 35 °C (Housing)	R_{bphPE}	mΩ/m	0,533	0,572	0,347	0,286	0,194
Resistance at an ambient air temperature of 35 °C (CPE)	R_{bphCPE}	mΩ/m	0,815	0,875	0,620	0,475	0,320
Reactance (Independent from temperature)	X_{bphph}	mΩ/m	0,194	0,194	0,169	0,142	0,118
Reactance (Independent from temperature)	X_{bphN}	mΩ/m	0,199	0,199	0,170	0,140	0,116
Reactance (Double Notr) (Independent from temperature)	X_{bph2N}	mΩ/m	0,152	0,152	0,135	0,114	0,089
Reactance (Housing) (Independent from temperature)	X_{bphPE}	mΩ/m	0,103	0,103	0,086	0,075	0,060
Reactance (CPE) (Independent from temperature)	X_{bphCPE}	mΩ/m	0,199	0,199	0,173	0,145	0,113
SHORT CIRCUIT RATING							
Rated Short-time Withstand Current (1s) (Three phase)	Icw	kA	10	10	20	25	25
Rated Peak Withstand Current	Ipk	kA	17	17	40	52,5	52,5
Rated Short-time Withstand Current for Neutral Conductor(1s)(Single phase)	Icw	kA	6	6	12	15	15
Rated Peak Withstand Current for Neutral Conductor	Ipk	kA	10,2	10,2	24	30	30
Rated Short-time Withstand Current for PE (Housing) Conductor(1s)(Single phase) süreli akım)	Icw	kA	6	6	12	15	15
Rated Peak Withstand Current for PE (Housing) Conductor	Ipk	kA	10,2	10,2	24	30	30
Rated Short-time Withstand Current for CPE Conductor(1s)(Single phase)	Icw	kA	6	6	12	15	15
Rated Peak Withstand Current for CPE Conductor	Ipk	kA	10,2	10,2	24	30	30
Short Circuit Conditional Rating (KAIC) at 415V	Icc	kA	70	70	70	70	70

E-LINE KD

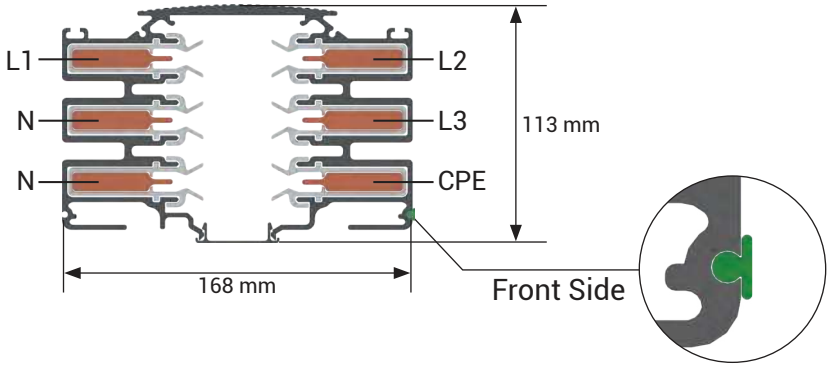
Technical Characteristics

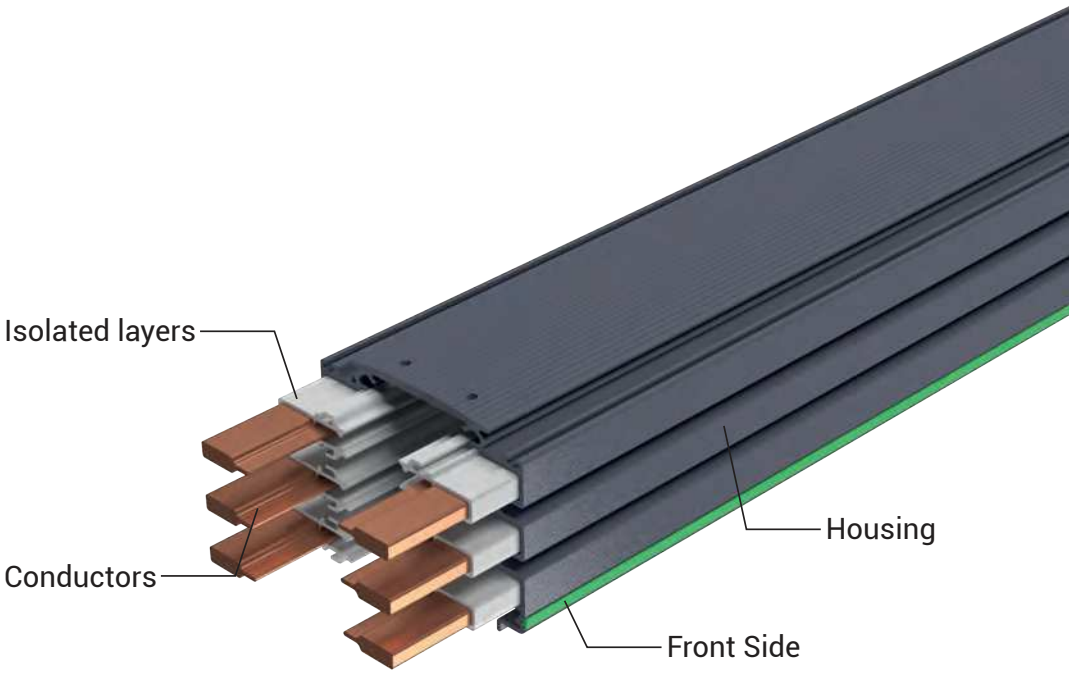
Cu				
250	400	630	800	1000
02	04	06	08	10
0,215	0,211	0,140	0,101	0,080
0,246	0,274	0,198	0,139	0,107
0,100	0,101	0,090	0,077	0,070
0,265	0,292	0,218	0,159	0,127
0,237	0,234	0,167	0,127	0,105
43,7	127,5	228,3	257,0	321,0
3302	3302	3302	3302	3302
13,6	13,6	11,6	14,3	26,43
14,6	14,6	13,0	17,0	29,68
15,3	15,3	14,3	18,3	32,94
0,949	0,949	0,682	0,501	0,363
0,367	0,367	0,292	0,193	0,151
0,649	0,649	0,485	0,358	0,282
0,962	0,962	0,707	0,518	0,374
1,063	1,191	0,902	0,636	0,445
0,416	0,470	0,400	0,256	0,195
0,727	0,814	0,643	0,456	0,348
1,077	1,206	0,934	0,659	0,456
0,433	0,433	0,305	0,222	0,156
0,434	0,434	0,301	0,219	0,153
0,340	0,340	0,241	0,178	0,130
0,261	0,261	0,192	0,136	0,100
0,427	0,427	0,305	0,223	0,155
0,494	0,562	0,430	0,305	0,207
0,496	0,564	0,424	0,301	0,203
0,389	0,442	0,339	0,245	0,173
0,298	0,339	0,271	0,187	0,133
0,488	0,555	0,430	0,307	0,206
0,196	0,196	0,170	0,143	0,112
0,197	0,197	0,170	0,141	0,111
0,157	0,157	0,137	0,113	0,090
0,102	0,102	0,088	0,072	0,054
0,214	0,214	0,174	0,146	0,115
18	18	25	40	40
36	36	53	84	84
10,8	10,8	15	24	24
21,6	21,6	30	50,4	50,4
10,8	10,8	15	24	24
21,6	21,6	30	50,4	50,4
10,8	10,8	15	24	24
21,6	21,6	30	50,4	50,4
70	70	70	70	70

Housing Type 1: 160A...630A (Al); 250A...800A (Cu)



Housing Type 2: 1000A (Cu)





E-LINE KD

Order Code System

BUSBAR TYPE
CONDUCTOR MATERIAL
BUSBAR CODE
PROTECTION DEGREE
CONDUCTOR CONFIGURATION
TYPE
COMPONENT

KD **A** **02** **2** **04** - **B** - **STD**

Busbar Type

Aluminium (Al) **A**
Copper (Cu) **C**

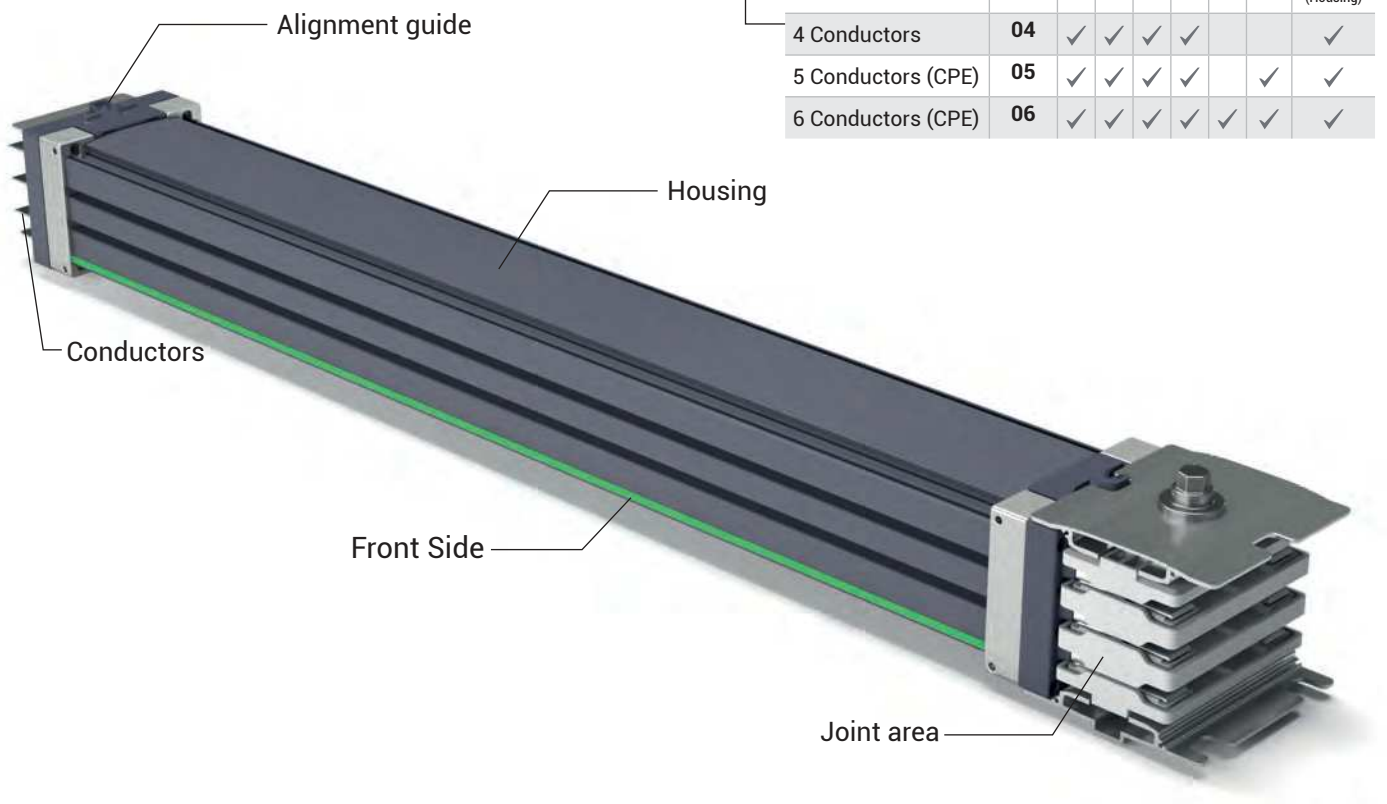
Al Conductor		Cu Conductor	
Rated Current	Busbar Code	Rated Current	Busbar Code
160	01	-	-
250	02	250	02
400	04	400	04
630	06	630	06
800	08	800	08
-	-	1000	10

IP23D

Standard Length	STD
Special Length	X
Feeder Box	B10
Feeder Box	B11
End Closer	S
Left Elbow	L
Right Elbow	R
Central Feeder	TO
Left Side Feeder	TYL
Right Side Feeder	TYR

Type	
Painted	B

Conductor Configuration								
Conductors	**Code**	**L1**	**L2**	**L3**	**N1**	**N2**	**CPE**	**PE** (Housing)
4 Conductors	**04**	✓	✓	✓	✓			✓
5 Conductors (CPE)	**05**	✓	✓	✓	✓		✓	✓
6 Conductors (CPE)	**06**	✓	✓	✓	✓	✓	✓	✓

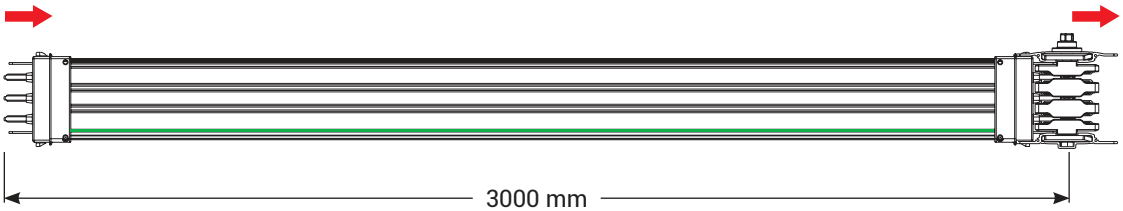


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Standard Straight Length

Standard Length

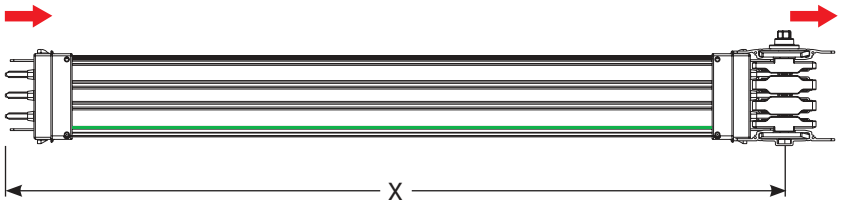
Sample Order:
250 A, Aluminium,
IP23D, 6 Conductors,
Painted
KDA 02206-B-STD



Housing Type 1: 160A...630A (Al); 250A...800A (Cu)
Housing Type 2: 1000A (Cu)

Special Length

Sample Order:
250 A, Aluminium,
IP23D, 6 Conductors,
Painted
KDA 02206-B-X
X=1500 mm.
Note:
Minimum Length (X)=650 mm.

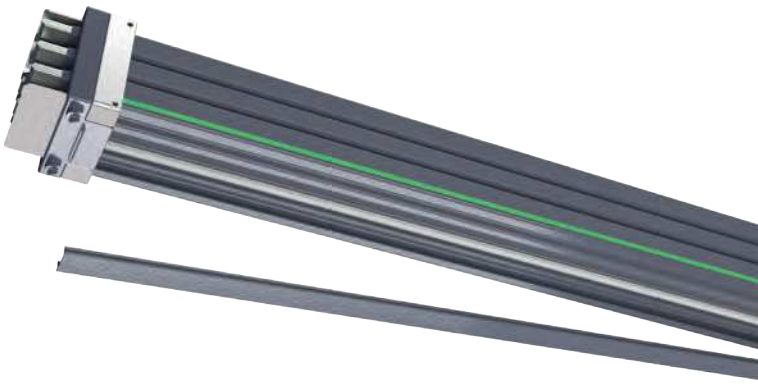


Housing Type 1: 160A...630A (Al); 250A...800A (Cu)
Housing Type 2: 1000A (Cu)

Aluminium Closure Panel

Standard length= 2800 mm

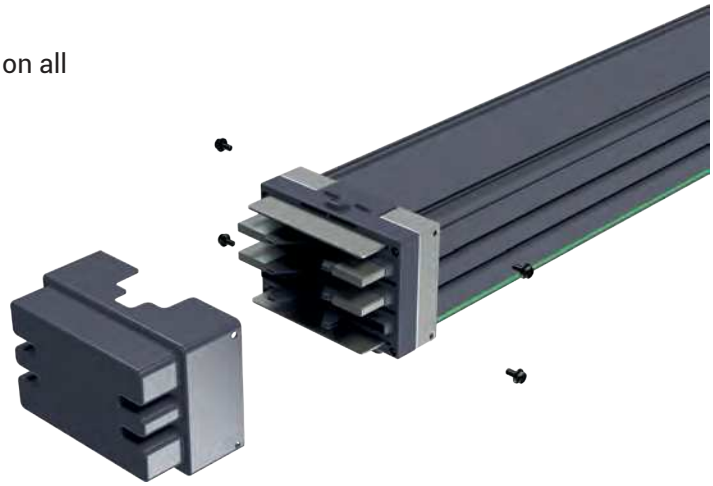




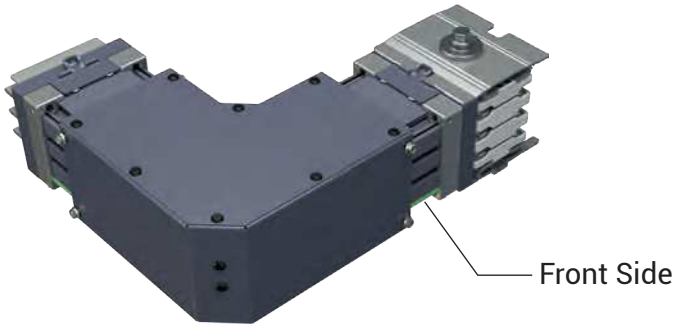
End Closer (S)

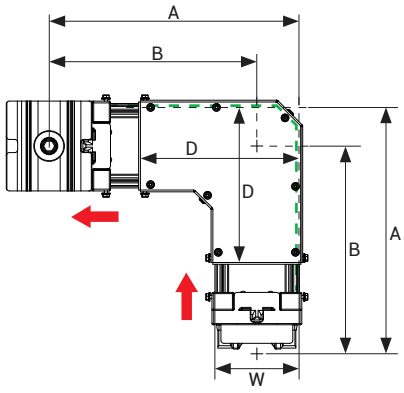
It is used to close the end of the busbar run and included on all standard and special length of busbars.



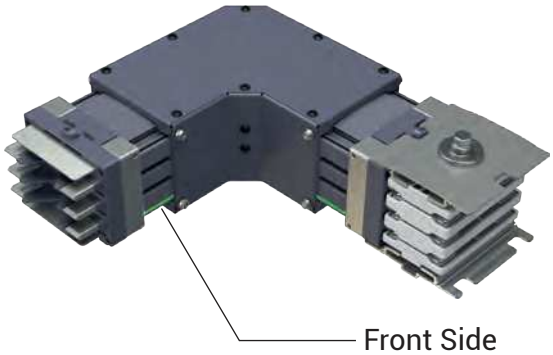


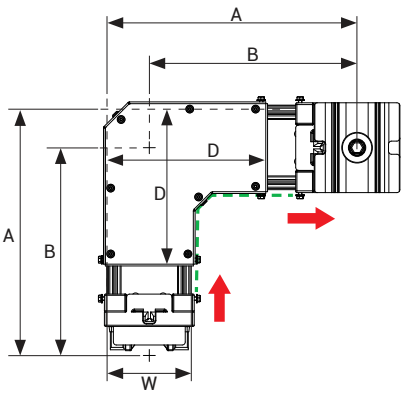
Left Elbow (L)





Right Elbow (R)





Housing Type 1: 160A...630A (Al); 250A...800A (Cu)
Note: Please consider the conductor type for your project. There is no seperate order code, one code covers each ampacity.

Housing Type 2: 1000A (Cu)
Note: Please consider the conductor type for your project. There is no seperate order code, one code covers each ampacity.

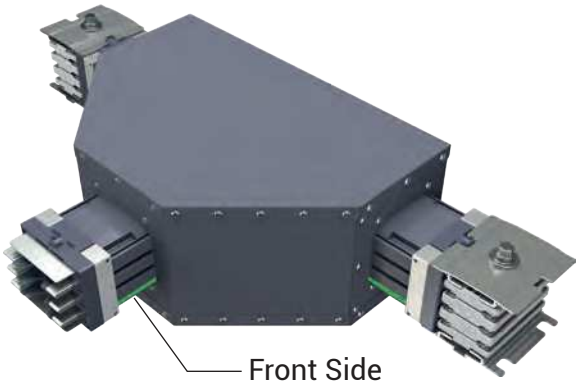
	A (mm)	B (mm)	D (mm)	W (mm)
Housing Type 1	417	347	274	140
Housing Type 2	431	347	288	168

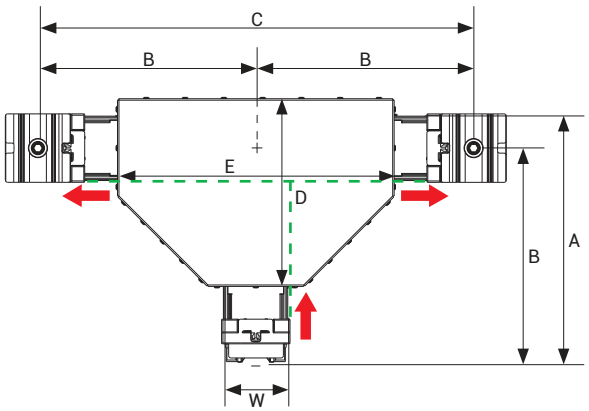
Tap-off boxes cannot be installed on elbows.

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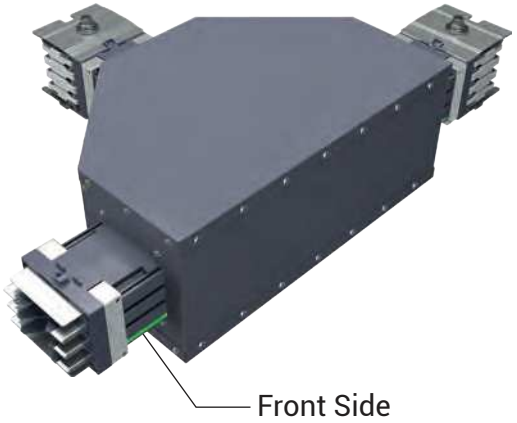
Standard Straight Length

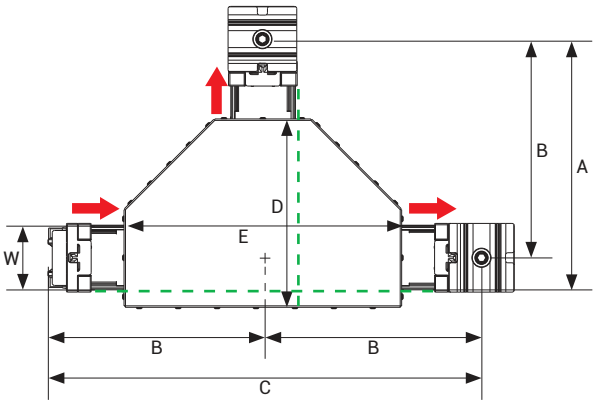
Central Feeder (TO)



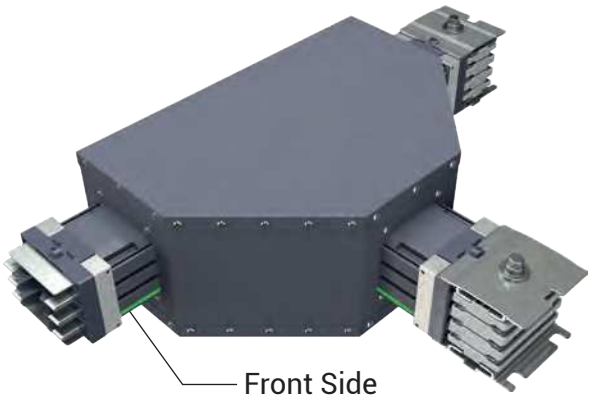


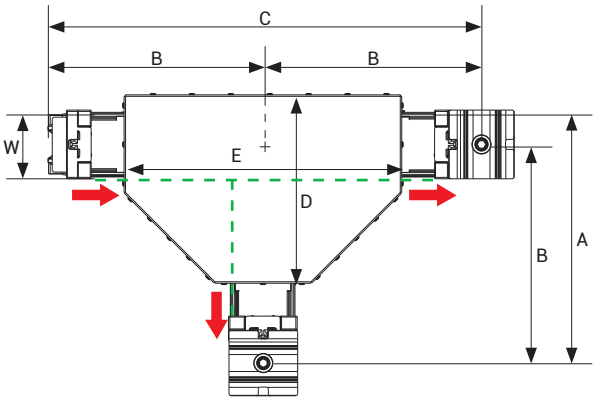
Left Side Feeder (TYL)





Right Side Feeder (TYR)





Housing Type 1: 160A...630A (Al); 250A...800A (Cu)
Note: Please consider the conductor type for your project. There is no seperate order code, one code covers each ampacity.

Housing Type 2: 1000A (Cu)
Note: Please consider the conductor type for your project. There is no seperate order code, one code covers each ampacity.

	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	W (mm)
Housing Type 1	548	478	956	411	606	140
Housing Type 2	562	478	956	425	606	168

Tap-off boxes cannot be installed on elbows.

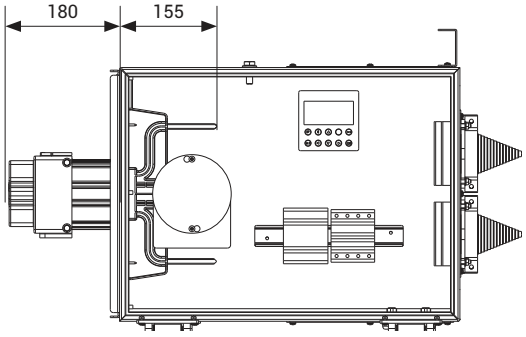
E-LINE KD

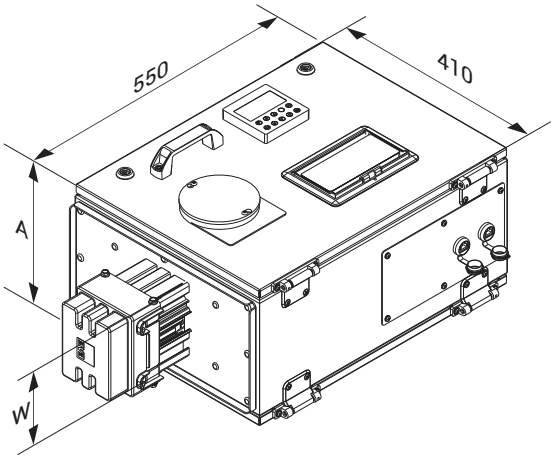
Feeder Boxes 160A...630A (Al), 250A...1000A (Cu)

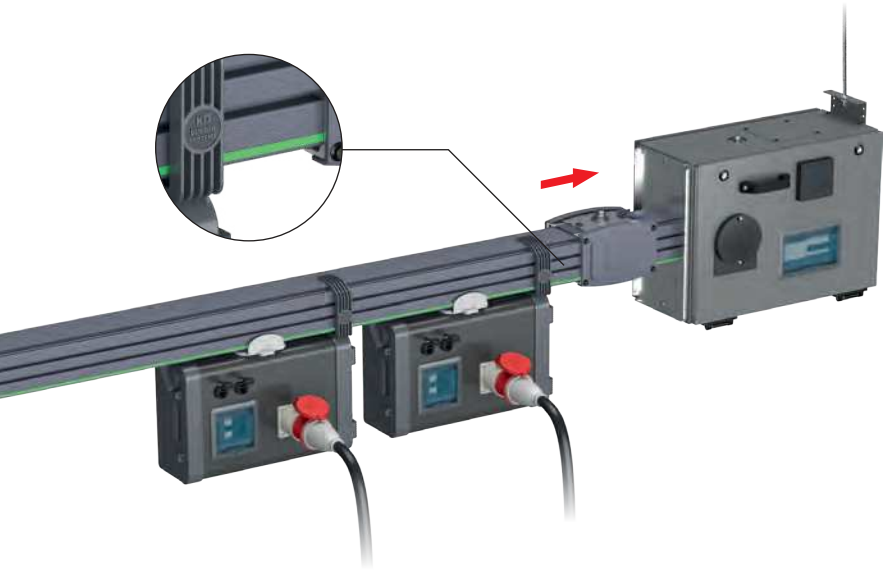
Feeder Box (B10) (Orientation : Left → Right)

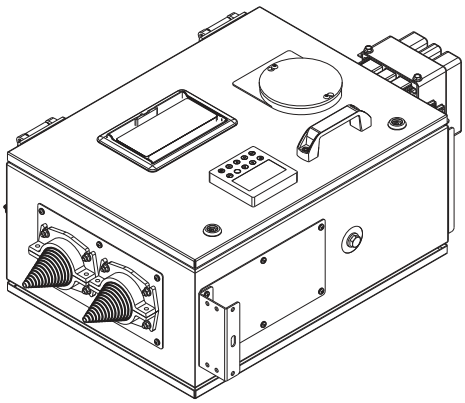


* Support the feeder units from corresponding junction points.









Housing Type 1: 160A...630A (Al); 250A...800A (Cu)
Note: Please consider the conductor type for your project. There is no seperate order code, one code covers each ampacity.

Housing Type 2: 1000A (Cu)
Note: Please consider the conductor type for your project. There is no seperate order code, one code covers each ampacity.

	A (mm)	W (mm)
Housing Type 1	260	140
Housing Type 2	288	168

- Hinged and easily removable cover
- IR window (optional)
- Energy Monitoring (optional)

Tap-off boxes cannot be installed on feeder boxes.

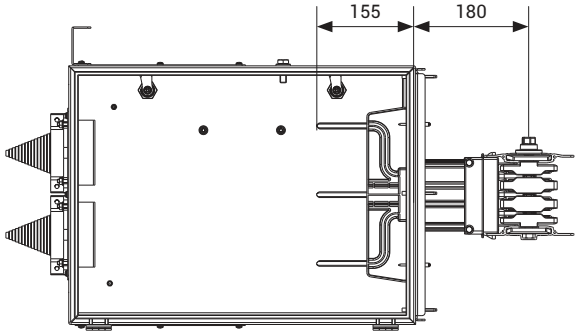
* Please contact us for special feeder boxes.
* All dimensions in mm.

E-LINE KD

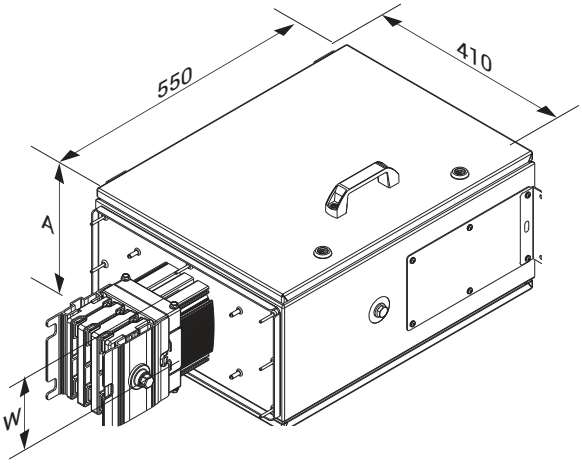
Feeder Boxes 160A...630A (Al), 250A...1000A (Cu)

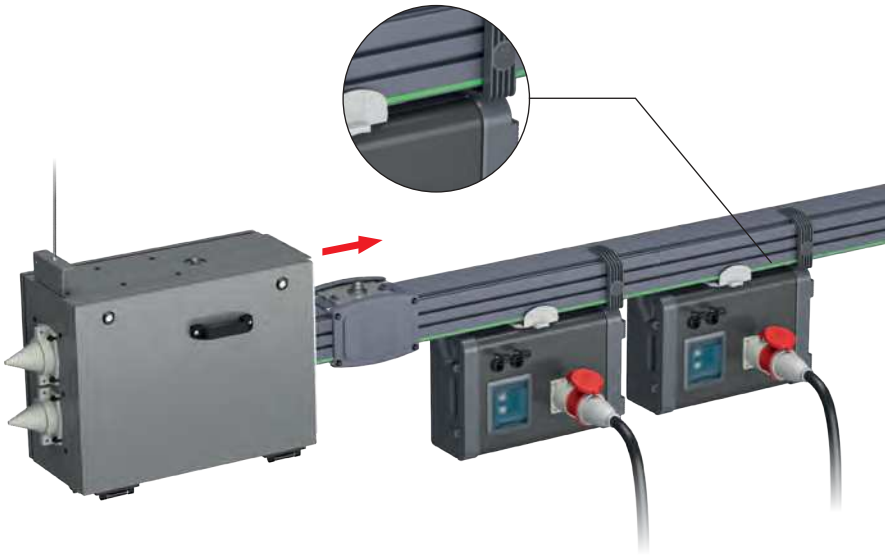
Feeder Box (B11) (Orientation : Left → Right)

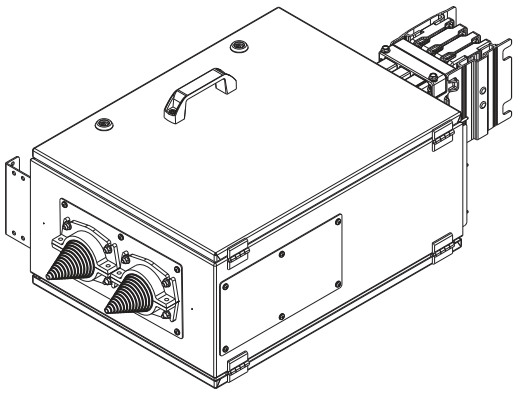
* Support the feeder units from corresponding junction points.











Housing Type 1: 160A...630A (Al); 250A...800A (Cu)
Note: Please consider the conductor type for your project.
There is no seperate order code, one code covers each ampacity.

Housing Type 2: 1000A (Cu)
Note: Please consider the conductor type for your project.
There is no seperate order code, one code covers each ampacity.

	A (mm)	W (mm)
Housing Type 1	260	140
Housing Type 2	288	168

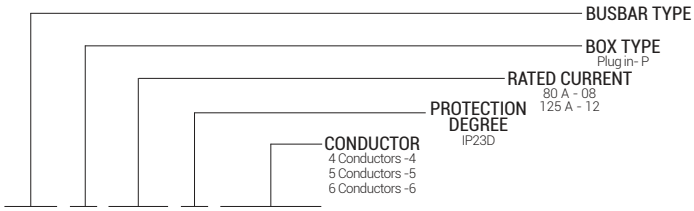
- Hinged and easily removable cover
- IR window (optional)
- Energy Monitoring (optional)

⚠ Tap-off boxes cannot be installed on feeder boxes.

* Please contact us for special feeder boxes.
* All dimensions in mm.

E-LINE KD

Tap-Off Boxes



Plug-in Tap-off Boxes

KDP Terminal Box (80A)

Type 01

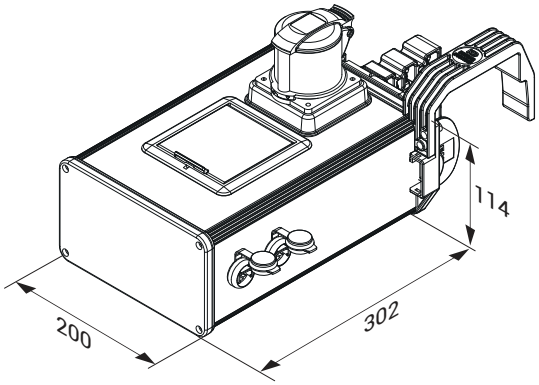


KD	P	1 2 2 4	KDP	0824
KD	P	1 2 2 5	KDP	0825
KD	P	1 2 2 6	KDP	0826

Sample Order:

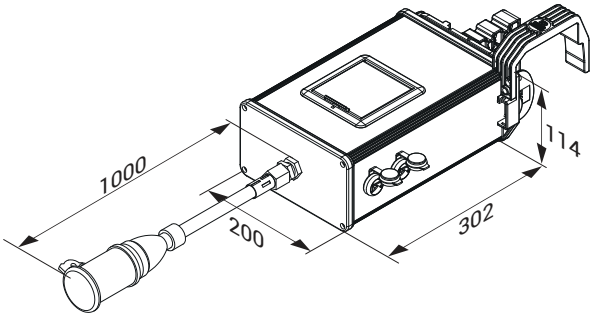
Plug-in / 125 A / IP-23D
5 Conductors

KDP 1225



Type 02

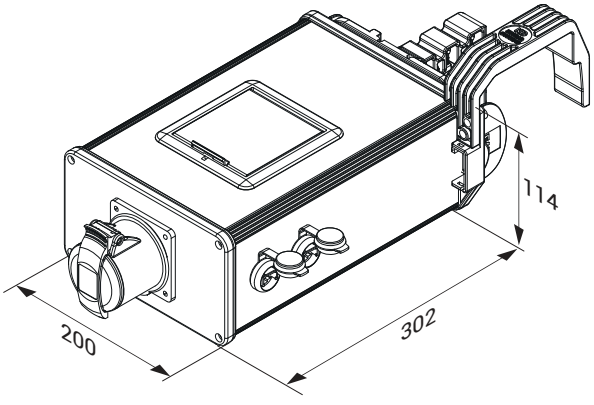




16A/32A Single & Three Phase Circuit Breaker
16A/32A, 3P & 5P Socket / Connector with cable
RJ45 Ports (Optional for Energy Metering)

Type 03





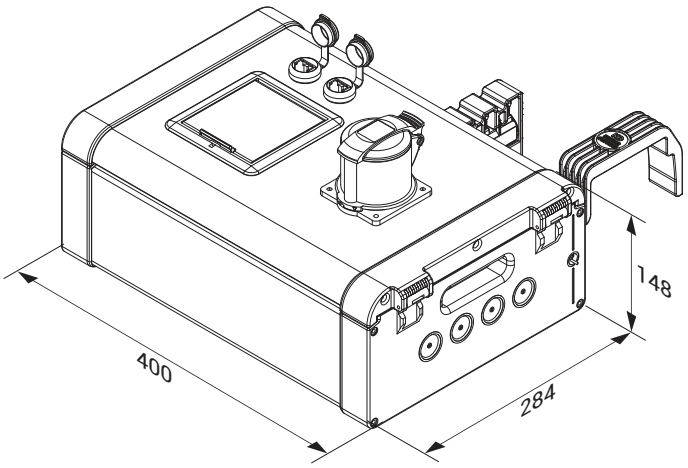
* Please contact us for special boxes.
* All dimensions in mm.

The KD tap off box conductors number should be selected based on the number of conductors defined by the busbar project design.

KDP Single Socket Box (125A)

16A/32A Single & Three Phase Circuit Breaker
63A Three Phase Circuit Breaker
16A/32A Single & Three Phase Socket
63A Three Phase Socket
RJ45 Ports (Optional for Energy Metering)

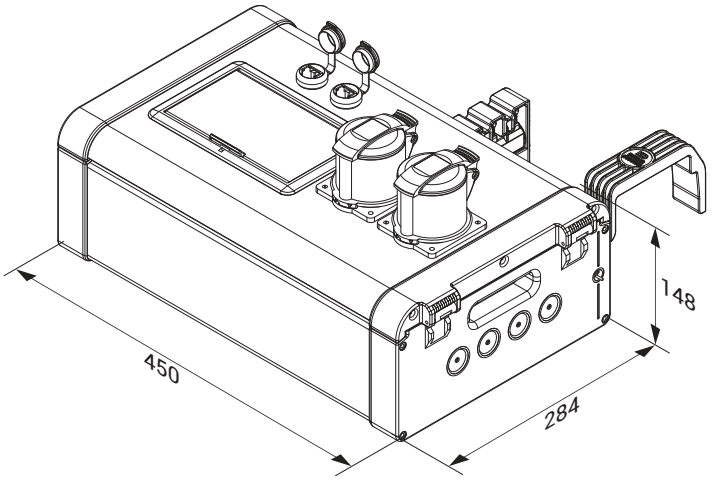




KDP Double Socket Box (125A)

16A/32A Single & Three Phase Circuit Breakers
16A/32A Single & Three Phase Sockets
RJ45 Ports (Optional for Energy Metering)





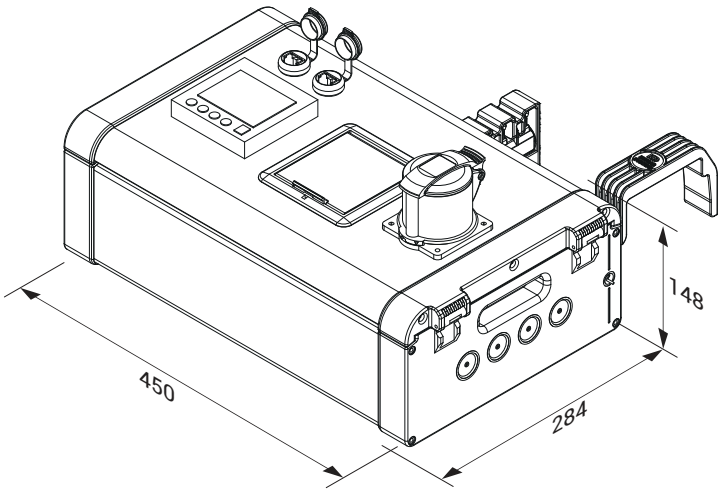
* Please contact us for special boxes.
* All dimensions in mm.

⚠ **The KD tap off box conductors number should be selected based on the number of conductors defined by the busbar project design.**

KDP Energy Analyzer Box (125A)

16A/32A Single & Three Phase Circuit Breakers
63A Three Phase Circuit Breaker
16A/32A Single & Three Phase Socket
63A Three Phase Socket
Energy Analyzer with Display
RJ45 Ports

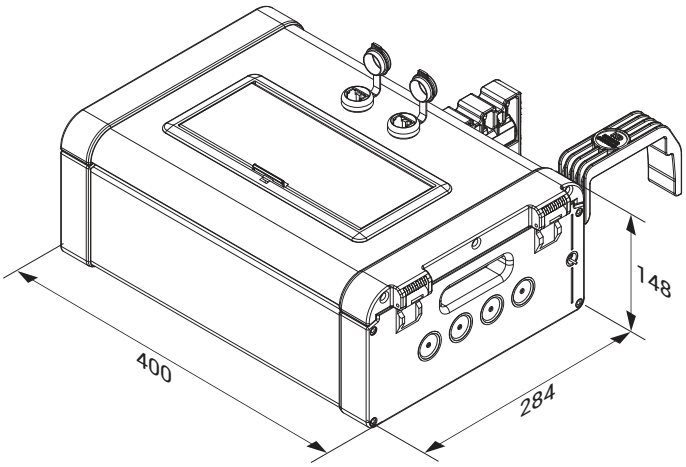




KDP Empty Box (125A)

Configurable up to 12 modules with RJ45 ports with optional cable gland feed.





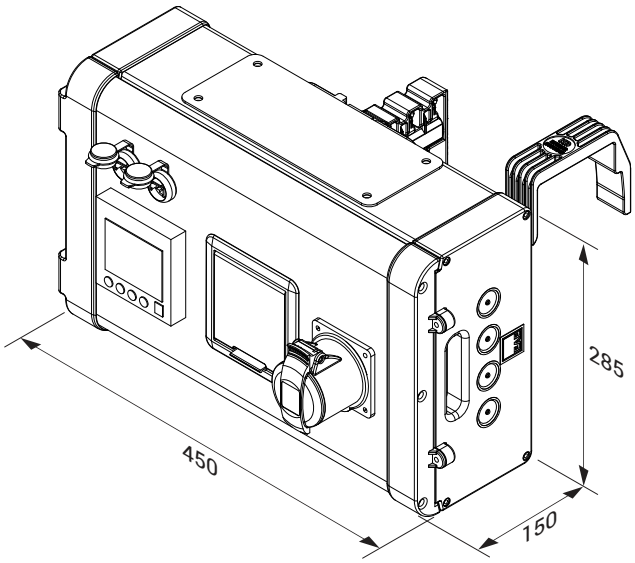
* Please contact us for special boxes.
* All dimensions in mm.

⚠ **The KD tap off box conductors number should be selected based on the number of conductors defined by the busbar project design.**

KDP Energy Analyzer Box Horizontal (125A)



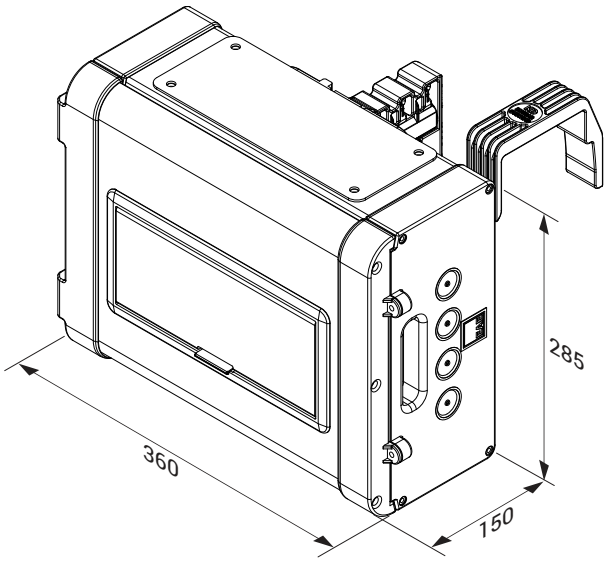
16A/32A Single & Three Phase Circuit Breakers
63A Three Phase Circuit Breaker
16A/32A Single & Three Phase Socket
63A Three Phase Socket
Energy Analyzer with Display
RJ45 Ports



KDP Empty Box Horizontal (125A)

Configurable up to 12 modules with optional cable gland feed.



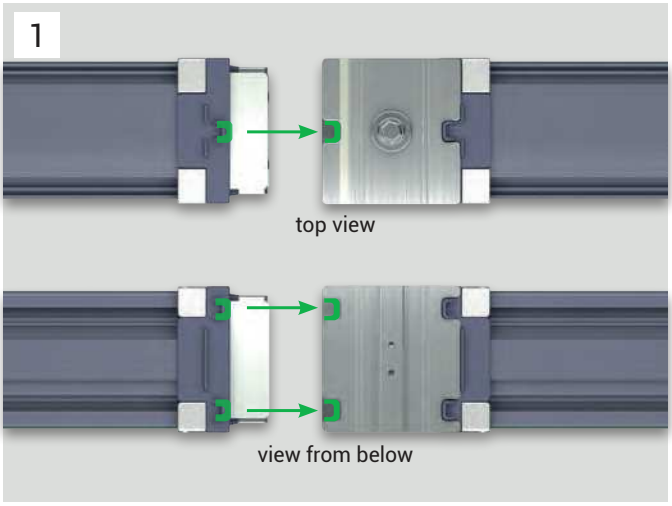


* Please contact us for special boxes.
* All dimensions in mm.

The KD tap off box conductors number should be selected based on the number of conductors defined by the busbar project design.

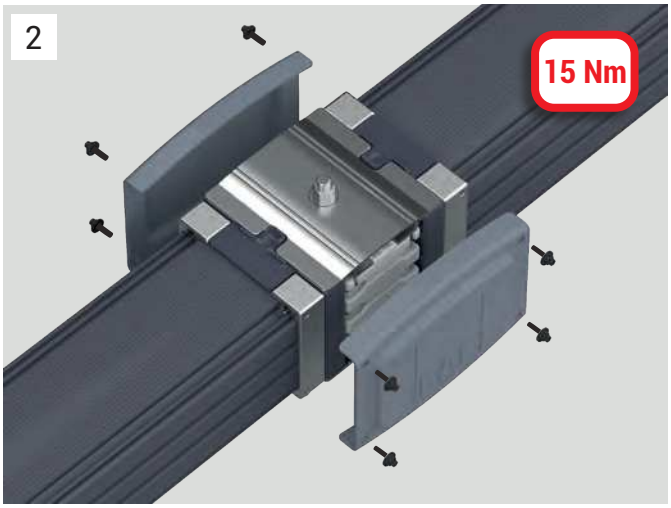


1



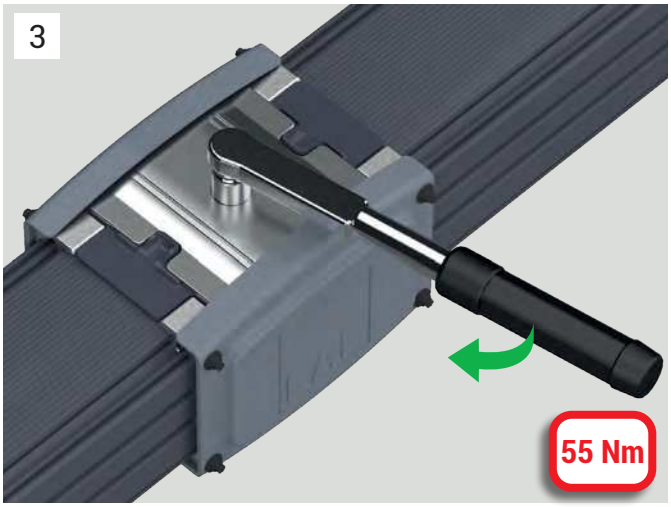
Align the busbars those with and without block joints facing each other and insert together

2



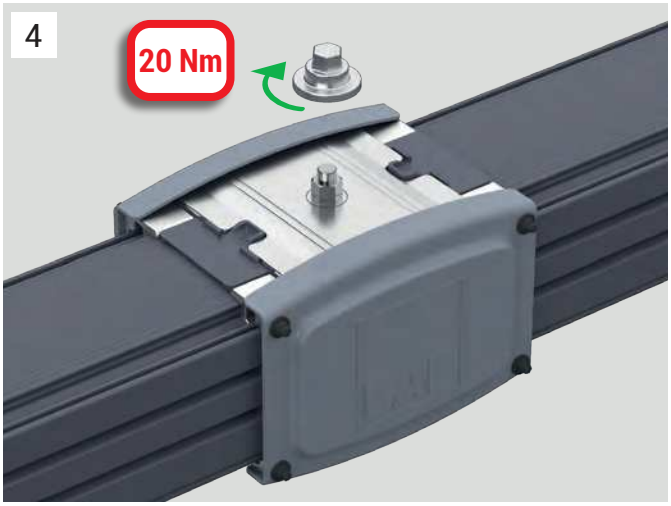
Assemble the joint cover and tighten the cover bolts

3



Adjust the torque wrench to **55 Nm** and tighten the joint nut

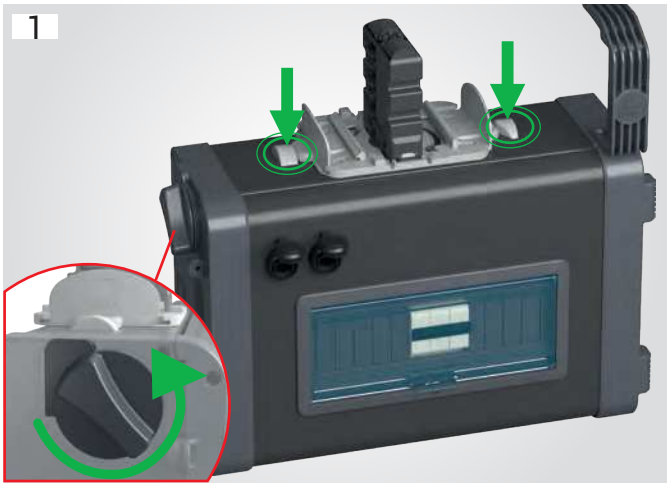
4



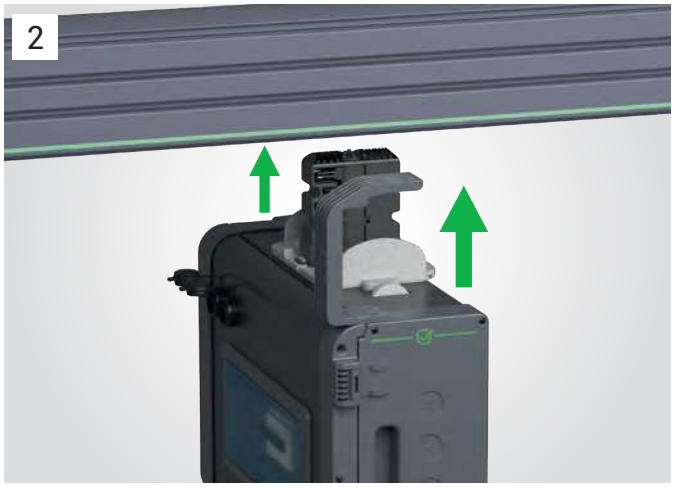
Mount the nut locking piece on the nut

Installation

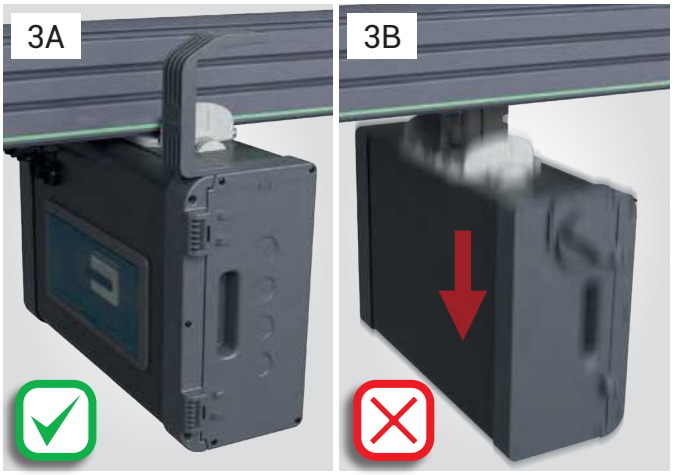
Tap-Off Box Installation



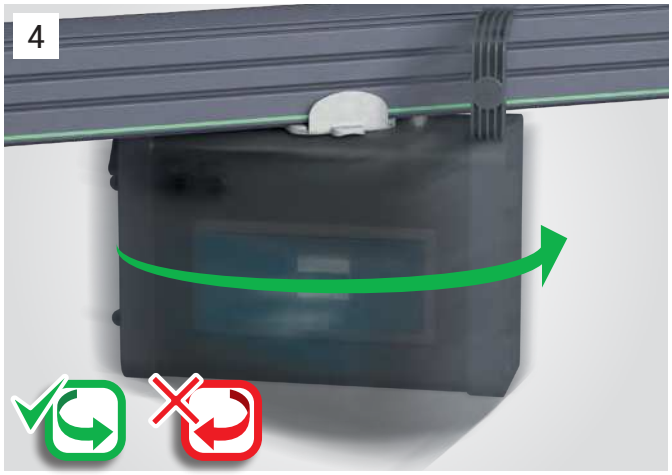
Ensure that the locking latch position is set right (as indicated), setup the installation mechanism by pressing on the claws. If this step is not made, the box contact set may be demaged as a result of any force.



Insert the box inside the slot of the busbar by facing the mounting angle, the box label and the housing 'green' reference line on the same side. Do not install or remove Plug-in units under load. Make sure breakers are in the off position



Assure that the box is inserted and locked inside the busbar slot



Engage the top off box by rotating in the direction of the arrow.Do not rotate the box against the direction of the arrow.



Ensure that the mounting angle is correctly attached on the busbar housing

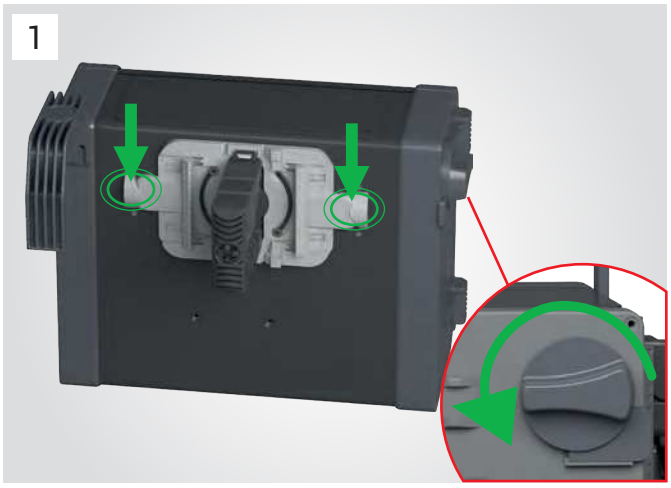


Secure the box by turning the locking latch in direction of the arrow

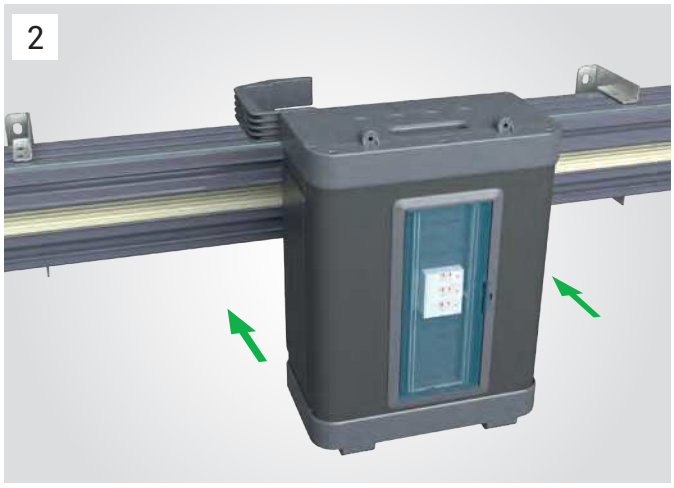
Notes: For the purpose of ensuring earth continuity, the installation of the upper mechanism onto the busbar may cause minor paint imperfections on the top part of the box. These imperfections are solely cosmetic and do not affect the electrical or mechanical performance of the product.

Installation

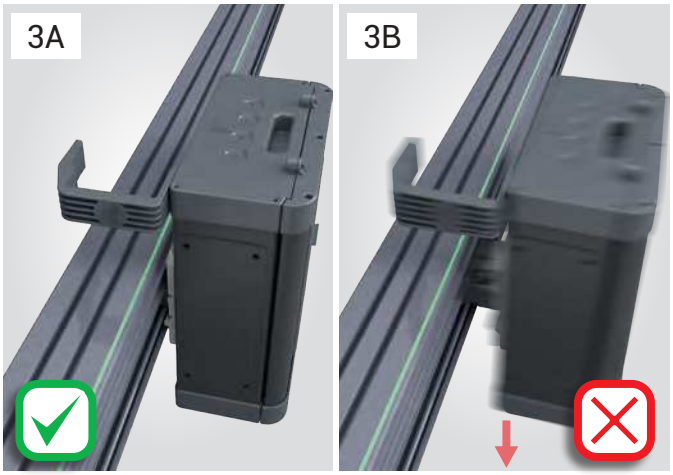
Tap-Off Box Horizontal Installation



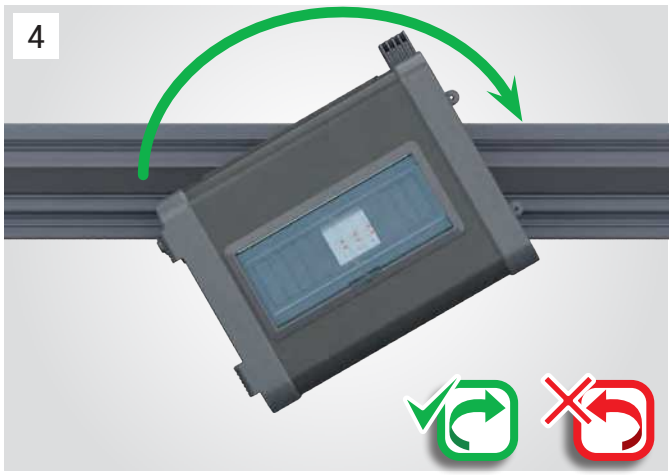
Ensure that the locking latch position is set right (as indicated), setup the installation mechanism by pressing on the claws.



Insert the box inside the slot of the busbar by facing the mounting angle, the box label and the housing 'green' reference line on the same side. Do not install or remove Plug-in units under load. Make sure breakers are in the off position



Assure that the box is inserted and locked inside the busbar slot



Engage the top off box by rotating in the direction of the arrow. Do not rotate the box against the direction of the arrow



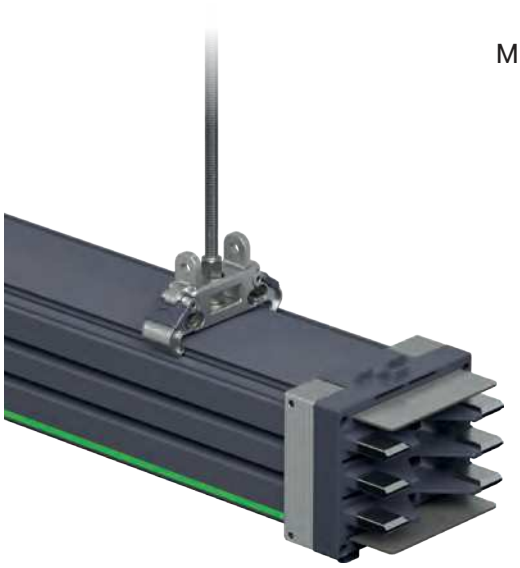
Ensure that the mounting angle is correctly attached on the busbar housing

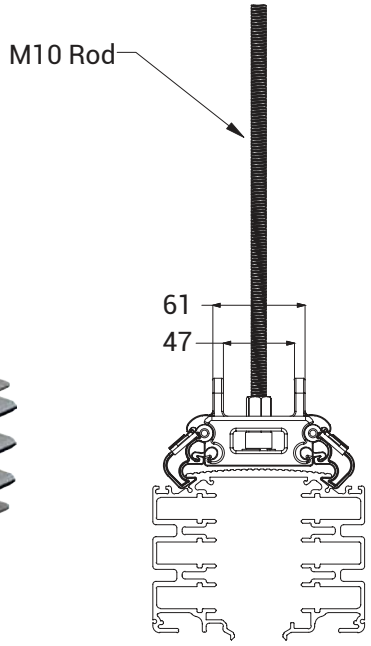


Secure the box by turning the locking latch in direction of the arrow.

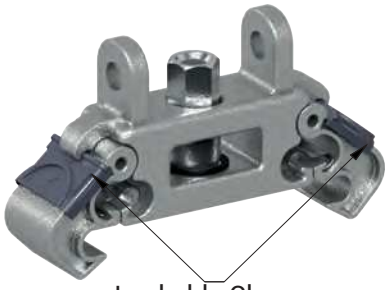
Notes: For the purpose of ensuring earth continuity, the installation of the upper mechanism onto the busbar may cause minor paint imperfections on the top part of the box. These imperfections are solely cosmetic and do not affect the electrical or mechanical performance of the product.

Application I : TMP Ceiling Support with Snap-In Fixing Unit



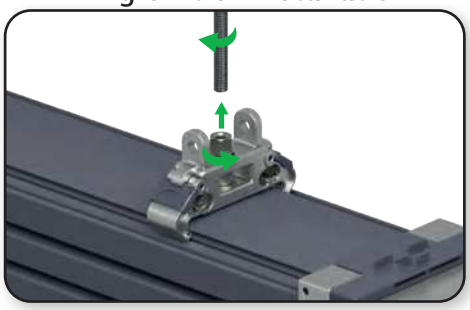


THREADED ROD SUPPORT	
KD SNAP-IN	2143683

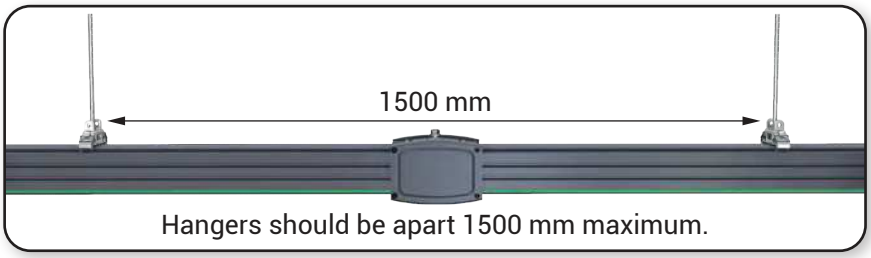


* Bolt and Nuts are included.

▶Fixing Unit Uninstallation



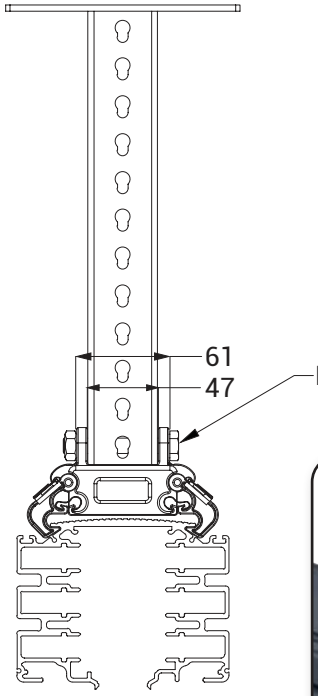
▶Hanger Width



Hangers should be apart 1500 mm maximum.

Application II : TMP Ceiling Support with Snap-In Fixing Unit

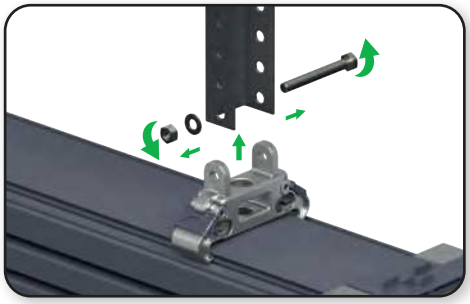




TMP CEILING SUPPORT	
KD SNAP-IN	2143682



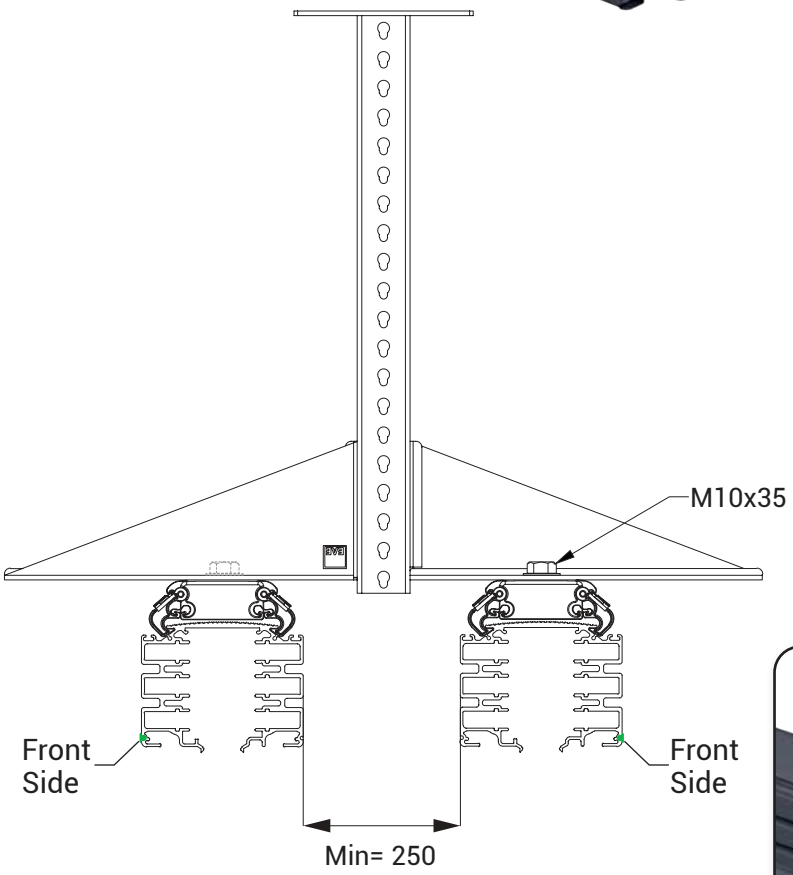
▶Fixing Unit Uninstallation



* Bolt and Nuts are included.
* All dimensions in mm.

Application III : TMP Ceiling Support and Tray Bracket with Snap-In Fixing Unit

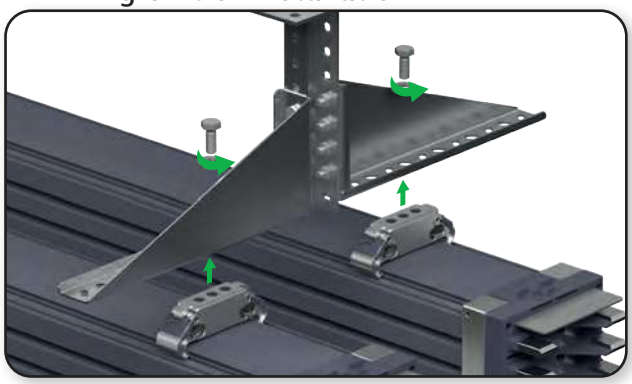




TS TRAY SUPPORT	
KD SNAP-IN	2143684



▶Fixing Unit Uninstallation



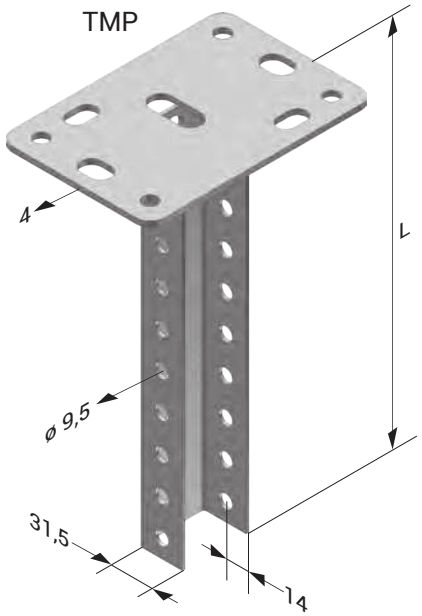
* Bolt and Nuts are included.
* All dimensions in mm.

Ceiling Mounting Fittings

Hot Dip Galvanized After Fabrication (TS EN ISO 1461)

Description	L (mm)	T (mm)	Pulling Load (kg.)	Weight (kg./pc.)	Order Code	Pack (pc.)
TMP 42 Ceiling Support Unit	250	2	500	0,542	**3008233**	20
TMP 43 Ceiling Support Unit	500	2	500	0,949	**3008234**	10
TMP 44 Ceiling Support Unit	1000	2	500	2,131	**3008235**	-
TMP 45 Ceiling Support Unit	2000	2	500	3,791	**3007952**	-

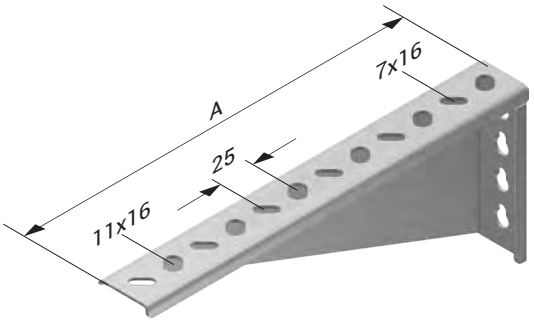
TMP



Tray Supports
Hot Dip Galvanized After Fabrication (TS EN ISO 1461)

Description	A (mm)	T (mm)	Weight (kg./pc.)	Order Code	Pack (pc.)
TS 200	205	2	0,311	**3008551**	10
TS 250	255	2	0,521	**3008549**	10
TS 300	305	2	0,607	**3008547**	10
TS 400	405	2	0,781	**3008545**	10
TS 500	505	2	0,955	**3008543**	10
TS 600	605	2	1,128	**3005828**	10

TS

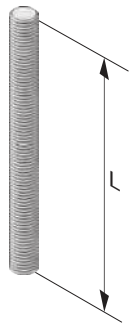


* Please contact us for special size.
* All dimensions in mm.

Connection Accessories

Description	L (mm)	Weight (kg./pc.)	Order Code
Threaded Rod (M10)	500	0,245	**5000037**
Threaded Rod (M10)	1000	0,490	**5000032**
Threaded Rod (M10)	1500	0,735	**5000031**
Threaded Rod (M10)	2000	1,030	**5000030**
Threaded Rod (M10)	3000	1,520	**5000029**
Threaded Rod (M10) Electro Galvanized	500	0,245	**5000172**
Threaded Rod (M10) Electro Galvanized	1000	0,490	**5000173**
Threaded Rod (M10) Electro Galvanized	1500	0,735	**5000174**
Threaded Rod (M10) Electro Galvanized	2000	1,030	**5000175**
Threaded Rod (M10) Electro Galvanized	3000	1,571	**5000301**

M10 Rod



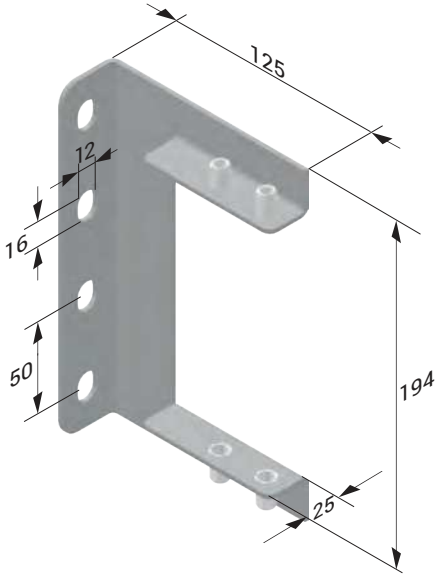
Description	Weight (kg./pc.)	Order Code
Extension Nut (M10) Lacquered	0,070	**1004312**

Extension Nut



Description	Order Code
Horizontal KD Hanger Element	**2185387**

Horizontal Hanger



* Please contact us for special size.
* All dimensions in mm.

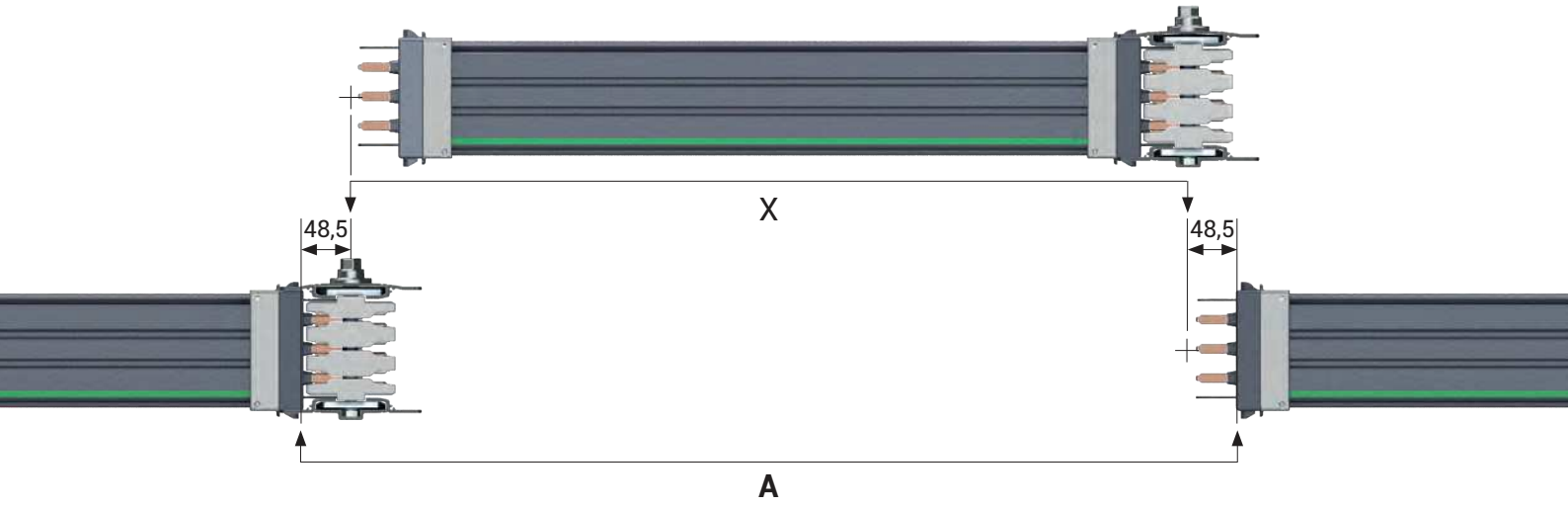
E-LINE KD

Measuring a Special Length

After installation of standard busbar 3000 mm lengths, you will be in need of special lengths which are smaller than 3000 mm. The minimum length for these special elements can be 650 mm. Please measure the lengths of these modules as shown below.

Length A is measured between housing of 2 busbars in mm. A. The special length is calculated by deducting 97 mm from this measured length.

X=A-97 mm X=Length of Special Busbar (The busbar module will be manufactured as per X value.)



* All dimensions in mm.

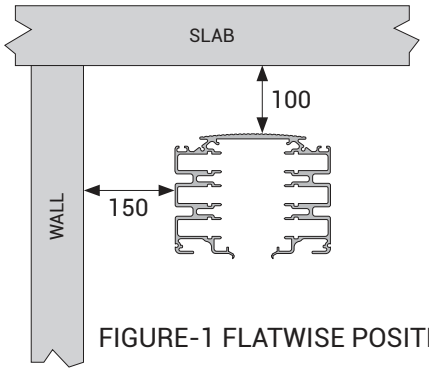


FIGURE-1 FLATWISE POSITION

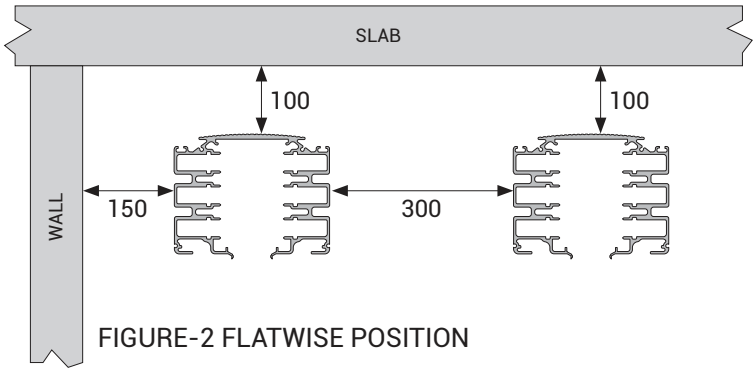


FIGURE-2 FLATWISE POSITION

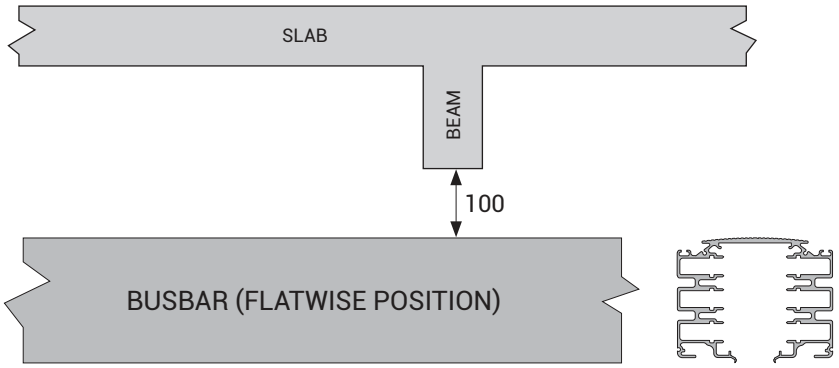


FIGURE-3 CROSSING UNDER A BEAM HORIZONTAL POSITION

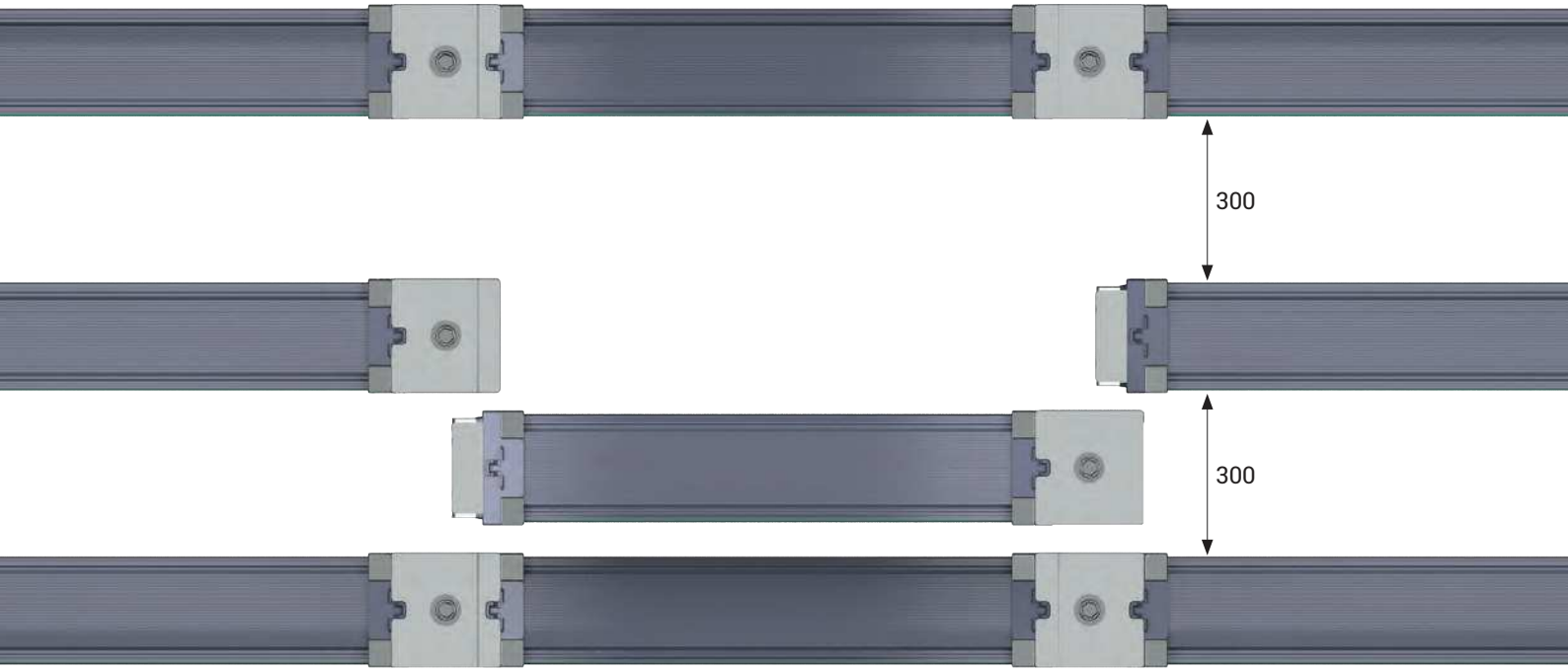


FIGURE-4 MINIMUM DISTANCE BETWEEN BUSBAR RUNS

* All dimensions in mm.

E-LINE KD

Certificates



CE DECLARATION OF CONFORMITY

Product Group	E-Line KD Data Rack Busbar
Manufacturer	EAE Elektrik Asansor End. Insaat San. ve Tic. A.S. Akcaburgaz Mahallesi, 3114. Sokak, No:10 34522 Esenyurt-Istanbul-Turkey

The objects of the declaration described below is in conformity with the relevant Union harmonisation legislation. This declaration of conformity is issued under the sole responsibility of the manufacturer.

Standard:

TS EN 61439-6

Low-voltage switchgear and controlgear assemblies - Part 6: Busbar trunking systems

IEC 61439-6

Low-voltage switchgear and controlgear assemblies - Part 6: Busbar trunking systems (busways)

CE - Directive:

2014/35/EU "The Low Voltage Directive"

2014/30/EU "(EMC) Electromagnetic Compatibility Directive"

2011/65/EU "RoHS Directive"

Technical Document Preparation Official:

EAE Elektrik Asansor End. Insaat San. ve Tic. A.S.
Akcaburgaz Mahallesi, 3114. Sokak, No:10 34522 Esenyurt-Istanbul

Mustafa AKÇELİK

Date

20.04.2024

Document Authorized Signatory

Elif Gamze KAYA OK
Deputy General Manager

160A ... 1000A DATA RACK BUSBAR
PRODUCT OVERVIEW (E-LINE KD)

1- Standards & Certification:

-Busbar system shall be designed and manufactured as per IEC 61439-6 standard, which requires below listed tests. Each busbar rating shall have a separate type test certificate from an independent internationally accredited laboratory including below tests:
10.2- Strength of material and parts, 10.2.2- Resistance to corrosion, 10.2.3- Properties of insulating materials, 10.2.3.1- Verification of thermal stability of enclosures, 10.2.3.2- Verification of resistance of insulating materials to abnormal heat and fire due to internal electric effects, 10.2.6- Mechanical impact, 10.2.7- Marking, 10.2.101- Ability to withstand mechanical loads , 10.2.101.1- Test procedure for a straight busbar trunking unit, 10.2.101.2- Test procedure for a joint, 10.2.101.3- Resistance of the enclosure to crushing, 10.3- Degree of protection of assembly, 10.4- Clearances and creepage distances, 10.5-Protection against electric shock and integrity of protective circuits, 10.5.2- Effective earth continuity between the exposed conductive parts of the assembly and the protective circuit, 10.5.3- Short-circuit withstand strength of the protective circuit, 10.9- Dielectric properties, 10.9.2- Power-frequency withstand voltage, 10.9.3- Impulse withstand voltage, 10.10- Verification of temperature rise, 10.11- Short- circuit withstand strength, Annex BB Phase conductor characteristics, Annex CC Fault-loop zero-sequences impedances, Annex DD Fault-loop resistances and reactances.

- Busbar system shall have CE marking.

-The manufacturer of busbar system shall have ISO 9001 and ISO 14001 certification.

-Each product shall have a “Type Label” including coding system, which identifies the brand, type of the unit, number of conductors and electrical details. The same coding shall be on the related certificate and catalogue.

2- Electrical Characteristics

- Busbar systems nominal insulation voltage shall be 1000 V.

2.1- Housing

-Conductors shall be packed and placed into the housing.

-Housing shall be made of thermal processed, extruded aluminium, RAL7012-Electrostatic painted.

2.2- Conductors

Aluminium or Copper conductors overall isolated and tin plated.

- Aluminium conductors between 160A – 630A.
- Copper conductors between 250A –1000A.
- Busbar system shall have the following number of conductors and wire configuration;
- 6 Conductors: (6 full size conductors CPE (100% earth conductor + double neutral + housing)),
- Phase conductors and neutral conductor shall have the same cross-section and they shall be insulated.
- Aluminium conductors shall be of EC grade aluminium. Minimum conductivity shall be 34m/mm².Ω.
- Copper conductors shall be minimum 99,95% electrolytic copper. Minimum conductivity shall be 56m/mm².Ω.

2.3- Insulation

- Insulation system shall be suitable for 1.000V continuous operation. Conductor size shall be designed so that temperature rise on the conductors shall not exceed 100°C degree at nominal current, which helps to global heating problem. With this reason, insulation class shall be selected as “B class”.

2.4-Joint Structure

- Electrical and mechanical connection shall be made by placing conductor joints into the joint blocks of the connected conductors and followed by tightening and fastening of the joint bolts.

2.5-Protection

- Protection degree of the housing and joints shall be IP23D.

2.6-Acessories

- Busbar system shall have all necessary accessories (elbows, panel-transformer connections, etc.) Manufacturer shall supply special dimensioned units in short time, if the project conditions requires

3-Tap Off Boxes

- The Tap off boxes shall be Plug-nPlay type.
- Plug-n-Play tap off boxes shall be suitable to install or remove from busbars without switching off the power on the busbar.
- Plug-n-Play tap off boxes shall be suitable to install or remove anywhere alongside the busbar.
- The Tap-Off Box contacts shall be protected with a cover
- The Tap-Off contacts shall be heat cycle tested
- Contacts of plug-in tap off box shall be silver plated.
- The special locking mechanism of the Tap-Off Boxes shall ensure to carry the weight of the plug-in box and cables by the busbar housing
- While inserting the contacts of plug-in tap off box, earth contact shall make the first touch. While removing, it shall be disconnected last.
- Tap off boxes shall be manufactured of epoxy painted aluminium.
- The Tap-Off Boxes shall be equipped with a safe alignment mechanism to ensure correct installation and operation

4-Busbar Fixing&Mounting System

- The Busbars shall be easily installed and positioned through their entire lengths with the “Snap-In Fixing Units” by inserting into the guiding slots on top of the housing.
- To ensure flexible positioning of the Busbars, each single busbar length shall easily slide independently on the “Snap-In Fixing Units” through the guiding slots.
- To maintain the mounting security, the “Snap-In Fixing Unit” clamps shall be lockable.
- For various mounting practices the “Snap-In Fixing Units” shall be available with threaded rod, ceiling support and/or with tray brackets options

5-Installation and Commisioning

- Busbar systems shall be installed as per Single-Line drawings respect to required ampere rates and manufacturer installation guide (torque values, lockers, etc.). Electrical installer shall run an insulation test after installation, according to manufacturer’s test procedures. The results of the test shall be reported to the manufacturer and minimum insulation value shall be 1 Mohms.

Notes

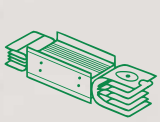
Notes

SUSTAINABLE FUTURE

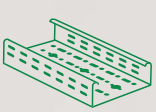
Sustainability Management at EAE Elektrik

As part of our goal to support sustainable development and green transformation, measuring, evaluating, and managing all economic, environmental, and social impacts resulting from our sustainability practices is a key governance priority for EAE Elektrik. We act with great care in analyzing, monitoring, and managing the economic, environmental, and social impacts and risks that arise throughout our value chain in both our national and global operations.

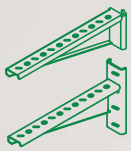




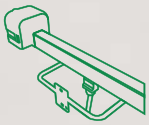
Busbar Systems



Cable Tray Systems



Support Systems



Trolley Busbar Systems



Fit-Out Solutions

"We are working together with all our stakeholders to develop the electrical technologies that will build the future."

You can visit our sustainability website at
surdurulebilirlik.eae.com.tr

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