



**AB-E
SERIES
25A-63A**

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GENERAL PROPERTIES

AB-E DTM Busbar systems are used in places that need lighting and power between 25-63A.

Technical Information

The casing of the busbar trunking system is shaped from Galvanized Sheet in the profile machine and interlocked and its mechanical durability is increased.

The conductors are PVC insulated. Standard number of conductors are 4; L1, L2, L3, N+Pe (as housing). Optionally, 5-conductor Neutral conductor cross section is equal to phase conductors; All designs and tests have been carried out in accordance with IEC61439-1/6' standard. Any busbar application can be mounted through the covered cable duct. Values such as smoke and light intensity can be controlled with the help of a PLC and Router.

It is produced in accordance with ISO 9000 Standards and with a certified quality assurance system.

Advantages

Connectors

Allows optimum utilization of space requirements and both horizontal and vertical mounting for the adaptable lighting system.

Easy and fast assembly is done easily and quickly in three steps.

1. Suspenders placed for hanging busbar.
2. To attach two busbars, one busbar is attached to the pin of the spring holder.
3. No expert tool wrenches or craftsmanship required for assembly.

Busbar Advantages

Convenient

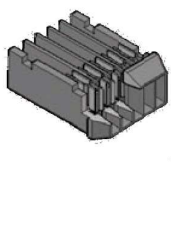
It is easily designed, power distribution and clean network structure, easy engineering and installation.

Fast

Quick assembly using very few tools Busbar systems noticeably reduce assembly time.

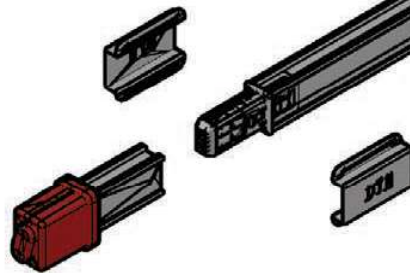
Flexible

It can be easily extended and modified in assemblies.



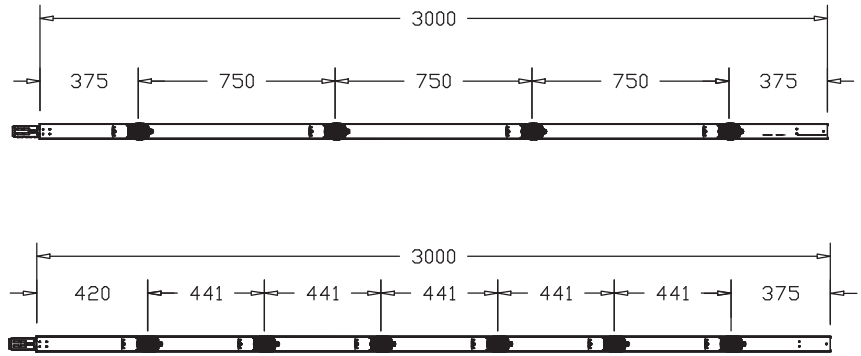
Conductor Option

In addition to the phase and neutral conductors designed with full cross-section, an earth conductor option is also offered if needed.



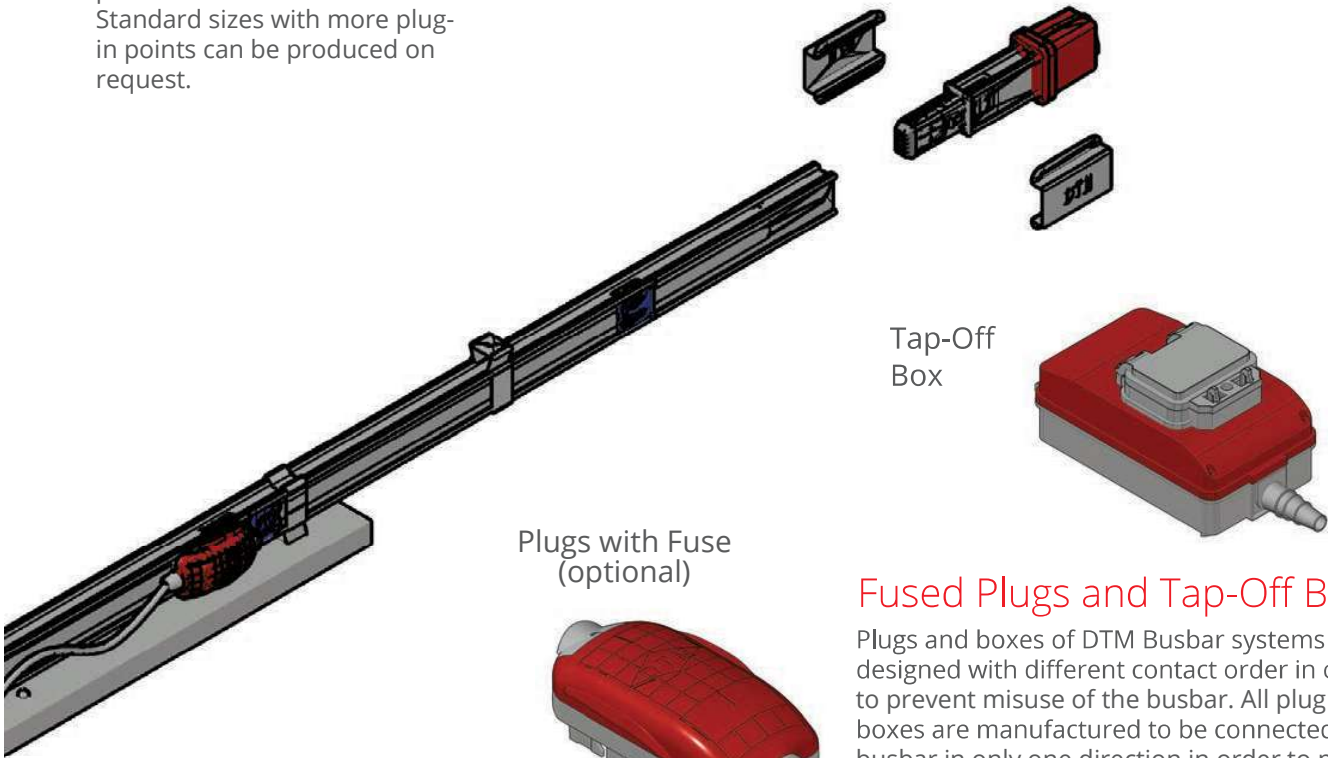
Safety

The grounding conductors of the tap off plugs and tap off boxes contact the busbar body first for safety and are disconnected last when being removed.



Plug-In Points

Plug-in Points 3 plug-in points are provided as standard. Standard sizes with more plug-in points can be produced on request.



Tap-Off Box

Plugs with Fuse (optional)

Fused Plugs and Tap-Off Boxes

Plugs and boxes of DTM Busbar systems are designed with different contact order in order to prevent misuse of the busbar. All plug and boxes are manufactured to be connected to the busbar in only one direction in order to prevent incorrect phase use.

Plugs (no fuse)

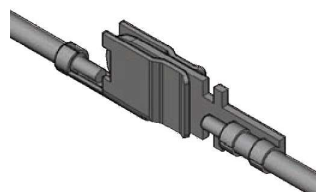


Colored Caps for Phase Selection

The covers of DTM AB-E plug-in plugs are designed in different colors so that you can easily see which phase the luminaire is being fed.

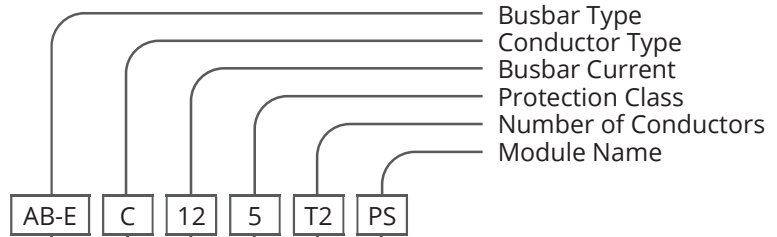
Silver Plated Contacts

Contact resistances are minimized by coating conductor surfaces by silver.



ORDER CODE SYSTEM

AB-E



Busbar Type
 Conductor Type
 Busbar Current
 Protection Class
 Number of Conductors
 Module Name

BUSBAR NAME

Busbar Type

ALUMINUM	(A)
COPPER	(C)

Conductor Type

AB-E CU	
CURRENT	BUSBAR CODE
25A	12
32A	13
40A	14
63A	16

Busbar Current

IP 55	5
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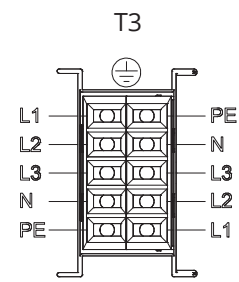
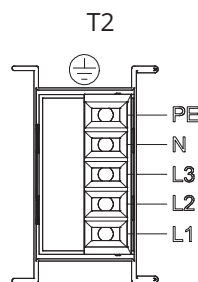
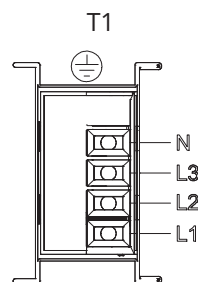
Protection Class

Number of Conductors

Number of Conductors	CODE	L1	L2	L3	N	1/2 GRND	CLEAN GRND	1/2 CLEAN GRND	GRND (BODY)
3P+N+PE (4P)	T1	✓	✓	✓	✓				✓
3P+N+PE+FE1 (5P)	T2	✓	✓	✓	✓	✓			✓
3P+N+PE+FE1 (5P) x2	T3	✓	✓	✓	✓	✓	✓		✓

Module Name

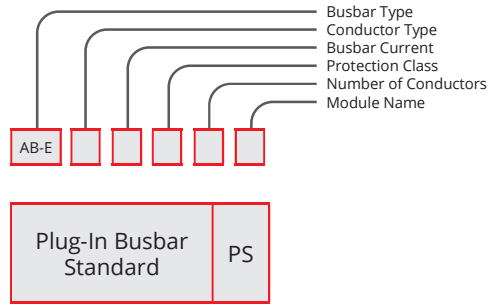
Plug-In Busbar	PS
Elbow Modules	DM
Plug-In Mediate Length	PX
Tap-Off Plug	F
Start Feed Box	BM
End Feed Box	SM
Center Feed Box	OM
Termination Module	S
Suspension Set	A
Tap-Off Plug MCB Fused	SF
Joint Covers	E
U Suspension Element	UA
C Suspension Element	CA
L Suspension Element	LA
Wall Suspension Element	DA
Ceiling Suspension Element	TA



The smartest way of power distribution

TECHNICAL DETAILS		AB-E 25	AB-E 32	AB-E 40	AB-E 63
Active Number of Conductors	n° Cu	2	4	5	5
Busbar Sizes	A x B (mm)	39x57.5	39x57.5	39x57.5	39x57.5
Rated Current	In (A)	25	32	40	63
Busbar Cross Section (3P+N)	S (mm ²)	3.09	3.09	6.11	12.5
Nominal Operating Voltage	Ue (V)	400	400	400	400
Nominal Insulation Voltage	Ui (V)	1000	1000	1000	1000
Nominal Frequency	50 Hz f (Hz)	50/60	50/60	50/60	50/60
Rated short-circuit current	I _{cw} (kA)rms	2.2	2.5	3.4	4
Peak Current	I _{pk} (kA)	3.12	3.15	5	5.88
Max. Thermal Limit	I ² (A ² sx10°)	0.61	0.75	0.99	1.19
Phase Resistance	R ₂₀ (mΩ/m)	4.14	3.695	0.640	1.095
Phase Reactance	X (mΩ/m)	4.6	3.695	0.893	1.284
Phase Impedance	Z (mΩ/m)	8.52	3.695	5.09	1.851
Protective Busbar Resistance	R _{PE} (mΩ/m)	1.02	1.02	1.02	0.72
Protective Bus Reactance	X _{PE} (mΩ/m)	1.08	1.08	1.08	0.075
Fault Condition Resistance	R ₀ (mΩ/m)	7.36	6.55	4.61	3.15
Fault Condition Reactance	X ₀ (mΩ/m)	4.6	6.55	1.83	1.15
Fault Condition Impedance	Z ₀ (mΩ/m)	8.52	7.11	5.52	2.6
Dispersed load voltage drop	$\Delta V_{3F} = \sqrt{3}/2 (R \cos\theta + 2x \sin\theta)$	5.66	4.85	2.42	1.29
Linear Busbar Weight	p (kg/m)	1.3	1.4	2.42	2.4
Combustion Load	(kWh/m)	0.79	0.79	0.79	0.81
Protection Class	IP	55	55	55	55
Joule effect loss at Rated Current	P (W/m)	6.9	10.03	13.05	19.9
Ambient temperature min. / max	t (°C)	-5/+50	-5/+50	-5/+50	-5/+50

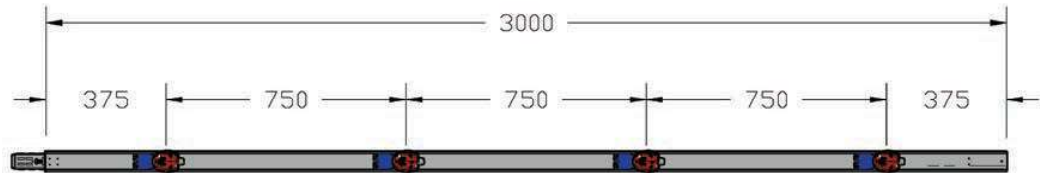
Standard Sizes



SAMPLE ORDER

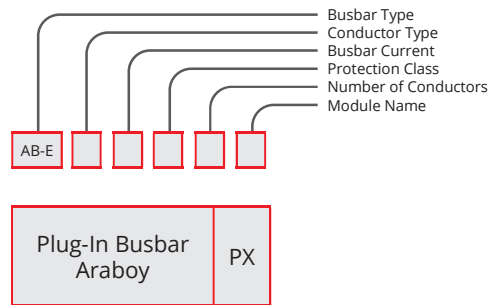
32 A COPPER
Plug-in IP 55 5 Conductors

AB-EC135T2PS



AB-E

Special Lengths

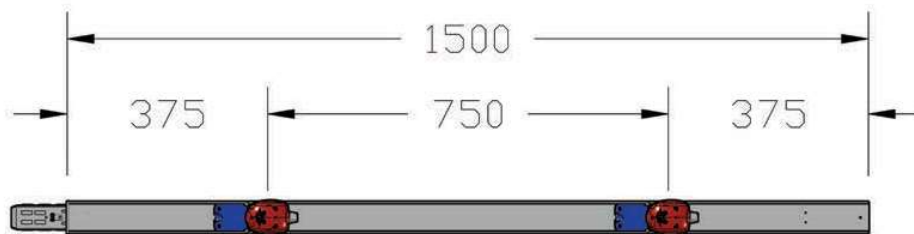


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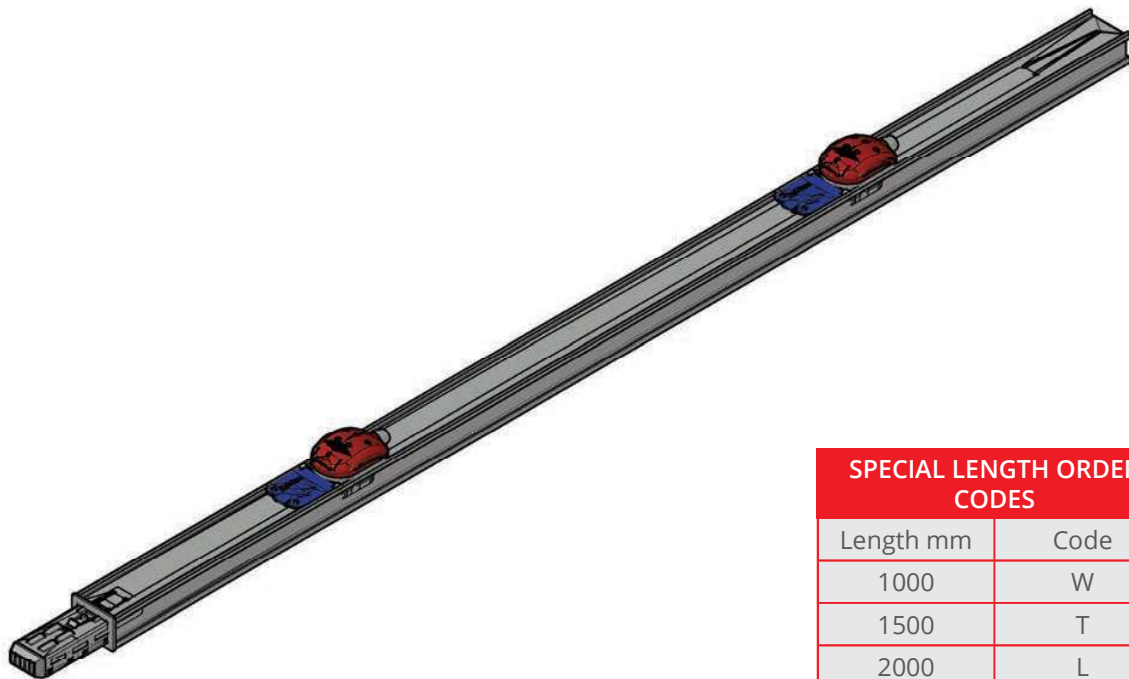
25 A COPPER
 Plug-in Special Length IP 55 5 Conductors

AB-EC125T2PX

AB-E

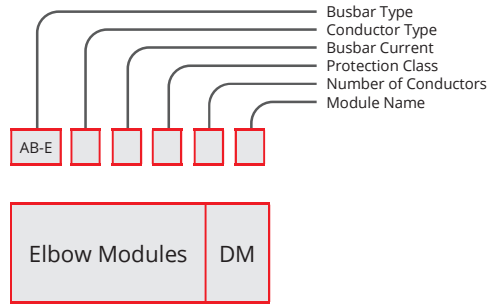


Special Lengths are produced as 1 m, 1.5 m and 2 m as standard.



SPECIAL LENGTH ORDER CODES	
Length mm	Code
1000	W
1500	T
2000	L

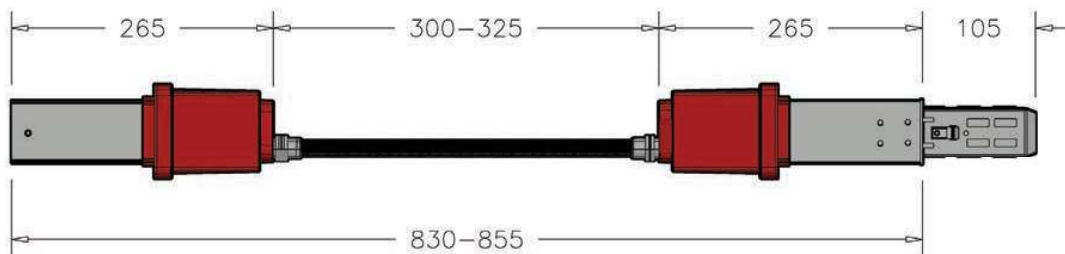
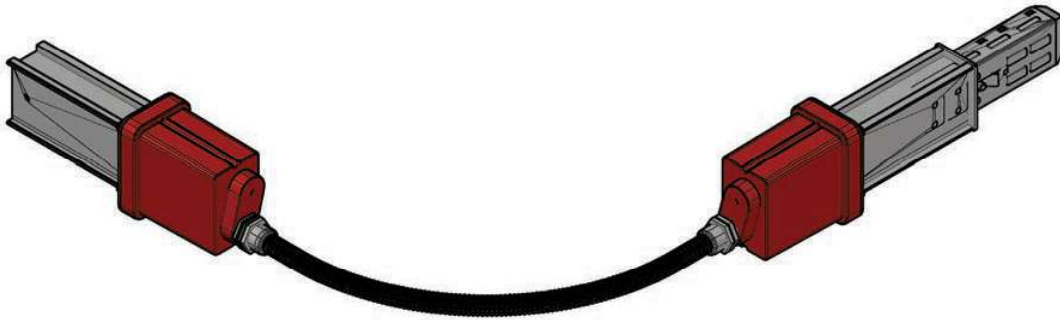
Elbow
Modules



SAMPLE ORDER

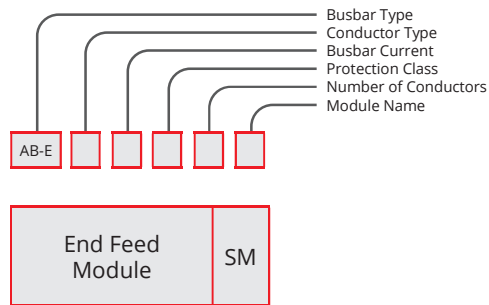
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Horizontal Elbow IP 55 5 Conductors

AB-EC135T2DM



AB-E

Feed Modules/Units

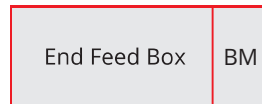
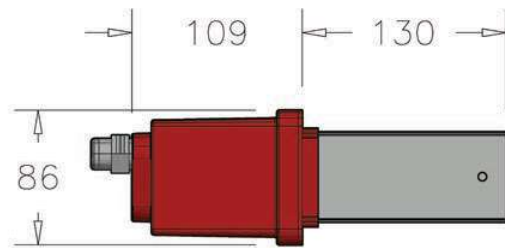
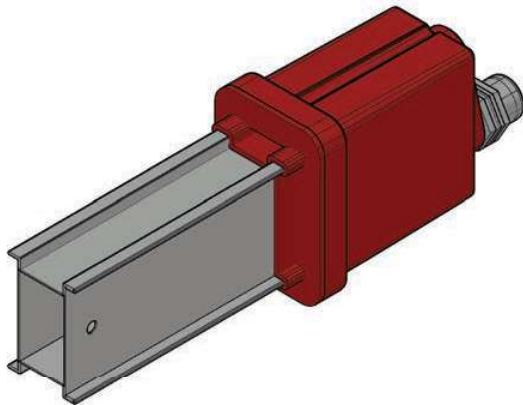


SAMPLE ORDER

40 A COPPER
End Feed Box IP 55 5 Conductors

AB-EC145T2SM

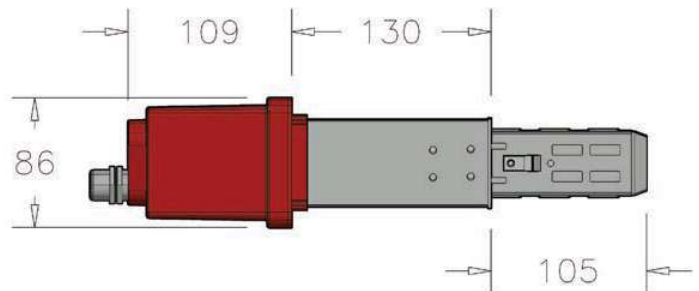
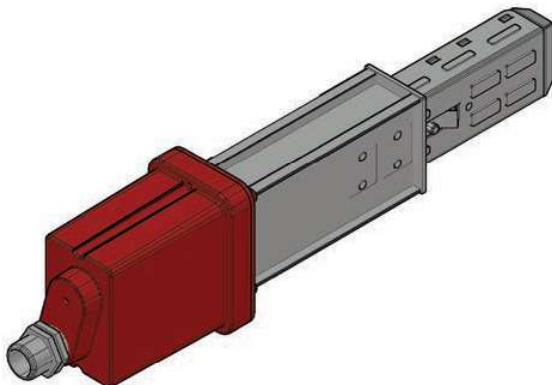
AB-E



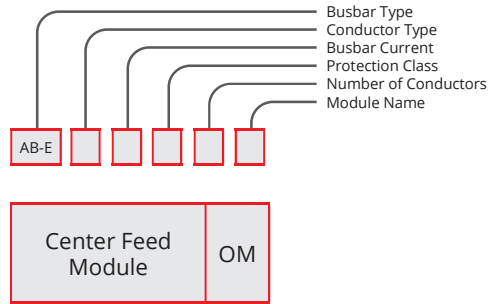
SAMPLE ORDER

25 A COPPER
Feed Box IP 55 5 Conductors

AB-EC125T2BM



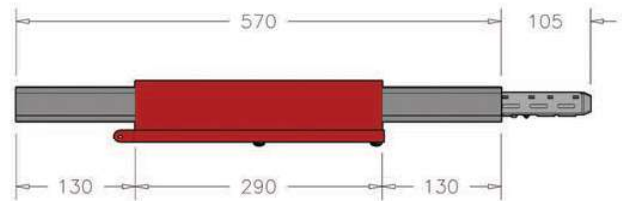
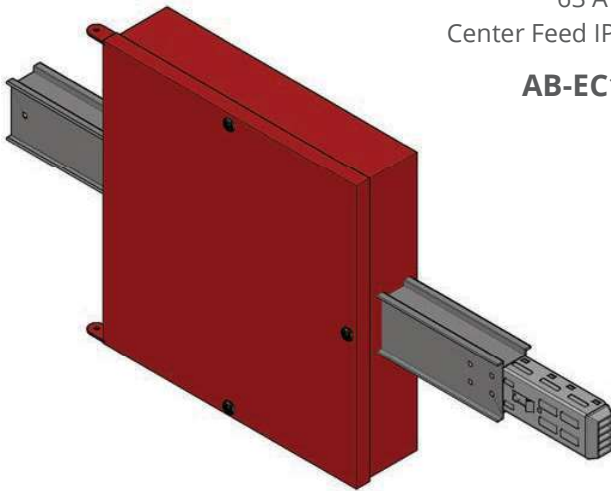
Center Feed Modules/Units



SAMPLE ORDER

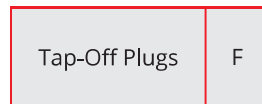
63 A COPPER
Center Feed IP 55 5 Conductors

AB-EC165T2OM



AB-E

Standard Plug



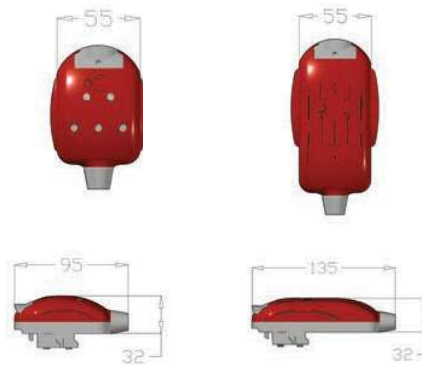
SAMPLE ORDER:

25 A COPPER
Tap-Off plug IP 55 5 Conductors

AB-EC255T212F



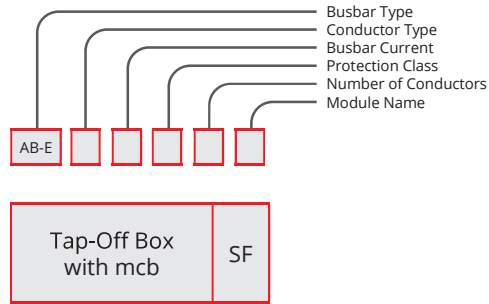
Fused Plug



TAP-OFF PLUGS

AMR.	PHASE	CODE
10	L1,N,PE	1
	L2,N,PE	2
	L3,N,PE	3
	L1,L2,L3,N,PE	4
16	L1,N,PE	5
	L2,N,PE	6
	L3,N,PE	7
	L1,L2,L3,N,PE	8
25	L1,N,PE	9
	L2,N,PE	10
	L3,N,PE	11
	L1,L2,L3,N,PE	12
32	L1,N,PE	13
	L2,N,PE	14
	L3,N,PE	15
	L1,L2,L3,N,PE	16

Tap-Off Box
with mcb



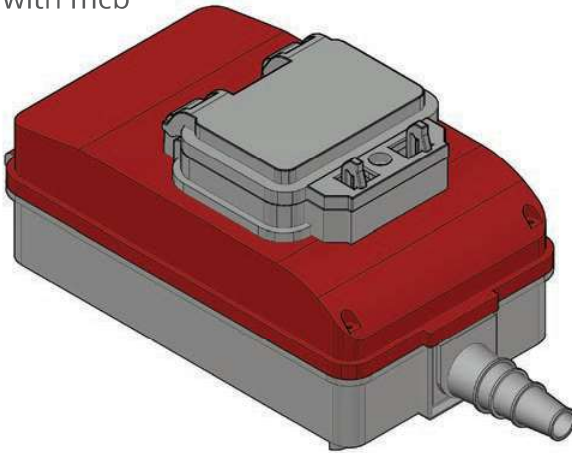
SAMPLE ORDER

32 A COPPER
Tap-Off Box IP 55 5 Conductors

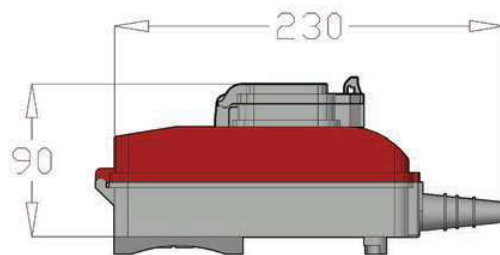
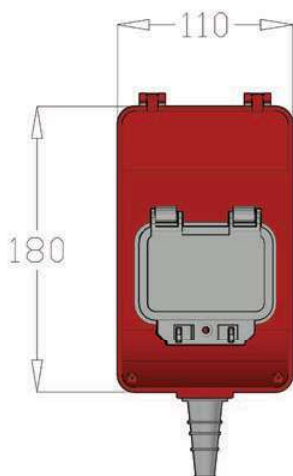
AB-EC325T232SF

AB-E

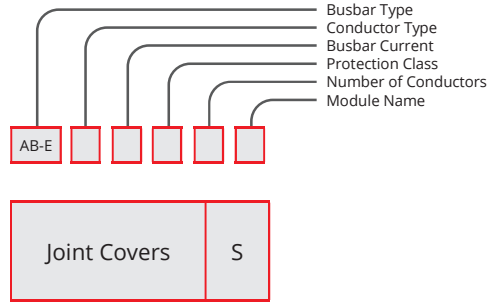
Tap-Off
Box with mcb



TAP-OFF PLUG		
AMR.	PHASE	CODE
10	L1,N,PE	17
	L2,N,PE	18
	L3,N,PE	19
	L1,L2,L3,N,PE	20
16	L1,N,PE	21
	L2,N,PE	22
	L3,N,PE	23
	L1,L2,L3,N,PE	24
25	L1,N,PE	25
	L2,N,PE	26
	L3,N,PE	27
	L1,L2,L3,N,PE	28
32	L1,N,PE	29
	L2,N,PE	30
	L3,N,PE	31
	L1,L2,L3,N,PE	32



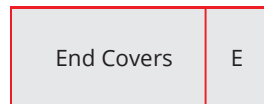
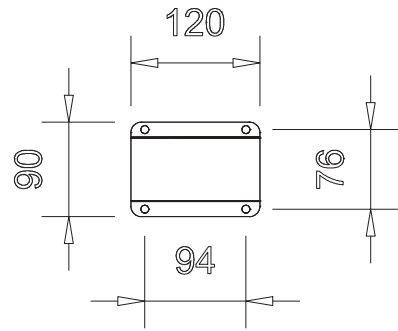
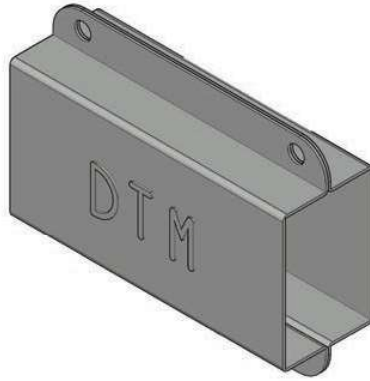
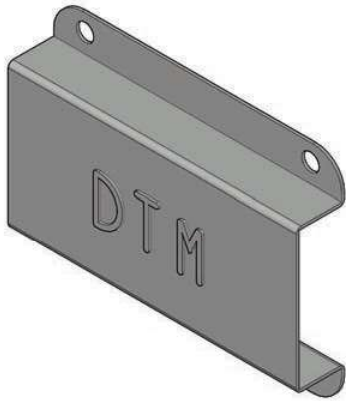
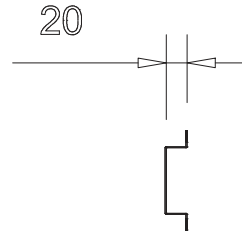
Joint Covers



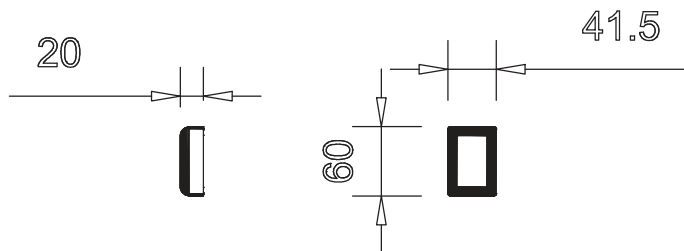
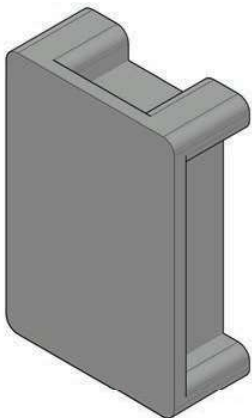
SAMPLE ORDER

32 A COPPER
 Termination IP 55 5 Conductors

AB-EC135T2S

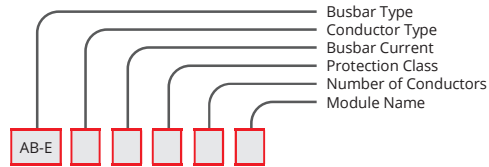
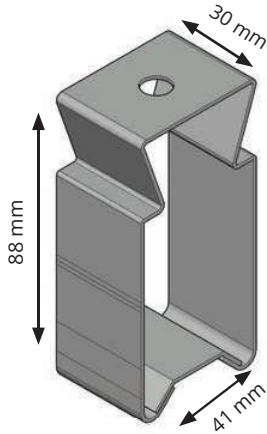


AB-EC5T2E



AB-E

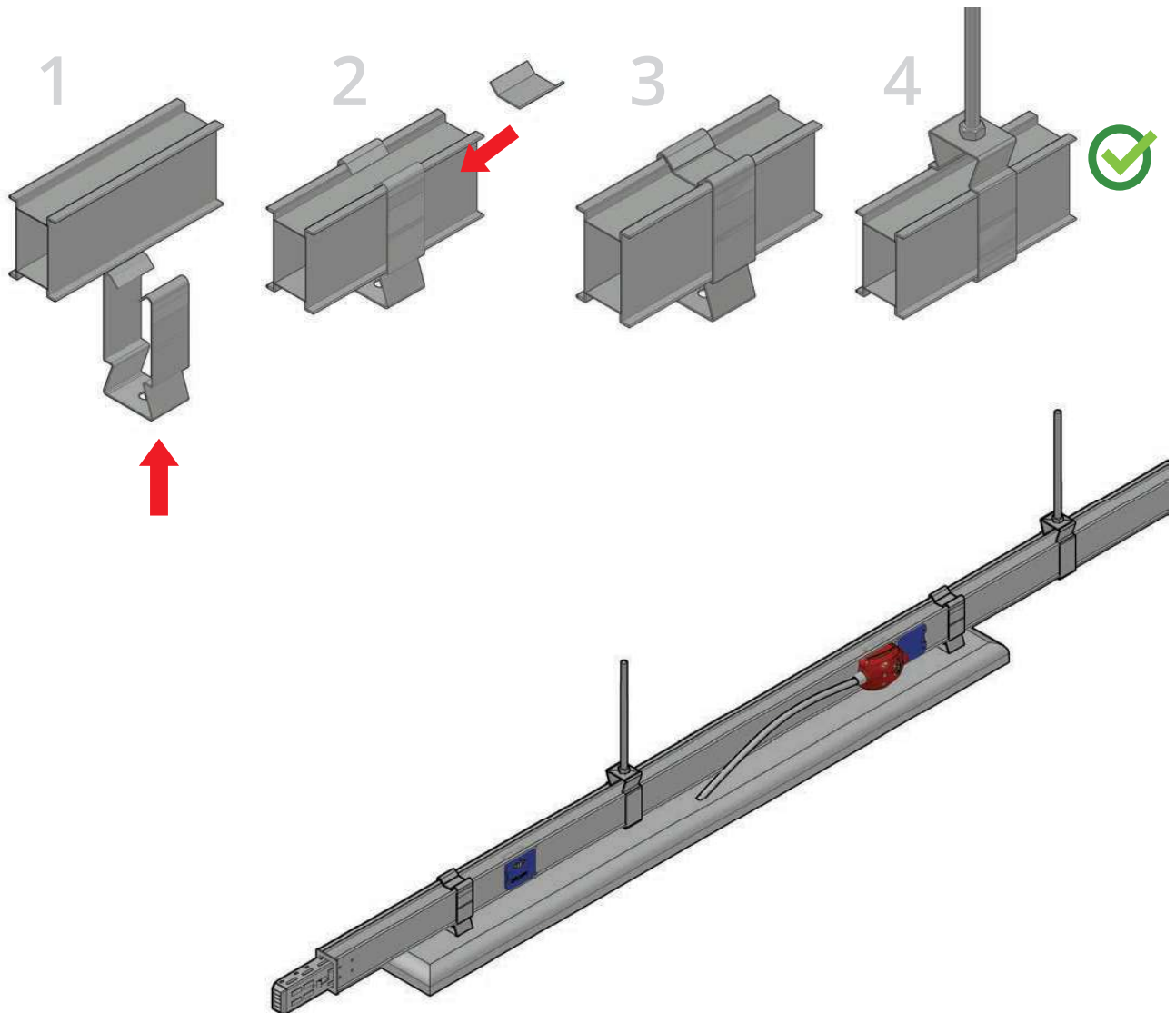
Busbar and
Luminaire
Hanger



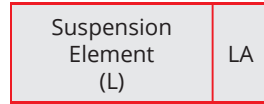
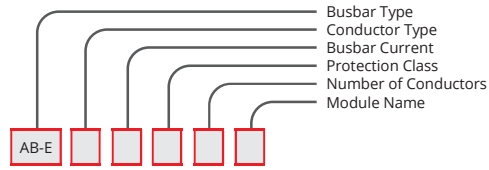
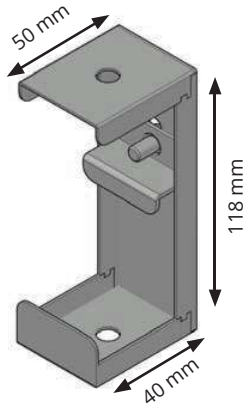
AB-E					
Suspension Element (U)		UA			

AB-EUA

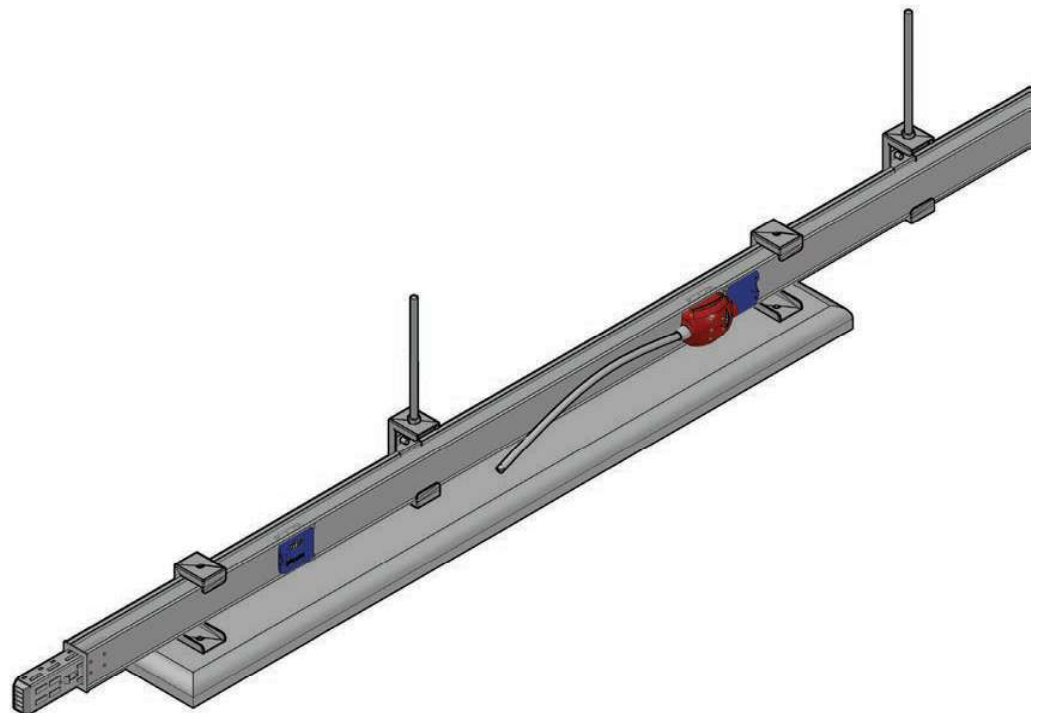
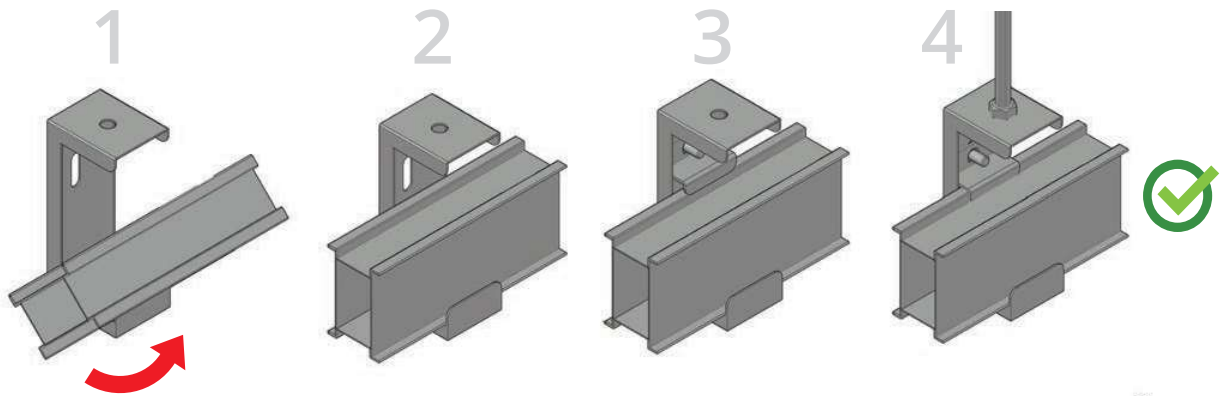
AB-E



Busbar and
Luminaire
Hanger

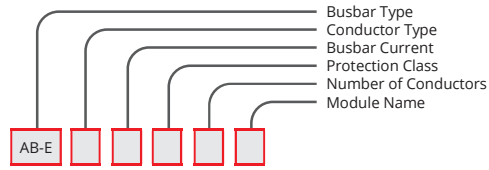
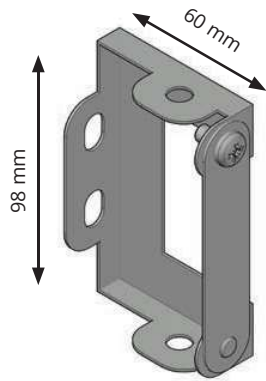


AB-ELA



AB-E

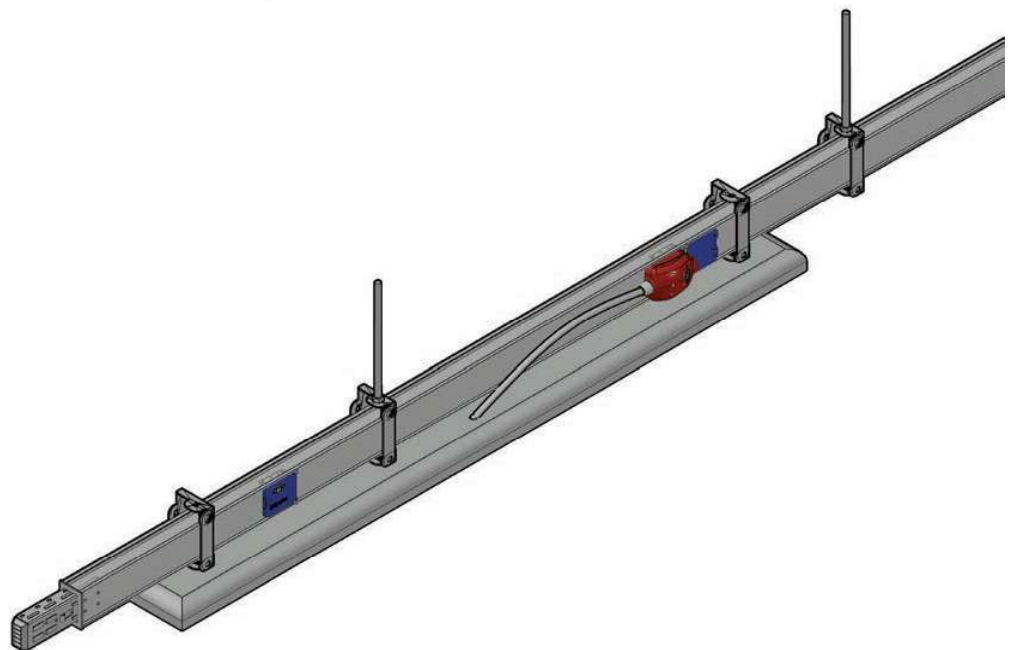
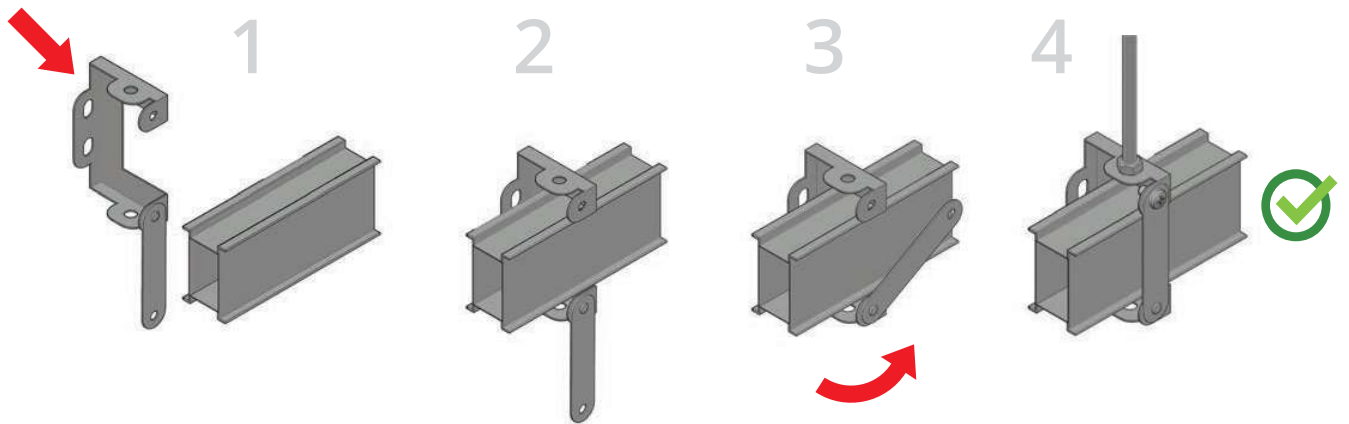
Busbar and
Luminaire
Hanger



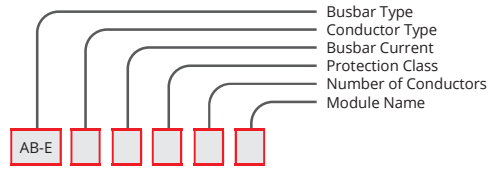
Suspension Element (C)	CA
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AB-ECA

AB-E

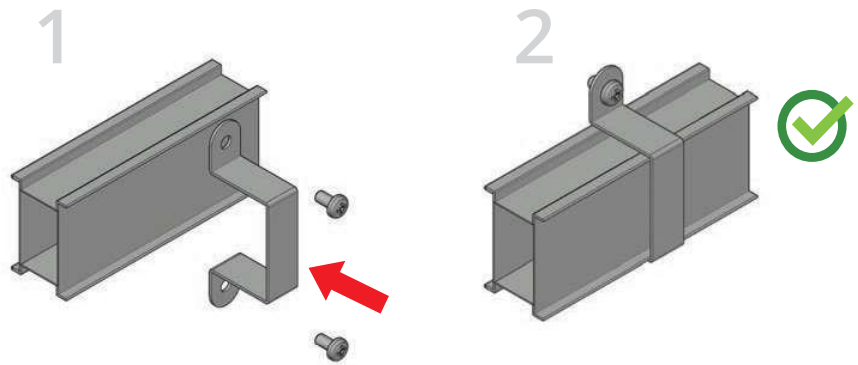
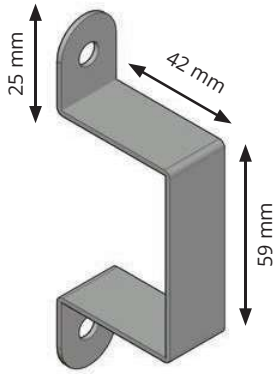


Wall
Suspension
Element



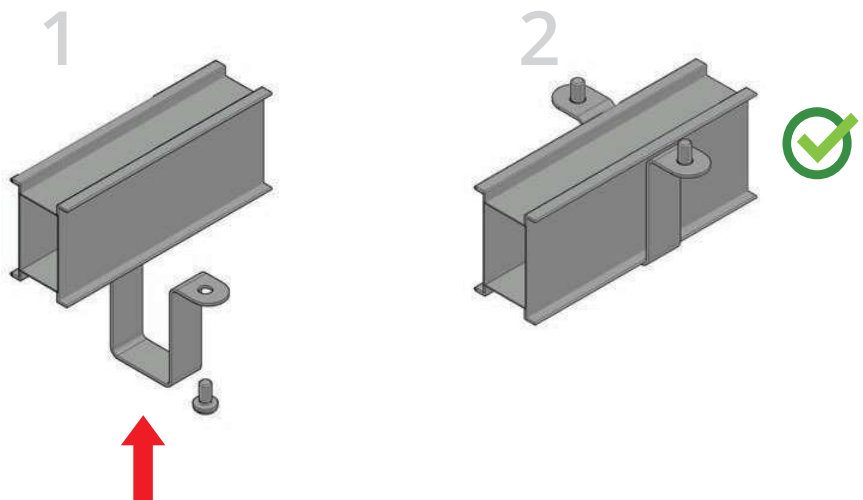
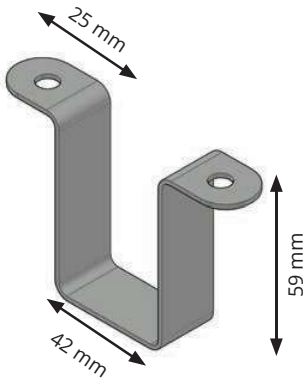
Wall Suspension Element	DA
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AB-EDA

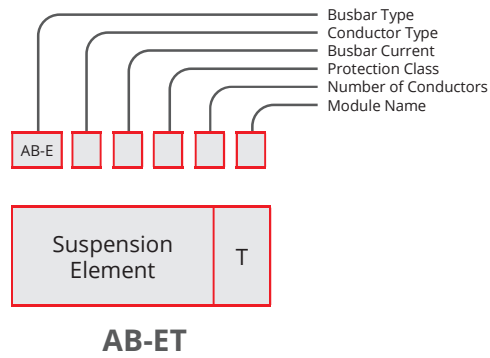


Ceiling Suspension Element	TA
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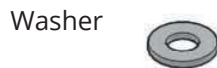
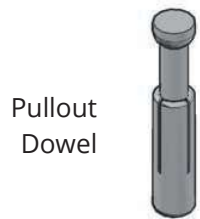
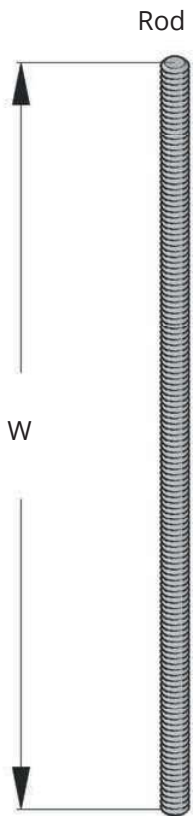
AB-ETA



Suspension Elements



AB-E



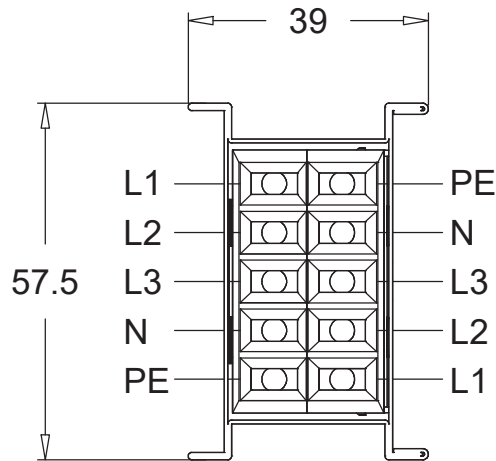
CONNECTION ELEMENTS		
PART	W (mm)	CODE
B-E 8 Tij Hanger (M8)	500	T101
B-E 8 Tij Hanger (M8)	1000	T102
(M8) Extension Element	-	T103
M 8 Pull Dowel	-	T104
M 8 Steel Nut	-	T105

Busbar Technical Information

AB-E

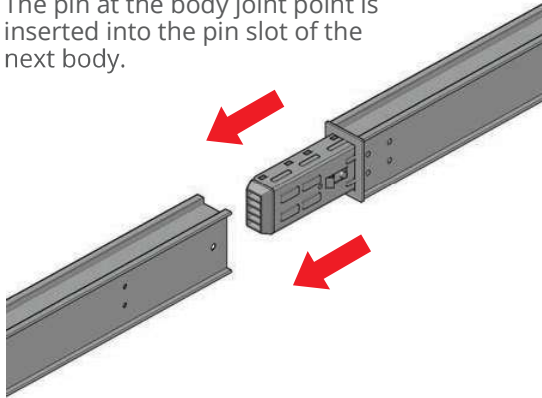
COPPER BUSBAR SIZES AND WEIGHT					
AMPER CLASS	BUSBAR mm		FEEDER KG		
			3P+N+PE (4)	3P+N+PE+FE1 (5)	
25A	39	X	57.5	1.15	1.18
32A	39		57.5	1.19	1.3
40A	39		57.5	1.40	1.5
63A	39		57.5	1.48	1.55

Up to 10 Conductors

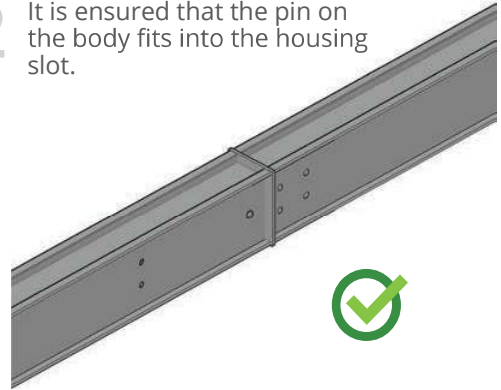


Installation

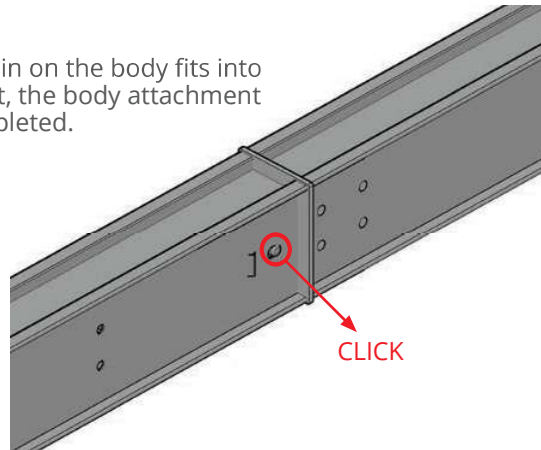
1 The pin at the body joint point is inserted into the pin slot of the next body.



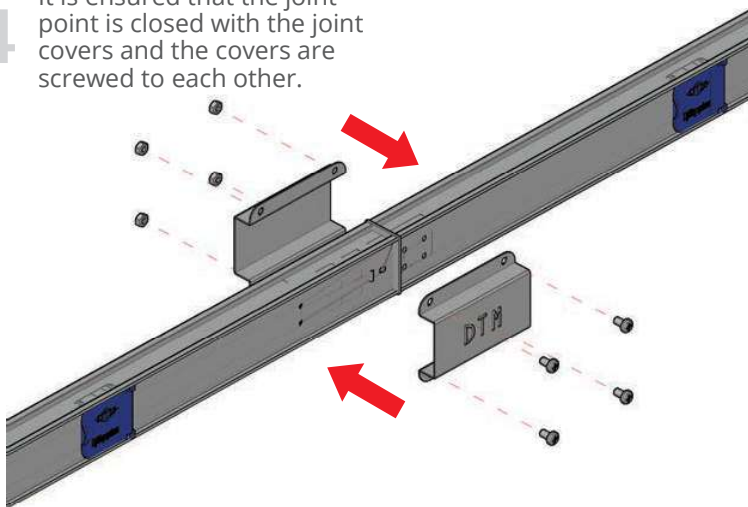
2 It is ensured that the pin on the body fits into the housing slot.



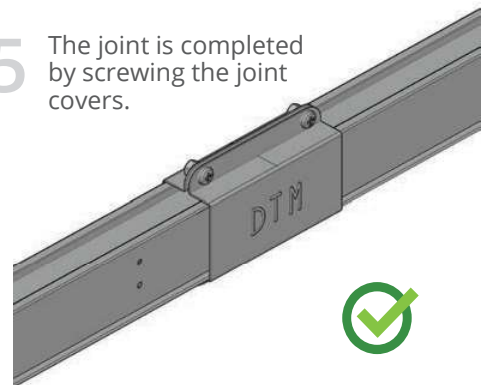
3 If the pin on the body fits into the slot, the body attachment is completed.



4 It is ensured that the joint point is closed with the joint covers and the covers are screwed to each other.



5 The joint is completed by screwing the joint covers.



AB-E