

B2.8

MCC (DRAWABLE) MODULE ASSEMBLY

KYT-070
11/2021

 Update Notes

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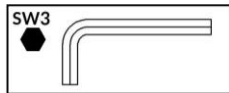
 Tools Symbol Guide



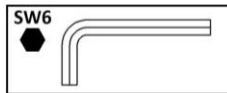
Cross



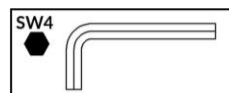
Slot



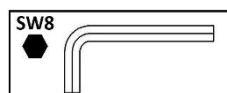
M4 Allen Key



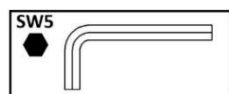
M8 Allen Key



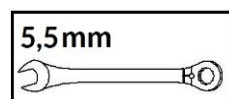
M5 Allen Key



M10 Allen Key



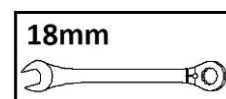
M6 Allen Key



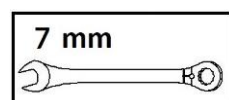
M3 Spanner



M6 Spanner



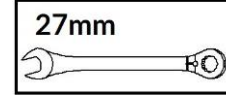
M12 Spanner



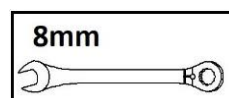
M4 Spanner



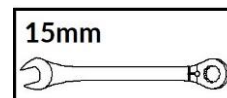
M8 Spanner



M18 Spanner



M5 Spanner



M10 Spanner

Caution: For safety precaution ; Protective gloves and equipments must be used while assembly.

As additional tools for assembly;

- Torque wrench features:
 - ✓ Tightening torque : 75 N.m
 - ✓ It has a reduced thickness, can be easily used to access non accessible joints/fishplates and between busbars.
- Torque wrench an accessories:
 - ✓ Wrench shaft - mandatory
 - ✓ Extra-thin pawl adapter - mandatory
 - ✓ Pawl for ordinary sockets
- Extra-thin sockets for pawl + shaft:
 - ✓ 13 mm extra-thin low socket
 - ✓ 13 mm extra-thin high socket
 - ✓ 15 mm extra-thin low socket
 - ✓ 15 mm extra-thin high socket
 - ✓ 18 mm extra-thin low socket
 - ✓ 18 mm extra-thin high socket

■ Torque Table for Screw/Bolt

Recommended tightening torque for mechanical and electrical links 8.8-class screws (with nut + washers)	
Diameter of Screw	Tightening Torque (N.m)
M3	1.5
M4	3.5
M5	7
M6	13
M8	28
M10	50
M12	75

Tightening torque for electrical links on the devices and for their fixing:

Marking varnish:

After tightening each electrical connection to the appropriate torque, apply some varnish:

- ✓ Between the nut and the screw or
- ✓ Between the screw head and the copper bar or
- ✓ Between the device for tightening on a threaded part

Varnish should not block the screw:

- ✓ It allows operator inspection, to verify if the bolts/ nut are tightened or not.
- ✓ It facilitates the identification of any loose nuts during the switchboard's lifetime.

Varnish features:

- ✓ Coloured acrylic varnish, indelible and able to resist a 150° C temperature.
- ✓ PDS recommends a red varnish as a standard to identify the panelbuilder's work.
- ✓ Other colours can be used by the contractor or any operators entitled to work on the switchboard after its commissioning.

■ Screw/Bolt/Special Parts for Assembly

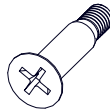
Philips Pan
Head Screw



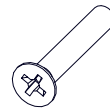
M6x23 Philips Flat
Head Screw (Teos)



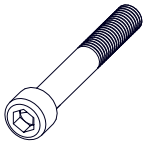
M5x20 Philips Flat
Head Screw (Teos)



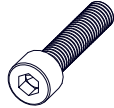
Philips Flat Head
Screw



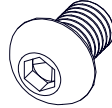
Hexagon Socket Head
Bolt (Half Thread)



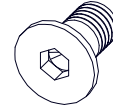
Hexagon Socket
Head Bolt



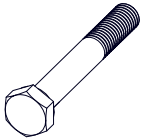
Hexagon Socket
Button Head Bolt



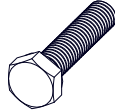
Hexagon Socket
Flat Head Bolt



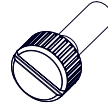
Hexagon Head Bolt
(Half Tread)



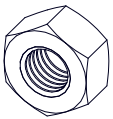
Hexagon Head
Bolt



Internal Door
Knob Bolt



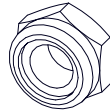
Regular Nut



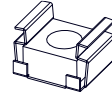
Flange Nut



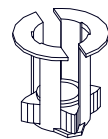
Previling Torque
Nut



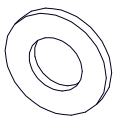
Cage Nut



Plastic Cage
Nut



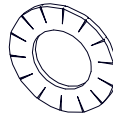
Flat Washer



Spring Lock
Washer



Toothed Lock
Washer

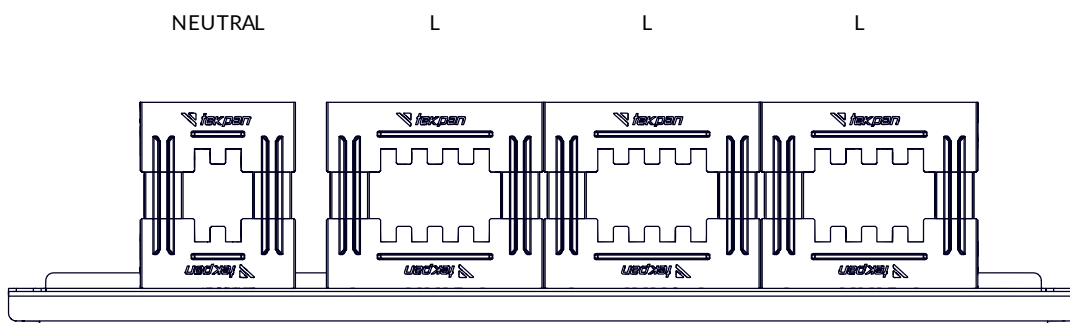
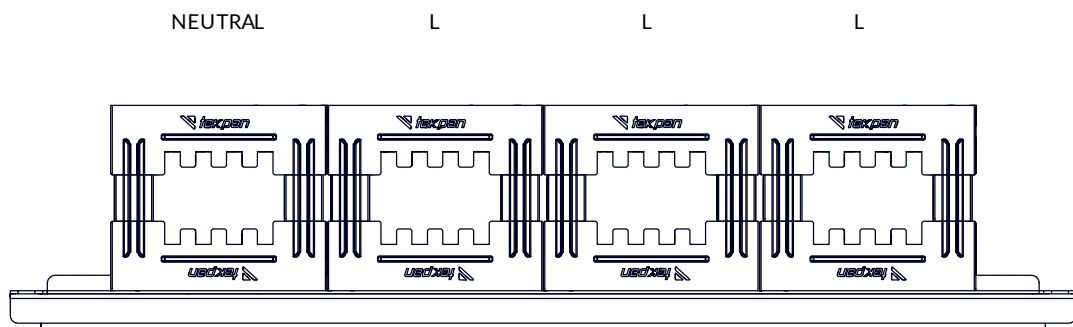
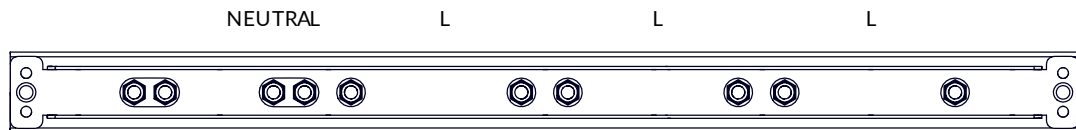
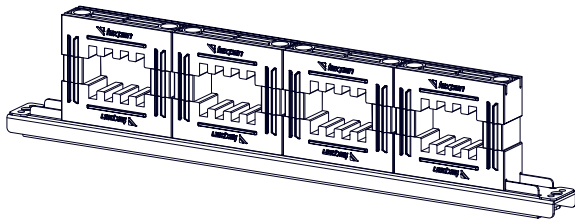


Wedge Lock
Washer



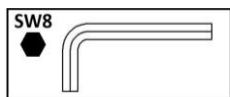
1. BUSBAR ASSEMBLY

1.1 FOUR (4) FLAT BAR ASSEMBLY

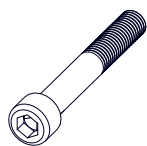


Neutral Section	Rated Current (In)	Flat Copper Size (mm) xQty	
		L1/L2/L3	Neutral(N)
1/2 N	2500A	40/10x4	40/10x2
1/1 N	2500A	40/10x4	40/10x4
1/2 N	3000A	50/10x4	50/10x2
1/1 N	3000A	50/10x4	50/10x4
1/2 N	3400A	60/10x4	60/10x2
1/1 N	3400A	60/10x4	60/10x4
1/2 N	4000A	80/10x4	80/10x2
1/1 N	4000A	80/10x4	80/10x4

1.1 FOUR (4) FLAT BAR ASSEMBLY



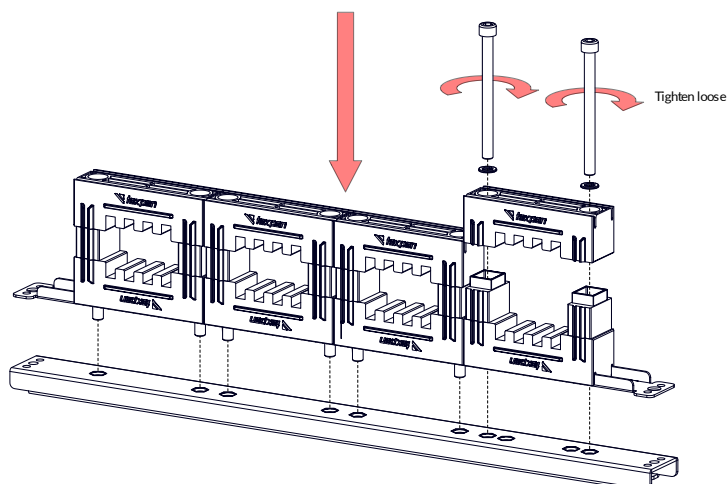
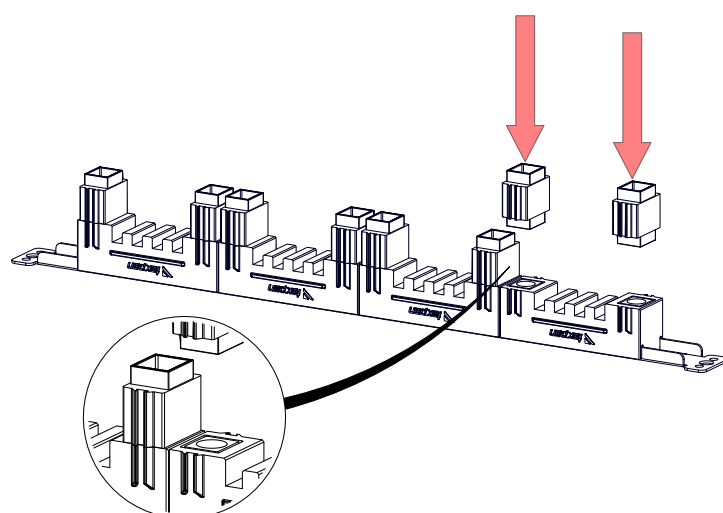
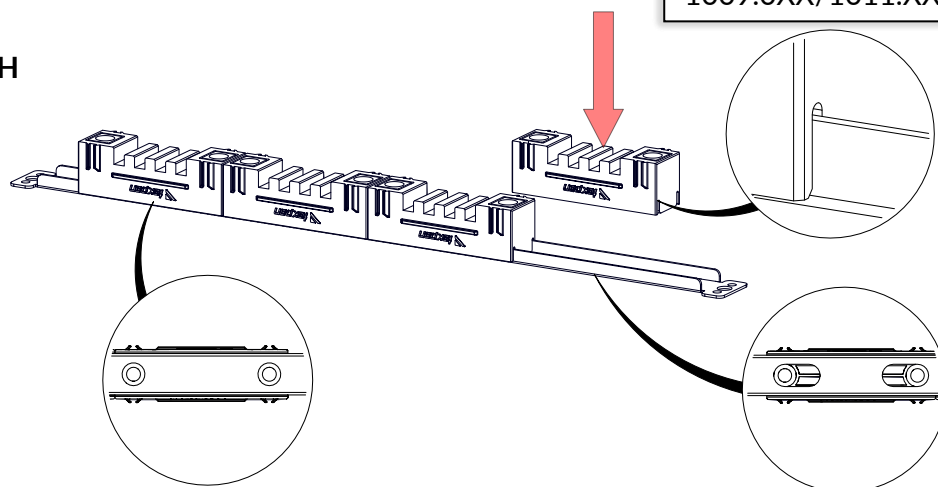
Required Packages:
1010.18X
1009.0XX/1011.XXX



M10x H

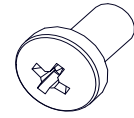


M10

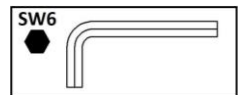
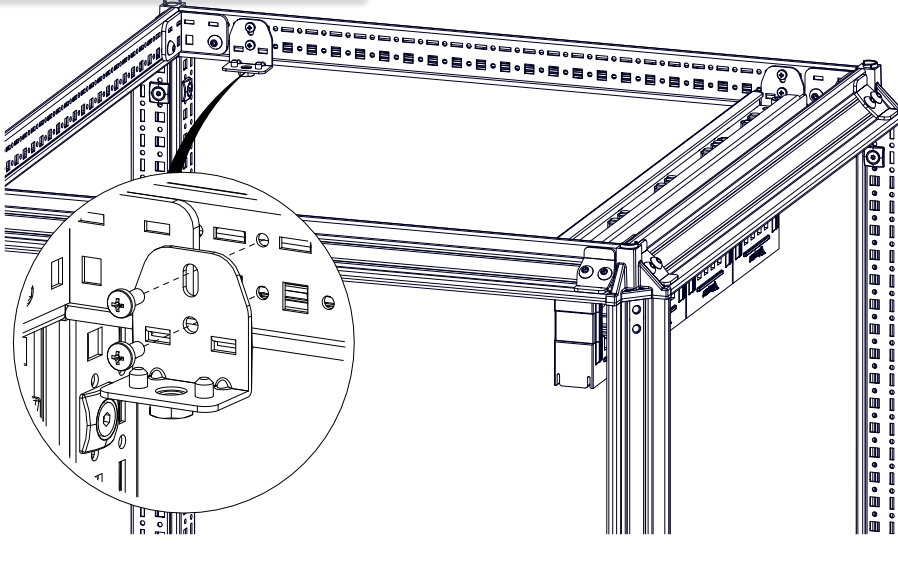


1.1 FOUR (4) FLAT BAR ASSEMBLY

Required Packages:
1010.18X
1009.0XX/1011.XXX



M5X10



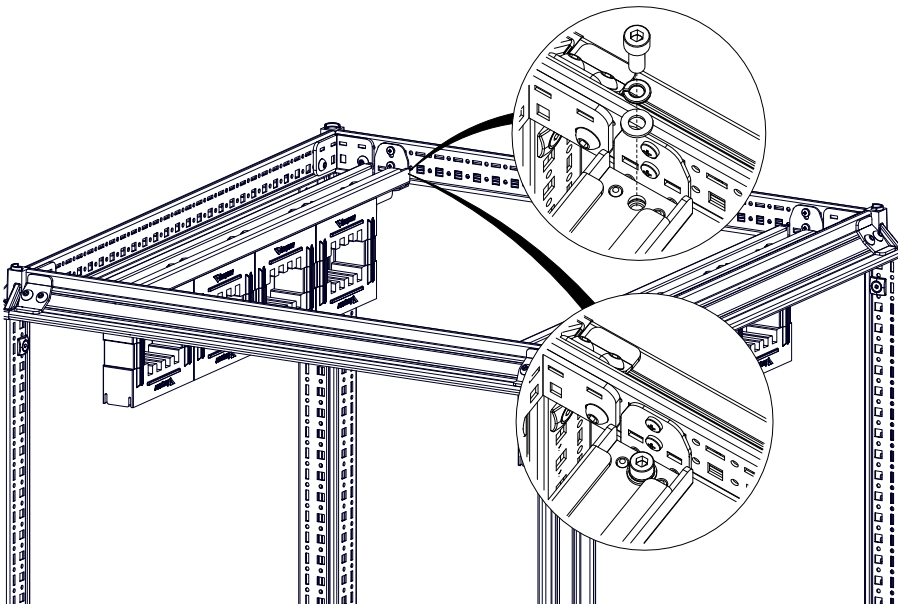
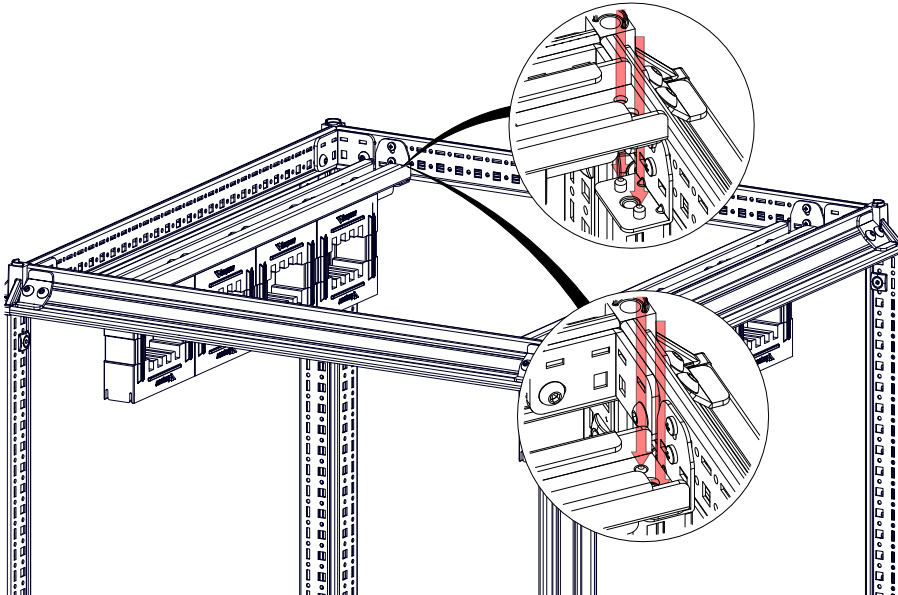
M8x20
1 pcs.



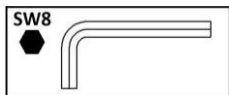
M8
1 pcs.



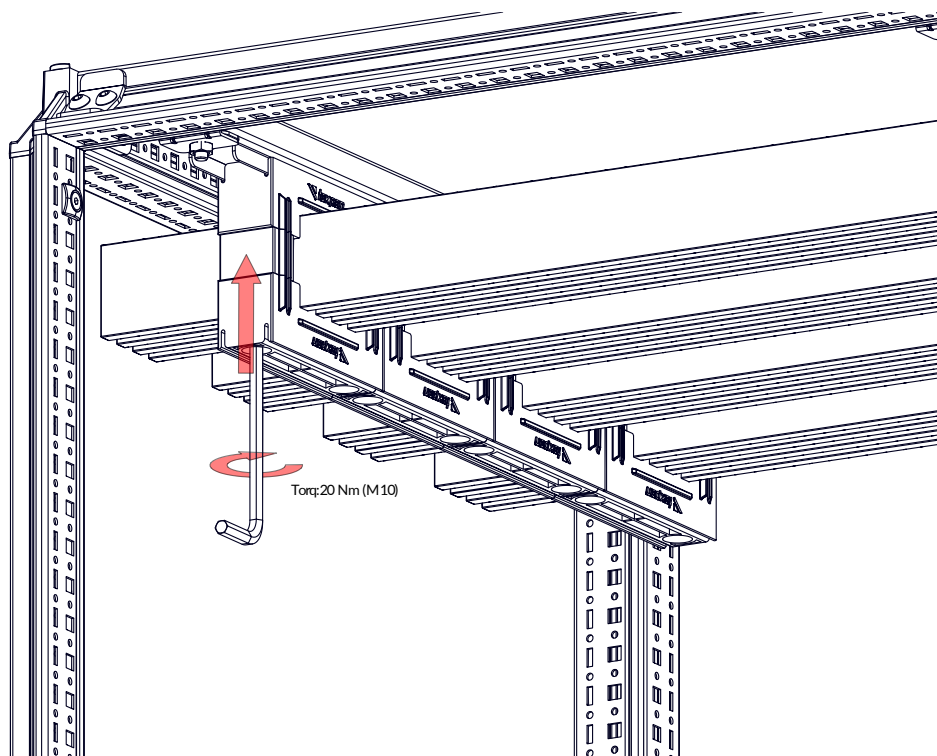
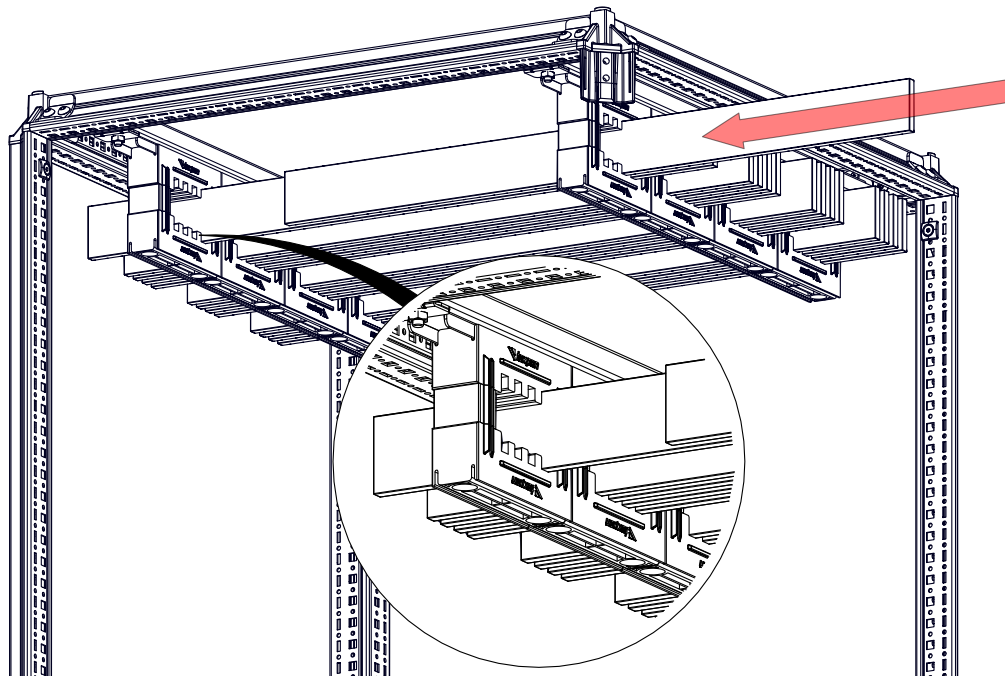
M8
1 pcs.



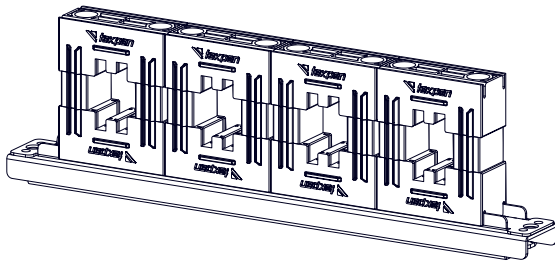
■ 1.1 FOUR (4) FLAT BAR ASSEMBLY



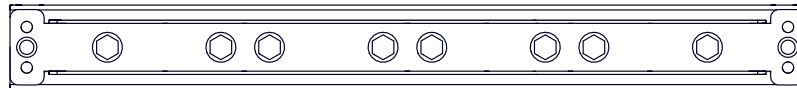
For 65kA and 85kA assemblies are using same steps.
65 kA safety distance between busbar holders Max. 550mm
85 kA safety distance between busbar holders Max. 350mm



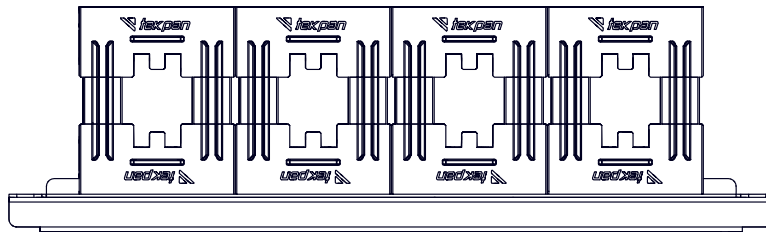
1.2 TWO (2) FLAT BAR ASSEMBLY



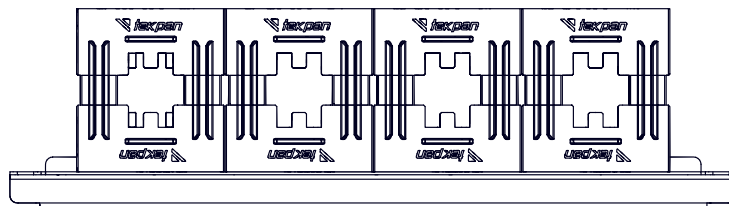
NEUTRAL L L L



NEUTRAL L L L

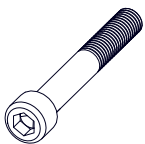
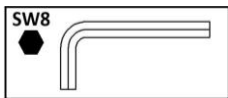


NEUTRAL L L L



Neutral Section	Rated Current (In)	Flat Copper Size (mm) xQty	
		L1/L2/L3	Neutral(N)
1/2 N	1350A	40/10x2	40/5x2
1/1 N	1350A	40/10x2	40/10x2
1/2 N	1620A	50/10x2	50/5x2
1/1 N	1620A	50/10x2	50/10x2
1/2 N	1860A	60/10x2	60/5x2
1/1 N	1860A	60/10x2	60/10x2
1/2 N	2300A	80/10x2	40/10x2
1/1 N	2300A	80/10x2	80/10x2

1.2 TWO (2) FLAT BAR ASSEMBLY



M10x H

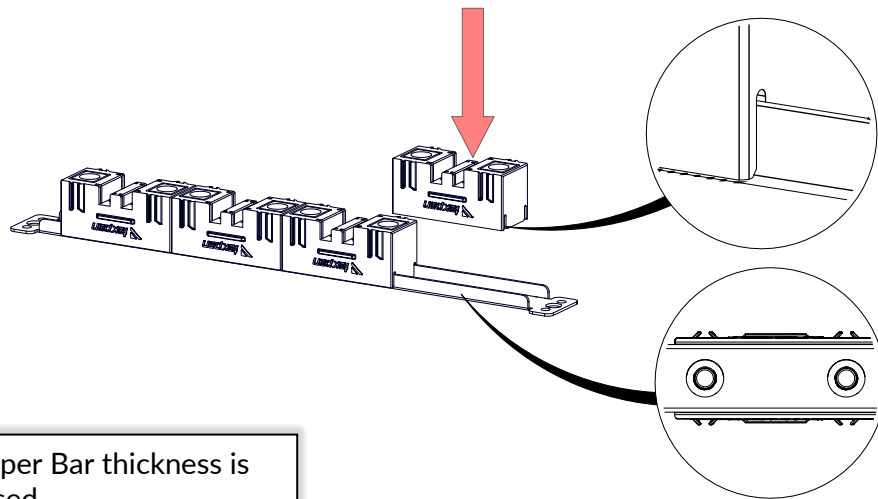


M10

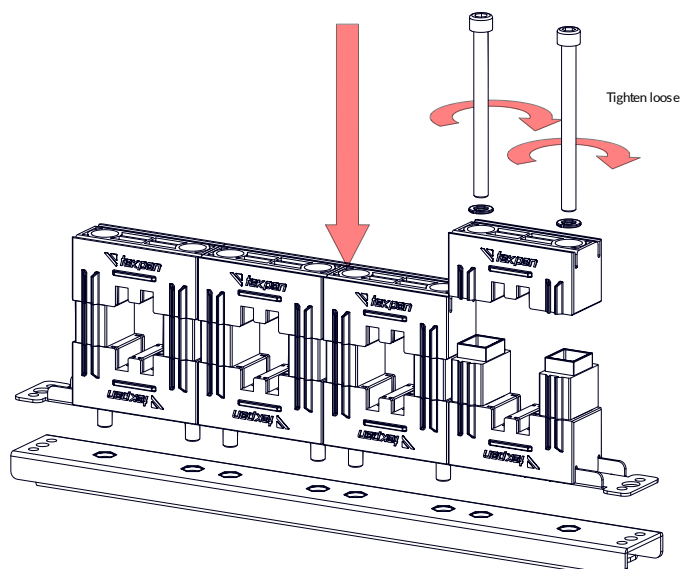
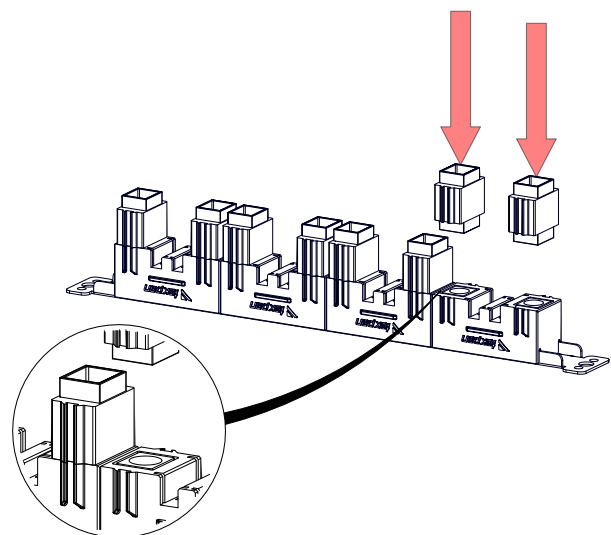
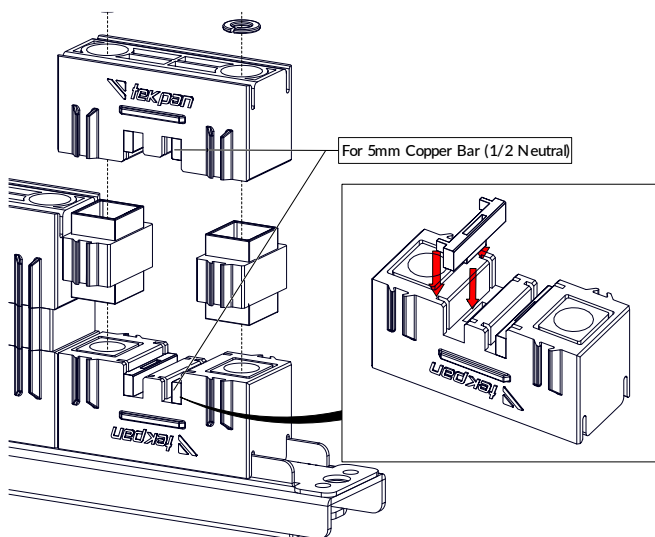
Required Packages:

1010.16X

1009.0XX/1011.XXX/1019.0XX



If 1/2 Section Neutral Copper Bar thickness is 5mm, Adapter must be used.



1.2 TWO (2) FLAT BAR ASSEMBLY

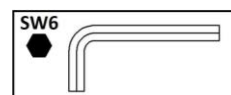
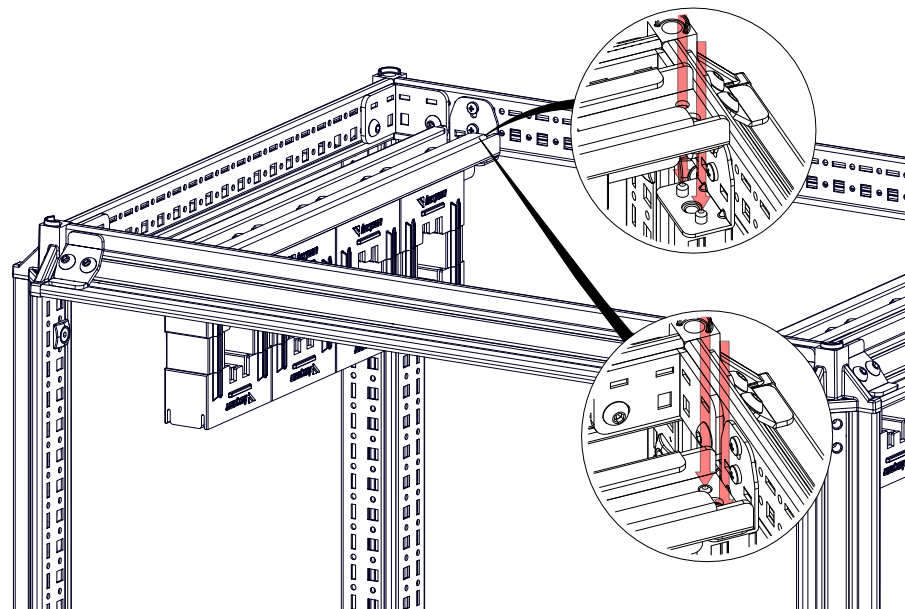
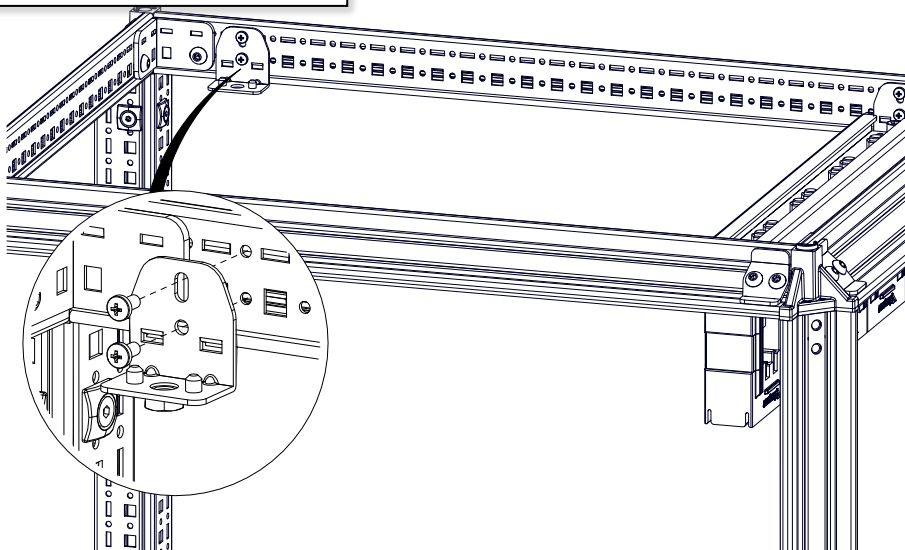
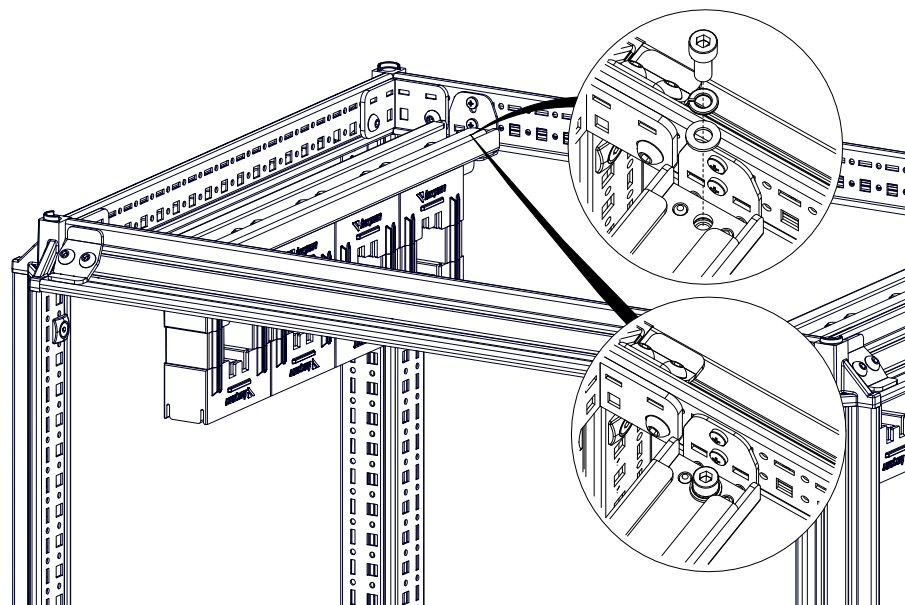
Required Packages:

1010.16X

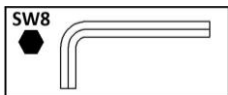
1009.0XX/1011.XXX/1019.0XX



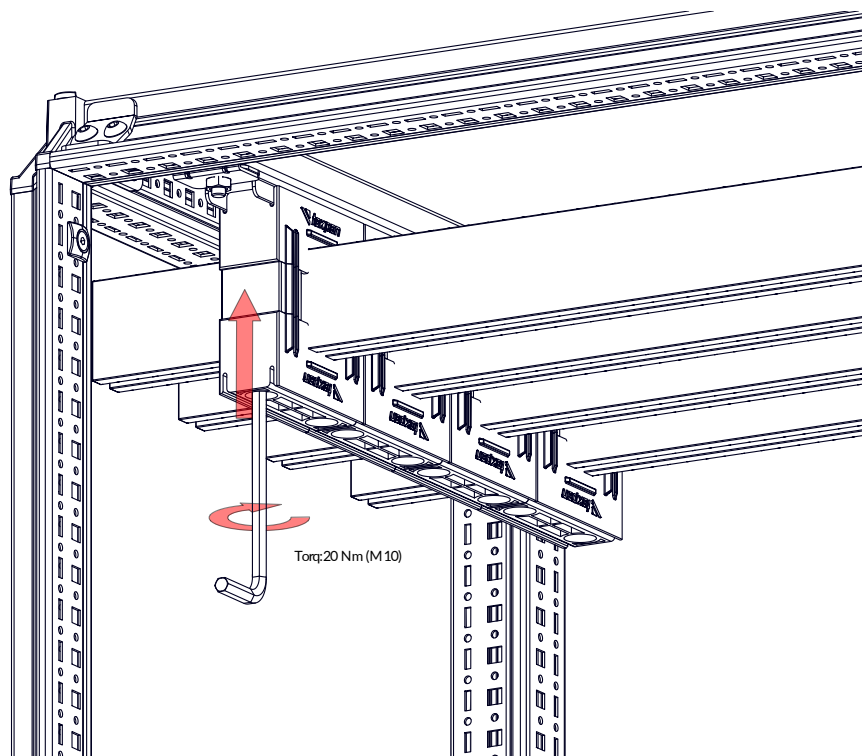
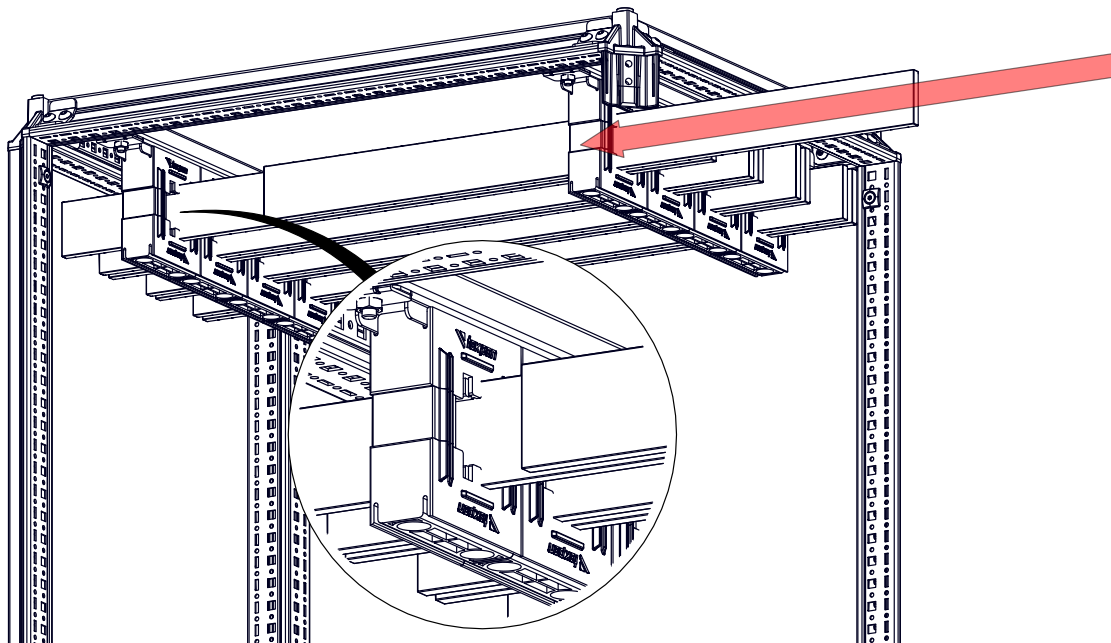
M5X10

M8x20
1 pcs.M8
1 pcs.M8
1 pcs.

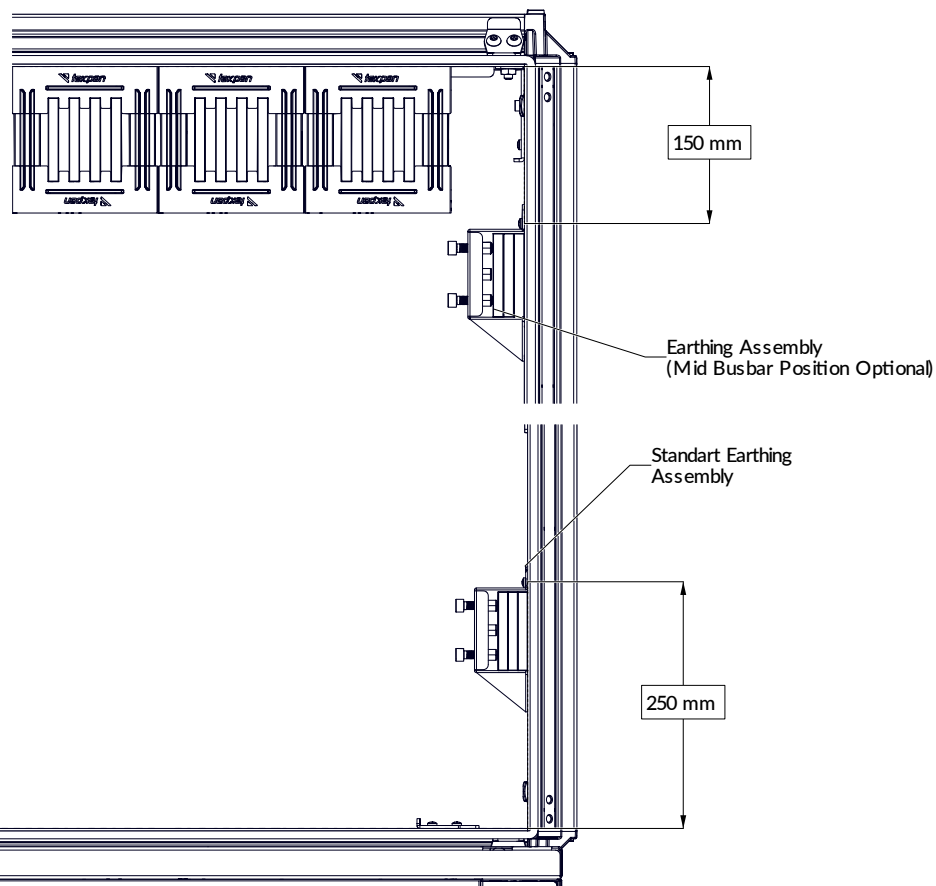
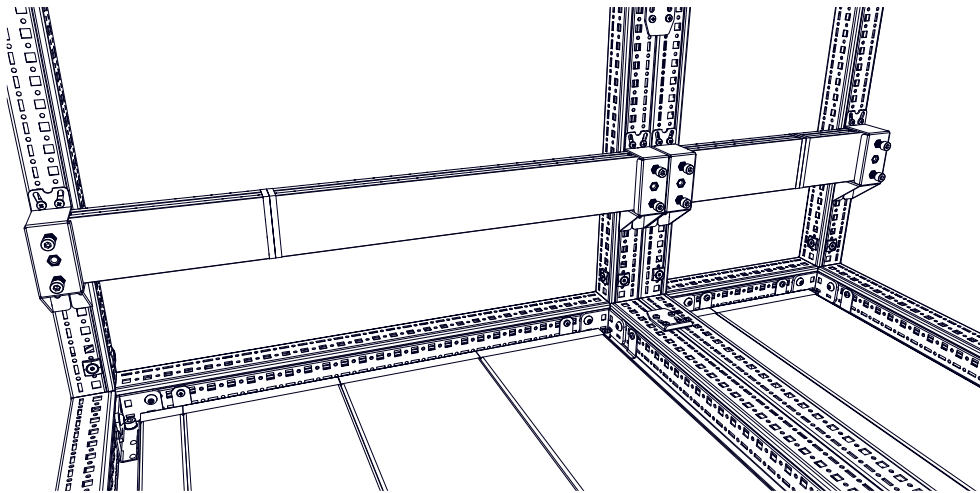
■ 1.2 TWO (2) FLAT BAR ASSEMBLY



For 65kA and 85kA assemblies are using same steps.
65 kA safety distance between busbar holders Max. 550mm
85 kA safety distance between busbar holders Max. 350mm



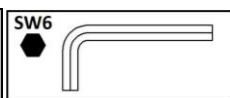
2. EARTHING BAR ASSEMBLY



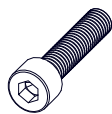
Neutral Section	Rated Current (In)	Flat Copper Size (mm) xQty
		PE
1/2 N	1350A	20/5x2
1/1 N	1350A	40/5x2
1/2 N	1620A	25/5x2
1/1 N	1620A	50/5x2
1/2 N	1860A	30/5x2
1/1 N	1860A	60/5x2
1/2 N	2300A	40/5x2
1/1 N	2300A	40/10x2

Neutral Section	Rated Current (In)	Flat Copper Size (mm) xQty
		PE
1/2 N	2500A	40/5x2
1/1 N	2500A	40/10x2
1/2 N	3000A	50/5x2
1/1 N	3000A	50/10x2
1/2 N	3400A	60/5x2
1/1 N	3400A	60/10x2
1/2 N	4000A	40/10x2
1/1 N	4000A	80/10x2

2. EARTHING BAR ASSEMBLY



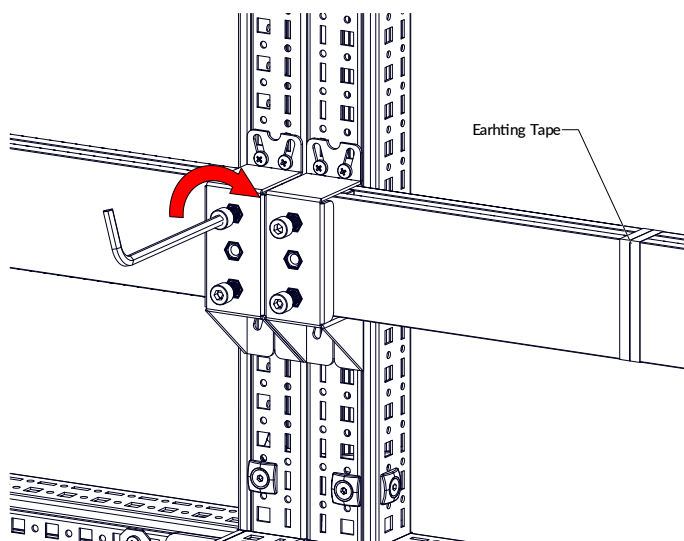
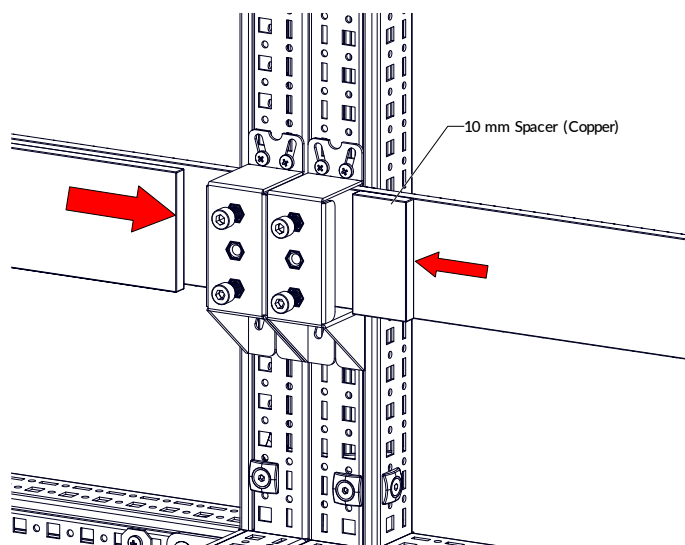
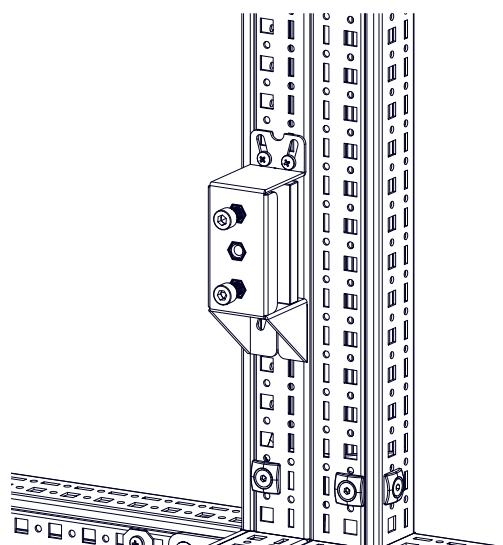
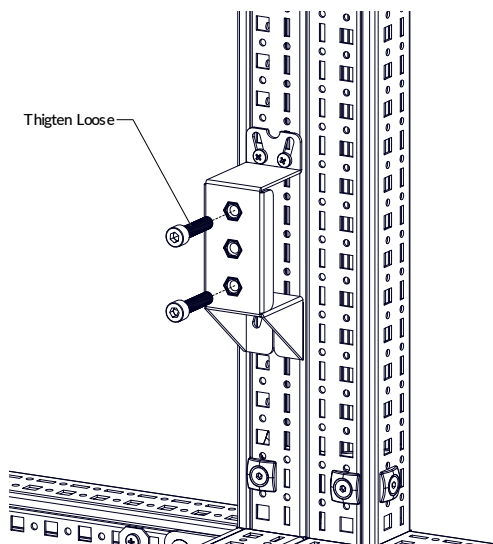
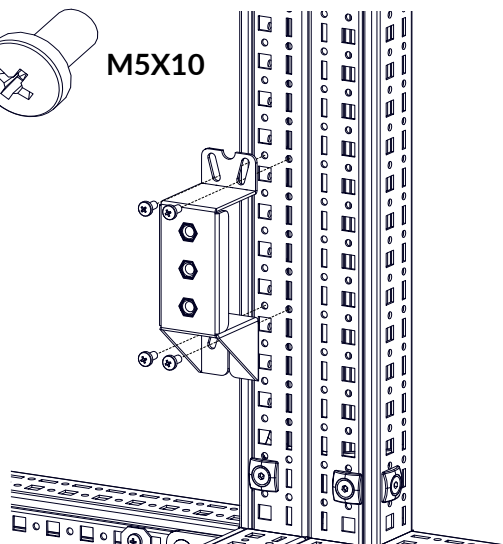
Required Packages:
1012.0XX



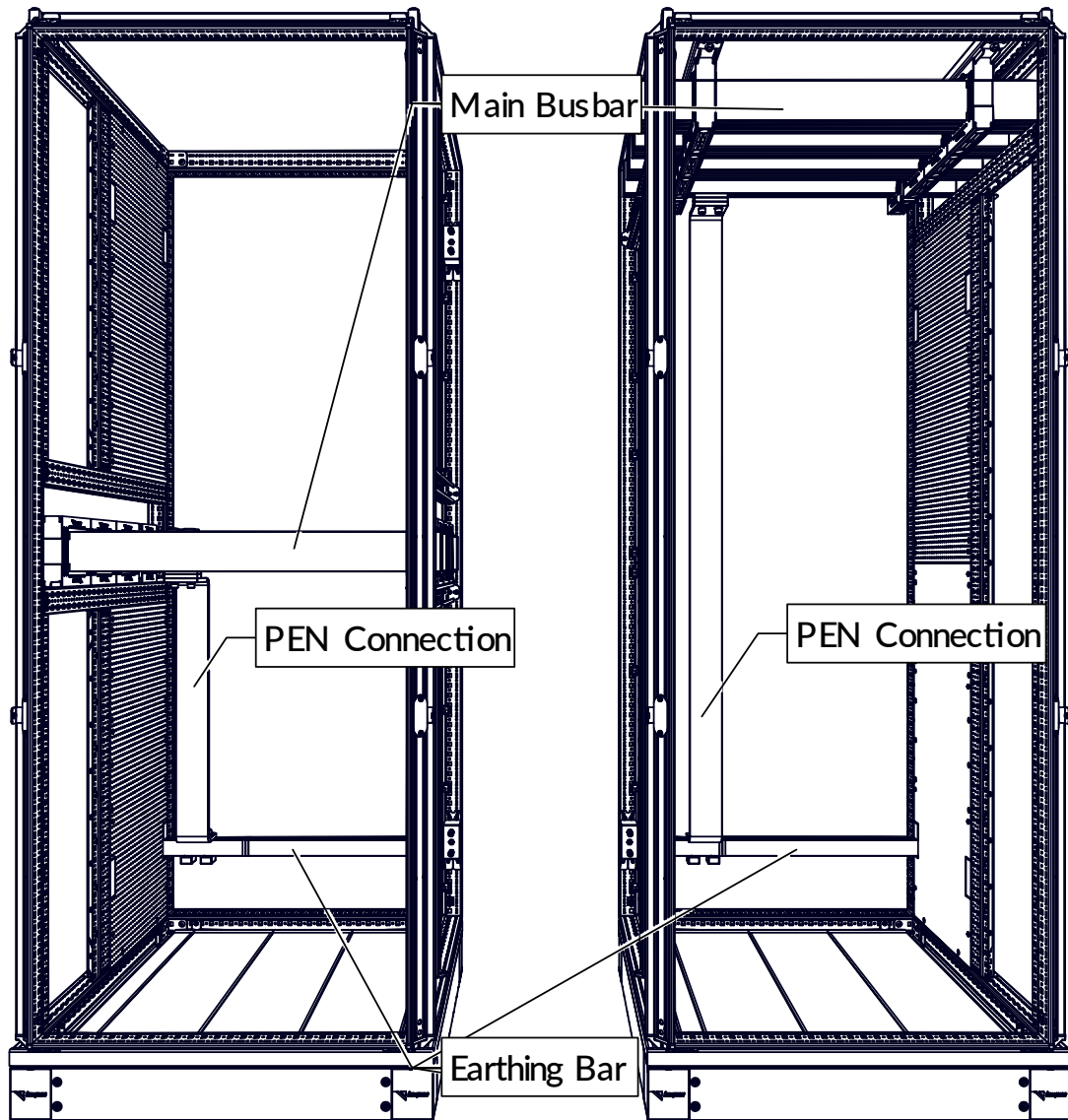
M8x25/35



M5X10

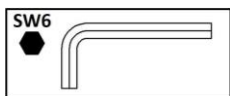
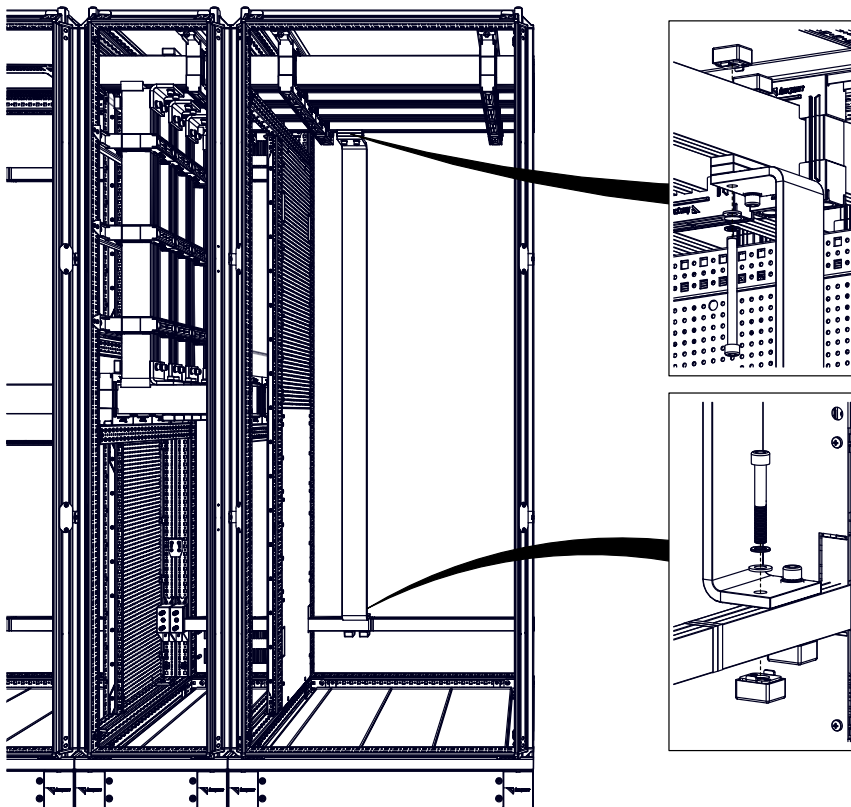
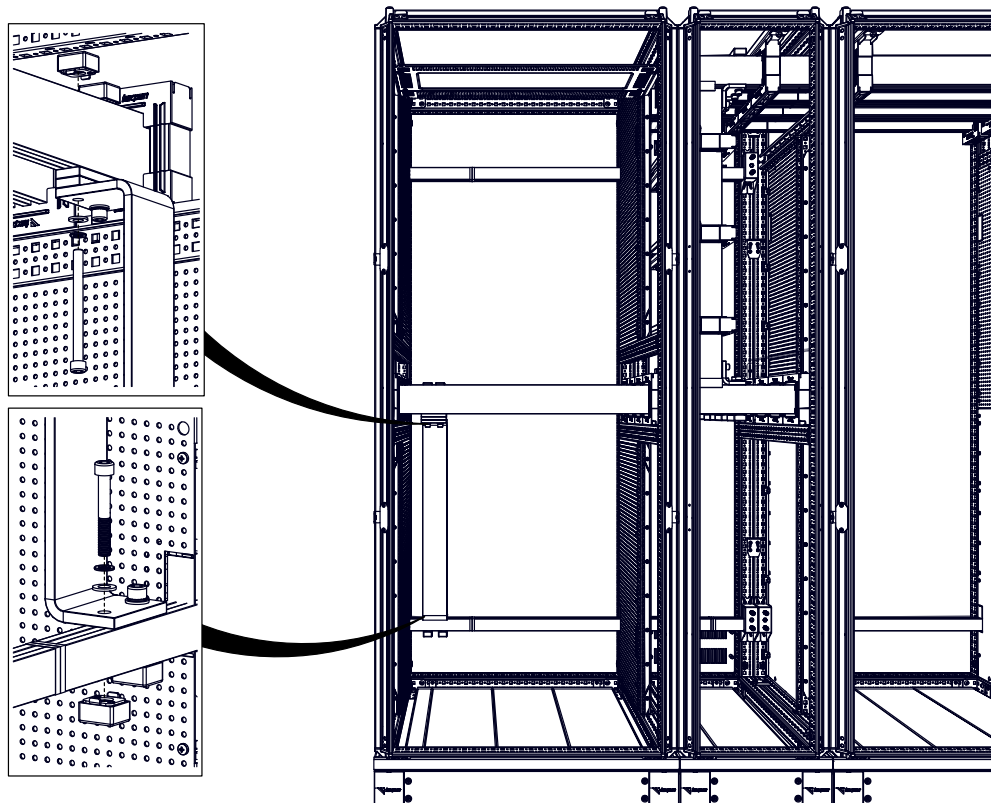


3. PEN BAR ASSEMBLY



Neutral Section	Rated Current (In)	Flat Copper Size (mm) xQty	
		Neutral(N)	PE
1/2 N	1350A	40/5x2	20/5x2
1/2 N	1620A	50/5x2	25/5x2
1/2 N	1860A	60/5x2	30/5x2
1/2 N	2300A	40/10x2	40/5x2

Neutral Section	Rated Current (In)	Flat Copper Size (mm) xQty	
		L1/L2/L3	PE
1/2 N	2500A	40/10x4	40/5x2
1/2 N	3000A	50/10x4	50/5x2
1/2 N	3400A	60/10x4	60/5x2
1/2 N	4000A	80/10x4	40/10x2

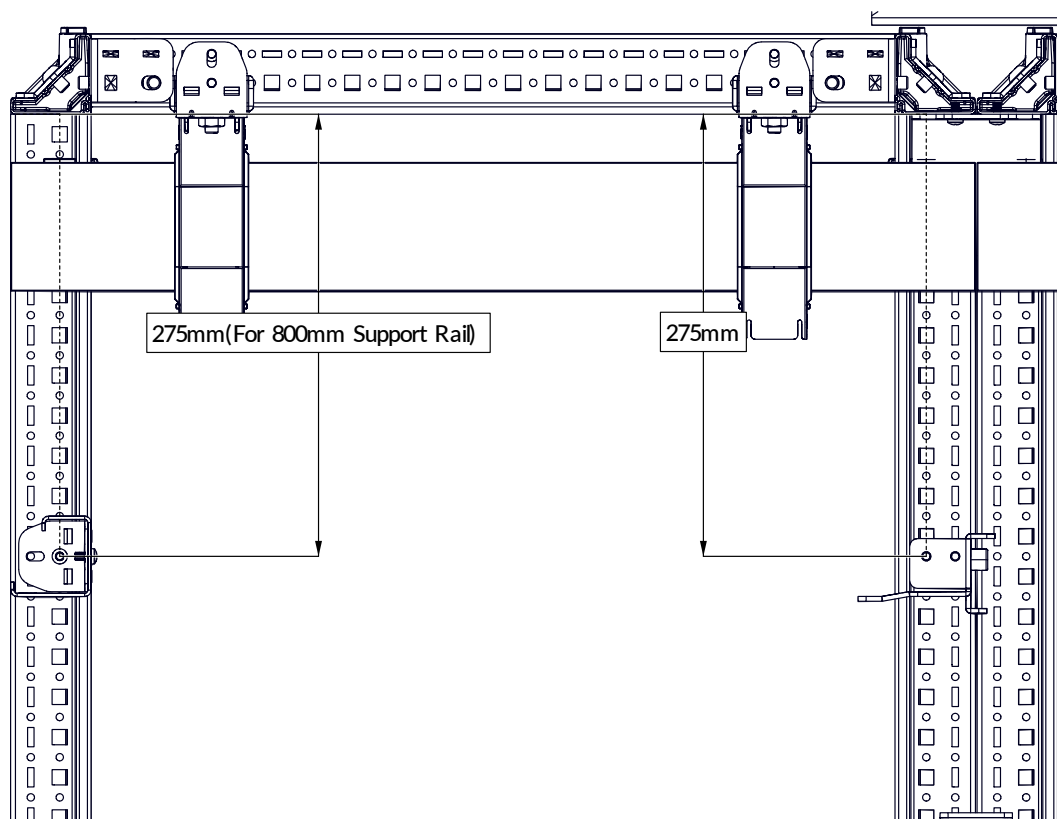
3. PEN BAR ASSEMBLY**M8xH****Required Packages:**
1066.XXX**TOP BUSBAR-PEN CONNECTION****MID BUSBAR-PEN CONNECTION**

4. MCC DEPTH ADAPTER ASSEMBLY

Required Packages:

600D:1100.011

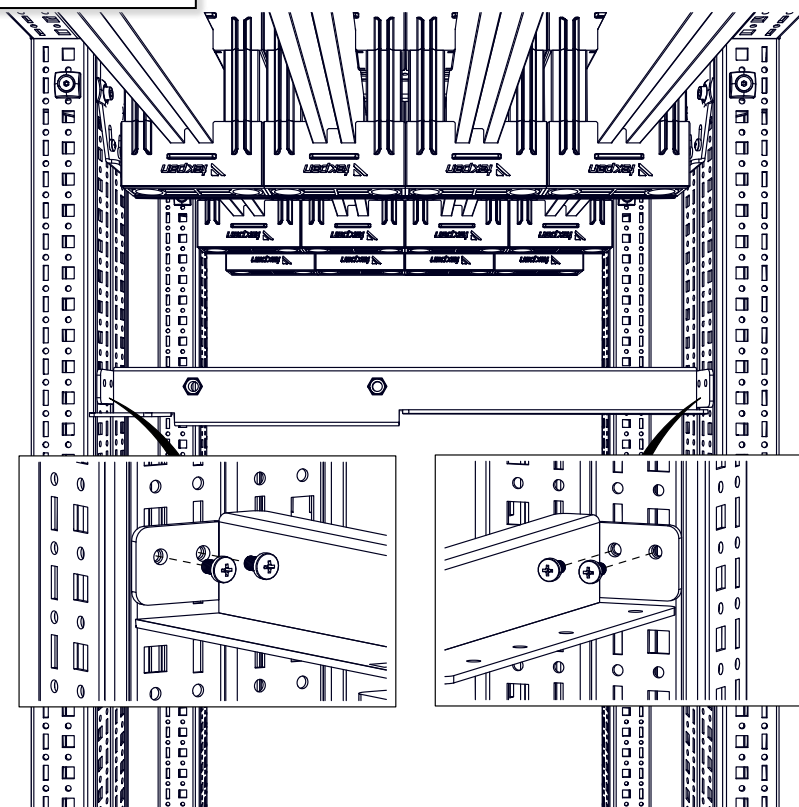
800D:1100.012



4.1 MCC DEPTH ADAPTER ASSEMBLY (600D)

Required Packages:

600D:1100.011



M5X10

■ 4.2 MCC DEPTH ADAPTER ASSEMBLY (800D)



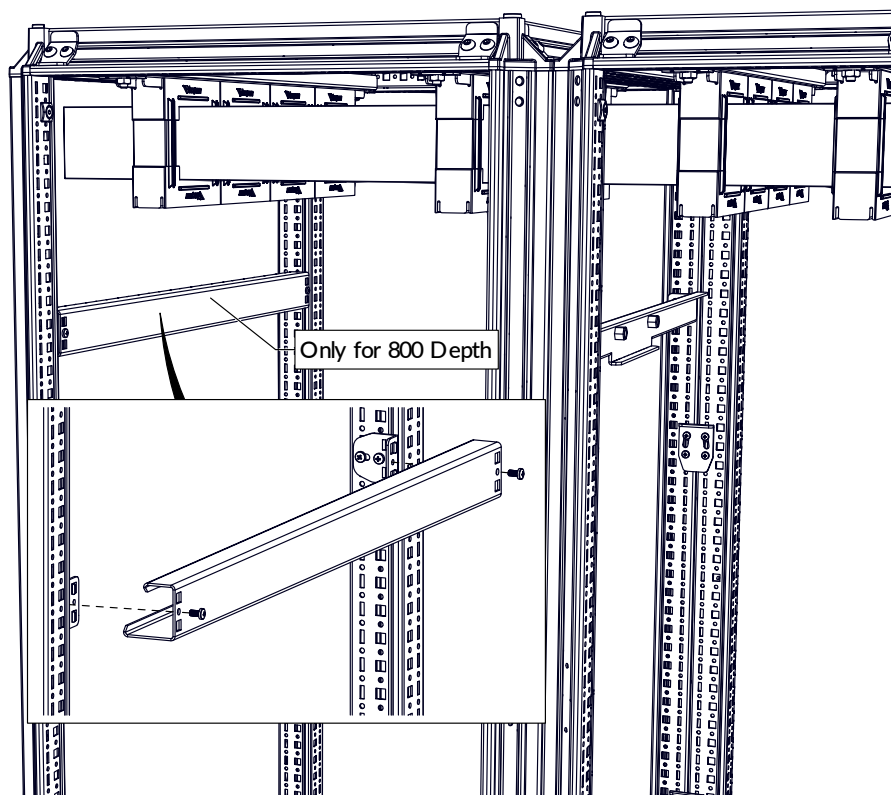
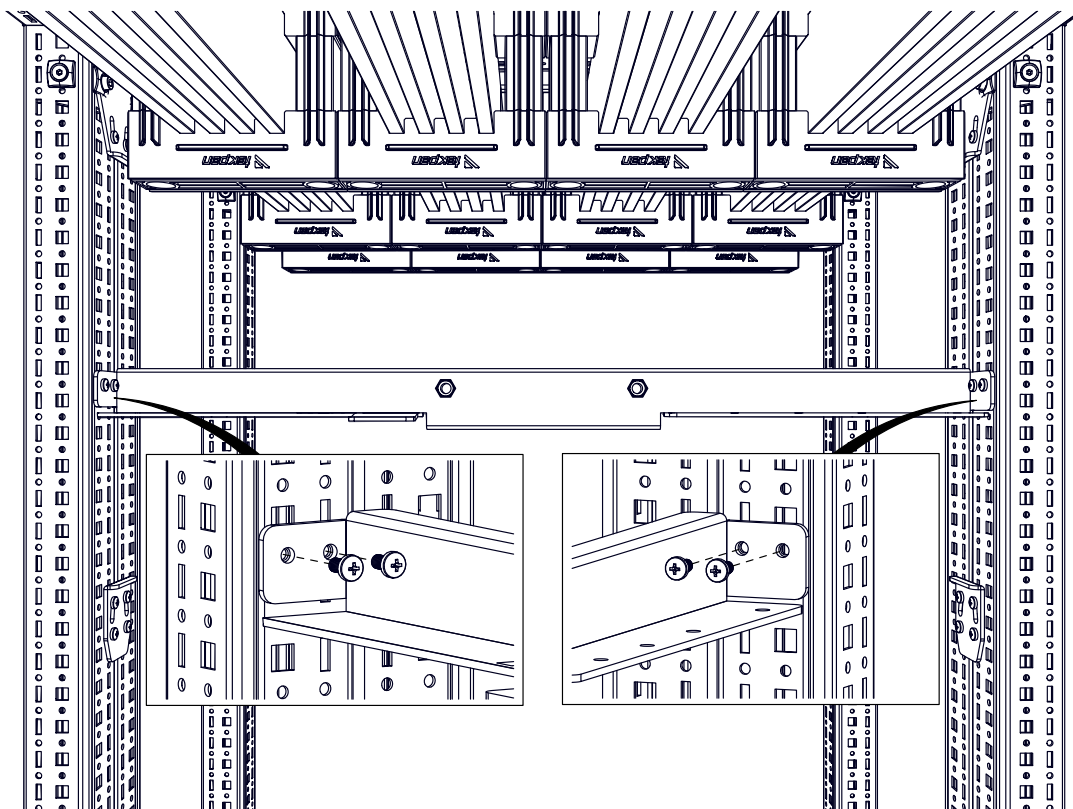
M5X10

Required Packages:

800D:1100.012

Height:1006.005

Brackets:944.42X



4.2 MCC DEPTH ADAPTER ASSEMBLY (800D)

Required Packages:

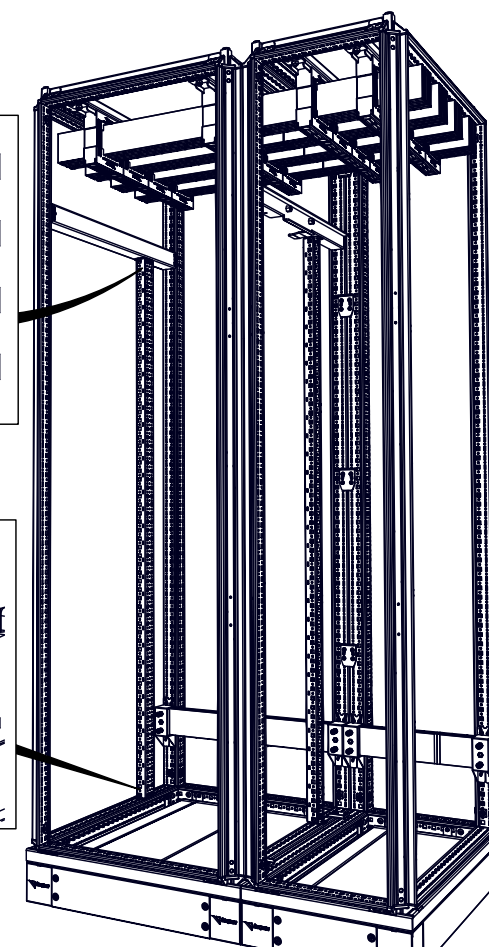
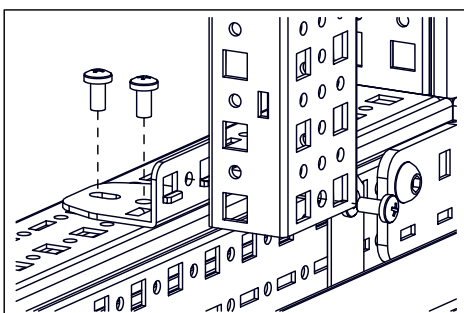
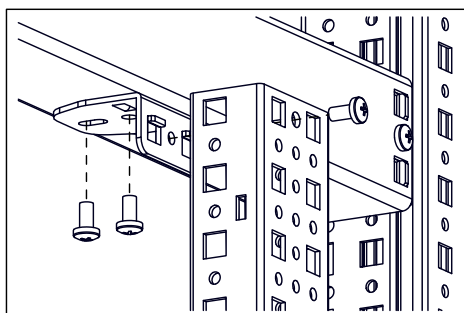
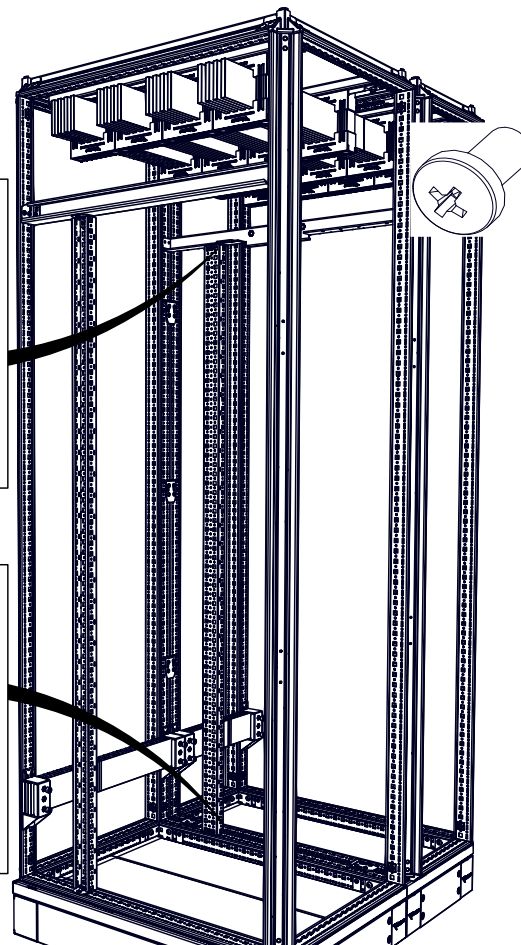
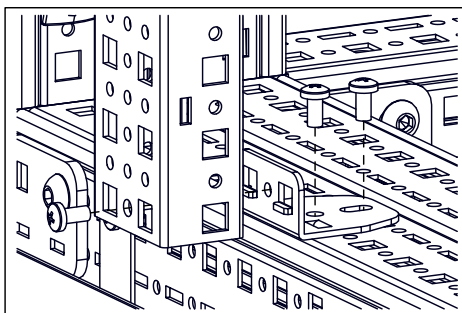
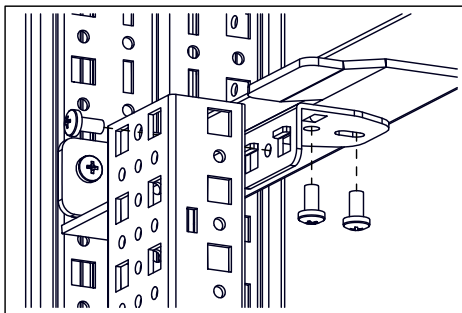
800D:1100.012

Height:1006.005

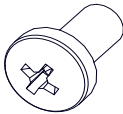
Brackets:944.42X



M5X10

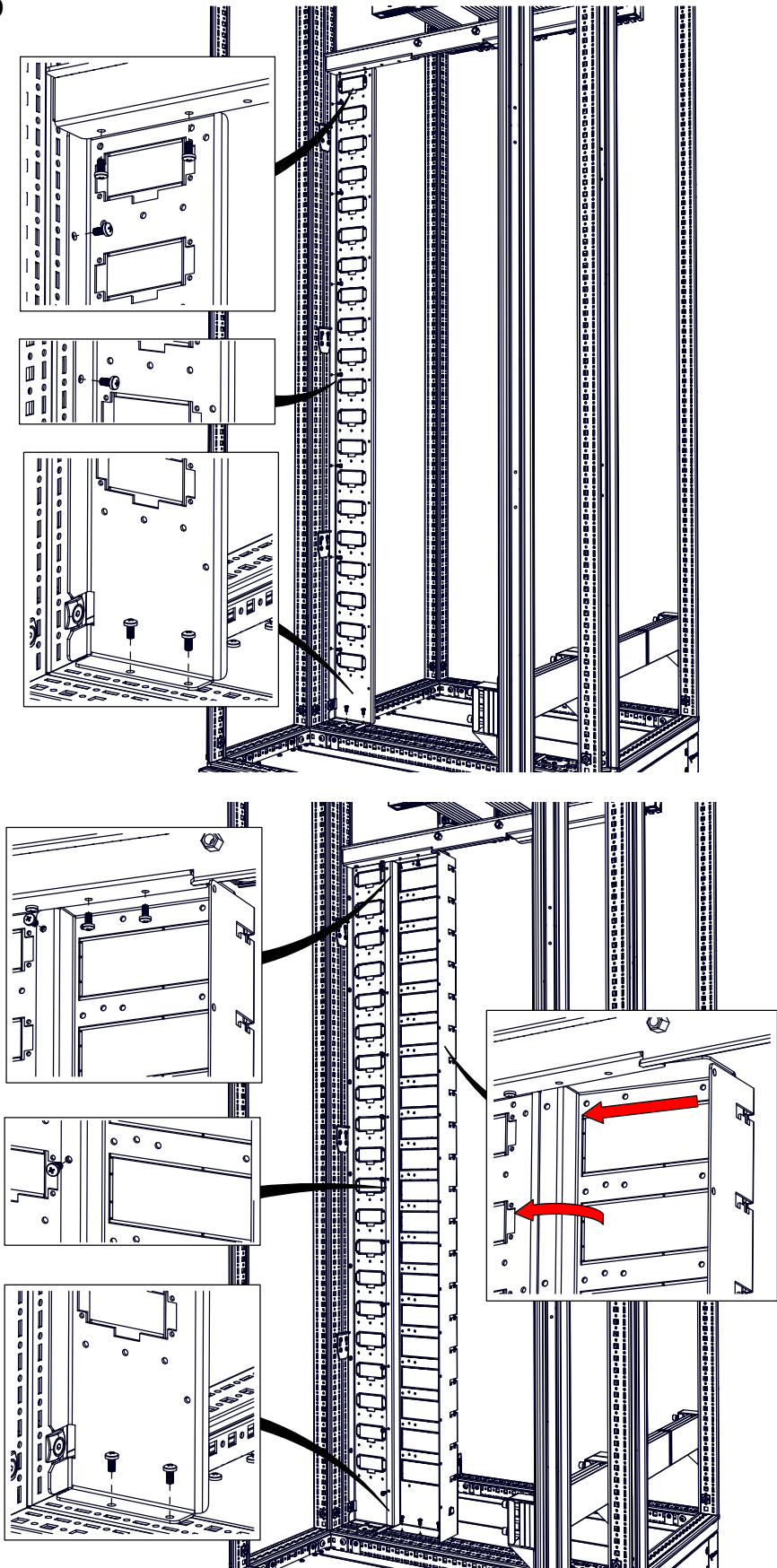


5. SOCKET-CABLING WALL ASSEMBLY



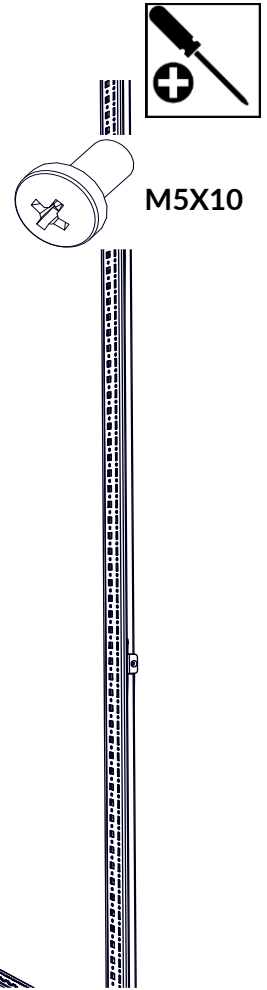
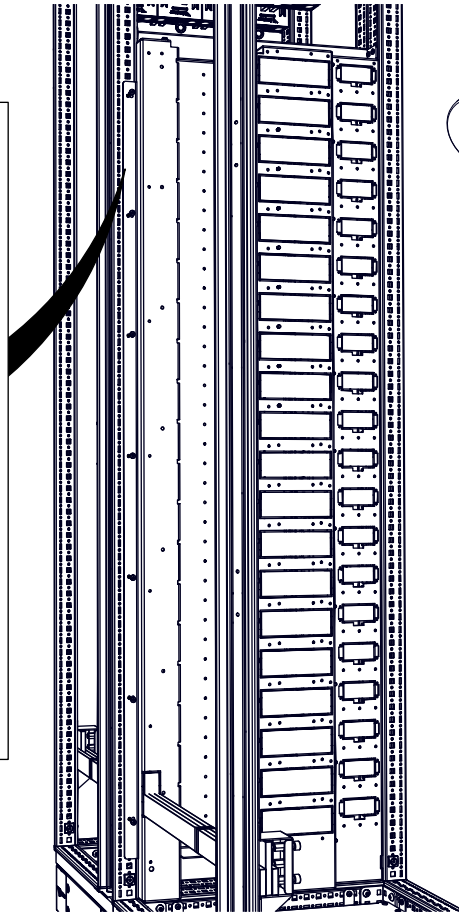
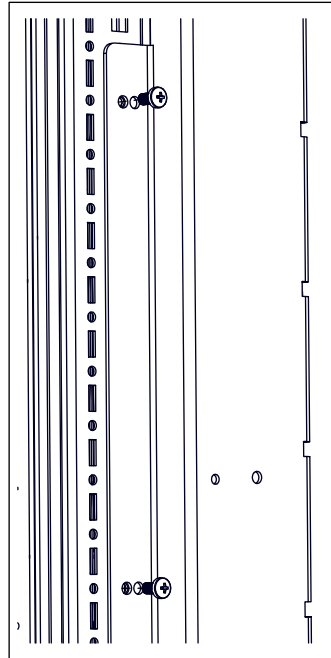
M5X10

Required Packages:
1100.001

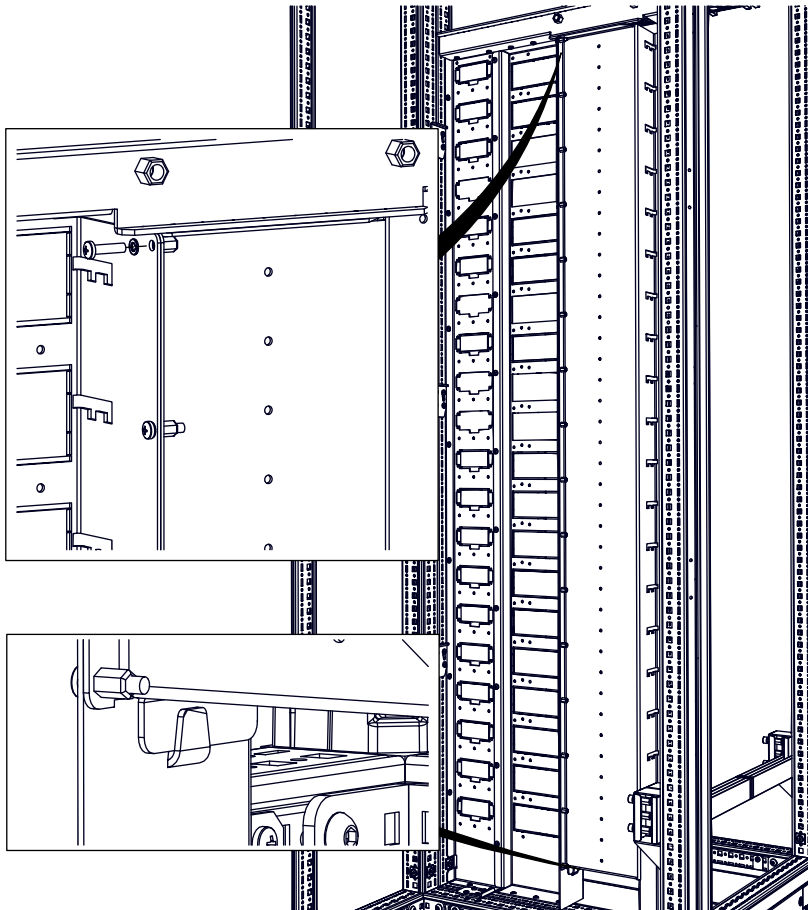


6. BUSBAR WALL ASSEMBLY**6.1 BUSBAR WALL ASSEMBLY (600D)**

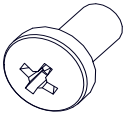
Required Packages:
1100.001



M5X10

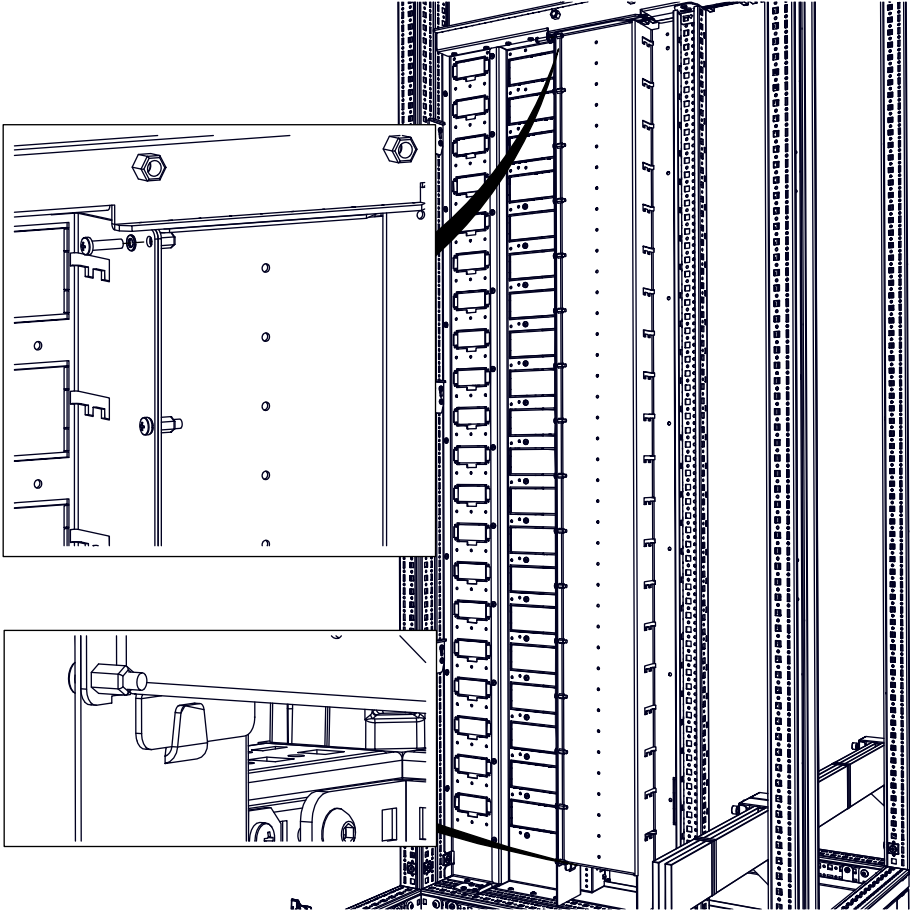
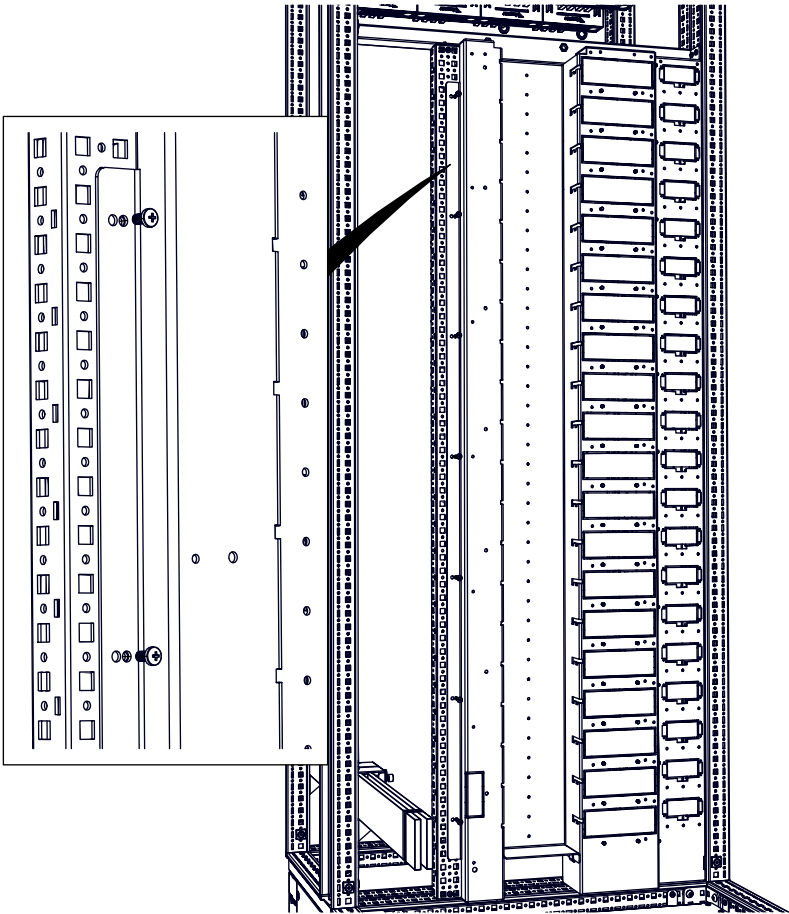


6.2 BUSBAR WALL ASSEMBLY (800D)



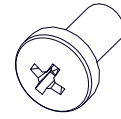
M5X10

Required Packages:
1100.001

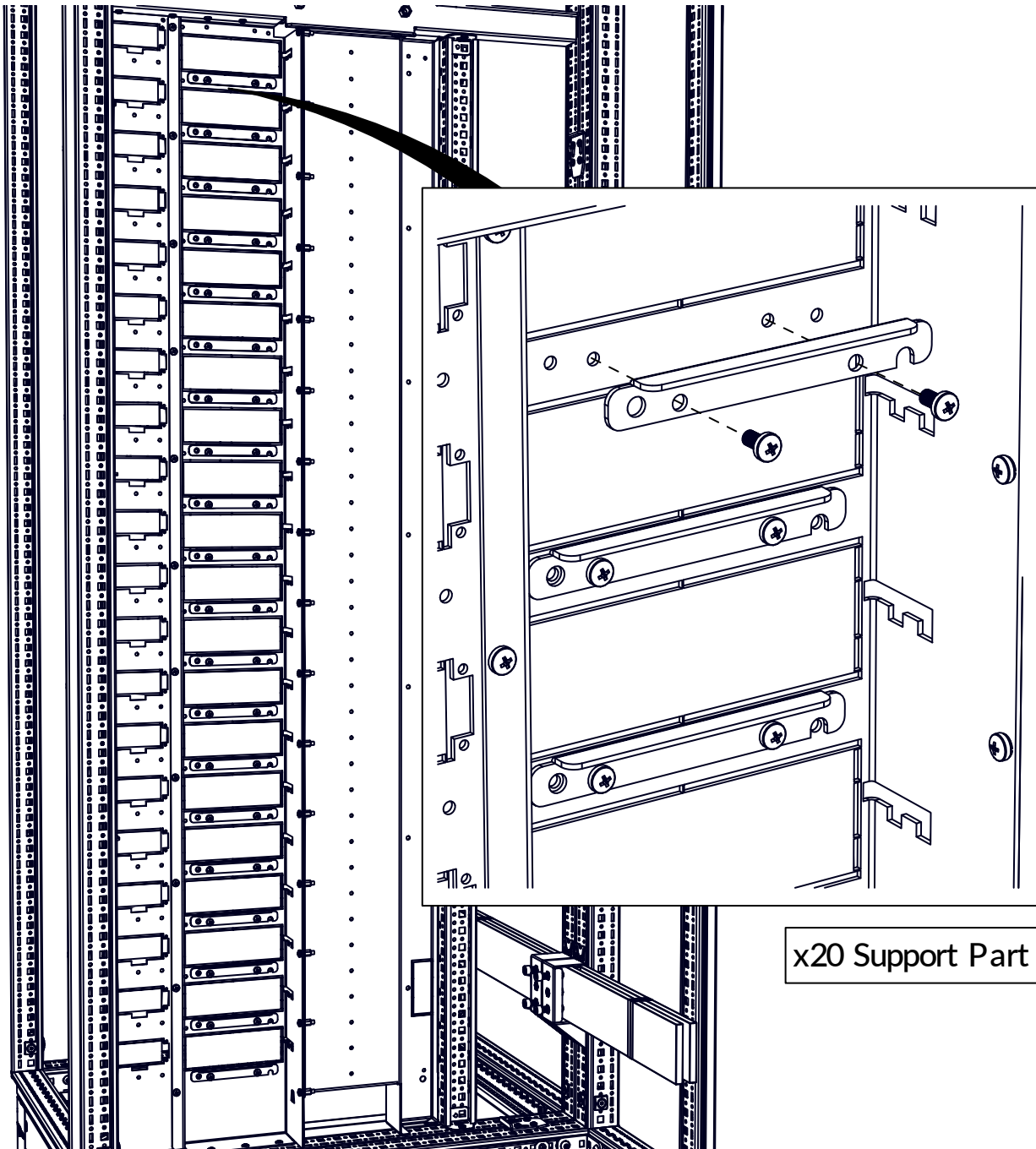


7. CABLING WALL SUPPORT ASSEMBLY

Required Packages:
1100.001



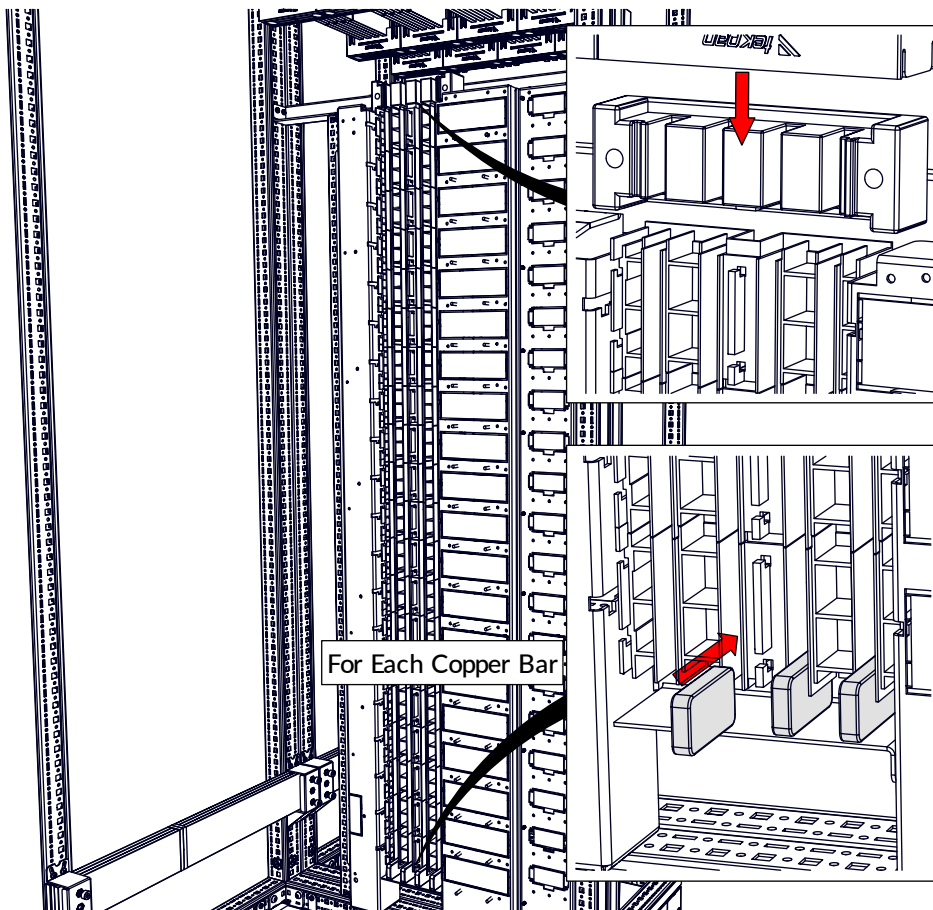
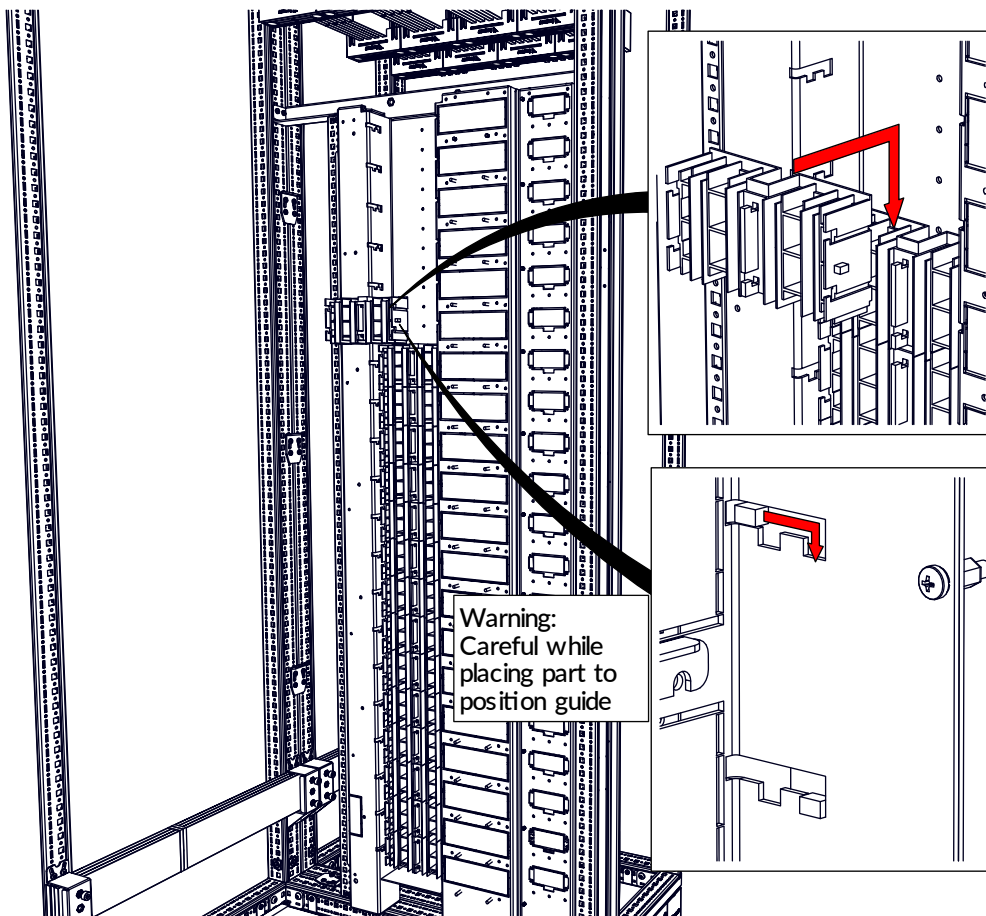
M5X10



8. MCC BUSBAR ASSEMBLY

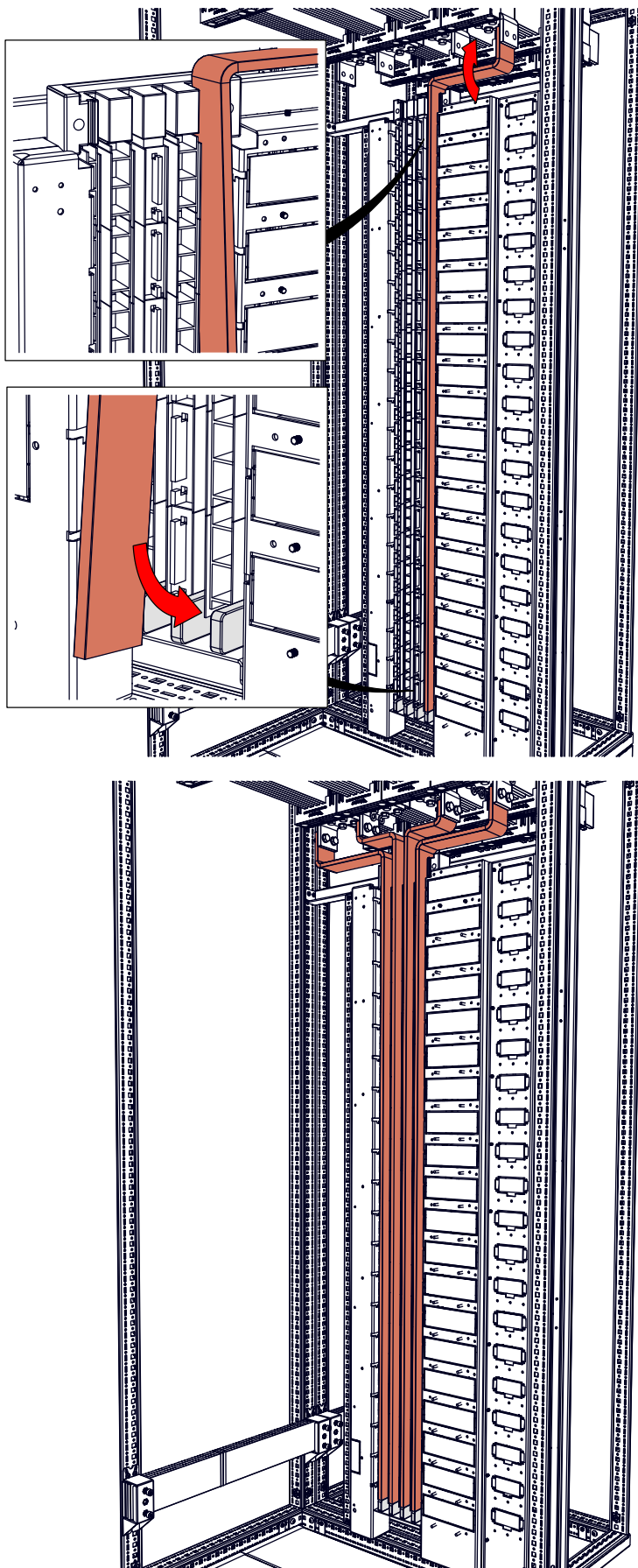
8.1 MCC INSULATOR ASSEMBLY (Rear Support)

Required Packages:
1100.001



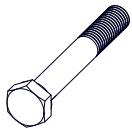
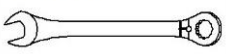
■ 8.2 MCC BUSBAR-MAIN BUSBAR ASSEMBLY

Required Packages:
1100.001

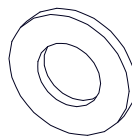


8.3 MCC BUSBAR-MAIN BUSBAR ASSEMBLY (600D)

13mm



M8x H



M8

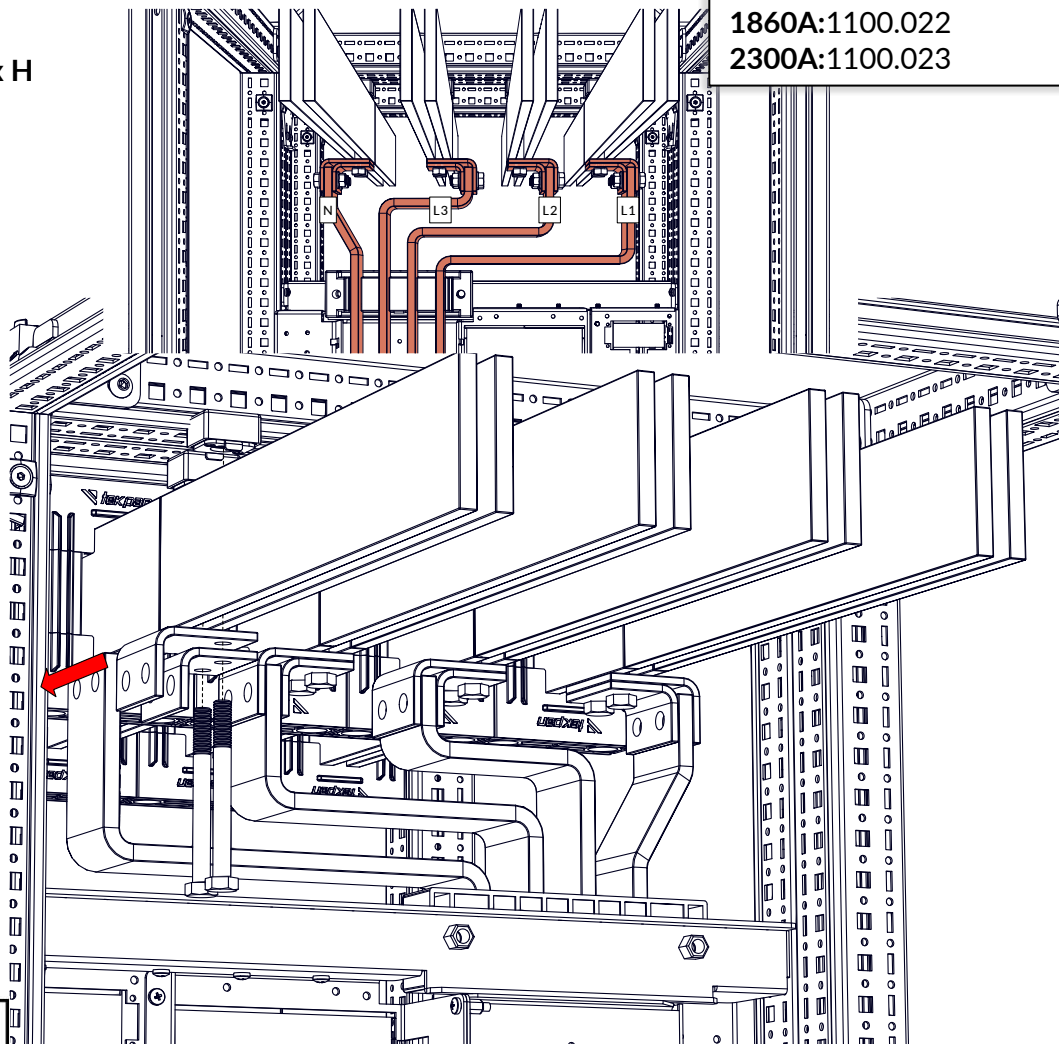
Required Packages:

1350A:1100.020

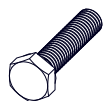
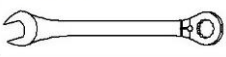
1620A:1100.021

1860A:1100.022

2300A:1100.023



15mm



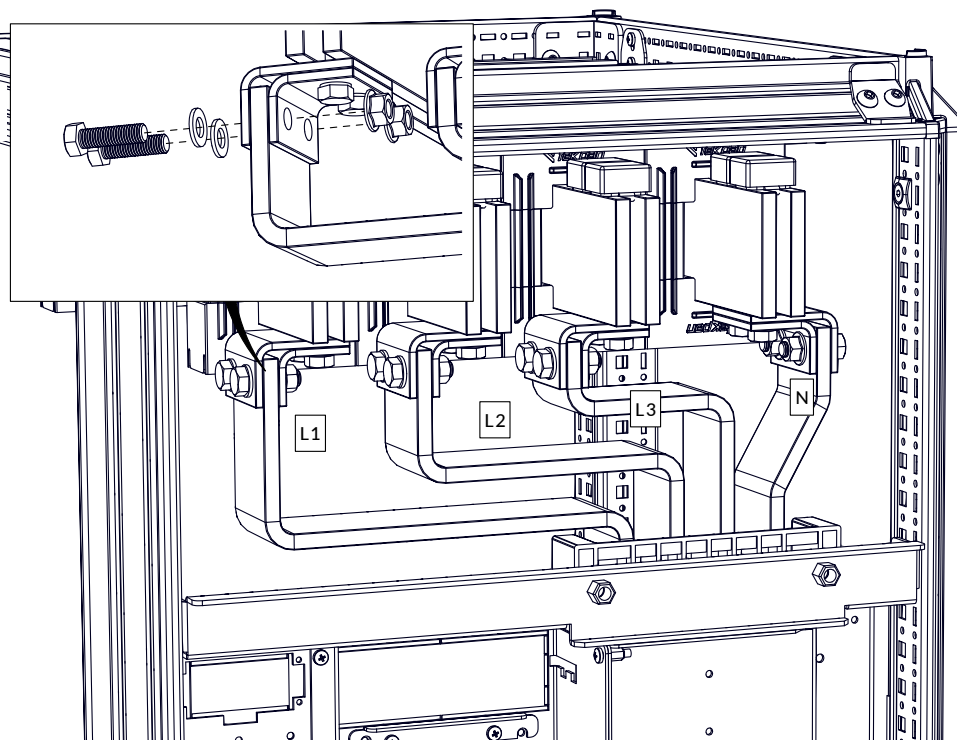
M10x35



M10



M10



8.4 MCC BUSBAR-MAIN BUSBAR ASSEMBLY (800D)

Required Packages:

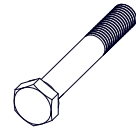
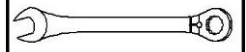
2500A:1100.024

3000A:1100.025

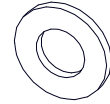
3400A:1100.026

4000A:1100.027

15mm



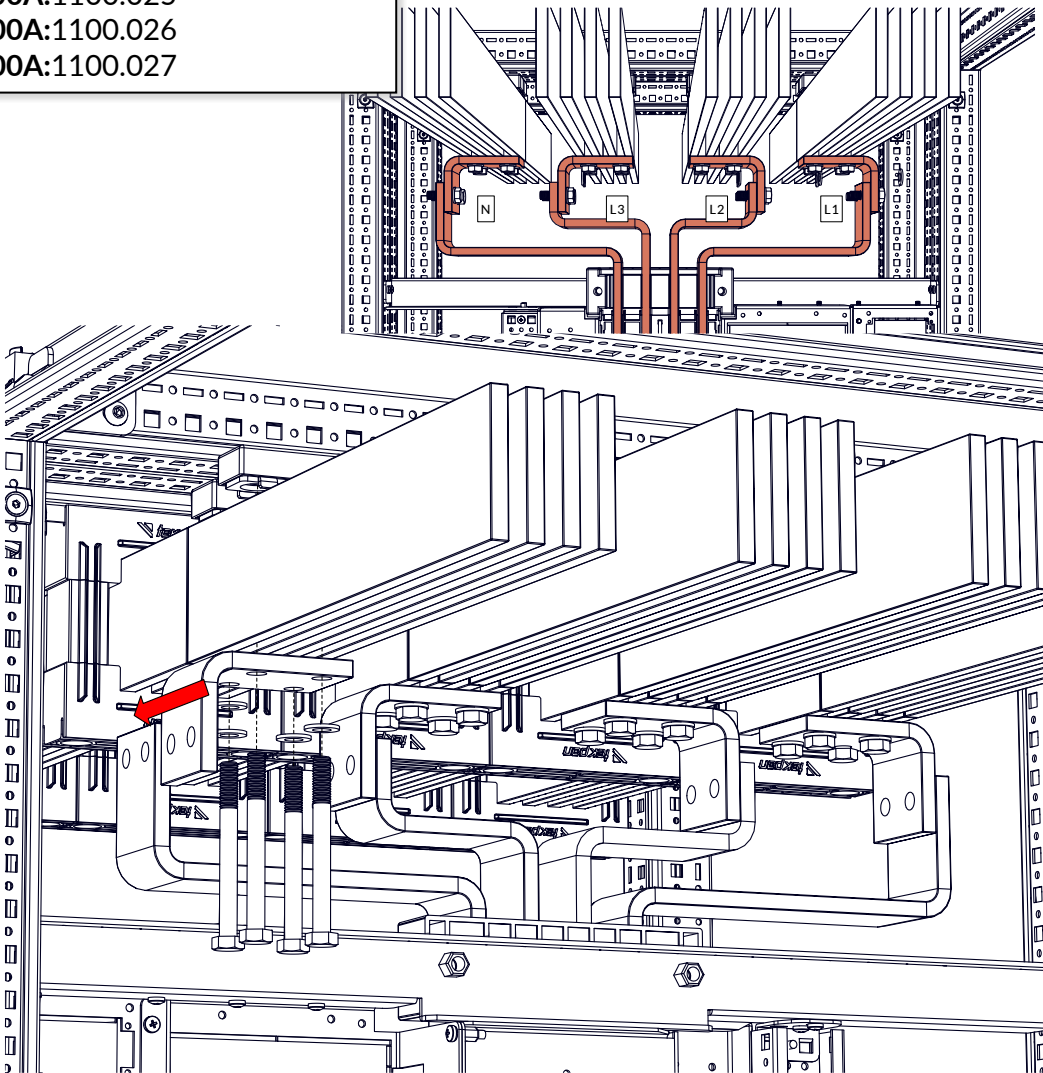
M10x H



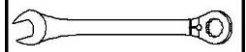
M10



M10



15mm



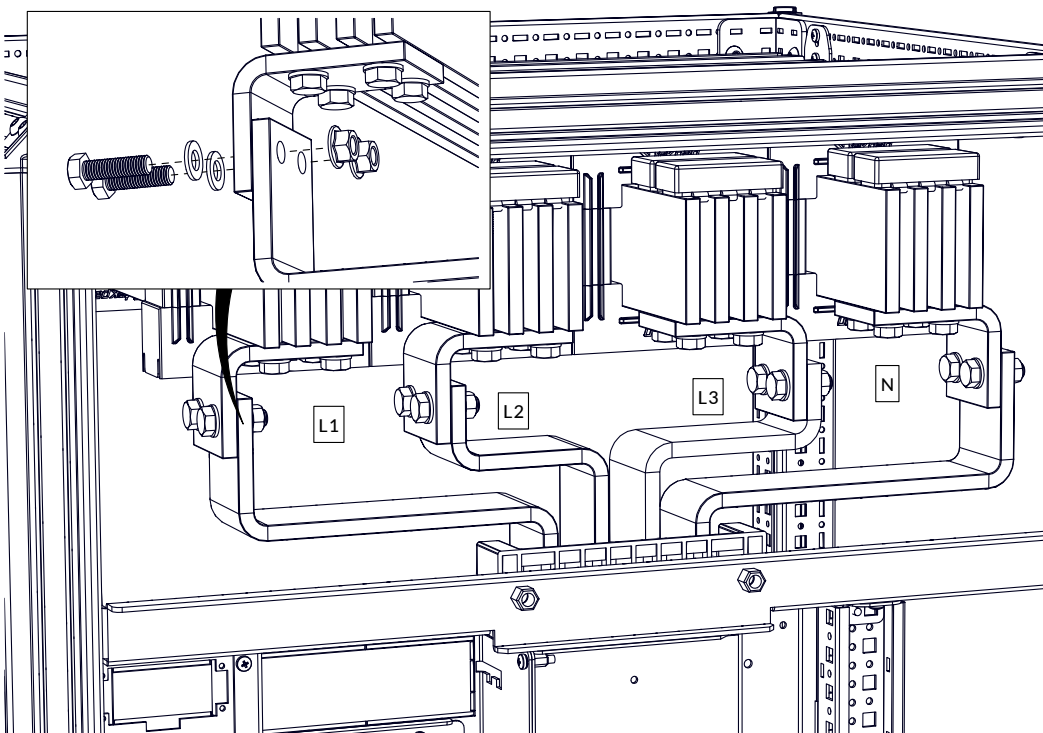
M10x35



M10

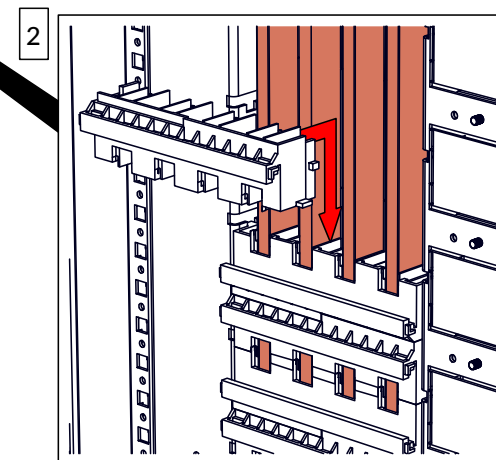
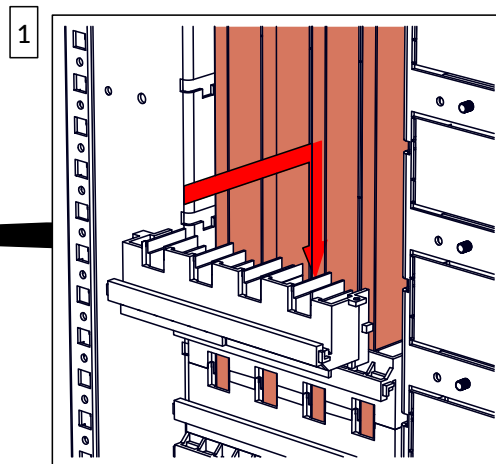
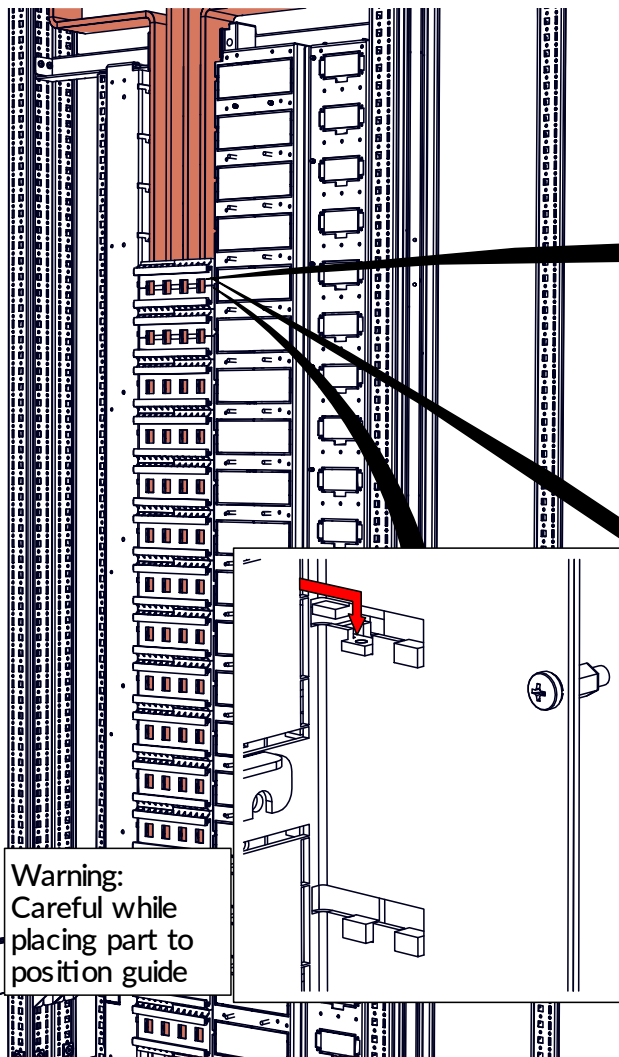
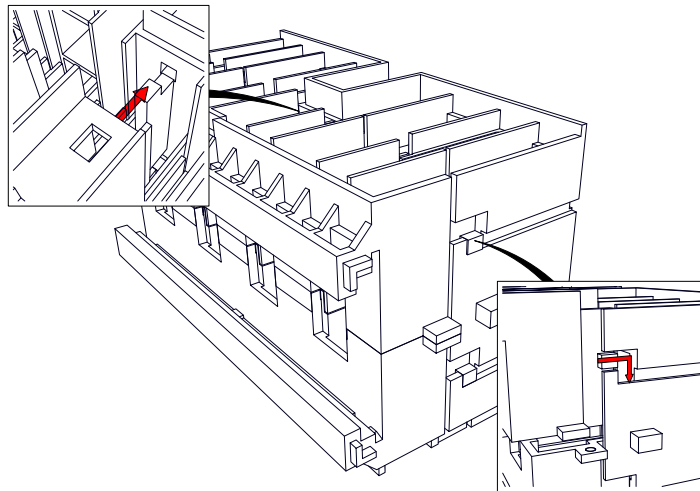
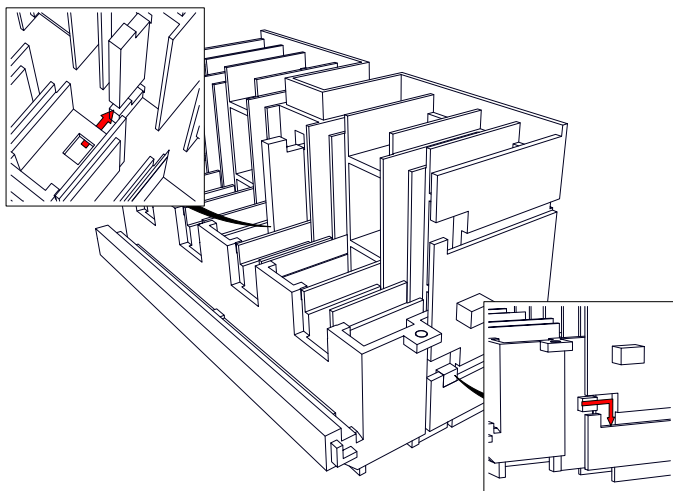


M10



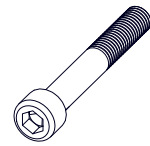
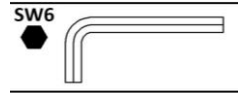
8.5 MCC INSULATOR ASSEMBLY (Front Support)

Required Packages:
1100.001

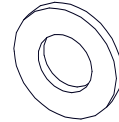


8.6 MCC INSULATOR ASSEMBLY (Top Support)

Required Packages:
1100.001



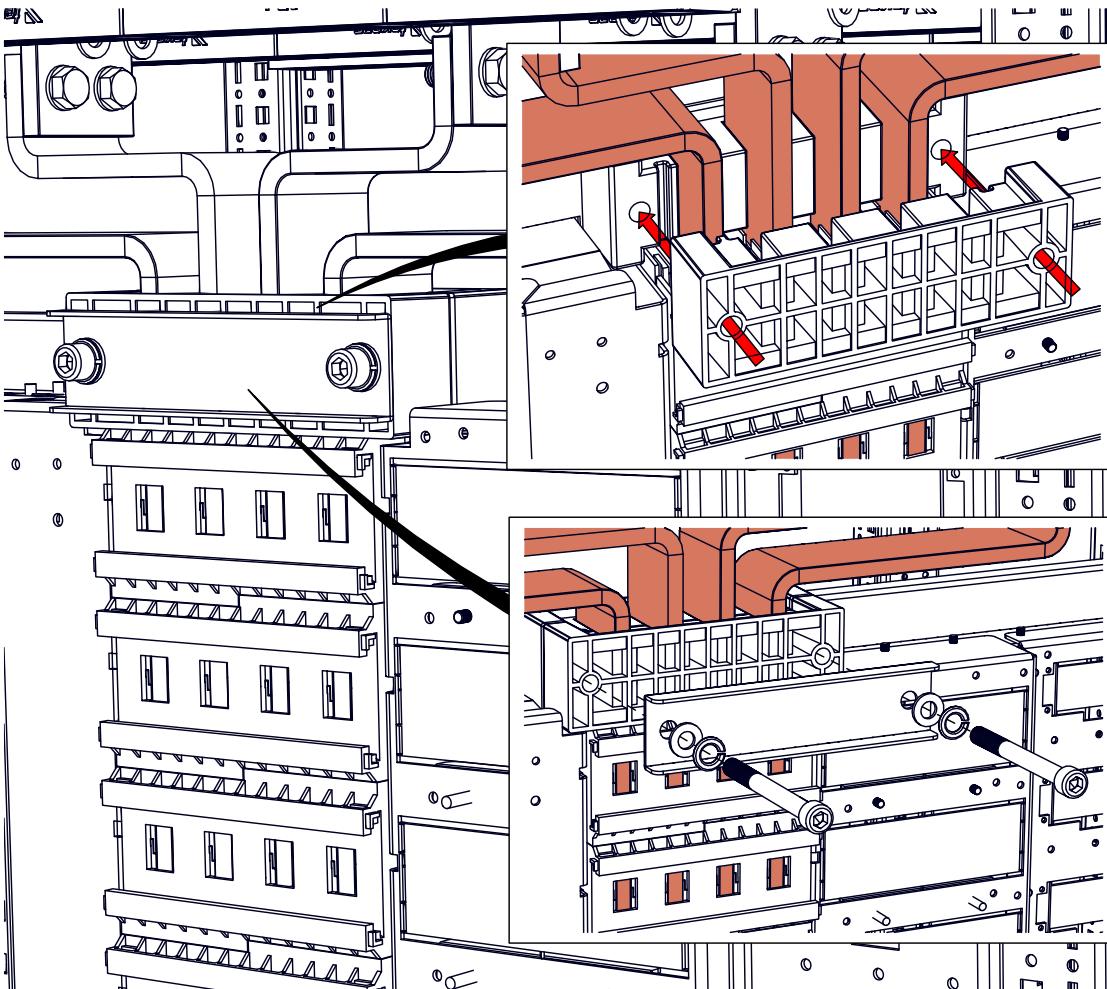
M10x110

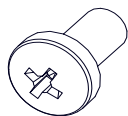


M10



M10

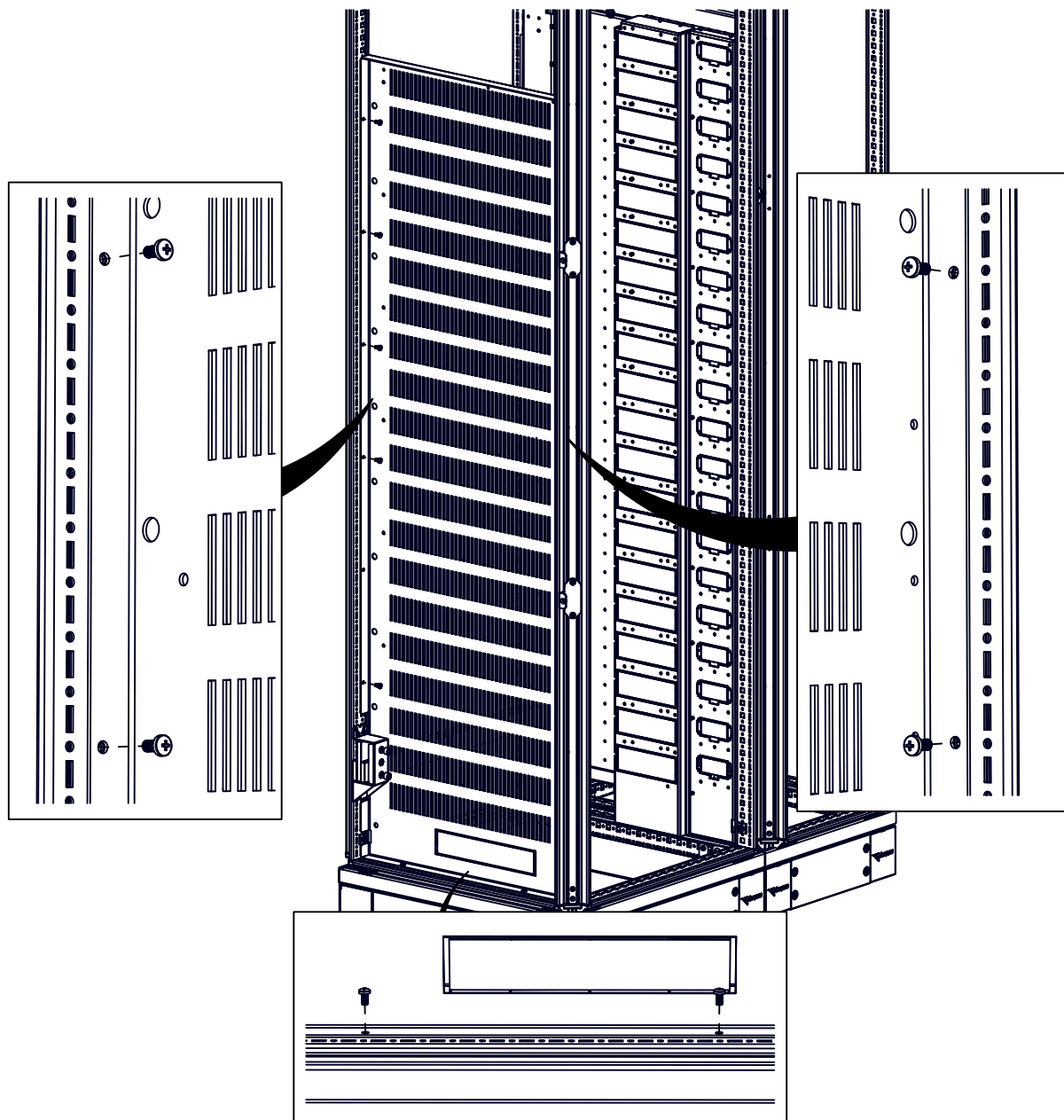


9. SIDE WALL ASSEMBLY**9.1 SIDE WALL ASSEMBLY (600D)**

M5X10

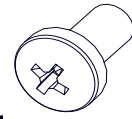
Required Packages:

1100.001

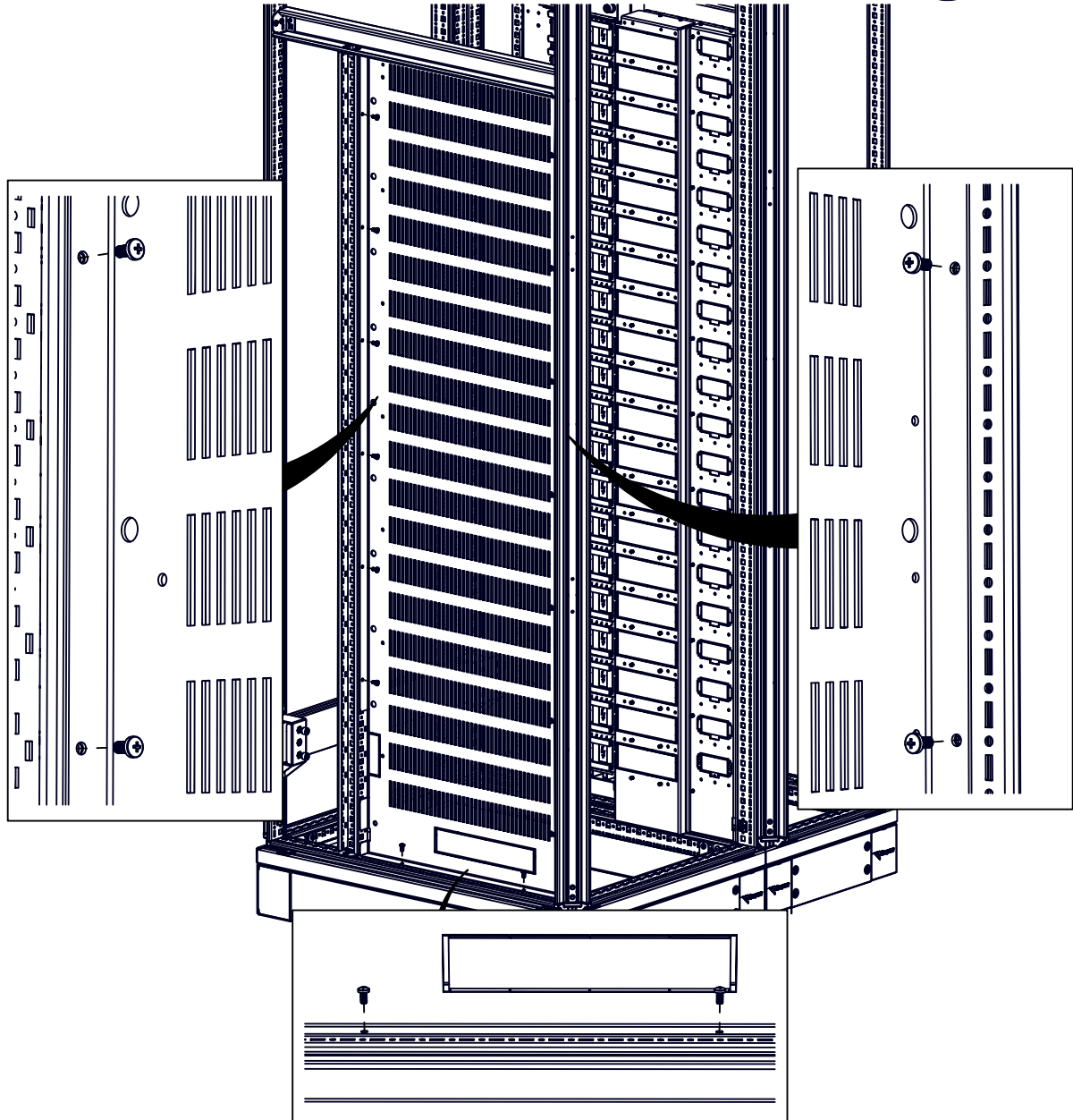


■ 9.2 SIDE WALL ASSEMBLY (800D)

Required Packages:
1100.001



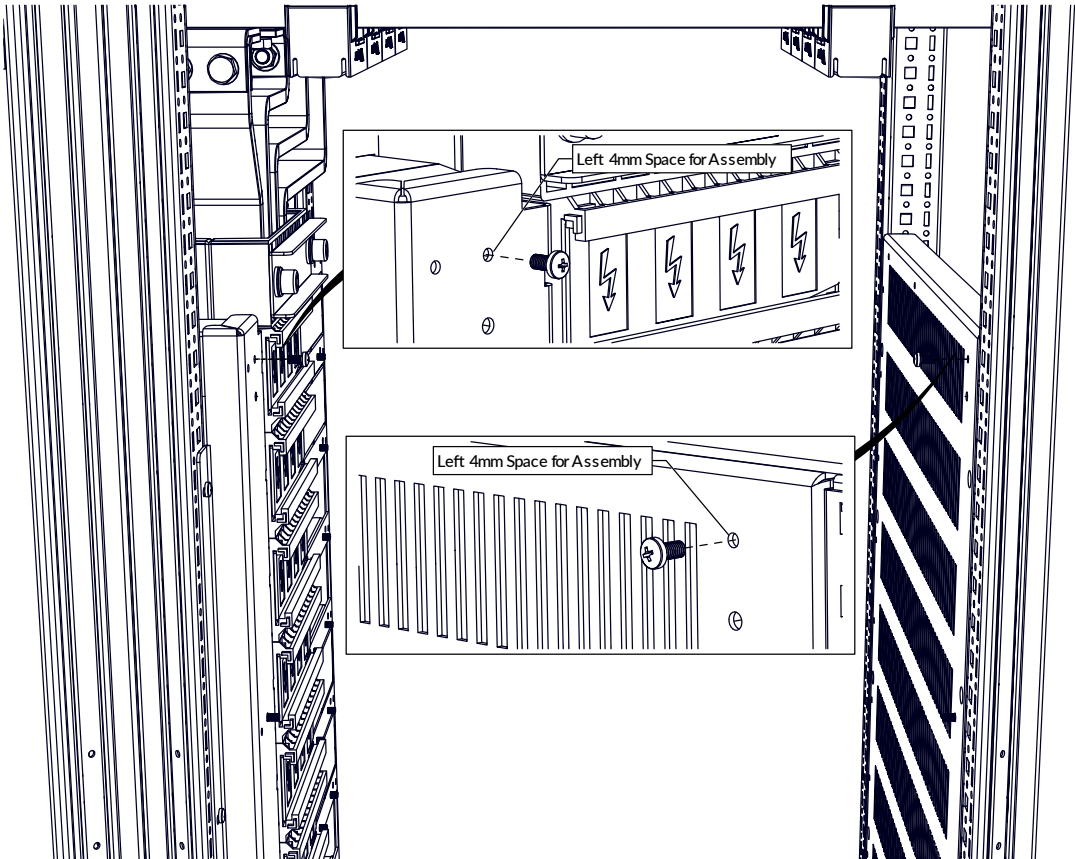
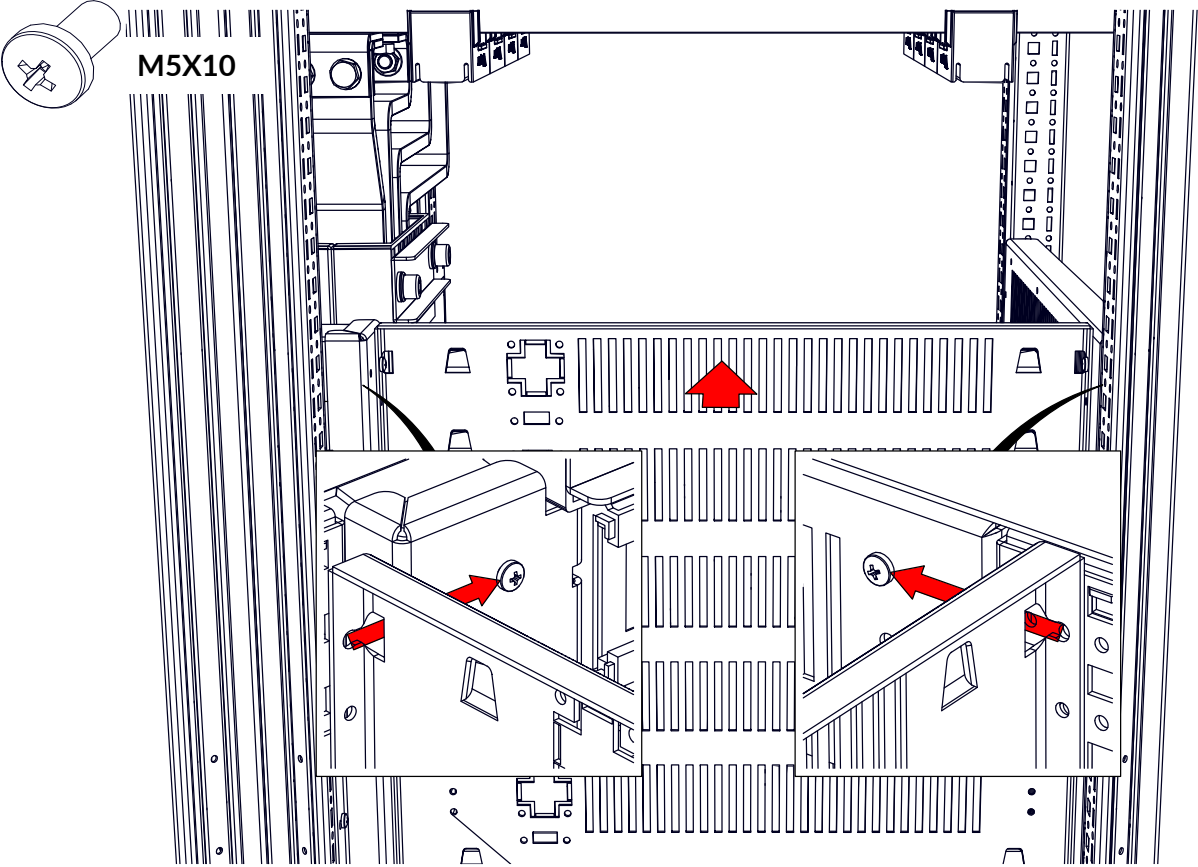
M5X10



10. REAR WALL ASSEMBLY
- 10.1 REAR WALL ASSEMBLY (600D)

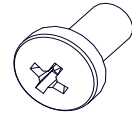


Required Packages:
1100.001

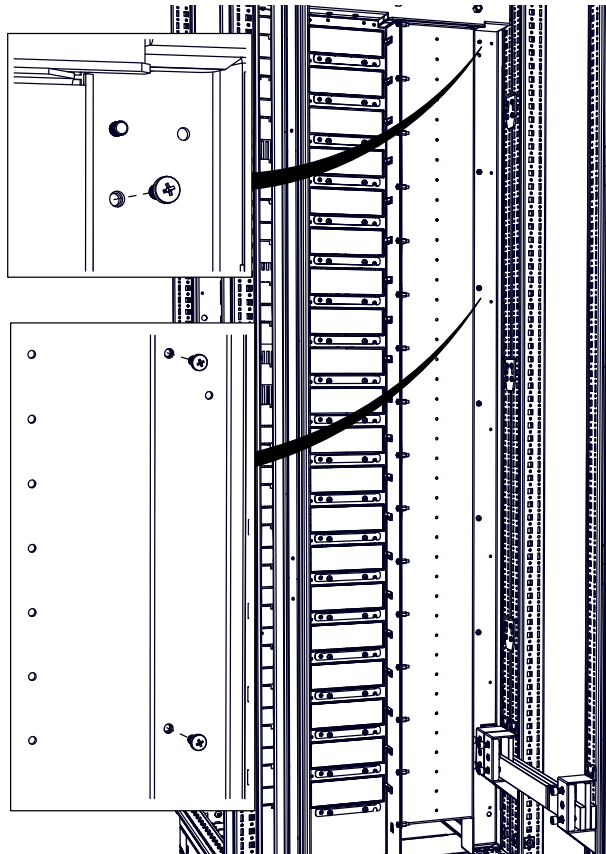
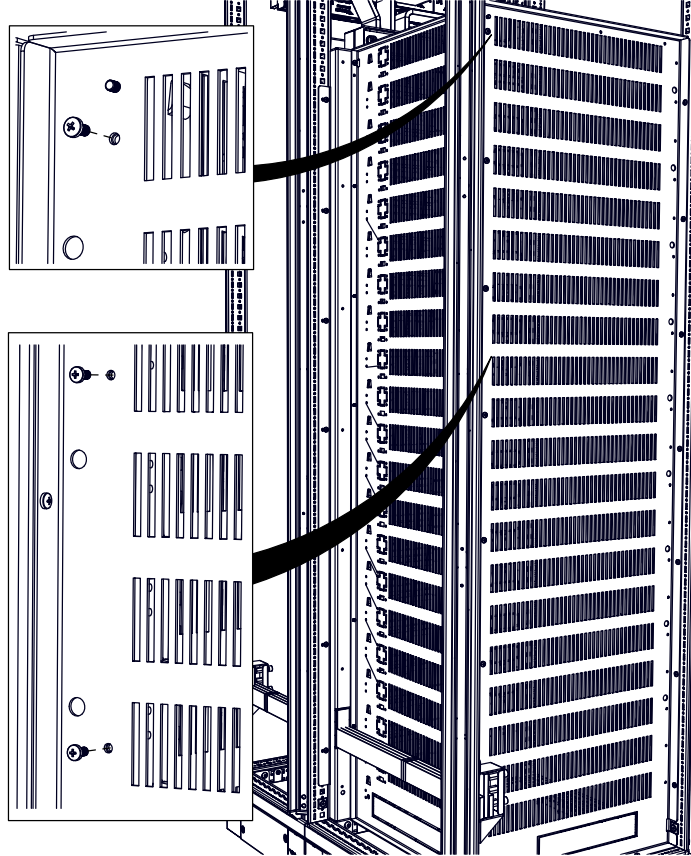


■ 10.1 REAR WALL ASSEMBLY (600D)

Required Packages:
1100.001



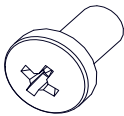
M5X10



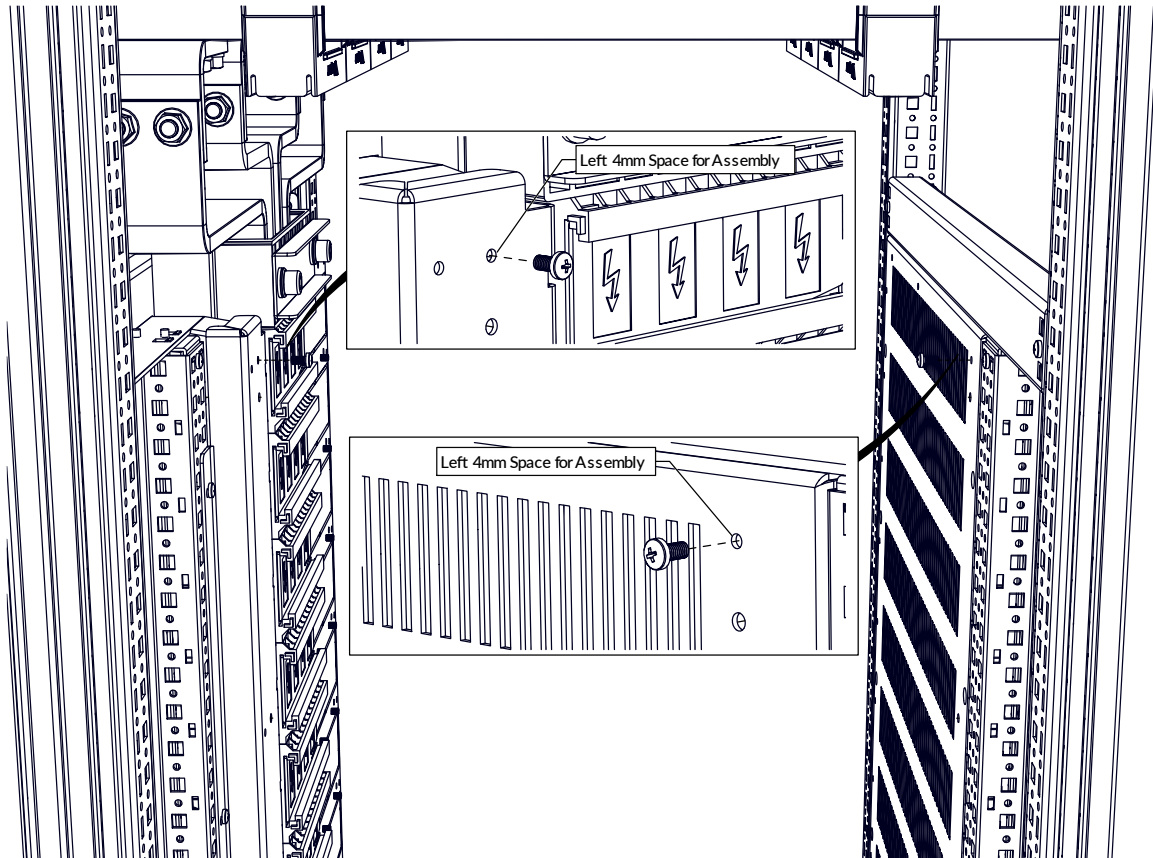
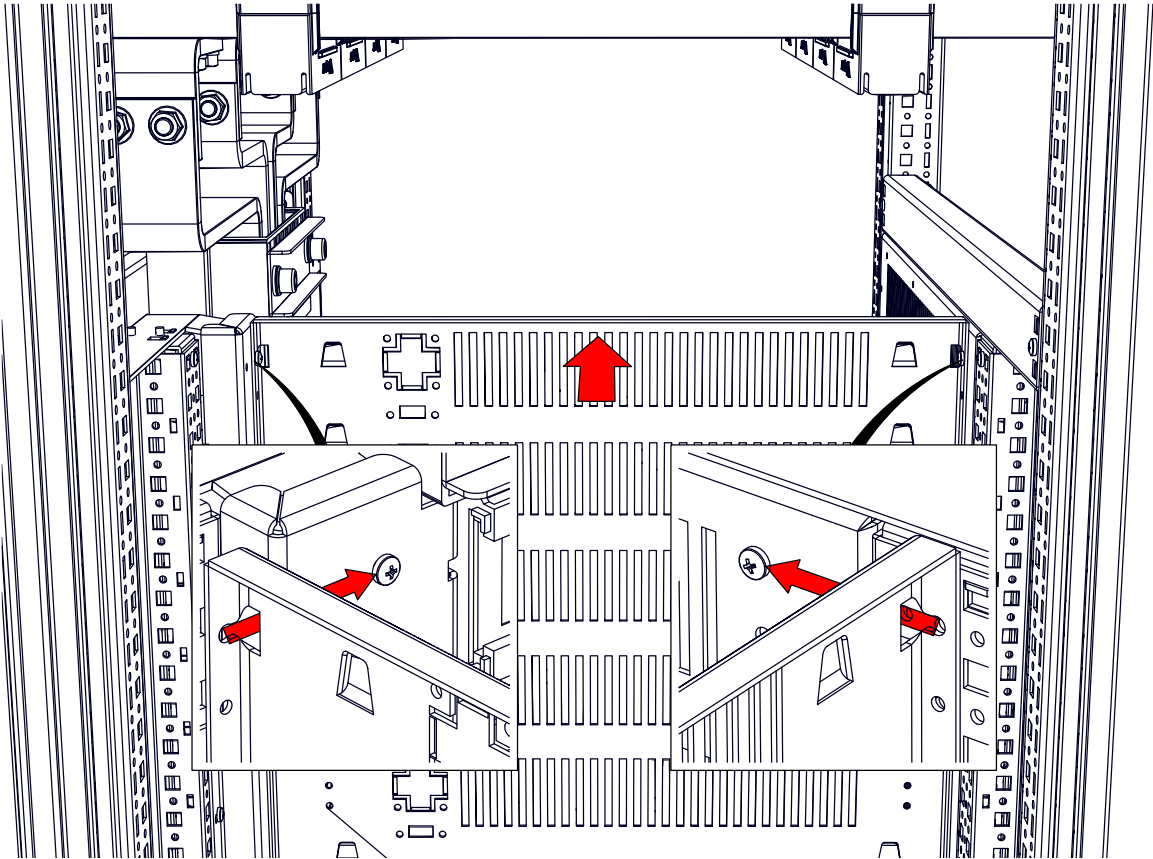
10.2 REAR WALL ASSEMBLY (800D)



Required Packages:
1100.001

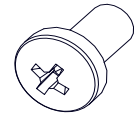


M5X10

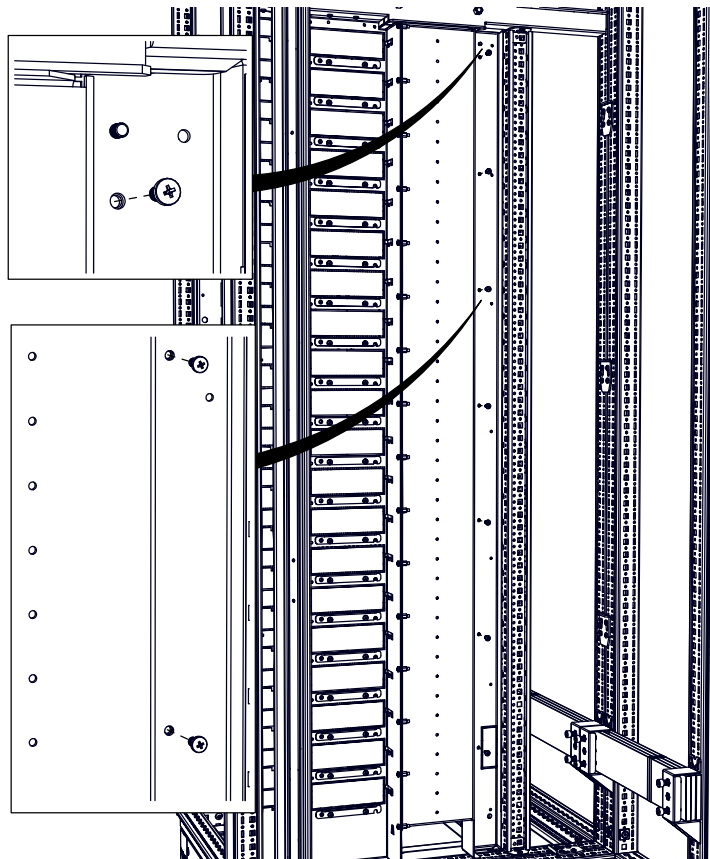
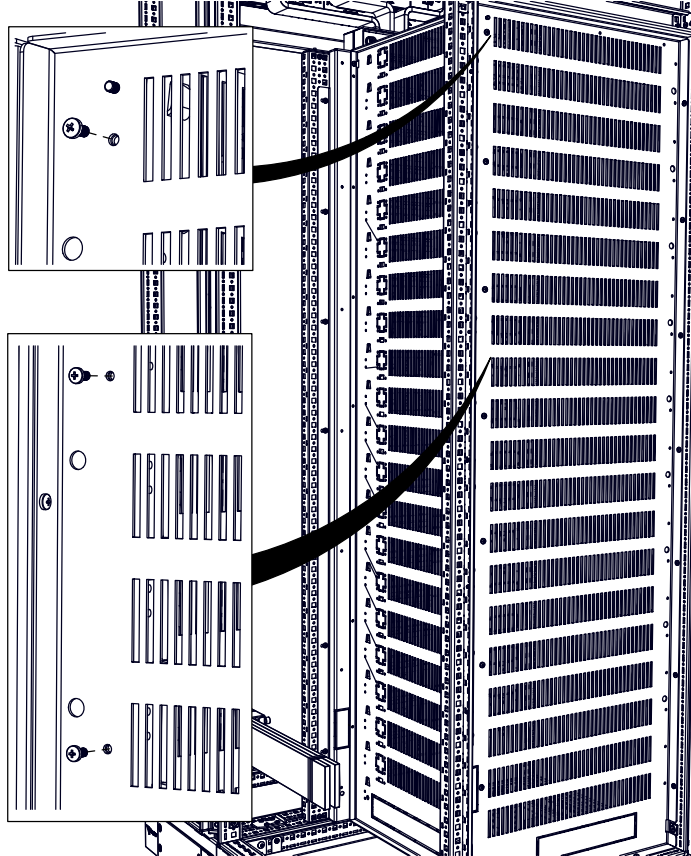


■ 10.2 REAR WALL ASSEMBLY (800D)

Required Packages:
1100.001



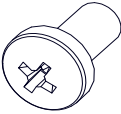
M5X10



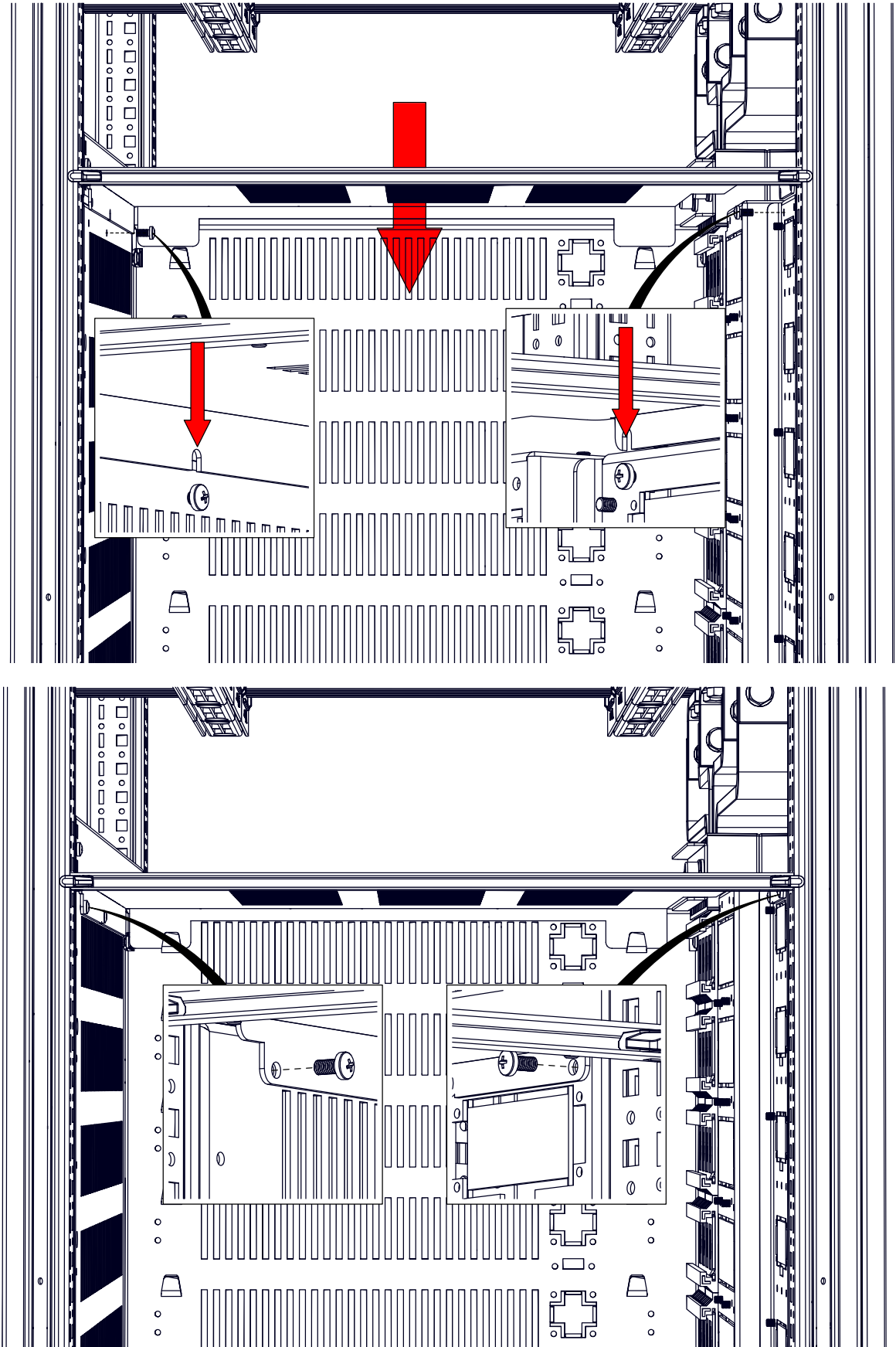
11. TOP SEPARATION ASSEMBLY



Required Packages:
1100.001

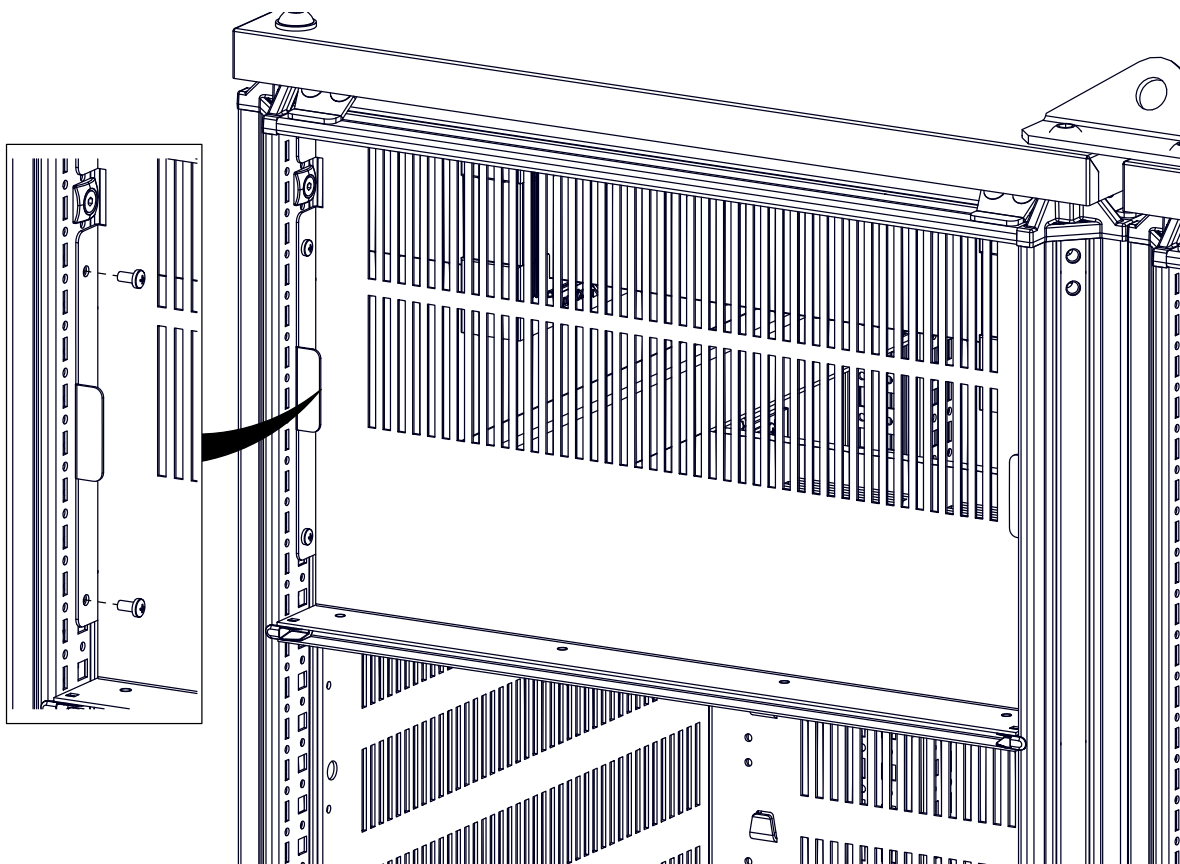
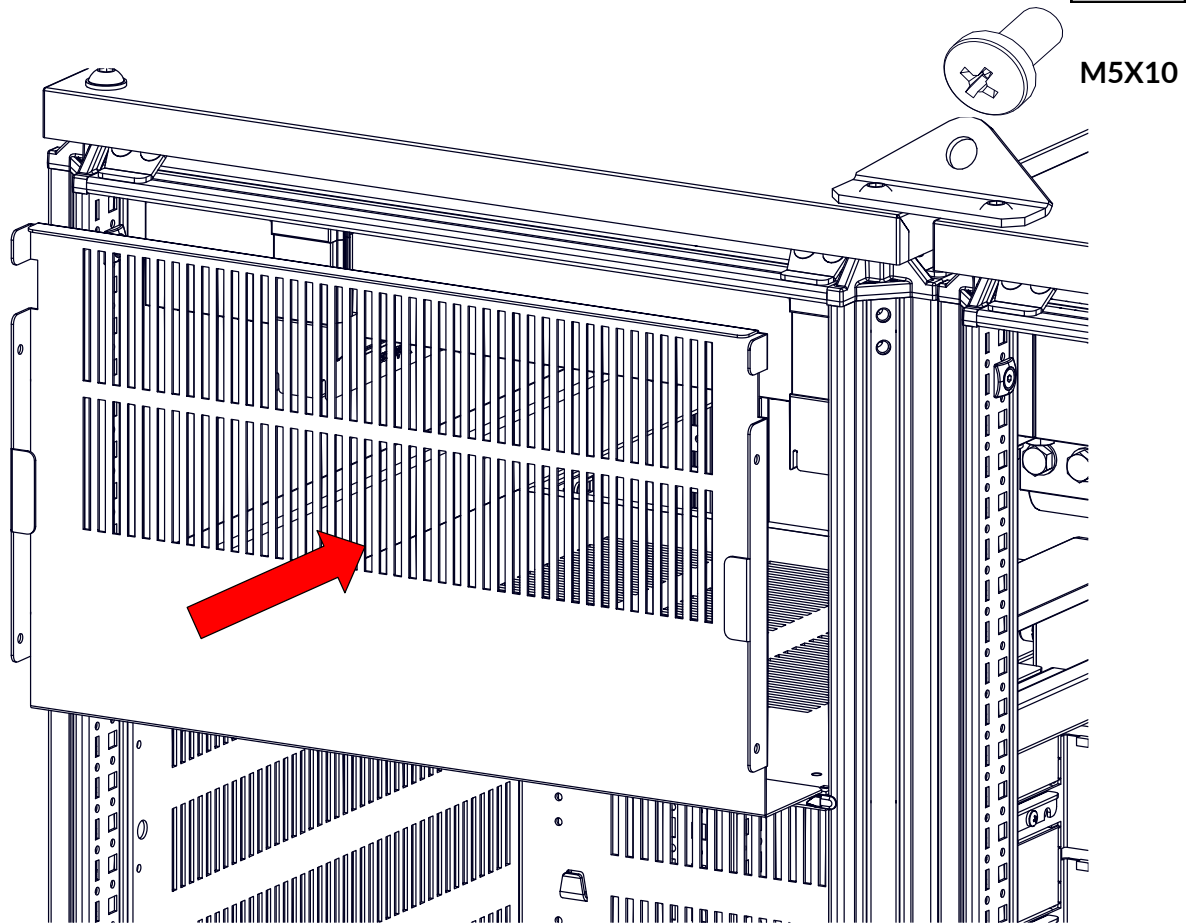


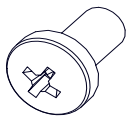
M5X10



12. FRONT COVER ASSEMBLY

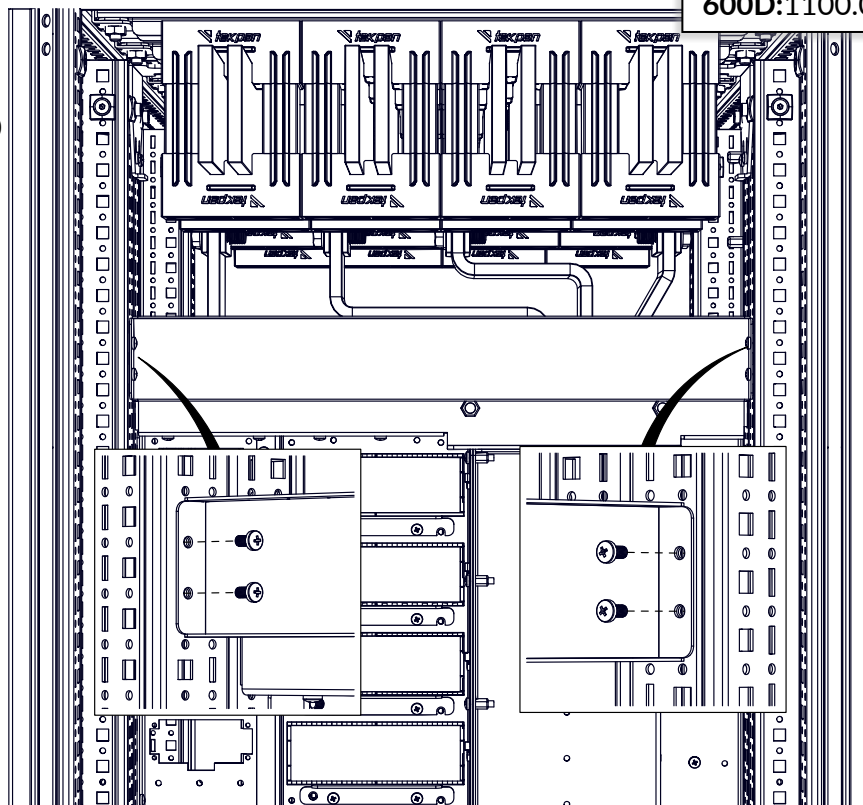
Required Packages:
1100.001



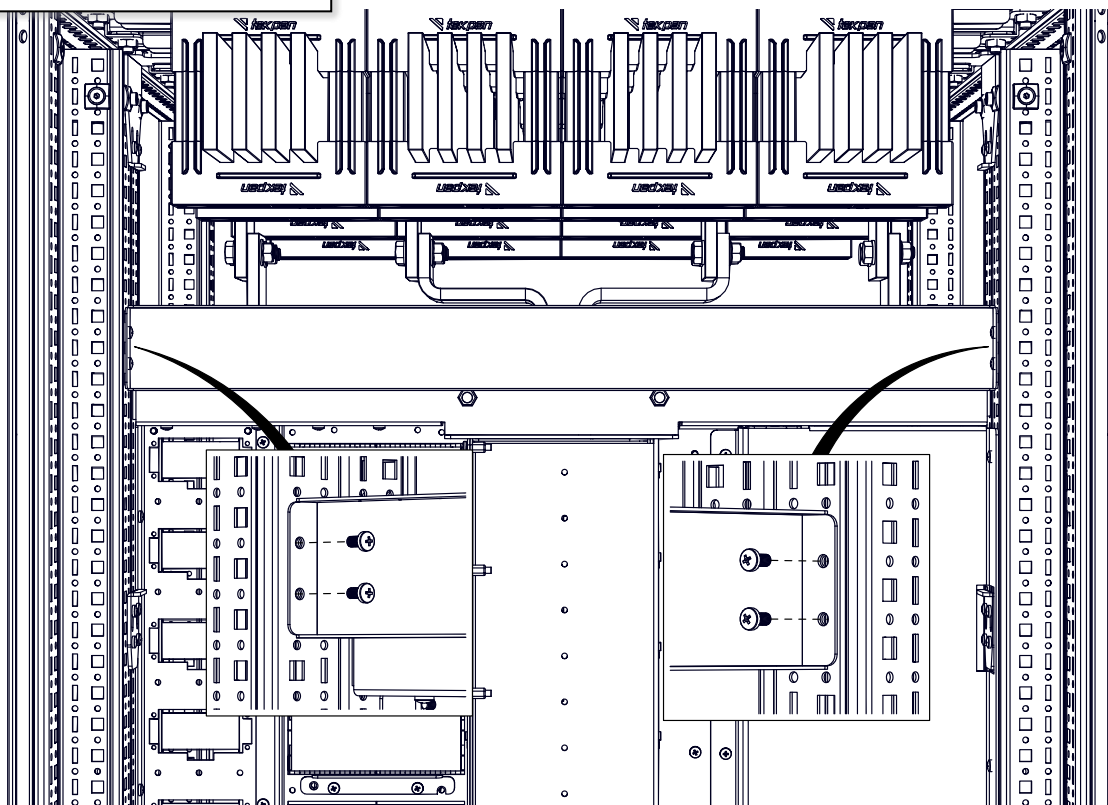
13. MCC CABLING COVER ASSEMBLY**13.1 MCC CABLING COVER ASSEMBLY (600D)**

M5X10

Required Packages:
600D:1100.011

**13.2 MCC CABLING COVER ASSEMBLY (800D)**

Required Packages:
800D:1100.012

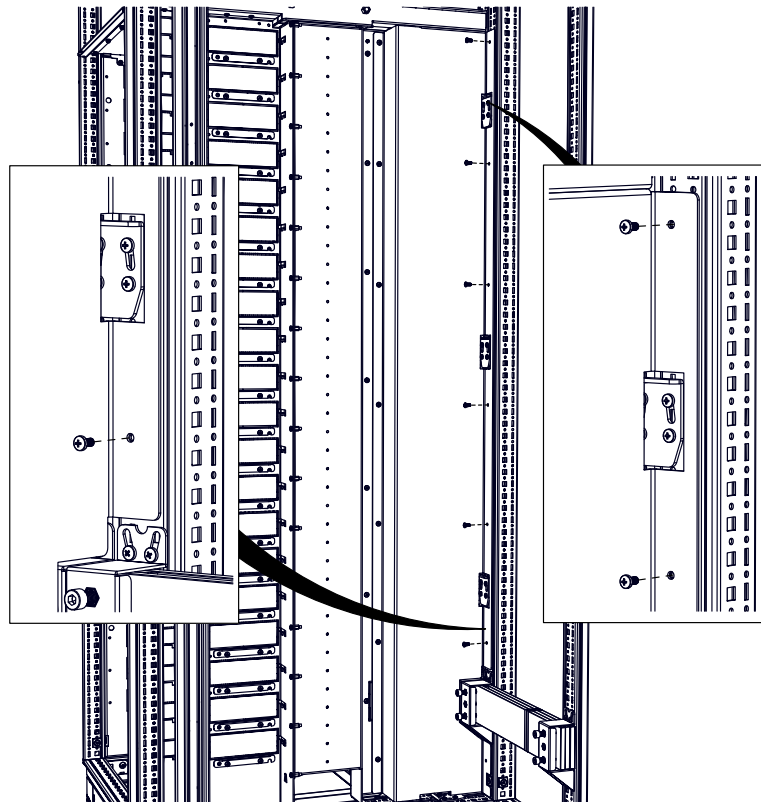
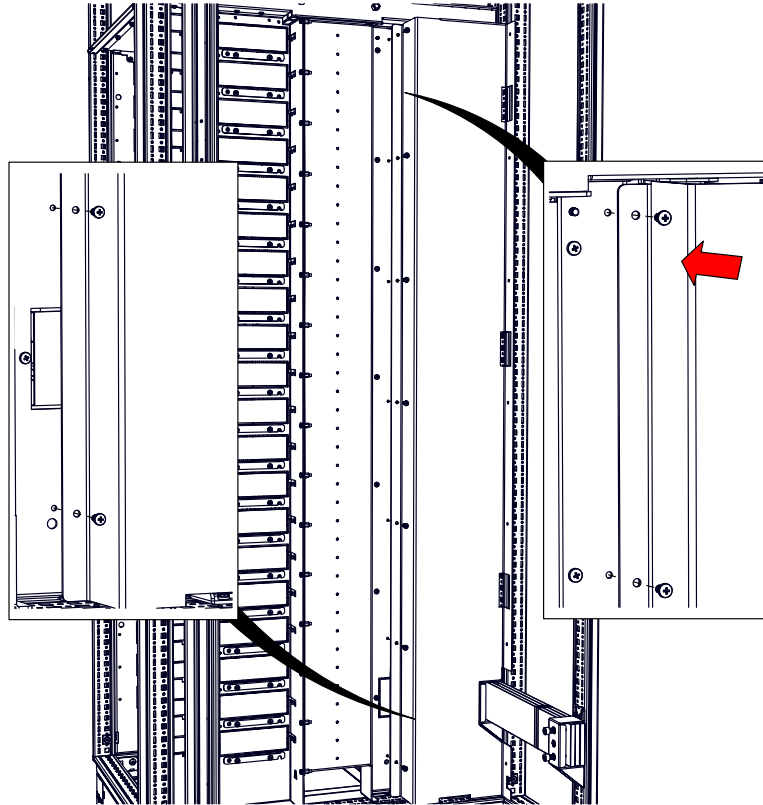


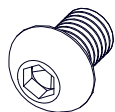
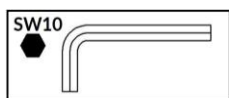
■ 13.2 MCC CABLING COVER ASSEMBLY (800D)

Required Packages:
800D:1100.012



M5X10

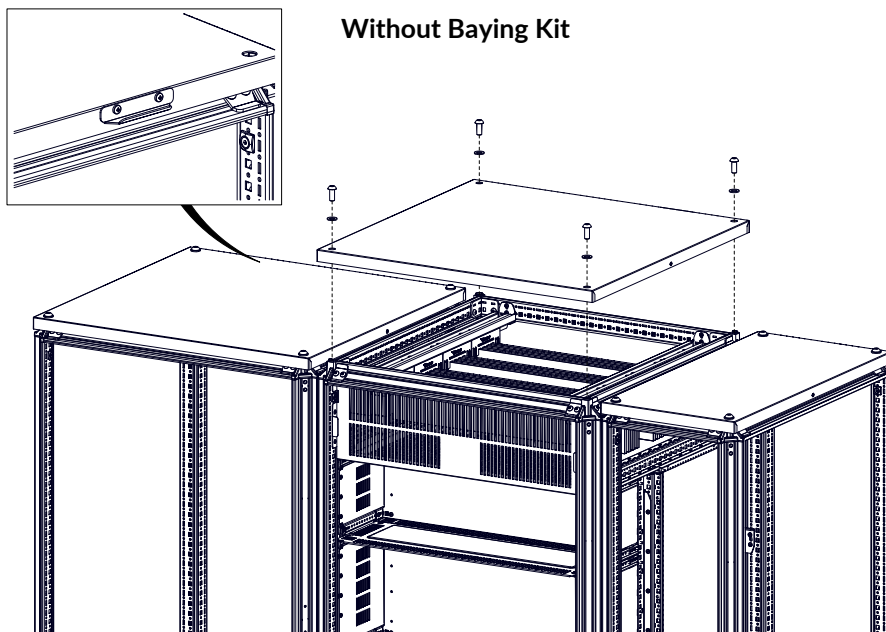


14. TOP COVER ASSEMBLY

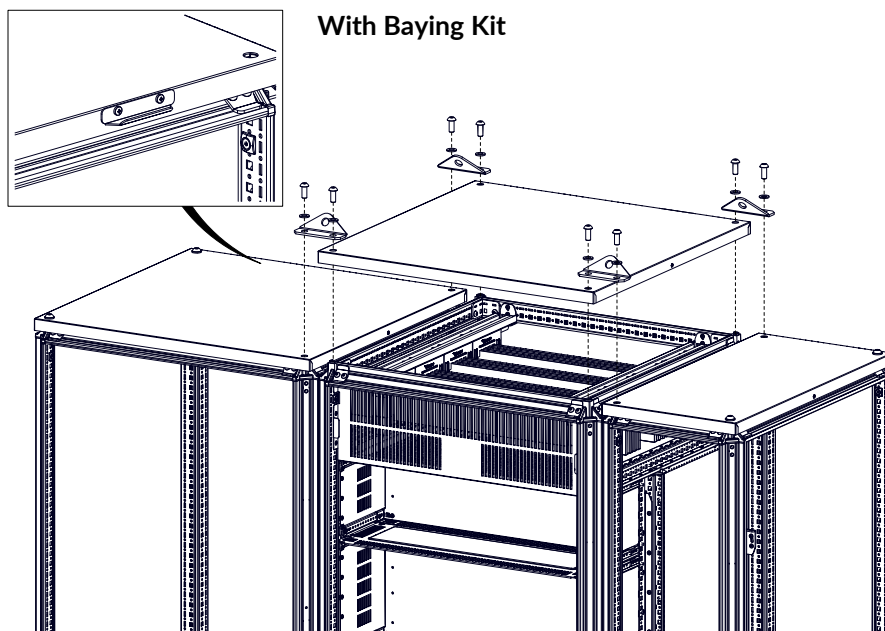
M12x30
4 pcs.

Warning: This assembly step must be apply after cassette assembly (internal part assembly).

Without Baying Kit



With Baying Kit



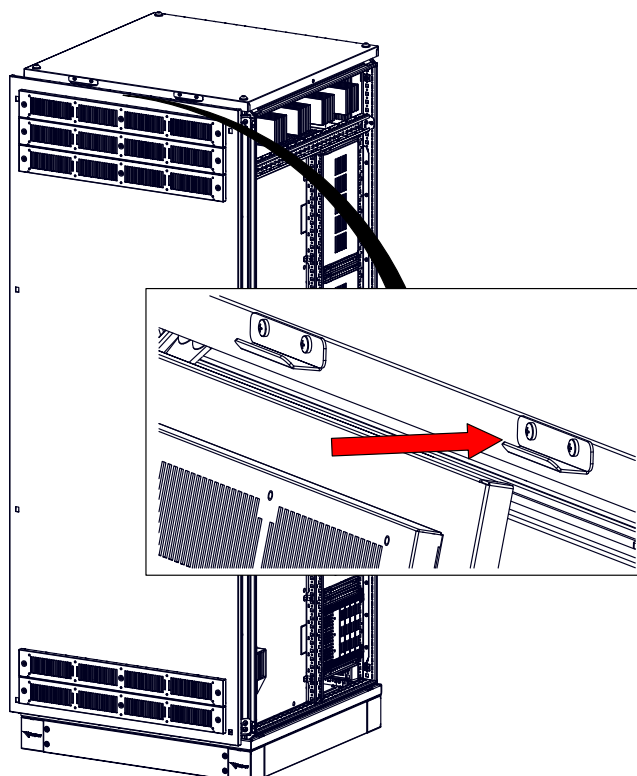
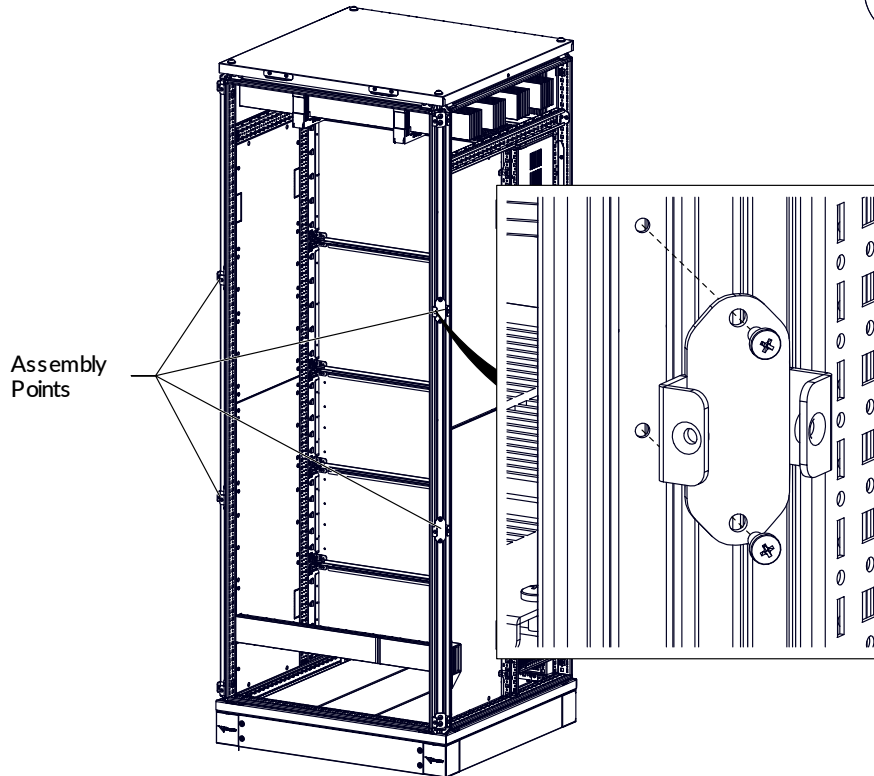
15. REAR PANEL ASSEMBLY

Warning: This assembly step must be apply after cassette assembly (internal part assembly).

Required Packages:
1003.620



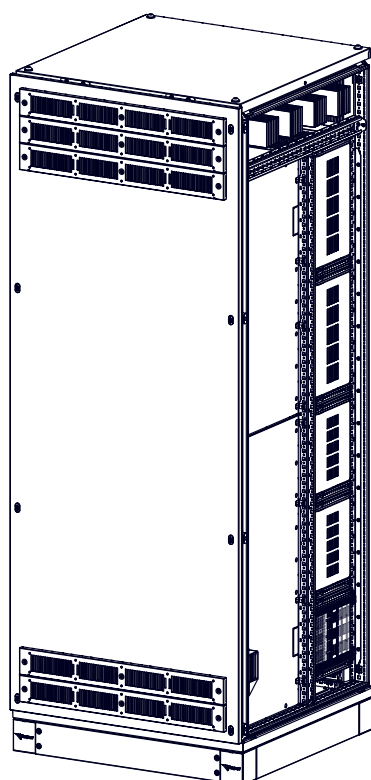
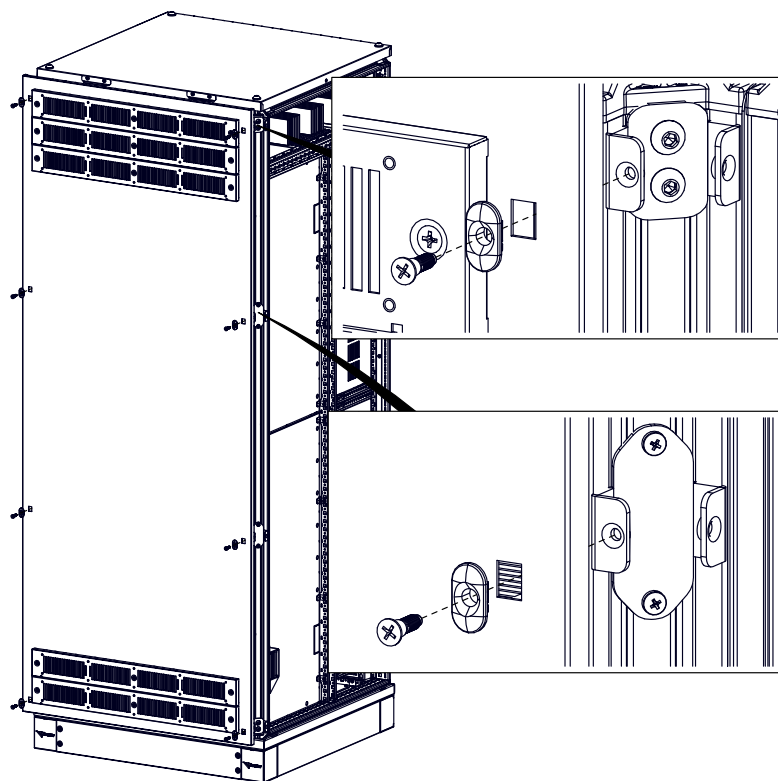
M5X10
2 pcs.



15. REAR PANEL ASSEMBLY

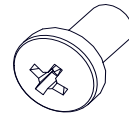
M6x23
8 pcs.

Required Packages:
1003.620

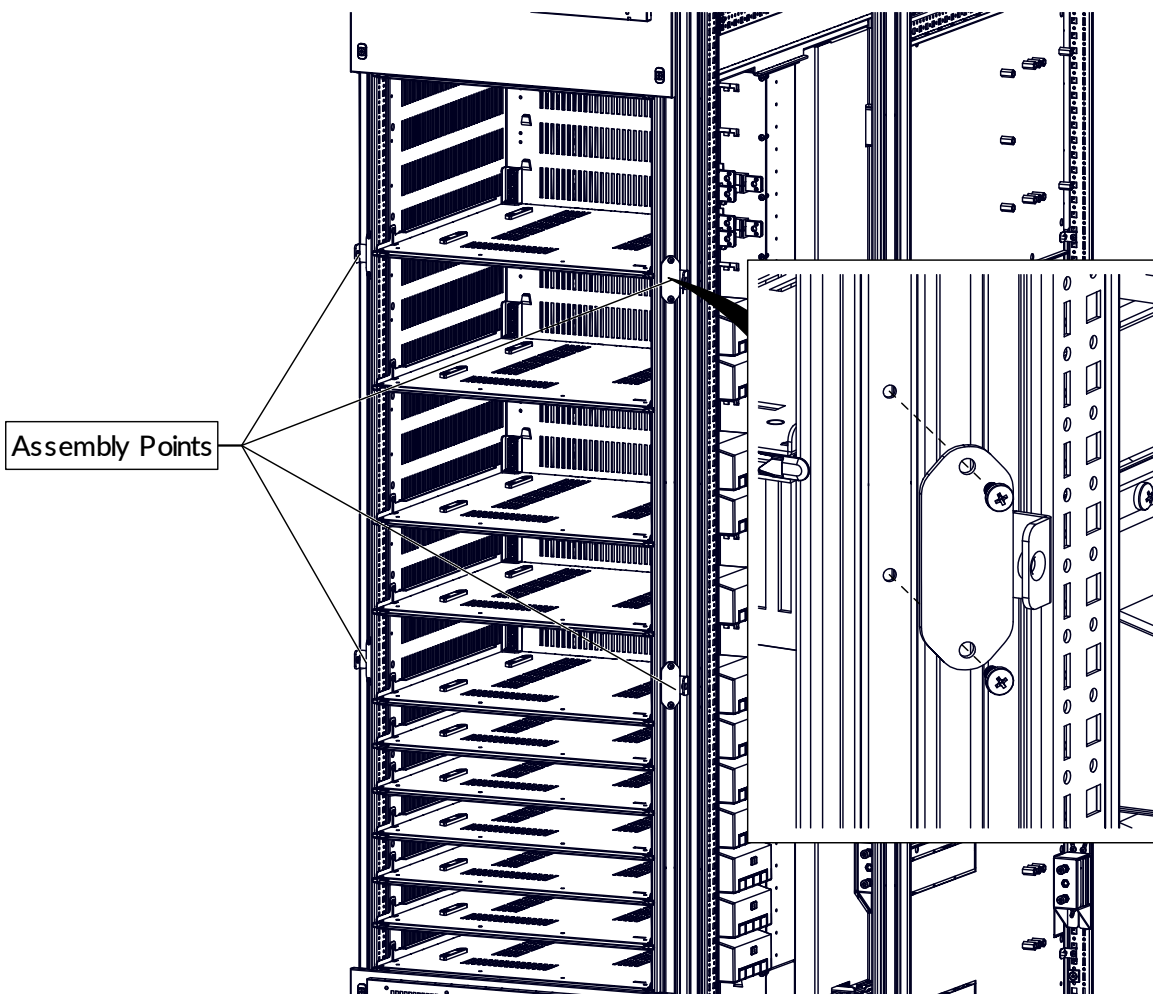


- 16. EXTERNAL PARTIAL DOOR ASSEMBLY
- 16.1 PARTIAL DOOR BRACKET ASSEMBLY

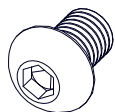
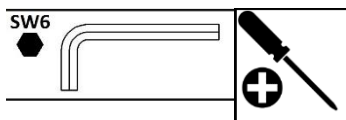
Required Packages:
1003.001



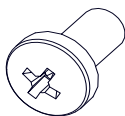
M5X10
8 pcs.



■ 16.2 FIXED TOP PARTIAL COVER ASSEMBLY



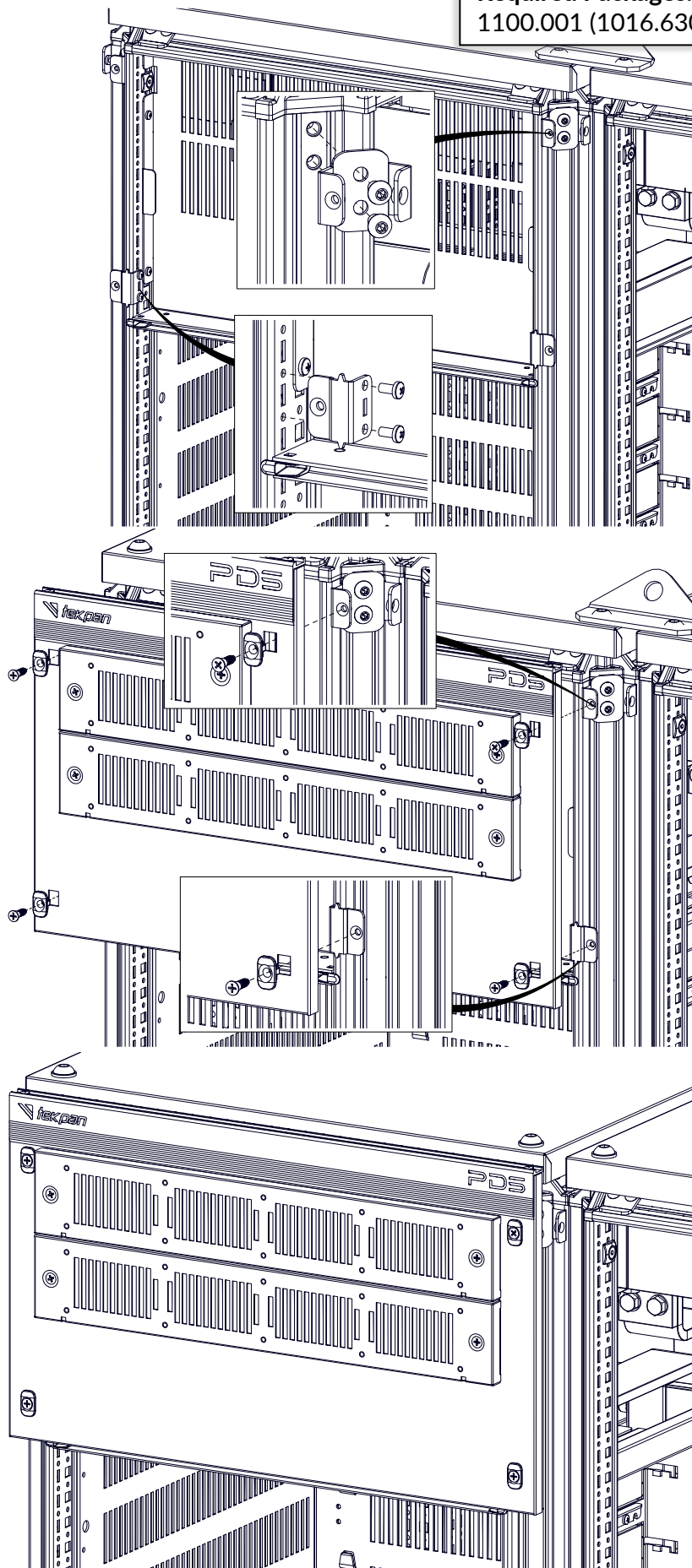
M8x12
4 pcs.



M5x10
4 pcs.

Warning: This assembly step must be apply after cassette assembly (internal part assembly).

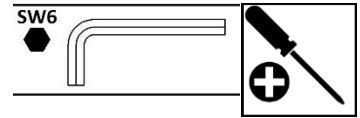
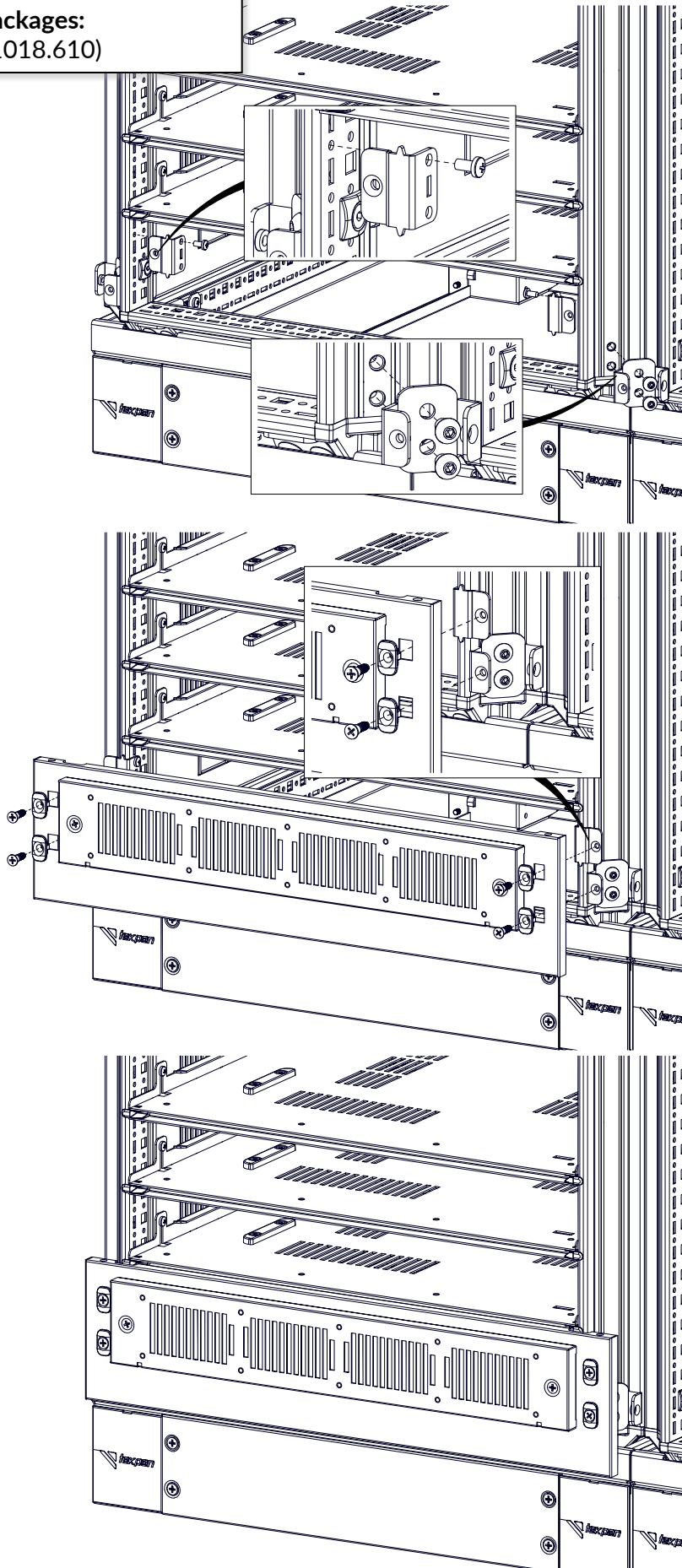
Required Packages:
1100.001 (1016.630)



■ 16.3 FIXED BOTTOM PARTIAL COVER ASSEMBLY

Warning: This assembly step must be apply after cassette assembly (internal part assembly).

Required Packages:
1100.001 (1018.610)



17. SIDE PANEL ASSEMBLY



M6x23
8 pcs.



M5x25
1 pcs.

M5X25 Only For 800 Depth!!!

Required Packages:
Side Panel:706.2XX
Busbar Protection:1023.1XX

