

B2.3

COUPLING MODULE ASSEMBLY

KYT-070
11/2021

 Update Notes

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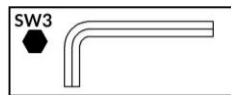
Tools Symbol Guide



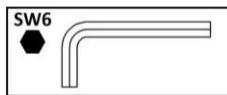
Cross



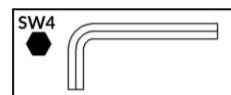
Slot



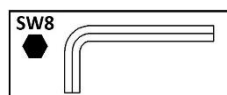
M4 Allen Key



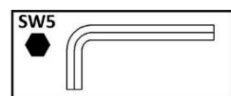
M8 Allen Key



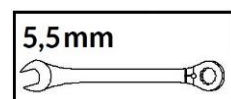
M5 Allen Key



M10 Allen Key



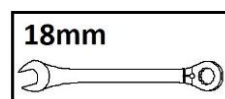
M6 Allen Key



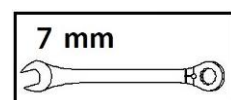
M3 Spanner



M6 Spanner



M12 Spanner



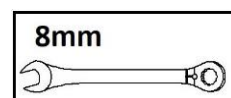
M4 Spanner



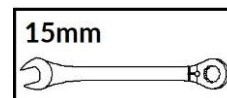
M8 Spanner



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:

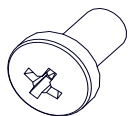
- ✓ It allows operator inspection, to verify if the bolts/ nut are tightened or not.
- ✓ It facilitates the identification of any loose nuts during the switchboard's lifetime.

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

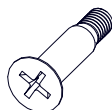
Philips Pan
Head Screw



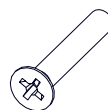
M6x23 Philips Flat
Head Screw (Teos)



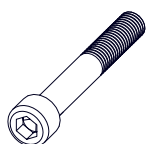
M5x20 Philips Flat
Head Screw (Teos)



Philips Flat Head
Screw



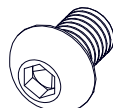
Hexagon Socket Head
Bolt (Half Thread)



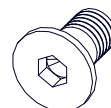
Hexagon Socket
Head Bolt



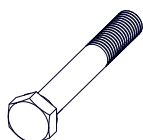
Hexagon Socket
Button Head Bolt



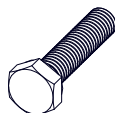
Hexagon Socket
Flat Head Bolt



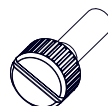
Hexagon Head Bolt
(Half Tread)



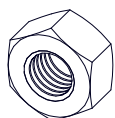
Hexagon Head
Bolt



Internal Door
Knob Bolt



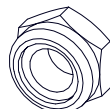
Regular Nut



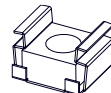
Flange Nut



Previling Torque
Nut



Cage Nut



Plastic Cage
Nut



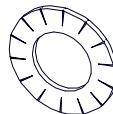
Flat Washer



Spring Lock
Washer



Toothed Lock
Washer

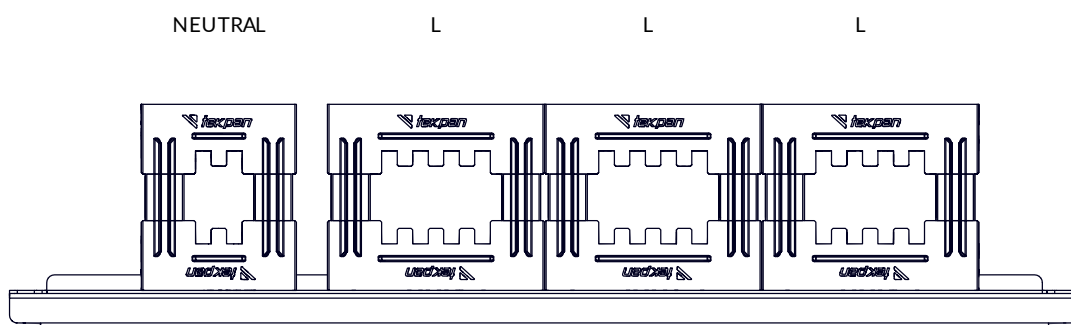
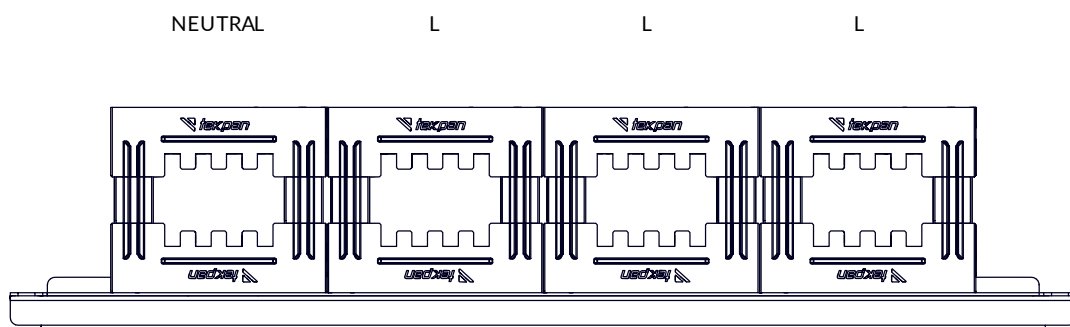
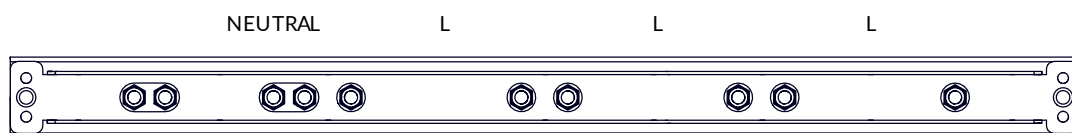
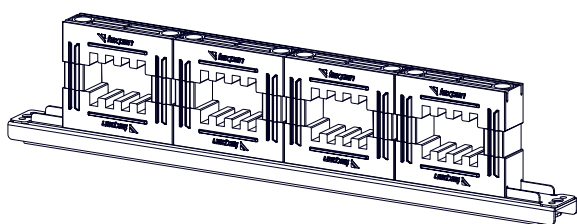


Wedge Lock
Washer



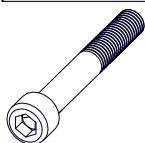
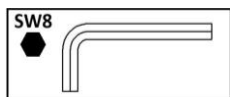
1. BUSBAR ASSEMBLY

1.1 FOUR (4) FLAT BAR ASSEMBLY (TOP)



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 (TOP)

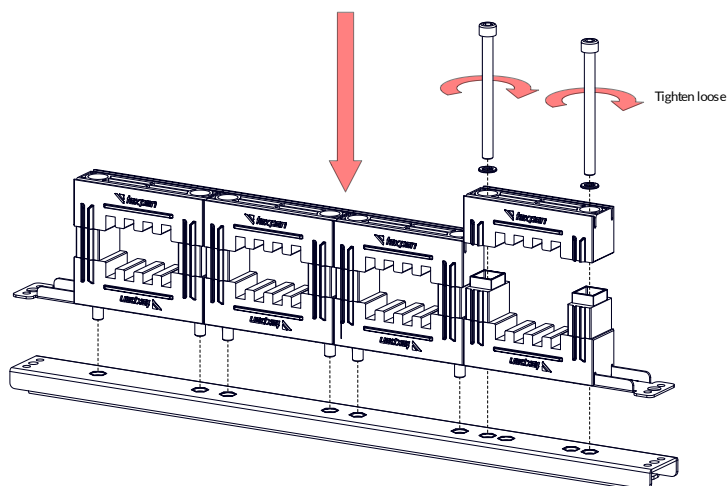
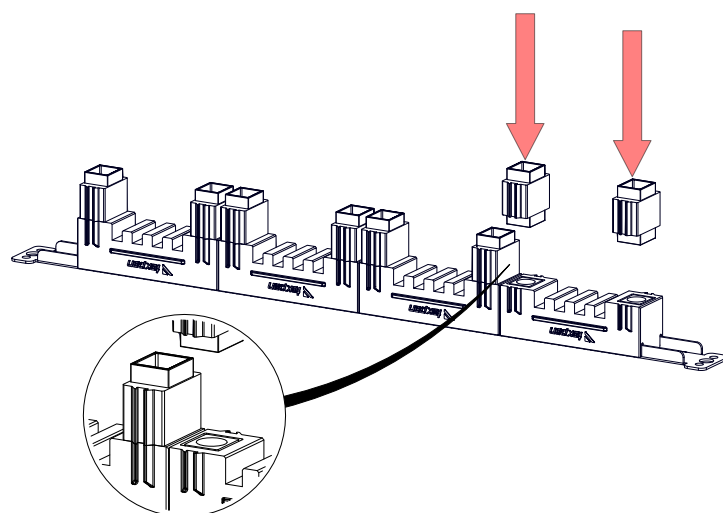
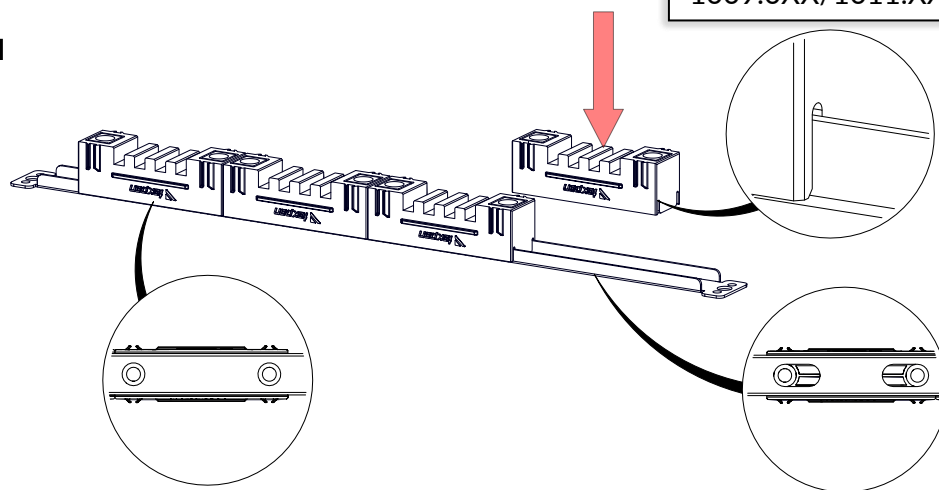


M10x H
8 pcs.



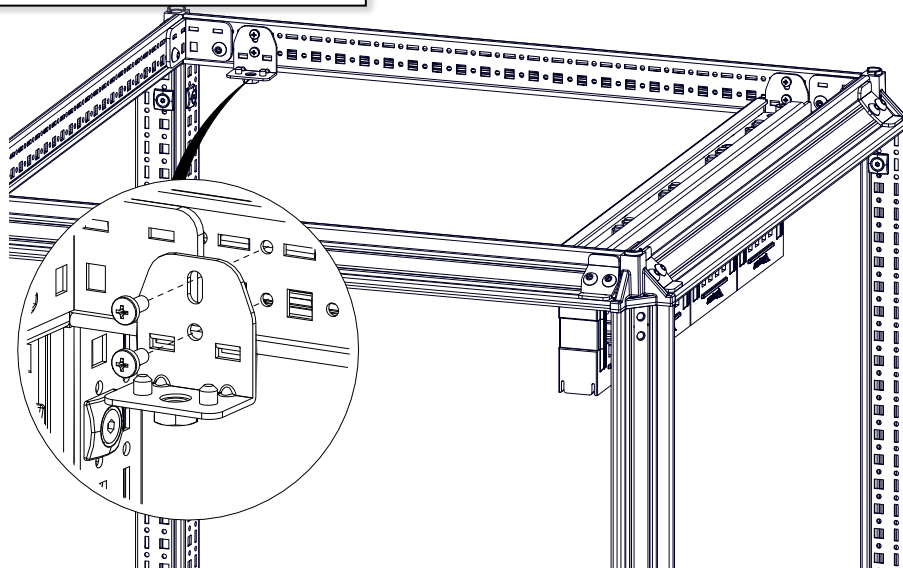
M10
8 pcs.

Required Packages:
1010.18X
1009.0XX/1011.XXX

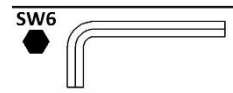


1.1 FOUR (4) FLAT BAR ASSEMBLY (TOP)

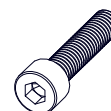
Required Packages:
1010.18X
1009.0XX/1011.XXX



M5X10



SW6



M8x20
1 pcs.



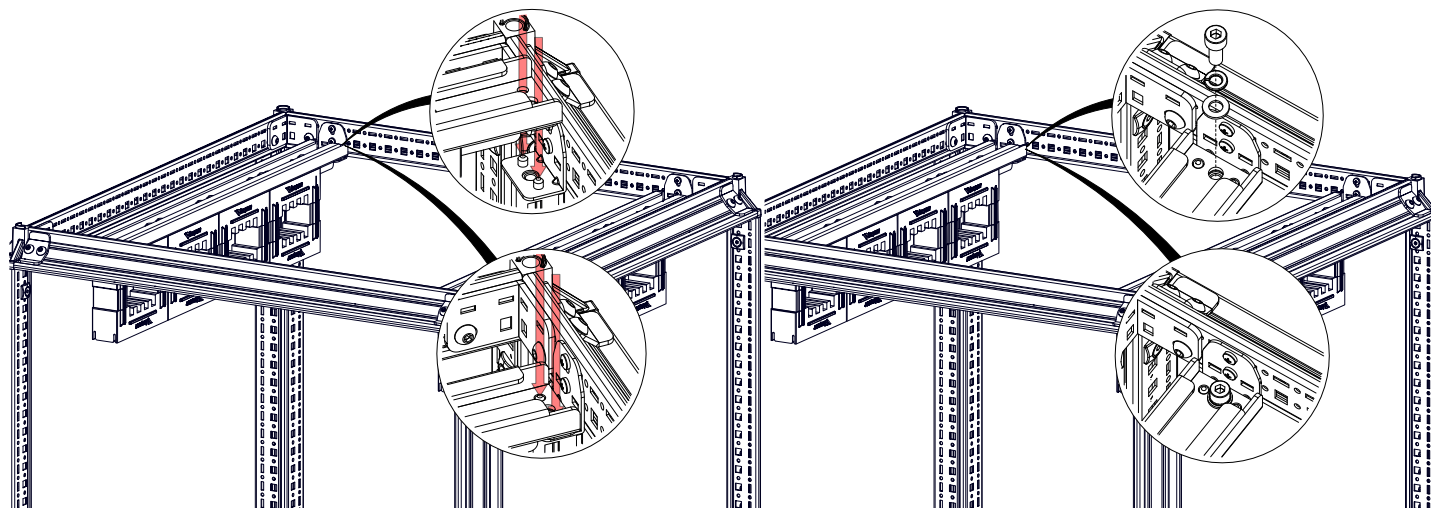
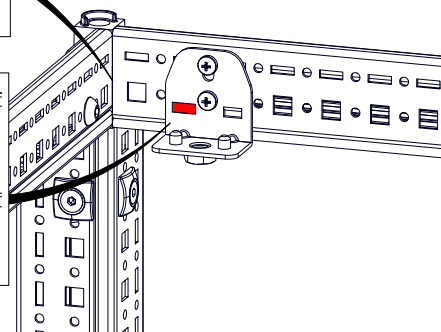
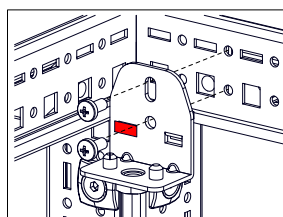
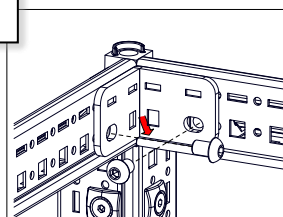
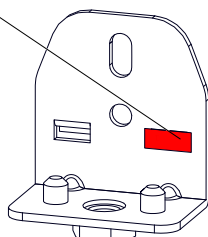
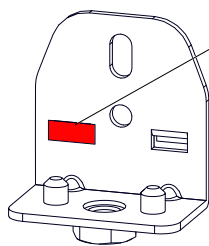
M8
1 pcs.



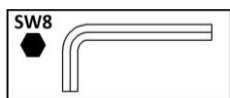
M8
1 pcs.

For 85kA ACB Module assemblies are using bottom steps with both sides, if ACB Copper Connections do not fit.

Flatten with Hammer (2x Each Bracket)



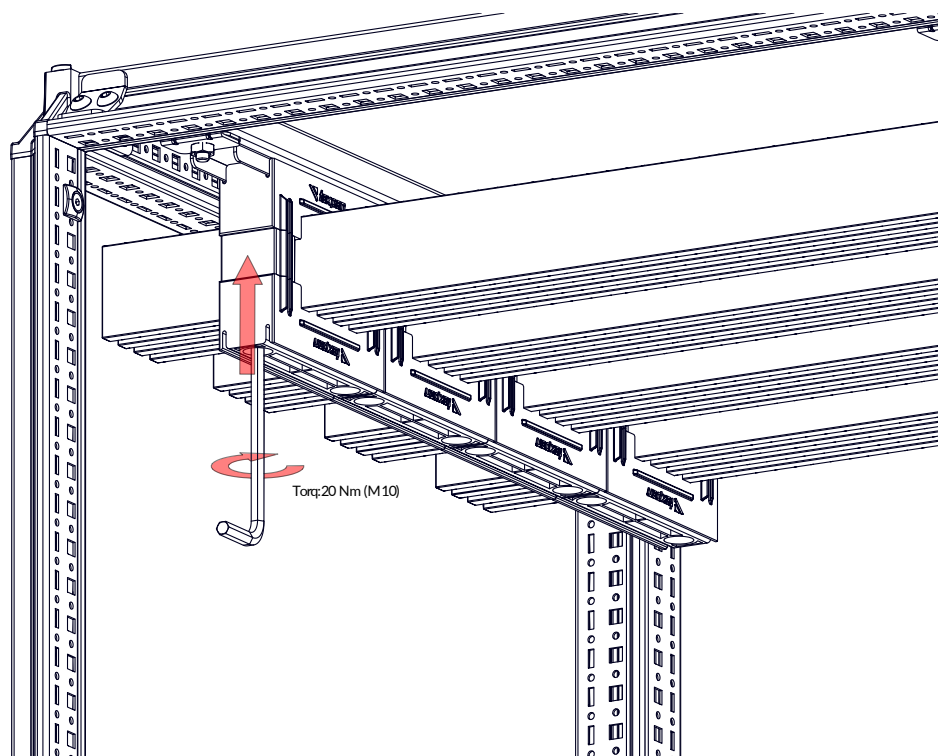
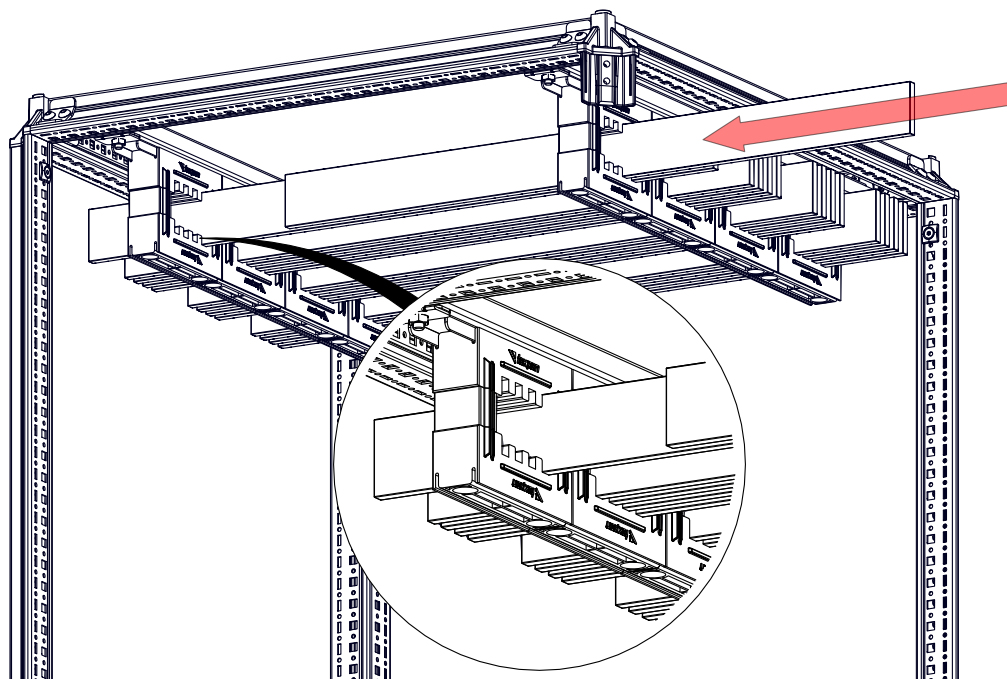
■ 1.1 FOUR (4) FLAT BAR ASSEMBLY (TOP)



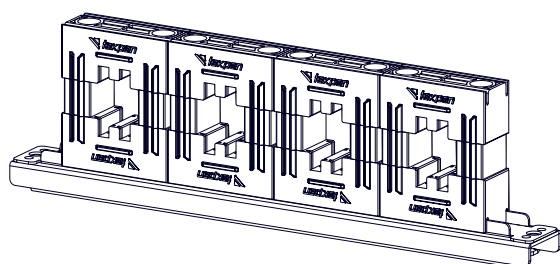
For 65kA and 85kA assemblies are using same steps.

65 kA safety distance between busbar holders Max. 550mm

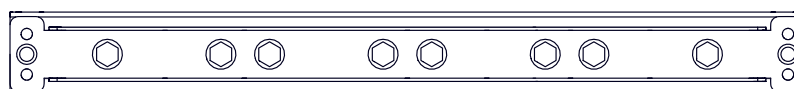
85 kA safety distance between busbar holders Max. 400mm for ACB Modules



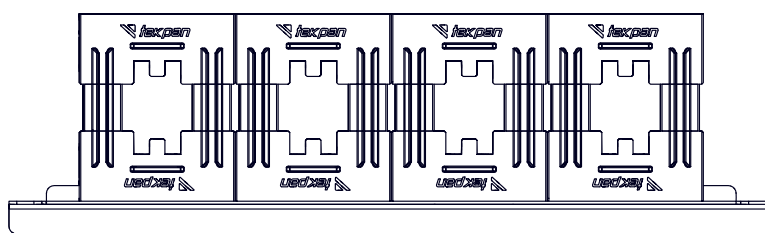
1.2 TWO (2) FLAT BAR ASSEMBLY (TOP)



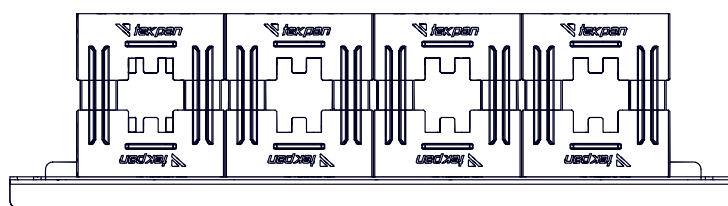
NEUTRAL L L L



NEUTRAL L L L

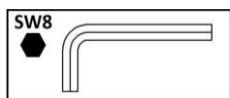


NEUTRAL L L L

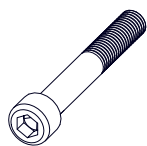


Neutral Section	Rated Current (In)	Flat Copper Size (mm) xQty	
		L1/L2/L3	Neutral(N)
1/2 N	1350A	40/10x2	40/5x2
1/1 N	1350A	40/10x2	40/10x2
1/2 N	1620A	50/10x2	50/5x2
1/1 N	1620A	50/10x2	50/10x2
1/2 N	1860A	60/10x2	60/5x2
1/1 N	1860A	60/10x2	60/10x2
1/2 N	2300A	80/10x2	40/10x2
1/1 N	2300A	80/10x2	80/10x2

1.2 TWO (2) FLAT BAR ASSEMBLY (TOP)



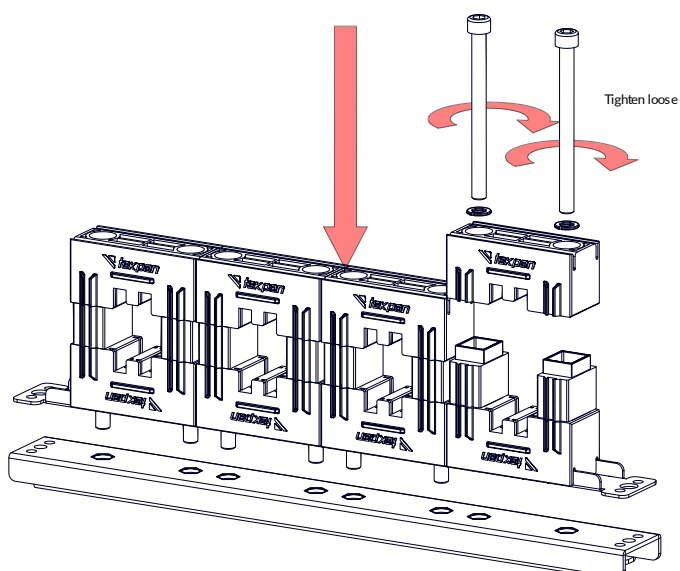
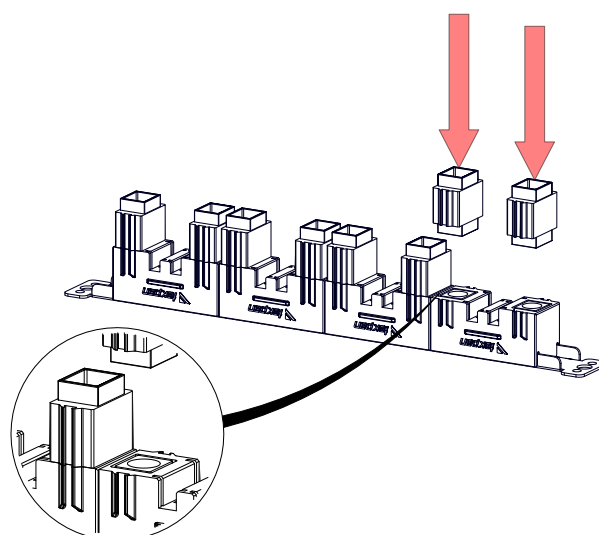
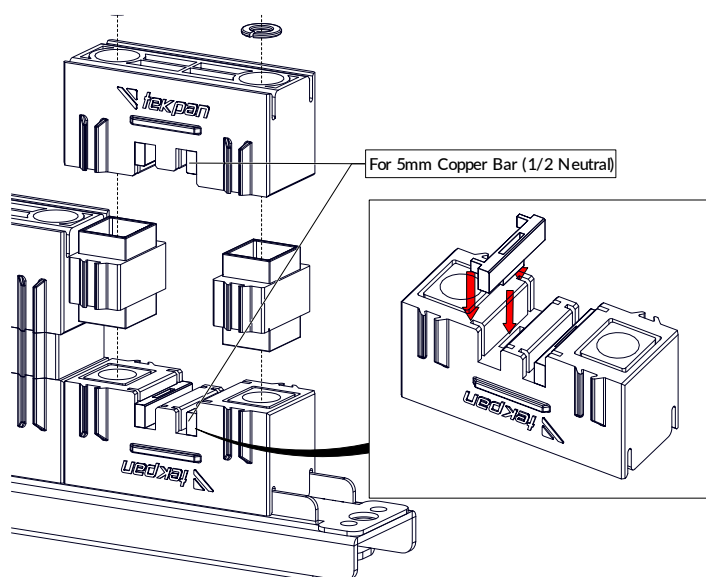
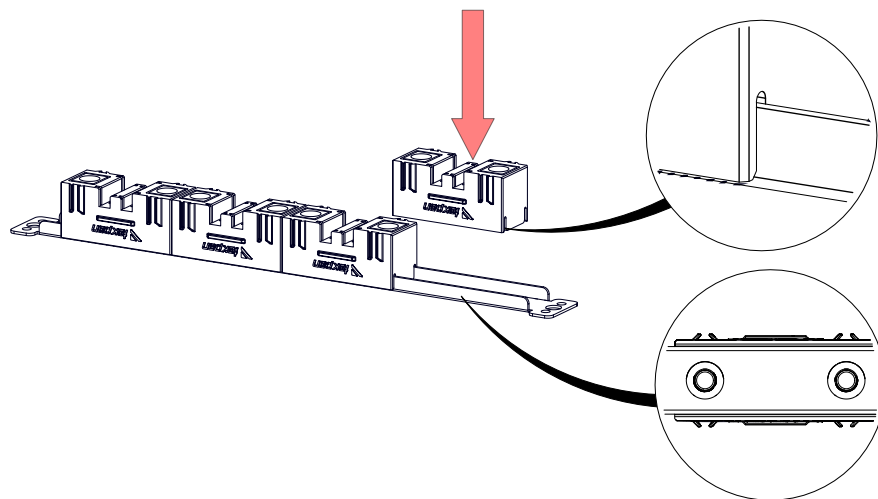
Required Packages:
1010.16X
1009.0XX/1011.XXX/1019.0XX



M10x H
8 pcs.



M10
8 pcs.

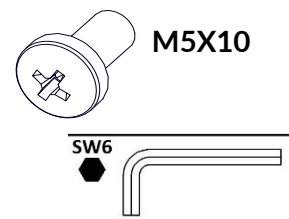
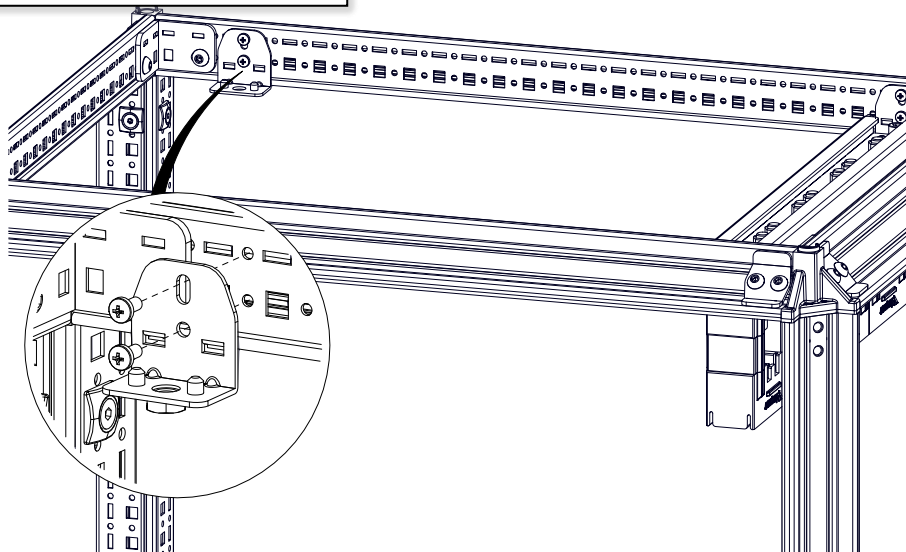


1.2 TWO (2) FLAT BAR ASSEMBLY (TOP)

Required Packages:

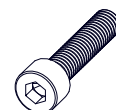
1010.16X

1009.0XX/1011.XXX/1019.0XX



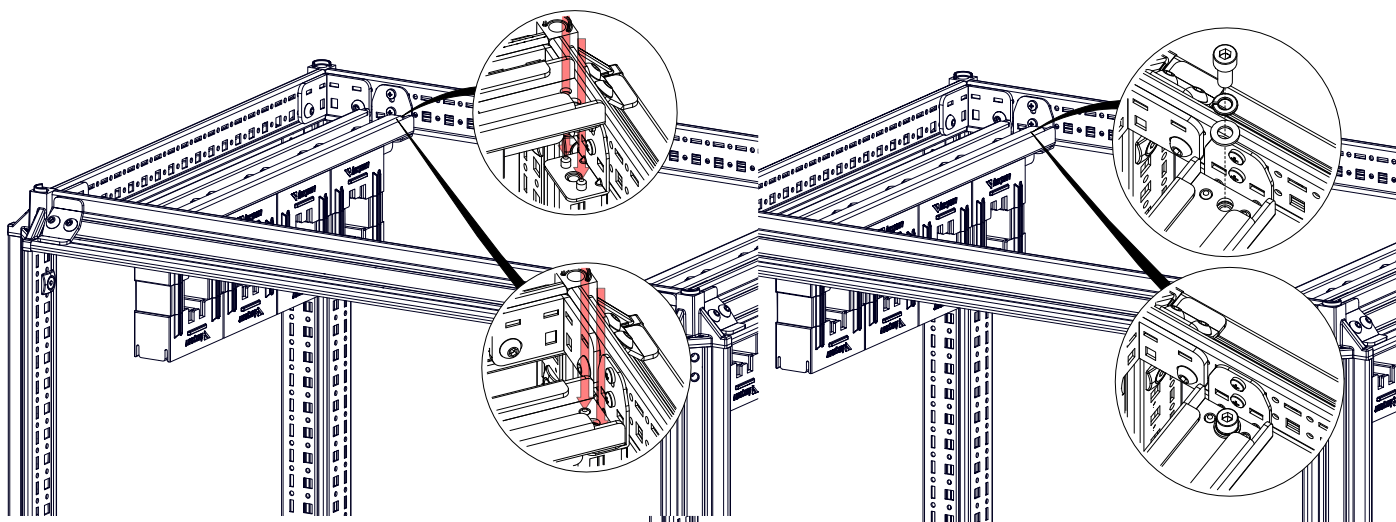
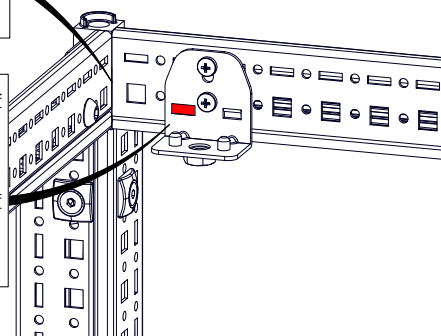
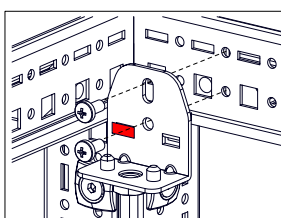
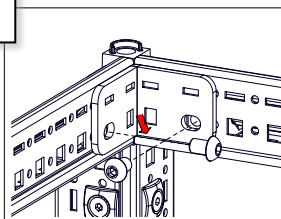
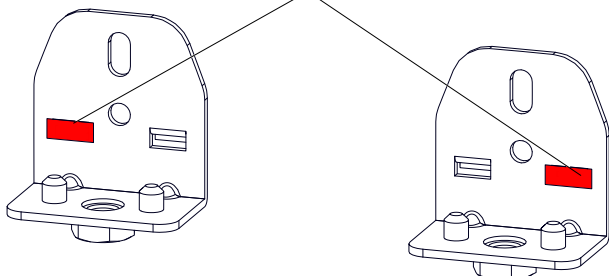
M5X10

SW6

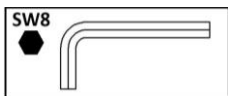
M8x20
1 pcs.M8
1 pcs.M8
1 pcs.

For 85kA ACB Module assemblies are using bottom steps with both sides, if ACB Copper Connections do not fit.

Flatten with Hammer (2x Each Bracket)



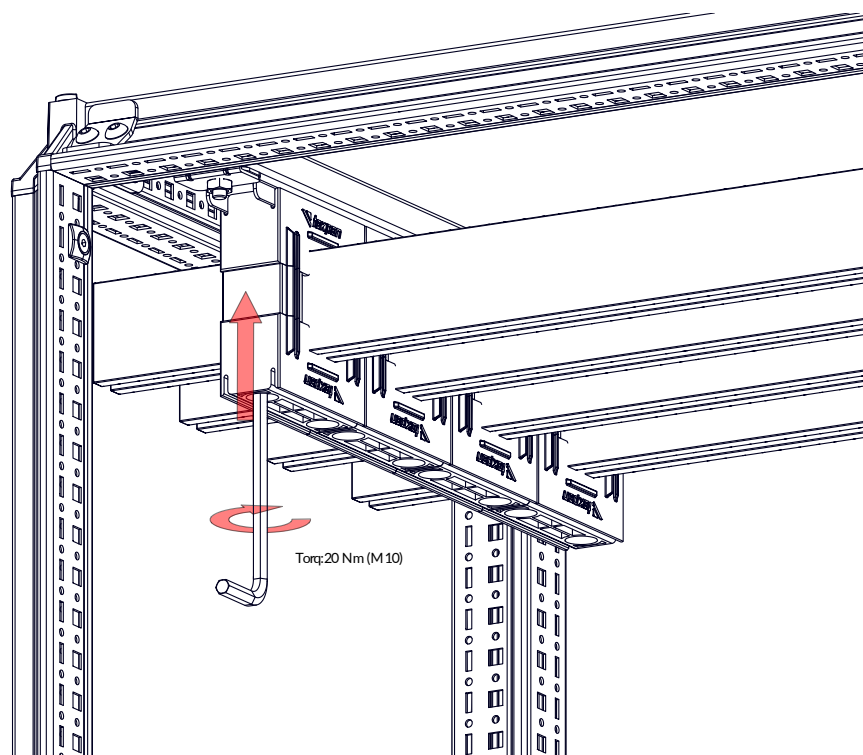
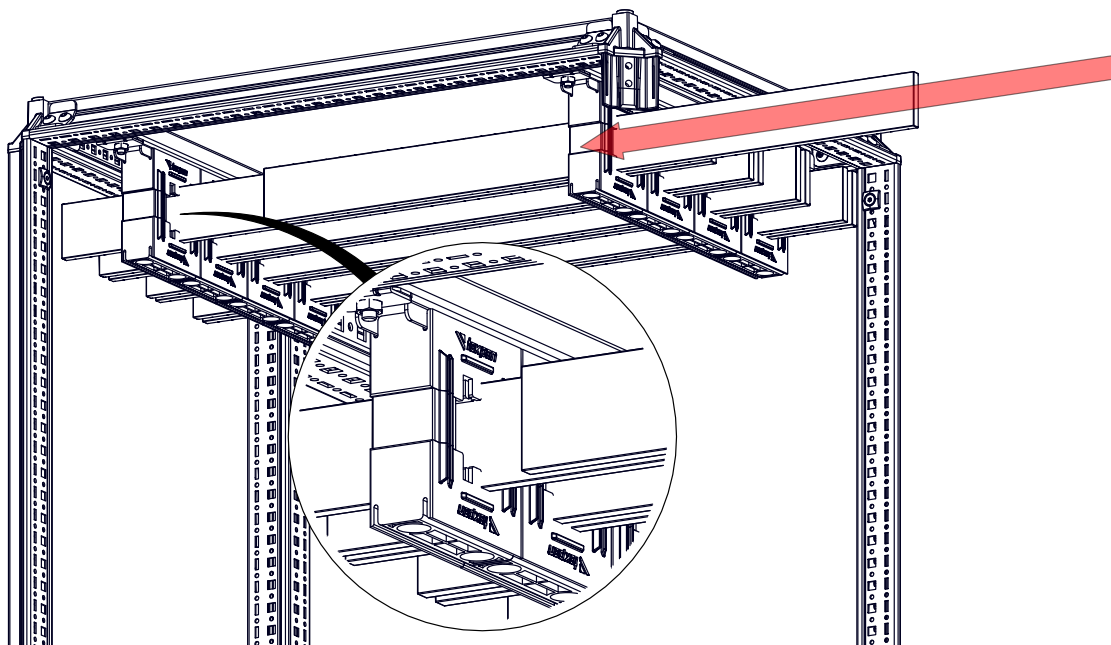
■ 1.2 TWO (2) FLAT BAR ASSEMBLY (TOP)



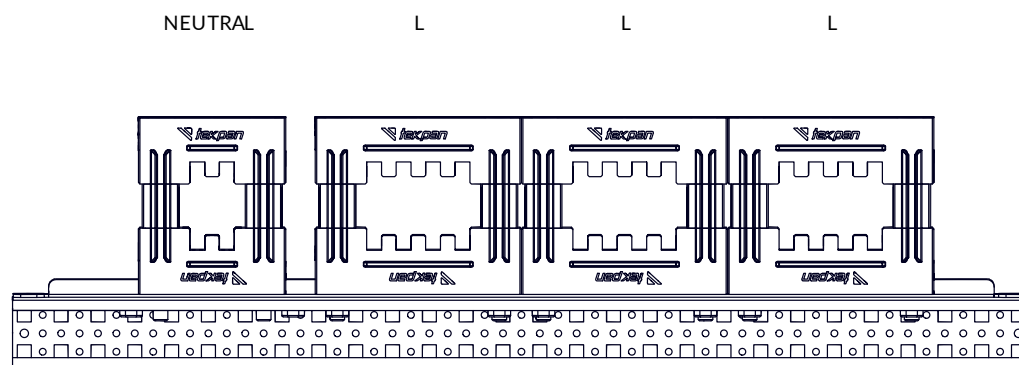
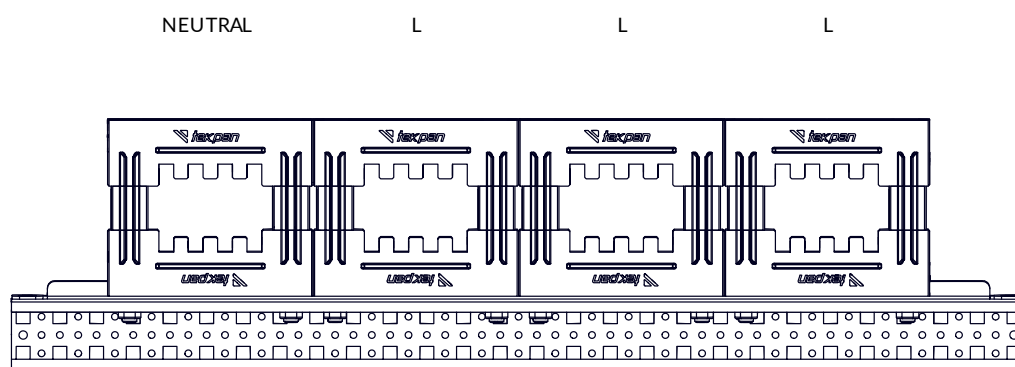
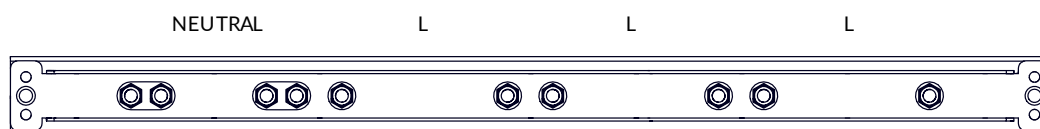
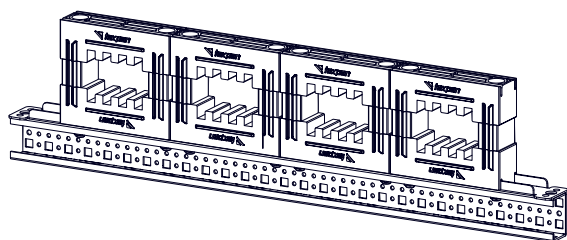
For 65kA and 85kA assemblies are using same steps.

65 kA safety distance between busbar holders Max. 550mm

85 kA safety distance between busbar holders Max. 400mm for ACB Modules

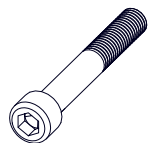
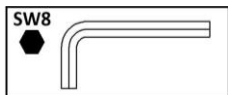


1.3 FOUR (4) FLAT BAR ASSEMBLY (MID)



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

1.3 FOUR (4) FLAT BAR ASSEMBLY (MID)

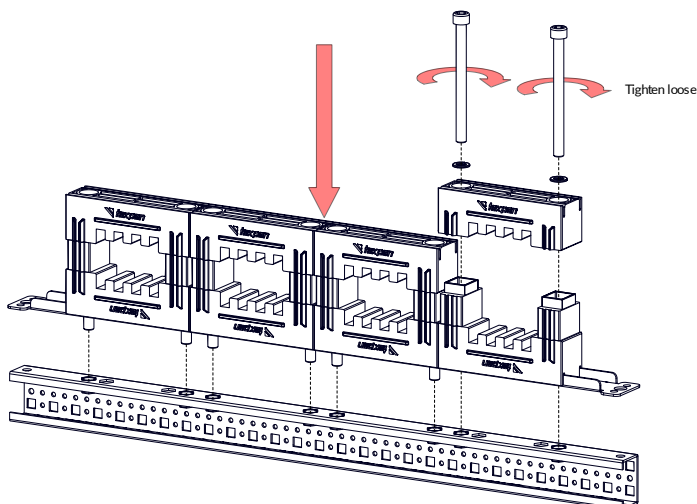
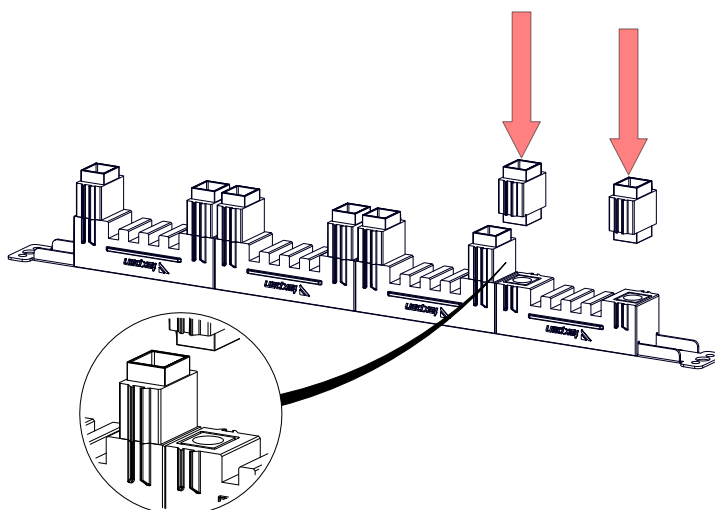
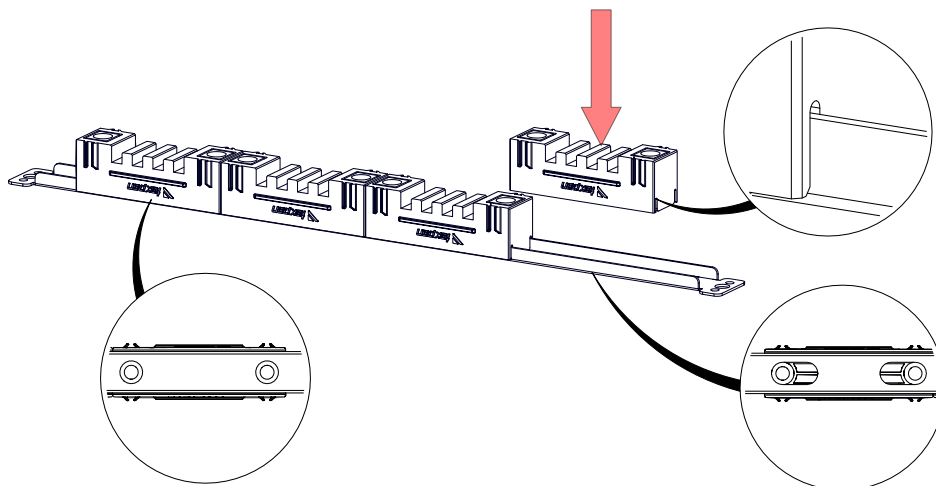


8 pcs.



8 pcs.

Required Packages:
1010.28X
1009.0XX/1011.XXX

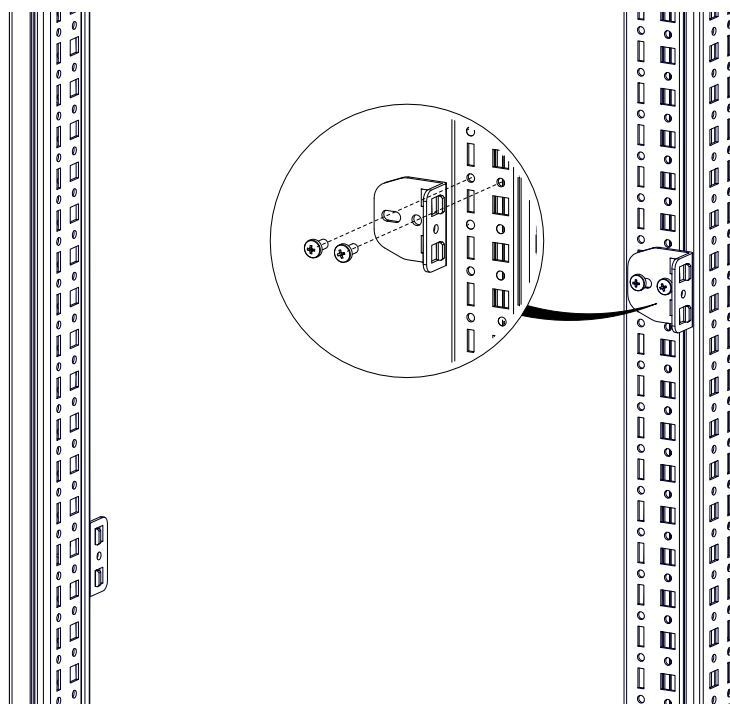
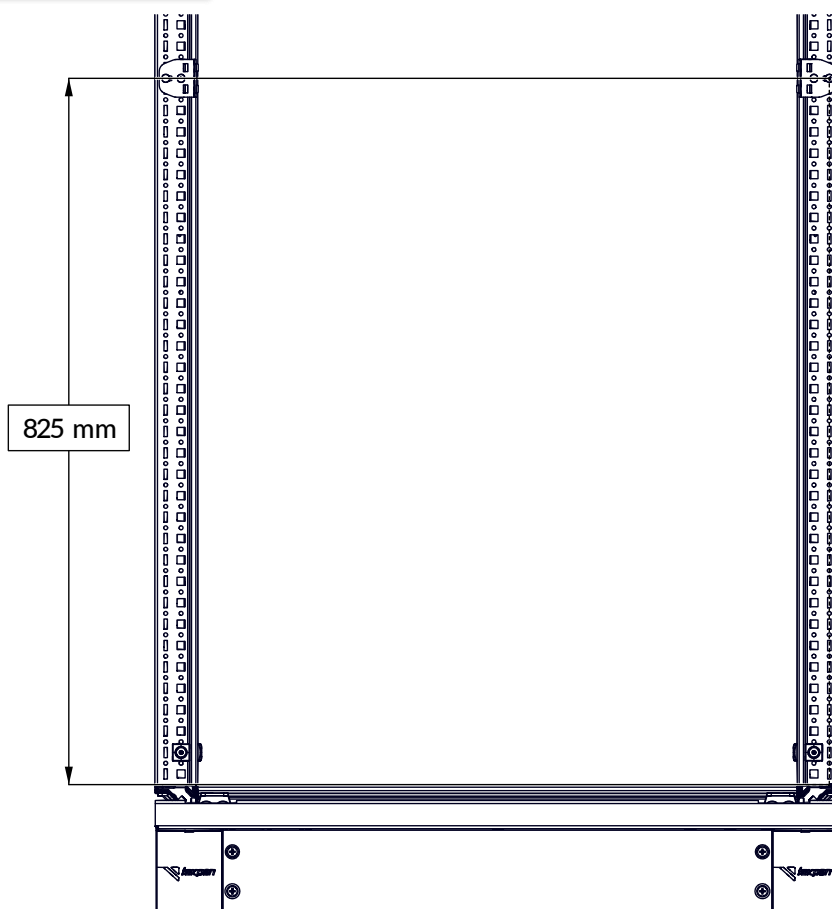


■ 1.3 FOUR (4) FLAT BAR ASSEMBLY (MID)

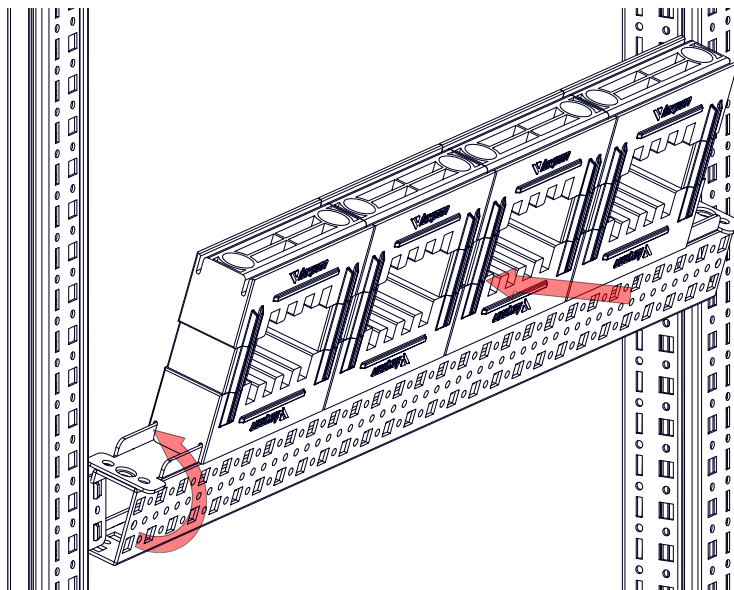
Required Packages:

1010.28X

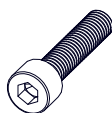
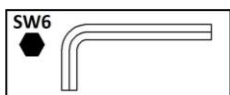
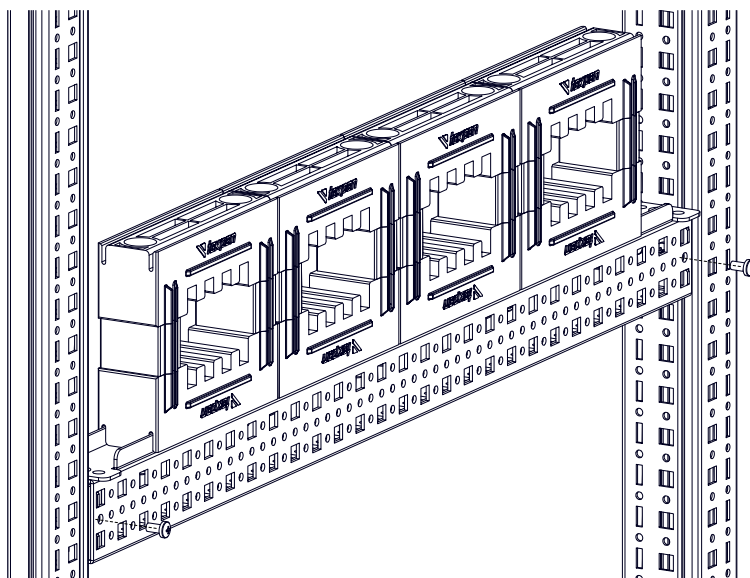
1009.0XX/1011.XXX

M5X10
2 pcs.

1.3 FOUR (4) FLAT BAR ASSEMBLY (MID)



M5X10
2 pcs.



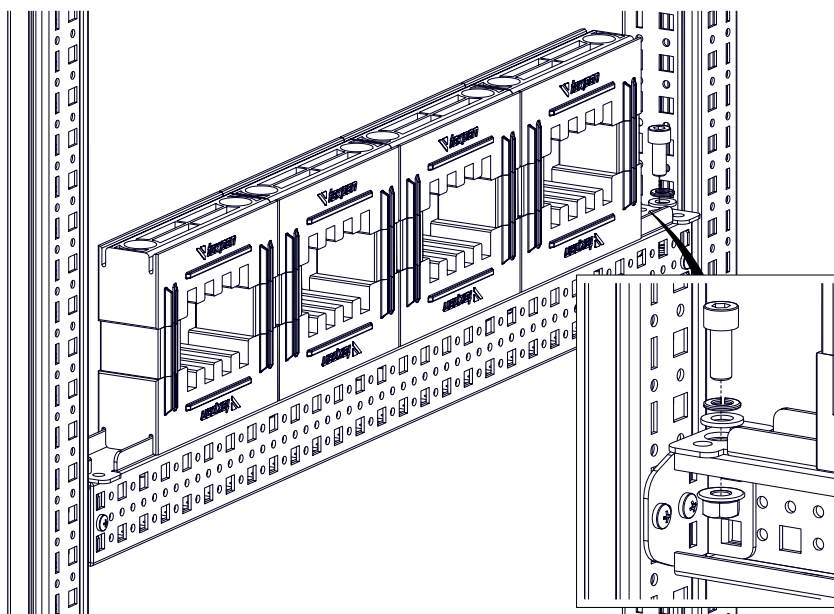
M8x20
1 pcs.



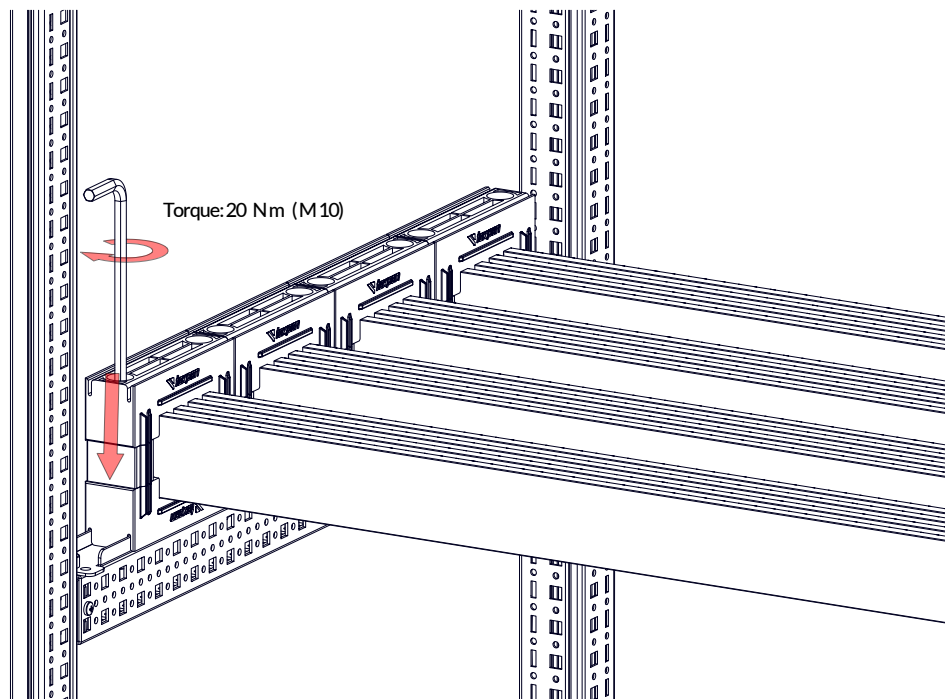
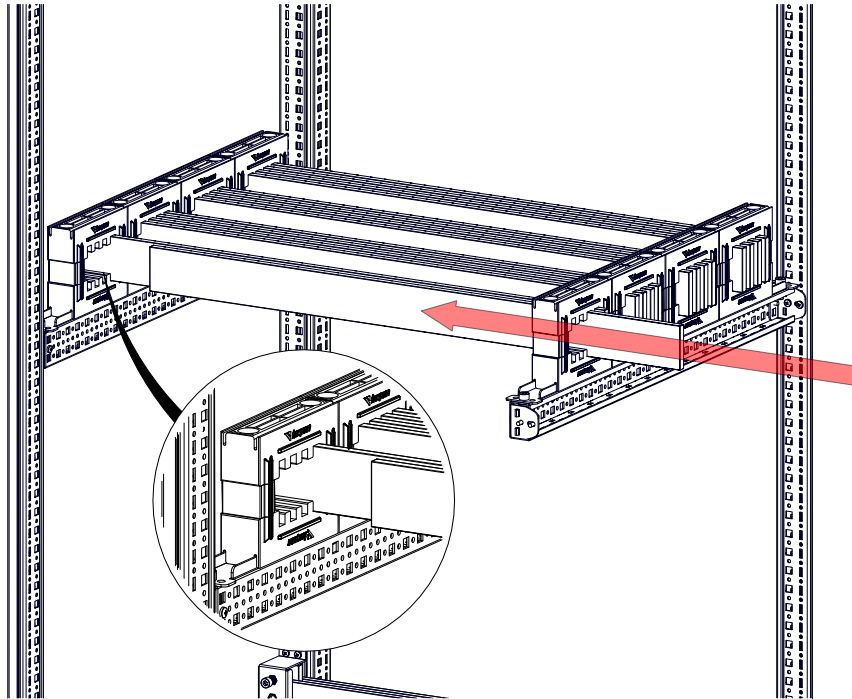
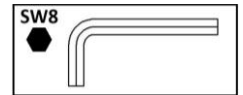
M8
1 pcs.



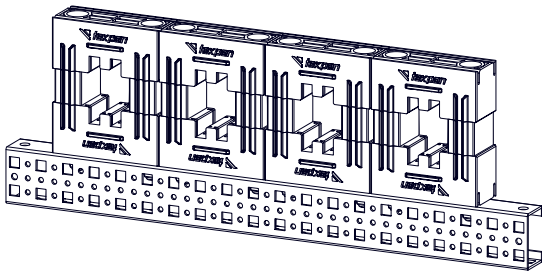
M8
1 pcs.



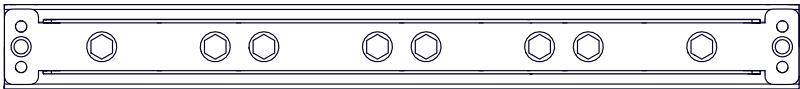
■ 1.3 FOUR (4) FLAT BAR ASSEMBLY (MID)



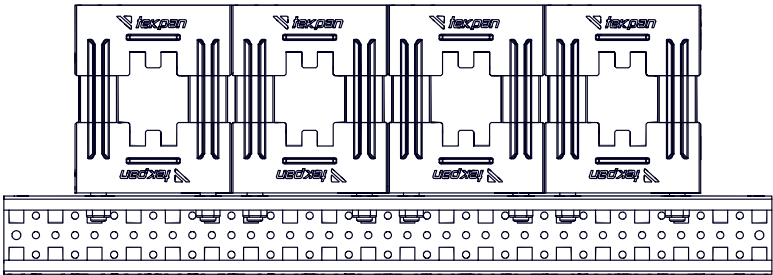
1.4 TWO (2) FLAT BAR ASSEMBLY (MID)



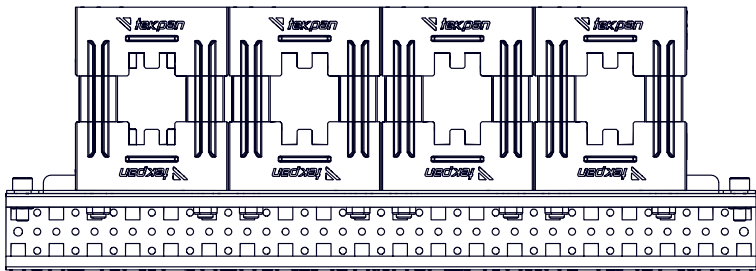
NEUTRAL L L L



NEUTRAL L L L



NEUTRAL L L L



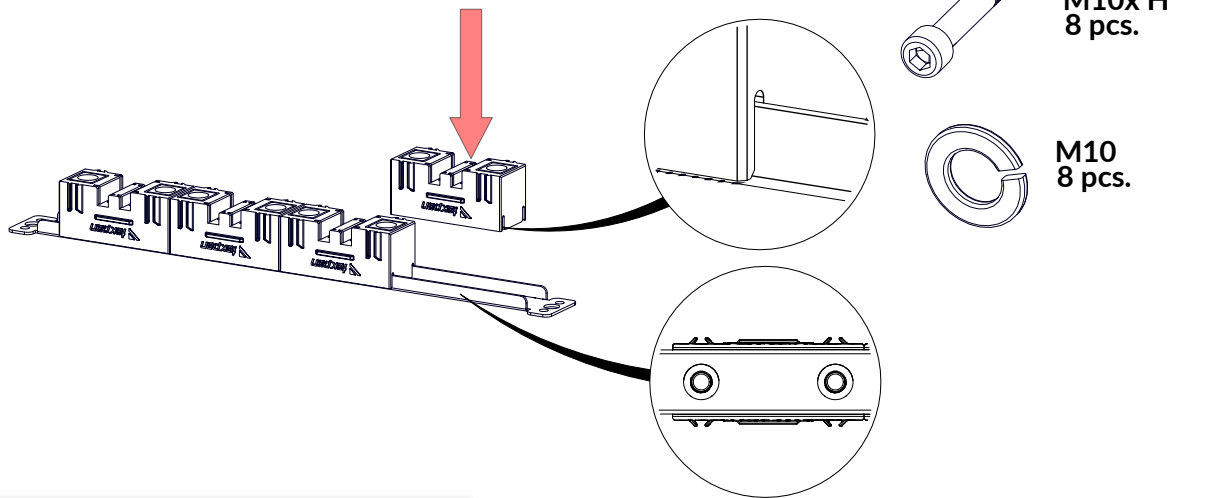
Neutral Section	Rated Current (In)	Flat Copper Size (mm) xQty	
		L1/L2/L3	Neutral(N)
1/2 N	1350A	40/10x2	40/5x2
1/1 N	1350A	40/10x2	40/10x2
1/2 N	1620A	50/10x2	50/5x2
1/1 N	1620A	50/10x2	50/10x2
1/2 N	1860A	60/10x2	60/5x2
1/1 N	1860A	60/10x2	60/10x2
1/2 N	2300A	80/10x2	40/10x2
1/1 N	2300A	80/10x2	80/10x2

1.4 TWO (2) FLAT BAR ASSEMBLY (MID)

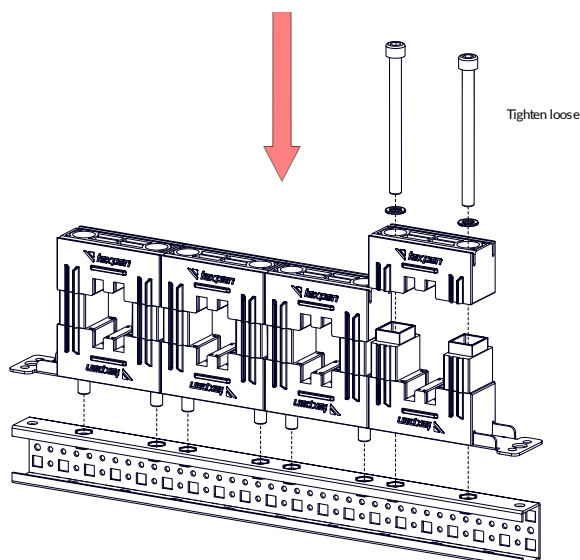
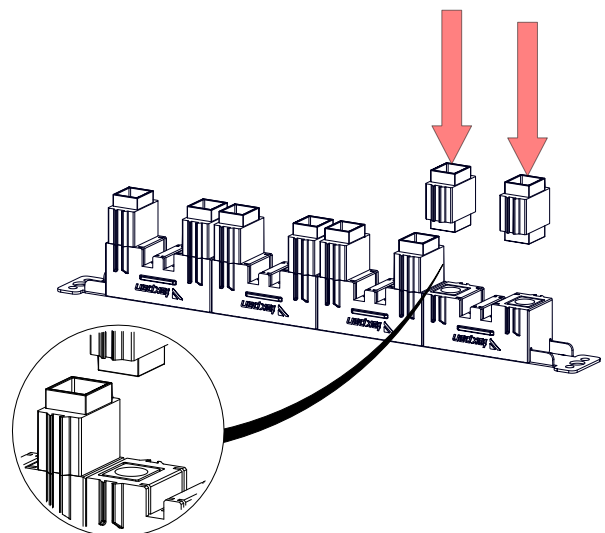
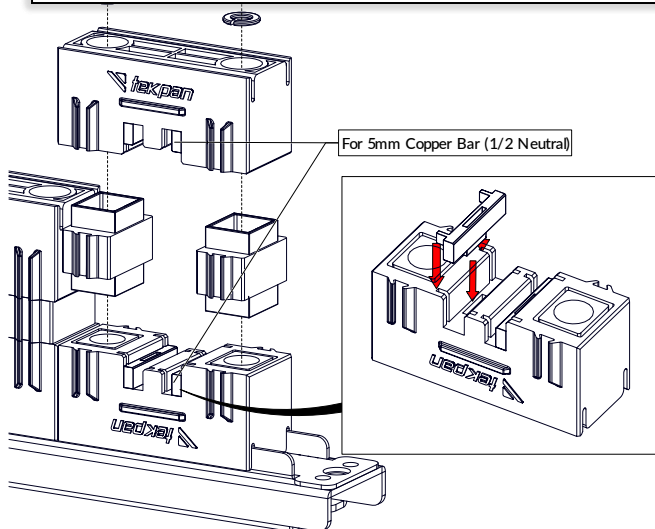
Required Packages:

1010.26X

1009.0XX/1011.XXX/1019.0XX



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



1.4 TWO (2) FLAT BAR ASSEMBLY (MID)



Required Packages:

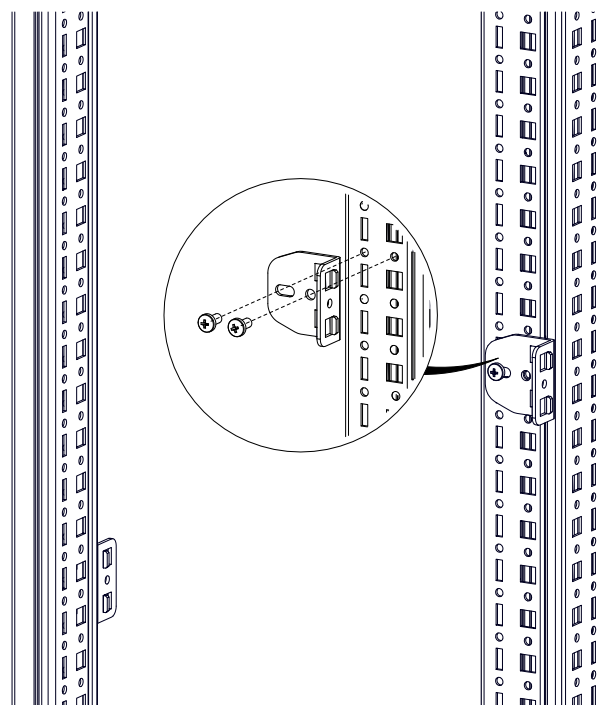
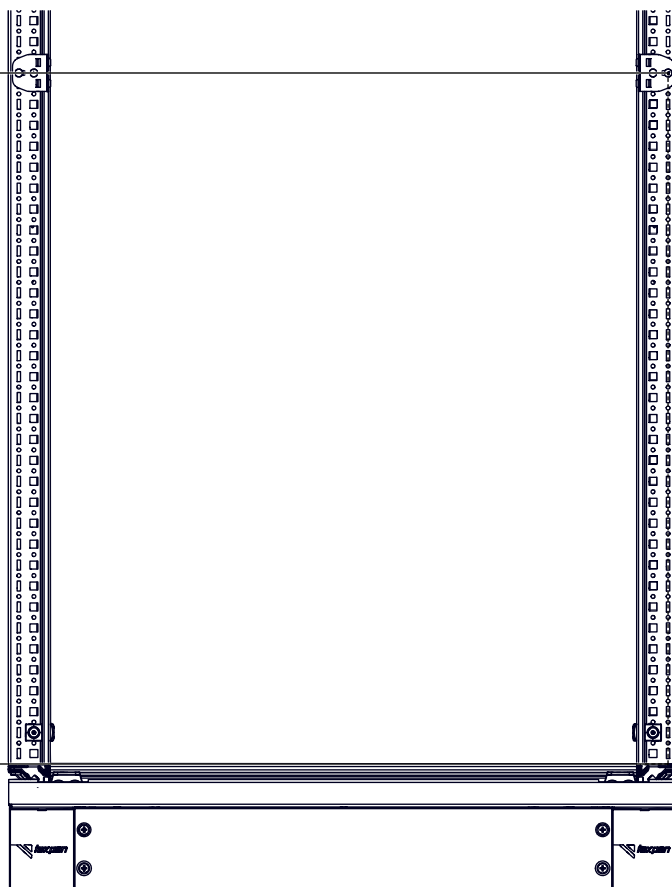
1010.26X

1009.0XX/1011.XXX/1019.0XX

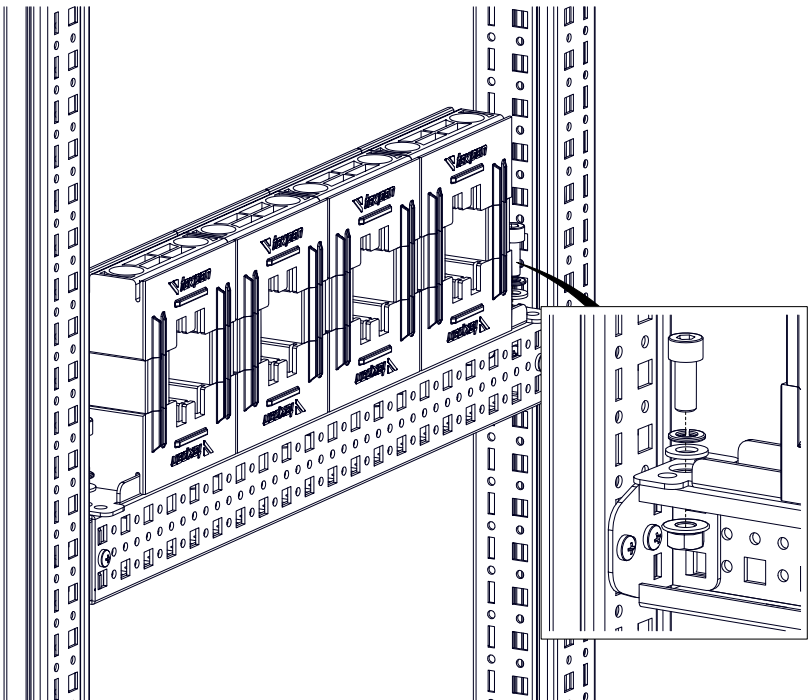
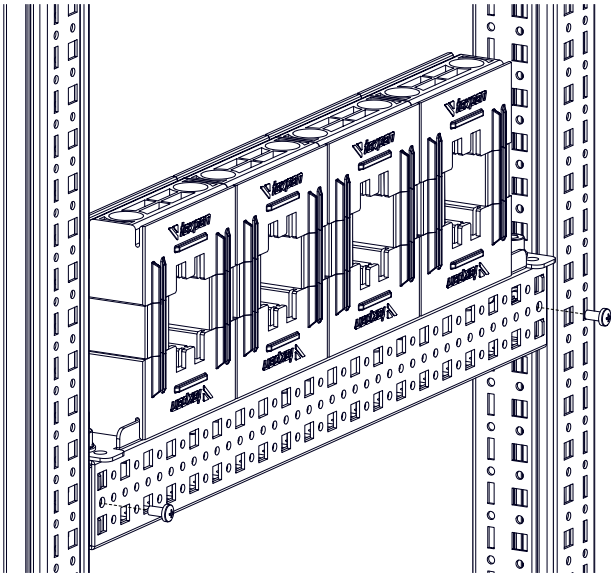
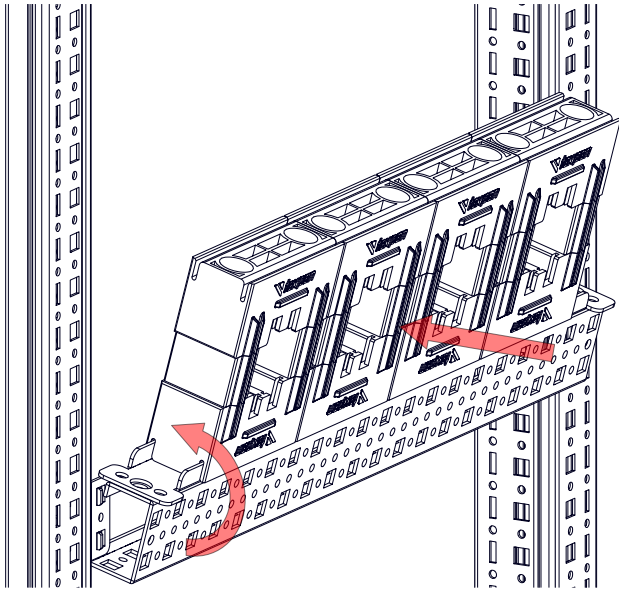


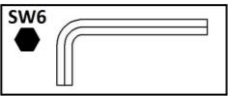
M5X10

825 mm

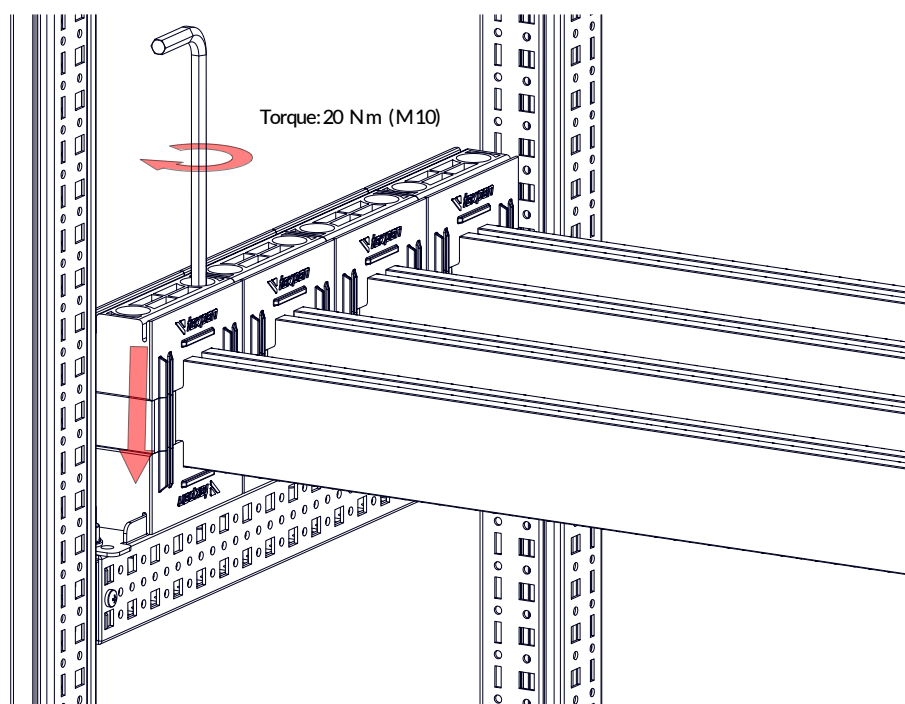
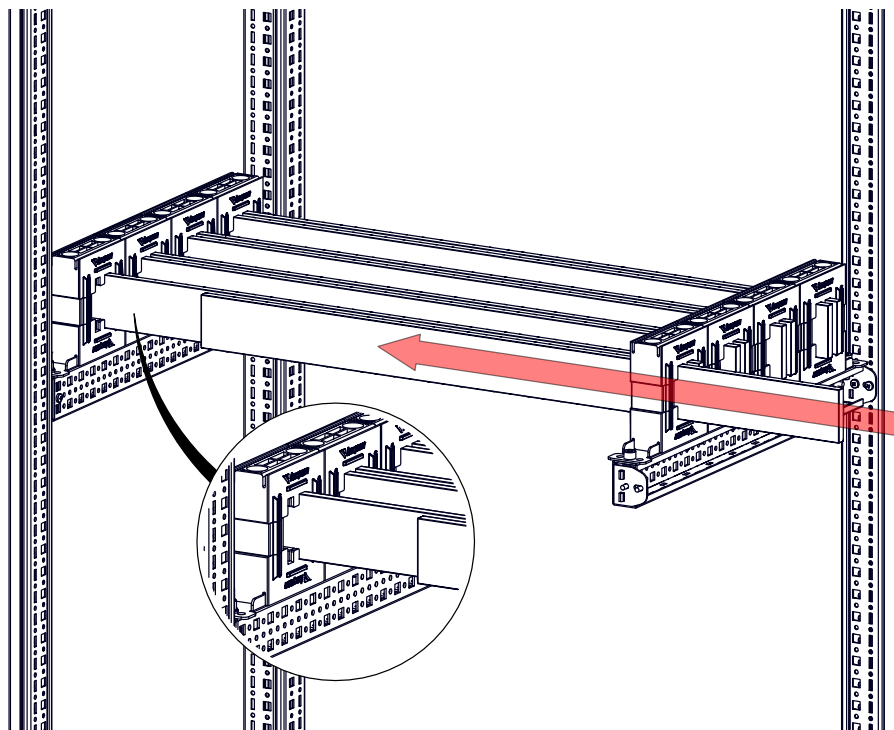
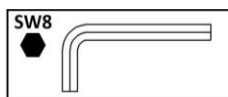


1.4 TWO (2) FLAT BAR ASSEMBLY (MID)

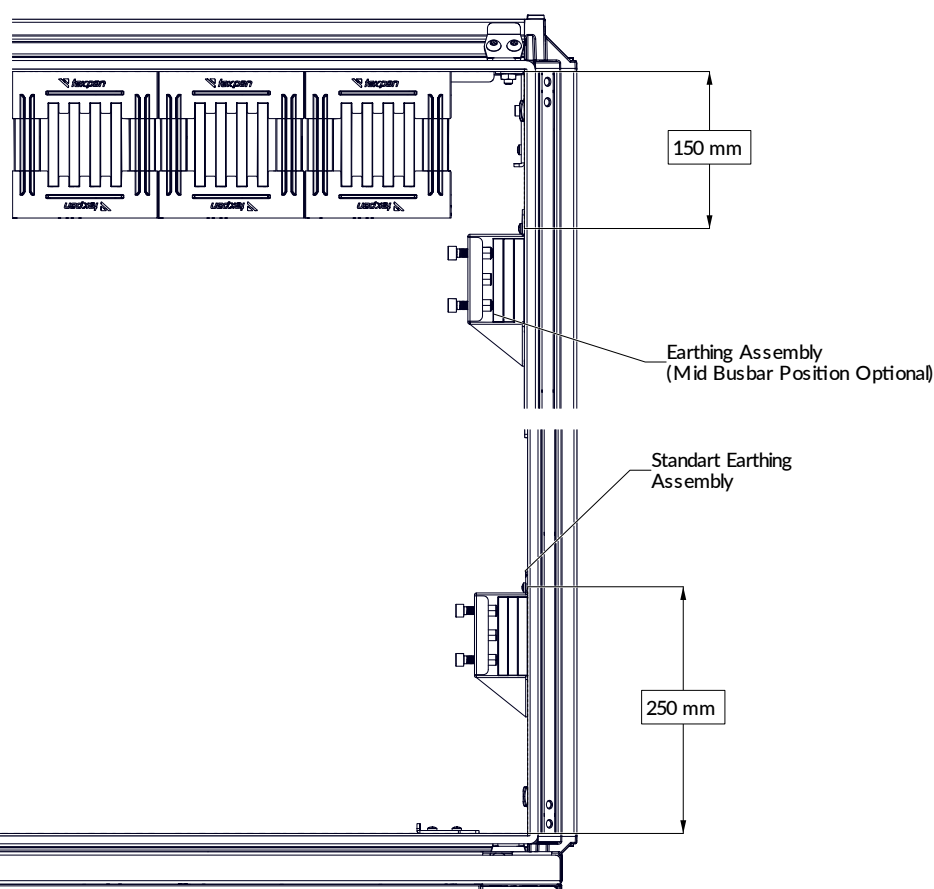
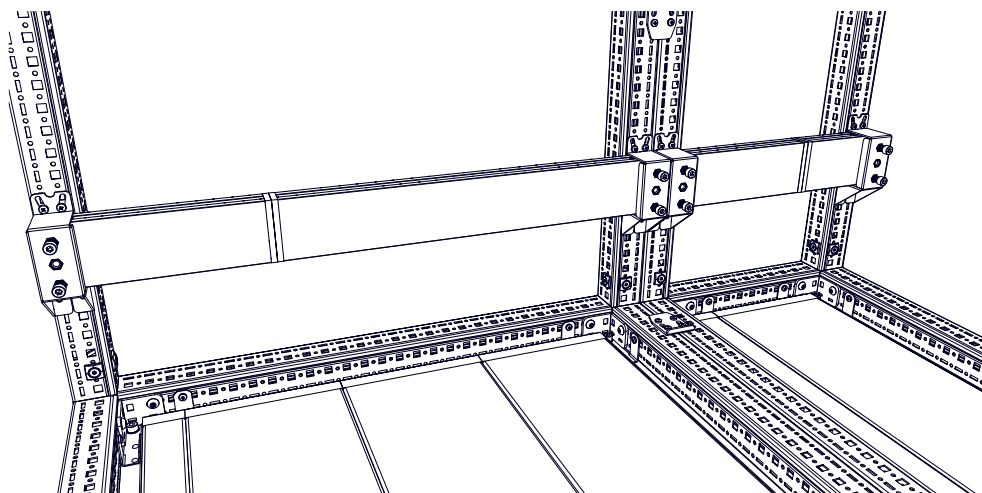


-  SW6
-  M8x20
1 pcs.
-  M8
1 pcs.
-  M8
1 pcs.

■ 1.4 TWO (2) FLAT BAR ASSEMBLY (MID)



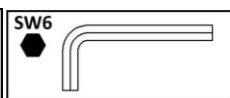
2. EARTHING BAR ASSEMBLY



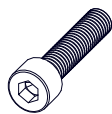
Neutral Section	Rated Current (In)	Flat Copper Size (mm) xQty
		PE
1/2 N	1350A	20/5x2
1/1 N	1350A	40/5x2
1/2 N	1620A	25/5x2
1/1 N	1620A	50/5x2
1/2 N	1860A	30/5x2
1/1 N	1860A	60/5x2
1/2 N	2300A	40/5x2
1/1 N	2300A	40/10x2

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



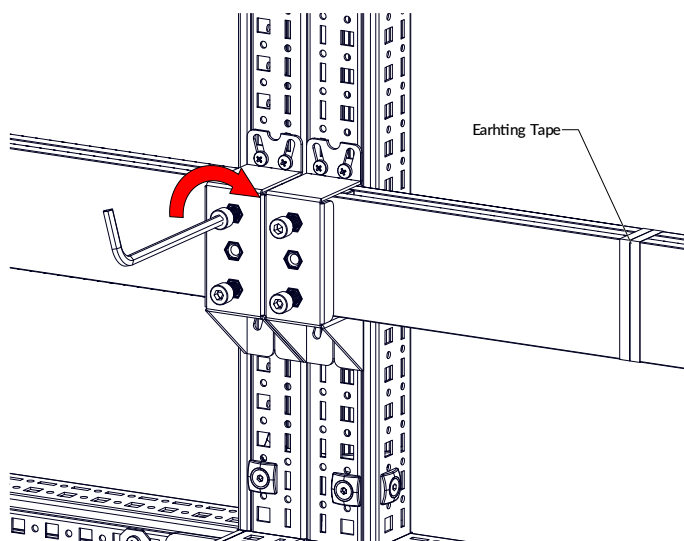
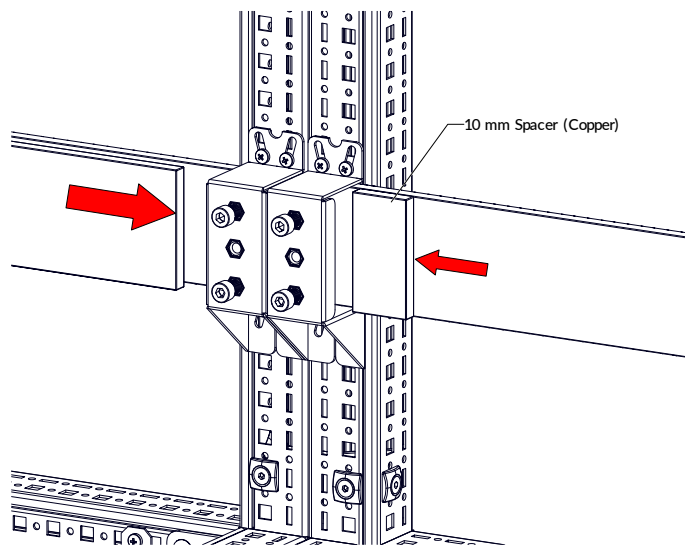
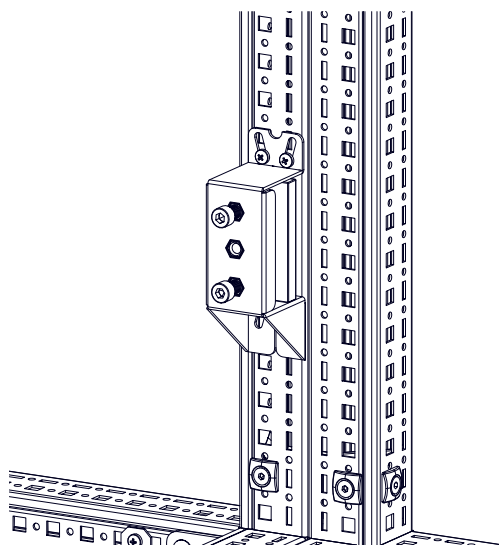
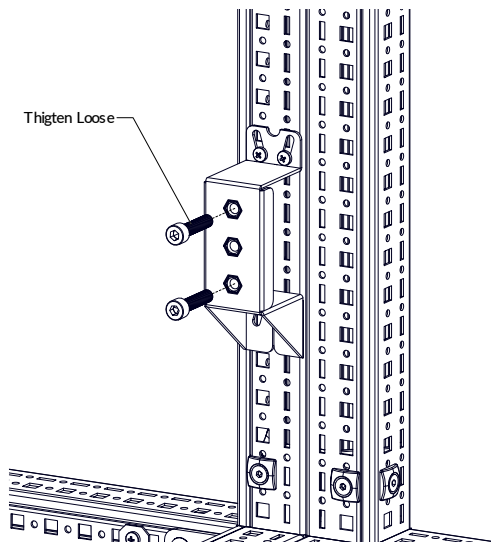
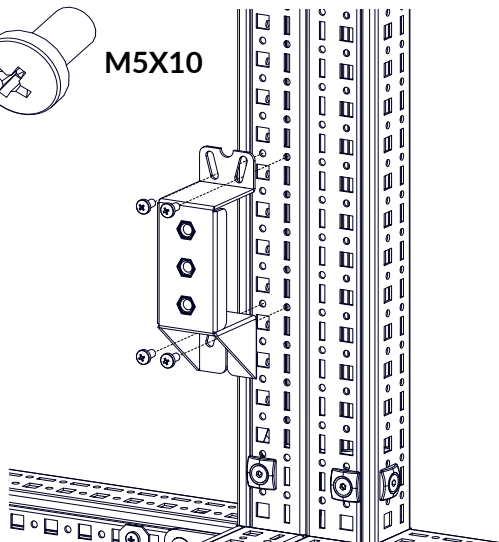
Required Packages:
1012.0XX



M8x25/35



M5X10



3. SCISSILE RAIL ASSEMBLY

Required Packages:

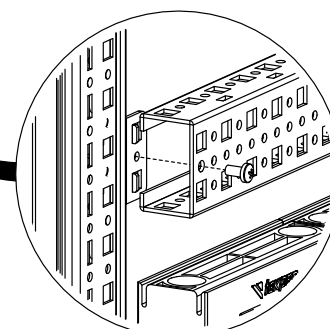
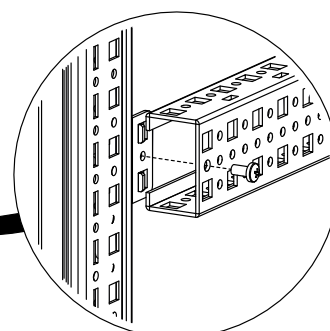
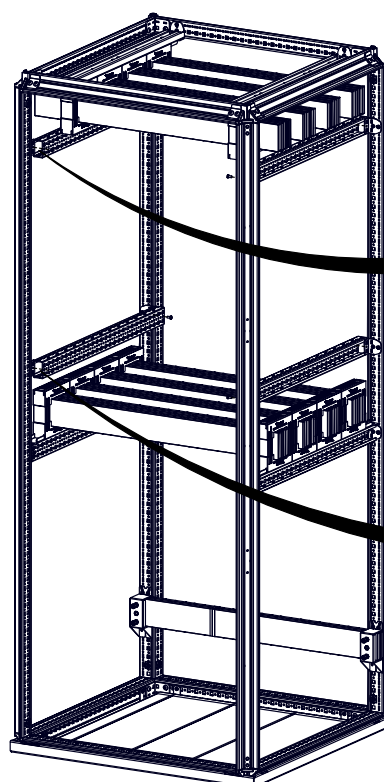
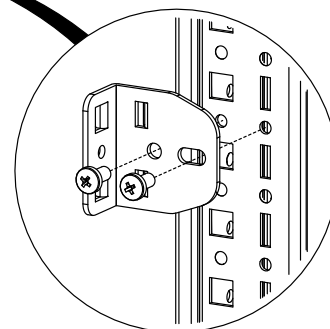
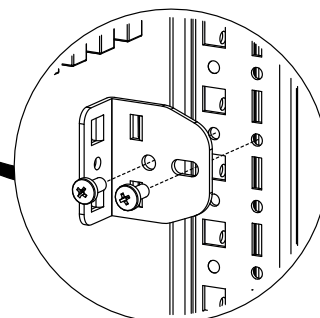
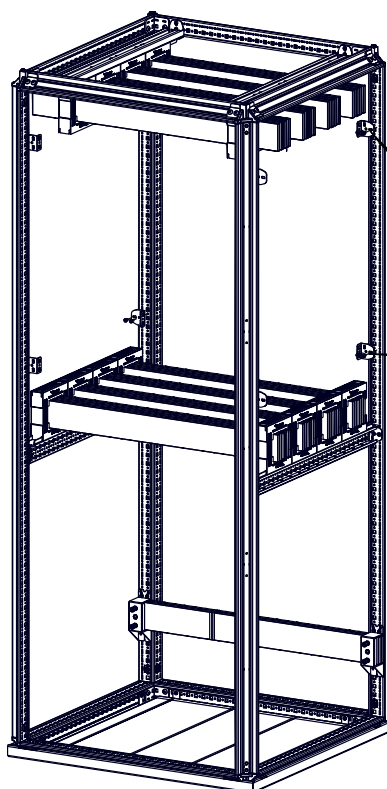
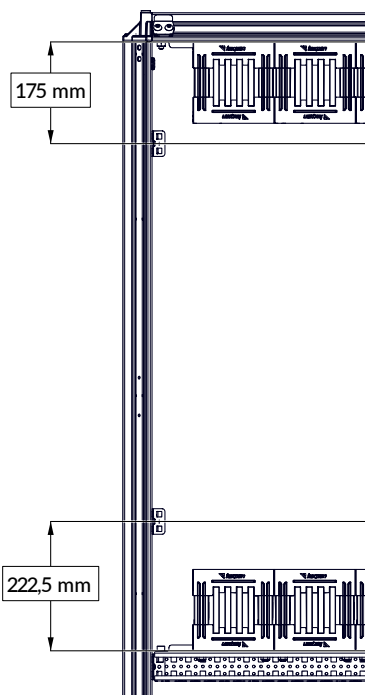
600D:944.424

800D:944.425

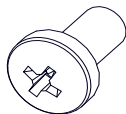
Brackets:944.42X



M5X10

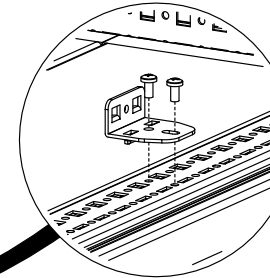
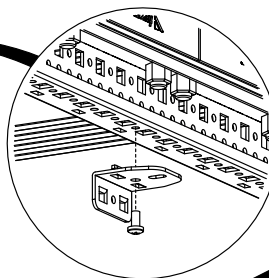
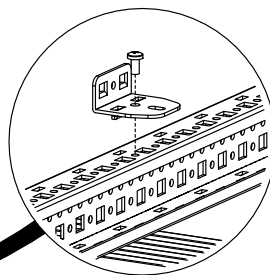
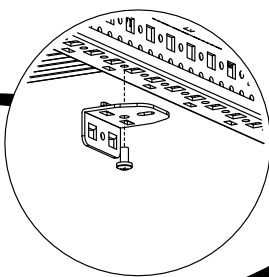
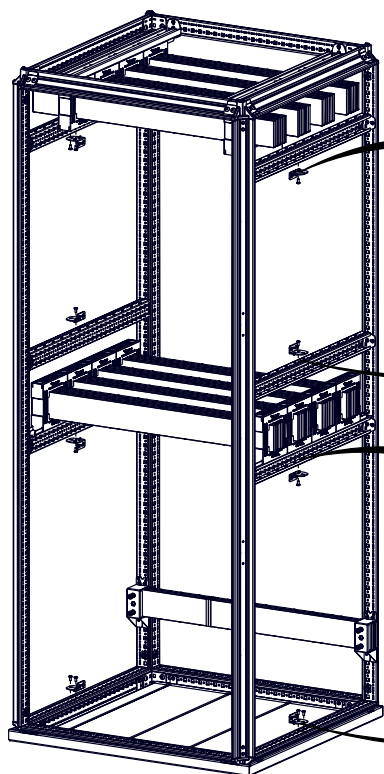


3. SCISSILE RAIL ASSEMBLY

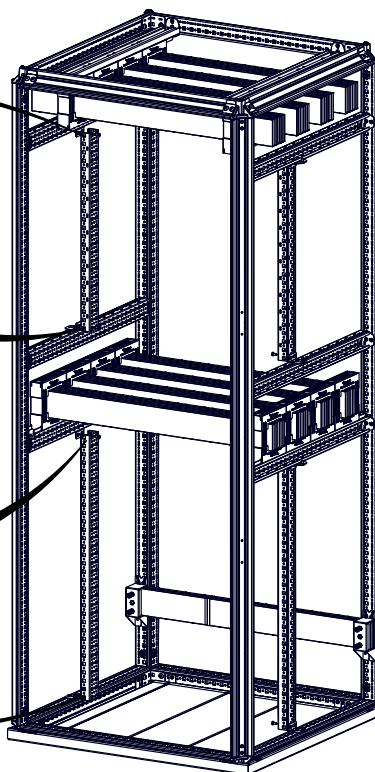
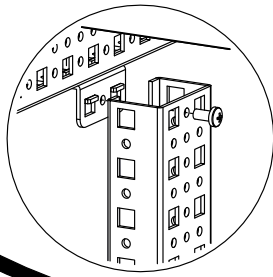
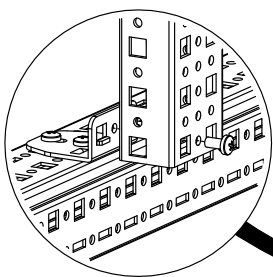
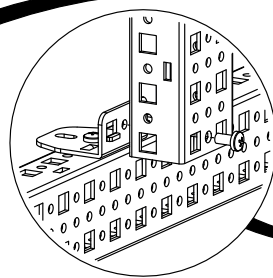
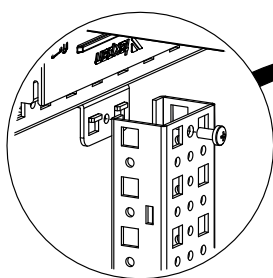
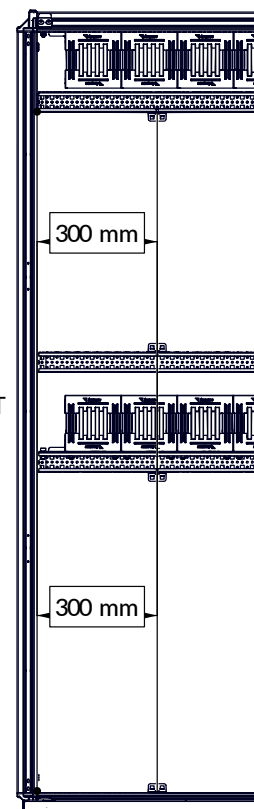


M5X10

Required Packages:
Top Profile:944.432
Bottom Profile:1006.001
Brackets:944.42X



FRONT



4. SYSTEM-2 PROFILE ASSEMBLY

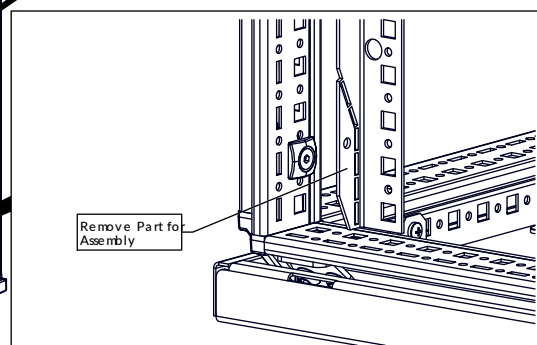
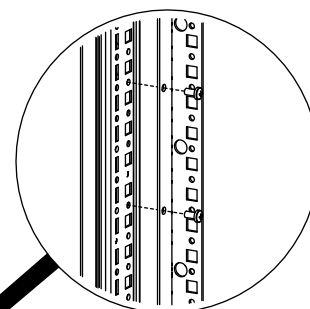
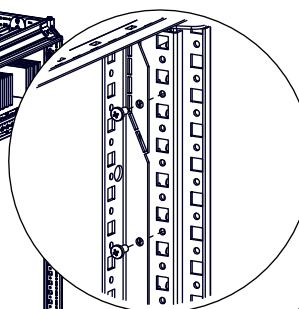
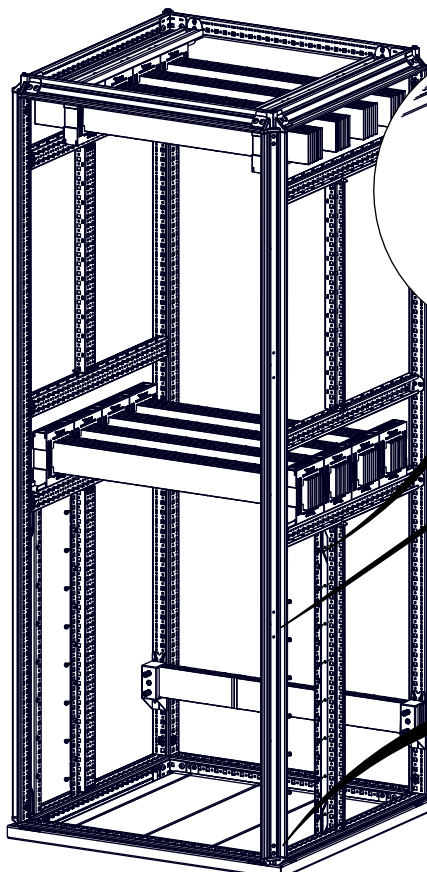
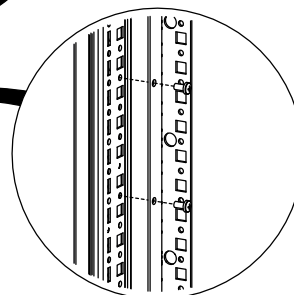
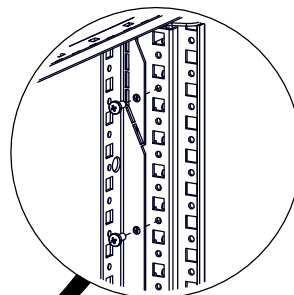
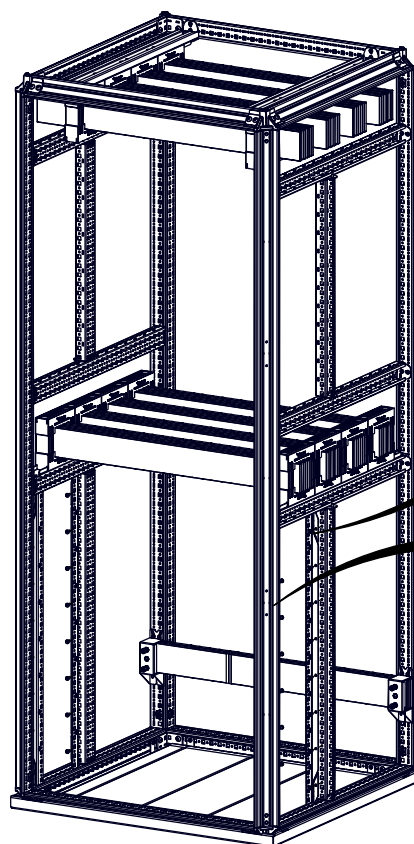
Required Packages:

Top:1006.X07

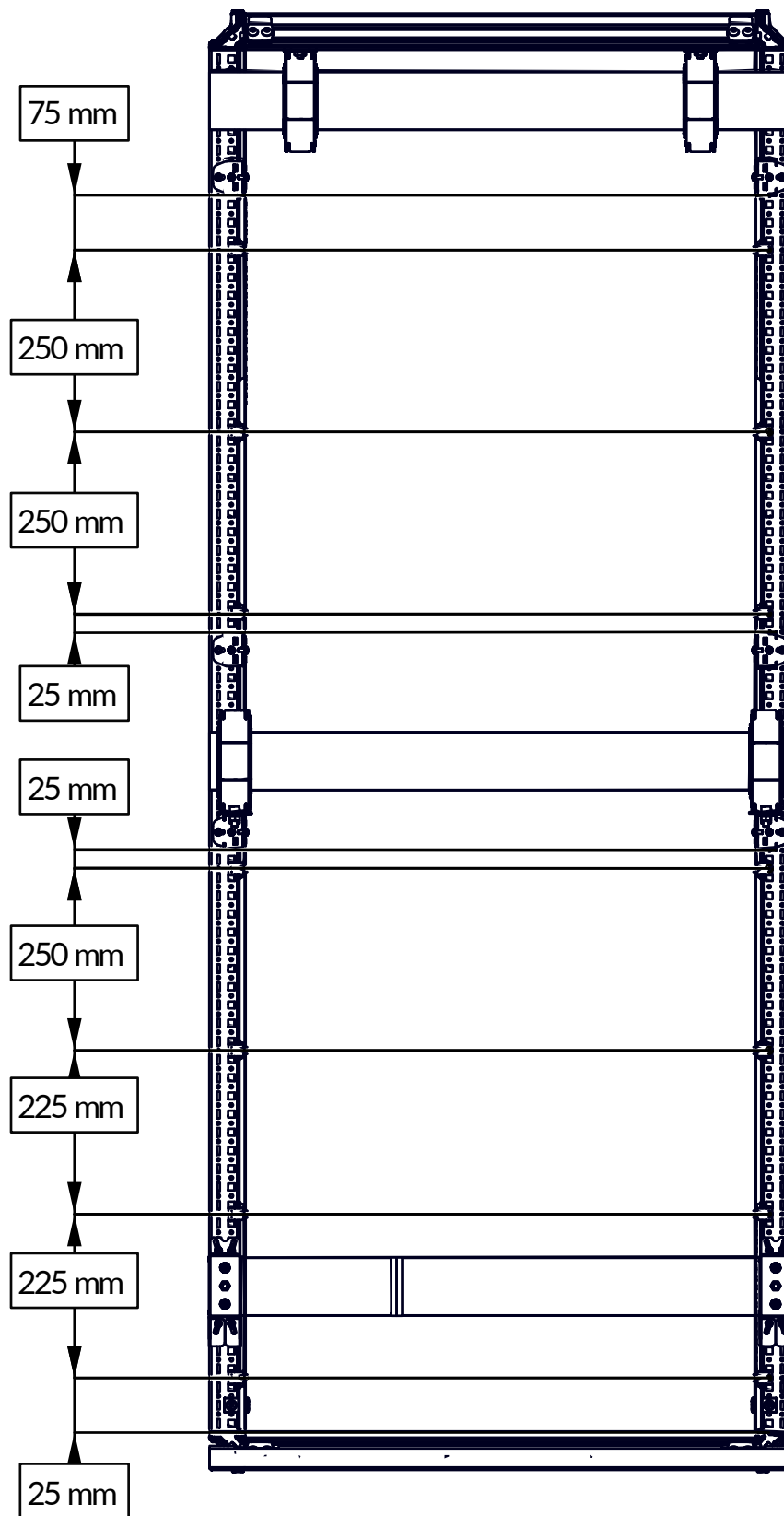
Bottom:1006.X10



M5X10



■ 5. SYSTEM-2 REAR SEPARATION COVER ASSEMBLY



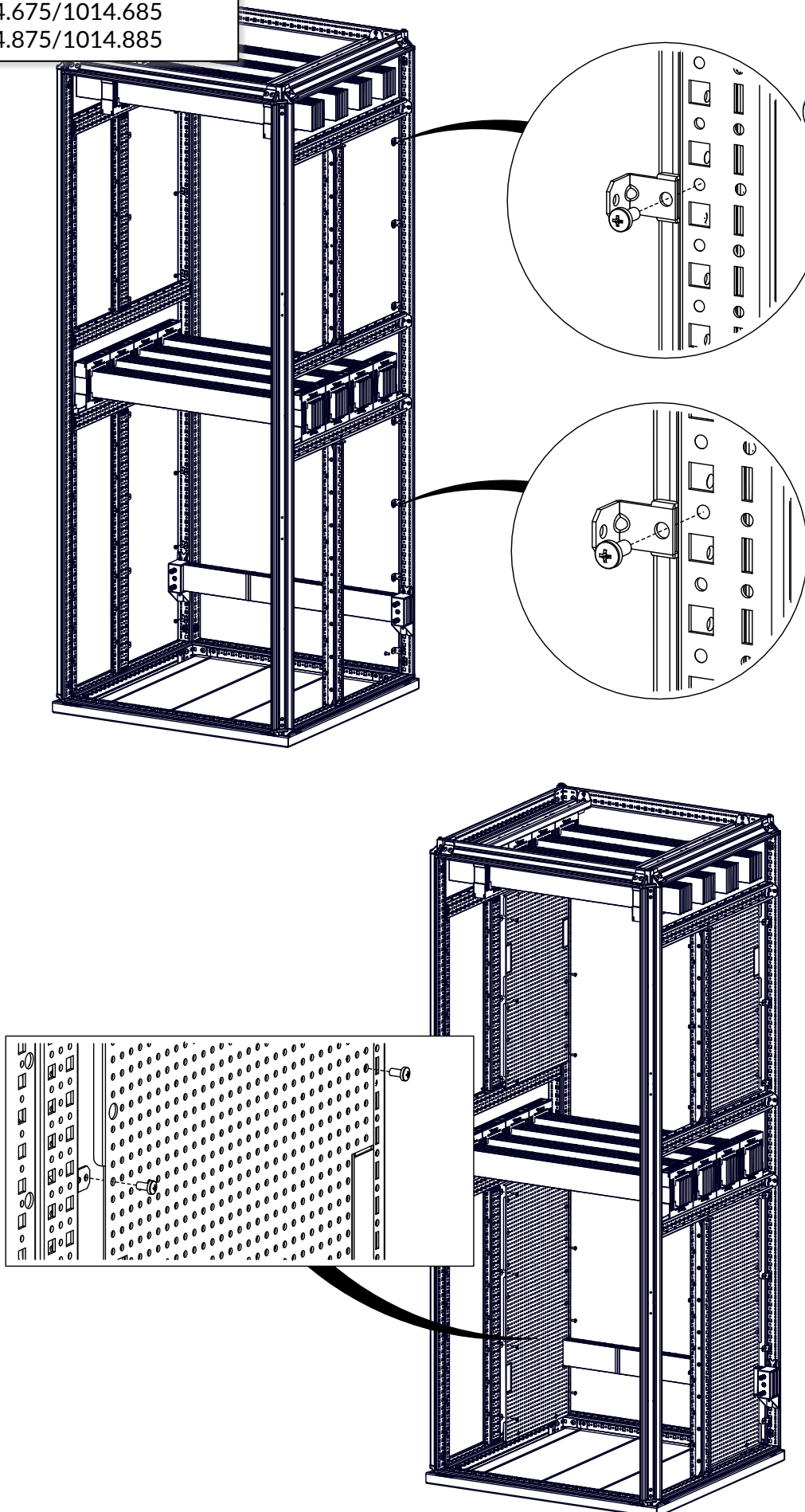
5. SYSTEM-2 REAR SEPARATION COVER ASSEMBLY**Required Packages:**

600D:1014.675/1014.685

800D:1014.875/1014.885



M5X10



6. BUSBAR SEPARATION SHELF-FRONT COVER ASSEMBLY**6.1 BUSBAR SEPARATION SHELF ASSEMBLY**

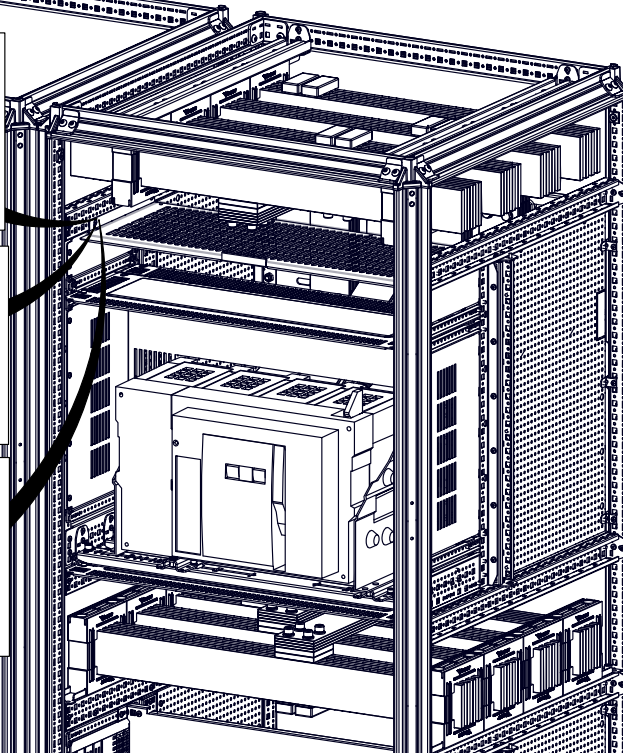
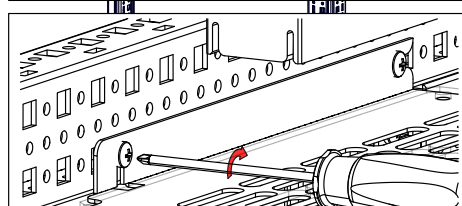
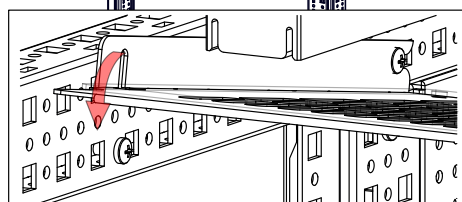
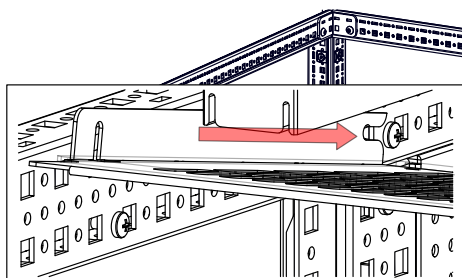
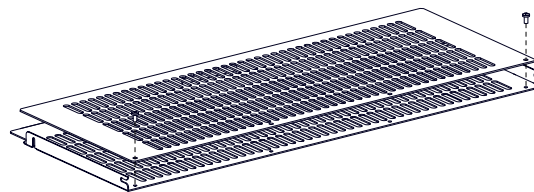
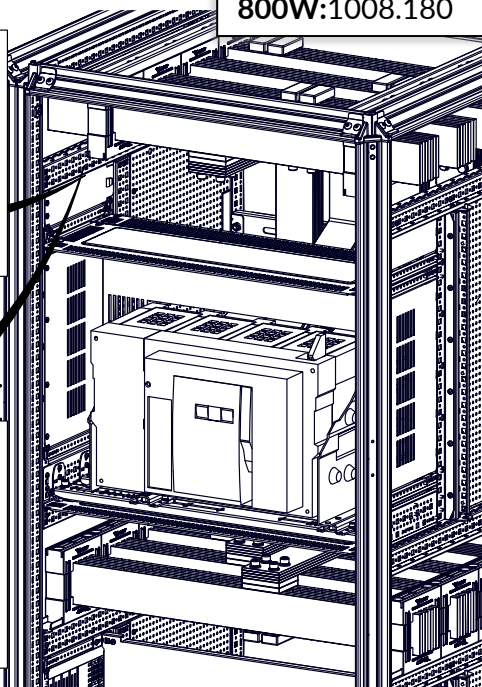
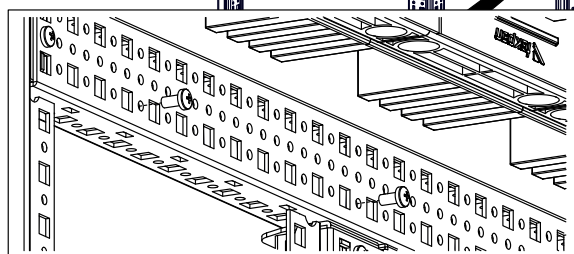
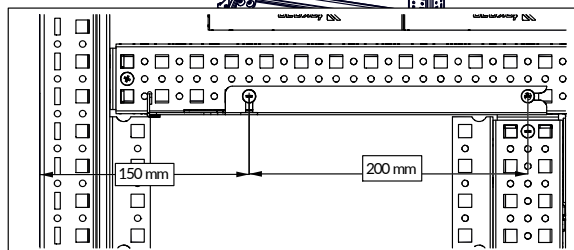
Warning: This assembly step must be apply after cassette assembly (internal part assembly).

Required Packages:

600W:1008.160

800W:1008.180

M5X10



6.1 BUSBAR SEPARATION SHELF ASSEMBLY

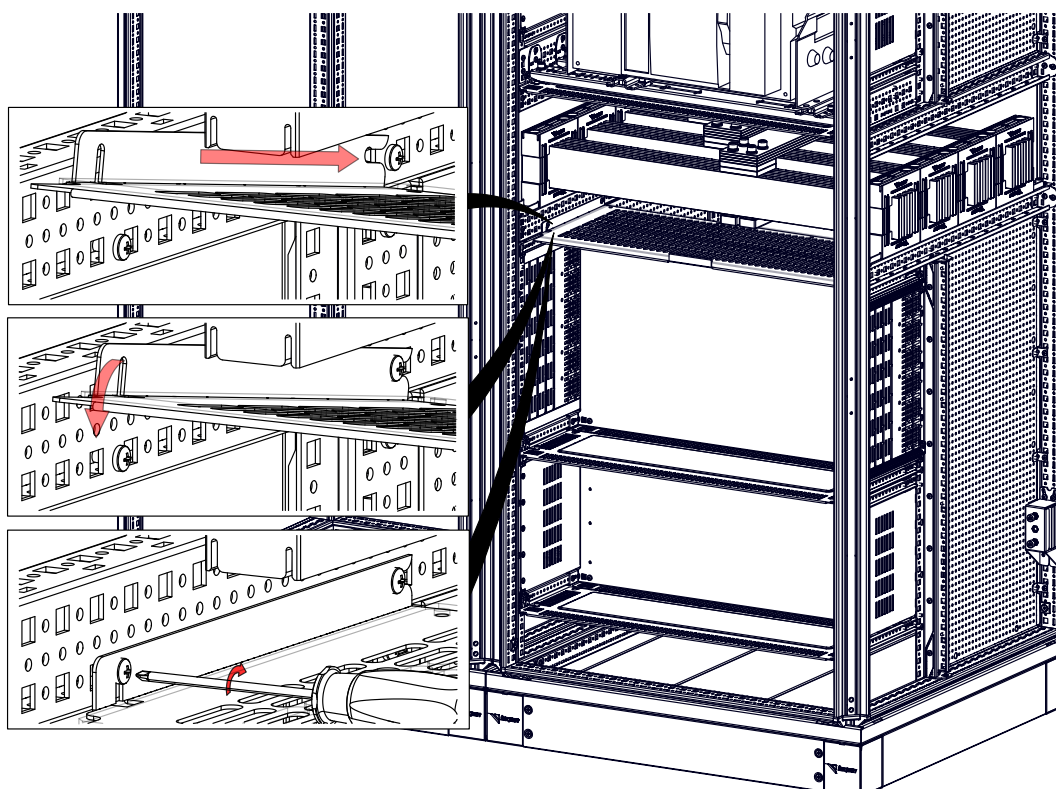
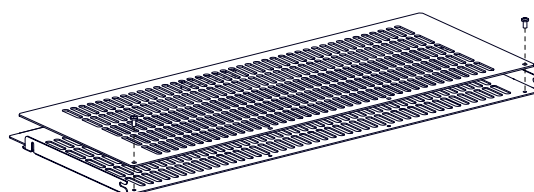
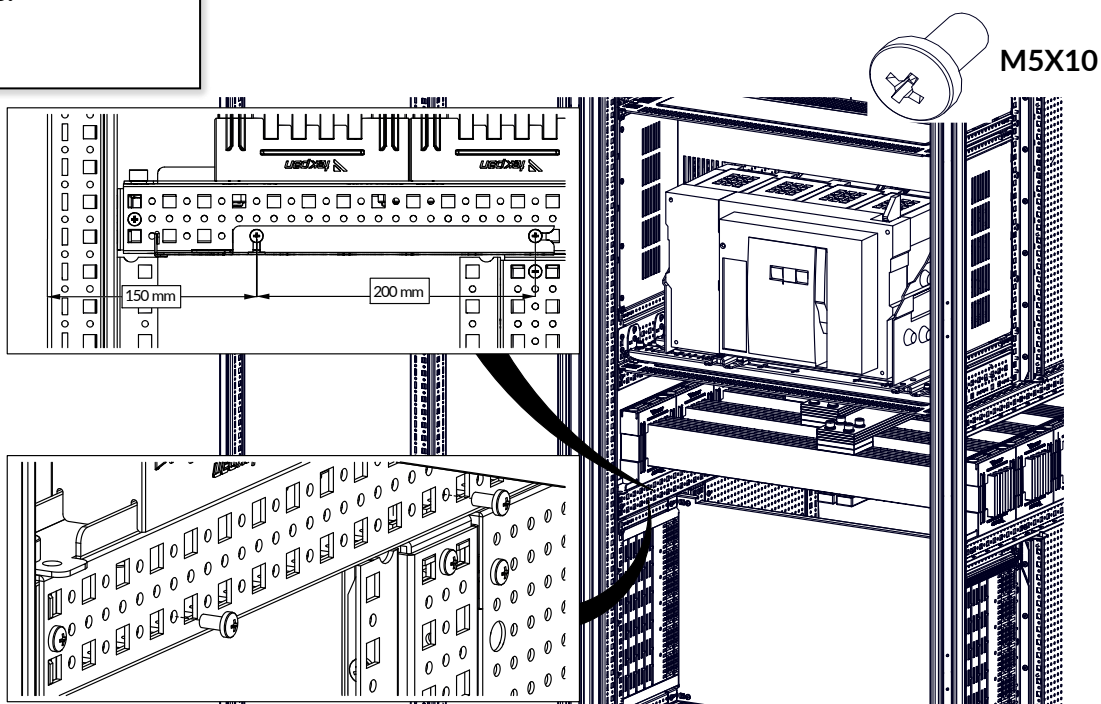
Warning: This assembly step must be apply after cassette assembly (internal part assembly).



Required Packages:

600W:1008.160

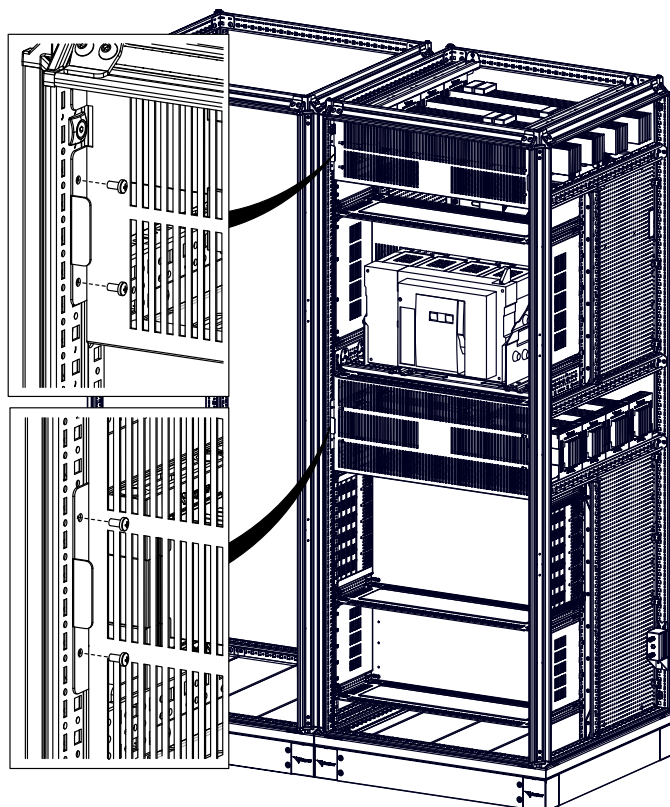
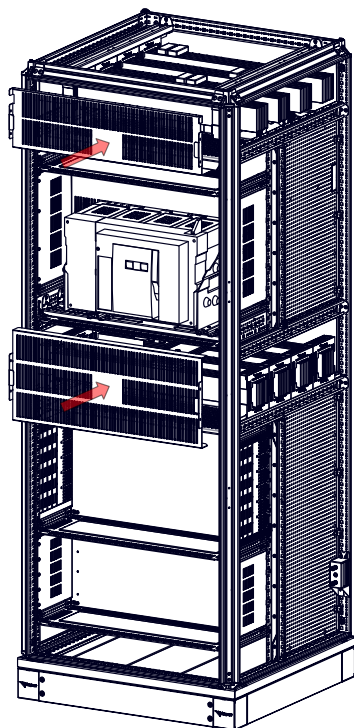
800W:1008.180



■ 6.2 BUSBAR SEPARATION COVER ASSEMBLY

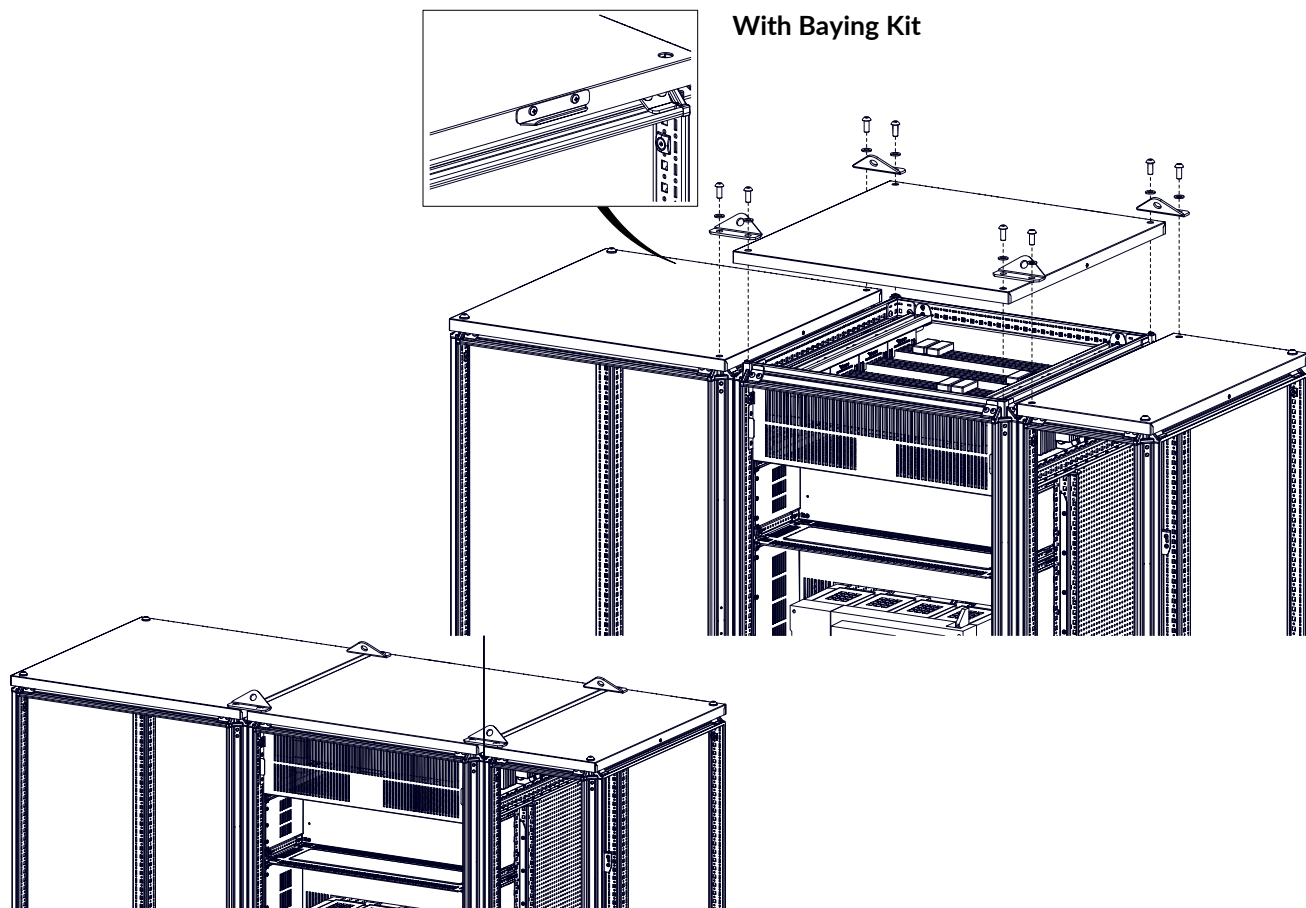
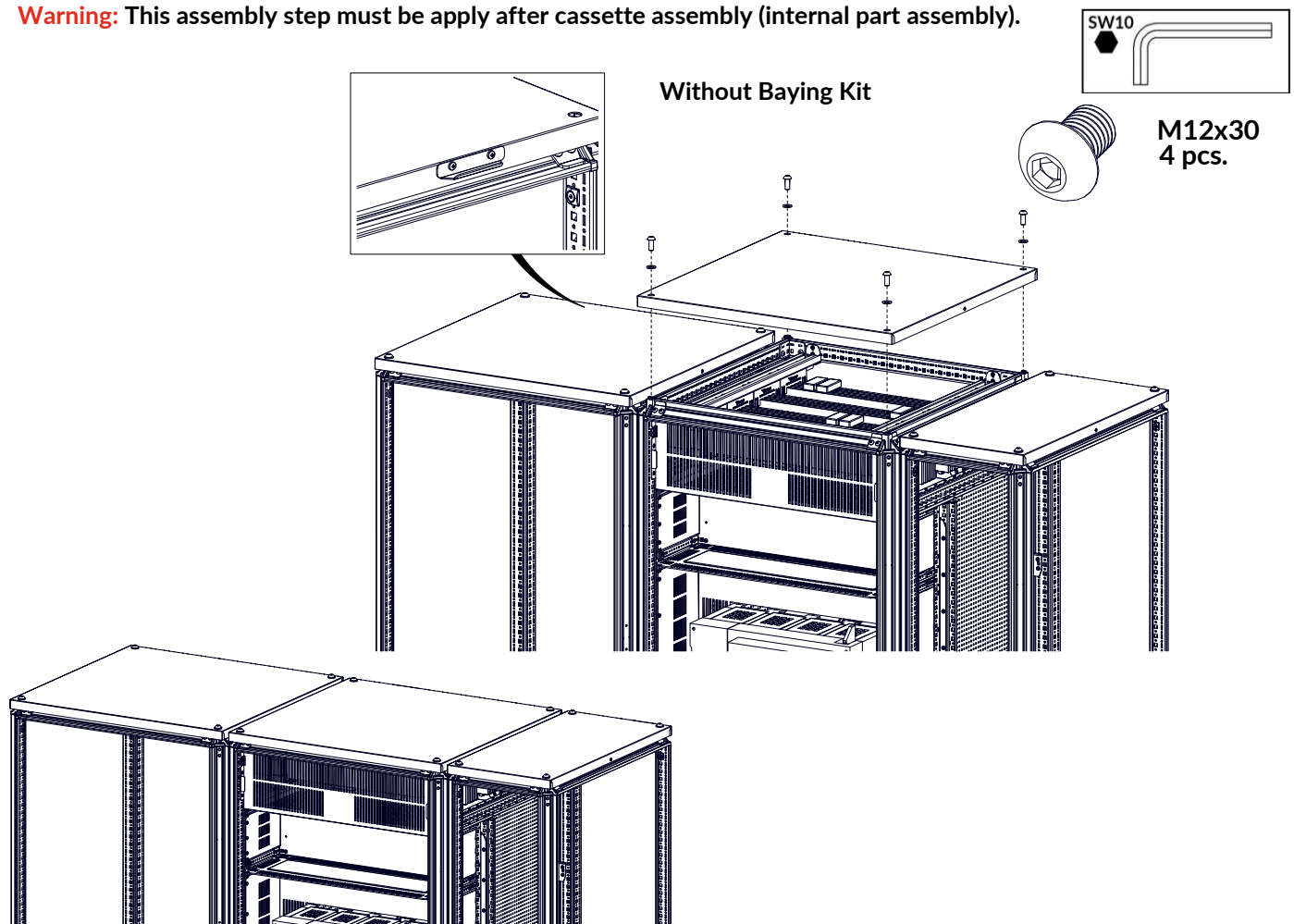


M5X10



7. TOP COVER ASSEMBLY

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



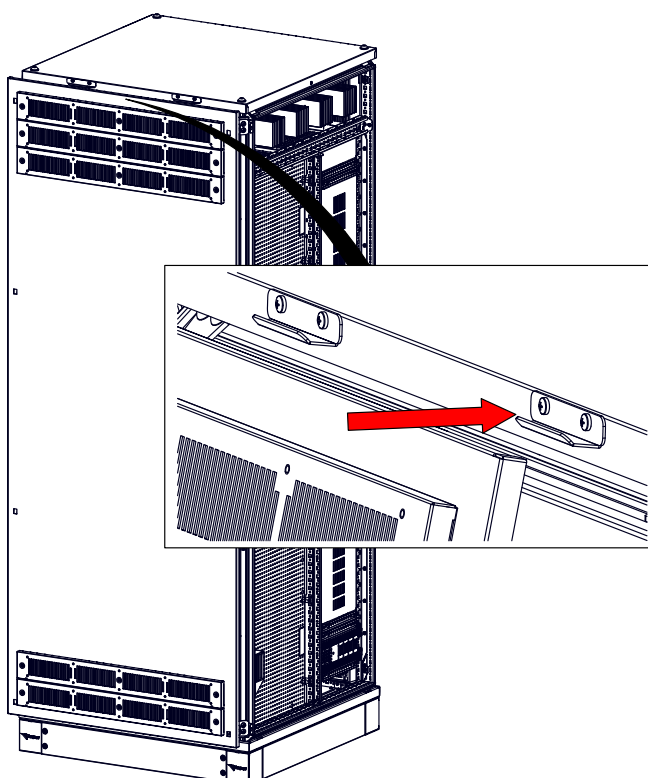
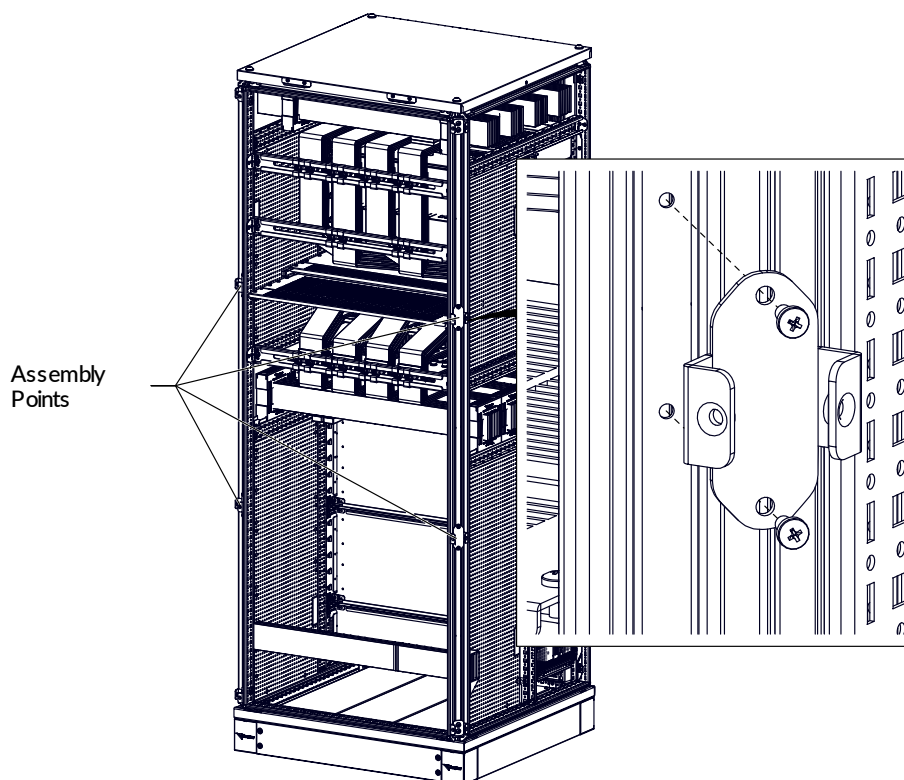
8. REAR PANEL ASSEMBLY

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



M5X10

Required Packages:
1003.X20

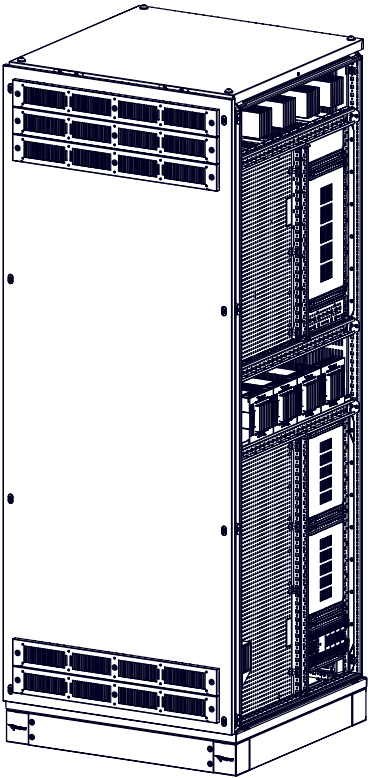
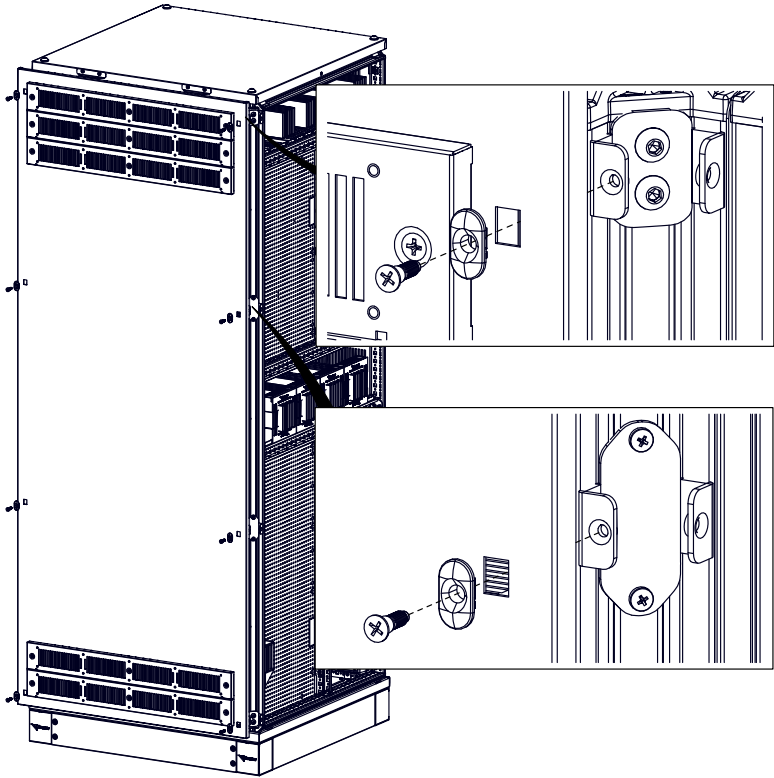


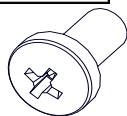
8. REAR PANEL ASSEMBLY



M6x23
8 pcs.

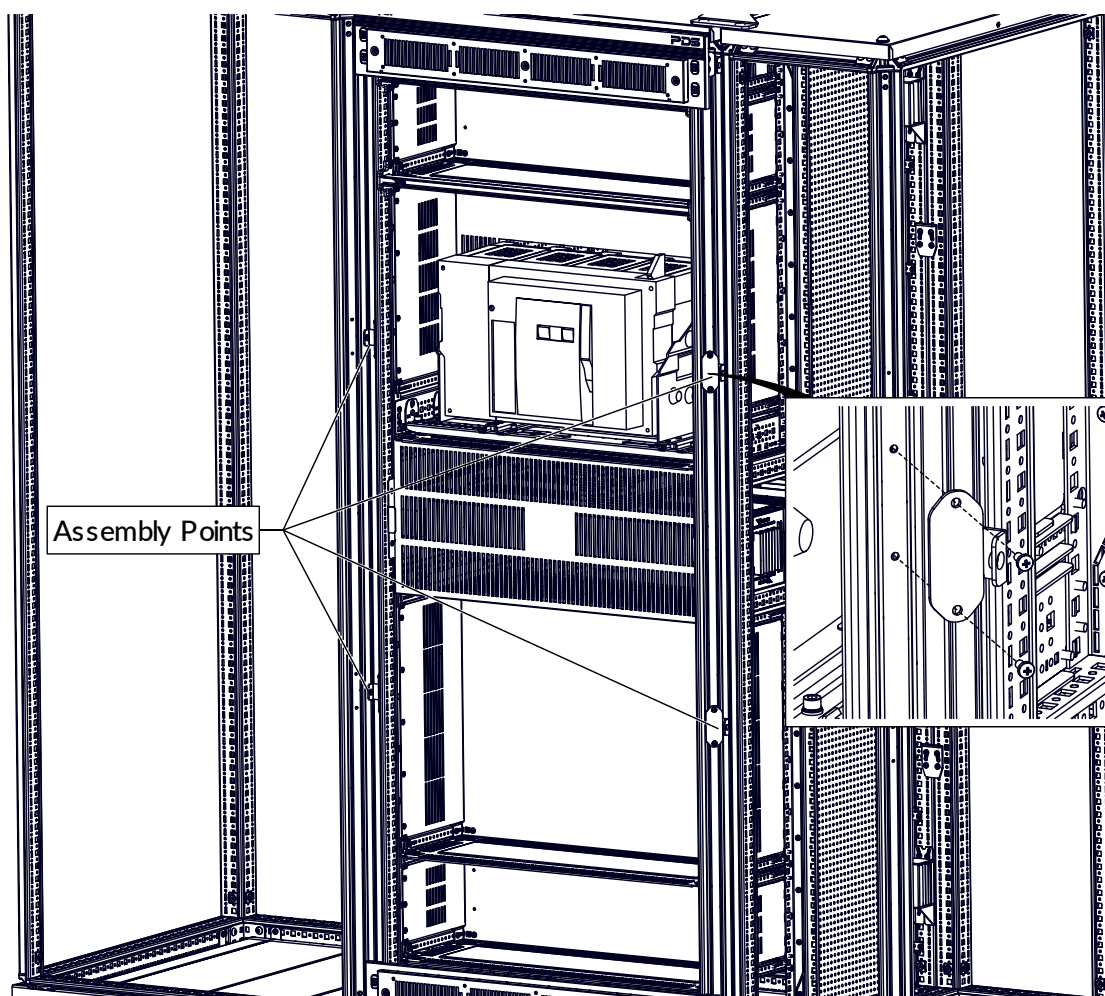
Required Packages:
1003.X20



9. EXTERNAL PARTIAL DOOR ASSEMBLY**9.1 PARTIAL DOOR BRACKET ASSEMBLY**

M5X10
8 pcs.

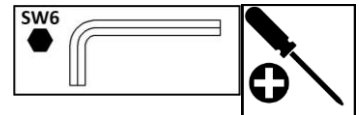
Required Packages:
1003.001



9.2 FIXED TOP PARTIAL COVER ASSEMBLY

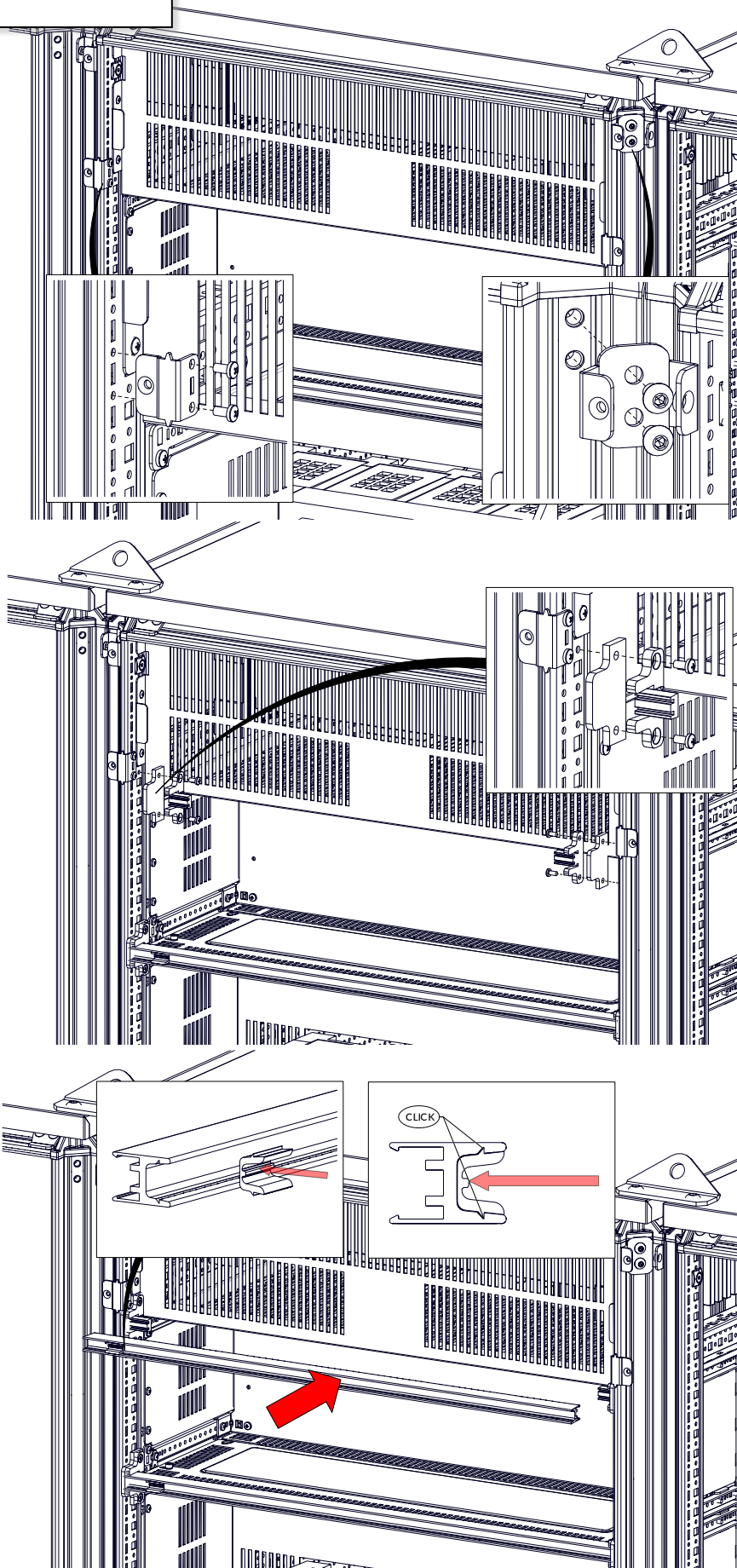
Warning: This assembly step must be apply after cassette assembly (internal part assembly).

Required Packages:
1016.X20



M8x12
4 pcs.

M5X10
4 pcs.

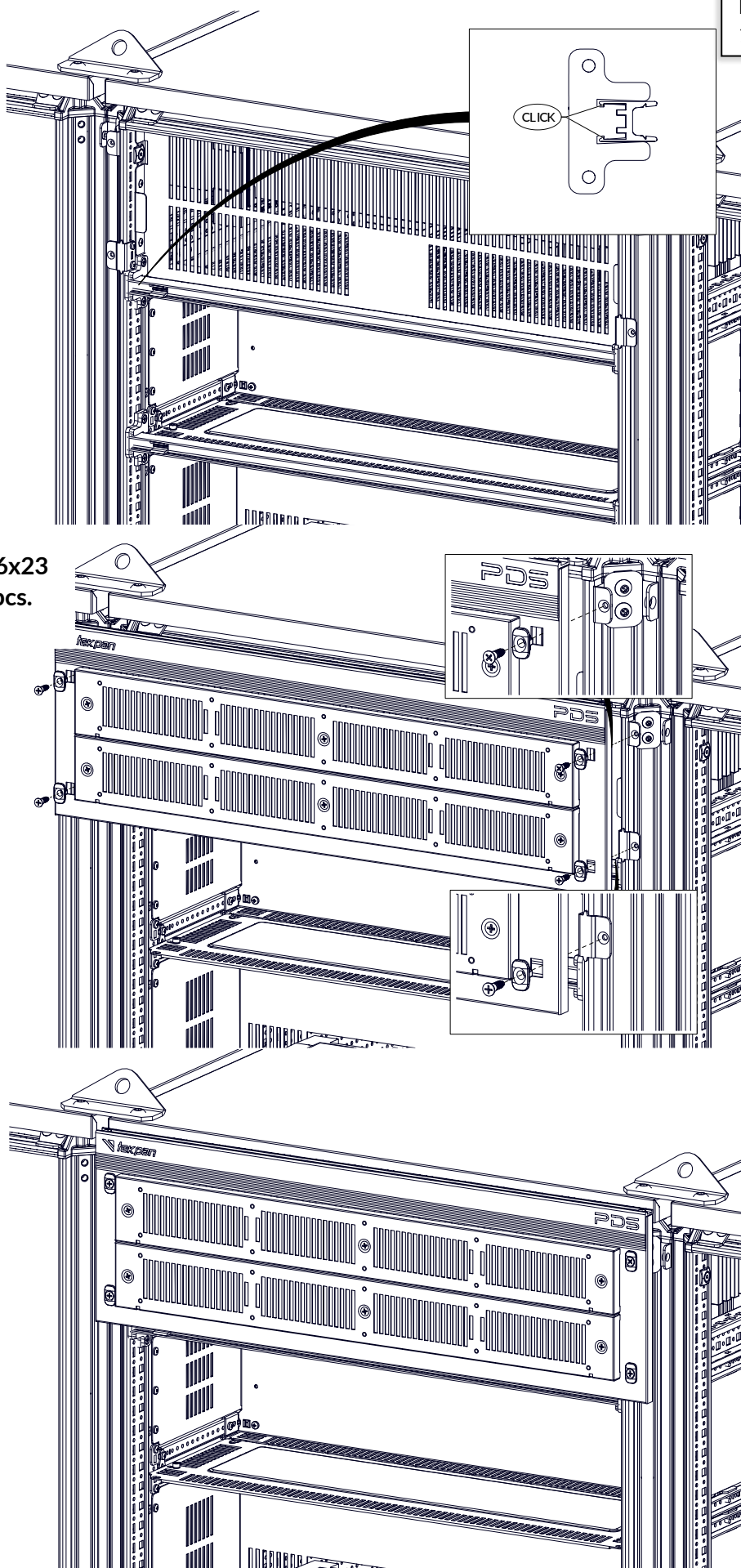


9.2 FIXED TOP PARTIAL COVER ASSEMBLY

Required Packages:
1016.X20



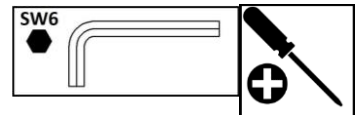
M6x23
4 pcs.



9.3 FIXED BOTTOM PARTIAL COVER ASSEMBLY

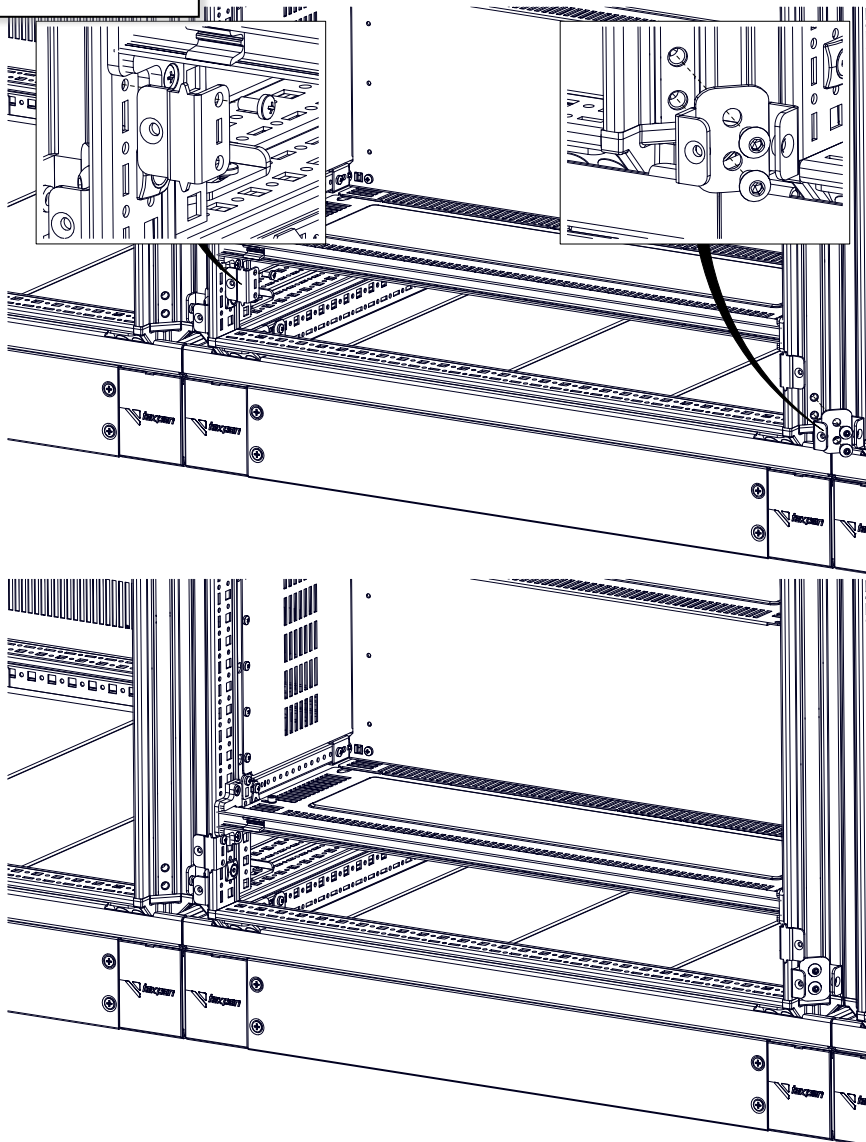
Warning: This assembly step must be apply after cassette assembly (internal part assembly).

Required Packages:
1018.XXX

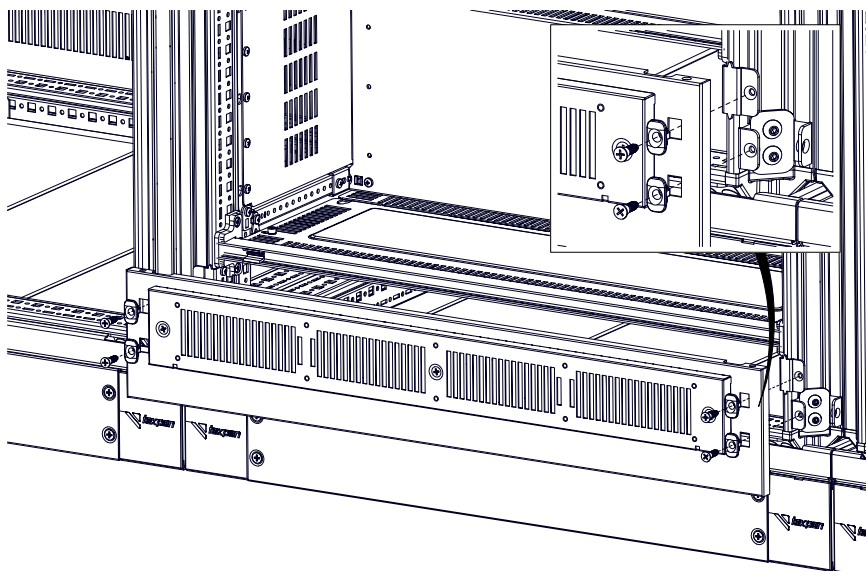


M8x12
4 pcs.

M5X10
4 pcs.



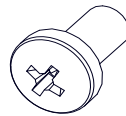
M6x23
4 pcs.



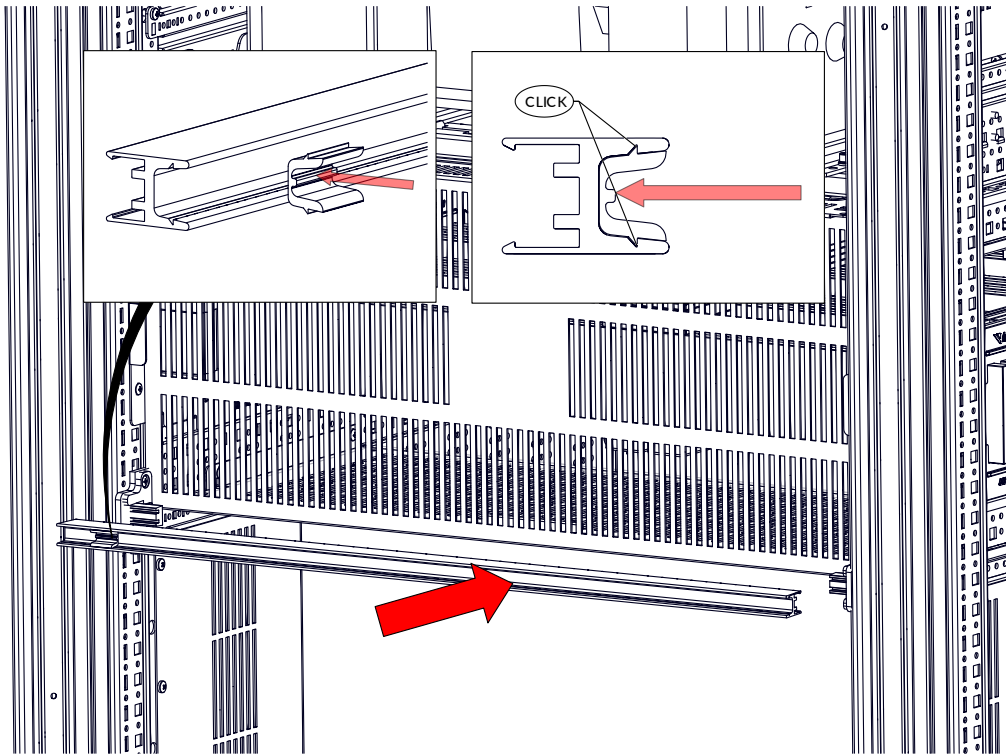
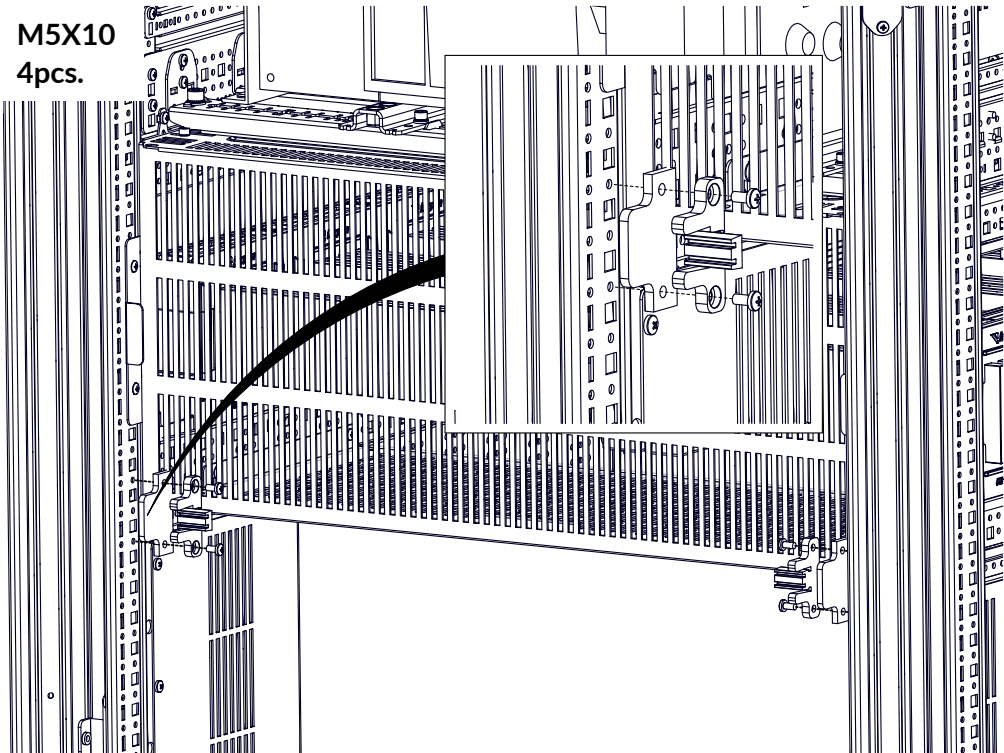
9.4 MID PARTIAL DOOR ASSEMBLY



Required Packages:
853.X30

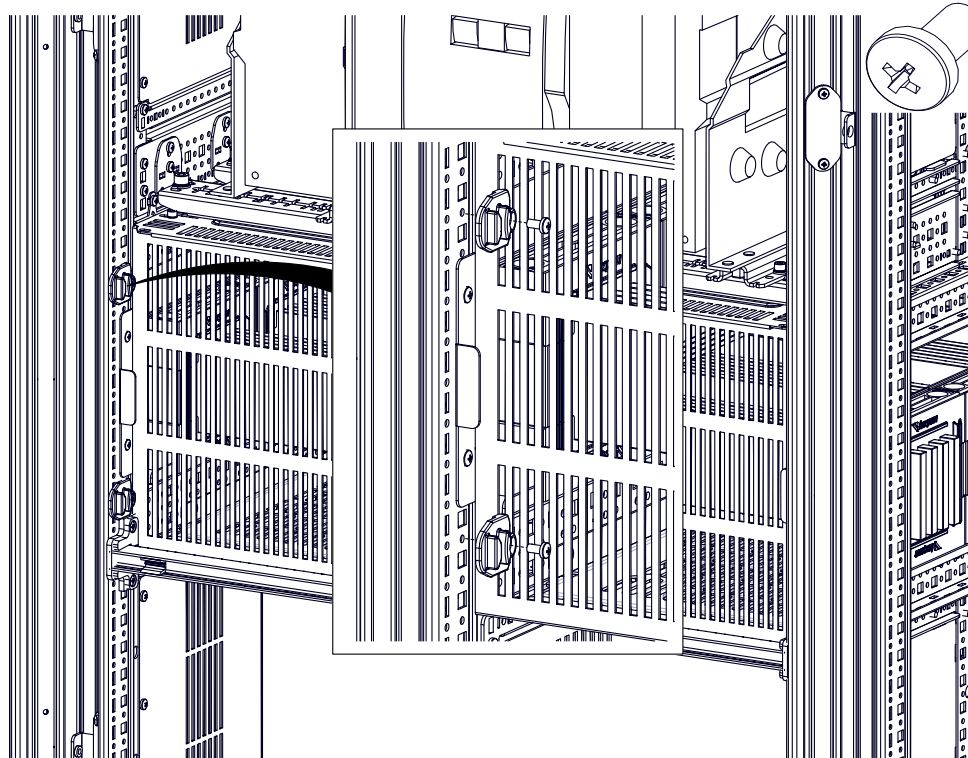
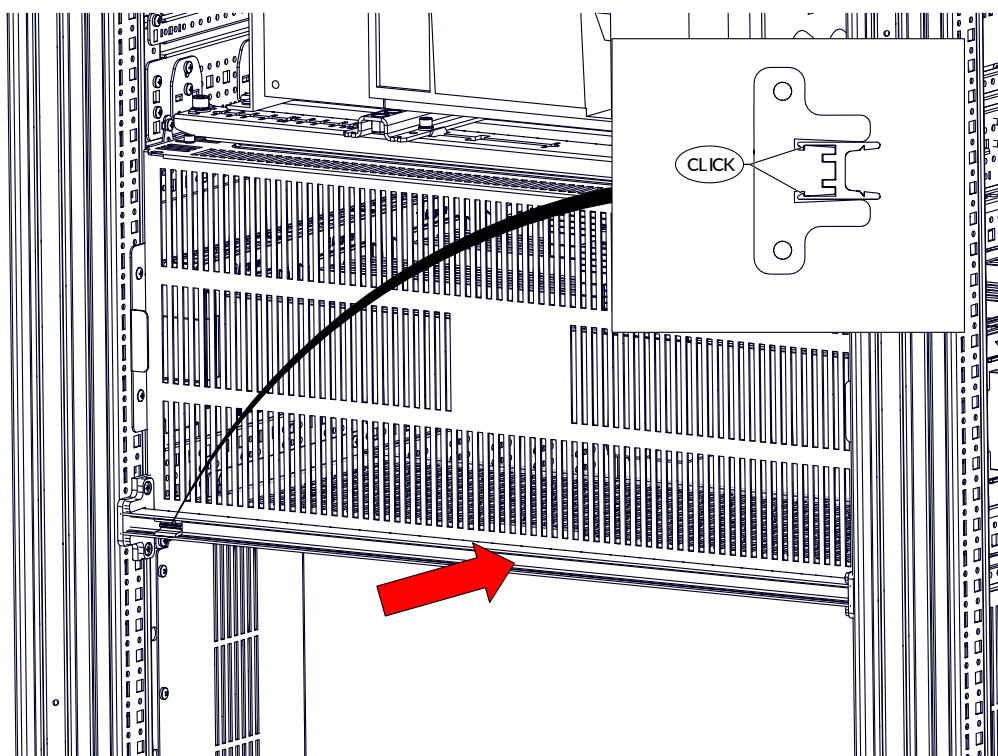


M5X10
4pcs.



9.4 MID PARTIAL DOOR ASSEMBLY

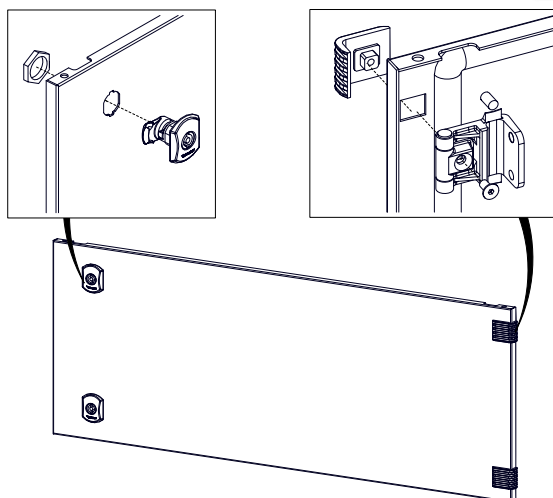
Required Packages:
853.X30



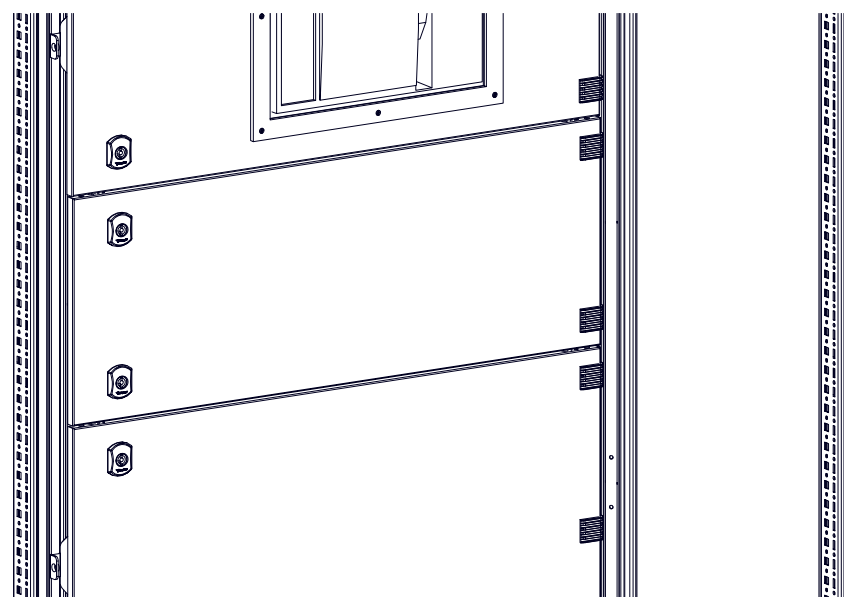
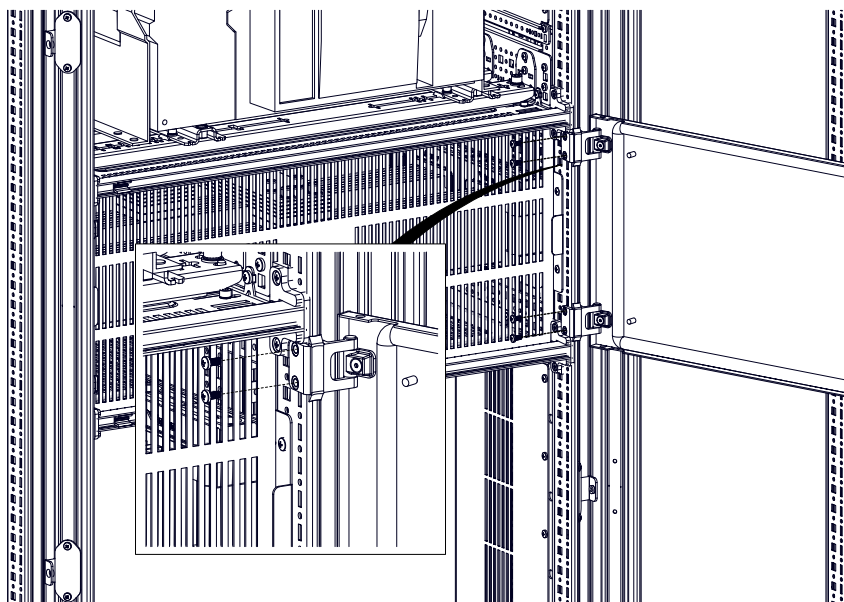
M5X10
2 pcs.

9.4 MID PARTIAL DOOR ASSEMBLY

Required Packages:
853.X30



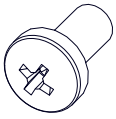
M5X10



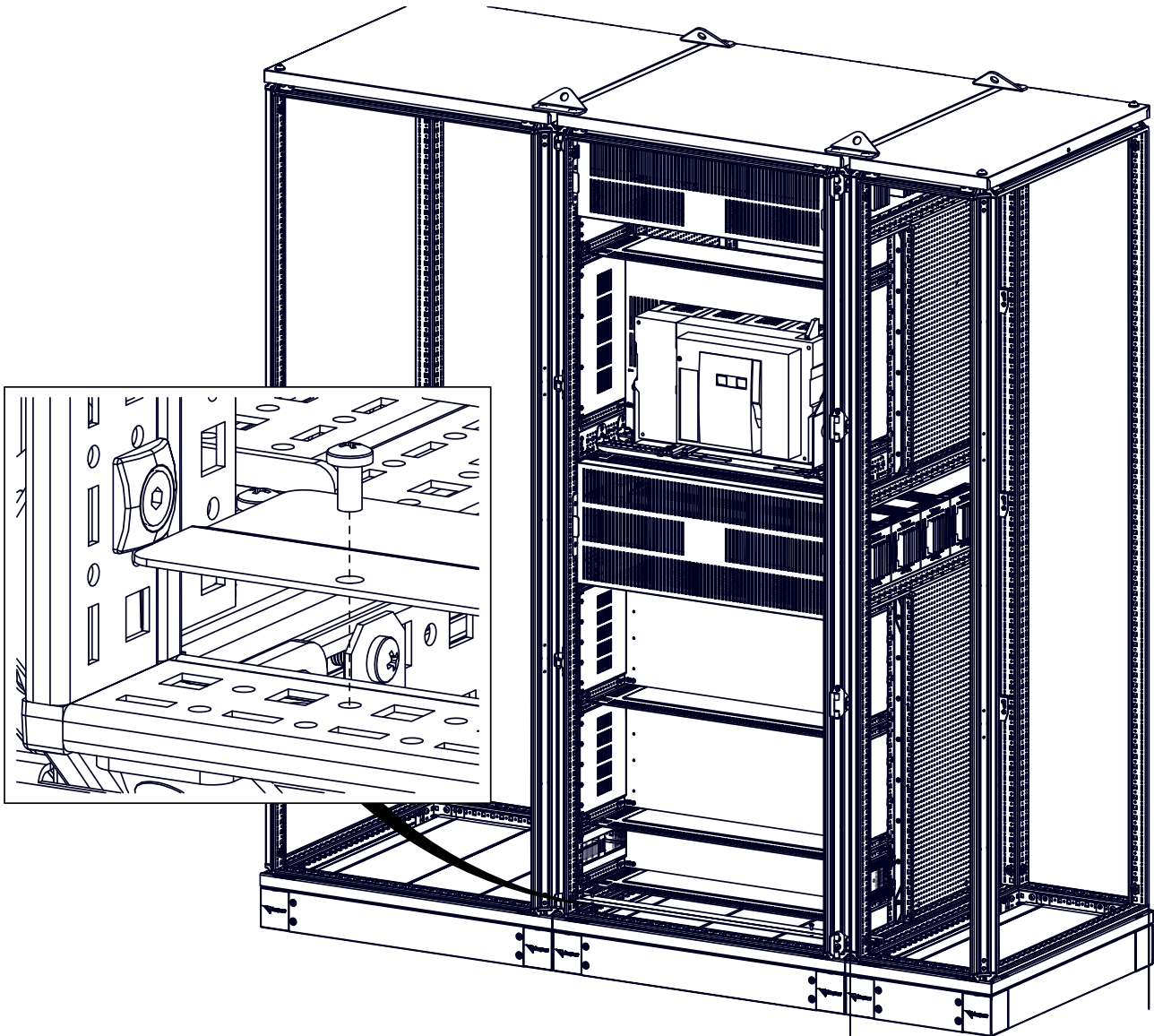
10. INTERNAL FRAME ASSEMBLY

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

Required Packages:
1007.X10



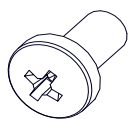
M5X10



10. INTERNAL FRAME ASSEMBLY

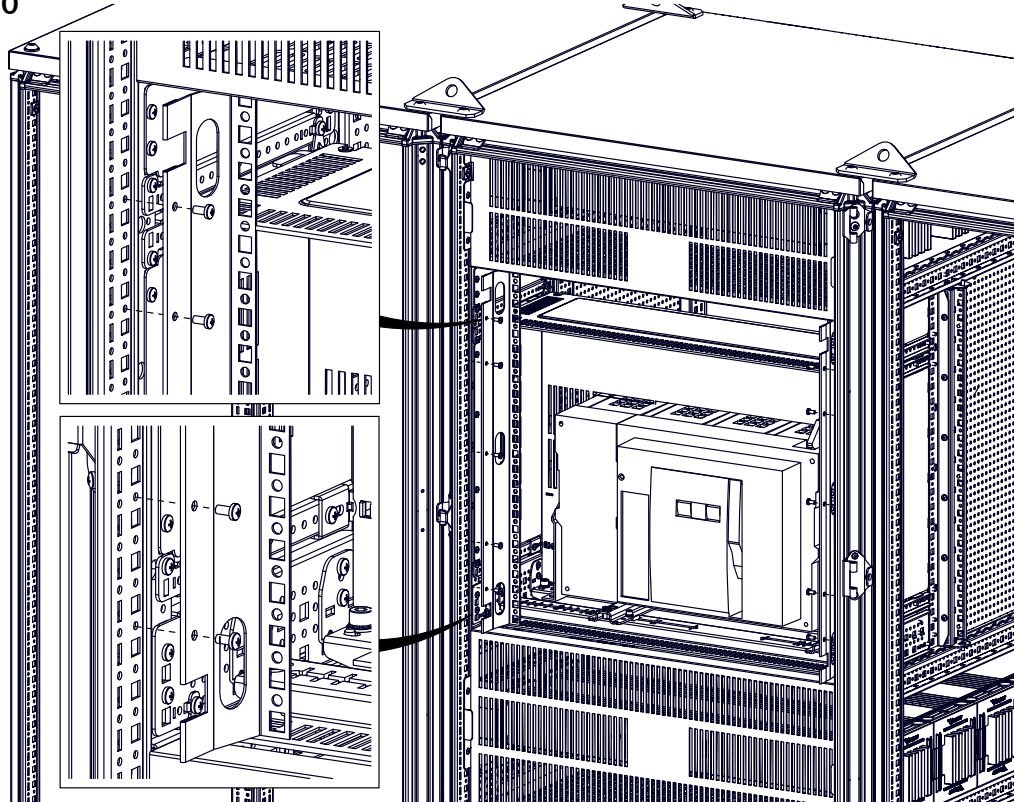


Required Packages:
Top:1007.X07



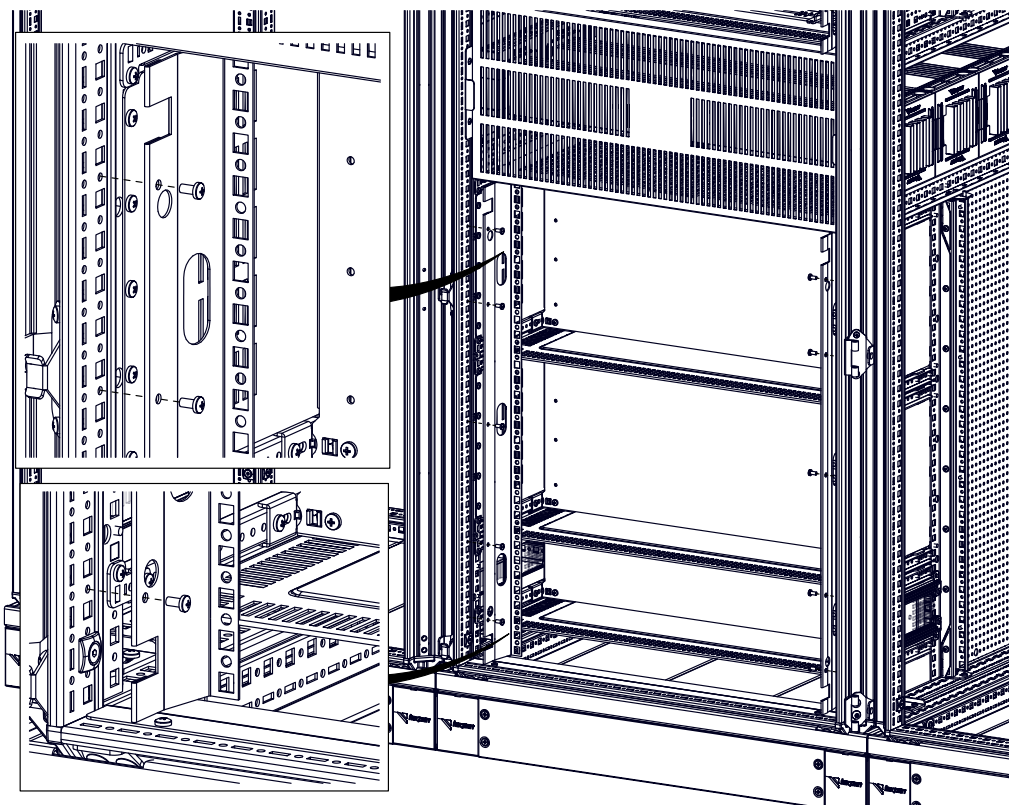
M5X10

TOP INTERNAL FRAME



Required Packages:
Bottom:1007.X10

BOTTOM INTERNAL FRAME

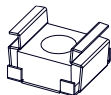
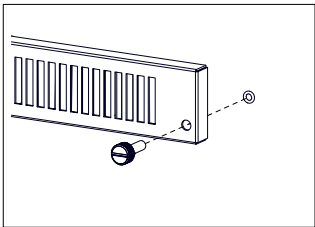


10. INTERNAL FRAME ASSEMBLY

Required Packages:
1007.X10

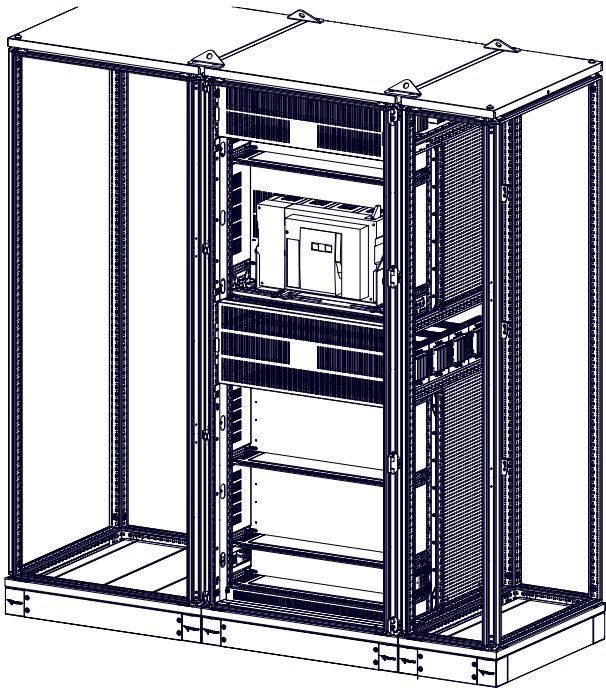
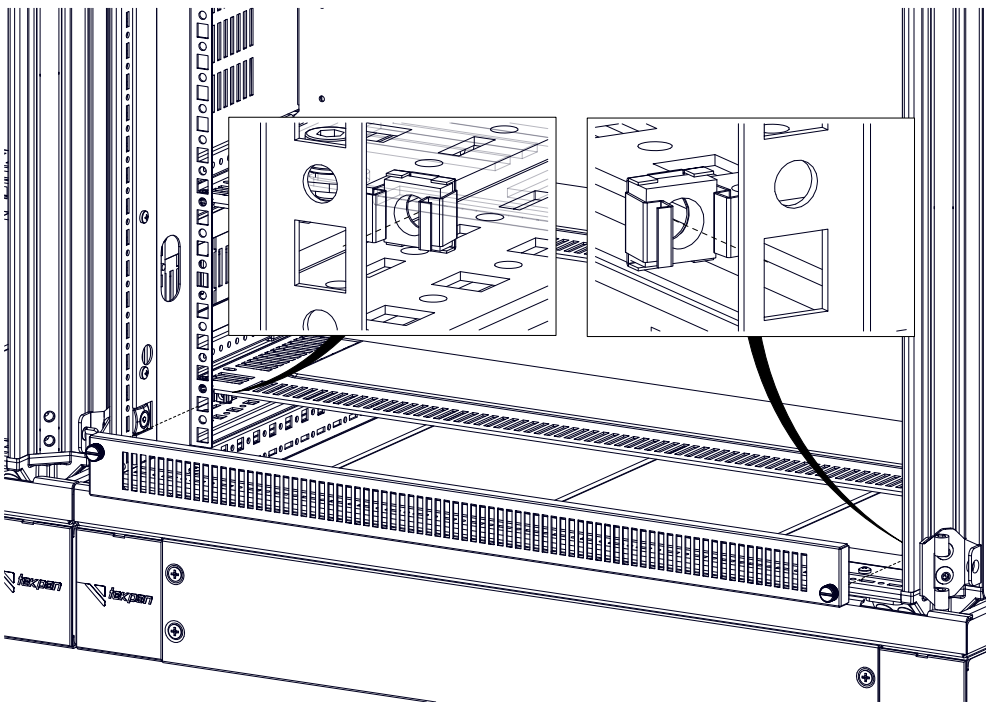


M6 Knob Bolt

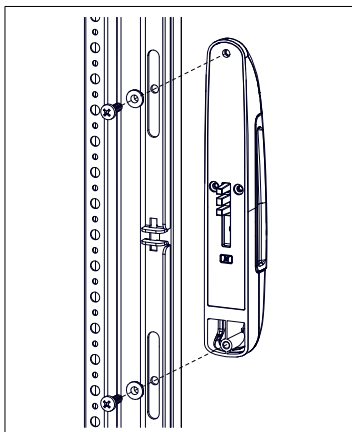


M6 Cage Nut

BOTTOM INTERNAL FRAME



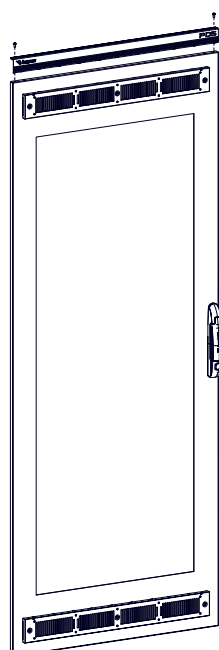
11. SOLID/GLAZED DOOR ASSEMBLY



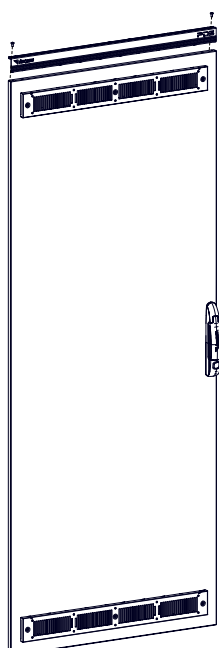
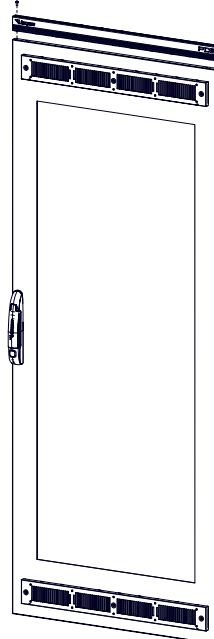
Required Packages:

Solid:1002.X20

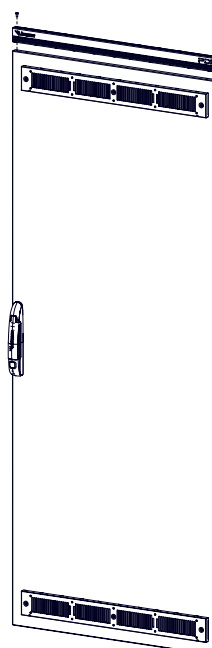
Glazed:1002.X21



Glazed Door

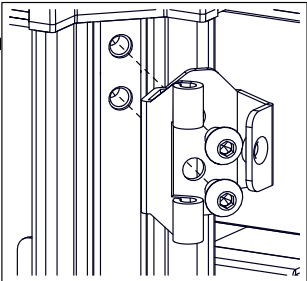
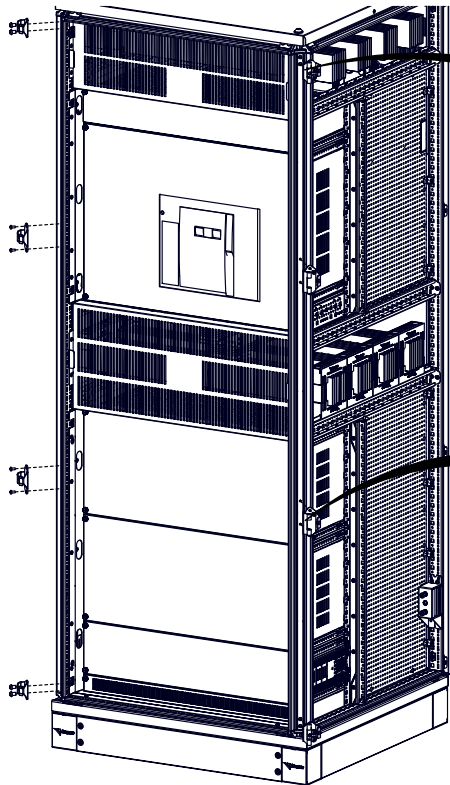
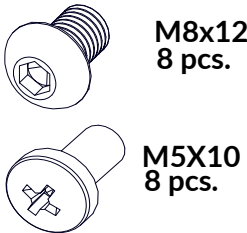


Solid Door

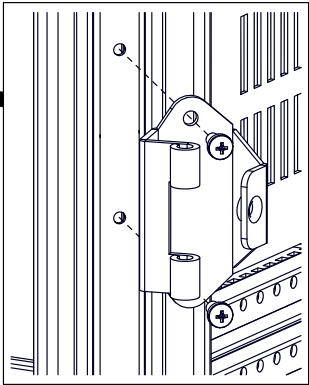


11. SOLID/GLAZED DOOR ASSEMBLY

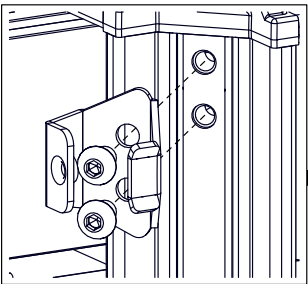
Required Packages:
Solid:1002.X20
Glazed:1002.X21



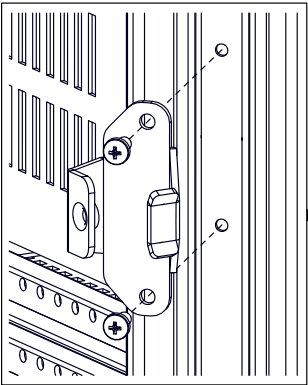
Top-Bottom Hinge Bracket



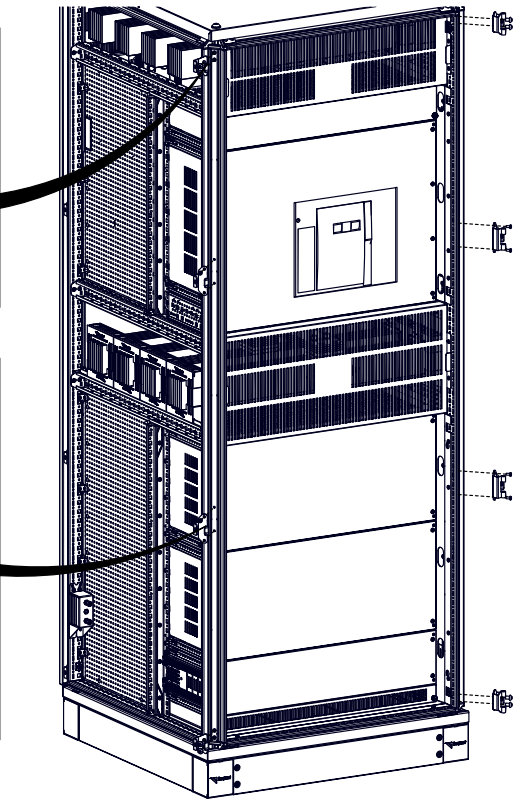
Mid Hinge Bracket



Top-Bottom Lock Bracket



Mid Lock Bracket



11. SOLID/GLAZED DOOR ASSEMBLY**Required Packages:****Solid:1002.X20****Glazed:1002.X21**