

MCB CASSETTE ASSEMBLY

KYT-070
11/2021

 Update Notes

■ Contents

Tools&Equipment Informations

Tool Symbol Guide.....	4
Torque Table.....	5
Screw/Bolt/Special Parts for Assembly.....	6
1 MCB Mounting System Assembly	
1.1 MCB Mouting System (Form-1)	7
1.2 MCB Mounting System (Form-2/3/4)	9
2 MCB Vertical Bar Connection Assembly	
2.1 MCB Vertical Cable Connection Assembly (4 Flat Bar)	14
2.2 MCB Vertical Cable Connection Assembly (2 Flat Bar).....	16
2.3 MCB Vertical Cable Connection Assembly (2 Flat Bar-5mm)	18
3 MCB Modular Side Separation Assembly	
3.1 MCB - Side Separation Assembly.....	20
3.2 MCB - Modular Side Separation Assembly	21
4 MCB Separation Shelf Assembly	22
5 MCB Cabling- Form Box Assembly	24
6 Front Door Assembly	
6.1 Extrenal Partial Door Assembly	26
6.2 Partial Safety Cover Assembly	28
7 Internal Partial Door Assembly	29

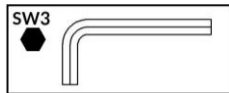
 Tools Symbol Guide



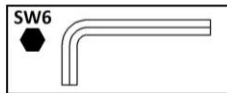
Cross



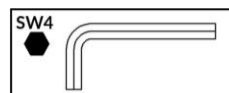
Slot



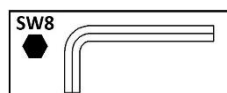
M4 Allen Key



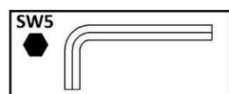
M8 Allen Key



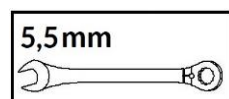
M5 Allen Key



M10 Allen Key



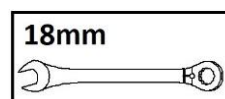
M6 Allen Key



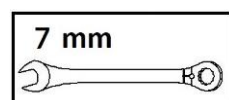
M3 Spanner



M6 Spanner



M12 Spanner



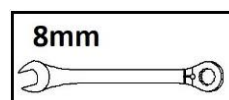
M4 Spanner



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

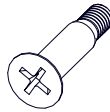
Philips Pan
Head Screw



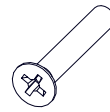
M6x23 Philips Flat
Head Screw (Teos)



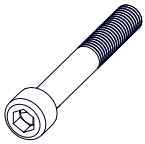
M5x20 Philips Flat
Head Screw (Teos)



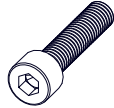
Philips Flat Head
Screw



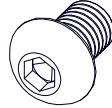
Hexagon Socket Head
Bolt (Half Thread)



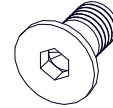
Hexagon Socket
Head Bolt



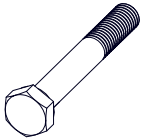
Hexagon Socket
Button Head Bolt



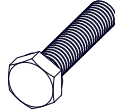
Hexagon Socket
Flat Head Bolt



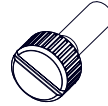
Hexagon Head Bolt
(Half Tread)



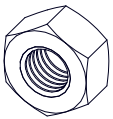
Hexagon Head
Bolt



Internal Door
Knob Bolt



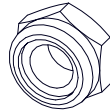
Regular Nut



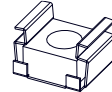
Flange Nut



Previling Torque
Nut



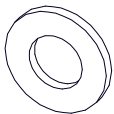
Cage Nut



Plastic Cage
Nut



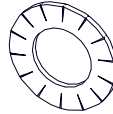
Flat Washer



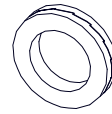
Spring Lock
Washer



Toothed Lock
Washer



Wedge Lock
Washer



1. MCB MOUNTING SYSTEM ASSEMBLY

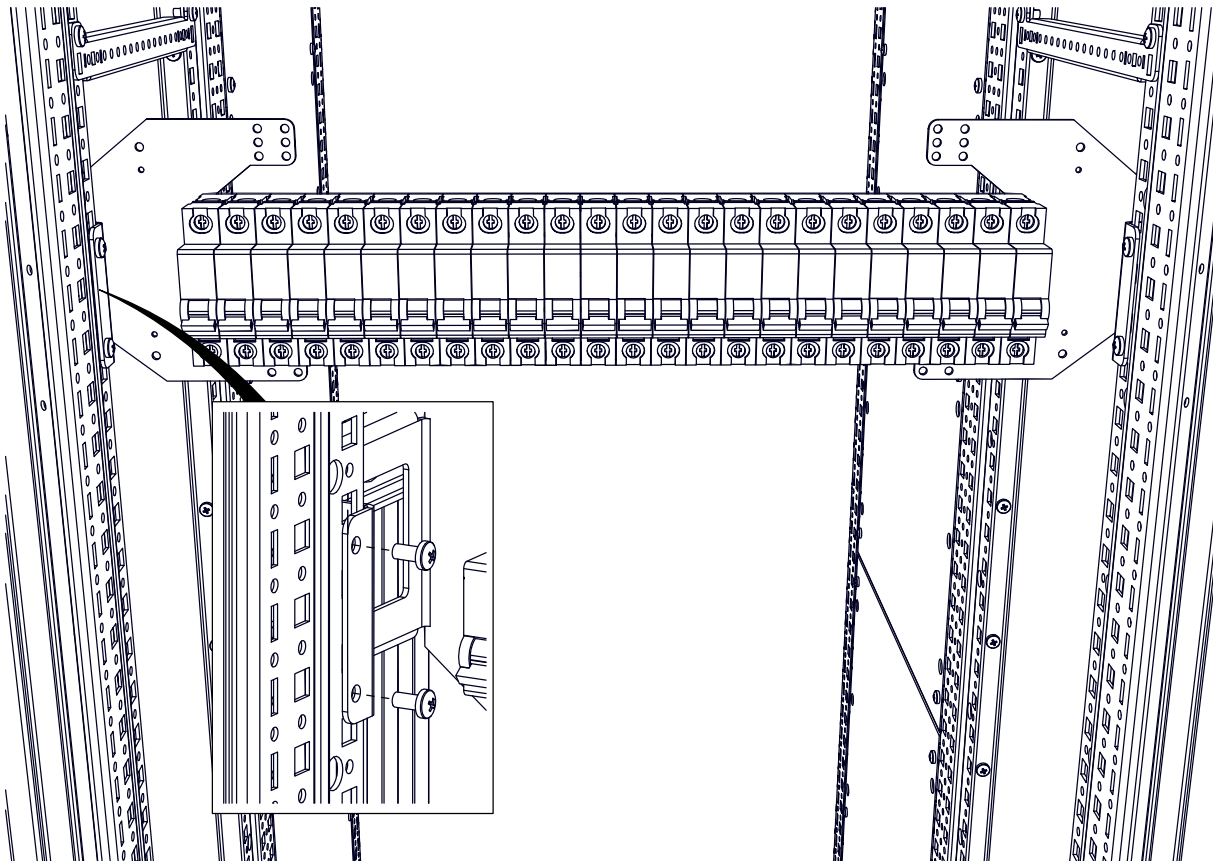
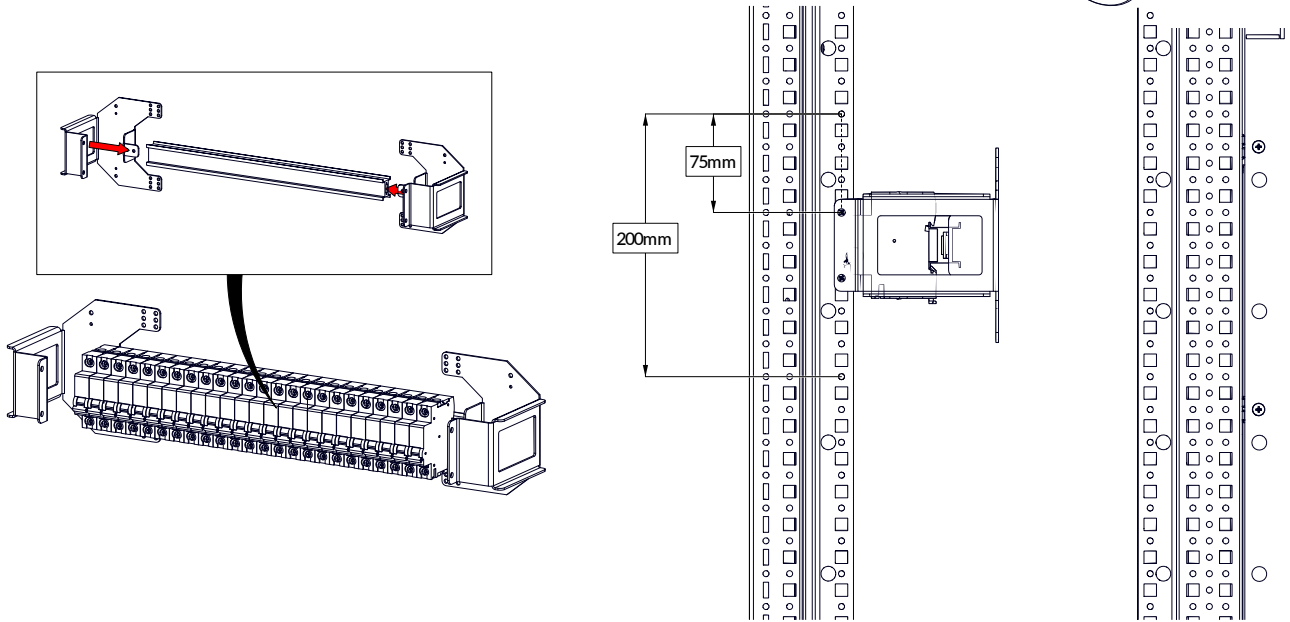
1.1 MCB MOUNTING SYSTEM (FORM-1)

Required Packages:
1046.020
MCB Rail:1046.9XX



M5X10
4 pcs.

200H



1.1 MCB MOUNTING SYSTEM (FORM-1)

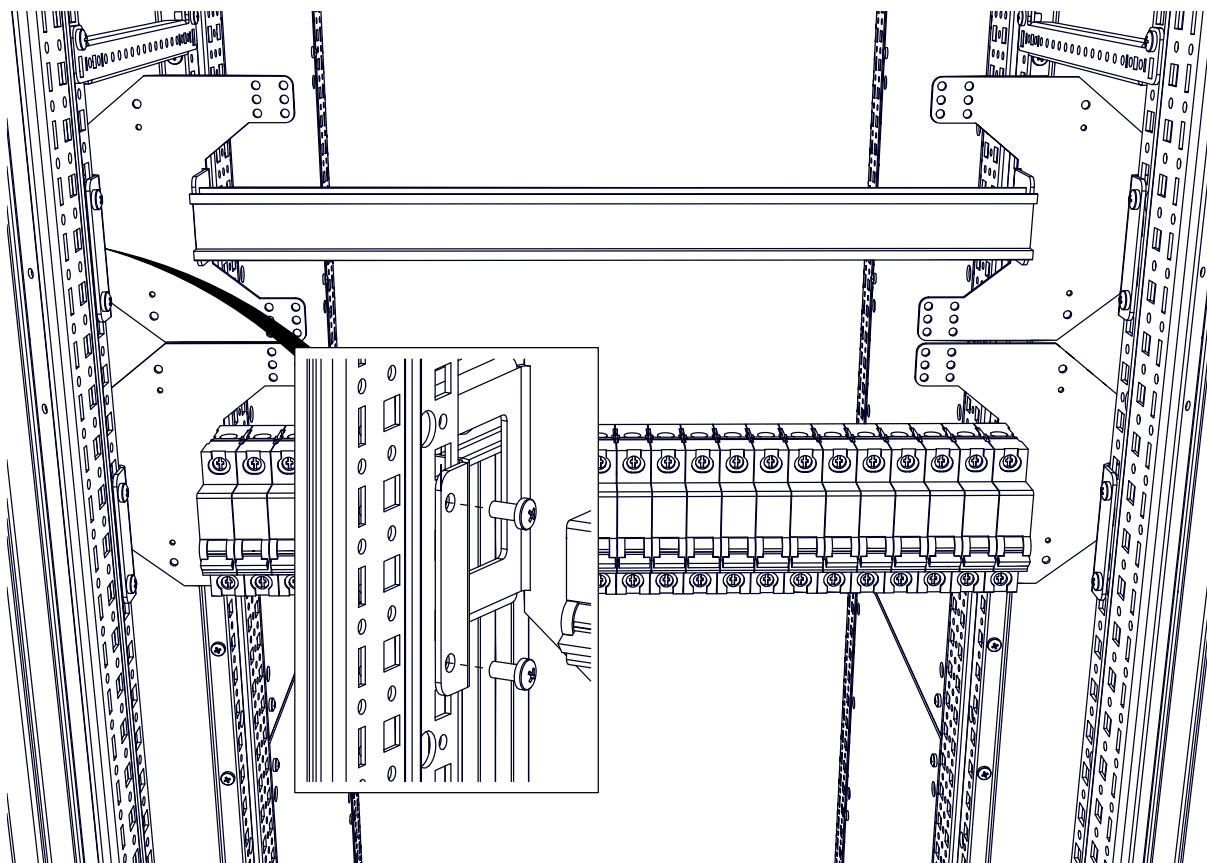
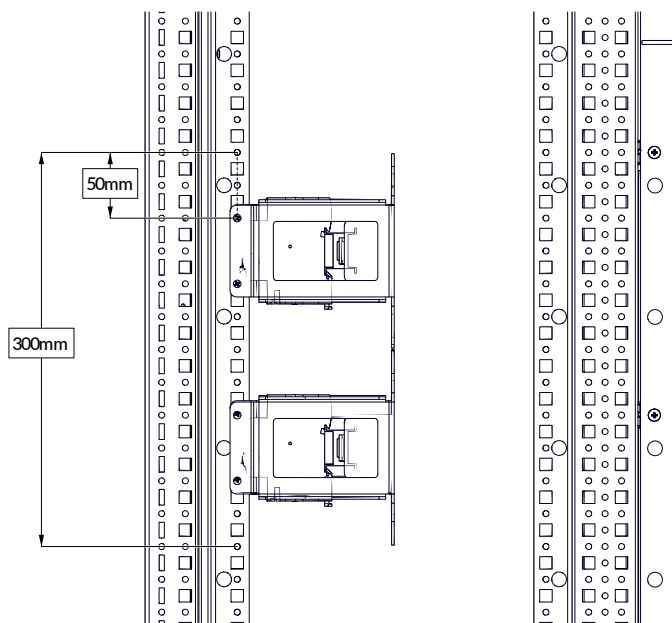
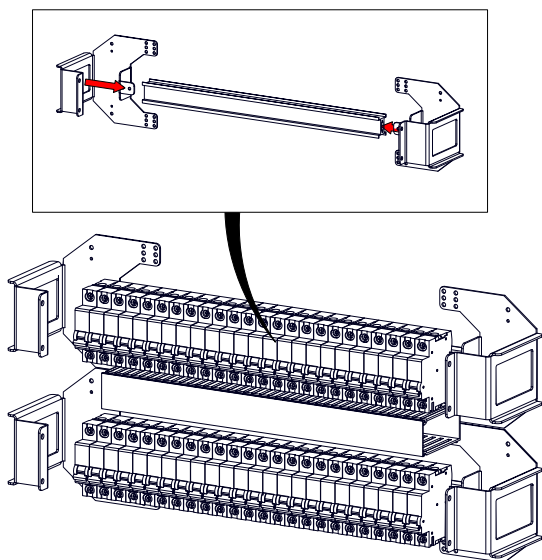


Required Packages:
1046.020



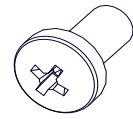
M5X10
8 pcs.

300H

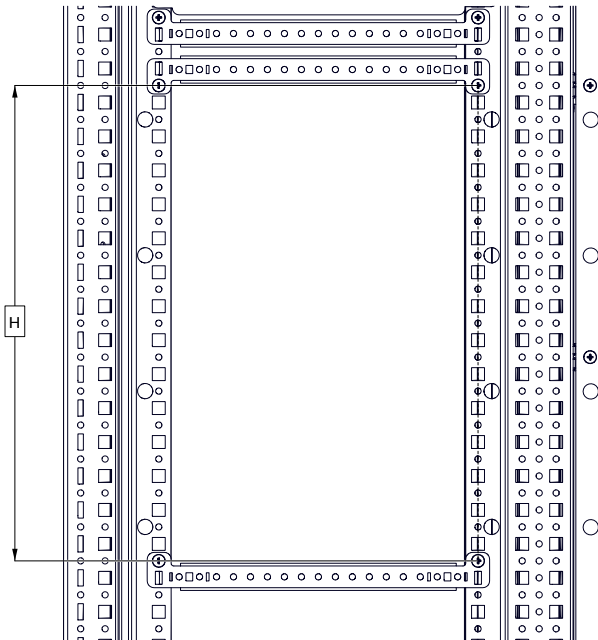


1.2 MCB MOUNTING SYSTEM (FORM-2/3/4)

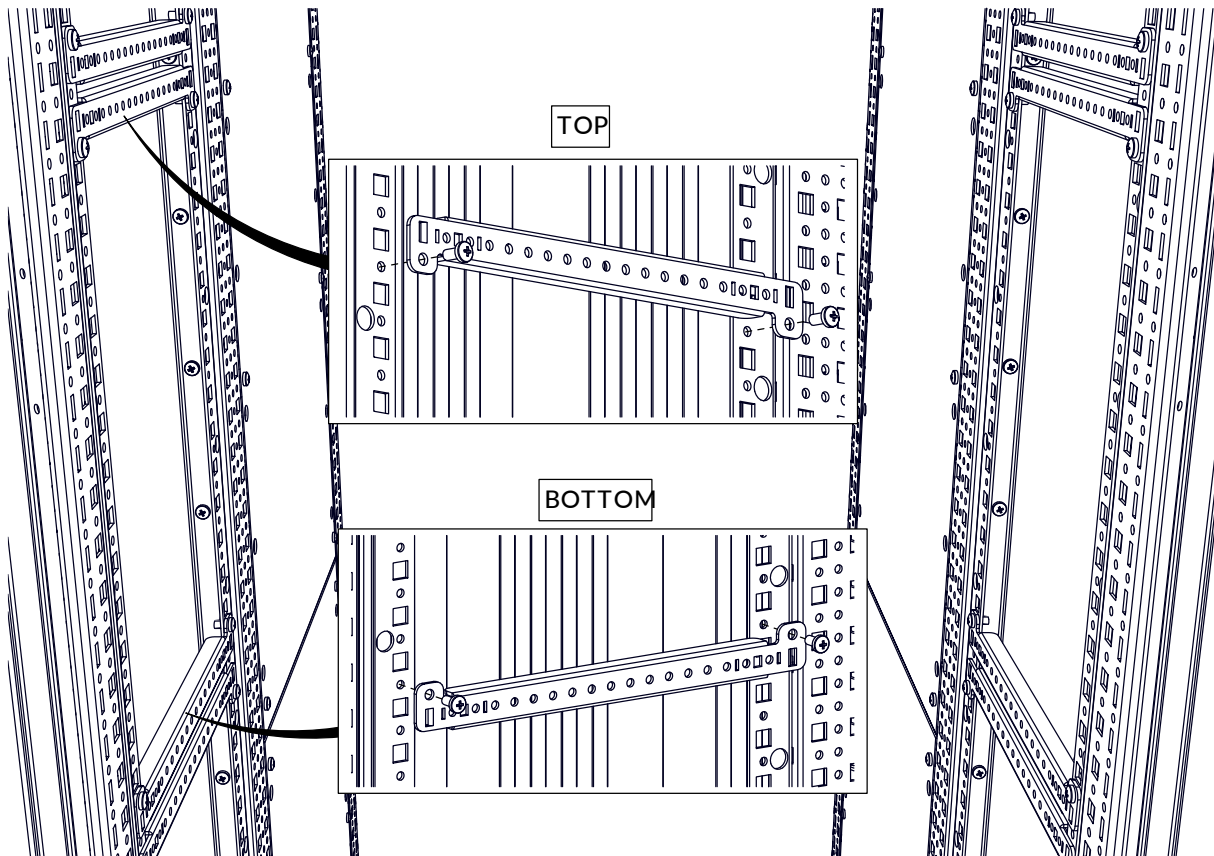
Required Packages:
1037.001



M5X10
4 pcs.



Cassette Height	H (mm)
200	150
300	250



1.2 MCB MOUNTING SYSTEM (FORM-2/3/4)



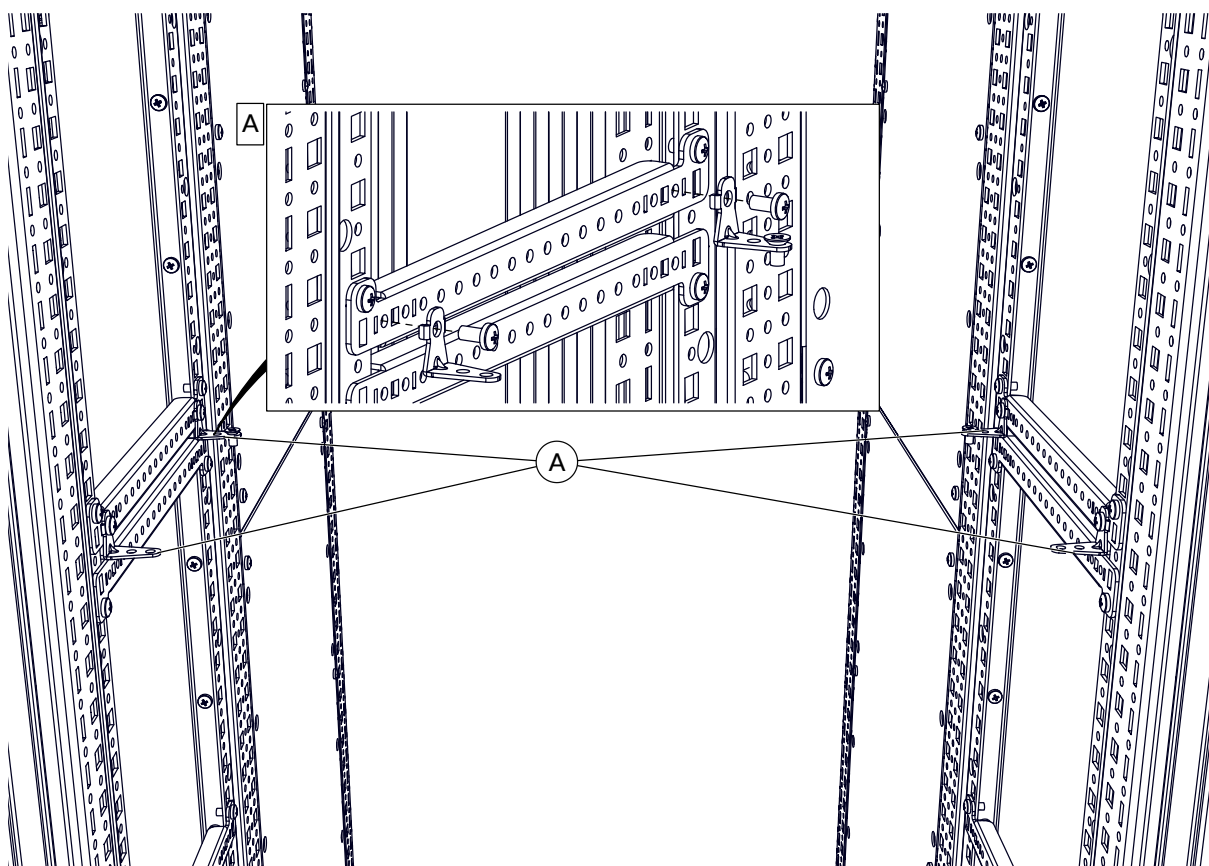
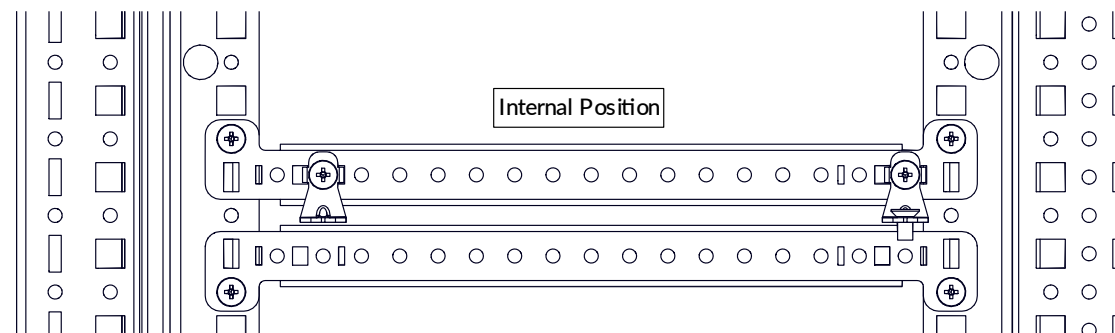
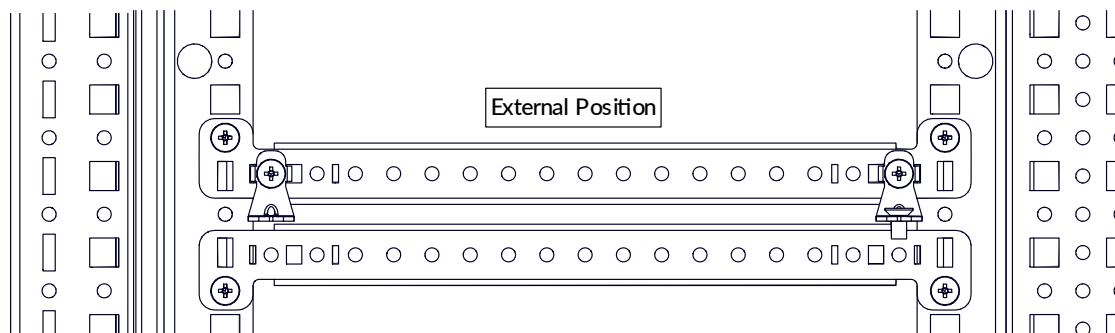
M5X10
4 pcs.

Required Packages:

400W:1032.040

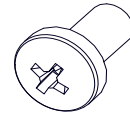
600W:1032.060

800W:1032.080

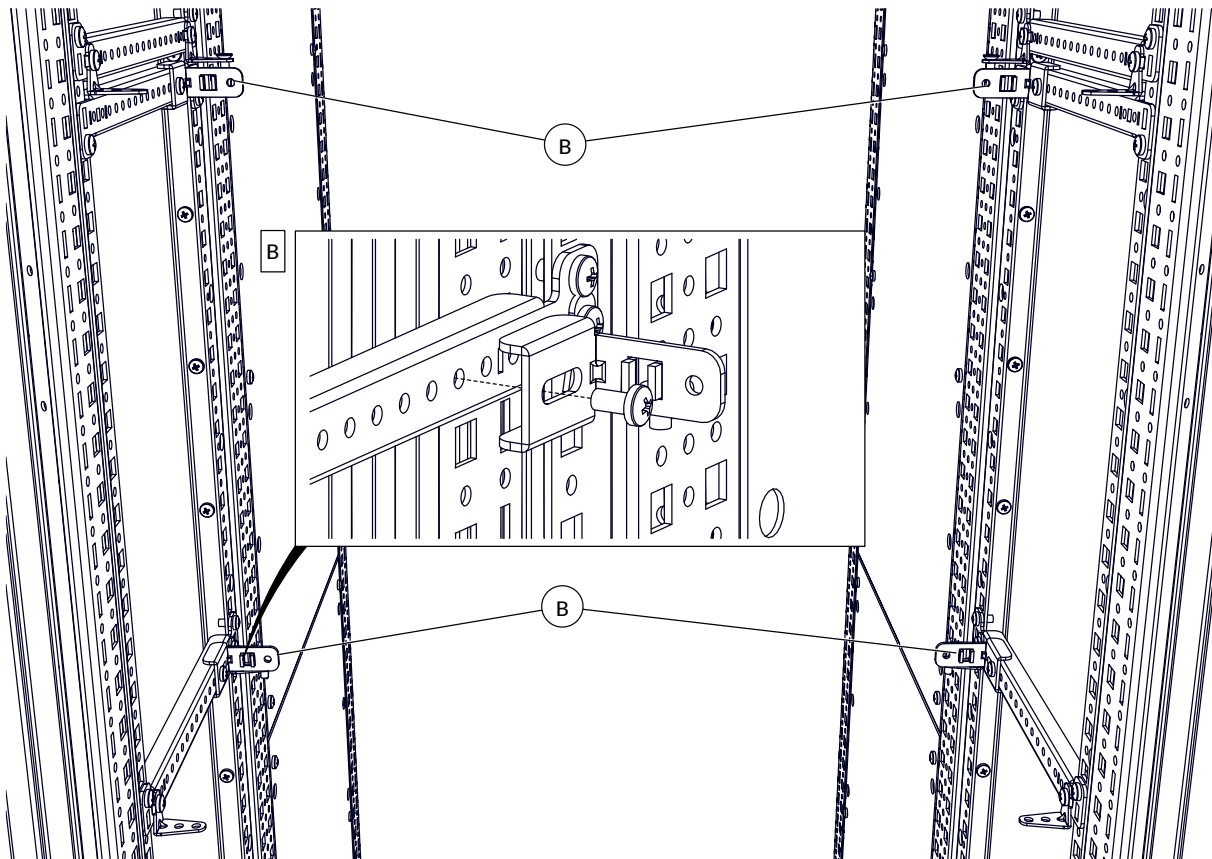
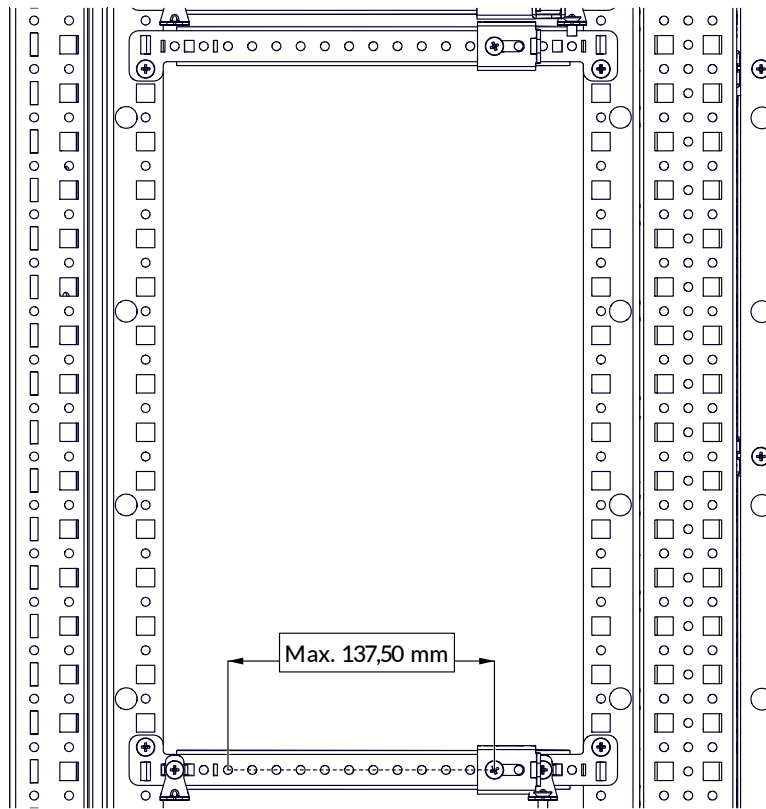


1.2 MCB MOUNTING SYSTEM (FORM-2/3/4)

Required Packages:
1038.XXX



M5X10
4 pcs.

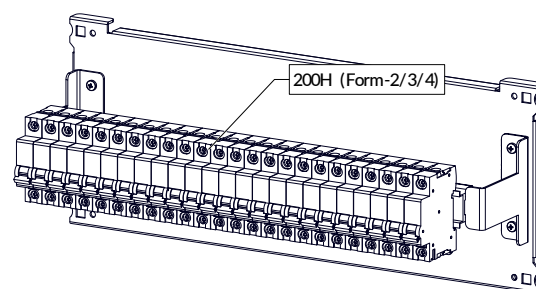
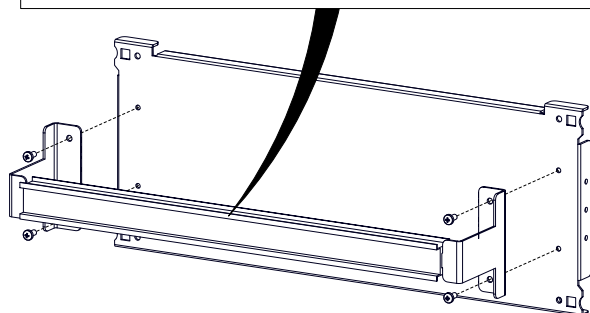
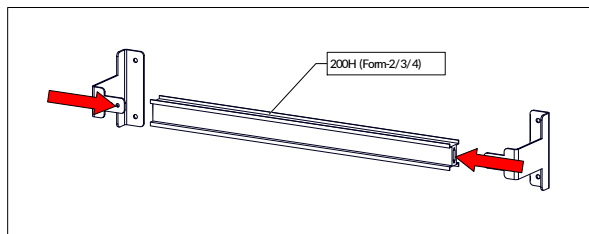


1.2 MCB MOUNTING SYSTEM (FORM-2/3/4)

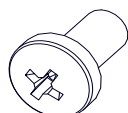


M5X10
4 pcs.

200H

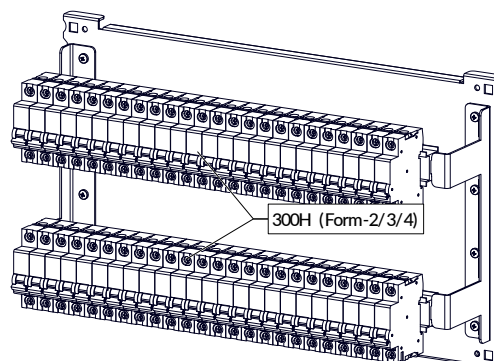
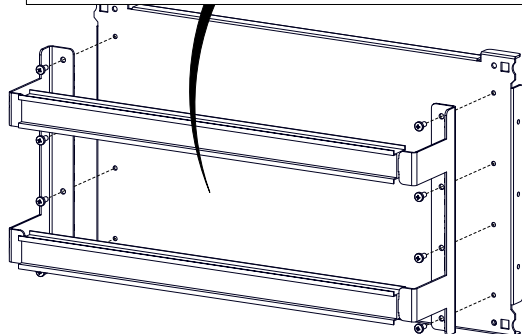
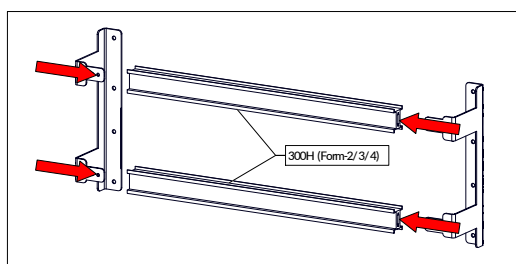


Required Packages:
1046.1XX
MCB Rail:1046.9XX



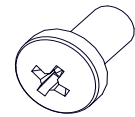
M5X10
8 pcs.

300H

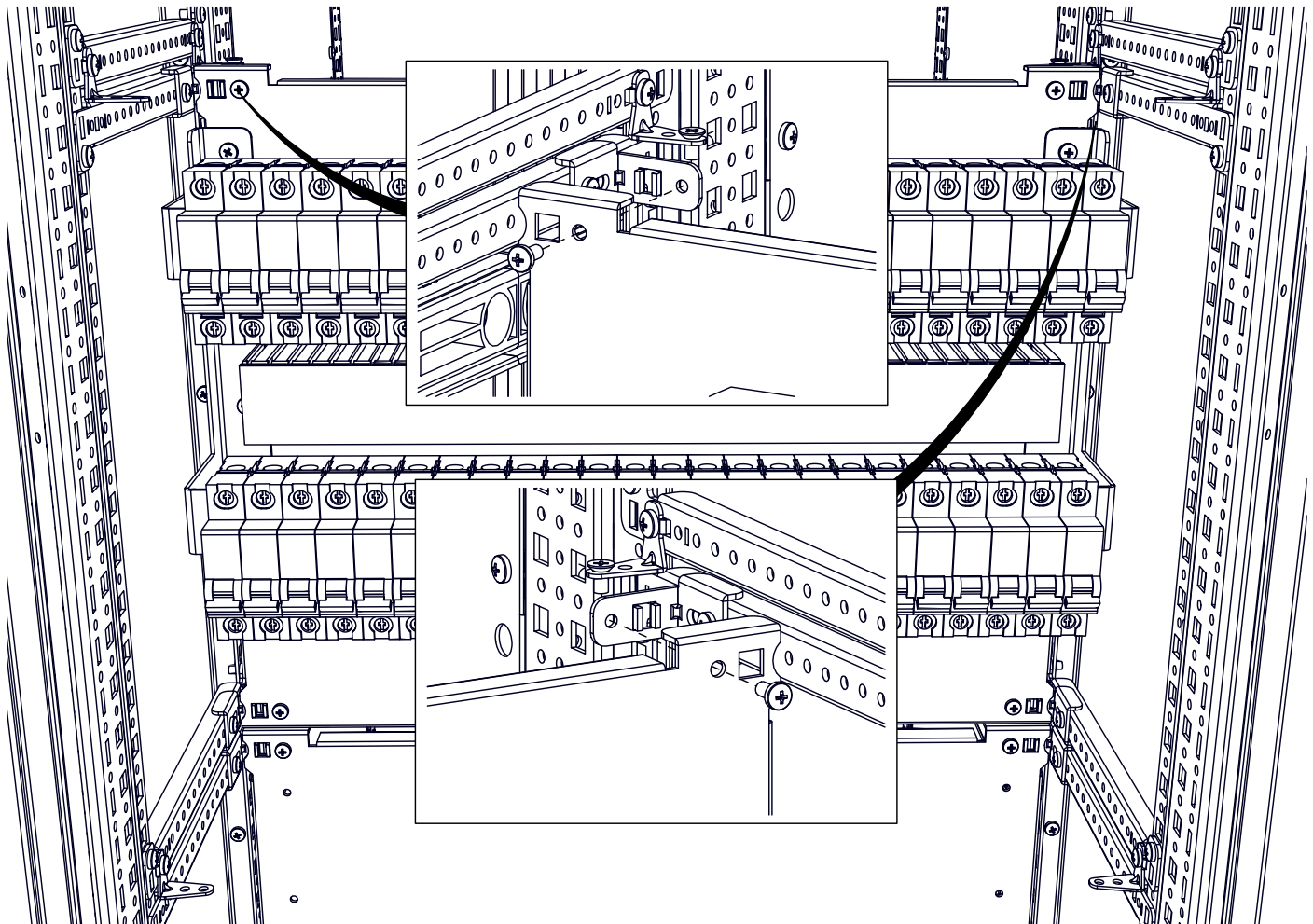


1.2 MCB MOUNTING SYSTEM (FORM-2/3/4)

Required Packages:
1038.XXX



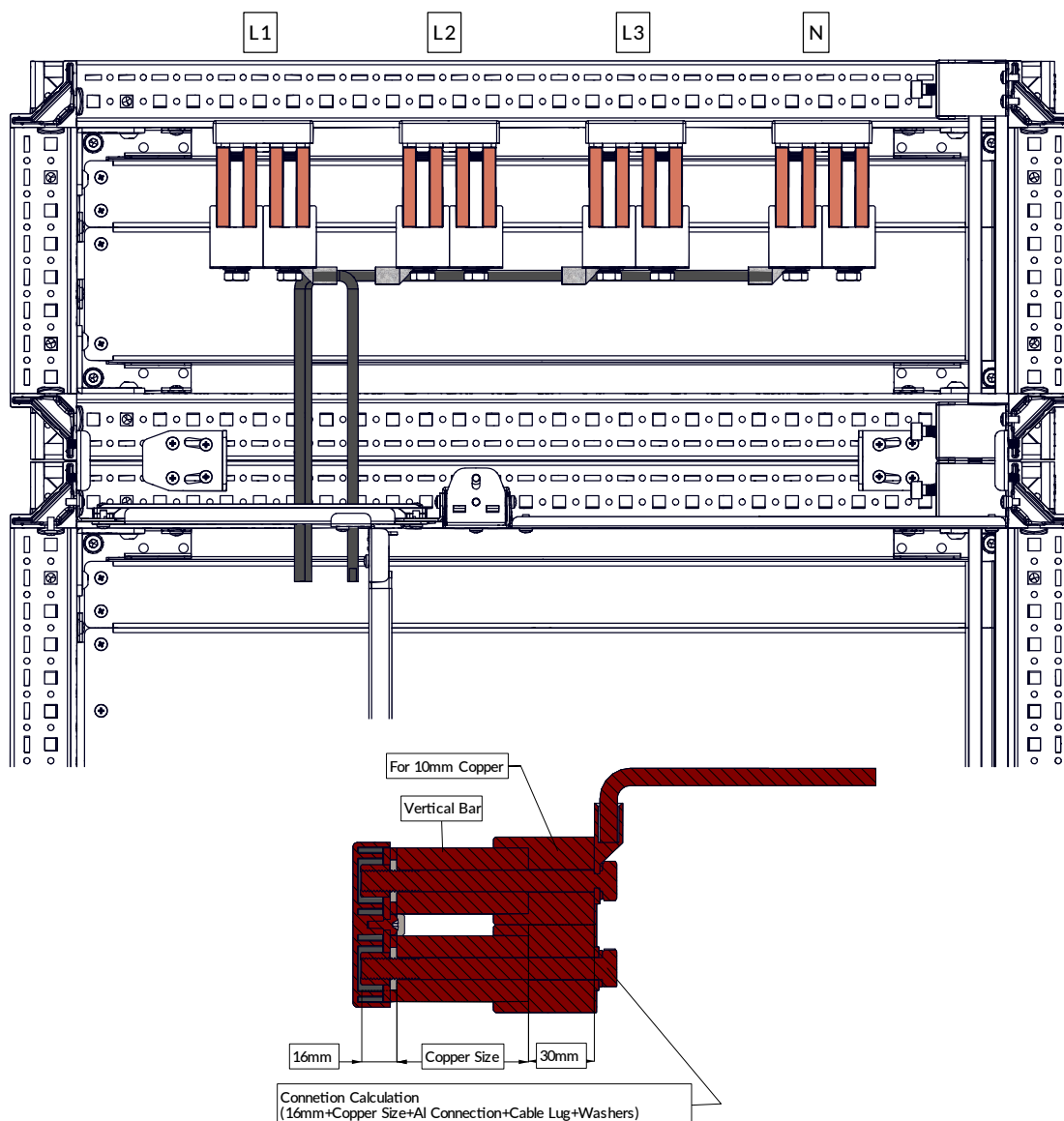
M5X10
4 pcs.



2. MCB - VERTICAL BAR CONNECTION

2.1 MCB - VERTICAL CABLE CONNECTION (4 FLAT BAR)

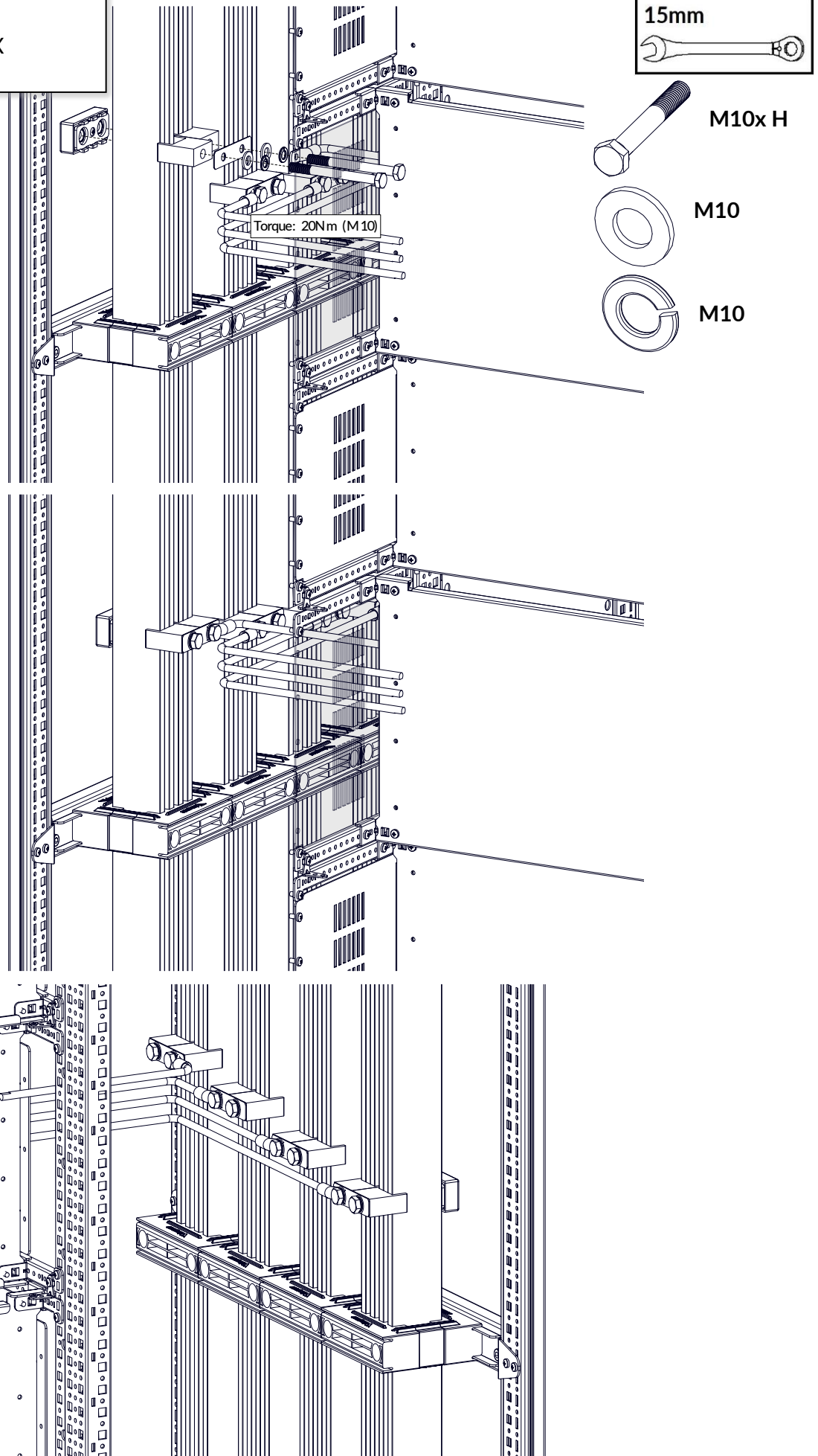
Required Packages:
Connection: 1051.0XX
Fasteners: 1035.4XXX



Cable Size	Hexagon Head Bolt Selection (800D)				Split Lock Washer	Flat Washer
	4000A	3400A	3000A	2500A		
	80/10	60/10	50/10	40/10		
16	M10x130	M10x110	M10x100	M10x90	M10	M10
25	M10x130	M10x110	M10x100	M10x90	M10	M10
35	M10x130	M10x110	M10x100	M10x90	M10	M10
50	M10x140	M10x120	M10x110	M10x100	M10	M10
70	M10x140	M10x120	M10x110	M10x100	M10	M10
95	M10x140	M10x120	M10x110	M10x100	M10	M10

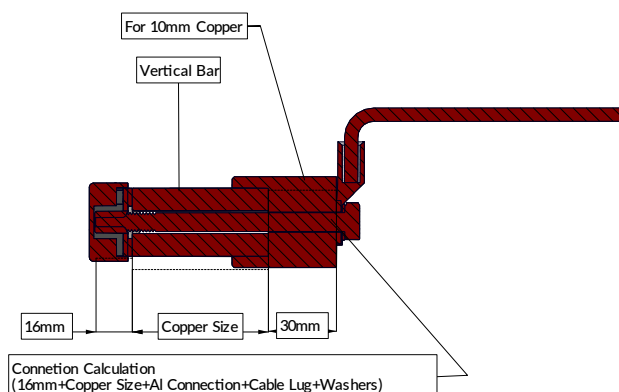
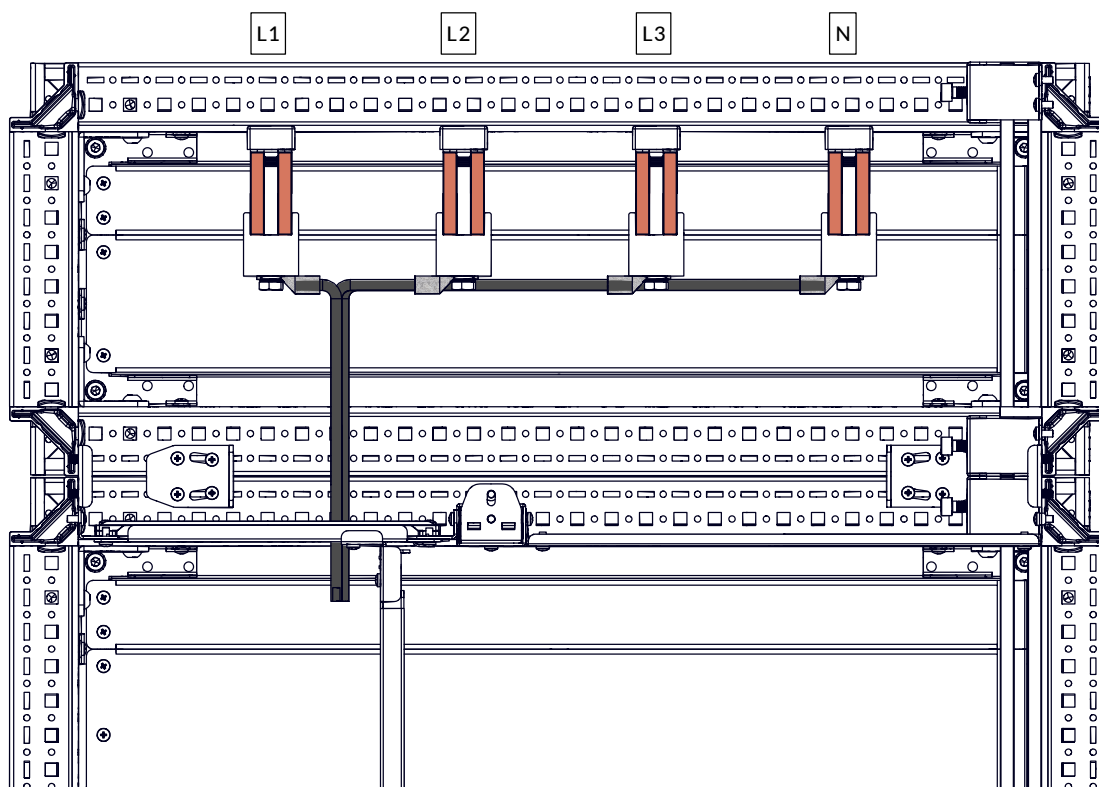
2.1 MCB -VERTICAL CABLE CONNECTION (4 FLAT BAR)

Required Packages:
Connection: 1051.0XX
Fasteners: 1035.4XXX



2.2 MCB -VERTICAL CABLE CONNECTION (2 FLAT BAR)

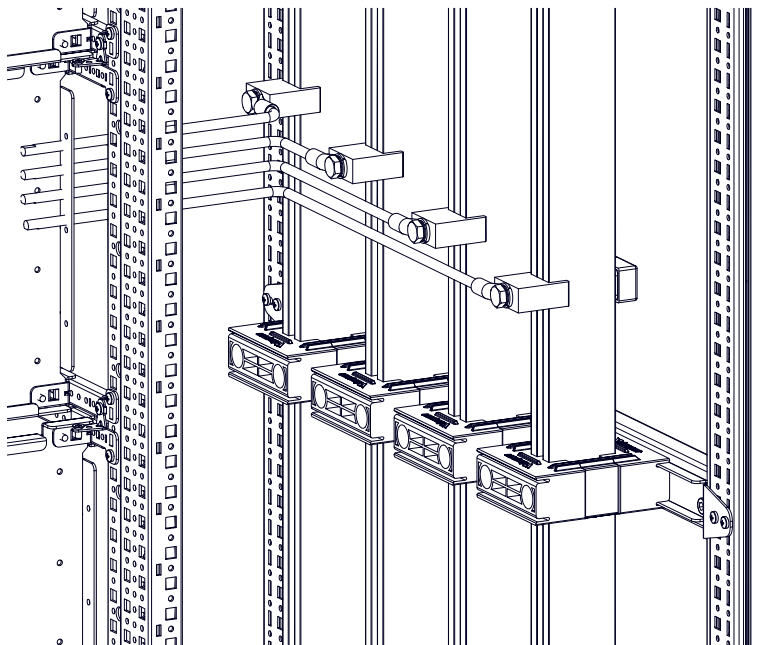
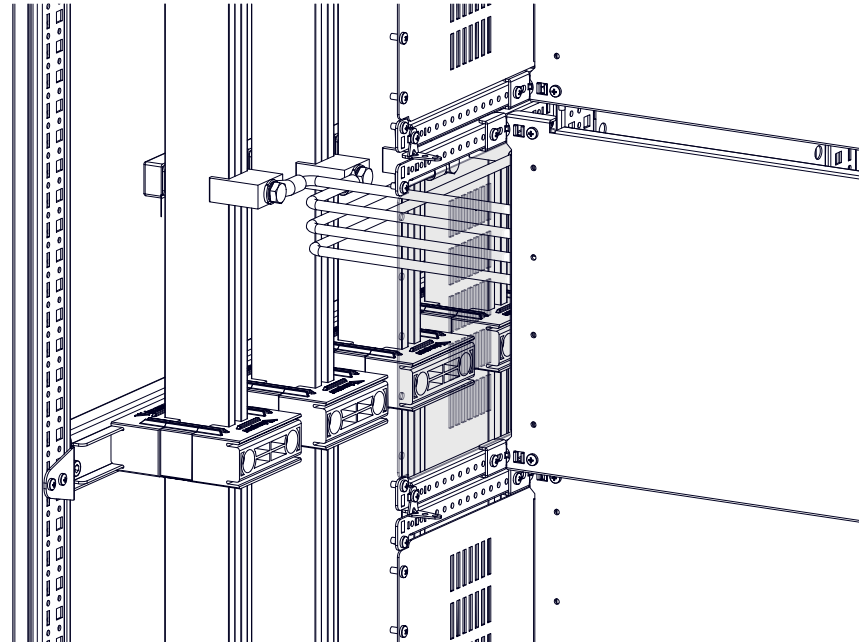
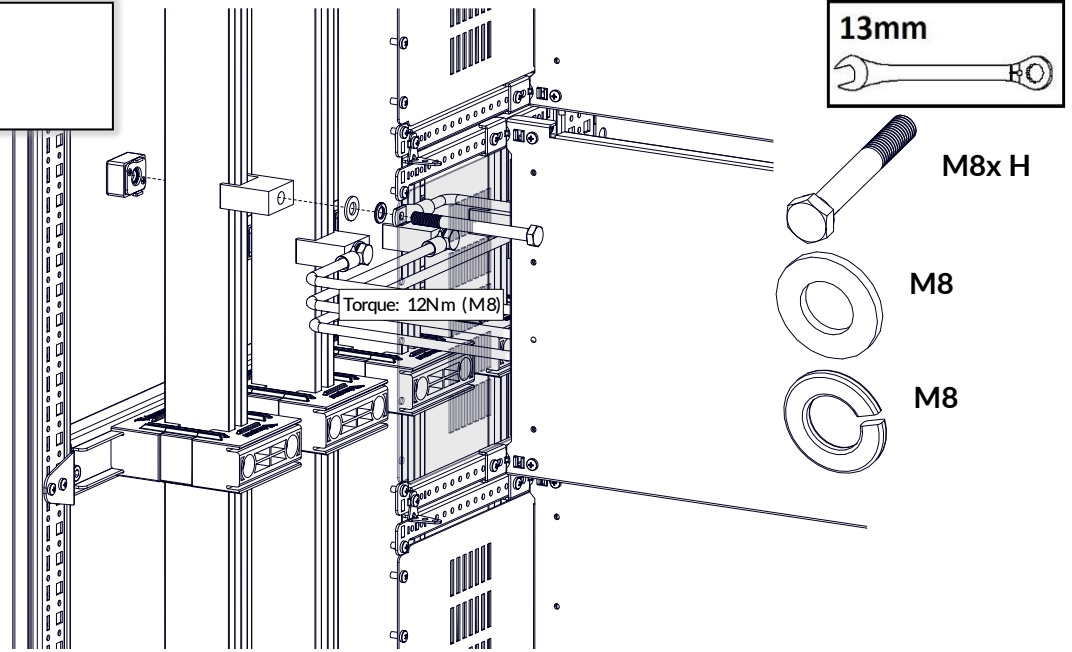
Required Packages:
Connection:1051.0XX
Fasteners:1035.2XXX



Copper Size	Hexagon Head Bolt Selection(600D/800D)				Split Lock Washer	Flat Washer
	2300A	1860A	1620A	1350A		
	80/10	60/10	50/10	40/10		
16	M8x130	M8x110	M8x100	M8x90	M8	M8
25	M8x130	M8x110	M8x100	M8x90	M8	M8
35	M8x130	M8x110	M8x100	M8x90	M8	M8
50	M8x140	M8x120	M8x110	M8x100	M8	M8
70	M8x140	M8x120	M8x110	M8x100	M8	M8
95	M8x140	M8x120	M8x110	M8x100	M8	M8

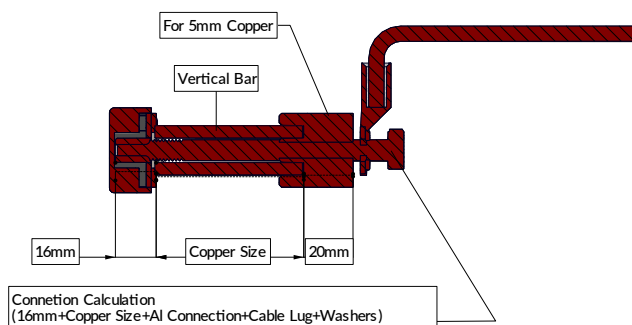
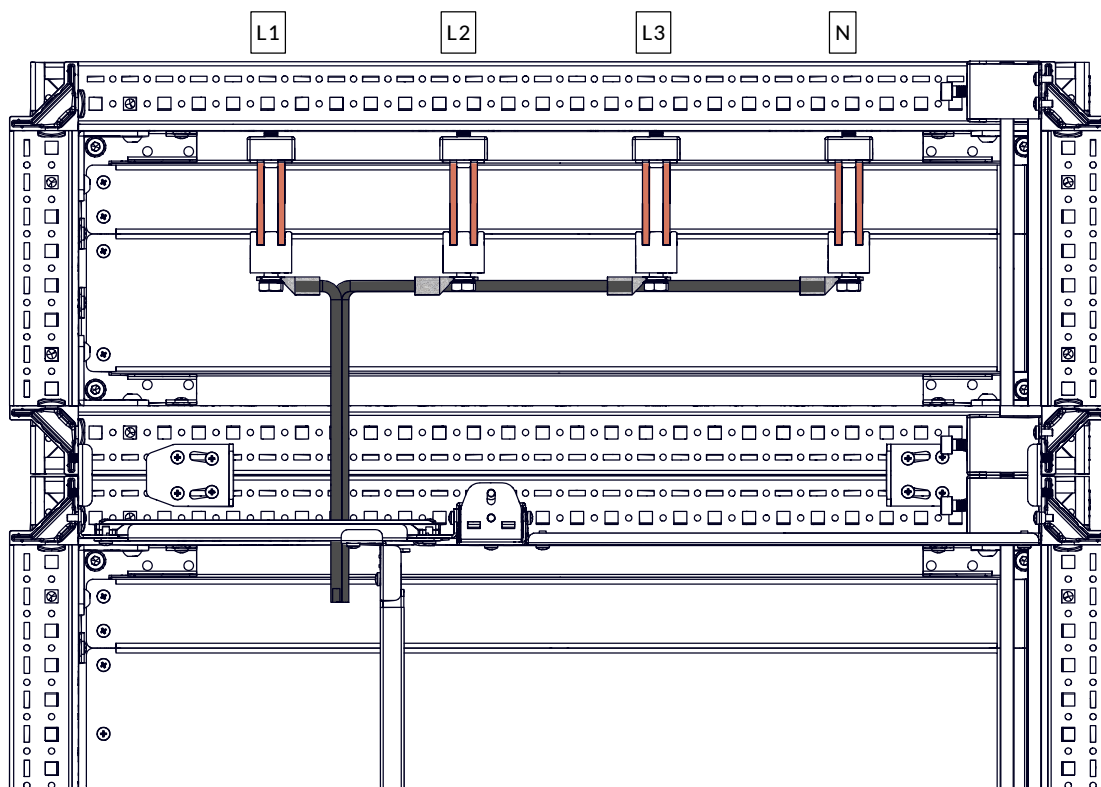
2.2 MCB -VERTICAL CABLE CONNECTION (2 FLAT BAR)

Required Packages:
Connection:1051.0XX
Fasteners:1035.2XXX



2.3 MCB -VERTICAL CABLE CONNECTION (2 FLAT BAR-5mm)

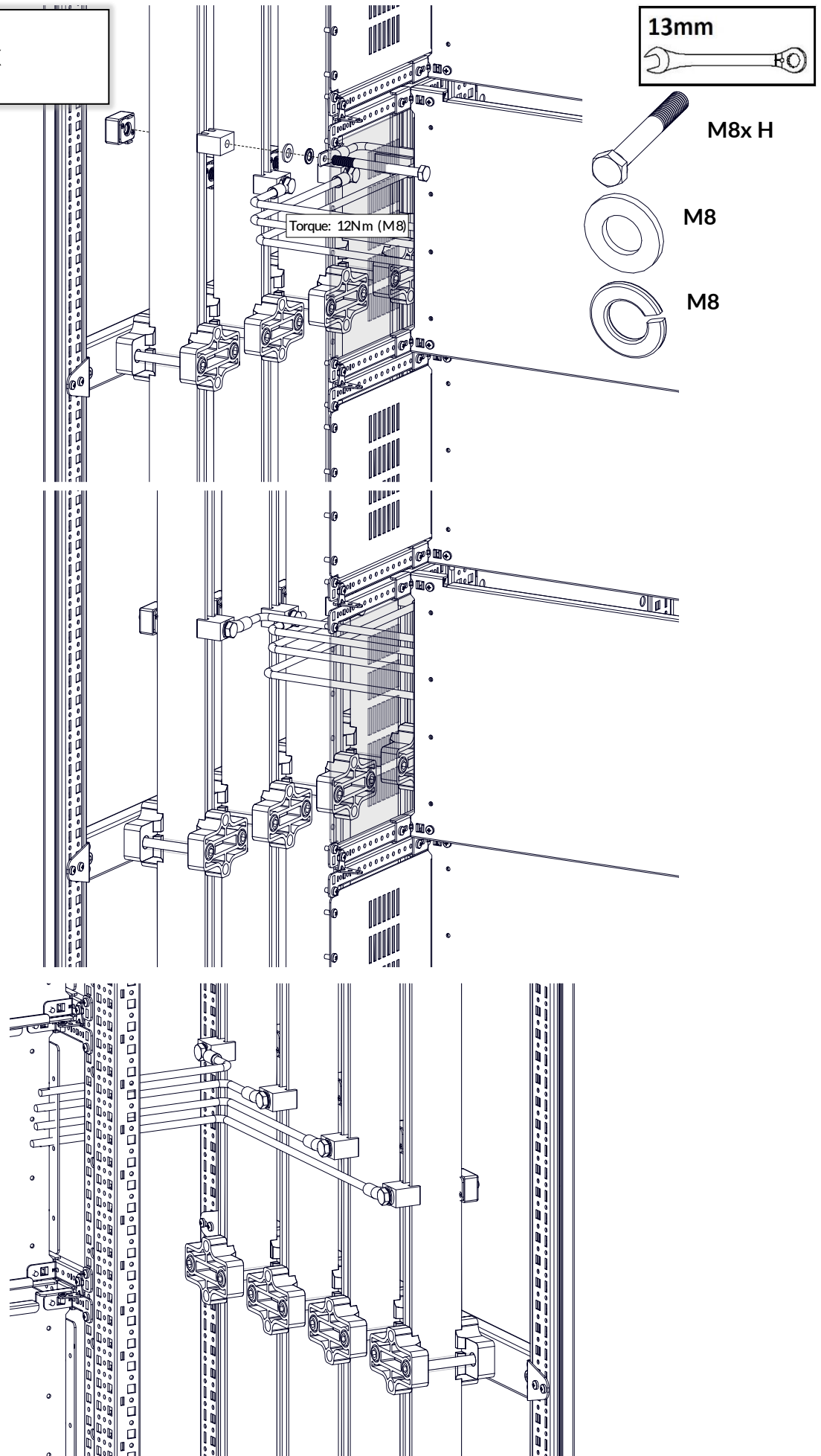
Required Packages:
Connection:1051.1XX
Fasteners:1035.2XXX



Copper Size	Hexagon Head Bolt Selection(600D/800D)					Split Lock Washer	Flat Washer
	1300A	1100A	900A	700A	495A		
	60/5	50/5	40/5	30/5	20/5		
16	M8x100	M8x90	M8x80	M8x70	M8x60	M8	M8
25	M8x100	M8x90	M8x80	M8x70	M8x60	M8	M8
35	M8x100	M8x90	M8x80	M8x70	M8x60	M8	M8
50	M8x110	M8x100	M8x90	M8x80	M8x70	M8	M8
70	M8x110	M8x100	M8x90	M8x80	M8x70	M8	M8
95	M8x110	M8x100	M8x90	M8x80	M8x70	M8	M8

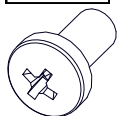
2.3 MCB -VERTICAL CABLE CONNECTION (2 FLAT BAR-5mm)

Required Packages:
Connection:1051.1XX
Fasteners:1035.2XXX



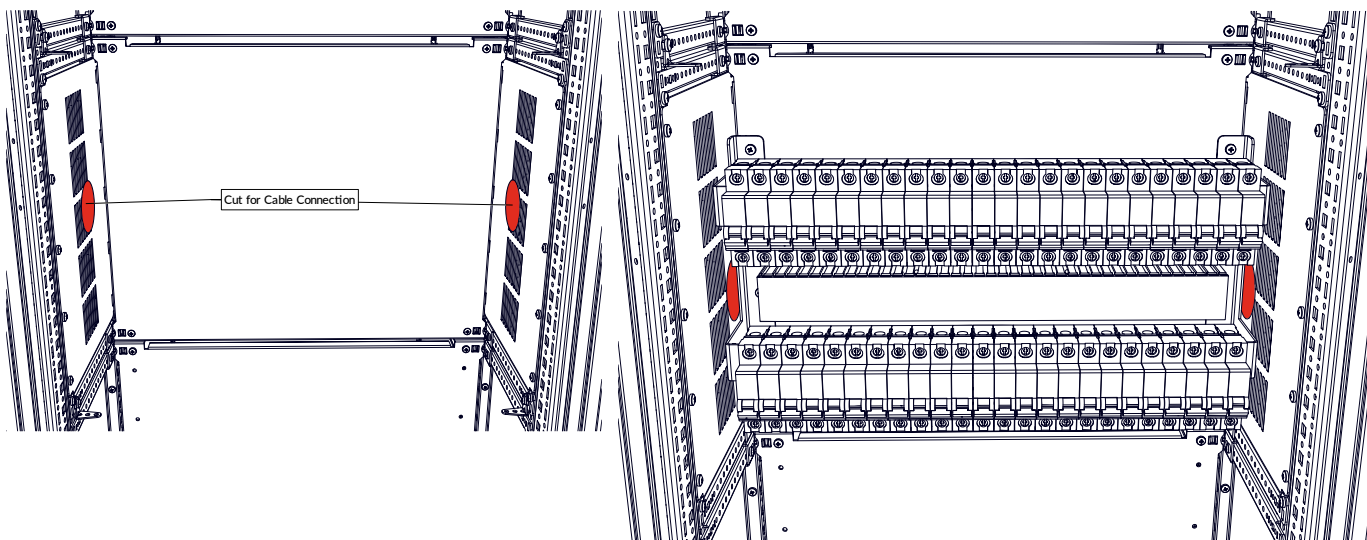
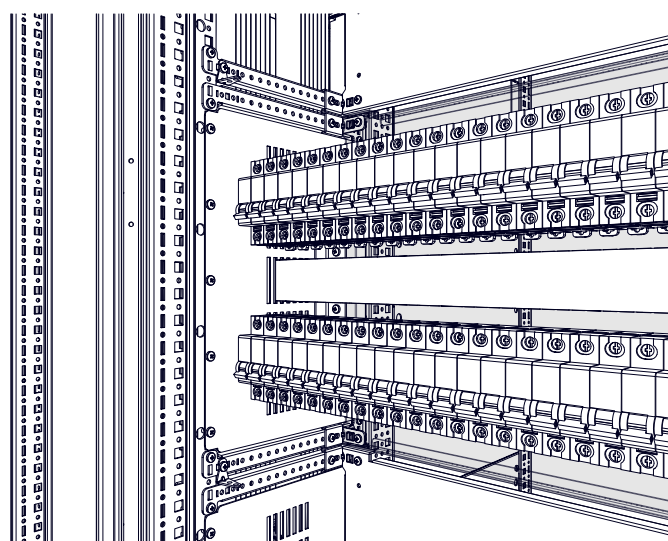
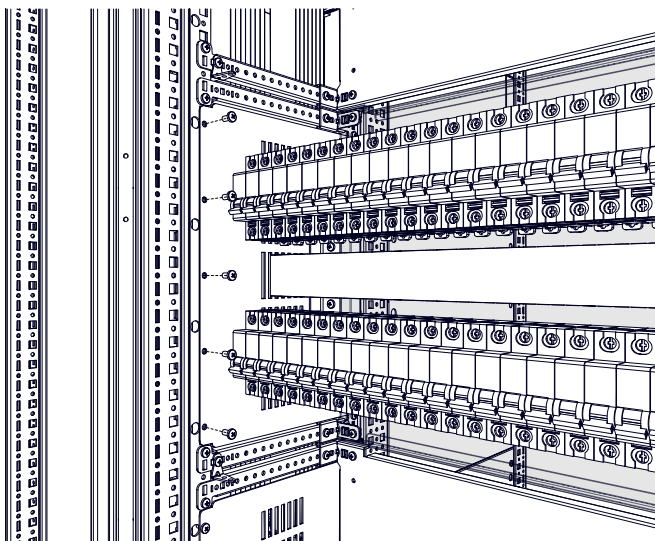
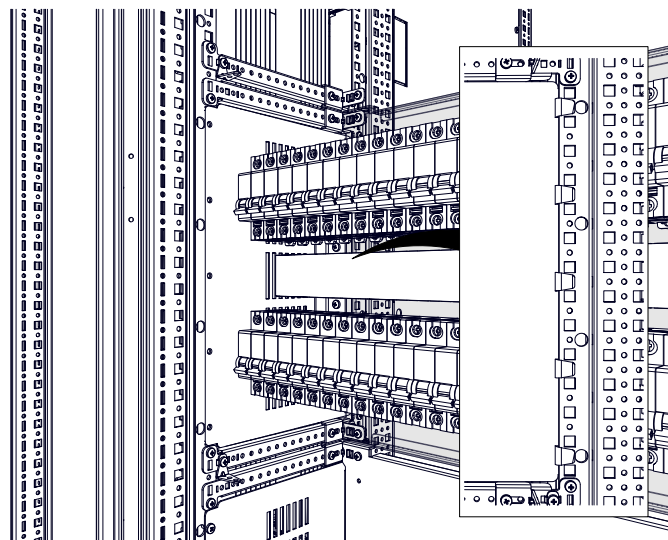
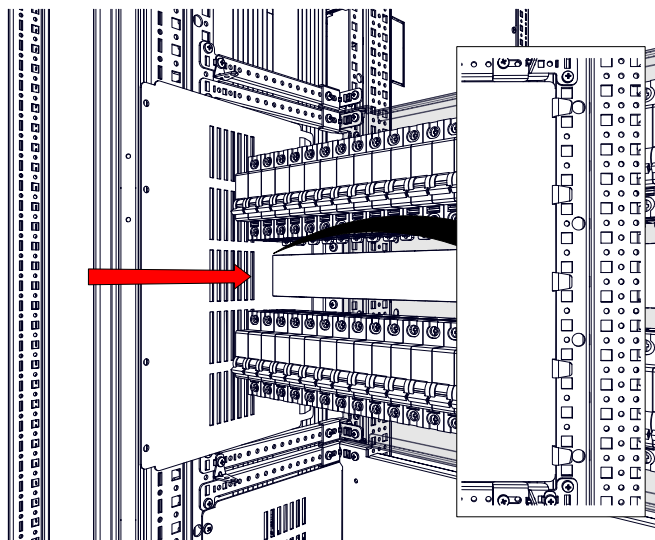
3. MCB - SIDE SEPARATION ASSEMBLY

3.1 MCB - SIDE SEPARATION ASSEMBLY



M5X10
4 pcs.

Required Packages:
1033.XXX

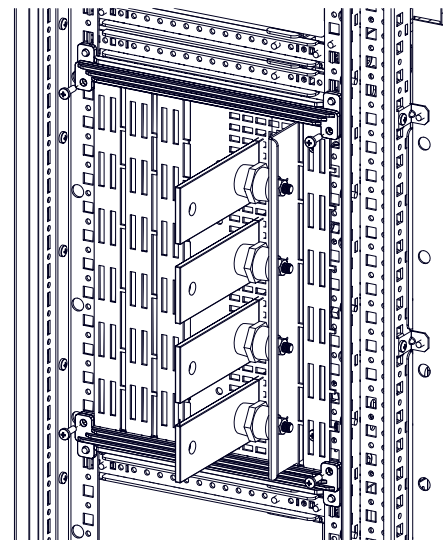
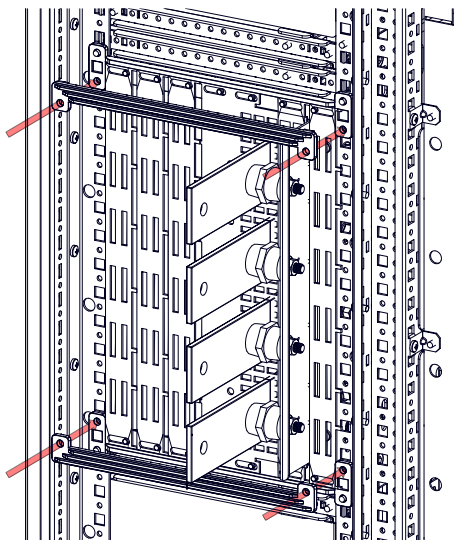
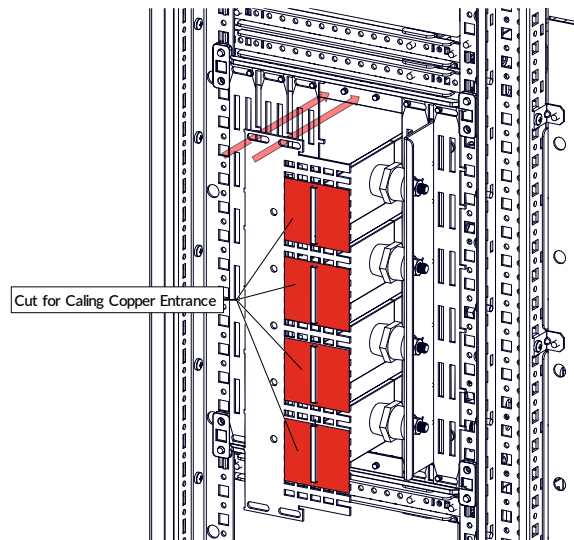
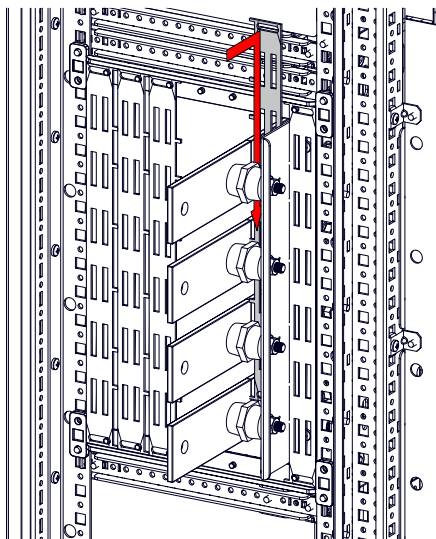
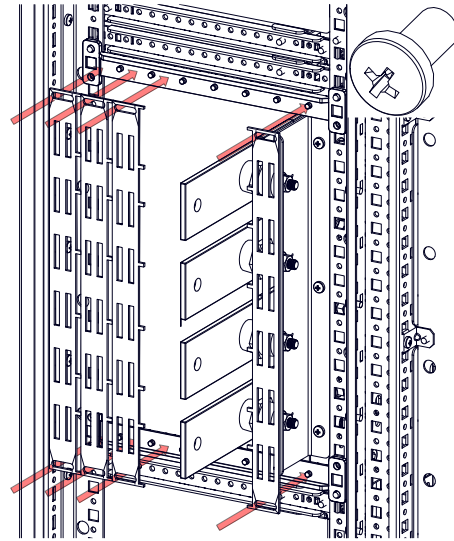
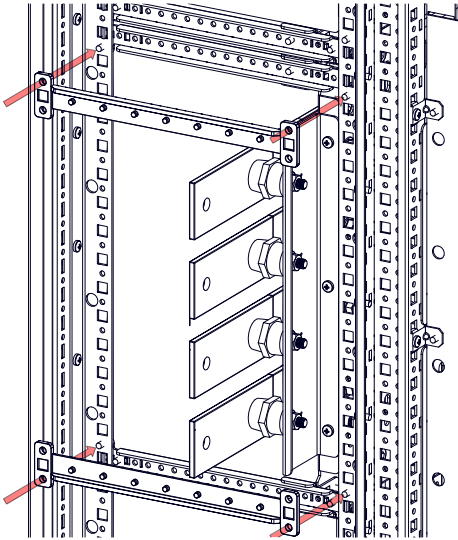


3.2 MCCB (EMPTY)-MODULAR SIDE SEPARATION ASSEMBLY

Required Packages:
1041.0XX



M5X16
4 pcs.



4. MCB SEPARATION SHELF ASSEMBLY

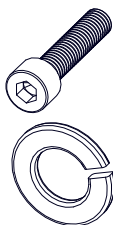
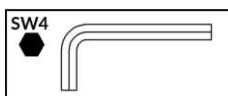
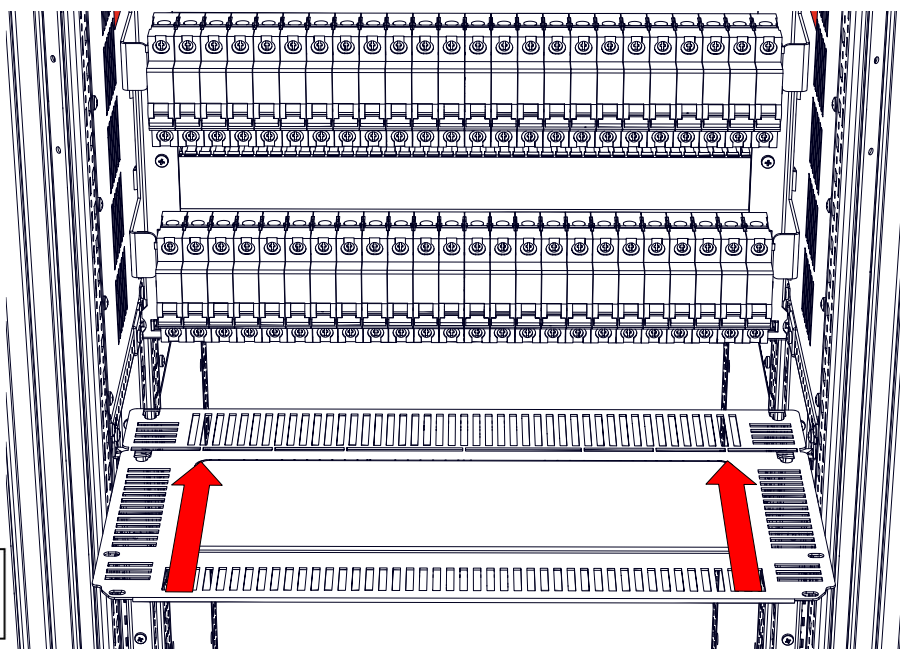
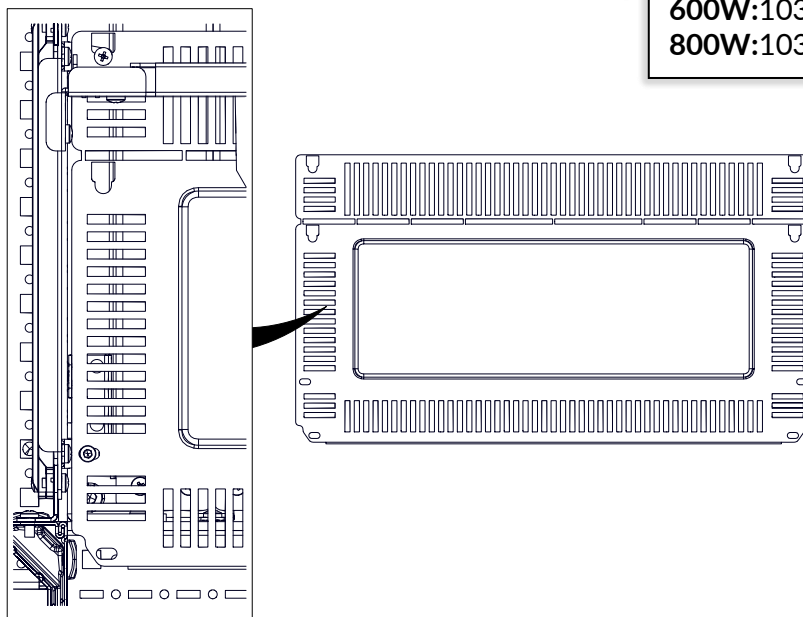
EXTERNAL POSITION

Required Packages:

400W:1032.040

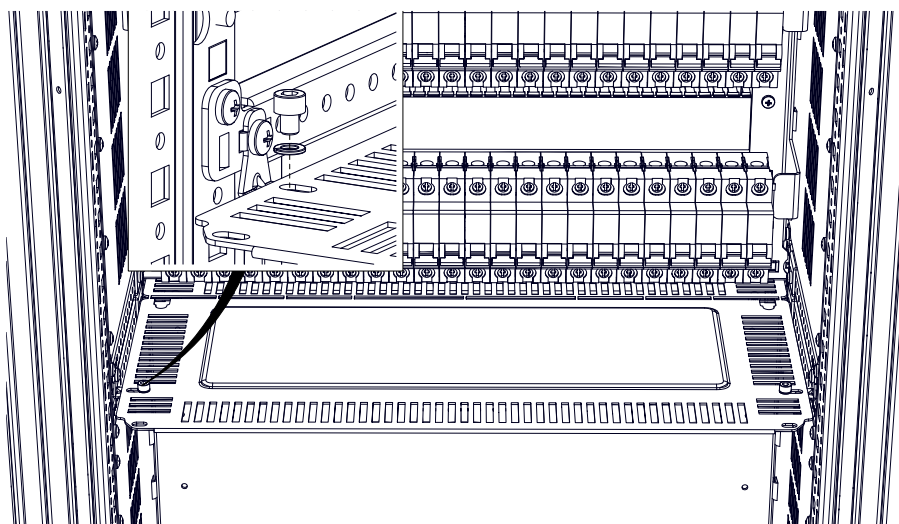
600W:1032.060

800W:1032.080



M5x6

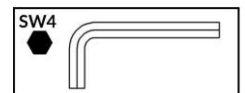
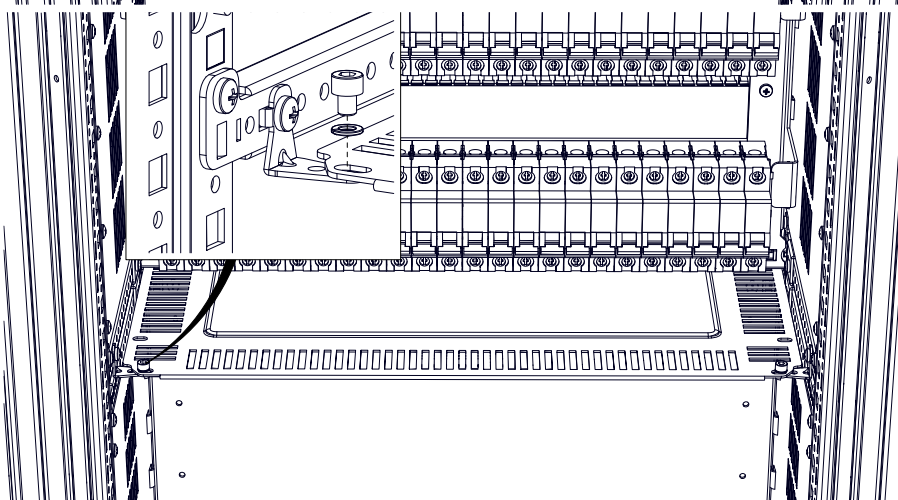
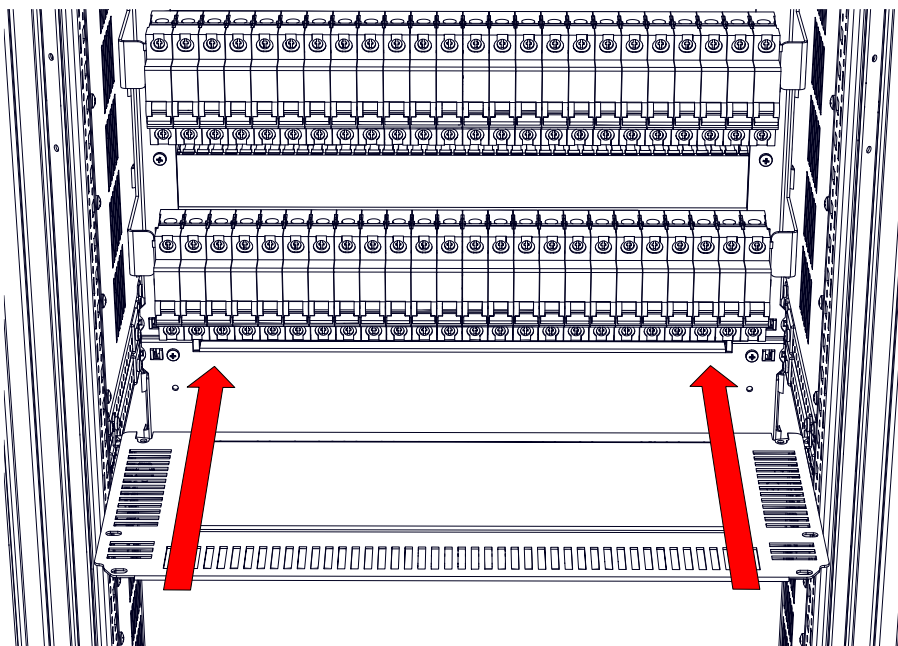
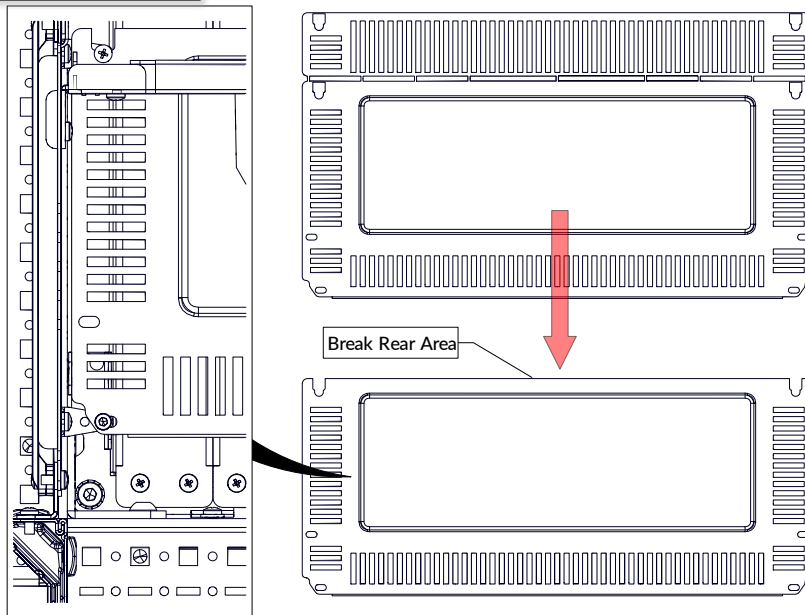
M5



4. MCB SEPARATION SHELF ASSEMBLY

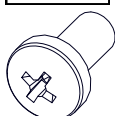
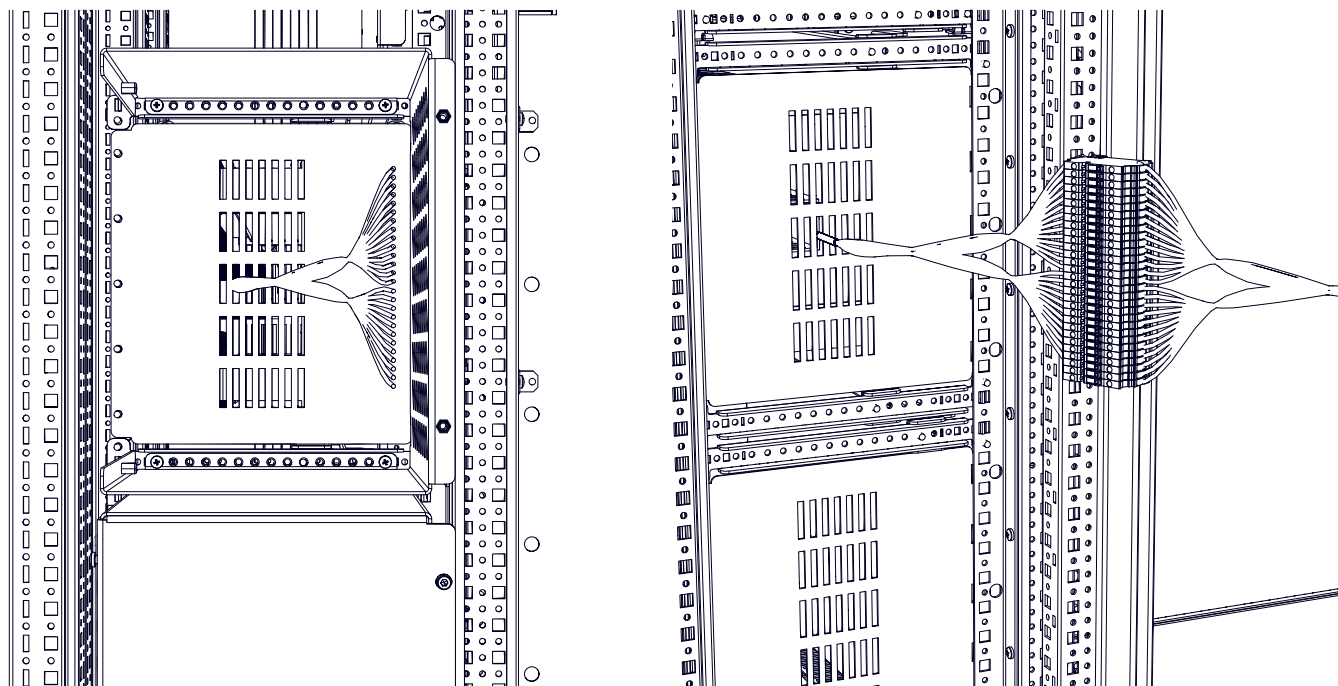
Required Packages:
400W:1032.040
600W:1032.060
800W:1032.080

INTERNAL POSITION



5. MCB CABLING- FORM BOX ASSEMBLY

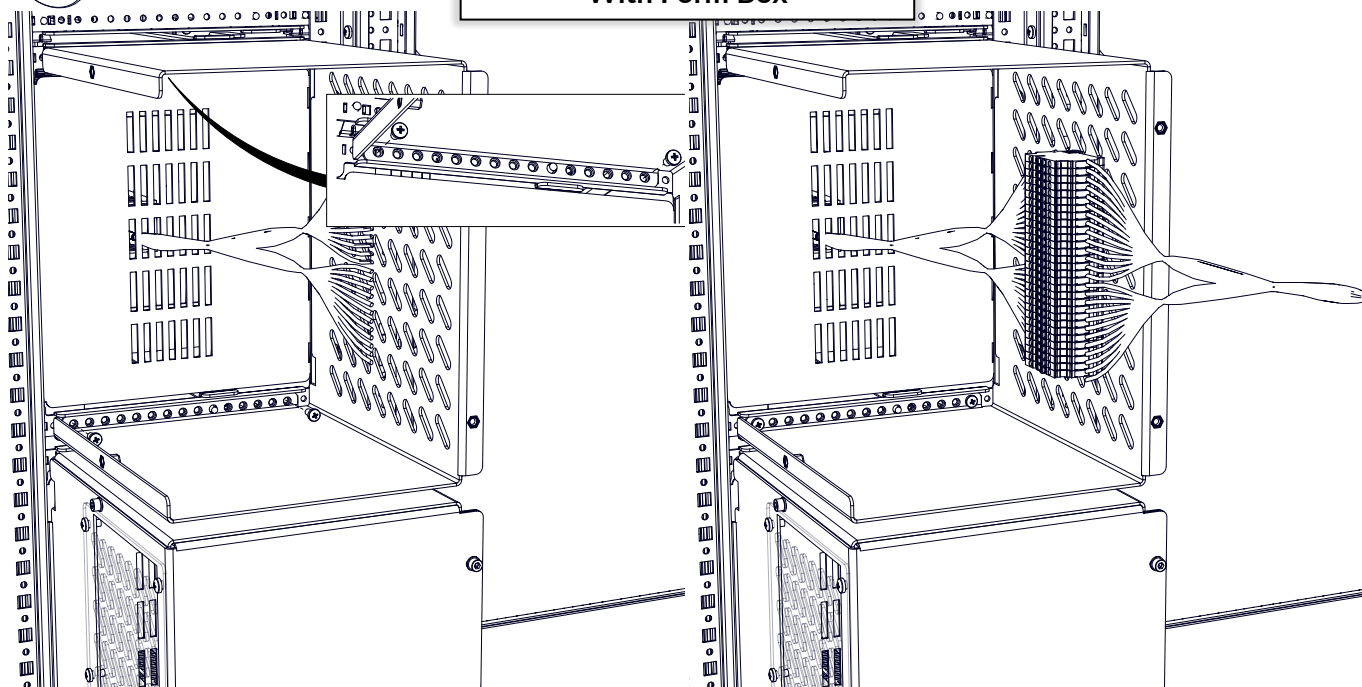
Without Form Box



M5X10
4 pcs.

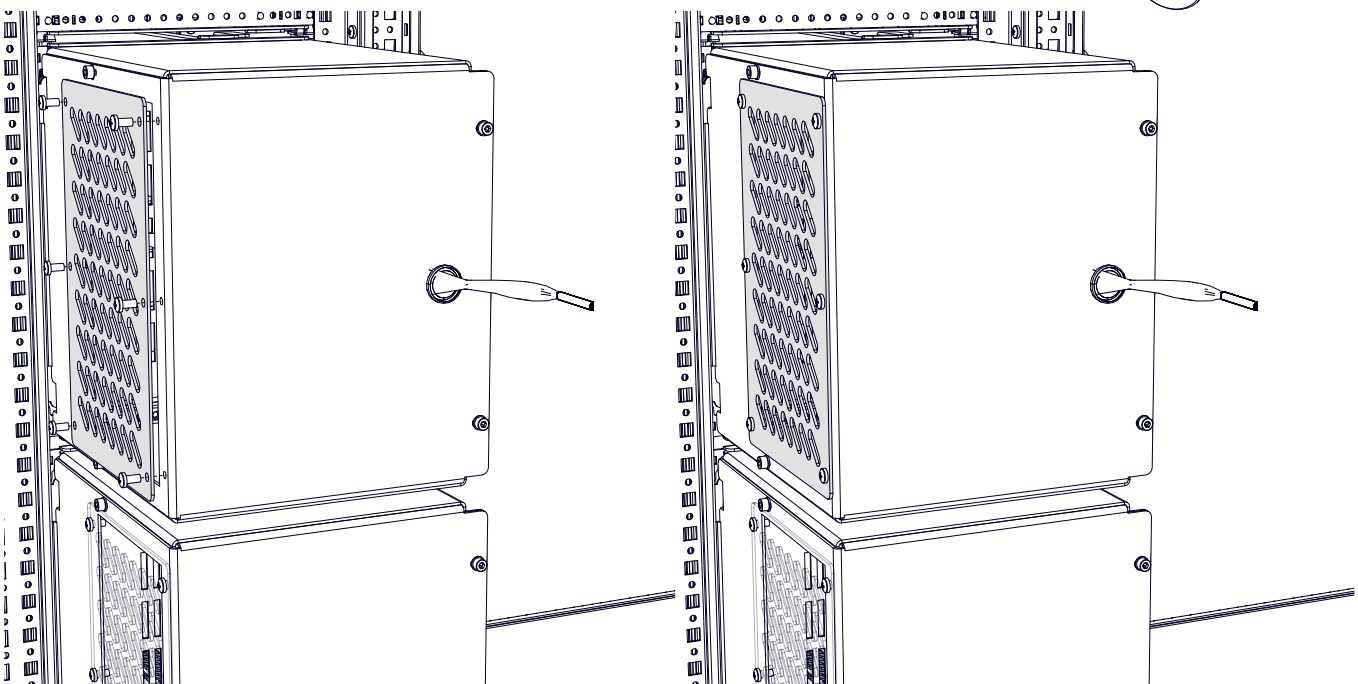
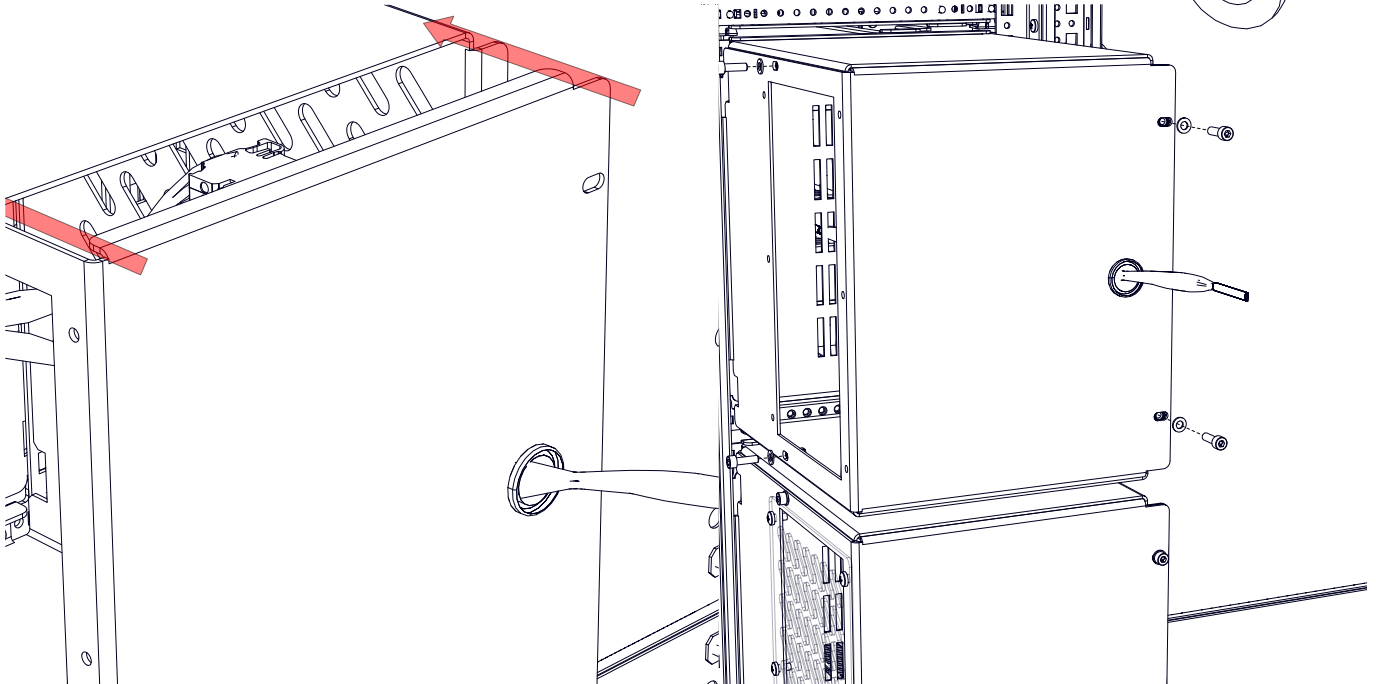
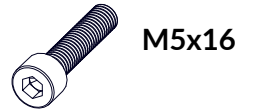
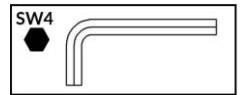
Required Packages:
1042.0XX

With Form Box



5. MCB CABLING- FORM BOX ASSEMBLY

Required Packages:
1042.0XX



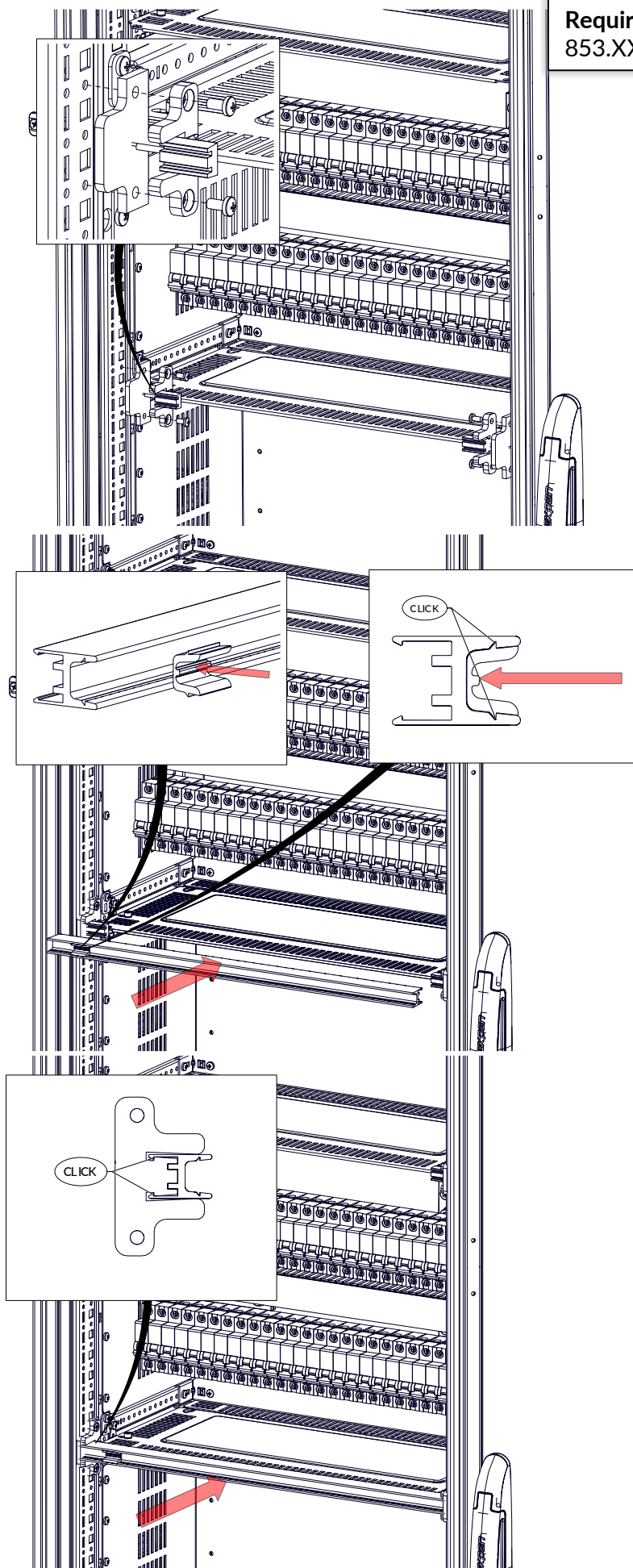
6. FRONT DOOR ASSEMBLY

6.1 EXTERNAL PARTIAL DOOR ASSEMBLY



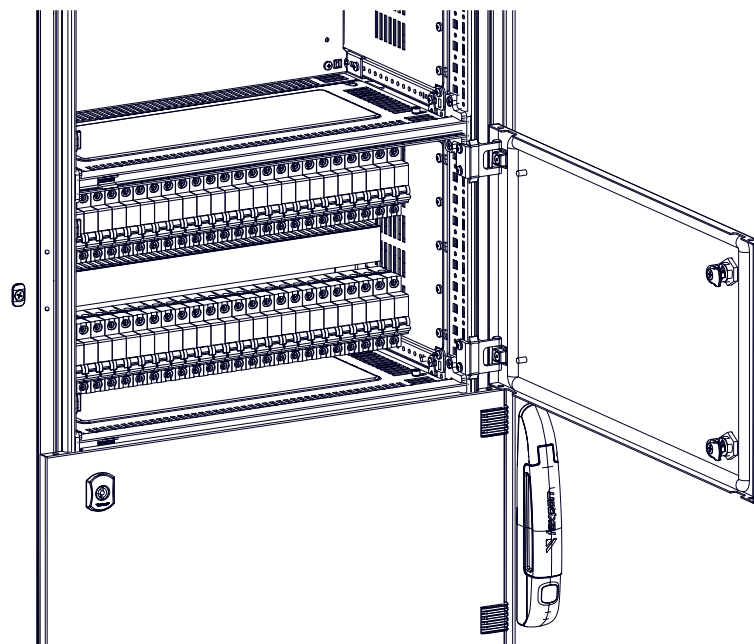
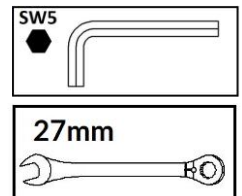
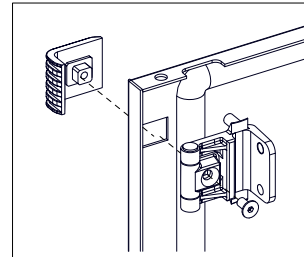
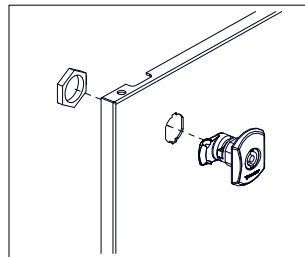
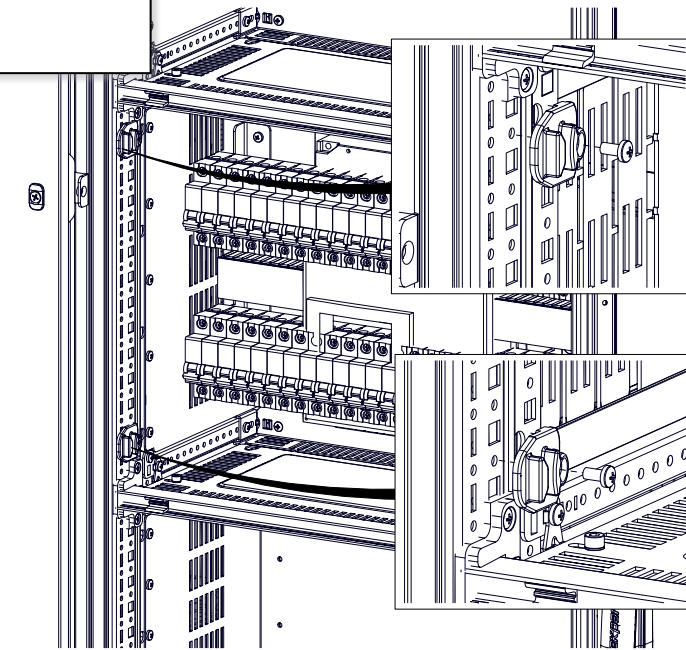
M5X10
4 pcs.

Required Packages:
853.XXX

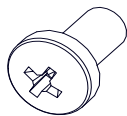


6.1 EXTERNAL PARTIAL DOOR ASSEMBLY

Required Packages:
853.XXX

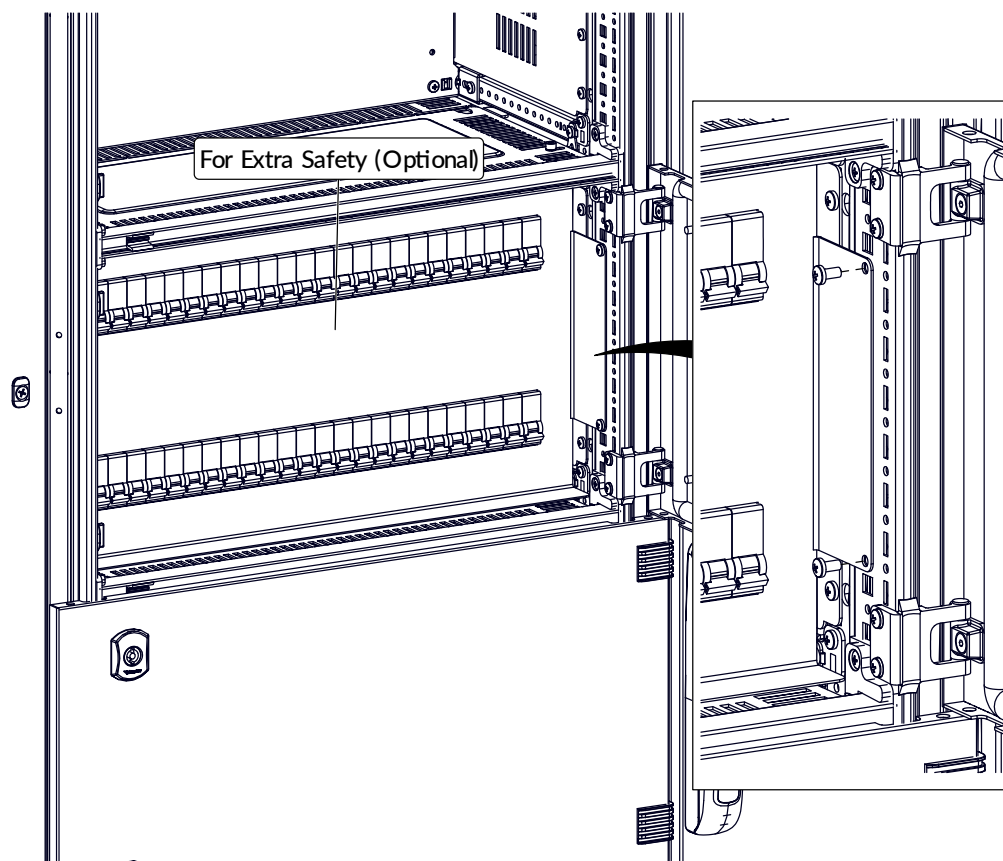
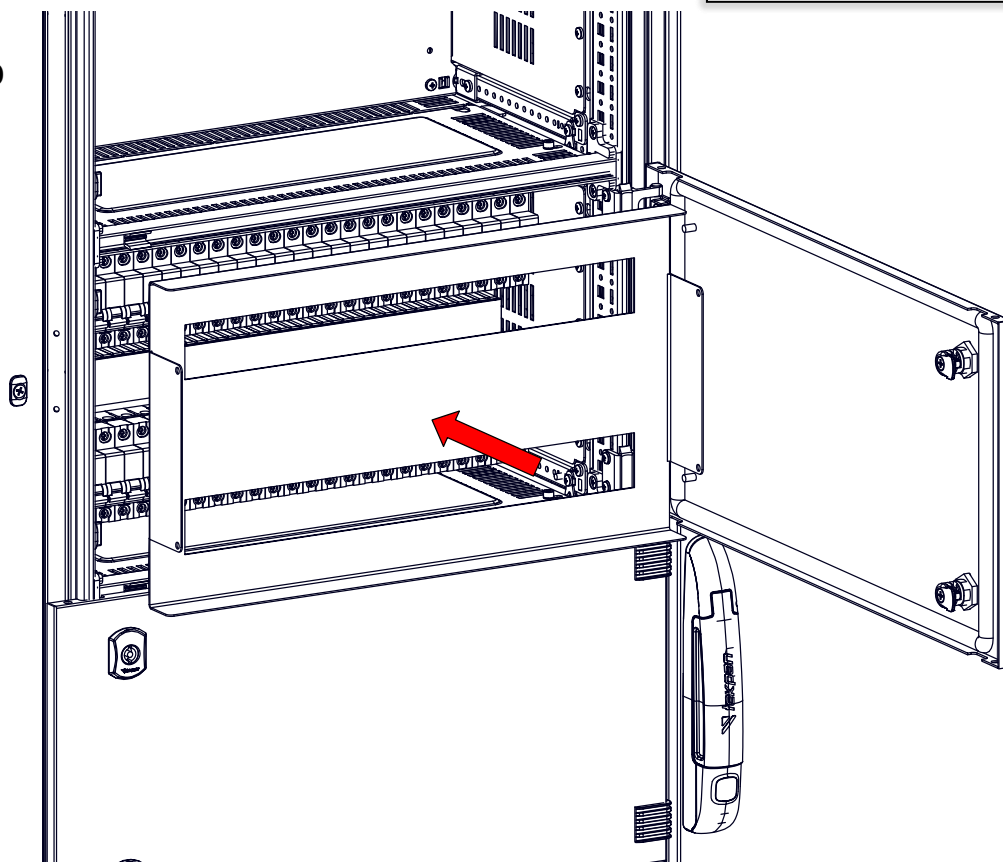


6.2 MCB SAFETY COVER ASSEMBLY (OPTIONAL)



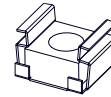
M5X10
4 pcs.

Required Packages:
1064.XXX

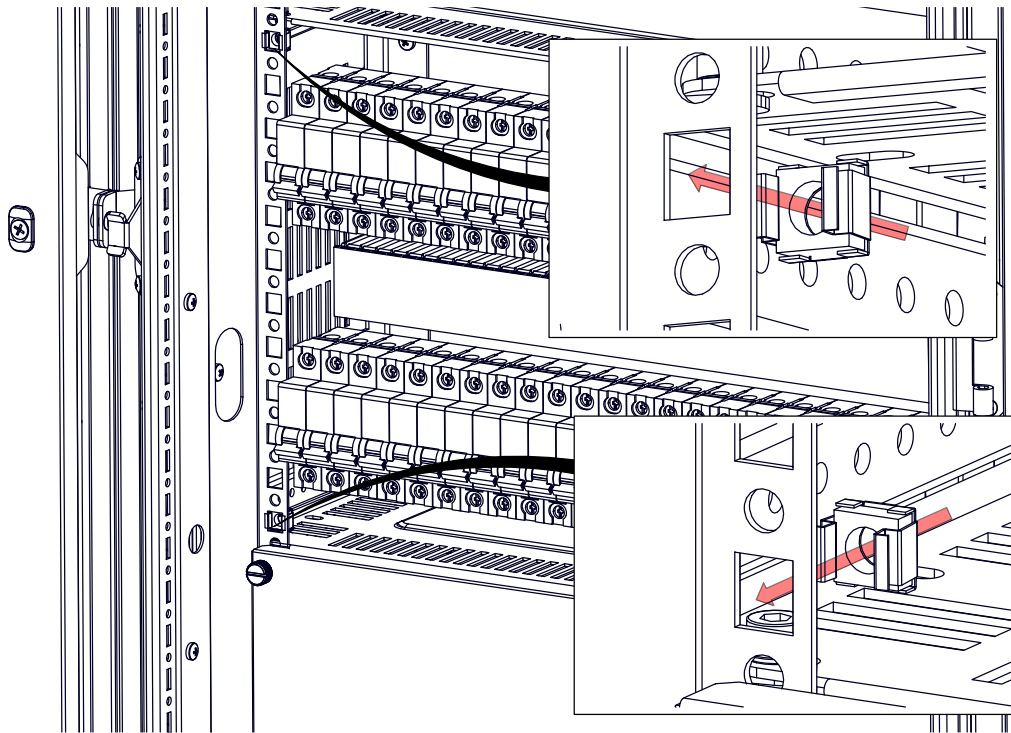


7. INTERNAL PARTIAL DOOR ASSEMBLY

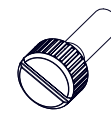
Required Packages:
954.XXX



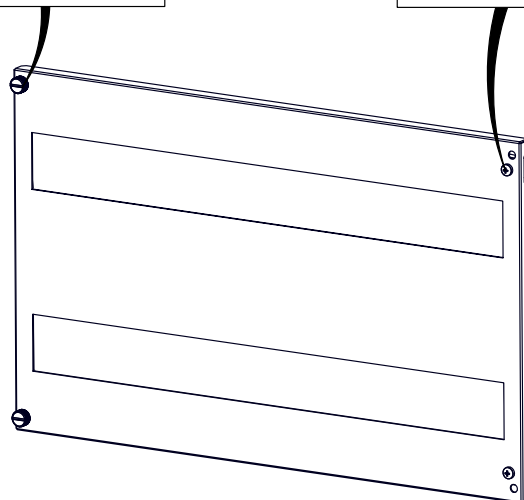
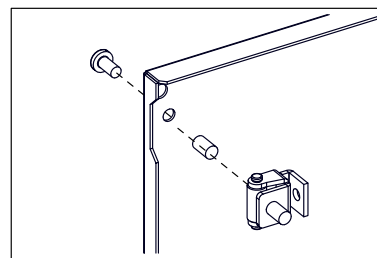
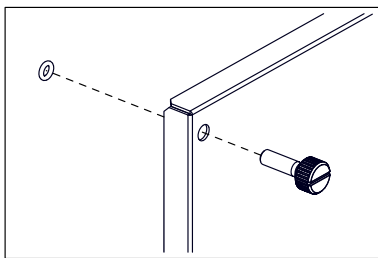
M6 Cage Nut



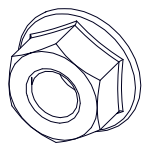
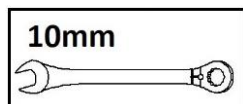
M5X10



M6 Knob Bolt



7. INTERNAL PARTIAL DOOR ASSEMBLY



M6

