

# DM U Wall Mounted Enclosure - Stainless Steel Mounting Instruction



NEMA 12



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## 1. DESCRIPTIONS

Wall-Mount / Freestanding with Plinth , indoor type ,variant with Single Door and Mounting Plate empty enclosures, for low voltage switching device combinations with a maximum voltage rating of 1000V AC or 1500V DC

**Standards Compliance:** UL 50E and IEC 62208

### Protection Ratings :

Protection Ratings: Single Door : UL/cUL Type 1 , 3R, 12,4 - UL File Number E352599 / IP66 ( IEC 60 529)

**Corrosion Resistance:** C3-M according to EN ISO 12944-2

**Impact Protection:** IK10 according to IEC EN 60529

### Door Types :

- \* Single Door up to 400mm height : 130° left hand hinged door ( reverse is possible) , one 1/4 turn latch with screwdriver insert
- \* Single Door up to 800mm height : 130° left hand hinged door ( reverse is possible) , two 1/4 turn latch with screwdriver insert
- \* Single\* Door from 1200mm height and above : 130° left hand hinged door ( reverse is possible) , 3-point latching tool-to-open swing handle with screwdriver insert

### Materials:

Doors up to 500Wx700H :1,20mm , from 600Wx800H and largers :2,00mm Stainless Steel

Enclosures up to 600Wx600H:1,20mm , from 600Wx800H and largers :1,50mm Stainless Steel

Mounting Plates: 2,00mm : DX51 Galvanized Steel

### Surface Finish:

Enclosure, door(s): AISI 304 and AISI 316 SS Stainless Steel Finished

### Supply Includes :

Enclosure with wall mounting holes, Door , Mounting Plate

### Options:

Wall brackets, grounding cables, and other accessories

## AISI 304 STAINLESS STEEL



### Product Code

DM U252.315-SS4  
DM U253.321-SS4



### Product Code

DM U253.421-SS4  
DM U254.421-SS4  
DM U254.521-SS4  
DM U255.530-SS4  
DM U254.621-SS4  
DM U255.726-SS4  
DM U256.830-SS4  
DM U258.830-SS4



### Product Code

DM U256.130-SS4  
DM U258.130-SS4



### Product Code

DM U258.123-SS4

## AISI 316 STAINLESS STEEL



### Product Code

DM U252.315-SS6



### Product Code

DM U253.421-SS6  
DM U254.421-SS6  
DM U254.621-SS6  
DM U255.726-SS6  
DM U256.830-SS6



### Product Code

DM U258.130-SS6



### Product Code

DM U258.123-SS6

## 2. SAFETY INSTRUCTIONS

### 2.1 General Safety

- Assembly must be carried out by qualified and trained personnel only.
- These instructions must be fully read and understood before installation.
- The product shall be used only for its intended purpose.
- The working area must be clean, dry, and adequately illuminated.
- Improper use may result in serious injury or equipment damage.



### 2.2 Personal Protective Equipment (PPE)

The following equipment must be used during assembly:

- Cut-resistant protective gloves
- Safety shoes
- Safety goggles
- Workwear and safety helmet when required



### 2.3 Handling and Lifting

- Heavy components must not be lifted by a single person.
- Suitable lifting equipment (e.g. forklift, crane) must be used.
- Components may have sharp edges – handle with care.
- Products must be transported in a balanced and secured manner to prevent tipping.



### 2.4 Assembly Safety

- All components must be assembled on a stable and level surface.
- Fasteners and bolts must be tightened according to the specified torque values.
- Do not assemble with missing or damaged components.
- Be cautious of finger entrapment during assembly.
- Provide adequate support to prevent the enclosure from tipping over.



### 2.5 Electrical Safety

- The enclosure must be de-energized during installation.
- Electrical connections must be carried out by qualified electrical personnel only.
- Protective earthing (grounding) must be completed after assembly.
- Compliance with IEC 61439 and relevant standards must be ensured.



### 2.6 Environmental Conditions

- Assembly must not be performed in excessively humid or dusty environments.
- The product must be installed to maintain the specified IP protection rating.
- For outdoor applications - if the permitted of the enclosure-, suitable accessories (e.g. rain canopy) must be used.



### 2.7 Inspection Before Commissioning

- All connections must be checked.
- Doors and panels must operate properly and close correctly.
- Sealing elements must be correctly installed.
- Mechanical stability and installation accuracy must be verified.



### 2.8 Maintenance and Modification

- Unauthorized modifications to the product are not permitted.
- Maintenance must be performed by qualified personnel only.
- Damaged parts must be replaced with original spare parts.

### 3. TORQUE TABLE for SCREWS/BOLTS

| Recommended tightening torque for mechanical and electrical links<br>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:

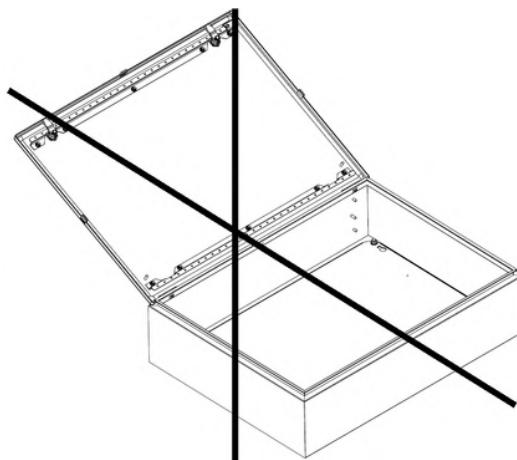
- ✓ It allows operator inspection, to verify if the bolts/ nut are tightened or not.
  - ✓ It facilitates the identification of any loose nuts during the switchboard's lifetime.
- Varnish features: ✓ Coloured acrylic varnish, indelible and able to resist a 150° C temperature.
- ✓ PDS recommends a red 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.

## 4.ASSEMBLY

## 4.1 Beginning

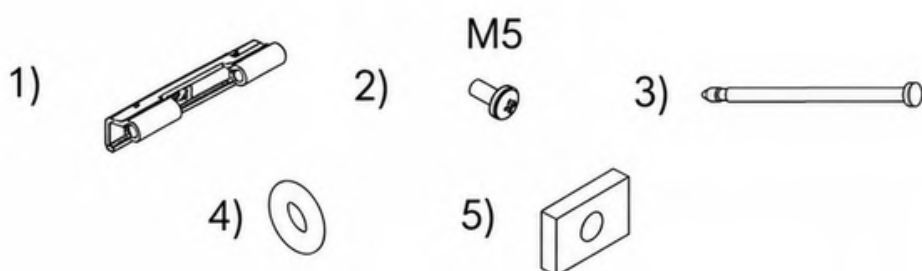
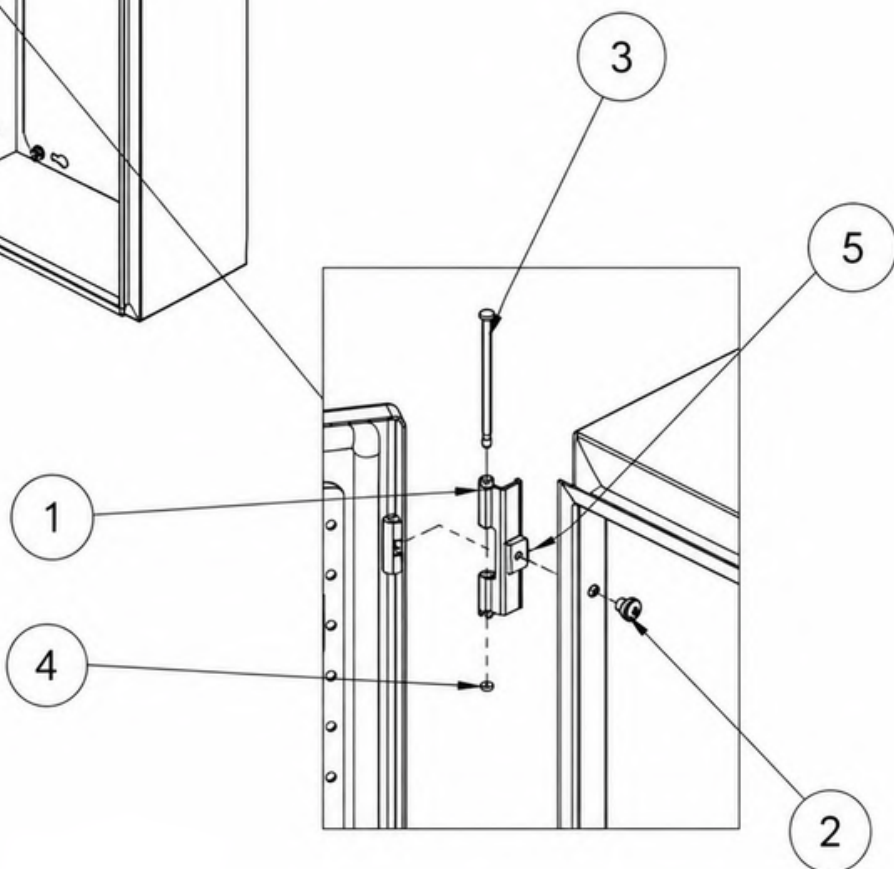
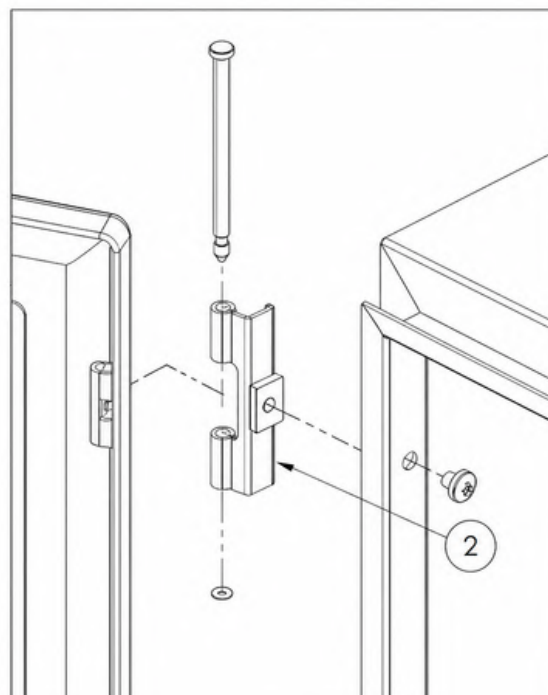
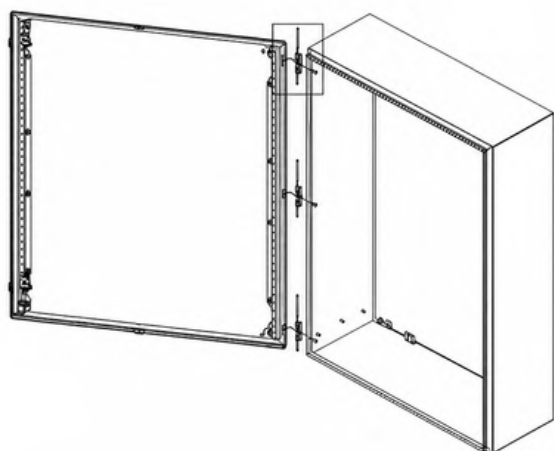
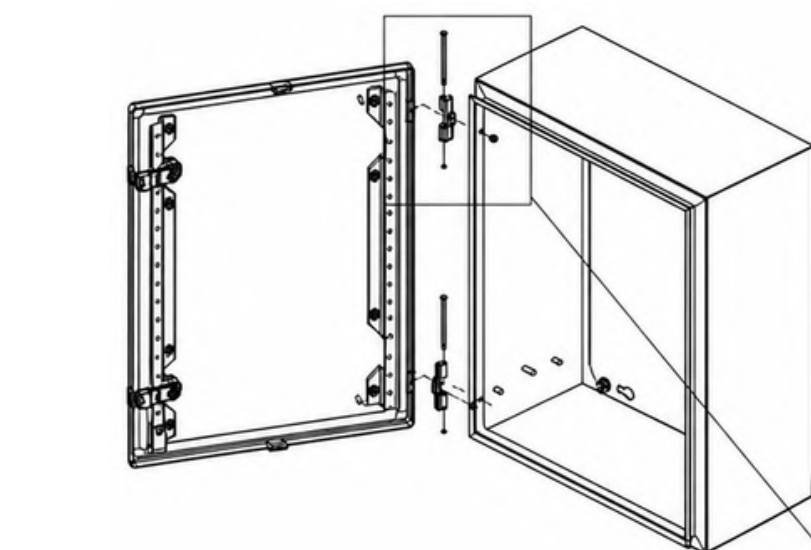
| INNER PACKAGE CONTENT                                                             |                              |   | PCS. |                                                                                   |         |   | PCS. |
|-----------------------------------------------------------------------------------|------------------------------|---|------|-----------------------------------------------------------------------------------|---------|---|------|
|  | M6                           | 2 |      |  | M8 Inox | 1 |      |
|  | M6                           | 2 |      |  | M8      | 1 |      |
|  | M8x15                        | 1 |      |  | Sticker | 3 |      |
|  | Cleaning Solution<br>(30 cc) | 1 |      |                                                                                   |         |   |      |



**! Positioning the enclosure on its back while the door is open imposes excessive mechanical stress on the structure, which may result in permanent and visible deformation. Such handling is strictly prohibited.**

## 4.ASSEMBLY

### 4.2 Removing The Door

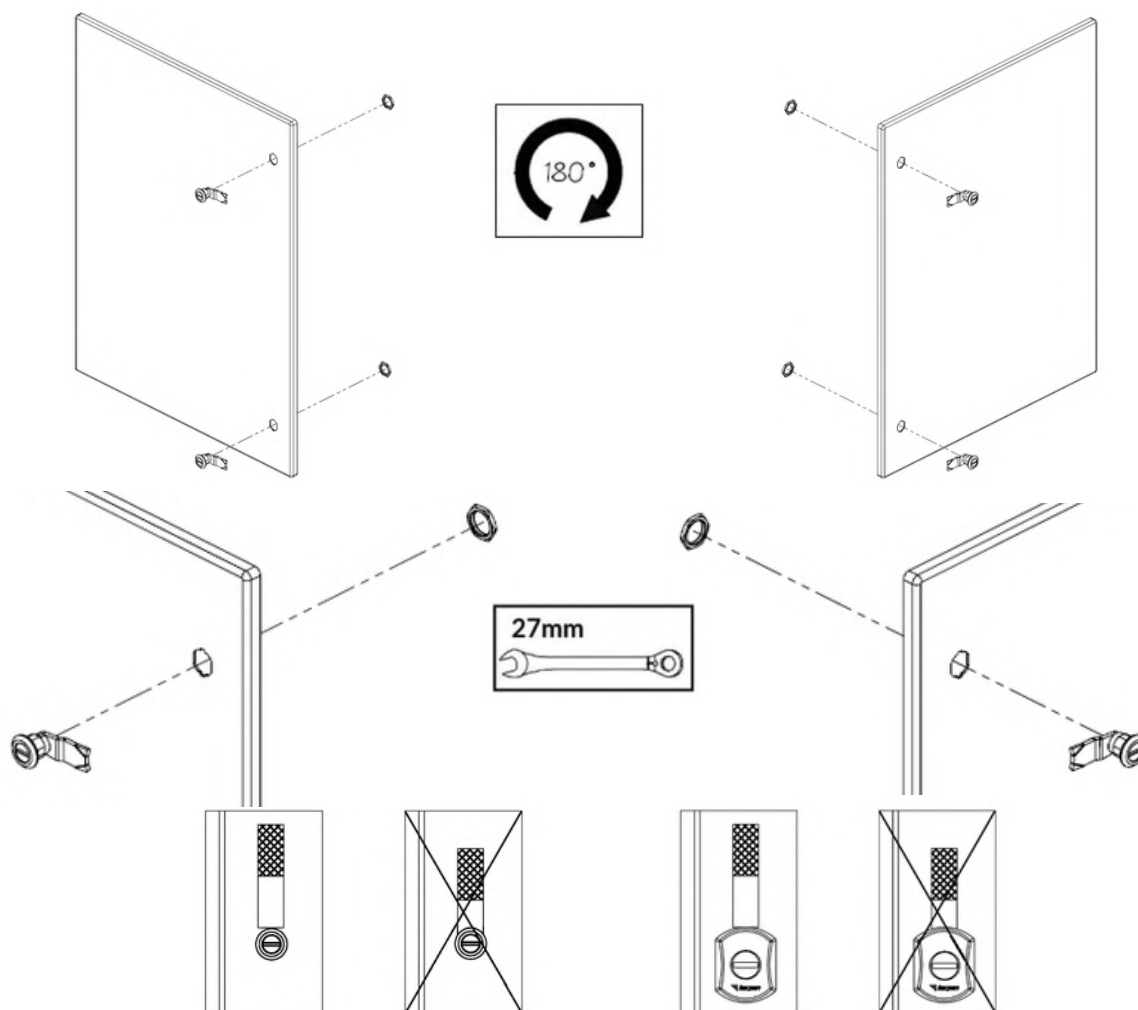


## 4.ASSEMBLY

### 4.3 Door Position Changing

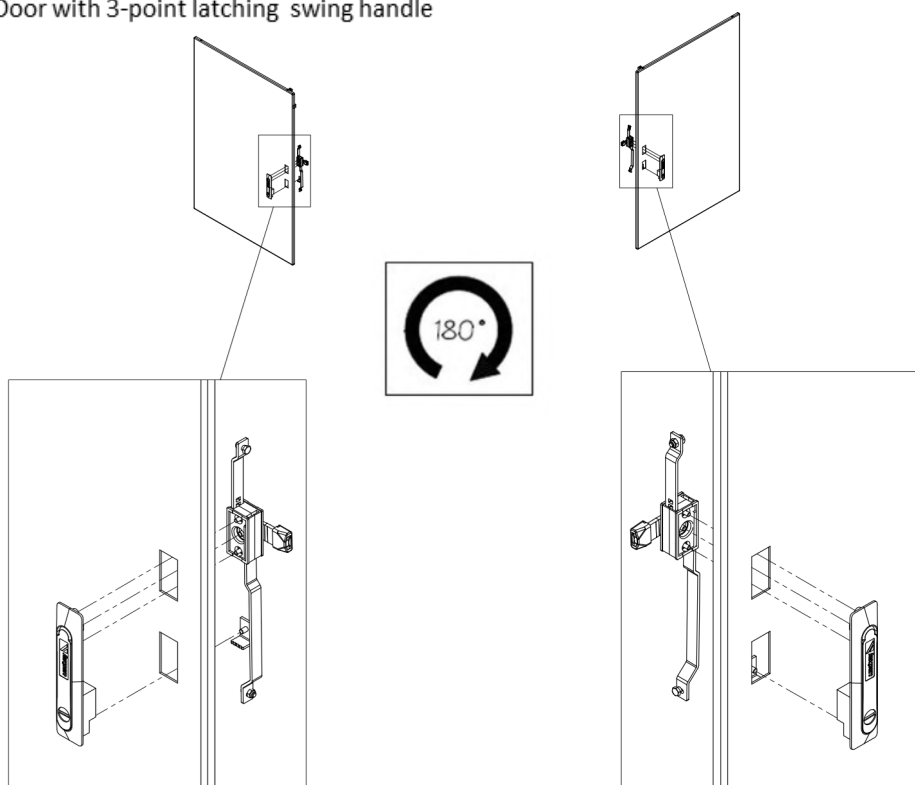
#### 1.1

Single Door with 1/4 turn latches



#### 1.2

Single Door with 3-point latching swing handle

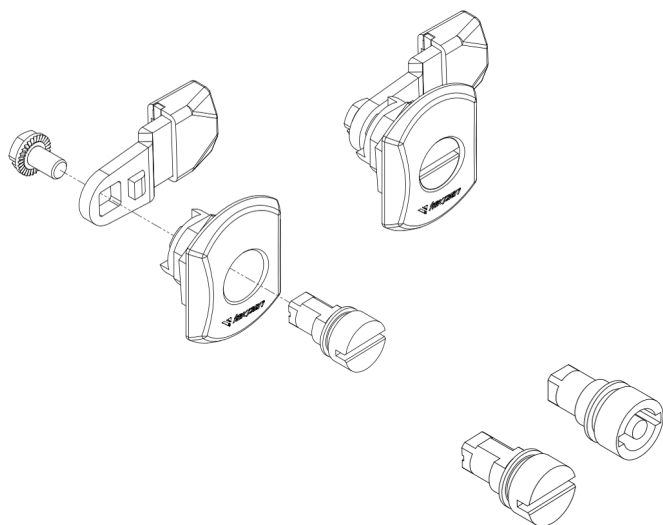


## 4.ASSEMBLY

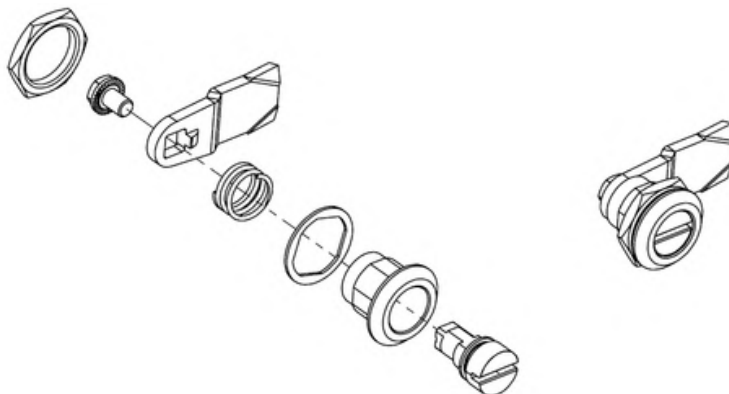
### 4.4 Changing The Lock Insert

#### 1.1 For 1/4 turn latches

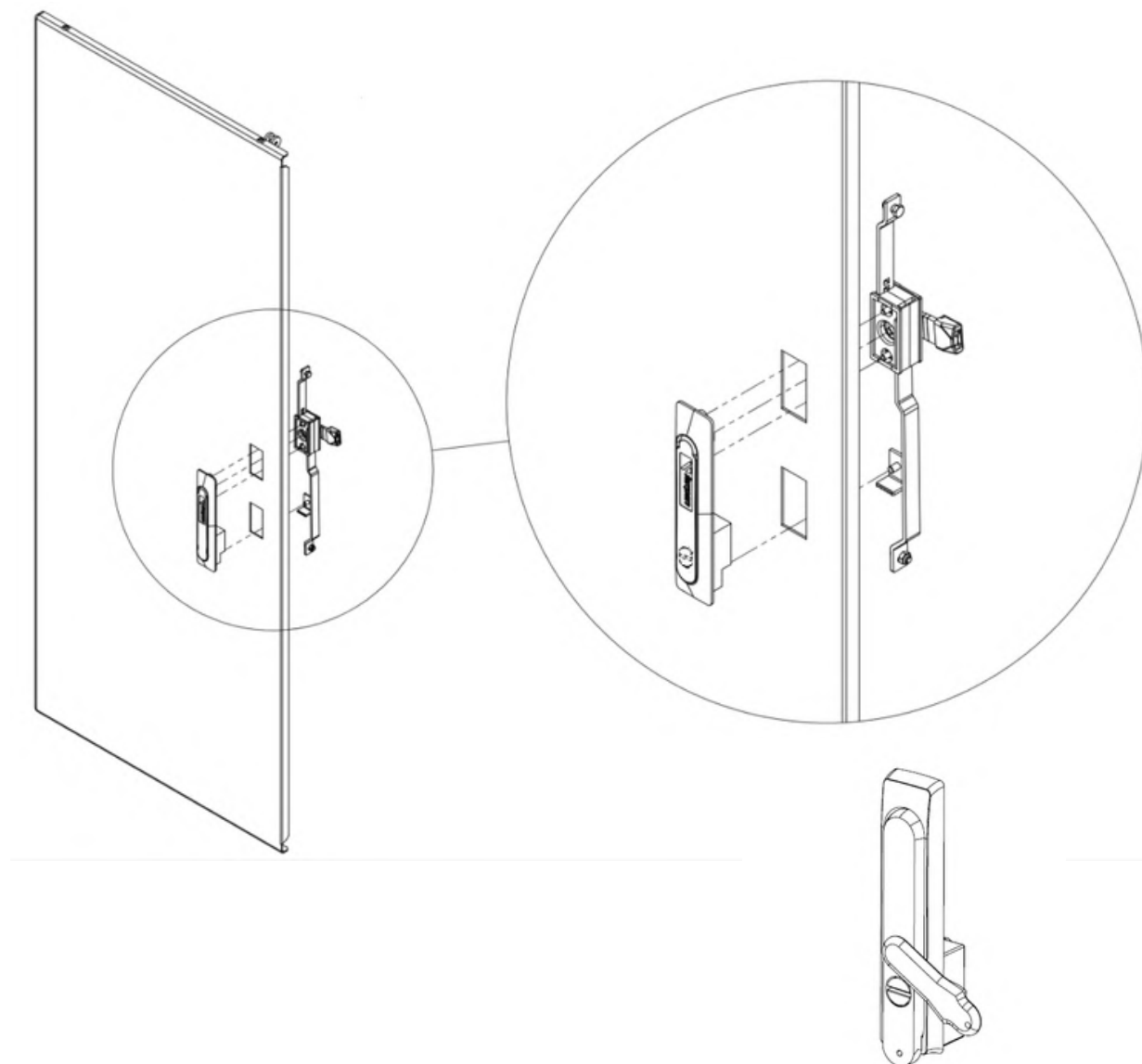
##### SS 304 LOCK



##### SS 316 LOCK



#### 1.2 For swing handles

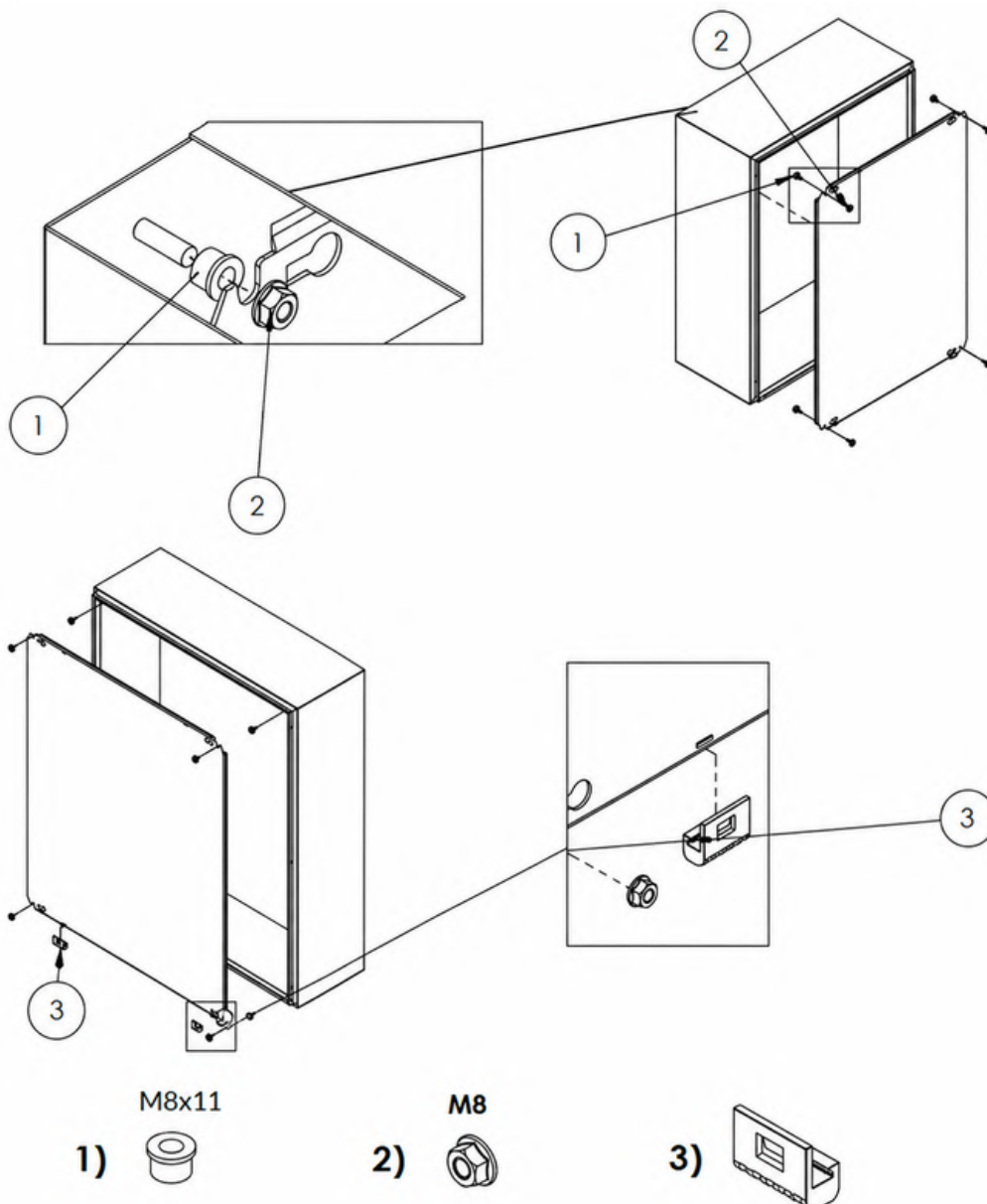


Swing Handle Lock model used with 316 stainless steel enclosures

#### 4.ASSEMBLY

##### 4.5 Mounting Plate Assembly

13mm

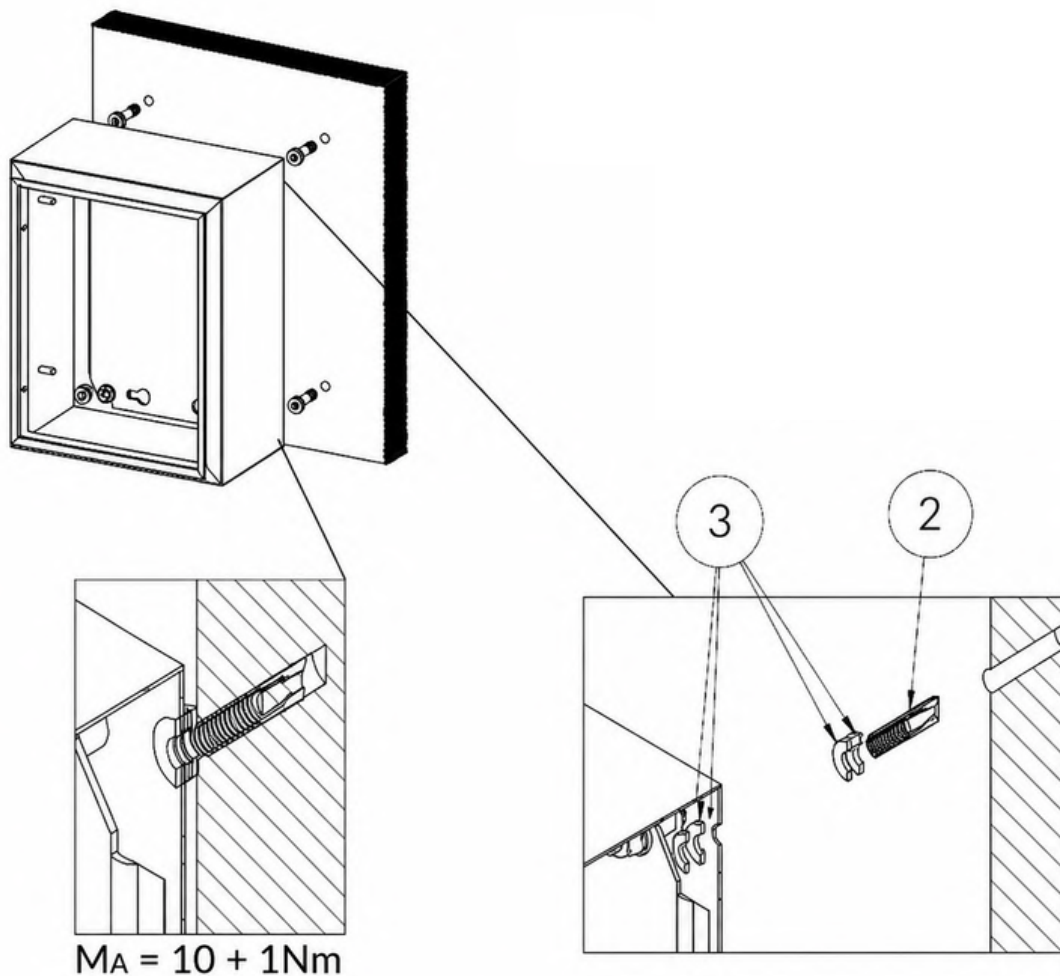
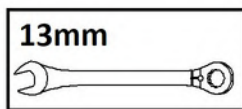


#### 4.ASSEMBLY

##### 4.6 Securing mounting plate



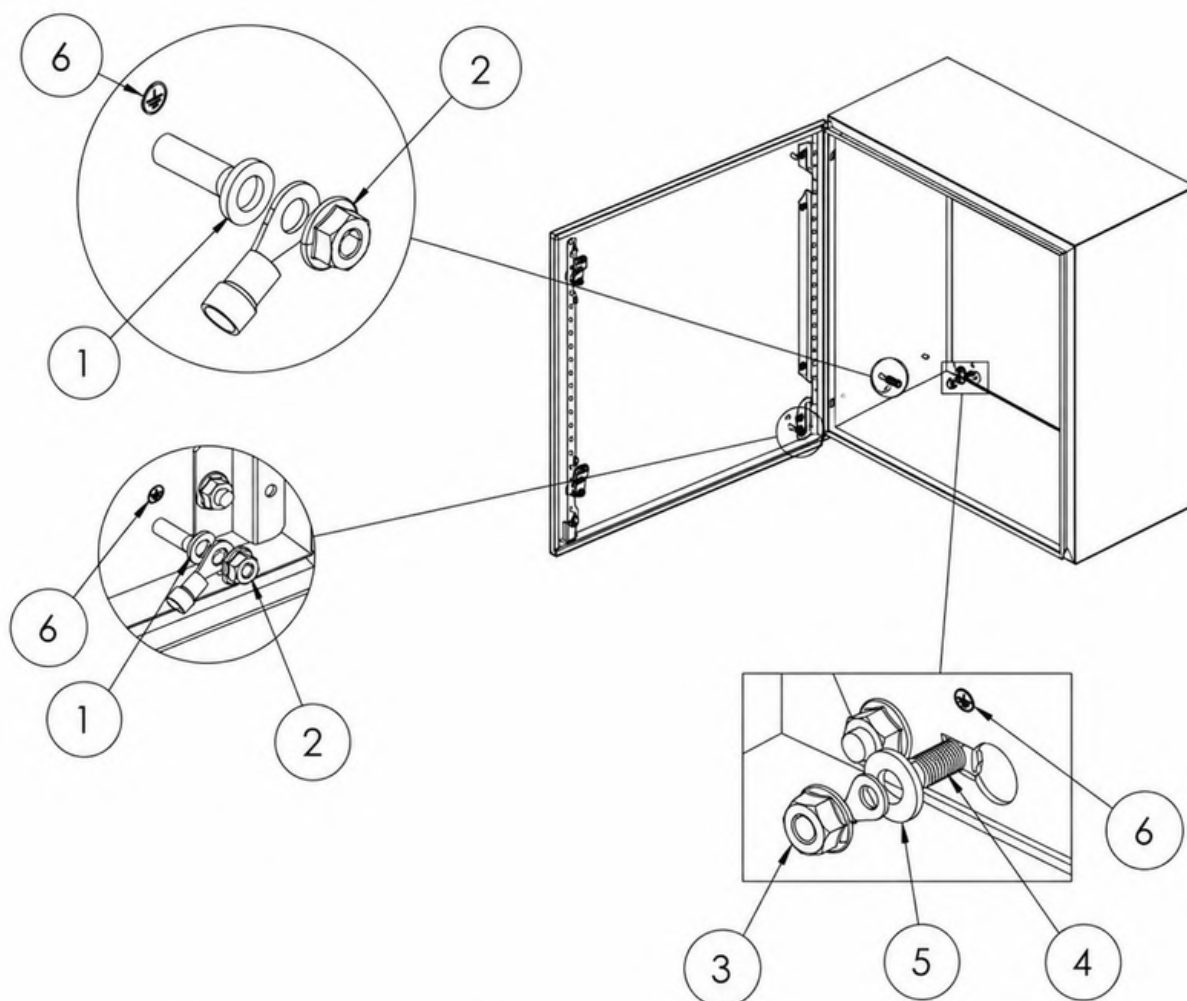
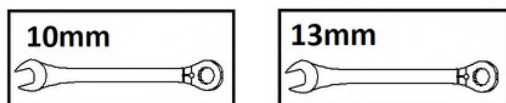
**!** Mounting plate fastening bolts may loosen during transport and could cause the mounting plate to tip over. Secure all connections.

**4.ASSEMBLY****4.7 Fixing to Wall****RECOMMENDED PARTS** 

| M8 |                                                                                     | M8 STEEL DOWEL |    | M8 GASKET                                                                            |                                         |
|----|-------------------------------------------------------------------------------------|----------------|----|--------------------------------------------------------------------------------------|-----------------------------------------|
| 1) |  | x4             | 2) |   | x4                                      |
|    |                                                                                     |                | 3) |  | x16                                     |
|    |                                                                                     |                |    |                                                                                      | Gasket Packet<br>Product Code : 975.016 |

#### 4.ASSEMBLY

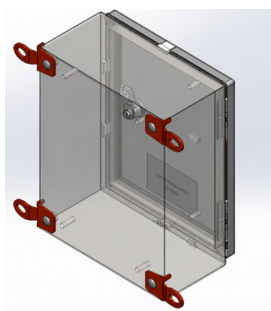
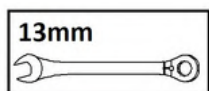
##### 4.8 Earthing and potential equalisation



- |    |           |           |           |              |  |    |  |
|----|-----------|-----------|-----------|--------------|--|----|--|
|    | <b>M6</b> | <b>M6</b> | <b>M8</b> | <b>M8x15</b> |  |    |  |
| 1) |           | 2)        |           | 3)           |  | 4) |  |
|    | <b>M8</b> |           |           |              |  |    |  |
| 5) |           | 6)        |           |              |  |    |  |

#### 4.ASSEMBLY

##### 4.9 Wall bracket mounting

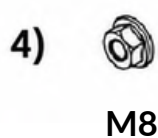
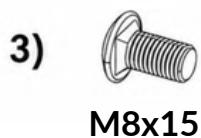
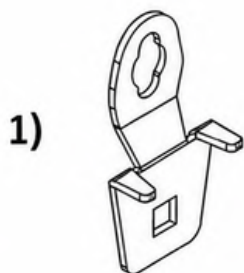
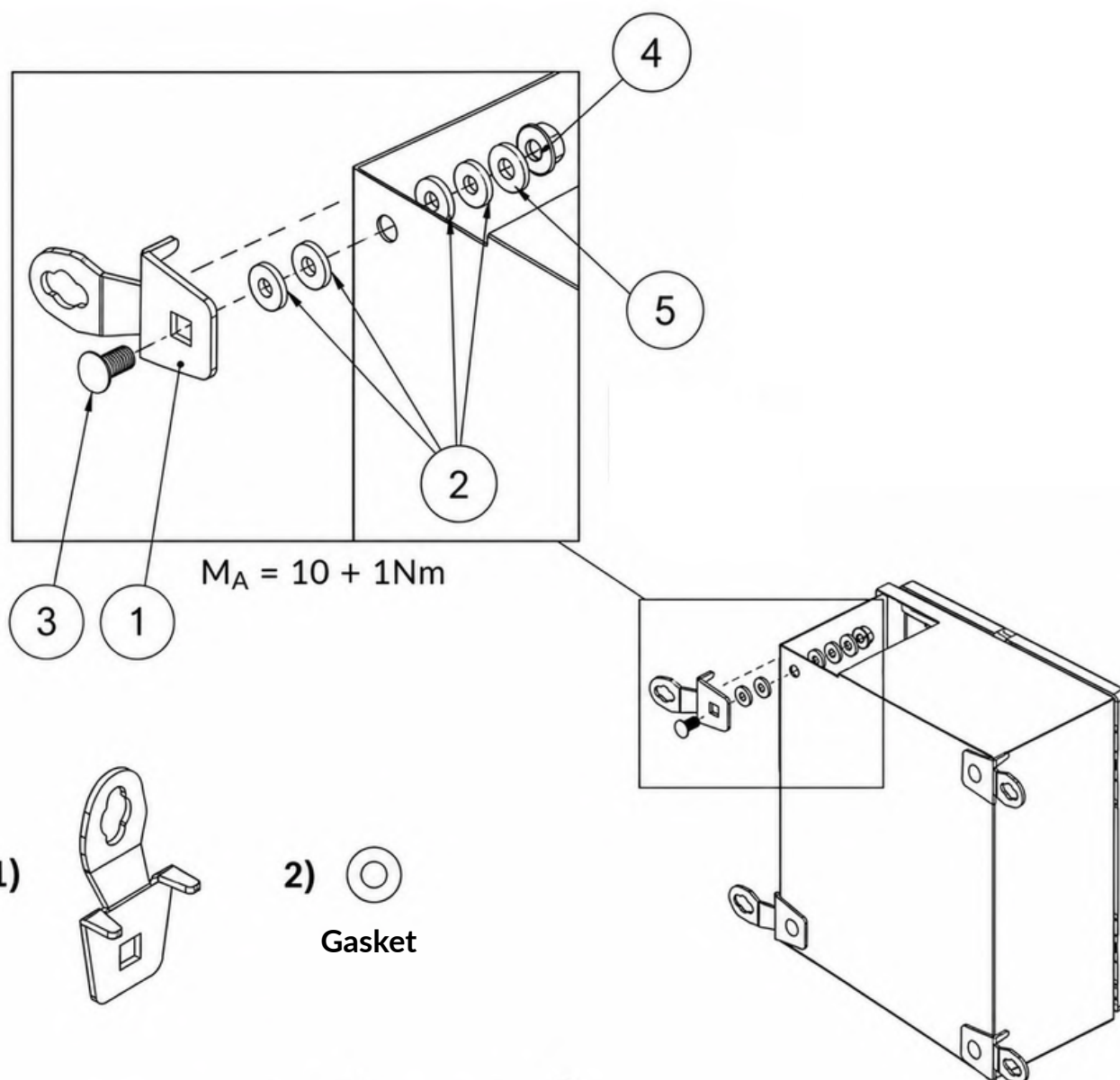


Wall Bracket Product Codes :

975.001 (4 pcs)

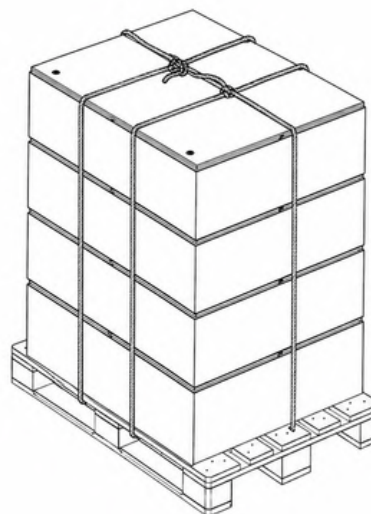
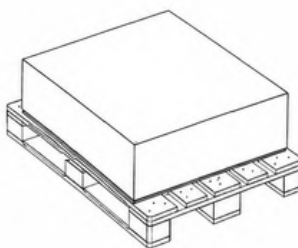
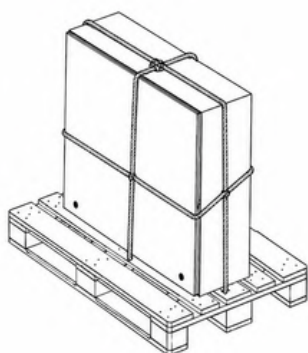
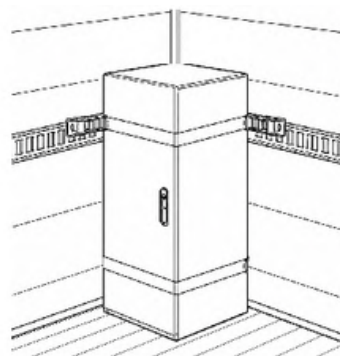
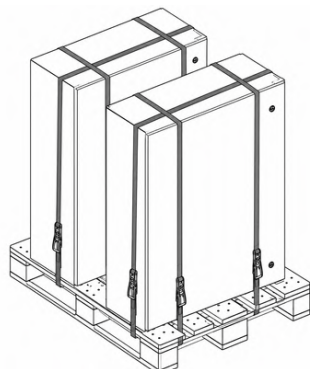
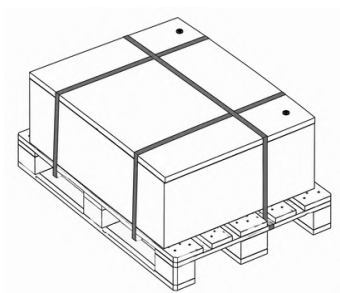
F Max = 900N

**! Must be ordered additionally**



## 5. TRANSPORT

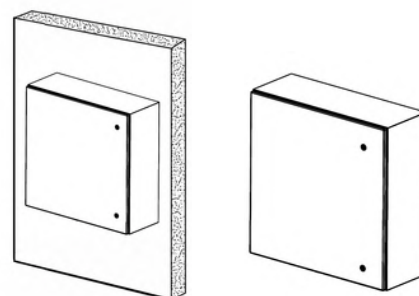
It is crucial to carry out the transport as shown in the images above to prevent damage to the panel.



## 6. LOADING WEIGHTS

| PRODUCT CODE    | ENCLOSURE SIZE(mm) |       |       | TOTAL (N) | MOUNTING PLATE (N) | DOOR (N) |
|-----------------|--------------------|-------|-------|-----------|--------------------|----------|
|                 | Height             | Width | Depth |           |                    |          |
| DM U252.315-SS4 | 300                | 250   | 150   | 850       | 570                | 230      |
| DM U253.321-SS4 | 300                | 300   | 210   | 850       | 570                | 230      |
| DM U253.421-SS4 | 400                | 300   | 210   | 850       | 570                | 230      |
| DM U254.421-SS4 | 400                | 400   | 210   | 850       | 570                | 230      |
| DM U254.521-SS4 | 500                | 400   | 210   | 1230      | 950                | 230      |
| DM U255.530-SS4 | 500                | 500   | 300   | 1230      | 950                | 230      |
| DM U254.621-SS4 | 600                | 400   | 210   | 1230      | 950                | 230      |
| DM U255.726-SS4 | 700                | 500   | 260   | 1480      | 1200               | 230      |
| DM U256.830-SS4 | 800                | 600   | 300   | 1750      | 1470               | 230      |
| DM U258.830-SS4 | 800                | 800   | 300   | 1750      | 1470               | 230      |
| DM U256.130-SS4 | 1000               | 600   | 300   | 2180      | 1900               | 230      |
| DM U258.130-SS4 | 1000               | 800   | 300   | 2380      | 1900               | 380      |
| DM U258.123-SS4 | 1200               | 800   | 300   | 2950      | 2470               | 380      |
| DM U252.315-SS6 | 300                | 250   | 150   | 850       | 570                | 230      |
| DM U253.421-SS6 | 400                | 300   | 210   | 850       | 570                | 230      |
| DM U254.421-SS6 | 400                | 400   | 210   | 850       | 570                | 230      |
| DM U254.621-SS6 | 600                | 400   | 210   | 1230      | 950                | 230      |
| DM U255.726-SS6 | 700                | 500   | 260   | 1480      | 1200               | 230      |
| DM U256.830-SS6 | 800                | 600   | 300   | 1750      | 1470               | 230      |
| DM U258.130-SS6 | 1000               | 800   | 300   | 2380      | 1900               | 380      |
| DM U258.123-SS6 | 1200               | 800   | 300   | 2950      | 2470               | 380      |

## 7. POWER DISSIPATION CAPACITY



| PRODUCT CODE    | ENCLOSURE SIZE(mm) |       |       | $T_u = 25\text{ °C} / T_i = 45\text{ °C} / P_v = 0W$<br>$W (\Delta T = 20\text{ K})$ |     |
|-----------------|--------------------|-------|-------|--------------------------------------------------------------------------------------|-----|
|                 | Height             | Width | Depth |                                                                                      |     |
| DM U252.315-SS4 | 300                | 250   | 150   | 27                                                                                   | 31  |
| DM U253.321-SS4 | 300                | 300   | 210   | 34                                                                                   | 39  |
| DM U253.421-SS4 | 400                | 300   | 210   | 42                                                                                   | 47  |
| DM U254.421-SS4 | 400                | 400   | 210   | 53                                                                                   | 61  |
| DM U254.521-SS4 | 500                | 400   | 210   | 59                                                                                   | 67  |
| DM U255.530-SS4 | 500                | 500   | 300   | 85                                                                                   | 96  |
| DM U254.621-SS4 | 600                | 400   | 210   | 69                                                                                   | 80  |
| DM U255.726-SS4 | 700                | 500   | 260   | 99                                                                                   | 114 |
| DM U256.830-SS4 | 800                | 600   | 300   | 179                                                                                  | 208 |
| DM U258.830-SS4 | 800                | 800   | 300   | 256                                                                                  | 305 |
| DM U256.130-SS4 | 1000               | 600   | 300   | 225                                                                                  | 265 |
| DM U258.130-SS4 | 1000               | 800   | 300   | 329                                                                                  | 403 |
| DM U258.123-SS4 | 1200               | 800   | 300   | 401                                                                                  | 493 |
| DM U252.315-SS6 | 300                | 250   | 150   | 27                                                                                   | 31  |
| DM U253.421-SS6 | 400                | 300   | 210   | 42                                                                                   | 47  |
| DM U254.421-SS6 | 400                | 400   | 210   | 53                                                                                   | 61  |
| DM U254.621-SS6 | 600                | 400   | 210   | 69                                                                                   | 80  |
| DM U255.726-SS6 | 700                | 500   | 260   | 99                                                                                   | 114 |
| DM U256.830-SS6 | 800                | 600   | 300   | 179                                                                                  | 208 |
| DM U258.130-SS6 | 1000               | 800   | 300   | 329                                                                                  | 403 |
| DM U258.123-SS6 | 1200               | 800   | 300   | 401                                                                                  | 493 |

## 8.MAINTENANCE

Regular maintenance is recommended for all enclosures to ensure long-term performance and protection level.

### Maintenance Interval

Maintenance shall be carried out at regular intervals depending on operating and ambient conditions. It is recommended to perform maintenance at least once per year and to document all actions accordingly.

### Hinges

Door hinges shall be checked for smooth operation and lubricated using a suitable, water-free lubricant.

### Locking System

The locking mechanism shall be checked for proper operation. All moving parts shall be lubricated using a suitable, water-free lubricant.

### Gaskets

Gaskets on contact surfaces shall be replaced completely if damaged. Damage outside the contact areas generally does not affect the sealing performance. To prevent gasket freezing at low temperatures, common agents such as talcum, vaseline or wax may be applied.

### General Inspection

All components and surfaces shall be inspected for visible damage.

### Corrosion Protection (Sheet Steel Enclosures)

Enclosures shall be inspected for any signs of corrosion.

Detected damage shall be repaired as follows:

#### Minor surface damage (e.g. scratches):

The affected area shall be lightly sanded and cleaned from corrosion and contaminants. Touch-up paint shall be applied using a paint stick, brush or spray (alternative: 2K-PUR acrylic paint).

#### Major surface damage:

The surface shall be uniformly prepared and cleaned with white spirit. The entire surface shall be repainted using touch-up paint (2K-PUR acrylic paint).

### Stainless Steel Enclosures

Surface damage such as scratches can be removed by polishing.

## 9.STORAGE

When storing the enclosure, the following conditions shall be ensured:

- \* Ambient temperature shall not exceed +80 °C.
- \* Ambient temperature shall not fall below -20 °C.
- \* Relative humidity shall not exceed 60% for extended periods, and condensation shall be avoided.

Humidity does not affect corrosion-resistant (rustproof) steel.

# TEKPAN Products for Harsh Environments



Company Management  
System Approval



Canadian and US Standards  
and Approval



IEC Product Standards  
and Approval



European Standards and  
Compliance

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