



## Assembly instructions for IP2X insulated connections and protective covers

### I. Cable connector

#### a) Connecting cable connectors to cells with one post per pole

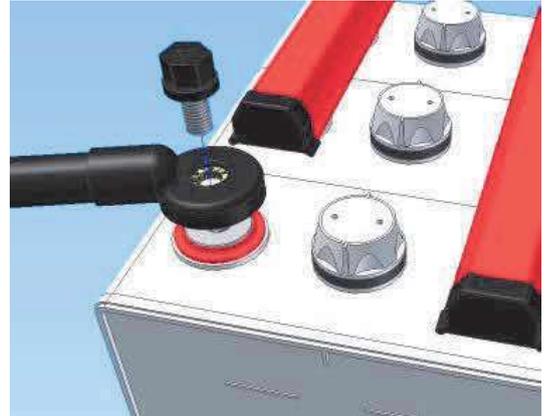
1) Disassemble the stainless steel screws and washers at these posts where the cable connectors shall be connected.

2) Connect the cable connector to the posts according to the sketch below.

Use the insulated screw shipped together with the cable connector.

Tighten the screws (use hexagon sockets) with recommended torque according to Installation section in Installation and operating instructions.

Note that the screws are furnished with thread locking coat.



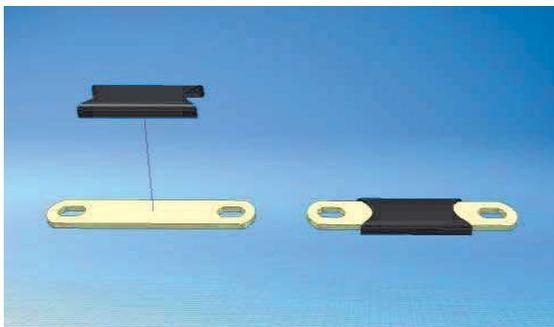
#### b) Connecting cable connectors to cells with more than one post per pole

1) Disassemble the stainless steel screws and washers at these posts where the cable connectors shall be connected.

2) Place the collecting bar on the posts and assemble the collecting bar covers according to the sketch A or B below.

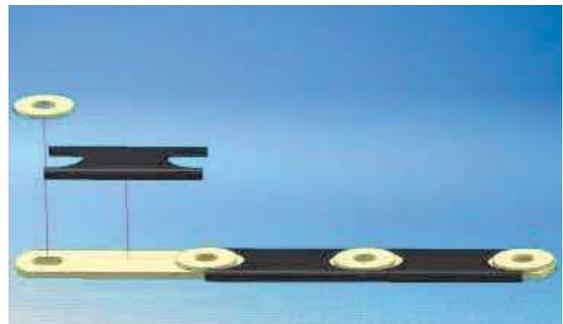
The collecting bar covers are designed for the collecting bars of shipped cells.

A - Connector covers for 15 mm wide collecting bar



- Ni plated Cu washer is not used on 15 mm wide collecting bar.

B - Connector covers for 30 mm wide collecting bar



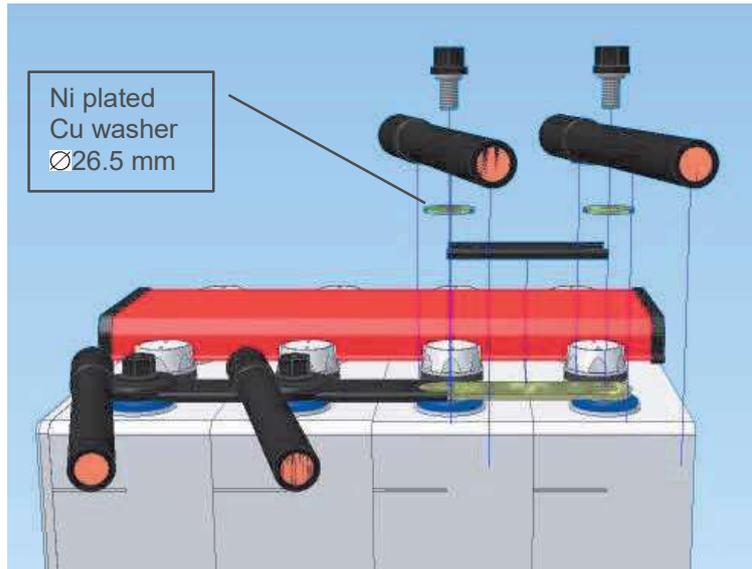
- Use the Ni-plated Cu washer in the collecting bar cover kit  
- Position the washer according to the sketch B.



3) Connect the cable connector according to the sketch below.

Use the insulated screw shipped together with the cable connector. Tighten the screws (use hexagon sockets) with recommended torque according to Installation section in Installation and operating instructions.

Note that the screws are furnished with thread locking coat.



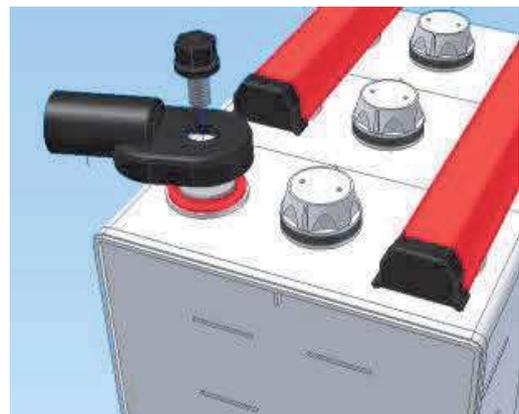
## II. End lug with end lug cover

### a) Connecting end lug covers to cells with one post per pole

- 1) Disassemble the stainless steel screws and washers at the posts
- 2) Assemble the end lugs to the connection cables by contact pressing.
- 3) Attach the end lug covers to the end lugs.
- 4) Connect the end lugs according to the sketch below.

Use the insulated screw shipped together with the end lugs. Tighten the screws (use hexagon sockets) with recommended torque according to Installation section in Installation and Operating instructions.

Note that the screws are furnished with thread locking coat.

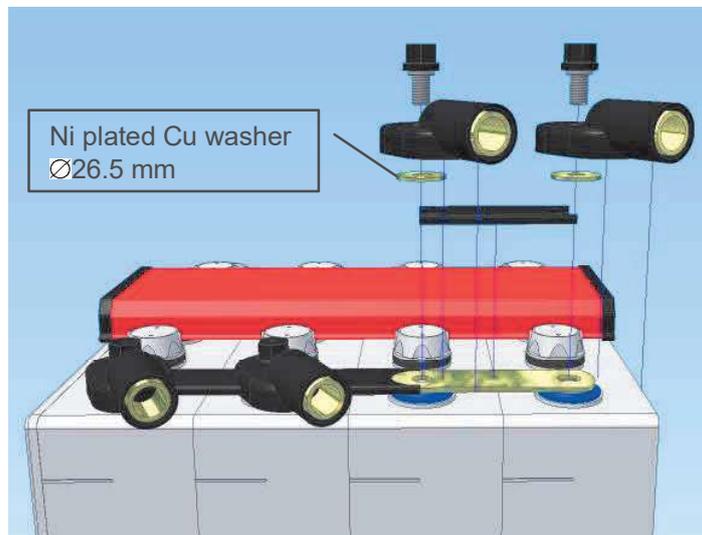




**b) Connecting end lug covers to cells with more than one post per pole**

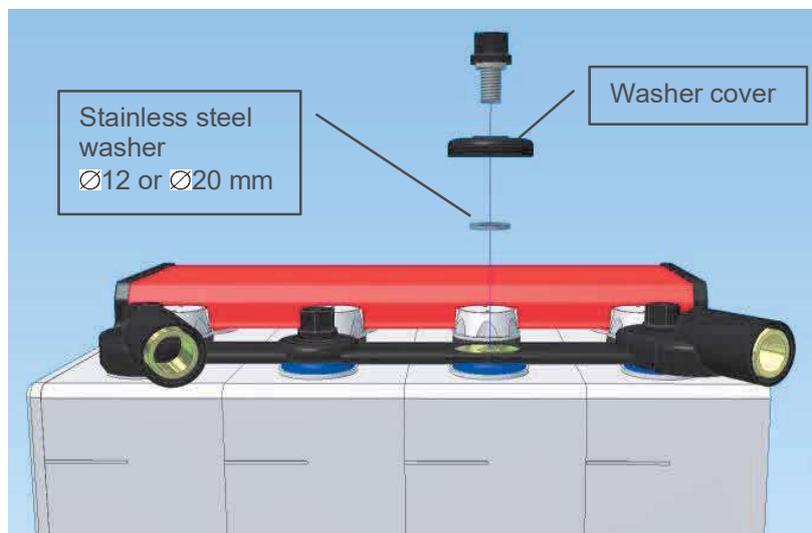
- 1) Disassemble the stainless steel screws and washers.
- 2) Assemble the end lugs to the connection cables by contact pressing. Shrinking tube or insulating tape should not interfere with the contact area of the end lug or be too restricted, otherwise the IP2X compliance gets insufficient.
- 3) Place the collecting bar on the posts and assemble the collecting bar covers according to the sketch A or B in section I-b.2
- 4) Connect the end lugs according to the sketch below.  
Use the insulated screw shipped together with the end lugs.  
Tighten the screws (use hexagon sockets) with recommended torque according to Installation section in Installation and operating instructions.

Note that the screws are furnished with thread locking coat.



- 5) When fewer cables are used to connect the battery than recommended by Saft, there is a stainless steel washer with washer cover (to protect the otherwise uncovered area).

When the stainless washer with cover is used, there is no need for the extra nickel plated copper washer in collecting bar cover kit. Assemble according to sketch below

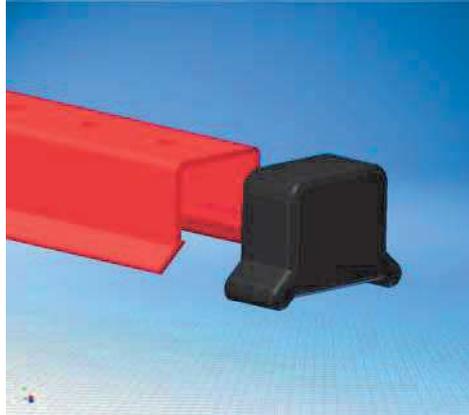




### III. Protective cover

#### a) Connector cover

- 1) Attach the connector covers to the rigid connectors. Adjust the length of the last piece in each cell row.
- 2) Attach gable parts at each end of the covers according to the sketch below.

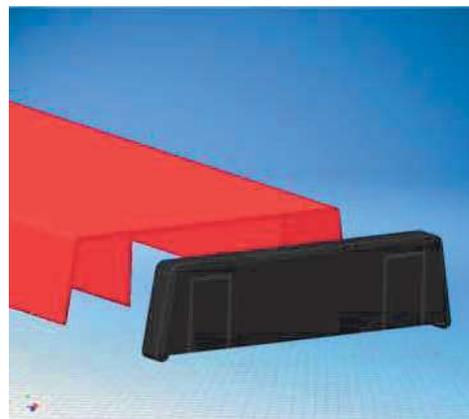


#### b) Collecting bar cover

The collecting bar covers are supplied in specific kits for each collecting bar.

#### c) Cover

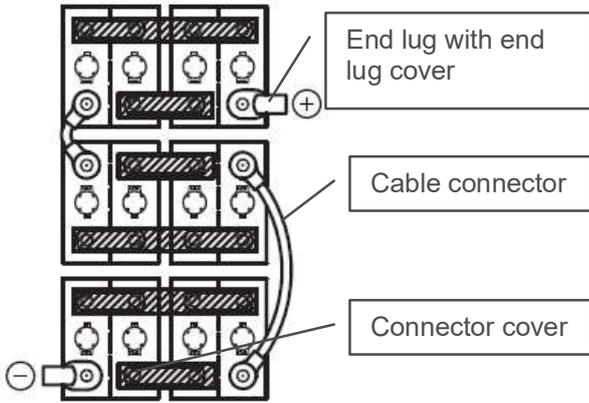
- 1) Attach the covers to the rigid connectors. Adjust the length of the last piece in each cell row.
- 2) Cut necessary holes for the cable connectors in the gable parts at the marked squares.
- 3) Attach gable parts at each end of the covers according to the sketch below.



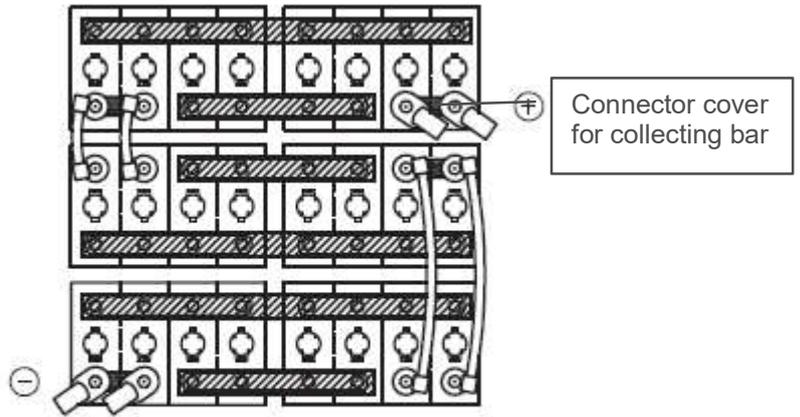
- 4) When removing the covers, catch hold of the middle part of the cover and lift upwards.

#### IV. Wiring principle

##### a) Normal connected Block Battery cells:

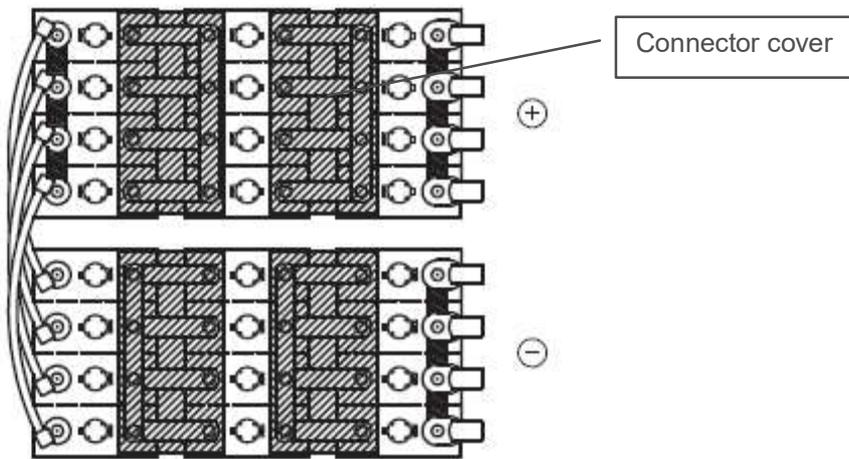


Wiring principle



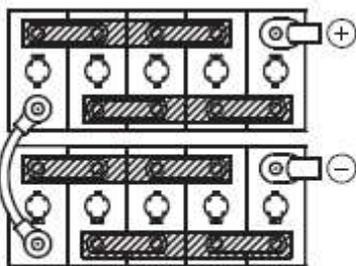
Wiring principle

##### b) Crosswise connected Block Battery cells:

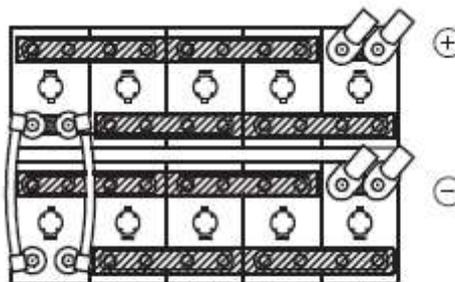


Wiring principle

##### c) Single cells:

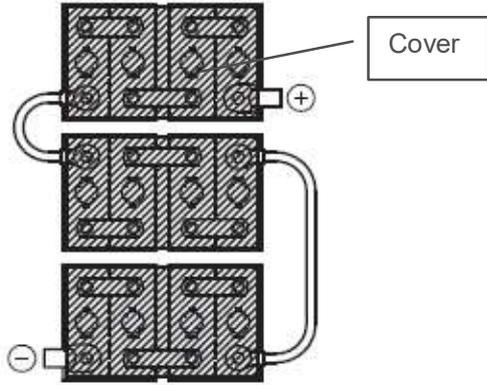


Wiring principle

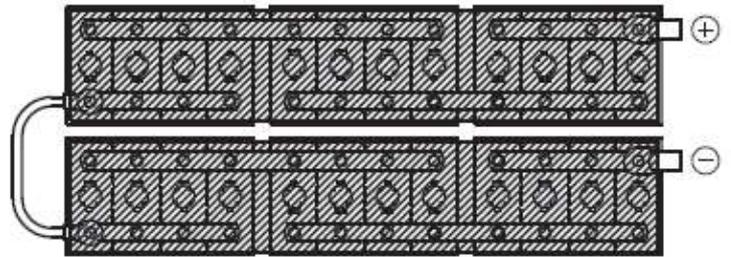


Wiring principle

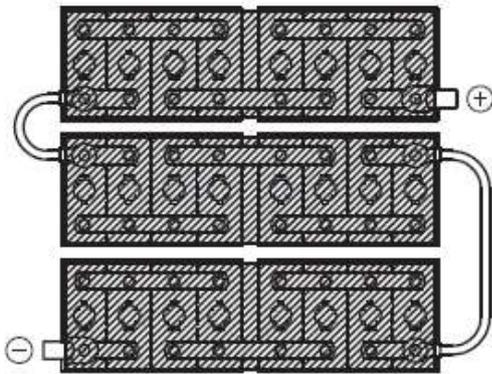
d) Cells with covers (SLM, SLL, UP1M, UP1L):



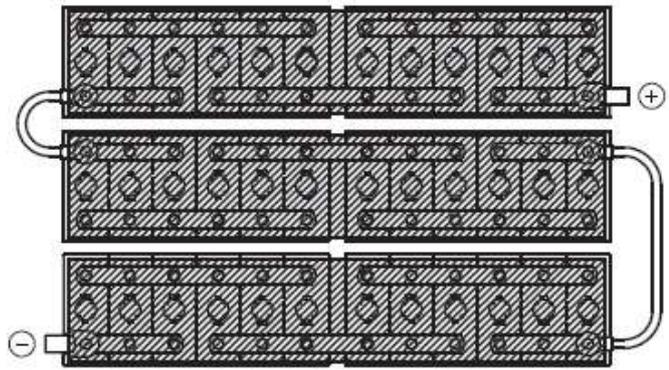
Wiring principle



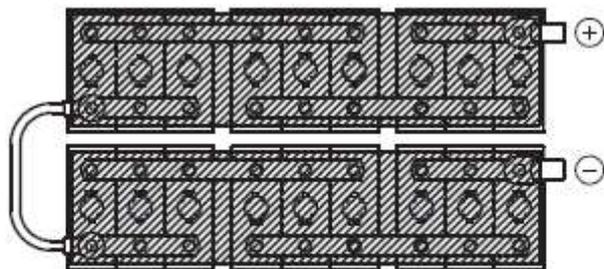
Wiring principle



Wiring principle



Wiring principle



Wiring principle