



Product brochure

# ABB Fusegear

## SlimLine XR

Switch Disconnecter Fuse, 63-630A

Power and productivity  
for a better world™



# SlimLine

## Fuse protection

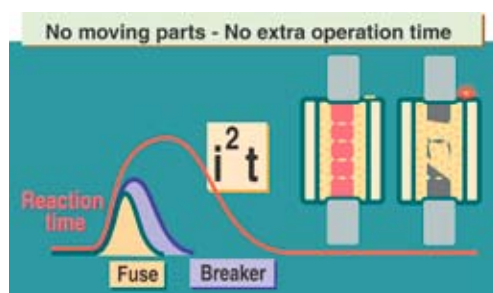
### Fuse protection – Easy and reliable

The fuse is a superior short circuit protection element regarding the maximum allowed cut-off current (peak let through current) and energy value. This is more important the higher the voltage and prospective fault levels are. The SlimLine switch disconnecter fuse fulfil the highest requirements for modern switch fuses with a total safety concept. The switch fuses are tested according to the EN 60947-3 standard with more stringent requirements for isolation, making, performance and safety. The fuse rails are tested according to IEC 60269-2-1.

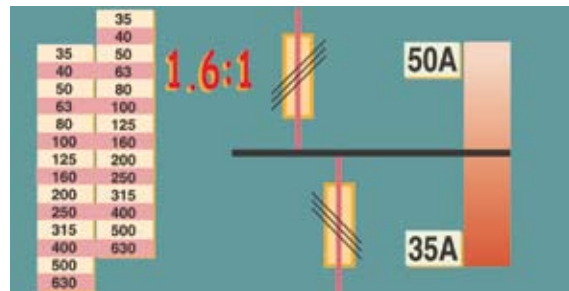
The melting curves and current limiting diagrams for NH fuse links are given in the IEC 269-2 standard. The standardised fuse characteristics and high degree of current limitation ensure that there is a simple and effective co-ordination with fuse links and other devices.

Fuse links provide a simple procedure for selecting the right fuse type for your installation, without complicated calculations or calculation tools. Fuses prevent “blackouts”. Only the fuse nearest a fault trips without upstream fuses (feeders or mins) being affected. Fuses thus provide selective coordination.

When more power is needed in an installation, more feeders can be added without changing the present structure or any new selectivity calculations. Fuse links will assure selectivity in the installation by 1,6:1 difference in the rated current.



**No moving parts**  
– **No extra operation time**



**No need for calculation tools**  
– **Easy and economical selectivity**

### Economical installation

Lifetime costs of fuse systems are low. Fuse links which can withstand a high fault level and a fault current, are available at economical prices. After fuse operation, only the fuse link has to be changed. Because the fuse links can be rapidly and easily replaced, plant down time and maintenance are substantially reduced with a fuse link system.

Because the fusing elements operate in a cylinder, they are not affected by their surroundings. Thus their protecting characteristics remain stable year after year. The dynamic stress on the network and its equipment is dependent of the let through energy ( $i^2 t$ ) at a short circuit. The fuse link provides the best protection compared to other solutions, at high short circuit currents. As the fuse link body is filled with quartz sand, there will be no emission of gases or arcs when a short circuit occurs. This again leads to less stress on the network and a higher degree of personal safety.

### Fuse protection – Easy and reliable

- Economical installation
- Easy and economical selectivity
- No need for calculation tools
- No need to change the present structure when more power is needed
- No moving parts
- No extra operation time
- No arc space
- No emission of gasses at short circuits

# SlimLine

## Switch Disconnecter Fuse

Type XR

63 - 630A DIN/BS

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| SlimLine XR Switch Disconnecter Fuse                                                |              |            |     |            |            |     |                   |       |               |     |            |                   |       |
|-------------------------------------------------------------------------------------|--------------|------------|-----|------------|------------|-----|-------------------|-------|---------------|-----|------------|-------------------|-------|
| Type                                                                                | Size         | XRE        |     | XRE-4P     | XRM        |     | XRM-DC            |       | XRM-BS        |     | XRE-BS-4P  | XRM-BS-DC         |       |
| Rated operational voltage U <sub>e</sub> (V)                                        |              | 500        | 690 | 500        | 500        | 690 | 230               | 500   | 500           | 690 | 500        | 230               | 500   |
| Rated operational current I <sub>e</sub> (A)                                        | 00           | 160        | 125 | 160        | 160        | 125 | 125               | 160   | 63,100<br>160 | 125 | 160        | 125               | 160   |
|                                                                                     | 1            | 250        | 250 | 250        | 250        | 250 | 250               | 250   | 250           | 250 | 250        | 250               | 250   |
|                                                                                     | 2            | 400        | 400 | 400        | 400        | 400 | 400               | 315   | 400           | 400 | 400        | 400               | 315   |
|                                                                                     | 3            | 630        | 500 | 630        | 630        | 500 | 630               | 400   | 630           | 500 | 630        | 630               | 400   |
| Rated insulation voltage U <sub>i</sub> (V)                                         |              | 1000       |     | 1000       | 1000       |     | 1000              |       | 1000          |     | 1000       | 1000              |       |
| Rated impulse withstand voltage U <sub>imp</sub> (V)                                |              | 8000       |     | 8000       | 8000       |     | 8000              |       | 8000          |     | 8000       | 8000              |       |
| Fuse protected short circuit making (kArms)                                         |              | 55         |     | 55         | 66         |     | 66 <sup>1)</sup>  |       | 66            |     | 55         | 66 <sup>1)</sup>  |       |
| Fuse protected short circuit making (kArms). Personal safe, welded contacts allowed |              | 100        |     | 100        | 100        |     | 100 <sup>1)</sup> |       | 100           |     | 100        | 100 <sup>1)</sup> |       |
| Fuse protected short circuit withstand (kArms)                                      |              | 100        |     | 100        | 100        |     | 100 <sup>1)</sup> |       | 100           |     | 100        | 100 <sup>1)</sup> |       |
| Rated making and breaking capacity :                                                |              | AC22B      |     | AC22B      | AC23B      |     | DC23B             | DC21B | AC23B         |     | AC22B      | DC23B             | DC21B |
| Rated frequency (Hz)                                                                |              | 50/60      |     | 50/60      | 50/60      |     | -                 |       | 50/60         |     | 50/60      | -                 |       |
| Durability: Total / With current                                                    | 00 / 1       | 1600 / 200 |     | 1600 / 200 | 1600 / 200 |     | 1600 / 200        |       | 1600 / 200    |     | 1600 / 200 | 1600 / 200        |       |
|                                                                                     | 2 / 3        | 1000 / 200 |     | 1000 / 200 | 1000 / 200 |     | 1000 / 200        |       | 1000 / 200    |     | 1000 / 200 | 1000 / 200        |       |
|                                                                                     | BS63 / BS100 |            |     |            |            |     |                   |       | 2000 / 300    |     | 2000 / 300 | 2000 / 300        |       |
| Degree of protection from the frontacc. to IEC / EN 60529                           |              | IP 41      |     | IP 41      | IP 41      |     | IP 41             |       | IP 41         |     | IP 41      | IP 41             |       |

Typetested according to IEC 60947-3

1) Tests run at AC

### Powerlosses in SlimLine XR

| Size              | 00  | 1   | 2   | 3   |
|-------------------|-----|-----|-----|-----|
| Rated current (A) | 160 | 250 | 400 | 630 |
| XRE/M NCT (W)     | -   | -   | 112 | 293 |
| XRE/M (W)         | 43  | 78  | 158 | 357 |

The values given include all three phases, but without fuses.

### Type of Fuses for XRM BS versions

| Current | Fuse Type  | Current | Fuse Type | Current | Fuse Type |
|---------|------------|---------|-----------|---------|-----------|
| 63 A    | A3         | 250 A   | B2        | 400 A   | B4        |
| 100 A   | A3         |         |           | 630 A   | 3T Lawson |
| 160 A   | 00T Lawson |         |           |         |           |

# SlimLine

## 2. General

### SlimLine XR presentation

XR is the new generation switch disconnecter fuse from ABB. ABB has a long history in producing these types of devices, and the first generation was introduced already in 1977.

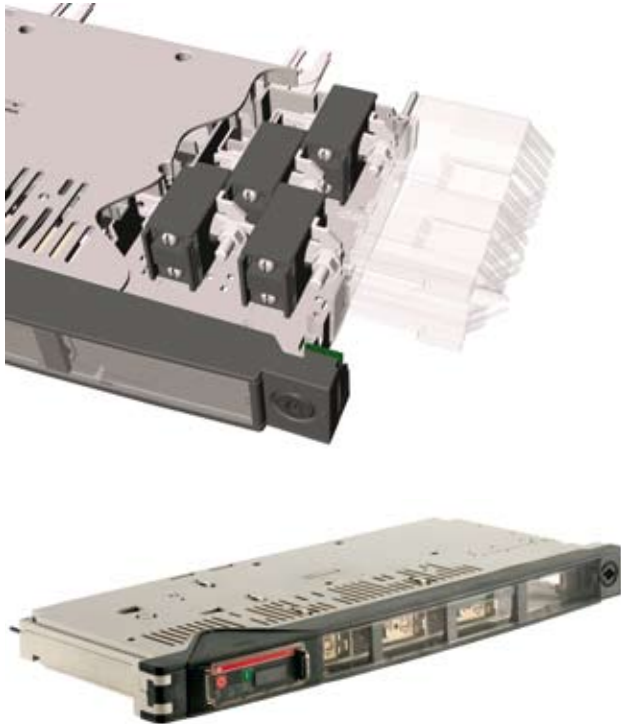
#### Areas of applications:

- Motor Control Centers
- Distribution boards
- in building industry, shipping and oil and gas industries.



# SlimLine

## 2. General



### Advantages

- Retrofitable integrated 3 phase CT's even up to 4 CT's
- Integrated Motor operation (MOT)
- Intelligent Tier Switch (ITS) for local and remote monitoring
- Electronic Fuse Monitoring (EFM)
- Easy access to Multiplug for all external auxiliary wiring
- Integrated guide rails for safe and easy installation
- Space for cabling up to 2 x 300 mm<sup>2</sup> at XR 2/3
- Compact design => space saving => total cost saving.



### Properties

- Modular design
- Developed for plug-in switchboard systems
- Plug in / out from live busbars under voltage
- 3 / 4 pole AC and 2 pole DC version
- Maintenance free
- High degree of personal safety, IP 41
- Available for depth of 200 mm or 400 mm

### Available XR versions:

#### XRE



Switch fuse disconnecter for DIN NH fuse links.

- AC22B at 690 V
- Interruption on both sides of the fuses.

#### XRM

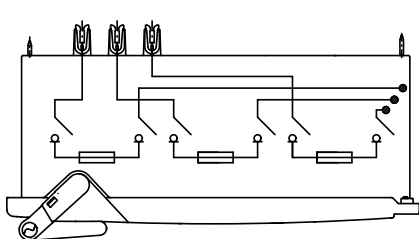


Switch fuse disconnecter for DIN NH and BS 88 fuse links.

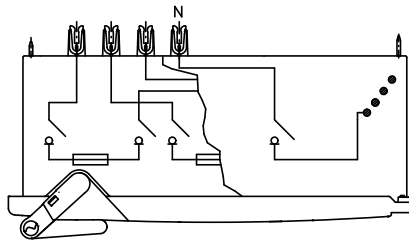
- AC23B at 690 V
- Interruption on both sides of the fuses.

### XR is available for the following busbar phase distances

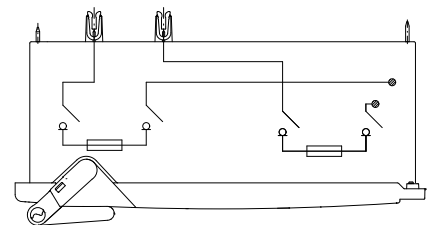
50 mm distance between phases, 5 mm busbar



3 - pole

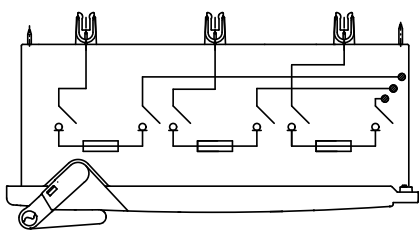


4 - pole

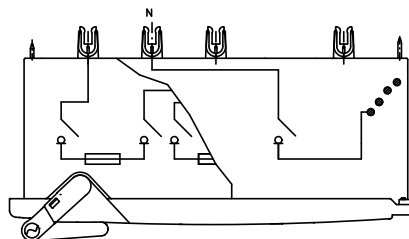


2 pole DC

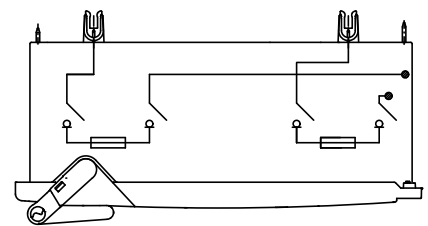
185 mm distance between phases, 10 mm busbar



3 - pole



4 - pole



2 - pole DC

#### 4 Pole version

- The 4th pole neutral switch (N) is located at the top of XRE 3-pole unit.
- The neutral switch is fully rated.
- The neutral switch is switched "First in" and "Last out".
- Common cable shroud for the 4th pole (N) for all sizes.

#### 2 Pole DC version

- The XRM DC is rated up to 500 V DC



XR 4 pole

## 3. Apparatus overview

### DIN version:

XR00 160 A



### BS version:

XR 63 A, 100 A, 160 A

XR1 250 A

XR 250 A

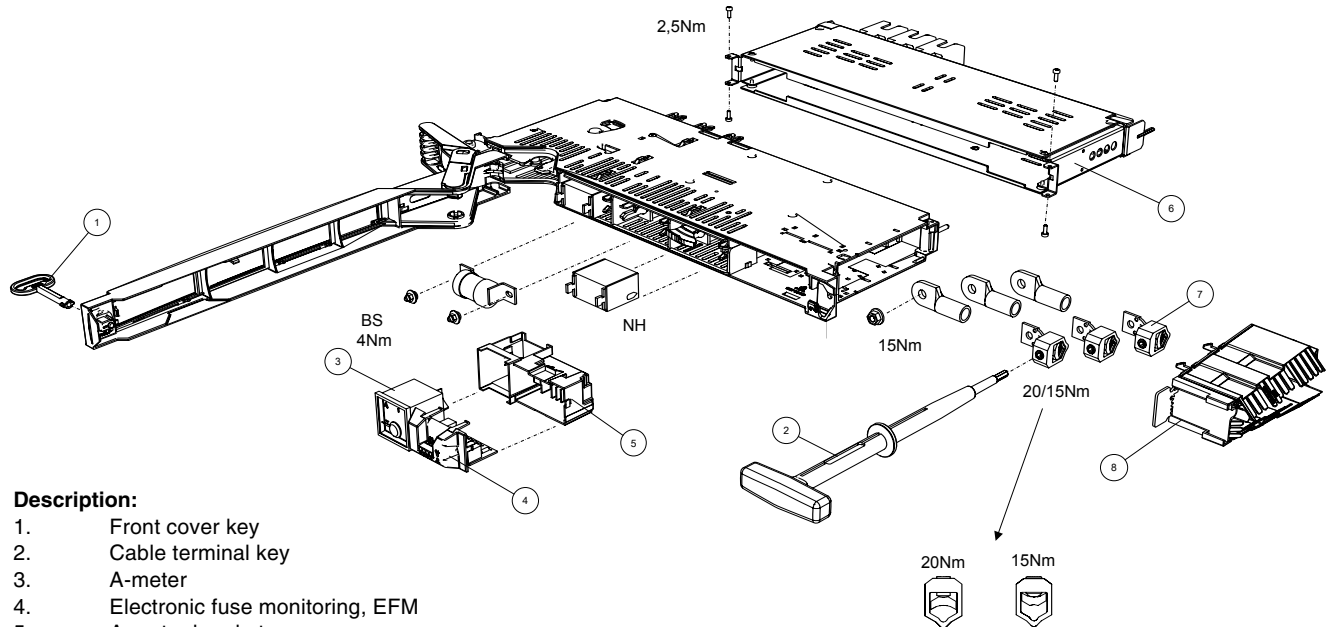


XR2 400 A  
XR3 630 A

XR 400 A  
XR 630 A

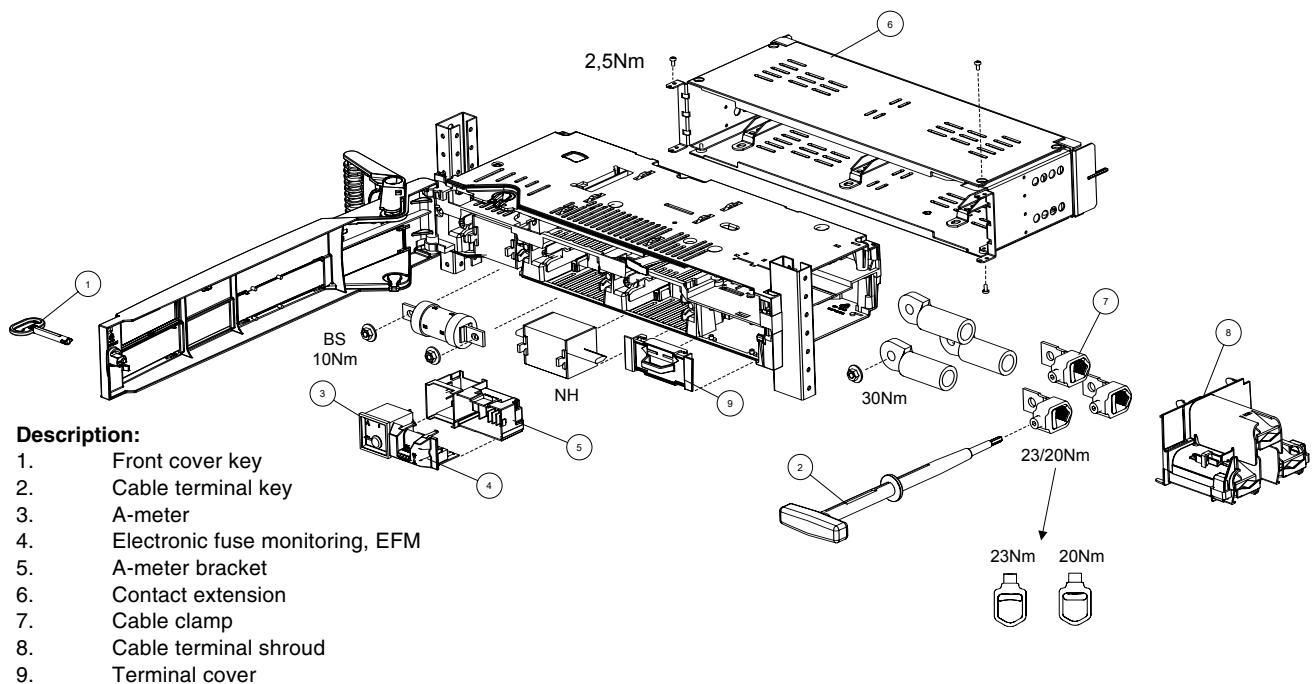


### Assembly XR00, 160 A

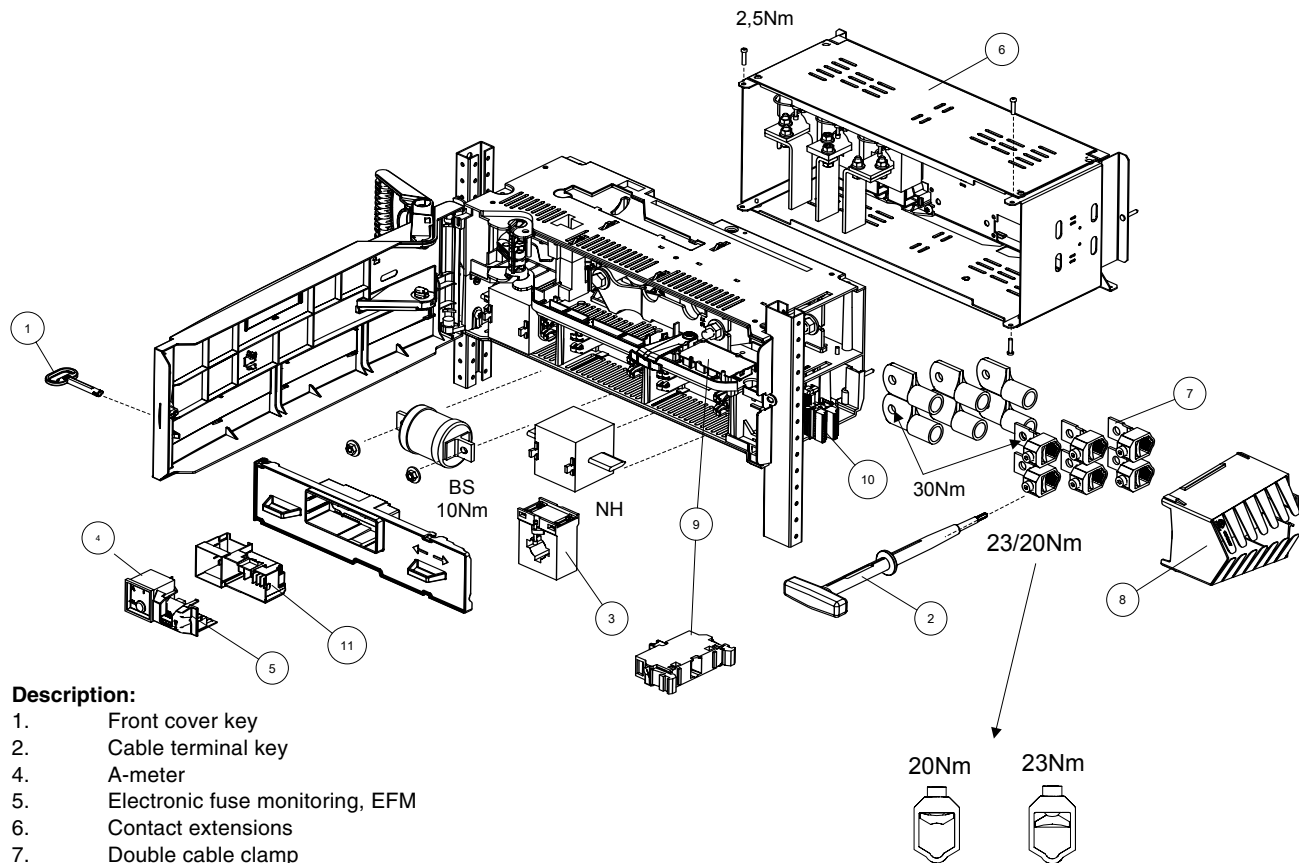


1SEB000271

### Assembly XR1, 250 A

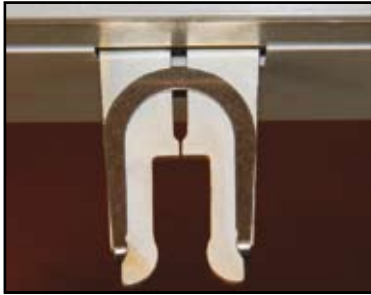


### Assembly XR2/3, 400-630 A



#### Description:

1. Front cover key
2. Cable terminal key
4. A-meter
5. Electronic fuse monitoring, EFM
6. Contact extensions
7. Double cable clamp
8. Cable terminal shroud
9. Auxiliary switch
10. Multi plugs
11. A-meter bracket



### Installation and operation

#### Plug-in contacts - Fast, easy and safe

Years of experience and development are put into the plug-in contacts used in the XR. Basis for the technology is that the current floats in small spots within the apparent contact point. These spots are named "effective contact areas". A spring loaded contact achieves a high contact force. This again leads to a high "effective contact" area.

The design of the contact will increase the closing force if a short circuit appears. The use of plug-in contacts at distribution busbars will give easier and faster installation.

#### Installation

Slide the SlimLine apparatus into the panel until the guide pins fits into the rear profiles and the contact fingers are connected to the busbars. The integrated guide rails will ensure safe, fast and easy installation.

#### Operation

The XR is operated by moving the operation handle sideways, approx. 90° degr.

The handle can be folded in both "On" and "Off" position.

The true ON / OFF position is shown by the switch indicator in front.

#### Padlocking the XR

The folded operating handle can be padlocked in OFF position by use of padlocks with shackle Ø 6 mm.

#### Voltage testing

In the case of voltage testing directly on the live fuses the transparent front window may be opened by using a screw driver to release at the right side of the window.

#### Replacement of the NH fuses in the XR

How to replace NH fuses in a XR 00 that is placed between other XR apparatus in ON position.



Switch OFF the XR where the NH fuses shall be replaced and open the frontcover.



The operating handles of the XR's placed above and below can be released by use of a screwdriver and moved to park-position with the XR's still in ON position.



With the operating handles above and below in park-position, there is easy access to the L1 fuse in the XR in the middle.



By use of a NH replacement tool, the NH fuses in the XR 00 in the middle can easily be removed / replaced.

All operating handles at XR 00,1,2 and 3 can be placed into park-position.

### SlimLine XR - Motor operation (MOT)

SlimLine XR offers an integrated motor for remote or local operation. The motor operation unit is 100% integrated without any changes of external dimensions.  
The front operated ON / OFF buttons is shrouded by a transparent cover with padlocking facility.



- The XR MOT is factory fitted for all XR sizes.
- The motor unit is 100% integrated in the XR.
- The front operated buttons are protected by a transparent front cover with padlock facility.
- Local or remote operation.
- Prepared for manual emergency operation from the front in case of lost power supply.
- External wiring via the multiplug 8 kit, which is factory fitted.

| Motor Multiplug |                  |
|-----------------|------------------|
| 1               | Field Open (OFF) |
| 2               | Field Close (ON) |
| 3               |                  |
| 4               |                  |
| 5               |                  |
| 6               |                  |
| 7               | Neutral          |
| 8               | + 24 VDC         |

| Technical data:                                       | XR00 MOT                   | XR1 MOT | XR2/3 MOT |
|-------------------------------------------------------|----------------------------|---------|-----------|
| Operational voltage:                                  | 24 V DC    ± 2 Volt        |         |           |
| Operational consumption <small>peak value:</small>    | 1,1 A                      | 1,3 A   | 2,8 A     |
| Signal duration:                                      | Min. 0,5 sec. or permanent |         |           |
| Minimum number of operations according to IEC 60947-3 |                            |         |           |

### XR ITS monitoring via ModBus



### Intelligent Tier Switch (ITS)

SlimLine XR can be delivered as an Intelligent Tier Switch (ITS) for remote operation and monitoring using Bus communication. All parameters of setting alarm levels can be done via a laptop connected to each SlimLine XR ITS via a USB cable.

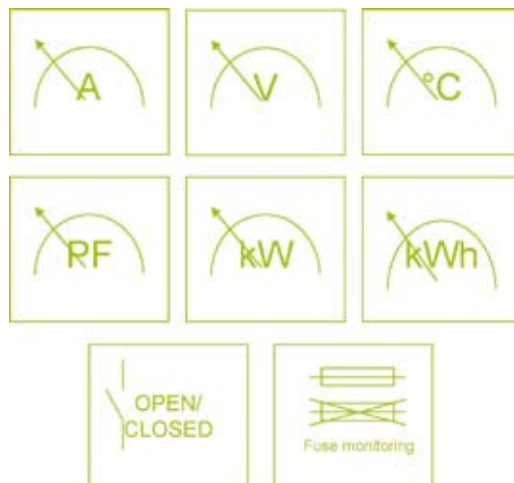
All the ITS data can be delivered for direct remote monitoring via Modbus RTU from the internal Multiplug at the right hand side of the XR.



SlimLine XR ITS is an XR with built in current, voltage and temperature sensors.

#### The XR ITS measures the following:

- Current per phase
- Voltage
- Power
- Power consumption (kWh)
- Power factor
- Temperature



#### The XR ITS monitor the following:

- Fuse status
- Switch position

Based on these data the XR ITS can create alarms if fuses are blown or temperature or currents exceeds the limits configured in the ITS box.

### XR ITS monitoring via ModBus



The settings in the XR ITS is done by the ITS software used in a PC linked by an USB cable to the ITS display box. The software is included when ordering XR ITS. The settings can be stored in the software for easy copy and paste into each XR ITS in the switchboard.

| Measurement Accuracy    |                                           |
|-------------------------|-------------------------------------------|
| Energy Metering         | Class S1 meter<br>(1% of displayed value) |
| Current Measurement     | Better than 1% of displayed value         |
| Voltage Measurement     | Better than 1% of displayed value         |
| Temperature Measurement | $\pm 1^{\circ}\text{C}$                   |

| Power requirements |                             |
|--------------------|-----------------------------|
| Supply voltage     | 18 - 30 V DC (typ. 24 V DC) |
| Power consumption  | 5 W @ 24 V DC               |

| EMC                   |                                           |
|-----------------------|-------------------------------------------|
| EMC                   | According to IEC 60947-2<br>Annex J and F |
| ESD                   | IEC 61000-4-2                             |
| RF Field              | IEC 61000-4-3                             |
| Fast transients/burst | IEC 61000-4-4                             |
| Surges                | IEC 61000-4-5                             |
| Induced RFI           | IEC 61000-4-6                             |
| Emission RF           | CICPR 11 / CICPR 22                       |

| Environmental Data          |                                                 |
|-----------------------------|-------------------------------------------------|
| Environmental               | According to IEC 60947-2<br>Annex J and F       |
| Operational ambient temp.   | -25 to +55°C                                    |
| Storage and transport temp. | -40 to +70°C                                    |
| Dry heat                    | -40°C, 168 h                                    |
| Damp heat                   | IEC 60068-2-30<br>(upper temp. +55°C, 6 cycles) |
| Temeraure cycling           | IEC 60068-2-14<br>(-25 to +55°C, 28 cycles)     |

### SlimLine XR - Electronic Fuse Monitoring (EFM)

The SlimLine XR EFM gives an alarm if any fault conditions if a fuse is blown.

An internal potential free relay ( 1 NC + 1 NO ) will trip to transmit a signal for a remote fuse blown alarm. The EFM unit is self supplied, which means no additional power supply is required.



- The green LED in the front panel indicates all fuses OK.
- The red LED will turn on if one or more fuses are blown.

The EFM will automatically be reset after the blown fuse has been replaced, and the green LED will switch on again.

The XR with EFM is delivered from the factory with Multiplug 8 included for external wiring.

The matrix below show all possible cases of indication

| Fuse status           |           |         | Relay contacts  |        |                 |        |
|-----------------------|-----------|---------|-----------------|--------|-----------------|--------|
|                       | Green LED | Red LED | NO contact 3, 4 |        | NC contact 5, 6 |        |
|                       |           |         | Open            | Closed | Open            | Closed |
| 1. XR in ON position  |           |         |                 |        |                 |        |
| Fuses OK              | ●         | ●       | X               |        |                 | X      |
| Fuses BLOWN           | ●         | ●       |                 | X      | X               |        |
| 2. XR in OFF position |           |         |                 |        |                 |        |
| Fuses OK              | ●         | ●       | X               |        |                 | X      |
| Fuses BLOWN           | ●         | ●       | X               |        |                 | X      |

Power supply to the EFM unit from phase L2 and L3

| EFM Technical data                         |                                     |
|--------------------------------------------|-------------------------------------|
| Minimum operation voltage                  | 340 V                               |
| Maximum operation voltage                  | 770 V                               |
| Uimp over a blown fuse                     | 12,3 kV                             |
| Uimp between phases                        | 9,8 kV                              |
| Uimp between main circuit / relay contacts | 9,8 kV                              |
| Dielectric test voltage input / output     | 3,5 kV / 50 Hz / 1 minute           |
| Electrostatic Discharge                    | EN 61000-4-2 ± 4 kV                 |
| Electrical Fast Transient                  | EN 61000-4-4 ± 2 kV                 |
| Conducted Fast transient                   | EN 61000-4-6 10Vrms /150kHz - 80MHz |
| MTBF                                       | 1.103.137 hours at 80°C             |
| Recommended cable size                     | AWG 22 - 12 / 0,2 - 2,5 mm²         |
| EFM Relay                                  |                                     |
| Nominal current                            | 8 A                                 |
| Maximum switching voltage                  | 250V AC; 24V DC                     |

| EFM Multiplug |                |
|---------------|----------------|
| 1             |                |
| 2             |                |
| 3             | Aux. Relais NO |
| 4             | Aux. Relais NO |
| 5             | Aux. Relais NC |
| 6             | Aux. Relais NC |
| 7             |                |
| 8             |                |

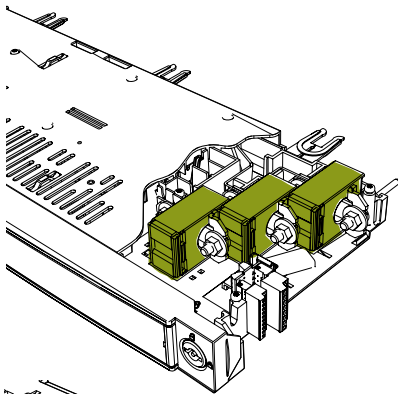
### Current metering 1 phase or 3 phase

#### Current transformer

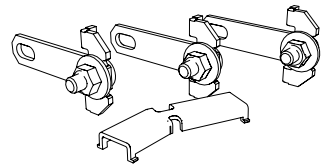
In all the XR's it is possible to install current transformers for 1 or 3 phases.

By using 3 CT's intergated in the XR apparatus body, it is possible to monitor kW and kWh by connection to a remote kWh meter. It is also possible to install even a 4'th CT, still totally integrated within the body of the XR.

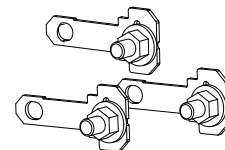
As an option, the CT's can also be installed in the contact extension. Plese study the complete overview at page 37 and 38.



**XR00** terminal extensions for CT's has to be ordered separately.



**XR1** terminal extensions for CT's has to be ordered separately.

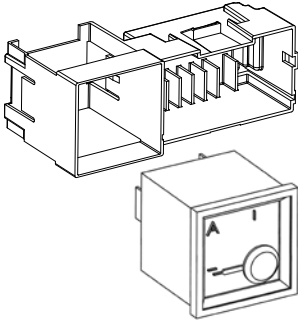


**XR2/3** has integrated extensions from the factory prepared for the CT's.

**XR2/3 NCT** (No CT) is a price optimized variant not prepared for CT installation.

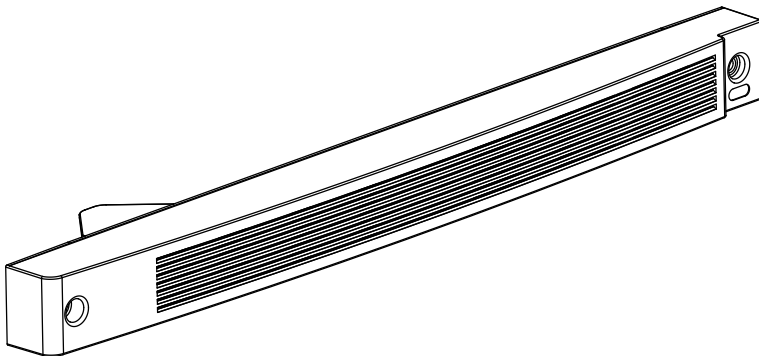
### Ammeter

Ammeter DIN 48x48 with maximum indication may be fitted into each XR.  
An additional ammeter bracket 1SEP408519R0001 is required for all XR sizes.



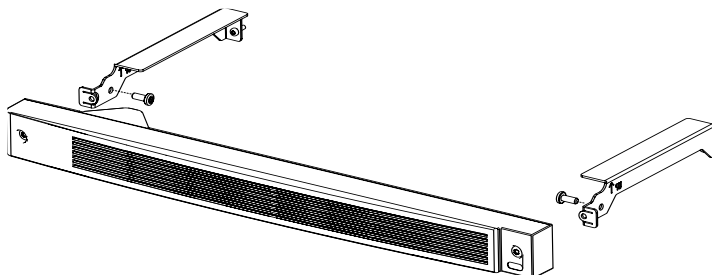
### Ventilated blind cover

The blind cover is 50 mm high. The ventilation ribs give an IP41 protection degree. The kit include fixing brackets and screws.



### Guide rails

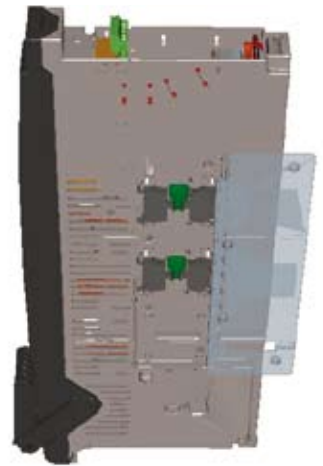
The guide rails can be integrated in the switchboard to support the installation of the XR apparatus first installed at the bottom side of the switchboard. The ventilated blind cover can be fixed directly to the front fixing brackets. (To be ordered separately).



### Auxiliary contacts

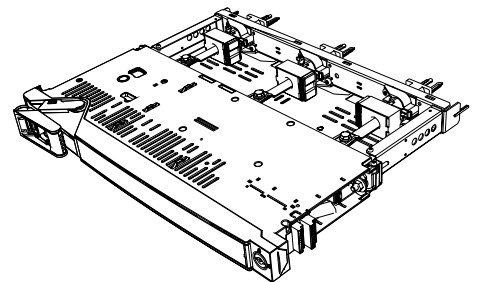
From 1 up to 4 pcs NO or NC auxiliary contacts can be installed in the XR. The first NO or NC auxiliary switch can be ordered as a kit including screws needed and protection shroud. Multiplug is not included.

Auxiliary no 2,3,4 can be ordered as single auxiliary switches. The wiring is done via the multiplug.



### Contact extension

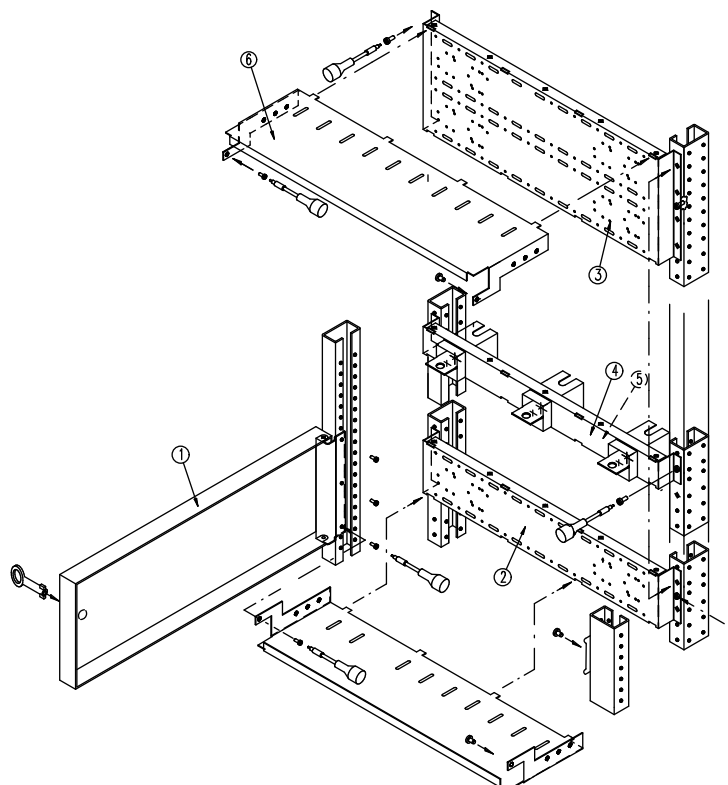
The contact extension is an adapter to be used in special applications when the total depth from the front of the switchboard to the busbars is 400 mm. For example in combination with motor control centres. Standard depth of an XR apparatus is 200 mm. The contact extension is available for 50 mm and 185 mm busbar distances, 3 pole, 4 pole and 2 pole DC.



### Service module

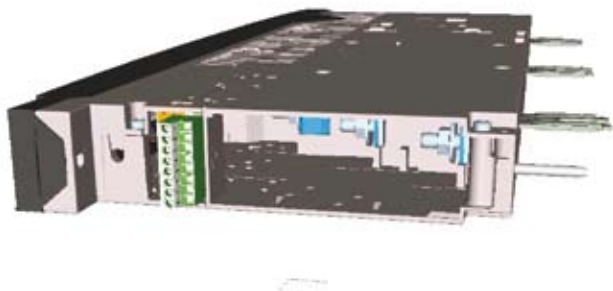
The service module allows you to create a separate installation e.g. contactors, MCBs etc. within the SlimLine cassette.

1. Front door delivered with hinges and lock  
H: 100,200,300,400
- 2/3. Assembly plate, predrilled, H: 100 – 400mm
4. Busbar connection module 400A 185mm
6. Segregation plates 2 pcs



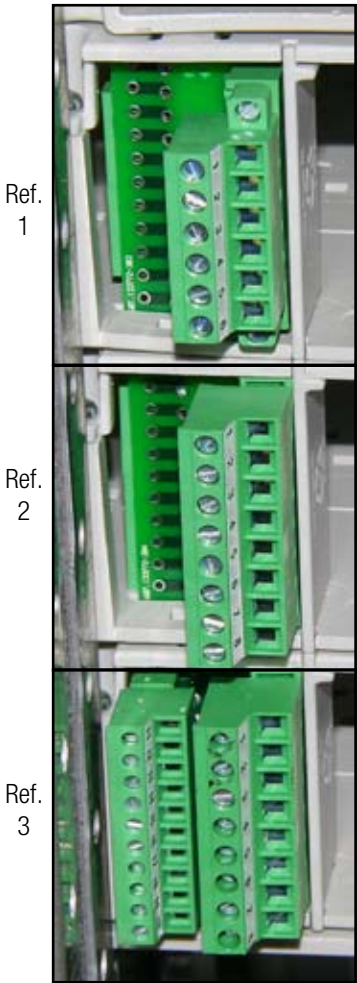
Multiplugs

Multiplugs are available for all external wiring for auxiliary contacts, CT's, EFM, Motor and ITS. This ensures easy plug-in and plug-out of the XR without having to redo the wiring. The multiplugs with screws are for extra safety especially when using CT's. The multiplugs can be ordered as accessories for easy assembly. For EFM, Motor and ITS the multiplug is factory fitted.



The multiplugs are available as follows:

| Ref. | Size    | Description                           | for cable size [mm²] | Order code      |
|------|---------|---------------------------------------|----------------------|-----------------|
| 1    | XR 00/1 | Multiplug 6 kit f. CT's w. screws     | 6x2,5                | 1SEP408512R0001 |
| 2    | XR 00/1 | Multiplug 8 kit f. CT's               | 8x2,5                | 1SEP408510R0001 |
| 3    | XR 00/1 | Multiplug 18 kit f. CT's and aux. sw. | 8x2,5 + 10x1,5       | 1SEP408511R0001 |
|      | XR 2/3  | Multiplug 8 kit f. CT's w. screws     | 8x2,5                | 1SEP408515R0001 |
|      | XR 2/3  | Multiplug 8 kit f. CT's               | 8x2,5                | 1SEP408513R0001 |
| 4    | XR 2/3  | Multiplug 20 kit f. CT's and aux. sw. | 8x2,5 + 12x1,5       | 1SEP408514R0001 |



Proposal of terminal allocations at the XR multiplugs.

| Current transformer |          |
|---------------------|----------|
| 1                   | CT no. 1 |
| 2                   | CT no. 1 |
| 3                   | CT no. 2 |
| 4                   | CT no. 2 |
| 5                   | CT no. 3 |
| 6                   | CT no. 3 |
| 7                   |          |
| 8                   |          |

| Auxiliary switch |                      |
|------------------|----------------------|
| 1                | Aux. switch NO no. 1 |
| 2                | Aux. switch NO no. 1 |
| 3                | Aux. switch NC no. 1 |
| 4                | Aux. switch NC no. 1 |
| 5                | Aux. switch NO no. 2 |
| 6                | Aux. switch NO no. 2 |
| 7                | Aux switch NC no. 2  |
| 8                | Aux. switch NC no. 2 |



### Multiplug terminal for EFM and Motor

| EFM |                |
|-----|----------------|
| 1   |                |
| 2   |                |
| 3   | Aux. Relais NO |
| 4   | Aux. Relais NO |
| 5   | Aux. Relais NC |
| 6   | Aux. Relais NC |
| 7   |                |
| 8   |                |

| Motor |                  |
|-------|------------------|
| 1     | Field Open (OFF) |
| 2     | Field Close (ON) |
| 3     |                  |
| 4     |                  |
| 5     |                  |
| 6     |                  |
| 7     | Neutral          |
| 8     | + 24 V DC        |

| Motor - EFM |                |
|-------------|----------------|
| 1           | Field Open     |
| 2           | Field Close    |
| 3           | Aux. Relais NO |
| 4           | Aux. Relais NO |
| 5           | Aux. Relais NC |
| 6           | Aux. Relais NC |
| 7           | Neutral        |
| 8           | + 24 V DC      |

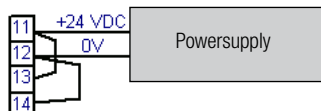
### Multiplug terminal for ITS

| ITS |                         |                         |    |
|-----|-------------------------|-------------------------|----|
| 11  | +24V DC                 | Earth fault transformer | 1  |
| 12  | 0V                      | Earth fault transformer | 2  |
| 13  | 24V Ext.                | Digital Out common      | 3  |
| 14  | 0V Ext.                 | Digital Out 1           | 4  |
| 15  | Field Open (*)          | Digital Out 2           | 5  |
| 16  | Field Close (*)         | 0V (RS-485)             | 6  |
| 17  | Field Enable (*)        | Modbus RS-485 RS+       | 7  |
| 18  | 0V Ext.                 | Modbus RS-485 RS-       | 8  |
| 19  | Reserved for future use | Digital Input (*)       | 9  |
| 20  | 0V Ext.                 | 0V Ext.                 | 10 |

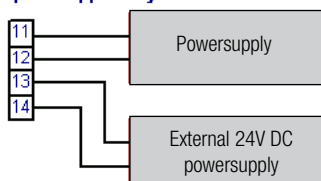
(\*) These terminals are protected by means of optocoupler inputs. Powersupply for the optocouplers can be either internal 24V DC, or external (24V DC Ext.) 24V DC powersupply.

For internal powersupply, terminal 11 must be strapped to 13 and terminal 12 must be strapped to 14.

#### Optocouplers supplied by internal 24 VDC supply



#### Optocouplers supplied by external 24 VDC supply



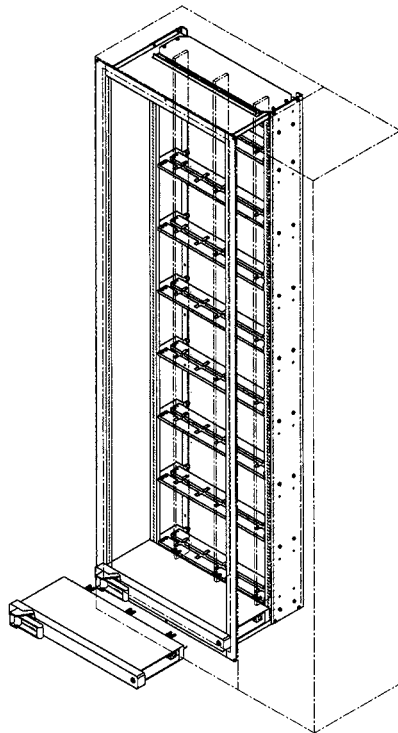
XR00 - multiplug 8 kit



XR 1 - multiplug 6 kit with screws



XR 2/3 - multiplug 20 kit



### SlimLine Cassette

The SlimLine cassette is a complete steel framework with busbar supports. It is used as a framework for easy installation of the SlimLine product range into switchgear systems which do not accept the SlimLine directly.

#### Facts about the SlimLine cassette:

- Available in 4 sizes:
  - Height = 500 mm, max 10 pcs. 00-devices
  - Height = 1000 mm, max 20 pcs. 00-devices
  - Height = 1500 mm, max 30 pcs. 00-devices
  - Height = 2000 mm, max 40 pcs. 00-devices
- Supplied as a flat package without busbars
- Easy and fast assembly using self tapping screws
- For vertical or horizontal installation
- Aluzink coated profiles
- Front profiles as well as top- and bottom plates are black
- Extendable in the busbar direction
- Type tested busbar system
- 65 kA 10 x 40 ....100 mm cu-busbars
- 3- and 4-pole solutions
- Available for 185 mm busbar distance

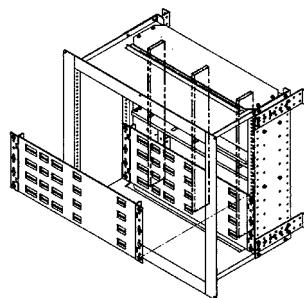
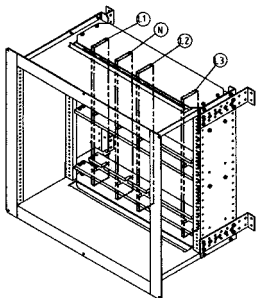
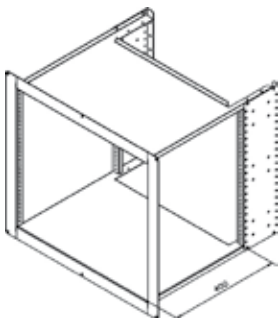
#### IP 20 busbar cover kit

Kit with busbar covers for IP 20 degree of protection. These can be snapped directly into the cassette.

#### Kit for 400 mm depth

In order to extend the normal depth of 200 mm in a standard cassette to 400 mm, a special 400 mm extra top and bottom unit is available for replacing the standard top and bottom units. Two (2) units are required as replacements in one cassette.

Order code 1SEP102079P0001 for 1 unit.



Cassette for 185 mm busbar distance 3- and 4-pole

IP20 busbar cover kit  
Universal 3- and 4-pole, 185 mm

|             |                 |
|-------------|-----------------|
| H = 500 mm  | 1SEP102223R0001 |
| H = 1000 mm | 1SEP102223R0002 |
| H = 1500 mm | 1SEP102223R0003 |
| H = 2000 mm | 1SEP102223R0004 |

|                     |                 |
|---------------------|-----------------|
| Kit for: H = 500 mm | NHP 407062R0001 |
| H = 1000 mm         | NHP 407062R0002 |
| H = 1500 mm         | NHP 407062R0003 |
| H = 2000 mm         | NHP 407062R0004 |

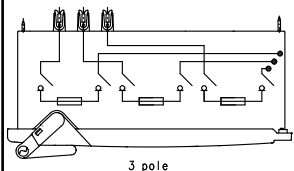
[illegible]

Technical drawing of a rectangular plate. The overall width is labeled  $E$  and the overall height is labeled  $F$ . The inner width is labeled  $D$ . The plate has a central rectangular area with a width of  $50$  and a height of  $25$ . The central area is filled with a pattern of small circles. The plate is surrounded by a border of small circles. The drawing is a top-down view.

Ident.no. 1SEP102223R0001-R0004

| H    | A    | B    | C   | D    | E    | F    |
|------|------|------|-----|------|------|------|
| 500  | 574  | -    | -   | 475  | 536  | 590  |
| 1000 | 1074 | -    | 358 | 975  | 1036 | 1090 |
| 1500 | 1574 | -    | 525 | 1475 | 1536 | 1590 |
| 2000 | 2074 | 1037 | 520 | 1975 | 2036 | 2090 |

\* All values at 35°C ambient temperature and busbar temperature of 65°C.



**SlimLine XR switch disconnecter fuse - 50 mm busbar distance**

| Number of poles | Rated oper. current [A] AC22B | Type designation             | Order code      | Weight Per Unit (Kg) |
|-----------------|-------------------------------|------------------------------|-----------------|----------------------|
| 3               | 160                           | XRE00-50-3P                  | 1SEP102240R1100 | 3,63                 |
| 3               | 250                           | XRE1-50-3P                   | 1SEP102241R1100 | 6,75                 |
| 3               | 400                           | XRE2-50-3P                   | 1SEP102242R1100 | 15,00                |
| 3               | 400                           | XRE2-50-3P-NCT <sup>1)</sup> | 1SEP102242R1500 | 14,74                |
| 3               | 630                           | XRE3-50-3P                   | 1SEP102243R1100 | 15,36                |
| 3               | 630                           | XRE3-50-3P-NCT <sup>1)</sup> | 1SEP102243R1500 | 15,10                |

| Number of poles | Rated oper. current [A] AC23B | Type designation                 | Order code      | Weight Per Unit (Kg) |
|-----------------|-------------------------------|----------------------------------|-----------------|----------------------|
| 3               | 160                           | XRM00-50-3P                      | 1SEP102240R1300 | 3,63                 |
| 3               | 250                           | XRM1-50-3P                       | 1SEP102241R1300 | 6,75                 |
| 3               | 400                           | XRM2-50-3P                       | 1SEP102242R1300 | 15,00                |
| 3               | 400                           | XRM2-50-3P-NCT <sup>1)</sup>     | 1SEP102242R1600 | 14,74                |
| 3               | 630                           | XRM3-50-3P                       | 1SEP102243R1300 | 15,36                |
| 3               | 630                           | XRM3-50-3P-NCT <sup>1)</sup>     | 1SEP102243R1600 | 15,10                |
| 3               | 160                           | XRM00-50-3P-EFM                  | 1SEP102240R1301 | 3,63                 |
| 3               | 250                           | XRM1-50-3P-EFM                   | 1SEP102241R1301 | 6,75                 |
| 3               | 400                           | XRM2-50-3P-EFM1                  | 1SEP102242R1301 | 15,00                |
| 3               | 400                           | XRM2-50-3P-NCT-EFM <sup>1)</sup> | 1SEP102242R1601 | 14,74                |
| 3               | 630                           | XRM3-50-3P-EFM                   | 1SEP102243R1301 | 15,36                |
| 3               | 630                           | XRM3-50-3P-NCT-EFM <sup>1)</sup> | 1SEP102243R1601 | 15,10                |
| 3               | 160                           | XRM00-50-3P-MOT                  | 1SEP102240R1302 |                      |
| 3               | 250                           | XRM1-50-3P-MOT                   | 1SEP102241R1302 |                      |
| 3               | 400                           | XRM2-50-3P-MOT                   | 1SEP102242R1302 |                      |
| 3               | 630                           | XRM3-50-3P-MOT                   | 1SEP102243R1302 |                      |
| 3               | 160                           | XRM00-50-3P-MOT-EFM              | 1SEP102240R1303 |                      |
| 3               | 250                           | XRM1-50-3P-MOT-EFM               | 1SEP102241R1303 |                      |
| 3               | 400                           | XRM2-50-3P-MOT-EFM               | 1SEP102242R1303 |                      |
| 3               | 630                           | XRM3-50-3P-MOT-EFM               | 1SEP102243R1303 |                      |
| 3               | 160                           | XRM00-50-3P-ITS                  | 1SEP102240R1304 |                      |
| 3               | 250                           | XRM1-50-3P-ITS                   | 1SEP102241R1304 |                      |
| 3               | 400                           | XRM2-50-3P-ITS                   | 1SEP102242R1304 |                      |
| 3               | 630                           | XRM3-50-3P-ITS                   | 1SEP102243R1304 |                      |
| 3               | 160                           | XRM00-50-3P-ITS-MOT              | 1SEP102240R1305 |                      |
| 3               | 250                           | XRM1-50-3P-ITS-MOT               | 1SEP102241R1305 |                      |
| 3               | 400                           | XRM2-50-3P-ITS-MOT               | 1SEP102242R1305 |                      |
| 3               | 630                           | XRM3-50-3P-ITS-MOT               | 1SEP102243R1305 |                      |

1) Not prepared for CT's

# SlimLine

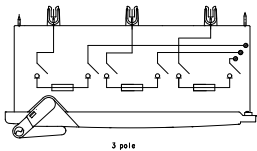
## 5. Ordering tables



**SlimLine XR switch disconnecter fuse - 50 mm busbar distance**

| Number of poles | Rated oper. current [A] AC22B                     | Type designation                 | Order code      | Weight Per Unit (Kg) |
|-----------------|---------------------------------------------------|----------------------------------|-----------------|----------------------|
| 4               | 160                                               | XRE00-50-4P                      | 1SEP102240R1400 | 4,16                 |
| 4               | 250                                               | XRE1-50-4P                       | 1SEP102241R1400 | 7,15                 |
| 4               | 400                                               | XRE2-50-4P                       | 1SEP102242R1400 | 16,19                |
| 4               | 400                                               | XRE2-50-4P-NCT <sup>1)</sup>     | 1SEP102242R1700 | 15,83                |
| 4               | 630                                               | XRE3-50-4P                       | 1SEP102243R1400 | 16,78                |
| 4               | 630                                               | XRE3-50-4P-NCT <sup>1)</sup>     | 1SEP102243R1700 | 16,20                |
| 4               | 160                                               | XRE00-50-4P-EFM                  | 1SEP102240R1401 | 4,27                 |
| 4               | 250                                               | XRE1-50-4P-EFM                   | 1SEP102241R1401 | 7,27                 |
| 4               | 400                                               | XRE2-50-4P-EFM                   | 1SEP102242R1401 | 16,30                |
| 4               | 400                                               | XRE2-50-4P-NCT-EFM <sup>1)</sup> | 1SEP102242R1701 | 15,94                |
| 4               | 630                                               | XRE3-50-4P-EFM                   | 1SEP102243R1401 | 16,89                |
| 4               | 630                                               | XRE3-50-4P-NCT-EFM <sup>1)</sup> | 1SEP102243R1701 | 16,31                |
| 4               | 160                                               | XRE00-50-4P-MOT                  | 1SEP102240R1402 |                      |
| 4               | 250                                               | XRE1-50-4P-MOT                   | 1SEP102241R1402 |                      |
| 4               | 400                                               | XRE2-50-4P-MOT                   | 1SEP102242R1402 |                      |
| 4               | 630                                               | XRE3-50-4P-MOT                   | 1SEP102243R1402 |                      |
| 4               | 160                                               | XRE00-50-4P-MOT-EFM              | 1SEP102240R1403 |                      |
| 4               | 250                                               | XRE1-50-4P-MOT-EFM               | 1SEP102241R1403 |                      |
| 4               | 400                                               | XRE2-50-4P-MOT-EFM               | 1SEP102242R1403 |                      |
| 4               | 630                                               | XRE3-50-4P-MOT-EFM               | 1SEP102243R1403 |                      |
| 4               | 160                                               | XRE00-50-4P-ITS                  | 1SEP102240R1404 |                      |
| 4               | 250                                               | XRE1-50-4P-ITS                   | 1SEP102241R1404 |                      |
| 4               | 400                                               | XRE2-50-4P-ITS                   | 1SEP102242R1404 |                      |
| 4               | 630                                               | XRE3-50-4P-ITS                   | 1SEP102243R1404 |                      |
| 4               | 160                                               | XRE00-50-4P-ITS-MOT              | 1SEP102240R1405 |                      |
| 4               | 250                                               | XRE1-50-4P-ITS-MOT               | 1SEP102241R1405 |                      |
| 4               | 400                                               | XRE2-50-4P-ITS-MOT               | 1SEP102242R1405 |                      |
| 4               | 630                                               | XRE3-50-4P-ITS-MOT               | 1SEP102243R1405 |                      |
| Number of poles | Rated oper. current [A] DC23B (230V) DC21B (500V) | Type designation                 | Order code      | Weight Per Unit (Kg) |
| 2               | 160                                               | XRM00-50-DC                      | 1SEP102240R1200 | 3,33                 |
| 2               | 250                                               | XRM1-50-DC                       | 1SEP102241R1200 | 6,25                 |
| 2               | 400                                               | XRM2-50-DC                       | 1SEP102242R1200 | 13,10                |
| 2               | 630                                               | XRM3-50-DC                       | 1SEP102243R1200 | 13,46                |
| 2               | 160                                               | XRM00-50-DC-MOT                  | 1SEP102240R1202 |                      |
| 2               | 250                                               | XRM1-50-DC-MOT                   | 1SEP102241R1202 |                      |
| 2               | 400                                               | XRM2-50-DC-MOT                   | 1SEP102242R1202 |                      |
| 2               | 630                                               | XRM3-50-DC-MOT                   | 1SEP102243R1202 |                      |

1) Not prepared for CT's



**SlimLine XR switch disconnecter fuse - 185 mm busbar distance**

| Number of poles | Rated oper. current [A] AC22B | Type designation                  | Order code      | Weight Per Unit (Kg) |
|-----------------|-------------------------------|-----------------------------------|-----------------|----------------------|
| 3               | 160                           | XRE00-185-3P                      | 1SEP102240R3100 | 3,63                 |
| 3               | 250                           | XRE1-185-3P                       | 1SEP102241R3100 | 6,75                 |
| 3               | 400                           | XRE2-185-3P                       | 1SEP102242R3100 | 15,00                |
| 3               | 400                           | XRE2-185-NCT-3P <sup>1)</sup>     | 1SEP102242R3500 | 14,74                |
| 3               | 630                           | XRE3-185-3P                       | 1SEP102243R3100 | 15,36                |
| 3               | 630                           | XRE3-185-NCT-3P <sup>1)</sup>     | 1SEP102243R3500 | 15,10                |
| Number of poles | Rated oper. current [A] AC23B | Type designation                  | Order code      | Weight Per Unit (Kg) |
| 3               | 160                           | XRM00-185-3P                      | 1SEP102240R3300 | 3,63                 |
| 3               | 250                           | XRM1-185-3P                       | 1SEP102241R3300 | 6,75                 |
| 3               | 400                           | XRM2-185-3P                       | 1SEP102242R3300 | 15,00                |
| 3               | 400                           | XRM2-185-NCT-3P <sup>1)</sup>     | 1SEP102242R3600 | 14,74                |
| 3               | 630                           | XRM3-185-3P                       | 1SEP102243R3300 | 15,36                |
| 3               | 630                           | XRM3-185-NCT-3P <sup>1)</sup>     | 1SEP102243R3600 | 15,10                |
| 3               | 160                           | XRM00-185-3P-EFM                  | 1SEP102240R3301 | 3,63                 |
| 3               | 250                           | XRM1-185-3P-EFM                   | 1SEP102241R3301 | 6,75                 |
| 3               | 400                           | XRM2-185-3P-EFM                   | 1SEP102242R3301 | 15,00                |
| 3               | 400                           | XRM2-185-3P-NCT-EFM <sup>1)</sup> | 1SEP102242R3601 | 14,74                |
| 3               | 630                           | XRM3-185-3P-EFM                   | 1SEP102243R3301 | 15,36                |
| 3               | 630                           | XRM3-185-3P-NCT-EFM <sup>1)</sup> | 1SEP102243R3601 | 15,10                |
| 3               | 160                           | XRM00-185-3P-MOT                  | 1SEP102240R3302 |                      |
| 3               | 250                           | XRM1-185-3P-MOT                   | 1SEP102241R3302 |                      |
| 3               | 400                           | XRM2-185-3P-MOT                   | 1SEP102242R3302 |                      |
| 3               | 630                           | XRM3-185-3P-MOT                   | 1SEP102243R3302 |                      |
| 3               | 160                           | XRM00-185-3P-MOT-EFM              | 1SEP102240R3303 |                      |
| 3               | 250                           | XRM1-185-3P-MOT-EFM               | 1SEP102241R3303 |                      |
| 3               | 400                           | XRM2-185-3P-MOT-EFM               | 1SEP102242R3303 |                      |
| 3               | 630                           | XRM3-185-3P-MOT-EFM               | 1SEP102243R3303 |                      |
| 3               | 160                           | XRM00-185-3P-ITS                  | 1SEP102240R3304 |                      |
| 3               | 250                           | XRM1-185-3P-ITS                   | 1SEP102241R3304 |                      |
| 3               | 400                           | XRM2-185-3P-ITS                   | 1SEP102242R3304 |                      |
| 3               | 630                           | XRM3-185-3P-ITS                   | 1SEP102243R3304 |                      |
| 3               | 160                           | XRM00-185-3P-ITS-MOT              | 1SEP102240R3305 |                      |
| 3               | 250                           | XRM1-185-3P-ITS-MOT               | 1SEP102241R3305 |                      |
| 3               | 400                           | XRM2-185-3P-ITS-MOT               | 1SEP102242R3305 |                      |
| 3               | 630                           | XRM3-185-3P-ITS-MOT               | 1SEP102243R3305 |                      |

<sup>1)</sup> Not prepared for CT's

# SlimLine

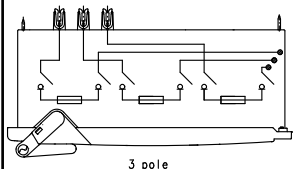
## 5. Ordering tables



**SlimLine XR switch disconnecter fuse - 185 mm busbar distance**

| Number of poles | Rated oper. current [A] AC22B                     | Type designation                  | Order code      | Weight Per Unit (Kg) |
|-----------------|---------------------------------------------------|-----------------------------------|-----------------|----------------------|
| 4               | 160                                               | XRE00-185-4P                      | 1SEP102240R3400 | 4,10                 |
| 4               | 250                                               | XRE1-185-4P                       | 1SEP102241R3400 | 7,15                 |
| 4               | 400                                               | XRE2-185-4P                       | 1SEP102242R3400 | 16,19                |
| 4               | 400                                               | XRE2-185-NCT-4P <sup>1)</sup>     | 1SEP102242R3700 | 15,83                |
| 4               | 630                                               | XRE3-185-4P                       | 1SEP102243R3400 | 16,78                |
| 4               | 630                                               | XRE3-185-NCT-4P <sup>1)</sup>     | 1SEP102243R3700 | 16,20                |
| 4               | 160                                               | XRE00-185-4P-EFM                  | 1SEP102240R3401 | 4,27                 |
| 4               | 250                                               | XRE1-185-4P-EFM                   | 1SEP102241R3401 | 7,27                 |
| 4               | 400                                               | XRE2-185-4P-EFM                   | 1SEP102242R3401 | 16,30                |
| 4               | 400                                               | XRE2-185-4P-NCT-EFM <sup>1)</sup> | 1SEP102242R3701 | 15,94                |
| 4               | 630                                               | XRE3-185-4P-EFM                   | 1SEP102243R3401 | 16,89                |
| 4               | 630                                               | XRE3-185-4P-NCT-EFM <sup>1)</sup> | 1SEP102243R3701 | 16,31                |
| 4               | 160                                               | XRE00-185-4P-MOT                  | 1SEP102240R3402 |                      |
| 4               | 250                                               | XRE1-185-4P-MOT                   | 1SEP102241R3402 |                      |
| 4               | 400                                               | XRE2-185-4P-MOT                   | 1SEP102242R3402 |                      |
| 4               | 630                                               | XRE3-185-4P-MOT                   | 1SEP102243R3402 |                      |
| 4               | 160                                               | XRE00-185-4P-MOT-EFM              | 1SEP102240R3403 |                      |
| 4               | 250                                               | XRE1-185-4P-MOT-EFM               | 1SEP102241R3403 |                      |
| 4               | 400                                               | XRE2-185-4P-MOT-EFM               | 1SEP102242R3403 |                      |
| 4               | 630                                               | XRE3-185-4P-MOT-EFM               | 1SEP102243R3403 |                      |
| 4               | 160                                               | XRE00-185-4P-ITS                  | 1SEP102240R3404 |                      |
| 4               | 250                                               | XRE1-185-4P-ITS                   | 1SEP102241R3404 |                      |
| 4               | 400                                               | XRE2-185-4P-ITS                   | 1SEP102242R3404 |                      |
| 4               | 630                                               | XRE3-185-4P-ITS                   | 1SEP102243R3404 |                      |
| 4               | 160                                               | XRE00-185-4P-ITS-MOT              | 1SEP102240R3405 |                      |
| 4               | 250                                               | XRE1-185-4P-ITS-MOT               | 1SEP102241R3405 |                      |
| 4               | 400                                               | XRE2-185-4P-ITS-MOT               | 1SEP102242R3405 |                      |
| 4               | 630                                               | XRE3-185-4P-ITS-MOT               | 1SEP102243R3405 |                      |
| Number of poles | Rated oper. current [A] DC23B (230V) DC21B (500V) | Type designation                  | Order code      | Weight Per Unit (Kg) |
| 2               | 160                                               | XRM00-185-DC                      | 1SEP102240R3200 | 3,33                 |
| 2               | 250                                               | XRM1-185-DC                       | 1SEP102241R3200 | 6,25                 |
| 2               | 400                                               | XRM2-185-DC                       | 1SEP102242R3200 | 13,10                |
| 2               | 630                                               | XRM3-185-DC                       | 1SEP102243R3200 | 13,46                |
| 2               | 160                                               | XRM00-185-DC-MOT                  | 1SEP102240R3202 |                      |
| 2               | 250                                               | XRM1-185-DC-MOT                   | 1SEP102241R3202 |                      |
| 2               | 400                                               | XRM2-185-DC-MOT                   | 1SEP102242R3202 |                      |
| 2               | 630                                               | XRM3-185-DC-MOT                   | 1SEP102243R3202 |                      |

1) Not prepared for CT's



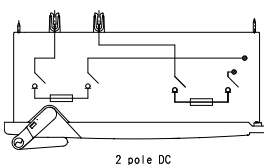
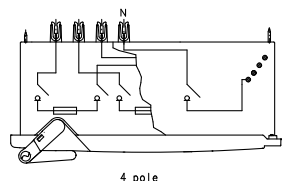
**SlimLine XR Switch disconnecter fuses - 50 mm busbar distance, British standard versions (BS)**

| Number of poles | Rated oper. current [A] AC23B | Type designation                     | Order code      | Weight Per Unit (Kg) |
|-----------------|-------------------------------|--------------------------------------|-----------------|----------------------|
| 3               | 63                            | XRM63BS-50-3P                        | 1SEP102244R1300 | 3,60                 |
| 3               | 100                           | XRM100BS-50-3P                       | 1SEP102245R1300 | 3,60                 |
| 3               | 160                           | XRM160BS-50-3P                       | 1SEP102246R1300 | 3,60                 |
| 3               | 250                           | XRM250BS-50-3P                       | 1SEP102247R1300 | 6,80                 |
| 3               | 400                           | XRM400BS-50-3P                       | 1SEP102248R1300 | 14,80                |
| 3               | 400                           | XRM400BS-50-3P-NCT <sup>1)</sup>     | 1SEP102248R1600 | 14,50                |
| 3               | 630                           | XRM630BS-50-3P                       | 1SEP102249R1300 | 15,00                |
| 3               | 630                           | XRM630BS-50-3P-NCT <sup>1)</sup>     | 1SEP102249R1600 | 14,80                |
| 3               | 160                           | XRM160BS-50-3P-EFM                   | 1SEP102246R1301 | 3,60                 |
| 3               | 250                           | XRM250BS-50-3P-EFM                   | 1SEP102247R1301 | 6,80                 |
| 3               | 400                           | XRM400BS-50-3P-EFM                   | 1SEP102248R1301 | 14,80                |
| 3               | 400                           | XRM400BS-50-3P-NCT-EFM <sup>1)</sup> | 1SEP102248R1601 | 14,50                |
| 3               | 630                           | XRM630BS-50-3P-EFM                   | 1SEP102249R1301 | 15,00                |
| 3               | 630                           | XRM630BS-50-3P-NCT-EFM <sup>1)</sup> | 1SEP102249R1601 | 14,80                |
| 3               | 160                           | XRM160BS-50-3P-MOT                   | 1SEP102246R1302 |                      |
| 3               | 250                           | XRM250BS-50-3P-MOT                   | 1SEP102247R1302 |                      |
| 3               | 400                           | XRM400BS-50-3P-MOT                   | 1SEP102248R1302 |                      |
| 3               | 630                           | XRM630BS-50-3P-MOT                   | 1SEP102249R1302 |                      |
| 3               | 160                           | XRM160BS-50-3P-ITS                   | 1SEP102246R1304 |                      |
| 3               | 250                           | XRM250BS-50-3P-ITS                   | 1SEP102247R1304 |                      |
| 3               | 400                           | XRM400BS-50-3P-ITS                   | 1SEP102248R1304 |                      |
| 3               | 630                           | XRM630BS-50-3P-ITS                   | 1SEP102249R1304 |                      |
| 3               | 160                           | XRM160BS-50-3P-ITS-MOT               | 1SEP102246R1305 |                      |
| 3               | 250                           | XRM250BS-50-3P-ITS-MOT               | 1SEP102247R1305 |                      |
| 3               | 400                           | XRM400BS-50-3P-ITS-MOT               | 1SEP102248R1305 |                      |
| 3               | 630                           | XRM630BS-50-3P-ITS-MOT               | 1SEP102249R1305 |                      |

1) Not prepared for CT's

# SlimLine

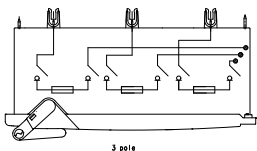
## 5. Ordering tables



### SlimLine XR Switch disconnecter fuses - 50 mm busbar distance, British standard versions (BS)

| Number of poles | Rated oper. current [A] AC22B                     | Type designation                     | Order code      | Weight Per Unit (Kg) |
|-----------------|---------------------------------------------------|--------------------------------------|-----------------|----------------------|
| 4               | 160                                               | XRE160BS-50-4P                       | 1SEP102246R1400 | 5,20                 |
| 4               | 250                                               | XRE250BS-50-4P                       | 1SEP102247R1400 | 8,50                 |
| 4               | 400                                               | XRE400BS-50-4P                       | 1SEP102248R1400 | 17,30                |
| 4               | 400                                               | XRE400BS-50-4P-NCT <sup>1)</sup>     | 1SEP102248R1700 | 16,80                |
| 4               | 630                                               | XRE630BS-50-4P                       | 1SEP102249R1400 | 17,70                |
| 4               | 630                                               | XRE630BS-50-4P-NCT <sup>1)</sup>     | 1SEP102249R1700 | 17,10                |
| 4               | 160                                               | XRE160BS-50-4P-EFM                   | 1SEP102246R1401 | 5,20                 |
| 4               | 250                                               | XRE250BS-50-4P-EFM                   | 1SEP102247R1401 | 8,50                 |
| 4               | 400                                               | XRE400BS-50-4P-EFM                   | 1SEP102248R1401 | 17,30                |
| 4               | 400                                               | XRE400BS-50-4P-NCT-EFM <sup>1)</sup> | 1SEP102248R1701 | 16,80                |
| 4               | 630                                               | XRE630BS-50-4P-EFM                   | 1SEP102249R1401 | 17,70                |
| 4               | 630                                               | XRE630BS-50-4P-NCT-EFM <sup>1)</sup> | 1SEP102249R1701 | 17,10                |
| 4               | 160                                               | XRE160BS-50-4P-MOT                   | 1SEP102246R1402 |                      |
| 4               | 250                                               | XRE250BS-50-4P-MOT                   | 1SEP102247R1402 |                      |
| 4               | 400                                               | XRE400BS-50-4P-MOT                   | 1SEP102248R1402 |                      |
| 4               | 630                                               | XRE630BS-50-4P-MOT                   | 1SEP102249R1402 |                      |
| 4               | 160                                               | XRE160BS-50-4P-ITS                   | 1SEP102246R1404 |                      |
| 4               | 250                                               | XRE250BS-50-4P-ITS                   | 1SEP102247R1404 |                      |
| 4               | 400                                               | XRE400BS-50-4P-ITS                   | 1SEP102248R1404 |                      |
| 4               | 630                                               | XRE630BS-50-4P-ITS                   | 1SEP102249R1404 |                      |
| 4               | 160                                               | XRE160BS-50-4P-ITS-MOT               | 1SEP102246R1405 |                      |
| 4               | 250                                               | XRE250BS-50-4P-ITS-MOT               | 1SEP102247R1405 |                      |
| 4               | 400                                               | XRE400BS-50-4P-ITS-MOT               | 1SEP102248R1405 |                      |
| 4               | 630                                               | XRE630BS-50-4P-ITS-MOT               | 1SEP102249R1405 |                      |
| Number of poles | Rated oper. current [A] DC23B (230V) DC21B (500V) | Type designation                     | Order code      | Weight Per Unit (Kg) |
| 2               | 160/-                                             | XRM160BS-50-DC                       | 1SEP102246R1200 |                      |
| 2               | 250/250                                           | XRM250BS-50-DC                       | 1SEP102247R1200 |                      |
| 2               | 400/400                                           | XRM400BS-50-DC                       | 1SEP102248R1200 |                      |
| 2               | 630/630                                           | XRM630BS-50-DC                       | 1SEP102249R1200 |                      |
| 2               | 160/-                                             | XRM160BS-50-DC-MOT                   | 1SEP102246R1202 |                      |
| 2               | 250/250                                           | XRM250BS-50-DC-MOT                   | 1SEP102247R1202 |                      |
| 2               | 400/400                                           | XRM400BS-50-DC-MOT                   | 1SEP102248R1202 |                      |
| 2               | 630/630                                           | XRM630BS-50-DC-MOT                   | 1SEP102249R1202 |                      |

1) Not prepared for CT's



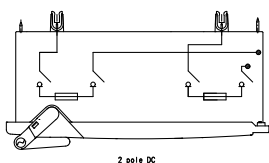
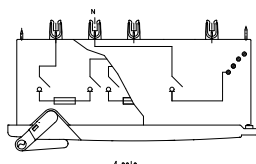
**SlimLine XR Switch disconnecter fuses - 185 mm busbar distance, British standard versions (BS)**

| Number of poles | Rated oper. current [A] AC23B | Type designation                      | Order code      | Weight Per Unit (Kg) |
|-----------------|-------------------------------|---------------------------------------|-----------------|----------------------|
| 3               | 63                            | XRM63BS-185-3P                        | 1SEP102244R3300 | 3,60                 |
| 3               | 100                           | XRM100BS-185-3P                       | 1SEP102245R3300 | 3,60                 |
| 3               | 160                           | XRM160BS-185-3P                       | 1SEP102246R3300 | 3,60                 |
| 3               | 250                           | XRM250BS-185-3P                       | 1SEP102247R3300 | 6,80                 |
| 3               | 400                           | XRM400BS-185-3P                       | 1SEP102248R3300 | 14,80                |
| 3               | 400                           | XRM400BS-185-3P-NCT <sup>1)</sup>     | 1SEP102248R3600 | 14,50                |
| 3               | 630                           | XRM630BS-185-3P                       | 1SEP102249R3300 | 15,00                |
| 3               | 630                           | XRM630BS-185-3P-NCT <sup>1)</sup>     | 1SEP102249R3600 | 14,80                |
| 3               | 160                           | XRM160BS-185-3P-EFM                   | 1SEP102246R3301 | 3,60                 |
| 3               | 250                           | XRM250BS-185-3P-EFM                   | 1SEP102247R3301 | 6,80                 |
| 3               | 400                           | XRM400BS-185-3P-EFM                   | 1SEP102248R3301 | 14,80                |
| 3               | 400                           | XRM400BS-185-3P-NCT-EFM <sup>1)</sup> | SEP102248R3601  | 14,50                |
| 3               | 630                           | XRM630BS-185-3P-EFM                   | 1SEP102249R3301 | 15,00                |
| 3               | 630                           | XRM630BS-185-3P-NCT-EFM <sup>1)</sup> | 1SEP102249R3601 | 14,80                |
| 3               | 160                           | XRM160BS-185-3P-MOT                   | 1SEP102246R3302 |                      |
| 3               | 250                           | XRM250BS-185-3P-MOT                   | 1SEP102247R3302 |                      |
| 3               | 400                           | XRM400BS-185-3P-MOT                   | 1SEP102248R3302 |                      |
| 3               | 630                           | XRM630BS-185-3P-MOT                   | 1SEP102249R3302 |                      |
| 3               | 160                           | XRM160BS-185-3P-ITS                   | 1SEP102246R3304 |                      |
| 3               | 250                           | XRM250BS-185-3P-ITS                   | 1SEP102247R3304 |                      |
| 3               | 400                           | XRM400BS-185-3P-ITS                   | 1SEP102248R3304 |                      |
| 3               | 630                           | XRM630BS-185-3P-ITS                   | 1SEP102249R3304 |                      |
| 3               | 160                           | XRM160BS-185-3P-ITS-MOT               | 1SEP102246R3305 |                      |
| 3               | 250                           | XRM250BS-185-3P-ITS-MOT               | 1SEP102247R3305 |                      |
| 3               | 400                           | XRM400BS-185-3P-ITS-MOT               | 1SEP102248R3305 |                      |
| 3               | 630                           | XRM630BS-185-3P-ITS-MOT               | 1SEP102249R3305 |                      |

1) Not prepared for CT's

# SlimLine

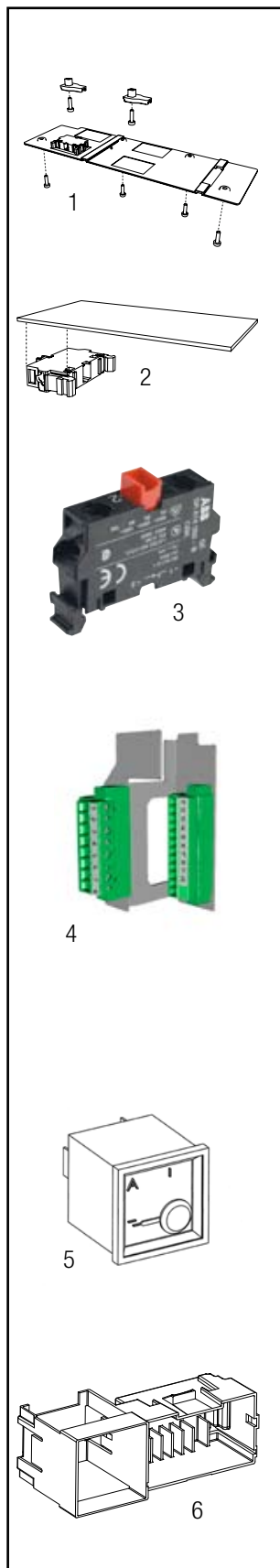
## 5. Ordering tables



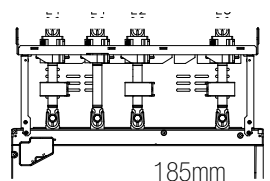
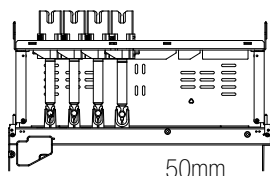
### SlimLine XR Switch disconnecter fuses - 185 mm busbar distance, British standard versions (BS)

| Number of poles | Rated oper. current [A] AC22B                     | Type designation                      | Order code      | Weight Per Unit (Kg) |
|-----------------|---------------------------------------------------|---------------------------------------|-----------------|----------------------|
| 4               | 160                                               | XRE160BS-185-4P                       | 1SEP102246R3400 | 5,20                 |
| 4               | 250                                               | XRE250BS-185-4P                       | 1SEP102247R3400 | 8,50                 |
| 4               | 400                                               | XRE400BS-185-4P                       | 1SEP102248R3400 | 17,30                |
| 4               | 400                                               | XRE400BS-185-4P-NCT <sup>1)</sup>     | 1SEP102248R3700 | 16,80                |
| 4               | 630                                               | XRE630BS-185-4P                       | 1SEP102249R3400 | 17,70                |
| 4               | 630                                               | XRE630BS-185-4P-NCT <sup>1)</sup>     | 1SEP102249R3700 | 17,10                |
| 4               | 160                                               | XRE160BS-185-4P-EFM                   | 1SEP102246R3401 | 5,20                 |
| 4               | 250                                               | XRE250BS-185-4P-EFM                   | 1SEP102247R3401 | 8,50                 |
| 4               | 400                                               | XRE400BS-185-4P-EFM                   | 1SEP102248R3401 | 17,30                |
| 4               | 400                                               | XRE400BS-185-4P-NCT-EFM <sup>1)</sup> | 1SEP102248R3701 | 16,80                |
| 4               | 630                                               | XRE630BS-185-4P-EFM                   | 1SEP102249R3401 | 17,70                |
| 4               | 630                                               | XRE630BS-185-4P-NCT-EFM <sup>1)</sup> | 1SEP102249R3701 | 17,10                |
| 4               | 160                                               | XRE160BS-185-4P-MOT                   | 1SEP102246R3402 |                      |
| 4               | 250                                               | XRE250BS-185-4P-MOT                   | 1SEP102247R3402 |                      |
| 4               | 400                                               | XRE400BS-185-4P-MOT                   | 1SEP102248R3402 |                      |
| 4               | 630                                               | XRE630BS-185-4P-MOT                   | 1SEP102249R3402 |                      |
| 4               | 160                                               | XRE160BS-185-4P-ITS                   | 1SEP102246R3404 |                      |
| 4               | 250                                               | XRE250BS-185-4P-ITS                   | 1SEP102247R3404 |                      |
| 4               | 400                                               | XRE400BS-185-4P-ITS                   | 1SEP102248R3404 |                      |
| 4               | 630                                               | XRE630BS-185-4P-ITS                   | 1SEP102249R3404 |                      |
| 4               | 160                                               | XRE160BS-185-4P-ITS-MOT               | 1SEP102246R3405 |                      |
| 4               | 250                                               | XRE250BS-185-4P-ITS-MOT               | 1SEP102247R3405 |                      |
| 4               | 400                                               | XRE400BS-185-4P-ITS-MOT               | 1SEP102248R3405 |                      |
| 4               | 630                                               | XRE630BS-185-4P-ITS-MOT               | 1SEP102249R3405 |                      |
| Number of poles | Rated oper. current [A] DC23B (230V) DC21B (500V) | Type designation                      | Order code      | Weight Per Unit (Kg) |
| 2               | 160/-                                             | XRM160BS-185-DC                       | 1SEP102246R3200 |                      |
| 2               | 250/250                                           | XRM250BS-185-DC                       | 1SEP102247R3200 |                      |
| 2               | 400/400                                           | XRM400BS-185-DC                       | 1SEP102248R3200 |                      |
| 2               | 630/630                                           | XRM630BS-185-DC                       | 1SEP102249R3200 |                      |
| 2               | 160/-                                             | XRM160BS-185-DC-MOT                   | 1SEP102246R3202 |                      |
| 2               | 250/250                                           | XRM250BS-185-DC-MOT                   | 1SEP102247R3202 |                      |
| 2               | 400/400                                           | XRM400BS-185-DC-MOT                   | 1SEP102248R3202 |                      |
| 2               | 630/630                                           | XRM630BS-185-DC-MOT                   | 1SEP102249R3202 |                      |

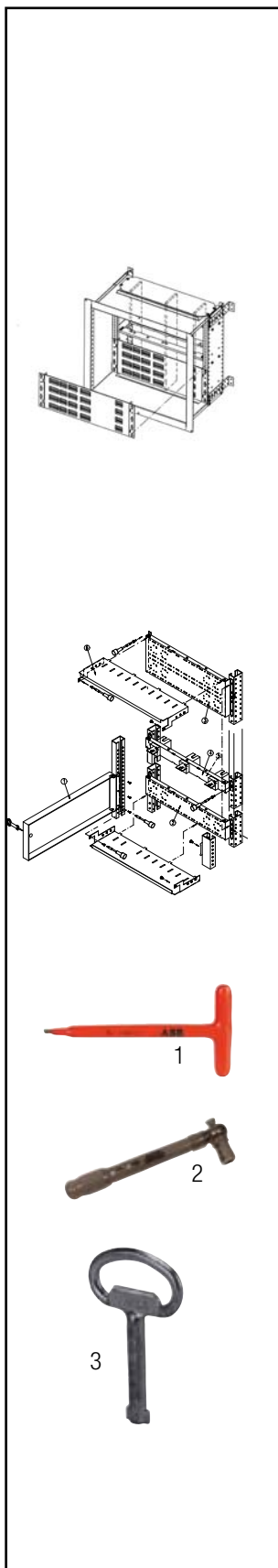
1) Not prepared for CT's



| Type designation                                  | Description                                              | Order code      |
|---------------------------------------------------|----------------------------------------------------------|-----------------|
| <b>Auxiliary switches</b>                         |                                                          |                 |
| 1 XR00 Auxiliary switch 1NO kit                   | Kit incl. 1pcs, 1NO aux switch, transp. cover and screws | 1SEP408504R0001 |
| XR00 Auxiliary switch 1NC kit                     | Kit incl. 1pcs, 1 NC aux switch, transp.cover and screws | 1SEP408505R0001 |
| XR1 Auxiliary switch 1NO kit                      | Kit incl. 1pcs 1NO aux switch, transp. cover and screws  | 1SEP408506R0001 |
| XR1 Auxiliary switch 1NC kit                      | Kit incl. 1pcs 1NC aux switch, transp. cover and screws  | 1SEP408507R0001 |
| 2 XR2/3 Auxiliary switch 1NO kit                  | Kit incl. 1pcs 1NO aux switch, transp. cover and screws  | 1SEP408508R0001 |
| XR2/3 Auxiliary switch 1NC kit                    | Kit incl. 1pcs 1NC aux switch, transp. cover and screws  | 1SEP408509R0001 |
| XR Auxiliary switch 1NO                           | Single aux. switch to be used as aux. switch no 2,3,4    | 1SEP407742R0013 |
| 3 XR Auxiliary switch 1NC                         | Single aux. switch to be used as aux. switch no 2,3,4    | 1SEP407742R0012 |
| <b>Multi plugs</b>                                |                                                          |                 |
| XR00/1 Multi plug 6 kit f. CT's with screws       |                                                          | 1SEP408512R0001 |
| XR00/1 Multi plug 8 kit f. CT's                   |                                                          | 1SEP408510R0001 |
| XR00/1 Multi plug 18 kit f. CT's and aux switches |                                                          | 1SEP408511R0001 |
| 4 XR2/3 Multi plug 8 kit f. CT's with screws      |                                                          | 1SEP408515R0001 |
| XR2/3 Multi plug kit 8 f. CT's                    |                                                          | 1SEP408513R0001 |
| XR2/3 Multi plug kit 20 f. CT's and aux switches  |                                                          | 1SEP408514R0001 |
| <b>5 Ammeter</b>                                  |                                                          |                 |
| XR Ammeter 0-150-180/1A                           |                                                          | NHSN714003P0150 |
| XR Ammeter 0-150-180/5A                           |                                                          | NHSN714003P1150 |
| XR Ammeter 0-250-300/1A                           |                                                          | NHSN714003P0250 |
| XR Ammeter 0-250-300/5A                           |                                                          | NHSN714003P1250 |
| XR Ammeter 0-400-480/1A                           |                                                          | NHSN714003P0400 |
| XR Ammeter 0-400-480/5A                           |                                                          | NHSN714003P1400 |
| XR Ammeter 0-600-720/1A                           |                                                          | NHSN714003P0600 |
| XR Ammeter 0-600-720/5A                           |                                                          | NHSN714003P1600 |
| <b>6 Ammeter and EFM Bracket</b>                  |                                                          |                 |
| XR Ammeter and EFM bracket                        |                                                          | 1SEP408519R0001 |



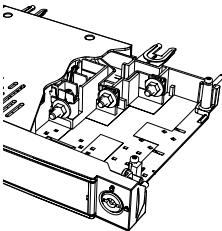
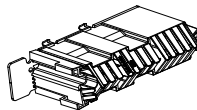
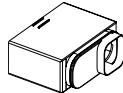
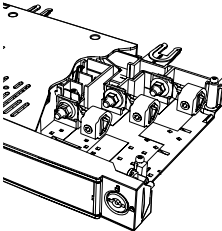
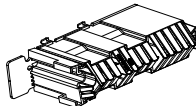
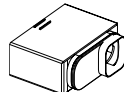
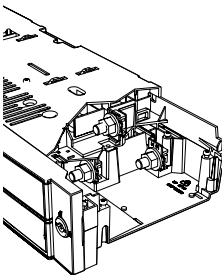
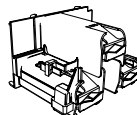
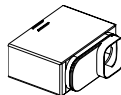
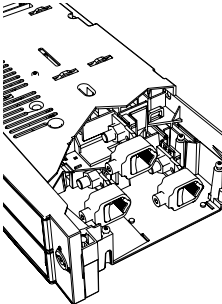
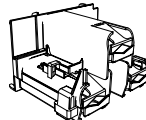
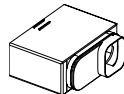
| Type designation                                                                        | Order code      |
|-----------------------------------------------------------------------------------------|-----------------|
| <b>Contact extensions for 50mm 2 pole</b>                                               |                 |
| XR00 Contact ext. 50 mm 2 pole                                                          | 1SEP102127R0002 |
| XR1 Contact ext. 50 mm 2 pole                                                           | 1SEP102128R0002 |
| XR2/3 Contact ext. 50 mm 2 pole                                                         | NHP 100495R0003 |
| <b>Contact extensions for 50mm 3 pole</b>                                               |                 |
| XR00 Contact ext. for 50 mm                                                             | 1SEP102127R0001 |
| XR1 Contact ext. for 50 mm                                                              | 1SEP102128R0001 |
| XR/SR-2/3 Contact ext. for 50mm                                                         | NHP 100495R0001 |
| <b>Contact extensions for 50mm 4 pole</b>                                               |                 |
| XR00 Contact ext. for 50 mm 4 pole                                                      | 1SEP102137R0001 |
| XR1 Contact ext. for 50 mm 4 pole                                                       | 1SEP102138R0001 |
| XR/SR-2/3 Contact ext. for 50mm 4 pole                                                  | 1SEP101861R0001 |
| <b>Contact extensions for 185mm 2 pole</b>                                              |                 |
| XR00 Contact ext. 185 mm 2 pole                                                         | 1SEP408541R0001 |
| XR1 Contact ext. 185 mm 2 pole                                                          | 1SEP408542R0001 |
| XR2/3 Contact ext. for 185 mm 2 pole                                                    | 1SEP408543R0001 |
| <b>Contact extensions for 185mm 3 pole</b>                                              |                 |
| XR00 Contact ext. for 185 mm                                                            | 1SEP102135R0001 |
| XR1 Contact ext. for 185 mm                                                             | 1SEP102136R0001 |
| XR/SR2/3 Contact ext. for 185mm                                                         | NHP 100886R0001 |
| <b>Contact extensions for 185mm 4 pole</b>                                              |                 |
| XR00 Contact ext. for 185 mm 4 pole                                                     | 1SEP102208R0001 |
| XR1 Contact ext. for 185 mm 4 pole                                                      | 1SEP102209R0001 |
| XR/SR-2/3 Contact ext. for 185mm 4 pole                                                 | 1SEP102198R0001 |
| <b>Front covers with operating handle for NH ( spare parts )</b>                        |                 |
| XR00 Front cover w/operating handle for NH Incl. "E" and "M"                            | 1SEP102219R0002 |
| XR1 Front cover w/operating handle for NH Incl. "E" and "M"                             | 1SEP102222R0002 |
| XR2 Front cover w/operating handle for NH Incl. "E" and "M"                             | 1SEP408521R0001 |
| XR3 Front cover w/operating handle for NH Incl. "E" and "M"                             | 1SEP408521R0003 |
| <b>Front covers with operating handle for BS ( spare parts )</b>                        |                 |
| XR00 Front cover w/operating handle for BS Incl. "E" and "M"<br>( M for 63, 100, 160A ) | 1SEP102219R0012 |
| XR1 Front cover w/operating handle for BS Incl. "E" and "M"                             | 1SEP102222R0012 |
| XR2 Front cover w/operating handle for BS Incl. "E" and "M"                             | 1SEP408521R0011 |
| XR3 Front cover w/operating handle for BS Incl. "E" and "M"                             | 1SEP408521R0013 |



| Type designation                             | Order code      | Gross Weight, [kg] |
|----------------------------------------------|-----------------|--------------------|
| <b>SlimLine cassette</b>                     |                 |                    |
| XR/SR - SlimLine cassette 185mm/500mm        | 1SEP102223R0001 |                    |
| XR/SR - SlimLine cassette 185mm/1000mm       | 1SEP102223R0002 | 21,2               |
| XR/SR - SlimLine cassette 185mm/1500mm       | 1SEP102223R0003 | 30                 |
| XR/SR - SlimLine cassette 185mm/2000mm       | 1SEP102223R0004 | 38                 |
| XR/SR - IP20 busbar cover 500mm              | NHP 407062R0001 | 1,5                |
| XR/SR - IP20 busbar cover 1000mm             | NHP 407062R0002 | 2,8                |
| XR/SR - IP20 busbar cover 1500mm             | NHP 407062R0003 | 4,1                |
| XR/SR - IP20 busbar cover 2000mm             | NHP 407062R0004 | 5,4                |
| XR/SR - Single IP20 busbar cover 200mm       | NHP 101474P0001 | 0,5                |
| XR/SR - Top-bottom unit, depth 400mm         | 1SEP102079P0001 |                    |
| <b>Service modules</b>                       |                 |                    |
| XR/SR - Service module top/bottom seg. plate | NHP 101155R0001 | 0,2                |
| XR/SR - Service module mount. plate 100mm    | NHP 405897R0001 | 0,8                |
| XR/SR - Service module mount. plate 200mm    | NHP 405897R0002 | 1,5                |
| XR/SR - Service module mount. plate 300mm    | NHP 405897R0003 | 2,2                |
| XR/SR - Service module mount. plate 400mm    | NHP 405897R0004 | 2,9                |
| XR/SR - Front blind cover 100mm hinged       | NHP 101323R6001 | 1,4                |
| XR/SR - Front blind cover 200mm hinged       | NHP 101323R6002 | 2,5                |
| XR/SR - Front blind cover 300mm hinged       | NHP 101323R6003 | 3,6                |
| XR/SR - Front blind cover 400mm hinged       | NHP 101323R6004 | 4,7                |
| XR/SR - Busbar connection module 60mm/400A   | NHP 101194R0001 | 2,2                |
| XR/SR - Busbar connection module 185mm/400A  | NHP 101193R0001 | 3,4                |
| XR/SR - Busbar holder 185 mm                 | 1SEP102234P0001 | 2,2                |
| <b>Common accessories</b>                    |                 |                    |
| XR Ventilated blind cover 50mm IP41          | 1SEP408528R0001 | 0,8                |
| XR/SR Module guide rails 200mm               | NHP 200947R0002 | 1,3                |
| XR/SR Module guide rails 400mm               | NHP 200947R0003 | 1,8                |
| 1 Cable terminal key (tool)                  | NHSN950001P0006 | 0,6                |
| 2 Cable terminal torque key (tool)           | NHSN950001P0002 | 2                  |
| Extension for torque key NV1                 | NHSN950001P0001 | 0,4                |
| 3 Front cover key                            | GMN 436770P0022 | 0,1                |

### Cable termination / Cable shrouds

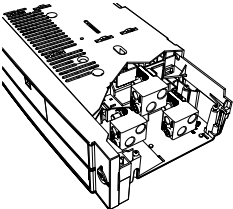
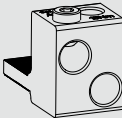
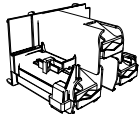
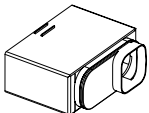
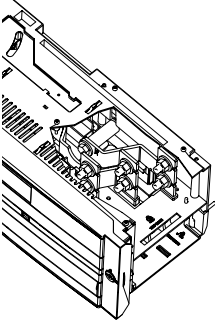
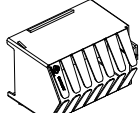
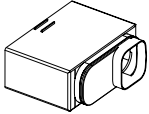
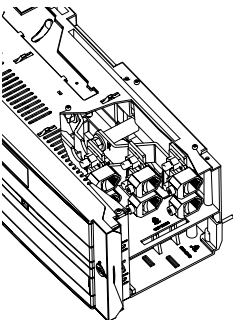
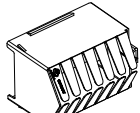
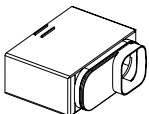
The XR is delivered with bolts as standard for connection of cables with lugs.  
Cable clamps for Al/Cu-cables are available as accessories.

| Size                                                                                | Type of clamp/bolt<br>w/order code | Cable (Al/Cu)<br>size (mm²)                                                         |                                                                                     | Torque<br>(Nm)                                                                                 | Number<br>of poles                                                                             | Cable shroud<br>w/order code                                                                             |                                                                                                          |          |  |  |  |
|-------------------------------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------|--|--|--|
| XR00 160 A                                                                          |                                    |                                                                                     |                                                                                     |                                                                                                |                                                                                                |                                                                                                          |                                                                                                          |          |  |  |  |
|    | M8<br>(Standard)                   | - 95<br>- 120 <sup>1)</sup>                                                         |                                                                                     | 15 Nm                                                                                          | 2 / 3                                                                                          | <br>1SEP408496R0001   |                                                                                                          |          |  |  |  |
|                                                                                     |                                    |                                                                                     |                                                                                     |                                                                                                | N / 4th                                                                                        | <br>1SEP407775R0001   |                                                                                                          |          |  |  |  |
|   | Single clamp                       |   |   | <br>15 Nm  | 2 / 3                                                                                          | <br>1SEP408496R0001  |                                                                                                          |          |  |  |  |
|                                                                                     | 3 pole:<br>1SEP408499R0001         |                                                                                     |                                                                                     |                                                                                                |                                                                                                |                                                                                                          | Re: 10 - 50                                                                                              |          |  |  |  |
|                                                                                     | 4 pole:<br>1SEP408501R0001         | Rm: 10 - 50                                                                         | Se: 50 - 70                                                                         | 95                                                                                             | <br>18 Nm | N / 4th                                                                                                  | <br>1SEP407775R0001 |          |  |  |  |
|                                                                                     |                                    | Sm: 35 - 50                                                                         |                                                                                     |                                                                                                |                                                                                                |                                                                                                          |                                                                                                          | 70 - 95  |  |  |  |
| XR1 250A                                                                            |                                    |                                                                                     |                                                                                     |                                                                                                |                                                                                                |                                                                                                          |                                                                                                          |          |  |  |  |
|  | M12<br>(Standard)                  | - 240                                                                               |                                                                                     | 30 Nm                                                                                          | 2 / 3                                                                                          | <br>1SEP408497R0001 |                                                                                                          |          |  |  |  |
|                                                                                     |                                    |                                                                                     |                                                                                     |                                                                                                | N / 4th                                                                                        | <br>1SEP407775R0001 |                                                                                                          |          |  |  |  |
|  | Single clamp                       |  |  | <br>20 Nm | 2 / 3                                                                                          | <br>1SEP408497R0001 |                                                                                                          |          |  |  |  |
|                                                                                     | 3 pole:<br>1SEP408500R0001         |                                                                                     |                                                                                     |                                                                                                |                                                                                                |                                                                                                          | Re: 16 - 70                                                                                              | 70 - 150 |  |  |  |
|                                                                                     | 4 pole:<br>1SEP408502R0001         | Rm: 16 - 35                                                                         | Se: 35 - 70                                                                         | 95 - 300                                                                                       | <br>23 Nm | N / 4th                                                                                                  | <br>1SEP407775R0001 |          |  |  |  |
|                                                                                     |                                    | Sm: 35 - 50                                                                         |                                                                                     |                                                                                                |                                                                                                |                                                                                                          |                                                                                                          | 70 - 240 |  |  |  |
|                                                                                     |                                    |                                                                                     |                                                                                     |                                                                                                |                                                                                                |                                                                                                          |                                                                                                          |          |  |  |  |
|                                                                                     |                                    |                                                                                     |                                                                                     |                                                                                                |                                                                                                |                                                                                                          |                                                                                                          |          |  |  |  |

1) Cu cable lug acc. to DIN 46235, when not using integrated CT's.

### Cable termination / Cable shrouds

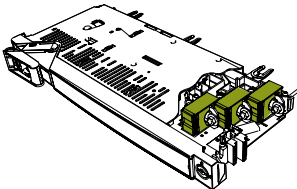
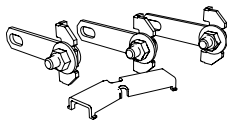
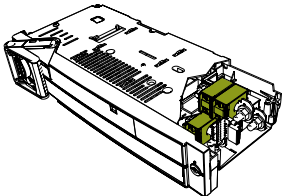
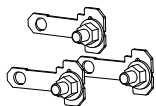
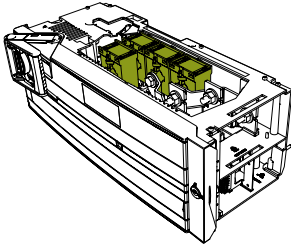
The XR is delivered with bolts as standard for connection of cables with lugs.  
Cable clamps for Al/Cu-cables are available as accessories.

| Size                                                                               | Type of clamp/bolt<br>w/order code             | Cable (Al/Cu)<br>size (mm²)                                                         |                                                                                     | Torque<br>(Nm)                                                                               | Number<br>of poles | Cable shroud<br>w/order code                                                                             |
|------------------------------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------|
| XR1 250A                                                                           |                                                |                                                                                     |                                                                                     |                                                                                              |                    |                                                                                                          |
|    | Double clamp<br><br>3 pole:<br>1SEP408205R0003 |    |                                                                                     | 15 Nm                                                                                        | 2 / 3              | <br>1SEP408497R0001   |
|                                                                                    | 4 pole:<br>1SEP408205R0004                     | Re: 10 - 150<br>Rm: 10 - 95<br>Se: 10 - 120<br>Sm: 10 - 95                          |                                                                                     |                                                                                              | N / 4th            | <br>1SEP407775R0001  |
| XR2/3 400/630A                                                                     |                                                |                                                                                     |                                                                                     |                                                                                              |                    |                                                                                                          |
|  | M12<br>(Standard)                              | 2 x 240                                                                             |                                                                                     | 30 Nm                                                                                        | 2 / 3              | <br>1SEP408498R0001 |
|                                                                                    |                                                |                                                                                     |                                                                                     |                                                                                              | N / 4th            | <br>1SEP407775R0001 |
|  | Double clamp<br><br>3 pole:<br>1SEP304446R0002 |  |  | <br>20 Nm | 2 / 3              | <br>1SEP408498R0001 |
|                                                                                    | 4 pole:<br>1SEP408503R0001                     | Re: 16 - 70<br>Rm: 16 - 35<br>Se: 35 - 70<br>Sm: 35 - 50                            | 70 - 150<br>50 - 185<br>95 - 300<br>70 - 240                                        | <br>23 Nm | N / 4th            | <br>1SEP407775R0001 |

# SlimLine

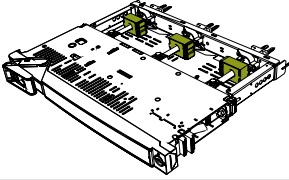
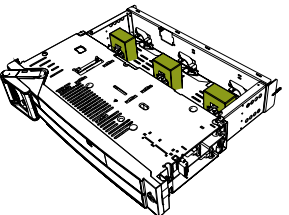
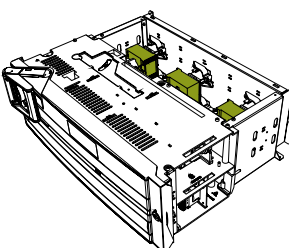
## 5. Ordering tables

### Current metering in XR Standard apparatus 1 and 3 phase

|                                                                                     | Type                                                                                                                                                                                                                                                    | No of CT's<br>pr XR | MBS-type | Ratio | Power | Class | Order code                                                                                                                                                     |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------|-------|-------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | XR00/1 Apparatus                                                                                                                                                                                                                                        | 1,2,3,4             | ASR 20.3 | 150/1 | 3,75  | 1     | NHSN718054P1015                                                                                                                                                |
|                                                                                     | XR00/1 Apparatus                                                                                                                                                                                                                                        | 1,2,3,4             | ASR 20.3 | 150/5 | 3,75  | 1     | NHSN718054P5015                                                                                                                                                |
|                                                                                     | XR00/1 Apparatus                                                                                                                                                                                                                                        | 1,2,3,4             | ASR 20.3 | 150/1 | 2,5   | 0,5   | NHSN718055P1015                                                                                                                                                |
|                                                                                     | XR00/1 Apparatus                                                                                                                                                                                                                                        | 1,2,3,4             | ASR 20.3 | 150/5 | 2,5   | 0,5   | NHSN718055P5015                                                                                                                                                |
|                                                                                     | XR00 Cu Terminal extension for 1 CT or 4th CT for ASR 20.3<br>XR00 Cu Terminal extension kit for 3 phase CT's for ASR 20.3<br>XR00 Terminal ext. for 1 CT or 4th CT Ø 14 mm for ASR 14.3<br>XR00 Terminal ext. kit for 3 phase CT's Ø 14mm for ASR 14.3 |                     |          |       |       |       | <br>1SEP408524R0001<br>1SEP408523R0001<br>1SEP408630R0001<br>1SEP408630R0003 |
|   | XR1 Apparatus                                                                                                                                                                                                                                           | 1,2,3,4             | ASR 20.3 | 250/1 | 7,5   | 1     | NHSN718054P1025                                                                                                                                                |
|                                                                                     | XR1 Apparatus                                                                                                                                                                                                                                           | 1,2,3,4             | ASR 20.3 | 250/5 | 7,5   | 1     | NHSN718054P5025                                                                                                                                                |
|                                                                                     | XR1 Apparatus                                                                                                                                                                                                                                           | 1,2,3,4             | ASR 20.3 | 250/1 | 5     | 0,5   | NHSN718055P1025                                                                                                                                                |
|                                                                                     | XR1 Apparatus                                                                                                                                                                                                                                           | 1,2,3,4             | ASR 20.3 | 250/5 | 5     | 0,5   | NHSN718055P5025                                                                                                                                                |
|                                                                                     | XR1 Cu Terminal extension for 1 CT for ASR 20.3<br>XR1 Cu Terminal extension kit for 3 phase CT's for ASR 20.3<br>XR1 Cu Terminal extension kit for 4 CT's for ASR 20.3                                                                                 |                     |          |       |       |       | <br>1SEP408576R0001<br>1SEP408525R0001<br>1SEP408526R0001                  |
|  | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 250/1 | 10    | 1     | NHSN718047P1025                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 250/5 | 10    | 1     | NHSN718047P5025                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 300/1 | 10    | 1     | NHSN718047P1030                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 300/5 | 10    | 1     | NHSN718047P5030                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 400/1 | 10    | 1     | NHSN718047P1040                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 400/5 | 10    | 1     | NHSN718047P5040                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 500/1 | 10    | 1     | NHSN718047P1050                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 500/5 | 10    | 1     | NHSN718047P5050                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 600/1 | 10    | 1     | NHSN718047P1060                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 600/5 | 10    | 1     | NHSN718047P5060                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 300/1 | 10    | 0,5   | NHSN718056P1030                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 300/5 | 10    | 0,5   | NHSN718056P5030                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 400/1 | 10    | 0,5   | NHSN718056P1040                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 400/5 | 10    | 0,5   | NHSN718056P5040                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 500/1 | 10    | 0,5   | NHSN718056P1050                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 500/5 | 10    | 0,5   | NHSN718056P5050                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 600/1 | 10    | 0,5   | NHSN718056P1060                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 600/5 | 10    | 0,5   | NHSN718056P5060                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 250/5 | 5     | 0,2 s | NHSN718053P5025                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 300/5 | 5     | 0,2 s | NHSN718053P5030                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 400/5 | 5     | 0,2 s | NHSN718053P5040                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 500/5 | 5     | 0,2 s | NHSN718053P5050                                                                                                                                                |
|                                                                                     | XR2/3 Apparatus                                                                                                                                                                                                                                         | 1,2,3,4             | ASK 41.4 | 600/5 | 5     | 0,2 s | NHSN718053P5060                                                                                                                                                |

NOTE! All CTs are delivered as a single unit. For 3 phase measuring 3 units have to be ordered.  
The CT's can also be ordered directly from MBS or local MBS agent or equivalent CT's can be used.

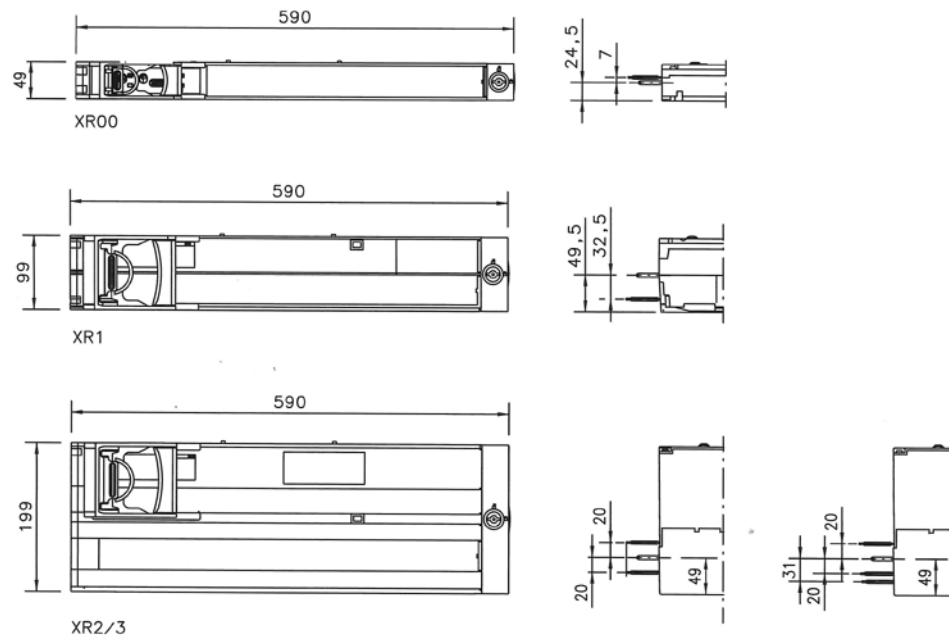
## Current metering in XR with contact extension 1 and 3 phase

|                                                                                     | Type             | No of CT's<br>pr XR | MBS-type | Ratio | Power | Class | Order code      |
|-------------------------------------------------------------------------------------|------------------|---------------------|----------|-------|-------|-------|-----------------|
|    | XR00 Cont. ext.  | 1,2,3               | ASR 20.3 | 150/1 | 3,75  | 1     | NHSN718054P1015 |
|                                                                                     | XR00 Cont. ext.  | 1,2,3               | ASR 20.3 | 150/5 | 3,75  | 1     | NHSN718054P5015 |
|                                                                                     | XR00 Cont. ext.  | 1,2,3,              | ASR 20.3 | 150/1 | 2,5   | 0,5   | NHSN718055P1015 |
|                                                                                     | XR00 Cont. ext.  | 1,2,3,              | ASR 20.3 | 150/5 | 2,5   | 0,5   | NHSN718055P5015 |
|    | XR1 Cont. ext.   | 1,2,3               | ASK 31.3 | 250/1 | 5     | 1     | NHSN718045P1025 |
|                                                                                     | XR1 Cont. ext.   | 1,2,3               | ASK 31.3 | 250/5 | 5     | 1     | NHSN718045P5025 |
|                                                                                     | XR1 Cont. ext.   | 1,2,3               | ASK 41.4 | 250/1 | 10    | 1     | NHSN718047P1025 |
|                                                                                     | XR1 Cont. ext.   | 1,2,3               | ASK 41.4 | 250/5 | 10    | 1     | NHSN718047P5025 |
|                                                                                     | XR1 Cont. ext.   | 1,2,3               | ASK 31.3 | 250/1 | 5     | 0,5   | NHSN718046P1025 |
|                                                                                     | XR1 Cont. ext.   | 1,2,3               | ASK 31.3 | 250/5 | 5     | 0,5   | NHSN718046P5025 |
|                                                                                     | XR1 Cont. ext.   | 1,2,3               | ASK 41.4 | 250/1 | 5     | 0,5   | NHSN718056P1025 |
|                                                                                     | XR1 Cont. ext.   | 1,2,3               | ASK 41.4 | 250/5 | 5     | 0,5   | NHSN718056P5025 |
|  | XR1 Cont. ext.   | 1,2,3               | ASK 41.4 | 250/5 | 5     | 0,2 s | NHSN718053P5025 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 250/1 | 10    | 1     | NHSN718047P1025 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 250/5 | 10    | 1     | NHSN718047P5025 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 300/1 | 10    | 1     | NHSN718047P1030 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 300/5 | 10    | 1     | NHSN718047P5030 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 400/1 | 10    | 1     | NHSN718047P1040 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 400/5 | 10    | 1     | NHSN718047P5040 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 500/1 | 10    | 1     | NHSN718047P1050 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 500/5 | 10    | 1     | NHSN718047P5050 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 600/1 | 10    | 1     | NHSN718047P1060 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 600/5 | 10    | 1     | NHSN718047P5060 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 300/1 | 10    | 0,5   | NHSN718056P1030 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 300/5 | 10    | 0,5   | NHSN718056P5030 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 400/1 | 10    | 0,5   | NHSN718056P1040 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 400/5 | 10    | 0,5   | NHSN718056P5040 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 500/1 | 10    | 0,5   | NHSN718056P1050 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 500/5 | 10    | 0,5   | NHSN718056P5050 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 600/1 | 10    | 0,5   | NHSN718056P5160 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 600/5 | 10    | 0,5   | NHSN718056P5060 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 250/5 | 5     | 0,2 s | NHSN718053P5025 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 300/5 | 5     | 0,2 s | NHSN718053P5030 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 400/5 | 5     | 0,2 s | NHSN718053P5040 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 500/5 | 5     | 0,2 s | NHSN718053P5050 |
|                                                                                     | XR2/3 Cont. ext. | 1,2,3               | ASK 41.4 | 600/5 | 5     | 0,2 s | NHSN718053P5060 |

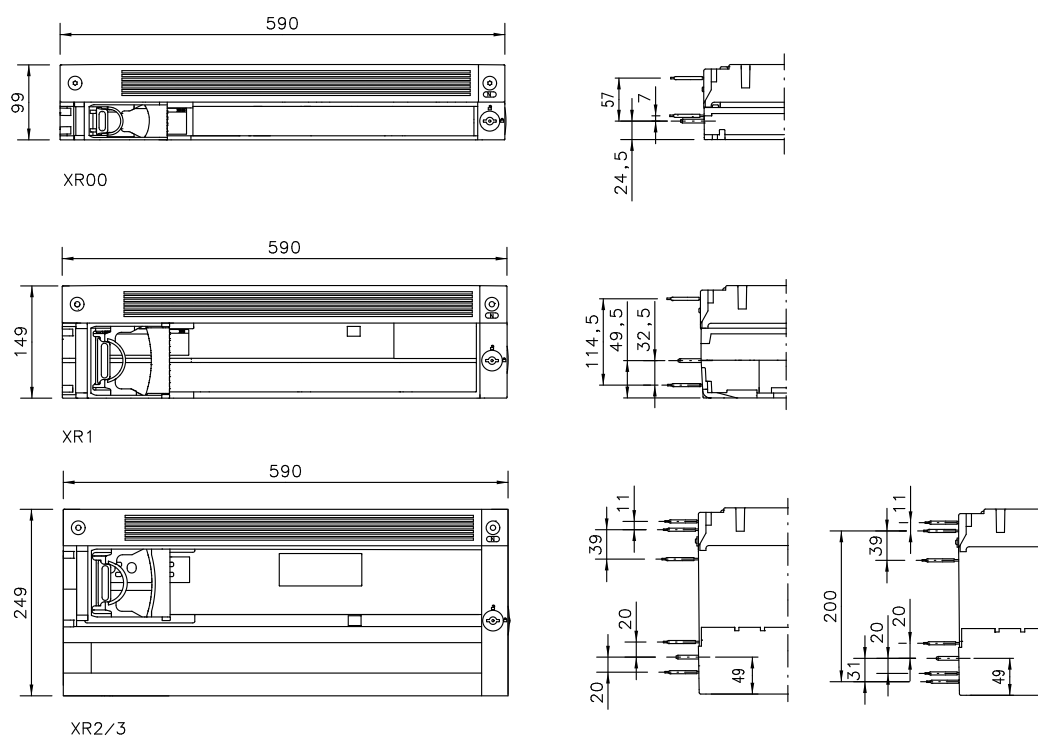
NOTE! All CTs are delivered as a single unit. For 3 phase measuring 3 units have to be ordered.  
The CT's can also be ordered directly from MBS or local MBS agent or equivalent CT's can be used.

### XR Front / side view

#### 2 pole / 3 pole



#### 4 pole

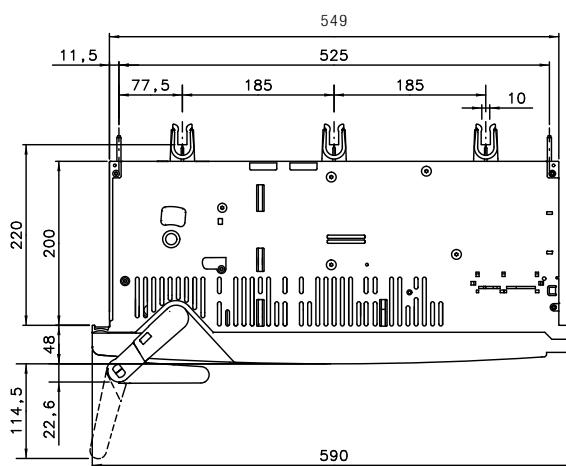
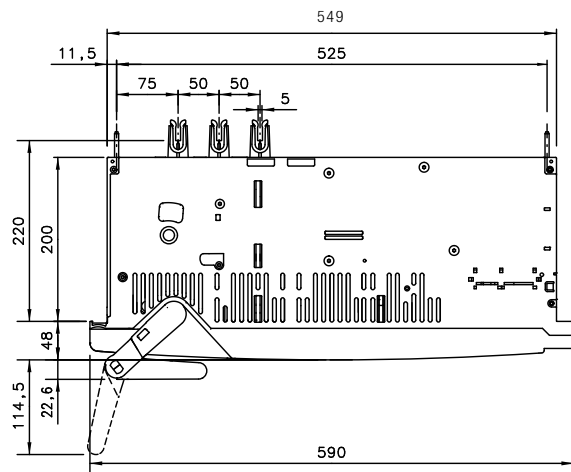


### Distance between busbars ( top view)

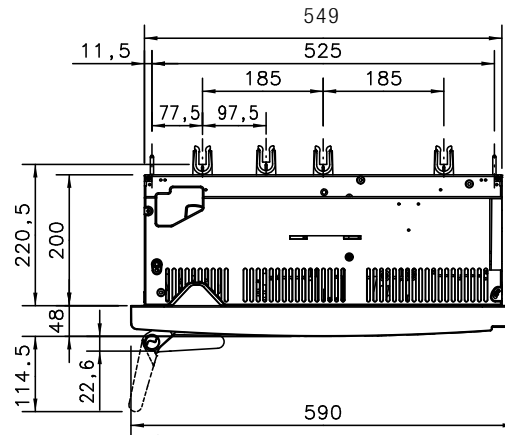
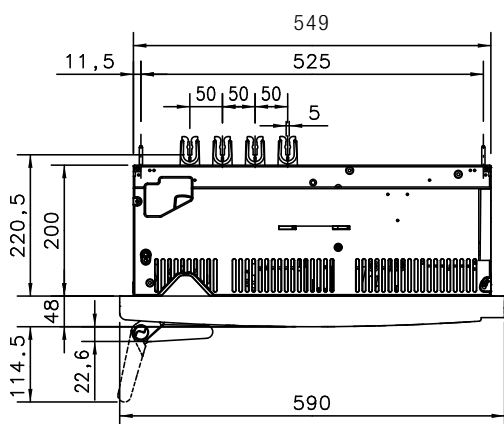
50 mm distance between phases

185 mm distance between phases

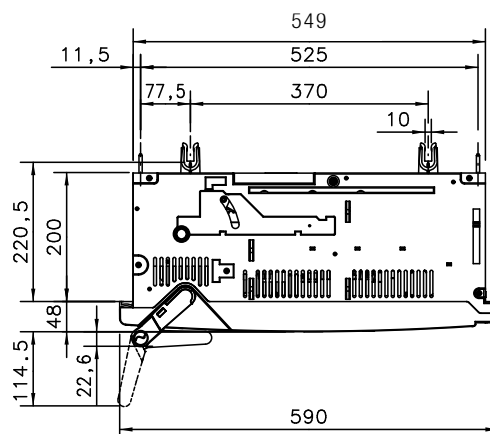
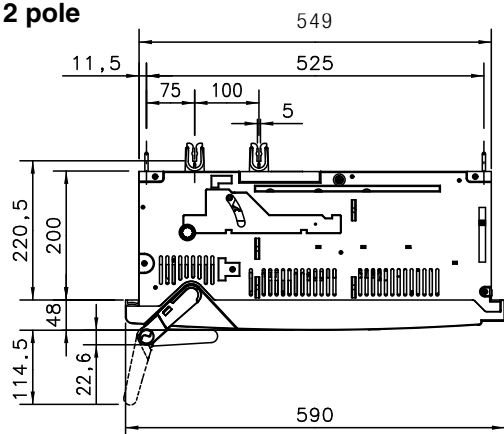
#### 3 pole



#### 4 pole



#### 2 pole

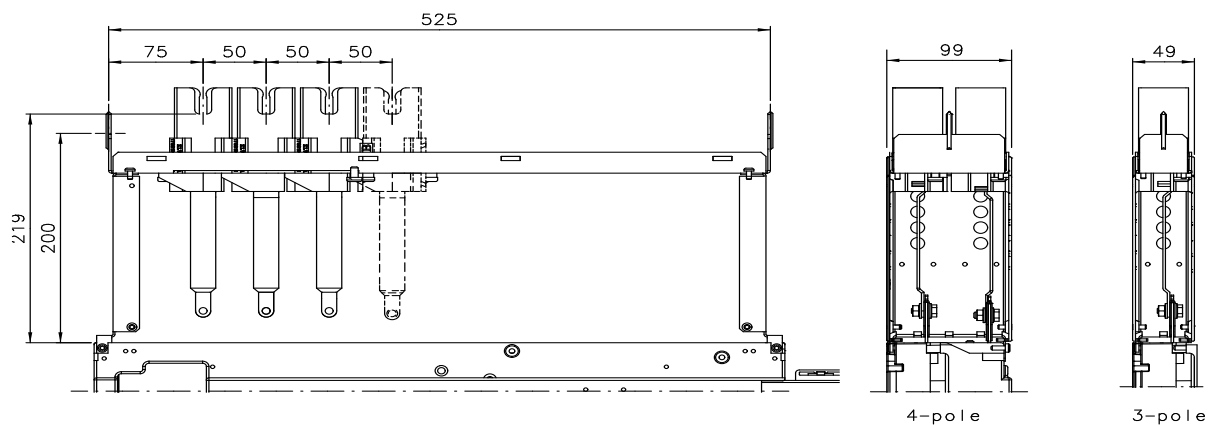


# SlimLine

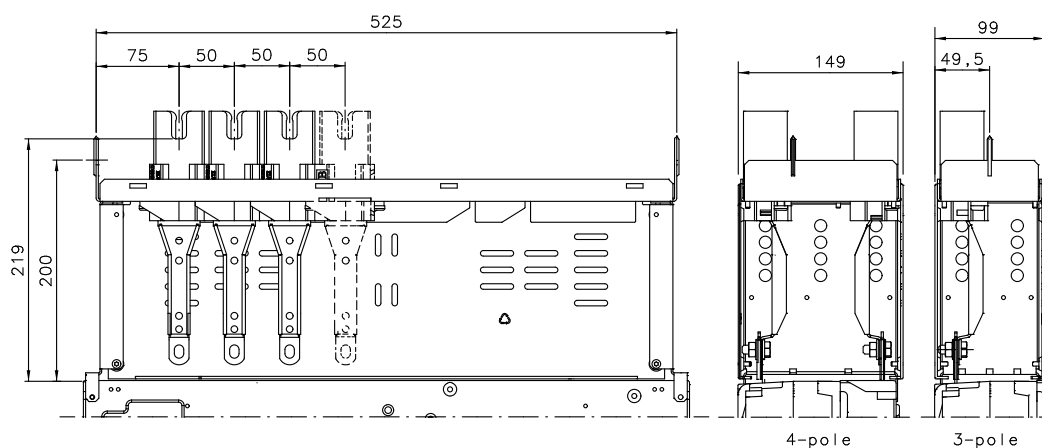
## 6. Dimensional drawings

### Contact extension, 50 mm distance between phases

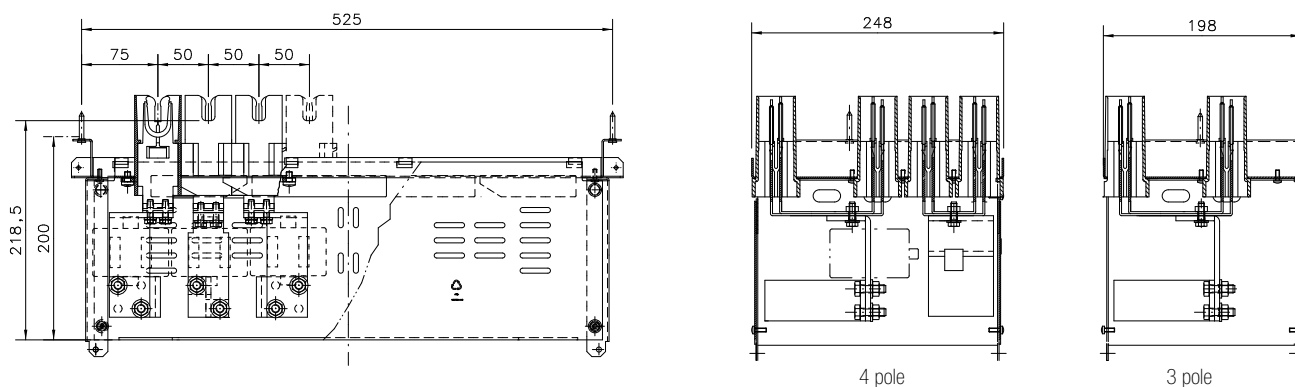
#### XR00



#### XR1

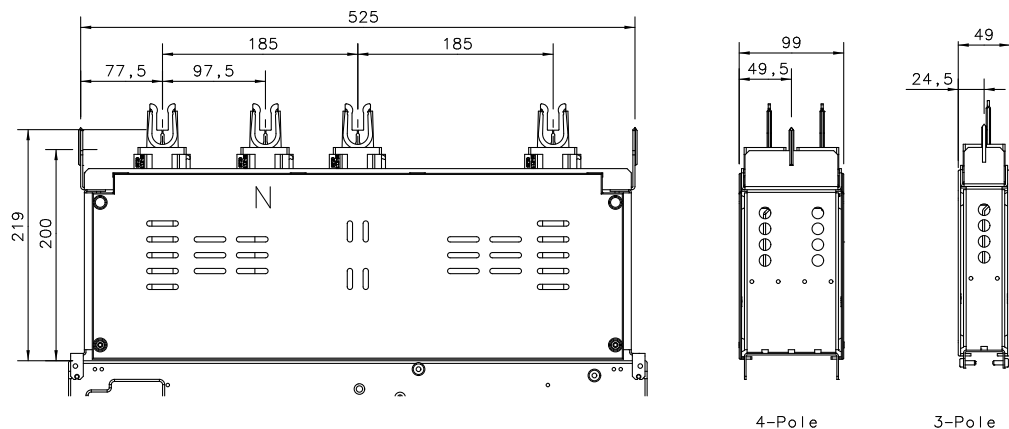


#### XR2/3

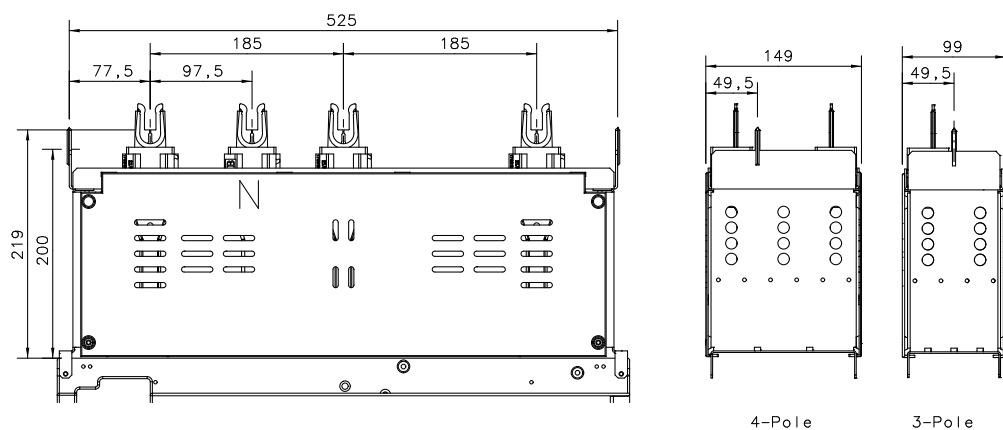


### Contact extension, 185 mm distance between phases

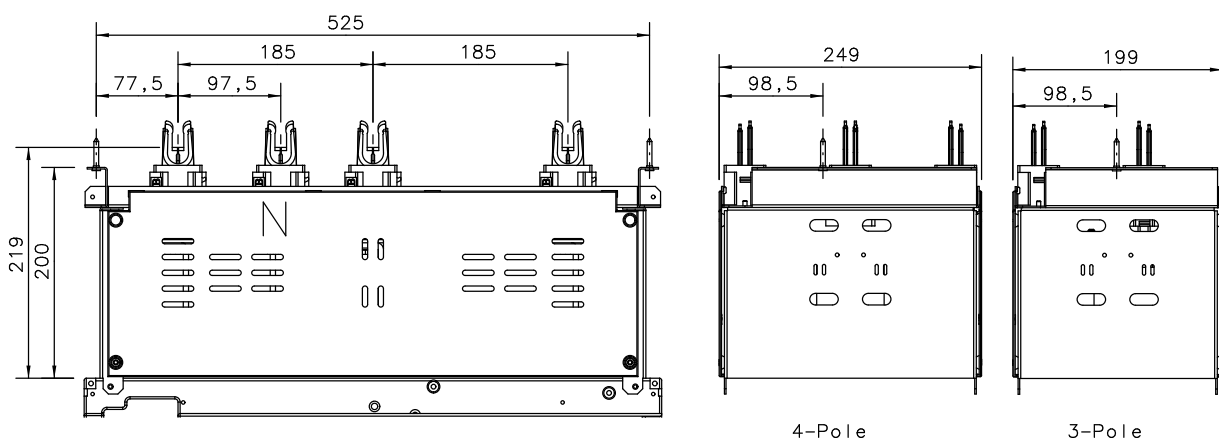
#### XR00



#### XR1

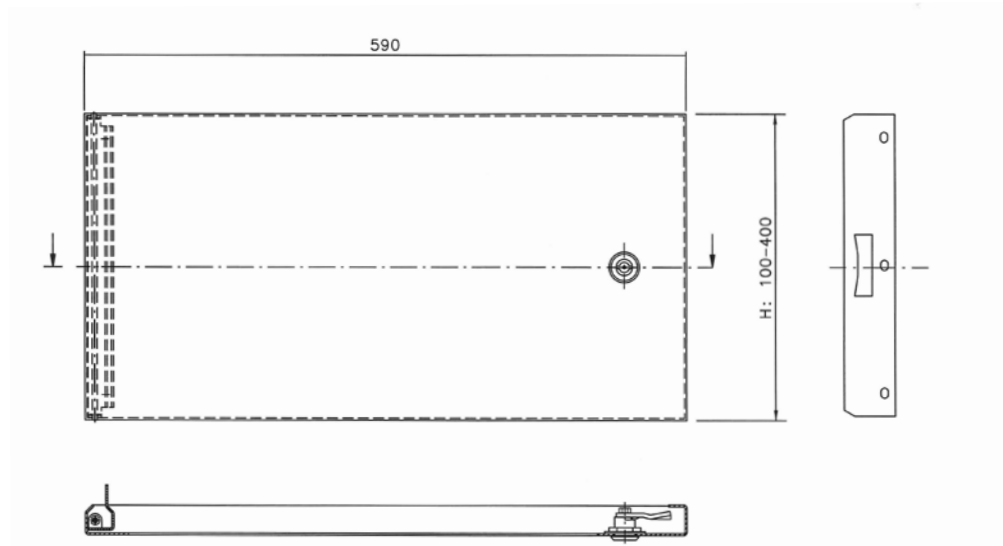


#### XR2/3

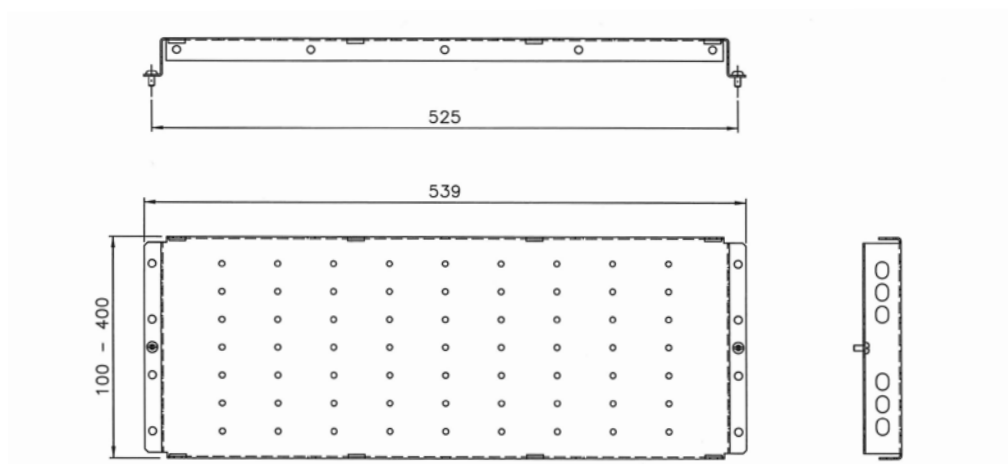


### Service modul

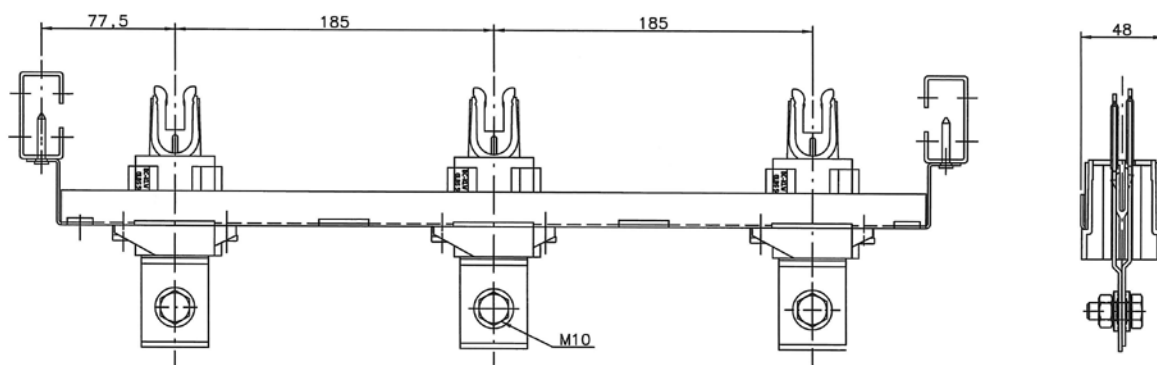
Blind cover complete H: 100-400 mm



### Mounting plate H: 100-400mm

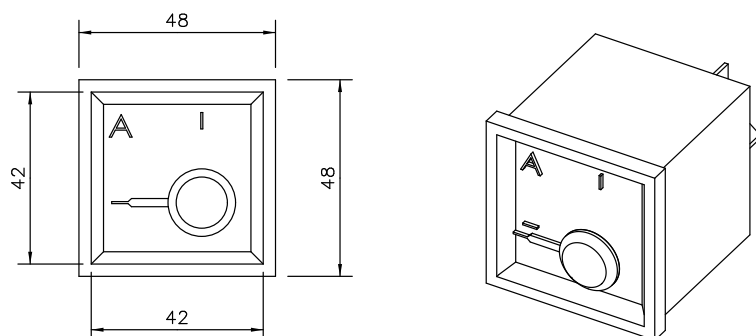


### Busbar connection module 400 A, 185mm distance between busbars

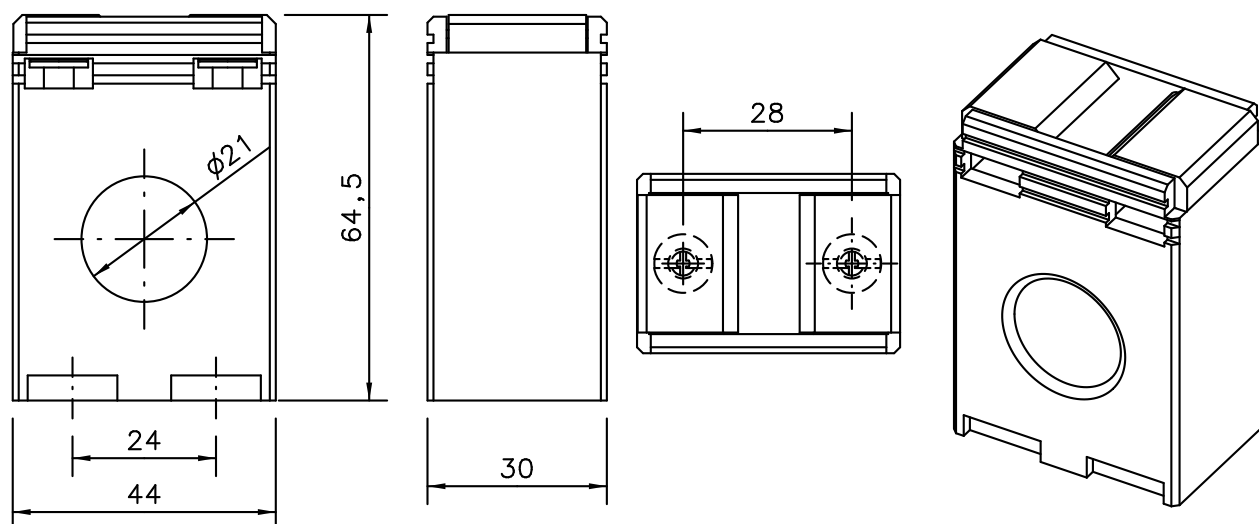


### A-meters

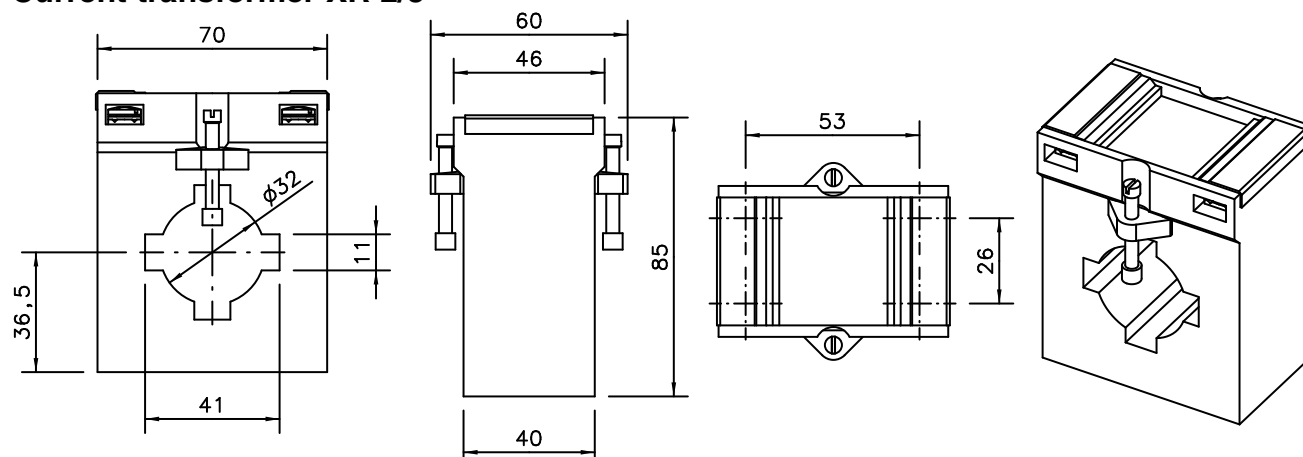
CEWE QB 48 maximum demand A-meters



### Current transformer XR 00/1



### Current transformer XR 2/3



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