Module 17plus is a mounting and power distribution system for use with the following plug-in type devices:

- Circuit breakers type 2210-S, 3600, 3900
- Electronic circuit breakers and protectors type ESS20, ESX10, ESX10-S
- Solid state remote power controller E-1048-S7...

Each module accommodates two breakers with an individual housing width of 12.5 mm and fits onto all industry standard mounting rails. The two-way modules are mounted side-by-side to provide as many ways as required with a terminal block fitted at each end for connection of signalling circuits. Electrical connections are by means of screwless spring-loaded terminals. Fitting a busbar on the terminal side of the modules provides power distribution onto the individual ways with a common line entry. When plugging in multipole circuit breakers, the busbar cannot be used. In this case each pole has to be individually connected. All internal wirings for the ground potential and the group signal are established by the side-by-side mounting of the individual modules (centre pieces, terminal blocks). The suitable circuit breakers or SSRPCs have integral signal contacts (break and make contacts). Depending on the application they can be used for single or group signalling. When using multipole breakers, auxiliary contacts are required in each pole so as not to interrupt the current loop of the group signalling by missing auxiliary contacts.

**Fitted with 2210-S:**

The integral auxiliary contacts of thermal–magnetic circuit breaker type 2210-S (make and break) can be used for single or group signalling, depending on the application. For group fault signalling all required terminals (make contacts, they open in the event of a failure) within the Module 17plus are connected in series. Group signalling is realised via the terminals on the side (13, 14), Single signalling requires connection of the break contacts (they close in the event of a failure). In this case one side of the contacts in the modules is connected in parallel (pin 11).

The second contact side is accessible per module way and can be connected via terminal (pin 12). Both types of signalling are available at the same time, if the circuit breaker type used has auxiliary contacts (please note when ordering).

**Fitted with 3600/3900:**

The integral auxiliary contacts of thermal–magnetic circuit breaker types 3600/3900 (make and break) can be used for single or group signalling, depending on the application. For group fault signalling all required terminals (make contacts, they open in the event of a failure) within the Module 17plus are connected in series. Group signalling is realised via the terminals on the side (13, 14), Single signalling requires connection of the break contacts (they close in the event of a failure). In this case one side of the contacts in the modules is connected in parallel (pin 11). The second contact side is accessible per module way and can be connected via terminal (pin 12). Both types of signalling are available at the same time.

**Fitted with ESS20-0:**

The reference potential for the ESS20-0... (Gnd pin 11) is also looped through and connected to the terminal elements at the sides. The integral signal output SF of the ESS20-124 can be tapped at terminal 12 of the relevant channel (single signalling). The reset input RE can be connected via terminal 13 or 14.

**Fitted with ESS30-S:**

The reference potential for the ESS30-S... (Gnd pin 11) is also looped through and connected to the terminal elements at the sides. The reset input RE can be connected via terminal 13 or 14. The integral auxiliary contacts of thermal–magnetic circuit breaker types 2210-S, 3600, 3900 have integral signal contacts (break and make contacts). Depending on the application, a potential-free auxiliary contact is also available.

**Fitted with ESX10/ESX10-S:**

The reference potential for the ESX10 (Gnd pin 11) is also looped through and connected to the terminal elements at the sides. The integral signal output SF of the ESX10-124/S124 can be tapped at terminal 12 of the relevant channel (single signalling). The inverted status output SF can also be tapped at terminal 12 of the corresponding channel. The reset input RE can be connected via terminal 13 or 14.

**Fitted with E-1048-STxx:**

The reference potential for the ESS20-0... (Gnd pin 11) is also looped through and connected to the terminal elements at the sides. Actuation of the SSRPC (IN+), referenced to GND, is via the separate terminal 12 per way beside the LOAD terminal. The SSRPC has an integral auxiliary contact (break contact) used for group fault signalling. For this type of signalling, all contacts in the Modules 17plus are connected in series and are connected via two terminals (13, 14) to the terminals blocks on either side. It is possible with a test probe to contact the series connection in each module and detect possible interruptions.
Installation example (with type 2210)

1 Clip modules onto DIN rails.
2 Push modules together (side-by-side).
3 Snap on right-side and left-side terminal blocks.
4 Cut busbar to required length and fit on supply side of the modules.
5 Connect line feed with spring-loaded terminals.
6 Plug in circuit breakers.

Connection and disconnection of cables with screw driver

Technical data

<table>
<thead>
<tr>
<th>Connection</th>
<th>Spring-loaded terminals for rigid wires or flexible cables with unisolated wire end ferrules or without wire end ferrules. Please use the spring loaded screw driver (SD) for removing the spring loaded terminals.</th>
</tr>
</thead>
<tbody>
<tr>
<td>cable</td>
<td>cross section of connecting cable</td>
</tr>
<tr>
<td>Line feed</td>
<td>1.5-10 mm²</td>
</tr>
<tr>
<td>(1.1/1.2)</td>
<td></td>
</tr>
<tr>
<td>Load output</td>
<td>0.25-4 mm²</td>
</tr>
<tr>
<td>(2.1/2.2)</td>
<td></td>
</tr>
<tr>
<td>Signalisation terminals</td>
<td>0.25-2.5 mm²</td>
</tr>
<tr>
<td>(11, 13, 14)</td>
<td></td>
</tr>
<tr>
<td>Signalisation terminal (12.1/12.2)</td>
<td>0.25-1.5 mm²</td>
</tr>
</tbody>
</table>

| Diameter of test socket | ø ≤ 2 mm |

<table>
<thead>
<tr>
<th>Voltage rating (without circuit breaker)</th>
<th>AC 250 V; 3 AC 433 V; DC 65 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>with 2210-S:</td>
<td>AC 250 V; 3 AC 433 V; DC 65 V</td>
</tr>
<tr>
<td>with 3600/3900:</td>
<td>AC 240 V (50/60 Hz); DC 65 V</td>
</tr>
<tr>
<td>with ESS20:</td>
<td>18 V...32 V DC</td>
</tr>
<tr>
<td>with ESX10/ESX10-S:</td>
<td>18 V...32 V DC</td>
</tr>
<tr>
<td>with E-1048-S7..:</td>
<td>18 V...36 V DC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current rating (without circuit breaker)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Line feed (1.1/1.2)</td>
<td>50 A</td>
</tr>
<tr>
<td>Load output (2.1/2.2)</td>
<td>25 A</td>
</tr>
<tr>
<td>Signalisation Feed (11)</td>
<td>10 A</td>
</tr>
<tr>
<td>(ground with electronic components)</td>
<td></td>
</tr>
<tr>
<td>Single output (12.1/12.2)</td>
<td>1 A (with ESS20/ESX10: 0.5 A)</td>
</tr>
<tr>
<td>Group signal (13-14)</td>
<td>1 A (with ESS20/ESX10: 0.5 A)</td>
</tr>
</tbody>
</table>

| Caution: | When several devices are mounted together, each should carry only max. 80 % (Iₙ ≤ 16 A) or max. 65 % (Iₙ > 16 A) of its rating. |

| Internal resistances (without circuit breaker) | |
| Line/load (1.1-2.1) | ≤ 5 mΩ |
| Signalisation | ≤ 9 mΩ (+ 2 mΩ per additional module) |
| Group signal (13-14) | ≤ 8 mΩ (+ 5 mΩ per additional module) |

| Vibration | 5 g (57-500 Hz) ± 0.38 mm (10-57 Hz); to IEC 60068-2-6, test Fc, 10 frequency cycles/axis |
| Shock     | 25 g (11 ms) to IEC 60068-2-27, test Ea |
| Corrosion | 96 hours at 5 % salt mist, to IEC 60068-2-11, test Ka |
| Humidity  | 240 hours at 95 % RH to IEC 60068-2-78, test Cab |

| Dielectric strength | 1 500 V (without circuit breaker) |
| between main circuits (without busbar): | |
| main circuit to auxiliary circuit: | 1 500 V |
| between auxiliary circuits: | 1 500 V |

<table>
<thead>
<tr>
<th>Mass</th>
<th>Module 17plus (centre piece) terminal blocks (pair)</th>
<th>approx. 85 g</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>approx. 30 g</td>
<td>--------------</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Approvals</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority</td>
<td>Standard</td>
</tr>
<tr>
<td>UL</td>
<td>UL 60950</td>
</tr>
<tr>
<td>Rated voltage</td>
<td>AC 250 V DC 80 V</td>
</tr>
<tr>
<td>Current ratings</td>
<td>25 A per channel DC 25 A per channel</td>
</tr>
</tbody>
</table>

Ordering information

<table>
<thead>
<tr>
<th>17PLUS-Q02-00</th>
<th>Module 17plus, centre piece</th>
</tr>
</thead>
<tbody>
<tr>
<td>17PLUS-QA0-LR</td>
<td>two-way one each left- and right-side terminal block for supply feed from the side by means of screw terminal</td>
</tr>
</tbody>
</table>

For technical data of

Circuit Breaker 2210-S, 3600, 3900
please see chapter Thermal-magnetic circuit breakers

Electronic Circuit Breaker ESS20, ESS30-S, ESX10, ESX10-S
please see chapter Electronic overcurrent protection

Solid State Remote Power Controller E-1048-S7..
please see chapter Power distribution systems
Dimensions (with type 2210)

- Slot for fitting labels from Phoenix, Weidmüller, Wieland
- Slot for busbar
- Right-side terminal block
- Test socket
- Left-side terminal block

Dimensions (with type 3600/3900)

- Slot for fitting labels from Phoenix, Weidmüller, Wieland
- Symmetrical rail EN 50022-35x7.5

Connection diagram 2210-S

Example for circuit breaker types 2210

Example for circuit breaker types 3600/3900

Pin selection, fitted with 2210-S.

<table>
<thead>
<tr>
<th>2210-S.</th>
<th>Module 17plus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(1.1, 1.2)</td>
</tr>
<tr>
<td>11</td>
<td>(11)</td>
</tr>
<tr>
<td>23</td>
<td>(13)</td>
</tr>
<tr>
<td>24</td>
<td>(14)</td>
</tr>
<tr>
<td>12</td>
<td>(12.1, 12.2)</td>
</tr>
<tr>
<td>2</td>
<td>(2.1, 2.2)</td>
</tr>
</tbody>
</table>

Pin selection, fitted with 3600/3900

<table>
<thead>
<tr>
<th>3600/3900</th>
<th>Module 17plus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(1.1, 1.2)</td>
</tr>
<tr>
<td>4</td>
<td>(11)</td>
</tr>
<tr>
<td>6</td>
<td>(13)</td>
</tr>
<tr>
<td>3 (N.C.)</td>
<td>(14)</td>
</tr>
<tr>
<td>7</td>
<td>(12.1, 12.2)</td>
</tr>
<tr>
<td>5</td>
<td>(2.1, 2.2)</td>
</tr>
<tr>
<td>2</td>
<td>(2.1, 2.2)</td>
</tr>
</tbody>
</table>
**Dimensions (with type ESS20)**

- Module 17plus
- Made in Germany

**Connection diagram ESS20-001**

- Module 1
- Module 2
- Supply: LINE 1, LINE 1, LINE 1
- LOAD 2, LOAD 2, LOAD 2
- BUSBAR
- GND
- Test socket

**Connection diagram ESS20-003**

- Module 1
- Module 2
- Supply: LINE 1, LINE 1, LINE 1, LINE 1
- BUSBAR
- GND
- Left-side terminal block
- Right-side terminal block

**Pin selection, fitted with ESS20-0..**

<table>
<thead>
<tr>
<th>ESS20-0.. Module 17 plus</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINE (+) (1.1, 1.2)</td>
</tr>
<tr>
<td>GND (11)</td>
</tr>
<tr>
<td>SC (13)</td>
</tr>
<tr>
<td>S0 (14)</td>
</tr>
<tr>
<td>SI (12.1, 12.2)</td>
</tr>
<tr>
<td>LOAD (+) (2.1, 2.2)</td>
</tr>
</tbody>
</table>
Dimensions (with type ESS20)

Dimensions (with type ESS30-S)

Pin selection, fitted with ESS20-124

ESS20-124 Module 17 plus
LINE (+) (1,1, 1,2)
GND (11)
RE (13)
RE (14)
SF (12.1, 12.2)
LOAD (+) (2.1, 2.2)

Connection diagram ESS20-124

Connection diagram ESS30-S003
Dimensions (with type ESX10)

**ESX10-124 Module 17 plus**

- **LINE (+)**: (1.1, 1.2)
- **GND**: (11)
- **RE**: (13)
- **RE**: (14)
- **SF**: (12.1, 12.2)
- **LOAD (+)**: (2.1, 2.2)

Slot for fitting labels from Phoenix, Wadimuller, Wieland

Slot for busbar

Right-side terminal block

Left-side terminal block

Connection diagram ESX10-...

**Module 17 plus with ESX10-100**

- Supply
- **LINE 1**
- **LINE 1**
- **LINE 1**
- **LINE 1 busbar**
- **ESX10-100**
- **LOAD 2**
- **LOAD 2**
- **LOAD 2**
- **LOAD 2**
- **11**
- **GND**
- **13, 14**
- Loop through

**Module 17 plus with ESX10-103/ESX10-S103**

- Supply
- **LINE 1**
- **LINE 1**
- **LINE 1**
- **LINE 1 busbar**
- **ESX10-103/ESX10-S103**
- **LOAD 2**
- **LOAD 2**
- **LOAD 2**
- **LOAD 2**
- **11**
- **GND**
- **13, 14**
- Loop through

**Module 17 plus with ESX10-104**

- Supply
- **LINE 1**
- **LINE 1**
- **LINE 1**
- **LINE 1 busbar**
- **ESX10-104**
- **LOAD 2**
- **LOAD 2**
- **LOAD 2**
- **LOAD 2**
- **11**
- **GND**
- **13, 14**
- Loop through

**ESX10-100**

- **负载 2**
- **负载 2**
- **负载 2**
- **负载 2**
- **11**
- **GND**
- **13, 14**
- Loop through

**ESX10-103/ESX10-S103**

- **负载 2**
- **负载 2**
- **负载 2**
- **负载 2**
- **11**
- **GND**
- **13, 14**
- Loop through

**ESX10-104**

- **负载 2**
- **负载 2**
- **负载 2**
- **负载 2**
- **11**
- **GND**
- **13, 14**
- Loop through
Connection diagram ESX10-...

**Module 17plus with ESX10-115/-S115**

- Supply
- LINE 1.1, LINE 1.2
- LINE 1.1, LINE 1.2 busbar
- 11 GND
- 12.1, 12.2 terminal control signal ON (+24V DC)
- 13, 14 terminal group signalisation (N/O)

**Module 17plus with ESX10-124/-S124**

- Supply
- LINE 1.1, LINE 1.2
- LINE 1.1, LINE 1.2 busbar
- 11 GND
- 12.1, 12.2 status indication SF 0V=OK
- 13, 14 reset input RE (group reset), +24V falling edge

*Caution: unused slots have to be fitted with jumpers*

**Module 17plus with ESX10-125/-S125**

- Supply
- LINE 1.1, LINE 1.2
- LINE 1.1, LINE 1.2 busbar
- 11 GND
- 12.1, 12.2 reset input RE (single reset), +24V falling edge

*Caution: unused slots have to be fitted with jumpers*

**Module 17plus with ESX10-127/-S127**

- Supply
- LINE 1.1, LINE 1.2
- LINE 1.1, LINE 1.2 busbar
- 11 GND
- 12.1, 12.2 status indication SF 0V=OK
- 13, 14 reset input RE (group reset), +24V falling edge

*Caution: unused slots have to be fitted with jumpers*
Dimensions (with type E-1048-S7xx)

Connection diagram E-1048-S7xx

Pin selection, fitted with E-1048-S7..
Module 17plus

Accessories

**Busbar 32 A**  
X 222 005 01 blue insulation, 500 mm/19.68 in.  
X 222 005 02 red insulation, 500 mm/19.68 in.  
X 222 005 03 grey insulation, 500 mm/19.68 in.  
up to 32 A continuous load

**Busbar 50 A**  
Y 307 016 01 non-insulated, 500 mm/19.68 in.  
up to 50 A continuous load; plugged in completely, protected against brush contact

**Busbar 50 A**  
Y 307 016 11 non-insulated, 500 mm/19.68 in.  
up to 50 A continuous load

**End bracket**  
X 222 004 01  
Width 10 mm

**Screw terminal for busbar**  
X 211 156 01 non insulated  
(up to 35 mm²)

**Retaining clip for circuit breaker 3600/3900**  
recommended for fitting the devices  
Y 300 581 11

**Retaining clip for circuit breaker 2210**  
recommended for fitting single pole devices  
Y 302 974 21

**Retaining clip Y 308 792 01**  
recommended for tight fit of types  
ESX10 / E-1048-S6xx / SB-S11-P1-xx  
and terminal blocks type 17 and 17plus

**Retaining clip Y 307 754 01**  
recommended for tight fit of types  
ESS20 / ESX10

**Jumper**  
SB-S11-P1-01-1-1A

**Labels**  
marking area 6 x 10 mm  
(ordering unit 10 pcs = 1 strip)  
Y 307 942 61
Installation example for retaining clip

ESS20 with retaining clip Y 307 754 01
for power distribution system module 17plus

Removal of retaining clip Y 307 754 01

Installation example for busbar

Installation for busbar 32 A (X222 005 01/02/03) in Module 17plus

When mounting several modules side by side, proper insertion of the 32 A busbar X 222 005 01/02/03 has to be observed, i.e. the busbar must be pushed in evenly across the whole length from left to right, repeatedly if necessary. The groove of the busbar must be flush with the top edge of the Module 17plus.

Please ensure that the busbar audibly latches in into the Module 17plus.

All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.