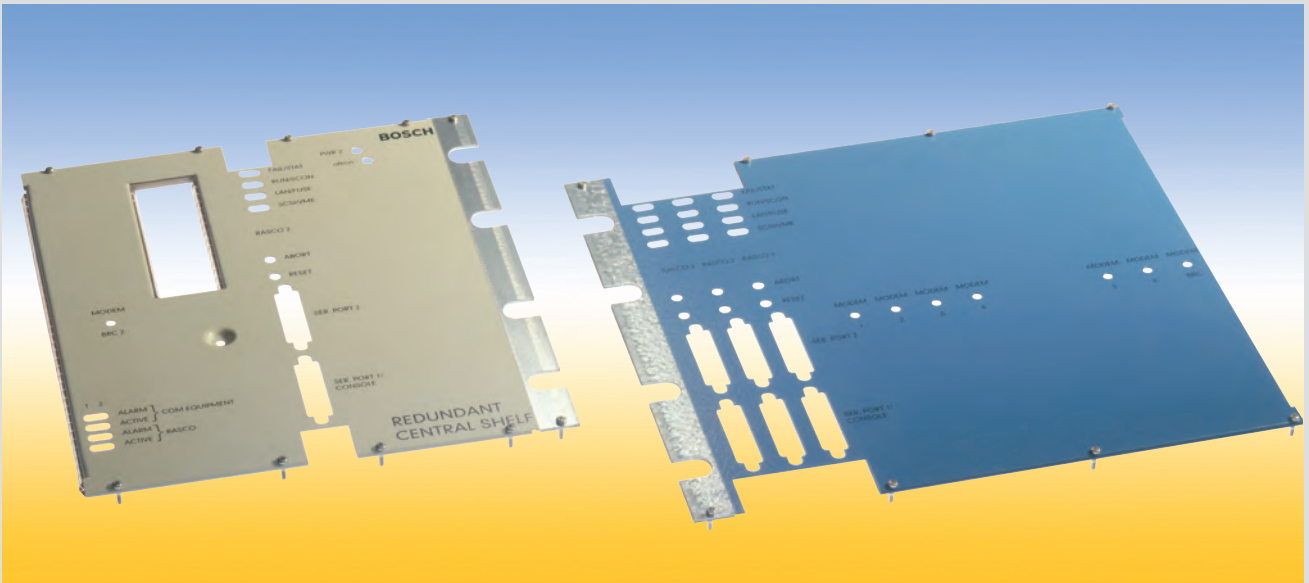


Front Panels



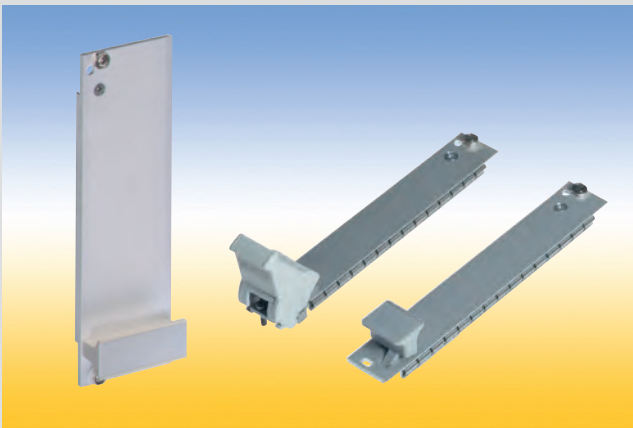
In addition to the wide range of standard front panels we also provide on request individual customer specific front panels with punching, surface finish and silk screening.
Textured or smooth painted in all relevant RAL-colors, abrasion-resistant silk-screen printing as well as color coordinated engraving give your front panel an individual appearance.

Please ask your local representative for your
individual front panel design.
You find your contact person on our homepage:
www.intermas-el.com

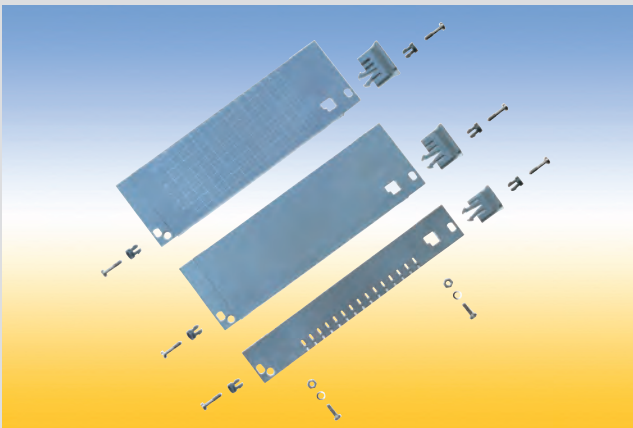
Front Panels and Handles



- ✓ Blind Front Panels

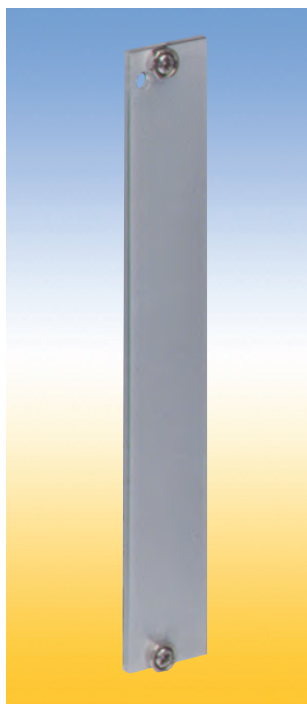


- ✓ Front Panels with Handle
- ✓ Handles
- ✓ Front Panels with Ejector Handle
- ✓ Ejector Handles
- ✓ Front Panels with IEEE Handle
- ✓ IEEE-Handles



- ✓ Plastic Front Panels

Blind Front Panels



Blind Front Panels

For covering empty sections or to carry various components in subracks.

Four versions are available:

1. Flat front panel blank

The front side is covered with a removable transparent foil.

2. Flat front panel anodized

Front anodized, rear conductive.

3. Flat front panel RFI

Front anodized, rear conductive, with slits in the side edges for insertion of RFI springs.

4. Extruded front panel RFI

Made of extruded aluminum alloy, with slits in the side edges for insertion of RFI springs for contact.

Surface finish is passivated.

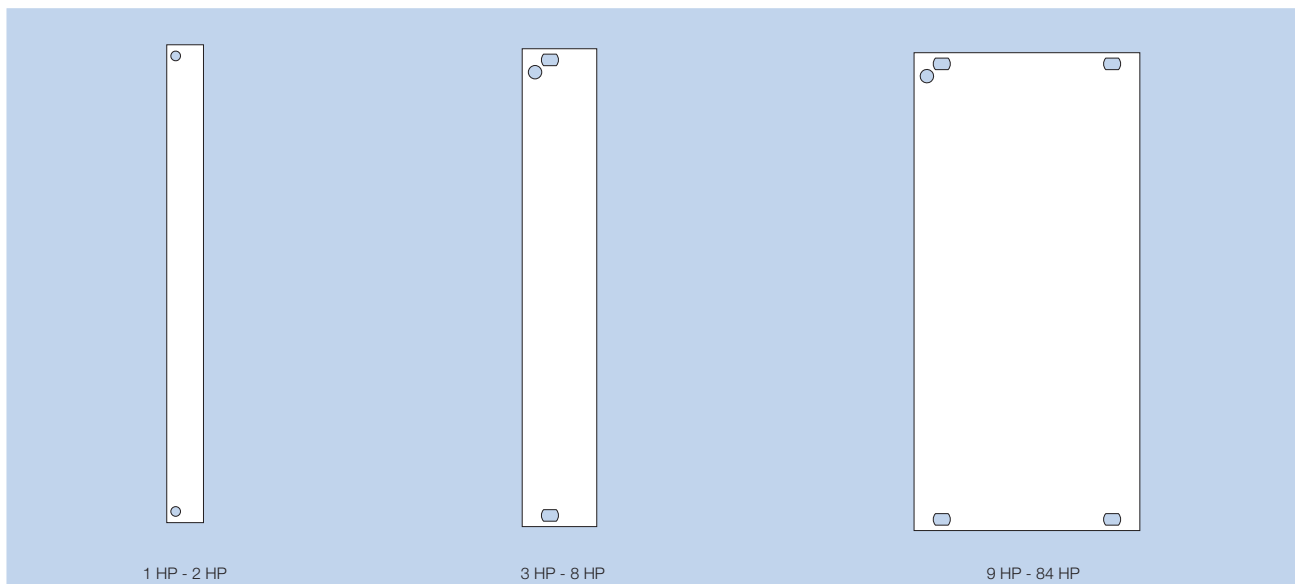
Material

Flat front panel: aluminum 2.5 mm thick

Extruded front panel: aluminum

Delivery

Front panels are delivered unassembled as single parts or as a kit.



Ordering details blind front panels (flat front panel)

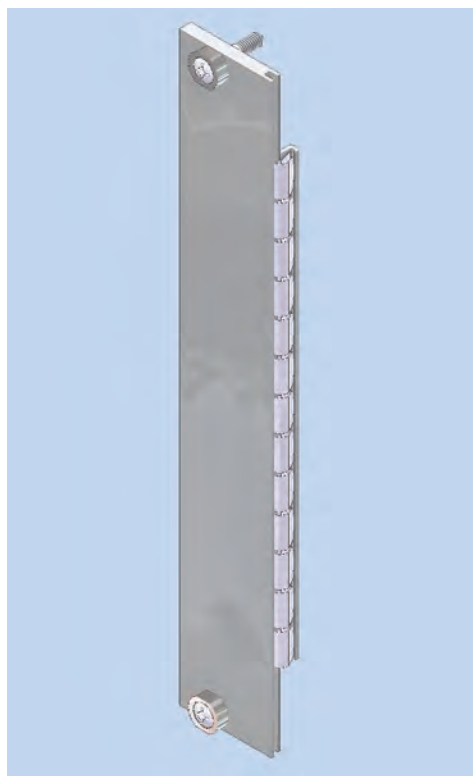
| | nom. width [HP] | 3 U blank order no. 409. | 3 U anodized/ conductive order no. 409. | 6 U blank order no. 409. | 6 U anodized/ conductive order no. 409. |
|-------------------|--------------------|--|--|--|--|
| Blind front panel | 1 | 097 201 | - | 097 601 | - |
| Blind front panel | 2 | 097 202 | - | 097 602 | - |
| Blind front panel | 3 | 097 203 | - | 097 603 | - |
| Blind front panel | 4 | 097 204 | 097 404 | 097 604 | 097 804 |
| Blind front panel | 5 | 097 205 | - | 097 605 | - |
| Blind front panel | 6 | 097 206 | 097 406 | 097 606 | 097 806 |
| Blind front panel | 7 | 097 207 | - | 097 607 | - |
| Blind front panel | 8 | 097 208 | 097 408 | 097 608 | 097 808 |
| Blind front panel | 10 | 097 210 | - | 097 610 | - |
| Blind front panel | 12 | 097 212 | 097 412 | 097 612 | 097 812 |
| Blind front panel | 14 | 097 214 | 097 414 | 097 614 | 097 814 |
| Blind front panel | 21 | 097 221 | 097 421 | 097 621 | 097 821 |
| Blind front panel | 28 | 097 228 | 097 428 | 097 628 | 097 828 |
| Blind front panel | 42 | 097 242 | 097 442 | 097 642 | 097 842 |
| Blind front panel | 84 | 097 284 | 097 484 | 097 684 | 097 884 |

Accessories

Minimum order quantity 100 pieces

| | pieces for 1-2 HP | pieces for 3-8 HP | pieces for 9-85 HP | order no. 409. |
|-------------------------------|----------------------|----------------------|-----------------------|--------------------------|
| Screw retainer M2.5 gray | - | 2 | 4 | 100 539 |
| Screw retainer M2.5 black | - | 2 | 4 | 100 538 |
| Cross-head screw M 2.5 x 11.3 | 2 | 2 | 4 | 101 917 |

Blind Front Panels RFI



Subrack Accessories

Ordering details kit - blind front panel RFI

| nom. width [HP] | 3 U extruded order no. 409. | 3 U order no. 409. | 6 U extruded order no. 409. | 6 U order no. 409. |
|-----------------|-----------------------------|--------------------|-----------------------------|--------------------|
| 1 | 114 453 | - | 114 464 | - |
| 2 | 114 454 | - | 114 465 | - |
| 3 | 114 455 | - | 114 466 | - |
| 4 | 114 361 | 113 583 | 114 387 | - |
| 5 | 114 362 | - | 114 388 | - |
| 6 | 114 363 | 113 586 | 114 389 | - |
| 7 | 114 365 | - | 114 390 | - |
| 8 | 114 366 | - | 114 391 | - |
| 9 | 114 367 | - | 114 392 | - |
| 10 | 114 368 | - | 114 393 | - |
| 12 | - | 113 589 | - | 113 608 |
| 14 | - | 113 590 | - | 113 609 |
| 21 | - | 113 592 | - | 113 611 |
| 28 | - | 113 593 | - | 113 612 |
| 42 | - | 113 594 | - | 113 613 |
| 43 | - | 114 487 | - | - |
| 84 | - | 113 595 | - | 113 614 |
| 85 | - | 113 596 | - | - |

Finish: flat front panel: front side anodized, rear side conductive
extruded front panel: passivated

Delivery kit - blind front panel RFI:

| | pieces for 1-2 HP | pieces for 3-8 HP | pieces for 9-43 HP | pieces for 44-85 HP |
|------------------------|-------------------|-------------------|--------------------|---------------------|
| Front panel | 1 | 1 | 1 | 1 |
| | 1 / 2 | 1 / 2 | 1 / 2 | 1 / 2 |
| Grounding bushing M2.5 | - | 2 | 4 | 6 |
| Mounting parts-kit | 1 | 1 | 1 | 1 |

Accessories

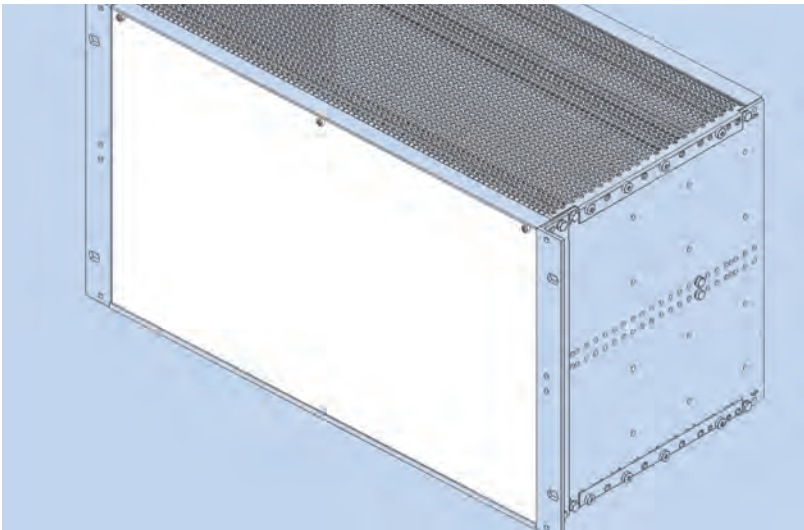
Roller cutter to assemble the RFI spring F3

order no.: 409. 118 433

Ordering details single part blind front panel RFI

| nom. width [HP] | 3 U extruded order no. 409. | 3 U order no. 409. | 6 U extruded order no. 409. | 6 U order no. 409. |
|-----------------|-----------------------------|--------------------|-----------------------------|--------------------|
| 1 | 114 458 | - | 114 469 | - |
| 2 | 114 459 | - | 114 470 | - |
| 3 | 113 027 | - | 114 476 | - |
| 4 | 111 608 | 112 252 | 111 618 | - |
| 5 | 113 028 | - | 114 384 | - |
| 6 | 111 609 | 112 258 | 111 619 | - |
| 7 | 111 610 | - | 111 620 | - |
| 8 | 111 611 | - | 111 621 | - |
| 9 | 113 029 | - | 114 385 | - |
| 10 | 113 030 | - | 114 386 | - |
| 12 | - | 112 551 | - | 112 611 |
| 14 | - | 112 557 | - | 112 617 |
| 21 | - | 112 578 | - | 112 638 |
| 28 | - | 112 821 | - | 112 943 |
| 42 | - | 112 581 | - | 112 641 |
| 43 | - | 114 082 | - | - |
| 84 | - | 113 598 | - | 113 617 |
| 85 | - | 113 599 | - | - |

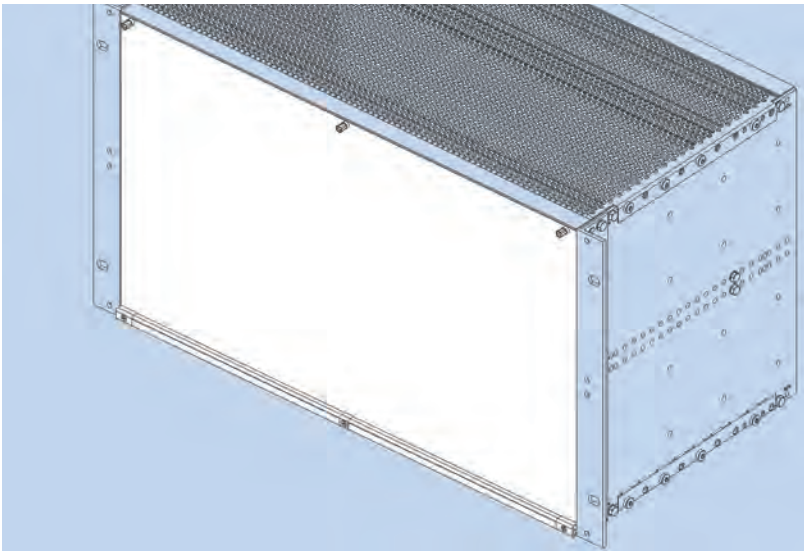
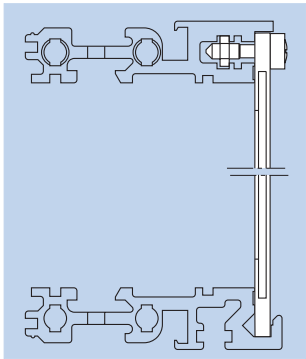
Front Panels plug-in, hinged



Accessories

| | |
|------------------------|--------------------------|
| | order no. 409. |
| Pr rail VE12SFP-RFI-85 | 114 562 |
| Flange RFI - FP - 3 U | 114 708 |
| Flange RFI - FP - 6 U | 114 715 |
| RFI spring F3 - 3U | 111 112 |
| RFI spring F3 - 6U | 111 116 |

For one front panel 2 RFI springs are needed.



Accessories

| | |
|-----------------------|--------------------------|
| | order no. 409. |
| Threaded strip 84 HP | 078 428 |
| Flange RFI - FP - 3 U | 114 708 |
| Flange RFI - FP - 6 U | 114 715 |
| RFI spring F3 - 3U | 111 112 |
| RFI spring F3 - 6U | 111 116 |

For one front panel 2 RFI springs are needed.

Plug-in Front Panel 85 HP

The front panel bottom edge is inserted in the groove of a specially profiled rail. With slits in the side edges for insertion of RFI springs.
To be used in combination with below mentioned flanges only.

Finish:
front side anodized, rear side conductive

Delivery:
1 front panel
3 grounding bushing M 2.5
3 cross-head screw M 2.5 x 11.3

| | |
|-------------------------|--------------------------|
| | order no. 409. |
| Plug-in front panel 3 U | 113 948 |
| Plug-in front panel 6 U | 113 950 |

Hinged Front Panel 85 HP

With slits in the side edges for insertion of RFI springs. The hinge is screwed to the prprofiled rail of the subrack. An 84 HP threaded strip is needed.
To be used in combination with below mentioned flanges only.

Finish:
front side anodized, rear side conductive

Delivery:
1 front panel
1 hinge
3 grounding bushings
Mounting parts

Delivery: as unassembled kit.
Assembled kits on request.

| | |
|------------------------|--------------------------|
| | order no. 409. |
| Hinged front panel 3 U | 113 705 |
| Hinged front panel 6 U | 113 706 |

Front Panels with Handle



Front Panels with Handle

For assembly on a PCB.

Handle and front connector are screwed on the front panel.

The plain front panel is easy to modify.

Four versions are available:

1. Flat front panel blank

The front side is covered with a removable transparent foil.

2. Flat front panel anodized

Front anodized, rear conductive.

3. Flat front panel RFI

Front anodized, rear conductive.

With slits in the side edges for insertion of RFI springs.

4. Extruded front panel RFI

Made of extruded aluminum alloy, with slits in the side edges

for insertion of RFI springs for contact.

Surface finish is passivated.

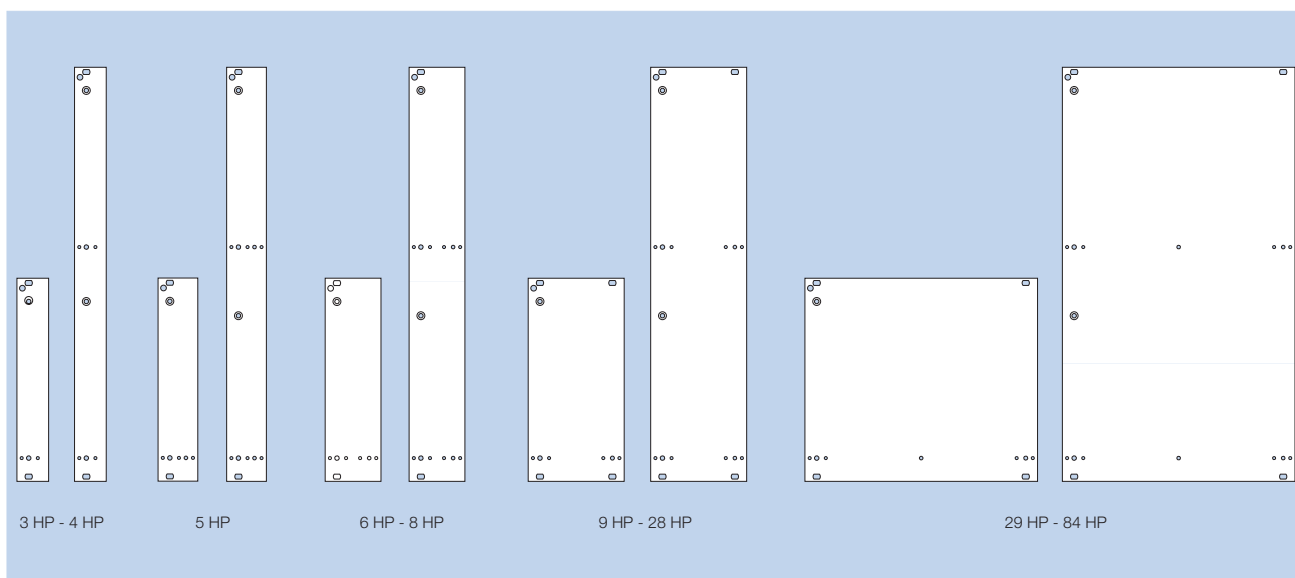
Material

Flat front panel: aluminum 2.5 mm thick

Extruded front panel: aluminum

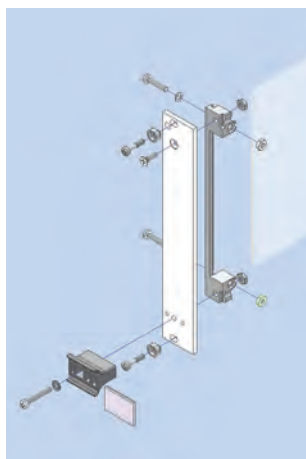
Delivery

Front panels are delivered unassembled as single parts or as a kit.



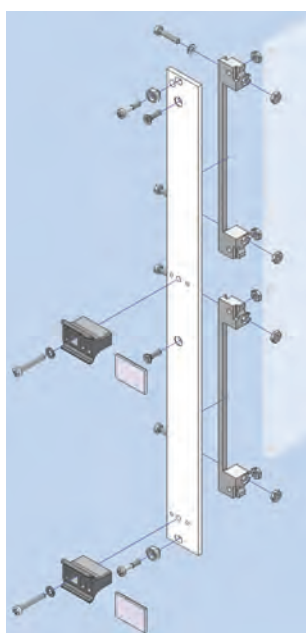
Hole pattern of the front panels

Front Panels with Handle



Ordering details kit - front panel with handle (flat front panels)

| nom. width [HP] | 3 U anodized/ conductive order no. 409. | 6 U anodized/ conductive order no. 409. |
|-----------------|---|---|
| 4 | 107 518 | 122 624 |
| 6 | 122 622 | 122 625 |
| 8 | 107 520 | 122 626 |
| 10 | 107 521 | 122 627 |
| 12 | 107 522 | 122 628 |



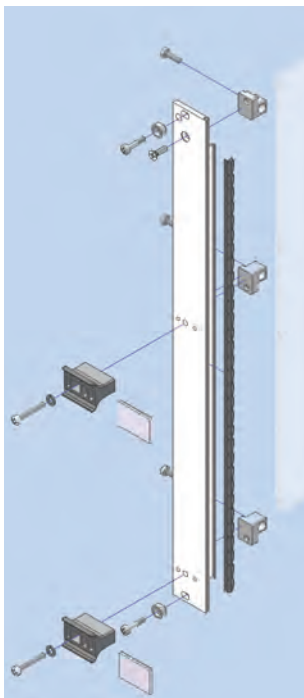
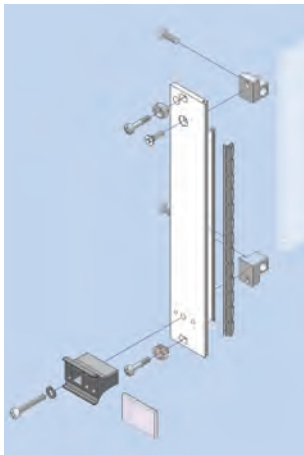
Delivery kit - front panel with handle

| | 3 U pieces for 3-8 HP | 3 U pieces for 9-12 HP | 6 U pieces for 3-8 HP | 6 U pieces for 9-12 HP |
|----------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|
| Front panel | 1 | 1 | 1 | 1 |
| Handle gray | 1 | 1 | 2 | 2 |
| Ident-plate aluminum | 1 | 1 | 2 | 2 |
| Front connector FEE | 1 | 1 | 2 | 2 |
| Screw retainer M 2.5 | 2 | 4 | 2 | 4 |
| Mounting parts | 1 | 1 | 1 | 1 |

Ordering details - single part front panel for handle (flat front panel)

| nom. width [HP] | 3 U blank order no. 409. | 3 U anodized/ conductive order no. 409. | 6 U blank order no. 409. | 6 U anodized/ conductive order no. 409. |
|-----------------|-----------------------------------|---|-----------------------------------|---|
| 3 | 096 403 | - | 096 703 | - |
| 4 | 096 404 | 096 604 | 096 704 | 096 904 |
| 5 | 096 405 | 096 605 | 096 705 | 096 905 |
| 6 | 096 406 | 096 606 | 096 706 | 096 906 |
| 7 | 096 407 | - | 096 707 | - |
| 8 | 096 408 | 096 608 | 096 708 | 096 908 |
| 10 | 096 410 | 096 610 | 096 710 | 096 910 |
| 12 | 096 412 | 096 612 | 096 712 | 096 912 |
| 16 | 096 416 | - | 096 716 | - |
| 21 | 096 421 | - | 096 721 | - |

Front Panels RFI with Handle



Ordering details kit - front panel RFI with handle

| | 3 U extruded order no. 409. | 3 U order no. 409. | 6 U extruded order no. 409. | 6 U order no. 409. |
|--------------------|--------------------------------------|--------------------------|--------------------------------------|--------------------------|
| nom. width [HP] | | | | |
| 3 | 114 537 | - | 114 541 | - |
| 4 | 114 377 | - | 114 404 | - |
| 5 | 114 378 | - | 114 405 | - |
| 6 | 114 379 | - | 114 406 | - |
| 7 | 114 380 | - | 114 407 | - |
| 8 | 114 381 | - | 114 408 | - |
| 10 | 114 383 | - | 114 410 | - |
| 12 | - | 113 685 | - | 113 693 |

Finish:

Flat front panel: front side anodized, rear side conductive
Extruded front panel: passivated

Delivery kit - front panel RFI with handle

| | 3 U pieces for 3-8 HP | 3 U pieces for 9-12 HP | 6 U pieces for 3-8 HP | 6 U pieces for 9-12 HP |
|-------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|
| Front panel | 1 | 1 | 1 | 1 |
| Handle gray | 1 | 1 | 2 | 2 |
| Ident-plate aluminum | 1 | 1 | 2 | 2 |
| Front connector metal | 2 | 2 | 3 | 3 |
| Grounding bushing M 2.5 | 2 | 4 | 2 | 4 |
| Mounting parts | 1 | 1 | 1 | 1 |

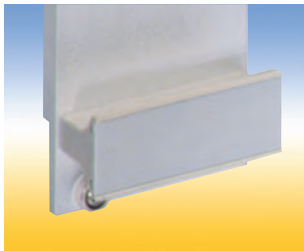
Accessories

| | order no. 409. |
|--|-------------------|
| For one flat front panel 2 RFI-springs are needed. | |
| RFI spring F3 - 3U | 111 112 |
| RFI spring F3 - 6U | 111 116 |
| For assemble the RFI spring F3 | |
| Roller cutter | 118 433 |

Ordering details single part front panel RFI for handle

| | 3 U extruded order no. 409. | 3 U order no. 409. | 6 U extruded order no. 409. | 6 U order no. 409. |
|--------------------|--------------------------------------|--------------------------|--------------------------------------|--------------------------|
| nom. width [HP] | | | | |
| 3 | 114 538 | - | 114 540 | - |
| 4 | 114 370 | 113 711 | 114 396 | - |
| 5 | 114 371 | - | 114 397 | - |
| 6 | 114 372 | 113 723 | 114 399 | - |
| 7 | 114 373 | - | 114 400 | - |
| 8 | 114 374 | 113 725 | 114 401 | - |
| 10 | 114 376 | - | 114 403 | - |
| 12 | - | 113 729 | - | 113 762 |

Handle and Handle Strip

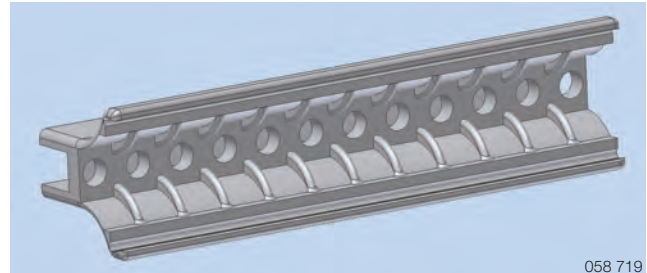


Handle FP

Assembled with M2.5 screws and with 1 additional self tapping screw from 6 HP. The handle is held against torsion by means of two nipples.

Technical data

| | |
|------------------------|---|
| Material | Polycarbonate, 10% fiber-glass reinforced |
| Color | gray RAL 7032, black |
| Continuous temperature | - 40 °C to + 100 °C |
| Fire protection class | UL 94 V-0 |



058 719

Ordering details handle FP

| width [HP] | length [mm] | gray order no. 409. | black order no. 409. |
|------------|-------------|---------------------|----------------------|
| 3 | 13.80 | 102 115 | 041 657 |
| 4 | 18.88 | 102 114 | 100 667 |
| 5 | 23.96 | 103 005 | 103 205 |
| 6 | 29.04 | 103 006 | 103 206 |
| 7 | 34.12 | 103 007 | 103 207 |
| 8 | 39.20 | 103 008 | 103 208 |

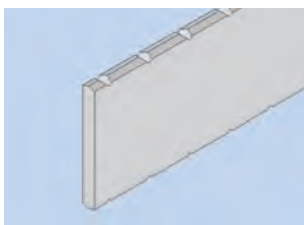
Ordering details handle strip FP

| width [HP] | length [mm] | gray order no. 409. | black order no. 409. |
|------------|-------------|---------------------|----------------------|
| 10 | 49.36 | 103 810 | 058 910 |
| 12 | 59.52 | 103 812 | 058 912 |
| 16 | 79.84 | 103 816 | 058 916 |
| 21 | 105.24 | 103 821 | 058 921 |
| 42 | 211.92 | 103 842 | 058 942 |

Accessories handles:

Minimum order quantity each 100 pieces

| | |
|-------------------------------|----------------|
| | order no. 409. |
| Pan head screw M 2.5 x 16 | 094 605 |
| Washer 2.7 | 013 911 |
| Hexagonal nut M 2.5 DIN 439 | 013 938 |
| Self tapping screw M 2.5 x 10 | 040 401 |



Ident Plate

for handle FP.
The ident plate is markable and printable, snapped in after mounting the handle to the front panel.

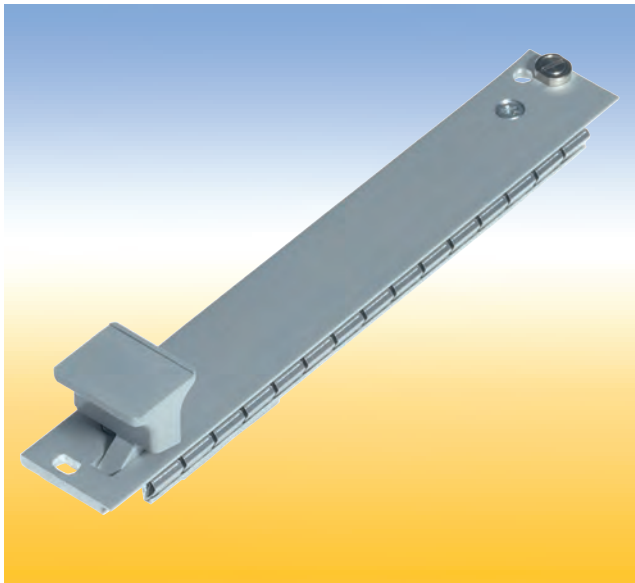
Ordering details ident-plate

| width [HP] | length [mm] | aluminum order no. 409. | crystal clear order no. 409. |
|------------|-------------|-------------------------|------------------------------|
| 3 | 13.80 | 017 929 | 089 238 |
| 4 | 18.88 | 017 956 | 089 240 |
| 5 | 23.96 | 022 791 | - |
| 6 | 29.04 | 022 792 | - |
| 7 | 34.12 | 022 793 | - |
| 8 | 39.20 | 022 794 | - |
| 10 | 49.36 | 022 796 | - |
| 12 | 59.52 | 022 798 | - |
| 16 | 79.84 | 022 802 | - |
| 21 | 105.24 | 022 807 | - |
| 42 | 211.92 | 040 652 | - |

Technical data

| | |
|------------------------|--|
| Material | aluminum or Polycarbonate, crystal clear |
| Finish | Alu: silver silk-anodized |
| Continuous temperature | PC: - 40 °C to + 115 °C |
| Fire protection class | PC: UL 94 V-2 |

Front Panels with Ejector Handle



Front Panels with Ejector Handle

For easy release of PCB's with high pin connections. The ejector handle extends through the front panel and is screwed together with the bearing bushing at the front connector.

Four versions are available:

1. Flat front panel blank.
The front side is covered with a removable transparent foil.
2. Flat front panel anodized.
Front anodized, rear conductive.
3. Flat front panel RFI
Front anodized, rear conductive. With slits in the side edges for insertion of RFI springs.
4. Extruded front panel RFI
Made of extruded aluminum alloy, with slits in the side edges for insertion of RFI springs for contact. Surface finish is passivated.

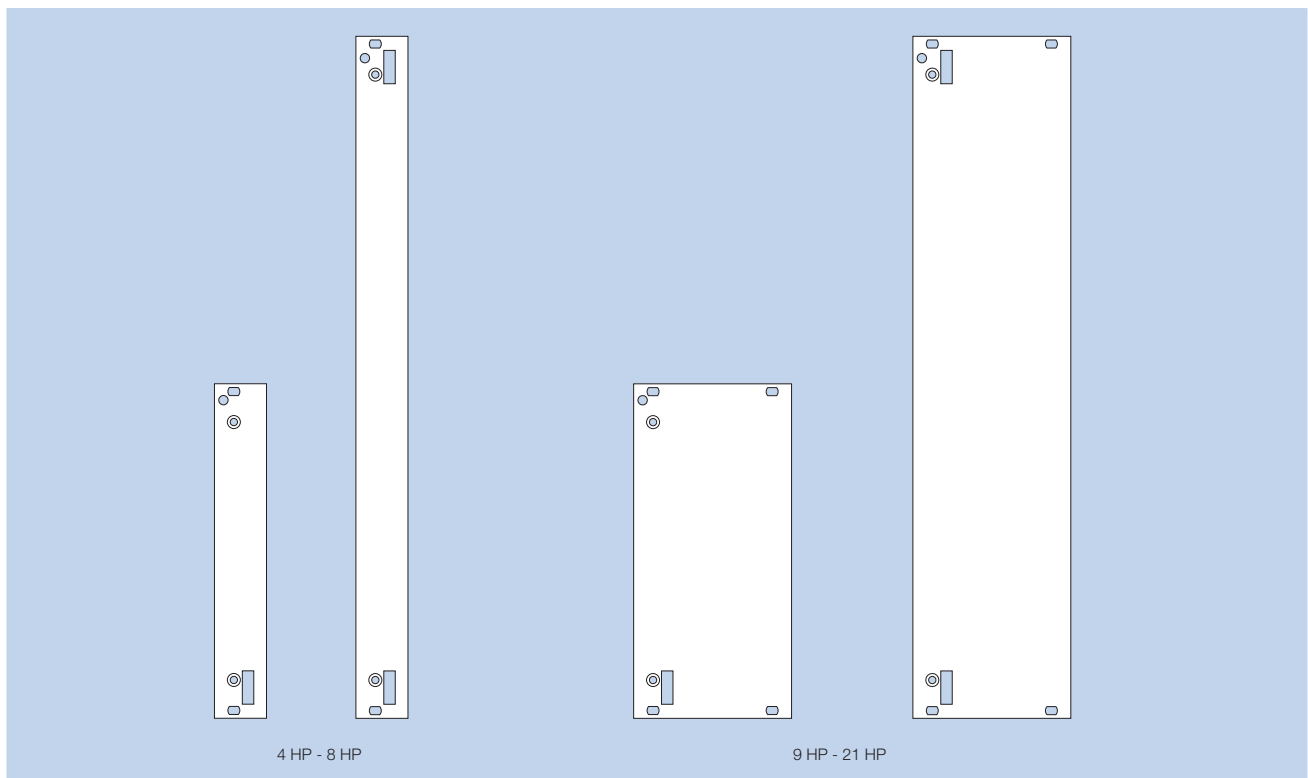
Material

Flat front panel: aluminum 2.5 mm thick

Extruded front panel: aluminum

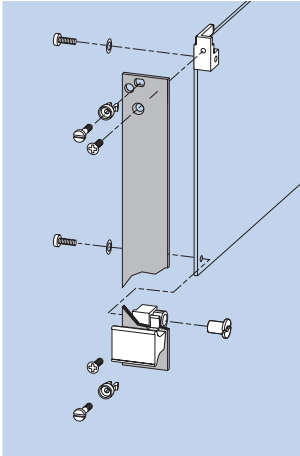
Delivery

Front panels are delivered unassembled as single parts or as a kit.



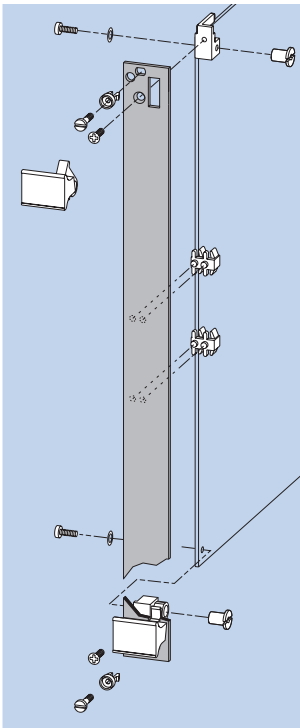
Hole pattern of the front panels

Front Panels with Ejector Handle



Ordering details kit - front panel with ejector handle (flat front panels)

| | 3 U | 3 U | 6 U | 6 U |
|-----------------|----------------------------|--|----------------------------|--|
| nom. width [HP] | blank order no. 409. | anodized/ conductive order no. 409. | blank order no. 409. | anodized/ conductive order no. 409. |
| 4 | 168 913 | 168 919 | 122 639 | 122 645 |
| 5 | 168 914 | - | 122 640 | - |
| 6 | 168 915 | - | 122 641 | - |
| 8 | 168 916 | 168 920 | 122 642 | 122 646 |
| 10 | 168 917 | - | 122 643 | - |
| 12 | 168 918 | 168 921 | 122 644 | 122 647 |



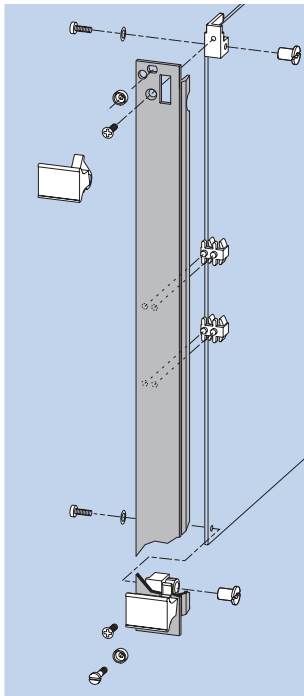
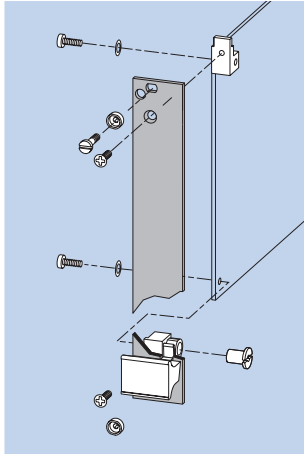
Delivery kit - front panel with ejector handle

| | 3 U pieces for 4-8 HP | 3 U pieces for 9-12 HP | 6 U pieces for 4-8 HP | 6 U pieces for 9-12 HP |
|-----------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|
| Front panel | 1 | 1 | 1 | 1 |
| Ejector handle top, gray | - | - | 1 | 1 |
| Ejector handle bottom, gray | 1 | 1 | 1 | 1 |
| Bearing bushing | 1 | 1 | 2 | 2 |
| Front connector metal | 2 | 2 | 2 | 2 |
| Front panel support plug-in | - | - | 2 | 2 |
| Screw retainer M 2.5 | 2 | 4 | 2 | 4 |
| Mounting parts | 1 | 1 | 1 | 1 |

Ordering details single part front panel for ejector handle (flat front panels)

| | 3 U blank | 3 U anodized/ conductive | 6 U for support plugged-in blank | 6 U for support plugged-in anodized/ conductive | 6 U for support screwed blank | 6 U for support screwed anodized/ conductive |
|-----------------|-------------------|--------------------------------|---|---|--|--|
| nom. width [HP] | order no. 409. | order no. 409. | order no. 409. | order no. 409. | order no. 409. | order no. 409. |
| 4 | 168 900 | 168 908 | 102 404 | 102 344 | 102 454 | 102 384 |
| 5 | 168 901 | - | 102 405 | - | - | - |
| 6 | 168 902 | - | 102 406 | - | - | - |
| 8 | 168 903 | 168 909 | 102 408 | 102 348 | 102 458 | 102 388 |
| 10 | 168 904 | - | 102 410 | - | - | - |
| 12 | 168 905 | 168 910 | 102 412 | 102 352 | 102 462 | 102 392 |
| 16 | 168 906 | 168 911 | 102 416 | 102 356 | - | - |
| 21 | 168 907 | 168 912 | 102 421 | 102 361 | - | - |

Front Panels RFI with Ejector Handle



Ordering details - kit front panel RFI with ejector handle

| nom. width [HP] | 3 U extruded order no. 409. | 3 U order no. 409. | 6 U extruded order no. 409. | 6 U order no. 409. |
|--------------------|--------------------------------------|--------------------------|--------------------------------------|--------------------------|
| 4 | 113 655 | 113 620 | 113 662 | - |
| 5 | 113 656 | - | 113 663 | - |
| 6 | 113 657 | 113 622 | 113 665 | - |
| 7 | 113 658 | - | 113 667 | - |
| 8 | 113 659 | - | 113 668 | - |
| 9 | 113 660 | - | 113 669 | - |
| 10 | 113 661 | - | 113 670 | - |
| 12 | - | 113 626 | - | 113 640 |

Finish:

Flat front panel: front side anodized, rear side conductive
Extruded front panel: passivated

Delivery kit - front panel RFI with ejector handle

| | 3 U pieces for 4-8 HP | 3 U pieces for 9-12 HP | 6 U pieces for 4-8 HP | 6 U pieces for 9-12 HP |
|-----------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|
| Front panel | 1 | 1 | 1 | 1 |
| ejector handle top, gray | - | - | 1 | 1 |
| ejector handle bottom, gray | 1 | 1 | 1 | 1 |
| Bearing bushing | 1 | 1 | 2 | 2 |
| Front connector metal | 2 | 2 | 2 | 2 |
| Front panel support plug-in | - | - | 2 | 2 |
| Grounding bushing M 2.5 | 2 | 4 | 2 | 4 |
| Mounting parts | 1 | 1 | 1 | 1 |

Accessories

| | |
|--|-------------------|
| | order no. 409. |
| For one flat front panel 2 RFI-springs are needed. | |
| RFI spring F3 - 3 U | 111 112 |
| RFI spring F3 - 6 U | 111 116 |
| For assemble the RFI spring F3 | |
| Roller cutter | 118 433 |

Ordering details single part front panel RFI for ejector handle

| nom. width [HP] | 3 U extruded order no. 409. | 3 U order no. 409. | 6 U extruded order no. 409. | 6 U order no. 409. |
|--------------------|--------------------------------------|--------------------------|--------------------------------------|--------------------------|
| 4 | 111 847 | 112 644 | 111 613 | - |
| 5 | 113 170 | - | 113 147 | - |
| 6 | 111 604 | 112 650 | 111 614 | - |
| 7 | 111 605 | - | 111 615 | - |
| 8 | 111 606 | - | 111 616 | - |
| 9 | 113 171 | - | 113 148 | - |
| 10 | 113 172 | - | 113 149 | - |
| 12 | - | 112 668 | - | 112 725 |

Ejector Handle 4 HP

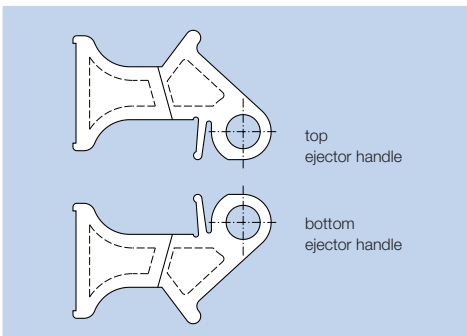


Ejector Handle

The ejector handle extends through the front panel and is screwed together with the bearing bushing at the front connector.

Technical data

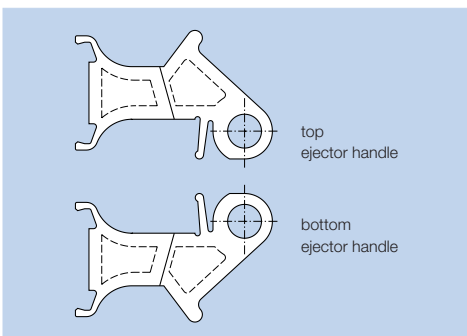
| | |
|------------------------|---|
| Material | Polycarbonate, 10% fiber-glass reinforced |
| Color | gray, black |
| Continuous temperature | – 40 °C to + 100 °C |
| Fire protection class | UL 94 V-0 |



Ordering details ejector handle 4 HP

| | | |
|---------|----------------------------------|-----------------------------------|
| version | gray order no. 409. | black order no. 409. |
| top | 101 923 | 094 458 |
| bottom | 101 924 | 094 459 |

Mounting parts see front connectors



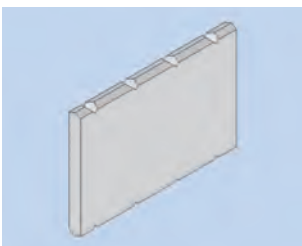
Ejector handle 4 HP

Front side open, for assembly with an ident-plate.

Ordering details ejector handle 4 HP

| | | |
|---------|----------------------------------|-----------------------------------|
| version | gray order no. 409. | black order no. 409. |
| top | 102 117 | 101 843 |
| bottom | 102 118 | 101 844 |

Mounting parts see front connectors



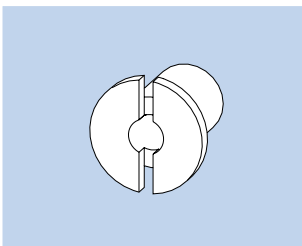
Ident-plate 4 HP

The ident-plate is markable and printable. Snapped in after mounting the handle at the front panel.

Material: aluminum

Finish: silver silk-matt anodized

order no.: **409. 017 956**



Bearing Bushing 4

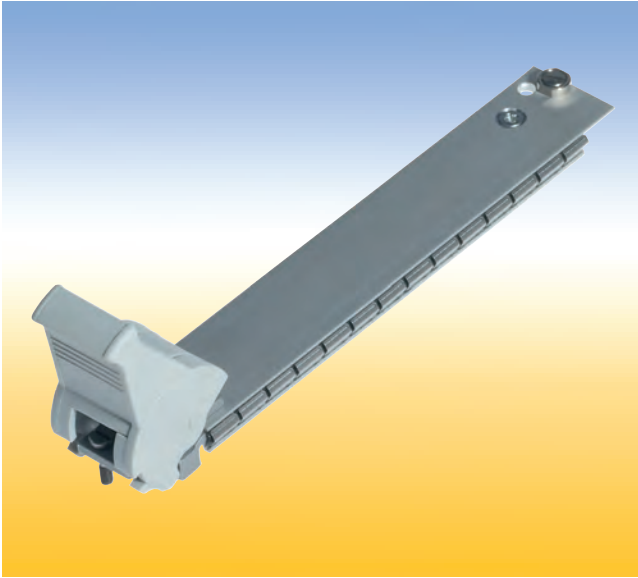
for handle 4 HP

Material: steel, galvanized

Finish: passivated

order no.: **409. 065 888**

Front Panels RFI with IEEE Handle



Front Panels with IEEE Handle

For easy pull of PCB's with high density connectors in accordance to specification IEEE 1101.10. The assembled handle kit is stuck in the milled space of the front panel and is secured with a clamped spring. Afterwards the PCB are screwed on the integrated front connector.

Two versions with IEEE handle are available:

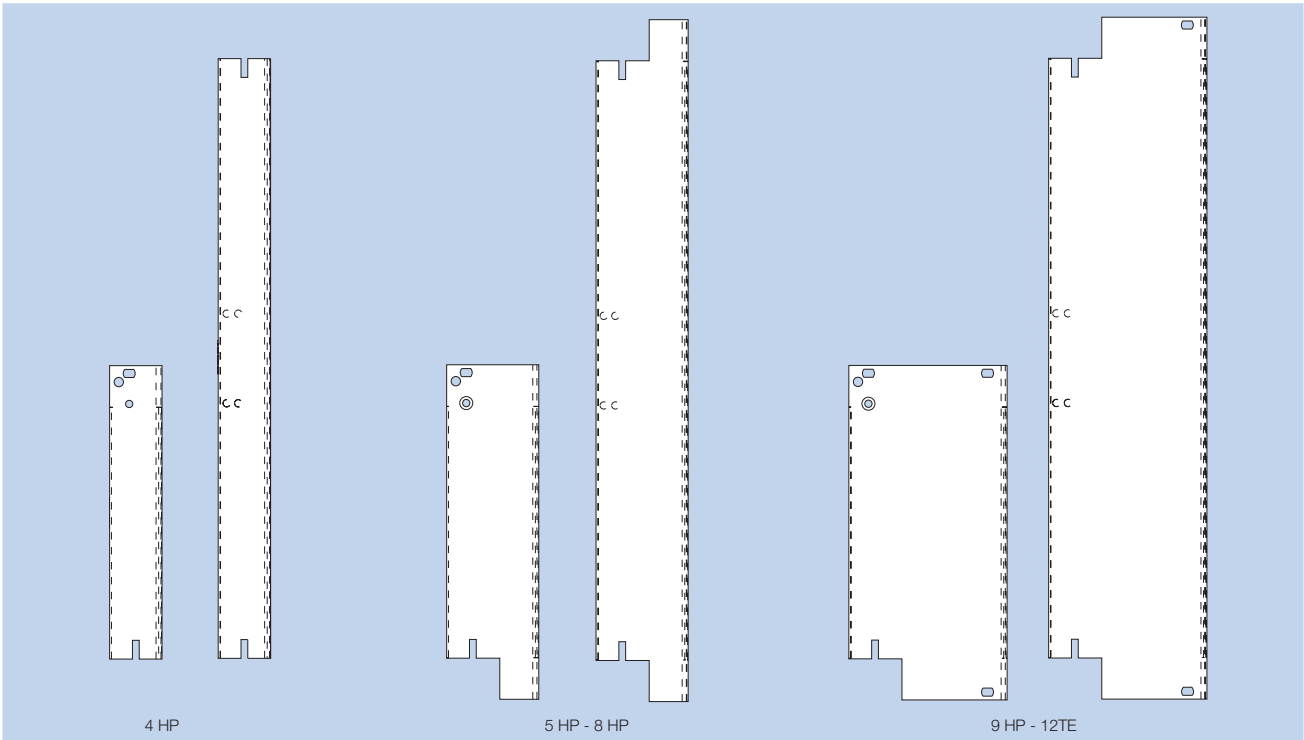
1. Flat front panel RFI
Front anodized, rear conductive. With slits in the side edges for insertion of RFI springs.
2. Extruded front panel RFI
Made of extruded aluminum alloy, with slits in the side edges for insertion of RFI springs or for contacting. Surface finish is passivated.

Delivery

Front panels are delivered with the assembled IEEE handle as single parts or as a kit.

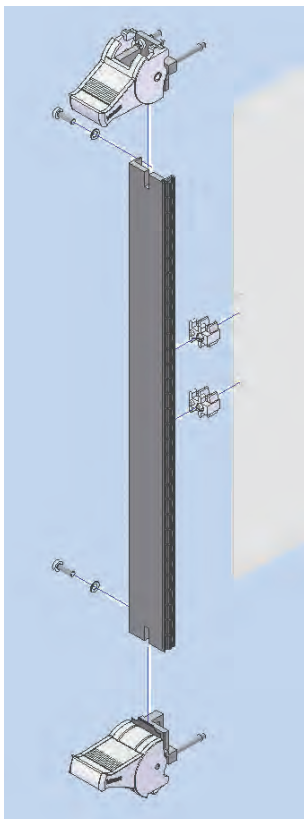
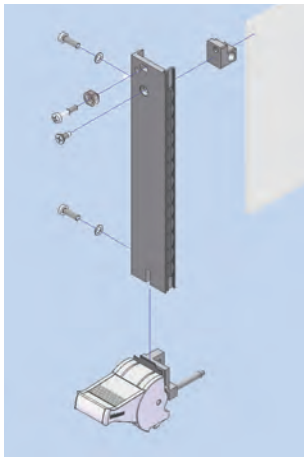
Technical data

| | |
|-----------------------|--|
| Material | Front panel: aluminum Handle: Polycarbonate |
| Finish | Front panel: <i>flat</i> : front side anodized, rear side conductive <i>extruded</i> : passivated |
| Color | handle: RAL 7035 or black |
| Continous temperature | - 40 °C to + 100 °C |
| Fire protection class | UL 94 V-0 |



Hole pattern of the front panels

Front Panels RFI with IEEE Handle gray without hot-swap



Ordering details kit - front panel RFI with IEEE-handle, gray, without hot-swap

| | 3 U extruded order no. 409. | 3 U order no. 409. | 6 U extruded order no. 409. | 6 U order no. 409. |
|--------------------|---|---------------------------------|---|---------------------------------|
| nom. width [HP] | | | | |
| 4 | 113 671 | 113 641 | 113 674 | - |
| 6 | 113 672 | - | 113 675 | - |
| 8 | 113 673 | - | 113 676 | - |
| 10 | 114 463 | - | 114 475 | - |
| 12 | - | 113 647 | - | 113 654 |

Delivery kit front panel RFI with IEEE-Handle without hot-swap

| | 3 U pieces for 4-8 HP | 3 U pieces for 9-12 HP | 6 U pieces for 4-8 HP | 6 U pieces for 9-12 HP |
|-----------------------------|-----------------------------|------------------------------|-----------------------------|------------------------------|
| Front panel | 1 | 1 | 1 | 1 |
| IEEE-handle top gray | - | - | 1 | 1 |
| IEEE-handle bottom gray | 1 | 1 | 1 | 1 |
| Front connector metal | 1 | 1 | - | - |
| Front panel support plug-in | - | - | 2 | 2 |
| Grounding bushing M 2.5 | 1 | 3 | - | 2 |
| Mounting parts | 1 | 1 | 1 | 1 |

Accessories

| | order no. 409. |
|---|--------------------------|
| <i>For one flat front panel 2 RFI-springs are needed.</i> | |
| RFI spring F3 - 3 U | 111 112 |
| RFI spring F3 - 6 U | 111 116 |
| <i>For assemble the RFI spring F3</i> | |
| Roller cutter | 118 433 |

Ordering details single part front panel RFI for IEEE handle

| | 3 U extruded order no. 409. | 3 U order no. 409. | 6 U extruded order no. 409. | 6 U order no. 409. |
|--------------------|---|---------------------------------|---|---------------------------------|
| nom. width [HP] | | | | |
| 4 | 112 152 | 113 079 | 112 154 | - |
| 5 | 112 408 | - | 112 400 | - |
| 6 | 112 409 | 112 778 | 112 401 | - |
| 7 | 112 410 | - | 112 402 | - |
| 8 | 112 411 | - | 112 403 | - |
| 9 | 112 412 | - | 112 404 | - |
| 10 | 112 413 | - | 112 405 | - |
| 12 | - | 112 790 | - | 112 773 |

IEEE Handle 4 HP without hot-swap

Color: gray, RAL 7035

Delivery:

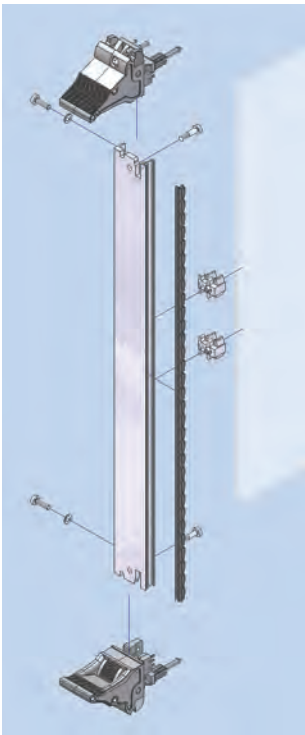
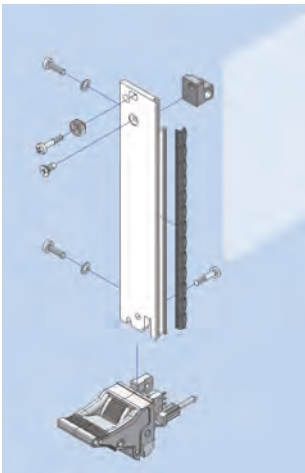
Assembled handle with mounting parts.

Ordering details

| | order no. 409. |
|------------------------|--------------------------|
| IEEE handle 4HP bottom | 114 413 |
| IEEE handle 4HP top | 114 415 |

Front Panels RFI with IEEE Handle black with hot-swap

Subrack Accessories



Ordering details kit - extruded front panel RFI with IEEE handle, black, hot-swap in the bottom handle

| nom. width [HP] | 3 U order no. 409. | 6 U order no. 409. |
|-----------------|--------------------------|--------------------------|
| 4 | 122 607 | 122 610 |
| 6 | 122 608 | 122 611 |
| 8 | 122 609 | 122 612 |

Delivery kit

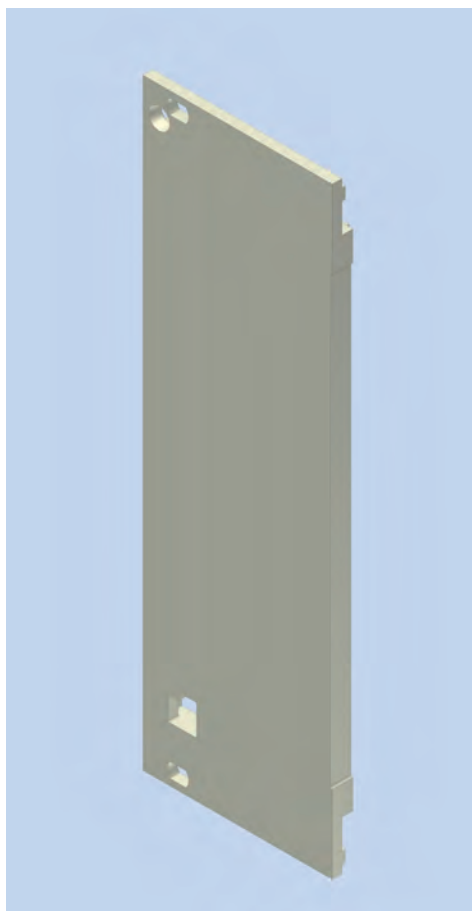
| | 3 U pieces for 4-8 HP | 6 U pieces for 4-8 HP |
|-----------------------------|-----------------------------|-----------------------------|
| Front panel | 1 | 1 |
| IEEE handle topblack | - | 1 |
| IEEE handle bottom black | 1 | 1 |
| Micro switch | 1 | 1 |
| Front connector metal | 1 | - |
| Front panel support plug-in | - | 2 |
| Grounding bushing M 2.5 | 1 | - |
| Mounting parts | 1 | 1 |

Accessories

| | order no. 409. |
|--------------------------------|-------------------|
| RFI spring F3 - 3U | 111 112 |
| RFI spring F3 - 6U | 111 116 |
| For assemble the RFI spring F3 | |
| Roller cutter | 118 433 |

For one flat front panel 2 RFI-springs are needed.

Plastic Front Panel, Snap-in Handle



Plastic Front Panels

On the rear side of the 2 mm thick front panel is an integrated front connector for attaching 1.6 mm thickness 3 U PCBs. The handle snaps in into the front panel, therefore the front panel can be modified easily.

Delivery

As single part

Technical data

| | |
|------------------------|--|
| Material | Polycarbonate, 10% fiber-glass reinforced |
| Color | RAL 7032, pearl gray or black |
| Continuous temperature | - 40 °C to + 115 °C |
| Fire protection class | UL 94 V-0 |

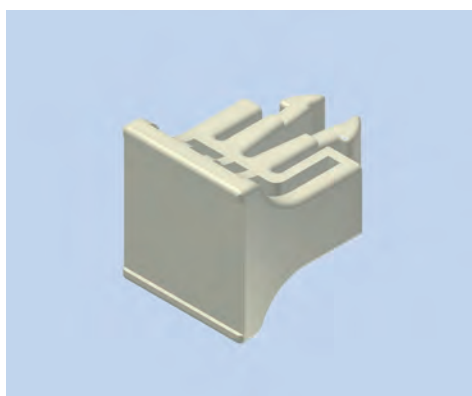
Ordering details plastic front panel

| | | |
|--------------------|---|--|
| nom. width [HP] | 3 U pearl gray order no. 409. | 3 U black order no. 409. |
| 3 | 035 004 | - |
| 4 | - | - |
| 8 | 035 665 | 040 387 |

Accessories

Minimum order quantity 100 pieces

| | |
|-----------------------------------|--------------------------|
| | order no. 409. |
| Screw retainer 2 - M 2.5, gray | 085 689 |
| Cross-head screw M 2.5 x 10. 8 | 056 135 |



Snap-in Handle

For use with 2 mm thick front panels of plastic. The handle snaps in into the front panel.

Front panels aluminum on request

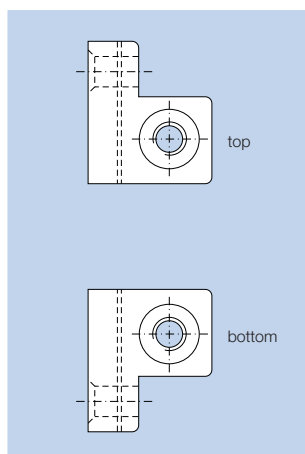
Technical data

| | |
|------------------------|--|
| Material | Polycarbonate, 10% fiber-glass reinforced |
| Color | RAL 7032, pearl gray or black |
| Continuous temperature | - 40 °C to + 105 °C |
| Fire protection class | UL 94 V-0 |

Ordering details snap-in handle

| | | | |
|--------------------|--------------------------------------|--|-----------------------------------|
| nom. width [HP] | RAL 7032 order no. 409. | pearl gray order no. 409. | black order no. 409. |
| 3 | 043 035 | 035 528 | 040 385 |
| 4 | 043 036 | 035 529 | 040 386 |

Front Connector



Front Connector

Material: zinc die-cast
Finish: untreated

Ordering details

| | |
|------------------------|--|
| Front connector top | |
| Front connector bottom | |

order no.
409.

099 731

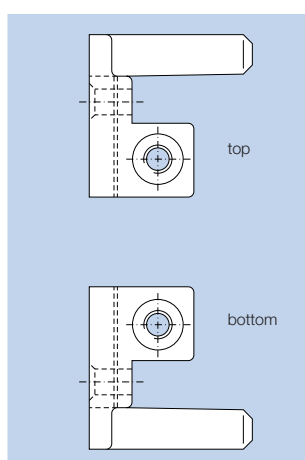
099 730

Accessories

Counter sunk screw M 2.5 x 6
self tapping

Minimum order quantity 100 pieces

order no.: **409. 067 624**



Front Connector with Male Contact

For pre-mating front panel grounding.

Material: zinc die-cast
Finish: tin-plated

Ordering details

| | |
|------------------------|--|
| Front connector top | |
| Front connector bottom | |

order no.
409.

107 728

107 727

Accessories

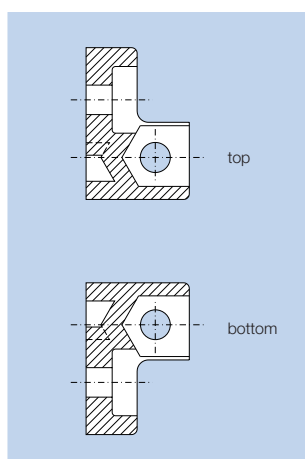
| | |
|---|--|
| Front panel grounding contact | |
| Self tapping counter sunk screw M 2.5 x 6 | |

Minimum order quantity 100 pieces

order no.
409.

058 102

067 624



Plastic Front Connector

Technical data

| | |
|------------------------|--|
| Material | Polycarbonate, 10% fiber-glass reinforced |
| Color | gray |
| Continuous temperature | – 40 °C to + 100 °C |
| Fire protection class | UL 94 V-0 |

Ordering details

| | |
|------------------------|--|
| Front connector top | |
| Front connector bottom | |

order no.
409.

065 883

065 882

Accessories

Minimum order quantity 100 pieces

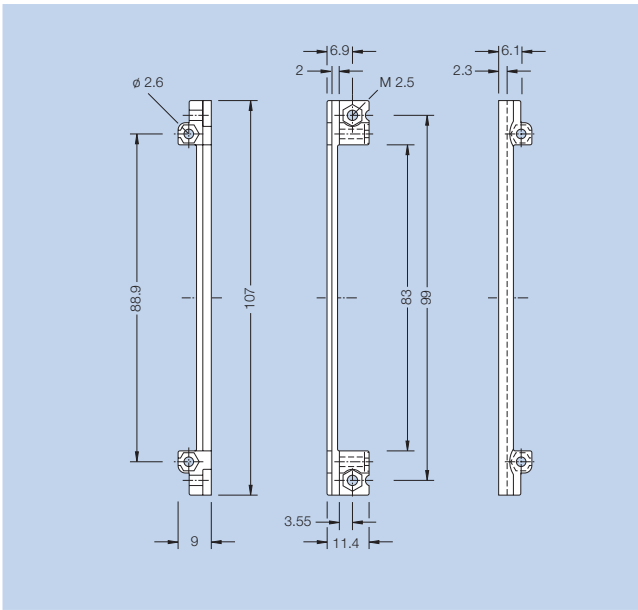
| | |
|------------------------------|--|
| Hexagonal nut M 2.5 | |
| Counter sunk screw M 2.5 x 6 | |

order no.
409.

013 938

067 624

Front Connector FEE, Front Panel Support



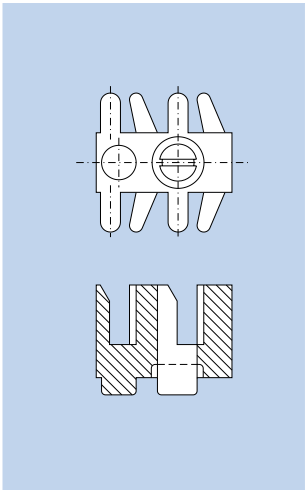
Front Connector FEE

With inserted nut M 2.5 for fastening to the front panel.
Also for use with front mounted Elements (FEE).

Technical data

| | |
|------------------------|---|
| Material | Polycarbonate, 10% fiber-glass reinforced nut: steel, galvanized and chromated |
| Color | gray |
| Continuous temperature | – 40 °C to + 115 °C |
| Fire protection class | UL 94 V–0 |

order no.: 409. 024 830



Front Panel Support

For PCB's with a height over 3 U used with two-piece front connector.
Prevents deflection of the front panel when inserting the PCB.

Technical data

| | |
|------------------------|--|
| Material | Polycarbonate, 10% fiber-glass reinforced |
| Color | gray |
| Continuous temperature | – 40 °C to + 100 °C |
| Fire protection class | UL 94 V–0 |

order no.: 409. 092 786

Screw Retainer, Grounding Bushing, Quick Lock E



Screw retainer, Grounding bushing and Screw

Screw Retainer 2.5 - M 2.5

For 2.5 mm thick front panels, for plugging in the screw

Technical data

| | |
|------------------------|---------------------|
| Material | POM |
| Color | gray or black |
| Continuous temperature | - 40 °C to + 100 °C |

Ordering details

Minimum order quantity 100 pieces

| | | |
|----------------------------|-------|--------------------------|
| | Color | order no. 409. |
| Screw retainer 2.5 - M 2.5 | gray | 100 539 |
| Screw retainer 2.5 - M 2.5 | black | 100 538 |

Grounding Bushing M 2.5

Pressed into the front panel. Secures the screw M 2.5 and provides electrical bonding between the screw and front panel and subrack; even when the front panel is anodized.

Material: brass, nickel plated

Minimum order quantity 10 pieces

order no.: **409. 082 594**

Screw M 2.5 x 11.3

for 2.5 mm thick front panels

Material: knurled head screw: steel, nickel plated
others: stainless steel

Ordering details

Minimum order quantity 100 pieces

| | | |
|--------------------|------------|--------------------------|
| | head form | order no. 409. |
| Pan head screw | slotted | 100 540 |
| Oval head screw | cross slot | 101 917 |
| Knurled head screw | knurled | 101 918 |



Quick Lock E

for 2.5 mm thick front panels.
Slot head.

Minimum order quantity 10 pieces

order no.: **409. 097 957**

Technical data

| | |
|------------------------|--|
| Material | sleeve: POM bolt: steel, galvanized |
| Color | gray |
| Continuous temperature | - 40 °C to + 100 °C |