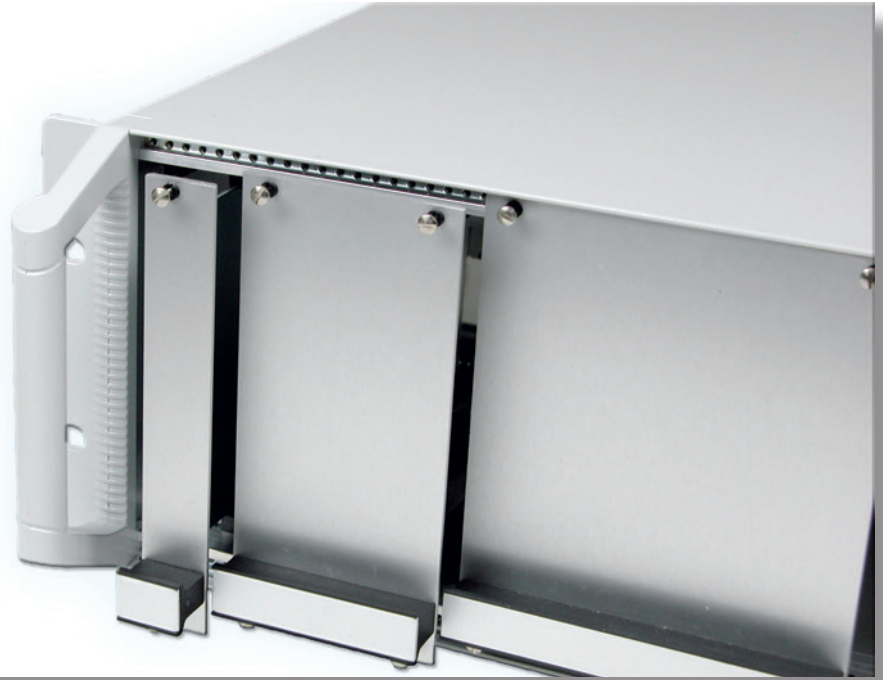


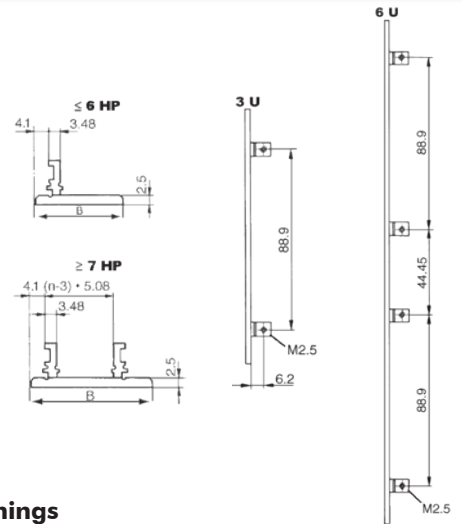
# 2: Front Panels for Plug-In Units



## 2.1 Plug-In Units acc. to IEC

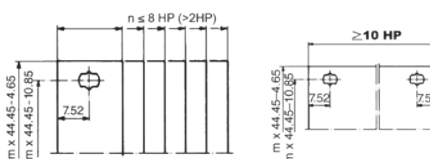
### 2.1.1 Extruded Front Panel

- Aluminium 2.5 mm, clear anodised (non-conductive)
- PCB mounting lugs are formed on the rear face of the panel
- No PCB fixing screws on the front face of the panel, leaving more space for silk screening and mounting front panel components
- Suitable for all sub racks and cases
- Thickness of the mounting lugs (3.48 mm) allows PCBs to be mounted on either side of the lugs
- Drill marks at rear for handle-fixing holes
- **Scope of delivery:**
  - Extruded front panel, clear anodised
- Front panel screws see below



### 2.1.1 Extruded Front Panels, without Openings

| Width | B     |      | Part-No.<br>3 U | Part-No.<br>6 U |
|-------|-------|------|-----------------|-----------------|
|       | mm    | inch |                 |                 |
| 3 HP  | 15.0  | 0.59 | 26N303          | 26N603          |
| 4 HP  | 20.1  | 0.79 | 26N304          | 26N604          |
| 5 HP  | 25.2  | 0.99 | 26N305          | 26N605          |
| 6 HP  | 30.3  | 1.19 | 26N306          | 26N606          |
| 7 HP  | 35.3  | 1.38 | 26N307          | 26N607          |
| 8 HP  | 40.4  | 1.59 | 26N308          | 26N608          |
| 10 HP | 50.6  | 1.99 | 26N310          | 26N610          |
| 12 HP | 60.7  | 2.38 | 26N312          | 26N612          |
| 14 HP | 70.9  | 2.79 | 26N314          | 26N614          |
| 16 HP | 81.1  | 3.19 | 26N316          | 26N616          |
| 21 HP | 106.5 | 4.19 | 26N321          | -               |



### 2.1.1.1 Front Panel Screws

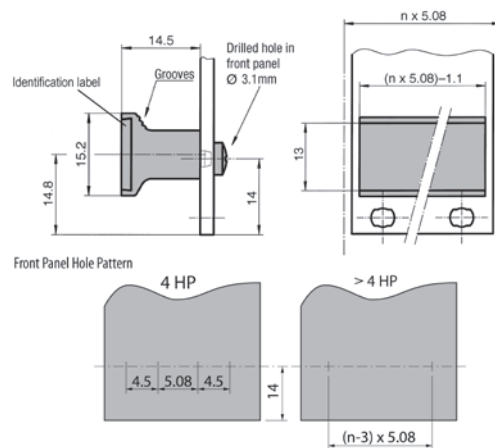
- Set of 10 screws
- With screw retainer
- Front panel width up to 9 HP = 2 screws; ≥ 10 HP = 4 screws

| Description   | Part-No.<br>10 pcs. |
|---|---------------------|
| Torx screws M2.5 x 11.3 , size T8, with plastic screw retainer        | 63K159              |
| Rounded head screws recessed M2.5 x 11.3, with plastic screw retainer | 63-159              |

## 2: Front Panels for Plug-In Units

### 2.1.1.2 Rigid-Mounted Unit Handles with Identification Label

- Black, plastic UL94 V-0, label aluminium anodised
- **Scope of delivery:**
  - Rigid-mounted handle
  - Identification label
- Assembly material see below



### 2.1.1.2 Rigid-Mounted Handle with Identification Label



| Width | Scope of Delivery | Part-No.  |
|-------|-------------------|-----------|
| 4 HP  | 10 pcs.           | 60-200-04 |
| 5 HP  | 10 pcs.           | 60-200-05 |
| 6 HP  | 10 pcs.           | 60-200-06 |
| 7 HP  | 10 pcs.           | 60-200-07 |
| 8 HP  | 10 pcs.           | 60-200-08 |
| 10 HP | 10 pcs.           | 60-200-10 |
| 12 HP | 10 pcs.           | 60-200-12 |
| 14 HP | 1 pc.             | 60-200-14 |

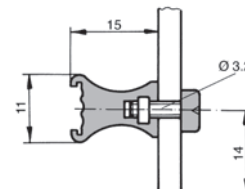
- Other sizes (up to 84 HP) are available upon request

### Assembly Material

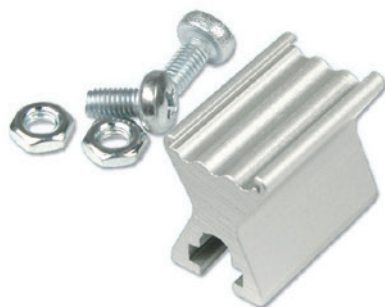
| Description                       | Part-No. |
|-----------------------------------|----------|
| Cross recessed rounded head screw | 61-276   |

### 2.1.1.3 Fluted Handles

- Extruded aluminium handles, shaped to facilitate withdrawal of plug-in units
- Two grooves in the front face will accept identification strips (0.5 x 9 mm)
- **Scope of delivery:**
  - Extruded handle, clear anodised
  - Assembly material



### 2.1.1.3 Fluted Handles for Front Panels to IEC

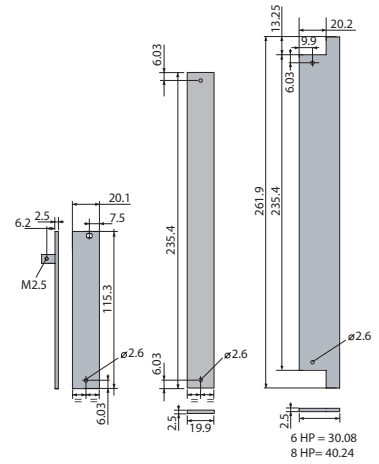


| Front Panel<br>Width HP | Width |       | Handle Length |       | Part-No. |
|-------------------------|-------|-------|---------------|-------|----------|
|                         | mm    | inch  | mm            | inch  |          |
| 3 HP                    | 15.0  | 0.59  | 12.5          | 0.49  | 60-103   |
| 4 HP                    | 20.1  | 0.79  | 17.6          | 0.69  | 60-104   |
| 5 HP                    | 25.2  | 0.99  | 22.6          | 0.88  | 60-105   |
| 6 HP                    | 30.3  | 1.19  | 27.7          | 1.09  | 60-106   |
| 7 HP                    | 35.3  | 1.38  | 33.5          | 1.31  | 60-107   |
| 8 HP                    | 40.4  | 1.59  | 37.9          | 1.49  | 60-108   |
| 10 HP                   | 50.6  | 1.99  | 48.0          | 1.88  | 60-110   |
| 12 HP                   | 60.8  | 2.39  | 58.2          | 2.29  | 60-112   |
| 14 HP                   | 70.9  | 2.79  | 69.1          | 2.72  | 60-114   |
| 16 HP                   | 81.1  | 3.19  | 78.5          | 3.09  | 60-116   |
| 21 HP                   | 106.5 | 4.18  | 104.6         | 4.11  | 60-121   |
| 30 HP                   | 152.2 | 5.99  | 149.6         | 5.88  | 60-130   |
| 40 HP                   | 203.0 | 7.99  | 200.4         | 7.88  | 60-140   |
| 60 HP                   | 304.6 | 11.99 | 302.0         | 11.88 | 60-160   |
| 84 HP                   | 426.5 | 16.79 | 424.0         | 16.69 | 60-184   |

# 2: Front Panels for Plug-In Units

## 2.1.2 Front Panel with Cutout for IEC Ejector Handle

- Aluminium 2.5 mm, clear anodised (non-conductive)
- PCB mounting lugs are formed on the rear face of the panel (only 3 U-Version)
- No PCB fixing screws on the front face of the panel, leaving more space for silk screening and mounting front panel components
- Suitable for all sub racks and cases
- 3 U front panels prepared for one handle
- 6 U front panels prepared for two handles
- **Scope of delivery:**
  - Front panel, clear anodised
- Front panel screws see 2.1.2.1 (for 3 U-Version only)
- IEC ejector handles, see 2.1.2.2



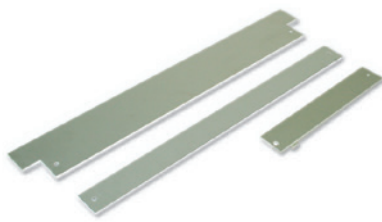
### 2.1.2 Front Panel with Cutout for IEC Ejector Handle

| Width | B    |      | Part-No.<br>3 U | Part-No.<br>6 U |
|-------|------|------|-----------------|-----------------|
|       | mm   | inch |                 |                 |
| 4 HP  | 20.0 | 0.79 | 26N304-51       | 21N604-51       |
| 6 HP  | 30.2 | 1.19 |                 | 21N606-51       |
| 8 HP  | 40.3 | 1.59 |                 | 21N608-51       |

### 2.1.2.1 Front Panel Screws (for 3 U-Version only)

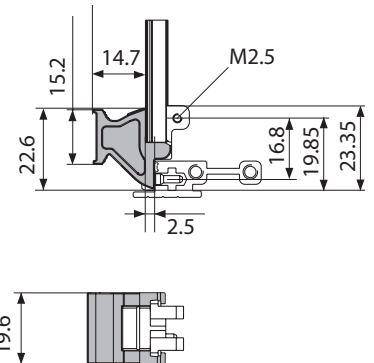
- Set of 10 screws
- With screw retainer
- Front panel 3 U = 1 screw

| Description   | Part-No.<br>10 pcs. |
|---|---------------------|
| Torx screws M2.5 x 11.3, size T8, with plastic screw retainer         | 63K159              |
| Rounded head screws recessed M2.5 x 11.3, with plastic screw retainer | 63-159              |



## 2.1.2.2 Ergonomic Ejector Handles acc. to IEC

- Simple assembly of plug-in units
- Allows trouble-free extraction of electronic units with multi-pole connectors
- Main features in one part: card holder, ejector handle and centring pin
- Reset spring for safe insertion
- One version for top and bottom only
- Handle is injection moulded, glass-reinforced plastic, UL94 V-0
- Card holder is zinc die-cast, nickel plated
- Reset spring is stainless steel
- **Scope of delivery:**
  - Ejector handle
  - Assembly material (cross recessed screws M2.5 for fixing of card holder/printed board/front panel)
- Front panel with special cutouts have to be ordered separately

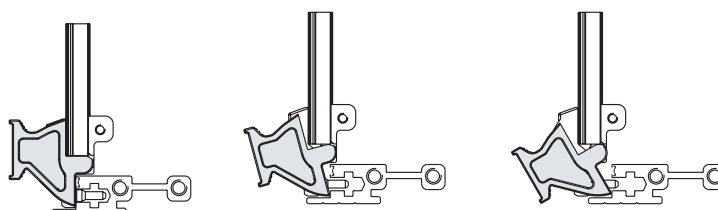


### 2.1.2.2 Ejector Handle acc. to IEC

| Description          | Part-No. |
|----------------------|----------|
| Ejector handle black | 81-233   |
| Ejector handle grey  | 81-234   |

#### Extraction process:

Rest position                      Extraction                      End position



#### Label

| Description              | Part-No. |
|--------------------------|----------|
| 1 sheet A4 of 220 labels | 81-031   |



## 2: Front Panels for Plug-In Units



### 2.2 EMC Plug-In Units acc. to IEC

#### 2.2.1 EMC Filler Panel without Openings

- Excellent EMC shielding
- Made of aluminium extrusions
- Rear side: conductive surface finish (clear passivated)
- Used in the assembly of plug-in units
- The EMC-gasket is integrated into the front panel profile to protect it from damage
- A pressfit centering pin guarantees optimum positioning of the panel as well as the right pressure between the contact strip and the next panel

#### 2.2.1 EMC Filler Panel without Openings

- High stability
- Extruded aluminium
- Pressed-in centring pin and bushes M2.5
- Front side clear anodised, rear side conductive
- **Scope of delivery:**
  - EMC front panel, incl. pressed-in centering pin and bushes M2.5
- EMC-gasket see below
- Front panel screw see below
- Handles and card holders cannot be fitted with this type of front panel



| Width | Part-No.<br>3 U | Part-No.<br>6 U |
|-------|-----------------|-----------------|
| 4 HP  | 66-514-73       | 66-514-76       |
| 6 HP  | 66-516-73       | 66-516-76       |
| 8 HP  | 66-518-73       | 66-518-76       |

#### 2.2.1.1 EMC Gasket (Stainless Steel)

| Height | Part-No.  |
|--------|-----------|
| 3 U    | 81-062-03 |
| 6 U    | 81-062-06 |

#### 2.2.1.2 Front Panel Screws

- Front panel width up to 8 HP = 2 screws

| Description                                    | Part-No. |
|--|----------|
| Torx screw, M2.5 x 11.3, size T8               | 5443-08  |
| Rounded head screw, cross recessed M2.5 x 12.7 | 61-287   |

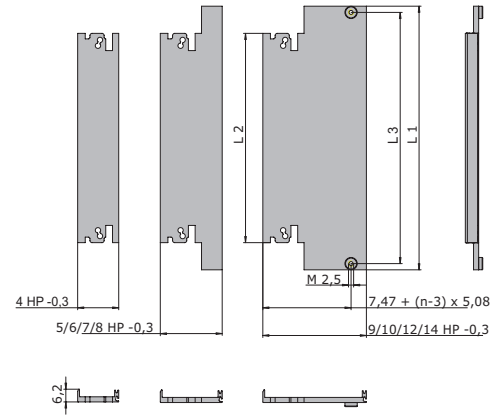
Use Elma's front panel service for machining and screen printing of your panels!

# 2: Front Panels for Plug-In Units

## 2.2.2 EMC Front Panels for IEC Plug-In Units with Cutout for Ejector Handle acc. to IEC

EMC Front Panels Aluminium with EMC Gasket

- Excellent EMC shielding
- Immune to snagging
- EMC-gasket slid onto the extrusion
- **Scope of delivery:**
  - EMC front panel, incl. pressed-in bushes M2.5 (size  $\geq 10$  HP)
- EMC-gasket see 2.2.2.4
- Handle has to be ordered separately, see 2.2.2.6
- Front panel screw (size  $\geq 10$  HP), see 2.2.2.5



### 2.2.2.1 Front Anodised, Rear Conductive (2 cutouts)

- With 2 cutouts (bottom + top)

| Width | Part-No.<br>3 U | Part-No.<br>6 U | Part-No.<br>9 U |
|-------|-----------------|-----------------|-----------------|
| 4 HP  | 66-514-23       | 66-514-26       | 66-514-29       |
| 5 HP  | 66-515-23       | 66-515-26       | -               |
| 6 HP  | 66-516-23       | 66-516-26       | 66-516-29       |
| 7 HP  | 66-517-23       | 66-517-26       | -               |
| 8 HP  | 66-518-23       | 66-518-26       | 66-518-29       |
| 9 HP  | 66-519-23       | 66-519-26       | -               |
| 10 HP | 66-520-23       | 66-520-26       | 66-520-29       |
| 12 HP | 66-522-23       | 66-522-26       | -               |
| 14 HP | 66-534-23       | 66-534-26       | -               |

### 2.2.2.2 Front Anodised, Rear Conductive (1 cutout)

- With 1 cutout (bottom)
- Incl. pressed-in centring pin and bush M2.5 (top)
- Incl. cutout for mounting of card holder 61-156 (top) with screw 5322-08 (see 2.2.2.7)

| Width | Part-No.<br>3 U |
|-------|-----------------|
| 4 HP  | 66-514-43       |
| 5 HP  | 66-515-43       |
| 6 HP  | 66-516-43       |
| 8 HP  | 66-518-43       |
| 10 HP | 66-520-43       |
| 12 HP | 66-522-43       |
| 14 HP | 66-534-43       |



### Dimensions

| Height | L1 mm  | L1 inch | L2 mm  | L2 inch | L3 mm  | L3 inch |
|--------|--------|---------|--------|---------|--------|---------|
| 3 U    | 128.55 | 5.06    | 102.05 | 4.01    | 122.50 | 4.82    |
| 6 U    | 261.90 | 10.31   | 235.40 | 9.27    | 255.85 | 10.07   |
| 9 U    | 395.25 | 15.56   | 368.75 | 14.51   | 389.20 | 15.32   |



# 2: Front Panels for Plug-In Units

## 2.2.2.4 EMC-Gasket (Stainless Steel)

| Unit  | Part-No.<br>3 U | Part-No.<br>6 U | Part-No.<br>9 U |
|-------|-----------------|-----------------|-----------------|
| 1 pc. | 81-062-03       | 81-062-06       | 81-062-09       |

## 2.2.2.5 Front Panel Screw

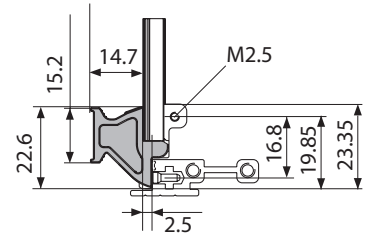
- For EMC front panels size  $\geq 9$  HP = 2 additional screws are needed

| Description                                    | Part-No. |
|--|----------|
| Cross recessed rounded head screws M2.5 x 12.7 | 61-287   |
| Torx screws M2.5 x 11.3, size T8               | 5443-08  |



## 2.2.2.6 Ergonomic Ejector Handles acc. to IEC

- Simple assembly of plug-in units
- Allows trouble-free extraction of electronic units with multi-pole connectors
- Main features in one part: card holder, ejector handle and centring pin
- Reset spring for safe insertion
- One version for top and bottom only
- Handle is injection moulded, glass-reinforced plastic, UL94 V-0
- Card holder is zinc die-cast, nickel plated
- Reset spring is stainless steel
- Scope of delivery:**
  - Ejector handle
  - Assembly material (cross recessed screws M2.5 for fixing of card holder/printed board/front panel)
- Front panel with special cutouts have to be ordered separately



## 2.2.2.6 Ejector Handle acc. to IEC

| Description          | Part-No. |
|----------------------|----------|
| Ejector handle black | 81-233   |
| Ejector handle grey  | 81-234   |

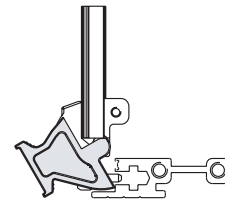
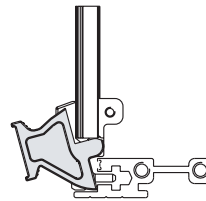
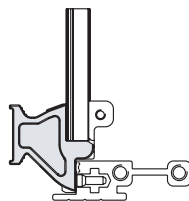


### Extraction process:

Rest position

Extraction

End position



### Label

| Description              | Part-No. |
|--------------------------|----------|
| 1 sheet A4 of 220 labels | 81-031   |

# 2: Front Panels for Plug-In Units

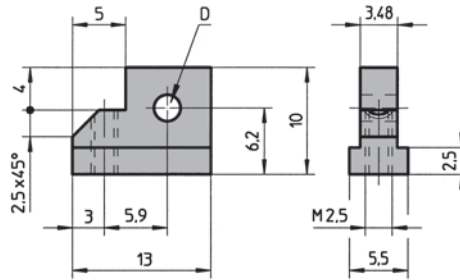
## 2.2.2.7 Card Holder acc. to IEC Standard

- By using the zinc die-cast card holder, flat front panels and EMC front panels acc. to IEC can be connected to a PC card to form a plug-in unit
- The card can be mounted both in the standard position and offset 1 HP (5.08 mm)
- **Scope of delivery:**
  - Card holder
- Assembly material see below



### 2.2.2.7 Card Holder without Swivel Stop

| Description                     | Application                       | D    | Part-No. |
|---------------------------------|-----------------------------------|------|----------|
| Card holder without swivel stop | Without injector / ejector handle | M2.5 | 61-156   |



### Assembly Material

| Description                                | Application       | Part-No. |
|--|-------------------|----------|
| Cross recessed countersunk screw M2.5 x 8  | For card holder   | 5322-08  |
| Torx countersunk screw M2.5 x 8, size T8   | For card holder   | 5470-21  |
| Slotted pan head screw M2.5 x 6            | For printed board | 5571-06  |
| Torx cylinder head screw M2.5 x 6, size T8 | For printed board | 5470-04  |



## 2.2.2.8 Card Holder/End Piece without ESD Pin

- **Scope of delivery:**
  - End piece card holder (zinc die-cast, nickel plated)
  - Assembly material (screws M2.5 for fixing of front panel/card holder/printed board)



### Card Holder/End Piece without ESD Pin

| Description | Part-No.  |
|-------------|-----------|
| Top         | 81-018-01 |
| Bottom      | 81-019-01 |