The Products

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PRODUCT OVERVIEW CONTROL UNITS 01.2022
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**IMPORTANT NOTE**

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For offers, deliveries and performances our general terms and conditions shall apply exclusively.

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## LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>aP</td>
<td>Surface mounting</td>
</tr>
<tr>
<td>WhHxD</td>
<td>Width x Height x Depth</td>
</tr>
<tr>
<td>CAN</td>
<td>CAN-Bus</td>
</tr>
<tr>
<td>CM</td>
<td>Control Module</td>
</tr>
<tr>
<td>DIN</td>
<td>German Institute for Standardisation</td>
</tr>
<tr>
<td>DM</td>
<td>Drive Module</td>
</tr>
<tr>
<td>EN</td>
<td>European Standard</td>
</tr>
<tr>
<td>HS</td>
<td>Free space</td>
</tr>
<tr>
<td>LZ</td>
<td>Time of delivery</td>
</tr>
<tr>
<td>PG</td>
<td>Price group</td>
</tr>
<tr>
<td>PM</td>
<td>Power Module</td>
</tr>
<tr>
<td>net</td>
<td>Prices not discountable</td>
</tr>
<tr>
<td>RAL</td>
<td>Central European Colour Standard</td>
</tr>
<tr>
<td>RAS</td>
<td>Aspirating smoke detector</td>
</tr>
<tr>
<td>RM6</td>
<td>Relay Module</td>
</tr>
<tr>
<td>RWA</td>
<td>SHEV – smoke and heat exhaust ventilation</td>
</tr>
<tr>
<td>SM</td>
<td>Sensor Module</td>
</tr>
<tr>
<td>uP</td>
<td>Flash mounting</td>
</tr>
<tr>
<td>WM</td>
<td>Weather Module</td>
</tr>
<tr>
<td>WRG</td>
<td>Wind direction sensor</td>
</tr>
<tr>
<td>P</td>
<td>Electric power</td>
</tr>
<tr>
<td>U</td>
<td>Electric voltage</td>
</tr>
<tr>
<td>Um</td>
<td>Change over switch</td>
</tr>
</tbody>
</table>

## SCALE UNITS

<table>
<thead>
<tr>
<th>Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>°C</td>
<td>Degree Celsius</td>
</tr>
<tr>
<td>A</td>
<td>Amps</td>
</tr>
<tr>
<td>Ah</td>
<td>Amp-hours</td>
</tr>
<tr>
<td>Kg</td>
<td>Kilogram</td>
</tr>
<tr>
<td>m</td>
<td>Metres</td>
</tr>
<tr>
<td>min</td>
<td>Minutes</td>
</tr>
<tr>
<td>mm</td>
<td>Millimeters</td>
</tr>
<tr>
<td>N</td>
<td>Newtons</td>
</tr>
<tr>
<td>s</td>
<td>Seconds</td>
</tr>
<tr>
<td>Pcs.</td>
<td>Pieces</td>
</tr>
<tr>
<td>V</td>
<td>Volts</td>
</tr>
<tr>
<td>PU</td>
<td>Packaging Units</td>
</tr>
<tr>
<td>Vpp</td>
<td>Residual ripple (Voltage Peak-Peak)</td>
</tr>
<tr>
<td>W</td>
<td>Watts</td>
</tr>
</tbody>
</table>

## FIGURES

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>€</td>
<td>Euro</td>
</tr>
<tr>
<td>AC</td>
<td>Alternating current (50Hz / 60Hz)</td>
</tr>
<tr>
<td>DC</td>
<td>Direct current</td>
</tr>
<tr>
<td>I</td>
<td>Electric current</td>
</tr>
<tr>
<td>L</td>
<td>Length</td>
</tr>
<tr>
<td>ME</td>
<td>Module space unit (1 ME = 23 mm)</td>
</tr>
<tr>
<td>NO</td>
<td>Normal open switch</td>
</tr>
<tr>
<td>NC</td>
<td>Normal close switch</td>
</tr>
<tr>
<td>P</td>
<td>Electric power</td>
</tr>
<tr>
<td>U</td>
<td>Electric voltage</td>
</tr>
<tr>
<td>Um</td>
<td>Change over switch</td>
</tr>
</tbody>
</table>
PRODUCT FEATURES EMB7300

- Controls 24 V DC drives for smoke and heat exhaust in case of fire and for natural ventilation
- Control panel compliant with prEN 12101-9 / ISO 21927-9
- Power supply compliant with EN 12101-10
- Low ripple voltage output (< 2 Vpp) - compatible with all common drives
- 1 SHEV-Group output with 1 (optional 2) monitored ventilation line(s)
- Removable terminals for easy connection of signal lines
- Connection of electric motors, compressed gas generator and retention magnets
- 2 detector line inputs with line monitoring to connect:
  - Manual break-glass units (HSE)
  - Automatic smoke and heat detectors
- 1 Ventilation line input (optionally 2) with OPEN-STOP-CLOSE function
- 2 Plug-in-Module slots for signal monitoring and transduction (emergency open, fault)
- 1 Network port for connection and integration in building management systems (LON, KNX)
- Direct connection input for wind and rain sensors
- Clear operating and display elements
- Extensive setting options of basic functions via „EMB compact“ software
- Housing (optional) with integrated break-glass unit and ventilation button (2,5 A / 5 A)
- Lead frame usable for flash mounting (2,5 A / 5 A)
- Cable entry from above, below or behind of the housing
- Prepared for connection of backup batteries (72 hours)
- VdS certification no.: G 514001

For this product series, a Type III Environmental Product Declaration (EPD) was issued according to ISO 14025 and EN 15804. The LCA results of the different product types are listed at the end of this product catalogue. The EPD documents can be viewed or downloaded from our homepage www.aumuller-gmbh.de.
## SOFTWARE FUNCTIONS

<table>
<thead>
<tr>
<th>Functions</th>
<th>Standard</th>
<th>License</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set ventilation inputs from dead-man to jog-switch mode (in OPEN and/or CLOSE direction)</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Set failures of drive line monitoring as alarm signal</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Disable alarm function caused by failures of detector line monitoring</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Adjust switching threshold of wind sensor</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Set drive run time and opening stroke limit for ventilation purpose</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Enable and set automatic time-controlled drive line closing mode for ventilation purpose</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Enable drive line closing mode on primary power loss</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Set acoustic or optical warning signals (additional hardware required)</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Display, save and print the status of the system</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Firmware update</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Set emergency close button from jog-switch mode to dead-man mode</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Set next service and maintenance date (password protected)</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Set switch-on delay time for wind sensor</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Set switch-off delay time for wind sensor</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Disable retriggering of drive lines in alarm mode</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Active / disable manual break-glass unit lines (HSE)</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Active / disable smoke detector lines</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Enable smoke detector line input to be controlled by fire alarm systems “FAS”</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Set automatic switch-off time for drive lines</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>EMERGENCY-CLOSE button while the smoke detector is active / disable</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Set drive running direction in alarm mode from open to close</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Set options of relay card REL65 (not in package)</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Set alarm functions for faults caused by each individual drive line (only 2 drive line version)</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Reset switch positions to the status before the weather control were activated</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Integration into digital networks with additional Plug-in Interface-Modules (LON, CAN)</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Function natural ventilation control unit</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Setting operatingmodus (retention magnet / standard drive / pressure gas)</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>SHEV dead-man</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Ventilation push button setting parallel operation</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Maintenance timer adjust</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>OPEN case of line failure</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Activate with Reset button EMERGENCY-CLOSE</td>
<td>--</td>
<td>✔</td>
</tr>
<tr>
<td>Configure Content collective fault</td>
<td>--</td>
<td>✔</td>
</tr>
</tbody>
</table>
Output for drive line 1, 24 V DC for smoke and heat exhausting and natural ventilation
Input for ventilation line 1 (max. 10 vent buttons)
Output for drive line 2 (only for EMB 7300 5 A – 0102; 10 A – 0102; 20 A – 0102)
Input for ventilation line 2 (max. 10 vent buttons) (only for EMB 7300 5 A – 0102; 10 A – 0102; 20 A – 0102)
Housing of control unit with or without integrated break-glass unit and ventilation button
Connections for wind and rain sensor (disabled in case of alarm and power loss)
Input for smoke detectors (max. 10)
Input for signal from external fire alarm system (alternative connection)
Input for break-glass units (HSE – max. 10)
Port for network integration (requires additional module)
Output for signal transduction 1 (Plug-in-Module REL6S required)
Output for signal transduction 2 (Plug-in-Module REL6S required)
----- only available for EMB 7300 5 A – 0102; 10 A – 0102; 20 A – 0102
SHEV – CONTROL UNITS EMB7300 2,5 A

ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMB7300 2,5 A 0101</td>
<td></td>
</tr>
<tr>
<td>683020-0101</td>
<td>Part.-No.</td>
</tr>
</tbody>
</table>

Application: Compact control unit for smoke and heat exhaust ventilation systems operating with 24 V DC voltage, suitable for staircases.

TECHNICAL DATA (Rated values)
- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Max. power consumption: 115 W
- Output voltage: 24 V DC (20 – 28 V DC / 2 Vpp)
- Output current: 2.5 A
- Ambient temperature range: -5°C … + 40°C
- Protection rating: IP30
- Housing: Surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 225 x 285 x 122 mm
- Connection terminals: 1.5 mm² / drive line: 4 mm² (rigid wire)
- VdS certification no.: G 514001 (without or with orange SHEV button)
- Motherboard: 1 SHEV group / 1 Vent groups

Feature / Equipment
- Further settings (e.g. maintenance period) only available with extra cost software license
- Cable entry from above / below / behind
- Optional housing for flash mounting
- Prepared for 2 maintenance-free back-up batteries 2x 12 V / 2.3 Ah (Part. Nr. 541000)

OPTIONS

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMB7300 2,5 A 0101-T HSE red (similar to RAL 3000)</td>
<td>683021-0101</td>
</tr>
<tr>
<td>EMB7300 2,5 A 0101-T HSE yellow (similar to RAL 1018)</td>
<td>683022-0101</td>
</tr>
<tr>
<td>EMB7300 2,5 A 0101-T HSE grey (similar to RAL 7035)</td>
<td>683023-0101</td>
</tr>
<tr>
<td>EMB7300 2,5 A 0101-T HSE blue (similar to RAL 5009)</td>
<td>683024-0101</td>
</tr>
<tr>
<td>EMB7300 2,5 A 0101-T HSE orange (similar to RAL 2011) VdS certification no.: G 514001</td>
<td>683025-0101</td>
</tr>
</tbody>
</table>
**ORDER DATA**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMB7300 5 A 0101</td>
<td>Compact control unit for smoke and heat exhaust ventilation systems operating with 24 V DC voltage, suitable for staircases.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- **Operating voltage:** 230 V AC (195 – 253 V AC, 50/60 Hz)
- **Max. power consumption:** 460 W
- **Output voltage:** 24 V DC (20 – 28 V DC / 0,5 Vpp)
- **Output current:** 5,0 A
- **Ambient temperature range:** -5°C … + 40°C
- **Protection rating:** IP30
- **Housing:** Surface mounting, steel sheet, RAL 7035 (light grey)
- **Dimensions (WxHxD):** 225 x 285 x 122 mm
- **Connection terminals:** 1,5 mm² / Drives: 6 mm² (rigid wire)
- **VdS certification no.:** G 514001 (without or with orange SHEV button)
- **Motherboard:** 1 SHEV group / 1 Vent group

**Feature / Equipment**
- Further settings (e.g. maintenance period) only available with extra cost software license
- Cable entry from above / below / behind
- Optional housing for flash mounting
- Prepared for 2 maintenance-free backup batteries 2x 12 V / 2,3 Ah (Part. Nr. 541000)

**OPTIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Available with breaglass unit and ventilation button on housing cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMB7300 5 A 0101-T HSE red</td>
<td>(similar to RAL 3000)</td>
</tr>
<tr>
<td>EMB7300 5 A 0101-T HSE yellow</td>
<td>(similar to RAL 1018)</td>
</tr>
<tr>
<td>EMB7300 5 A 0101-T HSE grey</td>
<td>(similar to RAL 7035)</td>
</tr>
<tr>
<td>EMB7300 5 A 0101-T HSE blue</td>
<td>(similar to RAL 5009)</td>
</tr>
<tr>
<td>EMB7300 5 A 0101-T HSE orange</td>
<td>(similar to RAL 2011)</td>
</tr>
</tbody>
</table>

**EMB7300 5 A 0102**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMB7300 5 A 0102</td>
<td>Compact control unit for smoke and heat exhaust ventilation systems operating with 24 V DC voltage, suitable for staircases.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- **Operating voltage:** 230 V AC (195 – 253 V AC, 50/60 Hz)
- **Max. power consumption:** 460 W
- **Output voltage:** 24 V DC (20 – 28 V DC / 0,5 Vpp)
- **Output current:** 5,0 A
- **Ambient temperature range:** -5°C … + 40°C
- **Protection rating:** IP30
- **Housing:** Surface mounting, steel sheet, RAL 7035 (light grey)
- **Dimensions (WxHxD):** 225 x 285 x 122 mm
- **Connection terminals:** 1,5 mm² / Drives: 6 mm² (rigid wire)
- **VdS certification no.:** G 514001
- **Motherboard:** 1 SHEV group / 2 Vent groups

**Feature / Equipment**
- Further settings (e.g. maintenance period) only available with extra cost software license
- Cable entry from above / below / behind
- Optional housing for flash mounting
- Prepared for 2 maintenance-free backup batteries 2x 12 V / 2,3 Ah (Part. Nr. 541000)
SPECIFIC ACCESSORIES EMB7300 2,5 A / 5 A

ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Flush mounting housing EMB7300 2,5 A / 5 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>683111</td>
<td></td>
</tr>
</tbody>
</table>

**Application:** Housing for flush mounting of EMB7300 2,5 A or 5 A in its own housing 225 x 285 x 122 mm.

**TECHNICAL DATA**

- **Material:** Steel sheet
- **Colour:** RAL 7035 (light grey)
- **Flush housing:**
  - Dimensions (WxHxD): 254 x 314 x 96 mm
- **Plaster frame:**
  - Dimensions (WxHxD): 282 x 342 x 48 mm
  - PE-Connecting cable: 160 mm with blade terminals 6.3 mm
- **Polystyrene plate:** 240 x 302 x 93 mm

---

**Feature / Equipment**

- Plaster frame with 4x rounded head screws M3 x 6, 4x plain washer A4
- Flush housing with 4x screw sleeve and safety nuts M5, 4x stainless steel mounting brackets 13 x 13 x 1 mm, 8x Tapping screws ST3, 5x6,5
- Polystyrene plate to avoid damage during plastering of the wall

---

**Accumulator holder**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>683250</th>
</tr>
</thead>
</table>

**Application:** Holder to fix the Back-up batteries 12V / 2,3 Ah within the housing of control units.

**TECHNICAL DATA**

- **Material:** Steel sheet
- **Colour:** RAL 7035 (light grey)

---

**Feature / Equipment**

- Suitable for EMB7300 2,5 A and EMB7300 5 A
**ORDER DATA**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>683010-0101</td>
<td>Compact control unit for smoke and heat exhaust ventilation systems operating with 24 V DC voltage, suitable for staircases.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- **Operating voltage:** 230 V AC (195 – 253 V AC, 50/60 Hz)
- **Max. power consumption:** 506 W
- **Output voltage:** 24 V DC (20 – 28 V DC / 0,5 Vpp)
- **Output current:** 10 A
- **Ambient temperature range:** -5°C … + 40°C
- **Protection rating:** IP40
- **Housing:** Surface mounting, steel sheet, RAL 7035 (light grey)
- **Dimensions (WxHxD):** 400 x 300 x 150 mm
- **Connection terminals:** 1,5 mm² / Drives: 6 mm² (rigid wire)
- **VdS certification no.:** G 514001
- **Motherboard:** 1 SHEV group / 1 Vent group

**Feature / Equipment**

- Further settings (e.g. maintenance period) only available with extra cost software license
- Cable entry from above / below
- Prepared for 2 maintenance-free backup batteries 2x 12 V / 7 Ah (Part. Nr. 542000)

**EMB7300 10 A 0102**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>683010-0102</td>
<td>Compact control unit for smoke and heat exhaust ventilation systems operating with 24 V DC voltage, suitable for staircases.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- **Operating voltage:** 230 V AC (195 – 253 V AC, 50/60 Hz)
- **Max. power consumption:** 506 W
- **Output voltage:** 24 V DC (20 – 28 V DC / 0,5 Vpp)
- **Output current:** 10 A
- **Ambient temperature range:** -5°C … + 40°C
- **Protection rating:** IP40
- **Housing:** Surface mounting, steel sheet, RAL 7035 (light grey)
- **Dimensions (WxHxD):** 400 x 300 x 150 mm
- **Connection terminals:** 1,5 mm² / Drives: 6 mm² (rigid wire)
- **VdS certification no.:** G 514001
- **Motherboard:** 1 SHEV group / 2 Vent groups

**Feature / Equipment**

- Further settings (e.g. maintenance period) only available with extra cost software license
- Cable entry from above / below
- Prepared for 2 maintenance-free backup batteries 2x 12 V / 7 Ah (Part. Nr. 542000)

**EMB7300 10 A 0204**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>683010-0204</td>
<td>Compact control unit for smoke and heat exhaust ventilation systems operating with 24 V DC voltage, suitable for staircases.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- **Operating voltage:** 230 V AC (195 – 253 V AC, 50/60 Hz)
- **Max. power consumption:** 506 W
- **Output voltage:** 24 V DC (20 – 28 V DC / 0,5 Vpp)
- **Output current:** 10 A
- **Ambient temperature range:** -5°C … + 40°C
- **Protection rating:** IP40
- **Housing:** Surface mounting, steel sheet, RAL 7035 (light grey)
- **Dimensions (WxHxD):** 400 x 500 x 200 mm
- **Connection terminals:** 1,5 mm² / Drives: 6 mm² (rigid wire)
- **VdS certification no.:** G 514001
- **2x Motherboard:** 2 SHEV group / 4 Vent groups

**Feature / Equipment**

- Further settings (e.g. maintenance period) only available with extra cost software license
- Cable entry from above / below
- Prepared for 2 maintenance-free backup batteries 2x 12 V / 7 Ah (Part. Nr. 542000)
**SHEV – Compact Control Units EMB7300 20 A**

### ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMB7300 20 A 0102</td>
<td>Compact control unit for smoke and heat exhaust ventilation systems operating with 24 V DC voltage, suitable for staircases.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Max. power consumption: 805 W
- Output voltage: 24 V DC (20 – 28 V DC / 0,5 Vpp)
- Output current: 20 A
- Ambient temperature range: -5°C … + 40°C
- Protection rating: IP40
- Housing: Surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 400 x 400 x 200 mm
- Connection terminals: 1,5 mm² / Drives: 6 mm² (rigid wire)
- VdS certification no.: G 514001
- Motherboard: 1 SHEV group / 2 Vent groups

**Feature / Equipment**

- Further settings (e.g. maintenance period) only available with extra cost software license
- Cable entry from above / below
- Prepared for 2 maintenance-free backup batteries 2x 12 V / 7 Ah (Part. Nr. 542000)

### ACCESSORIES

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>VE</th>
</tr>
</thead>
<tbody>
<tr>
<td>500001</td>
<td>Wall fixing brackets IP54</td>
</tr>
</tbody>
</table>

**SHEV – Compact Control Units EMB7300 20 A**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMB7300 20 A 0204</td>
<td>Compact control unit for smoke and heat exhaust ventilation systems operating with 24 V DC voltage, suitable for staircases.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Max. power consumption: 805 W
- Output voltage: 24 V DC (20 – 28 V DC / 0,5 Vpp)
- Output current: 20 A
- Ambient temperature range: -5°C … + 40°C
- Protection rating: IP40
- Housing: Surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 400 x 500 x 200 mm
- Connection terminals: 1,5 mm² / Drives: 6 mm² (rigid wire)
- VdS certification no.: G 514001
- Motherboard: 2 SHEV group / 4 Vent groups

**Feature / Equipment**

- Further settings (e.g. maintenance period) only available with extra cost software license
- Cable entry from above / below
- Prepared for 2 maintenance-free backup batteries 2x 12 V / 12 Ah (Part. Nr. 542200)
**ORDER DATA**

<table>
<thead>
<tr>
<th>WR-Set Type 7x/8x – Wind and Rain Sensor Set</th>
<th>482100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application:</td>
<td>Sensors for wind and rain to work with an evaluation unit WRAG2 or Typ IV, a WM Weather-Module or directly with a SHEV control unit, for closing and blocking the natural ventilation under bad weather conditions.</td>
</tr>
</tbody>
</table>

**SHEV – Compact Control Units**

<table>
<thead>
<tr>
<th>TECHNICAL DATA (Rated values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage: 24 V DC (+/- 20%)</td>
</tr>
<tr>
<td>Rain sensor Type III – heated sensor surface, switch-off delay approx. 5 min.</td>
</tr>
<tr>
<td>Contact: 1 Change-over switch, max. 48 V / 5A</td>
</tr>
<tr>
<td>Current consumption: &lt;150 mA</td>
</tr>
<tr>
<td>Housing: Surface mounting, ABS black with stainless steel bracket</td>
</tr>
<tr>
<td>Dimensions (WxHxD): 100 x 85 x 172 mm</td>
</tr>
<tr>
<td>Connection cable: Non-halogen cable, approx. 4 m</td>
</tr>
<tr>
<td>Volt free contact: 1 Change-over switch, max. 48 V / 1A</td>
</tr>
</tbody>
</table>

**Option**: Wind sensor Type II

<table>
<thead>
<tr>
<th>Measuring principle: Pulse generator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions: 250 x 250 x 80 mm</td>
</tr>
<tr>
<td>Connection cable: Non-halogen cable, approx. 4 m</td>
</tr>
</tbody>
</table>

**Order Data**

<table>
<thead>
<tr>
<th>Application:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensors for wind and rain to work with an evaluation unit WRAG2 or Typ IV, a WM Weather-Module or directly with a SHEV control unit, for closing and blocking the natural ventilation under bad weather conditions.</td>
</tr>
</tbody>
</table>

**OPTION**

<table>
<thead>
<tr>
<th>Programming the LON73 - 2x EMB7300 master / slave</th>
<th>683270</th>
</tr>
</thead>
</table>

**APPLICATION**

**BI-K - KNX Interface LZ1 / LZ6 / EMB 7300**

<table>
<thead>
<tr>
<th>683999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application: Plug-in card for communication between the controllers AUMÜLLER LZ1, LZ6 and EMB 7300 to the KNX BUS system.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Rated voltage: 24 V DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient temperature range: -5°C ... + 40°C</td>
</tr>
<tr>
<td>Relative humidity: (no condensate) 5% ... 90%</td>
</tr>
<tr>
<td>Data points: up to 16 pieces per drive line</td>
</tr>
<tr>
<td>BUS current: 9mA</td>
</tr>
<tr>
<td>Housing: without (assembled PCB)</td>
</tr>
<tr>
<td>Dimensions (WxHxD): 51 x 42 mm</td>
</tr>
<tr>
<td>Connection terminals: 2 x 2 x 0,8 mm (KNX-BUS-Terminal)</td>
</tr>
</tbody>
</table>

**Feature / Equipment**

- Data of the control (e.g. drive position) are sent on the KNX-BUS.
- The controls received direct orders from the KNX-BUS (e.g. position information, weather data).
- The licensed version of the „EMB compact configurator“ required - for commissioning.

**LON73**

<table>
<thead>
<tr>
<th>683243</th>
</tr>
</thead>
</table>

**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Rated voltage: 24 V DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambient temperature range: -5°C ... + 40°C</td>
</tr>
<tr>
<td>Relative humidity: (no condensate) 5% ... 90%</td>
</tr>
<tr>
<td>Housing: w/o (assembled PCB)</td>
</tr>
<tr>
<td>Dimensions (WxHxD): 40 x 50 x 13 mm</td>
</tr>
<tr>
<td>LON-Transceiver: LPT10</td>
</tr>
<tr>
<td>Connection terminals: Clamping range 0,6 – 0,8 mm (rigid wire) (included in delivery)</td>
</tr>
</tbody>
</table>

**Feature / Equipment**

- Connector for plugging the network card to the motherboard.
- Plastic holder for fixing the plug-in card on the motherboard.
- Configuration of the functional performances of connected control units via LON-Maker or compatible software.
- The licensed version of the „EMB compact configurator“ required - for commissioning.

**OPTIONS**

<table>
<thead>
<tr>
<th>LON programming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming the LON73 - 2x EMB7300 master / slave</td>
</tr>
</tbody>
</table>
ORDER DATA

**Application:** Plug-in card for EMB7300 with relay for forwarding the alarm or fault signal to external devices.

**TECHNICAL DATA**
- **Rated voltage:** 24 V DC
- **Ambient temperature range:** -5°C … + 40°C
- **Housing:** w/o (assembled PCB)
- **Dimensions (WxHxD):** 20 x 40 x 13 mm
- **Volt free contact:** 1 Change-over switch, max. 48 V / 1A
- **Connection terminals:** 3x 1,5 mm² (rigid wire)

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL65</td>
<td>Plug-in card w/ relay for forwarding alarm or fault signal to external devices.</td>
<td>REL65</td>
</tr>
</tbody>
</table>

**7xPSB**

**Application:** Plug-in card for EMB7300 for connection and powering of external consumers with 24 V DC voltage.

**TECHNICAL DATA**
- **Rated voltage:** 24 V DC
- **Ambient temperature range:** -5°C … + 40°C
- **Output current:** 0,5 A
- **Housing:** w/o (assembled PCB)
- **Dimensions (WxHxD):** 20 x 32 x 13 mm
- **Connection terminals:** Screw terminals 1,5 mm² (rigid wire)
- **Voltage tap:** 2 terminals 24 V DC mains voltage supplied

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>683256</td>
<td>Plug-in card w/ relay for forwarding alarm or fault signal to external devices.</td>
<td>683256</td>
</tr>
<tr>
<td>683256-9</td>
<td>Module factory fitted for connection and powering of external consumers with 24 V DC voltage.</td>
<td>683256-9</td>
</tr>
</tbody>
</table>
### ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>683253</td>
<td>USB-Cable</td>
<td>USB-Cable for connecting a PC with EMB7300 to configure basic and special functions.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**
- USB-Standard: USB2
- Cable length: 3 m

**Feature/Equipment**
- Software „EMB-Compact“ required!

### ACCUMULATORS

<table>
<thead>
<tr>
<th>Application</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance of standby operation of SHEV control units over a period of 72 hours of main power supply loss.</td>
<td></td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**
- Type: Lead storage battery
- Output voltage: 12 V DC
- Capacity: see order data
- Lifetime: 4 years (normal conditions)
- Connections: 1.2 – 12 Ah: blade terminals 4.8 mm
- 17 – 38 Ah: screw terminals M5
- Housing: plastic, impact- and break-resistant

**Feature/Equipment**
- Maintenance free operation, long lasting durability, high charging performance and long-cycle stability
- Disposal due to local, national or international rules (WEEE)

**NOTE:** Always 2 batteries are required per control unit!

### OPTIONS

**for control units with backup power supply**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2/2,3 Ah, 12 V</td>
<td>1 Pcs.</td>
<td>541000</td>
<td></td>
</tr>
<tr>
<td>7 Ah, 12 V</td>
<td>1 Pcs.</td>
<td>542000</td>
<td></td>
</tr>
</tbody>
</table>

### SOFTWARE / LICENSE / PROGRAMMING EMB7300

**Configuration software for extended scope of functions**
- System Requirements: Microsoft® Windows 7 / Microsoft® Windows 10 64 Bit
- Part.-No.: 683260
- First software license (3 years)
- Follow-up software license (3 years)
- Configuration of customized functions at the factory for one Control Unit
## ACCESSORIES EMB7300

### ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>528738</td>
<td>Receiver plug-in card radio SHEV</td>
<td>Plug-in card for radio communication between the <strong>Aumüller</strong> SHEV Control Unit EMB 7300 and up to 10 Radio-HSE</td>
</tr>
</tbody>
</table>

### TECHNICAL DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
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<tbody>
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<td>Plug-in card for radio communication between the <strong>Aumüller</strong> SHEV Control Unit EMB 7300 and up to 10 Radio-HSE</td>
</tr>
</tbody>
</table>

### TECHNICAL DATA (Rated values)

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>528738</td>
<td>Receiver plug-in card radio SHEV</td>
<td>Plug-in card for radio communication between the <strong>Aumüller</strong> SHEV Control Unit EMB 7300 and up to 10 Radio-HSE</td>
</tr>
</tbody>
</table>

### Feature / Equipment

- Lockable, glazed door (including key)
- Radio button
- 3,6 V Lithium battery
- The licensed version of the „EMB compact configurator“ required - for commissioning.

### VERSIONS

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>528731</td>
<td>Radio-HSE plastic red (similar to RAL 3000)</td>
<td></td>
</tr>
<tr>
<td>528732</td>
<td>Radio-HSE plastic yellow (similar to RAL 1018)</td>
<td></td>
</tr>
<tr>
<td>528733</td>
<td>Radio-HSE plastic grey (similar to RAL 7035)</td>
<td></td>
</tr>
<tr>
<td>528734</td>
<td>Radio-HSE plastic blue (similar to RAL 5015)</td>
<td></td>
</tr>
<tr>
<td>528735</td>
<td>Radio-HSE plastic orange (similar to RAL 2011)</td>
<td></td>
</tr>
</tbody>
</table>

### OPTIONS

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>545050</td>
<td>Spare battery 3,6 V Lithium</td>
<td></td>
</tr>
</tbody>
</table>

---

01/2022
ORDER DATA

Radio Ventilation Control FLS 24 V

Part.-No. 623000

Application: Room automation control unit for one drive 24 V DC or one SHEV Control Unit, including a weather station with rain, temperature, sun and wind sensor and a radio control with indoor temperature sensor.

TECHNICAL DATA

Radio control frequency: 868.2 MHz

Control Panel

Housing: plastic material
Total weight: approx. 170 gr. (including batteries)
Colour: matt white (similar to RAL 9016)
Mounting: surface mounted (aP)
Dimensions (W × H × D): approx. 103 × 98 × 28
Ambient temperature range: operation 0...+50°C, storage -10...+50°C
Ambient air humidity: max. 80% rF, avoid bedewing
Operating voltage: 2 x 1,5V (2 batteries, AA / mignon / LR6) or 2 x 1,2V (2 rechargeable batteries, AA / mignon / LR6)

Weather Station

Housing: plastic material
Total weight: approx. 200 gr.
Colour: white / translucent
Mounting: surface mounted (aP)
Protection rating: IP 44
Dimensions (W × H × D): approx. 96 × 77 × 118
Ambient temperature range: operation -30...+60°C, storage -30...+70°C
Operating voltage: 12 - 40 V DC
Power consumption: approx. 2.2 W (at 24 V), standby approx. 2 W (at 24 V)
Switching capacity relay: (OPEN / CLOSE / COM) volt free contacts
Rain sensor heating: approx. 1.2 W
Temperature measurement range: -40...+80°C
Wind measurement range: 0...35 m / sec
Brightness measurement range: 0...150 kLux

Feature / Equipment

- Radio connection between weather station and control panel.
- Control panel for basic setting, setting of the automatic function and for manual operation.
- Opening position adjustable for automatic mode (e.g. open only halfway).
ACCESSORIES EMB7300

ORDER DATA

**Replacement board EMB7300 2,5A 1LG**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>683029</th>
</tr>
</thead>
</table>

**Application:** Replacement board, for Control Units **EMB7300-2,5A-0101** with one motor line.

**TECHNICAL DATA**

- Operating voltage: 230 V AC (195 - 253 V AC, 50/60 Hz)
- Output voltage: 24 V DC (2 Vpp)
- Output current: **2,5 A**
- Vent groupe: 1

**Feature/Equipment**

- Board assembled and checked

---

**Replacement board EMB7300 5A / 10A 1LG**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>683059</th>
</tr>
</thead>
</table>

**Application:** Replacement board, for Control Units **EMB7300-5A-0101** and **EMB7300-10A-0101** with one motor line.

**TECHNICAL DATA**

- Operating voltage: 230 V AC (195 - 253 V AC, 50/60 Hz)
- Output voltage: 24 V DC (2 Vpp)
- Output current: **5 / 10 A**
- Vent groupe: 1

**Feature/Equipment**

- Board assembled and checked

---

**Replacement board EMB7300 5A / 10A / 20A 2LG**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>683229</th>
</tr>
</thead>
</table>

**Application:** Replacement board, for Control Units **EMB7300-5A-0102**, **EMB7300-10A-0102** and **EMB7300-20A-0102** with two motor lines.

**TECHNICAL DATA**

- Operating voltage: 230 V AC (195 - 253 V AC, 50/60 Hz)
- Output voltage: 24 V DC (2 Vpp)
- Output current: **5 / 10 / 20 A**
- Vent groupes: 2

**Feature/Equipment**

- For Control Units 5A - 20A with two motor lines.
## SHEV – Compact Control Units

### ACCESSORIES EMB7300

#### ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Key 1D9</th>
</tr>
</thead>
<tbody>
<tr>
<td>260010</td>
<td></td>
</tr>
</tbody>
</table>

**Application:** Replacement key for the housing of a Control Unit.

#### TECHNICAL DATA

- **Size:** 1D9
- **Key:** 1 piece

#### Feature/Equipment

- For lock 1D9 straight bolt EMB7300

---

#### Lock 1D9, including two keys

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>260008</th>
</tr>
</thead>
</table>

**Application:** Lock - with security cylinder and straight bolt - for the housing of a Control Unit. Including two keys and a spring.

#### TECHNICAL DATA

- **Size:** 1D9
- **Security cylinder insert**
- **Keys:** 2 pieces

#### Feature/Equipment

- Lock 1D9 straight bolt EMB7300
RWA – Modular Control Units
PRODUCT FEATURES EMB 8000+

- Modular control panel with digital bus technology and power supply for 24 V DC drives for use in smoke and heat exhausting ventilation (SHEV) and in controlled natural ventilation systems
- Control panel compliant with prEN 12101-9 / ISO 21927-9
- Power supply compliant with EN 12101-10
- Low residual ripple output voltage (<2 Vpp) - compatible with all common drives
- Easy and space saving installation on 35-mm snap-on mounting rail with many combination options
- Easy configuration of SHEV and ventilation groups by selective lining up of the modules
- Control- and Sensor-Module with 3 monitored detector lines with different priorities for connecting with:
  - Manual break-glass unit (HSE)
  - Automatic smoke and heat detectors
  - Control signal from fire alarm system (FAS)
- Drive-Module with monitored line outputs for connection of drives up to 20 A
- Relay-Module for the evaluation and transmission of events (emergency open signal, fault signal, feedback signals)
- Weather-Module for connection with wind speed sensors, wind direction sensors and rain sensors
- Network-Modules for connection and integration with building management systems (CAN, KNX)
- All ventilation button inputs with OPEN-STOP-CLOSE function and adjustable priorities
- Clear operating and display elements
- Extensive settings of the basic functions via software offered by download free of charge
- Special functions programmable via extra costs software license as in the following:
  - Service and maintenance intervals
  - Changes of priorities, switching-thresholds and switch-off times
  - Deactivation of the detector lines or of their monitoring
  - Control of the alarm functions by a volt-free contact of the fire alarm system (FAS)
  - Network integration
- Steel sheet housing, protection class IP40 / IP54 alternatively available with wall fixing brackets, cable exit from above
- Prepared for connection of backup batteries (72 hours)
- VdS certification no.: G 512005
- In the state of delivery, the interconnection of SHEV and ventilation groups can be configured
  - by targeted lining up of the modules - without software.
- System components for individual assembly consisting of functional basic control units each with one SHEV and one ventilation group, as well as a variety of modules and components that can be ordered either as factory-installed or for customer-side yourself installation.
- Software licences for enabling and configuration of complex integrated special functions as well as for the interconnection of multiple control units to a network with higher-ranking functions for SHEV, ventilation and weather groups
- Fully assembled and configured - at the factory or by self-expansion.
- Fully assembled and configured from the factory or for self-removal
- Individual customization through extensive software options

For this product series, a Type III Environmental Product Declaration (EPD) was issued according to ISO 14025 and EN 15804.
The LCA results of the different product types are listed at the end of this product catalogue.
The EPD documents can be viewed or downloaded from our homepage www.aumueller-gmbh.de.
# SCOPE OF THE CONFIGURATION SOFTWARE EMB 8000+

<table>
<thead>
<tr>
<th>Functions</th>
<th>Standard</th>
<th>Lizenz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load configuration / Safe / Safe as</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>View, save and print system status</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Set thresholds and on-off delay of wind sensor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create PDF of the configuration</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>System configuration / Load settings / Save settings</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Read RealTime LOG-Data</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Set Password for control unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edit RealTime LOG-Data</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Firmware update</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Configure switching thresholds and on-off delay of the wind sensor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Configure switching thresholds of wind direction sensor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>System time synchronisation / updating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backup battery monitoring: Performance and fault indications (active, windows OPEN / CLOSE)</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Set backup battery type and charging characteristics (temperature dependent / constant)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply loss: Performance and fault indication (Energy saving mode, CLOSE, ventilation mode)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventilation push button in dead-man or jog-switch mode (OPEN or/and CLOSE direction)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ventilation push button as one rocker push-button (OPEN/STOP or CLOSE/STOP with one button)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set step-automatic in OPEN-direction (Automatic enabled / Time setting)</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Enable reset of smoke detector lines with emergency-CLOSE button</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enable control of smoke detector line by fire alarm system „FAS“</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Disable alarms caused by detector line monitoring failures (Automatic and manual detectors)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disable fault detection of detector lines (Automatic and manual detectors)</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Enable functionalities [PM, CM and SM relay contact]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set service and maintenance interval and system behaviour</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Set drive line mode for use with motors, magnets or gas pressure generators</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Disable retriggering of drive line in alarm mode</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Set switch-off time of drive lines</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Enable and set automatic time-controlled drive line closing mode for ventilation purpose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enable drive closing mode on primary power loss</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Set drive run time and opening stroke limit for ventilation purpose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set failures of drive line monitoring as alarm signal</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Set drive running direction in alarm mode from open to close</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Set signal input of DM drive line (feedback input / inhibiting input)</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Set wind direction dependent OPENING / CLOSING of drive lines</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Reset switch positions to the status before the weather control were activated</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Set emergency close button from jog-switch mode to dead-man mode</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Set functions of RM6 relays</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Set assignment of detector and drive lines to SHEV, ventilation and weather groups</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Interconnection of several control units to a network with higher-ranking functions</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Integration into digital networks (CAN, KNX) (requires additional modules)</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
**Capiton**

1. Drive line - 24 V DC for smoke + heat exhausting + natural ventilation
2. Input for ventilation line (max. 10 vent buttons)
3. Housing of Control Unit
4. Wind sensor and rain sensor - (disabled in case of alarm and power loss)
5. Smoke detector (max. 10 pieces) each SM
6. Trigger signal from external fire alarm system to smoke detector
7. Break-glass unit (HSE) (max. 10 pieces) je SM
8. Temperature controller
9. Output for signal transduction
10. Port for network integration (requires additional module)
11. BUS-HSE (Break-glass unit) (max. 30 participant)

**Note:**
Number depends on the configuration of the modules.

**Operating voltage, primary**
230 V AC / 400 V AC (50Hz)
Route via external fuse and switching component!
Formula to calculate the required wire cross-section of a infeed line

\[ A_{mm^2} = \frac{I \times L \times 2}{\Delta U \times V \times 56 \text{ m} / (\Omega \times \text{mm}^2)} \]

- \( A \) = cross-section of line in \( mm^2 \)
- \( L \) = line length in \( m \)
- \( I \) = current of connected drives in \( A \)
- \( \Delta U \) = line voltage drop = 2 V DC

max. 10 A

max. 20 A

max. 10 A

Aumüller S12

KNX

0 V - 10 V

configurable via software

6x volt-free signal contact configurable via software
**IMPORTANT NOTES**

The modular design of EMB 8000+ in combination which digital network technology make it possible for our customers to size, assemble and configures the control units by themselves. For this **Aumüller** is providing the required hardware and software.

The minimum equipment of a fully functional Control Unit:

- 1x Switch mode power supply PS 5 A up to 24 A – the installation up to 3 identical power supplies up to a maximum of 72 A is possible
- 2x Accumulators 12 V DC from 7 Ah to 38 Ah to ensure the emergency power supply for 72 hours
- 1x Power-Module PM for the charging control of accumulators – completed with up to 2 Power-Module-Extensions PME
- 1x Control-Module CM with 3 detector input lines for automatic and manual smoke detectors and 1 ventilation button input line
- 1x Drive-Module DM, IDM or DMX for connection of drives with a total current consumption of 10 A respectively 20 A and 1 ventilation button input line

The control units on the following pages are intended for individual configuration and are prepared for 1 SHEV group with 1 ventilation line (10 A or 20 A) and are pre-programmed for basic functions. **Aumüller** does not assume any liability for further changes and configurations of these control units.

**PLANNING NOTES**

The build-in modules of EMB 8000+ are connected to each other and communicate via the digital network bus. On delivery respectively as long as the delivered software configuration is not changed, the modules are self-learning. SHEV groups can be easily and flexibel configured by selective lining up of the modules. A new SHEV group is created by adding a Sensor-Module (SM) into the row. All following Drive-Modules (DM / DMX) belong to the new SHEV group.

In the Control Units with several switch mode power supplies in one housing (48 A and 72 A), the interconnection of Drive-Modules (DM / DMX) and their total current consumption has to be adapted to the current consumption of the individual switch mode power supply at which they are connected. This can be done by replugging the power supply of the modules. The SHEV group to which the DM / DMX belongs is irrelevant. To ensure the optimum of safety in case of a failure of a switch mode power supply, it is recommended to power the DM/DMX of one SHEV group from only one switch mode power supply. The maximum switching capacity of the DM-modules is to be noted.

Due to the compact design of the modules, the module connection terminals for peripheral devices are limited to 1 mm² and for drive lines to 2,5 mm² rigid wire conductors. The cross sections of the wires between control unit and drives depend on the cable length, the current consumption as well as the voltage drop on the line. A 35-mm snap-on mounting rail is provided inside the housing, for additional bigger connection terminals if the required cable cross section is larger than the module-own connection terminals. Suitable connection terminals will be found under „accessories“. The cross sections of the cables may be calculated with the formula indicated in chart 5.
EXPANSION LIMITATIONS / SYSTEM LIMITS

The following key data must be taken into account when dimensioning SHEV Control Units:

- Number of smoke detectors per CM / SM 10 piece
- Number of break-glass units per CM / SM 10 piece
- Number of digital trigger units per CM 30 piece
- Number of smoke detectors per control unit 60 piece
- Number of break-glass units per control unit 60 piece
- Own power consumption per Control Unit (see chart 3 at the following page)
- Accumulator capacity / max. power consumption per Control Unit (see chart 3 at the following page)
- Dimensions of housing
- Cable entries

All values in the tables refer to the maximum assignment of the module inputs / outputs. The current values are given for maintaining the emergency power supply over a period of 72 hours. Other calculation bases on request.

The sum of the self-consumption of all modules in a Control Unit must not exceed the maximum permissible current of the Control Unit. To calculate the total power consumption, the individual consumption of the installed modules must be added.

The details of the outer diameter of cables refer to the cable types common in Germany. The wire cross-sections are given in mm². To maintain the electrical protection class of the Control Unit housing, only one cable is permitted per cable entry.

For checking purposes, the total number of cables required must be determined in accordance with Table 1 and coordinated with the number of cable entries in the Control Units from Table 4.

Due to the hardware and software, the EMB8000+ is limited by the following points. Configuration using the software is guaranteed within these limits.

1. A maximum of 50 modules per Control Unit (including CM, excluding PM and PMEs).
   The following maximum number of modules of the same type are supported per control center (in the network).

<table>
<thead>
<tr>
<th>Module</th>
<th>Maximum per Control Unit</th>
<th>Maximum per network</th>
</tr>
</thead>
<tbody>
<tr>
<td>PME</td>
<td>2</td>
<td>60</td>
</tr>
<tr>
<td>PM</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>CM+</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>SM</td>
<td>20</td>
<td>570</td>
</tr>
<tr>
<td>DM</td>
<td>40</td>
<td>570</td>
</tr>
<tr>
<td>DMX</td>
<td>10</td>
<td>300</td>
</tr>
<tr>
<td>IDM</td>
<td>30</td>
<td>300</td>
</tr>
<tr>
<td>230 V DM Vent</td>
<td>20</td>
<td>570</td>
</tr>
<tr>
<td>RM6</td>
<td>20</td>
<td>570</td>
</tr>
<tr>
<td>WM</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>IMK</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

2. A maximum of 30 Control Unit in the network.

3. A maximum of 600 modules in the network (including CMs, excluding PMs and PMEs) e.g.: 30 Control Units with 20 modules or 12 Control Units with 50 modules.

4. 150 Can actuators (*) are supported without blocking the triggering CMs. Each additional Can actuator results in a recording delay of 9 ms.
   
   (*) Can actuator is an actuator in another Control Unit than the one in which the sensor is located.

CONFIGURATION AND PARAMETERIZATION

The basic configuration software for EMB 8000+ Control Units is available download on (free of charge for):

www.aumueller-intern.de/EMB 8000+/

For the configuration of special functions or integration of Control Units into networks, a software license (with extra costs) is required.
### CHART 1: PARAMETER OF MODULES EMB8000+

<table>
<thead>
<tr>
<th>Feature</th>
<th>Module width [mm]</th>
<th>Module units [ME]</th>
<th>Internal current consumption [mA]</th>
<th>Cable entries when using all inputs/outputs [pcs.]</th>
<th>Smoke detectors, FAS</th>
<th>Manual detectors</th>
<th>Break-glass units</th>
<th>Drive line</th>
<th>Ventilation button w/ display</th>
<th>Ventilation button w/o display, other inputs</th>
<th>Volt free contact, drive feedback signal</th>
<th>Wind/Rain/Wind direction</th>
<th>Power supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>46</td>
<td>2</td>
<td>16,0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PME</td>
<td>46</td>
<td>2</td>
<td>0,0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CM+</td>
<td>23</td>
<td>1</td>
<td>34,1</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SM</td>
<td>23</td>
<td>1</td>
<td>12,6</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DM</td>
<td>23</td>
<td>1</td>
<td>5,3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>230 V DM</td>
<td>23</td>
<td>1</td>
<td>7,0</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DMX</td>
<td>46</td>
<td>2</td>
<td>5,3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IDM</td>
<td>23</td>
<td>1</td>
<td>6,0</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RM6</td>
<td>23</td>
<td>1</td>
<td>5,3</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IM-K</td>
<td>23</td>
<td>1</td>
<td>6,0</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WM</td>
<td>23</td>
<td>1</td>
<td>13,0</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rec. Number of wires (w/o protective earth conductor)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CHART 2: INTERNAL CURRENT CONSUMPTION OF BACKUP BATTERY POWERED DETECTORS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Current [mA]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Break-glass main unit</td>
<td>1,2 mA</td>
</tr>
<tr>
<td>Break-glass secondary unit</td>
<td>0,0 mA</td>
</tr>
<tr>
<td>Smoke detector</td>
<td>0,1 mA</td>
</tr>
<tr>
<td>Wind direction sensor</td>
<td>7,1 mA</td>
</tr>
<tr>
<td>BUS Break-glass main unit</td>
<td>2,8 mA</td>
</tr>
<tr>
<td>BUS Smoke detector</td>
<td>1,0 mA</td>
</tr>
</tbody>
</table>

### CHART 3: MAXIMUM CURRENT CONSUMPTION PER CONTROL UNIT

<table>
<thead>
<tr>
<th>PS / Battery</th>
<th>7 Ah</th>
<th>12 Ah</th>
<th>17 Ah</th>
<th>24 Ah</th>
<th>38 Ah</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 A</td>
<td>42 mA</td>
<td>120 mA</td>
<td>140 mA</td>
<td>240 mA</td>
<td>350 mA</td>
</tr>
<tr>
<td>24 A</td>
<td></td>
<td>70 mA</td>
<td>120 mA</td>
<td>200 mA</td>
<td>300 mA</td>
</tr>
<tr>
<td>48 A</td>
<td></td>
<td></td>
<td>80 mA</td>
<td>170 mA</td>
<td>300 mA</td>
</tr>
<tr>
<td>72 A</td>
<td></td>
<td></td>
<td></td>
<td>100 mA</td>
<td>300 mA</td>
</tr>
</tbody>
</table>

### CHART 4: DIMENSIONS OF CONNECTION TERMINALS (pull spring feed through terminal blocks)

<table>
<thead>
<tr>
<th>Terminal size [mm²]</th>
<th>Cross section of wire [mm²]</th>
<th>External width (feed through terminal)</th>
<th>Width of set with 5 terminals + end bracket</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 mm²</td>
<td>0,13–6 mm²</td>
<td>6 mm</td>
<td>38 mm</td>
</tr>
<tr>
<td>10 mm²</td>
<td>2,5–10 mm²</td>
<td>10 mm</td>
<td>58 mm</td>
</tr>
<tr>
<td>16 mm²</td>
<td>4–16 mm²</td>
<td>12 mm</td>
<td></td>
</tr>
</tbody>
</table>

### CHART 5: CALCULATION OF DRIVE CABLES

\[
A = \frac{2 \times L \times I}{\left( 56 \times \Delta U \right)}
\]

- **A**: Cross section of wire [mm²]
- **L**: Length of the line [m]
- **I**: Current of the drives [A]
- **\Delta U**: Voltage drop on the line [V] = max. 2 V

**Example**

\[
A = \frac{2 \times 10 \times 42 \text{ mA}}{\left( 56 \times 2 \text{ V} \right)} = 0.7 \text{ mm}²
\]
1. **Calculation of the output current**

How big is the current consumption of all the drives within the system?

**Example:**
- There are 12 facade windows each with 2 drives * 1 A and 3 roof windows each with 1 drive * 2 A.
- Solution: Required current: \(12 \times 2 + 3 \times 2 = 30\) A
- Used Control Unit with 48 A

2. **Number of vent groups / current per group**

1. How many vent groups are required?
2. Which vent group need more than 10 A, which less than 10 A?

**Example:**
- The windows are partitioned in 3 groups:
  - 2 facade groups each with 6 windows * 2 A = 2 * 12 A
  - 1 roof group with 3 windows * 2 A = 1 * 6 A
- Solution: There are 2 DMX und 1 DM required.
  - When a basic control unit with 48 A and DMX should be used, in additional: 1 DMX and 1 DM

In each basic control unit 1 DM / IDM or 1 DMX is included!

3. **Number of SHEV groups**

**Example:**
- in case of fire all 3 window groups should open simultaneously within one SEV group.
- Solution: No additional SM is required.

In each basic control unit 1 CM is included for 1 SHEV group! Any further SHEV group (or fire sector) requires 1 SM.

4. **Wind / Rain detection**

1. Should the windows to be closed automatically in case of wind/rain?
2. In the case of a fire alarm should the windows be controlled wind direction dependent?

**Example:**
- All 3 window groups should be closed in case of wind/rain.
- No wind direction control is required.
- Solution: 1 WM is required.

For the configuration of the wind dependent control, a subject to charges licence for the configuration software EMB8000+ is required and a training by AUMÜLLER is strongly recommend!

5. **Transmission of status messages**

Are volt free contacts required for the transmission of status messages to external devices?

**Example:**
- A possible malfunction of the control unit should be transmitted to the building management system.
- Solution: 1 RM6 is required.

Every RM6 has 6 volt free change over contacts. For the configuration of RM6 a subject to charges licence for the configuration software EMB8000+ is required and a training by AUMÜLLER is strongly recommend!

6. **Calculation of the cable cross section**

Which cross section (A) will be needed for single wires due to the formula from chart 5?

**Example:**
- Cable length between control unit and junction box:
  - Window group 1 = 35 m (12 A)
  - Window group 2 = 45 m (12 A)
  - Window group 3 = 75 m (6 A)
- Solution: Window group 1: \(2 \times 35 \times 12 / (56 \times 2) = 7.5\) mm²
  - Window group 2: \(2 \times 45 \times 12 / (56 \times 2) = 9.7\) mm²
  - Window group 3: \(2 \times 75 \times 6 / (56 \times 2) = 8.0\) mm²
- For all the drive cables terminals 10 mm² are required.

The wire cross sections depends on the drive current, the cable length and the voltage drop (max. 2 V allowed).
- The cables to the drives of SHEV systems must be fire resistant.
- It is not allowed to use the green and yellow protective conductor for other purposes!
- The next larger cross section is always to be chosen!
- If the cross section of the cables are too large, the drives must be partitioned onto additional DM(X) modules.

7. **Mounting of additional clamps**

Are the terminal clamps of the modules big enough to connect the required cable cross sections or are additional clamps required?

**Example:**
- All 3 DM(X) modules should be equipped with 10 mm² terminals.
  - The feedback contact of the WM module and all 6 RM6 outputs should be wired on 6 mm² terminals.
  - Solution: In total are required: 3 DM(X) * 5 = 15 terminals for the drive lines and \((1 + 6 \text{ contacts}) \times 3 = 21\) terminals for the sensor lines.

When mounting a DMX, output terminals for the drive lines are absolutely necessary!
- The terminals are available for 6/10/16 mm². For each drive line the use of 5 terminals is recommended, to connect all the cable cores.
- Clamps up to 6 mm² are needed for the detection lines and for the feedback contacts.
- The number of the clamps is to be determined due to the EMB8000+ description or due to the installed cables.
EMB 8000+ BASIC VERSIONS (EXPANDABLE)

Example: The configured system with 48 A power supply contains:
1 PM, 1 PME, 1 CM, 2 DMX, 1 DM, 1 WM and 1 RM6 Components as in the following are connected in additional:
10 breck-glass units (HSE) and 20 smoke detectors

Solution:
1 PM = 1 * 16,1 mA = 16,1 mA
1 CM+ = 1 * 34,1 mA = 34,1 mA
2 DMX = 2 * 5,3 mA = 10,6 mA
1 DM = 1 * 5,3 mA = 5,3 mA
1 WM = 1 * 13,0 mA = 13,0 mA
1 RM6 = 1 * 5,3 mA = 5,3 mA
TOTAL: = 70,9 mA internal consumption for modules
10 HSE = 10 * 1,2 mA = 12,0 mA
20 Rauchmelder = 20 * 0,1 mA = 2,0 mA
TOTAL: = 14 mA internal consumption for add. components
TOTAL SUM: = 84,9 mA current consumption.

Example:
Which battery capacity is needed to cover the current consumption of the used components (modules, sensors, etc.) according to chart 1?
In every standard or basic control unit 1 PM (PME) and 1 CM are included. Their power consumption is to be considered! The power consumption of additional built-in devices, which are fed with backup power from the control unit, has to be considered into the calculation as well!

Example:
Additional components needed for the basic control unit:
1x DMX, 1x DM, 1x WM and 1x RM6 as well as 15 terminals for drive lines and 21 terminals for sensor lines.
Solution:
1 DMX = 2 ME
1 DM = 1 ME
1 WM = 1 ME
1 RM6 = 1 ME
TOTAL: = 5 free ME for modules
15 terminals 10 mm² * 10 mm = 150 mm + end bracket 8 mm = 158 mm
21 terminals 6 mm² * 6 mm = 126 mm + end bracket 8 mm = 134 mm
TOTAL: = 292 mm free snap-on mounting rail for terminals

Example:
Output current: 48 A
Type of DM: DMX
Housing for: 5 free ME
292 mm free mounting rail
Solution:
The basic control unit 48 A with DMX and standard housing offers space for 5 ME and contains 500 mm snap-on mounting rail.

Example:
The basic control units differ to the current consumption, the size of housing and the type of used DM (DM for 10 A or DMX for 20 A). The size of housing must be equal or less to the values stated in the price list articles!

Purchase order of a factory fitted customized control unit (at Aumüller)
Factory fitted or self installation
Purchase order of single components for the customer-side self installation

Place an order for an expandable basic version control unit + factory fitted modules

Place an order for an expandable basic version control unit + modules for self installation

1 Basic Control Unit 48 A, DMX, standard housing 688348-9502
1 DMX 688255
1 DM 688250-9
1 WM 688180-9
1 RM6 688200-9
15 Terminals for drive line (10 mm²) 659903
21 Terminals for sensor line (6 mm²) 659902
2 Batteries 24 Ah 544000
Factory fitted configuration 688930

1 Basic Control Unit 48 A, DMX, standard housing 688348-9502
1 DMX 688255
1 DM 688250
1 WM 688180
1 RM6 688200
3 Terminal sets 5 x 10 mm² for drive line 659908
5 Terminal sets 5 x 6 mm² for sensor line 659906
2 Batteries 24 Ah 544000
Configuration software is required to configure RM6!
**ORDER DATA**

**EMB 8000+ 5 A (400 x 500 x 200 mm)**

**Application:** Expandable basic version of modular control unit EMB 8000+, factory fitted and fully wired for customer-side self-configuration.

<table>
<thead>
<tr>
<th>TECHNICAL DATA (Rated values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)</td>
</tr>
<tr>
<td>Max. power consumption: 322 W</td>
</tr>
<tr>
<td>Output voltage: 24 V DC (20 – 28 V DC / 0,5 Vpp)</td>
</tr>
<tr>
<td>Output current: 5 A</td>
</tr>
<tr>
<td>Housing: surface mounting, steel sheet, RAL 7035 (light grey)</td>
</tr>
<tr>
<td>Dimensions (WxHxD): 400 x 500 x 200 mm</td>
</tr>
<tr>
<td>Delivery state: SHEV groups: 1</td>
</tr>
<tr>
<td>Vent groups: 1</td>
</tr>
<tr>
<td>Module equipment: PM, CM, DM</td>
</tr>
<tr>
<td>Prepared for batteries: max. 2 x 12 V / 12 Ah (Capacity acc. to equipment)</td>
</tr>
</tbody>
</table>

**Features:** The installer of the control unit has to examine and to respect on its sole responsibility that the total current consumption of the internal and external devices, the number of the used modules and cable entries match with the battery capacity and the system limitations.

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>equip module</th>
<th>free module units</th>
<th>free space</th>
</tr>
</thead>
<tbody>
<tr>
<td>688305-9501</td>
<td>PM, CM, DM</td>
<td>ME 8</td>
<td>HS 300 mm</td>
</tr>
<tr>
<td>688305-9503</td>
<td>PM, CM, IDM</td>
<td>ME 8</td>
<td>HS 300 mm</td>
</tr>
</tbody>
</table>

---

**EMB 8000+ 5 A (600 x 600 x 250 mm)**

**Application:** Expandable basic version of modular control unit EMB 8000+, factory fitted and fully wired for customer-side self-configuration.

<table>
<thead>
<tr>
<th>TECHNICAL DATA (Rated values)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)</td>
</tr>
<tr>
<td>Max. power consumption: 322 W</td>
</tr>
<tr>
<td>Output voltage: 24 V DC (20 – 28 V DC / 0,5 Vpp)</td>
</tr>
<tr>
<td>Output current: 5 A</td>
</tr>
<tr>
<td>Connections and functions: depends on extension</td>
</tr>
<tr>
<td>Housing: surface mounting, steel sheet, RAL 7035 (light grey)</td>
</tr>
<tr>
<td>Dimensions (WxHxD): 600 x 600 x 250 mm</td>
</tr>
<tr>
<td>Delivery state: SHEV groups: 1</td>
</tr>
<tr>
<td>Vent groups: 1</td>
</tr>
<tr>
<td>Prepared for batteries: max. 2x 12 V / 12 Ah (Capacity acc. to equipment)</td>
</tr>
</tbody>
</table>

**Features:** The installer of the control unit has to examine and to respect on its sole responsibility that the total current consumption of the internal and external devices, the number of the used modules and cable entries match with the battery capacity and the system limitations.

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>equip module</th>
<th>free module units</th>
<th>free space</th>
</tr>
</thead>
<tbody>
<tr>
<td>688305-9601</td>
<td>PM, CM, DM</td>
<td>ME 19</td>
<td>HS 500 mm</td>
</tr>
<tr>
<td>688305-9603</td>
<td>PM, CM, IDM</td>
<td>ME 19</td>
<td>HS 500 mm</td>
</tr>
</tbody>
</table>
ORDER DATA

EMB 8000+ 10 A (400 x 500 x 200 mm)

Application: Expandable basic version of modular control unit EMB 8000+, factory fitted and fully wired for customer-side self-configuration.

TECHNICAL DATA (Rated values)

- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Max. power consumption: 506 W
- Output voltage: 24 V DC (20 – 28 V DC / 0.5 Vpp)
- Output current: 10 A
- Connections and functions: depends on extension
- Housing: surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 400 x 500 x 200 mm

Delivery state:
- SHEV groups: 1
- Vent groups: 1
- Prepared for batteries: max. 2x 12 V / 12 Ah (Capacity acc. to equipment)

Features: The installer of the control unit has to examine and to respect on its sole responsibility that the total current consumption of the internal and external devices, the number of the used modules and cable entries match with the battery capacity and the system limitations.

VERSIONS

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>equip module</th>
<th>free module units</th>
<th>free space</th>
</tr>
</thead>
<tbody>
<tr>
<td>688310-9501</td>
<td>PM, CM, DM</td>
<td>ME 7</td>
<td>HS 300 mm</td>
</tr>
<tr>
<td>688310-9503</td>
<td>PM, CM, IDM</td>
<td>ME 7</td>
<td>HS 300 mm</td>
</tr>
</tbody>
</table>

EMB 8000+ 10 A (600 x 600 x 250 mm)

Application: Expandable basic version of modular control unit EMB 8000+, factory fitted and fully wired for customer-side self-configuration.

TECHNICAL DATA (Rated values)

- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Max. power consumption: 506 W
- Output voltage: 24 V DC (20 – 28 V DC / 0.5 Vpp)
- Output current: 10 A
- Connections and functions: depends on extension
- Housing: surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 600 x 600 x 250 mm

Delivery state:
- SHEV groups: 1
- Vent groups: 1
- Prepared for batteries: max. 2x 12 V / 38 Ah (Capacity acc. to equipment)

Features: The installer of the control unit has to examine and to respect on its sole responsibility that the total current consumption of the internal and external devices, the number of the used modules and cable entries match with the battery capacity and the system limitations.

VERSIONS

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>equip module</th>
<th>free module units</th>
<th>free space</th>
</tr>
</thead>
<tbody>
<tr>
<td>688310-9601</td>
<td>PM, CM, DM</td>
<td>ME 19</td>
<td>HS 500 mm</td>
</tr>
<tr>
<td>688310-9603</td>
<td>PM, CM, IDM</td>
<td>ME 19</td>
<td>HS 500 mm</td>
</tr>
</tbody>
</table>
EMB 8000+ BASIC VERSIONS (EXPANDABLE)

ORDER DATA

EMB 8000+ 24 A (600 x 600 x 250 mm)

Application: Expandable basic version of modular control unit EMB 8000+, factory fitted and fully wired for customer-side self-configuration.

TECHNICAL DATA (Rated values)
- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Max. power consumption: 805 W
- Output voltage: 24 V DC (20 – 28 V DC / 0,5 Vpp)
- Output current: 24 A
- Connections and functions: depends on extension
- Housing: surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 600 x 600 x 250 mm

Delivery state:
- SHEV groups: 1
- Vent groups: 1
- Prepared for batteries: max. 2x 12 V / 38 Ah (Capacity acc. to equipment)

Features: The installer of the control unit has to examine and to respect on its sole responsibility that the total current consumption of the internal and external devices, the number of the used modules and cable entries match with the battery capacity and the system limitations.

VERSIONS

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>equip module</th>
<th>free module units</th>
<th>free space</th>
</tr>
</thead>
<tbody>
<tr>
<td>688324-9501</td>
<td>PM, CM, DM</td>
<td>ME 19</td>
<td>HS 500 mm</td>
</tr>
<tr>
<td>688324-9502</td>
<td>PM, CM, DMS</td>
<td>ME 18</td>
<td>HS 500 mm</td>
</tr>
<tr>
<td>688324-9503</td>
<td>PM, CM, IDM</td>
<td>ME 19</td>
<td>HS 500 mm</td>
</tr>
</tbody>
</table>

EMB 8000+ 24 A (600 x 800 x 250 mm)

Application: Expandable basic version of modular control unit EMB 8000+, factory fitted and fully wired for customer-side self-configuration.

TECHNICAL DATA (Rated values)
- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Max. power consumption: 805 W
- Output voltage: 24 V DC (20 – 28 V DC / 0,5 Vpp)
- Output current: 24 A
- Connections and functions: depends on extension
- Housing: surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 600 x 800 x 250 mm

Delivery state:
- SHEV groups: 1
- Vent groups: 1
- Prepared for batteries: max. 2x 12 V / 38 Ah (Capacity acc. to equipment)

Features: The installer of the control unit has to examine and to respect on its sole responsibility that the total current consumption of the internal and external devices, the number of the used modules and cable entries match with the battery capacity and the system limitations.

VERSIONS

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>equip module</th>
<th>free module units</th>
<th>free space</th>
</tr>
</thead>
<tbody>
<tr>
<td>688324-9601</td>
<td>PM, CM, DM</td>
<td>ME 26</td>
<td>HS 500 mm</td>
</tr>
<tr>
<td>688324-9602</td>
<td>PM, CM, DMS</td>
<td>ME 25</td>
<td>HS 500 mm</td>
</tr>
<tr>
<td>688324-9603</td>
<td>PM, CM, IDM</td>
<td>ME 26</td>
<td>HS 500 mm</td>
</tr>
</tbody>
</table>
EMB 8000+ BASIC VERSIONS (EXPANDABLE)

ORDER DATA

EMB 8000+ 48 A (600 x 600 x 250 mm)

Application: Expandable basic version of modular control unit EMB 8000+, factory fitted and fully wired for customer-side self-configuration.

TECHNICAL DATA (Rated values)

Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
Max. power consumption: 1610 W
Output voltage: 24 V DC (20 – 28 V DC / 0,5 Vpp)
Output current: 48 A
Connections and functions: depends on extension
Housing: surface mounting, steel sheet, RAL 7035 (light grey)
Dimensions (WxHxD): 600 x 600 x 250 mm

Delivery state:
SHEV groups: 1
Vent groups: 1
Prepared for batteries: max. 2x 12 V / 38 Ah (Capacity acc. to equipment)

Features: The installer of the control unit has to examine and to respect on its sole responsibility that the total current consumption of the internal and external devices, the number of the used modules and cable entries match with the battery capacity and the system limitations.

VERSIONS

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>equip module</th>
<th>free module units</th>
<th>free space</th>
</tr>
</thead>
<tbody>
<tr>
<td>688348-9501</td>
<td>PM, PME, CM, DM</td>
<td>ME 9</td>
<td>HS 500 mm</td>
</tr>
<tr>
<td>688348-9502</td>
<td>PM, PME, CM, DMX</td>
<td>ME 8</td>
<td>HS 500 mm</td>
</tr>
<tr>
<td>688348-9503</td>
<td>PM, PME, CM, IDM</td>
<td>ME 9</td>
<td>HS 500 mm</td>
</tr>
</tbody>
</table>

EMB 8000+ 48 A (600 x 800 x 250 mm)

Application: Expandable basic version of modular control unit EMB 8000+, factory fitted and fully wired for customer-side self-configuration.

TECHNICAL DATA (Rated values)

Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
Max. power consumption: 1610 W
Output voltage: 24 V DC (20 – 28 V DC / 0,5 Vpp)
Output current: 48 A
Connections and functions: depends on extension
Housing: surface mounting, steel sheet, RAL 7035 (light grey)
Dimensions (WxHxD): 600 x 800 x 250 mm

Delivery state:
SHEV groups: 1
Vent groups: 1
Prepared for batteries: max. 2x 12 V / 38 Ah (Capacity acc. to equipment)

Features: The installer of the control unit has to examine and to respect on its sole responsibility that the total current consumption of the internal and external devices, the number of the used modules and cable entries match with the battery capacity and the system limitations.

VERSIONS

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>equip module</th>
<th>free module units</th>
<th>free space</th>
</tr>
</thead>
<tbody>
<tr>
<td>688348-9601</td>
<td>PM, PME, CM, DM</td>
<td>ME 17</td>
<td>HS 500 mm</td>
</tr>
<tr>
<td>688348-9602</td>
<td>PM, PME, CM, DMX</td>
<td>ME 16</td>
<td>HS 500 mm</td>
</tr>
<tr>
<td>688348-9603</td>
<td>PM, PME, CM, IDM</td>
<td>ME 17</td>
<td>HS 500 mm</td>
</tr>
</tbody>
</table>
EMB 8000+ Basic Versions (Expandable)

**Application:** Expandable basic version of modular control unit EMB 8000+, factory fitted and fully wired for customer-side self-configuration.

**Technical Data (Rated values):**
- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Max. power consumption: 2415 W
- Output voltage: 24 V DC (20 – 28 V DC / 0,5 Vpp) [72 A]
- Output current: 72 A
- Connections and functions: depends on extension
- Housing: surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 600 x 800 x 250 mm
- Delivery state:
  - SHEV groups: 1
  - Vent groups: 1
  - Prepared for batteries: max. 2x 12 V / 38 Ah (Capacity acc. to equipment)

**Features:** The installer of the control unit has to examine and to respect on its sole responsibility that the total current consumption of the internal and external devices, the number of the used modules and cable entries match with the battery capacity and the system limitations.

### Versions

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>equip module</th>
<th>free module units</th>
<th>free space</th>
</tr>
</thead>
<tbody>
<tr>
<td>688372-9501</td>
<td>PM, 2x PME, CM, DM</td>
<td>ME 15</td>
<td>HS 500 mm</td>
</tr>
<tr>
<td>688372-9502</td>
<td>PM, 2x PME, CM, DMX</td>
<td>ME 14</td>
<td>HS 500 mm</td>
</tr>
<tr>
<td>688372-9503</td>
<td>PM, 2x PME, CM, IDM</td>
<td>ME 15</td>
<td>HS 500 mm</td>
</tr>
</tbody>
</table>

EMB 8000+ 72 A (800 x 800 x 250 mm)

**Application:** Expandable basic version of modular control unit EMB 8000+, factory fitted and fully wired for customer-side self-configuration.

**Technical Data (Rated values):**
- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Max. power consumption: 2415 W
- Output voltage: 24 V DC (20 – 28 V DC / 0,5 Vpp) [72 A]
- Output current: 72 A
- Connections and functions: depends on extension
- Housing: surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 800 x 800 x 250 mm
- Delivery state:
  - SHEV groups: 1
  - Vent groups: 1
  - Prepared for batteries: max. 2x 12 V / 38 Ah (Capacity acc. to equipment)

**Features:** The installer of the control unit has to examine and to respect on its sole responsibility that the total current consumption of the internal and external devices, the number of the used modules and cable entries match with the battery capacity and the system limitations.

### Version

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>equip module</th>
<th>free module units</th>
<th>free space</th>
</tr>
</thead>
<tbody>
<tr>
<td>688372-9601</td>
<td>PM, 2x PME, CM, DM</td>
<td>ME 24</td>
<td>HS 700 mm</td>
</tr>
<tr>
<td>688372-9602</td>
<td>PM, 2x PME, CM, DMX</td>
<td>ME 23</td>
<td>HS 700 mm</td>
</tr>
<tr>
<td>688372-9603</td>
<td>PM, 2x PME, CM, IDM</td>
<td>ME 24</td>
<td>HS 700 mm</td>
</tr>
</tbody>
</table>
ORDER DATA

EMB 8000+ 96 A (800 x 800 x 250 mm)

Application: Expandable basic version of modular control unit EMB 8000+, factory fitted and fully wired for customer-side self-configuration.

**TECHNICAL DATA (Rated values)**

- Operating voltage: 400 V AC (50 / 60 Hz)
- Max. power consumption: 3220 W
- Output voltage: 24 V DC (20 – 28 V DC / 0.5 Vpp)
- Output current: 96 A
- Connections and functions: depends on extension
- Housing: surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 800 x 800 x 250 mm

**Delivery state:**
- SHEV groups: 2
- Vent groups: 12
- Prepared for batteries: max. 4x 12 V / 38 Ah (Capacity acc. to equipment)

**Features:** The installer of the control unit has to examine and to respect on its sole responsibility that the total current consumption of the internal and external devices, the number of the used modules and cable entries match with the battery capacity and the system limitations.

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>equip module</th>
<th>free module units</th>
<th>free space</th>
</tr>
</thead>
<tbody>
<tr>
<td>688396-9501</td>
<td>2x PM, 2x PME, 2x CM, 2x DM</td>
<td>ME 10</td>
<td>HS 700 mm</td>
</tr>
<tr>
<td>688396-9502</td>
<td>2x PM, 2x PME, 2x CM, 2x DMX</td>
<td>ME 9</td>
<td>HS 700 mm</td>
</tr>
<tr>
<td>688396-9503</td>
<td>2x PM, 2x PME, 2x CM, 2x IDM</td>
<td>ME 10</td>
<td>HS 700 mm</td>
</tr>
</tbody>
</table>

EMB 8000+ 96 A (800 x 1000 x 250 mm)

Application: Expandable basic version of modular control unit EMB 8000+, factory fitted and fully wired for customer-side self-configuration.

**TECHNICAL DATA (Rated values)**

- Operating voltage: 400 V AC (50 / 60 Hz)
- Max. power consumption: 3220 W
- Output voltage: 24 V DC (20 – 28 V DC / 0.5 Vpp)
- Output current: 96 A
- Connections and functions: depends on extension
- Housing: surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 800 x 1000 x 250 mm

**Delivery state:**
- SHEV groups: 2
- Vent groups: 2
- Prepared for batteries: max. 4x 12 V / 38 Ah (Capacity acc. to equipment)

**Features:** The installer of the control unit has to examine and to respect on its sole responsibility that the total current consumption of the internal and external devices, the number of the used modules and cable entries match with the battery capacity and the system limitations.

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>equip module</th>
<th>free module units</th>
<th>free space</th>
</tr>
</thead>
<tbody>
<tr>
<td>688396-9601</td>
<td>2x PM, 2x PME, 2x CM, 2x DM</td>
<td>ME 17</td>
<td>HS 1000 mm</td>
</tr>
<tr>
<td>688396-9602</td>
<td>2x PM, 2x PME, 2x CM, 2x DMX</td>
<td>ME 16</td>
<td>HS 1000 mm</td>
</tr>
<tr>
<td>688396-9603</td>
<td>2x PM, 2x PME, 2x CM, 2x IDM</td>
<td>ME 17</td>
<td>HS 1000 mm</td>
</tr>
</tbody>
</table>
**ORDER DATA**

**DM – Drive-Module**

<table>
<thead>
<tr>
<th>Application</th>
<th>For the controlling of drives, gas-pressure generators and magnetic locks.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TECHNICAL DATA (Rated values)</strong></td>
<td></td>
</tr>
<tr>
<td>Operating voltage:</td>
<td>24 V DC</td>
</tr>
<tr>
<td>Output voltage:</td>
<td>24 V DC (20 – 28 V DC / 0,5 Vpp)</td>
</tr>
<tr>
<td>Internal consumption:</td>
<td>5,3 mA</td>
</tr>
<tr>
<td>Output current:</td>
<td>10 A</td>
</tr>
<tr>
<td>Housing (WxHxD):</td>
<td>100 x 120 x 22,5 mm, ABS, black</td>
</tr>
<tr>
<td>Module units:</td>
<td>1 ME</td>
</tr>
<tr>
<td>Inputs:</td>
<td>Vent. buttons (max. 10 pcs), feedback contact OPEN/CLOSE</td>
</tr>
<tr>
<td>Outputs:</td>
<td>Drive line (gas-pressure generators / magnetic locks)</td>
</tr>
<tr>
<td>Display:</td>
<td>Power, fault, alarm, running direction OPEN / CLOSE</td>
</tr>
<tr>
<td>Control elements:</td>
<td>Front push button: OPEN / CLOSE</td>
</tr>
<tr>
<td>Connections:</td>
<td>Plug-in terminals 1 mm² (rigid wire), Drives: 2,5 mm², Blade terminals 6,3 mm: Power supply, socket and plug with cable for internal BUS</td>
</tr>
<tr>
<td>Features:</td>
<td>Drive line monitoring, fixing on 35-mm mounting rail. Configuration of the functional and performance features, which deviates from the standard systems via configuration software EMB8000+.</td>
</tr>
</tbody>
</table>

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Delivery in parcel</th>
<th>for customer self-installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>688250</td>
<td>Module factory fitted</td>
<td>factory fitted and fully wired</td>
</tr>
</tbody>
</table>

**230 V-DM Vent – Drive-Modul Vent**

<table>
<thead>
<tr>
<th>Application</th>
<th>For the controlling of 230 V AC drives.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TECHNICAL DATA (Rated values)</strong></td>
<td></td>
</tr>
<tr>
<td>Operating voltage:</td>
<td>230 V AC</td>
</tr>
<tr>
<td>Output voltage:</td>
<td>230 V AC</td>
</tr>
<tr>
<td>Internal consumption:</td>
<td>7,0 mA</td>
</tr>
<tr>
<td>Output current:</td>
<td>5 A</td>
</tr>
<tr>
<td>Housing (WxHxD):</td>
<td>100 x 120 x 22,5 mm, ABS, black</td>
</tr>
<tr>
<td>Module units:</td>
<td>1 ME</td>
</tr>
<tr>
<td>Inputs:</td>
<td>Vent. buttons (max. 10 pcs), feedback contact OPEN/CLOSE</td>
</tr>
<tr>
<td>Outputs:</td>
<td>Drive line</td>
</tr>
<tr>
<td>Display:</td>
<td>Power, fault, alarm, running direction OPEN / CLOSE</td>
</tr>
<tr>
<td>Control elements:</td>
<td>Front push button: OPEN / CLOSE</td>
</tr>
<tr>
<td>Connections:</td>
<td>Plug-in terminals 1 mm² (rigid wire), Drives: 2,5 mm², socket and plug with cable for internal BUS</td>
</tr>
<tr>
<td>Built-in fuse:</td>
<td>5AT 5 x 20 mm</td>
</tr>
<tr>
<td>Features:</td>
<td>Fixing on 35-mm mounting rail. Configuration of the functional and performance features, which deviates from the standard systems via configuration software EMB8000+.</td>
</tr>
</tbody>
</table>

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Delivery in parcel</th>
<th>for customer self-installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>688280</td>
<td>Module factory fitted</td>
<td>factory fitted and fully wired</td>
</tr>
</tbody>
</table>
ORDER DATA

**SHEV – Modular**

**IDM - Intelligent-Drive-Module**

**Application:** For operating intelligent Aumüller S12 / S3 drives up to max. 10 A total current.

**TECHNICAL DATA (Rated values)**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage:</td>
<td>24 V DC</td>
</tr>
<tr>
<td>Output voltage:</td>
<td>24 V DC (20 – 28 V DC / 0,5 Vpp)</td>
</tr>
<tr>
<td>Internal consumption:</td>
<td>5,3 mA</td>
</tr>
<tr>
<td>Output current:</td>
<td>10 A</td>
</tr>
<tr>
<td>Housing (WxHxD):</td>
<td>100 x 120 x 22,5 mm, ABS, black</td>
</tr>
<tr>
<td>Module units:</td>
<td>2 ME</td>
</tr>
<tr>
<td>Outputs:</td>
<td>Drive line (gas-pressure generators / magnetic locks)</td>
</tr>
<tr>
<td>Display:</td>
<td>Power, fault, alarm, running direction OPEN / CLOSE</td>
</tr>
<tr>
<td>Control elements:</td>
<td>Front push button: OPEN / CLOSE</td>
</tr>
<tr>
<td>Connections:</td>
<td>Plug-in terminals 1 mm² (rigid wire), Blade terminals 6,3 mm: Drives + power supply, socket and plug with cable for internal BUS</td>
</tr>
</tbody>
</table>

**Features:** Drive line monitoring, fixing on 35-mm mounting rail. Configuration of the functional and performance features, which deviates from the standard systems via configuration software EMB 8000+.

**Note:** Drive output for blade terminals 6,3 mm!

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>688255</td>
<td>Delivery in parcel for customer self-installation</td>
</tr>
<tr>
<td>688255-9</td>
<td>Module factory fitted factory fitted and fully wired</td>
</tr>
</tbody>
</table>

**SHEV – Modular**

**Application:** For operating intelligent Aumüller S12 / S3 drives up to max. 10 A total current.

**TECHNICAL DATA (Rated values)**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage:</td>
<td>24 V DC</td>
</tr>
<tr>
<td>Output voltage:</td>
<td>24 V DC (20 – 28 V DC / 0,5 Vpp)</td>
</tr>
<tr>
<td>Internal consumption:</td>
<td>6 mA</td>
</tr>
<tr>
<td>Output current:</td>
<td>5,3 mA</td>
</tr>
<tr>
<td>Housing (WxHxD):</td>
<td>100 x 120 x 45 mm, ABS, black</td>
</tr>
<tr>
<td>Module units:</td>
<td>1 ME</td>
</tr>
<tr>
<td>Inputs:</td>
<td>Vent. buttons (max. 10 pcs), feedback contact OPEN/CLOSE</td>
</tr>
<tr>
<td>Outputs:</td>
<td>Drive line (gas-pressure generators / magnetic locks)</td>
</tr>
<tr>
<td>Display:</td>
<td>Power, fault, alarm, running direction OPEN / CLOSE</td>
</tr>
<tr>
<td>Control elements:</td>
<td>Front push button: OPEN / CLOSE</td>
</tr>
<tr>
<td>Connections:</td>
<td>Plug-in terminals 1 mm² (rigid wire), Blade terminals 6,3 mm: Drives + power supply, socket and plug with cable for internal BUS</td>
</tr>
</tbody>
</table>

**Features:** Drive line monitoring, fixing on 35-mm mounting rail. Configuration of the functional and performance features, which deviates from the standard systems via configuration software EMB 8000+.

**Note:** Drive output for blade terminals 6,3 mm!

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>688257</td>
<td>Delivery in parcel for customer self-installation</td>
</tr>
<tr>
<td>688257-9</td>
<td>Module factory fitted factory fitted and fully wired</td>
</tr>
</tbody>
</table>
SM – Sensor-Module

**Application:** For the connecting of automatic smoke detectors and break-glass units.

**TECHNICAL DATA (Rated values)**
- Operating voltage: 24 V DC
- Detector line voltage: 24 V DC
- Internal consumption: 12,6 mA
- Housing (WxHxD): 100 x 120 x 22,5 mm, ABS, black
- Module units: 1 ME
- Inputs: 3 detector lines (max 10 detectors/line)
- Ventilation buttons (max. 10 pcs.)
- Outputs: 1 feedback contact (change-over switch, 42 V / 0,5 A)
- Display: Power, fault, alarm
- Control elements: Front push button: Reset
- Connections: Plug-in terminals 1 mm² (rigid wire), socket and plug with cable for internal BUS

**Features:** Überwachte detector lines, fixing on 35-mm mounting rail. Configuration of the functional and performance features, which deviates from the standard systems via configuration software EMB 8000+.

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Delivery in parcel for customer self-installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>688150</td>
<td>for customer self-installation</td>
</tr>
<tr>
<td>688150-9</td>
<td>Module factory fitted factory fitted and fully wired</td>
</tr>
</tbody>
</table>

RM6 – Relay-Module

**Application:** For the transmitting of signals via volt free relay contacts.

**TECHNICAL DATA (Rated values)**
- Operating voltage: 24 V DC
- Internal consumption: 5,3 mA
- Housing (WxHxD): 100 x 120 x 22,5 mm, ABS, black
- Module units: 1 ME
- Outputs: 6 volt free relay contacts (change-over switch, 42 V / 0,5 A)
- Display: Operating, Fault
- Connections: Plug-in terminals 1 mm² (rigid wire), socket and plug with cable for internal BUS

**Features:** Fixing on 35-mm mounting rail. Configuration of the functional and performance features, which deviates from the standard systems via configuration software EMB 8000+.

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Delivery in parcel for customer self-installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>688200</td>
<td>for customer self-installation</td>
</tr>
<tr>
<td>688200-9</td>
<td>Module factory fitted factory fitted and fully wired</td>
</tr>
</tbody>
</table>
**SHEV – Modular**

**WM – Weather-Module**

**Application:** For the connecting of weather sensors.

**TECHNICAL DATA (Rated values)**

- Operating voltage: 24 V DC
- Detector line voltage: 24 V DC
- Internal consumption: 13,0 mA
- Housing (WxHxD): 100 x 120 x 22,5 mm, ABS, black
- Module units: 1 ME
- Inputs: Wind- and rain sensors, wind direction sensor, external signals
- Outputs: Volt free contact (change-over switch, 42 V / 0,5 A)
- Display: Power, fault, wind / rain activ
- Connections: Plug-in terminals 1,5 mm² (rigid wire), socket and plug with cable for internal BUS

**Features:** Fixing on 35-mm mounting rail. Configuration of the functional and performance features, which deviates from the standard systems via configuration software EMB8000+, and an ETS-Software for KNX programming.

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>688180</td>
<td>Delivery in parcel for customer self-installation</td>
<td></td>
</tr>
<tr>
<td>688180-9</td>
<td>Module factory fitted factory fitted and fully wired</td>
<td></td>
</tr>
</tbody>
</table>

**IM-K – KNX-Module**

**Application:** For communication between the **Aumüller** control unit EMB 8000+ and the KNX-BUS-System.

**TECHNICAL DATA (Rated values)**

- Operating voltage: 24 V DC
- Internal consumption: 6 mA
- BUS current: 9 mA
- Data points: up to 16 lines with up to 16 data points
- Housing (WxHxD): 100 x 120 x 22,5 mm, ABS, black
- Module units: 1 ME
- Inputs: 6 analog inputs KNX sided, KNX-BUS terminal
- Outputs: 3 x potential free Relay contacts via KNX
- Display: Operation, fault, KNX-programming LED
- Control elements: KNX-programming button
- Connections: Plug-in terminals 1mm² (rigid wire), socket and plug with cable for internal BUS

**Features:** Fixing on 35-mm mounting rail. Configuration of the functional and performance features, which deviates from the standard systems via configuration software EMB8000+, and an ETS-Software for KNX programming.

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>688265</td>
<td>Delivery in parcel for customer self-installation</td>
<td></td>
</tr>
<tr>
<td>688265-9</td>
<td>Module factory fitted factory fitted and fully wired</td>
<td></td>
</tr>
</tbody>
</table>

**ORDER DATA**

**IM-K – KNX-Module**

**Application:** For communication between the **Aumüller** control unit EMB 8000+ and the KNX-BUS-System.

**TECHNICAL DATA (Rated values)**

- Operating voltage: 24 V DC
- Internal consumption: 6 mA
- BUS current: 9 mA
- Data points: up to 16 lines with up to 16 data points
- Housing (WxHxD): 100 x 120 x 22,5 mm, ABS, black
- Module units: 1 ME
- Inputs: 6 analog inputs KNX sided, KNX-BUS terminal
- Outputs: 3 x potential free Relay contacts via KNX
- Display: Operation, fault, KNX-programming LED
- Control elements: KNX-programming button
- Connections: Plug-in terminals 1mm² (rigid wire), socket and plug with cable for internal BUS

**Features:** Fixing on 35-mm mounting rail. Configuration of the functional and performance features, which deviates from the standard systems via configuration software EMB8000+, and an ETS-Software for KNX programming.

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>688265</td>
<td>Delivery in parcel for customer self-installation</td>
<td></td>
</tr>
<tr>
<td>688265-9</td>
<td>Module factory fitted factory fitted and fully wired</td>
<td></td>
</tr>
</tbody>
</table>

**EMB 8000+ MODULE**

**IM-K – KNX-Module**

**Application:** For communication between the **Aumüller** control unit EMB 8000+ and the KNX-BUS-System.

**TECHNICAL DATA (Rated values)**

- Operating voltage: 24 V DC
- Internal consumption: 6 mA
- BUS current: 9 mA
- Data points: up to 16 lines with up to 16 data points
- Housing (WxHxD): 100 x 120 x 22,5 mm, ABS, black
- Module units: 1 ME
- Inputs: 6 analog inputs KNX sided, KNX-BUS terminal
- Outputs: 3 x potential free Relay contacts via KNX
- Display: Operation, fault, KNX-programming LED
- Control elements: KNX-programming button
- Connections: Plug-in terminals 1mm² (rigid wire), socket and plug with cable for internal BUS

**Features:** Fixing on 35-mm mounting rail. Configuration of the functional and performance features, which deviates from the standard systems via configuration software EMB8000+, and an ETS-Software for KNX programming.

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>688265</td>
<td>Delivery in parcel for customer self-installation</td>
<td></td>
</tr>
<tr>
<td>688265-9</td>
<td>Module factory fitted factory fitted and fully wired</td>
<td></td>
</tr>
</tbody>
</table>
Application: Module for customer self-installation into the SHEV Control Unit EMB 8000+ for the connecting of automatic smoke detectors and break-glass units. Monitors three fire alarm lines for triggering and malfunction. Processes signals from ventilation buttons.

TECHNICAL DATA (Rated values)
- Operating voltage: 24 V DC
- Detector line voltage: 24 V DC
- Internal consumption: 34,1 mA
- Housing (WxHxD): 100 x 120 x 22,5 mm, ABS, black
- Module units: 1 ME
- Inputs: 3 Detector lines (max. 10 detectors / line), 1 BUS-detector lines (max. 30 detectors), 1 Ethernet port, 1 CAN interface, Ventilation push buttons (max. 10 pieces)
- Outputs: 1 Feedback contact (1x change-over switch, 42 V / 0,5 A)
- Display: Power, fault, alarm
- Control elements: Front push button: Reset, Plug-in terminals 1 mm² (rigid wire), socket and plug with cable for internal BUS

Feature / Equipment
- Fixing on 35-mm mounting rail.
- Parameterization of functional and performance features that differ from the standard via configuration software EMB 8000+.
- Belongs to the basic equipment of a Control Unit and must be connected directly with the Power-Module PM via BUS cable.

Application: Module for customer self-installation into the SHEV Control Unit EMB 8000+ for monitoring of the main power supply. Monitors the main power supply. Checks the accumulator charging voltage. Switches to back-up accumulator operation during power failure.

TECHNICAL DATA (Rated values)
- Operating voltage: 24 V DC
- Internal consumption: 16,0 mA
- Housing (WxHxD): 100 x 120 x 45 mm, ABS, black
- Module units: 2 ME
- Display: Power, fault, status
- Connections: Plug-in terminals 1 mm² (rigid wire), socket and plug with cable for internal BUS

Feature / Equipment
- Fixing on 35-mm mounting rail.
- Parameterization of functional and performance features that differ from the standard via configuration software EMB 8000+.
- Has a connection for a sensor „temperature-dependent charging of back-up accumulators“.
EMB 8000+ MODULE

ORDER DATA

<table>
<thead>
<tr>
<th>Power-Module PME</th>
<th>688100</th>
</tr>
</thead>
</table>

Application: Module for customer self-installation into the SHEV Control Unit EMB 8000+ for monitoring of the main power supply. Monitors the main power supply for more than one switching power supply. Switches to back-up accumulator operation during power failure.

TECHNICAL DATA (Rated values)

- Operating voltage: 24 V DC
- Internal consumption: 0 mA
- Housing (WxHxD): 100 x 120 x 45 mm, ABS, black
- Module units: 2 ME
- Display: Power, status
- Connections: Socket and plug with cable for internal BUS

Feature / Equipment

- Fixing on 35-mm mounting rail.
### ORDER DATA

#### TERMINALS TO SEND

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Terminals-Set</th>
<th>Diameter (mm²)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>659941</td>
<td>Terminals-Set 5 x 2,5 mm²</td>
<td>for customer self-installation</td>
<td></td>
</tr>
<tr>
<td>659942</td>
<td>Terminals-Set 5 x 6,0 mm²</td>
<td>for customer self-installation</td>
<td></td>
</tr>
<tr>
<td>659943</td>
<td>Terminals-Set 5 x 10 mm²</td>
<td>for customer self-installation</td>
<td></td>
</tr>
<tr>
<td>659944</td>
<td>Terminals-Set 5 x 16 mm²</td>
<td>for customer self-installation</td>
<td></td>
</tr>
</tbody>
</table>

#### TERMINALS TO BE INSTALLED FROM THE FACTORY

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Terminals-Set</th>
<th>Diameter (mm²)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>659945-9</td>
<td>Single terminal DS</td>
<td>2,5 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>659946-9</td>
<td>Single terminal</td>
<td>6 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>659947-9</td>
<td>Single terminal</td>
<td>10 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>659948-9</td>
<td>Single terminal</td>
<td>16 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>669937-9</td>
<td>Terminals-Set ML</td>
<td>5 x 6 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>669938-9</td>
<td>Terminals-Set ML</td>
<td>5 x 10 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>669939-9</td>
<td>Terminals-Set ML</td>
<td>5 x 16 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>669940-9</td>
<td>Terminals-Set ML 230 V</td>
<td>5 x 4 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>669941-9</td>
<td>Terminals-Set HSE</td>
<td>2,5 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>669942-9</td>
<td>Terminals-Set RM</td>
<td>2,5 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>669943-9</td>
<td>Terminals-Set LT</td>
<td>2,5 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>669943-9</td>
<td>Terminals-Set LT with display</td>
<td>2,5 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>669944-9</td>
<td>Terminals-Set relays</td>
<td>2,5 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>669945-9</td>
<td>Terminals-Set blocking contact</td>
<td>2,5 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>669946-9</td>
<td>Terminals-Set BUS-HSE</td>
<td>2,5 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>669947-9</td>
<td>Terminals-Set WM</td>
<td>2,5 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
<tr>
<td>669948-9</td>
<td>Terminals-Set CAN</td>
<td>2,5 mm²</td>
<td>factory fitted and fully wired</td>
</tr>
</tbody>
</table>

#### SERVICE

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Service Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>240</td>
<td>Plan creation</td>
<td>Wiring diagram per SHEV / ventilation group</td>
</tr>
<tr>
<td>688930</td>
<td>Programming</td>
<td>Programming an EM88000+ in the factory</td>
</tr>
<tr>
<td>SL 125</td>
<td>Online commissioning support</td>
<td>Price per hour</td>
</tr>
</tbody>
</table>
**ORDER DATA**

<table>
<thead>
<tr>
<th>Surge arrester Type 3</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong> Surge arrester Type 3 for Control Unit output 1-phase or 3-phase - with additional detector contact. For TS35; cross section of wire min. 1,5mm²</td>
<td></td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- Nominal voltage: 230 V AC
- Version: Type 3 / Class III
- Function display: green / red
- Ambient temperature range: -40°C .... +80°C
- Connection cross-section: max. 4 mm²
- Protection rating: IP20

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>1-phase</th>
<th>3-phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>659977-9</td>
<td>Module factory fitted - factory fitted and fully wired</td>
<td></td>
</tr>
<tr>
<td>659978-9</td>
<td>Module factory fitted - factory fitted and fully wired</td>
<td></td>
</tr>
</tbody>
</table>

**Automatic circuit breaker**

**Application:** Automatic circuit breaker for interrupting the circuit in the event of a short circuit or overload. In the versions 6 A or 16 A or 25 A.

**TECHNICAL DATA (Rated values)**

- Nominal voltage: 230 V AC / 400 V AC (depending on the versions)
- Insulation group II, RAL 7035
- Ambient temperature range: -25°C .... +55°C
- Connection cross-section: flexible with wire end ferrule 0,75 ... 25 mm² (depending on the versions)
- Protection rating: IP20

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>669970-9</td>
<td>B 6A 1-pole Module factory fitted - factory fitted and fully wired</td>
</tr>
<tr>
<td>669971-9</td>
<td>B16A 1-pole Module factory fitted - factory fitted and fully wired</td>
</tr>
<tr>
<td>669972-9</td>
<td>B25A 1-pole Module factory fitted - factory fitted and fully wired</td>
</tr>
<tr>
<td>669973-9</td>
<td>B16A 3-pole Module factory fitted - factory fitted and fully wired</td>
</tr>
</tbody>
</table>
**ORDER DATA**

<table>
<thead>
<tr>
<th>Software licence EMB8000+ Alpha</th>
<th></th>
</tr>
</thead>
</table>
| **Application:** Software licence for configuration, integration in networks and maintenance of EMB8000+.

**TECHNICAL DATA**

**System requirements:**
Microsoft® Windows 10 - 64 Bit

**Note**

AUMÜLLER grants licences only after attending a product training

**SOFTWARE / LICENSE / PROGRAMMING**

<table>
<thead>
<tr>
<th>Licence for 1 month</th>
<th>688911</th>
</tr>
</thead>
<tbody>
<tr>
<td>Licence for 3 years</td>
<td>688913</td>
</tr>
</tbody>
</table>
# EMB 8000+ ACCUMULATORS AND ACCESSORIES

## ORDER DATA

<table>
<thead>
<tr>
<th>Accumulators</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong> Maintenance of standby operation of SHEV control units over a period of 72 hours of main power supply loss.</td>
<td></td>
</tr>
</tbody>
</table>

## TECHNICAL DATA

- **Type:** Lead storage battery
- **Output voltage:** 12 V DC
- **Capacity:** see order data
- **Lifetime:** 4 years (normal conditions)
- **Connections:** 7 – 12 Ah: blade terminals 4,8 mm
  17 – 38 Ah: screw terminals M5
- **Housing:** plastic, impact- and break-resistant

## Feature/Equipment

- Maintenance free operation, long lasting durability, high charging performance and long-cycle stability
- Disposal due to local, national or international rules (WEEE)

**NOTE:** Always 2 batteries are required per control unit!

## OPTIONS

### for control units with backup power supply

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Voltage</th>
<th>Pcs.</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 Ah, 12 V</td>
<td>1 Pcs.</td>
<td>542000</td>
<td></td>
</tr>
<tr>
<td>12 Ah, 12 V</td>
<td>1 Pcs.</td>
<td>542200</td>
<td></td>
</tr>
<tr>
<td>17 Ah, 12 V</td>
<td>1 Pcs.</td>
<td>543000</td>
<td></td>
</tr>
<tr>
<td>24 Ah, 12 V</td>
<td>1 Pcs.</td>
<td>544000</td>
<td></td>
</tr>
<tr>
<td>38 Ah, 12 V</td>
<td>1 Pcs.</td>
<td>545000</td>
<td></td>
</tr>
</tbody>
</table>

## Relay interface

| **Application:** Relay for the connection of 230 V AC drives to a 24 V DC drive line, triggering by pole change of 24 V DC drive line. |
| **TECHNICAL DATA (Rated values):** |
| Operating voltage: | 24 V DC, +/-20% (max. 2 Vpp) |
| Standby consumption: | <100 mA |
| Switching capacity: | 230 V AC / 3 A |
| Drive type: | S2, S3, S12, MP |
| Ambient temperature range: | 0 ... +70 °C |
| Housing: | Surface mounting, plastic, white |
| Dimensions (WxHxD): | 98 x 98 x 58 mm |
| Connections: | Screw terminals 4,0 mm² (rigid wire) |
| Protection rating: | IP54 |

## Feature/Equipment

- Connection to the drive line of SHEV or natural ventilation control units

## VERSIONS

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>670071</td>
<td>Delivery in parcel for customer self-installation</td>
</tr>
<tr>
<td>670075-9</td>
<td>Module factory fitted factory fitted and fully wired. Including 5 terminals 4,0 mm²</td>
</tr>
</tbody>
</table>

## ACCESSORIES

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>500001</td>
<td>Wall fixing brackets IP54 4 piece</td>
</tr>
</tbody>
</table>
ORDER DATA

<table>
<thead>
<tr>
<th>Application</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time switch</td>
<td>659927-9</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- Operating voltage: 230 V AC
- Contact type: change-over switch
- Switching capacity: 230 V AC / 16 A
- Housing: plastic, white, for 35 mm top rail
- Dimensions (WxHxD): 17,6 x 63 x 90 mm
- Connections: Screw terminal 1,5 mm² (rigid wire)
- Protection rating: IP20

**Feature / Equipment**

- Connection to the ventilation input of SHEV or natural ventilation Control Units
- Module factory fitted / factory fitted and fully wired

---

**Temperature sensor**

<table>
<thead>
<tr>
<th>Application</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature sensor PM - conductor with connection piece for the Control Unit EMB 8000+</td>
<td>680055</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- Hardware: REV.1
- Bootloader: BL V0.0.10
- Application: V0.0.17
- Cable: 0,09mm² - AWG28; RM1,27
- Certification: CE

**Feature / Equipment**

- Conductor with connection piece

---

**VERSIONS**

<table>
<thead>
<tr>
<th>for SHEV Control Units of emergency power supply</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 piece PM 0,4 m</td>
<td>680055</td>
</tr>
<tr>
<td>1 piece PM 0,9 m</td>
<td>680056</td>
</tr>
</tbody>
</table>
For this product series, a Type III Environmental Product Declaration (EPD) was issued according to ISO 14025 and EN 15804. The LCA results of the different product types are listed at the end of this product catalogue. The EPD documents can be viewed or downloaded from our homepage www.aumueller-gmbh.de.
### ORDER DATA

#### HSE – Break-glass unit main control panel

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Break-glass unit with indicators and buttons for the manual control of the</td>
</tr>
<tr>
<td></td>
<td>emergency open and close functions of a SHEV group, for connection in the</td>
</tr>
<tr>
<td></td>
<td>detector line of a control unit.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- **Operating voltage**: 24 V DC
- **Ambient temperature range**: -5°C ... + 40°C
- **Housing**: Surface mounting, plastic (ABS)
- **Dimensions (WxHxD)**: 130 x 130 x 32 mm
- **Connections**: Screw terminal, 1,0 mm² (rigid wire)
- **Protection rating**: IP30
- **Display**: Emergency OPEN, power, fault
- **Control elements**: Buttons for emergency OPEN / CLOSE

#### Feature / Equipment

- Lockable, glazed door (including key)
- Connection to the detector line input
- HSE orange: VdS certification no. G 501006

#### VERSIONS

<table>
<thead>
<tr>
<th>Version</th>
<th>Optional color (similar to RAL)</th>
<th>Part-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE red</td>
<td>(similar to RAL 3000)</td>
<td>528691</td>
</tr>
<tr>
<td>HSE yellow</td>
<td>(similar to RAL 1018)</td>
<td>528692</td>
</tr>
<tr>
<td>HSE grey</td>
<td>(similar to RAL 7035)</td>
<td>528693</td>
</tr>
<tr>
<td>HSE blue</td>
<td>(similar to RAL 5015)</td>
<td>528694</td>
</tr>
<tr>
<td>HSE orange</td>
<td>(similar to RAL 2011)</td>
<td>528695</td>
</tr>
</tbody>
</table>

### HSE-N – Break-glass unit secondary control panel

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Break-glass unit with indicator and button for the manual control of the</td>
</tr>
<tr>
<td></td>
<td>emergency open function of a SHEV group, for connection in the detector line</td>
</tr>
<tr>
<td></td>
<td>of a control unit.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- **Operating voltage**: 24 V DC
- **Ambient temperature range**: -5°C ... + 40°C
- **Housing**: Surface mounting, plastic (ABS)
- **Dimensions (WxHxD)**: 130 x 130 x 32 mm
- **Connections**: Screw terminal, 1,0 mm² (rigid wire)
- **Protection rating**: IP30
- **Display**: Emergency OPEN
- **Control elements**: Button for emergency OPEN

#### Feature / Equipment

- Lockable, glazed door (including key)
- Connection to the detector line input
- HSE orange: VdS certification no. G 501006

#### VERSIONS

<table>
<thead>
<tr>
<th>Version</th>
<th>Optional color (similar to RAL)</th>
<th>Part-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE-N red</td>
<td>(similar to RAL 3000)</td>
<td>525001</td>
</tr>
<tr>
<td>HSE-N yellow</td>
<td>(similar to RAL 1018)</td>
<td>525002</td>
</tr>
<tr>
<td>HSE-N grey</td>
<td>(similar to RAL 7035)</td>
<td>525003</td>
</tr>
<tr>
<td>HSE-N blue</td>
<td>(similar to RAL 5015)</td>
<td>525004</td>
</tr>
<tr>
<td>HSE-N orange</td>
<td>(similar to RAL 2011)</td>
<td>525005</td>
</tr>
</tbody>
</table>
**Accessories for SHEV Control Units**

---

**ORDER DATA**

**HSE – Break-glass unit main control panel (aluminium housing)**

**Part.-No.**

**Application:** Break-glass unit with indicators and buttons for the manual control of the emergency open and close functions of a SHEV group, for connection in the detector line of a control unit.

**TECHNICAL DATA (Rated values)**

- **Operating voltage:** 24 V DC
- **Ambient temperature range:** -5°C ... + 40°C
- **Housing:** Surface mounting, aluminium
- **Dimensions (WxHxD):** 125 x 125 x 33 mm
- **Connections:** Screw terminal, 1.0 mm² (rigid wire)
- **Protection rating:** IP41
- **Display:** Emergency OPEN, power, fault
- **Control elements:** Buttons for emergency OPEN / CLOSE

**Feature / Equipment**

- Lockable, glazed door (including key)
- Connection to the detector line input

**VERSIONS**

<table>
<thead>
<tr>
<th>Version</th>
<th>Part-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE-Alu red</td>
<td>527550</td>
</tr>
<tr>
<td>HSE-Alu yellow</td>
<td>527551</td>
</tr>
<tr>
<td>HSE-Alu grey</td>
<td>527552</td>
</tr>
<tr>
<td>HSE-Alu blue</td>
<td>527553</td>
</tr>
<tr>
<td>HSE-Alu orange</td>
<td>527554</td>
</tr>
<tr>
<td>Protective housing IP54 for break-glass unit HSE-Alu gray – add-on kit</td>
<td>527559</td>
</tr>
</tbody>
</table>

---

**HSE – Break-glass unit main control panel - buzzer**

**Part.-No.**

**Application:** Break-glass unit with built-in buzzer and indicators and buttons for the manual control of the emergency open and close functions of a SHEV group, for connection in the detector line of a control unit.

**TECHNICAL DATA (Rated values)**

- **Operating voltage:** 24 V DC
- **Ambient temperature range:** -5°C ... + 40°C
- **Housing:** Surface mounting, plastic (ABS)
- **Dimensions (WxHxD):** 130 x 130 x 32 mm
- **Connections:** Screw terminal, 1.0 mm² (rigid wire)
- **Protection rating:** IP30
- **Display:** Emergency OPEN, power, fault
- **Control elements:** Button for emergency OPEN / CLOSE

**Feature / Equipment**

- Built-in buzzer
- Lockable, glazed door (including key)
- Connection to the detector line input
- Settings via DIP switch: Warning sound in case of fault and / or SHEV

**VERSIONS**

<table>
<thead>
<tr>
<th>Version</th>
<th>Part-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE red</td>
<td>528711</td>
</tr>
<tr>
<td>HSE yellow</td>
<td>528712</td>
</tr>
<tr>
<td>HSE grey</td>
<td>528713</td>
</tr>
<tr>
<td>HSE blue</td>
<td>528714</td>
</tr>
<tr>
<td>HSE orange</td>
<td>528715</td>
</tr>
</tbody>
</table>
Accessories for SHEV Control Units

HSE – Frame for flush mounting

**Application:** Flush mounting of break-glass units.

**TECHNICAL DATA**
- Housing: Surface mounting, steel sheet
- Dimensions (WxHxD): 171 x 171 x 26 mm
- Surface: Powder-coated in light grey w/o structure
- Installation Dimensions: 140 x 140 x 30 mm

**Feature / Equipment**
- Suitable for break glass units with plastic housing 130 x 130 x 32 mm

---

**ORDER DATA**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>528015</td>
<td>HSE – Frame for flush mounting</td>
</tr>
</tbody>
</table>

**HSE – Break-glass unit main control panel**

**Application:** Break-glass unit with indicators and buttons for the manual control of the emergency open and close functions of a SHEV group, for connection in the BUS line of a control unit.

**TECHNICAL DATA (Rated values)**
- Operating voltage: 24 V DC
- Ambient temperature range: -5°C ... + 40°C
- Housing: Surface mounting, plastic (ABS)
- Dimensions (WxHxD): 130 x 130 x 32 mm
- Connections: BUS terminal, 2 x 0,8 mm²
- Protection rating: IP30
- Display: Emergency OPEN, power, fault
- Control elements: Buttons for emergency OPEN / CLOSE
- Connection possibility: Ventilation push button - input, Screw terminal, 1,0 mm² (rigid wire)

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>528491</td>
<td>HSE red (similar to RAL 3000)</td>
</tr>
<tr>
<td>528492</td>
<td>HSE yellow (similar to RAL 1018)</td>
</tr>
<tr>
<td>528493</td>
<td>HSE grey (similar to RAL 7035)</td>
</tr>
<tr>
<td>528494</td>
<td>HSE blue (similar to RAL 5015)</td>
</tr>
<tr>
<td>528495</td>
<td>HSE orange (similar to RAL 2011)</td>
</tr>
</tbody>
</table>

**HSE – Break-glass unit main control panel**

**Application:** Break-glass unit main control panel

**TECHNICAL DATA**
- Housing: Surface mounting, steel sheet
- Dimensions (WxHxD): 171 x 171 x 26 mm
- Surface: Powder-coated in light grey w/o structure
- Installation Dimensions: 140 x 140 x 30 mm

**Feature / Equipment**
- Lockable, glazed door (including key)
- Connection to the detector line input
## ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Optical BUS-smoke detector</th>
<th>531530</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>BUS-smoke detector for the automatic early detection of fire for controlling of the EMERGENCY OPEN function via the BUS detector line of the EMB 8000+, with smoke generation in the monitored area.</td>
<td></td>
</tr>
</tbody>
</table>

### TECHNICAL DATA (Rated values)

- Measuring element: photo electric / scattered light principle
- Operating voltage: 12 V DC via BUS
- Standby current: < 110 μA
- Housing: Surface mounting, plastic (ABS), signal white (similar to RAL 9003)
- Dimensions (WxHxD): Ø120 x 60 mm
- Connections: Screw terminals 1,0 mm² (rigid wire)
- Protection rating: IP30
- Ambient temperature range: -10°C ... +55°C
- Display: Alarm LED

### Feature / Equipment
- Fire algorithms for avoiding false alarms, automatic alarm threshold tracking
- According to EN 54-7, Connection to the BUS detector line input
- VdS certification no. G 209219

## ACCESSORIES

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Optical smoke detector</th>
<th>531520</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>Smoke detector for the automatic early detection of fire for controlling of the EMERGENCY OPEN function via a detector line of SHEV control units, with smoke generation in the monitored area.</td>
<td></td>
</tr>
</tbody>
</table>

### TECHNICAL DATA (Rated values)

- Measuring element: photo electric / scattered light principle
- Operating voltage: 8,5 – 33 V DC
- Standby current: < 100 μA
- Housing: Surface mounting, plastic (ABS), pearl white
- Dimensions (WxHxD): Ø100 x 50 mm
- Connections: Screw terminals 1,0 mm² (rigid wire)
- Protection rating: IP23D
- Ambient temperature range: -10°C ... +55°C
- Display: Alarm LED

### Feature / Equipment
- Fire algorithms for avoiding false alarms, automatic alarm threshold tracking
- According to EN 54-7, Connection to the detector line input

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Ball protection (chromed steel grid) e.g. use in sporthalls</th>
<th>513546</th>
</tr>
</thead>
</table>

## FAS Interface-Module

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>FAS interface-Module</th>
<th>670053</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>Module for the automatic control of the emergency open function via volt free contact of a fire alarm system.</td>
<td></td>
</tr>
</tbody>
</table>

### TECHNICAL DATA (Rated values)

- Operating voltage: 24 V DC
- Standby consumption: <10 mA
- Ambient temperature range: 0 ... +40 °C
- Housing: w/o, equipped circuit board
- Dimensions (WxHxD): 27 x 19 x 13 mm
- Connections: Screw terminal 1,5 mm² (rigid wire)
- FAS contact: Normal open switch at alarm status

### Feature / Equipment:
- For connection to detector line input of SHEV control units, with line monitoring between control unit and module
# Heat sensitive fire detector

**Application:** Heat detector for the automatic control of the emergency open function of a SHEV group of a SHEV control unit.

**TECHNICAL DATA (Rated values)**

- **Measuring element:** Bimetal switch
- **Operating voltage:** 24 V DC
- **Contact load:** 48 V DC / 0.5 A
- **Standby current:** < 10 mA
- **Housing:** Surface mounting, plastic (ABS), white
- **Dimensions (WxHxD):** Ø56 x 77 mm
- **Connections:** Screw terminals 1.0 mm² (rigid wire)
- **Protection rating:** IP20

**Feature / Equipment**

- With base for surface mounting

## VERSIONS

<table>
<thead>
<tr>
<th>Connection in detector line</th>
<th>NO switch 70°C</th>
<th>533205</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection in drive line</td>
<td>NC switch 70°C</td>
<td>533200</td>
</tr>
</tbody>
</table>

---

# Heat sensitive detector clip 70°C

**Application:** Heat detector for controlling of the emergency open function of a SHEV group, for connection in the drive line.

**TECHNICAL DATA (Rated values)**

- **Measuring element:** Bimetal switch with ceramic housing
- **Operating voltage:** 24 V DC
- **Contact type:** NC switch at 70°C
- **Contact load:** 48 V DC / 0.5 A
- **Standby current:** < 10 mA

**Feature / Equipment**

- No housing, connection in the monitoring line of the drive output of a SHEV control unit
### ACCESSORIES / POWER SUPPLIES

#### NT-DRA120-5 – Power supply 230 V AC / 24 V DC, 5 A

- **Part.-No.**: 680005
- **Application**: Switching power supply for fixing on 35-mm mounting rail or external power supply of the ventilation modules LZA and LZH.

**Technical Data**
- **Operating voltage**: 230 V AC (195 – 253 V AC, 50/60 Hz)
- **Power consumption max.**: 322 W
- **Output voltage**: 24 V DC (20 – 28 V DC / 0.5 Vpp)
- **Output current**: 5 A
- **Ambient temperature range**: -5°C … + 40°C
- **Housing**: for fixing on 35-mm mounting rail
- **Dimensions (WxHxD)**: 65 x 95 x 123 mm

**Feature/Equipment**
- For installation in a control cabinet or comparable housing.

#### NT-DRA480-20 – Power supply 230 V AC / 24 V DC, 20 A

- **Part.-No.**: 680024
- **Application**: Switch mode power supply for power supply and control of drives 24 V DC for daily ventilation, with one ventilation line. Control in the OPEN / CLOSE direction via the 230 V AC mains voltage.

**Technical Data**
- **Operating voltage**: 230 V AC (195 - 253 V AC, 50/60 Hz)
- **Output voltage**: 24 V DC (20 – 28 V DC / 0.5 Vpp)
- **Output current**: 20 A
- **Ambient temperature range**: -5°C … + 40°C
- **Housing**: for fixing on 35-mm mounting rail
- **Dimensions (WxHxD)**: 125 x 176 x 124 mm

**Feature/Equipment**
- For installation in a control cabinet or comparable housing.

#### NT-DRA240-10 – Power supply 230 V AC / 24 V DC, 10 A

- **Part.-No.**: 680010
- **Application**: Switch mode power supply for power supply and control of drives 24 V DC for daily ventilation, with one ventilation line. Control in the OPEN / CLOSE direction via the 230 V AC mains voltage.

**Technical Data**
- **Operating voltage**: 230 V AC (195 - 253 V AC, 50/60 Hz)
- **Output voltage**: 24 V DC (20 – 28 V DC / 0.5 Vpp)
- **Output current**: 10 A
- **Ambient temperature range**: -5°C … + 40°C
- **Housing**: for fixing on 35-mm mounting rail
- **Dimensions (WxHxD)**: 125 x 84 x 124 mm

**Feature/Equipment**
- For installation in a control cabinet or comparable housing.
ACCESSORIES / KEY / EMPTY HOUSING

ORDER DATA

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Application: External Power Supply NT-S-2 KS2/KSA - 230 V AC / 24 V DC factory installed in KS2 chain drive housing. For power supply and control of SKL3 flatscan and flat scan sensor.</td>
<td>680027</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**

- **Operating voltage:** 230 V AC (195 – 253 V AC, 50/60 Hz)
- **Record measurement:** 30 W
- **Output voltage:** 24 V DC (20 – 28 V DC / 2 Vpp)
- **Output current:** 2,0 A
- **Output:**
  - 1x drive line - 24 V DC / 2,0 A
  - 1x continuous current - 24 V DC / 0,2 A
- **Connections:**
  - 24 V DC drive, up to max. 2,0 A
  - 24 V DC continuous current, up to max. 0,2 A
- **Connection cable:**
  - non-halogen, grey 6 x 0,75 mm², length 3 meters
  - maximum extendable to 25 meters in length
- **Housing:**
  - Aluminium natural anodized
- **Dimensions (WxHxD):**
  - 41 x 26 x 230 mm
- **Connection terminals:**
  - Screw terminals 1,0 mm² (rigid wire)
- **Protection rating:**
  - IP 32

**Feature / Equipment**

- Factory installed in the housing of a KS2 chain drive.

---

**HSE-Empty Housing - Break-glass unit**

**Application:** HSE-Empty Housing with lockable, glazed door - including key.

**TECHNICAL DATA (Rated values)**

- **Housing:** Surface mounting, plastic (ABS)
- **Dimensions (WxHxD):** 130 x 130 x 32 mm

**VARIANTEN**

<table>
<thead>
<tr>
<th>Variant</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE-Empty Housing red (similar to RAL 3000)</td>
<td>528001</td>
</tr>
<tr>
<td>HSE-Empty Housing yellow (similar to RAL 1018)</td>
<td>528002</td>
</tr>
<tr>
<td>HSE-Empty Housing grey (similar to RAL 7035)</td>
<td>528003</td>
</tr>
<tr>
<td>HSE-Empty Housing blue (similar to RAL 5015)</td>
<td>528004</td>
</tr>
<tr>
<td>HSE-Empty Housing orange (similar to RAL 2011)</td>
<td>528009</td>
</tr>
</tbody>
</table>
### ACCESSORIES / KEY / GLASS PANES

#### ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Key for plastic Break-glass unit (HSE plastic button)</th>
<th>527007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application:</td>
<td>The plastic Break-glass units (HSE plastic button) have a lockable door. The key is used to open or close this door.</td>
<td></td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**

- **Function:** for plastic Break-glass unit (HSE plastic button)
- **Material:** Polyamid PA 6.6
- **Colour:** white
- **Key:** 1 piece

**Feature/Equipment**

- Suitable for all Aumüller plastic Break-glass unit (HSE plastic buttons)

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Key for aluminium Break-glass unit (HSE aluminium button)</th>
<th>527008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application:</td>
<td>The aluminium Break-glass units (HSE aluminium button) have a lockable door. The key is used to open or close this door.</td>
<td></td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**

- **Function:** for aluminium Break-glass unit (HSE aluminium button)
- **Material:** Metal
- **Type:** Schl-HM/10
- **Keys:** 10 pieces

**Feature/Equipment**

- Suitable for all Aumüller aluminium Break-glass unit (HSE aluminium buttons)

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Replacement glass panes for Break-glass unit (HSE button)</th>
<th>527002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application:</td>
<td>Panes of glass for replacement on site.</td>
<td></td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**

- **Dimensions (W x H x D):** 80 x 80 x 0.7
- **Glass panes:** 10 pieces

**Feature/Equipment**

- Suitable for all Aumüller Break-glass unit (HSE buttons)
## ACCESSORIES / CIRCUIT BOARD

### ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Circuit board for Break-glass unit ABS (HSE button ABS)</td>
</tr>
</tbody>
</table>

**Application:** Circuit board for Break-glass unit (HSE button) - with logo „Ferralux“.
Can be exchanged on site - without subsequent processing.

### TECHNICAL DATA

**Type:**

- Ferralux DIN99-1 A-Z /A-B-S, is equipped

**For housing type:**

- Plastic

### VERSIONS

<table>
<thead>
<tr>
<th>Certification</th>
<th>Part-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VdS</td>
<td>528785</td>
</tr>
<tr>
<td>without VdS</td>
<td>528784</td>
</tr>
</tbody>
</table>

### Circuit board for Break-glass unit (HSE button)

**Application:** Circuit board for Break-glass unit (HSE button) - with logo „Ferralux“.
Can be exchanged on site - without subsequent processing.

### TECHNICAL DATA

**Type:**

- Ferralux DIN AL4 orange, is equipped

**For housing type:**

- Aluminium

### VERSIONS

<table>
<thead>
<tr>
<th>Certification</th>
<th>Part-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VdS similar</td>
<td>528782</td>
</tr>
<tr>
<td>without VdS</td>
<td>528789</td>
</tr>
</tbody>
</table>

---

For this product series, a Type III Environmental Product Declaration (EPD) was issued according to ISO 14025 and EN 15804.
The LCA results of the different product types are listed at the end of this product catalogue.
The EPD documents can be viewed or downloaded from our homepage [www.aumueller-gmbh.de](http://www.aumueller-gmbh.de).
Accessories for Control Units
## VENTILATION BUTTONS

### ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilation button</td>
</tr>
</tbody>
</table>

**Application:** Ventilation button for connection to the ventilation inputs of SHEV or natural ventilation control units.

### TECHNICAL DATA (Rated values)

- **Contact type:** 2 NO switches
- **Switching capacity:** 230 V AC / 10 A
- **Housing:** plastic, white (similar to RAL 9016)
- **Dimensions (WxHxD):**
  - Surface mounting: 81 x 81 x 54 mm
  - Flush mounting: 81 x 81 x 11 mm
- **Connections:** Plug-in terminal 1,5 mm² (rigid wire)
- **Protection rating:** IP20
- **Functions:** OPEN / CLOSE

### Versions

<table>
<thead>
<tr>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface mounting</td>
</tr>
<tr>
<td>Flush mounting (in box ∅60 mm)</td>
</tr>
</tbody>
</table>

### Feature / Equipment

- Push buttons **without** mechanical locking, stop function when both buttons are pushed

### Version

<table>
<thead>
<tr>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>529030</td>
</tr>
<tr>
<td>529230</td>
</tr>
</tbody>
</table>

---

## VENTILATION BUTTONS

### ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventilation button 230 V AC</td>
</tr>
</tbody>
</table>

**Application:** Ventilation button for connection to the push button input of 230 V AC power supplies or for direct control of 230 V AC drives.

### TECHNICAL DATA (Rated values)

- **Contact type:** 2 NO switches
- **Switching capacity:** max. 230 V AC (10 A)
- **Housing:** plastic, white (similar to RAL 9016)
- **Dimensions (WxHxD):**
  - Surface mounting: 81 x 81 x 54 mm
  - Flush mounting: 81 x 81 x 11 mm (of visible surfaces)
- **Connections:** Plug-in terminal 1,5 mm² (rigid wire)
- **Protection rating:** IP20
- **Functions:** OPEN/CLOSE dead-man (push to run mode)

### Versions

<table>
<thead>
<tr>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface mounting</td>
</tr>
<tr>
<td>Flush mounting (in box ∅60 mm)</td>
</tr>
</tbody>
</table>

### Feature / Equipment

- Push buttons **with** mechanical locking, the drive moves as long as a button is pushed

### Version

<table>
<thead>
<tr>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>529530</td>
</tr>
<tr>
<td>529630</td>
</tr>
</tbody>
</table>
## Accessories for Control Units

### Ventilation key switch

**Application:** Ventilation button for connection to the ventilation inputs of SHEV or natural ventilation control units.

**TECHNICAL DATA (Rated values)**
- **Contact type:** 2 NO switches
- **Switching capacity:** 230 V AC / 10 A
- **Housing:** plastic, white (similar to RAL 9016)
- **Dimensions (WxHxD):** Surface mounting: 81 x 81 x 54 mm
  - Flush mounting: 81 x 81 x 11 mm
- **Connections:** Plug-in terminal 1,5 mm² (rigid wire)
- **Protection rating:** IP20
- **Functions:** OPEN-STOP-CLOSE

**Feature/Equipment**
- Switch with semicylinder (DIN 19525) and 3 keys

**VERSIONS**

| Surface mounting | 529350 |
| Flush mounting (in box ∅60 mm) | 529450 |

### Rotary ventilation switch 230 V AC

**Application:** Rotary switch for connection to the push button input of 230 V AC power supplies or for direct control of 230 V AC drives.

**TECHNICAL DATA (Rated values)**
- **Contact type:** 2 NO switches
- **Switching capacity:** 230 V AC / 10 A
- **Housing:** plastic, white (similar to RAL 9016)
- **Dimensions (WxHxD):** Surface mounting: 81 x 81 x 54 mm
  - Flush mounting: 81 x 81 x 11 mm (of visible surfaces)
- **Connections:** Plug-in terminal 1,5 mm² (rigid wire)
- **Protection rating:** IP20
- **Functions:** OPEN-STOP-CLOSE

**Feature/Equipment**
- Switch with mechanical locking,

**VERSIONS**

| Surface mounting | 529550 |
| Flush mounting (in box ∅60 mm) | 529650 |

### FAS Interface-Module - for ventilation

**Application:** When connecting the room sensor, hygrostat or timer to the EMB 7X00 for signal conversion from permanent contact to short-time pulse

**TECHNICAL DATA (Rated values)**
- **Operating voltage:** 24 V DC
- **Housing:** plastic, for 35-mm mounting rail
- **Dimensions (WxHxD):** 27 x 50 x 96 mm

**Feature/Equipment**
- Module for EMB 8000 not required.
Accessories for Control Units

ORDER DATA

<table>
<thead>
<tr>
<th>Room temperature controller</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room temperature controller</td>
<td>483200</td>
</tr>
</tbody>
</table>

Application: Thermostat as on-off controller for room temperature detection.

**TECHNICAL DATA (Rated values)**
- Measuring element: Bimetal switch
- Contact type: 1 change-over switch
- Switching capacity: 230 V AC / 5 A
- Settings: 0 – 30 °C
- Housing: Surface mounting, plastic, white
- Dimensions (WxHxD): 74,5 x 74,5 x 25 mm
- Connections: Screw terminal 1,5 mm² (rigid wire)
- Protection rating: IP30

**Feature / Equipment**
- Connection to ventilation inputs of SHEV or natural ventilation control units

Hygrostat

<table>
<thead>
<tr>
<th>Hygrostat</th>
<th>483050</th>
</tr>
</thead>
</table>

Application: Hygrostat as on-off controller for room humidity detection.

**TECHNICAL DATA (Rated values)**
- Measuring element: Bimetal switch
- Contact type: 1 Change-over switch
- Switching capacity: 230 V AC / 5 A
- Settings: 35 – 100% humidity
- Housing: Surface mounting, plastic, white
- Dimensions (WxHxD): 74,5 x 74,5 x 25 mm
- Connections: Screw terminal 1,5 mm² (rigid wire)
- Protection rating: IP30

**Feature / Equipment**
- Connection to ventilation input of SHEV or natural ventilation control units

CO2 – Air quality sensor

<table>
<thead>
<tr>
<th>CO2 – Air quality sensor</th>
<th>483710</th>
</tr>
</thead>
</table>

Application: Sensor for the detection and evaluation of the CO2 concentration inside rooms.

**TECHNICAL DATA (Rated values)**
- Operating voltage: 24 V DC (+/-5%)
- Measuring element: electronic
- Contact type: 2 Normal open switch
- Pulse duration: 3,5 sec.
- Switching capacity: 230 V AC / 0,5 A
- Measuring range: 0 – 3000 ppm CO2
- Housing: Surface mounting, plastic, white
- Dimensions (WxHxD): 78 x 78 x 35 mm
- Connections: Screw terminal 1,5 mm² (rigid wire)
- Protection rating: IP30
- Display: 3 LED (green, yellow, red)

**Feature / Equipment**
- Connection to ventilation input of SHEV or natural ventilation control units
WEATHER SENSORS

WEATHER SENSORS

ACCESSORIES FOR CONTROL UNITS

Accessories for Control Units

WEATHER SENSORS

ORDER DATA

<table>
<thead>
<tr>
<th>Application</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rain sensor Typ III</td>
<td>482021</td>
</tr>
</tbody>
</table>

Application: Anemometer with 3 impact resistant wind cups (PA6) for wind speed detection.

TECHNICAL DATA (Rated values)

- Operating voltage: 24 V DC (+/- 20%)
- Measuring principle: Conductivity measurement, heated sensor
- Housing: Aluminium Ø36 mm, untreated
- Wind cups: PA6, black
- Dimensions: 250 x 250 x 80 mm
- Connection cable: non-halogen cable, approx. 4 m

Feature / Equipment

- For connection with: EMB7300 control units, WM Weather-Module (EMB8000), wind/rain controls WRAG2 and Type IV. With clamp ring for fixing on all the wall/pole brackets with outer diameter Ø36mm

COMPONENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cups for wind sensor Type III</td>
<td>490601</td>
</tr>
<tr>
<td>Clamp ring for wind sensor Type III</td>
<td>515950</td>
</tr>
</tbody>
</table>

Rain sensor Typ III 24 V DC

Application: Rain sensor with heated sensor surface and internal control with volt free output contact.

TECHNICAL DATA (Rated values)

- Operating voltage: 24 V DC (+/- 20%)
- Measuring principle: Conductivity measurement, heated sensor
- Hysteresis: 5 min
- Display: Output active
- Output: Change-over switch, 5 A / max. 48 V
- Protection rating: IP65
- Housing: Surface mounting, ABS black with bracket (stainless steel)
- Dimensions: 100 x 85 x 172 mm
- Connection cable: non-halogen cable, approx. 4 m

Feature / Equipment

- For connection with: EMB7300 control units, WM Weather-Module (EMB8000), wind / rain controls WRAG2 and Type IV. With clamp ring for fixing on all the wall/pole brackets with outer diameter Ø36mm

COMPONENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cups for wind sensor Type III</td>
<td>490601</td>
</tr>
<tr>
<td>Clamp ring for wind sensor Type III</td>
<td>515950</td>
</tr>
</tbody>
</table>

Rain sensor Typ III 230 V AC

Application: Rain sensor with heated sensor surface and internal control with volt free output contact.

TECHNICAL DATA (Rated values)

- Operating voltage: 230 V AC (50 Hz)
- Power consumption: <1,5 VA
- Measuring principle: Conductivity measurement
- Display: Output active
- Output: Change-over switch, 5 A / max. 230 AC
- Protection rating: IP65
- Housing: Surface mounting, ABS black with bracket (stainless steel)
- Dimensions: 100 x 85 x 172 mm
- Connection cable: non-halogen cable, approx. 4 m

Feature / Equipment

- Single device for the feed from electric mains power supply

01/2022
## WEATHER SENSORS

### ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>WR-Set Type 7x/8x – Wind and Rain Sensor Set</th>
<th>482100</th>
</tr>
</thead>
</table>

**Application:** Sensors for wind and rain to work with an evaluation unit WRAG2 or Typ IV, a WM Weather-Module or directly with a SHEV control unit, for closing and blocking the natural ventilation under bad weather conditions.

### TECHNICAL DATA (Rated values)

- **Rated voltage:** 24 V DC (+/- 20%)
- **Rain sensor Type III**
  - heated sensor surface, switch-off delay approx. 5 min.
- **Contact:** 1 Change-over switch, max. 48 V / 5A
- **Current consumption:** <150 mA
- **Housing:** Surface mounting, ABS black with stainless steel bracket
- **Dimensions (WxHxD):** 100 x 85 x 172 mm
- **Connection cable:** Non-halogen cable, approx. 4 m
- **Wind sensor Type III**
  - Anemometer with 3 impact resistant wind cups (PA6)
  - Pulse generator
- **Dimensions:** 250 x 250 x 80 mm
- **Connection cable:** non-halogen cable, approx. 4 m

### Feature / Equipment

- Set including: Wind sensor Type III (Part.-No. 482021), rain sensor Type III (Part.-No. 480210), clamp ring (Part.-No. 515950), aluminium bracket for pole or wall mounting (Part.-No. 482093), without mounting screws

### Wall bracket for wind and rain sensor

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>491200</th>
</tr>
</thead>
</table>

**Application:** Wall bracket with dual fixings for wind and rain sensors.

### TECHNICAL DATA

- **Height:** app. 1590 mm
- **Outreach:** app. 510 mm
- **Material:** Aluminium Ø 36 mm

### Feature / Equipment

- w/o fixing screws and sensors

### Pole bracket for wind and rain sensors

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>491101</th>
</tr>
</thead>
</table>

**Application:** Pole bracket for the fixing of wind and rain sensors at flat roofs.

### TECHNICAL DATA

- **Height:** app. 1775 mm
- **Base area:** app. Ø 1310 mm
- **Material:** Aluminium Ø 36 mm with 3 stable concrete feet

### Feature / Equipment

- w/o sensors
**ORDER DATA**

<table>
<thead>
<tr>
<th>WRG-Set – Wind direction sensor</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEATHER SENSORS</td>
<td>482120</td>
</tr>
</tbody>
</table>

**Application:** Sensor for wind direction detecting to work with an evaluation unit or a WM Weather-Module for the wind direction depending OPENING / CLOSING of windows in case of fire.

**TECHNICAL DATA (Rated values)**

- **Operating voltage:** 24 V DC (+/- 20%)
- **Wind direction sensor:** ball beared measuring element with wind vane
- **Measuring range:** 8 wind directions
- **Material:** Revolving head: PA6 black, wind vane: stainless steel
- **Connection cable:** Non-halogen 6 x 0.34 mm², length ca. 3 m with circuit board and screw terminals
- **Junction box:** WRG, wind sensor Type III, rain sensor TYP III
- **Housing (WxHxD):** 110 x 110 x 66 mm, IP54
- **Connections:** Screw terminals 1.5 mm² (rigid wire).

**Feature / Equipment**

- Set including: Wind direction sensor (Part.-No. 482120), Junction box (Part.-No. 482110), clamp ring (Part.-No. 515950), aluminium bracket for pole or wall mounting (Part.-No. 482093), without mounting screws.

---

**Mast bracket / wall bracket for wind and rain sensor**

| Mast bracket / wall bracket for wind and rain sensor | 482093 |

**Application:** Console for mast mounting or wall mounting made of aluminum (untreated), without fastening screws.

**TECHNICAL DATA (Rated values)**

- **Pipe elbow**
  - **Material:** Aluminium (E6/C-0)
  - **Dimensions:** Ø36 X 2 mm
  - **Length:** 488.5 mm

- **Connection piece**
  - **Material:** AlSi12
  - **Dimensions (H x D x W):** 120 x 80 x 45 mm

**Feature / Equipment**

- Console consisting of pipe elbow and connection piece, with connecting elements M8.
### ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Conservatory Control WG 3006</th>
<th>484001</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>Control of 230 V drives. For opening and closing of conservatories, terraces and balconies canopies - manually and depends on the internal temperature. It may be a 230 V rain sensor can be connected.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TECHNICAL DATA (Rated values)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage:</td>
<td>230 V AC</td>
</tr>
<tr>
<td>Contact type:</td>
<td>1 change-over switch</td>
</tr>
<tr>
<td>Switching capacity:</td>
<td>230 V AC / 3 A</td>
</tr>
<tr>
<td>Settings:</td>
<td>5 – 30 °C</td>
</tr>
<tr>
<td>Housing:</td>
<td>Surface mounting, plastic, white</td>
</tr>
<tr>
<td>Dimensions (WxHxD):</td>
<td>127 x 74 x 24 mm</td>
</tr>
<tr>
<td>Connections:</td>
<td>Screw terminal 1,5 mm² (rigid wire)</td>
</tr>
<tr>
<td>Protection rating:</td>
<td>IP30</td>
</tr>
</tbody>
</table>

**Feature/Equipment**
- Thermostat with switch hand/automatic and rocker-switch OPEN/CLOSE

### REL1 – Relay for status forwarding

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>659950</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>For the transmission of various functions or status of a SHEV or natural ventilation control unit to external devices.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TECHNICAL DATA (Rated values)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage:</td>
<td>24 V DC</td>
</tr>
<tr>
<td>Contact type:</td>
<td>3 Change-over switch</td>
</tr>
<tr>
<td>Switching capacity:</td>
<td>230 V / 10 A</td>
</tr>
<tr>
<td>Connections:</td>
<td>Screw terminal 1,5 mm² (rigid wire)</td>
</tr>
</tbody>
</table>

**Feature/Equipment**
- With base for installation at 35-mm mounting rail and suppressor diode

### OPTIONS

<table>
<thead>
<tr>
<th></th>
<th>500113</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cabinet mounting</strong> (a larger housing may be required)</td>
<td></td>
</tr>
</tbody>
</table>

### WRAG2 – Wind / Rain evaluation unit

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>482005</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>For the evaluation of wind and rain signals from wind and rain sensors Type 7x/8x or rain sensors operating with 24 V DC and their transmission via 2 volt free contacts, with additional input for connecting of ventilation buttons (or time switches etc.).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TECHNICAL DATA (Rated values)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage:</td>
<td>230 V AC, 50 Hz</td>
</tr>
<tr>
<td>Standby consumption:</td>
<td>&lt;100 mA</td>
</tr>
<tr>
<td>Inputs:</td>
<td>Rain sensor 24 V DC, wind sensor, ventilation button</td>
</tr>
<tr>
<td>Display:</td>
<td>Power, wind, rain</td>
</tr>
<tr>
<td>Wind speed range:</td>
<td>2,5 – 20 m/s, adjustable</td>
</tr>
<tr>
<td>Outputs:</td>
<td>2 Change-over switches, 230 V AC / 5 A</td>
</tr>
<tr>
<td>Housing:</td>
<td>plastic, surface RAL 7035, bottom RAL 7021</td>
</tr>
<tr>
<td>Dimensions (WxHxD):</td>
<td>105 x 86 x 58 mm</td>
</tr>
<tr>
<td>Installation:</td>
<td>35-mm mounting rail</td>
</tr>
<tr>
<td>Connections:</td>
<td>Screw terminals 1,5 mm² (rigid wire)</td>
</tr>
<tr>
<td>Protection rating:</td>
<td>IP40</td>
</tr>
</tbody>
</table>

**Feature/Equipment**
- Signal transmission for wind or/rain (separately or together) adjustable via 4 DIP switches, direct connection of drives up to max. 5 A, switch-on time delay for wind and rain signal, and switch-off time delay for wind signal
## ORDER DATA

<table>
<thead>
<tr>
<th>REL-WRAG2 – Relay for contact multiplier</th>
<th>487020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>Relay as contact multiplier of output signals of wind and rain evaluation unit WRAG2.</td>
</tr>
</tbody>
</table>

### TECHNICAL DATA (Rated values)

- **Operating voltage:** 230 V AC, 50 Hz
- **Contact type:** 2 Change-over switches
- **Switching capacity:** 230 V / 8 A
- **Connections:** Screw terminal 1,5 mm² (rigid wire)

### Feature / Equipment

- With base for installation on 35-mm mounting rail

---

<table>
<thead>
<tr>
<th>Compact distributor housing for WRAG2</th>
<th>482011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>Surface mounting distributor housing for the installation and wiring of wind and rain evaluation WRAG2 and max. 2 relays.</td>
</tr>
</tbody>
</table>

### TECHNICAL DATA

- **Material:** plastic (ABS)
- **Type of installation:** Surface mounting
- **Protection rating:** IP30
- **Dimensions (WxHxD):** 182 x 180 x 82 mm
- **Reserve space:** 2 REL-WRAG2

### Feature / Equipment

- w/o fixing screws

---

<table>
<thead>
<tr>
<th>Distributor housing for WRAG2</th>
<th>482015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>Surface mounting distributor housing for the installation and wiring of wind and rain evaluation WRAG2 and max. 6 relays.</td>
</tr>
</tbody>
</table>

### TECHNICAL DATA

- **Material:** plastic (ABS)
- **Type of installation:** Surface mounting
- **Protection rating:** IP30
- **Dimensions (WxHxD):** 303 x 245 x 95 mm
- **Reserve space:** 6 REL-WRAG2

### Feature / Equipment

- w/o fixing screws
## ORDER DATA

<table>
<thead>
<tr>
<th>Wind and rain evaluation Type IV</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>For the evaluation of wind and rain signals from wind and rain sensors Type 7x/8x or rain sensors operating with 24 V DC and their transmission via 3 volt free contacts.</td>
</tr>
<tr>
<td><strong>TECHNICAL DATA (Rated values)</strong></td>
<td></td>
</tr>
<tr>
<td>Operating voltage:</td>
<td>230 V AC, 50 Hz</td>
</tr>
<tr>
<td>Standby current:</td>
<td>&lt;100 mA</td>
</tr>
<tr>
<td>Inputs:</td>
<td>Rain sensor 24 V DC, wind sensor</td>
</tr>
<tr>
<td>Display:</td>
<td>Power, wind, rain</td>
</tr>
<tr>
<td>Wind speed range:</td>
<td>2,5 – 10 m/s, adjustable</td>
</tr>
<tr>
<td>Outputs:</td>
<td>3 Change-over switches, 5 A / 230 V AC</td>
</tr>
<tr>
<td>Housing:</td>
<td>plastic, surface RAL 7035, bottom RAL 7021</td>
</tr>
<tr>
<td>Dimensions (WxHxD):</td>
<td>212 x 180 x 80 mm</td>
</tr>
<tr>
<td>Installation:</td>
<td>Surface mounting</td>
</tr>
<tr>
<td>Connections:</td>
<td>Screw terminal 1,5 mm² (rigid wire)</td>
</tr>
<tr>
<td>Protection rating:</td>
<td>IP40</td>
</tr>
</tbody>
</table>

**Feature/Equipment**
- Direct connection of drives up to max. 5 A, switch-on time delay for wind and rain signal, and switch-off time delay for wind signal
- Suitable for surface mounting

<table>
<thead>
<tr>
<th>Wind and rain sensor set Typ IV</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>Set consisting of wind and rain evaluation Type IV with wind and rain sensor set Type 7x/8x, for the evaluation of wind and rain signals and their transmission via 3 volt-free contacts.</td>
</tr>
<tr>
<td><strong>TECHNICAL DATA</strong></td>
<td>See wind and rain control unit Type IV and wind and rain sensor set Type 7x/8x.</td>
</tr>
</tbody>
</table>

**Feature/Equipment**
- Set including: Wind and rain evaluation (Part.-No. 482008), Wind sensor Type III (Part.-No. 482021), rain sensor Type III (Part.-No. 480210), clamp ring (Part.-No. 519950), bracket for pole or wall mounting (Part.-No. 482095), without mounting screws

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Natural Ventilation Control Units
FEATURES OF NATURAL VENTILATION – CONTROL UNITS AND POWER SUPPLIES

- Control units with accessories like weather sensors and control panels for the control of drives
- 24 V DC for natural ventilation purpose within rooms or buildings
- Low residual ripple output voltage (<2 Vpp)
- Inputs of two or more control units may be switched in parallel
- Connection of various control units in one ventilation group
- Ventilation button inputs with OPEN-STOP-CLOSE function and 2 or 3 priorities
- Vent. push button inputs configurable in dead-man or jog-switch mode
- All drive line outputs are fused
- Input for higher-ranked e.g. volt free wind and rain signals
- Suitable for the use in controlled natural ventilation systems
- Various display and control elements
- Flat surface mounted housings, suitable for the installation in false floor or suspended ceilings
- Optional BUS interface for integration into GLT systems via LON and KNX
- Digital interface for Aumüller S12 drives

For this product series, a Type III Environmental Product Declaration (EPD) was issued according to ISO 14025 and EN 15804. The LCA results of the different product types are listed at the end of this product catalogue. The EPD documents can be viewed or downloaded from our homepage www.aumueller-gmbh.de.
**SIMPLIFIED DIAGRAMM – LZ6**

The running direction of the drives has to be conform with the indicated direction.

Otherwise exchange the leads: BN (brown) and BU (blue)

---

**P1 - Input**
common control

- **H (P2)** = HIGH - higher priority
- **L (P3)** = LOW - lower priority

for switching process

Plug in of ventilation button, as well as weather, time and temperatre controls or signals of building management system.

---

Output: 24 V DC, 500 mA

---

Using **OPEN and CLOSE button** on the board, all the lines can be opened and closed together.

On the **BUS slot**, depending on the configuration of the control unit, a KNX or LON field BUS-Module can be plugged, to bind the ventilation control unit LZ6 to a building management system.

**WM connection or external DM**

On the **DIP switch** can be set for each ventilation groups, if the button in latching (ON) or in dead-man (OFF) operation works.

The **USB port** can using LZ6 configuration software various functions for the respective ventilation groups are set.
**ORDER DATA**

**LZ1 2,5 A – Natural ventilation control unit 24 V DC**

*Application:* Natural ventilation control panel with power supply for the controlling of 24 V DC drives in one ventilation group.

**TECHNICAL DATA (Rated values)**
- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Max. power consumption: 60 W
- Output voltage: 24 V DC (20 – 28 V DC / 0.5 Vpp)
- Output current: 2.5 A

- Inputs: 1x Ventilation button line with 3 priorities
- Outputs: 1x Drive line
- Display: Power, output voltage switched in OPEN/CLOSE direction
- Slot: BUS-Module (LON, KNX)
- Connections: 512 drives (for communication with BUS-Modules)
- Housing: Surface mounting, plastic (ABS)
- Dimensions (WxHxD): 180 x 130 x 60 mm
- Connection terminals: Screw terminals 2,5 mm² (rigid wire)
- Protection rating: IP54

**Feature / Equipment**
- DIP switch for the configuration of the inputs with low priority in jog-switch or dead-man mode
- Inputs of various LZ1 and/or LZ6 are switchable in parallel
- With the BUS-Module it is possible to control drives with internal intelligent cut-off switch S12 for controlled natural ventilation via the bus protocol

**VERSIONS**

<table>
<thead>
<tr>
<th>LZ1 2,5 A</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>without BI-K - KNX-Interface-Module</td>
<td></td>
<td>660027</td>
</tr>
<tr>
<td>including BI-K - KNX-Interface-Module (Part.-No.: 683999)</td>
<td></td>
<td>660028</td>
</tr>
</tbody>
</table>

**LZ6 – Natural ventilation control unit 24 V DC**

*Application:* Natural ventilation control panel with power supply for the controlling of 24 V DC drives in 6 ventilation groups.

**TECHNICAL DATA (Rated values)**
- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Max. power consumption: 500 W / 805 W / 1518 W
- Output voltage: 24 V DC (20 – 28 V DC / 0.5 Vpp)
- Output current: 10 A / 24 A / 30 A

- Inputs: 6x Ventilation button lines with 2 priorities
  - (P3: LOW; P2: HIGH)
- Outputs: 6x Drive output lines
- Display: Power, output voltage switched in OPEN/CLOSE direction
- Slot: for optional BUS-Module (LON / KNX)
- Housing: Surface mounting, steel sheet, RAL 7035 (light grey)
- Dimensions (WxHxD): 420 x 300 x 144 mm
- Connection terminals: Screw terminals 2,5 mm² (rigid wire)
- Protection rating: IP30

**Feature / Equipment**
- DIP switch for the configuration of the inputs with low priority in jog-switch or dead-man mode
- Inputs of various LZ1 and/or LZ6 are switchable in parallel
- All outputs are fused

**VERSIONS**

<table>
<thead>
<tr>
<th>LZ6 10 A</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Output current: 6 x 1.6 A</td>
<td></td>
<td>660070</td>
</tr>
<tr>
<td>LZ6 24 A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output current: 6 x 4.0 A</td>
<td></td>
<td>660071</td>
</tr>
<tr>
<td>LZ6 30 A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output current: 6 x 5.0 A</td>
<td></td>
<td>660072</td>
</tr>
</tbody>
</table>
POWER SUPPLIES 230 V AC / 24 V DC

ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>NT-T-2,5 – Power supply 230 V AC / 24 V DC, 2,5 A</th>
<th>660009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application:</td>
<td>Power supply with transformer for the controlling of 24 V DC drives in one ventilation group.</td>
<td></td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**
- Operating voltage: 230 V AC (+/-10%)
- Power consumption: 60 W
- Output voltage: 24 V DC (21 – 28 V DC)
- Output current: 2,5 A
- Duty cycle: ED20% (10 min)
- Ambient temperature range: -5 °C ... +40 °C
- Housing: Surface mounting, plastic (ABS)
- Dimensions (WxHxD): 94 x 180 x 81 mm
- Connection terminals: Screw terminals 2,5 mm² (230 V) / 4 mm² (24 V) (rigid wire)
- Protection rating: IP54

**Feature / Equipment**
- Control of OPEN/CLOSE with the 230 V AC power supply voltage

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>NT-S-6,5 – Power supply 230 V AC / 24 V DC, 6,5 A</th>
<th>660007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application:</td>
<td>Switch mode power supply for the controlling of 24 V DC drives in one ventilation group.</td>
<td></td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**
- Operating voltage: 230 V AC (195 – 253 V AC, 50/60 Hz)
- Power consumption: 460 W
- Output voltage: 24 V DC (2 Vpp)
- Output current: 6,5 A
- Duty ratio: ED80% (10 min)
- Ambient temperature range: -5 °C ... +40 °C
- Housing: Surface mounting, plastic (ABS)
- Dimensions (WxHxD): 160 x 250 x 55 mm
- Connection terminals: Screw terminals 4 mm² (rigid wire)
- Protection rating: IP54

**Feature / Equipment**
- Control of OPEN/CLOSE with the 230 V AC power supply voltage
- Max. 8 power supplies may be switched in parallel
**ORDER DATA**

**Universal Control Relay for 1 drive 230 V AC**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>400130</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>Control Relay for the single or group-wise control of 1 drive 230 V AC, suitable for the installation in a flush-mounted junction box behind the ventilation button.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**
- Operating voltage: 230 V AC (+/-10%), 50 Hz
- Output voltage: 230 V AC
- Current consumption relay: 10 mA
- Operating capacity: 5 A
- Duty cycle: ED30% (10 min)
- Ambient temperature range: 0 °C ... +60 °C
- Connections: 1 Ventilation button 230 V AC, 1 Drive 230 V AC / 5 A
- Operating mode: Dead-man mode
- Housing: Plastic (ABS), for flush mounting junction box Ø60 mm
- Dimensions (WxHxD): 46 x 52 x 30 mm
- Connection terminals: Screw terminal 1.5 mm² (rigid wire)
- Protection rating: IP20

**Feature/Equipment**
- Every Control Relay has an inputs and outputs for looping through of a higher priority command (i.e. from ventilation buttons or time switch) and the power supply
- The ventilation input controls the modul-own drive output only

**Relay Interface for 2 drives 230 V AC**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>400120</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>Relay Interface for the single or group-wise control of 2 drives 230 V AC, suitable for the installation in a flush-mounted junction box behind the ventilation button.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**
- Operating voltage: 230 V AC (+/-10%), 50 Hz
- Output voltage: 230 V AC
- Current consumption relay: 10 mA
- Operating capacity: 5 A per output
- Duty cycle: ED30% (10 min)
- Ambient temperature range: 0 °C ... +60 °C
- Connections: 2 Ventilation buttons 230 V AC, 2 Drives 230 V AC / 5 A
- Operating mode: Dead-man mode
- Housing: Plastic (ABS), for flush mounting junction box Ø70 mm
- Dimensions (WxHxD): 60 x 60 x 30 mm
- Connection terminals: Screw terminal 1.5 mm² (rigid wire)
- Protection rating: IP20

**Feature/Equipment**
- Every Relay Interface has an inputs and outputs for looping through of a higher priority command (i.e. from ventilation buttons or time switch) and the power supply
- Each ventilation input controls its own drive output only
ORDER DATA

**Bi-K - KNX Interface LZ1 / LZ6 / EMB 7300**

**Application:** Plug-in card for communication between the controllers AUMÜLLER LZ1, LZ6 and EMB 7300 to the KNX BUS system.

**TECHNICAL DATA**
- **Rated voltage:** 24 V DC
- **Ambient temperature range:** -5°C … + 40°C
- **Relative humidity:** (no condensate) 5% … 90%
- **Data points:** up to 16 pieces per drive line
- **BUS current:** 9mA
- **Housing:** without (assembled PCB)
- **Dimensions (WxH):** 51 x 42 mm
- **Connection terminals:** 2 x 2 x 0.8 mm (KNX-BUS-Terminal)

**FEATURE/EQUIPMENT**
- Data of the control (e.g. drive position) are sent on the KNX-BUS.
- The controls receive direct orders from the KNX-BUS (e.g. position information, weather data).
- The licensed version of the „EMB compact configurator“ required - for commissioning.

**VERSIONS**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Delivery in parcel</th>
<th>for customer self-installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>683999</td>
<td>Module factory fitted</td>
<td>factory fitted and fully wired</td>
</tr>
</tbody>
</table>

**SHEV-Module LZ6**

**Application:** SHEV-Module for connecting one or more smoke detectors (max. 10) to a LZ6 ventilation control unit.

**TECHNICAL DATA**
- **Rated voltage:** 24 V DC
- **Housing:** without (assembled PCB)
- **Dimensions (WxH):** 45 x 42 mm
- **Ambient temperature range:** -5 °C … +60 °C
- **Relative humidity:** (no condensate) 5% … 90%

**FEATURE/EQUIPMENT**
- The smoke detector is triggered with the highest priority and leads to the complete opening of the drives connected to the LZ6.
- All other ventilation commands are locked. This condition is indicated by the alarm LED.
**ORDER DATA**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Natural Ventilation Control Units FLS 24 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio Ventilation Control FLS 24 V</td>
<td>623000</td>
</tr>
</tbody>
</table>

**Application:** Room automation control unit for one drive 24 V DC or one SHEV Control Unit, including a weather station with rain, temperature, sun and wind sensor and a radio control with indoor temperature sensor.

**TECHNICAL DATA**

- **Radio control frequency:** 868.2 MHz
- **Control Panel**
  - **Housing:** plastic material
  - **Total weight:** approx. 170 gr. (including batteries)
  - **Colour:** matt white (similar to RAL 9016)
  - **Mounting:** surface mounted (ap)
  - **Dimensions (W x H x D):** approx. 103 x 98 x 28
  - **Ambient temperature range:** operation 0...+50°C, storage -10...+50°C
  - **Ambient air humidity:** max. 80% rF, avoid dewing
  - **Operating voltage:** 2 x 1.5V (2 batteries, AA / mignon / LR6) or 2 x 1.2V (2 rechargeable batteries, AA / mignon / LR6)
- **Weather Station**
  - **Housing:** plastic material
  - **Total weight:** approx. 200 gr.
  - **Colour:** white / translucent
  - **Mounting:** surface mounted (ap)
  - **Protection rating:** IP 44
  - **Dimensions (W x H x D):** approx. 96 x 77 x 118
  - **Ambient temperature range:** operation -30...+60°C, storage -30...+70°C
  - **Operating voltage:** 12...40 V DC
  - **Power consumption:** approx. 2.2 W (at 24 V), standby approx. 2 W (at 24 V)
  - **Switching capacity relay:** (OPEN / CLOSE / COM) volt free contacts
  - **Rain sensor heating:** approx. 1.2 W
  - **Temperature measurement range:** -40...+80°C
  - **Wind measurement range:** 0...35 m/sec
  - **Brightness measurement range:** 0...150 kLux

**Feature / Equipment**
- Radio connection between weather station and control panel.
- Control panel for basic setting, setting of the automatic function and for manual operation.
- Opening position adjustable for automatic mode (e.g. open only halfway).

**Radio controlled motor control unit RF-MSG**

| Application: | Radio controlled motor control unit with 1 drive output 230 V AC for electric motor driven windows or awnings, blinds and rolling shutters. |

**TECHNICAL DATA**

- **Operating voltage:** 230 V AC, 50 Hz
- **Radio control frequency:** 868.2 MHz
- **Outputs:** 1x drives 230 V AC
- **Switching capacity Version 230 V:** max. 230 V AC / 4 A (PE / N / Off / On)
- **Switching capacity Version PF:** volt frei output (On / Off / L)
- **Housing:** without, for mounting in flush or surface mounted box
- **Dimensions (W x H x D):** 38 x 47 x 29 mm
- **Protection rating:** IP 20
- **Ambient temperature range:** -20...+70°C
- **Ambient air humidity range:** max. 95% rF (avoid dewing)

**Feature / Equipment**
- Radio communication with of building Control Unit WS1®, WS1000® Style or directly controlled by radio remote control Remo® 8

**VERSIONS**

- **RF-MSG** E560532
- **RF-MSG PF** E560533
**ORDER DATA**

<table>
<thead>
<tr>
<th>Remote control Remo® 8</th>
<th>Application</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES60511</td>
<td>Radio controlled hand-held transmitter with display for the manual control of WS1® Style, WS1000® Style, Arexa® or radio controlled motor control unit RF-MSG, RF-REL uP.</td>
<td></td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**

- **Operating voltage:** 1x battery 3 V DC type CR2032
- **Radio control frequency:** 868.2 MHz
- **Number of radio channels:** max. 8
- **Total weight:** ~95 g
- **Housing:** plastic, white / light gray
- **Dimensions of transmitter (WxHxD):** 41 x 140 x 21 mm
- **Dimensions of wall holder (WxHxD):** 54 x 150 x 11 mm
- **Protection rating:** IP40
- **Ambient temperature range:** 0 ... +50°C
- **Ambient air humidity range:** max. 95% rF (avoid bedewing)

**Feature/Equipment**
- Magnetic wall holder included
to first page

6

LSF7000

Lift shaft smoke exhaustion
LSF7000 SYSTEM DESCRIPTION

Control Unit **LSF 7000**

Fire Alarm System (external)

Lift Control System

Siren

Temperature Sensor

Building Management System (external)

Louver window, with 24 V motor
(alternative)

Smoke exhaustion hood
with 24 V DC motor

Air Quality Meter (CO₂-Sensor)

Smoke Detector

Control Unit

Fire Alarm System (external)

Lift Control System

Siren

Temperature Sensor

Building Management System (external)

Louver window, with 24 V motor
(alternative)

Smoke exhaustion hood
with 24 V DC motor

Air Quality Meter (CO₂-Sensor)
System Description

Building Code and GEG
Elevator shafts are important construction phases which are subject to many requirements. Ventilation and smoke removal must be ensured in the event of a fire.

The most important requirements for the natural smoke exhaustion of lift shafts result from the respective state building regulations. The lift shaft must be ventilated and provided with smoke exhaustion openings. The smoke exhaustion openings must generally have a size equal to 2.5% of the floor area of the lift shaft, but at least 0.1 m².

With the introduction of the Building Energy Act (GEG), the permanently attached opening, as it is still frequently used today [Fig. 1], is no longer justifiable from an energy and legal point of view. A building must be constructed in such a way that the heat-transferring enclosure surface - including the joints - is permanently impermeable to air, sealed in accordance with the recognized rules of technology (GEG §13).

Therefore, the openings required by building law for the smoke removal and ventilation of the lift shaft can be sealed, if it is ensured that they are able to open for ventilation requirements or in the case of a fire.

Fire detection via smoke detector
The challenge is to detect fire smoke in the lift shaft accurately and largely without any false alarms. As long as the fire protection concept of the building does not provide otherwise, the lift shaft smoke detector according to DIN EN 54 Part 7 can be installed for fire detection, as shown in the example [Fig. 2].

With this type of design, the smoke detectors are distributed in the lift shaft in accordance with the fire protection concept or AUMÜLLER project planning proposal and the requirements of "general building approval" (abZ).

Manual Alarm Activation
As well as the automatic activation, it is possible to manually activate the smoke exhaust system via the SHEV button in the main access area of the lift [Fig. 3]. Further optional SHEV buttons can be used on other levels. The SHEV buttons are also used to display various alarm and operating statuses, and to reset the entire system.

Fire Control according to DIN EN 81-73
The Control Unit LSF 7000 provides a potential-free Contact, e.g. for lift control. If the fire protection concept of the building allows it, the lift controller initiates the "evacuation run" of the lift shaft according to DIN EN 81-73 and travels to the previously determined main destination [Fig. 4]. It is usually the main access area. Here the users can leave the lift shaft. The lift control system prevents further movements until the lift is released.

Extended Static Fire Control (VDI 6017)
The system allows for the optional extended static fire control according to VDI 6017, whereby a fire in the area of the main destination stop is detected by an optional smoke detector and reported to the lift controller. The control system carries out the evacuation run to the Break-glass unit destination stop. Here, the users can leave the shaft [Fig. 5]. The lift control system prevents further trips until the lift is released.

Vertical Smoke Exhaustion via Louvre windows
The vertically installed Louvre window is a tested NSHEV according to DIN EN 12101-2. It is normally closed and is only moved to the open position by a 24 V DC motor in the event of a fire, or if ventilation is required [Fig. 6]. Aside from the two standard sizes, special sizes are also available on request. For renovations, assembly mounting frames are available for subsequent installation of Louvre windows.

Horizontal Smoke Exhaustion via Ventilation and Smoke Exhaust Hood
A stainless steel exhaust hood made from stainless steel is available for the smoke exhaustion via the roof. This is suitable if the installation of a vertical Louvre window is not possible for structural reasons [Fig. 7]. A thermally insulated Louvre window with a 24 V DC drive is integrated into the upstand of the ventilation and smoke exhaustion hood as an NSHEV according to DIN EN 12101-2. The drive does not protrude into the safety area of the lift shaft. The hood has insect protection, ensures smoke exhaustion regardless of wind direction and is rainproof even when open.

External Controls
Optional visual or audible alarms can be connected directly to the Control Unit to alert residents of the building [Fig. 8]. It is possible for the connection with other fire protection systems, e.g. fire alarm systems.

Manual and Automatic Ventilation
For the ventilation of the lift shaft, the Control Unit can be controlled by authorised persons via a manual ventilation key switch [Fig. 9]. The Louvre window or the ventilation and smoke exhaustion hood are opened or closed manually as required. The ventilation function can also be controlled by other building control systems or by thermostats or sensors installed in the shaft. To ensure the air quality in the lift shaft, the smoke exhaustion flap can be opened via an optional CO₂ air quality sensor if necessary.

Approvals (abZ)
The use of a lift smoke exhaustion system, which normally keeps the "smoke exhaustion opening" of the lift shaft closed for the purpose of energy saving, as required by building law, requires proof of use in accordance with the model building regulations (MBO). The Life-Smoke-Free system possesses this proof in the form of a "general building supervision approval" (abZ).
SYSTEM DESCRIPTION

Example Illustrations

<table>
<thead>
<tr>
<th>Picture 1</th>
<th>Picture 2</th>
<th>Picture 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Illustration 1" /></td>
<td><img src="image2.png" alt="Illustration 2" /></td>
<td><img src="image3.png" alt="Illustration 3" /></td>
</tr>
<tr>
<td>Picture 4</td>
<td>Picture 5</td>
<td>Picture 6</td>
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<tr>
<td><img src="image4.png" alt="Illustration 4" /></td>
<td><img src="image5.png" alt="Illustration 5" /></td>
<td><img src="image6.png" alt="Illustration 6" /></td>
</tr>
<tr>
<td>Picture 7</td>
<td>Picture 8</td>
<td>Picture 9</td>
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<tr>
<td><img src="image7.png" alt="Illustration 7" /></td>
<td><img src="image8.png" alt="Illustration 8" /></td>
<td><img src="image9.png" alt="Illustration 9" /></td>
</tr>
</tbody>
</table>
CONTROL UNIT LSF7000

Connection Options / Cabling

The natural ventilation and smoke drainage system for the elevator shaft

- High energy savings
- General building authority approval (abZ)
- Requirements that can be met
  EN 81 - 20 Security policy
  EN 81 - 73 Behaviour of lifts in the event of a fire
  VDI 6017

The LSF7000 - system components:

- Compact Control Unit for controlling the electromotive opening device
  - Control panel compliant with prEN 12101-9
  - Power supply compliant with EN 12101-10
  - 2 detector line inputs with line monitoring
  - Incl. 1 plug-in card to power external devices
  - 2 slots for relay cards for forwarding e.g. faults, etc.
  - 1 slot for BUS network cards (LON, KNX)
  - Clear display and control elements
  - Cable feed from above, from below or from behind
  - Incl. complete battery set for emergency power supply (72 hours)
  - Activated timer opens all approx. 8 hours for 10 minutes the connected opening device

- Optical smoke detectors in the shaft automatically opens the connected opening device when smoke is detected

- Break-glass unit (HSE button) (max. 10 pieces)

- Ventilation Line 1 (max. 10 switches)

- Trigger signal from external fire alarm system (connection alternativ) to smoke detector

- External signal transmission 1
  - alarm triggering

- External signal transmission 2
  - collective fault

- Integration in network (additional module required)

- Room thermostat for automatic measurement of the room temperature in the shaft (adjustable temperature switching range of the sensor)

- Ventilation key switch for manual operation of the motor opening device in the shaft

- Motorized opening device (optionally for horizontal and vertical installation)
ORDER DATA

Control Unit LSF7000 2,5 A or LSF7000 5,0 A

Application: Control Unit for SHEV systems for „lift shaft smoke exhaustion“ with smoke detection by means of smoke detectors.

TECHNICAL DATA (Rated values)

- Operating voltage, primary: 195 … 253 V AC
- Frequency: 50 … 60 Hz
- Rated current (secondary) / Version 2,5 A: 2,5 A / 0,3 A
- Current consumption (primary): Version 5,0 A: 5,0 A / 0,6 A
- Output voltage drives: 24 V DC (20 – 28 V DC / 2 Vpp)
- Ambient temperature range: -5°C … + 40°C (EN 12101 Klasse 1)
- Maximum relative humidity: 75 % (Average value over the entire service life)
- Housing: Surface mounted, painted sheet steel in RAL 7035
- Protection rating: IP30
- Dimensions (WxHxD): 225 x 285 x 122 mm

Feature / Equipment
- Including 2 maintenance-free emergency power accumulators 2x 12 V / 2,3 Ah
- Including accumulator holder
- Including 1 Plug-in card 7xPSB for the power supply of external devices such as B siren / flash light
- Activated timer opens all approx. 8 hours for 10 minutes the connected ventilation flap
- Including 2 Plug-in cards REL65 for external signal transmission

VERSIONS

LSF7000 2,5 A 0101 511220
LSF7000 5,0 A 0101 511221

Control Unit LSF7000 10,0 A or LSF7000 20,0 A

Application: Control Unit for SHEV systems for „lift shaft smoke exhaustion“ with smoke detection by means of smoke detectors.

TECHNICAL DATA (Rated values)

- Operating voltage, primary: 195 … 253 V AC
- Frequency: 50 … 60 Hz
- Rated current (secondary) / Version 10 A: 10 A / 1,2 A
- Current consumption (primary): Version 20 A: 20 A / 2,5 A
- Output voltage drives: 24 V DC (20 – 28 V DC / 2 Vpp)
- Ambient temperature range: -5°C … + 40°C (EN 12101 Klasse 1)
- Maximum relative humidity: 75 % (Average value over the entire service life)
- Housing: Surface mounted, painted sheet steel in RAL 7035
- Protection rating: IP40
- Dimensions (WxHxD): Version 10 A: 400 x 300 x 150 mm
  Version 20 A: 400 x 400 x 200 mm

Feature / Equipment
- Including 2 maintenance-free emergency power accumulators 2x 12 V / 7 Ah
- Including accumulator holder
- Including 1 Plug-in card 7xPSB for the power supply of external devices such as B siren / flash light
- Activated timer opens all approx. 8 hours for 10 minutes the connected ventilation flap
- Including 2 Plug-in cards REL65 for external signal transmission

VERSIONS

LSF7000 10 A 0101 511223
LSF7000 20 A 0102 511225
### ORDER DATA

<table>
<thead>
<tr>
<th>Accumulators</th>
<th>Part.-No.</th>
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<tbody>
<tr>
<td>Application:</td>
<td>Maintenance of standby operation of SHEV control units over a period of 72 hours of main power supply loss.</td>
</tr>
</tbody>
</table>

#### TECHNICAL DATA

<table>
<thead>
<tr>
<th>Feature</th>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type:</td>
<td>Lead storage battery</td>
</tr>
<tr>
<td>Output voltage:</td>
<td>12 V DC</td>
</tr>
<tr>
<td>Capacity:</td>
<td>see order data</td>
</tr>
<tr>
<td>Lifetime:</td>
<td>4 years (normal conditions)</td>
</tr>
<tr>
<td>Connections:</td>
<td>1,2 – 12 Ah: blade terminals 4,8 mm</td>
</tr>
<tr>
<td></td>
<td>17 – 38 Ah: screw terminals M5</td>
</tr>
<tr>
<td>Housing:</td>
<td>plastic, impact- and break-resistant</td>
</tr>
</tbody>
</table>

#### Feature / Equipment

- Maintenance free operation, long lasting durability, high charging performance and long-cycle stability
- Disposal due to local, national or international rules (WEEE)

**NOTE:** Always 2 batteries are required per control unit!

#### VERSIONS

**for control units with backup power supply**

<table>
<thead>
<tr>
<th>1 Pcs.</th>
<th>2,2/2,3 Ah, 12 V</th>
<th>541000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Pcs.</td>
<td>7 Ah, 12 V</td>
<td>542000</td>
</tr>
</tbody>
</table>
### ORDER DATA

**Application:** Smoke detector for the automatic early detection of fire for controlling of the **EMERGENCY-OPEN** function via a detector line of Control Units, with smoke generation in the monitored area.

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>511232</td>
<td></td>
</tr>
<tr>
<td>531520 or 531526</td>
<td>Optical smoke detector</td>
</tr>
</tbody>
</table>

### TECHNICAL DATA (Rated values)

- **Measuring element:** Photo electric / scattered light principle
- **Operating voltage:** 8,5 – 33 V DC
- **Standby current:** < 100 μA
- **Housing:** Surface mounting, plastic (ABS), pearl white
- **Dimensions (WxHxD):** Ø100 x 50 mm
- **Connections:** Screw terminals 1,0 mm² (rigid wire)
- **Protection rating:** IP23D
- **Display:** Alarm triggered

### Feature / Equipment

- Fire algorithms for avoiding false alarms, automatic alarm threshold tracking.
- According to EN 54-7, connection to the detector line input.

### VERSIONS

- Optical smoke detector with base - for direct ceiling mounting
- Mounting bracket for optical smoke detectors for shaft wall mounting
- Optical smoke detector with base and relay - main destination stop

---

**Project planning aid**

- 531520
- 531520 + 511232

---

**CONTROL UNIT LSF7000 + ACCESSORIES**

---

**LSF7000**

---

**6/8 01/2022**
## ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>LSF HSE – Break-glass unit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Application: Break-glass unit for the manual control of the <strong>EMERGENCY-OPEN</strong> functions of a LSF7000.</td>
</tr>
</tbody>
</table>

### TECHNICAL DATA (Rated values)

- **Operating voltage:** 24 V DC
- **Ambient temperature range:** -5°C ... +40°C
- **Housing:** Surface mounting, plastic (ABS)
- **Dimensions (WxHxD):** 130 x 130 x 32 mm
- **Connections:** Screw terminal, 1,0 mm² (rigid wire)
- **Protection rating:** IP30
- **Display:** EMERGENCY-OPEN, power, fault
- **Control elements:** Button for EMERGENCY-OPEN, button CLOSE

### Feature / Equipment

- Lockable, glazed door (incl. keys)
- Connection to the detector line input

### VERSIONS

<table>
<thead>
<tr>
<th>HSE 7000 / HSE 7000-N orange (similar to RAL 2011)</th>
<th>511042</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSE 7000 / HSE 7000-N yellow (similar to RAL 1018)</td>
<td>511044</td>
</tr>
</tbody>
</table>

## CO2 – Air quality sensor

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>511231</th>
</tr>
</thead>
</table>

| Application: Sensor for the detection and evaluation of the CO2 concentration of elevator shafts. |

### TECHNICAL DATA (Rated values)

- **Operating voltage:** 15 - 35 V DC
- **Power consumption:** 10 mA (max. 0,5 A für 3 s)
- **Ambient temperature range:** -20...+60 °C (0-90 %rF - not condensing)
- **Housing:** Surface mounted, polycarbonate, signal white / light gray
- **Dimensions:** 85 x 100 x 26 mm
- **Connections:** Screw terminal, 1,5 mm²
- **Protection rating:** IP30
- **Measuring range:** 0 / 500 / 1000 / 1500 / 2000 ppm (adjustable level)
- **Hysteresis:** 0 / 25 / 50 / 75 % from the measuring range
- **Contact:** 1x change-over contact
- **Switching capacity:** 1 A (24 V DC)
- **Response time:** < 195 s
- **Warm-up time:** < 5 min.

### Feature / Equipment

- The sensor works with non-dispersive infrared technology (NDIR)
- Patented auto-calibration process compensates for the aging of the infrared source
CONTROL UNIT LSF7000 + ACCESSORIES

ORDER DATA

Room temperature controller

| Application: | Thermostat as on-off controller for room temperature detection. | Part.-No. | 483200 |

TECHNICAL DATA (Rated values)

Measuring element: Bimetal switch
Contact type: 1 change-over switch
Switching capacity: 230 V AC / 5 A
Settings: 0 – 30 °C
Housing: Surface mounting, plastic, white
Dimensions (WxHxD): 74,5 x 74,5 x 25 mm
Protection rating: Screw terminal 1,5 mm² (rigid wire)

Feature / Equipment

- Connection to ventilation inputs of SHEV or natural ventilation control units.

Ventilation key switch (Surface mounting)

| Application: | Ventilation button for connection to the ventilation inputs of SHEV or natural ventilation control units. | 511255 |

TECHNICAL DATA (Rated values)

Contact type: 2x NO switches
Switching capacity: max. 230 V AC / 5 A
Housing: Metal housing - light grey (similar to RAL 7035)
Dimensions (WxHxD): 75 x 75 x 52 mm
Version: Surface mounting
Connections: Plug-in terminals 1,5 mm² (rigid wire)
Protection rating: IP54
Button function: OPEN – CLOSE
Button: with semicylinder and 3 keys
Ambient temperature range: -5°C ... +45°C

Feature / Equipment

- Switch with semicylinder and 3 keys

Siren

| Application: | Electronic siren for alarm in case of fire (SHEV alarm approx. 95 dB). | 45000 |

TECHNICAL DATA (Rated values)

Operating voltage: 10 V ... 28 V
Power consumption: 30 mA (24 V DC)
Volume: 95 dB (A)
Tone (DIN 33 404): V1 - descending 1200-500 Hz at a 1 Hz-rate (DIP 11000) or V2 - continuous tone 95 dB (DIP 10001)
Protection rating / Protection class: IP54
Housing Colour: signal red
Dimensions: Ø100 x 110 mm
Approval: VdS G206019

Feature / Equipment

- The plug-in card 7xPSB (included in the scope of delivery „Control Unit“ LSF7000) and one REL65 (included in the scope of delivery „Control Unit“ LSF7000) are required for connection to the LSF7000.
ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>REL65</th>
<th>650200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>Plug-in card for the Control Unit LSF7000 with relay for forwarding the signal „EMERGENCY-OPEN“ or „fault“.</td>
<td></td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**
- **Rated voltage:** 24 V DC
- **Ambient temperature range:** -5°C ... + 40°C
- **Housing:** without (assembled circuit board)
- **Dimensions (WxHxD):** 20 x 40 x 13 mm
- **Volt free contac:** 1x change-over switch, max. 48 V / 1 A
- **Connection terminals:** 3x 1,5 mm² (rigid wire)

**Feature / Equipment**
- Connector for plugging the relay card to the motherboard

---

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>683256</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>Plug-in card (included in the scope of delivery „Control Unit“ LSF7000) for connection and powering of external consumers with 24 V DC voltage.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**
- **Rated voltage:** 24 V DC
- **Ambient temperature range:** -5°C ... + 40°C
- **Output current:** 0,5 A
- **Housing:** without (assembled circuit board)
- **Dimensions (WxHxD):** 20 x 32 x 13 mm
- **Connection terminals:** 4x 1,5 mm² (rigid wire)
- **Voltage tap:** 2x terminals 24 V DC mains voltage supplied

**Feature / Equipment**
- Connector for plugging the card to the motherboard
- Screw-type-terminal 4 x 1,5 mm²

**NOTE:** The overall power consumption of connected external consumers is to be considered!

---

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>670053</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>Module for the automatic control of the „EMERGENCY-OPEN“ function via volt free contact of a fire alarm system.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA (Rated values)**
- **Operating voltage:** 24 V DC
- **Standby current consumption:** <10 mA
- **Ambient temperature range:** 0 ... +40 °C
- **Housing:** without (assembled circuit board)
- **Dimensions (WxHxD):** 27 x 19 x 13 mm
- **Connections:** Plug-in terminals 1,5 mm² (rigid wire)
- **FACU contact:** Normally open contact (NO) on alarm triggering

**Feature / Equipment**
- Connection to the detector line input, line monitoring between Control Unit and module.
**ORDER DATA**

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Louvre windows LF01L</th>
<th>511235</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>Louvre windows with electric motor drive for the removal of fire gases and for ventilation purposes. Made from thermally separated aluminum profiles and thermally insulated inserts. Optimal ventilation when open and good thermal insulation when closed.</td>
<td></td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**

| Nominal size (W x H): | 600 x 300 mm |
| Structural opening: | Nominal size + 10 mm circumference |
| Version: | 1 louvre |
| Glazing: | 24 mm alu-composite panel |
| Geometric free exhaust surface: | 0.1 m² |
| UP value (Heat transfer coefficient): | 1.4 / DIN EN 673 |

**Mounting options**

- Installation with wall anchors in the reveal
- Mounted with surface mounting frame

**Mounting frame MR01 - 600 x 300 mm - for Louvre windows LF01**

<table>
<thead>
<tr>
<th>Part.-No.:</th>
<th>511237</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Application:</strong></td>
<td>The installation frame is used when the Louvre window can be set from the inside via an existing smoke outlet opening. The Louvre windows are not installed in the masonry. It is delivered attached to the Louvre window at the factory.</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**

| Nominal size (W x H): | 600 x 300 mm |
| Structural opening: | Nominal size +20 / -0 mm circumference |
| Wall thickness: | min. 240 mm |

**Mounting frame MR01 - 600 x 300 mm - for Louvre windows LF01**

| 150 |
| 255 |
| 404 |
| 700 |
| 600 |

**Feature/Equipment**

- For surface mounting of a Louvre window
**ORDER DATA**

<table>
<thead>
<tr>
<th>Louvre windows LF02L</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application: Louvre windows with electric motor drive for the removal of fire gases and for ventilation purposes. Made from thermally separated aluminum profiles and thermally insulated inserts. Optimal ventilation when open and good thermal insulation when closed.</td>
<td></td>
</tr>
<tr>
<td>Louvre windows LF02L</td>
<td>511228</td>
</tr>
</tbody>
</table>

**Application:**

- The installation frame is used when the Louvre window can be set from the inside via an existing smoke outlet opening.
- The Louvre windows are not installed in the masonry.
- It is delivered attached to the Louvre window at the factory.

**Feature / Equipment**

- For surface mounting of a Louvre window

**TECHNICAL DATA**

- Nominal size (W x H): 400 x 400 mm
- Structural opening: Nominal size + 10 mm circumference
- Version: 1 louvre
- Glazing: 24 mm alu-composite panel
- Geometric free exhaust surface: 0,1 m²
- UP value (Heat transfer coefficient): 1,4 / DIN EN 673

**Space requirement 115 mm at 90° opening angle**

**Space requirement 80 mm at 90° opening angle**

**Mounting options**

- Installation with wall anchors in the reveal Part.-No.: 511077
- Mounted with surface mounting frame Part.-No.: 511227

**Mounting frame MR02 - 400 x 400 mm - für Louvre windows LF02**

<table>
<thead>
<tr>
<th>Mounting frame MR02 - 400 x 400 mm - für Louvre windows LF02</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application: The installation frame is used when the Louvre window can be set from the inside via an existing smoke outlet opening. The Louvre windows are not installed in the masonry. It is delivered attached to the Louvre window at the factory.</td>
<td></td>
</tr>
<tr>
<td>Mounting frame MR02 - 400 x 400 mm - für Louvre windows LF02</td>
<td>511227</td>
</tr>
</tbody>
</table>

**TECHNICAL DATA**

- Nominal size (W x H): 400 x 400 mm
- Structural opening: Nominal size +20 / -0 mm circumference
- Wall thickness: min. 240 mm

**Space requirement 115 mm at 90° opening angle**

**Space requirement 80 mm at 90° opening angle**

**Representation example**

**Drillings for mounting frame**

| Drillings Ø 6,5 mm for mounting frame |

**Louvres window LF02 with 24 V DC motor**

**Mounting frame**

**Observe the installation height or the position of the open Louvre window in the life shaft!**

**Feature / Equipment**

- For surface mounting of a Louvre window
ORDER DATA

<table>
<thead>
<tr>
<th>Part.-No.</th>
<th>Louvre windows LF03L 511236</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application:</td>
<td>Louvre windows with electric motor drive for the removal of fire gases and for ventilation purposes. Made from thermally separated aluminum profiles and thermally insulated inserts. Optimal ventilation when open and good thermal insulation when closed.</td>
</tr>
</tbody>
</table>

TECHNICAL DATA
Nominal size (W x H): 600 x 752 mm
Structural opening: Nominal size + 10 mm circumference
Version: 3 louvres
Glazing: 24 mm alu-composite panel
Geometric free exhaust surface: 0.27 m²
UP value (Heat transfer coefficient): 1.4 / DIN EN 673

Mounting options
- Installation with wall anchors in the reveal: Part.-No.: 511077
- Mounted with surface mounting frame: Part.-No.: 511238

Mounting frame MR03 - 600 x 752 mm - for Louvre windows LF03 511238
Application: The installation frame is used when the Louvre window can be set from the inside via an existing smoke outlet opening. The Louvre windows are not installed in the masonry. It is delivered attached to the Louvre window at the factory.

TECHNICAL DATA
Nominal size (W x H): 600 x 752 mm
Structural opening: Nominal size +20 / -0 mm circumference
Wall thickness: min. 240 mm

Mounting frame

Feature/Equipment
- For surface mounting of a Louvre window

Observe the installation height or the position of the open Louvre window in the life shaft!
MOUNTING FRAME + ACCESSORIES

ORDER DATA

<table>
<thead>
<tr>
<th>Wall anchor set</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>511077</td>
</tr>
</tbody>
</table>

**Application:** For mounting the louvre windows LF01L / LF02L / LF03L in the reveal. The window is installed by screwing the wall anchor onto the window profile.

**FEATURES/EQUIPMENT**
- Set consists of 8x wall anchors

**TECHNICAL DATA (Rated values)**
- **Material:** galvanized steel
- **Dimensions (HxWxD):** 160 x 25 x 1,25 mm
- **Version:** with two predetermined bending points
- **Set consists of:** 8x wall anchor
SMOKE EXHAUSTION HOOD

ORDER DATA

Smoke Exhaustion Hood EH01 or EH03

| Application: Smoke Exhaustion Hood with an electric motor drive for the removal of combustion gases and for ventilation purposes. |

<table>
<thead>
<tr>
<th>TECHNICAL DATA</th>
<th>Part.-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal size (W x H):</td>
<td>EH01: 410 x 410 mm</td>
</tr>
<tr>
<td></td>
<td>EH03: 660 x 660 mm</td>
</tr>
<tr>
<td>Structural opening:</td>
<td>Nominal size +50 / -10 mm circumference</td>
</tr>
<tr>
<td>Version:</td>
<td>EH01: 1 louver</td>
</tr>
<tr>
<td></td>
<td>EH03: 2 louveres</td>
</tr>
<tr>
<td>Glazing:</td>
<td>24 mm alu-composite panel</td>
</tr>
<tr>
<td>Geometric free exhaust surface:</td>
<td>EH01: 0.1 m²</td>
</tr>
<tr>
<td></td>
<td>EH03: 0.3 m²</td>
</tr>
<tr>
<td>Roof slope:</td>
<td>Max. 30°</td>
</tr>
<tr>
<td>Louvre Connection data:</td>
<td>24 V DC / 0.65 A</td>
</tr>
</tbody>
</table>

Feature / Equipment

- Stainless steel hood is supplied ready for installation with pre-mounted louvre window, as a NSHEV according to DIN EN 12101-2.
- Rainproof even in open position.
- Ventilation and smoke extraction independent of wind direction - wind-rain control can be omitted.
- Integrated bird and insect protection.

VERSIONS

| Smoke Exhaustion Hood EH01 - 410 x 410 mm - with Louvre windows (0.1 m²) | 511233 |
| Smoke Exhaustion Hood EH03 - 660 x 660 mm - with Louvre windows (0.3 m²) | 511234 |
**ORDER DATA**

Smoke Exhaustion Hood **EH01-thermally insulated** or **EH03-thermally insulated**

**Application:** Smoke Exhaustion Hood with an electric motor drive for the removal of combustion gases and for ventilation purposes.

### TECHNICAL DATA

- **Nominal size (W x H):**
  - EH01: 410 x 410 mm
  - EH03: 610 x 610 mm

- **Dimensions Louvre window (W x H):**
  - EH01: 400 x 400 mm
  - EH03: 600 x 600 mm

- **Inside dimensions hood down (W x H):**
  - EH01: 600 x 600 mm
  - EH03: 800 x 800 mm

- **Structural opening:** Nominal size +50 / -10 mm circumference

- **Version:**
  - EH01: 1 louvre
  - EH03: 2 louvres

- **Glazing:**
  - 24 mm alu-composite panel

- **Geometric free exhaust surface:**
  - EH01: 0,10 m²
  - EH03: 0,27 m²

- **Roof slope:**
  - Max. 30°

- **Connection data:**
  - 24 V DC / 0,65 A

---

**Feature/Equipment**

- Stainless steel hood is supplied ready for installation with pre-mounted louvre window, as a NSHEV according to DIN EN 12101-2.
- Rainproof even in open position.
- Ventilation and smoke extraction independent of wind direction - wind-rain control can be omitted.
- Integrated bird and insect protection.

**VERSIONS**

- Smoke Exhaustion Hood **EH01-thermally insulated**
  - 400 x 400 mm
  - with Louvre windows (0,10 m²)
  - Part.-No.: 511258
- Smoke Exhaustion Hood **EH03-thermally insulated**
  - 600 x 600 mm
  - with Louvre windows (0,27 m²)
  - Part.-No.: 511259

---

**Circumferential bird and insect protection channel,**

**stainless steel execution as perforated sheet**

**Ventilation hood cover,**

**stainless steel mounted on the bird and insect protection channel.**

**Louvres window,**

make of Fieger, Type FLW SmoTec, tested and certified according to EN 12101-2

**Louvres windows**

400 x 400 mm (Ag = 0,10 m²)
600 x 600 mm (Ag = 0,27 m²)

**Mounting frame,**

sheet steel for horizontal installation of the Louvre window.

**GFK (glass fiber) upstand Lamilux type F100.**
## Weather Protection Hood

### ORDER DATA

<table>
<thead>
<tr>
<th>Weather Protection Hood</th>
<th>WH01 or WH03</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Application:</td>
<td>Serves to protect against external influences, such as insects, rain showers and light wind.</td>
<td></td>
</tr>
</tbody>
</table>

### TECHNICAL DATA

- **Nominal size (W x H):**
  - WH01: 410 x 410 mm
  - WH03: 660 x 660 mm

- **Structural opening:** Nominal size +50 / -10 mm circumference

- **Version:**
  - WH01: with geometric free exhaust surface 0,1 m²
  - WH03: with geometric free exhaust surface 0,3 m²

- **Roof slope:** Max. 30°

### Feature / Equipment

- The hood made of stainless steel is delivered ready for installation.
- Integrated bird and insect protection.

### VERSIONS

<table>
<thead>
<tr>
<th>Weather Protection Hood</th>
<th>WH01 - 410 x 410 mm</th>
<th>WH03 - 660 x 660 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>511260</td>
<td>511261</td>
</tr>
</tbody>
</table>
EPD Values

to first page

7

EPD Values

LCA calculations were based on the „cradle to grave“ life cycle including all upstream processes (e.g. raw material extraction, etc.). The reference service life has been specified to 25 years. The calculation of the life cycle scenarios is based on a service life of 50 years per electrical device.

The life cycle was modelled using the sustainability software tool „GaBi®“ for the development of Life Cycle Assessments. For the consideration of the impact categories the characterisation factors of the ELCD (European Reference Life Cycle Database) were used. In accordance with the REACH candidate list, no substances of very high concern are contained.