

## Electrical Control Unit ESM

A modern control panel for smoke and heat exhaust vent systems (SHEV) should not only be reliable and durable but it should also be flexible anyway. This basic principle shapes our ambition for an optional extendable and at anytime reprogrammable control logic.

The result of these development is a system that puts desires of the user at the first rank.

Developed in dependence on the latest European guidelines naturally all requirements for electrical control units for SHEV systems are met.

With this control unit type ESM from SIMON RWA Systeme you receive a modular designed control technology combining innovative and flexible technique with a maximum of safety.



## Technical Data:

Electrical control unit type ESM Item number:	
<b>Input voltage:</b>	230 V AC / 50 Hz
<b>Pre-fusing:</b>	16 A / characteristics C
<b>Protection class:</b>	IP 54
<b>Power failing bridging:</b>	at least 72 h
<b>LED signs on battery charging board:</b>	1. Green LED "Battery" = OK Battery available and charged 2. Grüne LED "Mains" = Mains mode
<b>Further LED signs:</b>	On the particular modules
<b>Cable monitoring:</b>	Closed current: Emergency switches, smoke detectors, connection fire alarm system Cable break: Cables of actuators Cable break and short circuit: Cables of detectors
<b>Operation temperature range:</b>	- 5° up to + 40° C
<b>Housing (W x H x D):</b>	Sheet steel housing, RAL 7035 (Dependant on version)
<b>Max nominal current:</b>	10, 24, 48 or 72 A (more on request)
<b>Output voltage:</b>	24 V DC (Ripple < 500 mV, < 5 %)
<b>Power Supply:</b>	Switching power supply VDE 0805/DIN EN 60950
<b>Storage battery:</b>	Lead battery 24 V, 7 / 12 / 17 / 24 Ah

## Article

ESM control unit with 10 A current

max. current load 10 A / 3 min, permanent load 8 A, lead storage battery 7.2 Ah

Typ	Item number
EV-10	ST4 3408
<b>Housing:</b> 400 x 600 x 200 mm	
EV-10-XL	ST4 3409
<b>Housing:</b> 600 x 600 x 200 mm	

## ESM control unit with 24 A current

max. current load 24 A / 3 min, permanent load 20 A, lead storage battery 12 Ah

Typ	Item number
EV-24	ST4 3414
<b>Housing:</b> 400 x 600 x 200 mm	
EV-24-XL	ST4 3415
<b>Housing:</b> 600 x 600 x 200 mm	

## ESM control unit 48 A current

max. current load 48 A / 3 min, permanent load 40 A, lead storage battery 17 Ah

Typ	Item number
EV-48	ST4 3416
<b>Housing::</b> 600 x 600 x 200 mm	
EV-48-XL	ST4 3417
<b>Housing::</b> 600 x 800 x 250 mm	

## ESM control unit with 72 A current

max. current load 72 A / 3 min, permanent load 60 A, lead storage battery 24 Ah

Typ	Item number
EV-72	ST4 3418
<b>Housing::</b> 800 x 800 x 250 mm	
EV-72-XL	ST4 3419
<b>Housing:</b> 800 x 1.000 x 250 mm	

## Charge Accessoires for Modular Control Units

Charging Cards and Lead Storage Batteries for Modular Control Units

Accessories	Item number
<b>Pb-AKKU-7,2Ah for ESM 6, 10, 12 A</b> Lead storage batteries, loose for emergency power supply, 24 V DC, VdS approved.	ST4 10120
<b>Pb-AKKU-12Ah for ESM 24 A</b> Lead storage batteries, loose for emergency power supply, 24 V DC, VdS approved.	ST4 10121
<b>Pb-AKKU-17Ah for ESM 48 A</b> Lead storage batteries, loose for emergency power supply, 24 V DC, VdS approved.	ST4 10122
<b>Pb-AKKU-24Ah for ESM 72 A</b> Lead storage batteries, loose for emergency power supply, 24 V DC, VdS approved.	ST4 10123
<b>Pb-AKKU-38Ah for special applications</b> Lead storage batteries, loose for emergency power supply, 24 V DC, VdS approved.	ST4 10124
<b>Battery charging board type LB-101</b> For storage battery type Pb-AKKU-7.2Ah (in 6 A control panels - old version with transformer)	ST4 3337
<b>Battery charging board type LB-102</b> For storage battery type Pb-AKKU-7.2Ah (in 12 A control panels - old version with transformer)	ST4 3338
<b>Battery charging electronics type LB-120-SNT-124</b> For storage batteries type Pb-AKKU-7,2Ah (in 10 A control panels with switching power supply)	ST4 3367
<b>Battery charging electronics type LB-120</b> For storage batteries type Pb-AKKU-12Ah (in 24 A control panels with switching power supply)	ST4 3361
<b>Battery charging electronics type LB-140</b> For storage batteries type Pb-AKKU-17Ah (in 48 A control panels with switching power supply)	ST4 3362
<b>Battery charging electronics type LB-160</b> For storage batteries type Pb-AKKU-24Ah (in 72 A control panels with switching power supply)	ST4 3363

## Housing Accessoires for Modular Control Units

Accessories	Item number
<b>Flange plate with pre stamping - 345-130 - Plastic</b> for (W x H x D) 400 x 400 x 200 mm / 400 x 600 x 200 mm / 800 x 800 x 250 mm (2x required)	N-49-075
<b>Flange plate with pre stamping - 345-130 - Gummed</b> for (W x H x D) 400 x 400 x 200 mm / 400 x 600 x 200 mm / 800 x 800 x 250 mm (2x required)	N-49-104
<b>Flange plate with pre stamping - 545-130 - Plastic</b> for (W x H x D) 600 x 600 x 200 mm / 600 x 800 x 250 mm each with 2 pieces	N-49-076
<b>Flange plate with pre stamping - 545-130 - Gummed</b> for (W x H x D) 600 x 600 x 200 mm / 600 x 800 x 250 mm each with 2 pieces	N-49-105

## Accessories for modular control panel

With our modular control unit you have the possibility to combine lots of different modules, depending on the aim of the panel.

Accessories	Item number
<b>SHEV-groups module type ZL-100</b> One ZL-100 is required for each SHEV group.	ST4 3312
<b>Ventilation group module type MR-100</b> Minimum one MR-100 is required for each vent group.	ST4 3313
<b>Auxiliary relay module type HR-195</b> With dry transfer contact (max 1 A / 60 V for signals e. g. to the building control system or fire alarm system). Optional programmable signals: "OPEN", "CLOSE", "alarm", "mains failure", "defect", "wind-rain".	ST4 3340
<b>Priority module type HR-110</b>	ST4 3347
<b>Relay module type HR-120</b> With this plug in module, programmable by DIP-switch in application with an external time different functions can be triggered successively. This enables for example operating a shading.	ST4 3348
<b>Relay module type HR-130</b> Alarm triggering with following RESET with just one switching contact is possible by means of this relay module. When the contact is closed smoke control alarm is reset and ventilatio is released. When the contact is open smoke control alarm is triggered	ST4 3349
<b>Maintenance module type WM-100</b> The maintenance module offers a low-cost and expediate method of administrating the maintenance intervals. After approximately 18 months it blocks the ventilation function and reminds you that the next maintenance is due.	ST4 3104
<b>Retriggering module type WA-100</b> In case of blockade this module effects a retriggering of a SHEV opening in regular intervals (every other minute).	ST4 3105
<b>Time module type ZR-100</b> For application as ventilation module with automatic close function after an adjusted time period.	ST4 3352
<b>Output relay for 230 V actuators with STOP</b> One for each vent groups (space required 2 units)	ST4 3344
<b>Output relay for 230 V actuators without STOP</b> One for each vent group (space required 3 units)	ST4 3345
<b>GLT-Module type GLT-100</b> Ventilation control module 0-10 V for ESM control panels, allows stepless control of actuators. (space required 3 units)	ST4 3355
<b>Multifunction module type MF-100</b> This module is used for different comfort vent functions (e. g. connection of temperature sensor). (space required 3 units)	ST4 3357