



ECO 24V 1A S

Battery backup

351-213

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ECO Mini3



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1. ABOUT ECO 24V 1A S

ECO Mini is a flexible battery backup for use in controlling smoke hatches and other applications that require a simple and reliable battery backup.

2. NAME, ARTICLE NUMBER AND E-NUMBER

Name	Article number	E-number (SV)
ECO 24V 1 A S	SM01C10324P010B02	52 136 51



3. COMPONENT OVERVIEW ECO 24V 1A S

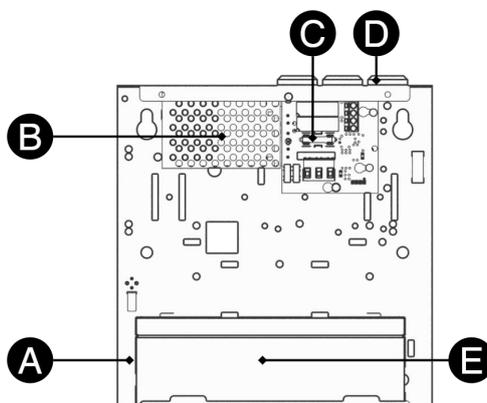


Table 1. Component overview

Letter	Explanation
A	Cabinet in powder-coated sheet metal.
B	Power supply.
C	Motherboard.
D	Cable entries.
E	Batteries.





4. TECHNICAL DATA: CEO 3

Figure 1. ECO Mini3

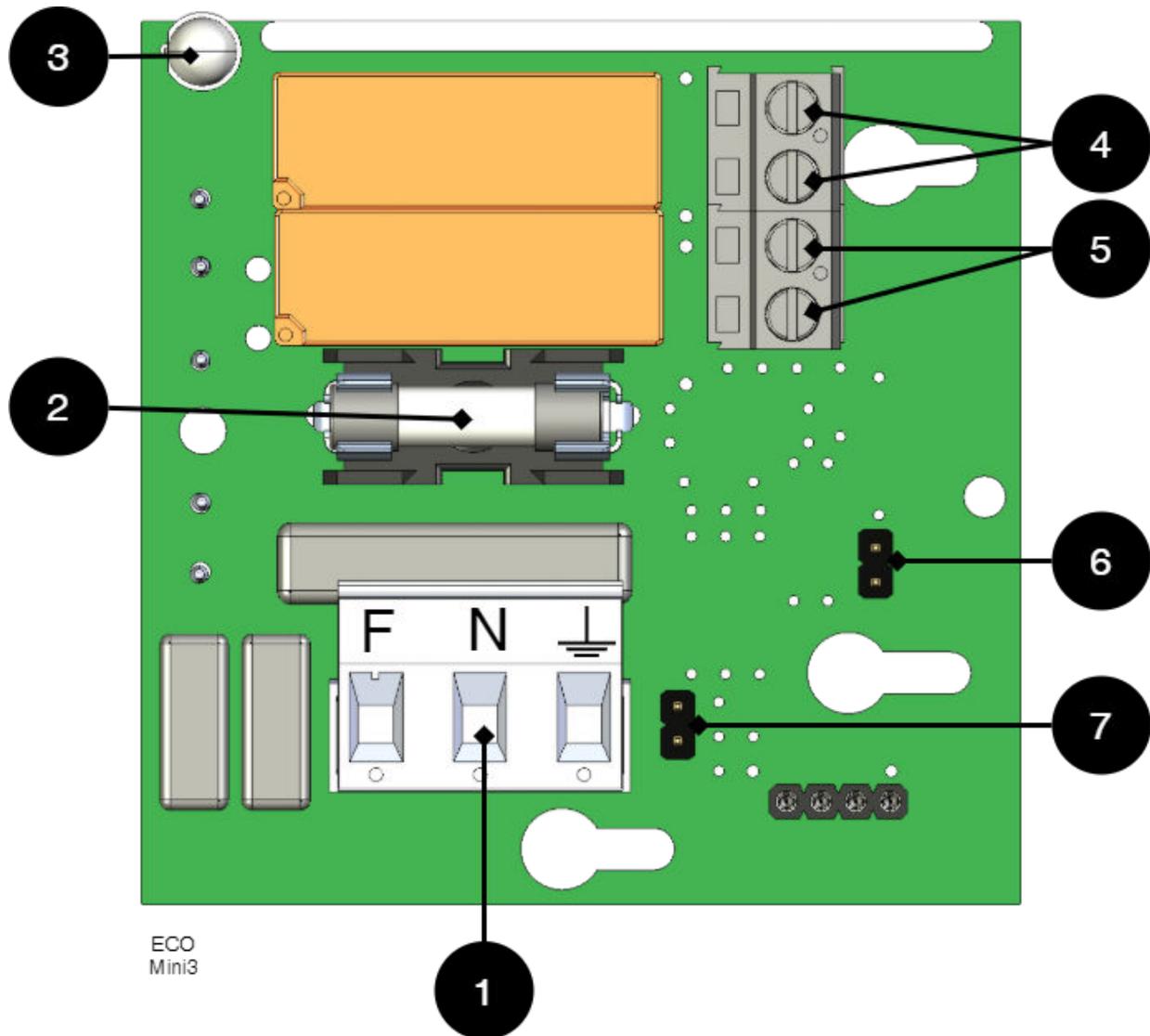


Table 2. Connections

Nr	In short	Explanation
1	P1: 1-3	Connection to mains, 230 V.
4	P2: 3-4	Connect remote control of load output. Shipped assembled with jumper. If the jumper is removed, the load output, see 5 below, is switched off (becomes de-energized)
5	P2: 1-2	Connect load.



DANGER

Mains voltage must be disconnected when working with stripped cables. It is the installer's responsibility to ensure that the correct skills are available for connecting 230 V to the unit. Maximum cable area is 4 mm²



Table 3. Fuses

Nr	In short	Explanation
2	F6	T2A

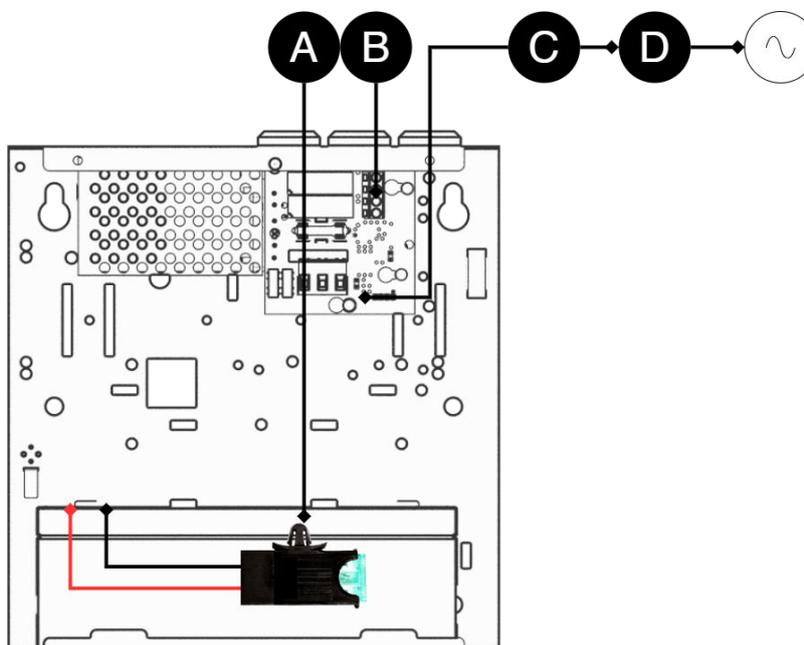
Table 4. Indications and alarms

Nr	In short	Indicator diode	Buzzer	Explanation
3	D1	Green	No	OK - normal operation.
		Yellow / orange	Yes if JU1 has a jumper.	Power failure / low battery voltage. Controlled via jumper on JU2.
		RED	Yes if JU1 has a jumper.	Triggered load securing

Table 5. Control of alarm limits and buzzers

Nr	Alarm limit at low battery voltage	24 V
6	JU2 with jumper	26.5 V
	JU 2 without jumper	24.0 V
	The unit is delivered without a jumper on JU2.	
7	JU1 with jumper = alarm on buzzer.	-
	JU1 without jumper = No alarm on buzzer.	
	The unit is delivered with jumper on JU1. The device is delivered without a buzzer.	

5. COMMISSIONING - HOW TO START THE UNIT



After connection, start-up must take place in the following steps:

Table 6. Commissioning

Step	Explanation
A	Insert the fuse into the fuse holder.
B	Connect load, alarm and other connections.
C	Connect mains. Screw the mains cable into the terminal block and attach the terminal block to the motherboard.





Step	Explanation
D	Switch on mains voltage.

The unit works normally when the indicator LED on the outside of the cabinet door lights up with a solid green light. See front panel for other status indications.



CHARGING TIME FOR BATTERIES

It can take up to 72 hours before batteries are fully charged during new installation, battery replacement, power outage, or when the device is running on battery power.

6. TECHNICAL DATA AND PRODUCT SHEETS

6.1. Product sheet / technical data

Figure 2. ECO S



ECO S The unit must be wall-mounted.

6.1.1. Technical specifications

These technical specifications are subject to change without notice.





6.1.2. Name, article number and e-number

Name	Article number	E-number (SV)
ECO 24V 1 A S	SM01C10324P010B02	52 136 51

6.1.3. About

The ECO series are reliable and smaller battery backups for use with access control systems, locking systems and smoke hatches. The battery backups have controlled charging *.

* Controlled charging prevents batteries from being overcharged, which significantly extends their service life.

- For AGM batteries.
- Can be tested with only batteries connected.
- Has controlled charging for better operating economy.
- Comes with batteries.

6.1.4. Unique for ECO 24V 1A S

ECO 24V 1A S has the option of being supplemented with an external control to cut off the current at the load output. An example of an application is a push button to open a smoke door.

ECO 24V 1A S is delivered including 2 pcs. 2.3 Ah 6+ Design Life batteries.



NOTE

Note that ECO 24V 1A S has no alarm output, only visual alarm via LED.

6.1.5. Areas of use

Most used in:

6.1.6. Test before installation of 230 V

"Cold start" means that the battery backup can be commissioned with only the batteries connected without the battery backup being connected to 230 V. This is practical if the installer is not a qualified electrician but still wants to be able to test the system.

6.1.7. Fixed installation

The product is intended for fixed installation. The battery backup must be installed by a qualified installer.





6.2. Regulations and certifications

6.2.1. Requirements that the product meets

EMC:	EMC Directive 2014 / 30EU
Electricity:	Low voltage directive: 2014/35 / EU
CE:	CE directive according to: 765/2008



6.3. Expected operating time in the event of a power failure (with new batteries)

Table 7. Expected operating time in the event of a power failure (applies to new batteries):

System voltage	Number of batteries	Battery type	Load: 0.1 A	Load: 0.3 A	Load: 0.6 A	Load: 1 A	Load: 1.5 A	Load: 2 A
24 V	2 pcs	2.3 Ah	12 h	4 h	2 h	1 h	40 min	20 min
24 V	2 pcs	4.5 Ah	24 h	8 h	4 h	2 h	1.5 h	40 min

6.4. Circuit boards - Technical data

6.4.1. Technical data: CEO 3

Table 8. CEO3 V 2.5

Info	Explanation
Article title	CEO3
Measure	120 x 55 mm x 52 mm
Own consumption	40 mA
Outputs	Output: four load outputs 1-4 which are prioritized load outlets. (= always voltage).
Insurance	Load output: + secured.
Max load	Maximum load is 1 A per load output, (T2A is mounted from the factory).



6.5. Technical data: CEO 3

Figure 3. ECO Mini3

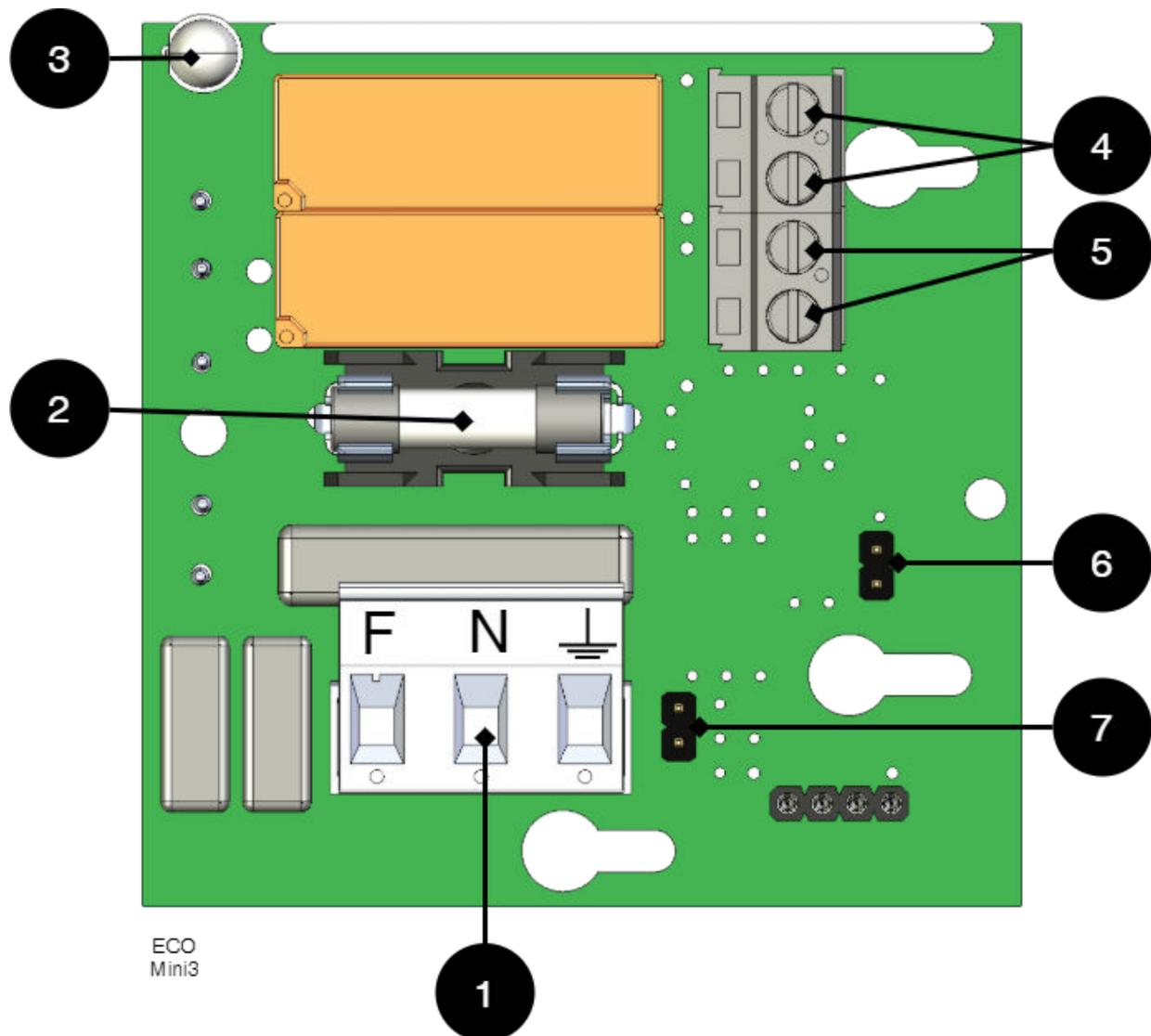


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	The unit is delivered with jumper on JU1. The device is delivered without a buzzer.	

6.6. Power supply

6.6.1. Power supply - Technical Data RS-25-24

In:
ECO 24V 1A S

Output voltage	27.3 V
Output current	0 A - 1.1 A
Output voltage, ripple	120 mVp-p
Overvoltage	22 V - 27.64 V
Voltage recharge, ripple / current limitation	Less than 0.6 Vp-p
Efficiency	84 %
Current limitation	110% - 180%
Constant voltage	+/- 1.0%
Regulatory accuracy	* / - 0.5%
Input current (230 V)	0,4 A
Mains voltage frequency	47 Hz- 63 Hz
Mains voltage	85 V AC - 264 V AC
Brand effect	26.4 W
Temperature range	-20°C - +70°C
Humidity range	20% - 90% RH non-condensed

The power supply is adapted and calibrated with the battery / hardware of the battery backup. Only power and calibrated power supplies may be used. Contact support when changing power supplies. Use of power supplies coming from another source may cause damage not covered by the warranty. Warranty is canceled if power supplies (from a source other than support / designated by support) that are not correctly calibrated are used.



6.7. 2.3 Ah, 12 V AGM battery

Battery type	V	Ah
Maintenance-free AGM, lead-acid battery.	12 V	2.3 Ah

Table 13. 6+ Design life * battery

Article number	E-number	Article name	Terminal	Measure. Height width depth	Weight per piece	Make
MT113-12V02-01	5230578	UPLUS 12V 2.3Ah 6+ Design Life battery	Flat pin 4.8 mm	60x178x35 mm	1.0 kg	UPLUS

* Design Life is the durability, this year, for unused battery. Environmental factors such as heat and load affect service life. Batteries that have a durability (+6 Design ILife) of 6+ years usually need to be replaced after 2-3 years.

6.8. Technical data enclosures

6.8.1. Enclosures - Technical Data S

Info	Explanation
Name	S
Enclosure class	IP 20
Measure	Height: 230 mm, width: 216 mm, depth: 85 mm.
Height units	-
Mounting	Wall
Ambient temperature	+ 5 ° C - + 40 ° C. For best battery life: + 15 ° C to + 25 ° C.
Environment	Environmental class 1, indoors. 20% ~ 90% relative humidity
Material	Powder coated sheet
Color	White
Cable entries, number	3
Batteries that fit	1 pc 12 V 2.3 Ah or 2 pcs 12 V 2.3 Ah or
Place for fan	No

6.9. Link to the latest information

Products and software are subject to updates, you will always find the latest information on our website.

[ECO](#)

6.10. Warranty, support, country of manufacture and country of origin

6.10.1. Warranty

The product has a two-year warranty, from the date of purchase (unless otherwise agreed). Support during the warranty period can be reached at support@milleteknik.se or telephone, +46 31-34 00 230.



Compensation for travel and / or working hours in connection with locating faults, installing repaired or replaced goods is not included in the warranty. Contact Milleteknik for more information. Milleteknik provides support during the product's lifetime, however, no later than 10 years after the date of purchase. Switching to an equivalent product may occur if Milleteknik deems that repair is not possible. Support costs may (at Milleteknik's discretion) occur after the warranty period has expired.

6.10.2. CE marking

Each product has a CE label with information about the product and contact information for the manufacturer. If you are missing something or need more information, you should firstly turn to retailers who will also be able to answer questions about warranty and support. You can always contact the manufacturer if you have questions about the product's performance.



6.10.3. Support

Do you need help with installation or connections? Our support phone is available: Monday-Thursday 08: 00-16: 00 and Fridays 08: 00-15: 00. Telephone support is closed between 11: 30-13: 15.

You will find answers to many questions at: www.milleteknik.se/support

Phone: +46 31-340 02 30

Support is open: Monday-Thursday 08:00-16:00, Fridays 08:00-15:00. Closed 11:30-13:15.

SPARE PARTS

Contacted support for questions about spare parts.

SUPPORT AFTER THE WARRANTY PERIOD

Milleteknik provides support during the life of the product, but no longer than 10 years after the date of purchase. Replacement for an equivalent product may occur if the manufacturer deems that repair is not possible. Costs for support and replacement are added after the warranty period has expired.

QUESTIONS ABOUT PRODUCT PERFORMANCE?

Contact sales: 46 31-340 02 30, e-mail: sales@milleteknik.se

6.10.4. Contact us

Milleteknik AB

Ögärdesvägen 8 B

S-433 30 Partille

Sweden

+46 31-34 00 230

www.milleteknik.se





6.10.5. Country of manufacture

Country of manufacture / country of origin is Sweden. For more information, contact your seller.

6.10.6. Designed and produced by: Milleteknik AB

Designed and produced by Milleteknik AB



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