

## Name, article number and e-number

Name, article number and email number

Name	Item number	E-number (sv)
10 Output Module ATO 24V 1HE	1U02FU002410OP01	52 137 11

## Installation and commissioning

Instruction No: 350-287

## Area of use

10 Output Module ATO 24V 24V 1HE distributes and secures power to up to ten 24V applications. It is conveniently mounted in a 19" rack and alarms in case of fuse failure via LED and relay. Three of the load outputs are priority, while seven are unprioritized. In the event of a power outage, the voltage on the unsecured outputs is broken. Need more connections? Easily expand with two extra cards and get a total of 30 outputs

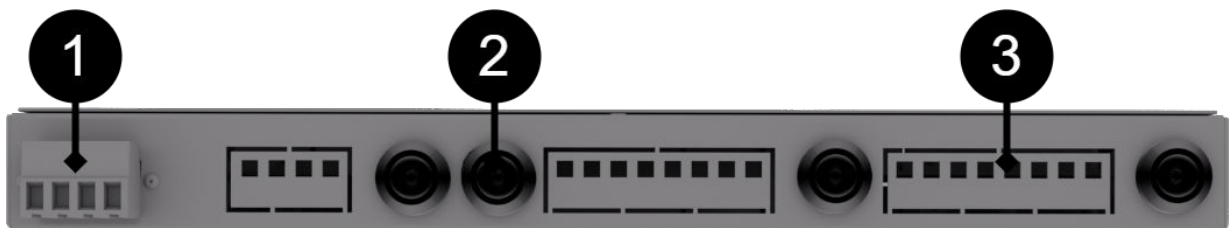
## Component overviews

### Component overview



Components Overview 10 Output module ATO 24V 1HE

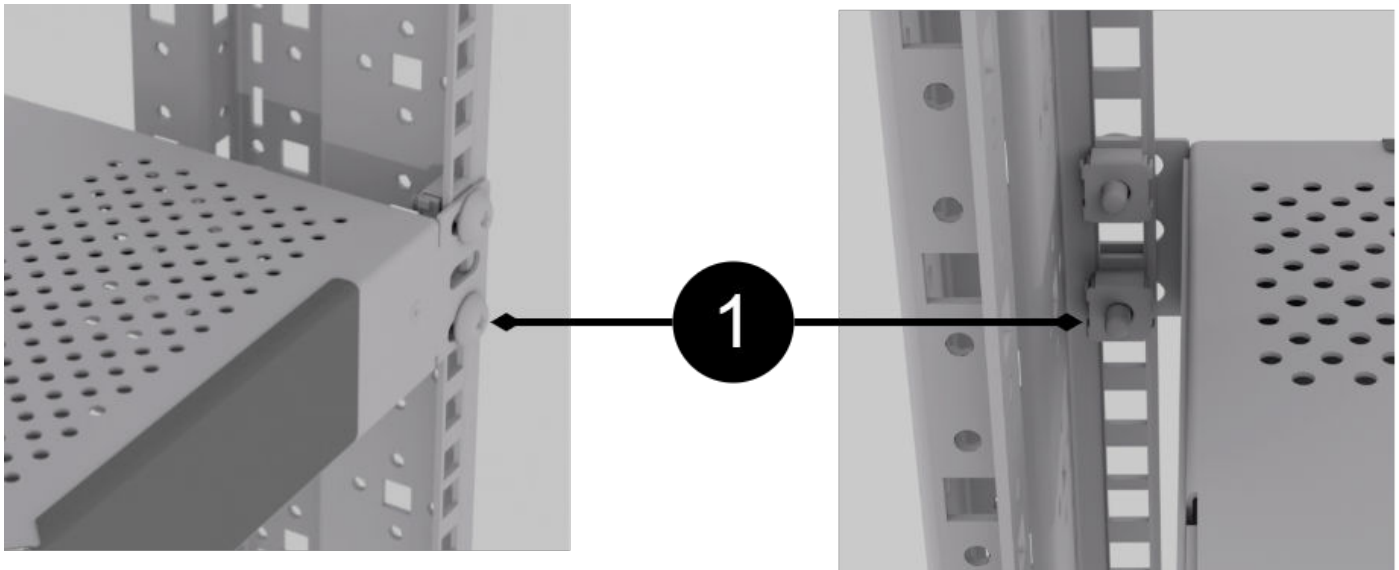
No	Explanation
1	Motherboard.
2	10 Output module ATO, load switching is done by opening the cover and connecting load on terminals on the back of the board.



Component overview, back

No .	Explanation	Comment
1	Connection of battery cables	24V.
2	Load output 2	The fuse on the front is the one closest to the display.
3	Load output 1	Fuse on the front is the one closest to the corner.

## Mounting in 19" rack



The unit is a height unit (44 mm) high, and should be mounted in 19" racks with two screws on each side (1).

Screw and nut for 19" rack not included.



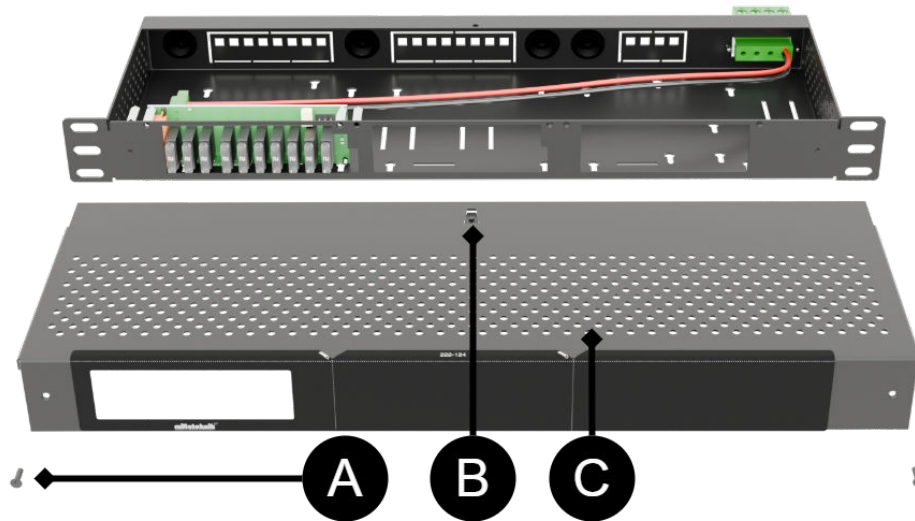
### CAUTION

Leave at least 100 mm above and below for best ventilation.

## Open the lid

Load is plugged in at the back. To reach the jackable terminals, the cover needs to be removed.

- Unscrew the two screws on the front of the lid.
- Press down with a screwdriver on the cap (B) while pushing out the cover.



Configuration varies but the cover is removed in the same way.

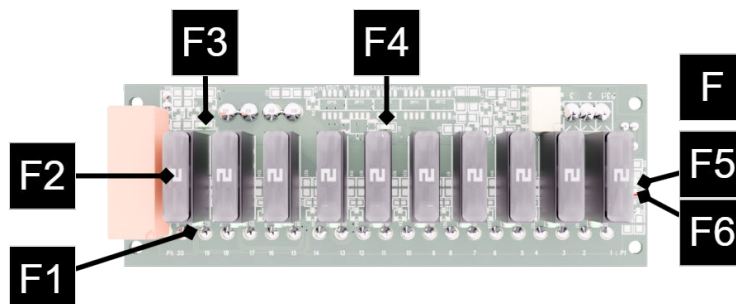
Removing the cap on 1HE

Letter	Explanation
A	Screw.
B	Glue/fastener in lid and bottom.
C	Lid.

## Plug into this order

- Plugging in load and alarm.
- Plug in power supply, 24V .

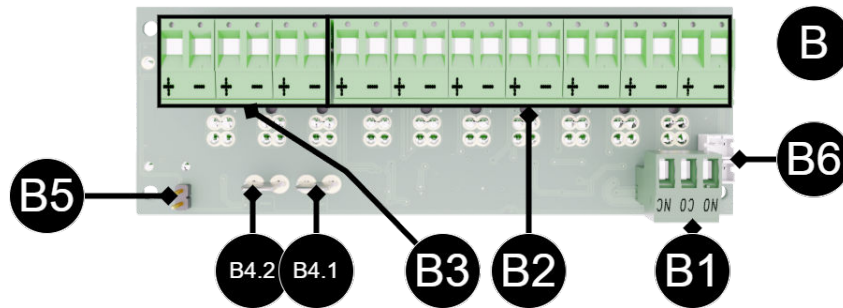
## Description 10 Output module ATO



Circuit Board Overview 10 Output module ATO - F: Front

F=Front	Explanation
F1	LED, lights green when fuse is full.
F2	Fuse.
F3	LED - glows green at ten active outputs.

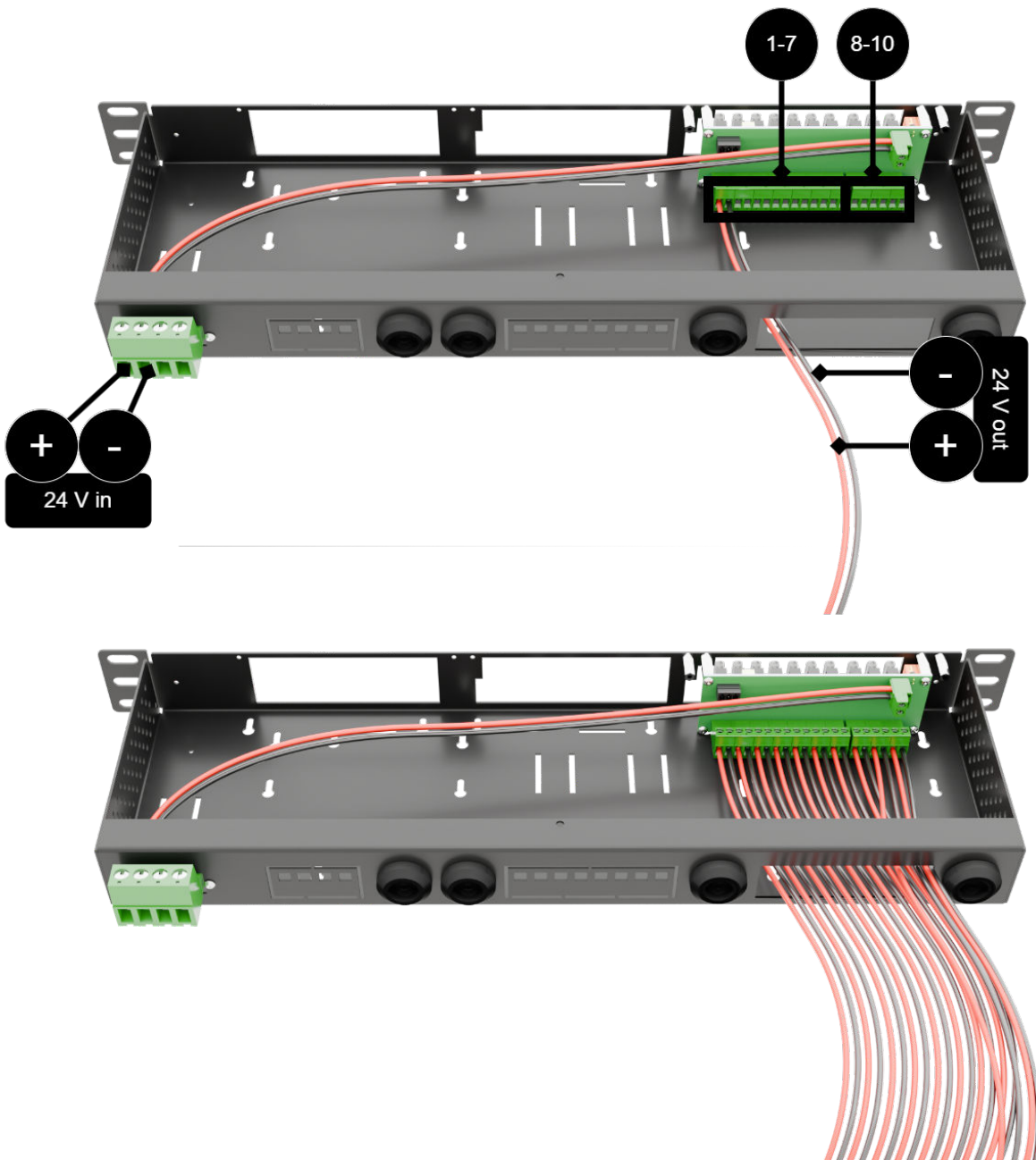
F=Front	Explanation
F4	Glowes green at only seven active outputs in battery operation.
F5	LED, Glowes green when all fuses are ok.
F6	LED, Glowes red when any fuse is broken.



Circuit Board Overview 10 Output module ATO -B: Backside

B=Back	Explanation
B1	Switching alarm, NC/COM/NO.
B2	Load output 1-7, priority.
B3	Load output 8-10, adjustable to priority.
B4.1	+ (plus connection) 24 V in.
B4.2	- (Minus connection 24 V in.)
B5	Jumper to set whether output 8-10 should be priority or not. The card comes with a jumper and then the outputs (8-10) are prioritized. When jumper does not sit on jumper, exits are unprivileged
B6	Alarm is fed back to the main board and forwarded via its communication interface.

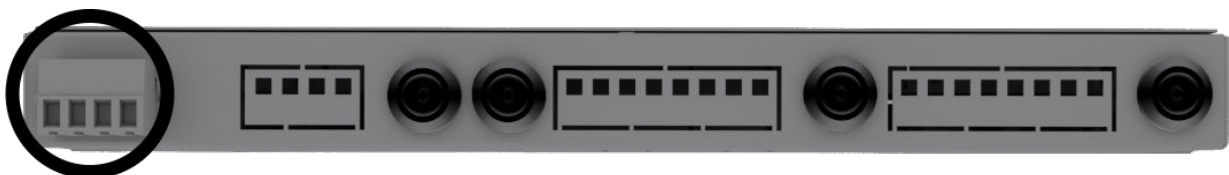
## Plug-in - load



## Switching load

In picture	Explanation
+/- 24V in	Incoming 24 V.
1-7	Load output 1-7, priority. Always active.
8-10	Load output 8-10, unsecured. Closes on battery operation, (if
+/- 24V out	24 V out.

## Plug-in - power supply



Switching on 24V takes place on the back, via the jackable terminal.

## Compatible Products

The product is compatible with all Milleteknik battery backups that supply 24V DC out.

## Product sheet - power supply / battery backup

### Product sheet - power supply from Milleteknik

#### PRODUCT IMAGE



#### NAME, ARTICLE NUMBER AND E-NUMBER

Name, article number and email number

Name	Item number	E-number (sv)
10 Output Module ATO 24V 1HE	1U02FU002410OP01	52 137 11

#### DESIGNATION

Fuse board with 10 load outputs, protected with blade fuses, in enclosure for 19" rack.

#### AREA OF USE

10 Output Module ATO 24V 24V 1HE distributes and secures power to up to ten 24V applications. It is conveniently mounted in a 19" rack and alarms in case of fuse failure via LED and relay. Three of the load outputs are priority, while seven are unprioritized. In the event of a power outage, the voltage on the unsecured outputs is broken. Need more connections? Easily expand with two extra cards and get a total of 30 outputs

#### COMMON USES

- For the expansion of more 24V applications in access systems, such as door environments.
- For more devices in security applications in alarm systems, such as magnetic holders.

#### TECHNICAL DESCRIPTION

Cancellation board with ten 1-pole capped outputs. Each output has a blade fuse and can be loaded with up to 2 A per output and a maximum of 10 A for the entire board Can be expanded with two additional cards for a total of 30 outputs.

#### VOLTAGE, CURRENT AND POWER

Voltage in: 27.3 V DC, (24 V).

Voltage Out: 27.3 V DC, (24 V).

Power Outlet: 10 A. Max 2 A per output.

Self-consumption is the power outlet the circuit board has when the system is deployed and in battery operation.

Self-consumption

Circuit Boards	Self-consumption (in battery operation)	Comments
10 moduli di output ATO	103 mA	

## OUTPUTS

Ten 1-pole secured load outputs, three of which can be configured as unsecured to break in the event of a power outage.

## ALARM

Fuse failure is indicated via LED and a switching relay for quick troubleshooting.

## FUSES

Load fuses:

## INDICATIONS AND COMMUNICATION

LED on card lights up when incoming supply is connected and output is connected.

## ENCLOSURE

Sheet metal box for mounting in a 19" rack stand. Powder coated black.

Dimensions, with and without packaging.

Dimensions, height x width x depth. <sup>a</sup>	Dimensions with packaging.
44 x 244 x 280 mm	110 x 490 x 340 mm

<sup>a</sup>Dimensions of product and packaging may differ, this is because the product may lie differently in the packaging.

Height units, fan and IP class.

HE	Built-in fan	IP class
1	Yes	IP20

## WEIGHT

Weight.

Name	Net weight	Weight incl. packaging
10 Output Module ATO 24V 1HE	1.7kg	2.0 kg
10 Output module for 1U02	0.2 kg	0.3 kg

## INSTALLATION REQUIREMENTS

The device is intended for fixed installation. The unit must be installed indoors, environmental class 1, ambient temperature: +5°C to +40°C.

## REQUIREMENTS THAT THE PRODUCT MEETS

The product meets the following requirements.

EMC:	EMC Directive 2014 / 30EU
Electricity:	Low voltage directive: 2014/35 / EU
CE:	EC Directive in force: 765/2008
Environment	<p>REACH: The product complies with REACH Regulation (EC) No 1907/2006.</p> <p>RoHS: The product complies with RoHS Directive 2011/65/EU with additions.</p> <p>SCIP: registered under the EU Waste Directive where applicable, (2008/98/EC).</p> <p>WEEE: The product contains electrical components or wiring and is covered by the WEEE Directive (2012/19/EU). End-of-life products must be returned to a recycling centre</p> <p>Batteries: If the product is supplied with batteries, it is covered by the Battery Regulation (2023/1542). Expired batteries must be removed from the product and returned to a recycling centre</p>
Machinery Directive	The product is part of electrical systems, is subject to the relevant electrical and safety directives and is not a machine according to the Machinery Directive (2006/42/EC).
Ecodesign	Milleteknik's products are intended for professional use and are therefore not directly covered by the Ecodesign Regulation (EU 2019/1782). As some components may be covered, we nevertheless disclose relevant information to give our customers confidence in their choice

Efficiency (%) <sup>a</sup>	Standby consumption, typical (W):
1. Accessories, expansion or optional cards that do not convert energy themselves, but only control, monitor or distribute it, do not fall under the Ecodesign Directive	

<sup>a</sup>At rated load.



## GUARANTEE

The product has a two-year warranty for manufacturing defects.

## MANUFACTURING, LIFESPAN, ENVIRONMENTAL IMPACT AND RECYCLING

Manufactured by Milleteknik in Partille, Sweden.

The product is designed for a long service life, which reduces the environmental impact. End-of-life products are handed over to the nearest recycling centre.

## ABOUT THIS INFORMATION

All information is published subject to possible errors. Information is updated without prior notice.

Publication date 2025-11-13

## Address and contact details

Milleteknik AB  
 Ögärdesvägen 8 B  
 S-433 30 Partille  
 Sweden  
 +46 31 340 02 30  
 info@milleteknik.se  
 www.milleteknik.com

