TECHNICAL SPECIFICATIONS

Battery shelf with automatic fuse for connecting batteries to battery backup.

Battery shelf 24V M has capacity for two 45 Ah batteries.

Battery shelf 24V L has capacity for two 150 Ah batteries.

Battery shelf floor has capacity for four 150 Ah batteries.

Battery shelf L has capacity for four 150 Ah batteries.

It is possible to connect a maximum of 4 battery shelves to a battery backup.

EN54 24V 15A 1U with four Battery shelf 24V L

Installation and commissioning

Instruction No: 350-074

Product image

Installation video

https://www.youtube.com/embed/3wmpb45YmtM?t=35

SAFETY - RISK OF ACCESSING THE BATTERY TERMINALS

- The product must be installed in a locked and protected indoor environment. Risk of access to battery terminals
- Only authorized persons should install and maintain the system.
- It is the installer's responsibility that the system is suitable for intended use.
- Documents accompanying the system must be stored in it or in its immediate vicinity.
- Mains voltage should be disconnected during installation.

Battery combinations and reserve operating time (approx.)

Battery shelf 24V L

Battery shelf 24V M. Battery combinations and reserve operating time. The reserve operating time is calculated and may differ from the actual reserve operating time.

A (load)	2 pcs 45 Ah battery	4 pcs 45 Ah battery	6 pcs 45 Ah battery	8 pcs 45 Ah battery	10 pcs 150 Ah battery
2 A	21 h	42 h	64 h	82 h	108 h
4 A	12 h	20 h	30 hrs	42 h	54 h
8 A	4 h	12 h	15 h	20 h	26 h
10 A	3 h	8 h	12 h	16 h	20 h
14 A	2 h	5 h	9 h	12 h	15 h
18 A	1 h 30 min	3 h 30 min	6 min	10 h	13 h

Battery shelf 24V L. Battery combinations and reserve operating time. The reserve operating time is calculated and may differ from the actual reserve operating time.

A (load)	2 pcs 75 Ah battery	2pcs 100 Ah battery	2 pcs 150 Ah battery	4 pcs 100 Ah battery	4 pcs 150 Ah battery	6 pcs 150 Ah battery
2 A	32 h	42 h	65 h	87 h	130 h	195 h
4 A	16 h	22 h	33 h	44 h	67 h	100 h
6 A	12 h	15 h	22 h	30 hrs	45 h	67 h
8 A	8 h	12 h	4 p.m	22 h	33 h	50 h
10 A	6 h	9 h	13 h	17 h	27 h	40 hrs
12 A	4h 30 min	7 h	12 h 30 min	14 h 30 min	22 h	33 h
14 A	3 h 30 min	5 h 30 min	10 h	12 h 30 min	18 h	28 h
16 A	2 h 30 min	4 h 30 min	8 h	11 h	16 h	24 h
18 A	2 h	3 h 30 min	6 h 30 min	10 h	14 h	21 h

IT IS THE INSTALLER'S RESPONSIBILITY THAT ASSEMBLY IS SAFE

It is the installer's responsibility that batteries stand securely and that battery shelves are correctly assembled before commissioning

Installation of battery shelf

The battery shelf must be mounted in a 19" rack. Use the appropriate screw for the rack to attach the shelf.

Attach the shelf in at least two places on each side. Use as many screws as you need to keep the batteries and the shelf secure and stable.

In order for the device to function, batteries must be connected. These must be placed on a battery shelf that comes with prepared cabling. The battery shelf must be mounted in the rack before batteries are placed.

WARNING

The unit must be installed in a locked and protected indoor environment.

Risk of access to battery terminals. terminal protection must cover battery poles.

Install floor support

To cope with the weight of larger batteries batteries need floor supports used. This applies to Battery shelf 24V M and Battery shelf 24V L.

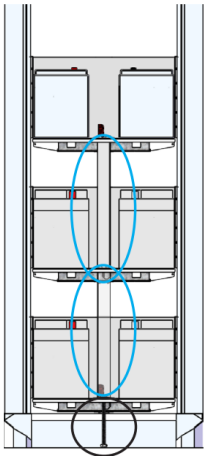
Floor support are placed in the bottom shelf, marked with a black circle. Adjust so the battery shelf is flat.

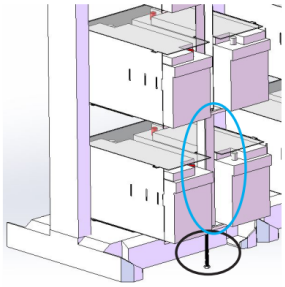
NOTICE

The paragraph below only applies to Battery Shelf 24V L

If there is more than one Battery shelf 24V L then support (included) must be mounted. Supports are placed in the holes in the back of the shelf on the top side of the lower shelf that is to be braced and on the underside of the upper shelf.

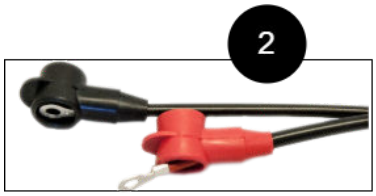
Floor supports must be mounted on both sizes of battery shelves.

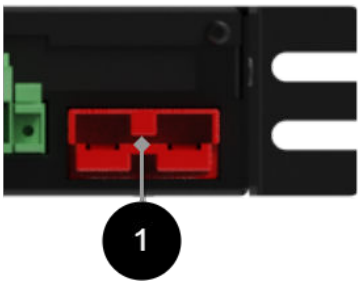




Support between battery shelves is included in Battery shelf 24V L and must be mounted. Support is not needed for Battery Shelf 24V M.

Connection of batteries in battery shelf





Use the included cabling to connect the batteries. Be careful not to short the terminals of the batteries. First connect wiring in batteries, (2). Cabling must have rubber pole protection that covers the battery pole. Then connect battery connector to the battery backup, (1).

Connecting Battery Shelf 24V M / Battery Shelf 24V L for battery backup

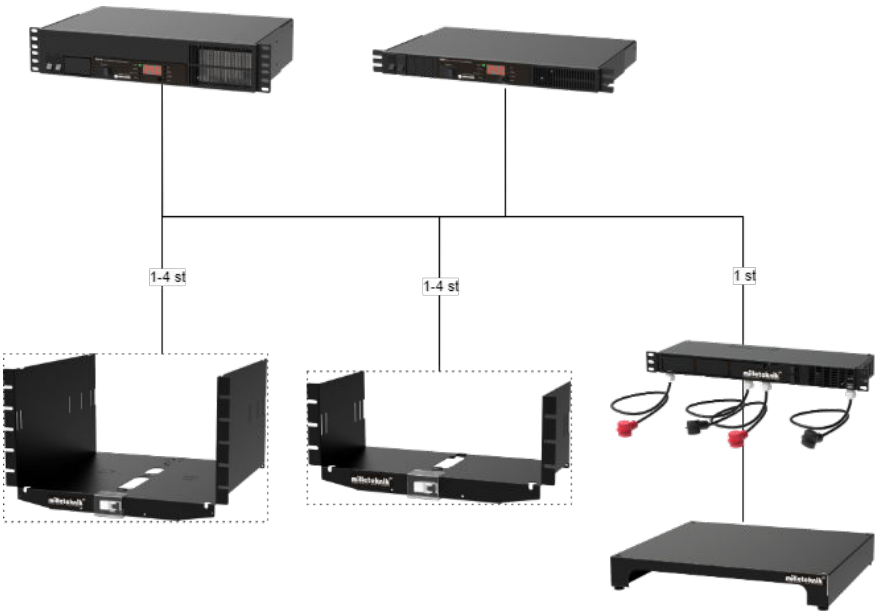
The battery shelf must be mounted in the rack before batteries are placed on it.

1. Connect connector to the back of the battery backup if it is an EN54 battery backup 1U/2U. If the battery backup is an FLX M or FLX L, the Adapter FLX to Battery Shelf (ordered separately and not included) must be used.
2. Connect batteries.
3. Turn on the automatic fuse (3).

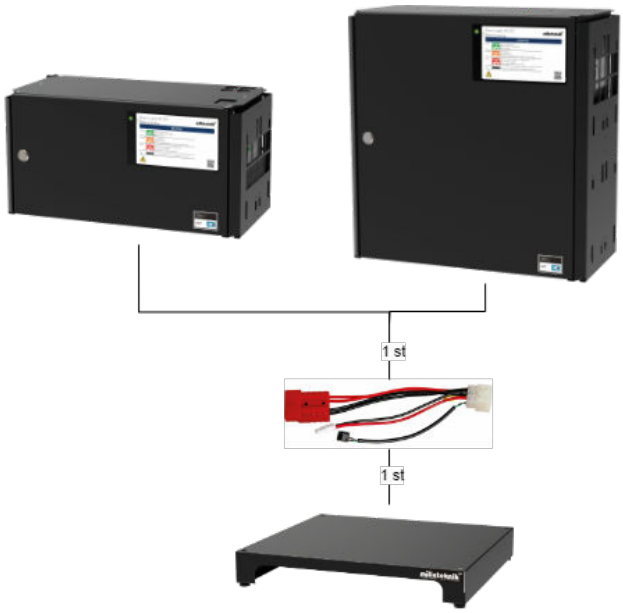
No.	Explanation
1	Connector
2	Connection for fuse to motherboard in battery backup, (not yet in use).
3	Automatic fuse

Connection of 2-4 battery shelves

Examples of different connections with battery shelves.



Examples of different connections with a floor shelf.



Use connector to connect more battery shelves, a maximum of four.

Connect cable for circuit breaker in series.

Always connect batteries before connecting to battery backup.

Batteries must have the same voltage

Technical data

Technical data	Item number	Email number	Product description
Battery shelf 24V M	BS010000024BM01	5213578	Battery shelf with space for two 45 Ah batteries. Cables for the batteries and cable for connection to battery backup (1U/2U). The product must be mounted in a rack.
Battery shelf 24V L	BS020000024BL01	5213587	Battery shelf with space for two 150 Ah batteries. Cables for the batteries and cable for connection to battery backup (1U/2U). The product must be mounted in a rack.
Battery shelf floor	BS030000000BF01	5213510	Battery shelf for floor. Fits on the floor between the posts in a 19" rack cabinet.
Battery Shelf L	BS020000000BL01	5213624	

	Battery shelf 24V M	Battery shelf 24V L	Battery shelf floor	Battery Shelf L
Measure	215x438x200mm (5U)	Dimensions: 290x490x430mm (7HE)	130x448x500mm(3HE)	290 x 490 x 430 mm (7U)
Weight	7 kg	10 kg	5 kg	5 kg
Batteries that fit on the shelf	2 pcs 28 Ah or 2 pcs 45 Ah	2 pcs 75 Ah or 2 pcs 100 Ah or 2 pcs 120 Ah or 2 pcs 150 Ah	2 pcs 75 Ah or 2 pcs 100 Ah or 2 pcs 120 Ah or 2 pcs 150Ah or 4 pcs 62 Ah or 4 pc 92Aheller 4 pcs 100Ah or 4 pcs 125 Aheller 4 pcs 150 Ah FT	2 pcs 150Ah or 4 pcs 150 Ah FT
Material	Powder coated sheet metal			
Color	Black			

Technical data	
Recommended environment	Environmental class 1, Indoor, 20% ~ 90% relative humidity
The products meet the requirements according to	EMC Directive 2014/30EU, Low Voltage directive: 2014/35/EU CE directive according to 765/2008, Emission: EN61000-6-:2001, EN55022:1998:-A1:2000, A2:2003 Class B, EN61000-3 -2:2001. Immunity: EN61000-6-2:2005, EN61000-4-2, -3, 4, -5, -6, -11.
Guarantee	2 years
Manufacturer	Milleteknik AB
Country of origin	Sweden

This document is subject to change without notice.

All information is published subject to errors

About translation of this document

User manual and other documents are in the original language in Swedish. Other languages may be machine translated and/or not reviewed, errors may occur.

Address and contact details

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Batteries - recommended, not included

28 AH, 12 V AGM BATTERY

Battery type	V	Ah
Maintenance-free AGM, lead-acid battery.	12 V	28 Ah

10+ Design life * battery

Article number	E-number	Article name	Terminal	Measure. Height width depth	Weight per piece	Make
MT113-12V28-01	5230545	UPLUS 12V 28Ah 10+ Design Life battery	M5 Bult	165x125x175 mm	9.5 kg	UPLUS

*Design life is the shelf life in years for an unused battery. Environmental factors such as heat and load affect the service life. Batteries that have a durability (+10 Design Life) of 10+ years usually need to be replaced after 5-6 years.

45 AH, 12 V AGM BATTERY

Fits in	Number of batteries

Battery type	V	Ah
Maintenance-free AGM, lead-acid battery.	12 V	45 Ah

10+ Design life * battery

Article number	E-number	Article name	Terminal	Measure. Height width depth	Weight per piece	Make
MT113-12V45-01	5230546	UPLUS 12V 45Ah 10+ Design Life battery	M5 Bult	197x165x170 mm	14.5 kg	UPLUS

*Design life is the shelf life in years for an unused battery. Environmental factors such as heat and load affect the service life. Batteries that have a durability (+10 Design Life) of 10+ years usually need to be replaced after 5-6 years.

75 AH, 12 V AGM BATTERY

Battery type	V	Ah
Maintenance-free AGM, lead-acid battery.	12 V	75 Ah

10+ Design life * battery

Article number	E-number	Article name	Terminal	Measure. Height width depth	Weight per piece	Make
MT113-12V75-01 ***	5230547	UPLUS 12V 75Ah 10+ Design Life battery	M6 Bult	295x168x214 mm	21 kg	UPLUS

*Design life is the shelf life in years for an unused battery. Environmental factors such as heat and load affect the service life. Batteries that have a durability (+10 Design Life) of 10+ years usually need to be replaced after 5-6 years.

100 AH, 12 V AGM BATTERY

Battery type	V	Ah
Maintenance-free AGM, lead-acid battery.	12 V	100 Ah

12+ Design life * battery

Article number	E-number	Article name	Terminal	Measure. Height width depth	Weight per piece	Make
MT114-12V100-FT ***	5230563	UPLUS 12V 100Ah 12+ Design Life battery	M6 Bult	285x110x394 mm	35.6 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 (+12 Design ILife) of 12+ years usually need to be replaced after 5-6 years.

MT114-12V125-FT *

Battery type	V	Ah
Maintenance-free AGM, lead-acid battery.	12 V	125 Ah

12+ Design life * battery

Article number	E-number	Article name	Terminal	Measure. Height width depth	Weight per piece	Make
MT114-12V125-FT ***	5230564	UPLUS 12V 125Ah 12+ Design Life battery	M6 Bult	287x110x551 mm	40.5 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 (+12 Design lLife) of 12+ years usually need to be replaced after 5-6 years.

150 AH, 12 V AGM BATTERY

Battery type	V	Ah
Maintenance-free AGM, lead-acid battery.	12 V	150 Ah

12+ Design life * battery

Article number	E-number	Article name	Terminal	Measure. Height width depth	Weight per piece	Make
MT114-12V150-FT ***	5230565	UPLUS 12V 150Ah 12+ Design Life battery	M6 Bult	287x110x551 mm	46.0 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 (+12 Design lLife) of 12+ years usually need to be replaced after 5-6 years.