

## SIN - UPS PRODUCT SHEET / TECHNICAL DATA

### SIN FLX M



#### Technical specifications

These technical specifications are subject to change without notice.

#### SINUS UPS name, article number and e-number

Name	Article number	E-number
SINUS UPS 1100W FLX M	FM01U0001FP011	5213664

#### Maximum rated power

Maximum rated power	Continuous effect
SIN 1100W FLX M	1100 W

#### ABOUT UPS

The UPS are designed with the latest switch technology and microprocessor monitoring, for maximum efficiency and reliability, providing long life for both electronics and batteries. UPS is well protected with isolation switch, battery circuit breaker, protection against overtemperature, overload, short circuit.

- Complete self-test including advanced battery test.

The units are installation and service friendly: - Compact volume. - Surface-mounted wall brackets are included for installation without having to open the electrical cabinet for quick installation. -

Modular. All electronics on cassette with jackable connections, for easy service or upgrade. NOTE! This translation is not verified and the information should always be cross-checked with the swedish original.

#### Fixed installation

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

## AREAS OF USE

SINUS UPS is mostly used for camera surveillance, PoE switches and other security systems. Sinus UPS is also used for gates and gate control of smaller and larger industrial and garage doors.

- Camera surveillance,
- PoE switches and other security systems.
- Gate and door control of smaller and larger industrial and garage doors.



## THE PRODUCT IS NOT INTENDED FOR EMERGENCY LIGHTING CONTROL

Ignition phase is missing. Retrofitting of the ignition phase is not possible.

## REGULATIONS AND CERTIFICATIONS

### Requirements that the product meets

Electricity:	Low voltage directive: 2014/35 / EU EN 62368-1
CE:	CE directive according to: 765/2008
Emission:	EN61000-6-: 2001 EN55022: 1998: -A1: 2000, A2: 2003 Klass B, EN61000-3-2: 2001
Immunity:	EN61000-6-2:2005, EN61000-4-2, -3, 4, -5, -6, -11
LVD	EN60950



## CIRCUIT BOARDS - TECHNICAL DATA

### Technical data: CEO 3

#### CEO3 V 2.5

Info	Explanation
Article title	CEO3
Product description	CEO 3 is the next generation circuit board for simpler battery backups. Advanced functions that were not previously possible in simpler battery backups are now available as standard. CEO 3 is a reliable heart in simpler battery backups with fewer components than before, which reduces the environmental impact.
Measure	120 x 55 mm x 52 mm
Max operating power:	1100 W / 1500 W
Voltage form	Enfas sinus
Fuse on output	24 V
Outputs	Output: four load outputs 1-4 which are prioritized load outlets. (= always voltage).
Indication	Display showing operating status, alarms and faults. Operating indication: one indication diode per load output +/- . Solid green light = normal operation.

#### 230 V VOLTAGE IN

Voltage	Explanation / comment
Voltage in:	230V -15%, + 20% in mains operation.
Mains power:	charger max 0.4A + load.

#### 230 V OUTPUT VOLTAGE

Voltage OUT	Explanation / comment
Voltage out:	230 V - 10% in battery operation.
Voltage form:	Single-phase sine voltage.
Efficiency, approx:	90%
Idle power, approx:	10 W

## BATTERY CHARGE

I / O according to DIN 41773 Current limitation.

## PROTECTION

Type of protection	Explanation
Current limitation, electronic:	Type 300% of rated capacity.
Short-circuit protection:	Shutdown within 5 sec in case of heavy overload / short circuit according to UPS EN62040-1-1 standard.  Automatic restart when mains voltage returns.
Depth discharge protection:	When the battery terminal voltage is less than 19 V.
Overcharge protection:	Disconnection of charging voltage during overcharging.
Automatic fuse:	Batteries are secured.
Optional: Ground fault circuit breaker:	Can be installed on output (extra protection option according to EN62040-1-1).

## FUSES 1FAS MULTI

On circuit boards	Fuse	Explanation
F1	T16A	Fuse battery charger.
F2	T0.5A	Fuse contactor.

## SELF-TEST

Type of self-test	Explanation
Battery charge	Continuous monitoring of battery chargers.
Battery aging	Automatic test loading of batteries under high, short-term discharge current to detect battery aging. The test compares measured battery capacity with programmed values to give an alarm when the battery has lost 20% - 40% capacity of new value and should be replaced.
Inverters	Test load of UPS (corresponding rated power over internal test load) to check function and sufficient output voltage.

## ALARM

All alarms occur on potential-free relay switching.

Alarm type	Explanation
Power outage alarm	Alarm in case of network interruption adjustable time delay from direct to 10 h (3s, 3, 15, 30m, 1, 2, 4, 10h).
Alarm low battery voltage:	Alarm at adjustable alarm level corresponding to certain consumed battery capacity (standard 75%) in the event of a power failure
Sum Alarm, Self-Test:	Incorrect charging voltage (over- or under-voltage), aged battery that should be replaced or a malfunctioning inverter.

## TECHNICAL DATA ENCLOSURES

### Enclosures - Technical Data FLX M

Info	Explanation
Name	FLX M
Enclosure class	IP 32
Measure	Height: 224 mm, width 438 mm, depth 212 mm
Height units	5 HE
Mounting	Wall or 19 "rack
Ambient temperature	+ 5 ° C - + 40 ° C. For best battery life: + 15 ° C to + 25 ° C.
Environment	Environmental class 1, indoors. 20% ~ 90% relative humidity

Info	Explanation
Material	Powder coated sheet
Color	Black
Cable entries, number	4
Batteries that fit	2 pieces 12 V, 20 Ah.
Fan	Yes

## BATTERIES - RECOMMENDED, NOT INCLUDED

Batteries are not included they are sold separately

Batteries are sold separately.

20 Ah, 12 V AGM battery

Fits in	Number of batteries	
Battery type	V	Ah
Maintenance-free AGM, lead-acid battery.	12 V	20 Ah

10+ Design life \* battery

Article number	E-number	Article name	Terminal	Measure. Height width depth	Weight per piece	Make
MT113-12V20-01	5230538	UPLUS 12V 20Ah 10+ Design Life battery	M5 Bult	182x77x168 mm	6.0 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 (+10 Design Life) of 10+ years usually need to be replaced after 4-5 years.

## LINK TO THE LATEST INFORMATION

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

### Sinus UPS

All information is published with the reservation of possible errors.

## WARRANTY, SUPPORT, COUNTRY OF MANUFACTURE AND COUNTRY OF ORIGIN

### 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.

### 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 can also send e-mail, we respond, on weekdays, usually in 24 hours.

Phone: +46 31-340 02 30

## SPARE PARTS

Support handles questions about spare parts, see contact information above.

### Country of manufacture

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

Designed and produced by: Milleteknik AB

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