SLAT
for safer buildings

Catalog 2022-2023

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- Standards support
- R&D support
- Marketing support
- Press / Communication





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WITH MYSLAT, EVERYTHING IS JUST A CLICK AWAY

MySLAT opens a private space gathering all relations you have with SLAT. Order tracking, invoices, complete documentation on products you ordered, BIM models, softwares, and more. Everything about you is just there, no need to search anymore. Even better! Take advantage of the services offered to you: technical questions, after sales assistance, express order...
Things are now so simple!

SLAT
for safer buildings

SLAT secures critical equipments and technical networks for buildings and cities.

SLAT
for safer buildings

Manufacturing site / Headquarters

Sales Area

DACH Sector

RECEIVE

TRUST & DURABILITY

GET YOURSELF A SUPPLIER THAT YOU CAN TRULY RELY ON.

- SLAT has been developing its **expertise** since 1953.
- 60% of our customers trust us for **over 10 years**.
- SLAT provides a **reliable supply source** ensured by a Business Continuity Plan.
- Our growth is **constant** to support yours.
- **Innovation** is part of our DNA. We create solutions intended to grow your **added value**.
- SLAT, a **NETZERO** company, takes **protection of the planet** seriously.

NETZERO

DEMAND
QUALITY & PERFORMANCE

YOU ARE BUYING QUALITY WITH CONTROLLED PRODUCTION LINE!

- SLAT products are designed, assembled and inspected in **France**.
- Quality and Environmental control is certified **ISO 9001: 2015** and **ISO 14001: 2015**.
- Lean manufacturing ensures **flexibility** and **short lead times**.

YOU USE RELIABLE AND ECO-DESIGNED PRODUCTS.

- You deserve the **latest technologies** adapted to your needs.
- Obtain a **3 year warranty** on almost all our product ranges.
- Reduce your electrical power consumption.
- Benefit from **NF** and **VdS-certified products, based on the latest standards**.
- Make your **installation easier** thanks to the small size of our products.

WITH SLAT, YOU ARE NUMBER 1.

OBTAIN
SERVICE & CUSTOMER AWARENESS

WE WILL SUPPORT YOU IN YOUR CHOICES AND PROVIDE YOU WITH A PERSONALIZED RESPONSE.

- Our expert advisers will deal with your requests within **24h**.
- Save time! You can find all our information on www.slat.com (Commercial brochures, datasheets, configuration software, certificates of compliance, Declarations of Performance, etc...).

EACH OF OUR CUSTOMERS DESERVES THE VERY BEST.

- 600 references available within **5 working days**.
- Your delivery instructions **are observed**.
- NEW Follow your delivery status, download your documentation and more on MySLAT.

AT YOUR SIDE FOR THE LONG RUN!

- We support you over time for each contract; we are familiar with **your history**.
- Are you facing installation or operating difficulties? Call the Hotline, or send us an email and receive an **answer before the end of the day**!
- Should you have an **emergency**? We will help you deal with it.

Selection guide

		AES	SDNAES	AXS2	AXS3
Your field of expertise	Fire safety	x	x		
	Access control and Video			x	x
	Communication				
	Videoprotection / Urban networks				
	Emergency systems and Medical appliances				
	Building management				
Voltage	12 V			x	x
	24 V	x	x	x	x
	48 V	x	x		
	PoE+				
Standard	EN 54-4/A2	x	x		
	EN 12 101-10	x			
	EN 50 131-6			x	x
	EN 61 046				
	NF C13 100				
	IEEE 802.3af/at				
Communication	LED	4	3	1	3
	Dry contact	3	3	1	3
	Alphanumerical display				
	RS 485	x (2)			x (2)
	IP webserver				
	Switch function				
Installation	DIN rail / panel mount			x	
	19" Cabinet	x	x		
	Wall mounting	x		x	x
	Floor standing	x		x	x
	Pole mounting				
Battery technology	Lithium				
	Lead	x	x	x	x
Pages		12-17	18-21	24-28	29-33

(1) with accessories (2) in option (3) sold without battery

Battery capacity according to cabinet

Enclosure	Dimensions W x H x D (mm)	Mounting	12 V	24 V	48 V	56 V
C7	243 x 195 x 96	Wall-mounted & DIN rail	7 Ah	1.2 Ah	2.1 Ah	-
C24	322 x 248 x 126	Wall-mounted	7 Ah 12 Ah 24 Ah (2 x 12 Ah)	7 Ah 12 Ah	2.1 Ah	-
C34	367 x 352 x 108	Wall-mounted	7 Ah 17 Ah	7 Ah 17 Ah	-	-
C38	289 x 350 x 189	Wall-mounted & floor-mounted	17 Ah 24 Ah 38 Ah	17 Ah 24 Ah	7 Ah 12 Ah	-

EVOLUTION	EPVIDEO	SYNAPS	SDC-M	SDC-PoE	SANTE	FIT'IN	ENERGO
				x		x	
x				x			
	x	x	x				
				x	x	x	x
			x	x			
x	x	x	x			x	
x	x	x	x		x	x	x
x			x			x	x
	x (1)	x		x			
					x		
							x
	x (1)	x		x			
4		1 to 16	1 to 3	1 to 68	3		2
3		1	1	1	1	1	3
x	webserver	webserver	webserver	webserver			x
			x				
x	x	x	x	x			
	5 ports (1)	2 to 10 ports		1 to 24 ports			
			x	x		x	
x				x			
x	x	x	x	x	x		
x			x	x	x		x
	x	x					
	x	x	x	x			x
x					x	x (3)	x
36-41	50-54	55-68	72-80	81-98	102-105	106-109	112-115

Enclosure	Dimensions W x H x D (mm)	Mounting	12 V	24 V	48 V	56 V
C48	425 x 345 x 120	Wall-mounted	24 Ah (2 x 12 Ah) 36 Ah (3 x 12 Ah) 48 Ah (4 x 12 Ah)	7 Ah 12 Ah 24 Ah (4 x 12 Ah)	7 Ah 12 Ah	7 Ah 12 Ah
C85	408 x 408 x 224	Wall-mounted & floor-mounted	48 Ah (2 x 24 Ah) 65 Ah 96 Ah (4 x 24 Ah)	24 Ah 38 Ah 48 Ah (4 x 24 Ah)	12 Ah 17 Ah 24 Ah	-
C180	505 x 610 x 430	Floor-mounted	120 Ah 130 Ah 140 Ah	65 Ah 95 Ah 120 Ah 130 Ah 170 Ah	38 Ah 65 Ah 95 Ah	-

SLAT CONTRIBUTES TO THE RELIABILITY OF YOUR FIRE PROTECTION EQUIPMENT

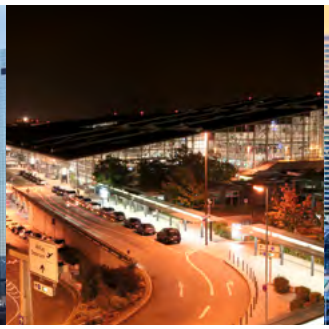
Around 300,000 fires occur each year in the country, 5% of them concern public-access buildings or business premises. In 3 out of 4 cases, affected businesses disappear. These disasters, all locations combined, claim about 30,000 victims per year.

With increasingly sophisticated fire detection systems and the expertise of the emergency services, these numbers are dropping.
However, conscientious professionals and stakeholders need to be increasingly vigilant in order to provide optimal protection for the people they are responsible for.

In order to make detection and safety equipment more reliable, SLAT works with the biggest manufacturers in the sector and thus offers plant managers and emergency services the guarantee of flawless operation of their fire safety control panel.

SELECTION GUIDE

	AES		SONAES	
Standard	EN 54-4		EN 54-4	
	EN 12101-10			
	NF SSI			
Application	Fire security		PA/VA Systems	
Voltage	24 V	48 V	24 V	48 V
Current	2 A	2 A	6 A	12 A
	3 A	3 A	12 A	
	4 A	4 A		
	6 A	6 A		
	8 A	8 A		
	12 A	12 A		
	16 A			
	24 A			
Format	Box or Rack		Rack	
Battery capacity	7 Ah	2,1 Ah	Compatible with batteries from 65 to 225 Ah	
	12 Ah	12 Ah		
	17 Ah	17 Ah		
	24 Ah	24 Ah		
	40 Ah	40 Ah		
	65 Ah	65 Ah		
Page	12-17		18-21	


AES

Emergency power supplies with batteries – Fire Safety

24 V DC • 48 V DC

Certified as per standard: EN 54-4/A2
"Fire detection and alarm systems"
Certified as per standard: EN 12 101-10
"Smoke and heat control systems"
VdS Approval
Certificates can be downloaded from www.slat.com

Communication by LED on the front panel • Dry Contact*

The AES emergency power supplies provide permanent and backup power for Fire Safety installations.

**This range exists also with RS485 serial link*

C24
322 x 248 x 126 mm

C38
289 x 350 x 189 mm

Rack F3U
483 x 132 x 110 mm

C180
505 x 610 x 430 mm

C85
408 x 408 x 224 mm

Rack
483 x 132 x 235 mm

Main functions

- Monitors battery presence and impedance (aging).
- The installation resumes as soon as the mains returns.
- Protects the battery from temperature variations.

Benefits of the AES range

- A wide range of products in terms of power and enclosures.
- Batteries connections supplied with protected lugs.
- Built-in lightning protection.
- Alarm reports on dry contacts.
- 6 fused outputs as a standard (C38, C85).
- Space and DIN rail provided for transmission units (C38, C85).

AB = With Battery
SB = Without Battery

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
AES 24V			
AES 24V 4A F3U G	3,0 kg	483 x 132 x 110	2140430000
AES 24V 6A F3U G	3,0 kg	483 x 132 x 110	2140630000
AES 24V 8A RACK G	3,0 kg	483 x 132 x 235	2140830000
AES 24V 12A RACK G	3,0 kg	483 x 132 x 235	2141230000
AESI 24V 2A C24 SB G	2,0 kg	322 x 248 x 126	2340224000
AESI 24V 2A C24 AB 7 AH G	8,0 kg	322 x 248 x 126	2340224007
AESI 24V 2A C24 AB 12 AH G	10,0 kg	323 x 248 x 126	2340224012
AESI 24V 3A C38 SB G	5,0 kg	289 x 350 x 189	2340338000
AESI 24V 3A C38 AB 12 AH G	15,0 kg	289 x 350 x 189	2340338012
AESI 24V 3A C38 AB 24 AH G	25,0 kg	289 x 350 x 189	2340338024
AESI 24V 3A C85 SB G	8,0 kg	408 x 408 x 224	2340385000
AESI 24V 3A C85 AB 38AH G	28,0 kg	408 x 408 x 224	2340385040
AES 24V 6A C38 SB G	5,0 kg	289 x 350 x 189	2140638000
AES 24V 6A C38 AB 24 AH G	25,0 kg	289 x 350 x 189	2140638024
AES 24V 6A C85 SB G	9,0 kg	408 x 408 x 224	2140685000
AES 24V 6A C85 AB 38AH G	39,0 kg	408 x 408 x 224	2140685040
AES 24V 8A C85 SB G	10,0 kg	408 x 408 x 224	2140885000
AES 24V 8A C85 AB 38AH G	40,0 kg	408 x 408 x 224	2140885040
AES 24V 12A C85 SB G	10,0 kg	408 x 408 x 224	2141285000
AES 24V 12A C85 AB 38AH G	40,0 kg	408 x 408 x 224	2141285040
AES 24V 16A C180 SB	20,0 kg	505 x 610 x 430	2041618000
AES 24V 16A C180 AB 65AH	68,0 kg	505 x 610 x 430	2041618065
AES 24V 24A C180 SB	20,0 kg	505 x 610 x 430	2042418000
AES 24V 24A C180 AB 65AH	68,0 kg	505 x 610 x 430	2042418065
AES 48V			
AES 48V 3A F3U	3,0 kg	483 x 132 x 110	2080330000
AES 48V 6A RACK	3,0 kg	483 x 132 x 235	2080630000
AES 48V 8A RACK	3,0 kg	483 x 132 x 235	2080830000
AES 48V 12A RACK	3,0 kg	483 x 132 x 235	2081230000
AES 48V 2A C24 SB	2,0 kg	322 x 248 x 126	2080224000
AES 48V 2A C24 AB 2,1 AH	6,0 kg	322 x 248 x 126	2080224002
AES 48V 2A C38 SB	5,0 kg	289 x 350 x 189	2080238000
AES 48V 2A C38 AB 12 AH	21,0 kg	289 x 350 x 189	2080238012
AES 48V 3A C38 SB	5,0 kg	289 x 350 x 189	2080338000
AES 48V 3A C38 AB 12AH	21,0 kg	289 x 350 x 189	2080338012
AES 48V 4A C85 SB	10,0 kg	408 x 408 x 224	2080485000
AES 48V 4A C85 AB 17AH	50,0 kg	408 x 408 x 224	2080485017
AES 48V 4A C85 AB 24AH	62,0 kg	408 x 408 x 224	2080485024
AES 48V 6A C85 SB	10,0 kg	408 x 408 x 224	2080685000
AES 48V 6A C85 AB 24AH	50,0 kg	408 x 408 x 224	2080685024
AES 48V 8A C180 SB	20,0 kg	505 x 610 x 430	2080818000
AES 48V 8A C180 AB 40AH	80,0 kg	505 x 610 x 430	2080818040
AES 48V 8A C180 AB 65AH	116,0 kg	505 x 610 x 430	2080818065
AES 48V 12A C180 SB	20,0 kg	505 x 610 x 430	2081218000
AES 48V 12A C180 AB 40AH	80,0 kg	505 x 610 x 430	2081218040
AES 48V 12A C180 AB 65AH	116,0 kg	505 x 610 x 430	2081218065

> Ratings								
	50 W	75 W	100 W	150 W	200 W	300 W	400 W	600 W
24 V DC	2 A	3 A	4 A	6 A	8 A	12 A	16 A	24 A
48 V DC	-	-	2 A	3 A	4 A	6 A	8 A	12 A
The currents values refer to the nominal current (I_n) at rated output power.								

> Standard-based specifications	
Safety	EN 62368-1
EMC - Interference Immunity	EN 50130-4 • EN 61000-6-1 • EN 61000-6-2
EMC - Emission	EN 61000-3-2 • EN 61000-6-3 • EN 61000-6-4 • EN 55032 B class
Industry-specific	NFS 61940 • EN 54-4 / A2 • EN 12101-10
Environmental	This product range meets the environmental requirements according to ISO 14001, RoHS and WEEE.
Certification VdS	VdS 2344 - 2541 (all) VdS 2203 - 2593 - 2824 - 2882 (50-75 W)

> Environmental specifications			
Hygrometry	**During storage:** relative humidity 10% to 95% (non-condensing) **During operation:** relative humidity 20% to 95% (non-condensing)		
Storage temperature	-25 to +85°C		
Operating temperature	Power	50 W - 75 W	100 W - 600 W
	at 75% of load	-10°C to +60°C	-5°C to +50°C
	at 100% of load	-10°C to +55°C	-5°C to +40°C
Maximum operating height	Above 2,000 m, the maximum temperature decreases 5% every 1,000 m		
Service life 50-75 W	200,000 hours at 25°C (ext. environment) and 75% of load at nominal mains voltage		
Service life 100-600 W	50,000 hours at 25°C (ext. environment) and 75% of load at nominal mains voltage		

> Input characteristics		
	50 W - 75 W	100 W - 600 W
Voltage	115 V - 240 V single-phase	230 V +/- 15% single-phase
Frequency	45 to 65 Hz	
Mains Type	TT - TN - IT	
Inrush current	Bipolar Curve C between 2 and 10 A	limited by NTC
Upstream circuit breaker to be provided	D curve	
Class	Class I	

	50 W	75 W	100 W	150 W	200 W	300 W	400 W	600 W
Primary current @ 195V	0.52 A	0.78 A	0.75 A	1 A	1.5 A	2 A	3 A	4 A
Efficiency	50 W - 75 W		100 W - 150 W		200 W - 300 W		400 W - 600 W	
η @ 20% load	81.3%		75%		84%		85%	
η @ nominal load	90.1%		84%		90%		91%	

> Output characteristics		
Nominal voltage	24 V DC	48 V DC
Float voltage (U_n) adjusted to half load and 25°C	27.2 V +/-0.5%	54.4 V +/-0.5%
Current limitation charger	I_n	

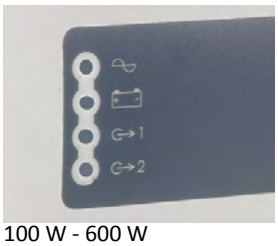
> Reliability of the output voltage	
Protection against external interferences	- Resistance against all types of external interferences: • Overvoltage occurring in the power supply (lightning, industrial overvoltage, insulation faults on neutral conductor impedance earthing) • Short circuit at the primary circuit due to a delayed fuse on the phase conductor • Differential mode shock waves by varisor and fuse. • Battery polarity reversal. • Overvoltages on the secondary circuit. • Overcurrents and short-circuits on the secondary circuit. • The short-circuits inside the product, protected by primary fuse. • High ambient temperatures (outside the specified range).
Management of charger current limitation	- Output current limitation allows a charge cycle to be started with a empty battery. • Fully protects the product from short-circuits on the installation. • Protection selectivity is ensured by fuses on each load output and the battery fuse.
High performance filtering and regulation	- Particulary efficient output voltage regulation • Static regulation < 0.5% of U_n. • Dynamic regulation < 5% of U_n for cumulative variations of the mains and the load (from 10% to 90%). - Enhanced filtering that eliminates all interference and reduces the ripple on the V DC output. Battery capacity preserved and the guarantee of optimum system operation. • LF rms ripple < 0.2% of U_n. • HF ripple (20 MHz-50 Ω) < 4 % of U_n.
> For the control and management of the emergency power source	
System control	- Monitoring of: • The status of Mains, battery and load fuses. • Battery presence or absence and its impedance. • Temperature inside the cabinet (200 W to 600 W). • Battery voltage and its operating status. • Mains voltage inside correct operating range.
Battery charge management	- This function is essential for reaching the design life and to ensure optimum operation of the battery. • The charge voltages are factory set for «sealed» recombination-type lead acid batteries. • They are consistent with the battery manufacturer's recommendations. • The charger features battery charge current limitation. • The supply of power to the load takes priority over the battery charge.
Battery backup	- Automatic disconnection of the load at end of discharge to preserve its future capacity. • Prevents deep discharge that can permanently downgrade performance, Cut-off threshold 1.8 V/cell (+/-0.5%). • An alarm is sent before disconnection (Pre-cut alarm threshold 1.85 V/cell (+/-0.5%). • The charger integrates a limitation of the battery charging current. This allows your application to take full advantage of the battery's capacity.

> Table of charger internal consumption during autonomy

	24 V DC	48 V DC
50 W - 75 W	39 mA	-
100 W - 150 W	75 mA	85 mA
200 W - 300 W	44 mA	37 mA
400 W - 600 W	106 mA	73 mA

> For optimal communication

50 W - 75 W



100 W - 600 W

Display and remote reporting of the information

- **Mains fault (normal source): signaled locally by an orange LED**.
  - If the mains is not present or < 195 V.
  - If the mains fuse is blown or not present, or if product is out of order.
  - Remote reporting by dry contact with delay (failsafe).

- **Battery fault (safety supply): signaled by an orange LED**.
  - Remote reporting by dry contact with delay (failsafe).

- If battery is not present: The battery is tested in the following manner:
- Every 30 seconds for the first 20 minutes after commissioning:
- Every 15 minutes after the first 20 minutes, if a fault is detected, the test is conducted every 30 seconds, and continues up to 20 minutes after the fault disappears.

- If the internal impedance is too high (test every 4 hours maximum on a charged battery)**:** signaled by a green LED

- The impedance limit values are:

	24 V DC	48 V DC
50 W - 75 W	650 mΩ +/-15%	-
100 W - 150 W	410 mΩ +/-10%	1.65 Ω +/-10%
200 W - 300 W	164 mΩ +/-10%	656 mΩ +/-10%
400 W - 600 W	82 mΩ +/-10%	328 mΩ +/-10%

- If battery voltage < 1.8 V/ cell +/-3%.

- **Output 1 voltage presence (replacement normal source)**:
Voltage presence on this output is indicated by a green LED.

- Output 2 voltage presence (replacement normal source):
- Voltage presence on this output is indicated by a green LED.
- Remote reporting by dry contact with delay (failsafe) of the absence of one of the 2 load outputs.

- AES operates when the 2 green LEDs, corresponding to the load outputs, are illuminated.
If voltage is not present, the LEDs are off.

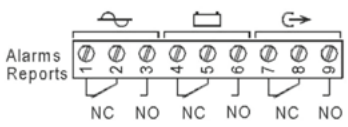
- Temperature compensation:
A battery voltage compensation system maintains the charge characteristics within the limits specified by the battery manufacturer across the entire operational temperature range.

- **Battery current limitation (50 W-75 W):**
2 microswitches (position 25%, 50%, 75% of rated current) are used to select the battery charging current according to the battery capacity. Battery manufacturers recommand to maintain charging current within 0.1 to 0.3 C. The product is delivered with the jumper in the '75' position.

- Battery current limitation (100 W-600 W):
A configuration jumper on the daughterboard (position 25%, 50%, 75% of the rated current) allows to adapt the battery charging current to its capacity.
The product is delivered with the jumper in the '75' position.

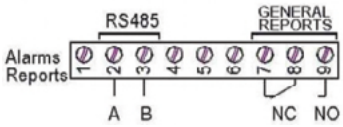
-Battery low voltage outage:
The outage threshold is 1.8 V/ cell +/- 3%.
The element causing the outage will be in the + position.

Communication AES



3 dry contacts with delay (failsafe) 1 A @ 24 V DC / 0.3 A @ 125 V AC

Communication AESRS



- The 3 faults (mains, battery, charger) and the information of opening the cover or removal from the wall are grouped on a single dry contact (failsafe).
- Dry contacts: 1 A @ 24 V DC, 0.3 A @ 125 V AC.
- An RS485 connection (Modbus) gives the above information in detail and communicates the analog values (voltages and load current, battery, rectifier, battery temperature).
- The power supply is addressed by two microswitches (4 possible addresses).

> Connections specifications				
Screw terminal	50 W - 75 W	100 W - 150 W	200 W - 300 W	400 W - 600 W
Mains	2.5 mm²*	2.5 mm²	2.5 mm²	2.5 mm²
Batteries	2.5 mm²*	6 mm²	6 mm²	10 mm²
Load (2, 6 or 10 outputs)	2.5 mm²*	6 mm²	6 mm²	10 mm²
Alarm reports	1.5 mm²*	1.5 mm²*	1.5 mm²*	1.5 mm²*
*Unpluggable connectors.				

> Cabinet and rack characteristics					
	Size W x H x D (mm)	Weight (kg)	IP	Base	Cover
C24	322 x 248 x 126	6 - 10	IP30	Metal, RAL 9006	ABS RAL 9003
C38*	289 x 350 x 189	21 - 25	IP31	Metal, RAL 7035	Metal, RAL 7035
C85*	408 x 408 x 224	25 - 50	IP31	Metal, RAL 7035	Metal, RAL 7035
C180	505 x 610 x 430	68 - 116	IP31	Metal, RAL 7035	Metal, RAL 7035
Rack	483 x 132 x 235	3	IP30	Metal, RAL 7035	Metal, RAL 7035
Rack F3U	482 x 132 x 110	3	IP30	Metal, RAL 7035	Metal, RAL 7035

*The following is installed in the C38 and C85 housings (24 V versions):
- a card with 5 fuse outputs (6 instead of 2 outputs are available)
- a DIN rail for integration of the user's equipment.
The following can be installed additionally in the C38 and C85 housings (24 V versions):
- an additional card with 5 fuse outputs (10 instead of 6 outputs are available).

> Battery capacity according to cabinet			
Cabinet	Type	24 V DC	48 V DC
C24	Wall-mounted	7 Ah, 12 Ah	2.1 Ah
C38	Wall-mounted & Floor-mounted	17 Ah, 24 Ah	7 Ah, 12 Ah
C85	Wall-mounted & Floor-mounted	24 Ah, 38 Ah	12 Ah, 17 Ah, 24 Ah
C180	Floor-mounted	65 Ah, 80 Ah, 120 Ah, 130 Ah, 170 Ah	38 Ah, 65 Ah, 80 Ah

SLAT can change specifications on his products without prior notice.

SONaes

WARRANTY 3 years

Charger for PA / VA for 19″ rack - Evacuation

24 V DC • 48 V DC

Certified as per standard EN 54-4/A2
"Detection and fire alarm systems"
Certificates can be downloaded from www.slat.com

Communication by LED on the front panel • Dry contact

SONaes battery chargers associated with a battery can be used to back up public address safety systems for evacuation of buildings.

Rack 2U - front view
483 x 89 x 399 mm

Rack 2U - back view
483 x 89 x 399 mm

Main functions

- Alarm currents can be configured from 40 A to 150 A.
- Checks the presence and the impedance of the battery.
- Protects the battery from temperature variations and deep discharge.
- Alarm reports via dry contacts and locally.

Benefits of the SONaes range

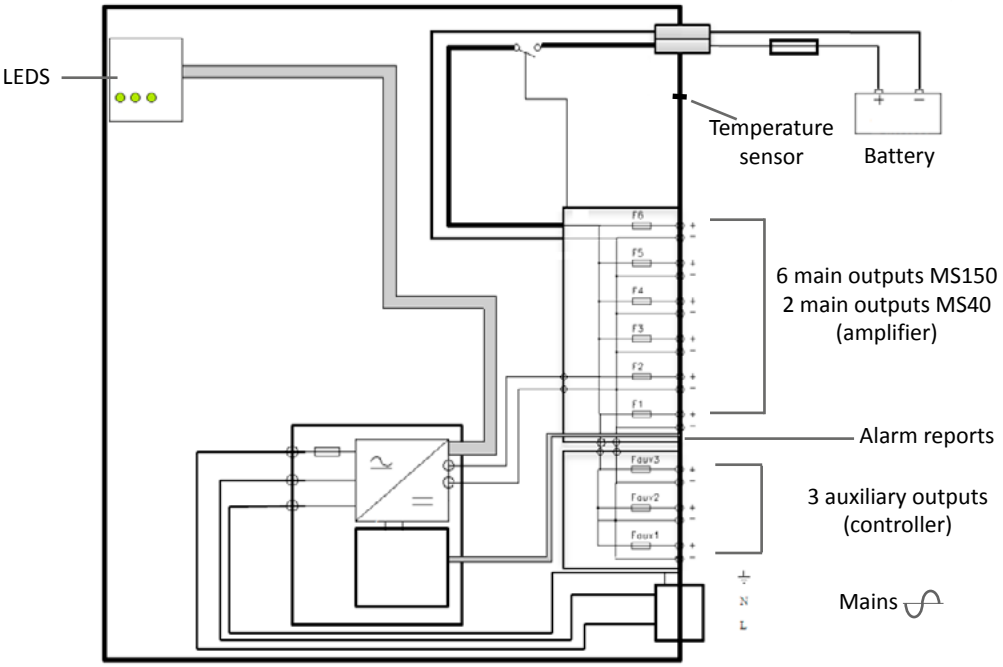
- Up to 6 amplifier outputs 40 A and 3 independent fused auxiliary outputs.
- All connectors are pluggable.
- Fully protected product, with rear connectors.
- Integrated lightning protection.

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
SONaes 24V			
SON 24V 6A MS 40 RACK	3,1 kg	483 x 89 x 355	4540633000
SON 24V 12A MS 150 RACK	5,4 kg	483 x 89 x 399	4541233000
FRONT TERMINAL BATTERY 24V			
BAT FRONT 24V 100Ah +CABLOT	75 Kg	1 tray	6540000100
BAT FRONT 24V 150Ah +CABLOT	110 Kg	1 tray	6540000150
SONaes 48V			
SON 48V 12A MS 150 RACK	6,0 kg	483 x 89 x 399	4581233000
FRONT TERMINAL BATTERY 48 V			
BAT FRONT 48V 100Ah +CABLOT	142,4 kg	1 tray	6580000100
BAT FRONT 48V 150Ah +CABLOT	208,0 kg	1 tray	6580000150

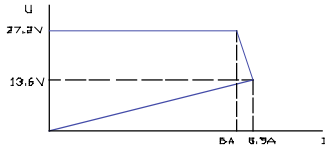
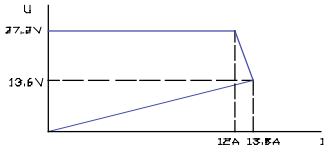
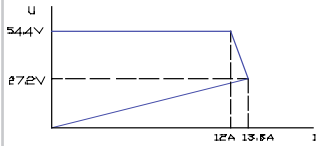
Front

MS40 Back

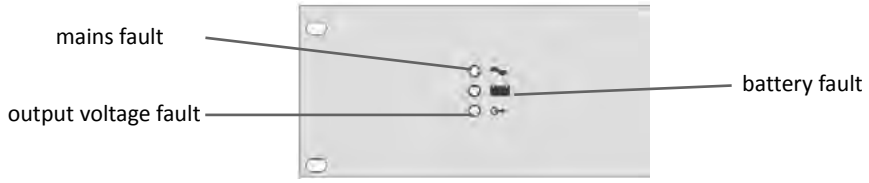
MS150 Back



	SON 24V 6A MS40 RACK	SON 24V 12A MS150 RACK	SON 48V 12A MS150 RACK
> Standard-based specifications			
Safety	EN 54-4 / EN 12101-10 classe A		
EMC - Immunity	EN 62368-1		
EMC - Emission	EN 50130-4 / EN 61000-6-1 / EN 61000-6-2		
Trade	EN 61000-3-2 / EN 61000-6-3 / EN 55032 B class		
Environment	This product range meets the environmental requirements of ISO 14001, RoHS and WEEE standards.		
> N°CPR (CE)	**1116-CPR-112**	**1116-CPR-089**	**1116-CPR-088**
> Environmental specifications			
Humidity	**During storage**: relative humidity 10% to 95% (non-condensing) **In operation**: relative humidity 20% to 95% (non-condensing).		
Storage temperature	-25 to +85°C		
Working temperature	-5 to + 45°c		
Altitude	Above 2,000 m, the temperature decreases by 5% every 1,000 m		
Working life	200,000h with external ambient temperature of 25°C, nominal mains voltage, 48h full charging per year and for the rest of the time: 25% of load		
> Ratings			
Maximum current for all outputs	40 A	150 A	150 A
Number of amplifier outputs	2	6	6
Maximum power per amplifier output	20 A	40 A	
Number of controller outputs	3		
Maximum power per controller output	5 A		

	SON 24V 6A MS40 RACK	SON 24V 12A MS150 RACK	SON 48V 12A MS150 RACK
> Mains			
Mains voltage	230 V AC +/-15% (195 to 264 V)		
Frequency	47 to 63 Hz		
Power at full load	190 W	380 W	760 W
Efficiency at full load	84%	87%	91%
Efficiency at 20% of load	74%	82%	86%
Neutral and earthing systems	TT, TN, IT		
Class	Class I		
> Output			
Floating voltage (U_n) set at half load and 25°C	27.2 V DC +/-0.5%		54.4 V DC +/-0.5%
Nominal output rectifier current	6 A	12 A	
Current limitation - short circuit current			
Peak to peak HF residual voltage (20 MHz-50 Ω)	< 4% of floating voltage		
RMS LF residual voltage	< 0.2% of floating voltage		
Static and dynamic regulation characteristics	< 5% of floating for mains voltage and output load (from 10 to 90%)		
> Battery			
Cut-off threshold	21.6 V +/- 3%		43.2 V +/- 3%
Internal impedance threshold of the battery fault	50 mΩ +/-10%	- 24 mΩ +/-10% if jumper in '50' position - 16 mΩ +/-10% if jumper in '75' position	- 48 mΩ +/-10% if jumper in '50' position - 32 mΩ +/-10% if jumper in '75' position
Maximum current for all outputs drawn from the battery	40 A	*- 100 A if jumper in '50' position - 150 A if jumper in '75' position	
Minimum battery capacity	24 Ah	*65 Ah if jumper is on '50' position 86 Ah if jumper is on '75' position	
Maximum battery capacity	110 Ah	225 Ah	
Battery voltage compensation	A system for the compensation of the battery output voltage maintains the charging characteristics within the battery manufacturer's specifications over the entire operating temperature range. If the sensor is broken or disconnected or has short circuit, the battery voltage is no longer compensated.		
Internal rectifier consumption	140 mA	430 mA	290 mA
> Connections			
Mains	2.5 mm² plug-in (IEC320) and lockable		
Main outputs	16 mm² plug-in		
Auxiliary outputs	2.5 mm² plug-in		
Battery output	16 mm² plug-in	50 mm² plug-in	
Alarm outputs	1.5 mm² plug-in		
Temperature sensor	1.5 mm² plug-in		

* 2 current configurations are available depending on jumper position.

	SON 24V 6A MS40 RACK	SON 24V 12A MS150 RACK	SON 48V 12A MS150 RACK
> Protections			
Against unintentional battery reverse	**- At start-up:** the battery is not connected **- During operation:** the fuse F8 (5 x 20, rated:6.3 A, type T) on the power and control board blown	**- At start-up:** the battery is not connected **- During operation:** the fuse F8 (5 x 20, rated:12.5A, type T) on the power and control board blown	
Against battery wiring error	**- If battery voltage** > 30 V +/-3%, the battery is not connected **- If battery voltage** < 14 V +/-3%, the battery is not connected		**- If battery voltage** > 60 V +/-3%, the battery is not connected **- If battery voltage** < 40 V +/-3%, the battery is not connected
Against output over-voltage	**- Regulation problem:** by switching off the power supply and restarting cyclically. The threshold is 28.8 V +/-3% **- External:** by transient voltage suppressor		**- Regulation problem:** by switching off the power supply and restarting cyclically. The threshold is 57.6 V +/-3% **- External:** by transient voltage suppressor
> Fonctionnal characteristics			
Alarms and signalisations	 **Led indication:** **Green = Ok / Orange=Mains fault active**		
Mains	**Fault if:** - mains voltage threshold <185 V +/-5% as long as the charger has not started, <165 V +/-5% when the charger has started - no primary fuse or fuse has blown - power supply is broken - internal temperature is too high		
Battery	**Fault if:** - no battery - high impedance on battery and its associated circuit - battery voltage < 23.5 V +/-3% mains present		**Fault if:** - no battery - high impedance on battery and its associated circuit - battery voltage < 47 V +/-3% mains present
	Battery fault monitoring - Detection of the presence/absence of the battery: 1 test every 30 seconds during the first 20 min and every 15 min after (in normal operation). As soon as a fault detection, the test is repeated every 30 seconds until no fault. - Measurement of the impedance of the battery and its associated circuit: 1 test every 4 hours the mains is present on the power supply and if the power supply has a current < rectifier current.		
Output	**Fault:** when one of the auxiliary or main outputs fails		
Alarm reports	Each alarm can be transmitted by dry contacts free of potential (C-NO-NC) allowing 1 A @ 24 V DC, 0.5 A @ 120 V AC		
> Mechanical characteristics			
Dimensions	Rack 19'' (MS40): W 483 mm x H 88 mm (2U) x D 355 mm (with connectors) / 344 mm (without connectors) Rack 19'' (MS150): W 483 mm x H 88 mm (2HE) x D 398 mm (with connectors) / 344 mm (without connectors)		
Weight	3.1 kg	5.4 kg	5.9 kg
IP (front side)	IP 30		

SLAT can change specifications on his products without prior notice.

ACCESS CONTROL AND VIDEO

WITH SLAT POWER SUPPLIES, YOUR ACCESS CONTROL REMAINS OPERATIONAL

The protection of property and people remains a concern for all building managers. Indeed, there are nearly 250,000 burglaries a year in the country for example or one burglary every 90 seconds. More than a million complaints concerned acts of degradation and vandalism of buildings.

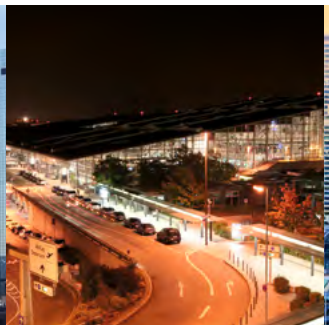
Facing these threats, access control and intrusion protection equipment requires high-performance power supplies that meet EN50131-6 standards. Many systems include today CCTV requiring PoE power supply.

SLAT brings you the most reliable solutions on time. It also offers service continuity solutions for systems running on IP.

SELECTION GUIDE

	AXS2		AXS3		FIT'IN			SDC-PoE	SDC-PoE4
Standard	EN 50131-6 grade 2		EN 50131-6 grade 3		-			-	-
DC output voltage	12 V	24 V	12 V	24 V	12 V	24 V	48 V	55 V	55 V
Current / Power	2 A / 5 A / 10 A	1 A / 2,5 A / 5 A	4 A / 6 A	2 A / 3 A	6 A / 12 A / 24 A / 32 A	3 A / 6 A / 12 A / 24 A	3 A / 6 A / 12 A	55 W	55 W
Number of terminal outputs	1 / 3* / 5*		2 / 4* / 6*		2			1	-
PoE/PoE+ ports	-		-		-			1	4
Ethernet ports	-		-		-			1	1
Format	DIN / card / box		Box		Card			DIN	Box
Battery technology	Lead		Lead		Lead			Lithium	Lithium
Battery capacity	7 Ah	1,2 Ah	7 Ah	7 Ah	Compatible with batteries up to 240 Ah	Compatible with batteries up to 180 Ah	Compatible with batteries up to 90 Ah	D	D
	12 Ah	7 Ah	12 Ah	12 Ah				G	E
	17 Ah	12 Ah	24 Ah	24 Ah					
	24 Ah	17 Ah	40 Ah						
	40 Ah	24 Ah							
Page	24-28		29-33		106-109			81-84	85-88

** with option*


AXS2

Uninterruptible Power Supplies with battery - Intrusion / Access Control

12 V DC • 24 V DC

Complies with Standard: EN 50131 – 6 grade 2
"Alarm Systems, Intrusion and hold-up systems"

Communication by LED on the front panel • Dry Contact

The AXS2 Uninterruptible Power Supplies with battery provide permanent and backup power for Intrusion and Access Control installations.

DIN
105 x 90 x 62 mm

C7
243 x 195 x 96 mm

C38
289 x 350 x 189 mm

CG2
125 x 177 x 68 mm

C24
322 x 248 x 126 mm

C34
367 x 352 x 108 mm

Main functions

- Resists short-circuits on load outlets
- Controls and reports operating status
- Resumes as soon as the mains returns
- Opening and tamper contacts (on models with casing).

Benefits of the AXS2 range

- One independent fuse-protected load outlet
- Optional: card with 3 feeders and 5 feeders
- Dimensioned to operate 24/7 at rated power
- Built-in lightning protection.

AB = With Battery
SB = Without Battery

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
AXS2 12V			
AXS2 12V 2A DIN	0,2 kg	105 x 90 x 62	2720220000
AXS2 12V 5A DIN	0,2 kg	105 x 90 x 62	2720520000
AXS2 12V 10A CG2	1,0 kg	125 x 177 x 68	2721002000
AXS2 12V 2A C7 SB	1,0 kg	243 x 195 x 96	2720207000
AXS2 12V 2A C7 AB 7AH	4,0 kg	243 x 195 x 96	2720207007
AXS2 12V 2A C24 SB	2,0 kg	322 x 248 x 126	2720224000
AXS2 12V 2A C24 AB 12 AH	6,0 kg	322 x 248 x 126	2720224012
AXS2 12V 5A C7 SB	1,0 kg	243 x 195 x 96	2720507000
AXS2 12V 5A C7 AB 7AH	4,0 kg	243 x 195 x 96	2720507007
AXS2 12V 5A C24 SB	2,0 kg	322 x 248 x 126	2720524000
AXS2 12V 5A C24 AB 12 AH	6,0 kg	322 x 248 x 126	2720524012
AXS2 12V 5A C24 AB 24 AH	12,0 kg	322 x 248 x 126	2720524024
AXS2 12V 5A C34 SB	3,0 kg	367 x 352 x 108	2720517000
AXS2 12V 5A C34 AB 7AH	4,0 kg	367 x 352 x 108	2720517007
AXS2 12V 5A C34 AB 17AH	10,0 kg	367 x 352 x 108	2720517017
AXS2 12V 5A C38 SB	5,0 kg	289 x 350 x 189	2720538000
AXS2 12V 5A C38 AB 40AH	20,0 kg	289 x 350 x 189	2720538040
AXS2 12V 10A C34 SB	3,0 kg	367 x 352 x 108	2721017000
AXS2 12V 10A C34 AB 17AH	10,0 kg	367 x 352 x 108	2721017017
AXS2 12V 10A C38 SB	5,0 kg	289 x 350 x 189	2721038000
AXS2 12V 10A C38 AB 24 AH	15,0 kg	289 x 350 x 189	2721038024
AXS2 12V 10A C38 AB 40 AH	20,0 kg	289 x 350 x 189	2721038040
AXS2 24V			
AXS2 24V 1A DIN	0,2 kg	105 x 90 x 62	2740120000
AXS2 24V 2,5A DIN	0,2 kg	105 x 90 x 62	2740220000
AXS2 24V 5A CG2	1,0 kg	125 x 177 x 68	2740502000
AXS2 24V 1A C7 SB	1,0 kg	243 x 195 x 96	2740107000
AXS2 24V 1A C7 AB 1,2AH	4,0 kg	243 x 195 x 96	2740107001
AXS2 24V 1A C24 SB	2,0 kg	322 x 248 x 126	2740124000
AXS2 24V 1A C24 AB 7 AH	8,0 kg	322 x 248 x 126	2740124007
AXS2 24V 2,5A C24 SB	2,0 kg	322 x 248 x 126	2740224000
AXS2 24V 2,5A C24 AB 7AH	8,0 kg	322 x 248 x 126	2740224007
AXS2 24V 2,5A C24 AB 12AH	10,0 kg	322 x 248 x 126	2740224012
AXS2 24V 2,5A C34 SB	3,0 kg	367 x 352 x 108	2740217000
AXS2 24V 2,5A C34 AB 7AH	9,0 kg	367 x 352 x 108	2740217007
AXS2 24V 2,5A C34 AB 17AH	17,0 kg	367 x 352 x 108	2740217017
AXS2 24V 2,5A C38 SB	5,0 kg	289 x 350 x 189	2740238000
AXS2 24V 2,5A C38 AB 24AH	25,0 kg	289 x 350 x 189	2740238024
AXS2 24V 5A C38 SB	5,0 kg	289 x 350 x 189	2740538000
AXS2 24V 5A C38 AB 24AH	17,0 kg	289 x 350 x 189	2740538024

> Ratings			
	20 W	60 W	125 W
12 V DC	2 A	5 A	10 A
24 V DC	1 A	2.5 A	5 A
The currents (I_n) shown are at rated output power.			
> Standard-based specifications			
Safety	EN 62368-1		
EMC - Immunity	EN 61000-6-1 • EN 61000-6-2		
EMC - Emission	EN 61000-6-3 • EN 61000-6-4 • EN 55032 class B		
Trade	EN 50131 - 6 Grade 2 (models with casing: a switch with a wired contact loop detects when the cover is opened or the unit is removed from the wall)		
Environment	This product range meets the environmental requirements of ISO 14001, RoHS and WEEE standards. 		
> Environmental specifications			
Humidity	in operation: relative humidity 20% to 95% non-condensing		
Storage temperature	-25 °C to +85 °C		
Working temperature	75% of load	-10°C to +60°C	
	100% of load	-10°C to +55°C	
Altitude	Above 2,000 m, the maximum temperature decreases by 5% every 1,000 m		
Working life	200,000 hours at 25°C for external atmosphere and 75% load		
> Input specifications			
Voltages	240 V single-phase (195 V - 265 V)		
Frequency	45 to 65 Hz		
Neutral system	TT - TN - IT		
Inrush current	limited by CTN		
Upstream circuit breaker recommended	Bipolar curve D		
Class	Class I		
	20 W	60 W	125 W
Primary current @ 195 V	0.17 A	0.45 A	1 A
Converter			
At 20% load	70%	79%	75%
At rated load	82%	84%	84%
> Output specifications			
Rated voltage	12 V DC	24 V DC	
Floating voltage (U_n) set at half-load and 25°C	13.6 V	27.2 V	
Current limitation	I_n		

> For reliable output voltage	
Protection against external attack	**- Resistance to all types of external aggressions:** • Overvoltages encountered on the mains network (lightning, industrial, isolation fault on impedance-earthed neutral system, etc.) • Short-circuit on the primary power supply by a slow-blow fuse on the phase. • Differential mode shock waves by varistor and fuse. • Battery polarity inversions. • Overcurrents and short-circuits at secondary. • Short-circuits inside the product, protected by primary fuse.
Charger current limitation control	- **Output current limitation** allows a charging cycle to be started with a discharged battery. • Protects the product completely from short-circuits on the installation. • The selectivity of the protective devices is guaranteed by the battery fuse.
High-performance regulation and filtering	**- Particularly efficient output voltage regulation.** • Dynamic regulation < 5% U_n for cumulative variations of the mains voltage and the load (from 10% to 90%). - **Enhanced filtering** which eliminates all interference and reduces the residual ripple on the DC output. Battery capacity preserved and a guarantee of optimum system operation. • LF rms ripple voltage < 0.2% U_n. • HF ripple voltage (20 MHz-50 Ω) < 4% U_n. *N.B.: the* AXS2 *range can work without a battery and be used connected directly to the mains.*
> For emergency power source control	
System control	**- Monitoring of:** • The status of fuses, mains, battery. • Battery voltage. • Its operating status.
Battery charge management	**- This function is essential** for reaching the design life and to ensure optimum operation of the battery. • The load voltages are factory set for "sealed" recombination-type lead acid batteries. • They are consistent with the battery manufacturers' recommendations.
> For optimal communication	
Display and remote reporting of the information 1 LED	- Mains or rectifier fault (1 dry contact) - Low voltage battery fault (1 dry contact)
On motherboard	A LED on the motherboard indicates the operational state before the cabinet is closed. Signals: - All OK: green - Faults: orange
Communication	Dry contacts (failsafe): 1 A @ 24 V DC, 0.3 A @ 125 V AC. A total of 3 dry contacts exist: - mains or rectifier - battery voltage - Tamper dry contact grouping cover opening and wall detachment.

> Connection specifications	12 V DC 2 A/5 A - 24 V DC 1 A	12 V DC 10 A - 24 V DC 5 A
Screw terminal	0.2 to 2.5 mm²	0.2 to 6 mm²

> Options	
Kit 2 x 5 outputs (fuse protected) (only for the C34 version)	- Board to be installed by the customer. - Secured by 4 clips. - Connectors with 2.5 mm² screw terminals. - 5 x 20 fuse, rating 4 A.

> Mechanical characteristics				
Version	Size W X H X D (mm)	IP	Base	Cover
DIN	105 x 90 x 62	IP10	ABS	ABS
CG2	125 x 231 x 73	-	Metal	Protective grille
C7	243 x 195 x 96	IP30	Metal, RAL 9006	ABS RAL 9003
C24	322 x 248 x 126	IP30	Metal, RAL 9006	ABS RAL 9003
C34	367 x 352 x 108	IP30	Metal, RAL 9006	Metal, RAL 7035
C38	289 x 350 x 189	IP31	Metal, RAL 7035	Metal, RAL 7035

> Types of battery cabinet			
Cabinet	Type	12 V DC	24 V DC
C7	Wall-mounted	7 Ah	1.2 Ah
C24	Wall-mounted	7 Ah, 12 Ah, 24 Ah (2 x 12 Ah)	7 Ah, 12 Ah
C34	Wall-mounted	7 Ah, 17 Ah	7 Ah, 17 Ah
C38	Wall-mounted & floor-mounted	17 Ah, 24 Ah, 38 Ah	17 Ah, 24 Ah

> C34 configuration	
Configuration	Space for customer equipment available (mm)
Two 7 Ah batteries	210 x 170
One 17 Ah battery	310 x 170
One 17 Ah battery + two 5-output boards (fuse protected)	140 x 170

SLAT can change specifications on his products without prior notice.

AXS3

Emergency power supplies with battery - Intrusion / Access Control

12 V DC • 24 V DC

Certified as per Standard: EN 50131 – 6 grade 3
"Alarm Systems, Intrusion and hold-up systems" **VdS Approval (12V models)**
Certificates can be downloaded from www.slat.com

Communication by LED on the front panel • Dry Contact*

The AXS3 emergency power supplies with battery provide permanent and backup power for Intrusion / Access Control installations.

** This range is also available with RS485 serial link.*

C24
322 x 248 x 126 mm

C38
289 x 350 x 189 mm

C85
408 x 408 x 224 mm

Main functions

- Controls and reports operating status
- Monitors battery presence and impedance (aging)
- Protects the battery from temperature variations
- Protects the battery at end of discharge
- Opening and tamper contacts

Benefits of the AXS3 range

- Two independent fuse-protected load outlets
- Optional: card with 3 feeders and 5 feeders
- Dimensioned to operate 24/7 at rated power
- Built-in lightning protection
- Resists short-circuits on load outlets
- Resumes as soon as the mains returns.

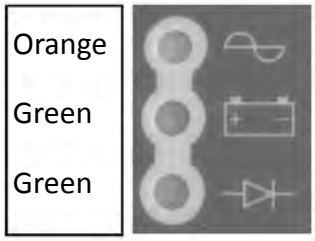
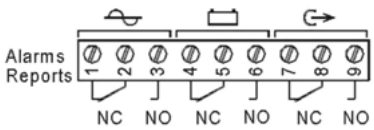
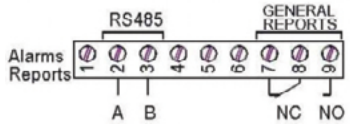
AB = With Battery
SB = Without Battery

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
AXS3 12V			
AXS3 12V 4A C24 SB	2,0 kg	322 x 248 x 126	2620424000
AXS3 12V 4A C24 AB 7 AH	5,0 kg	322 x 248 x 126	2620424007
AXS3 12V 4A C24 AB 12 AH	6,0 kg	322 x 248 x 126	2620424012
AXS3 12V 6A C24 SB	2,0 kg	322 x 248 x 126	2620624000
AXS3 12V 6A C24 AB 7Ah	5,0 kg	322 x 248 x 126	2620624007
AXS3 12V 6A C24 AB 12 AH	6,0 kg	322 x 248 x 126	2620624012
AXS3 12V 4A C38 SB	5,0 kg	289 x 350 x 189	2620438000
AXS3 12V 4A C38 AB 24AH	15,0 kg	289 x 350 x 189	2620438024
AXS3 12V 4A C38 SB + 5 DEP	5,0 kg	289 x 350 x 189	2620438999
AXS3 12V 6A C38 SB	5,0 kg	289 x 350 x 189	2620638000
AXS3 12V 6A C38 AB 24AH	15,0 kg	289 x 350 x 189	2620638024
AXS3 12V 6A C38 AB 40AH	20,0 kg	289 x 350 x 189	2620638040
AXS3 12V 6A C38 SB + 5 DEP	5,0 kg	289 x 350 x 189	2620638999
AXS3 12V 6A C85 SB	8,0 kg	408 x 408 x 224	2620685000
AXS3 24V			
AXS3 24V 2A C24 SB	2,0 kg	322 x 248 x 126	2640224000
AXS3 24V 2A C24 AB 7 AH	8,0 kg	322 x 248 x 126	2640224007
AXS3 24V 3A C24 SB	2,0 kg	322 x 248 x 126	2640324000
AXS3 24V 3A C24 AB 7 AH	8,0 kg	322 x 248 x 126	2640324007
AXS3 24V 3A C24 AB 12 AH	10,0 kg	322 x 248 x 126	2640324012
AXS3 24V 2A C38 SB	5,0 kg	289 x 350 x 189	2640238000
AXS3 24V 2A C38 AB 24 AH	25,0 kg	289 x 350 x 189	2640238024
AXS3 24V 2A C38 SB +5 DEP	5,0 kg	289 x 350 x 189	2640238999
AXS3 24V 3A C38 SB	5,0 kg	289 x 350 x 189	2640338000
AXS3 24V 3A C38 AB 24 AH	25,0 kg	289 x 350 x 189	2640338024
AXS3 24V 3A C38 SB +5 DEP	5,0 kg	289 x 350 x 189	2640338999
AXS3 24V 3A C85 SB	8,0 kg	408 x 408 x 224	2640385000
OPTIONS			
OPTION CARTE 5 DEPARTS FUSIBLES	-	-	9059050004

> Ratings		
	50 W	75 W
12 V DC	4 A	6 A
24 V DC	2 A	3 A
The currents (I_n) shown are at rated output power.		
> Standard-based specifications		
Safety	EN 62368-1	
EMC - Immunity	EN 61000-6-1 • EN 61000-6-2	
EMC - Emission	EN 61000-6-3 • EN 61000-6-4 • EN 55032 class B	
Trade	EN 50131 - 6 grade 3	
Environment	This product range meets the environmental requirements of ISO 14001, RoHS and WEEE standards.	
Certification VdS	VdS 2115	
> Environmental specifications		
Humidity	while working: relative humidity 20% to 95% (non-condensing)	
Storage temperature	-25°C to +85°C	
Working temperature	Power	50 W - 75 W
	75% of load	-10°C to +60°C
	100% of load	-10°C to +55°C
Altitude	Above 2,000 m, the temperature decreases by 5% every 1,000 m	
Working life	200,000 hours at 25°C for external atmosphere and 75% load	
> Input specifications		
Voltage	110 V AC - 240 V AC single phase	
Frequency	50 to 60 Hz	
Neutral system	TT - TN - IT	
Switch-on current	limited by CTN	
Upstream circuit breaker required	Bipolar curve D	
Class	Class I	
	50 W	75 W
Primary current @ 195 V	0.51 A (12 V) - 0.52 A (24 V)	0.76 A (12 V) - 0.78 A (24 V)
Primary current @ 99 V	1 A (12 V) - 0.98 A (24 V)	1.63 A (12 V) - 1.5 A (24 V)
Efficiency	50 W	75 W
At 20% load	85%	85%
At rated load	88%	90%
> Output specifications		
Rated voltage	12 V DC - 24 V DC	12 V DC - 24 V DC
Floating voltage (U_n) set at half-load and 25°C	13.6 V (12 V) - 27.2 V (24 V)	13.6 V (12 V) - 27.2 V (24 V)
Short-circuit current limitation	From I_n to I_n +15% for output voltage > 50% of U_n	

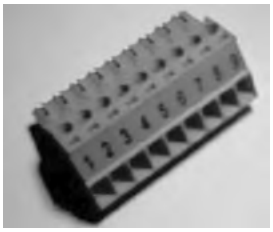
> For reliable output voltage	
Protection against external attack	- **Resistance to all types of external aggressions:** • Overvoltages encountered on the mains network (lightning, industrial, isolation fault on impedance-earthed neutral system, etc.) • Short-circuit on the primary power supply by a slow-blow fuse on the phase. • Differential mode shock waves by varistor and fuse. • Battery polarity inversions. • Overvoltages on secondary. • Overcurrents and short-circuits at secondary. • Short-circuits inside the product, protected by primary fuse. • Increases in external temperatures (outside the specified range)
Charger current limitation control	- **Output current limitation** allows a charging cycle to be started with a discharged battery. • Protects the product completely from short-circuits on the installation. • Protection selectivity is provided by fuses on each load output and the battery fuse.
High-performance regulation and filtering	- Particularly efficient **output voltage regulation** • Dynamic regulation < 5% of U_n for cumulative variations of the mains and the load (from 10% to 90%). - **Enhanced filtering**, which eliminates all interference and reduces the ripple on the DC output voltage. Battery capacity preserved and a guarantee of optimum system operation. • LF rms ripple < 0.2% U_n. • HF ripple (20 MHz-50 Ω) < 4% U_n. *Note: The* AXS3 and AXRS *ranges can operate without battery and may be used as a direct power supply.*
> For emergency power source control	
System control	- **Monitoring of:** • The status of mains, battery and load fuses. • Battery voltage. • Its operating status. • Mains voltage present in the correct operating range.
Battery charge management	- **This function is essential** for reaching the design life and to ensure optimum operation of the battery. • The load voltages are factory set for “sealed” recombination-type lead acid batteries. • They are consistent with the battery manufacturers' recommendations. • The charger features battery charging current limitation. • Supplying power to the load takes priority over battery charging. - The **battery current limit** is adjustable by the customer depending on the battery capacity to ensure recharge between 0.1 and 0.3C recommended by the manufacturers. • The thresholds are 25%, 50% and 75% of rated current. • The selection is made by 2 microswitches. • The default load current is 75% of rated current. - **A battery voltage compensation system** maintains the charge characteristics within the limits specified by the battery manufacturer across the whole of the operational temperature range. A probe placed close to the batteries measures the temperature thereof.
Battery backup	- **Automatic disconnection of the battery at end of discharge** to preserve its future capacity. • Prevents excessively deep discharge that can permanently downgrade performance (cut-out threshold 1.8V/cell). • An alarm is sent before disconnection (Pre-cut alarm threshold 1.85 V/ cell). • In autonomous operation, up to the cut-off threshold, the design of the SLAT unit significantly limits the charger's own consumption on the battery. • This allows your application to take full advantage of the battery's capacity.

> Charger consumption on the battery during autonomy		
	12 V DC	24 V DC
50 W	31.5 mA	38.5 mA
75 W	31.5 mA	38.5 mA

> For optimal communication	
 Display and remote reporting of the information	3 LEDs on card indicate the 3 fault states. Signaling failure orange LED if fault, green otherwise. - **Mains fault:** • If mains not present. - **Charger fault:** • If no voltage on Output 1. • If no voltage on Output 2. • If low voltage outputs (product overload). • If the mains fuse is blown or not present. • If the product is out of order. - **Battery fault:** • Battery fault if no battery (test every 30 seconds during the first 20 minutes after start-up and test every 15 minutes maximum. If a fault is detected, the test is conducted every 30 seconds, and continues up to 20 minutes after the fault disappears). • If battery voltage < 1.85 V/cell +/-3%. • If the internal impedance is too high (test every 4 hours maximum on a charged battery). A switch with a wired contact loop detects when the cover is opened or the unit is removed from the wall.
On motherboard	A LED on the motherboard indicates the operational status before the cabinet is closed (display board not connected) or when no display board exists. Signals: • All OK: green • Faults: red
Communication AXS3 	The 3 faults (mains, battery, output) are reported on 3 independent dry contacts NC / NO (failsafe). Dry contact: 1A @ 24 V DC, 0.3A @ 125 V AC. An additional tamper dry contact is provided, grouping cover openning and wall detachment.
Communication AXRS*  *Exists with RS485 communication. For more information, contact us.	- The 3 faults (mains, battery, charger) and opening of the cover and removal from the wall data are grouped one single dry contact (failsafe). - Dry contact: 1 A @ 24 V DC, 0.3 A @ 125 V AC. - A serial RS485 link (Modbus) allows to know precisely the fault information mentioned above and communicates the analog values (user's, battery's, charger's voltages and currents, battery temperature). - The power supply is addressed by two microswitches (4 possible addresses).
> Connection specifications	**50 W - 75 W**
Mains	1x3pin/0.2 - 2.5 mm²/15 A
Batteries	1x2pin/0.2 - 2.5 mm²/15 A
Load (2 outputs)	1x2pin/0.2 - 2.5 mm²/15 A
Alarm reports	1x9pin/0.2 - 1.5 mm²/14.5 A
All terminal blocks are removable with screen printing on the mobile card.	

Mains

Output


Communication

> Options	
3 fuse outputs kit	• Customer installable Printed Circuit Board. • Secured by 4 clips on the motherboard. • Connectors with 2.5 mm² screw terminals. • 5 x 20 fuse, rating 4 A.

> Cabinet characteristics				
Cabinet	Dimension W x H x D (mm)	IP	Base	Cover
C24	322 x 248 x 126	IP30	Metal, RAL 9006	ABS RAL 9003
C38	289 x 350 x 189	IP31	Metal, RAL 7035	Metal, RAL 7035
C85	408 x 408 x 224	IP31	Metal, RAL 7035	Metal, RAL 7035

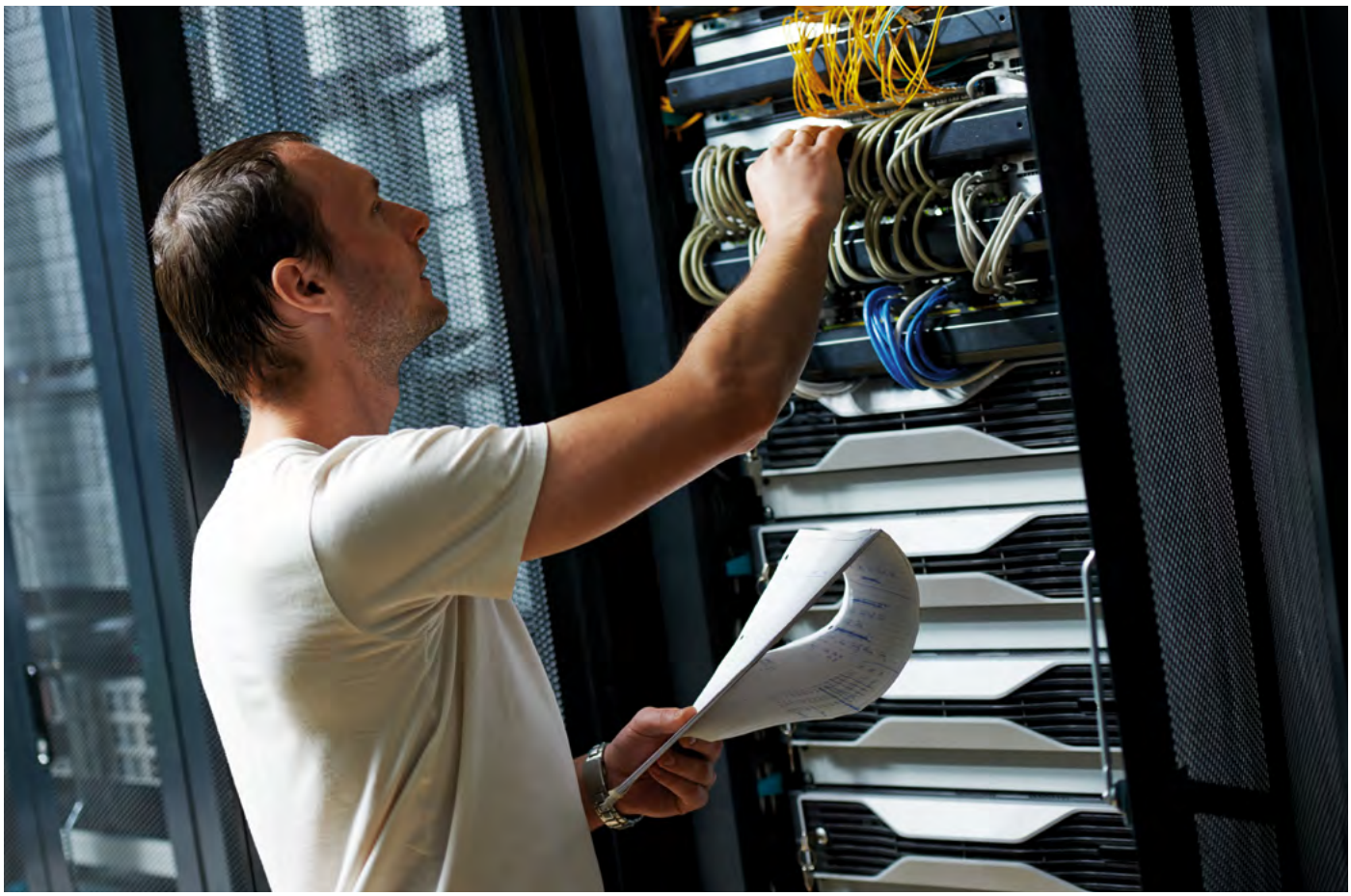
> Types of battery cabinet			
Cabinet	Type	12 V DC	24 V DC
C24	Wall-mounted	7 Ah, 12 Ah, 24 Ah (2 x 12 Ah)	7 Ah, 12 Ah
C38	Wall-mounted & Floor-mounted	17 Ah, 24 Ah, 38 Ah	17 Ah, 24 Ah
C85	Wall-mounted & Floor-mounted	48 Ah (2 x 24 Ah), 65 Ah (3 x 12 Ah), 80 Ah, 96 Ah (4 x 24 Ah)	24 Ah, 38 Ah, 48 Ah (4 x 24 Ah)

> Associated battery capacities				
Charger voltage	12 V DC		24 V DC	
Charger ratings	4 A	6 A	2 A	3 A
Maximum battery charging current	3 A	4.5 A	1.5 A	2.25 A
Maximum capacity C20 - 1.75 V	50 Ah	86 Ah	26 Ah	40 Ah
Minimum capacity C20 - 1.75 V	7 Ah	7 Ah	7 Ah	7 Ah

SLAT can change specifications on his products without prior notice.

COMMUNICATION

THE QUALITY OF YOUR VDI SERVICES IS BETTER WITH SLAT POWER SUPPLIES



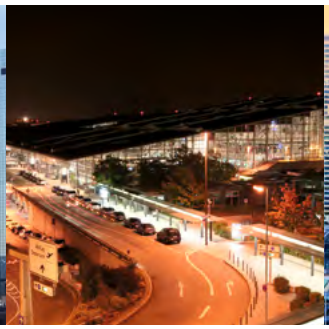
Modern buildings are wired to transit the ever-increasing amount of information we exchange. With less than an average of 6 hours of downtime a year, we might think that our power grid is enough to power our entire communication infrastructure. However, the reality is different. The network is strongly degraded in our buildings by the powerful elevator or air-conditioning motors, the switching operations of the electrical network's protection components or the disturbances generated by new wireless applications.

For 30 years, SLAT power supplies for voice, data and image applications have been tracking technological changes to provide the best filtering and continuity of power for a quality communication service.

SELECTION GUIDE

	EVOLUTION			RMS IP			SDC-PoE	SDC-PoE8	SDC-PoE24
DC output voltage	12 V	24 V	48 V	12 V	24 V	48 V	55 V	-	-
Current / Power	6 A / 8 A / 12 A / 16 A / 24 A / 32 A / 48 A	3 A / 4 A / 6 A / 8 A / 12 A / 16 A / 24 A	2 A / 3 A / 4 A / 6 A / 8 A / 12 A	24 A / 48 A	12 A / 24 A	6 A / 12 A	55 W	180 W	210 W
Number of terminal outputs	2 / 4* / 6*			5			1	-	-
PoE/PoE+ ports	-			-			1	8	Up to 22
HiPoE ports	-			-			-	4	-
Ethernet ports	-			1			1	-	-
SFP Ports	-			-			-	2	Up to 4
Dry contact	3			-			1	1	-
HMI	4 LEDs			Display			4 LEDs	18 LEDs	68 LEDs
IP Communication (SNMP)	-			Yes			Yes	Yes	Yes
Format	Box or Rack			Rack			DIN	DIN	Rack
Battery technology	Lead			Lead			Lithium	Lithium	Lithium
Battery control/ protection	Yes			Yes			Yes	Yes	Yes
Battery capacity	Without battery			Compatible with batteries up to			D G	F	F J
	7 Ah 12 Ah 17 Ah 24 Ah 36 Ah 38 Ah 48 Ah 65 Ah 80 Ah 96 Ah 120 Ah 130 Ah 140 Ah	7 Ah 12 Ah 17 Ah 24 Ah 38 Ah 48 Ah 65 Ah 80 Ah 120 Ah 130 Ah 170 Ah	2,1 Ah 7 Ah 12 Ah 17 Ah 24 Ah 38 Ah 65 Ah 80 Ah	320 Ah	140 Ah	80 Ah			
Page	36-41			43-47			81-84	89-93	94-98

**with option*


EVOLUTION

Emergency power supplies with batteries - Multi-Applications

12 V DC • 24 V DC • 48 V DC

Communication by LED on the front panel • Dry Contact

The EVOLUTION Emergency power supplies with batteries provide permanent and backup power for all installations.

C6
194 x 243 x 97 mm

C23
248 x 322 x 126 mm

C48
425 x 345 x 120 mm

C180
505 x 610 x 430 mm

C24
322 x 248 x 126 mm

C38
289 x 350 x 189 mm

C85
408 x 408 x 224 mm

Rack F3U
483 x 132 x 110 mm

Rack
483 x 132 x 235 mm

Main functions

- Resists short-circuits on load outlets
- Controls and reports operating status
- Monitors battery presence
- Protects the battery at end of discharge
- The installation is available as soon as the mains returns

Benefits of the EVOLUTION range

- Two independent fuse-protected load outlets
- Optional: 3 feeder or 5 feeder printed circuit board
- Optional: parallel or redundancy box
- Dimensioned to operate 24/7 at rated power
- Built-in lightning protection

AB = With battery
SB = Without battery

MODEL	WEIGHT (kg)	SIZE W x H x D	CODE
EVOLUTION 12V			
EV 12V 12A C6	1,0 kg	194 x 243 x 97	1521207000
EV 12V 16A C23	2,0 kg	248 x 322 x 126	1521624000
EV 12V 24A C23	2,0 kg	248 x 322 x 126	1522424000
EV 12V 32A C23	2,0 kg	248 x 322 x 126	1523224000
EV 12V 8A F3U	3,0 kg	482 x 132 x 110	1520830000
EV 12V 12A F3U	3,0 kg	482 x 132 x 110	1521230000
EV 12V 16A RACK	3,0 kg	483 x 132 x 235	1521630000
EV 12V 24A RACK	3,0 kg	483 x 132 x 235	1522430000
EV 12V 48A RACK	4,0 kg	483 x 132 x 395	1524830000
EV 12V 6A C24 SB	2,0 kg	322 x 248 x 126	1520624000
EV 12V 6A C24 AB 7AH	5,0 kg	322 x 248 x 126	1520624007
EV 12V 6A C24 AB 12 AH	6,0 kg	322 x 248 x 126	1520624012
EV 12V 6A C24 AB 24 AH	12,0 kg	322 x 248 x 126	1520624024
EV 12V 8A C24 SB	2,0 kg	322 x 248 x 126	1520824000
EV 12V 8A C24 AB 12 AH	6,0 kg	322 x 248 x 126	1520824012
EV 12V 8A C24 AB 24 AH	12,0 kg	322 x 248 x 126	1520824024
EV 12V 6A C38 SB	5,0 kg	289 x 350 x 189	1520638000
EV 12V 6A C38 AB 40AH	20,0 kg	289 x 350 x 189	1520638040
EV 12V 8A C38 SB	5,0 kg	289 x 350 x 189	1520838000
EV 12V 8A C38 AB 40AH	20,0 kg	289 x 350 x 189	1520838040
EV 12V 16A C85 SB	10,0 kg	408 x 408 x 224	1521685000
EV 12V 16A C85 AB 65AH	34,0 kg	408 x 408 x 224	1521685065
EV 12V 48A C180 SB	20,0 kg	505 x 610 x 430	1524818000
EVOLUTION 24V			
EV 24V 3A C6	1,0 kg	194 x 243 x 97	1540307000
EV 24V 6A C6	1,0 kg	194 x 243 x 97	1540607000
EV 24V 8A C23	2,0 kg	248 x 322 x 126	1540824000
EV 24V 12A C23	2,0 kg	248 x 322 x 126	1541224000

MODEL	WEIGHT (kg)	SIZE W x H x D	CODE
EVOLUTION 24V (CONTINUATION)			
EV 24V 16A C23	2,0 kg	248 x 322 x 126	1541624000
EV 24V 24A C23	2,0 kg	248 x 322 x 126	1542424000
EV 24V 6A F3U	3,0 kg	483 x 132 x 110	1540630000
EV 24V 8A RACK	3,0 kg	483 x 132 x 235	1540830000
EV 24V 16A RACK	3,0 kg	483 x 132 x 235	1541630000
EV 24V 24A RACK	3,0 kg	483 x 132 x 235	1542430000
EV 24V 3A C24 SB	2,0 kg	322 x 248 x 126	1540324000
EV 24V 3A C24 AB 7 AH	8,0 kg	322 x 248 x 126	1540324007
EV 24V 3A C24 AB 12 AH	10,0 kg	322 x 248 x 126	1540324012
EV 24V 4A C24 SB	2,0 kg	322 x 248 x 126	1540424000
EV 24V 4A C24 AB 7 AH	8,0 kg	322 x 248 x 126	1540424007
EV 24V 4A C24 AB 12 AH	10,0 kg	322 x 248 x 126	1540424012
EV 24V 6A C24 SB	2,0 kg	322 x 248 x 126	1540624000
EV 24V 6A C24 AB 12 AH	10,0 kg	322 x 248 x 126	1540624012
EV 24V 3A C38 SB	5,0 kg	289 x 350 x 189	1540338000
EV 24V 3A C38 AB 24 AH	25,0 kg	289 x 350 x 189	1540338024
EV 24V 4A C38 SB	5,0 kg	289 x 350 x 189	1540438000
EV 24V 4A C38 AB 24 AH	25,0 kg	289 x 350 x 189	1540438024
EV 24V 6A C38 SB	5,0 kg	289 x 350 x 189	1540638000
EV 24V 6A C38 AB 17Ah	17,0 kg	289 x 350 x 189	1540638017
EV 24V 6A C38 AB 24 AH	25,0 kg	289 x 350 x 189	1540638024
EV 24V 8A C48 SB	9,0 kg	425 x 345 x 120	1540848000
EV 24V 8A C48 AB 24 AH	29,0 kg	425 x 345 x 120	1540848024
EV 24V 12A C48 SB	9,0 kg	425 x 345 x 120	1541248000
EV 24V 12A C48 AB 24 AH	29,0 kg	425 x 345 x 120	1541248024
EV 24V 16A C48 SB	9,0 kg	425 x 345 x 120	1541648000
EV 24V 16A C48 AB 24 AH	29,0 kg	425 x 345 x 120	1541648024
EV 24V 8A C85 SB	10,0 kg	408 x 408 x 224	1540885000
EV 24V 8A C85 AB 40AH	40,0 kg	408 x 408 x 224	1540885040
EV 24V 12A C85 SB	10,0 kg	408 x 408 x 224	1541285000
EV 24V 12A C85 AB 40AH	40,0 kg	408 x 408 x 224	1541285040
EV 24V 16A C180 SB	20,0 kg	505 x 610 x 430	1541618000
EV 24V 16A C180 AB 65AH	68,0 kg	505 x 610 x 430	1541618065
EV 24V 16A C180 AB 90AH	80,0 kg	505 x 610 x 430	1541618090
EV 24V 24A C180 SB	20,0 kg	505 x 610 x 430	1542418000
EVOLUTION 48V			
EV 48V 3A C6	1,0 kg	194 x 243 x 97	1580307000
EV 48V 4A C23	2,0 kg	248 x 322 x 126	1580424000
EV 48V 6A C23	2,0 kg	248 x 322 x 126	1580624000
EV 48V 8A C23	2,0 kg	248 x 322 x 126	1580824000
EV 48V 12A C23	2,0 kg	248 x 322 x 126	1581224000
EV 48V 4A RACK	3,0 kg	483 x 132 x 235	1580430000
EV 48V 8A RACK	3,0 kg	483 x 132 x 235	1580830000
EV 48V 12A RACK	3,0 kg	483 x 132 x 235	1581230000
EV 48V 2A C24 SB	2,0 kg	322 x 248 x 126	1580224000
EV 48V 2A C24 AB 2,1 AH	6,0 kg	322 x 248 x 126	1580224002
EV 48V 3A C38 SB	5,0 kg	289 x 350 x 189	1580338000
EV 48V 3A C38 AB 12AH	21,0 kg	289 x 350 x 189	1580338012
EV 48V 4A C48 SB	9,0 kg	425 x 345 x 120	1580448000
EV 48V 4A C48 AB 12AH	25,0 kg	425 x 345 x 120	1580448012
EV 48V 6A C48 SB	9,0 kg	425 x 345 x 120	1580648000
EV 48V 6A C48 AB 12AH	25,0 kg	425 x 345 x 120	1580648012
EV 48V 8A C48 SB	9,0 kg	425 x 345 x 120	1580848000
EV 48V 8A C48 AB 12AH	25,0 kg	425 x 345 x 120	1580848012
EV 48V 6A C85 SB	10,0 kg	408 x 408 x 224	1580685000
EV 48V 6A C85 AB 24AH	50,0 kg	408 x 408 x 224	1580685024
EV 48V 12A C180 SB	20,0 kg	505 x 610 x 430	1581218000
EV 48V 12A C180 AB 65AH	116,0 kg	505 x 610 x 430	1581218065
OPTIONS			
OPTION KIT 3 DEPARTS FUSIBLES	-	-	9900080000
OPTION KIT 5 DEPARTS FUSIBLES	-	-	9059050004
A RK TCR -COMMUN	4,8 kg	485 x 44 x 430	9189000002

> Ratings							
	75 W	100 W	150 W	200 W	300 W	400 W	600 W
12 V DC	6 A	8 A	12 A	16 A	24 A	32 A	48 A
24 V DC	3 A	4 A	6 A	8 A	12 A	16 A	24 A
48 V DC	-	2 A	3 A	4 A	6 A	8 A	12 A
The currents (I_n) shown are at rated output power.							

> Standard-based specifications	
Safety	EN 62368-1
EMC - Immunity	EN 61000-6-1 • EN 61000-6-2
EMC - Emissions	EN 61000-3-2 • EN 61000-6-3 • EN 61000-6-4 • EN 55032 class B
Environmental	This product range complies with the environmental policy (ISO 14001, RoHS and WEEE).

> Environmental specifications			
Relative humidity	**During storage:** 10% to 95% non-condensing relative humidity **In operation:** 20% to 95% non-condensing relative humidity		
Storage temperature	-25°C to +85°C		
Operating temperature	Efficiency	75 W - 100 W	150 W - 600 W
	75% of load	-5°C to +50°C	-5°C to +50°C
	100% of load	-5°C to +50°C	-5°C to +40°C
Altitude	Above 2,000 m, the maximum temperature decreases by 5% every 1,000 m		
Service life	50,000 h at 25°C (external environment) and 75% of load, product installed in a cabinet		

> Input characteristics	
Voltage	98 V AC to 264 V AC (115 V AC-15% to 230 V AC+15%) single-phase
Frequency	45 to 65 Hz
Neutral systems	TT - TN - IT
Inrush current	limited by CTN
Upstream circuit breaker to be provided	Bipolar D curve
Class	Class I

Note: For the 100 W - 150 W range: voltage 230 V +/-15% (195 V to 264 V)

	75 W	100 W	150 W	200 W	300 W	400 W	600 W
Mains consumption @195 V	0.5 A	0.75 A	1 A	1.5 A	2 A	3 A	4 A
Output	75 W	100 W - 150 W		200 W - 300 W		400 W - 600 W	
Efficiency at 20% load	71%	75%		84%		85%	
Efficiency at rated load	85%	84%		90%		91%	

> Output characteristics			
Rated voltage	12 V DC	24 V DC	48 V DC
Floating voltage (U_n) set at half-load and at 25°C	13.6 V +/-0.5%	27.2 V +/-0.5%	54.4 V +/-0.5%
Adjustment range in power supply mode only	12 V - 14 V	23 V - 29 V	46 V - 58 V
Charger current limitation	I_n		

> For reliable output voltage	
Protection against external aggressions	**- Resistance to all types of external aggressions:** • Overvoltages encountered on the mains network (lightning, industrial, isolation fault on impedance-earthed neutral system…). • Short-circuit on the primary power supply by a slow blow fuse on the phase. • Differential mode shock waves by varistor and fuse. • Battery polarity inversions. • Overvoltages on secondary. • Overcurrents and short-circuits on secondary. • Short-circuits inside the product, protected by primary fuse. • Increases in external temperatures (outside the specified range).
Charger current limitation	**- Output current limitation allows a charge cycle to be started on an empty battery.** • Completely protects the product from short-circuits on the installation. • Protection selectivity is ensured by fuses on each load output and the battery.
High performance filtering and regulation	**- Particularly efficient output voltage regulation** • Static regulation < 0.5% of U_n. • Dynamic regulation < 5% of U_n for cumulative variations of the mains and the load (from 10% to 90%). **- Enhanced filtering that eliminates all noise and reduces the ripple on the DC output.** Battery capacity preserved and the guarantee of optimum system operation. • LF rms ripple < 0.2% of U_n • HF ripple (20 MHz-50 Ω) < 4% of U_n. *Note: The EVOLUTION range can operate without battery and may be used as a direct power supply.*
> For the control of the emergency power source	
System control	**- Monitoring of:** • The status of mains, battery and load fuses. • Battery presence or absence. • The temperature inside the cabinet (200 W to 600 W). • Battery voltage and its operating status. • Mains voltage present in the correct operating range.
Battery charge management	**- This function is essential for reaching the design life and to ensure optimum operation of the battery.** • The charge voltages are factory set for «sealed» recombination-type lead acid batteries. • They are consistent with the battery manufacturers' recommendations. • The charger features battery charge current limitation. • The supply of power to the load takes priority over the battery charge.
Battery backup	**- Automatic disconnection of the battery at end of discharge to preserve its future capacity.** • Prevents deep discharge that can permanently downgrade performance (cut-off threshold 1.8 V/cell +/- 0.5%). • A report is sent before disconnection (Pre-cut-off alarm threshold 1.85 V/cell +/-0.5%). • Very low internal comsumption. • This allows your application to take full advantage of the battery's capacity.

> Charger consumption on the battery during autonomy

	12 V DC	24 V DC	48 V DC
75 W	32 mA	39 mA	-
100 W - 150 W	49 mA	75 mA	85 mA
200 W - 300 W	65 mA	45 mA	37 mA
400 W - 600 W	141 mA	106 mA	73 mA

> For optimal communication	
 Displaying and remote reporting of the information	- **Mains:** • Presence indicated by a green LED. • Remote reporting by dry contact with delay (failsafe). - **Charger:** • Correct operation indicated by a green LED. • Charger fault if mains fuse is out of order or not present, or if product is out of order. • Remote reporting by dry contact with delay (failsafe). **- Output:** • Voltage presence (no threshold) on the load outputs indicated by green LED. If either of the two outputs has no voltage, the LED will go out. • No associated relay. **- Battery:** • Presence indicated by a green LED. • Battery fault, if battery is not present (test every 30 seconds for the 1st 20 minutes after the installation, then every 15 min) or if battery voltage < 1.85 V/cell in autonomous mode. • Voltage of less than 1.85 V/cell indicated by flashing orange LED (autonomous mode). • Remote reporting by dry contact with delay (failsafe). **Comment:** - In the case of C6 cabinet installation, signaling is accomplished by a single indicator light: - No fault: green - Mains fault: orange - Battery or charger fault, or output load not present: red (this fault takes priority over a mains fault). - **Internal signaling on the motherboard** A LED on the motherboard indicates operational status before the cabinet is closed (display board not connected). Signals: • All OK: green • Mains fault: orange • Battery or charger fault, or output load not present: red (this fault takes priority over a mains fault).

> Connection specifications				
Screw terminal	75 W	100 W - 150 W	200 W - 300 W	400 W - 600 W
Mains	2.5 mm²	2.5 mm²		2.5 mm²
Batteries	2.5 mm²	6 mm²		10 mm²
Load (2 outputs)	2.5 mm²	6 mm²		10 mm²
Alarm reports*	1.5 mm²	1.5 mm²		1.5 mm²

*the alarm report connector is unpluggable
Note: the battery and 12 V/48 A load terminals are 35 mm²

> Options	
3 or 5 fuse output kit	• Customer installable printed circuit board. • Secured by 4 clips on the motherboard. • Connectors with 2.5 mm² screw terminals. • Fuse 5 x 20 rating 4 A.
Omega DIN rail mounting kit	• Adapter for mounting the C6 and C23 cabinet on a DIN type rail
Digital display on C85 cabinet.	in quantity, consult us.
TCR cabinet	For redundancy, maximal current 40 A.

> Cabinet and rack characteristics				
Version	Size W x H x D (mm)	IP	Base	Cover
C6	194 x 243 x 97	IP30	Metal, RAL 9006	ABS RAL 9003
C23	248 x 322 x 126	IP30	Metal, RAL 9006	ABS RAL 9003
C24	322 x 248 x 126	IP30	Metal, RAL 9006	ABS RAL 9003
C38	289 x 350 x 189	IP31	Metal, RAL 7035	Metal, RAL 7035
C48	425 x 345 x 120	IP30	Metal, RAL 9006	ABS RAL 9003
C85	408 x 408 x 224	IP31	Metal, RAL 7035	Metal, RAL 7035
C180	505 x 610 x 430	IP31	Metal, RAL 7035	Metal, RAL 7035
Rack F3U	482 x 132 x 110	IP30	Metal, RAL 7035	Metal, RAL 7035
Rack	483 x 132 x 235	IP30	Metal, RAL 7035	Metal, RAL 7035
> Types of battery cabinets				
Version	Type	12 V DC	24 V DC	48 V DC
C24	Wall-mounted	7 Ah, 12 Ah, 24 Ah (2 x 12 Ah)	7 Ah, 12 Ah	2.1 Ah
C38	Wall-mounted & Floor-mounted	17 Ah, 24 Ah, 38 Ah	17 Ah, 24 Ah	7 Ah, 12 Ah
C48	Wall-mounted	24 Ah (2 x 12 Ah), 36 Ah (3 x 12 Ah), 48 Ah (4 x 12 Ah)	7 Ah, 12 Ah, 24 Ah (4 x 12 Ah)	7 Ah, 12 Ah
C85	Wall-mounted & Floor-mounted	48 Ah (2 x 24 Ah), 65 Ah, 80 Ah, 96 Ah (4 x 24 Ah)	24 Ah, 38 Ah, 48 Ah (4 x 24 Ah)	12 Ah, 17 Ah, 24 Ah
C180	Floor-mounted	120 Ah, 130 Ah, 140 Ah	65 Ah, 80 Ah, 120 Ah, 130 Ah, 170 Ah	38 Ah, 65 Ah, 80 Ah

SLAT can change specifications on his products without prior notice.


9 10 11 12 13 14 15 16 17 18 19
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
11X 13X

EVOLUTION RMS IP

Emergency power supplies with batteries in a 19″ 2U rack
IP Management

12 V DC • 24 V DC • 48 V DC

Remote communication over IP and Digital Display

The emergency power supplies of the EVOLUTION RMS IP range provide permanent and backup power for all installations.

Rack 2U - front view
483 x 89 x 395 mm

Rack 2U - back view
483 x 89 x 395 mm

Main functions

- Controls and reports operating status over IP
- Monitors battery presence
- Protects the battery against deep discharge
- Display of status on the front panel

Benefits of the RMS IP range

- Five fuse-protected load outlets
- All connectors are pluggable
- Built-in lightning protection
- Fully-protected product, with rear connectors

MODEL	WEIGHT (kg)	SIZE W x H x D	CODE
EVOLUTION RMS IP 12V			
RMS IP 12V 8A 16A UTIL	3,7 kg	483 x 89 x 395	1521634000
RMS IP 12V 16A 32A UTIL	4,7 kg	483 x 89 x 395	1523234000
EVOLUTION RMS IP 24V			
RMS IP 24V 4A 10A UTIL	3,7 kg	483 x 89 x 395	1541034000
RMS IP 24V 10A 16A UTIL	4,7 kg	483 x 89 x 395	1541634000
EVOLUTION RMS IP 48V			
RMS IP 48V 2A 4A UTIL	3,7 kg	483 x 89 x 395	1580434000
RMS IP 48V 4A 10A UTIL	4,7 kg	483 x 89 x 395	1581034000

> Ratings				
	300 W		600 W	
	I_n	I_{Load}	I_n	I_{Load}
12 V DC	24 A	8 to 16 A	48 A	16 to 32 A
24 V DC	12 A	4 to 10 A	24 A	10 to 16 A
48 V DC	6 A	2 to 4 A	12 A	4 to 10 A

> Standard-based specifications	
Safety	EN 62368-1
EMC - Immunity	EN 61000-6-1 • EN 61000-6-2
EMC - Emission	EN 61000-3-2 • EN 61000-6-3 • EN 61000-6-4 • EN 55032 class B
Environment	This product range meets the environmental requirements of ISO 14001, RoHS and WEEE Standards.

> Environmental specifications		
Humidity	**During storage:** relative humidity 10% to 95% non-condensing **In operation:** relative humidity 20% to 95% non-condensing	
Storage temperature	-25°C to +85°C	
Working temperature	Power	300 W - 600 W
	75% of load	-5°C to +50°C
	100% of load	-5°C to +40°C
Altitude	Above 2,000m, the temperature decreases by 5% every 1,000m	
Working life	200,000 hours at 25°C (ext. environment) and 75% of load, product installed in 19'' rack	

> Input specifications		
Voltages	98 V AC - 264 V AC (from 115 V AC -15% to 230 V AC +15%) single-phase	
Frequency	45 to 65 Hz	
Neutral system	TT - TN - IT	
Inrush current	limited by CTN	
Upstream circuit breaker required	Bipolar curve D	
Class	Class I	
	300 W	600 W
Mains consumption @ 195 V	2 A	4 A
Converter	300 W	600 W
At 20% load	84%	85%
At rated load	90%	91%

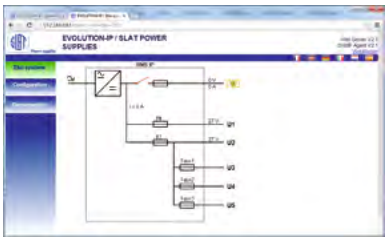
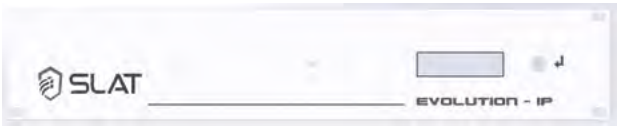
> Output specifications			
Rated voltage	12 V DC	24 V DC	48 V DC
Floating voltage (U_n) set at half-load and 25°C	13.6 V +/-0.5%	27.2 V +/-0.5%	54.4 V +/-0.5%
Setting range in power supply mode only	12 V - 14 V	23 V - 29 V	46 V - 58 V
Charger current limitation	I_n		
Load voltage	13.6 V DC	27.2 V DC	54.4 V DC

> For reliable output voltage	
Protection against external attack	**- Resistance to all types of external aggressions:** • Overvoltages encountered on the mains network (lightning, industrial, isolation fault on impedance-earthed neutral system, etc.) • Short-circuit on the primary power supply by a slow-blow fuse on the phase. • Differential mode shock waves by varistor and fuse. • Battery polarity inversions. • Overvoltages on secondary. • Overcurrents and short-circuits at secondary. • Short-circuits inside the product, protected by primary fuse. • Increases in external temperatures (outside the specified range).
Charger current limitation control	**- Output current limitation allows a charging cycle to be started on an empty battery** • Protects the product completely from short-circuits on the installation. • Protection selectivity is provided by fuses on each load output and the battery fuse.
High-performance regulation and filtering	**- Particularly effective output voltage regulation** • Static regulation < 0.5% U_n. • Dynamic regulation < 5% U_n for cumulative variations of the mains voltage and the load (from 10% to 90%). **- Enhanced filtering which eliminates all interference and reduces the ripple voltage on the DC output.** Battery capacity preserved and a guarantee of optimum system operation. • LF rms ripple voltage < 0.2% U_n. • HF ripple voltage (20 MHz-50 Ω) < 4% U_n. *N.B.: the* EVOLUTION IP - RMS IP *range can work without a battery and be used connected directly to the mains.*
> For the control and management of the emergency power source	
System control	- **Monitoring of:** • The status of mains, battery and load fuses. • Battery presence or absence. • Battery voltage and its operating status. • Mains voltage present in the correct operating range.
Battery charge management	- **This function is essential** to acheive the theoretical design life and to ensure optimum operation of the battery. • The load voltages are factory set for “sealed” recombination-type lead acid batteries. • They are consistent with the battery manufacturers’ recommendations. • The charger features battery charging current limitation. • Supplying power to the load takes priority over battery charging.
Battery backup	- **Automatic disconnection of the battery at end of discharge** to preserve its future capacity. • Prevents excessively deep discharge that would permanently downgrade performance (cut-out threshold 1.8V/cell +/-0.5%). • Information is transmitted before disconnection (pre-cut out alarm at 1.85V/cell +/-0.5%). • Very low internal consumption. • This allows your application to take full advantage of the battery’s capacity.

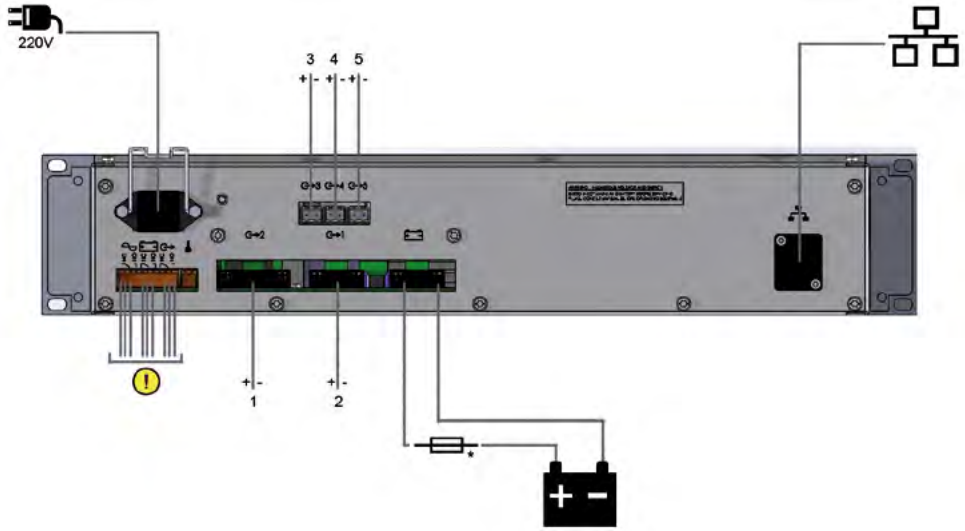
> Charger consumption on the battery during autonomy

	12 V	24 V	48 V
300 W	65 mA	45 mA	37 mA
600 W	141 mA	106 mA	73 mA

> IP Communication	
Ethernet configuration	- **Configuring rack communication settings using a computer.** - 2 groups possible: • Administrator • User
Available languages	• French • English • German • Italian • Dutch • Spanish

> IP Communication	
Management by IP, reports viewed remotely	 - **The items shown on the Management screen are:** • Name of managed product. • Mains present / absent. • AC / DC converter OK or faulty. • Fuses OK or faulty. • Battery switch open / closed. • Current direction charge / discharge. • Battery present / battery circuit faulty. • Low battery: product shutdown imminent, back-up failure. **- MIB made available upon request from the supervision site.**
Reports viewed locally	 - **Display** 16 characters, 1 line: • Mains voltage. • Battery voltage and current. • Load voltage (by load output). • Information about the various problems (mains, charger, fuse, battery, etc.). - Integrated **MMI**: The user can navigate using the push button on the front panel, to the right of the display. - **Energy-saving function:** The display automatically goes into standby mode.

> Connection specifications



**Fuse not included, to be calibrated according to the maximum load current of the installation.*

Plug-in connectors	300 W	600 W
Mains	2.5 mm²	2.5 mm²
Battery	6 mm²	10 mm²
Load outputs 1 and 2	6 mm²	10 mm²
Auxiliary load outputs 3, 4 and 5	1.5 mm²	1.5 mm²
Alarm reports	1.5 mm²	1.5 mm²
Ethernet cable	cat 5e / cat 6e (RJ45)	cat 5e / cat 6e (RJ45)

> Rack characteristics

	Size W x H x D (mm)	IP	Base	Front panel
2U Rack	483 x 89 x 395	IP30	Metal	Metal, RAL 7035

> Charger I_n summary / I Load / associated battery capacity / VRLA

Designation	I_n (whole charger)	I_{Load}	Maximum battery capacity (C/10)
RMS IP 12V 8A 16A UTIL	24 A	From 8 to 16 A	160 Ah
RMS IP 12V 16A 32A UTIL	48 A	From 16 to 32 A	320 Ah
RMS IP 24V 4A 10A UTIL	12 A	From 4 to 10 A	80 Ah
RMS IP 24V 10A 16A UTIL	24 A	From 10 to 16 A	140 Ah
RMS IP 48V 2A 4A UTIL	6 A	From 2 to 4 A	40 Ah
RMS IP 48V 4A 10A UTIL	12 A	From 4 to 10 A	80 Ah

SLAT can change specifications on his products without prior notice.

GET THE SMART CITY SIMPLY CONNECTED

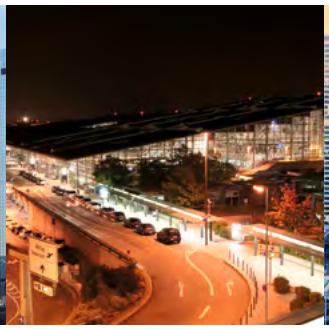
The connected objects in urban areas are deployed everywhere to give the municipalities the means to manage more efficiently things like traffic movement, communication, waste evacuation, urban pollution, street lighting, incivility, car parks, and illegal posting … In this way, urban areas are moving at high speed to offer their residents better daily comfort and more efficiency in public services.

All these services are based on information resources located at hotspots that transmit the data to be processed in return for action on the ground. SLAT provides power supplies for and interfaces to the electrical and internet networks that simplify the installation and operation of connected objects in urban areas.

SELECTION GUIDE

	EPV	SYNAPS IP	SYNAPS PoE2 / PoE4	SYNAPS PoE8	SDC-M RS	SDC-M IP	SDC-PoE8
Installation	Outdoor	Outdoor	Outdoor	Outdoor	Indoor	Indoor	Indoor
Application	Intermittent mains	Permanent mains	Permanent mains	Permanent mains	Permanent mains	Permanent mains	Permanent mains
Brown-out protection only	-	Yes	Yes	-	Yes	-	-
Brown-out protection with autonomy (full load)	16 h	39 min	39 min	14 min	20 min / 40 min / 1h20	19 min / 1h19	14 min
Power	100 W	55 W	55 W	180 W	55 W	55 W	180 W
DC output voltage	"12 V/24 V DC 24 V AC"	12 V / 24 V	55 V / 12 V* / 24 V*	-	12V / 24 V / 48 V	12 V / 24 V	-
Ethernet ports	2	2	1	-	-	2	-
PoE/PoE+ ports	x	x*	2 or 4	8	-	-	8
HiPoE ports	x	x*	-	4	-	-	4
12 V/24 V PoE ports	x	x*	x*	x*	-	-	-
Fiber ports	x	x*	x*	2	-	-	2
SNMP	v1	v1, v2c, v3	v1, v2c, v3	v1, v2c, v3	-	v1, v2c, v3	v1, v2c, v3
BACnet	-	IP	IP	IP	MS/TP	IP	IP
Modbus	-	-	-	-	Up to 115200 bauds	-	-
Switch	-	-	unmanaged	managed	-	-	managed
Page	50-54	55-58	59-62	63-67	72-76	77-80	89-93

**ask for our customized Synaps offer page 68*


EPVIDEO

WARRANTY 2 years *

Secure 24/7 Electric power supplies - Video protection

EPV320 • EPV640 • EPV760

OUTDOOR

Active video surveillance, whatever the circumstances

The EPVIDEO range enables you to quickly deploy reliable and durable video protection systems, using existing public lighting infrastructures. It ensures a 24/7 power supply and continuity of service for equipment in case of power failure.

PM

220 x 721 x 130 mm

SPACE BOX

220 x 921 x 130 mm

Protective housing

Customer space requirement: 180 x 188 x 95 mm

SPACE BOX drawer

Main functions

- Full Outdoor cabinet: 100% airtight, IP66.
- Vandal-proof: IK10 impact resistance and cable protection housing.
- Filters disturbances of the electrical network.
- Remote supervision via webserver or SNMP.
- Configurable reboot function
- Integrated 2 port switch.
- Interoperable: associativity certificate supplied with your offer

The advantages of the EPVIDEO range

- Ultra compact «plug & play» High Energy Efficiency energy pack (built-in backup).
- Built-in lightning protection.
- More than 1,800 complete charging cycles
- Simple to put into operation: can be installed on a post, wall or in a pull box.
- Version SPACE BOX: with space available for customer equipment.
- Option: wide range of PoE injectors and switches.

*Manufacturer's extended warranty available, contact us for details.

MODEL	WEIGHT (kg)	SIZE W x H x D	CODE
EP V320 PM V3	15,0 kg	220 x 721 x 130	4620201003
EP V640 PM V3	19,3 kg	220 x 721 x 130	4640201003
EP V760 PM V3	19,3 kg	220 x 721 x 130	4645201003
EP V320 SPACE BOX V3	15,7 kg	220 x 921 x 130	4620601003
EP V640 SPACE BOX V3	20,0 kg	220 x 921 x 130	4640601003
EP V760 SPACE BOX V3	20,0 kg	220 x 921 x 130	4645601003
MAINTENANCE PACK			
EP V320 PACK V3	7,3 kg	-	4620101003
EP V640 PACK V3	11,3 kg	-	4640101003
EP V760 PACK V3	11,3 kg	-	4645101003
OUTDOOR ACCESSORIES BOX			
A BOX 1000	6,3 kg	210 x 453 x 130	4890000000
ACCESSORIES			
A KIT HPOE 60W	0,3 kg	-	4690008000
A KIT HPOE 60W 802 3BT	0,3 kg	-	4690008002
A KIT POE 802 3AF	0,2 kg	-	4690009000
A KIT POE 24W	0,2 kg	-	4690006000
A KIT 24V AC	0,6 kg	-	4690007000
A KIT SWITCH 5 PORTS EPV	0,3 kg	-	4690009999
A KIT PoE PASSIF	0,2 kg	-	4690004000
OPTIONS			
A KIT CAMELEON PM 320	-	-	4690202997
A KIT CAMELEON PM 640	-	-	4690202998
A KIT CAMELEON PM 760	-	-	4690202999
A KIT CAMELEON SPACE BOX 320	-	-	4690602997
A KIT CAMELEON SPACE BOX 640	-	-	4690602998
A KIT CAMELEON SPACE BOX 760	-	-	4690602999

> Standard-based specifications		
Safety	EN 62368-1	
EMC - Immunity	EN 61000-6-1 • EN 61000-6-2	
EMC - Emission	EN 61000-3-2 B class • EN 61000-6-3 • EN 61000-6-4 • EN 55032 class B	
Application specific	EN 60068-2-5	
Environmental	This product range is environmental policy (ISO 14001, RoHS and WEEE.)	
> Input characteristics		
Voltages	180 - 265 V AC single phase	
Frequency	50 to 60 Hz	
Neutral systems	TT - TN	
Inrush current	limited to 12 A	
Circuit breaker to be provided upstream	D Curve	
Class	Class I	
Primary current	1 A	
Built-in lightning arrester with an unpluggable cartridge and remote signaling	type 2, 40 kA of current flow	
> Output characteristics		
Rated voltage (simultaneous, regulated and stabilized voltages)	12 V DC	24 V DC
Tolerance	+/- 1%	
PoE and HiPoE	with PoE and/or HiPoE injectors (accessories)	
Total energy restored per cycle	320 Wh / 640 Wh / 760 Wh	
Average power levels	40 W / 80 W / 95 W in winter (8h on public lighting) 20 W / 40 W / 47 W in summer (16h on public lighting)	
Max. power per output	60 W	96 W
Max. cumulative power	100 W	
Converter efficiency	> 96% in battery discharge mode	
Current limitation (U > 50% U_n)	I_n = 5 A, U > 50% of U_n	I_n = 4 A, U > 50% of U_n
LF ripple	10 mV_{rms}	30 mV_{rms}
Output voltage regulation	< 0.5%	
Battery	lithium	
On-board energy	> 500 Wh (EPV 320) and > 1000 Wh (EPV 640 - 760)	
Charge time	6h30 max if > 0°C	
	8h30 if -20°C	
> Integrated functions		
Delta 10 thermal regulation	limits the delta between the ambient (outdoor) temperature and the indoor temperature to +10°C	
Intelligent start	soft-start charging cycle - function active if < 0°C	
Intelligent Healthguard	limits the amount of energy discharged to 320 Wh, 640 Wh or 760 Wh	
35% reserve capacity	maintains battery performance in very cold weather and compensates for natural battery ageing	
Reboot function (for cameras)	remote shutdown of 12 V DC and 24 V DC, restarting automatically after 8 seconds.	
DAM	Monitors the devices connected to the EP Video and reboot them when faulty. Eight IP adresses can be logged into the webserver, what allows the control of 1 to 8 products. Restarts automatically after 8 seconds.	

> Architecture and mechanical aspects

PM Version

SPACE BOX Version

- **320 Wh, 640 Wh and 760 Wh plug & play power packs:** handle makes for easy connection, with guides for greater safety; power packs start up automatically
- **Full outdoor cabinet:** all-weather resistance
- **Protection rating:** IP66
- **100% airtight and secure:** no air flows (inward or outward), and protected against vermin and dust
- **Anodized aluminum with fins:** heat-exchange surface area increased by 40%
- **Assisted internal air circulation:** even heat distribution across the whole surface area, with no hot spots
- **Shock resistance rating:** IK10
- **Wind resistance rating:** CdA 0.174 (PM version), CdA 0.233 (Space Box version)
- **Vandal-proof housing:** protects connection cables
- **«Chameleon» housing (in option):** can be painted the same color as your facade, or as other street furniture

> Size and weight

PM version	Size W x H x D (mm)	Weight (kg)
Cabinet without housing	220 x 600 x 130	5
Cabinet with vandal-proof housing	220 x 721 x 130	-
Cabinet with both housings (chameleon and vandal-proof)	248 x 721 x 160	-
EPV320	-	13.1
EPV640	-	17.1
EPV760	-	17.1
SPACE BOX Version	Size W x H x D (mm)	Weight (kg)
Cabinet without housing	220 x 800 x 130	9
Cabinet with vandal-proof housing	220 x 921 x 130	-
Cabinet with both housings (chameleon and vandal-proof)	248 x 921 x 160	-
EPV320	-	15.2
EPV640	-	19.2
EPV760	-	19.2
Space available for customer equipment	180 x 188 x 95	

> Environmental characteristics

Mains power absent in discharge mode	-20°C to +50°C
Mains power present in charge mode	-20°C to +50°C
Storage temperature	-20°C to +45°C
Humidity	from 0 to 100% (condensing)

> Connection specifications	
Input on the 4 mm² lightning arrester terminal	
12 V DC and 24 V DC output on 2.5 mm² terminal	
2 RJ45 ports	
Cable feedthrough: Four Ø 14 cable glands (allow the passage of RJ45 cables)	
> Real-time access to operating information	
Web server and SNMP agent	Configuration and display of operating conditions via the IP network
2-port 100BASE-TX switch	Auto MDX/X, connection of equipment to be powered (video camera, transmission, etc) via RJ45.
Unique IP address for each EPV	Enables connection to the customer's network via Internet Explorer for configuration purposes
Alarm management	Sending of SNMP traps
Information available	- Pack serial number - Power pack capacity - Lightning arrester condition - Mains power present - Pack shutdown once 320 Wh, 640 Wh or 760 Wh has been discharged - Charger operation - Temperature inside the cabinet - Power supplied by the charger - Load output power - Duration of last charge - Duration of last discharge - Energy discharged during the last discharge - Current gauge value - Maximum gauge value during the last charge - Minimum gauge value during the last discharge - Number of charge/discharge cycles - Number of interrupted cycles - Total energy discharged since battery commissioning - Shutdown due to overheating - Charger overvoltage - Maintenance to be performed: downgraded battery capacity - Maintenance to be planned: ageing battery - Pack to be replaced
Easy to install	**Can be post, wall or pull box mounted:** - Takes less than 30 minutes for one person to install. - Total weight to be handled during installation: 5 or 9 kg (depending on the model). - Fastenings compatible with different shapes of post, and adapted to accept 20 mm universal metal banding.
> Accessories	
References	**Description**
BOX 1000	Box to add customer equipment. Size (mm): W210 x H453 x D130
KIT CAMELEON PM	This carter can be painted to the street furniture colors. It protects the enclosure in severe environments.
KIT CAMELEON SPACE BOX	
KIT HPOE 60W	The injectors allow to supply electricity to the video products thanks to the Ethernet cables with a RJ45 connector.
KIT HPOE 60W 802 3BT	
KIT POE 802 3AF	
KIT POE 24W	
KIT POE PASSIF	
KIT 24 Vac	Voltage converter for equipment powered by 24 V AC
KIT SWITCH 5 PORTS EPV	5-port switch with a low power consumption and an extended temperature range. Allows to connect up to 4 IP devices (camera, transmitter, ...) and to send information to a supervisor.

SLAT can change specifications on his products without prior notice.

SYNAPS IP

WARRANTY 2 Years *

Communicating outdoor power supply box with built-in Li-ion backup

12 V DC • 24 V DC

OUTDOOR

Designed to meet WiFi, Mesh and video surveillance security requirements

Built-in functions

- Safeguards equipment via a 55 W communicating DC Micro-UPS.
- Filters disturbances of the electrical network.
- 10 kA lightning arrester.
- Reboot function configurable from supervision.
- Secure protocols: SNMP V1 & V3 / HTTPS / BACnet IP.
- Fastenings for customer equipment.

Benefits of the SYNAPS IP range

- Eliminates brown-outs and provides at least 15 min. backup.
- Protects equipment from lightning and electromagnetic disturbances.
- LifePO4 very long-life battery technology.
- Space available for customer equipment (media converter, PoE injector, etc.).
- Designed for outdoor use, with IP65 watertight and IK10 vandal-proof locked box.
- Ultra-compact and lightweight product.

*Manufacturer's extended warranty available, contact us for details.

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
SYNAPS IP 12V			
SYNAPS 12V 3E IP	3.4 kg	200 x 300 x 150	89231713
SYNAPS 12V 3E IP EC	3.4 kg	200 x 300 x 150	89431723
SYNAPS 12V 3E IP SPACE BOX	5.1 kg	400 x 300 x 150	89231734
SYNAPS 12V 3E IP SPACE BOX EC	5.1 kg	400 x 300 x 150	89231744
SYNAPS IP 24V			
SYNAPS 24V 3E IP	3.4 kg	200 x 300 x 150	89431713
SYNAPS 24V 3E IP EC	3.4 kg	200 x 300 x 150	89231723
SYNAPS 24V 3E IP SPACE BOX	5.1 kg	400 x 300 x 150	89431734
SYNAPS 24V 3E IP SPACE BOX EC	5.1 kg	400 x 300 x 150	89431744

OPTIONS	CODE	OPTIONS	CODE
A KIT SYNAPS MP	90000202	A KIT CONVERTER 24 HIPOE	90000217
A KIT SYNAPS MP SPACE BOX	90000206	A KIT POE PASSIF	4690004000
A KIT SYNAPS MURAL	90000222	A KIT CONVERTER FO IP 1	90000208
A KIT SYNAPS ANTI VANDAL	90000203	A KIT CONVERTER FO IP 2	90000209
A KIT SYN TAMPER SWITCH	90000204	A KIT SWITCH 5 PORTS EPV	4690009999
A KIT CONVERTER 24 36VDC	90000212	A KIT SPLICE CASSETTE	90000223
A KIT CONVERTER 1224 POE	90000218	PROTEC SMJ8-CAT5E	5090020885

SNMP / BACnet IP communication

SYNAPS-IP is a communicating DC Micro-UPS specifically designed for 12 or 24 V DC-powered outdoor video surveillance applications. In the event of power failure, it ensures continuity of service for the equipment it powers with the integrated LiFePO4 backup function.

> Mechanical characteristics

Boxes	Size W x H x D (mm)	Available customer space (minimum) W x H x D (mm)	Weight (kg)	Materials	Protection rating	CdA	Installation
Cabinet 	200 x 300 x 150*	44 x 200 x 88	3.4	Poly-carbonate	IP65 / IK10	0.066	Wall or post mounted
SPACE BOX 	400 x 300 x 150*	244 x 200 x 88	5.1	Poly-carbonate	IP65 / IK10	0.132	Wall or post mounted

* H with cable glands: + 35 mm / P with lock(s): + 20 mm

Connections	
- 3 (2+PE) Screw terminals on the lightning arrester (230 V AC power supply). - 1 Output screw terminal (12 or 24 V DC). - Permissible cross-section: 0.75...2.5 mm²	- Cable feedthrough via 4 watertight cable glands (PSG22). - 2 RJ45 100 Mbps ports.
Network cables: Ethernet cable Cat 5 or more / shielded or unshielded / straight or twisted	

> Standards-based specifications

EN 62368-1 / EN 61000-6-1 / EN 61000-6-2 / EN 61000-3-2 class A
EN 61000-6-3 / EN 61000-6-4 / EN 55032 Class B / UN 38.3
Ethernet IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-T, Flow Control IEEE802.3x, IEEE802.3az (Energy Efficient Ethernet EEE)

> Environmental specifications

Temperature	
Storage	-25 to +60°C
Operating	-10 to +50°C in normal and backup modes
	-5 to +50°C in battery charge mode
	-40 to +50°C for the Extreme Cold version

Humidity
From 0 to 100% (condensing)

Altitude
Above 2,000 m, the temperature decreases by 5% every 1,000 m.

Working life
10 years at 25 °C product external environment, rated mains voltage, 75% load.

> Electrical characteristics

Network input	
AC network voltage	98 to 265 V AC
DC network voltage	140 to 375 V DC
Frequency	45 to 65 Hz
Class	Class 1
Current	Inrush current limited by NTC
Neutral systems	TT, TN, IT
Protection against	primary short circuit and differential mode shock waves.
Primary current @ 98 V AC	1.5 A
Primary current @ 265 V AC	0.38 A
Lightning arrestor	Type 2 / 10 kA

> Operating output			
Rated voltage (U_n)	12 V DC		24 V DC
Available output power	55 W		
Constant voltage adjustable via HTTPS interface	-8% to +13%		
Maximum power on terminal block [55 W]	4.6 A		2.3 A
Permissible current peaks	9 A / 12 ms 23 A / 4 ms		4.6 A / 8 ms 11 A / 1.6 ms
Output (Smart Backup)	**ŋ** @ 20% loading	**ŋ** @ 75% loading	**ŋ** @ 100% loading
	85%	91%	90%

> Functional characteristics
Operates in power-saving mode when the backup is charged.
Filters disturbances of the electrical network.
Without fan.
Indicates the % of remaining autonomy.
IP 65 cabinet
Li-ion Smart Backup
Latest generation Lithium-ion LiFePO4 Technology (no risk of thermal runaway).
Lead-free, cadmium-free, 100% recyclable.
Storage: 9 months without recharging.
10 year service life.
Advanced management settings, cell balancing, overload and overvoltage protection.
A built-in push button disconnects the backup via a static switch. The battery is automatically reconnected when mains voltage is restored.

> Backup duration according to output power - 55 W (Type 3)

CABINETS
12 V / 24 V


	Backup 3E
Operating power	Autonomy expressed in hours and minutes
5 W	5h49
7 W	4h30
10 W	3h21
15 W	2h20
20 W	1h46
25 W	1h26
30 W	1h12
35 W	1h02
40 W	0h54
45 W	0h48
50 W	0h43
55 W	0h39

Protections
Against atmospheric or industrial overvoltages on primary (10 kA lightning arrester).
Against user output overvoltages (deregulation or connection error) and by cutting with cyclical restarting if output voltage > U_n +10%.
Against overloads by limiting the power supply to P_n + 10%.
Against output short-circuits by disconnecting the power supply with cyclical restart.

MMI

LED for status display and control (on board).

Steady green	Flashing green	Slow flashing orange	Fast flashing orange	Red
Normal mode	**ECO mode** **Stealth mode**	**Backup mode**	**Installation fault** - Overcurrent, short circuit - Low voltage output (product overload). - Power supply temperature too high - No mains (outside specified power supply range). **End of backup imminent**	**UPS to be changed** - If no output voltage - If power supply out of order (charger fault). **Backup fault** - Backup undervoltage. - Backup overvoltage.

LEDs to give the status of the Ethernet port activity (Link / Act)

Steady green	Flashing green
Connection established	**- Connection established** **- Activity on the Ethernet link**

Communication

2 x 100 Mbps ports make it possible to connect SYNAPS IP to an Ethernet network in order to remotely view information (product serial number, system status), to communicate analog values (voltage and load current, % of backup remaining, power status, internal temperature of the UPS DC) and to configure its settings via the on-board HTTPS web site.

Auto MDI/MDI-X	yes
MAC address table	8,000 entries
Transmission method	Store & Forward
Internal switch capacity	650 Mbps
Frame size and latency (max)	1,518 octets / 126 µs
Improved version of the micro program	Upgrade via HTTPS web browser

Protocols supported: IPv4, HTTPS, TCP, UDP, ICMP, ARP, DHCP, SNMP V1 & V3, BACnet IP.

> Product references

Interpreting your product reference: **SYNAPS [Voltage] 3E IP** or **SYNAPS [Voltage] 3E IP EC** (Extreme Cold)

> Accessories and options

Model	Description
A KIT SYNAPS MP	Pole mounting kit
A KIT SYNAPS MP SPACE BOX	Pole mounting kit for SPACE BOX
A KIT SYNAPS MURAL	Wall mounting kit
A KIT SYNAPS ANTI VANDAL	Protection against cable cutting
A KIT SYN TAMPER SWITCH	Housing opening contact kit
A KIT CONVERTER 24 36 VDC	Voltage converter: input 24 VDC, output 36 VDC
A KIT CONVERTER 1224 POE	PoE/PoE+ injector
A KIT CONVERTER 24 HIPOE	HiPoE injector
A KIT POE PASSIF	Passive PoE injector
A KIT CONVERTER FO IP 1	Media converter: fiber optic to RJ45
A KIT CONVERTER FO IP 2	Media converter: fiber optic to RJ45
A KIT SWITCH 5 PORTS EPV	5 port Ethernet switch
A KIT SPLICE CASSETTE	Fiber splice cassette
PROTEC SMJ8-CAT5E	Lightning arrestor for Ethernet ports

*SLAT reserves the right to modify the characteristics of its products without prior notice.

SYNAPS PoE 2 / PoE 4

WARRANTY 2 years *

Outdoor network interface with 2 to 4 PoE ports switch and built-in Li-ion backup power supply

PoE/PoE+ (IEEE 802.3af/at)

OUTDOOR

Designed to meet outdoor video, along with WiFi and Mesh network security requirements.

Built-in functions

- Safeguards up to 4 PoE/PoE+ devices, with a total PoE budget of 55 W.
- Device Activity Monitoring for automatic per-port reboot.
- Filters disturbances of the electrical network.
- 10 kA lightning arrester.
- Reboot function configurable from supervision.
- Protected and backed up Ethernet switch with up to 4 PoE ports and one Ethernet Uplink.
- Secure protocols: SNMP V1 & V3 / HTTPS / BACnet IP.
- Fastenings for customer equipment.

Benefits of the SYNAPS PoE 2 / PoE 4 range

- Eliminates brown-outs and provides at least 15 min. backup.
- Protects equipment from lightning and electromagnetic disturbances.
- LifePO4 very long-life battery technology.
- Space available for customer equipment (media converter)
- Designed for outdoor use, with IP65 watertight and IK10 vandal-proof locked cabinet.
- Ultra-compact and light weight product.

*Manufacturer's extended warranty available, contact us for details.

MODEL	WEIGHT (kg)	SIZE W x H x D	CODE
SYNAPS PoE			
SYNAPS-POE 3E P2	3.5 kg	200 x 300 x 150	89931716
SYNAPS-POE 3E P2 EC	3.5 kg	200 x 300 x 150	89931726
SYNAPS-POE 3E P4	3.5 kg	200 x 300 x 150	89931714
SYNAPS-POE 3E P4 EC	3.5 kg	200 x 300 x 150	89931724
SYNAPS-POE 3E P4 SPACE BOX	5.2 kg	400 x 300 x 150	89931734
SYNAPS-POE 3E P4 SPACE BOX EC	5.2 kg	400 x 300 x 150	89931754

OPTIONS	CODE	OPTIONS	CODE
A KIT SYNAPS MP	90000202	A KIT CONVERTER POE POE1224	90000214
A KIT SYNAPS MP SPACE BOX	90000206	A KIT CONVERTER FO POE 1	90000210
A KIT SYNAPS MURAL	90000222	A KIT CONVERTER FO POE 2	90000211
A KIT SYNAPS ANTI VANDAL	90000203	A KIT EXTENDER POE COAX	90000215
A KIT SYN TAMPER SWITCH	90000204	A KIT SWITCH 5 PORTS EPV	4690009999
A KIT CONVERTER 55 12VDC	90000213	A KIT SPLICE CASSETTE	90000223
A KIT CONVERTER 55 24VDC	90000216	PROTEC SMJ8-POE-A	5090020888

SNMP / BACnet IP / HTTPS communication

SYNAPS-PoE is an outdoor network interface box dedicated to video applications and PoE powered transmissions. It performs energy conversion and data switching. In the event of a brown-out, it ensures continuity of service for the equipment that it protects with the built-in Li-ion battery.

> Mechanical characteristics

Boxes	Size W x H x D (mm)	Available customer space (minimum) W x H x D (mm)	Weight (kg)	Materials	Protection rating	CdA	Installation
Cabinet 	200 x 300 x 150*	60 x 200 x 88	3.5	Poly-carbonate	IP65 / IK10	0.066	Wall or post mounted
SPACE BOX 	400 x 300 x 150*	260 x 200 x 88	5.2	Poly-carbonate	IP65 / IK10	0.132	Wall or post mounted

* H with cable glands: + 35 mm / P with lock(s): + 20 mm

Connections	
- 3 (2+PE) Screw terminals on the lightning arrester (230 V AC power supply). - 1 Output screw terminal (55 V DC). - Permissible cross-section: 0.75...2.5 mm²	- Cable feedthrough via 4 or 8 watertight cable glands (PG22). - 1 RJ45 1 Gbps port. - 2 or 4 PoE / PoE+ 100 Mbps Ports.
Network cables: Ethernet cable Cat 5 or more / shielded or unshielded / straight or twisted	

> Standards-based specifications

EN 62368-1 / EN 61000-6-1 / EN 61000-6-2 / EN 61000-3-2 class A
EN 61000-6-3 / EN 61000-6-4 / EN 55032 class B / UN 38.3
Ethernet IEEE 802.3 10BASE-T, IEEE 802.3u 100BASE-T, Flow Control IEEE802.3x, IEEE802.3az (Energy Efficient Ethernet EEE)

> Environmental specifications

Temperature	
Storage	-25 to +60°C
Operating	-10 to +50°C in normal and backup modes
	-5 to +50°C in battery charge mode
	-40 to +50°C for the Extreme Cold version

Humidity
From 0 to 100% (condensing)

Altitude
Above 2,000 m, the temperature decreases by 5% every 1,000 m.

Working life
10 years at 25 °C product external environment, rated mains voltage, 75% load.

> Electrical characteristics

Network input	
AC network voltage	98 to 265 V AC
DC network voltage	140 to 375 V DC
Frequency	45 to 65 Hz
Class	Class 1
Current	Inrush current limited by NTC
Neutral systems	TT, TN, IT
Protection against	primary short circuit and differential mode shock waves.
Primary current @ 98 V AC	1.5 A
Primary current @ 265 V AC	0.38 A
Lightning arrestor	Type 2 / 10 kA

> Operating output			
PoE technology	IEEE 802.3af, IEEE 802.3at, PSE type B		
Rated voltage (U_n)	55 V DC		
Budget PoE via RJ45 port	30 W		
Total PoE budget	55 W		
Output (Smart Backup)	**η** @ 20% loading	**η** @ 75% loading	**η** @ 100% loading
	85%	91%	90%

> Functional characteristics
Operates in power-saving mode when the backup is charged.
Filters disturbances of the electrical network.
Without fan.
Indicates the % of remaining autonomy.
Per-port start/stop function
Configurable manual reboot function.
Per-port configurable DAM function (automatic shutdown and restart).
IP65 cabinet
Li-ion Smart Backup
Latest generation Lithium-ion LiFePO4 Technology (no risk of thermal runaway).
Lead-free, cadmium-free, 100% recyclable.
Storage: 9 months without recharging.
10 year service life.
Advanced management settings, cell balancing, overload and overvoltage protection.
A built-in push button disconnects the backup via a static switch. The battery is automatically reconnected when mains voltage is restored.

> Backup duration according to output power - 55 W (Type 3)

CABINETS
PoE / PoE+

	Backup 3E
Operating power	Autonomy expressed in hours and minutes
5 W	5h01
7 W	4h
10 W	3h04
15 W	2h12
20 W	1h42
25 W	1h23
30 W	1h10
35 W	1h
40 W	0h53
45 W	0h47
50 W	0h43
55 W	0h39

Protections
Against atmospheric or industrial overvoltages on primary (10 kA lightning arrester).
Against user output overvoltages (deregulation or connection error) and by cutting with cyclical restarting if output voltage > U_n +10%.
Against overloads by limiting the power supply to P_n + 10%.
Against output short-circuits by disconnecting the power supply with cyclical restart.

MMI				
LED for status display and control (on board).				
Steady green	**Flashing green**	**Slow flashing orange**	**Fast flashing orange**	**Red**
Normal mode	**ECO mode** **Stealth mode**	**Backup mode**	**Installation fault** - Overcurrent, short circuit - Low voltage output (product overload). - Power supply temperature too high - No mains (outside specified power supply range). **End of backup imminent**	**UPS to be changed** - If no output voltage - If power supply out of order (charger fault). **Backup fault** - Backup undervoltage. - Backup overvoltage.

LEDs to give the status of the Ethernet port activity (Link / Act)	
Steady green	**Flashing green**
Connection established	**- Connection established** **- Activity on the Ethernet link**

LED to give the status of the PoE / PoE + power supply	
Steady orange	**Off**
PoE active	**PoE inactive**

Communication	
1 x 1 Gbps port makes it possible to connect the end switch to the Ethernet network (or for local diagnosis) in order to consult information remotely (product serial number, system status), to communicate analog values (voltage and load current, % of backup remaining, power status, internal temperature of the UPS DC) and to configure its settings via the on-board HTTPS website.	
2 or 4 x 100 Mbps PoE / PoE+ ports make it possible to connect the SYNAPS-PoE to protected equipment and to transmit their data or video feeds to supervision systems.	
Auto MDI/MDI-X	yes
MAC address table	8,000 entries
Transmission method	Store & Forward
Internal switch capacity	650 Mbps
Frame size and latency (max)	1,518 octets / 126 µs
Improved version of the micro program	Upgrade via HTTPS web browser and TFTP
Protocols supported: IPv4, HTTPS, TCP, UDP, ICMP, ARP, DHCP, SNMP V1 & V3, BACnet IP.	

> Product references

Interpreting your product reference: **SYNAPS-POE 3E P [2** or **4] [SPACE BOX]** or **SYNAPS-POE 3E P [2** or **4] EC** (Extreme Cold)

Available from www.slat.com and SLAT Catalog.

> Accessories and options

Model	Description
A KIT SYNAPS MP	Post mounting kit
A KIT SYNAPS MP SPACE BOX	Post mounting kit for SPACE BOX
A KIT SYNAPS MURAL	Wall mounting kit
A KIT SYNAPS ANTI VANDAL	Anti-vandalism kit: protection against cable cutting
A KIT SYN TAMPER SWITCH	Switch for the detection of opening the box
A KIT CONVERTER 55 12VDC	Voltage converter: input 55 V DC, output 12 V DC
A KIT CONVERTER 55 24VDC	Voltage converter: input 55 V DC, output 24 V DC
A KIT CONVERTER POE POE1224	Injector/converter from IEEE 802.3af/at PoE to 12 or 24 V DC PoE
A KIT CONVERTER FO POE 1	Ethernet/fibre optic media converter (1 fiber ports)
A KIT CONVERTER FO POE 2	Ethernet/fibre optic media converter (2 fiber port)
A KIT EXTENDER POE COAX	Coaxial extension kit for Ethernet /PoE network
A KIT SWITCH 5 PORTS EPV	5-port unmanaged Fast Ethernet switch
A KIT SPLICE CASSETTE	Fiber splice cassette
PROTEC SMJ8-POE-A	Surge protector for PoE/PoE+/HiPoE ports

*SLAT reserves the right to modify the characteristics of its products without prior notice.

SYNAPS PoE 8

WARRANTY 2 years *

Network interface with built-in managed switch (HiPoE, fiber) and Li-ion backup

PoE/PoE+/HiPoE (IEEE 802.3af/at/bt)

OUTDOOR

Designed to meet the requirements of video applications, connected city objects along with WiFi and Mesh security networks

SYNAPS PoE8
300 x 400 x 150 mm

Built-in functions

- Provides 180 W in Power Over Ethernet
- Powers and secures up to 8 PoE/PoE+/HiPoE devices
- Two independent or redundant fiber links
- Managed layer 2 switch
- Protected and backed-up switch with extended security features
- Device Activity Monitoring for an automatic reboot of each port.
- Control of the connected objects by secured webserver
- 10 kA lightning arrester for lightning strikes
- Long-life LiFePO4 battery technology

Key product features

- Powers all types of PoE cameras up to 90 W
- Allows data transmission to up to 20 km via optical fiber
- Efficiently manages the video flows thanks to its multiple dedicated functions
- Eliminates brown-outs and provides at least 14 minutes of backup
- Protects the equipment from lightning and electromagnetic disturbances
- Provides space for customer equipment (4G modem, recorder...)
- Designed for outdoor use with a watertight, vandalproof box and a stainless steel plate
- Easy to install thanks to its large door with key lock

*Extension of the manufacturer's warranty possible, contact us for details

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
SYNAPS PoE8			
SYNAPS-POE 5F 8P2F HIGH BOX	6,6 kg	300 x 400 x 150	89952765
OPTIONS	CODE	OPTIONS	CODE
A KIT SYNAPS MP HIGH BOX	90000221	A KIT SPLICE CASSETTE	90000223
A KIT SYNAPS MURAL	90000222	A KIT EXTENDER POE COAX	90000215
A KIT SYN TAMPER SWITCH	90000204	PROTEC SMJ8-POE-A	5090020888
A KIT CONVERTER POE POE1224	90000214		

SNMP / BACnet IP communication

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> Mechanical characteristics							
Boxes	Size W x H x D (mm)	Available customer space (minimum) W x H x D (mm)	Weight (kg)	Materials	Protection rating	CdA	Installation
High Box 	300 x 400 x 150*	110 x 160 x 115 130 x 160 x 115	6.6	Poly-carbonate	IP65 / IK10	0.132	Wall or post mounted
* H with cable glands: + 35 mm / D with locks: + 20 mm							

Connections		
Mains	3 (2+PE) Screw terminals on the lighting arrester (230 V AC power supply)	
PoE ports	8 RJ45 ports	Ethernet cable Category 5e or more (PoE/PoE+)/ Category 6a or more (HiPoE) shielded, straight or twisted cables
SFP ports	2 SFP ports	SFP module 1000 Mbps transceiver
Digital Input/ Dry Contact	Screw terminal with plug-in connector with polarizing slot	
Cable feedthrough via 8 watertight cable glands (PSG22)		

> PoE	
PoE/PoE+/HiPoE Ports	4 ports, support PoE Power Pin Type: End-span (Mode A) IEEE 802.3af/at/bt - 15 W / 30 W / 60 W / 90 W per port
PoE/PoE+ Ports	4 ports, support PoE Power Pin Type: End-span (Mode A) IEEE 802.3af/at - 15 W / 30 W per port
Power	Per port PoE function configuration
PoE Budget	180 W

> Communication		
Communication speed	PoE ports	10 / 100 / 1000 Mbps
	SFP ports	100 / 1000 Mbps
Application layer protocols	HTTPS, BACnet IP, SNMP (v1, v2c, v3), DHCP	
Network layer protocols	IPv4, ICMP	

> Switch properties	
Priority Queues	8
Max. Number of VLANs	4094
VLAN ID Range	VID 1 to 4094
IGMP Groups	1024
MAC Table Size	Up to 8K MAC addresses
Jumbo Frame Size	9.6 KB
Performance	
Capacity of the forwarding rate in Millions of Packets per Second (Mpps) (64-byte packets)	14.88 Mpps
Switching Capacity in Gigabits per Second (Gbps)	20 Gbps

> Switching characteristics	
Layer 2 Switching	
Spanning Tree Protocol (STP)	Standard Spanning Tree (STP) IEEE 802.1D
	Rapid Spanning Tree (RSTP) IEEE 802.1w
Aggregation	Link Aggregation Control Protocol (LACP) IEEE 802.3ad; Up to 5 groups, up to 8 ports per group
VLAN	Supports up to 4K VLANs simultaneously (out of 4094 VLAN IDs); Port-based VLAN; 802.1Q tag-based VLAN
IGMP v1/v2 Snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters; it supports 1024 multicast groups (source-specific multicasting is also supported)
Security	
Secure Sockets Layer (SSL), HTTPS	SSL encrypts the http traffic, allowing advance secure access to the browser-based management GUI in the switch
Port Sicherheit	Locks MAC Addresses to ports, and limits the number of learned MAC addresses
IP Source Guard	Prevents datagram with spoofed addresses from being in the network
Storm control	Prevents traffic on a LAN from being disrupted by a broadcast, multicast or unicast storm on a port
ACLs	Supports for up to 256 entries; Drop or rate limitation based on source and destination MAC, VLAN ID or IP address, protocol, port, differentiated services code point (DSCP) / IP precedence, TCP/ UDP source and destination ports, 802.1p priority, Ethernet type, Internet Control Message Protocol (ICMP) packets, IGMP packets, TCP flag
Quality of Service	
Hardware Priority Queue	Supports 8 hardware queues
Scheduling	Strict priority and weighted round-robin (WRR)
	Queue assignment based on DSCP and class of service (802.1p/ CoS)
Classification	Port based; 802.1p VLAN priority based; IPv4 precedence/ type of service (ToS) / DSCP based
Rate Limiting	Ingress policer; egress shaping and rate control; per VLAN, per port and flow based
Management (Web/SSL, SNMP, BACnet)	
Web GUI interface	Built-in switch configuration utility for browser-based device configuration (HTTPS). Supports configuration, system dashboard, maintenance and monitoring.
Firmware upgrade	Web browser upgrade (HTTPS)
Port mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to N-1 (N is Switch's Ports) ports can be mirrored to a single destination port. A single session is supported.
Other management	Single IP management; HTTPS; RADIUS; DHCP Client; SNTP; cable diagnostics
Green Ethernet	
Link detection	Compliant IEEE802.3az Energy Efficient Ethernet Task Force. Automatically turns off power on Gigabit Ethernet RJ45 port when detecting link down or Idle of client. Active mode is resumed without loss of any packets when the switch detects the link up.
Cable length detection	Adjusts the signal strength based on the cable length. Reduces the power consumption for shorter cables.
Eco Mode	Shifts automatically to power-saving mode.
Discovery	
Link Layer Discovery Protocol (LLDP)	Used by network devices for advertising their identities, capabilities and neighbors on a IEEE 802 local area network, principally wired Ethernet.
The configuration of the switch functions is done via the embedded website.	

> Signaling	
1 LED for the "PoE Load" level on the front panel	
1 LED for the product "Status" on the front panel	
8 LEDs indicate the PoE activity on the corresponding port (green)	
8 LEDs indicate the data transmission activity on the corresponding port (yellow)	
> Environmental specifications	
Temperature	
Storage	-25°C ... +60°C
Operating	at 100% load: -10°C ... +45°C
	at 50% load: -10°C ... +50°C
Humidity	
0 to 100 % condensing	
Altitude	
Above 2,000 m, the temperature decreases by 5% every 1,000 m.	
Service life	
10 years at 25°C product external environment, rated mains voltage, 75% load	
> Electrical characteristics	
Network Input	
AC network voltage	195 V ... 265 V AC
Frequency	45 Hz ... 65 Hz
Class	1
Inrush current	Limited by NTC
Neutral system	TT, TN, IT
Protection against	primary short-circuit and differential mode shock waves
Primary current @ 195 V	1.85 A
Primary current @ 265 V	1.70 A
Lightning arrestor	Type 2 / 10 kA
Functional characteristics	
Operates in power-saving mode when the backup is charged.	
On/Off function per PoE port.	
Filters disturbances of the electrical network.	
Fan-cooling.	
Configurable reboot function (stop and restart automatically) on each PoE-port.	
Indicates the % of the remaining autonomy.	
Protections	
Against atmospheric or industrial overvoltage on primary (10 kA lightning arrester).	
Against overload by power limitation to P_n +10%.	
Against overcurrent and short-circuits on the output by disconnecting the PoE port at $I > I_n$ + 10%.	
Smart backup	
SYNAPS-PoE8 is available with the backup pack	5F
Latest generation Lithium-ion LiFePO4 Technology (no risk of thermal runaway).	
Lead-free, cadmium-free, 100% recyclable.	
Storage: 9 months without recharging.	
10 year service life.	
Advanced management settings, cell balancing, overload and overvoltage protection.	
A built-in push button disconnects the backup via a static switch. The battery is automatically reconnected when mains voltage is restored	

Backup duration according to output power	
	Backup F
Operating power	Autonomy expressed in hours and minutes
10 W	2h07
20 W	1h29
30 W	1h09
40 W	0h55
50 W	0h46
60 W	0h40
70 W	0h35
80 W	0h31
90 W	0h28
100 W	0h25
110 W	0h23
120 W	0h21
130 W	0h20
140 W	0h18
150 W	0h17
160 W	0h16
170 W	0h15
180 W	0h14

> Standards	
IEEE Standards	
IEEE 802.1D	Standard Spanning Tree / Multicast
IEEE 802.1w	Rapid Spanning Tree (RSTP)
IEEE 802.1Q	VLAN
IEEE 802.1X	Radius
IEEE 802.3ad	Link Aggregation Control Protocol (LACP)
IEEE 802.3i	10BaseT
IEEE 802.3u	100BaseT(X) and 100BaseFX
IEEE 802.3ab	1000BaseT(X)
IEEE 802.3z	1000BaseX
IEEE 802.3x	Flow Control
IEEE 802.3af	PoE
IEEE 802.3at	PoE+
IEEE 802.3bt	HiPoE (type 3 & 4)
IEEE 802.3az	Energy Efficient Ethernet
Electrical standards	
Safety	EN 62368-1 (2014)
EMC - Immunity	EN 61000-6-1 (2007), EN 61000-6-2 (2006)
EMC - Emissions	EN 61000-6-3 (2007), EN 61000-6-4 (2007) + A1 (2011) EN 61000-3-2 (2006) (class A) EN 55032 (2015) (class B)
Security standards	
Transportation security	UN 38.3

> Accessories and options		
Pole mounting kit	Converter: input IEEE 802.3af/at PoE to 12 or 24 V DC PoE	Coaxial extension kit for Ethernet / PoE network
Housing opening contact kit	Surge protector for PoE/PoE+/HiPoE ports	Splice cassette

*SLAT reserves the right to modify the characteristics of its products without prior notice.

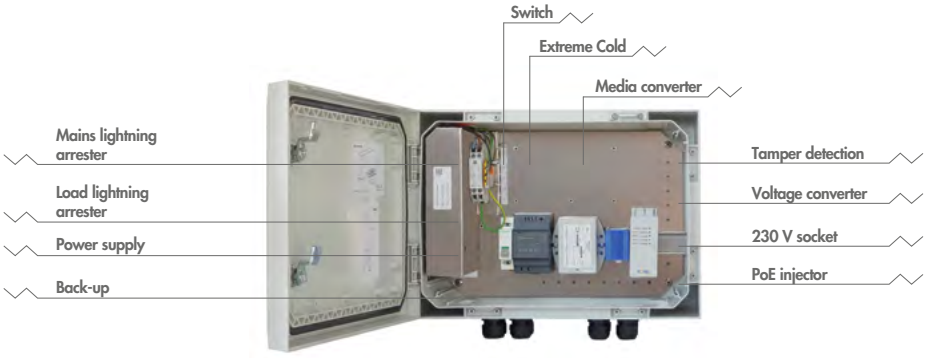
SYNAPS

Outdoor network interface box created upon request

OUTDOOR

An industrial product designed and assembled for your application, your environment and your equipment.

Specific to the needs for outdoor video applications along with WiFi and Mesh network security requirements.



Your benefits

Entrust the design to our experts:

- 1 order only.
- Pre-assembled product.
- Time saved during your installations.
- Guaranteed smooth operation of the system.
- Peace of mind with the CE marking.
- 2-year global warranty with option to extend.

Benefits of the SYNAPS range

- Eliminates brown-outs and provides emergency power according to your needs.
- Protects equipment against lightning and electromagnetic disturbances.
- Back-up technology - service life ten years.
- Designed for outdoor use, with IP65 watertight and IK10 vandalism-proof locked cabinet.
- Ultra compact and lightweight product.
- Monitoring by secure protocols: HTTPS / SNMP V1, V2c and V3 / BACnet IP.

Options (mounted)	**Benefits**
Switch	Ethernet switch: 2 to 8 ports PoE switch: 2 to 4 PoE ports + 1 Ethernet Uplink Managed PoE-Switch: 8 PoE-Ports + 2 SFP-Ports
Power supply	Power supply to connected equipment: total power 55 W - 180 W Filters interference from the electrical grid
Back-up	Built-in emergency power
Mains lightning arrester	Protection up to 40 kA
Load lightning arrester	Protection of Ethernet and PoE/PoE+/HiPoE outlets
Voltage converter	Output voltages 12 / 24 / 36 / 55 V DC
PoE injector	Equipment power supply: PoE / PoE+ / HiPoE (IEEE 802.3af/at/bt) PoE 12 V / PoE 24 V Passive PoE
Media converter	Connection to fibre and coaxial networks
230 V socket	Connecting/plugging in maintenance equipment
Tamper detection	Contact for break-in detection
Extreme Cold	Operation at extremely low outdoor temperature (up to - 40°C)
Splice cassette	Separation of the fiber strands and creation of the splice
Accessories	**Benefits**
Anti-vandalism kit	Protection against cable cutting
Pole mounting kit	Fixing on a mast/pole or wall

The customised SYNAPS: all the benefits of a standard SYNAPS adapted to your installations.

BUILDING MANAGEMENT

SLAT BRINGS INNOVATIVE SOLUTIONS TO YOUR TECHNICAL NETWORKS

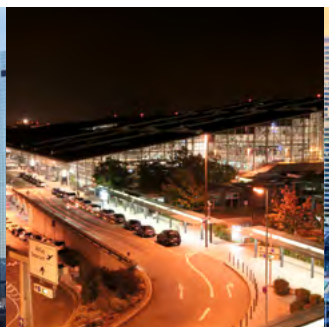
With the proliferation of information exchange points in the technical networks of buildings, towns and cities or fluid networks, a communication solution is necessary to reduce operational maintenance costs.

SDC products meet this requirement and offer a variety of media and protocols for data exchange. They provide filtering of network disturbances by means of their built-in lithium battery with a 10-year lifespan.

The SDC-PoE range powers the objects connected by the RJ45 cable and ensures their operational maintenance even in the event of a software failure.

SELECTION GUIDE

	SDC-M RS	SDC-M IP	SDC-PoE	SDC-PoE4	SDC-PoE8	SDC-PoE24
DC output voltage	12V / 24 V / 48 V	12 V / 24 V	55 V	-	-	-
Power	55 W	55 W	55 W	55 W	180 W	210 W
Brown-out protection only	Yes	-	-	-	-	-
Brown-out protection with autonomy (full load)	20 min / 40 min / 1h20	19 min / 1h19	20 min / 1h19	20 min / 39 min	14 min	12 min / 24 min
Switch	-	-	-	unmanaged	managed	managed
Ethernet ports	-	2	1	1	-	-
PoE/PoE+ ports	-	-	1	4	8	Up to 22
HiPoE ports	-	-	-	-	4	-
SFP Ports	-	-	-	-	2	Up to 4
SNMP	-	v1, v2c, v3	v1, v2c, v3	v1, v2c, v3	v1, v2c, v3	v1, v2c, v3
BACnet	MS/TP	IP	IP	IP	IP	IP
Modbus	Up to 115200 bauds	-	-	-	-	-
Page	74-76	77-80	81-84	85-88	89-93	94-98


SDC-M RS

Micro-UPS DC with Modbus / BACnet MS/TP Communication

12 V DC – 24 V DC – 48 V DC

Micro-UPS with "Smart Backup Inside" and very long service life.

BOX2
285 x 198 x 61 mm

DMR
161 x 92 x 65 mm

DIN1
100 x 124 x 82 mm

DIN2
100 x 124 x 122 mm

Built-in functions

- Maintains the power supply in the event of a power failure or glitch.
- Filters electromagnetic disturbances.
- Avoids erratic operation due to network glitches.
- Delivers a constant voltage to equipment.
- Output voltage adjustable from -8% to +13%.

Key product features

- Ultra-compact / Plug and Play, parallel configuration without accessories.
- Performs self-diagnostic and that of its environment.
- Selection of Modbus or BACnet configuration via a software.
- Highly reliable Supercap or LiFePO4 technology.
- Service life of more than 10 years.

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
SDC-M RS 12V			
SDC-M 12V 2D DMR RS	0.5 kg	161 x 92 x 65	81220102
SDC-M 12V 2D BOX2 RS	0.9 kg	285 x 198 x 61	81220212
SDC-M 12V 3B DIN1 RS	0.6 kg	100 x 124 x 82	81239112
SDC-M 12V 3D DIN1 RS	0.7 kg	100 x 124 x 82	81230112
SDC-M 12V 3D DIN1 RS DR	0.7 kg	100 x 124 x 82	81230912
SDC-M 12V 3G DIN2 RS	1.4 kg	100 x 124 x 122	81233122
SDC-M 12V 3D BOX2 RS	1.0 kg	285 x 198 x 61	81230212
SDC-M 12V 3G BOX2 RS	1.6 kg	285 x 198 x 61	81233212
SDC-M RS 24V			
SDC-M 24V 2D DMR RS	0.5 kg	161 x 92 x 65	81420102
SDC-M 24V 3B DIN1 RS	0.6 kg	100 x 124 x 82	81439112
SDC-M 24V 3D DIN1 RS	0.7 kg	100 x 124 x 82	81430112
SDC-M 24V 3E DIN2 RS	1.0 kg	100 x 124 x 122	81431122
SDC-M 24V 3G DIN2 RS	1.4 kg	100 x 124 x 122	81433122
SDC-M 24V 3G BOX2 RS	1.6 kg	285 x 198 x 61	81433212
SDC-M RS 48V			
SDC-M 48V 3B DIN1 RS	0.6 kg	100 x 124 x 82	81839112
SDC-M 48V 3D DIN1 RS	0.7 kg	100 x 124 x 82	81830112
SDC-M 48V 3G DIN2 RS	1.4 kg	100 x 124 x 122	81833122
SDC-M 48V 3D BOX2 RS	1.0 kg	285 x 198 x 61	81830212
SDC-M 48V 3G BOX2 RS	1.6 kg	285 x 198 x 61	81833212
OPTIONS			
A SETUP KIT SAFE DC RS	-	-	90000002
A KIT BOX2 TAMPER SWITCH	-	-	90000200

> Mechanical characteristics					
Boxes	Size W x H x D (mm)	Weight (kg)	Materials	Protection rating	Installation
 **DIN1**	100 x 124 x 82	0.44 - 068	Aluminium	IP20	DIN rail
 **DIN2**	100 x 124 x 122	0.96 - 1.36	Aluminium	IP20	DIN rail
 **DMR**	161 x 92 x 65	0.5	ABS	IP20	DIN rail
 **BOX2**	285 x 198 x 61	0.9 - 1.6	ABS	IP30	Wall-mounted

> Connections			
DIN1	DIN2	DMR	BOX2
Screw terminals with plug-in connectors with polarizing slot.		Two outputs on screw terminals.	- Cable feedthrough via 3 cable glands or cable grommet. - Screw terminals.
Connections: mains, 1 output, RS485 communication			
Capacity of terminal blocks / Cable size: 0.2 to 2.5 mm²			

> Standard-based specifications	
EN 62368-1 / EN 61000-6-1 / EN 61000-6-2 / EN 61000-3-2 A class EN 61000-6-3 / EN 61000-6-4 / EN 55032 class B / UN 38.3	

> Environmental specifications	
Temperature	
Storage	-25 to +60°C
Operating	-10 to +55°C at 100% load in normal and backup mode
	-5 to +55°C at 100% load in battery charge mode
Humidity	
Storage	relative humidity 10 to 95%
Operating	relative humidity 20 to 95%
Altitude	
Above 2,000 m, the maximum temperature decreases by 5% every 1,000 m	
Service life	
10 years at 25 °C product external environment, rated mains voltage, 75% load	

> Electrical characteristics	
Network input	
Voltage network AC	98 to 265 V AC
Voltage network DC	140 to 375 V DC
Frequency	45 to 65 Hz
Class	Class 1
Current	Inrush current limited by NTC
Neutral systems	TT, TN, IT
Protection against	primary short circuit and differential mode shock waves.
Primary current @ 98 V AC	0.8 A [30 W] ; 1.5 A [55 W]
Primary current @ 265 V AC	0.8 A [30 W] ; 0.38 A [55 W]

> Operating output						
Rated voltage (U_n)	12 V DC		24 V DC		48 V DC	
Output current (I_n) 30 W	2.5 A		1.25 A		-	
Output current (I_n) 55 W	4.6 A		2.3 A		1.15 A	
Maximum output power	30 W / 55 W					
Precision on voltage	1%					
Adjustment by potentiometer [55 W]	-8% to +13%					
Current limitation – short-circuit current	P_{max} to P_{max} +10% with output voltage > 6 V					
Peak current	2 I_n during 0.004 second					
HF ripple peak-peak (20 MHz-50 Ω)	< 4% of U_n					
Effective LF ripple	< 0.5% of U_n					
Static and dynamic regulation characteristics	< 5% of U_n for cumulative changes in sector and load (from 10% to 90%)					
Output (Smart Backup)	η @ 20% loading		η @ 75% loading		η @ 100% loading	
	90%		93%		92%	

> Functional characteristics						
Operates in power-saving mode when the backup is charged.						
Remote controlled stealth mode.						
Filters disturbances of the electrical network.						
Indicates the % of remaining autonomy.						
(not for 48 V) Parallel configuration without accessories for: power increase / increase of the backup / redundancy.						
Push-button disconnect of the backup (reset).						
Smart backup						
Backup type	Type 30 W	-	2D	-	-	
	Type 55 W	3B	3D	3E	3G	
Latest generation Lithium-ion LiFePO4 technology: 2D, 3D, 3E, 3G.						
Back-up 3B - SuperCap technology with a back-up time of 3 seconds at 100% load - 500 000 cycles.						
Storage: 9 months without recharging.						
10 years service life.						
Advanced management settings, cell balancing, overload and overvoltage protection.						
Protection against deep discharge.						
A front panel pushbutton (on the board for BOX2) disconnects the backup via a static switch. The battery is automatically reconnected when mains voltage is present.						

Backup duration according to output power - 30 W (Type 2)

	DMR  12 V / 24 V	BOX2  12 V
	Backup 2D	
Operating power	Autonomy expressed in hours and minutes	
5 W	3h23	
7 W	2h32	
10 W	1h48	
15 W	1h13	
20 W	0h55	
25 W	0h44	
30 W	0h36	

Backup duration according to output power - 55 W (Type 3)

	 DIN1 12 V / 24 V / 48 V	 DIN1 12 V / 24 V / 48 V BOX2 12 V / 24 V / 48 V	 DIN2 12 V / 24 V / 48 V BOX2 12 V / 24 V / 48 V	
	Backup 3B	Backup 3D	Backup 3E	Backup 3G
Operating power	Autonomy expressed in hours and minutes			
5 W	Minimum 3 seconds	3h10	6h20	12h40
7 W		2h24	4h48	9h36
10 W		1h46	3h31	7h02
15 W		1h13	2h25	4h49
20 W		0h55	1h50	3h40
25 W		0h44	1h28	2h56
30 W		0h37	1h14	2h27
35 W		0h32	1h03	2h06
40 W		0h28	0h55	1h50
45 W		0h25	0h49	1h39
50 W		0h22	0h44	1h28
55 W		0h20	0h40	1h20

Protections

Against overvoltages on primary (atmospheric or industrial causes) by varistor and filter.

Against surges in user output (connection error) by breaking with cyclical restart if output voltage > U_n +10%.

Against overcurrent by limiting the power supply to P_n +10%.

Against output short-circuits by disconnecting the power supply with cyclical restart.

MMI

LED for status display and control

Permanent green	Flashing green	Slow flashing orange	Fast flashing orange	Red
Normal mode	**ECO mode** **Stealth mode**	**Backup mode**	**Installation fault** - Overcurrent, short circuit. - Low voltage output (product overload). - Excessive power supply temperature - If no mains (outside specified power supply range) **End of backup imminent**	**UPS to be changed** - If no output voltage. - If power supply out of order (charger fault). **Battery fault** - Backup undervoltage. - Backup overvoltage.

Communication

A RS485 type serial link retrieves information remotely (product serial number, system status) and communicates the analog values (voltages and load current, % of remaining backup, rectifier, and internal temperature of the DC UPS).

The on-board Modbus communication protocol is factory set. it may can be configured in BACnet protocol via the configuration software that can be downloaded on www.slat.com (setup details in the manual).

1 dry contact (open collector): 60 V DC / 1.1 A

> Product references

Interpretation of the product reference designations: SDC-M [Voltage] [Backup] [Box] RS

*SLAT reserves the right to modify the characteristics of its products without prior notice.

SDC-M IP

DC Micro-UPS, SNMP / BACnet IP Protocols

12 V DC – 24 V DC

Micro-UPS with Smart Backup Inside and long service life.

BOX2
285 x 198 x 61 mm

DIN1
100 x 124 x 82 mm

DIN2
100 x 124 x 122 mm

Built-in functions

- Backup LiFePO4 inside with very long life.
- Reboot function available.
- Open protocols HTTPS / SNMP / BACnet IP.
- Closely securises IP applications' functions in case of a power cut.
- Delivers a constant voltage to equipment, adjustable via HTTPS website, from -8% to +13%.

Key product features

- Ultra-compact / Plug and Play.
- Performs self-diagnostic and that of its environment.
- Saves wiring.
- 2 Ethernet ports protected against glitches.

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
SDC-M IP 12V			
SDC-M 12V 3D DIN1 IP	0,7 kg	100 x 124 x 82	81230113
SDC-M 12V 3G DIN2 IP	1,4 kg	100 x 124 x 122	81233123
SDC-M 12V 3D BOX2 IP	1,0 kg	285 x 198 x 61	81230213
SDC-M 12V 3G BOX2 IP	1,6 kg	285 x 198 x 61	81233213
SDC-M IP 24V			
SDC-M 24V 3D DIN1 IP	0,7 kg	100 x 124 x 82	81430113
SDC-M 24V 3G DIN2 IP	1,4 kg	100 x 124 x 122	81433123
SDC-M 24V 3D BOX2 IP	1,0 kg	285 x 198 x 61	81430213
SDC-M 24V 3G BOX2 IP	1,6 kg	285 x 198 x 61	81433213
OPTIONS			
A KIT BOX2 TAMPER SWITCH	-	-	90000200

> Mechanical characteristics

Boxes	Size W x H x D (mm)	Weight (kg)	Materials	Protection rating	Installation
 DIN1	100 x 124 x 82	0.68	Aluminium	IP20	DIN Rail
 DIN2	100 x 124 x 122	0.96 - 1.36	Aluminium	IP20	DIN Rail
 BOX2	285 x 198 x 61	1 - 1.6	ABS	IP30	Wall-mounted

Connections

DIN1	DIN2	BOX2
- 2 Screw terminals with plug-in connectors with polarizing slot. (Input 110 / 230 V AC, 1 output 12-24 V DC) - 2 RJ45 ports 100 Mbps.		- Cable feedthrough via 3 cable glands. - 2 Screw terminals on the PC board: input 110 / 230 V AC, 1 output 12-24 V DC - 2 RJ45 ports 100 Mbps (on the PC board).

Network cables: Ethernet cable Cat 5 or more / shielded or unshielded / straight or twisted

> Standard-based specifications

EN 62368-1 / EN 61000-6-1 / EN 61000-6-2 / EN 61000-3-2 A class
EN 61000-6-3 / EN 61000-6-4 / EN 55032 class B / UN 38.3
Ethernet IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3az (Energy Efficient Ethernet EEE)

> Environmental specifications

Temperature	
Storage	-25 to +60°C
Operating	-10 to +55°C at 100% load in normal and backup mode
	-5 to +55°C at 100% load in battery charge mode
Humidity	
Storage	relative humidity 10 to 95%
Operating	relative humidity 20 to 95%
Altitude	
Above 2,000 m, the maximum operating temperature decreases by 5% every 1,000 m	
Service life	
10 years at 25 °C product external environment, rated mains voltage, 75% load	

> Electrical characteristics

Network input	
Voltage network AC	98 to 265 V AC
Voltage network DC	140 to 375 V DC
Frequency	45 to 65 Hz
Class	Class 1
Current	Inrush current limited by NTC
Neutral systems	TT, TN, IT
Protection against	Primary short circuit and differential mode shock waves.
Primary current @ 98 V AC	1.5 A
Primary current @ 265 V AC	0.38 A

Operating output			
Rated voltage (U_n)	12 V DC		24 V DC
Output current (I_n)	4.6 A		2.3 A
Maximum output power	55 W		
Precision on voltage	1%		
Adjustment via HTTPS interface	-8% to +13%		
Power limitation	P_{max} to P_{max} +10% with output voltage > 6 V		
Peak current	2 I_n for 0,012 second		
HF ripple peak-peak (20 MHz-50 Ω)	< 1.9% of U_n		
Effective LF ripple	< 0.3% of U_n		
Static and dynamic regulation characteristics	< 7% of U_n for cumulative changes in sector and load (from 10% to 90%)		
Output (Smart Backup)	ŋ @ 20% loading	ŋ @ 75% loading	ŋ @ 100% loading
	85%	91%	90%
> Functional characteristics			
Operates in power-saving mode when the backup is charged.			
Remote controlled stealth mode.			
Filters disturbances of the electrical network.			
Fanless.			
Reboot function (start and stop automatically) available.			
Indicates the % of remaining autonomy.			
Parallel configuration without accessories for: power increase / increase of the backup time / redundancy.			
Disconnection of the backup via a pushbutton (reset).			
Smart backup			
SDC-M IP exists in 2 backup packs	3D		3G
Latest generation LiFePO4 Lithium-ion Technology (no risk of thermal runaway).			
Lead-free, cadmium-free, 100% recyclable.			
Storage: 9 months without recharging.			
10 years service life.			
Advanced management settings, cell balancing, overload and overvoltage protection.			
Protection against deep discharge.			
A front panel pushbutton (on the board for BOX2) disconnects the backup via a static switch. The backup is automatically reconnected when mains voltage is present.			
Protections			
Against overvoltages on primary (atmospheric or industrial causes) by varistor and filter.			
Against surges in user output (connection error) by breaking with cyclical restart if output voltage > U_n +10%.			
Against overcurrent by limiting the power supply to P_n +10%.			
Against output short-circuits by disconnecting the power supply with cyclical restart.			

Backup duration according to output power

	 DIN1 12 V / 24 V BOX2 12 V / 24 V	 DIN2 12 V / 24 V BOX2 12 V / 24 V
	Backup 3D	Backup 3G
Operating power	Autonomy expressed in hours and minutes	
5 W	2h54	11h38
7 W	2h15	9h
10 W	1h40	6h42
15 W	1h10	4h40
20 W	0h53	3h33
25 W	0h43	2h52
30 W	0h36	2h24
35 W	0h31	2h04
40 W	0h27	1h48
45 W	0h24	1h37
50 W	0h21	1h27
55 W	0h19	1h19

MMI

LED for status display and control (UPS DC Status)

Steady green	Flashing green	Slow flashing orange	Fast flashing orange	Red
Normal mode	**ECO mode** **Stealth mode**	**Backup mode**	**Installation fault** - Overcurrent, short circuit - Low voltage output (product overload). - Excessive power supply temperature - If no mains (outside specified power supply range). **End of backup imminent**	**UPS to be changed** - If no output voltage - If power supply out of order (charger fault). **Backup fault** - Backup undervoltage. - Backup overvoltage

LEDs indicators for each Ethernet port status (Link/Act)

Steady green	Flashing Green
Connected	- Connected - Ethernet link status

Communication	
2 ports 100 Mbps available to connect the DC Micro-UPS to Ethernet Network and remote information (serial number, system status), analog values monitoring (output voltage and current, % backup time, mains status, internal temperature), and parameters setup with on-board HTTPS website.	
Auto MDI/MDI-X	yes
MAC Adress	8,000 address
Data Transfer Method	Store & Forward
Data Transfer Rate	650 Mbps
Frame size and delay (max)	1 518 octets / 126 µs
Update program	Upgrade via HTTPS web browser
Supported Protocols: IPv4, HTTPS, TCP, UDP, ICMP, ARP,DHCP, SNMP V1 & V3, BACnet IP.	

> Product references

Interpretation of the product reference designations: SDC-M [Voltage] [Backup] [Box] IP

*SLAT reserves the right to modify the characteristics of its products without prior notice.

SDC-PoE

PoE Micro-UPS, Protocols SNMP / BACnet IP

PoE / PoE+ (IEEE 802.3 af/at)

DC Micro-UPS, with integrated backup function, with a very long service life.

DIN1
100 x 124 x 82 mm

DIN2
100 x 124 x 122 mm

Built-in functions

- Powers all PoE / PoE + equipment.
- PoE 30 W budget.
- Integrated LiFePO4 backup, with a very long service life.
- Configurable reboot function.
- HTTPS / SNMP / BACnet IP open communication protocols.

Key product features

- Ultra-compact & plug-and-play.
- Performs self-diagnostic and that of its environment
- 1 secured PoE output
- Operates as IP power supply: Max. power on terminal 55 W

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
SDC-PoE			
SDC-POE 3D DIN1 P1	0,7 kg	100 x 124 x 82	83930933
SDC-POE 3G DIN2 P1	1,4 kg	100 x 124 x 122	83933933

> Mechanical characteristics					
Boxes	Size W x H x D (mm)	Weight (kg)	Materials	Protection rating	Installation
 DIN1	100 x 124 x 82	0.68	Aluminium	IP20	DIN Rail
 DIN2	100 x 124 x 122	1.36	Aluminium	IP20	DIN Rail

Connections	
DIN1	DIN2
- 2 screw terminals with plug-in connectors with polarizing slot. (Input 110 / 230 V AC, 1 output 55 V DC). - 1 RJ45 port 100 Mbps. - 1 PoE/PoE+ port 100 Mbps.	
Network cable: Ethernet cable Cat 5 or more / shielded or unshielded / straight or twisted	

> Standard-based specifications
EN 62368-1 / EN 61000-6-1 / EN 61000-6-2 / EN 61000-3-2 A class EN 61000-6-3 / EN 61000-6-4 / EN 55032 class B / UN 38.3 / IEEE 802.3af/at Ethernet IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3az (Energy Efficient Ethernet EEE)

> Environmental specifications	
Temperature	
Storage	-25 to +60°C
Operating	-10 to +55°C at 100% load in normal and backup mode
	-5 to +55°C at 100% load in battery charge mode
Humidity	
Storage	relative humidity 10 to 95%
Operating	relative humidity 20 to 95%
Altitude	
Above 2,000 m, the maximum operating temperature decreases by 5% every 1,000 m	
Service life	
10 years at 25 °C product external environment, rated mains voltage, 75% load	

> Electrical characteristics	
Network input	
Voltage network AC	98 to 265 V AC
Voltage network DC	140 to 375 V DC
Frequency	45 à 65 Hz
Class	Class 1
Current	Inrush current limited by NTC
Neutral systems	TT, TN, IT
Protection against	primary short circuit and differential mode shock waves.
Primary current @ 98 V AC	1.5 A
Primary current @ 265 V AC	0.38 A

Operating output			
PoE technology	IEEE 802.3 af, IEEE 802.3 at, PSE of type B		
Budget PoE on RJ45 port	30 W		
Maximum power on terminal block and PoE	55 W at 55 V		
Output (Smart Backup)	ŋ @ 20% loading	ŋ @ 75% dloading	ŋ @ 100% loading
	85%	91%	90%

> Functional characteristics		
Operates in power-saving mode when the backup is charged.		
On/Off function per port.		
Filters disturbances of the electrical network.		
Fanless.		
Reboot function (start and stop automatically) available.		
Indicates the % of remaining autonomy.		
Parallel configuration without accessories for: power increase / increase of the backup time / redundancy.		
Disconnection of the backup via a pushbutton (reset).		
Smart backup		
SDC-PoE is available in 2 backup packs	3D	3G
Latest generation Lithium-ion LiFePO4 Technology (no risk of thermal runaway).		
Lead-free, cadmium-free, 100% recyclable.		
Storage: 9 months without recharging.		
10 year service life.		
Advanced management settings, cell balancing, overload and overvoltage protection.		
A front panel pushbutton (on the board for BOX2) disconnects the backup via a static switch. The backup is automatically reconnected when mains voltage is present.		

Backup duration according to output power - 55 W (Type 3)

	DIN1 	DIN2 
	Backup 3D	Backup 3G
Operating power	Autonomy expressed in hours and minutes	
5 W	2h49	11h14
7 W	2h11	8h46
10 W	1h39	6h34
15 W	1h09	4h36
20 W	0h53	3h32
25 W	0h43	2h51
30 W	0h36	2h23
35 W	0h31	2h04
40 W	0h27	1h48
45 W	0h24	1h37
50 W	0h22	1h27
55 W	0h20	1h19

Protections				
Against overvoltages on primary (atmospheric or industrial causes) by varistor and filter.				
Against surges in user output (connection error) by breaking with cyclical restart if output voltage > U_n +10%.				
Against overcurrent by limiting the power supply to P_n +10%.				
Against output short circuits by disconnecting the mains by cyclical restart.				
Against overcurrent and short-circuits by disconnecting the PoE port to I > I_n + 10%.				
MMI				
LED for status display and control (UPS DC status).				
Steady green	Flashing green	Slow flashing orange	Fast flashing orange	Red
Normal mode	**ECO mode** **Stealth mode**	**Backup mode**	**Installation fault** - Overcurrent, short circuit - Low voltage output (product overload). - Excessive power supply temperature - If no mains (outside specified power supply range). **End of backup imminent**	**UPS to be changed** - If no output voltage - If power supply out of order (charger fault). **Backup fault** - Backup undervoltage. - Backup overvoltage
LEDs to give the status of the Ethernet port activity (Link / Act)				
Steady green			Flashing green	
Connection established			- Connection established - Activity on the Ethernet link	
LED to give the status of the PoE / PoE + power supply				
Steady orange			Off	
PoE active			- PoE inactive - PoE waiting for a connection	
Communication				
2 ports 100 Mbps allow to connect the Micro UPS DC to an Ethernet network to check information remotely (product serial number, system status), to communicate analog values (voltage and operating current, % remaining backup, power supply status, internal temperature of the UPS DC) and to configure its settings via on-board HTTPS webserver.				
Auto MDI/MDI-X			yes	
MAC address table			8,000 address	
Transmission method			Store & Forward	
Transmission capacity			650 Mbps	
Frame size and latency (max)			1 518 octets / 126 µs	
Improved version of the micro program			Upgrade via HTTPS web browser	
Protocols supported: IPv4, HTTPS, TCP, UDP, ICMP, ARP, DHCP, SNMP V1 & V3, BACnet IP.				
> Product references				
Interpretation of the product reference designations: SDC-POE [Backup] [Box] P1				

*SLAT reserves the right to modify the characteristics of its products without prior notice.

SDC-PoE 4

Edge switch with 4 PoE+ ports,, backed up by integrated Micro-UPS
SNMP / BACnet IP protocols

PoE / PoE+ (IEEE 802.3af/at)

4-port PoE+ switch, 15 min to 5h emergency function integrated, with very long service life

BOX2
285 x 198 x 61 mm

Built-in functions

- Secures up to 4 PoE / PoE+ devices
- PoE 55 W budget
- 15 min to 5h integrated backup
- Integrated LiFePO4 backup, with very long service life
- Configurable reboot function for each port
- HTTPS / SNMP / BACnet IP open communication protocols.

Key product features

- Protects PoE equipment against any electrical disturbance, internal or external
- Ultra-compact & plug-and-play
- Performs self-diagnostic and that of its environment
- Saves wiring
- 4 protected Ethernet ports 100 Mbps / 1 protected Ethernet port 1 Gbps.

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
SDC-PoE 4			
SDC-POE 3D BOX2 P4	1.0 kg	285 x 198 x 61	83930924
SDC-POE 3E BOX2 P4	1.3 kg	285 x 198 x 61	83931924

> Mechanical characteristics					
Boxes	Size W x H x D (mm)	Weight (kg)	Materials	Protection rating	Installation
 BOX2	285 x 198 x 61	1.1 - 1.3	ABS	IP30	Wall mounted / Shelf placement

Connections
- 1 power cable to be connected to the 110 / 230 V AC mains. - 1 RJ45 port 1000 Mbps. - 4 PoE/PoE+ ports 100 Mbps.
Network cable: Ethernet cable Cat 5 or more / shielded or unshielded / straight or twisted
> Standard-based specifications
EN 62368-1 / EN 61000-6-1 / EN 61000-6-2 / EN 61000-3-2 A class EN 61000-6-3 / EN 61000-6-4 / EN 55032 class B / UN 38.3 / IEEE 802.3af/at Ethernet IEEE 802.3i, IEEE 802.3u, IEEE 802.3x, IEEE 802.3az (Energy Efficient Ethernet EEE)

> Environmental specifications			
Temperature			
Storage	-25 to +60°C		
Operating	-10 to +55°C at 100% load in normal and backup mode		
	-5 to +55°C at 100% load in battery charge mode		
Humidity			
Storage	relative humidity 10 to 95%		
Operating	relative humidity 20 to 95%		
Altitude			
Above 2,000 m, the maximum operating temperature decreases by 5% every 1,000 m			
Service life			
10 years at 25°C product external environment, rated mains voltage, 75% load			
> Electrical characteristics			
Network input			
Voltage AC network	98 to 265 V AC		
Voltage DC network	140 to 375 V DC		
Frequency	45 to 65 Hz		
Class	Class 1		
Current	Inrush current limited by NTC		
Neutral systems	TT, TN, IT		
Protection against	primary short circuit and differential mode shock waves.		
Primary current @ 98 V AC	1.5 A		
Primary current @ 265 V AC	0.38 A		
Operating output			
PoE technology	IEEE 802.3 af, IEEE 802.3 at, PSE of type B		
Budget PoE max per RJ45 port	30 W		
Total PoE budget	55 W to 55 V		
Management of port priority	no		
Output (Smart Backup)	ŋ @ 20 % loading	ŋ @ 75 % loading	ŋ @ 100 % loading
	85%	91%	90%

> Functional characteristics		
Operates in power-saving mode when the backup is charged.		
On/Off function per port.		
Filters disturbances of the electrical network.		
Without fan.		
Configurable reboot function (stops and restarts automatically) on each port.		
Indicates the % of the remaining autonomy.		
Disconnection of the backup via a pushbutton (reset).		
Smart backup		
SDC-PoE4 is available in 2 backup packs	3D	3E
Latest generation Lithium-ion LiFePO4 Technology (no risk of thermal runaway).		
Lead-free, cadmium-free, 100% recyclable.		
Storage: 9 months without recharging.		
10 year service life.		
Advanced management settings, cell balancing, overload and overvoltage protection.		
A push button on the board disconnects the backup via a static switch. The backup is automatically reconnected when mains voltage is present		
Protections		
Against overvoltages on primary (atmospheric or industrial causes) by varistor and filter.		
Against overvoltage on output terminals (control failure or cabling error) by disconnection and automatic restart when output voltage exceeds U_n+10%		
Against overload by power limitation to P_n+10%.		
Against short-circuits on output terminals by disconnection with cyclical restart.		
Against overcurrent and short-circuits by disconnecting the PoE port at I > I_n + 10%.		
Backup duration according to output power - 55 W (TYPE 3)		

	Backup 3D	Backup 3E
Operating power	Autonomy expressed in hours and minutes	
5 W	2h31	5h01
7 W	2h	4h
10 W	1h32	3h04
15 W	1h06	2h12
20 W	0h51	1h42
25 W	0h42	1h23
30 W	0h35	1h10
35 W	0h30	1h
40 W	0h27	0h53
45 W	0h24	0h47
50 W	0h21	0h43
55 W	0h20	0h39

MMI				
LED for status display and control (UPS DC status).				
Steady green	Flashing green	Slow flashing orange	Fast flashing orange	Red
Mode normal	**ECO mode** **Stealth mode**	**Backup mode**	**Installation fault** - Overcurrent, short circuit - Low voltage output (product overload). - Excessive power supply temperature - No mains (outside specified power supply range). **End of backup imminent**	**UPS to be changed** - If no output voltage - If power supply out of order (charger fault). **Backup fault** - Backup undervoltage. - Backup overvoltage

LEDs to give the status of the Ethernet port activity (Link / Act)	
Steady green	Flashing green
Connection established	- Connection established - Activity on the Ethernet link

LED to give the status of the PoE / PoE + power supply	
Steady orange	Off
PoE active	- PoE inactive - PoE waiting for a connection

Communication	
1 port 1,000 Mbps makes it possible to connect the end switch to the Ethernet network (or for local diagnosis) in order to consult information remotely (product serial number, system status), to communicate analog values (voltage and load current, % of backup remaining, power status, internal temperature of the UPS DC) and to configure its settings via the on-board HTTPS webserver.	
Auto MDI/MDI-X	yes
MAC address table	8,000 entries
Transmission method	Store & Forward
Intern switch capacity	650 Mbps
Frame size and latency (max)	1 518 octets / 126 µs
Improved version of the micro program	Upgrade via HTTPS web browser
Protocols supported: IPv4, HTTPS, TCP, UDP, ICMP, ARP, DHCP, SNMP V1 & V3, BACnet IP.	
> Product references	
Interpretation of the product reference designations: SDC-POE [Backup] BOX2 P4	

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SDC-PoE 8

Managed 8 port HiPoE Switch + 2 optical fibers, full Gigabit layer 2
Secured by an integrated micro-UPS, secure protocols

PoE/PoE+/HiPoE (IEEE 802.3bt)

SDC-PoE8 powers cameras, LPUs and systems. It ensures the access control and video stream security 24/7.

DIN4
215 x 138 x 148 mm

Built-in functions

- Supplies power to up to 8 PoE/PoE+/HiPoE devices
- Manages the data and video flow
- Two independent optical fiber connections
- Contains a micro-UPS
- Eliminates micro-cuts and brown outs
- Reboots automatically the monitored devices
- One programmable dry contact output and input
- Web server monitoring of the complete system and the connected devices

Key product features

- Many security features to preserve all video and data flows
- Ensures the operation of the systems in case of vandalism
- Prevents interventions to reset cameras
- Operates for 10 years without maintenance
- Maintains applications operational 24/7
- Saves space and implementation time

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
SDC-PoE 8			
SDC-POE 5F DIN4 8P2F	2.2	215 x 138 x 148	83952145

SNMP / BACnet IP communication

—

SDC-PoE8 is a PoE/PoE+/HiPoE managed layer 2 switch, with a built-in micro-UPS function (LiFePO4 battery). With 10 full-Gigabit ports including 4 HiPoE, 4 PoE+ and 2 SFP for fiber links, the switch interconnects and supplies equipments, such as cameras, recorders, alarm panels, etc... It manages data or video flows and monitors the proper functioning of the devices.
In the event of a power failure, it ensures service continuity and maintains operation of the equipments powered by PoE.

> Mechanical characteristics					
Boxes	Size W x H x D (mm)	Weight (kg)	Materials	Protection rating	Installation
DIN 4 	215 x 138 x 131 (without connectors)	2.2	Aluminium	IP20	DIN rail

Connections		
Mains	Screw terminal with plug-in connector with polarizing slot	
PoE ports	8 RJ45 ports	Ethernet cable Category 5e or more (PoE/PoE+)/ Category 6a or more (HiPoE) shielded, straight or twisted cables
SFP ports	2 SFP ports	SFP module 1000 Mbps transceiver
Digital Input/ Dry Contact	Screw terminal with plug-in connector with polarizing slot	
> PoE		
PoE/PoE+/HiPoE Ports	4 Ports, End-span cabling (Mode A) IEEE 802.3af/at/bt - 15 W / 30 W / 60 W / 90 W per port	
PoE/PoE+ Ports	4 Ports, End-span cabling (Mode A) IEEE 802.3af/at - 15 W / 30 W per port	
Power	PoE function configuration per port	
PoE budget	180 W	
> Communication		
Communication speed	PoE ports	10 / 100 / 1000 Mbps
	SFP ports	100 / 1000 Mbps
Application layer protocols	HTTPS, BACnet IP, SNMP (v1, v2c, v3), DHCP	
Network layer protocols	IPv4, ICMP	
> Switch properties		
Priority Queues	8	
Max. Number of VLANs	4094	
VLAN ID Range	VID 1 to 4094	
IGMP Groups	1024	
MAC Table Size	Up to 8K MAC addresses	
Jumbo Frame Size	9.6 KB	
Performance		
Capacity of the forwarding rate in Millions of Packets per Second (Mpps) (64-byte packets)	14.88 Mpps	
Switching Capacity in Gigabits per Second (Gbps)	20 Gbps	

> Switching characteristics	
Layer 2 Switching	
Spanning Tree Protocol (STP)	Standard Spanning Tree (STP) IEEE 802.1D
	Rapid Spanning Tree (RSTP) IEEE 802.1w
Aggregation	Link Aggregation Control Protocol (LACP) IEEE 802.3ad; Up to 5 groups, up to 8 ports per group
VLAN	Supports up to 4K VLANs simultaneously (out of 4094 VLAN IDs); Port-based VLAN; 802.1Q tag-based VLAN
IGMP v1/v2 Snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters; it supports 1024 multicast groups (source-specific multicasting is also supported)
Security	
Secure Sockets Layer (SSL), HTTPS	SSL encrypts the http traffic, allowing advance secure access to the browser-based management GUI in the switch
Port Security	Locks MAC Addresses to ports, and limits the number of learned MAC addresses
IP Source Guard	Prevents datagram with spoofed addresses from being in the network
Storm control	Prevents traffic on a LAN from being disrupted by a broadcast, multicast or unicast storm on a port
ACLs	Supports for up to 256 entries; Drop or rate limitation based on source and destination MAC, VLAN ID or IP address, protocol, port, differentiated services code point (DSCP) / IP precedence, TCP/ UDP source and destination ports, 802.1p priority, Ethernet type, Internet Control Message Protocol (ICMP) packets, IGMP packets, TCP flag
Quality of Service	
Hardware Priority Queue	Supports 8 hardware queues
Scheduling	Strict priority and weighted round-robin (WRR)
	Queue assignment based on DSCP and class of service (802.1p/ CoS)
Classification	Port based; 802.1p VLAN priority based; IPv4 precedence/ type of service (ToS) / DSCP based
Rate Limiting	Ingress policer; egress shaping and rate control; per VLAN, per port and flow based
Management (Web/SSL, SNMP, BACnet)	
Web GUI interface	Built-in switch configuration utility for browser-based device configuration (HTTPS). Supports configuration, system dashboard, maintenance and monitoring.
Firmware upgrade	Web browser upgrade (HTTPS)
Port mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to N-1 (N is Switch's Ports) ports can be mirrored to a single destination port. A single session is supported.
Other management	Single IP management; HTTPS; RADIUS; DHCP Client; SNTP; cable diagnostics
Green Ethernet	
Link detection	Compliant IEEE802.3az Energy Efficient Ethernet Task Force. Automatically turns off power on Gigabit Ethernet RJ45 port when detecting link down or Idle of client. Active mode is resumed without loss of any packets when the switch detects the link up.
Cable length detection	Adjusts the signal strength based on the cable length. Reduces the power consumption for shorter cables.
Eco Mode	Shifts automatically to power-saving mode.
Discovery	
Link Layer Discovery Protocol (LLDP)	Used by network devices for advertising their identities, capabilities and neighbors on a IEEE 802 local area network, principally wired Ethernet.
The configuration of the switch functions is done via the embedded website.	

> Signaling	
1 LED for the "PoE Load" level on the front panel	
1 LED for the product "Status" on the front panel	
8 LEDs indicate the PoE activity on the corresponding port (green)	
8 LEDs indicate the data transmission activity on the corresponding port (yellow)	
> Environmental specifications	
Temperature	
Storage	-25°C ... +60°C
Operating	at 100% load: -10°C ... +45°C
	at 75% load: -10°C ... +50°C
Humidity	
Storage	relative humidity 10% ... 90%
Operating	relative humidity 20% ... 85%
Altitude	
Above 2,000 m, the temperature decreases by 5% every 1,000 m.	
Cooling	
The cooling is carried out transversally.	
Service life	
10 years at 25°C product external environment, rated mains voltage, 75% load	
> Electrical characteristics	
Network Input	
AC network voltage	195 V ... 265 V
Frequency	45 Hz ... 65 Hz
Class	1
Inrush current	Limited by NTC
Neutral system	TT, TN, IT
Protection against	primary short-circuit and differential mode shock waves
Primary current @ 195 V	1.85 A
Primary current @ 265 V	1.70 A
Functional characteristics	
Operates in power-saving mode when the backup is charged.	
On/Off function per PoE port.	
Filters disturbances of the electrical network.	
Fan-cooling.	
Configurable reboot function (stop and restart automatically) on each PoE-port.	
Indicates the % of the remaining autonomy.	
Protections	
Against surge and overvoltage on primary (Lightning or industrial origins).	
Against overload by power limitation to Pn+10%.	
Against overcurrent and short-circuits on the output by disconnecting the PoE port at I > In + 10%.	
Smart backup	
SDC-PoE8 is available with the backup pack	5F
Latest generation Lithium-ion LiFePO4 Technology (no risk of thermal runaway).	
Lead-free, cadmium-free, 100% recyclable.	
Storage: 9 months without recharging.	
10 year service life.	
Advanced management settings, cell balancing, overload and overvoltage protection.	

Backup duration according to output power	
	Backup F
Operating power	Autonomy expressed in hours and minutes
10 W	2h07
20 W	1h29
30 W	1h09
40 W	0h55
50 W	0h46
60 W	0h40
70 W	0h35
80 W	0h31
90 W	0h28
100 W	0h25
110 W	0h23
120 W	0h21
130 W	0h20
140 W	0h18
150 W	0h17
160 W	0h16
170 W	0h15
180 W	0h14

> Standards	
IEEE Standards	
IEEE 802.1D	Standard Spanning Tree / Multicast
IEEE 802.1w	Rapid Spanning Tree (RSTP)
IEEE 802.1Q	VLAN
IEEE 802.1X	Radius
IEEE 802.3ad	Link Aggregation Control Protocol (LACP)
IEEE 802.3i	10BaseT
IEEE 802.3u	100BaseT(X) and 100BaseFX
IEEE 802.3ab	1000BaseT(X)
IEEE 802.3z	1000BaseX
IEEE 802.3x	Flow Control
IEEE 802.3af	PoE
IEEE 802.3at	PoE+
IEEE 802.3bt	HiPoE (type 3 & 4)
IEEE 802.3az	Energy Efficient Ethernet
Electrical standards	
Safety	EN 62368-1 (2014)
EMC - Immunity	EN 61000-6-1 (2007), EN 61000-6-2 (2006)
EMC - Emissions	EN 61000-6-3 (2007), EN 61000-6-4 (2007) + A1 (2011) EN 61000-3-2 (2006) (class A) EN 55032 (2015) (class B)
Security standards	
Transportation security	UN 38.3
> Product references	
SDC-POE 5F DIN4 8P2F	
Available on www.slat.com and in the SLAT catalog.	

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SDC-PoE 24

Layer 2 switch for access control and video surveillance

PoE / PoE+ (IEEE 802.3af/at)

24 port full Gigabit managed PoE / PoE+ switch, secured by an integrated micro-UPS. Secure protocols.

SDC-PoE24 powers systems, LPUs and cameras, ensures the access and video stream security 24/7.

RACK 2U

446 x 85 x 380 mm

Build-in functions

- Supplies power to up to 22 PoE / PoE+ devices
- Manages the data and video flows
- Allows connections by optical fiber
- Contains a micro-UPS
- Eliminates line disturbances
- Reboots automatically the monitored devices

Key product features

- Many security features to preserve all data flow
- Guarantees the operation of the systems in case of vandalism
- Prevents interventions to reset cameras
- Lithium backup; 10 years without maintenance
- Maintains applications operational 24/7

Main software specifications

- Layer 2 management: VLAN, Spanning Tree, STP, RSTP, Loop Protection, Aggregation, Mirroring, QoS, LLDP, 802.1x, IGMP Snooping, DHCP Snooping, Port Security, ARP, ACL, and more...
- Device Activity Monitoring
- Green Ethernet
- Secure management with HTTPS and SNMP V3
- Jumbo Frames 9.6 kilobytes

Main hardware specifications

- 20 Ethernet ports (PoE/PoE+) 10/100/1000 Mbps
- 2 SFP ports 100/1000 Mbps
- 2 combo ports (Ethernet/SFP)
- PoE budget 210 W
- Li-ion battery, 72 Wh or 144 Wh
- 2U metal rack: W446 x H85 x D380 [mm]
- IP30
- Weight, depending on the model: 7 kg or 7.7 kg

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
SDC-PoE 24			
SDC-POE 6F RK2 P24	7.0 kg	446 x 85 x 380	83962307
SDC-POE 6J RK2 P24	7.7 kg	446 x 85 x 380	83965307

SNMP / BACnet IP communication

—

SDC-PoE24 is a PoE / PoE + managed layer 2+ switch, with built-in micro-UPS function (Li-ion battery).
With 24 full-Gigabit ports including 4 SFP ports for fiber links, the switch interconnects and supplies equipments, such as cameras, recorders, alarm panels, etc. It manages data or video flows and monitors the proper functioning of the devices.
In the event of a power failure, it ensures service continuity, and maintains operation of the equipments powered by PoE / PoE +.

> Mechanical characteristics					
Boxes	Size W x H x D (mm)	Weight (kg)	Materials	Protection rating	Installation
Rack 2U 	446 x 85 x 380 (without connectors)	7 - 7.7	Painted metal	IP30	Rack / Shelf placement

Connections		
Mains	IEC connector	
PoE ports	20 RJ45 ports	Ethernet cable Cat 5 or more / shielded / straight or twisted cables
SFP ports	2 SFP ports	SFP module 1000 Mbps transceiver
Combo ports	2 Combo ports PoE/SFP	

> Switch properties	
Priority Queues	8
Max. Number of VLANs	4094
VLAN ID Range	VID 1 to 4094
IGMP Groups	1024
MAC Table Size	Up to 8K MAC addresses
Jumbo Frame Size	9.6 KB
Performance	
Capacity of the forwarding rate in Millions of Packets per Second (Mpps) (64-byte packets)	38.69 Mpps
Switching Capacity in Gigabits per Second (Gbps)	52 Gbps
> Switching characteristics	
Layer 2 Switching	
Spanning Tree Protocol (STP)	Standard Spanning Tree 802.1d
	Rapid Spanning Tree (RSTP) 802.1w
Aggregation	Link Aggregation Control Protocol (LACP) IEEE 802.3ad; Up to 12 groups ; Up to 16 ports per group
VLAN	Supports up to 4K VLANs simultaneously (out of 4094 VLAN IDs) ; Port-based VLAN; 802.1Q tag-based VLAN
IGMP v1/v2 Snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters; it supports 1024 multicast groups (source-specific multicasting is also supported)
Security	
Secure Sockets Layer (SSL), HTTPS	SSL encrypts the http traffic, allowing advance secure access to the browser-based management GUI in the switch
Port Security	Locks MAC Addresses to ports, and limits the number of learned MAC addresses
IP Source Guard (IPSG)	Prevents datagram with spoofed addresses from being in the network
Storm Control	Prevents traffic on a LAN from being disrupted by a broadcast, multicast or unicast storm on a port
ACLs	Supports for up to 256 entries; Drop or rate limitation based on source and destination MAC, VLAN ID or IP address, protocol, port, differentiated services code point (DSCP) / IP precedence, TCP/ UDP source and destination ports, 802.1p priority, Ethernet type, Internet Control Message Protocol (ICMP) packets, IGMP packets, TCP flag

> Switching characteristics			
Quality of Service			
Hardware Priority Queue	Supports 8 hardware queues		
Scheduling	Strict priority and weighted round-robin (WRR)		
	Queue assignment based on DSCP and class of service (802.1p/ CoS)		
Classification	Port based; 802.1p VLAN priority based; IPv4 precedence/ type of service (ToS) / DSCP based		
Rate Limiting	Ingress policer; egress shaping and rate control; per VLAN, per port and flow based		
Management (Web/SSL, SNMP, BACnet)			
Web GUI interface	Built-in switch configuration utility for browser-based device configuration (HTTPS). Supports configuration, system dashboard, maintenance and monitoring.		
Firmware upgrade	Web browser upgrade (HTTPS)		
Port Mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to N-1 (N is Switch's Ports) ports can be mirrored to a single destination port. A single session is supported.		
Other management	Single IP management; HTTPS; RADIUS; DHCP Client; SNTP; cable diagnostics		
Green Ethernet			
Link Detection	Compliant IEEE802.3az Energy Efficient Ethernet Task Force. Automatically turns off power on Gigabit Ethernet RJ-45 port when detecting link down or Idle of client. Active mode is resumed without loss of any packets when the switch detects the link up.		
Cable length D etection	Adjusts the signal strength based on the cable length. Reduces the power consumption for shorter cables.		
Eco Mode	Shifts automatically to power-saving mode.		
Discovery			
Link Layer Discovery Protocol (LLDP)	Used by network devices for advertising their identities, capabilities and neighbors on a IEEE 802 local area network, principally wired Ethernet.		
The configuration of the switch functions is done via the embedded website.			
> PoE			
PoE Ports	22 ports support PoE Power Pin Type: End-span (Mode A)		
PoE standard	IEEE 802.3af/at		
	15 W / 30 W per port		
Power	Per port PoE function configuration		
PoE budget	210 W		
Output (Smart Backup)	η @ 25% loading	η @ 75% loading	η @ 100% loading
	90.60%	94.50%	94.60%
> Minimum requirements			
Web browser	Mozilla Firefox version 2.5 or later, Microsoft Internet Explorer version 6 or later		
Network cable	Ethernet cable Cat 5e or more / shielded or unshielded / straight or twisted		
Rack mounting	Rail to place the product in the bay		
> Communication			
Communication speed	PoE ports	10 / 100 / 1000 Mbps	
	SFP ports	100 / 1000 Mbps	
	Combo ports	either 10 / 100 / 1000 Mbps (PoE) or 100 / 1000 Mbps (SFP)	
Application layer protocols	HTTPS, BACnet IP, SNMP, DHCP		
Network layer protocols	IPv4, ICMP		

> Signaling		
1 LED for the "PoE Load" level on the front panel		
1 LED for the product "Status" on the front panel		
22 LEDs indicate the PoE activity of each port on the front panel		
22 LEDs indicate the data transmission activity on the corresponding port in 100 Mbps (yellow)		
22 LEDs indicate the data transmission activity on the corresponding port in 1 Gbps (green)		
> Environmental specifications		
Temperature		
Storage	-25°C … +60°C	
Operating	at 100% load: -10°C … +45°C	
	at 75% load: -10°C … +50°C	
Humidity		
Storage	relative humidity 10% to 90%	
Operating	relative humidity 20% to 85%	
Altidude		
Above 2,000 m, the temperature decreases by 5% every 1,000 m.		
Cooling		
The cooling in carried out transversally.		
Service life		
10 years at 25°C product external environment, rated mains voltage, 75% load		
> Electrical characteristics		
Network Input		
AC network voltage	195 to 265 V AC	
Frequency	45 to 65 Hz	
Class	Class 1	
Inrush current	Limited by NTC	
Neutral system	TT, TN, IT	
Protection against	primary short-circuit and differential mode shock waves	
Primary current @ 195 V	2 A	
Primary current @ 265 V	2 A	
Functional characteristics		
Operates in power-saving mode when the backup is charged.		
On/Off function per PoE port.		
Filters disturbances of the electrical network.		
Fan-cooling.		
Configurable reboot function (stop and restart automatically) on each PoE-port.		
Indicates the % of the remaining autonomy.		
Protections		
Against surge and overvoltage on primary (Lightning or industrial origins).		
Against overload by power limitation to P_n+10%.		
Against overcurrent and short-circuits on the output by disconnecting the PoE port at I > I_n + 10%.		
Smart Backup		
SDC-PoE24 is available in 2 backup packs	6F	6J
Latest generation Lithium-ion LiFePO4 Technology (no risk of thermal runaway).		
Lead-free, cadmium-free, 100% recyclable.		
Storage: 9 months without recharging.		
10 year service life.		
Advanced management settings, cell balancing, overload and overvoltage protection.		

Backup duration according to output power

	Backup 6F	Backup 6J
Operating power	Autonomy expressed in hours and minutes	
10 W	1h35	3h10
20 W	1h12	2h24
30 W	0h58	1h56
40 W	0h48	1h37
50 W	0h41	1h23
60 W	0h36	1h13
70 W	0h32	1h04
80 W	0h29	0h58
90 W	0h26	0h52
100 W	0h24	0h48
110 W	0h22	0h44
120 W	0h20	0h41
130 W	0h19	0h38
140 W	0h17	0h35
150 W	0h16	0h33
160 W	0h15	0h31
170 W	0h14	0h29
180 W	0h14	0h28
190 W	0h13	0h27
200 W	0h12	0h25
210 W	0h12	0h24

> Standards

IEEE standards	
IEEE 802.1D	Standard Spanning Tree / Multicast
IEEE 802.1W	Rapid Spanning Tree (RSTP)
IEEE 802.1Q	VLAN
IEEE 802.1X	Radius
IEEE 802.3AD	Link Aggregation Control Protocol (LACP)
IEEE 802.3I	10BaseT
IEEE 802.3u	100BaseT(X) and 100BaseFX
IEEE 802.3ab	1000BaseT(X)
IEEE 802.3z	1000BaseX
IEEE 802.3x	Flow Control
IEEE 802.3af	PoE
IEEE 802.3at	PoE+
IEEE 802.3az	Energy Efficient Ethernet
Electrical standards	
Safety	EN 62368-1 (2014)
EMC - Immunity	EN 61000-6-1 (2007), EN 61000-6-2 (2006)
EMC - Emissions	EN 61000-6-3 (2007), EN 61000-6-4 (2007) + A1 (2011) EN 61000-3-2 (2006) (class A) EN 55032 (2015) (class A)
Security	
Transportation security	UN 38.3

> Product references

Interpretation of the product reference designations: SDC-POE [Backup] RK2 P24

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9 10 11 12 13 14 15 16 17 18 19
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
11X 13X

TAKE ADVANTAGE OF YOUR APPLICATIONS WITH COMPLETE PEACE OF MIND USING SLAT SOLUTIONS

With the COVID-19 health crisis that we have been through, more than ever, the efficiency of medical teams is a necessity. It depends to a large extent on the technical means at their disposal to enable the appropriate response to each case at the appropriate time. The operational continuity of these resources sometimes depends on human lives, but always on the serenity of the medical staff who must face all situations.

SLAT provides reliable solutions that allow the permanent operation of the resources at your disposal.

In the same way, HV/ LV transformer stations and switchboards supplying hospitals and large industries rely on the power supply of the switching devices. SLAT power supplies have been designed for this requirement without compromise.

SELECTION GUIDE

	SANTE	ENERGO		FIT'IN			SDC-PoE
Application	Nurse call and other medical systems	MV/LV substation Control		Multi-Application			Multi-Application
Standard	EN 61046	NF C13-100		-			-
DC output voltage	24 V	24 V	48 V	12 V	24 V	48 V	-
Current / Power	4 A / 8 A / 12 A / 16 A / 24 A	6 A / 12 A		6 A / 12 A / 24 A / 32 A	3 A / 6 A / 12 A / 24 A	3 A / 6 A / 12 A	55 W
Number of terminal outputs	5	2 / 4		2			1
PoE/PoE+ ports	-	-		-			1
Ethernet ports	-	-		-			1
Format	Box	Box		Card			DIN
Battery technology	Lead	Lead	Lead or Lithium	Lead			Lithium
Battery control/ protection batterie	Yes	Yes		Yes			Yes
Battery capacity	7 Ah 12 Ah 24 Ah 65 Ah	7 Ah 14 Ah 24 Ah		Compatible with batteries up to 240 Ah	Compatible with batteries up to 180 Ah	Compatible with batteries up to 90 Ah	D G
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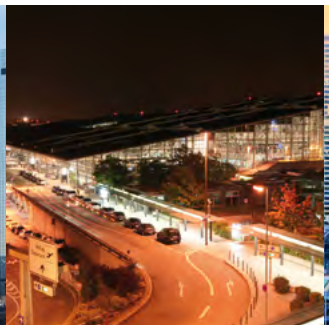
**with option*


SANTE

Emergency power supplies with batteries – Medical and emergency systems

24 V DC

Complies with Standard EN 61046

Communication by LED on the front panel • Dry Contact

The SANTE emergency power supplies with batteries provide permanent and backup power for medical and emergency system installations.

C24
322 x 248 x 126 mm

C48
425 x 345 x 120 mm

C180
505 x 610 x 430 mm

Main functions

- Resists short-circuits on load outlets
- Controls and reports operating status
- Monitors battery presence
- Protects the battery at end of discharge.

Benefits of the SANTE range

- 5 independent fuse-protected load outlets
- Dimensioned to operate 24/7 at rated power
- Built-in lightning protection
- The installation is available as soon as the mains returns.

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
SANTE 24V			
SANTE 24V 4A C24 AB 7 AH	8.0 kg	322 x 248 x 126	3040424007
SANTE 24V 8A C48 AB 12AH	16.0 kg	425 x 345 x 120	3040848012
SANTE 24V 8A C48 AB 24 AH	29.0 kg	425 x 345 x 120	3040848024
SANTE 24V 12A C48 AB 24 AH	29.0 kg	425 x 345 x 120	3041248024
SANTE 24V 16A C48 AB 24 AH	29.0 kg	425 x 345 x 120	3041648024
SANTE 24V 24A C180 AB 65AH	68.0 kg	505 x 610 x 430	3042418065

> Ratings							
	75 W	100 W	150 W	200 W	300 W	400 W	600 W
24 V DC	3 A	4 A	6 A	8 A	12 A	16 A	24 A
The currents (I_n) shown are at rated output power							
> Standarts-based specifications							
Safety	EN 62368-1						
EMC - Immunity	EN 61000-6-1 • EN 61000-6-2						
EMC - Emission	EN 61000-3-2 • EN 61000-6-3 • EN 61000-6-4 • EN 55032 class B						
Specific	EN 61046						
Environment	This product range is environmental policy ISO 14001, RoHS et WEEE.						
> Environmental specifications							
Humidity	**During storage:** relative humidity 10% to 95% (non-condensing) **In operation:** relative humidity 20% to 95% (non-condensing)						
Storage temperature	-25°C à +85°C						
Operating temperature	Power	75 W - 100 W			150 W - 600 W		
	75% of load	-5°C to +50°C			-5°C to +50°C		
	100% of load	-5°C to +50°C			-5°C to +40°C		
Altitude	Above 2,000 m, the temperature decreases by 5% every 1,000 m						
Working life	50,000 h at 25°C (external environment) and 75% of load, product installed in a cabinet						
> Input specifications							
Voltages	230 V AC +/- 15% single-phase						
Frequency	45 to 65 Hz						
Neutral system	TT - TN - IT						
Switch-on current	limited by CTN						
Upstream circuit breaker required	Bipolar D Curve						
Class	I Class						
	75 W	100 W	150 W	200 W	300 W	400 W	600 W
Primary current @ 195 V	0.5 A	0.75 A	1 A	1.5 A	2 A	3 A	4 A
Converter	75 W		100 W - 150 W		200 W - 300 W		400 W - 600 W
At 20% load	71%		75%		84%		85%
At rated load	85%		84%		90%		91%
> Output specifications							
Rated voltage	24 V DC						
Floating voltage (U_n) set at half-load and 25°C	27.2 V +/-0.5%						
Short-circuit current limitation	I_n						

> For reliable output voltage	
Protection against external aggressions	**- Resistance to all types of external aggressions:** • Overvoltages encountered on the mains network (lightning, industrial, isolation fault on impedance-earthed neutral system…). • Short-circuit on the primary power supply by a slow blow fuse on the phase. • Differential mode shock waves by varistor and fuse. • Battery polarity inversions. • Overvoltages on secondary. • Overcurrents and short-circuits on secondary. • The short-circuits inside the product, protected by primary fuse. • Increases in external temperatures (outside the specified range).
Charger current limitation	**- Output current limitation allows a charge cycle to be started with a discharged battery.** • Completely protects the product from short-circuits on the installation. • Protection selectivity is ensured by fuses on each load output and the battery fuse.
High performance filtering and regulation	**- Particularly efficient output voltage regulation** • Static regulation < 0.5% of U_n. • Dynamic regulation < 5% of U_n for cumulative variations of the mains and the load (from 10% to 90%). **- Enhanced filtering** that eliminates all parasites and reduces the ripple on the V DC output. Battery capacity preserved and the guarantee of optimum system operation. • LF rms ripple < 0.2% of U_n • HF ripple (20 MHz-50 Ω) < 4% of U_n. *Note: The SANTE range can operate without battery and may be used as a direct power supply.*
> For the control of the emergency power source	
System control	**- Monitoring of:** • The status of mains, battery and load fuses. • Battery presence or absence. • Battery voltage and its operating status. • Mains voltage present in the correct operating range.
Battery charge management	**- This function is essential for reaching the design life and to ensure optimum operation of the battery.** • The charge voltages are factory set for «sealed» recombination-type lead acid batteries. • They are consistent with the battery manufacturers' recommendations. • The charger features battery charge current limitation. • The supply of power to the load takes priority over the battery charge.
Battery backup	**- Automatic disconnection of the charge at end of discharge to preserve its future capacity.** • Prevents excessively deep discharge that can permanently downgrade performance (cut-off threshold 1.8 V/cell +/- 0.5%). • A report is sent before disconnection. (Pre-cut-off alarm threshold 1.85 V/cell +/- 0.5%). • During autonomous operation, up to the cut-off threshold, the design of the SLAT unit significantly limits the charger's own consumption on the battery. This allows your application to take full advantage of the battery's capacity.

> Charger consumption on the battery in autonomous mode

	75 W	100 W - 150 W	200 W - 300 W	400 W - 600 W
24 V DC	39 mA	75 mA	44 mA	106 mA

> For optimal communication	
 Displaying and remote reporting of the information	- **Mains:** • Presence indicated by a green LED. • Remote reporting by dry contact with delay (failsafe). - **Charger:** • Correct operation indicated by a green LED. • Charger fault if mains fuse is out of order or not present, or if product is out of order. • Remote reporting by dry contact with delay (failsafe). **- Battery:** • Presence indicated by a green LED. **- Battery fault:** • If battery is not present (test every 30 seconds for the 1st 20 minutes after the installation, then every 15 min) or if battery voltage < 1.85 V/cell in autonomous mode. • Voltage of less than 1.85 V/cell indicated by flashing orange LED (autonomous mode). • Remote reporting by dry contact with delay (failsafe).
On motherboard	- **Internal signaling on the motherboard** A LED on the motherboard indicates operational status before the cabinet is closed (display board not connected). Signals: • All OK: green • Mains fault: orange • Battery or charger fault, or load not present: red (this fault takes priority over a mains fault).

> Connection specifications				
Screw terminal	75 W	100 W - 150 W	200 W - 300 W	400 W - 600 W
Mains	2.5 mm²	2.5 mm²	2.5 mm²	2.5 mm²
Batteries	2.5 mm²	6 mm²	6 mm²	10 mm²
Load (2 outputs)	4 x 2.5 mm²	1 x 6mm² 3 x 2.5 mm²	1 x 6mm² 3 x 2.5 mm²	1 x 10mm² 5 x 2.5 mm²
Alarm reports*	1.5 mm²	1.5 mm²	1.5 mm²	1.5 mm²
*the alarm report connector is unpluggable - *Dry contacts, 1 A @ 24 V DC, 0.5 @ 120 V AC.*				

> Cabinet characteristics				
Version	Size W x H x D (mm)	IP	Base	Cover
C24	322 x 248 x 126	IP30	Metal, RAL 9006	ABS RAL 9003
C48	425 x 345 x 120	IP30	Metal, RAL 9006	Metal, RAL 7035
C180	505 x 610 x 430	IP31	Metal, RAL 7035	Metal, RAL 7035

> Types of battery cabinets		
Version	Type	24 V
C24	Wall-mounted	7 Ah, 12 Ah
C48	Wall-mounted	7 Ah, 12 Ah, 24 Ah (4 x 12 Ah)
C180	Floor-mounted	65 Ah, 80 Ah, 120 Ah, 130 Ah, 170 Ah

SLAT can change specifications on his products without prior notice.

FIT'IN

WARRANTY 3 years

Integrable emergency power supplies

12 V DC • 24 V DC • 48 V DC

Communication via dry contact

FIT'IN emergency power supplies provide permanent and backup power for all installations.

CG1
130 x 104 x 41 mm

CG2
125 x 177 x 68 mm

CG3
182 x 231 x 73 mm

CG4
215 x 265 x 77 mm

Main functions

- Card protection, DIN rail mounting.
- Battery charger function.
- Resists short-circuits on load outlets.
- The installation resumes as soon as the mains returns.

Benefits of the FIT'IN range

- Two independent fuse-protected load outlets.
- Dimensioned to operate 24/7 at rated power.
- Built-in lightning protection.
- Fits easily into an enclosure or cabinet.
- Inaudible.

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE	*PACK*
FIT'IN 12V				
FITIN 12V 6A CG1	0,5 kg	130 x 104 x 41	1520601000	-
FITIN 12V 6A CG1 Q16	0,5 kg	130 x 104 x 41	1520613000	16
FITIN 12V 12A CG2	1,0 kg	125 x 177 x 68	1521202000	-
FITIN 12V 12A CG2 Q16	1,0 kg	125 x 177 x 68	1521214000	16
FITIN 12V 24A CG3	2,2 kg	182 x 231 x 73	1522403000	-
FITIN 12V 24A CG3 Q8	2,2 kg	182 x 231 x 73	1522415000	8
FITIN 12V 32A CG4	3,5 kg	215 x 265 x 77	1523204000	-
FIT'IN 24V				
FITIN 24V 3A CG1	0,5 kg	130 x 104 x 41	1540301000	-
FITIN 24V 3A CG1 Q16	0,5 kg	130 x 104 x 41	1540313000	16
FITIN 24V 6A CG2	1,0 kg	125 x 177 x 68	1540602000	-
FITIN 24V 6A CG2 Q16	1,0 kg	125 x 177 x 68	1540614000	16
FITIN 24V 12A CG3	2,2 kg	182 x 231 x 73	1541203000	-
FITIN 24V 12A CG3 Q8	2,2 kg	182 x 231 x 73	1541215000	8
FITIN 24V 24A CG4	3,5 kg	215 x 265 x 77	1542404000	-
FITIN 24V 24A CG4 Q4	3,5 kg	215 x 265 x 77	1542416000	4
FIT'IN 48V				
FITIN 48V 3A CG2	1,0 kg	125 x 177 x 68	1580302000	-
FITIN 48V 3A CG2 Q16	1,0 kg	125 x 177 x 68	1580314000	16
FITIN 48V 6A CG3	2,2 kg	182 x 231 x 73	1580603000	-
FITIN 48V 6A CG3 Q8	2,2 kg	182 x 231 x 73	1580615000	8
FITIN 48V 12A CG4	3,5 kg	215 x 265 x 77	1581204000	-
FITIN 48V 12A CG4 Q4	3,5 kg	215 x 265 x 77	1581216000	4

> Ratings				
	75 W	150 W	300 W	600 W
12 VDC	6 A	12 A	24 A	32 A
24 VDC	3 A	6 A	12 A	24 A
48 VDC	-	3 A	6 A	12 A
The currents (I_n) shown are at rated output power.				

> Standard-based specifications	
Safety	EN 62368-1
EMC - Immunity	EN 61000-6-1 • EN 61000-6-2
EMC - Emissions	EN 61000-3-2 • EN 61000-6-3 • EN 61000-6-4 • EN 55032
Environmental	This product range complies with the environmental policy (ISO 14001, RoHS and WEEE).

> Environmental specifications			
Relative humidity	**During storage:** 10% to 95% non-condensing relative humidity **During operation:** 20% to 95% non-condensing relative humidity		
Storage temperature	-25°C to +85°C		
Operating temperature	Power	75 W	100 W - 600 W
	75% of load	-5°C to +50°C	-5°C to +50°C
	100% of load	-5°C to +50°C	-5°C to +40°C
Altitude	Above 2,000 m, the maximum temperature decreases by 5% every 1,000 m		
Service life	50,000 h at 25°C (external environment) and 75% of load, product installed in a cabinet		

> Input characteristics				
Voltages	98 V AC to 264 V AC (115 V AC -15% to 230 V AC +15%) single-phase (300 W - 600 W) 195 V AC to 264 V AC (230 V AC +/-15%)single-phase (150 W)			
Frequency	45 to 65 Hz			
Neutral systems	TT - TN - IT			
Inrush current	limited by NTC			
Upstream circuit breaker required	Curve D			
Class	Class I			
	75 W	150 W	300 W	600 W
Mains consumption @195 V	0.5 A	1 A	2 A	4 A
Efficiency at 20% load	71%	75%	84%	85%
Efficiency at rated load	85%	84%	90%	91%

> Output characteristics			
Rated voltage	12 V DC	24 V DC	48 V DC
Floating voltage (U_n) set at half-load and at 25°C	13.6 V +/-0.5%	27.2 V +/-0.5%	54.4 V +/-0.5%
Adjustment range in power supply mode only	12 V - 14 V	23 V - 29 V	46 V - 58 V
Charger current limitation	From I_n to I_n +15%		

> For reliable output voltage	
Protection against external aggressions	- Resistance to any type of external aggression: • Overvoltages encountered on the mains network (lightning strikes, industrial environment, isolation fault on impedance-earthed neutral system, etc.) • Short-circuit on the primary power supply primary by a slow blow fuse on the phase. • Differential mode shock waves by varistor and fuse. • Inversions of battery polarity. • Overvoltages on the secondary power supply. • Overcurrents and short-circuits on the secondary power supply. • Short-circuits inside the product, protected by primary fuse. • Increases in external temperatures (outside the specified range).
Charger current limitation	- The output current limitation allows to start a charge cycle on an empty battery • Completely protects the product from short-circuits on the installation. • The selectivity of the protection is ensured by the fuses on each output use and the battery fuse.
High performance filtering and regulation	- Particularly efficient output voltage regulation • Static regulation < 0.5% of U_n. • Dynamic regulation < 5% of U_n for cumulative variations of the mains and the load (10% to 90%). - Enchanced filtering that eliminates all parasites and reduces the ripple on the V DC output. Battery capacity preserved and guarantee of optimum system operation. • LF rms ripple < 0.2% of U_n. • HF ripple (20 MHz-50 Ω) < 4% of U_n.
> For the control of the emergency power source	
System control	**Monitoring of:** • Status of mains, battery and load fuses. • Battery presence or absence. • Battery voltage. • Its operating status. • Mains voltage present in the correct operating range.
Battery charge management	**This function is essential** for reaching the design life and to ensure optimum operation of the battery. • The charge voltages are factory adjusted for "sealed" recombination-type lead acid batteries. • They are consistent with the battery manufacturers' recommendations. • The charger includes battery charge current limitation. • The power supply to the load takes priority over the battery charge.
Battery backup	**Automatic disconnection of the battery at the end of discharge** to preserve its future capacity. • Prevents excessively deep discharge, that may permanently downgrade performance (cut-off threshold: 1.8V/cell). • A report is sent before disconnection (pre-cut-off alarm threshold: 1.85V/cell). • Very low internal consumption. • This allows the application to take full advantage of the battery capacity.

> Charger consumption on the battery during autonomy

	12 V DC	24 V DC	48 V DC
75 W	32 mA	39 mA	-
150 W	49 mA	75 mA	85 mA
300 W	65 mA	44 mA	37 mA
600 W	141 mA	106 mA	73 mA

> Communication	
Displaying and remote reporting of the information	**- Internal signaling on motherboard:** A LED on the motherboard indicates the operational status. Signals: • Everything OK: green • Mains fault: orange • Battery or charger fault, or load not present: red (this fault takes priority over a mains fault). **- Mains fault:** Remote reporting by means of a dry contact with time delay relay (fail-safe). **- Charger fault:** A charger fault occurs if the mains fuse is out of order or not present, or if the unit is out of order. Remote reporting by means of a dry contact with time delay relay (fail-safe). **- Battery fault:** A battery fault occurs if the battery is not present or if voltage < 1.85 V/cell in autonomous mode. Remote reporting by means of a dry contact with time delay relay (fail-safe).

> Connection specifications				
Screw terminal	75 W	150 W	300 W	600 W
Mains	2.5 mm^2	2.5 mm^2	2.5 mm^2	2.5 mm^2
Batteries	2.5 mm^2	6 mm^2	6 mm^2	10 mm^2
Load (2 outputs)	2.5 mm^2	6 mm^2	6 mm^2	10 mm^2
Alarm report*	1.5 mm^2	1.5 mm^2	1.5 mm^2	1.5 mm^2
**The alarm report connector can be unplugged*				

> Boards characteristics			
Version	Dimensions W x H x D (mm)	Base	Cover
CG1	105 x 185 x 57	Metal	Grid
CG2	125 x 177 x 68	Metal	Grid
CG3	182 x 231 x 73	Metal	Grid
CG4	215 x 265 x 77	Metal	Grid

SLAT can change specifications on his products without prior notice.

SDC-PoE 24

Layer 2 switch for medical infrastructures

PoE / PoE+ (IEEE 802.3af/at)

24 port full Gigabit managed PoE / PoE+ switch, secured by an integrated micro-UPS. Secure protocols.

SDC-PoE24 assures the medical infrastructures' reliability and guarantees all the benefits of your solutions.

RACK 2U

446 x 85 x 380 mm

Build-in functions

- Provides the interface between the hospital staff's support equipment
- Powers all the devices with PoE / PoE+
- Guarantees continuity of service 24/7
- Automatically reboots the surveillance equipment

Key product features

- Improves the peace of mind of the medical teams
- Transmits reliable and secure data
- Operational in a non-air conditioned environment, without maintenance
- Filters all disturbances of electrical origin

Main software specifications

- Layer 2 management: VLAN, Spanning Tree, STP, RSTP, Loop Protection, Aggregation, Mirroring, QoS, LLDP, 802.1x, IGMP Snooping, DHCP Snooping, Port Security, ARP, ACL, and more...
- Device Activity Monitoring
- Green Ethernet
- Secure HTTPS and SNMP V3 management
- Jumbo Frames 9.6 kilobytes

Main hardware specifications

- 20 Ethernet ports (PoE/PoE+) 10/100/1000 Mbps
- 2 SFP ports 100/1000 Mbps
- 2 combo ports (Ethernet/SFP)
- PoE budget 210 W
- Li-ion battery, 72 Wh or 144 Wh
- 2U metal rack: W446 x H85 x D380 [mm]
- IP30
- Weight, depending on the model: 7 kg or 7.7 kg

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
SDC-PoE 24			
SDC-POE 6F RK2 P24	7.0 kg	446 x 85 x 380	83962307
SDC-POE 6J RK2 P24	7.7 kg	446 x 85 x 380	83965307

Datasheet on pages 95 to 97

ENERGO

YOUR ELECTRICITY SUPPLY MAY DEPEND ON THAT LITTLE EQUIPMENT !

In our lives today, we are no longer aware of how dependant we are from energy and the electrical network. Spending in Research and Development is increasing every year to improve and make our electrical grid more reliable, in a new discipline called Smart Grid.

For a reason: **lives are depending** on the electrical power supply when feeding a hospital and the safety of the workers is at stake when supplying an aluminium foundry or a car manufacturer.

The Energo product family has been designed to supply coils and motors of switchgears in HV/LV transformer substations. They will **ensure a seamless operation** of the public grid stations as well as private feeder stations **for many years**.

The lithium version responds to applications demanding an outdoor climate such as Wind Farms and Solar Fields. The exceptional service life and temperature tolerance of our lithium battery technology, combined with unique **end-of-life prediction**, will drastically **reduce on-site maintenance operations**.

ENERGO

WARRANTY 3 years

Medium Voltage switchgear / instrumentation and control

24 V DC • 48 V DC

Compliant with trade standard NF C13-100 April 2015
"Delivery sub-stations fed by HV public distribution network"

Communication via digital display • End-of-life prediction

The ENERGO UPS DC supplies standard and emergency power constantly to the high voltage switchgear, instrumentation and control, supply coils and motorisation of circuit breakers for medium voltage cells and the main low voltage switchboard.

Restart buttons with LED

C85
408 x 408 x 224 mm

Digital display

Main functions

- Ensures a continuous supply of power to the equipment.
- Maintains a power reserve for restarting the systems by voluntary action.
- Optimises battery charging and service life.
- Anticipates and informs about the battery's end-of-life.
- Guides operation and maintenance.
- Allows local and remote control.
- Cold start, facilitates commissioning.

Benefits of the ENERGO range

- 2 independent, fuse protected load outputs or 4 circuit breakers distribution.
- Configurable power reserve duration. Wind turbine function.
- Backlit display with plaintext messages.
- Cable inputs on all sides.
- Redundancy box option for live work and high reliability.
- Lithium technology models for outdoor use and renewable energies.

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
ENERGO 24V			
ENERGO 24V 6A C85 7Ah	17.2 kg	408 x 408 x 224	3640685007
ENERGO 24V 12A C85 14Ah	23.2 kg	408 x 408 x 224	3641285014
ENERGO 24V 12A C85 24Ah	28.4 kg	408 x 408 x 224	3641285024
ENERGO 24V 12A C85 24Ah 4DJ	28.6 kg	408 x 408 x 224	3641286024
ENERGO 48V			
ENERGO 48V 6A C85 7Ah	22.0 kg	408 x 408 x 224	3680685007
ENERGO 48V 6A C85 14Ah	34.0 kg	408 x 408 x 224	3680685014
ENERGO 48V 12A C85 24Ah	44.9 kg	408 x 408 x 224	3681285024
ENERGO 48V 12A C85 24Ah 4DJ	45.3 kg	408 x 408 x 224	3681286024
ENERGO 48V LITHIUM			
ENERGO 48V 12A C85 LI	27.3 kg	408 x 408 x 224	3681285026

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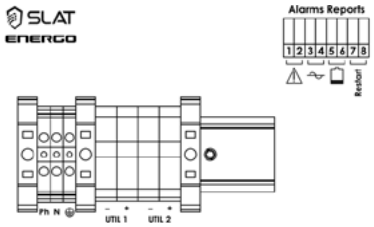
> Ratings		
24 V DC	6 A (50 A at peak)	12 A (50 A at peak)
48 V DC*		
The currents I_n shown are at rated output power.		
*The Lithium model is only available in 48 V DC.		
> Standard -based specifications		
Safety	EN 62368-1	
EMC - Immunity	EN 61000-6-2	
EMC - Emission	EN 61000-6-4 • EN 61000-3-2 • EN 55032 • EN 55024	
Trade	NFC 13-100 compliant	
Environment	This product range meets the environnmental requirements of ISO 14001, RoHS and WEEE standards.	
> Environmental specifications		
Humidity	**during storage**: relative humidity of 10% to 95% non-condensing **in operation**: relative humidity of 20% to 95% non-condensing	
Storage temperature	-25°C to +85°C	
Operating temperature	75% of load	-5°C to +50°C
	100% of load	-5°C to +40°C
Altitude	Above 2,000 m, the maximum temperature is lowered by 5% every 1,000 m	
Service life	200,000 h at 25°C external ambient temperature	
> Input characteristics		
Voltage	98 to 265 V AC	
Frequency	47 to 65 Hz	
Neutral system	TT - TN - IT	
Inrush current	limited by NTC	
Upstream circuit breaker required	D Curve	
Class	Class 1	
	Charger 300 W	Charger 600 W
Mains consumption @ 98 V	4 A	8 A
Mains consumption @ 265 V	2 A	4 A
> Efficiency		
At 20% load	84%	
At nominal load	90%	
> Output characteristics		
Nominal voltage	24 V DC	48 V DC
Floating voltage (U_n) adjusted to half load and 25°C	27.2 V +/-0.5%	54.4 V +/-0.5%
Charger current limitation	I_n: 6 A to 12 A depending on model	
> Charger consumption on battery in stand-alone mode		
	24 V DC	48 V DC
300 W	94 mA	37 mA
600 W	106 mA	73 mA

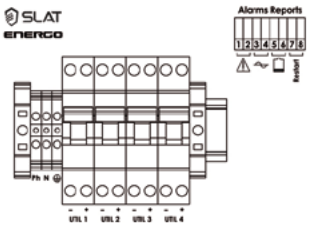
> For reliable output voltage	
Protection from external aggressions	- Resistance to all types of external aggression: • Overvoltages encountered in the mains grid (lightning, industrial, isolation fault on impedant neutral, etc.) • Short-circuit on primary by slow-blow timed fuse on phase. • Differential mode shock waves by varistor and fuse. • Battery polarity reversals. • Overvoltages on secondary. • Overcurrents and short circuits on secondary. • Short circuits inside the product by primary fuse. • Rises in external temperatures (outside specified range).
Charger current limitation management	- The output current limitation can start a charging cycle on a discharged battery. • Protects the product completely from short-circuits on the installation. • Protection selectivity is provided by fuses on each load output and the battery circuit.
Control and high-performance filtering	- Particularly efficient output voltage regulation • Static control < 0.5% of U_n. • Dynamic control < 5% of U_n for cumulative variations of the mains and the load (10% to 90%). - Boosted filtering that eliminates all interference and reduces the ripple on the DC output voltage. Battery capacity preserved and guaranteed optimum operation of systems. • LF rms ripple < 0.5% of U_n. • HF ripple (20 MHz-50 Ω) < 4% of U_n.
> For the control and management of the emergency power source	
LED Test function	The two LED light up for one second when the power is switched on.
System control	- Monitoring: • State of mains, battery and load fuses. • Presence or absence of battery. • Temperature inside the cabinet. • Battery voltage. • Operating status. • Presence of mains voltage in the correct operating range.
Battery charge management	- This function is essential to achieve the theoretical service life and guarantee optimum battery operation. • The charge voltages are factory set. • They comply with the stipulations of the battery manufacturers. • The charger incorporates battery charge current limitation.
Battery safeguard	- Charger disconnects automatically at the end of battery discharge to preserve battery life. Prevents batteries from becoming too discharged, which would cause irreparable deterioration in performances (cut-off threshold 1.8 V/element at +/-0.5%).
Battery Circuit Test function	Every thirty seconds for the first twenty minutes, then every fifteen minutes.
Battery Health Test function	Impedance test performed every sixteen hours (internal resistance measurement).
Temperature compensation	-3 mV/element/°C (on lead battery models only)
Restart (C13-100)	By local or remote manual action. After a configurable back-up time, the load will be disconnected from the battery. The restart button blinks and indicates a restart stand-by. “Restart?”, “Restart in progress” or “Restart impossible” is displayed.
Cold start	Start up without the mains present, only using the battery
Configurable back-up time	Via LCD screen (30 min, 1 h, 2 h, 4 h).
Wind turbine function	Delays the remote restart. The execution of the order can be delayed from 1 to 30 s, configurable via the LCD screen.

> For optimum communication						
- Green/red/orange tricolour LED for display and status control						
	Steady green	**Blinking green**	**Blinking orange**	**Steady orange**	**Steady red**	**Off**
Battery LED	Battery charged	Battery being charged	- Low battery - Battery flat - Battery needs to be charged	Battery operation	Battery test fault	Battery disconnected in restart stand-by
User LED	Load powered	-	-	10 mm²	- Charger fault - Fuse fault	Load disconnected
Restart button LED	-	-	Restart on stand-by	1.5 mm²	-	-

> For optimum communication	
- Digital display	
Display and remote reporting of information	The product displays the standard menu constantly. The standard menu display is incremented every ten seconds to indicate the next item of information and runs on a loop. Pressing and holding (1 s) is used to access the configuration menu. Pressing and holding again once in the configuration menu gives access to one of the proposed sub-menus. Press and hold to select a variable in one of the sub-menus. When selected, variable has an * next to it. **Two menus:** - The Standard Menu displays the information regarding • the battery voltage and current, • the output voltage and current • the mains, charger, battery or fuse fault • the remaining autonomy (lead model) • the end-of-life and replacement of the battery - The Configuration Menu allows to select • the language (Lead model: French/English/German; Lithium model: French/English) • the duration of the autonomy (Lead model: 0.5h/1h/2h/4h/8h/12h/no limit; Lithium model: 0.5h/1h/2h/4h) • the restart delay (0 to 30s) • the battery type (lead model) • to do a battery test (lithium model)
- Positive safety dry contacts	

Alarm reporting





Name	Terminals	Status	Fault conditions
General fault	1-2	Open in the event of a fault	Charger or mains or battery or impedance fault
Mains present	3-4	Open in the event of a fault	No mains power
Battery flat alarm	5-6	Open in the event of a fault	Battery voltage < 1.85 V per cell

> Connection specifications	
Screw-type terminal block	
Mains	max. 4 mm²
Batteries	Cabling supplied
Load (two outputs)	max 10 mm²
Alarm reporting	max 2.5 mm²

> Cabinet characteristics					
	Cabinet dimensions W x H x D (mm)	Weight (kg)	IP	Cabinet	Type
C85 Lead	408 x 408 x 224	16 - 50	IP31	Metal RAL 7035	Wall or floor-mounted
C85 Lithium		27			

> Cabinet incorporating batteries		
	24 V	48 V
C85 Lead	7 Ah, 14 Ah, 24 Ah	
C85 Lithium	-	26 Ah

SLAT reserves the right to alter the characteristics of its products without prior notice.

Defining your lead battery's capacity

For systems requiring backup, you must first determine:

- The **rated operating voltage, U_n** (in Volts)
- The system's **continuous drain current, I_n** (in Amperes), or the **continuous power input, P_n** (in Watts)
- The **battery autonomy required** by the customer, t (in hours)
- The **adjustment factor K** according to the cutoff 1.85V/cell and the battery autonomy

Define your adjustment factor K according to the required battery autonomy:

Required battery autonomy in hours (t)	Factor (K)
20	1.10
12	1.15
8	1.25
4	1.56
2	1.66
1	2
0.5 (30 min)	2.5
0.33 (20 min)	3
0.16 (10 min)	4

Note that, if you have the continuous power input P_n (in Watts), below is the calculation to obtain the continuous drain current I_n (in Amperes):

$$I_n \text{ [Ampere]} = P_n \text{ [Watt]} / U_n \text{ [Volt]}$$

Perform the following calculation to define C_{Ah}, i.e. the required battery capacity in Ampere-hours:

$$C_{Ah} = I_n \times t \times K$$

(important: this formula is applicable to systems with a continuous output and a cutoff of 1.85V/cell)

Example :

$U_n = 24$ V

$I_n = 4$ A

Required battery autonomy: 4 h

$$C_{Ah} = I_n \times t \times K$$

$$C_{Ah} = 4 \times 4 \times 1.56 = \mathbf{24.96}$$

I.e. a maximum capacity of: **24 Ah.**

Choosing a charger's rating

To perform this calculation, you must know:

- The **rated operating voltage, U_n** (in Volts)
- The system's **continuous drain current, I_n** (in Amperes), or the **continuous power input, P_n** (in Watts)
- The associated **battery capacity** to maintain, **C_{Ah}** (see previous calculations)

Perform the following calculation to determine the current of the charger :

$$\text{Charger rating} = I_n + (C_{Ah}/10)$$

Example :

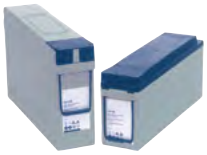
$I_n = 4$ A

$C_{Ah} = 24$ Ah

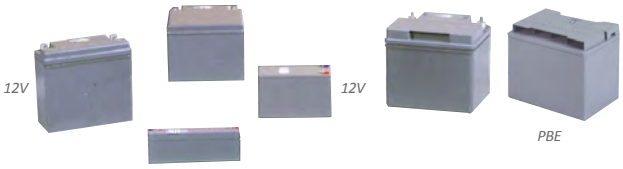
$$\text{Charger rating} = 4 + (24/10) = 6.4$$

I.e. a charger rating greater than or equal to **6.4 A.**

Batteries



PBE FRONT TERMINAL



PBE

PBE

MODEL	WEIGHT (kg)	SIZE W x H x D	CODE
BAT PBE 12V 2Ah	1,0 kg	178 x 64 x 34	9729120021
BAT PBE 12V 7Ah	2,7 kg	151 x 97,5 x 65	9729120060
BAT PBE 12V 12Ah	4,1 kg	151 X 97,5 x 100	9729120120
BAT PBE 12V 17Ah	6,4 kg	181 x 76 x 167	9729120150
BAT PBE 12V 24Ah	9,7 kg	166 x 175 x 125	9729120240
BAT PBE 12V 38Ah	14,5 kg	197 x 170 x 165	9729120380
BAT PBE 12V 65Ah	24,0 kg	350 x 174 x 166	9729120650
BAT PBE 12V 95Ah	33,2 kg	302 x 227 x 175	9729120850
BAT PBE 12V 130Ah M8	38,0 kg	410 x 225 x 177	9729121100

* The batterie capacities are indications. They may vary according to the supplier.

BA.C34

BA.MC

ABM 1P

ABM 1G

MODEL	WEIGHT (kg)	SIZE W x H x D	CODE
COFFRET BATTERIE NU BA.C34	5,0 kg	367 x 352 x 108	9069000114
COFFRET BATTERIE NU BA.MC	5,0 kg	289 x 350 x 189	9069000115
COFFRET BATTERIE ABM 1P	12,0 kg	505 x 610 x 300	9069002011
COFFRET BATTERIE ABM 1G	16,0 kg	505 x 610 x 430	9069002012

Delivery

Delivery service

SERVICE	TERM	CODE
DELIVERY TO ANOTHER ADDRESS	SERVICE LIV AUTRE ADRESSE	9003002
DELIVERY TO CONSTRUCTION SITE <100 KG	SERVICE LIV SUR SITE <100Kg	9003003
DELIVERY TO CONSTRUCTION SITE >100 KG	SERVICE LIV SUR SITE >100Kg	9003004
EXPRESS DELIVERY	SERVICE LIVRAISON EXPRESS	9003005
SEA FREIGHT PACKAGING	EMBALLAGE CAISSE BOIS MARITIME	9001001
WOODEN BOX PACKAGING	EMBALLAGE CAISSE BOIS	9001002

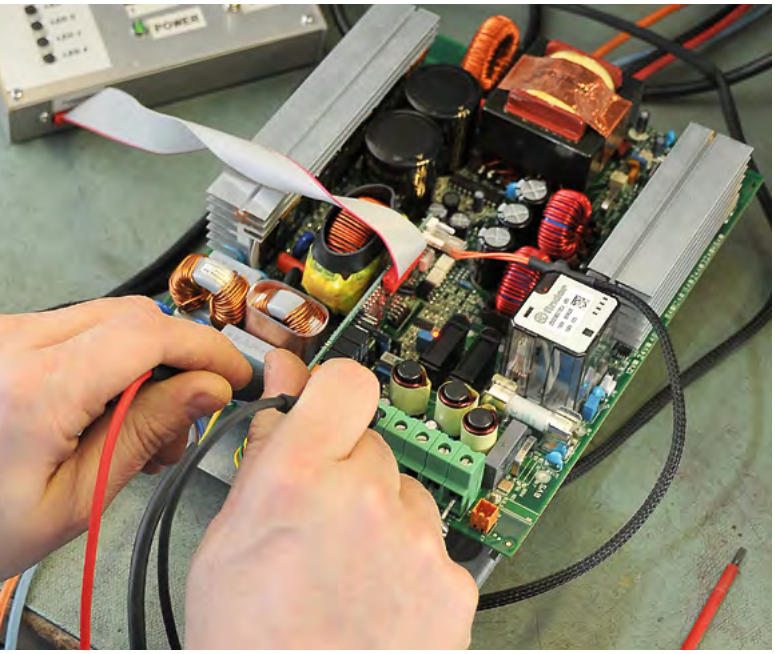
After-sales solutions

after.sales@slat.fr
HOTLINE + 33 478 66 63 70
Your online technical support

1. Your products are under warranty

For the simplest and quickest solution for the maintenance of your products under warranty:

- Contact our After Sales Department using the form on www.slat.com in your personal MySLAT space, please be sure to fill out all the required fields.
- Your Account Manager will process your request and send you the RMA form by email.
- On receipt of the RMA form, please send back two copies along with your product(s), one should be placed inside the package and the other on the outside of the package for warehouse identification. This will ensure your product can be traced.
- The repaired or replacement product(s) will be returned within 15 working days.



2. Your products are no longer under warranty

We offer two product maintenance solutions:

QUICK AND EASY: replace the equipment yourselves

- You do not need to send the equipment back.
- Order your maintenance board at the standard rate and receive delivery within one week. Contact our Customer Services Department for advice by filling out the contact form on www.slat.com in your personal MySLAT space.
- Your new boards come with a one-year warranty.

Have our experts repair your products

- If you prefer this option, please use the following procedure to obtain an RMA number:
- Contact our Customer Service Department using the form on www.slat.com in your personal MySLAT space, please be sure to fill out all the required fields.
- Your Account Manager will send you your RMA form along with the quote for the appropriate product range.
- On receipt of the RMA form, please send back two copies along with your product(s), one should be placed inside the package and the other on the outside of the package for warehouse identification. This will ensure your product can be traced. The repair work will only be carried out after the signed quote is received along with a repair order. If you do not wish to accept the quote, please return it to: service.client@slat.fr, marked as “refused” and specify if we should destroy the equipment or return it as is (in this case a €150 handling fee will be charged).
- The repaired or replacement product(s) will be returned within 15 working days. Your product will be covered by a new 3-month warranty..

Conditions: The Return Merchandise Authorisation is delivered by SLAT.

An RMA number is allocated to each product to be returned. Each RMA number is valid for a 30-day period.
No returns can be accepted without prior obtention of an RMA number.

Spare parts

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
CL 12V 2A CARTE	0,1 kg	99 x 68 x 35	1020210000
CL 12V 5A CARTE	0,2 kg	99 x 85 x 35	1020510000
CL 12V 6A CARTE	0,5 kg	98 x 170 x 38	1020610000
CL 24V 2,5A CARTE	0,2 kg	99 x 85 x 35	1040210000
CL 24V 3A CARTE	0,5 kg	98 x 170 x 38	1040310000
CL 24V 4A CARTE	0,5 kg	158 x 112 x 47	1040410000
CL 24V 6A CARTE	0,5 kg	158 x 112 x 47	1040610000
CL 48V 2A CARTE	0,5 kg	158 x 112 x 47	1080210000
CL 48V 3A CARTE	0,5 kg	158 x 112 x 47	1080310000
EV 12V 6A CARTE	0,5 kg	98 x 170 x 54	1520610000
EV 12V 8A CARTE	1,5 kg	158 x 112 x 47	1520810000
EV 12V 12A CARTE	2,5 kg	158 x 112 x 47	1521210000
EV 12V 16A CARTE	0,5 kg	220 x 162 x 48	1521610000
EV 12V 24A CARTE	1,3 kg	220 x 162 x 48	1522410000

Spare parts (continued)

MODEL	WEIGHT (kg)	SIZE W x H x D (mm)	CODE
EV 12V 32A CARTE	2,3 kg	197 x 252 x 61	1523210000
EV 24V 3A CARTE	0,5 kg	98 x 170 x 54	1540310000
EV 24V 4A CARTE	0,5 kg	158 x 112 x 47	1540410000
EV 24V 6A CARTE	0,5 kg	158 x 112 x 47	1540610000
EV 24V 8A CARTE	0,5 kg	220 x 162 x 48	1540810000
EV 24V 12A CARTE	1,3 kg	220 x 162 x 48	1541210000
EV 24V 16A CARTE	2,3 kg	197 x 252 x 61	1541610000
EV 24V 24A CARTE	2,3 kg	197 x 252 x 61	1542410000
EV 48V 2A CARTE	0,5 kg	158 x 112 x 47	1580210000
EV 48V 3A CARTE	0,5 kg	158 x 112 x 47	1580310000
EV 48V 4A CARTE	0,5 kg	220 x 162 x 48	1580410000
EV 48V 6A CARTE	1,4 kg	220 x 162 x 48	1580610000
EV 48V 8A CARTE	1,4 kg	197 x 252 x 61	1580810000
EV 48V 12A CARTE	2,3 kg	197 x 252 x 61	1581210000
AES 24V 2A CARTE	0,5 kg	158 x 112 x 45	2040210000
AES 24V 3A CARTE	0,5 kg	98 x 170 x 54	2040310000
AES 24V 4A CARTE	0,5 kg	158 x 112 x 47	2040410000
AES 24V 6A CARTE	0,5 kg	158 x 112 x 47	2040610000
AES 24V 8A CARTE	0,5 kg	220 x 162 x 48	2040810000
AES 24V 12A CARTE	0,5 kg	158 x 112 x 47	2041210000
AES 24V 16A CARTE	2,3 kg	197 X 252 X 61	2041610000
AES 24V 24A CARTE	2,3 kg	197 X 252 X 61	2042410000
AES 48V 2A CARTE	0,5 kg	158 x 112 x 47	2080210000
AES 48V 3A CARTE	0,5 kg	158 x 112 x 47	2080310000
AES 48V 4A CARTE	0,5 kg	220 x 162 x 48	2080410000
AES 48V 6A CARTE	1,4 kg	220 x 162 x 48	2080610000
AES 48V 8A CARTE	1,4 kg	162 X 220 X 65	2080810000
AES 48V 12A CARTE	2,3 kg	197 X 252 x 61	2081210000
ACCES 12V 6A CARTE	1,0 kg	98 x 170 x 54	2520610000
ACCES 12V 8A CARTE	1,0 kg	158 x 112 x 47	2520810000
ACCES 12V 12A CARTE	1,0 kg	158 x 112 x 47	2521210000
ACCES 24V 3A CARTE	1,0 kg	98 x 170 x 54	2540310000
ACCES 24V 4A CARTE	1,0 kg	158 x 112 x 47	2540410000
ACCES 24V 6A CARTE	1,0 kg	158 x 112 x 47	2540610000
SANTE 24V 4A CARTE	1,0 kg	158 x 112 x 47	3040410000
SANTE 24V 8A CARTE	1,0 kg	220 x 162 x 48	3040810000
SANTE 24V 12A CARTE	1,3 kg	220 x 162 x 48	3041210000
SANTE 24V 16A CARTE	1,4 kg	220 x 162 x 48	3041610000
SANTE 24V 24A CARTE	2,3 kg	220 x 162 x 48	3042410000
AXS3 12V 4A CARTE	0,5 kg	130 x 104 x 41	2620410000
AXS3 12V 6A CARTE	0,5 kg	130 x 104 x 41	2620610000
AXS3 24V 2A CARTE	0,5 kg	130 x 104 x 41	2640210000
AXS3 24V 3A CARTE	0,5 kg	130 x 104 x 41	2640310000
AXS2 12V 2A CARTE	0,1 kg	99 x 68 x 35	2720205000
AXS2 12V 5A CARTE	0,2 kg	99 x 85 x 35	2720505000
AXS2 12V 10A CARTE	1,0 kg	158 x 112 x 47	2721010000
AXS2 24V 1A CARTE	0,1 kg	99 x 68 x 35	2740105000
AXS2 24V 2,5A CARTE	0,2 kg	99 x 85 x 35	2740205000
AXS2 24V 5A CARTE	1,0 kg	158 x 112 x 47	2740510000
OPTION CARTE 5 DEPARTS FUSIBLES	-	-	9059050004
PM CARTE EMBASE EP	-	-	4891000000
PM Carte VISU NG SAV	-	-	8000000000

Repair Package

MODEL	RATING	CODE
A Repair package	12V 2A / 12V 5A / 24V 1A / 24V 2,5A	9005013
B Repair package	12V 6A / 12V 8A / 12V 12A / 24V 3A / 24V 4A / 24V 6A / 48V 1,5A / 48V 2A / 48V 3A	9005012
C Repair package	12V 16A / 12V 24A / 24V 8A / 24V 12A / 48V 4A / 48V 6A	9005011
D Repair package	12V 32A / 12V 48A / 24V 16A / 24V 24A / 48V 8A / 48V 12A	9005010
E Repair package	48V 16A / 48V 25A / 48V 40A	9005009

The packages are exclusive to the caliber of the products shown in the price list.
The products which have more than 10 years and product which undervent physical damage (liquid, lightning, etc.) are consistently reported irreparable.

Réalisation Studio Trium

MASTERED ENERGY
Reliable, innovative power supply solutions, in phase with their time and your everyday life.

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