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)	Customer space available W x H x D (mm)	Weight (kg)	Materials	Protection rating	CdA	Installation
Cabinet 	200 x 300 x 150*	90 x 120 x 80	3.5	Poly-carbonate	IP60 / IK10	0.066	Post-mounted or wall
SPACE BOX 	400 x 300 x 150 *	190 x 200 x 125	5.3	Poly-carbonate	IP66 / IK10	0.132	Wall

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

Connections

- 3 (2+E) 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: UTP category 5 or better for 10BASE-T/100Base-TX

> Standards-based specifications

NF EN 60950-1 class TBTS / NF EN 61000-6-1 / NF EN 61000-6-2 / NF EN 61000-3-2 class A
NF EN 61000-6-3 / NF EN 61000-6-4 / NF EN 55022 + A1 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
	-20 to +50°C for the Extreme Cold version

Humidity

Storage	relative humidity 10 to 95%
Operating	relative humidity 20 to 95%

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

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> Operating output			
PoE technology	IEEE 802.3 af, IEEE 802.3 at		
Rated voltage (U_n)	55 V DC		
Budget PoE via RJ45 port	30 W		
Total PoE budget	60 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).
IP 66 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 - (Type 3 / 55 W)

CABINETS PoE / PoE+

	Backup E
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

*The total power of 55 W is to be distributed over the number of ports used.

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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** **Suppression 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 web site.	
2 or 4 x 100 Mbps PoE / PoE+ ports makes it possible to connect 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.
Options (except SPACE BOX)
Post mounting kit
Vandal-proof kit: protection against cable cutting (product height +170 mm)

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

SYNAPS PoE - April 2018 - EN

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