







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 Lithium LFP 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
* 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 mm ²				- 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 IEC 62368-1 (2020) + A11 (2020) • EN IEC 61000-6-1 (2019) • EN IEC 61000-6-2 (2019) • EN IEC 61000-3-2 (2019) class A • EN IEC 61000-6-3 (2021) • EN IEC 61000-6-4 (2019) • 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			-20 à +45°C				
Operating			-10 to +50°C in normal and backup modes				
			-5 to +50°C in battery charge mode				
Humidity							
From 0 to 100% (condensing)							
Altitude							
Above 2,000 m, the temperature decreases by 5% every 1,000 m.							
MTBF							
100,000 h (with battery) and 200,000 h (without battery) at 25 °C product external environment, rated mains voltage, 75% load							
> Electrical characteristics							
Network input							
AC network voltage			99 to 264 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 @ 99 V AC			1.5 A				
Primary current @ 264 V AC			0.38 A				
Lightning arrester			Type 2 / 10 kA				

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> 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			
Lithium LFP Smart Backup			
Latest generation Lithium 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 3B	Backup 3E
Operating power	Autonomy expressed in hours and minutes		
5 W	Minimum 3 seconds	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.			

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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		
Protocols supported: IPv4, HTTPS, TCP, UDP, ICMP, ARP, DHCP, SNMP V1 & V3, BACnet IP.				
> Accessories and options				
Model	Description			
A KIT SYNAPS MP SST	Post mounting kit			
A KIT SYNAPS MURAL	Wall mounting kit			
A KIT SYNAPS ANTI VANDAL	Anti-vandalism kit: protection against cable cutting			
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.