SNMP / BACnet IP communication

SYNAPS-IP is a communicating DC Micro-UPS specifically designed for 12 or 24 Vdc-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)	Weight (kg)	Materials	Protection rating	Scx	Installation
Cabinet 	200 x 300 x 150 (excluding cable gland and lock)	3.3	Polycarbonate	IP66 / IK10	0.066	Wall- or post-mounted
Customer equipment location 	100 x 140 x 80	-	-	-	-	DIN rail / Velcro strap

Connections	
- 3 (2+E) 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: 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 / EN 61000-6-4 / EN 55022 + A1 Class B / UN 38.3 / PoE 802.3 at/af
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			
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 / 12ms 23 A / 4ms		4.6 A / 8ms 11 A / 1.6ms
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.
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)

CABINET
12 V / 24 V

	Backup E
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

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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**	
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)				
Available from www.slat.com and SLAT Catalog.				
Options				
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.

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