


## SNMP / BACnet IP communication

SDC-PoE 8 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.

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

> Switching characteristics	
Layer 2 Switching	
<b>Spanning Tree Protocol (STP)</b>	Standard Spanning Tree (STP) IEEE 802.1D
	Rapid Spanning Tree (RSTP) IEEE 802.1w
<b>Aggregation</b>	Link Aggregation Control Protocol (LACP) IEEE 802.3ad; Up to 5 groups, up to 8 ports per group
<b>VLAN</b>	Supports up to 4K VLANs simultaneously (out of 4094 VLAN IDs); Port-based VLAN; 802.1Q tag-based VLAN
<b>IGMP v1/v2 Snooping</b>	IGMP limits bandwidth-intensive multicast traffic to only the requesters; it supports 1024 multicast groups (source-specific multicasting is also supported)
Security	
<b>Secure Sockets Layer (SSL), HTTPS</b>	SSL encrypts the http traffic, allowing advance secure access to the browser-based management GUI in the switch
<b>Port Security</b>	Locks MAC Addresses to ports, and limits the number of learned MAC addresses
<b>IP Source Guard</b>	Prevents datagram with spoofed addresses from being in the network
<b>Storm control</b>	Prevents traffic on a LAN from being disrupted by a broadcast, multicast or unicast storm on a port
<b>ACLs</b>	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	
<b>Hardware Priority Queue</b>	Supports 8 hardware queues
<b>Scheduling</b>	Strict priority and weighted round-robin (WRR)
	Queue assignment based on DSCP and class of service (802.1p/ CoS)
<b>Classification</b>	Port based; 802.1p VLAN priority based; IPv4 precedence/ type of service (ToS) / DSCP based
<b>Rate Limiting</b>	Ingress policer; egress shaping and rate control; per VLAN, per port and flow based
Management (Web/SSL, SNMP, BACnet)	
<b>Web GUI interface</b>	Built-in switch configuration utility for browser-based device configuration (HTTPS). Supports configuration, system dashboard, maintenance and monitoring.
<b>Firmware upgrade</b>	Web browser upgrade (HTTPS)
<b>Port mirroring</b>	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.
<b>Other management</b>	Single IP management; HTTPS; RADIUS; DHCP Client; SNTP; cable diagnostics
Green Ethernet	
<b>Link detection</b>	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.
<b>Cable length detection</b>	Adjusts the signal strength based on the cable length. Reduces the power consumption for shorter cables.
<b>Eco Mode</b>	Shifts automatically to power-saving mode.
Discovery	
<b>Link Layer Discovery Protocol (LLDP)</b>	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.	

<b>&gt; Signaling</b>	
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)	
<b>&gt; Environmental specifications</b>	
Temperature	
<b>Storage</b>	-20°C à +45°C
<b>Operating</b>	at 100% load: -10°C ... +45°C
	at 75% load: -10°C ... +50°C
Humidity	
<b>Storage</b>	relative humidity 10% ... 90%
<b>Operating</b>	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.	
MTBF	
100,000 h (with battery) and 200,000 h (without battery) at 25 °C product external environment, rated mains voltage, 75% load	
<b>&gt; Electrical characteristics</b>	
Network Input	
<b>AC network voltage</b>	198 to 264 V AC
<b>Frequency</b>	45 to 65 Hz
<b>Class</b>	1
<b>Inrush current</b>	Limited by NTC
<b>Neutral system</b>	TT, TN, IT
<b>Protection against</b>	primary short-circuit and differential mode shock waves
<b>Primary current @ 198 V</b>	1.85 A
<b>Primary current @ 264 V</b>	1.70 A
<b>Functional characteristics</b>	
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.	
<b>Protections</b>	
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 $I > I_n + 10\%$ .	
<b>Smart backup</b>	
<b>SDC-PoE 8 is available with the backup pack</b>	5F
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.	

Backup duration according to output power	
Operating power	Backup F 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
<b>&gt; Standards</b>	
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 IEC 62368-1 (2020) + A11 (2020)
EMC - Immunity	• EN IEC 61000-6-1 (2019) • EN IEC 61000-6-2 (2019)
EMC - Emissions	• EN IEC 61000-6-3 (2021) • EN IEC 61000-6-4 (2019)
	• EN IEC 61000-3-2 (2019) (class A)
	• EN 55032 (2015) (class B)
   	
Security standards	
Transportation security	• UN 38.3
<b>&gt; Product references</b>	
SDC-POE 5F DIN4 8P2F	

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