



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.

> 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	-20°C à +45°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	198 to 264 V AC
Frequency	45 to 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 @ 198 V	1.85 A
Primary current @ 264 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 $I > I_n + 10\%$.	
Smart backup	
SDC-PoE 8 is available with the backup pack	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
> 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 (2020) + A11 (2020)
EMC - Immunity	EN 61000-6-1 (2007), EN 61000-6-2 (2019)
EMC - Emissions	EN 61000-6-3 (2007), EN 61000-6-4 (2019)
	EN 61000-3-2 (2019) (class A)
	EN 55032 (2015) (class B)
   	
Security standards	
Transportation security	UN 38.3
> Product references	
SDC-POE 5F DIN4 8P2F	

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