ALLNET Switch full managed Layer2+ 18 Port • 16x GbE • PoE Budget 280W • 16x PoE at • 2x SFP • 19" • Fanless • JSON API • ALL-SG8618PM

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Highlights:

- 16 port Gigabit Layer2+ fully managed switch architecture
- Supports NWay protocol for speed (10/100/1000Mbps) and duplex mode (half/full) auto-detection
- Supports back-pressure (half duplex), flow control (IEEE 802.3x and IEEE 802.3az Energy Efficient Ethernet
- VLAN 4K Static / Port-Based / Tagged Based / Protocol / Voice VLAN / 802.1ad Q-in-Q
- Link Aggregation static link / LACP / Algorithm MAC based or IP based
- IGMP Snooping 256 groups IGMP v1/v2/v3, Fast Leave
- QoS (QoS>QoS multi-label, queue config, QoS mapping)
- Stormcontrol
- Totally fanless, no more annoying noises... max. 280W budget
- 19"inch bracket or wall/table mounting possible

The new ALLNET ALL-SG8618PMJ switch provides an optimal basis for small and medium-sized workgroups with high network and data traffic and enables fast data transmission in the network. With a total of 16 backward-compatible Gigabit PoE ports, the connected PoE end devices are reliably and powerfully interconnected.

The ALL-SG8618PMJ is also ideal for use in office environments thanks to its fanless design, as no disturbing noise is generated. The switch is Layer 2+ fully managed and therefore supports all necessary standards such as

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QoS, VLAN, Spanning Tree, IGMP Snooping and Link Layer Discovery Protocol. This ensures the highest level of performance and security in your network.

The robust metal housing is suitable for mounting in a 19" cabinet as well as for wall mounting. The ALL-SG8618PMJ also has 2x SFP miniGBIC slots to connect even remote server/uplink end devices via fibre optic cable.
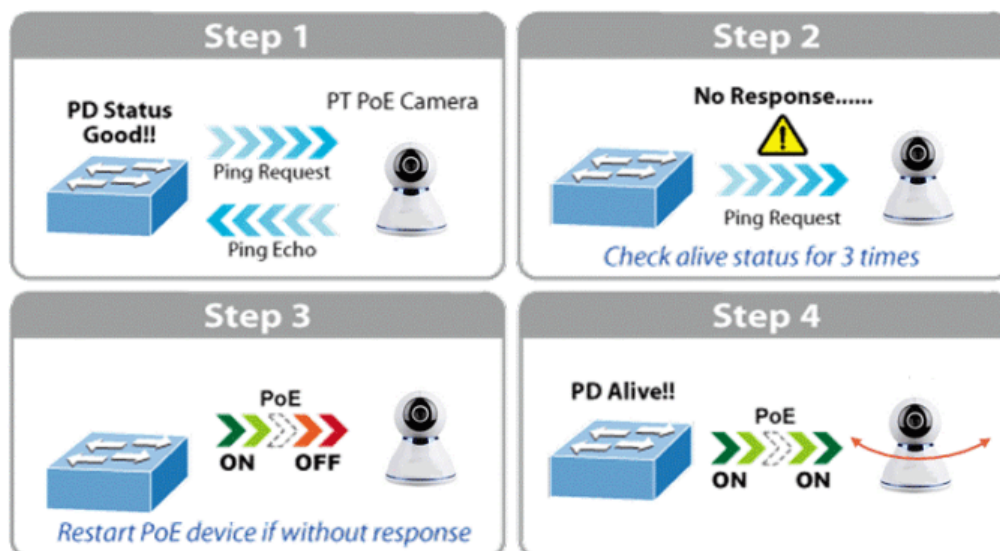
Extensive PoE management function

As a managed PoE switch for CCTV surveillance, wireless and VoIP networks, the ALL-SG8626PM has the following special PoE management functions:

- PoE PD alive check
- Timed rebooting of the power supply
- PoE schedule
- Monitoring of PoE utilisation
- Soft reboot PoE non-stop
- Prioritisation of the PoE port feed-in

Intelligent PD alive check for frozen PDs

The ALL-SG8618PMJ industrial PoE switch with 24 ports can be configured to monitor the status of the connected PDs in real time. As soon as the PD stops working and responding, the ALL-SG8618PMJ restarts the power supply to the PoE port and gets the PD up and running again. In addition, reliability is greatly improved by the fact that the PoE port resets the PD power supply, reducing the administrative burden on the administrator.

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PoE schedule function for energy saving

To protect the environment, the ALL-SG8618PMJ Switch Ethernet PoE can effectively control the power supply in addition to its ability to deliver high wattage. The PoE schedule function helps to enable or disable the PoE power supply for each PoE port during specific time intervals and is a powerful feature that helps SMEs or enterprises to save power and money.
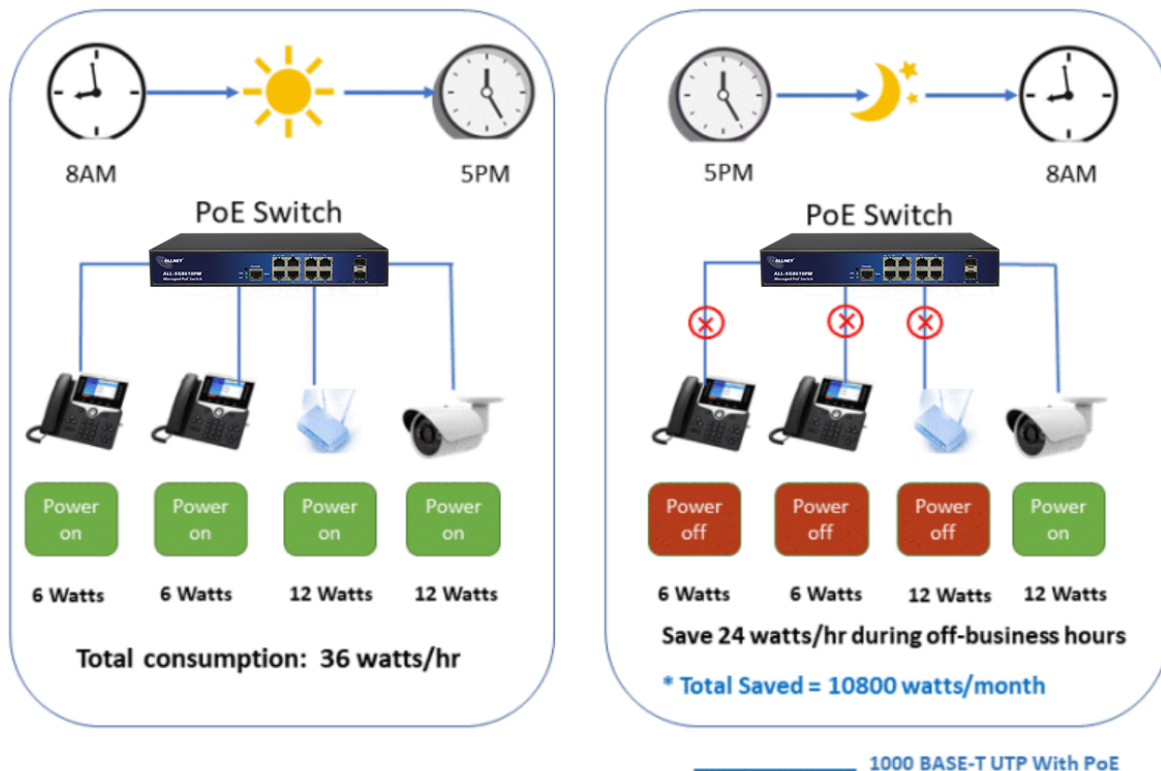
Planned PD restart

The ALL-SG8618PMJ intelligent PoE switch allows each of the connected PoE IP cameras or PoE wireless access points to be restarted at a specific time every week. This reduces the risk of the IP camera or AP crashing due to a buffer overflow.

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Redundant ring with fast recovery for critical network applications

The AALL-SG8618PMJ supports redundant ring technology and has a strong, fast self-recovery capability to prevent interruptions and external intrusions. It integrates advanced ITU-T G.8032 ERPS technology, Spanning Tree Protocol (802.1s MSTP) and a redundant power supply system into the customer's industrial automation network to improve system reliability and uptime in harsh factory environments. In a given simple ring network, the data link recovery time can be as fast as 20 ms.

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ERPS Ring for Video Transmission Redundancy
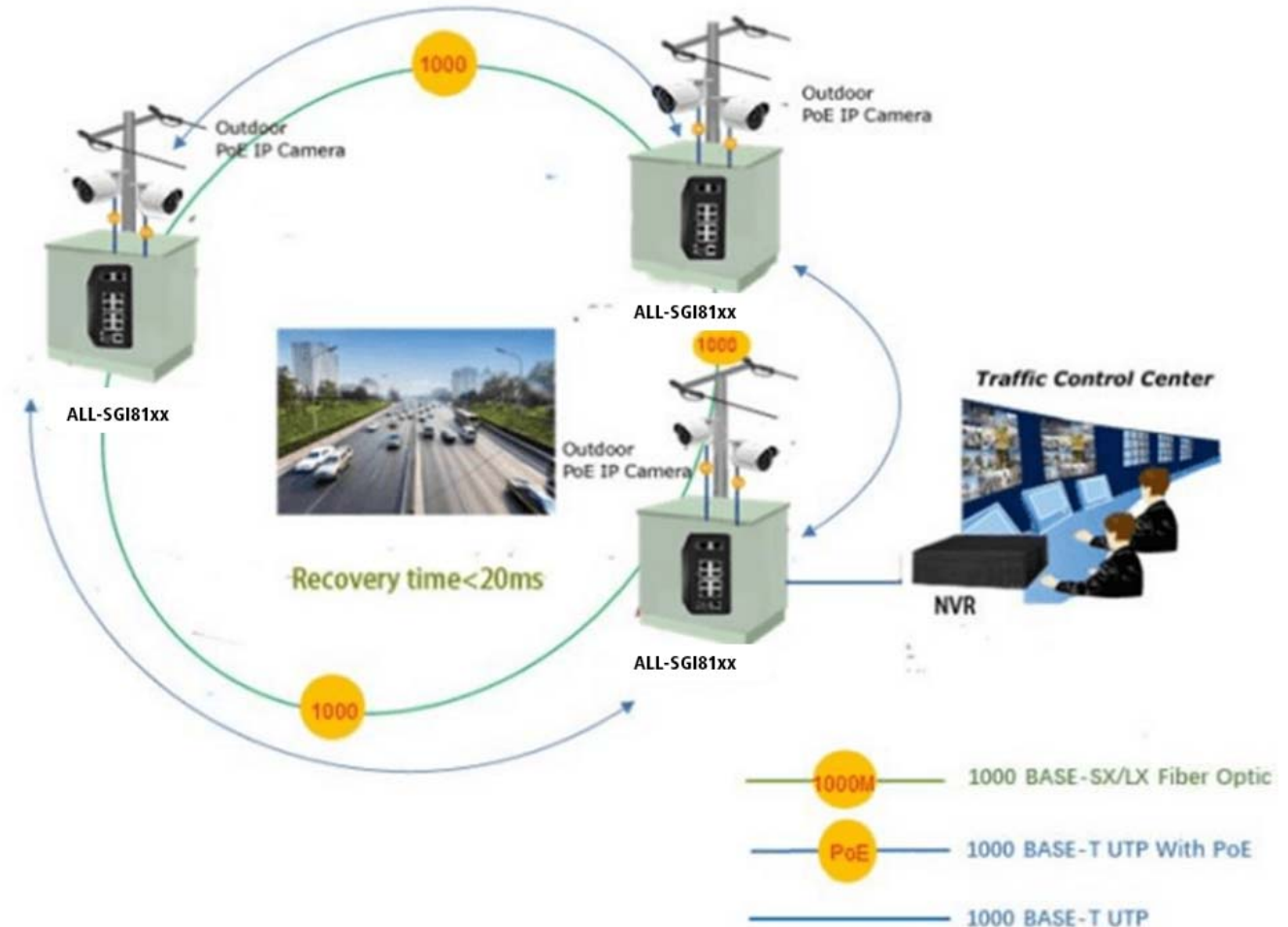
Strong layer 2 functions

The ALL-SG8618PMJ Layer 2 Ethernet switch can be programmed for advanced Layer 2 switch management functions such as dynamic port link aggregation, 802.1Q tagged VLAN, Q-in-Q VLAN, private VLAN, Multiple Spanning Tree Protocol (MSTP), QoS, bandwidth control, IGMP snooping and MLD snooping. By aggregating the supporting ports, the ALL-SG8618PMJ enables the operation of a high-speed trunk group that has multiple ports and also supports fail-over.

Efficient and versatile management methods

For efficient management, the ALL-SG8618PMJ is equipped with console, web and SNMP management interfaces.

With the integrated web-based management interface, it offers a user-friendly, platform-independent management and configuration option.

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For text-based management, access is possible via Telnet and the console port.

For standards-based monitoring and management software, it provides an SNMPv3 connection that encrypts the packet contents for secure remote management during each session.

Intelligent PoE switch with SFP DDM function

The ALL-SG8618PMJ supports the SFP DDM (Digital Diagnostic Monitor) function, which allows the network administrator to easily monitor real-time parameters of SFP transceivers, such as optical output power, optical input power, temperature, laser bias voltage and transceiver supply voltage.
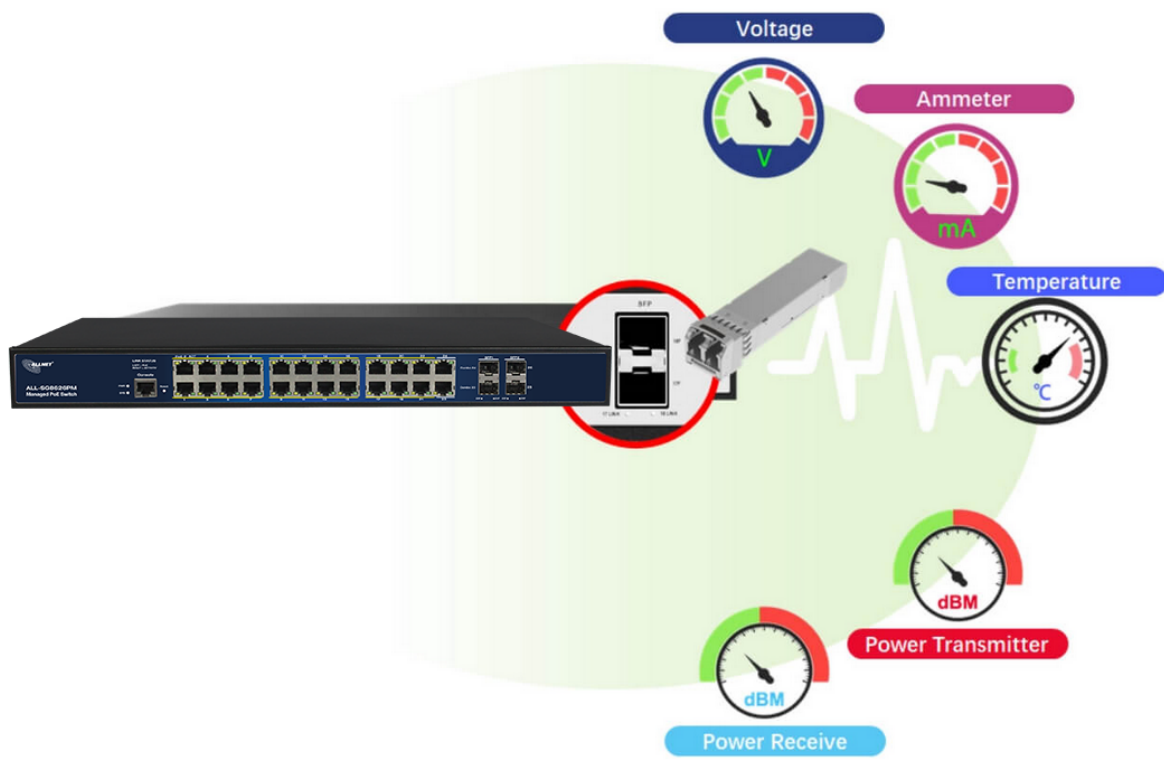
JSON-Java Script Object Notation API

With the JSON API, the ADMIN can create a special user and grant this user authorisation for JSON. We have focussed on 2 functions that we consider important.

- PoE ON/OFF & LAN Port Enabled/Disabled (for switches with PoE function)
- LAN Port Enabled/Disabled (for switches without PoE)

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JSON Examples

ALLNET JSON API
(json output, switching with json response)

It will ONLY be switched, NO-sensor values read!

Valid for ALLNET PoE switch ALL-SG8826PMX-10G, ALL-SG8950PM, ALL-SG8926PM.
New additions from 2024: All ALL-SG86xx and ALL-SGI81xx with the suffix "J" for JSON in the name.

In this description used Device IP is "192.168.0.100".
This must be replaced by the assigned address.

Description without Activated Basic authentication. If this is enable, you must pass the Authentication in URL.
(Basic Authentication: https: // USER: PASSWORD@192.168.0.100/xml/json.php)

Call "https://192.168.0.100/xml/json.php".

Parameter

„id={id}" Number or name of the switching sensor / actuator
„set={0/1/toggle}" Switch actuator off or on
„callback={objekt}" (optional) Values are returned as JSONP object

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JSON   Rohdaten   Kopfzeilen
Speichern Kopieren Alle einklappen Alle ausklappen   JSON durchsuchen

0:
    id: "1"
    name: "Port 1"
    unit: ""
    type: "1"
    value: "0"
    error: 0
1:
    id: "2"
    name: "Port 2"
    unit: ""
    type: "1"
    value: "0"
    error: 0
2:
    id: "3"
    name: "Port 3"
    unit: ""
    type: "1"
    value: "0"
    error: 0
3:
    id: "4"
    name: "Port 4"
    unit: ""
    type: "1"
    value: "0"
    error: 0
4:
    id: "5"
    name: "Port 5"
    unit: ""
    type: "1"
    value: "0"
    error: 0
5:
    id: "6"
    name: "Port 6"
    unit: ""
    type: "1"
    value: "0"
    error: 0
6:
    id: "7"
    name: "Port 7"
    unit: ""
    type: "1"
    value: "0"
    error: 0
7:
    id: "8"
    name: "Port 8"
    unit: ""
    type: "1"
    value: "0"
    error: 0

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Technical data:

Model	ALL-SG8618PMJ
Copper Ports	16-10/100/1000BASE-T RJ45 auto-MDI/MDI-X ports
Fibre ports	2-100/1000BASE-X SFP interfaces, supports 100/1000Mbps dual mode
PoE ports	1~16-802.3af/802.3at PoE Injector Ports
Console ports	1 x RS-232-to-RJ45 serial port (115200, 8, N, 1)
Switch architecture	Store-and-Forward
Switch Fabric	36 Gbps/non-blocking
Throughput	26.78 Mpps @64 bytes
Address Table	8K entries
Share Data Buffer	4 Mb
Jumbo Frame	9600 bytes
SDRAM	1Gb
Flash memory	128Mb
Flow control	IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex
Reset button	>2 sec: Factory default and reset
Power Supply	100~240V AC, 50/60Hz, 4A (max.)
Power consumption	Max. 280 watts/1122 BTU
PoE standards	IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE
PoE power supply type	Per port 52V DC, 300mA. Max. 15.4 watts (IEEE 802.3af) Per port 52V DC, 600mA. Max. 30 watts (IEEE 802.3at)
LED indicators	Power: Green Solid on- power work normal, off- power disconnected System: Green Blink -work normally, solid on- soft work abnormal, fast Blink – soft upgrade PoE: Yellow Solid on- PoE work normally, Off- PoE doesn't work, Blink - PoE overload

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	10/100/1000T RJ45 interfaces (Port 1 to Port 16): 1000 LNK/ACT (Green) Blink - port connected with data transmission; Solid on- port connected without data transmission 100/1000Mbps SFP Interfaces (Port 17 to Port 18): Green Blink - port connected with data transmission; Solid on- port connected without data transmission
EMC	Surge Immunity: 4KV Per: IEC61000-4-5 ESD Protection: ESD Level 4 Per: IEC61000-4-2 EFT Level 4 Per: IEC61000-4-4
Layer2 Functions	
Port configuration	Auto-negotiation flow control Port Mirror: TX/RX/BOTH; Many-to-1 monitor CPU Mirror Traffic statistics
Link aggregation	Static link aggregation LACP (Dynamic Trunk/Static Trunk) Algorithm based on Source/Destination MAC Algorithm based on Source/Destination IP
MAC Table	Aging Time Static MAC address Dynamic MAC address management
VLAN	4094 Active VLANs 4094 VID 802.1Q Tag VLAN Port VLAN

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	Protocol VLAN
	MAC VLAN
	Voice VLAN
	802.1ad Q-in-Q tunnelling
	Private VLAN (Protected port)
	GARP/GVRP
ACL	256ACLs
	L2, L3 e L4
	Time-based ACL
	IP ACL
	MAC ACL
	MAC-IP ACL
	User-Defined ACL
	ICMPv6
Spanning tree	802.1D Spanning Tree Protocol (STP)
	802.1w Rapid Spanning Tree Protocol (RSTP)
	802.1s Multiple Spanning Tree Protocol (MSTP)
	Loop Guard
	Root Guard
	TC-BPDU Guard
	BPDU Guard
	BPDU Filter
Ring Protection	<20ms G.8032 ERPS Ring
	Fast Ring
Multicast	256 groups
	IGMP v1/v2/v3 Snooping, Fast Leave

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	MLD Snooping
	Multicast VLAN
	IGMP filter
	MVR
	Multicast routing
QOS	8 mapping IDs to 8 level priority queues
	CoS port-based
	CoS 802.1p-based
	CoS DSCP-based
	Scheduling algorithms SP, WRR, SP+WRR
	Storm Control (Broadcast, Multicast, Unknown Unicast)
	Bandwidth control per port
	SWRR, DWRR for Scheduling
	Flow Redirect
	Precedence
	TOS
	Rate limiting (Ingress/Egress)
	Stri Priority
Security features	Port Security
	MAC address filter
	ARP Association (Manual, ARP scanning, DHCP snooping)
	ARP protection
	AAA
	DAI
	DoS (Denial of Service)

	Classification of packages based on: End.MAC, IP End, TCP / UDP Ports, Protocol Type;
	802.1x Authentication (port-based e MAC-based)
	TACACS/TACACS+ Authentication
	RADIUS Authentication
	DHCP Filter
	Guest VLAN
	SSLv2/SSLv3/TLSv1
	SSHv1/SSHv2
	Restriction of WEB access based on: IP Address, And. MAC and Port;
	Port Isolation
	Loopback detection
Management	SNMP v1/v2c/v3 with Full Private MIBs
	RMON 4 groups
	WEB (HTTP/HTTPS)
	CLI (Telnet, Console, SSHv1/v2)
	Firmware upgrade via console/web/TFTP
	Configuration backup/reload
	Dual firmware
	LLDP
	Configuration export/import
	CDP Aware
	OAM (IEEE802.3ah)
	CFM (IEEE802.1ag)
	sFlow

Other Features	DNS Client
	DHCP Relay
	DHCP Client
	DHCP Snooping
	DHCP Option 66
	DHCP option 67
	DHCP option 82
	NTP/SNTP client
	UPNP
	UDLD
PoE management	Total PoE power budget control
	Per port PoE function enable/disable
	PoE admin-mode control
	PoE port power feeding priority
	Per PoE port power limitation
	PD classification detection
	PD alive check
	PoE schedule
	Soft-reboot PoE non-stop
Maintenance	Cable Diagnostics
	Ping
	SFP DDM (Digital Diagnostics Monitoring)
	Thermal protection
	System log (Local and Remote)
	Memory and CPU Monitoring
Layer 3 functions	

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Static routing	IPv4 Unicast: Static Routing(Software Base)
	IPv6 Unicast: Static Routing(Software Base)
IPV6	IPv6 neighbour discovery (ND)
	Path maximum transmission unit (MTU) discovery
	Internet Control Message Protocol (ICMP) version 6
	TCPv6/UDPv6
	Ping6
	Telnet(v6)
	Http/Https
	Interface IPV6
	ACL IPV6
Dimension	440x290x44.5mm
Weight	4 kg
Working Temperature	-10°C to 45°C
Storage Temperature	-20°C to 70°C
MTBF	50,000hrs

Attributes

Attribute	Value
Anzahl Ports PoE/LAN:	16/0
Belüftung Switch:	Lüfterlos
Einsatzort Switch:	19"
Extra Features:	JSON-PoE-API;
Management:	full managed
PoE Budget:	<300 Watt
PoE Port Leistung:	30W at
SFP Geschwindigkeit:	SFP 1GBit
Weight:	4 Kg
Warranty:	24.00 Months

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