

About this document

This document is subject to change without prior notice.

All information is published with reservation for printing errors.

Installation and commissioning

Instructions for installation and commissioning.

Instruction No: 350-278

If

PoE Managed 4p 24V 5A OUT S is a power supply with PoE switch for outdoor use. Built to withstand Nordic conditions - summer as winter. The product is different from indoor battery backups from Milleteknik and some features have been added and

Figure 1. PoE Managed 4p 24V 5A OUT S



Examples of connected devices, here a camera and a speaker. Note that speakers can be mounted differently and are dependent on configuration

Enclosures

General assembly instructions

Mounting options and accessories

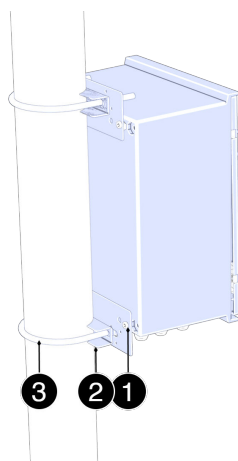
To ensure a smooth installation, we offer several custom mounts for our UT series enclosures (S, M and L). In the matrix below you will see which options are compatible

Please note that a wall mount is always included as standard with all models. For pole mounting or needing extra sun protection, separate optional kits are required

Table 1. Matrix bracket

Accessories	Enclosure
Pole Mount Kit for UT S and UT M	UT S and UT M
Sun Shield Kit	UT S, UT M and UT L

Mounting on pole



Mounting on pole

See component overview for screw, nut, washers and spacers.

Table 2. Components for assembly

No.	Explanation
1	Fastening plate.
2	Counter.
3	U-bolt.

Assemble in this order:

1. Place the mounting plates (3) on the upper and lower attachment points of the enclosure and attach them lightly with the screws provided. Do not tighten finally yet.
2. Pass the lower U-bolt (2) around the post and through the holes in the lower mounting plate. Install washers and nuts. Tighten lightly.
3. Pass the upper U-bolt (2) around the post and through the holes in the upper mounting plate. Install washers and nuts
4. Adjust the position of the enclosure so that it is in solder and centered toward the post.
5. Tighten all nuts in sequence: — lower U-bolt — upper U-bolt — screws to the mounting plates
6. Check the attachment by lightly loading the enclosure forward/backward to ensure stable mounting.

Component overviews

Component Overview Mounting Kits

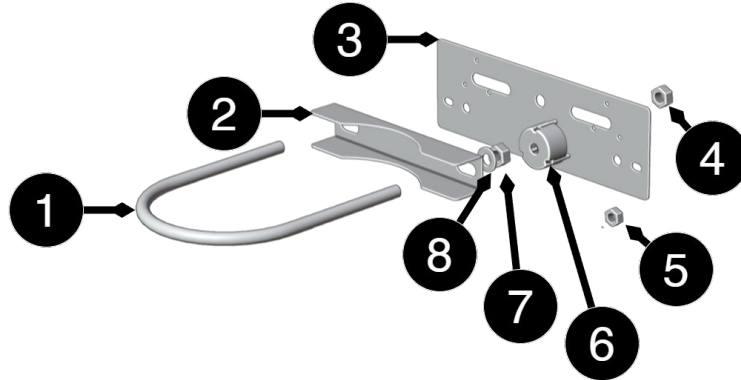


Table 3. Component Overview

No.	Explanation	Size	Number
1	Fixing plate	125mm	2
2	U-bolt for pole	-	2
3	Washers and nuts	-	2
4,7	Nut	M10	4
5	Nut	M6LM	8
6	Distance	Ø 36 mm, depth 20 mm	4
8	Washer	10 (5x20x2)	4

Component Overview

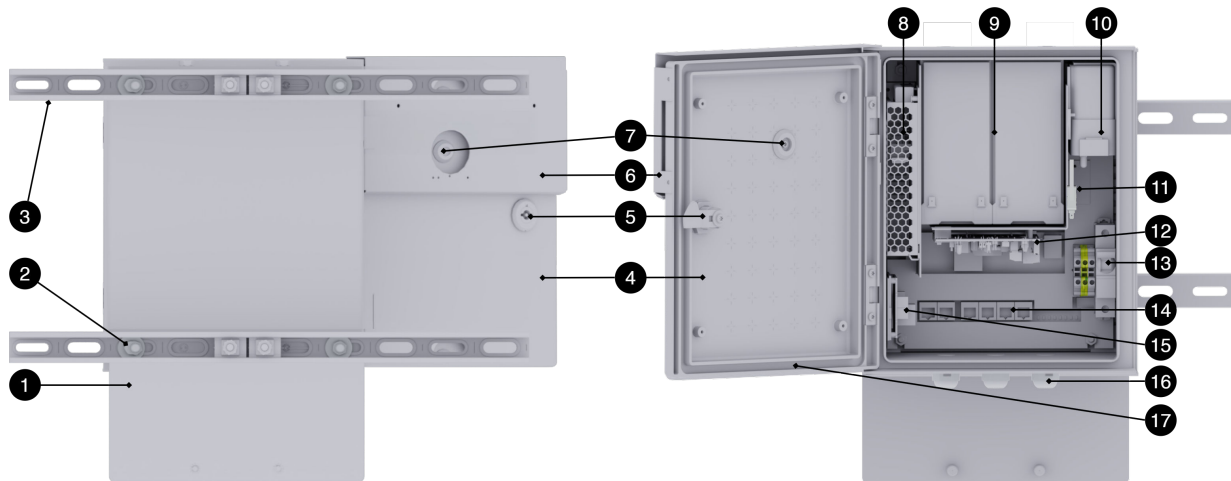


Table 4. Component Overview

No	Explanation
1	Bracket for mounting camera, siren, speaker, etc.
2	Fastening screw and nut.
3	Scan.
4	Door.
5	Lock.
6	Mounting plate on door for mounting camera, siren, speaker, etc.
7	Cable entry in door.
8	Power supplies
9	Batteries.

No	Explanation
10	Mobile modem location.
11	Control boards, electronics,
12	Sabotage contact.
13	Fuse for power supply.
14	Poe card.
15	Booster card for power supply to PoE card.
16	Cable grommets.
17	In the door there is a heating loop and thermostat control, (not shown in the picture).

Switching on power supply

Figure 2. The device is powered from mains (230 VAC).

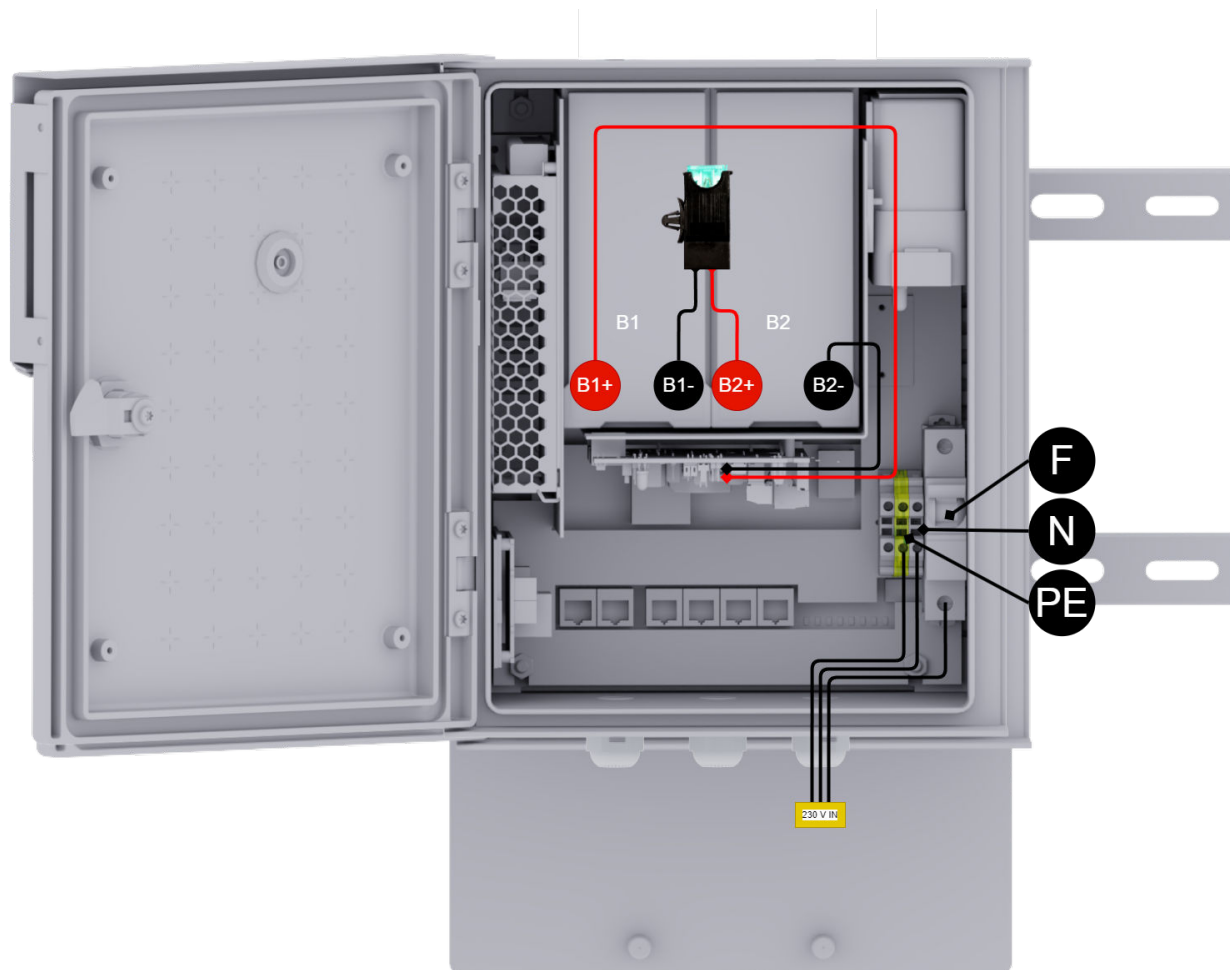


Table 5. Connecting batteries.

Batteries	Explanation
B1+	Connects to control boards.
B1-	Connects to fuse.
B2+	Connects to fuse.
B2-	Connects to control boards.

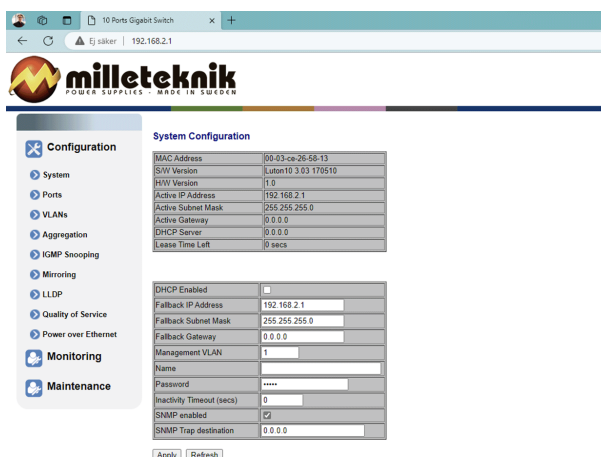
Table 6. Switching on the incoming power supply (230 VAC).

Designation	Explanation
F	Fas
N	Neutral/Zero
P.E.	Shelter soil

Designation	Explanation
230 V IN	Incoming power supply, 230 VAC.

How the PoE switch software is accessed

How the software is accessed in the PoE Switch



This section shows how to log in to the switch's configuration web page.

To configure the software in the switch, the correct IP address needs to be set on the computer.

Access to the switch's software is through a browser, (such as: Chrome, Edge, Firefox, etc.).

Follow the steps to access the switch's settings.



NOTE

The settings shown are settings for PC, (Windows 7 - Windows 11). Windows and names may vary between different versions of Windows. Unfortunately, we cannot provide support for settings of your computer.



NOTE

IP address of the switch (factory setting): **192.168.2.1**

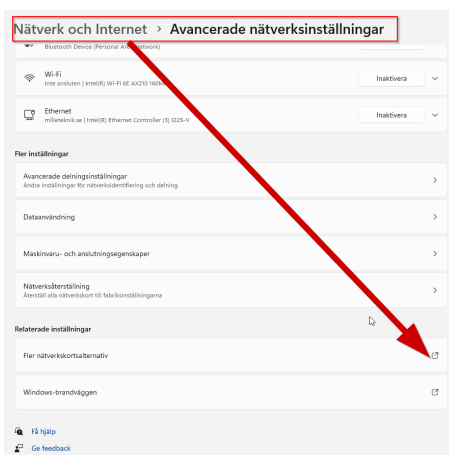
Password (factory setting): **admin**



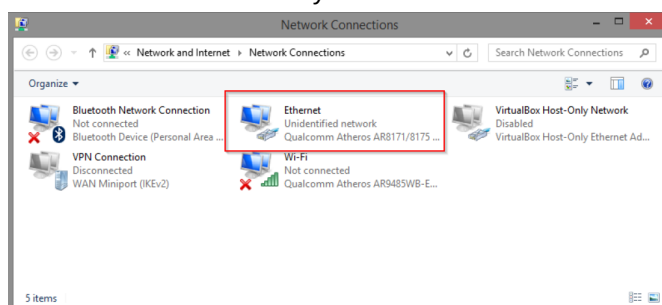
NOTICE

The address of the PoE switch is: **192.168.2.1** and username and password are: **admin/admin** The IP address in the switch is static (fixed) and therefore the computer's IP address and subnet mask must be static.

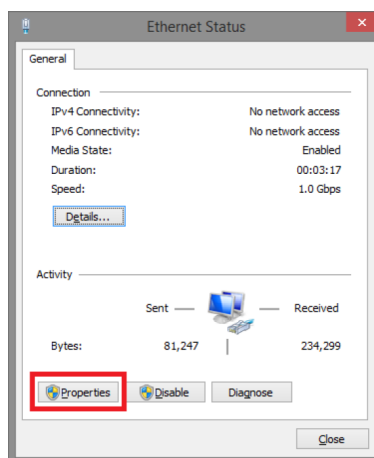
1. Open settings and go to **Network and Internet** -> **Advanced network settings**. Open **more network card options**.



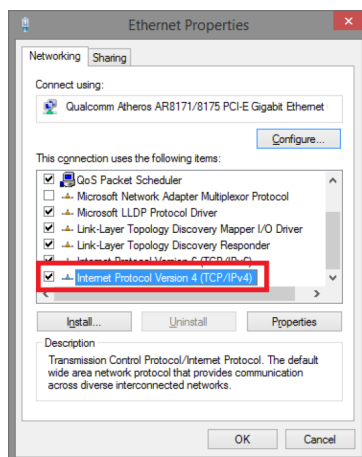
2. A Network Connections window will appear showing all available network connections on the computer. Double-click the network connection you use to connect to the switch.



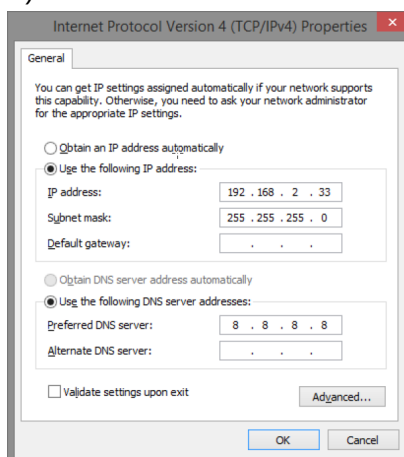
3. Ethernet status window appears. Click the button **Characteristics** as shown in the figure below.



4. Double-click: Internet Protocol Version 4 (TCP / IPv4).



5. Set the computer's IP address and subnet mask as shown in the figure below. By default, the product's **IP address be 192.168.2.1**. You can set any IP address as long as it is not the same as your switch's IP address and is in the same network segment as your switch's IP address. Press on **OK** to apply the TCP/IPv4 settings you just made. Now you can connect to your switch using a web browser (Chrome, Edge or Firefox).



6. Connect an RJ-45 cable and connect to the PoE switch.

Log in to the PoE switch



NOTE

IP address of the switch (factory setting): **192.168.2.1**

Password (factory setting): **admin**



NOTE

If you get a warning that the page is not secure/the connection is not private, click "advanced" and then "continue".

1. Start the browser on your computer.

2. Login to PoE switch.

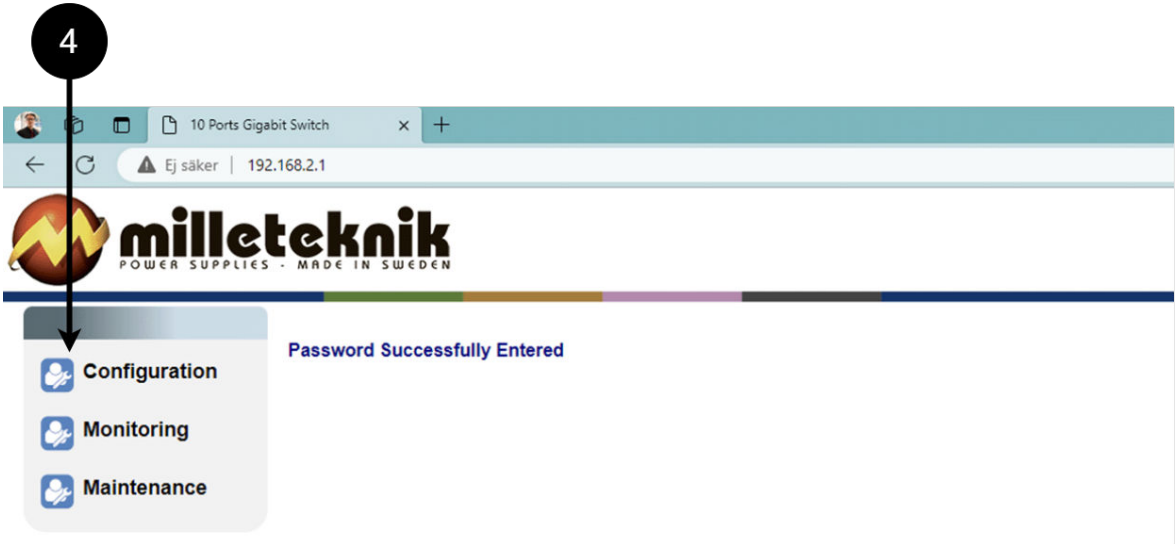
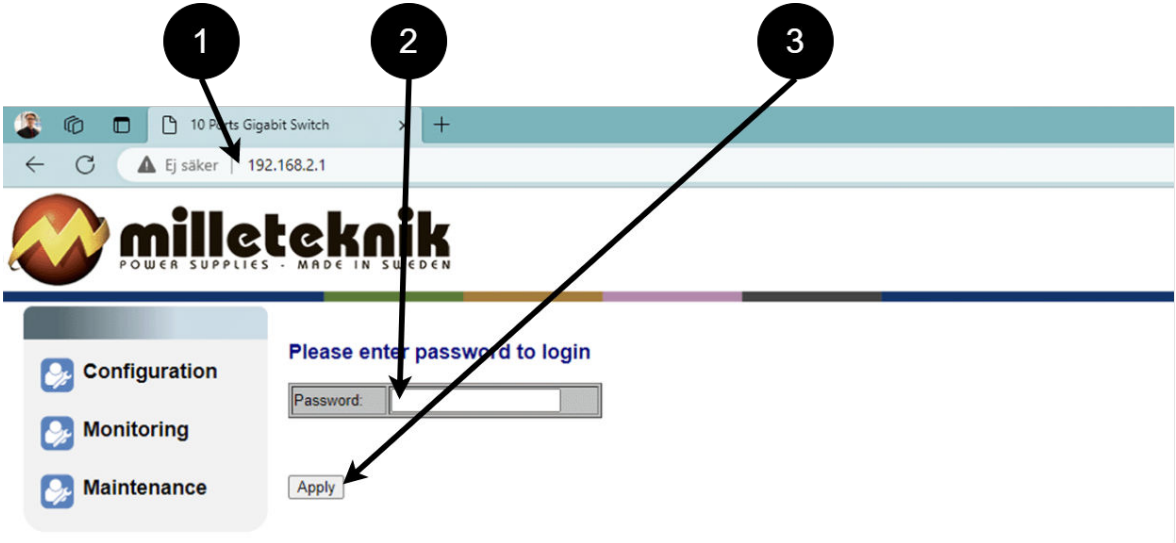


Table 7. Log in to the switch.

Number	Explanation
1	IP address of the PoE switch: 192.168.2.1
2	Password: admin
3	Apply = Ok
4	Menu in the PoE switch

Configuration

System, configuration



Table 8. System, configuration.

Letter, number	Explanation
A	PoE switch system configuration page
A.1	Tick here if you are going to use DHCP, see warning below.
A.2	Changes the factory default password, (admin).
A.3	If you have made any changes, you need to click "Apply" to save the changes.

**WARNING**

The settings on this page normally do not need to be changed. Only change the settings if you absolutely know what you are doing.

Factory reset the PoE device if it does not behave as expected after adjusting settings on this page.

Ports, configuration**WARNING**

The settings on this page normally do not need to be changed. Only change the settings if you absolutely know what you are doing.

Factory reset the PoE device if it does not behave as expected after adjusting settings on this page.

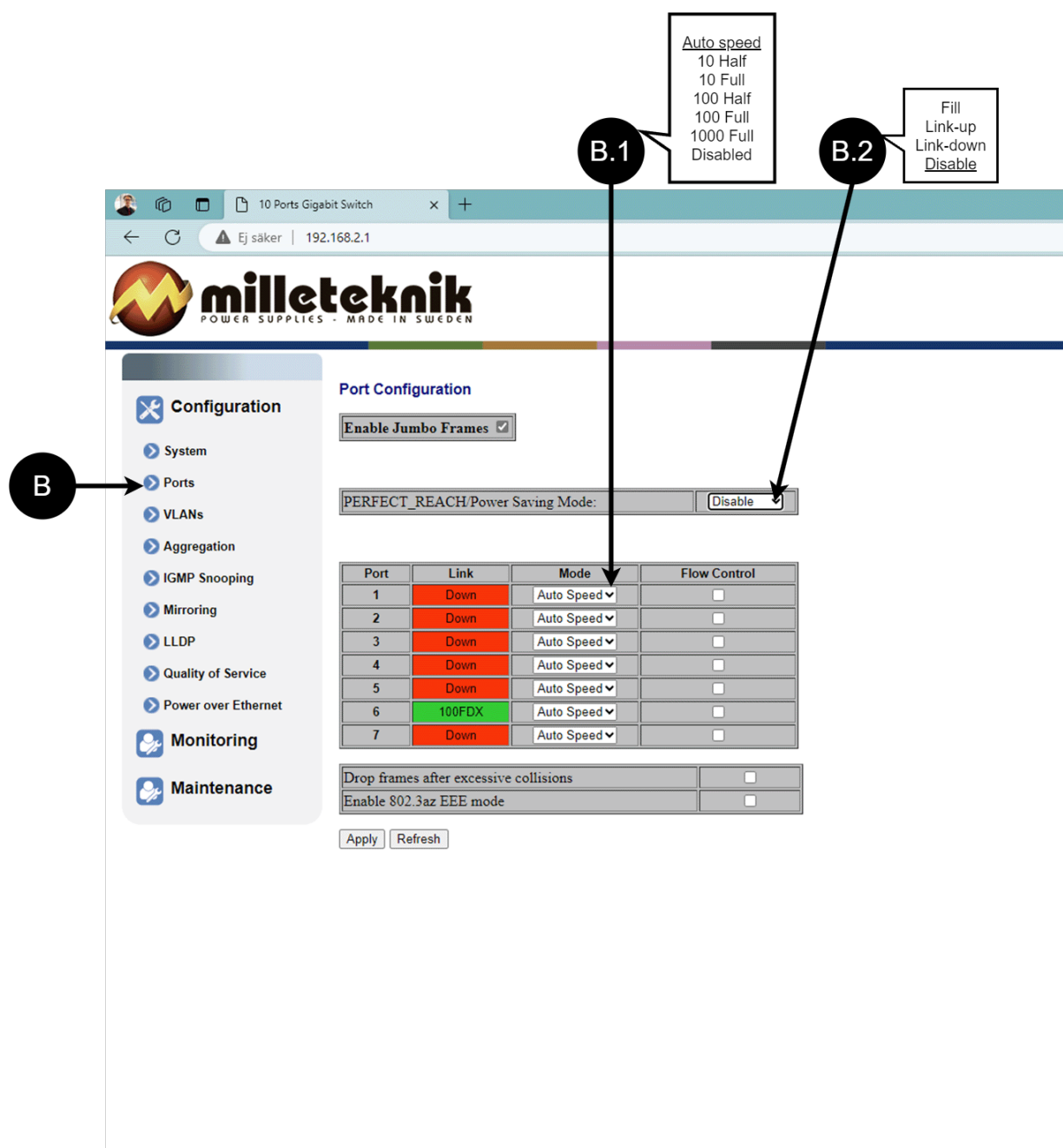


Table 9. Ports, configuration.

Letter, number	Explanation
B	Gates
B.1	This setting normally does not need to be changed. Select the speed of the PoE switch's ports.
B.2	This setting normally does not need to be changed.

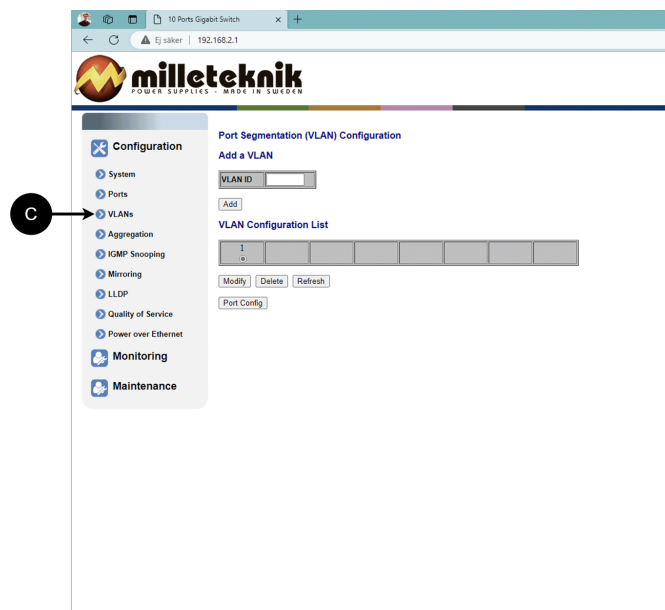
VLAN configuration



WARNING

The settings on this page normally do not need to be changed. Only change the settings if you absolutely know what you are doing.

Factory reset the PoE device if it does not behave as expected after adjusting settings on this page.



C: Configuration of Virtual LAN.

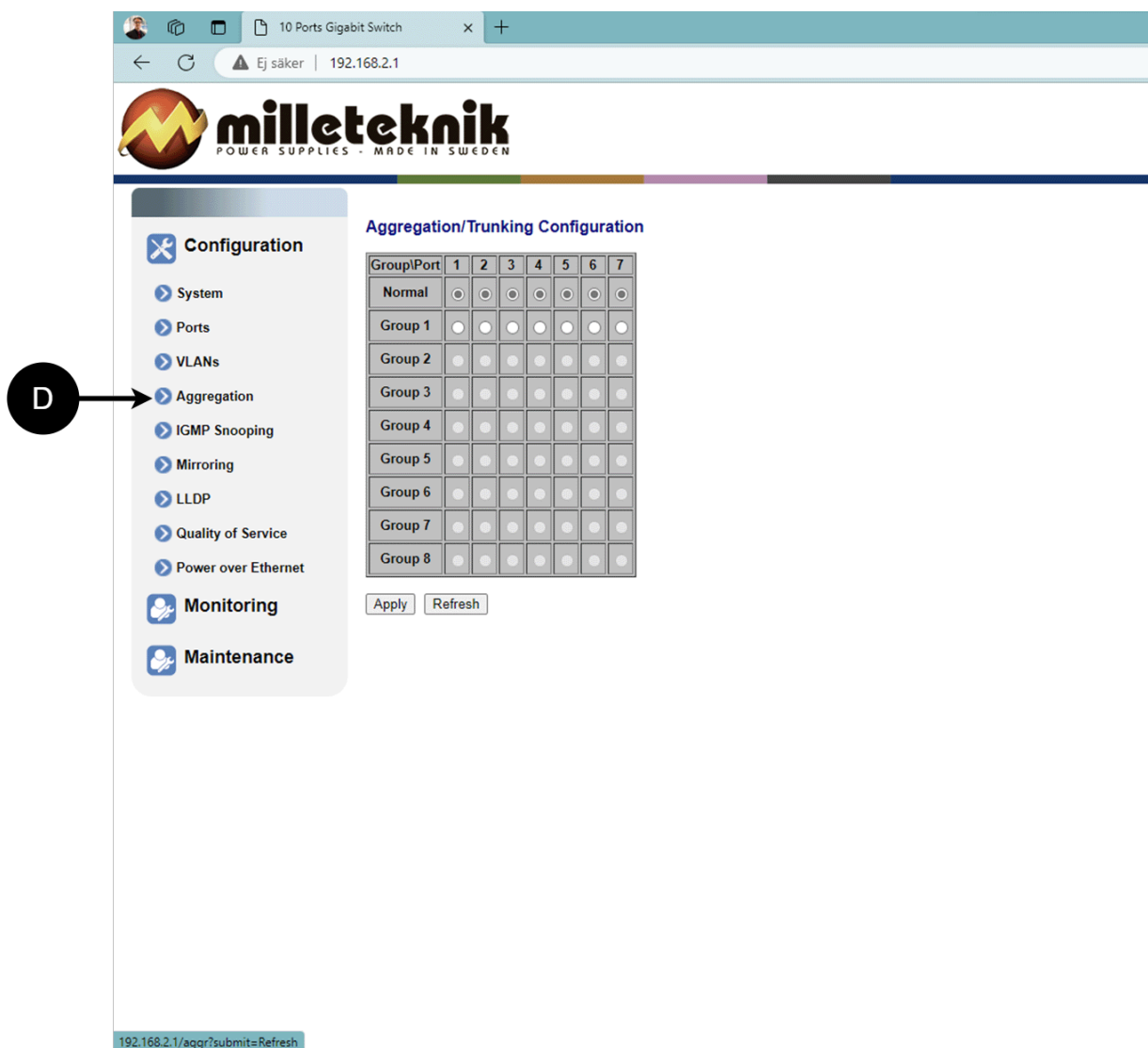
Aggregation, configuration



WARNING

The settings on this page normally do not need to be changed. Only change the settings if you absolutely know what you are doing.

Factory reset the PoE device if it does not behave as expected after adjusting settings on this page.



The screenshot shows a web browser window with the URL 192.168.2.1. The page title is "10 Ports Gigabit Switch". The Milleteknik logo is at the top. The left sidebar contains a "Configuration" section with options: System, Ports, VLANs, Aggregation (highlighted with a callout 'D'), IGMP Snooping, Mirroring, LLDP, Quality of Service, and Power over Ethernet. Below this are "Monitoring" and "Maintenance" sections. The main content area is titled "Aggregation/Trunking Configuration" and contains a table with 8 groups and 7 ports. The "Normal" row has all ports selected. Groups 1 through 8 have their first port selected. "Apply" and "Refresh" buttons are at the bottom of the table.

Group\Port	1	2	3	4	5	6	7
Normal	☒	☒	☒	☒	☒	☒	☒
Group 1	☒	☐	☐	☐	☐	☐	☐
Group 2	☐	☐	☐	☐	☐	☐	☐
Group 3	☐	☐	☐	☐	☐	☐	☐
Group 4	☐	☐	☐	☐	☐	☐	☐
Group 5	☐	☐	☐	☐	☐	☐	☐
Group 6	☐	☐	☐	☐	☐	☐	☐
Group 7	☐	☐	☐	☐	☐	☐	☐
Group 8	☐	☐	☐	☐	☐	☐	☐

Apply Refresh

192.168.2.1/aggr?submit=Refresh

D: Load balancing between the ports.

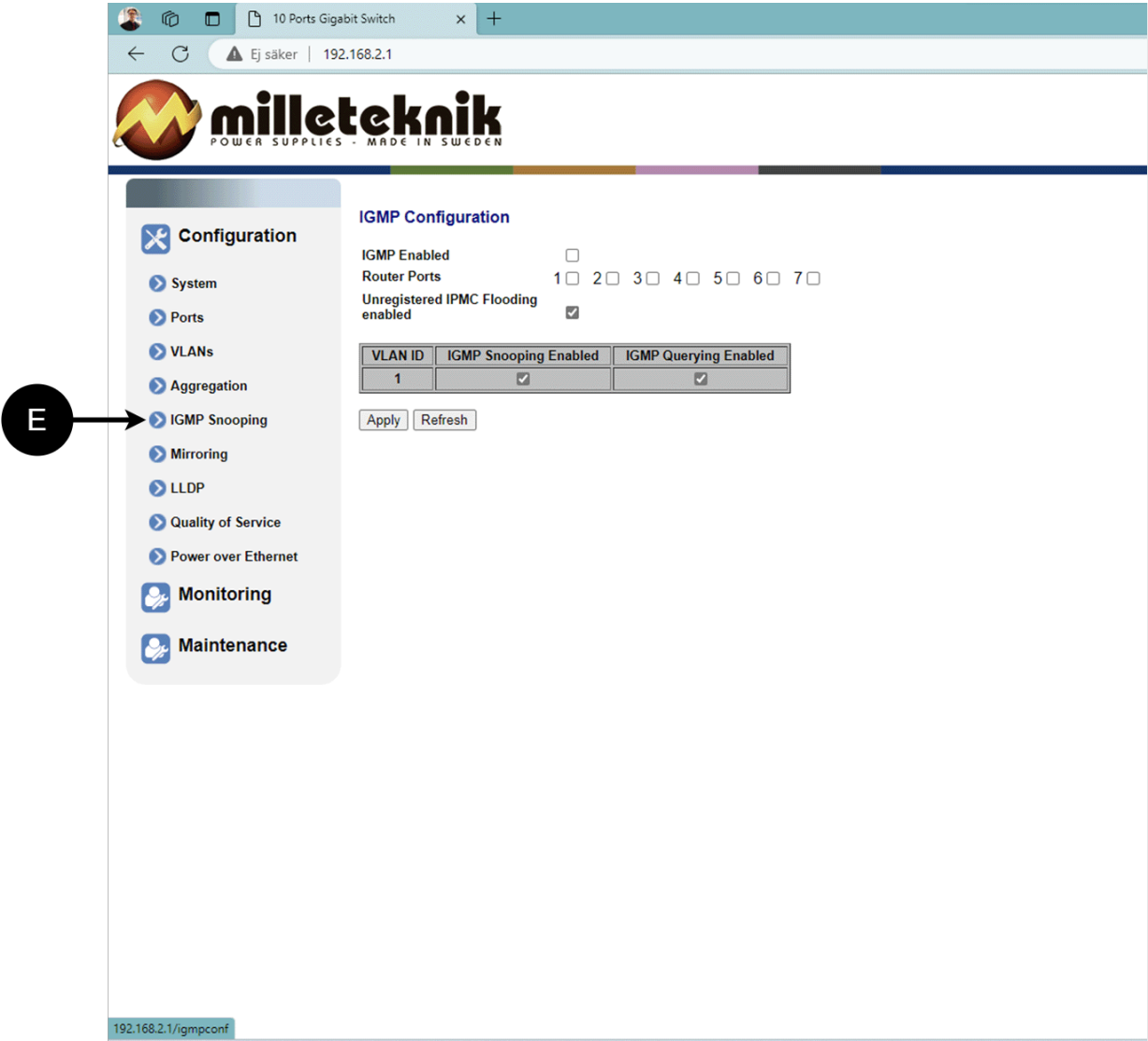
IGMP Snooping, configuration



WARNING

The settings on this page normally do not need to be changed. Only change the settings if you absolutely know what you are doing.

Factory reset the PoE device if it does not behave as expected after adjusting settings on this page.



E: Switch that controls reception.

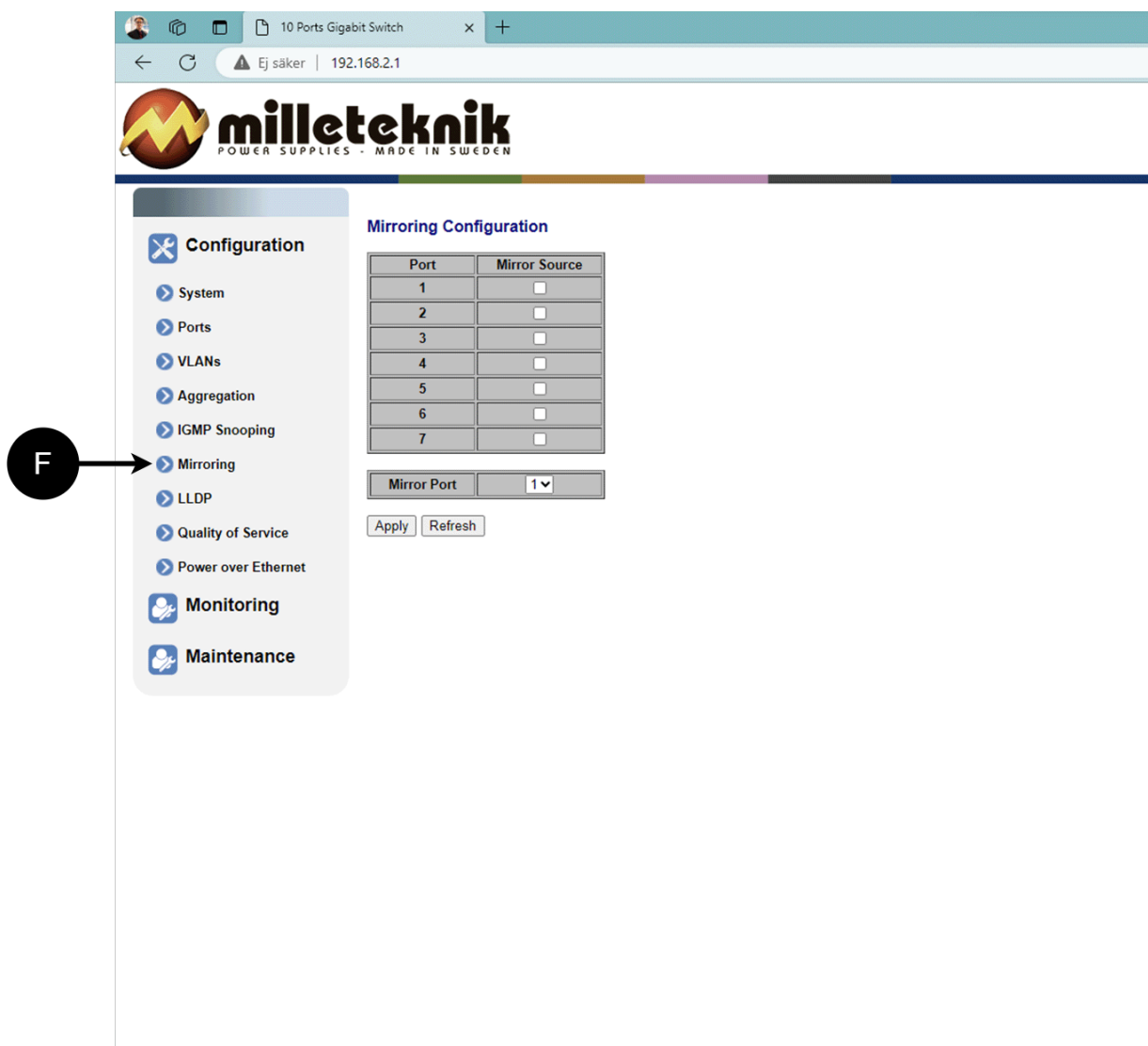
Mirroring, configuration



WARNING

The settings on this page normally do not need to be changed. Only change the settings if you absolutely know what you are doing.

Factory reset the PoE device if it does not behave as expected after adjusting settings on this page.



F: Mirroring of ports.

LLDP configuration



WARNING

The settings on this page normally do not need to be changed. Only change the settings if you absolutely know what you are doing.

Factory reset the PoE device if it does not behave as expected after adjusting settings on this page.

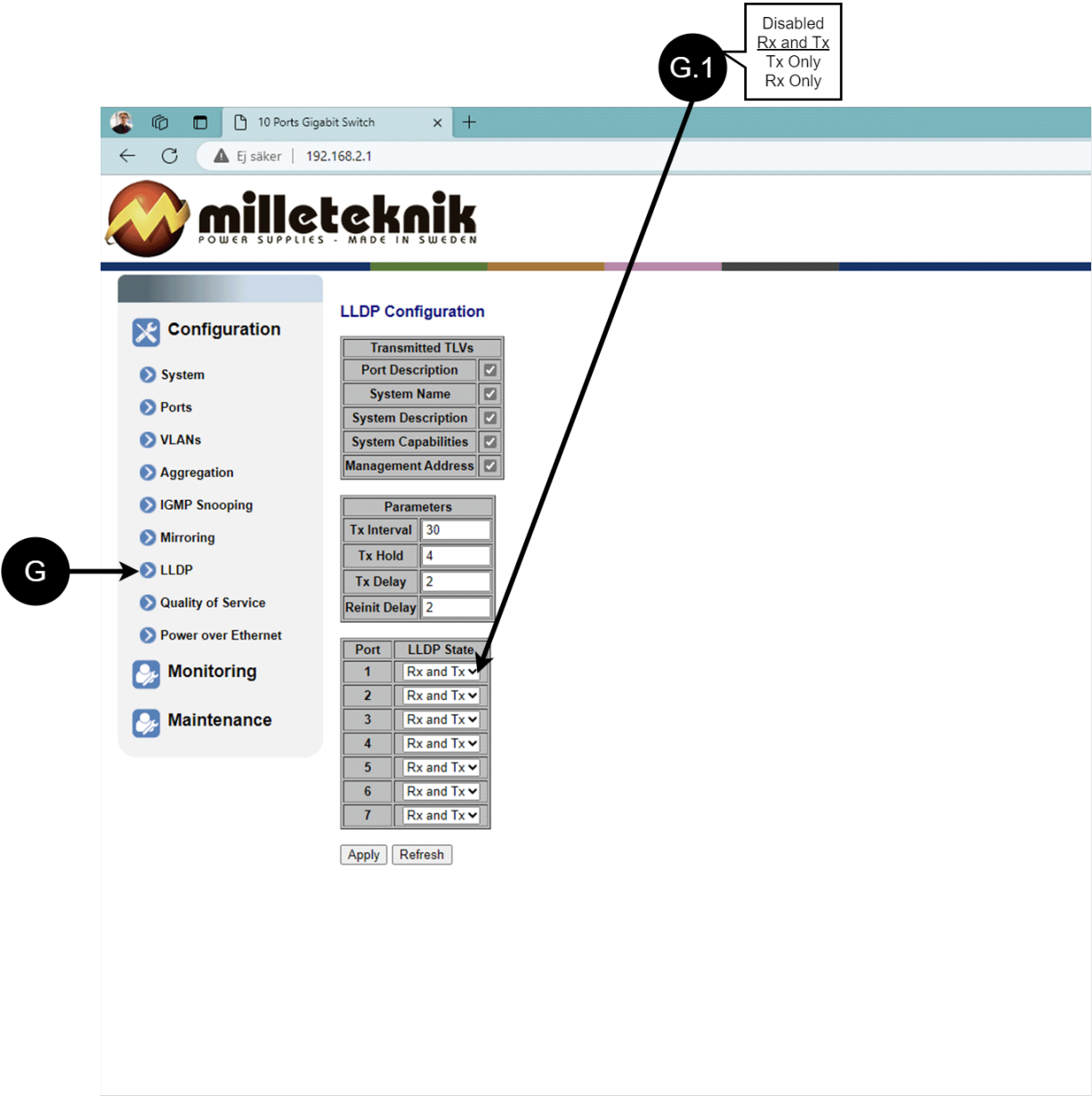


Table 10. LLDP configuration.

Letter, number	Explanation
G	LLDP stands for "Link Layer Discovery Protocol", which is a network protocol standard used to discover and communicate information about network devices connected to the same Ethernet network. The protocol allows devices such as switches and routers to send and receive messages containing information about the device's identification, capabilities, and connection topology.
G.1	RX and TX are abbreviations used in electronics, communications, and computer networking to indicate the direction of data flow between devices. RX: The abbreviation "RX" stands for "Receive" or "Reception". It indicates that the device is receiving data or signals from another device. When a device has an RX input, it means that it is designed to receive data or information from a transmitting device. TX: The abbreviation "TX" stands for "Transmit" or "Transmission". It indicates that the device is transmitting data or signals to another device. If a device has a TX output, it means that it is designed to transmit data or information to a receiving device. These abbreviations are especially common when it comes to data communication, such as in the context of network cables where there are specific RX and TX wires that allow for two-way communication between devices.

QoS, configuration



WARNING

The settings on this page normally do not need to be changed. Only change the settings if you absolutely know what you are doing.

Factory reset the PoE device if it does not behave as expected after adjusting settings on this page.

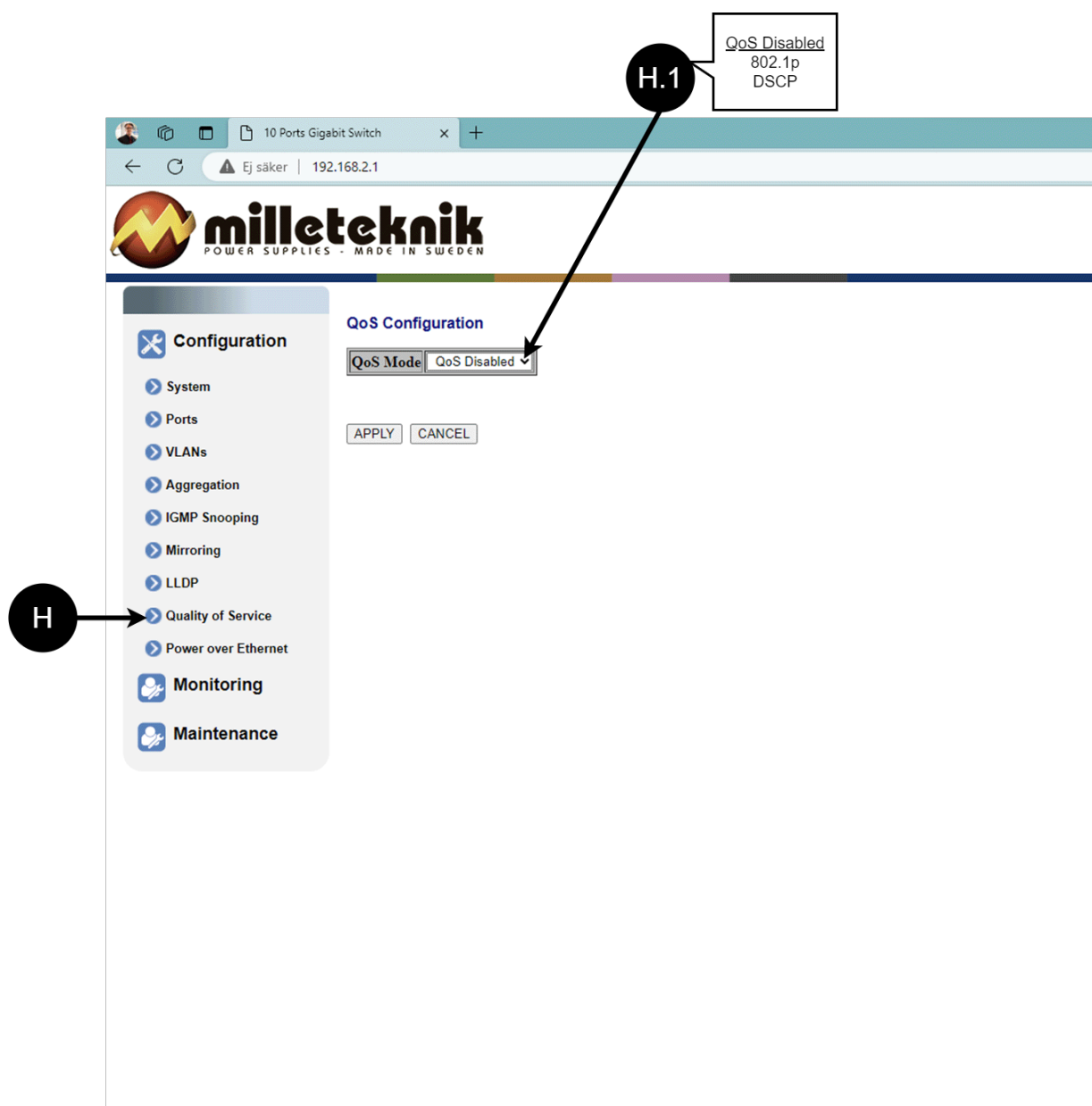


Table 11. QoS, configuration.

Letter, number	Explanation
H	QoS gives different network traffic different priority, helping to ensure that important services are delivered with sufficient bandwidth and minimal delay even when the network is under load.

Letter, number	Explanation
H.1	Sets whether QoS is active.

PoE, configuration

**WARNING**

The settings on this page normally do not need to be changed. Only change the settings if you absolutely know what you are doing.

Factory reset the PoE device if it does not behave as expected after adjusting settings on this page.

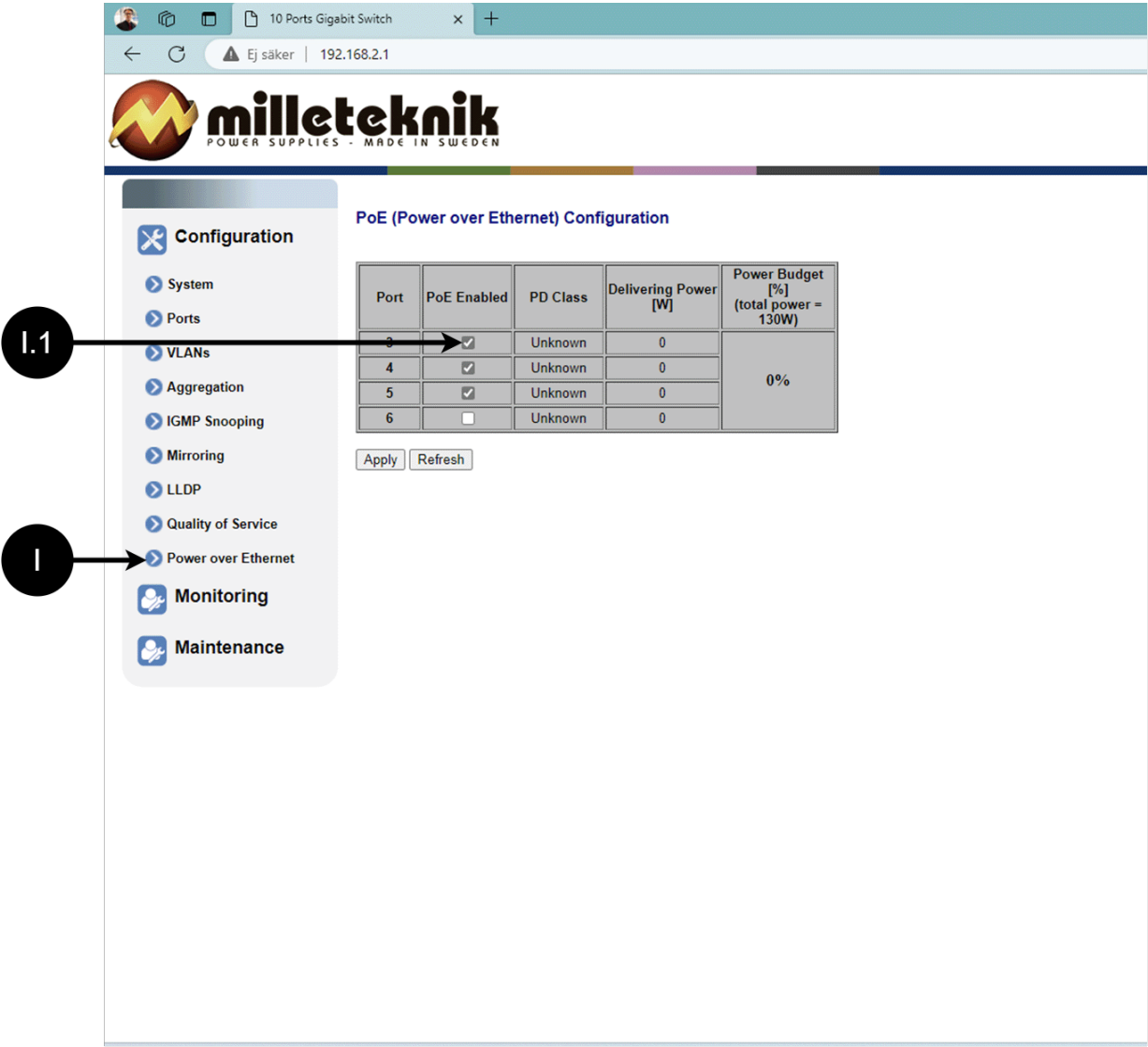


Table 12. PoE, configuration

Letter, number	Explanation
I	Power over Ethernet
I.1	Turns PoE function/port on or off. Remember to press "Apply" to save changes.

Monitoring

Statistics, overview

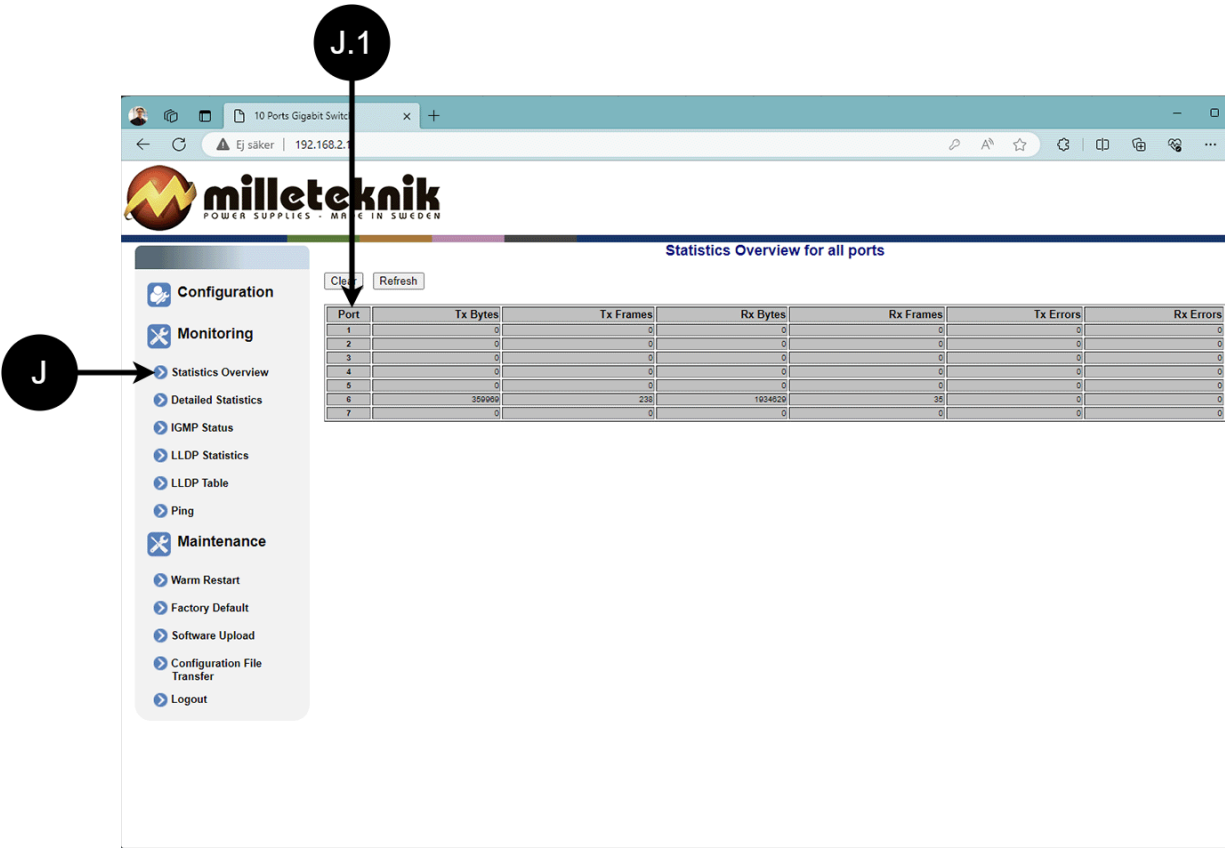


Table 13. Statistics, overview.

Letter, number	Explanation
J	Statistics, overview
J.1	Traffic per port.

Statistics, detailed

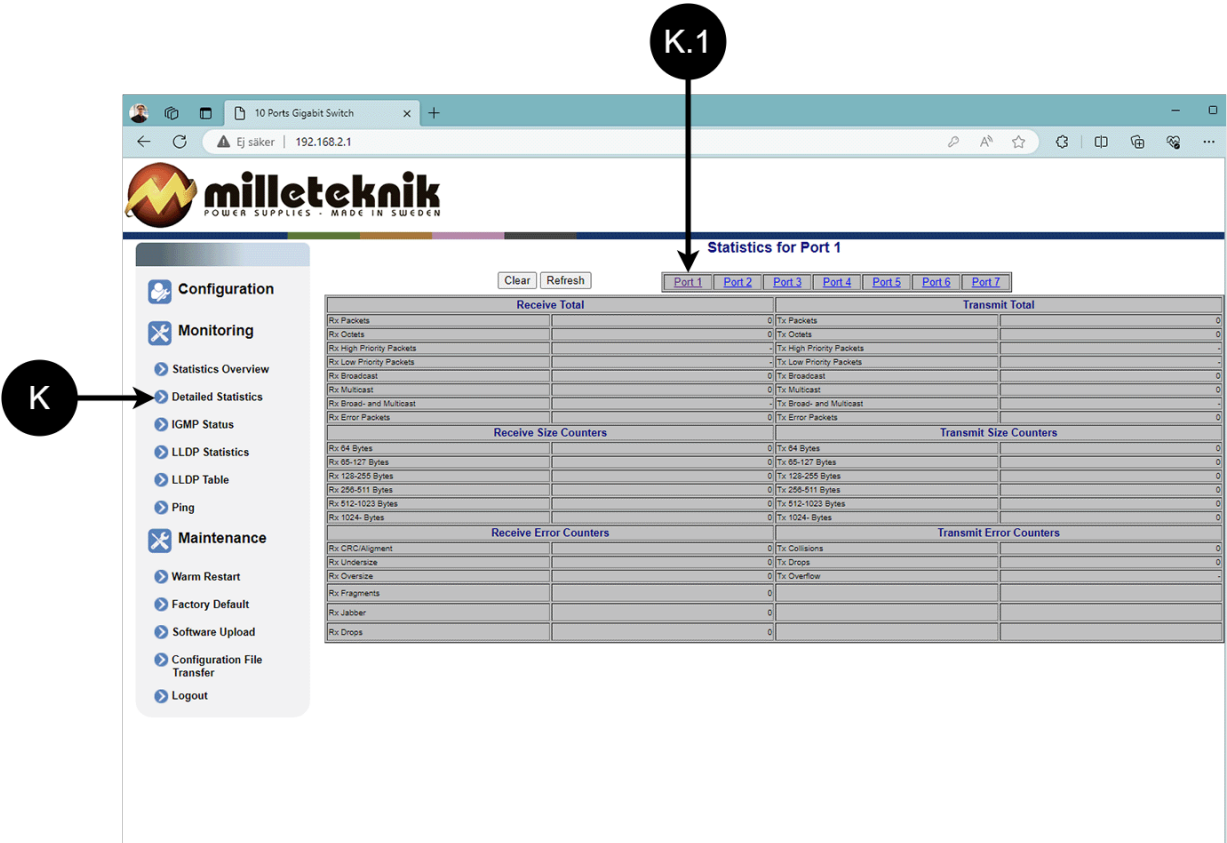
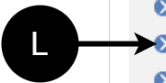


Table 14. Statistics, detailed.

Letter, number	Explanation
K	Detailed statistics
K.1	Select the port for which you want statistics.

IGMP status



The screenshot shows the Milleteknik web interface for a 10 Ports Gigabit Switch. The browser address bar shows the URL 192.168.2.1. The interface includes a sidebar menu with sections for Configuration, Monitoring, and Maintenance. The 'Monitoring' section is expanded, showing options like Statistics Overview, Detailed Statistics, IGMP Status, LLDP Statistics, LLDP Table, Ping, and IGMP Status. The 'IGMP Status' option is highlighted, and a black circle with the letter 'L' and an arrow points to it. The main content area displays the 'IGMP Status' table, which shows the status of IGMP for VLAN 1. The table has columns for VLAN ID, Querier, Queries transmitted, Queries received, v1 Reports, v2 Reports, v3 Reports, and v2 Leaves. The data row shows VLAN 1 with Querier 'Idle', 0 Queries transmitted, 0 Queries received, 0 v1 Reports, 0 v2 Reports, 0 v3 Reports, and 0 v2 Leaves. A 'Refresh' button is located below the table.

VLAN ID	Querier	Queries transmitted	Queries received	v1 Reports	v2 Reports	v3 Reports	v2 Leaves
1	Idle	0	0	0	0	0	0

Refresh

L: Status of IGMP

LLDP statistics

10 Ports Gigabit Switch

Ej säker | 192.168.2.1



Configuration

Monitoring

Statistics Overview

Detailed Statistics

IGMP Status

LLDP Statistics

LLDP Table

Ping

Maintenance

Warm Restart

Factory Default

Software Upload

Configuration File Transfer

Logout

LLDP Statistics

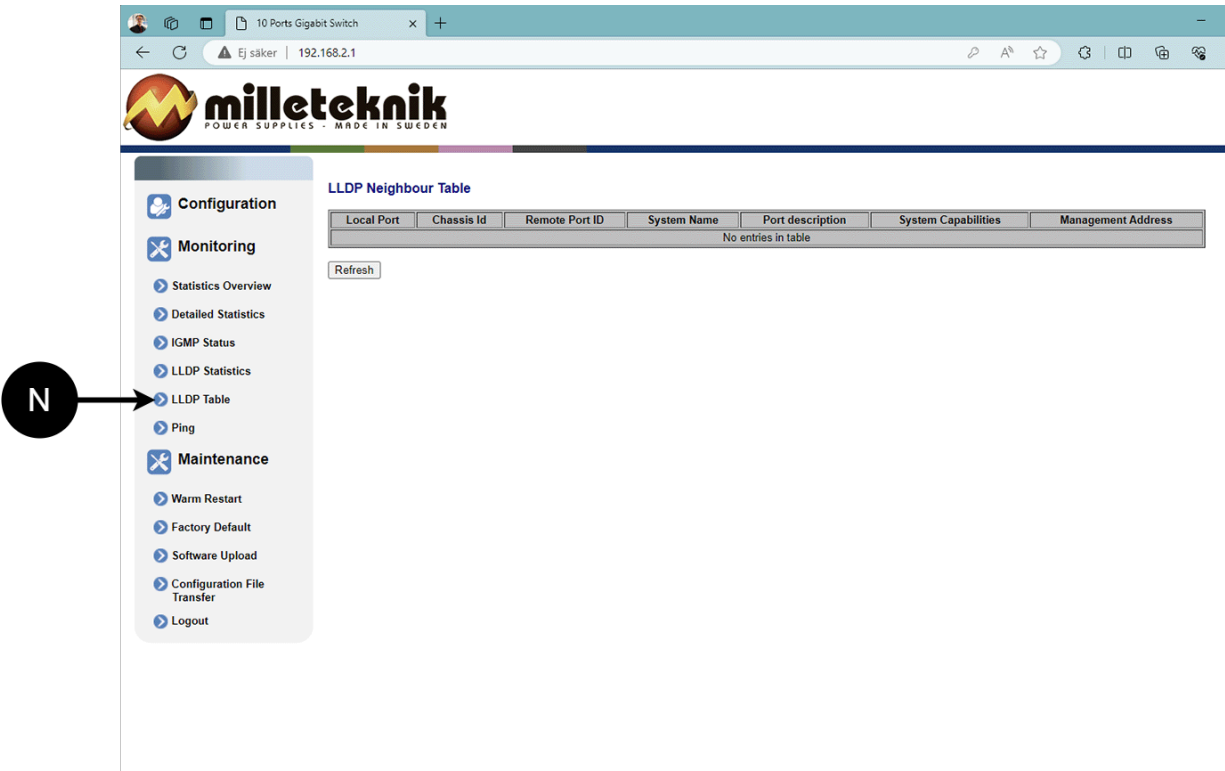
Port	Tx Frames	Rx Frames	Rx Error Frames	Discard Frames	TLVs discarded	TLVs unrecognized	Org. TLVs discarded	Ageouts
1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	1937	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0

Refresh

192.168.2.1/ldpstat?submit=Refresh

M: LLDP statistics

LLDP table



N: LLDP overview.

Ping

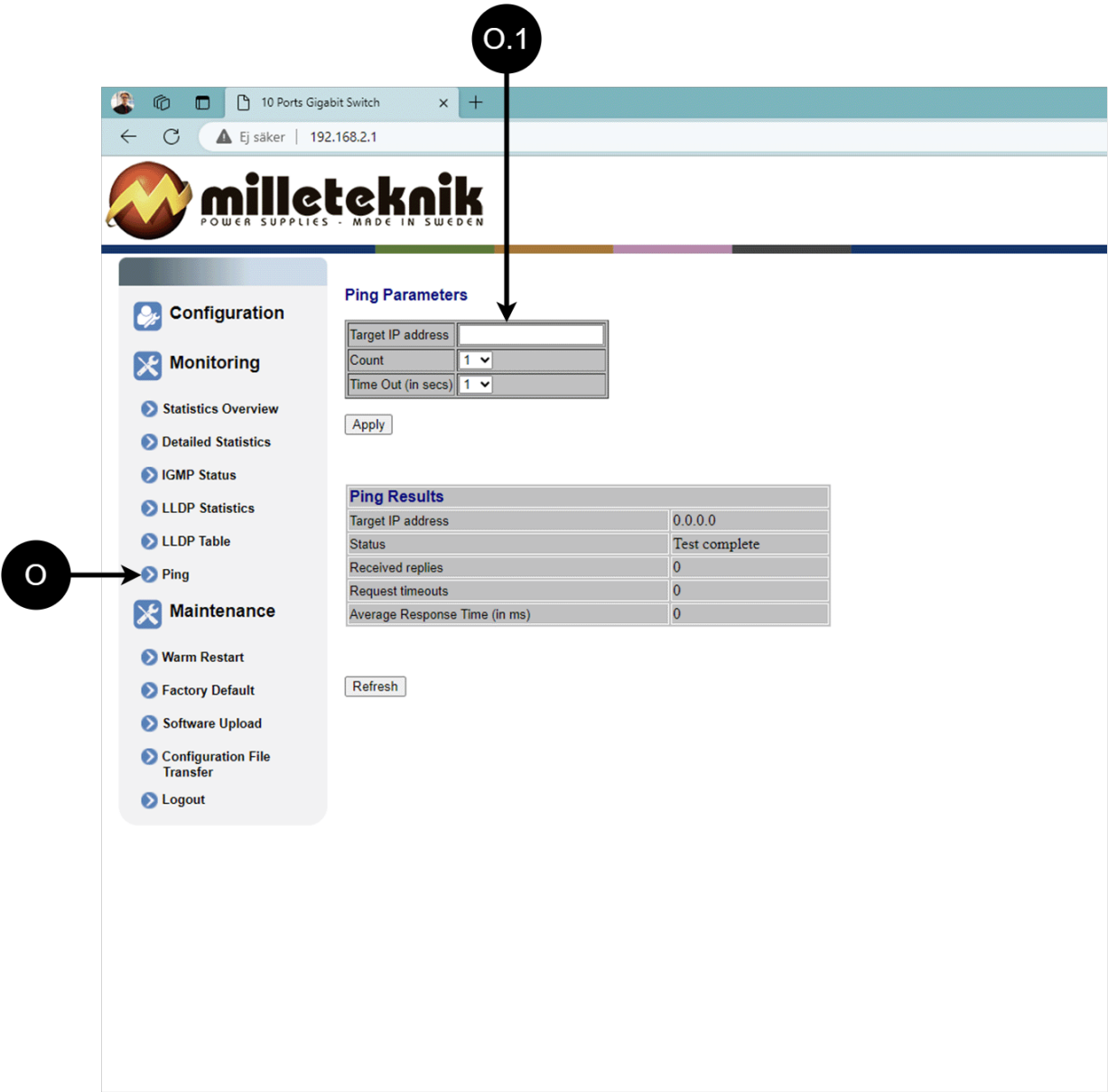


Table 15. Ping.

Letter, number	Explanation
O	Ping
[sv] O.1	Input address to test the connection and response time.

Maintenance

Reboot

**WARNING**

Restart is done by PoE switch, battery backup is not restarted. Upon reboot, connected devices will lose connection. Alarm can be set to battery backup, but it disappears when the PoE switch is back on.

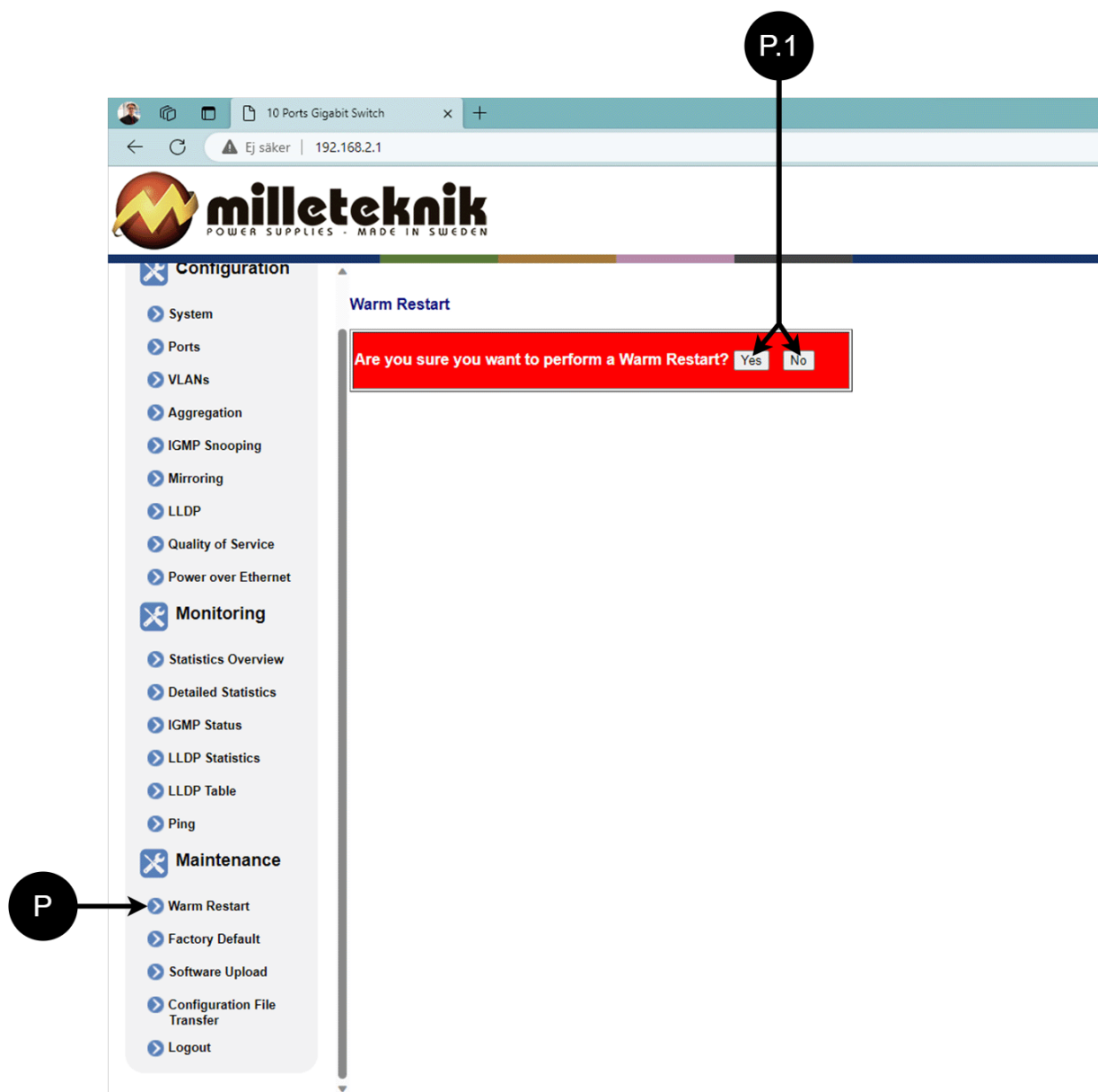


Table 16. Restarting the PoE switch.

Letter, number	Explanation
P	Rebooting the PoE switch.
P.1	Select "Yes" to reboot the switch.

Factory reset



WARNING

Factory reset is done by PoE switch. Battery backup is not restored. On reset, connected devices will lose connection. Alarm can be set to battery backup, but it disappears when the PoE switch is back on.

Factory reset of the switch can only be done from the software's (this) interface.

Recommendation: Keep IP address 192.168.2.1 and note password.



IMPORTANT

During a factory reset, all settings, including IP settings, are lost. Save configuration before factory reset. See [Upload new software \[27\]](#)

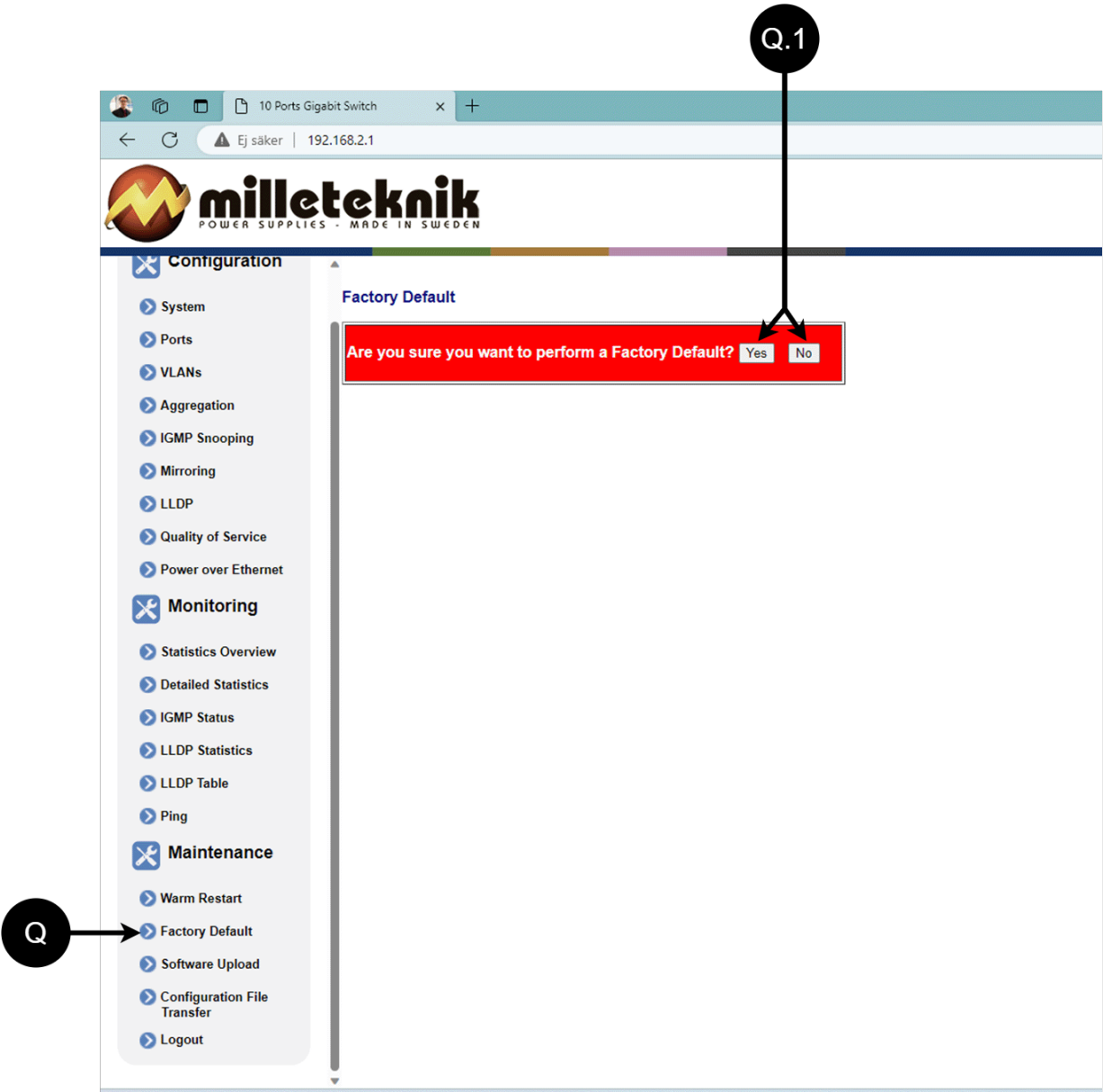


Table 17. PoE switch factory reset.

Letter, number	Explanation
Q	Factory reset the PoE switch.
Q.1	Select "Yes" to factory reset the PoE switch.

Upload new software



WARNING

Only use software you received from Milleteknik's support. Milleteknik assumes no responsibility for software or consequences such as damage to the device or peripheral equipment or other damage that may arise from uploading unapproved software.

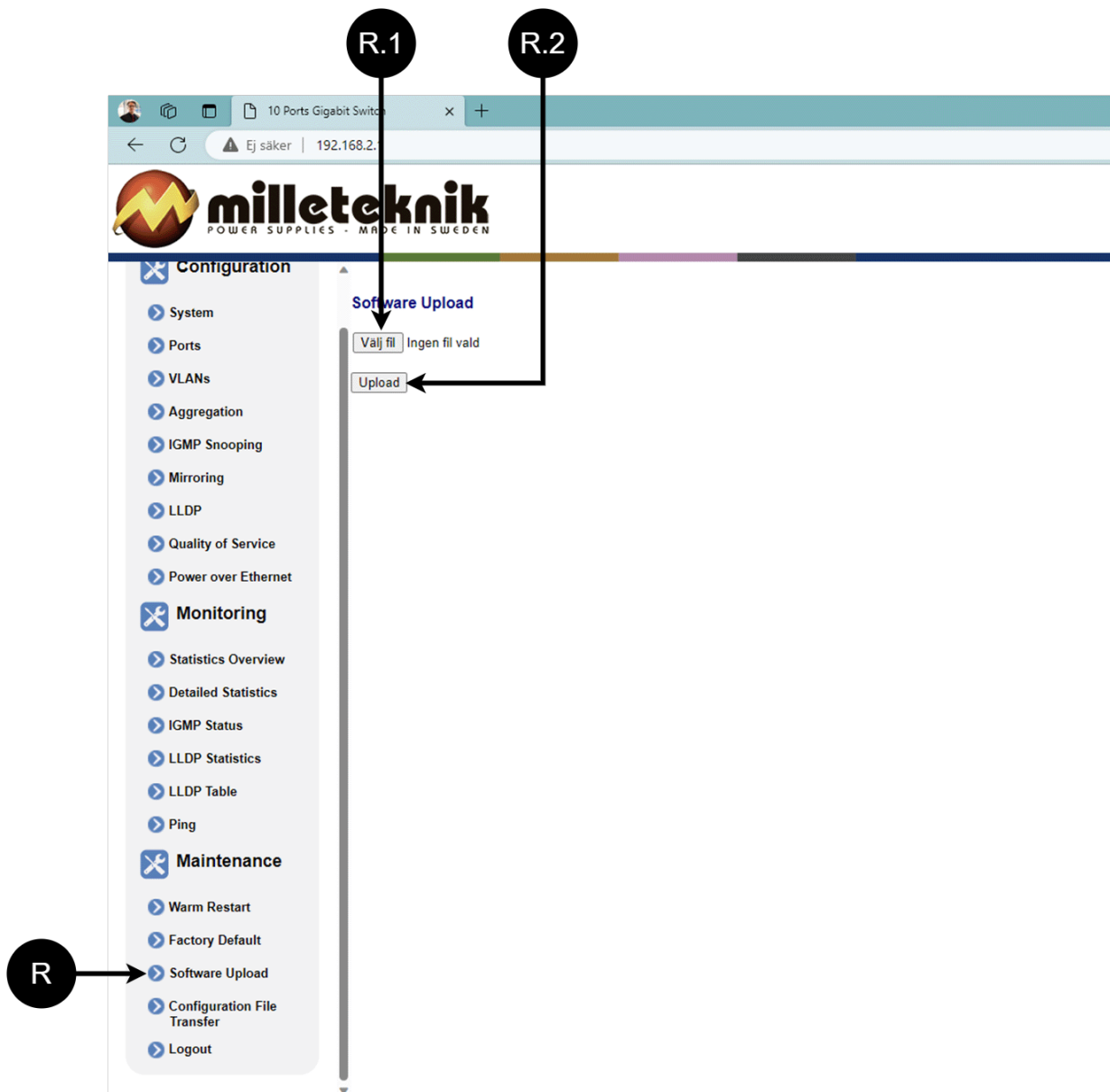


Table 18. Upload new software.

Letter, number	Explanation
R	Upload new software to the Switch.
R.1	Navigate to the location on your computer where you saved the file.
R.2	Click "Upload" to upload the software.

Load and save configuration file

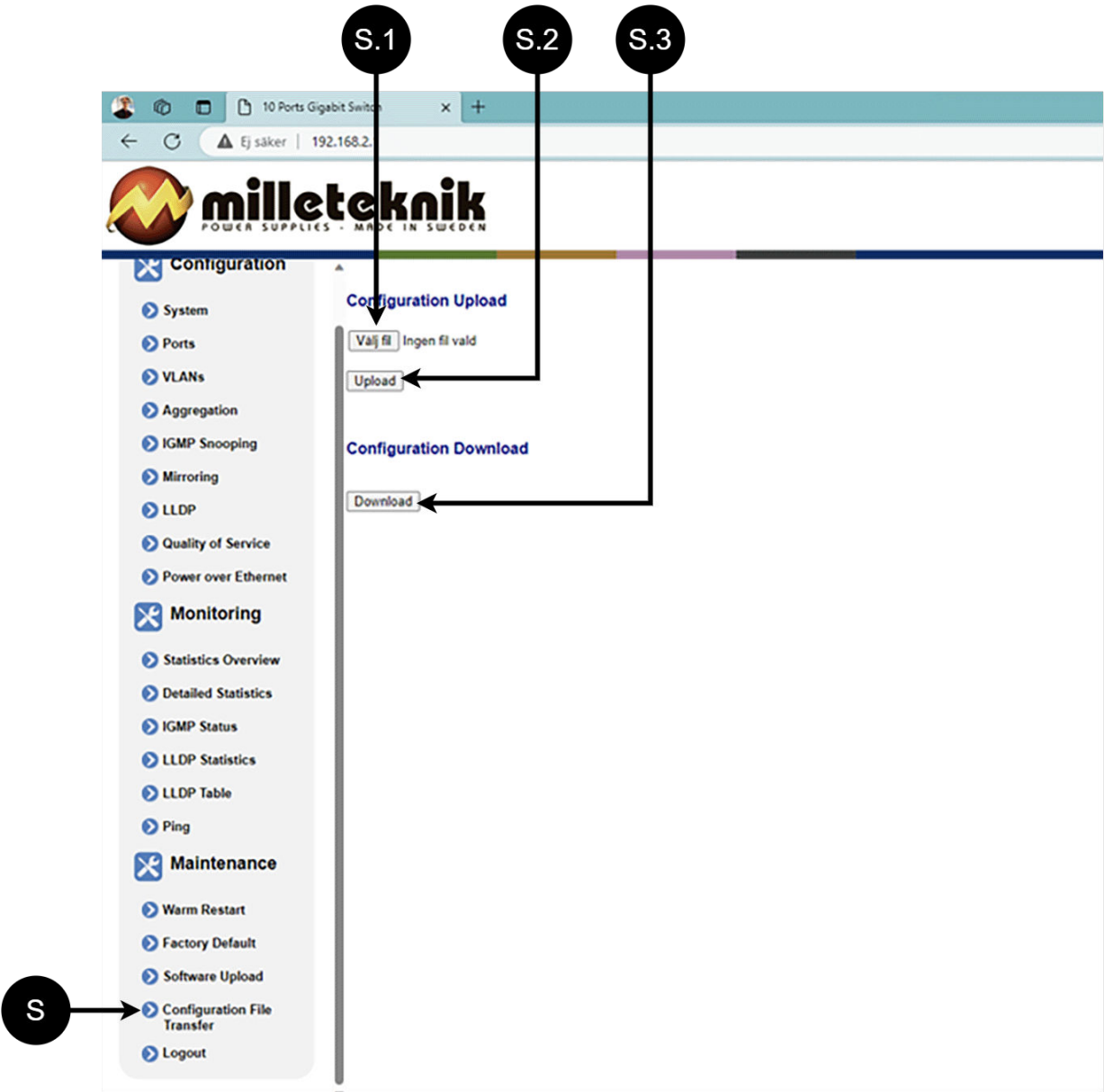
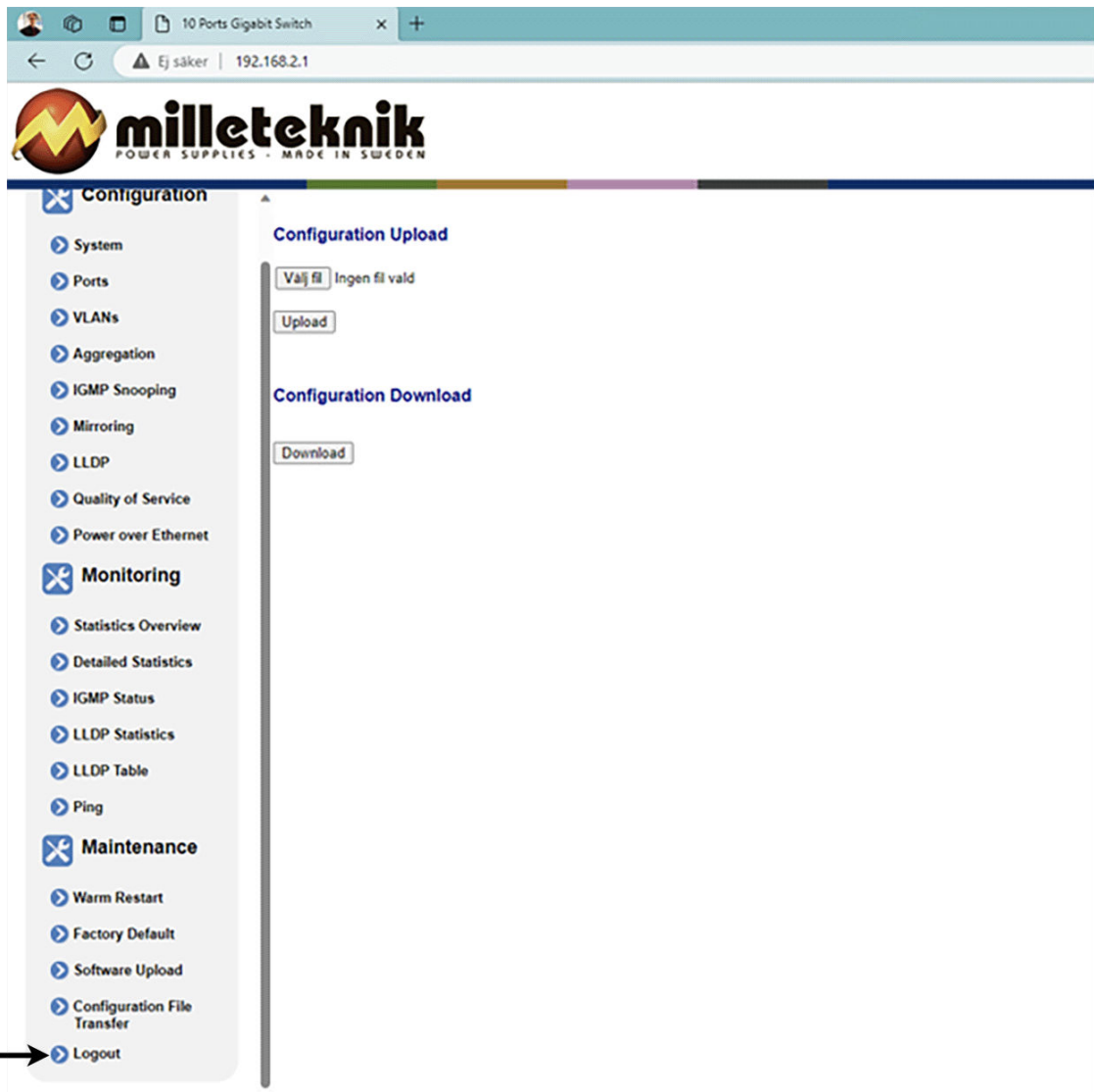


Table 19. Load and save configuration file.

Letter, number	Explanation
S	Upload or download the switch's configuration.
S.1	Select new configuration file.
S.2	Upload new configuration file.
S.3	Download configuration file to computer ^a .

^aNewer Windows computers do not allow *.cfg files to be downloaded without additional approval in the browser when downloading. Antivirus programs may delete the file during download.

Sign out



T: Log out of the switch. This does not affect the operation of the switch.

About this information

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Publication date 2026-07-08

Deployment - how to start the device



DANGER

Personal injury or death can occur if the device is connected to the mains or live when disassembling / moving.

1. Connect load.
2. Connect batteries.
3. Connect mains voltage.
4. Plug in mains voltage.

Maintenance

The system, with the exception of fans and batteries, is maintenance-free. Check fans annually. Fan should rotate smoothly without any noise. Clean the fan from dust and dirt. The fan should be replaced if it does not rotate smoothly or is so dirty that it cannot be completely cleaned. If the fan does not work well, the air flow in the unit will be obstructed, as a result of which heat will increase in the housing, it will lead to the deterioration of battery life and thus the replacement interval of batteries will be significantly shortened

Product sheet - power supply / battery backup

Product Sheet

PoE



Product Identification

Table 20. Product designation, part number and email number.

Product designation	Article number	E-number (SE)
PoE Managed 4p 24V 5A OUT S	PL02P30024P050P-UTS	51 731 57

Description

Outdoor PoE power supply, 24 V, 5 A, with space for two 14 Ah batteries.

Area of use

Power supply with backup power to power PoE devices such as surveillance cameras, 3-5G routers and has a 24 V output to be able to power other alarm components. Remote monitoring and control of PoE ports is possible. Batteries are located in a heated, thermostatically controlled and insulated part of the enclosure.

Power supply to power PoE devices such as surveillance cameras and other PoE powered devices.

Long life, energy efficient and support is available if something goes wrong, now or in 10 years.

Common uses

- Supports IP cameras, readers, door centers and other networked security devices
- Power and data distribution over a single network cable for simplified installation.
- Used to power IP-based access systems where both data and power go through network cabinets.

Technical description

Contains a 4-port managed Gbit PoE+ switch with 30.8W per port, a total of 150W including battery recharge. Can be managed over VPN¹ for control and status monitoring including power consumption per port. Equipped with total alarm and 24V output from the backup for operation of other equipment. Thermostatically controlled, insulated compartment for batteries and temperature sensor for protection against overcharging. Works in temperatures from -15°C to +35°C, IP65 rated. Prepared for mounting on a pole and prepared for logger function for collecting data.

Voltage, current and power

Mains voltage: 230 V AC - 240 V AC, 47 Hz - 63 Hz.

Self-consumption is the power outlet the circuit board has when the system is deployed and in battery operation.

Table 21. Self-consumption

Circuit Boards	Self-consumption (in battery operation)	Comments
CEO4 48V	32 mA	

Voltage out:

Voltage output in battery operation:

Current: 2.5 A.

Charging current: Depending on the power outlet.

Effect:

Max power per port: 30.8 W.

Number of PoE Ports: + two ethernet not PoE-fed.

Load outputs

PoE switch can drive load to PoE devices and motherboard can drive one (1) 24V load output to drive other applications.

Alarm

Alarms are given for: Delayed power failure alarm or low battery voltage, disconnected batteries, fuse failure and overcharging of batteries.

Alarm over RJ-45, see manual for alarms that PoE switch can give.

¹VPN requires externally connected hardware and software (PC) connected to the PoE switch.

Protection

Protection against overload, overvoltage, overtemperature, short circuit and deep discharge.

Fuses

Mains fuse: 2.5 A.

Battery protection: 16 A and 30 A.

Battery and battery type

Battery type: 12 V, AGM lead-acid battery, maintenance-free. Battery sizes must not be mixed.²

2 pieces 7.2 Ah battery.

Backup operating time on batteries

The reserve operating time in battery operation depends on how large a load is connected to the power supply. If the load varies, as with frequent opening of door locks, the time that batteries can continue to power the security system decreases. To get an estimate of reserve operating times see:

www.milleteknik.se/Manualer/FaQ/Reservdrifttider/

Enclosure

Box in fiberglass reinforced acrylic plastic.

Table 22. Dimensions, with and without packaging.

Dimensions, height x width x depth. ^a	Dimensions with packaging.
300 x 250 x 141 mm.	515 x 415 x 308 mm

^aDimensions of product and packaging may differ, this is because the product may lie differently in the packaging.

Table 23. Height units, fan and IP class.

HE	Built-in fan	IP class
7 ^a .	No	IP20

^aCannot be mounted in a 19" rack.

Weight

Table 24. Weight.

Name	Net weight	Weight incl. packaging
PoE Managed 4p 24V 5A OUT S	11.45 kg	12.2 kg

Installation requirements

The device is intended for fixed installation. Ambient temperature: – 15°C to +35°C.

Requirements that the product meets

Table 25. The product meets the following requirements.

EMC:	EMC Directive 2014/30/EU
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²The number of batteries listed represents the maximum number that the device can handle at the same time. If multiple battery sizes are specified, this means that the device can only accommodate one battery size at a time.

Electricity:	Low Voltage Directive 2014/35/EU
CE marking:	Regulation (EC) No 765/2008
Emissions:	
Immunity:	EN61000-6-2:2005, EN61000-4-2, -3, 4, -5, -6, -11 SS-EN 50 130-4:2011 Edition 2, EN50131-6
Machinery Directive	The product is part of electrical systems, is subject to the relevant electrical and safety directives and is not a machine according to the Machinery Directive (2006/42/EC).
Ecodesign	Milleteknik's products are intended for professional use and are therefore not directly covered by the Ecodesign Regulation (EU 2019/1782). As some components may be covered, we nevertheless disclose relevant information to give our customers confidence in their choice

Denomination	Efficiency (%) ^a	Standby consumption, typical (W):
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^aAt rated load.



Guarantee

The product has a two-year warranty for manufacturing defects. Batteries and wearing parts are not covered by warranty. Components that are manufactured by a manufacturer other than Milleteknik are not covered by Milleteknik's warranty.

Manufacturing, lifespan, environmental impact and recycling

Manufactured by Milleteknik in Partille, Sweden.

The product is designed and constructed for a long service life, which reduces the environmental impact. The life of the product (except wearing parts) depends on, among other things, environmental factors, mainly ambient temperature, unforeseen load on components such as lightning strikes, external impact, handling errors, etc. Products are recycled, simply because they are modular, by being left at the nearest recycling station or sent back to the manufacturer.³Contact your distributor for more information.

Link to technical specifications

Links to manuals and product sheets

You can find manuals and product sheets at: www.milleteknik.se The QR code below takes you to the product page.

Name	Dimensions	Batteries that fit	Link
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Batteries are only included if specified, otherwise batteries will need to be purchased separately.

Miscellaneous

The difference between PoE, PoE+ and PoE++.

Table 26. Max power PoE.

-	PoE	Poe+	PoE++
Compatible ^a	-	PoE	PoE, PoE+
Official name	IEEE 802.3af	IEEE 802.3at	IEEE 802.3bt
Maximum power	13 W	25 W	71 W

^aThe power supply follows "up", but not "down". A PoE can never power a PoE+/PoE++ device that requires more than 13 W.

³Costs incurred in connection with recycling are not reimbursed.

About this information

All information is published subject to possible errors. Information is updated without prior notice.

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