tp-link Business Networking Solution

Installation Guide

Unmanaged PoE+ Switch

About this Installation Guide

This Installation Guide describes the hardware characteristics, installation methods and the points that should be attended to during installation.

This Installation Guide is structured as follows:

Chapter 1 Introduction

This chapter describes the external components of the switch.

Chapter 2 Installation

This chapter illustrates how to install the switch.

Chapter 3 Connection

This chapter illustrates how to do the physical connection of the switch.

Appendix A Troubleshooting

Appendix B Hardware Specifications

Audience

This Installation Guide is for:

Network Engineer Network Administrator

Conventions

- Some models featured in this guide may be unavailable in your country or region. For local sales information, visit https://www.tp-link.com.
- The speed of the ports in Extend Mode will downgrade to 10 Mbps. The actual transmission distance may vary due to power consumption of PoE-powered devices or the cable quality and type.
- PoE budget calculations are based on laboratory testing. Actual PoE power budget is not guaranteed and will vary as a result of client limitations and environmental factors.
- The figures in Chapter 2 and Chapter 3 are for demonstration purposes only. Your switch may differ in appearance from that depicted.
- This guide uses the specific formats to highlight special messages. The following table lists the notice icons that are used throughout this guide.

	Remind to be careful. A caution indicates a potential which may result in device damage.
	Remind to take notice. The note contains the helpful information for a better use of the product.

Related Document

This Installation Guide is also available in PDF on our website. To obtain the latest documentation and product information, visit the official website: https://www.tp-link.com.

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Chapter 1 Introduction

1.1 Product Overview

TL-SL1218P, TL-SL1218MP, and TL-SL1226P are Power Sourcing Equipment (PSE*) which require no configurations. The 10/100 Mbps RJ45 ports on the switch support the Power over Ethernet (PoE*) function, which can automatically detect and supply power to those powered devices (PDs*) complying with IEEE 802.3af and IEEE 802.3at.

Note:

- *PSE is a device (switch or hub for instance) that will provide power in a PoE setup.
- *PoE is a technology that describes a system to transmit electrical power, along with data, to remote devices over standard twisted-pair cable in an Ethernet network.
- *PD is a device powered by a PSE and thus consumes energy. Examples include powering IP telephones, wireless LAN access points, network cameras, network hubs, embedded computers and so on.

1.2 Appearance

- **Front Panel**

The front panels of TL-SL1218P and TL-SL1218MP are shown as the following figure.

Figure 1-1 Front Panel of TL-SL1218P

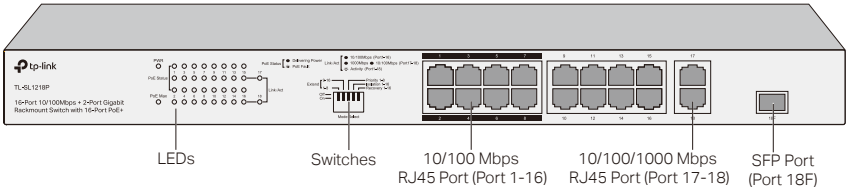
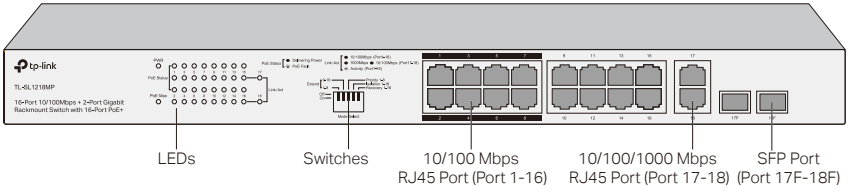


Figure 1-2 Front Panel of TL-SL1218MP



LEDs

LED	Indication
PWR	**On**: The switch is powered on. **Off**: The switch is powered off.

LED	Indication
Link/Act	**Port 1–16** **On**: Running at 10/100 Mbps but no activity. **Flashing**: Running at 10/100 Mbps and is transmitting or receiving data. **Off**: No device is linked to the corresponding port. **Port 17–18/18F (for TL-SL1218P)** **Port 17–18/17F–18F (for TL-SL1218MP)** **Green On**: Running at 1000 Mbps but no activity. **Green Flashing**: Running at 1000 Mbps and is transmitting or receiving data. **Yellow On**: Running at 10/100 Mbps but no activity. **Yellow Flashing**: Running at 10/100 Mbps and is transmitting or receiving data. **Off**: No device is linked to the corresponding port. Note: Port 18F of TL-SL1218P and port 17F–18F of TL-SL1218MP only support 1000M SFP module connection, and they only have **Green On/Green Flashing/Off** LED indications.
PoE Status	**On**: The port is connecting to a PD and supplying power for it. **Flashing**: The PoE power circuit may be in short or the power current may be overloaded. **Off**: No PD is connected to the corresponding port, or no power is supplied according to the power limits of the port.
PoE Max	**For TL-SL1218P** **On:** Total power supply ≥ 143 W. **Flashing:** Total power supply ≥ 143 W and lasts for more than 2 minutes. **Off:** Total power supply ≤ 143 W. **For TL-SL1218MP** **On:** Total power supply ≥ 243 W. **Flashing:** Total power supply ≥ 243 W and lasts for more than 2 minutes. **Off:** Total power supply ≤ 243 W.

Switches

Switch	Indication
Extend Mode	Extend Mode switch **1–8** and **9–16** can control the rate and power supply distance of corresponding ports. **Off**: The corresponding ports (1–8/9–16) run at 10/100 Mbps and support PoE power supply up to 100 m away. **On**: The corresponding ports (1–8/9–16) run at 10 Mbps and support PoE power supply up to 250 m away.
Priority Mode (1–8)	**Off:** All the ports transmit data with the same priority. **On:** Port 1–8 transmit data with a higher priority than Port 9–18. When congestion occurs, packets which are transmitted by the ports with a higher priority occupy the whole bandwidth.
Isolation (1–16)	**Off**: Port 1–16 can transmit data with every port. **On**: Port 1–16 cannot transmit data with each other. They can transmit data only with port 17–18.

Switch	Indication
Recovery (1–16)	**Off**: The PoE Auto Recovery function is disabled. **On**: The switch will constantly detect the working status of a PoE powered device (PD). When the switch finds that the PD works abnormally, the switch will reboot it.

10/100 Mbps RJ45 Port (Port 1–16)

The ports are designed to connect to devices with a bandwidth of 10 Mbps or 100 Mbps. The ports can provide power and transmit data for PDs. The maximum PoE power for each PoE port is 30 W. The maximum PoE power for all PoE ports is 150 W (for TL-SL1218P)/250 W (for TL-SL1218MP). The ports can also connect to non-PoE devices, but only transmit data.

10/100/1000 Mbps RJ45 Port (Port 17–18)

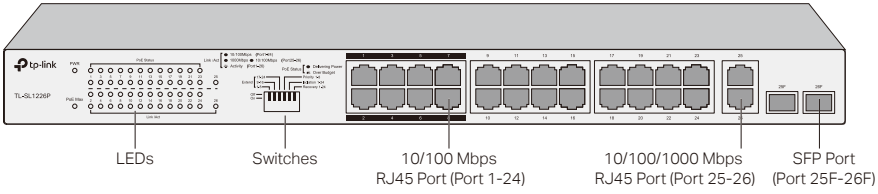
The ports are designed to connect to devices with a bandwidth of 10 Mbps, 100 Mbps or 1000 Mbps.

SFP Port (Port 18F for TL-SL1218P/Port 17F–18F for TL-SL1218MP)

The ports are designed to install the SFP module. An SFP Port (port 17F/port 18F) and the associated 10/100/1000 Mbps RJ45 Port (port 17/port 18) are called a "Combo" port, which means they cannot be used simultaneously; otherwise, only the SFP port works.

The front panel of TL-SL1226P is shown as the following figure.

Figure 1-3 Front Panel of TL-SL1226P



LEDs

LED	Indication
PWR	**On**: The switch is powered on. **Off**: The switch is powered off.
Link/Act	**For Port 1–24:** **On**: Running at 10/100 Mbps but no activity. **Flashing**: Running at 10/100 Mbps and is transmitting or receiving data. **Off**: No device is linked to the corresponding port. **For Port 25–26/25F–26F:** **Green On**: Running at 1000 Mbps but no activity. **Green Flashing**: Running at 1000 Mbps and is transmitting or receiving data. **Yellow On**: Running at 10/100 Mbps but no activity. **Yellow Flashing**: Running at 10/100 Mbps and is transmitting or receiving data. **Off**: No device is linked to the corresponding port. Note: Port 25F–26F only support 1000M SFP module connection, and they only have **Green On/Green Flashing/Off** LED indications.

LED	Indication
PoE Status	**On**: The port is connecting to a PD and supplying power for it. **Flashing**: The PoE power circuit may be in short or the power current may be overloaded. **Off**: No PD is connected to the corresponding port, or no power is supplied according to the power limits of the port.
PoE Max	**On:** Total power supply ≥ 243 W. **Flashing:** Total power supply ≥ 243 W and lasts for more than 2 minutes. **Off:** Total power supply ≤ 243 W.

Switches

Switch	Indication
Extend Mode	Extend Mode switch **1–8**, **9–16** and **17–24** can control the rate and power supply distance of corresponding ports. **Off**: The corresponding ports (1–8/9–16/17–24) run at 10/100 Mbps and support PoE power supply up to 100 m away. **On**: The corresponding ports (1–8/9–16/17–24) run at 10 Mbps and support PoE power supply up to 250 m away.
Priority Mode (1–8)	**Off:** All the ports transmit data with the same priority. **On:** Port 1–8 transmit data with a higher priority than Port 9–24. When congestion occurs, packets which are transmitted by the ports with a higher priority occupy the whole bandwidth.
Isolation (1–24)	**Off**: Port 1–24 can transmit data with every port. **On**: Port 1–24 cannot transmit data with each other. They can transmit data only with port 25–26.
Recovery (1–24)	**Off**: The PoE Auto Recovery function is disabled. **On**: The switch will constantly detect the working status of a PoE powered device (PD). When the switch finds that the PD works abnormally, the switch will reboot it.

10/100 Mbps RJ45 Port (Port 1–24)

The ports are designed to connect to devices with a bandwidth of 10 Mbps or 100 Mbps. The ports can provide power and transmit data for PDs. The maximum PoE power is 30 W for each PoE port and 250 W for all the PoE ports. The ports can also connect to non-PoE devices, but only transmit data.

10/100/1000 Mbps RJ45 Port (Port 25–26)

The ports are designed to connect to devices with a bandwidth of 10 Mbps, 100 Mbps or 1000 Mbps.

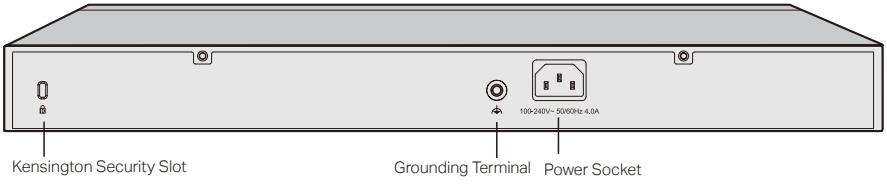
SFP Port (Port 25F–26F)

The ports are designed to install the SFP module. An SFP Port (Port 25F–26F) and the associated 10/100/1000 Mbps RJ45 Port (Port 25–26) are called a “Combo” port, which means they cannot be used simultaneously; otherwise, only the SFP port works.

- **Rear Panel**

The rear panel is shown as the following figure. Here we take TL-SL1218MP as an example.

Figure 1-4 Rear Panel



Kensington Security Slot

Secure the lock (not provided) into the security slot to prevent the device from being stolen.

Power Socket

Connect the female connector of the power cord here, and the male connector to the AC power outlet. Make sure the voltage of the power supply meets the requirement of the input voltage (100–240 V~ 50/60 Hz).

Caution:
You should use the provided power cord.

Grounding Terminal

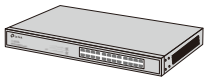
The switch already comes with lightning protection mechanism. You can also ground the switch through the PE (Protecting Earth) cable of AC cord or with Ground Cable. For detailed lightning protection, go to https://www.tp-link.com/support/?type=smb, search the model number of your switch and go to the product Support web page, refer to the **Lightning Protection Guide** from the Related Documents: https://www.tp-link.com/us/configuration-guides/lightning_protection_guide/.

Chapter 2 Installation

2.1 Package Contents

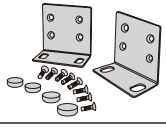
Make sure that the package contains the following items. If any of the listed items is damaged or missing, contact your distributor.

One Switch



One Power Cord

Two mounting brackets, eight screws and four rubber feet



This Installation Guide

2.2 Safety Precautions

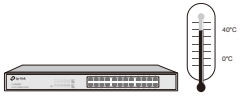
To avoid any device damage and bodily injury caused by improper use, you should observe the following rules.

- **Safety Precautions**

- Keep the power off during the installation.
- Wear an ESD-preventive wrist strap, and make sure that the wrist strap has a good skin contact and is well grounded.
- Use only the power cord provided with the switch.
- Make sure that the supply voltage matches the specifications indicated on the rear panel of the switch.
- Ensure that the switch is installed in a well-ventilated environment and its ventilation hole is not blocked.
- Do not open or remove the cover of the switch.
- Before cleaning the device, cut off the power supply. Do not clean it by the waterish cloth, and never use any other liquid cleaning method.
- Place the device with its bottom surface downward.

- **Site Requirements**

Temperature/Humidity



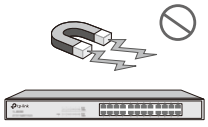
Keep the equipment room at an appropriate level of temperature and humidity. Too much or too little humidity may lead to bad insulation, leakage of electricity, mechanical property changes, and corrosion. High temperatures may accelerate aging of the insulation materials, significantly shortening the service life of the device. To find out the best temperature and humidity conditions for the device, check Appendix B.

Clearness

The dust accumulated on the switch can be absorbed by static electricity and result in poor contact of metal contact points. Some measures have been taken for the device to prevent static electricity, but too strong static electricity can cause deadly damage to the electronic elements on the internal circuit board. To avoid the effect of static electricity on the operation of the switch, please attach much importance to the following items:

- Dust the device regularly, and keep the indoor air clean.
- Keep the device well grounded and ensure static electricity has been transferred.

Electromagnetic Interference



Electronic elements including capacitance and inductance on the device can be affected by external interferences, such as conducted emission by capacitance coupling, inductance coupling, and impedance coupling. To decrease the interferences, please make sure to take the following measures:

- Use the power supply that can effectively filter interference from the power grid.
- Keep the device far from high-frequency and strong-current devices such as radio transmitting station.
- Use electromagnetic shielding when necessary.

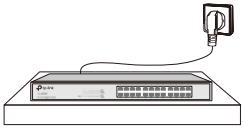
Lightning Protection

Extremely high voltage currents can be produced instantly when lightning occurs and the air in the electric discharge path can be instantly heated up to 20,000 °C. As this instant current is strong enough to damage electronic devices, more effective lightning protection measures should be taken.

- Ensure that the rack and device are well earthed.
- Make sure the power socket has a good contact with the ground.
- Keep a reasonable cabling system and avoid induced lightning.
- Use the signal SPD (Surge Protective Device) when wiring outdoor.

Note:
For detailed lightning protection measures, go to https://www.tp-link.com/support/?type=smb, search the model number of your switch and go to the product Support web page, refer to the Lightning Protection Guide from the Related Documents: https://www.tp-link.com/us/configuration-guides/lightning_protection_guide/.

Installation Site



When installing the device on a rack or a flat workbench, attach much importance to the following items:

- The rack or workbench is flat, stable, and sturdy enough to support the weight of 5.5 kg at least.
- The rack or workbench has a good ventilation system. The equipment room is well ventilated.
- The rack is well grounded. Keep the device less than 1.5 meters away from the power socket.

2.3 Installation Tools

- Phillips screwdriver
- ESD-preventive wrist wrap
- Cables

Note:
These tools are not included with our product. If needed, you can purchase them separately.

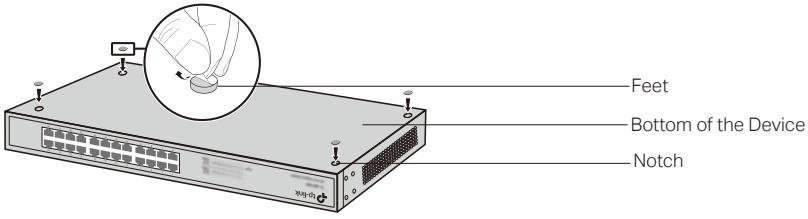
2.4 Product Installation

▪ Desktop Installation

To install the device on the desktop, follow the steps:

1. Set the device on a flat surface which is strong enough to support the entire weight of the device with all fittings.
2. Remove the adhesive backing papers from the rubber feet.
3. Turnover the device and attach the supplied rubber feet to the recessed areas on the bottom at each corner of the device.

Figure 2-1 Desktop Installation

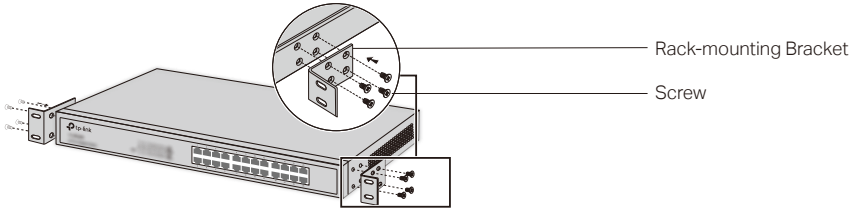


▪ Rack Installation

To install the device in an EIA standard-sized, 19-inch rack, follow the instructions described below:

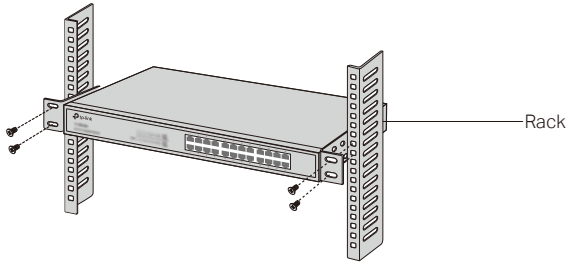
1. Check the efficiency of the grounding system and the stability of the rack.
2. Secure the supplied rack-mounting brackets to each side of the device with supplied screws, as illustrated in the following figure.

Figure 2-2 Bracket Installation



3. After the brackets are attached to the device, use suitable screws (not provided) to secure the brackets to the rack, as illustrated in the following figure.

Figure 2-3 Rack Installation



Caution:

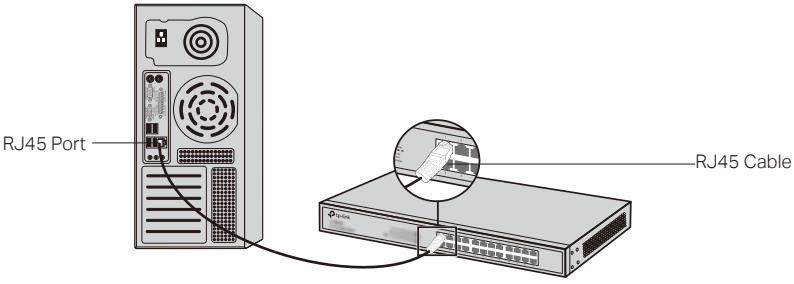
- Leave 5 to 10 cm gaps around the devices for air circulation.
- Avoid placing heavy things on the device.
- Mount devices in sequence from the bottom to top of the rack and ensure a certain clearance between devices for the purpose of heat dissipation.

Chapter 3 Connection

3.1 Ethernet Port

Connect an Ethernet port of the switch to the computer by RJ45 cable as the following figure shows.

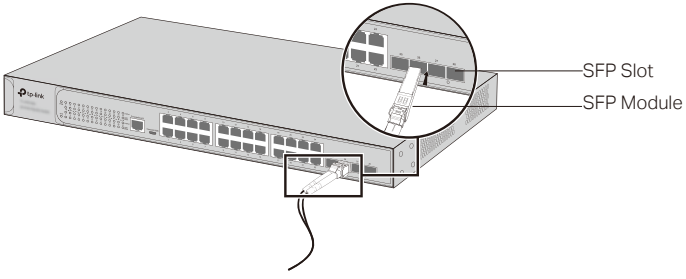
Figure 3-1 Connecting the RJ45 Port



3.2 SFP Port

The following figure demonstrates the connection of SFP port to an SFP module.

Figure 3-2 Inserting the SFP Module



3.3 Verify Installation

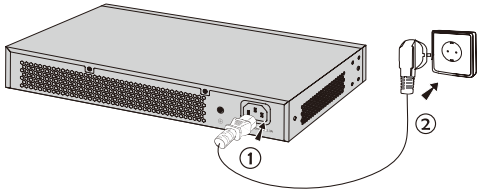
After completing the installation, please verify the following items:

- There should be 5 to 10 cm of clearance around the device for ventilation and make sure the air flow is adequate.
- The voltage of the power supply meets the requirement of the input voltage of the device.
- The power socket, device and rack are well grounded.
- The device is correctly connected to other network devices.

3.4 Power On

Plug the negative connector of the provided power cord into the power socket of the device and plug the positive connector into a power outlet as the following figure shows.

Figure 3-3 Connecting to Power Supply



Note:
The figure is to illustrate the application and principle. The provided plug and the socket in your region may differ from the figures above.

3.5 Initialization

After the device is powered on, it begins the Power-On Self-Test. A series of tests run automatically to ensure the device functions properly. During this time, its LED indicators will respond as follows:

1. The PWR LED indicator will light up and keep on.
2. After the initialization, the Link/Act LED indicator for 10/100/1000 Mbps ports and SFP ports will first turn green and then yellow momentarily, and finally turn off again.
3. After the initialization, the LED indicators for PoE status and PoE max will flash momentarily and then turn off again.

Finally, all LED indicators will work normally.

Appendix A Troubleshooting

Q1. Why is the PWR LED not lit?

The PWR LED should be lit when the power system is working normally. If the PWR LED is not lit, check as follows:

A1: Make sure the switch is connected to the power source with the AC power cord properly.

A2: Make sure the voltage of the power supply meets the requirements of the input voltage of the switch.

A3: Make sure the power source is on.

Q2. Why is the Link/Act LED not lit when a device is connected to the corresponding port?

It is recommended that you check the following items:

A1: Make sure that the cable connectors are firmly plugged into the switch and the device.

A2: Make sure the connected device is turned on and working well.

A3: The cable length should be less than 100 meters (328 feet). If Extend Mode is enabled, it should be less than 250 meters (820 feet).

Q3. Why are some ports not supplying power for PoE devices?

If total power consumption of connected PoE devices exceeds the maximum PoE power, the system will cut off the power to ports with larger serial numbers to compensate for the overload. Therefore, port 5–16 (for TL-SL1218P), port 9–16 (for TL-SL1218MP) and port 9–24 (for TL-SL1226P) may not supply power for connected PoE devices.

For example, on TL-SL1218MP, port 1–7 and port 9 are consuming 30 W respectively. If an additional PoE device with 11 W is inserted to port 8, the system will cut off the power to port 9.

Q4. What should I notice before using the PoE Auto Recovery feature?

A1: Before upgrading a connected PoE powered device (PD), disable PoE Auto Recovery to avoid the PD's damage.

A2: When a PD does not send data packets to the switch for a long period in certain scenarios (e.g. an IPC in sleep mode), disable PoE Auto Recovery to avoid the PD repeatedly rebooting.

Appendix B Specifications

Item	Content	
Standard	IEEE802.3i, 802.3u, 802.3ab, 802.3z, 802.3af, 802.3at, 802.3x	
Protocol	CSMA/CD	
Interface	For TL-SL1218P 16 10/100 Mbps RJ45 Ports (Auto-Negotiation/Auto MDI/MDIX) 2 10/100/1000 Mbps RJ45 Ports (Auto-Negotiation/Auto MDI/MDIX) 1 1000 Mbps SFP Slots (Combo) For TL-SL1226P 24 10/100 Mbps RJ45 Ports (Auto-Negotiation/Auto MDI/MDIX) 2 10/100/1000 Mbps RJ45 Ports (Auto-Negotiation/Auto MDI/MDIX) 2 1000 Mbps SFP Slots (Combo)	For TL-SL1218MP 16 10/100 Mbps RJ45 Ports (Auto-Negotiation/Auto MDI/MDIX) 2 10/100/1000 Mbps RJ45 Ports (Auto-Negotiation/Auto MDI/MDIX) 2 1000 Mbps SFP Slots (Combo)
PoE Port (RJ45)	For TL-SL1218P PoE Port: Port 1–16 Total Power Supply: 150 W For TL-SL1218MP PoE Port: Port 1–16 Total Power Supply: 250 W For TL-SL1226P PoE Port: Port 1–24 Total Power Supply: 250 W	
Switching Capacity	7.2 Gbps (for TL-SL1218P/TL-SL1218MP) 8.8 Gbps (for TL-SL1226P)	
Mac Address Table	8K	
Transfer Method	Store-and-Forward	
Power Supply	100–240 VAC, 50/60 Hz	
Fan Quantity	2 (for TL-SL1218MP)	
Operating Temperature	For TL-SL1218MP/TL-SL1226P: 0 °C to 50 °C (32 °F to 122 °F) For TL-SL1218P: 0 °C to 45 °C (32 °F to 114 °F)	
Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)	
Operating Humidity	10% to 90%RH Non-condensing	
Storage Humidity	5% to 90%RH Non-condensing	

CE Mark Warning

This is a class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

EU declaration of conformity

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions of directives 2014/30/EU, 2014/35/EU, 2011/65/EU and (EU)2015/863.

The original EU declaration of conformity may be found at https://www.tp-link.com/en/support/ce/

UK declaration of conformity

TP-Link hereby declares that the device is in compliance with the essential requirements and other relevant provisions of the Electromagnetic Compatibility Regulations 2016 and Electrical Equipment (Safety) Regulations 2016.

The original UK declaration of conformity may be found at https://www.tp-link.com/support/ukca

Safety Information

- Keep the device away from water, fire, humidity or hot environments.
- Do not attempt to disassemble, repair, or modify the device. If you need service, please contact us.
- Place the device with its bottom surface downward.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.
- The plug on the power supply cord is used as the disconnect device the socket-outlet shall be easily accessible.

- Plug the product into the wall outlets with earthing connection through the power supply cord.
- The PoE ports shall not be used to charge lithium batteries or devices supplied by lithium batteries.

This equipment is not suitable for use in locations where children are likely to be present.

Please read and follow the above safety information when operating the device. We cannot guarantee that no accidents or damage will occur due to improper use of the device. Please use this product with care and operate at your own risk.

To ask questions, find answers, and communicate with TP-Link users or engineers, please visit **https://community.tp-link.com/business** to join TP-Link Community.

For technical support, the user guide and other information, please visit **https://www.tp-link.com/support/?type=smb**, or simply scan the QR code.

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