NetScreen-5
Installer’s Guide

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Preface

The NetScreen-5™ is a network security device that protects your Ethernet local area network (LAN) or standalone desktop computer when connecting to the Internet. Using a NetScreen-5 firewall, you can configure your network so that people inside the firewall can get out to the Internet, but people outside the firewall cannot get in.

WHO SHOULD READ THIS MANUAL?

Anyone who plans to install the NetScreen-5 should read this manual. Users should have some background in Windows® terminology, Web browser operation, and a knowledge of where to find the TCP/IP and subnet mask information for their system.

MANUAL ORGANIZATION

This manual has 2 chapters and one appendix.

Chapter 1, Hardware and Software Description, describes the NetScreen-5 hardware and administration software tools.

Chapter 2, Basic NetScreen-5 Network Connection, offers four ways of configuring the device. You can use the Quick Start™ disk provided, use the Web UI, or use the command line interface (CLI) to configure either directly through the console or remotely using Telnet.

Appendix, Safety Recommendations and Warnings, provides general site requirements, safety warnings, and explains the cautionary procedures you should observe before installing and operating the NetScreen-5 unit.
RELATED PUBLICATIONS

The following technical publications are shipped with the NetScreen-5 device:

**NetScreen-5 Getting Started Guide**
(P/N 093-0008-000 Rev C)

The following publications are included on the product CD:

**NetScreen CLI Reference Guide**
(P/N 093-0011-000 Rev C)

**NetScreen WebUI Reference Guide**
(P/N 093-0040-000 Rev A)

**NetScreen Concepts and Examples ScreenOS Reference Guide**
(P/N 093-0039-000 Rev A)
Hardware and Software Description

This chapter provides illustrations and descriptions of the NetScreen-5 front and back panel and an introduction to the Web User Interface (WebUI).

Before you install the NetScreen® device, you should unpack it on site and verify the contents against the packing slip.

**Hardware Description**

Figure 1-1 shows a front view of the NetScreen-5.

![Front Panel of the NetScreen-5](image)

**Figure 1-1** Front Panel of the NetScreen-5

The front panel of the NetScreen-5 contains the following features:

- **Power LED**: glows solid green when power is supplied to the NetScreen-5.
- **Status LED**: glows solid green when NetScreen-5 is first powered up and the unit first performs diagnostics. Then the unit goes into a startup phase, which takes up to one minute to complete. During startup, the LED blinks orange, after which the LED blinks green. If an error is detected, then the LED illuminates red.
- **Diagnostics Port**: DB9 serial port connector for local diagnostics.
- **Trusted Port**: Connect the NetScreen-5 to the LAN using a twisted pair cable with RJ45 connectors. See “Basic NetScreen-5 Network Connection” on page 2-7 for cabling guidelines.

- **Untrusted Port**: Connect the NetScreen-5 to the router using a twisted pair cable with RJ45 connectors.

- **Trusted and Untrusted Ethernet LEDs**: Each Ethernet port has two link lights or LEDs, as shown in Figure 1-2. If the right LED is glowing, the link is connected to an active device. If the left LED is blinking, there is network traffic activity.

- **Power Outlet**: Use the universal power supply included with your NetScreen-5 unit to connect to the power outlet. The NetScreen-5 unit is powered when connected. The power specifications are as follows:
  
  **Input**: 85–264 VAC  
  **Output**: 5 VDC @1.5 amps  
  **DC Jack**: 2.5 mm x 5.5 mm x 11 mm; polarity is center positive

![The NetScreen-5 Ethernet LEDs](image)

**Figure 1-2** The NetScreen-5 Ethernet LEDs
Figure 1-3 on page 1-3 shows the back view of the NetScreen-5.

![Back Panel of the NetScreen-5](image)

**Figure 1-3** Back Panel of the NetScreen-5

**General Layout of the NetScreen-5 Web UI**

The Web UI Administration Tools page consists of two main sections: the menu column and the central display area.

- Figure 1-4 on page 1-4 shows the NetScreen-5 menu column and explains the features found under each button. The menu column consists of four functional categories: System, Network, Lists, and Monitor, each of which contain further sub-functions, represented by tabs in the central display area. During the configuration process, you first need to select a main functional category before choosing the various utilities offered within each sub-category.
Figure 1-4 The NetScreen-5 Menu Column
A central display area, shown in Figure 1-5, lists the information for each of the categories in the menu column, in either a tabular or graphical format. These pages generally contain links to dialog boxes through links such as New Policy, New Entry and New Manual Key User.

**Figure 1-5** The NetScreen-5 Central Display
Basic NetScreen-5 Network Connection

Follow the instructions in this chapter to connect the NetScreen-5 device to the network and to configure the software initially for Transparent or Network Address Translation (NAT) mode. See the NetScreen Concepts and Examples ScreenOS Reference Guide, for more configuration options.

⚠️ Caution  Make sure you have read the Appendix, “Safety Recommendations and Warnings” on page A-1, before you begin.

CONNECTING THE NetScreen-5 TO NETWORKS AND DEVICES

This section explains how to set up the NetScreen-5 hardware connections.

1. Install the NetScreen-5 on a level surface.
2. Connect the universal power supply’s DC side to the power outlet on the NetScreen-5 device, and the AC side to an AC outlet.
   The NetScreen-5 takes up to one minute to start up. There is no ON/OFF switch. If you need to reboot at any point, unplug the NetScreen device for 30 seconds and then plug it back in again.
3. Connect the NetScreen-5 to the network as shown in one of the following illustrations:
   - Figure 2-1 “Typical Multiple-Workstation Configuration—Router Connected to the Untrusted Port, LAN Connected to the Trusted Port” on page 2-8
   - Figure 2-2 “Typical Single-Workstation Configuration—Router Connected to the Untrusted Port, Workstation Connected to the Trusted Port” on page 2-8

Caution

Make sure you have read the Appendix, “Safety Recommendations and Warnings” on page A-1, before you begin.

1. Check your router, hub, or computer documentation to determine if you should reconfigure the device or if you should switch off the power supply when connecting new equipment to the LAN.
Figure 2-1  Typical Multiple-Workstation Configuration—Router Connected to the Untrusted Port, LAN Connected to the Trusted Port

Figure 2-2  Typical Single-Workstation Configuration—Router Connected to the Untrusted Port, Workstation Connected to the Trusted Port
**Note:** You may have to supply additional cables, depending on your particular configuration. A straight-through cable is a 10/ BaseT unshielded twisted pair (UTP) and is usually white. A crossover cable is a 10/ BaseT UTP and is usually orange.

A DTE (Data Terminal Equipment) device cannot connect to a DTE port without a crossover cable. Conversely, a DCE (Data Communications Equipment) device cannot connect to a DCE port without a crossover cable.

<table>
<thead>
<tr>
<th>For a Device Connected to:</th>
<th>Untrusted Port (DTE)</th>
<th>Trusted Port (DCE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workstation (DTE)</td>
<td>crossover</td>
<td>straight-through</td>
</tr>
<tr>
<td>Switch/Hub (DCE)</td>
<td>straight-through</td>
<td>crossover</td>
</tr>
<tr>
<td>Router§ (DTE)</td>
<td>crossover</td>
<td>straight-through</td>
</tr>
</tbody>
</table>

An Untrusted Ethernet port is not technically a DTE but for cabling purposes, should be treated as such.

§ Routers with uplink ports may behave in reverse.

4. If you have not already done so, turn on the power supply to the devices you have connected to the NetScreen-5.

If all cables are connected correctly, the link light for each connection illuminates.
There are three ways to configure the NetScreen-5 for the first time:

- Using the Quick Start Program.
- Using a Web browser running on a workstation connected via a network to the Trusted port.
- Using CLI via either Telnet or the serial port.

**Table 2-2** Administration Configuration Requirements

<table>
<thead>
<tr>
<th>Configuration Method</th>
<th>Requirements</th>
</tr>
</thead>
</table>
| Quick Start          | Netscape Communicator®v4.5 or greater, or Microsoft® Internet Explorer v5.0 or greater  
TCP/IP network connection to the NetScreen-5 |
| WebUI                | Netscape Communicator v4.5 or greater, or Microsoft Internet Explorer v 5.0 web browser.  
TCP/IP network connection to the NetScreen-5 |
| CLI                  | Via the console port, using Hilgraeve® Hyperterminal® or a VT100 terminal emulator on the administrator’s workstation and an RS-232 Console cable  
Via Telnet, using TCP/IP network connection to the NetScreen device. |

**Table 2-3** Important Default Configuration Settings

<table>
<thead>
<tr>
<th>Default System IP Address:</th>
<th>192.168.1.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Trusted/Untrusted IP Addresses:</td>
<td>0.0.0.0 (transparent mode)</td>
</tr>
<tr>
<td>Default User Name:</td>
<td>netscreen</td>
</tr>
<tr>
<td>Default Password:</td>
<td>netscreen</td>
</tr>
</tbody>
</table>
Configuring Via the Quick Start Program

NetScreen-5 comes with The Quick Start disk for easy configuration.

1. Insert the Quick Start disk into the a: drive of Windows® 95/98 or Windows NT® v4.0 computer from which you will configure unit on the LAN.
2. On the Windows task bar, click the Start button, and then select Run.
3. At the Command Line, type a:\nsqstart.exe, then select OK.
   The NetScreen Quick Start Welcome window appears as in Figure 2-3 on page 11.

   ![NetScreen Quick Start Welcome](image)

   **Figure 2-3** NetScreen Quick Start Welcome

4. Read the information on the NetScreen Quick Start Welcome screen, then click the **Next** button.
   If there is more than one network card on the computer, the Quick Start program displays their IP addresses and prompts you to select the one for the network on which you are installing the NetScreen-5, as shown in Figure 2-4.
5. When the NetScreen Quick Start Select Device dialog box displays, select the NetScreen-5 you want to configure, as shown in Figure 2-5, then click the Next button.

**Figure 2-4** Network Card IP Address List

Select the appropriate network card, and then click OK.

**Note:** The Quick Start program can only find the NetScreen-5 devices on your network that still have the factory default configuration.
6. Enter the new System IP address for the NetScreen device you are configuring, as shown in Figure 2-6. This value must be an available address on the Trusted subnet. This is the address that you will use to further manage the NetScreen-5.

![NetScreen Quick Start Configuration Dialog Box](image)

**Figure 2-6** NetScreen Quick Start-Configuration Dialog Box.

**Selecting Transparent Mode**

1. To launch your NetScreen-5 in Transparent mode, select **Transparent Mode** as shown in Figure 2-6.

2. Click **Finish**.

   If you leave the **Launch web browser for further configuration** check box selected (the default), Quick Start opens your Web browser and displays the User name and Password dialog box as shown in Figure 2-11 on page 2-18.

   If you clear the **Launch web browser for further configuration** check box, you must start your Web browser manually when Quick Start exits.
Selecting Network Address Translation

1. To launch your NetScreen-5 in NAT mode, select **Network Address Translation Mode (NAT)**.
2. Click **Next**.

   The NAT Configuration screen shown in Figure 2-7 appears.

![NetScreen Quick Start Configuration](image)

**Figure 2-7** NetScreen Quick Start-Configuring NAT

3. Enter the IP address, subnet mask of the NetScreen-5 Trusted interface.
4. To configure the Untrusted interface, use one of the following three methods:
   a. To use Dynamic Host Control Protocol, select **DHCP**.
   b. To use Point-to-Point Protocol over Ethernet, select **PPPoE** and enter the **User name** and **Password** for the login prompt.
   c. To assign an IP address, subnet mask, and gateway IP address manually, select **Manually Assign** and then enter the settings in the appropriate fields.
5. Select **Finish**.

   If you leave the **Launch web browser for further configuration** check box selected (the default), Quick Start opens your Web browser and displays the Username and Password dialog box, as shown in Figure 2-11 on page 2-18.

   If you clear the **Launch web browser for further configuration** check box, you must start your Web browser manually when Quick Start exits. For more information on logging in manually, see “Logging On” on page 2-18.
Configuring Via the WebUI

You can also perform the initial configuration through a Web browser without the NetScreen-5 Quick Start disk. To do this, you need to

- Change the IP address of the management workstation to the same subnet as the NetScreen-5 default System IP address.

Then after making an Ethernet connection to the NetScreen-5, you can log on through a Web browser. The following section details this procedure.

Refer back to Table 2-2 on page 2-10 for administration requirements.

Making a Connection

Before you begin, be sure you connected the NetScreen-5 hardware to the network as outlined on page 2-7.

Setting the System IP Address

For remote administration of the NetScreen device over a network connection, you must change the system IP address. The NetScreen-5 ships from the factory with a default IP address of 192.168.1.1. To change this to an address on the same subnet as the other network devices to which the NetScreen-5 is connected, enter the following command:

1. Record your workstation's IP address and subnet mask. You must re-enter them later in this process.

   **Note:** To find your workstation IP address: Start>>Settings>>Control Panel>Network>Configuration, select TCP/IP and then click Properties.

2. Change the IP address of the workstation to 192.168.1.2 and a subnet mask of 255.255.255.0. You might have to restart the workstation to enable these changes to take effect.

   **Note:** For Windows NT users, ensure that you are logged on to the workstation as an administrator.

3. Start your Web browser.

4. In the URL field of the browser, enter the IP address of the NetScreen-5: http://192.168.1.1.

   The Enter Network Password dialog box appears, as shown in Figure 2-8 on page 2-16.
Note: The NetScreen-5 ships from the factory with the IP address set to 192.168.1.1.

5. In the dialog box, type *netscreen* for both the user name and password, and then click **OK**.

![Enter Network Password Dialog Box](image)

Figure 2-8 Enter Network Password Dialog Box

Note: The user name and password are case-sensitive. After configuring the NetScreen device for the first time, change the default user name and password as described later in “Changing the Administrator Login Name and Password” on page 2-23.

6. An IP Address Configuration dialog box, as shown in Figure 2-9 on page 2-17 is displayed for first-time configuration.
7. Enter a new System IP address and subnet mask for the NetScreen-5, and then click **OK** to save your settings.

**Note:** The IP address must be a valid and available IP address on your local network, and the subnet mask must be an appropriate value for your local network.

The Configuring in Progress screen appears, as shown in Figure 2-10.
The NetScreen-5 is in Transparent mode. To change it to NAT mode, you must configure the Trusted and Untrusted interfaces. To do that, refer to chapter 2, “System Parameters” in the NetScreen Concepts and Examples ScreenOS Reference Guide.

8. Reconfigure your administration workstation IP address to the original settings that you recorded in the first step. Depending on the operating system, you might have to restart your workstation.

Logging On
Once the IP configuration is complete, you must again log on.

1. When the Web browser is activated, enter the newly created IP address of the NetScreen-5.

   The User name and Password dialog box displays.

2. In the User name and Password dialog box, type netscreen for both the user name and password, and then click OK.

![Figure 2-11 Username and Password Dialog Box](image)

**Figure 2-11** Username and Password Dialog Box

**Note:** The login name and password are case-sensitive.

After configuring the NetScreen-5 for the first time, change the user name and password. See “Changing the Administrator Login Name and Password” on page 2-23 for instructions.
Allowing Outbound Traffic

The NetScreen-5 ships with a default Access Policy allowing all traffic inside the network to access the Internet. The Access Policies pages appear with the Default Outgoing page displayed, as shown in Figure 2-12 on page 2-19.

Note: For more information on Access Policies, please refer to the NetScreen Concepts and Examples ScreenOS Reference Guide.

Figure 2-12 Default Outgoing Access Policy

Testing the Configuration

Use a Web browser to access an external Web site (for example, www.netscreen.com). You should be able to locate the site and access the available Web pages.

If you cannot access the Web site, check the following:

- Link lights on the NetScreen-5, workstations, hubs, and the router are illuminated.
• The workstation IP and Netmask have the correct settings.
• The workstation gateway points to the router.
• The workstation has a valid DNS entry.

Configuring Via the CLI

The following section provides information on how to configure the device using the command line interface (CLI).

Making a Connection

You can access the CLI either by connecting directly via a console (or serial) cable to the NetScreen-5 diagnostics port or you can make a network connection via Telnet. Connection instructions are offered for both methods.

Refer to Table 2-2 on page 2-10 for administration requirements.

Connecting via the Console Port

You need direct access to the NetScreen device you want to configure and the following items before you start:

• An RS-232 male-to-female serial cable
• Microsoft Hyperterminal software on the management workstation (or, if you are using a different operating system, a VT100 terminal emulator)

Follow these steps to connect the NetScreen device to the workstation:

1. Connect the serial cable from the management workstation to the diagnostics port on the NetScreen-5.
2. Start the terminal emulator on the workstation.
3. To create a new connection, type a name, select an icon, and then click OK. The Connect To dialog box appears.
4. Select the serial port to which the serial cable is connected to the workstation, and click OK. The COM1 Properties dialog box appears.
5. Configure the port settings as follows, and then click OK.
   - Serial communications 9600 bps
   - 8 bit
   - no parity
   - 1 stop bit
   - no flow control
6. Press **ENTER** to see the login prompt.

*Connecting via Telnet*

Telnet operates over TCP/IP networks. It allows you to configure the device using the command line interface (CLI).

Before you begin, be sure you connected the NetScreen-5 hardware to the network as outlined in on page 2-7.

1. Establish a Telnet connection to the NetScreen device.
2. For Host name, type: 192.168.1.1, the NetScreen-5 default IP address.

**Note:** Select vt100 for Terminal type.

*Logging On*

To log on, enter the default administrator name and password.

1. At the login prompt, enter `netscreen`.
2. At the password prompt, enter `netscreen`.

**Note:** The user name and password are case-sensitive.

After configuring the NetScreen-5 for the first time, change the user name and password. See “Changing the Administrator Login Name and Password” on page 2-23 for instructions.

*Setting the System IP Address*

You can configure your NetScreen device for either Transparent mode or Network Address Translation (NAT) mode.

**Transparent Mode**

At the command line enter:

1. `set admin sys-ip <a.b.c.d>`
2. `save`

**Note:** Substitute your actual system IP address for `<a.b.c.d>`. 

**Network Address Translation (NAT) Mode**

At the command line enter:

1. `set admin sys-ip <a.b.c.d>`
2. set interface trust ip <a.b.c.d>
3. set interface untrust ip <a.b.c.d>
4. save

Allowing Outbound Traffic
To create an outgoing Access Policy that permits any inside traffic to pass through the firewall and access the Internet, enter the following commands:

1. set policy outgoing “inside any” “outside any” any permit
2. save

Note: Making system-level changes through the CLI does not require restarting the NetScreen-5, whereas making similar changes through the WebUI does.

Testing the Configuration
Use a Web browser to access an external Web site (for example, www.netscreen.com). You should be able to locate the site and access the available Web pages.

See “Testing the Configuration” on page 2-19 for instructions.

Note: See the NetScreen Command Line Reference Guide.


**CHANGING THE ADMINISTRATOR LOGIN NAME AND PASSWORD**

Because all NetScreen-5 devices come with the same default login name and password, you should change this information immediately after you install the device. You can change the default administrator login and password either through the WebUI or the CLI.

⚠️ Caution  The information in this guide has been widely published, and failure to change the defaults might expose your system to attack.

**Using the WebUI**

To change the default administrator login and password via the WebUI:

1. Select the **Admin** button in the menu column to view the **Admin** page, as shown in Figure 2-13.

![Figure 2-13 The Administration Page](image)

2. Type a new Admin Login Name.

**Note:** The login name and password must be alphanumeric. The login username and password are case-sensitive.
3. Type the old password (initially netscreen) in the Old Password field. You must enter the old password to change to the new password.

4. Type the new password in the New Password field and the Confirm New Password field.

5. Record the new Administrator Login Name and Password in a secure manner.

⚠️ **Warning** Make sure that you remember your password! If you forget it, you will have to return the unit to the factory for initialization. This feature has been implemented in this manner as an extra security measure.

6. Leave the other fields at their default entries, and select the **Apply** button. The changes require the NetScreen-5 to reset, which it automatically does at this point. Figure 2-14 on page 24 shows the system message that appears.

![Figure 2-14 The System Message Display](image)

7. Click the **Yes** button to confirm your command to reset the system. The next time you log in, use the new login name and password.

**Note:** To receive important news on product updates, please visit our web site at www.netscreen.com and register your product.
Using the CLI

At the command line enter:

1. set admin name <name>
2. set admin password <password>

Record the new Administrator Login Name and Password in a secure manner.

⚠️ Warning ⚠️ Make sure that you remember your password! If you forget it, you will have to return the unit to the factory for initialization. This feature has been implemented in this manner as an extra security measure.
Safety Recommendations and Warnings

When using the NetScreen-5, follow these safety guidelines:

- Make sure that the work area is dry and without excess humidity.
- Keep the chassis area clear and dust-free during and after installation.
- Disconnect all power supply connections before changing the Ethernet or serial port connection.
- Never assume that power is disconnected from a circuit. Always check.

**Before supplying power:**

- Look carefully for possible hazards in the work area, such as moist floors, ungrounded power extension cables, and missing safety grounds.
- Locate the emergency power-off switch for the room where you are working.

Do not perform any action that creates a potential hazard to people or makes the equipment unsafe. Do not stack or balance the equipment on other devices to avoid tipping over, and to allow air circulation. Make sure the installation is securely in place.

Make sure you adhere to all safety warnings.
SAFETY WARNINGS

Make sure that you adhere to the following set of safety warnings.

Installation Warning

⚠️ Caution Read the cabling instructions before connecting the NetScreen-10/100 to its power source.

Power Disconnection Warning

⚠️ Warning Before working on a device that has an On/Off switch, turn OFF the power and unplug the power cord.

No User-Serviceable Parts Warning

⚠️ Warning The NetScreen-10/100 contains no user-serviceable parts and is housed in a tamper-proof enclosure. Therefore, the chassis should never be opened under any circumstances. Doing so will also void the warranty.

Circuit Breaker (15A) Warning

⚠️ Caution The NetScreen-10/100 relies on the building’s installation for short-circuit (over-current) protection. Ensure that a fuse or circuit breaker no larger than 120 VAC, 15A U.S. (240 VAC, 10A international) is used on the phase conductor (all current-carrying conductors).

SELV Circuit Warning

⚠️ Warning The Ethernet 10BaseT, 100BaseT, serial, console, and auxiliary ports contain safety extra-low voltage (SELV) circuits. Do not connect the NetScreen-10/100 to a telephone line or any Telco line (e.g., T-1, T-3, RJ-48 lines).
Safety Warnings

Lightning Activity Warning

⚠️ Danger  Do not work on the device, specifically, connecting or disconnecting cables during periods of lightning activity, as the unit can function as a conduit.

Lithium Battery Warning

⚠️ Warning  There is a danger of explosion if the battery is incorrectly replaced. The chassis should never be opened under any circumstances. Doing so will also void the warranty. Return the device to the manufacturer for battery replacement.

Product Disposal Warning

⚠️ Warning  Ultimate disposal of this product should be handled according to all national laws and regulations.
GENERAL SITE REQUIREMENTS

This section describes the requirements your site must meet for the safe installation and operation of your system. Ensure that your site is properly prepared before beginning the hardware installation.

Site Environment

The NetScreen-5 can be placed on a desktop. Equipment placed too close together will cause inadequate ventilation, besides rendering areas of the device inaccessible for system maintenance during any system malfunctions and shutdowns.

When planning your site layout and equipment locations, follow the precautions described in the next section to help avoid equipment failures and reduce the possibility of environmentally caused shutdowns. If you are experiencing shutdowns or unusually high errors with your existing equipment, these precautions may help you isolate the cause of the failures and prevent future problems.

Preventive Site Precautions

The following precautions will help you plan an acceptable operating environment for your NetScreen-5 and will help you avoid environmentally caused equipment failures:

- Electrical equipment generates heat. Natural air temperature might not be sufficient to cool equipment to acceptable operating temperatures without an additional circulation system. Ensure that the room in which you operate your system has adequate air circulation.
- Do not work alone if potentially hazardous conditions exist.
- Never assume that the power supply has been disconnected from a circuit. Always check.
- Look carefully for possible hazards in your work area, such as moist floors, ungrounded power extension cables, frayed power cords, and missing safety grounds.

Power Supply Considerations

Check the power at your site to ensure that you are receiving “clean” power (free of spikes and noise). Install a power conditioner if necessary.
Environmental Requirements

The NetScreen-5 is intended for use in a normal office environment. For more extreme conditions, verify that temperature, humidity, and power conditions meet the specifications indicated in Table A-1.

**Table 2-4 Environmental Requirements**

<table>
<thead>
<tr>
<th>Item</th>
<th>Operating Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>32-122°F, 0-50°C</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>5-90%, non-condensing: for storage</td>
</tr>
<tr>
<td></td>
<td>10-90%, non-condensing: for operation</td>
</tr>
<tr>
<td>Voltage</td>
<td>90-264 VAC</td>
</tr>
<tr>
<td>Input frequency</td>
<td>47-63 Hz</td>
</tr>
<tr>
<td>AC input current</td>
<td>1.5A (120VAC), 1.5A (240VAC)</td>
</tr>
<tr>
<td>Altitude</td>
<td>0-12,000 feet, 0-3,660 meters</td>
</tr>
</tbody>
</table>
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