

# NetShelter™ Rack Power Distribution Units and In-Line Current Meters with NMC3



For APDU11\*\*\*, APDU10\*\*\* with APDU9640NMC3, APDU9\*\*\*, AP8\*\*\*, AP7\*\*\*B, and AP71\*\*B Devices with NMC3

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## Affected Revision Levels

Component	Version	Details
Network Management Card 3 (NMC3) Operating System and NetShelter Rack PDU Application	App 3.4.0.9 APC Operating System 3.4.1.4	Not available for download
Secure NMC System (SNS) Tool for Rack PDU	3.0.0.4 or later 4.0.x.x or later	<b>Linux:</b> SecureNMCSystemTool_4.x.x.x_linux-x64.tar.gz <b>macOS:</b> SecureNMCSystemTool_4.x.x.x_osx-arm64.tar.gz <b>Windows:</b> SecureNMCSystemTool_4.x.x.x_win-x64 Installer.exe
PowerNet® SNMP Management Information Base (MIB)	4.5.9	powernet459.mib

**IMPORTANT:** You must have a valid Secure NMC System (SNS) subscription (SWNMC3PDU-● Y-DIGI) for Rack Power Distribution Unit (PDU) devices to update the firmware to version 3.x.x.x or later.

You must use the SNS Tool for Rack PDUs to upgrade to firmware version 3.x.x.x or later. This is the only supported upgrade method. See *Additional Software and Documentation*, page 4 for instructions to download the SNS Tool and its *User Guide*.

## New Features

### APC Operating System

None.

### APDU11\*\*\*, APDU10\*\*\* with APDU9640NMC3, APDU9\*\*\*, AP8\*\*\*, AP7\*\*\*B, and AP71\*\*B (rPDU2g) Applications

- Support for APDU11\*\*\* and APDU10\*\*\* products upgraded with NMC3 display modules.
- Support added for line frequency data.
- Support added for disabling outlet switching based on customer and region specifications.

## Fixed Issues

### APC Operating System

The following security vulnerabilities have been addressed in this release:

- CWE-120: Buffer Copy without Checking Size of Input
- CWE-787: Out-of-bounds Write
- CWE-1286: Improper Validation of Syntactic Correctness of Input

### APDU11\*\*\*, APDU10\*\*\* with APDU9640NMC3, APDU9\*\*\*, AP8\*\*\*, AP7\*\*\*B, and AP71\*\*B (rPDU2g) Applications

- Outlet states are maintained correctly.
- DDF handling improved for proper integration and data alignment with Data Center Expert and EcoStruxure IT Gateway systems.
- Modbus supports up to 18 banks.
- Modbus reports circuit breaker triggered status.
- Redfish functionality is updated.
- Device communication status reports correctly after firmware upgrades and does not show false "Lost" states.
- Phase-to-phase voltage values from Modbus registers return valid readings instead of "-1".

## Known Issues

### APC Operating System

Certain characters, such as ™ or ©, will not be generated correctly when downloading a **config.ini** file via genini.htm. If a file with invalid content generated by this issue is uploaded back to the NMC, the lines with invalid content will be rejected and appropriate events will be logged.

### APDU11\*\*\*, APDU10\*\*\* with APDU9640NMC3, APDU9\*\*\*, AP8\*\*\*, AP7\*\*\*B, and AP71\*\*B (rPDU2g) Applications

- Synchronized outlet groups do not function when enabled over the network. They do function when enabled locally or when enabled through the **In/Out** ports.
- The data log may be cleared after updating firmware. The data log may be cleared when devices are added to or removed from the NPS group.

## Known Issues (Continued)

### APDU11\*\*\* and APDU10\*\*\* Rack PDU (upgraded with NMC3) rPDU2g Applications

- It is possible to configure a Rack PDU as an NPS host without a network connection if the Rack PDU has been configured with a static IP address. If one or more members of an NPS group have static IP addresses and you want to manually change the NPS host, the new host must have a network connection before changing the host.
- The Rack PDU does not warn the user when too many guest devices are connected to an NPS group. Up to 31 guest devices can be connected to an NPS group.
- If the clearing method for an outlet alarm action is set to **Auto**, outlets are automatically set to the non-action state when the alarm clears, regardless of their state before the alarm. For example, if the alarm action is **Off**, the outlets are turned on when the alarm clears, even if they were off before the alarm occurred.
- Reported device energy for metered-by-outlet devices is calculated as the sum of all outlet energy values. Resetting either the device energy or the outlet energy resets both values.
- The two sensor ports should not be connected to devices other than Schneider Electric sensor accessories. Refer to the user guide for a list of supported accessories. Connecting unsupported devices to these ports may damage the Rack PDU and/or the connected device.
- There is a label on the device providing values for **MAC1** and **MAC2**. **MAC1** is used for outgoing network connections and may appear on various interfaces. **MAC2** is reserved for the NPS feature and may not be provided by any application interfaces.
- If a Rack PDU in an NPS group loses power, its user-interfacing behavior can be maintained by receiving power from neighboring devices of the same type. If power is restored after this condition occurs, the display module reboots immediately. Outlet switch states are restored to their last known values after the reboot.
- It is possible to configure outlet power thresholds that do not respect the outlets' current ratings. The user is responsible for considering the practical implications of the configurations written to the device.

## Miscellaneous

### Additional Software and Documentation

You can download additional software and documentation from the Schneider Electric download center, [www.se.com/ww/en/download](http://www.se.com/ww/en/download).

1. Go to [www.se.com/ww/en/download](http://www.se.com/ww/en/download).
2. Click **Select Location**, then select your location from the provided list. You cannot download software or documentation until you specify your location.
3. Use the Search bar and the filter fields to find the needed file.

To find a document, enter the name or part number for your equipment in the Search bar. Then select **Installation & User Guides** under **Document Category**.

To find a firmware file, enter the name or part number for the firmware in the Search bar. Then select **Software & Firmware** under **Document Category**.

#### Software

- The Secure NMC System (SNS) Tool for Rack PDUs (SFNMC3SNST) upgrades the firmware on your Rack PDU. This is the only supported upgrade method for firmware version 3.x.x.x or later.
- The PowerNet MIB allows your SNMP manager to process messages from your Rack PDU.
- The Network Management Device IP Configuration Utility (the Utility) is a Windows® application designed specifically to remotely configure the basic TCP/IP settings of Network Management Cards (NMCs). The Utility runs on Windows Vista®, Windows XP®, Windows 2000, Windows 2003, Windows 7, Windows 8, Windows Server® 2008, and Windows Server 2012. The Utility is for IPv4 only.

To install the Utility, download the latest version of the utility from the Schneider Electric download center. Extract the zip file, then double-click `DevIPSetup.exe` to install the Utility. You can find instructions to use the Utility in the Utility interface under **Help**.

#### Documentation

- The Secure NMC System (SNS) Tool User Guide provides instructions on how to use the SNS Tool to upgrade your firmware.
- The PowerNet MIB Reference Guide explains the structure of the MIB, types of OIDs, and the procedure to define SNMP trap receivers. You can download the *PowerNet MIB Reference Guide* from [www.se.com](http://www.se.com).

For information on specific OIDs, use an MIB browser to view their definitions and available values directly from the MIB itself. You can view the definitions of traps at the end of the MIB itself (the file *powernet452.mib*).

- The *User Guide* for your Rack PDU provides comprehensive user instructions, including instructions to recover from a lost password.

## Event Support List

To obtain the event names and event codes for all events supported by a currently connected APC by Schneider Electric device, use FTP to retrieve the **config.ini** file from the Network Management Card (NMC):

1. Open a connection to the NMC, using its IP Address:  
ftp > open <ip\_address>
2. Log on using the Administrator user name and password.
3. Retrieve the **config.ini** file containing the settings of the NMC:  
ftp > get config.ini

The file is written to the folder from which you launched FTP.

To identify event codes, in the **config.ini** file, find the [EventActionConfig] section. In the list of events under that section heading, substitute 0x for the initial E in the code for any event to obtain the hexadecimal event code shown in the user interface and in the documentation. For example, the hexadecimal code for the code E0033 in the **config.ini** file (for the event “System: Configuration change”) is 0x0033.

## Hash Signatures

### Linux

#### snst\_3.0.0.4\_nmc3\_rpdu2g\_3.4.0.9.tar.gz

MD5 Hash	9b42db0fc5d0da73babad4ab51bb22f6
SHA-1 Hash	637b43a524ce6c1836ea2ccda282afdcf9c319e5
SHA-256 Hash	a680ffaa377099c95f4cdfaf2a4fbf0b92d9ce08a267e77e414a336f588f71ad

### macOS

#### snst\_3.0.0.4\_nmc3\_rpdu2g\_3.4.0.9.tar.gz

MD5 Hash	a7a50c0bf95064d8a28eb1eae254fe3d
SHA-1 Hash	dc9361b4fecad40dbb01b29416a99b2c24d35e5b
SHA-256 Hash	841b0335555659198bc222e9a7abd498c71b959dacf94414d1b93c91d5a642

### Windows

#### snst\_3.0.0.4\_nmc3\_rpdu2g\_3-4-0-9.exe

MD5 Hash	81cb6dc4867adee82cb8f6e12193d80e
SHA-1 Hash	cb39d859898cf3f57bbe30436988b484b6872bfc
SHA-256 Hash	a433997ce0423dd585b8bc7d513fcec70c06c56aeb8d48166636625b4aa0593