POWERMASTER-NPS2400

Configuration and diagnostic tool

User Manual



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1 Introduction

POWERMASTER-NPS2400 is a software tool used to configure and monitor the operation of NPS2400.

Reader of this document should be familiar with the mentioned product, at this purpose reading of the NPS2400 user manual is recommended.

With **POWERMASTER-NPS2400** the user can:

- Monitor the device status.
- Update the firmware.
- Read and write the device configuration.
- Read and write the configuration from/to a file.
- Read the logs.
- Read and write the logs from/to a file.

2 Installation

Simply run "SETUP-POWERMASTER-NPS2400-XX.exe" (where XX is replaced with the release number) and follow the instructions on the screen until the end of the installation process.

POWERMASTER-NPS2400 application can be installed on any PC running windows XP, windows 7 (32 and 64bits) or window 8 (32 and 64bits).

USB driver are bundled with **POWERMASTER-NPS2400** application. Install the application before connecting the device to the PC with USB.

3 Functional description

User can operate the application in two ways:

- Offline: This mode is active when the device is disconnected from the PC. The user can perform a limited number of activities, all activities that require the device connected are disabled.
- Online: This mode is active when the device is connected to the PC. The user can benefit of all the functionalities.

To connect the NPS2400 to the PC the CommBox (Communication Box) is mandatory. The CommBox must be inserted into the dedicated slot on the NPS2400 (see Figure 1) and plugged to the PC using the provided USB cable. Connect the main supply input to power on the device.



In case only single phase is available, it is possible to connect neutral and phase between L1 and L2 to power on the device. The DC output will not work and the under voltage alarm will be shown on the screen, but it will be possible to communicate with the device.

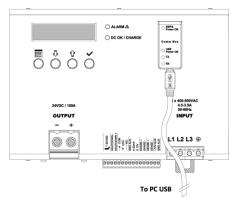


Figure 1: CommBox connection

There are 4 different activities that can be performed, each one related to a tab, as shown on Figure 2 and described later.

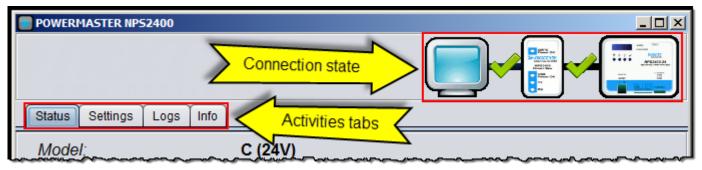


Figure 2: NPS2400 activities and connection state

The top of the page shows the connection state. Depending on the connection state the image changes as shown on the table below.

| PC – CommBox disconnected, CommBox – NPS2400 disconnected |
|---|
| PC – CommBox connected, CommBox – NPS2400 disconnected |

| | | PC – CommBox connected, CommBox – NPS2400 connected |
|--|--|---|
|--|--|---|

Table 1: NPS2400 connection state

3.1 Status

To view the connected device status select the "**Status**" tab as shown on Figure 3.

If the device is connected to the PC the fields are automatically read and updated once per second, otherwise the string "**Not connected**" is displayed.

| Statu | IS : | Settings | Logs | Info | | | | |
|-------|-------|-----------|-------------|--------|------------------|------------|--|-------------|
| Мо | del: | | | | C (24V) | | | |
| De | vice | name: | | | NPS2400 | | | |
| De | vice | S/N: | | | 1182400030 | | | |
| Ave | ərag | e output | t power | | 25W | | | |
| Ave | ərag | e outpu | t currei | nt: | 1A | | | |
| Ave | ərag | e tempe | erature. | | 50.5C | | | |
| Po | ver c | on cycle | S .' | | 70cycles | | | |
| Ope | erati | ing time | | | 7d 22h 28m 10s | | | |
| Far | 1 ор | erating t | ime: | | 6d 13h 26m 19s | | | |
| Far | n spe | eed (0-3 |) : | | 1 | | | |
| Inp | ut vo | oltage: | | | 393V | 320V | | 560V |
| Out | put | voltage: | | | 24.02V | 11V | | 29V |
| Out | put | current: | | | 0.0A | 0A | | 100A |
| Out | put | power: | | | 1W | ow | | 2400W |
| Inte | ernal | l temper | ature: | | 49.8°C / 121.7°F | 0°C / 32°F | | 115°C / 239 |
| Em | viron | nmental | tempe | rature | 19.8°C / 67.7°F | 0°C / 32°F | | 100°C / 212 |

Figure 3: NPS2400 status

3.2 Settings

This tab contains all the device settings, 4 buttons are available to the user:

- Read from device: Used to read the settings from the connected device. This button is enabled only if a device is connected.
- Write to device: Used to write the displayed settings to the connected device. This button is enabled only if a device is connected.
- Read from file: Used to read settings from previously saved file.
- Write to file: Used to write the displayed settings to a file. The file type is .xml.
- Read on connection: Select to automatically read settings on device connection.

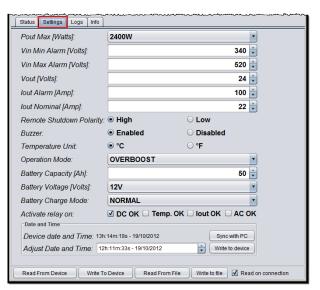


Figure 4: NPS2400 settings

3.3 Logs

The log panel shows the logs present on the device, 4 buttons are available to the user:

- Read from device: Used to read the logs from the connected device. This button is enabled only if a device is connected.
- **Read from file**: Used to read logs from a previously saved file.
- Write to file: Click to write the logs to a file. The file type is .xml.
- Export to excel: Click to export the logs in excel format.
- Read on connection: Select to automatically read logs on device connection.

| Description | Value | Time |
|-------------------------|-------|------------------------------|
| EVENT: POWER ON | | Fri, 19 Oct 2012 @ 10h54m19s |
| EVENT: POWER ON | | Thu, 18 Oct 2012 @ 11h53m37s |
| EVENT: POWER ON | | Mon, 01 Oct 2012 @ 09h48m19s |
| EVENT: POWER ON | | Wed, 26 Sep 2012 @ 12h15m31s |
| EVENT: POWER ON | | Mon, 24 Sep 2012 @ 14h57m40s |
| EVENT: POWER ON | | Mon, 24 Sep 2012 @ 13h50m44s |
| EVENT: POWER ON | | Mon, 24 Sep 2012 @ 13h49m12s |
| ALARM: OVER LOAD END | 13A | Fri, 21 Sep 2012 @ 14h49m17s |
| ALARM: OVER LOAD START | 10A | Fri, 21 Sep 2012 @ 14h48m53s |
| EVENT: POWER ON | | Fri, 21 Sep 2012 @ 14h47m01s |
| EVENT: POWER ON | | Tue, 18 Sep 2012 @ 10h11m51s |
| EVENT: POWER ON | | Mon, 17 Sep 2012 @ 13h51m12s |
| EVENT: POWER ON | | Thu, 13 Sep 2012 @ 10h43m02s |
| EVENT: POWER ON | | Thu, 13 Sep 2012 @ 08h07m06s |
| ALARM: OVER LOAD END | 15A | Wed, 12 Sep 2012 @ 16h17m08s |
| ALARM: OVER LOAD START | 11A | Wed, 12 Sep 2012 @ 16h16m57s |
| EVENT: POWER ON | | Wed, 12 Sep 2012 @ 16h11m37s |
| ALARM: PHASE LOSS END | | Wed, 12 Sep 2012 @ 16h07m35s |
| ALARM: PHASE LOSS START | | Wed, 12 Sep 2012 @ 16h07m31s |
| ALARM: OVER LOAD END | 153A | Wed, 12 Sep 2012 @ 16h03m29s |
| ERROR: SHORT CIRCUIT | | Wed, 12 Sep 2012 @ 16h03m25s |
| Read from device Read | | AD DOG 0040 O 40500 mode |

Figure 5: NPS2400 logs

3.4 Info

From the info panel user can view the firmware version, name and serial of the connected NPS2400. The "**Update**" button is used to update the device with a new firmware.

User can change the name of the device from this panel.

| Status Settings | |
|-----------------|---------------------------------------|
| | RMASTER S2400 |
| FW version: | v1.13 (latest available v1.18) Update |
| Name: | NPS2400C Change |
| Serial number | 121282400098 |
| Service mode | Disabled Enable |
| | |

Figure 6: NPS2400 info





The firmware is bundled with the executable. The application will automatically choose the latest firmware version and download it to the device.



If the update procedure fails the device will not work and the LCD screen stays off, but even from this status the device can be recovered. In this case please check the connection between the PC and the device. Ensure that the CommBox is well inserted into the NPS2400 slot and then launch the update procedure again.