

IPPC 12 no
(Internet Protocol Power Controller)



User's manual



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Contents

1. Preface.....	3
1.1. Features.....	3
2. Hardware specification.....	4
2.1. Supply	4
2.2. Outlets.....	4
2.3. Communication.....	4
2.4. Case.....	4
3. Software specification.....	5
3.1. TCP/IP.....	5
3.2. Serial interface.....	5
3.3. Access protection.....	5
4. Web server.....	6
4.1. Main page.....	6
4.2. Password configuration page.....	7
4.3. IP address configuration page.....	7
4.4. Email report configuration page.....	8
4.5. Outlet's names page.....	8
4.6. Power On sequence configuration	9
5. Telnet console.....	10
5.1. Command: login <user>.....	11
5.2. Command: logout.....	11
5.3. Command: reset outlet.....	11
5.4. Command: turn outlet ON/OFF.....	11
5.5. Command: outlet <outlet>.....	11
5.6. Command: setpass old_password new_password.....	11
5.7. Command: setuser old_username new_username.....	11
5.8. Command: setip <address netmask gateway>.....	12
5.9. Command: setmail <SMTP_adres sendto sendfrom>.....	12
5.10. Command: setoutlet numer <new_name>.....	12
5.11. Command: setdelay delay(0-10000ms).....	12
5.12. Command help <command>.....	12
6. Serial console.....	13
6.1. Command: setdef.....	13

1. Preface

IPPC12no controller allows to remotely control of supply connected devices via Internet network or locally by serial port. In order to access IPPC12no standard tools, such as web browser or telnet terminal, can be used. IPPC12no was designed to control servers' supply but it can be used in every case, where remotely access of devices' supply can save money or time.

Additionally “NO” version sequentially powers up connected devices which prevents power supplier's overloads (it is especially important in case of emergencies power supplies)

1.1. Features

- Provides controls for up to 12 devices' supply
- Power up sequence (prevents power supplier's overloads)
- Over-current and over-voltage protection
- Each outlet has power acknowledgments by LED indicator on the front panel.
- Web server with password protection (access via the standard web browser)
- Telnet terminal with password protection (access via standard telnet console)
- Serial port RS232 for locally control (access via standard serial console, modem etc.)
- Automatic report on state of the outlet
- User can define name of each outlet
- Standard 19" case

2. Hardware specification

2.1. Supply

Outlet.....IEC (“computer's”) „male”
Voltage.....230VAC
Maximal current.....10A

2.2. Outlets

Type.....IEC („computer's”) „female”
Number.....12
Outlet's voltage.....230VAC
Outlet's maximal current.....10A
Outlet's inrush current.....30A (standard) or 80A (v. inrush)
Device's max. current (sum of all outlet's current) – thermal protection.....10A
Device's max. current (sum of all outlet's current) – electromagnetic protection.....40A

2.3. Communication

Ethernet interface.....10Base-T, RJ-45
Serial interface.....RS232, D-SUB 9 „male”

2.4. Case

Dimensions.....432x200x44[mm]
Front panel width.....483[mm]

3. Software specification

3.1. TCP/IP

Default IP configuration:

IP address.....192.168.5.77
Network mask.....255.255.255.0
Gateway.....192.168.5.254

3.2. Serial interface

Baud rate57,6 kbps
Data bits.....8
Parity.....none
Stop bits.....1
Flow control.....none (3 wire cable)

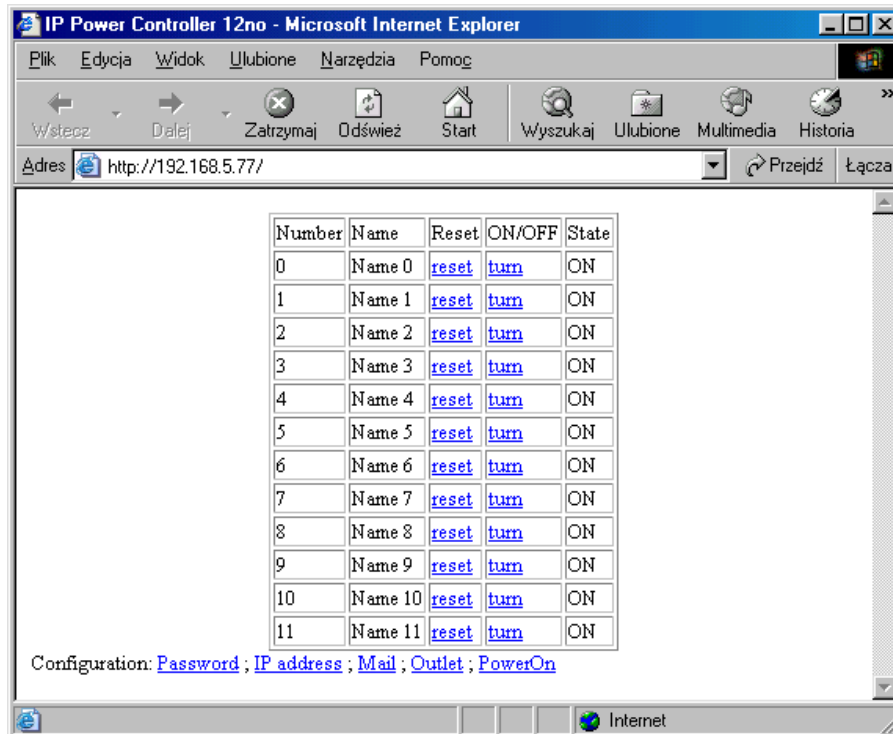
3.3. Access protection

In order to protect against unauthorized access both web server and telnet console are equipped with a protection mechanism with the aid of user name and password.

User's name„ippc”
Default password.....„pass”

4. Web server

4.1. Main page



Main page of IPPC12no allows to control each outlet. User can reset the outlet (supply is turned off for 5 seconds) or turn the outlet off and on constantly.

On the controller's main page there is also state of each outlet displayed. To refresh the page's content user should use the “refresh” button on the web browser.

Additionally on the bottom of the page there are links for the configuration pages.

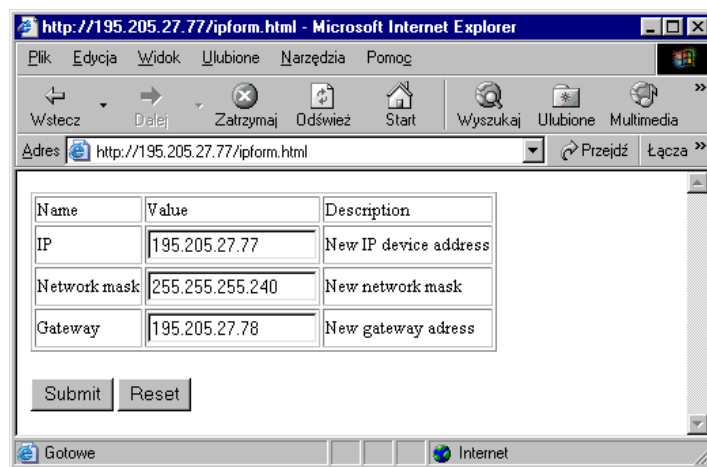
- Password configuration („Password”)
- IP address configuration („IP address”)
- Email reports configuration („Mail”)
- Outlets' names configuration („Outlet”)
- Power on sequence configuration („PowerOn”)

4.2. Password configuration page



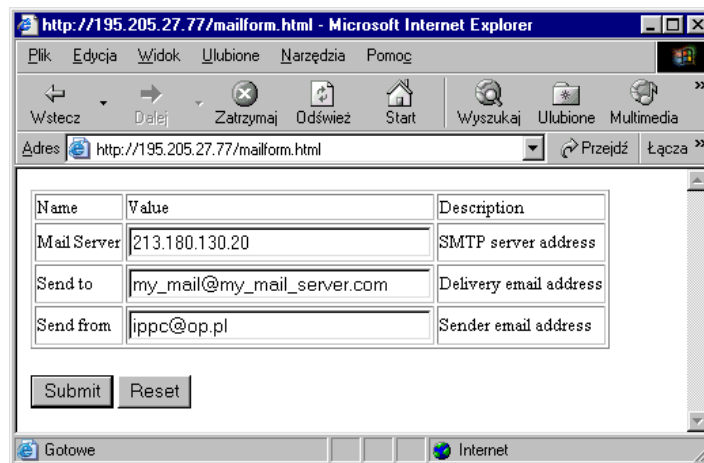
Password configuration page allows to set a new password and user name. The length of the password length is limited to 19 characters. After password and user name change, the web browser will ask for the user's name and for the new password. The password is stored in the non-volatile memory.

4.3. IP address configuration page



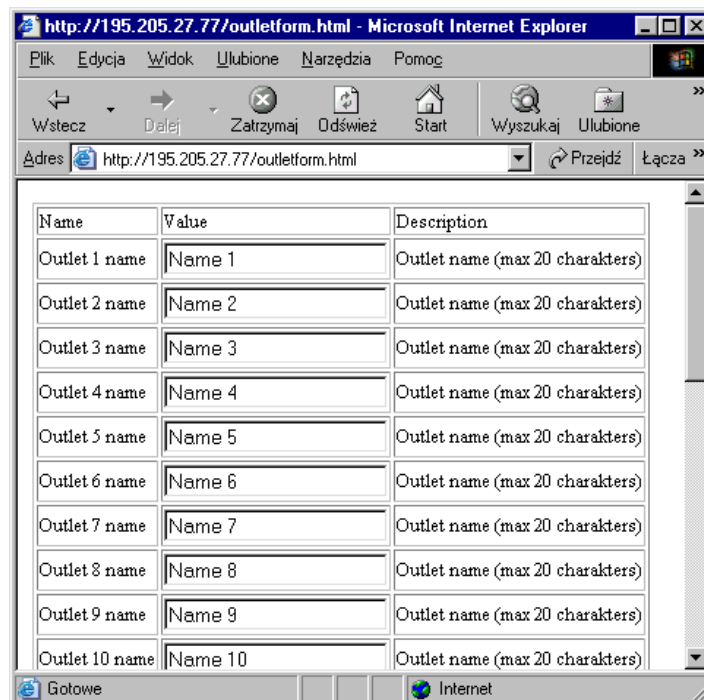
IP address configuration page allows to set the the new IP data: IP address, network mask and gateway address. After IP data change, the browser is automatically redirected to the new address. The IP data is stored in the non-volatile memory.

4.4. Email report configuration page



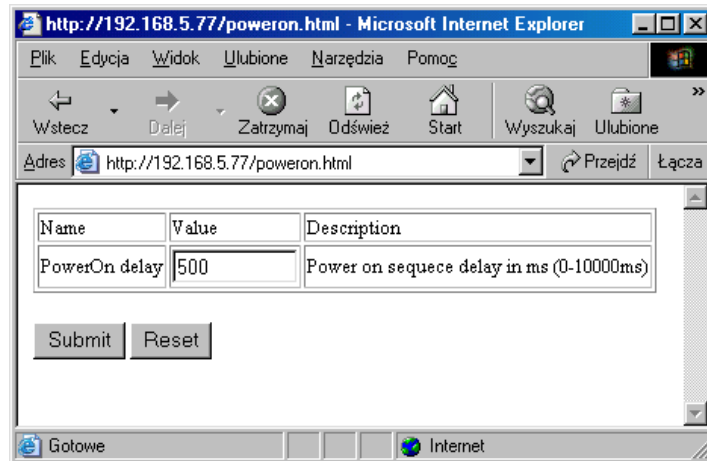
Each change in the state of outlets can effect an email report with action description. IPPC12no controller contains a buffer for 100 reports which are successively propagate. Email report configuration page allows to set the IP address of SMTP server and the email account of sender (IPPC12no controller) and email account of receiver. In order to switch off email report functionality user should set the empty SMTP IP address. Email configuration data is stored in the non-volatile memory.

4.5. Outlet's names page



In order to make the identification of connected devices easier user can define a name of each outlet. This names are also used in email reports mentioned above. Each outlet's name is limited to 20 characters. The names are stored in the non-volatile memory.

4.6. Power On sequence configuration

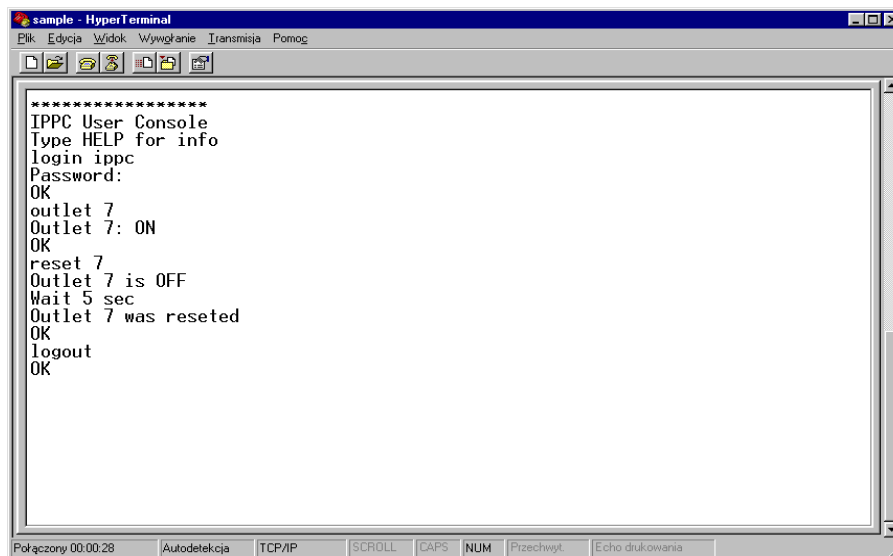


Power on sequence configuration page allows to set delay of each outlet's power on. It should prevents of power supplier's overloads. User can set delay value from 0 (all outlets are powered immediately) up to 10000ms (each outlet stats after 10s).

5. Telnet console

Telnet console is an alternative way to control IPPC12no. Telnet console support commands:

- login – starting console session
- logout – ending session ends
- reset – resetting the outlet (turning outlet's power down for 5 seconds)
- turn – permanently turning the outlet's power on and off
- outlet – showing the state of the outlet
- setpass – password configuration
- setuser – user name configuration
- setip – IP data configuration
- setmail – email reports configuration
- setoutlet – outlet's name configuration
- setdelay – power on sequence configuration
- help – help information about console commands



```
sample - HyperTerminal
Plik  Edycja  Widok  Wyygranie  Transmisja  Pomoc
*****
IPPC User Console
Type HELP for info
login ippc
Password:
OK
outlet 7
Outlet 7: ON
OK
reset 7
Outlet 7 is OFF
Wait 5 sec
Outlet 7 was reseted
OK
logout
OK
Połączony 00:00:28 | Autodetekcja | TCP/IP | SCROLL | CAPS | NUM | Przechwyty | Echo drukowania
```

A sample console session.

5.1. Command: login <user>

Login to the console (session start). Optional parameter should contain user name. The user will be asked for the password. If the command is used without parameter, controller will show the actual state of the session. If there is no action during 120 second, session will be automatically closed.

5.2. Command: logout

Session close.

5.3. Command: reset outlet

Reset the outlet (the outlet's power will be turned off for 5 seconds). Parameter should contain the outlet's number (0-11). This command is accessible for users logged in.

5.4. Command: turn outlet ON/OFF

Turn on and off the outlet permanently. Parameters should contain outlet's number (0-11) and action (ON/OFF). This command is accessible for users logged in.

5.5. Command: outlet <outlet>

Show the state of the outlet. Optional parameter should contain the outlet's number (0-11). If there is no parameter the controller shows state of all outlets.

5.6. Command: setpass old_password new_password

Password configuration. Parameters should contain both the old and the new password. This command is accessible for users logged in.

5.7. Command: setuser old_username new_username

User name configuration. Parameters should contain both the old and the new user name. This command is accessible for users logged in.

5.8. Command: *setip* <address netmask gateway>

IP data configuration. Optional parameters should contain: IP address, network mask and gateway address. If there is no parameters the controller shows current IP configuration data. After IP data change user will be asked to log in using the new address. This command is accessible for users logged in.

5.9. Command: *setmail* <SMTP_adress sendto sendfrom>

Email reports configuration. Optional parameters should contain: SMTP IP address, the email account of sender (IPPC12no) and email account of receiver. If command will be used without parameters, the controller will show current email configuration. This command is accessible for users logged in.

5.10. Command: *setoutlet numer* <new_name>

Outlet's name configuration. Obligatory parameter should contain the number of the outlet. Optional parameter should contain the new name of the outlet (maximal 20 characters). If there is no optional parameter, the controller will show the outlet's current name. This command is accessible for users logged in.

5.11. Command: *setdelay delay(0-10000ms)*

Power on sequence configuration. Obligatory parameter should contain delay of of each outlet's power on (0-10000ms). This command is accessible for users logged in.

5.12. Command *help* <command>

Display the helpful information about supported commands. Optional parameters should contain the name of the command. If the command will be used without the parameter, the controller will show a list of available commands.

6. Serial console

The serial console allows to locally access the IPPC12no controller. The remotely access is also available through the modem. The serial console supports all described commands and, additionally, supports the command “setdef”.

6.1. Command: *setdef*

This command resets all controller's settings to default values: password, IP data, email report data and the names of the outlets. This command can be helpful in case of loss of any important information (password, IP address etc.).