

**GE Digital Energy** 

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# USER MANUAL FOR SNMP INTERFACE CARD

(for firmware version 1.65 or higher)

Please read these instructions carefully before installation and use of the SNMP Interface Card. Keep this User manual in a safe place for future reference.

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# INTRODUCTION

### 1.1 Introduction

The SNMP/Web Interface is designed to presen information about the UPS on the network.

The interface provides the UPS information in two ways:

1

#### SNMP Agent

The SNMP information complies to the standard UPS-MIB which is defined in RFC1628. This format allows one or more NMSs (Network Management System) to monitor, manage and control the UPS.

In addition, IMV's network supports protection software (JUMPManager or Datashield), using this information to determine the status of the UPS and guarantee safe and orderly shutdown when necessary.

#### • Web Server

The UPS information is also available in HTML format. HTML is the basic language for internet communication. Every standard internet browser can be used to monitor and control the UPS using HTML from anywhere on the network or even from anywhere in the world when using the internet.



## **2** SPECIFICATION

# Here follows a short description regarding the different plugs present on the frontal panel of the card :



# **3 INSTALLATION**

3.1 Check if the card has the correct logical address. The logical address is installed trough the jumper JP5,JP6 in the following way :

	Logical Address [dec]	Jumper 5	Jumper 6
SNMP Card 0 <sup>(1)</sup>	84	Installed	Installed
SNMP Card 1	85	Installed	Not installed
SNMP Card 2	86	Not installed	Installed
SNMP Card 3	87	Not Installed	Not Installed

(1) Default setup



IMPORTANT : Attention for correct direction of the jumpers. NOTE :

- The setting of the jumper can be disabled with a specific configuration parameter (see ch. 4, parameters "O")
- The logical address is only important when more than one SNMP Card is installed on the same UPS system.
- 3.2 Install the SNMP card in option slot.

Important : all cables must be disconnected from the card during the installation.



- plate. Take care the plate does not fall inside the UPS !!!
- 2. Slide carefully the SNMP card into the Options slot.
- 3. Fix the frontal plate of the SNMP card to the UPS, using the screw included in the SNMP Interface Card kit.



- 2. Insert the SNMP card in the options slot.
- 3. Fix the frontal plate of the SNMP card to the connectivity box, using the screw included in the SNMP Interface Card kit.

3.3 Make all necessary connections (see architecture diagram in chapter 1).



3.4 Check that after a while (max. 20 sec.) the green led starts to blink. This means that the communication with the UPS is established.

# **4** CONFIGURATION METHODS

Configuration of the SNMP Card can be done in two ways: Via the network (section 4.1) or using a serial connected computer with a terminal emulation program (section 4.2). For full configuration of the SNMP-card from the network, a BOOTP or DHCP server must be avalable on the network.

### 4.1 Configuration over the network

The factory default way of retrieving an IP-address is by using DHCP.

On the card you will find a sticker with its MAC-address that needs to be configured in the BOOTP/DHCP server. After assigning the IP-address to this MAC-address in the BOOTP/DHCP server the card needs to be rebooted to retrieve this IP-address. For a reboot press the reset button on the card.

<u>NOTE</u>: the SNMP-Card recognizes a BOOTP-reply from the server only when this latter uses broadcast addressing for the destination on both the MAC and the IP address fields.

Configuration of the other parameters can be performed using either a telnet program or a Webbrowser.

The default loginname and password are both 'imv'. After having passed the login info the configuration screen will appear.

For security reasons we suggest to change the default loginname and password immediately!

Please proceed with chapter 5 (Telnet) or 6.2 (Web Browser).

#### 4.2 Configuration via a serial connection

Connect the SNMP card to the computer using a standard 1:1 serial cable.

Run a terminal simulator like Windows Terminal or Hyperterminal.

Configure your terminal simulator as follows:

9600 bps, 8 data bits, 1 stop bit, none parity check, none flow control. Terminal emulation: VT-100

Establish a connection and press <x>. The configuration screen will appear. Please proceed with chapter 5.

# **5** CONFIGURATION OPTIONS

The configuration screens of the telnet method and serial method are identical, while the configuration screens of the web server is a somewhat different (for more details about the web server please refer to chapter 6.2).

5.1 After having executed the steps in either 4.1 or 4.2 the following screen appears:

```
----<<Current config>>----<<Code vY.YY bZ.ZZ>>---[-]---[MAC=XX:XX:XX:XX:XX:XX]---
    [IP=0.0.0.0] [mask=255.255.255.0] [gateway=0.0.0.0]
                                                                        _____
1. boot-method = [dhcp]
2. ip-address = [0.0.0.0]
                                                            R. clear reset count [0]
                                                            T. ping
3. subnet mask = [255.255.255.0]
4. gateway = [0.0.0.0]
                                                            U. trap config
                                                            V. responsible e-mail
5. trap addresses = [0.0.0.0] [0.0.0.0] [0.0.0.0] [0.0.0.0]
6. trap community = [public] [public] [public] [public]
7. trap UDP port = [162] [162] [162] [162]
8. get-community = [public]
9. set-community = [public]
A. sys-contact = [The contact person for this agent]
B. sys-name = [The administrative name of the agent]
C. sys-location = [The physical location of the agent]
D. upsName
                      = [The administrative name of the connected UPS]
E. upsAttachedDev = [The type of equipment connected to the UPS]
F. snmpport = [161] H. telnet server = [on]
G. httpport = [80] I. http server = [on]
J. telnet/http username = [imv]
K. change telnet/http password L. update firmware M. MAC N. reboot
O. cardaddr = [0] P. upsaddr = [0] Q. logout S. ethernet = [Auto]
IMV>
```

```
The settings shown are the settings of the currenlyt active configuration.
```

Using the Telnet/Serial menu you can enter the necessary values in each field by typing the menu item number/character and then type the value of the selected parameters Also partial names which are unique are accepted:

Examples: IMV> 1

Choose boot-method (0=dhcp, 1=bootp, 2=configured ip/mask/gw) [2]: 0 [Enter] IMV>

- 5.2 Enter the necessary value in each field.
- 5.3 Press <N> to reboot the agent.
- 5.4 In case of configuration via a serial connection disconnect the RS232 cable from the SNMP Interface card.

### Explanation of configuration parameters

#### Please note:

All changes to the configuration will be effective only after having executed a reboot command ("N").

1. boot-method	
Syntax:	IMV> 1
,	Choose boot-method (0=dhcp, 1=bootp, 2=configured ip/mask/gw) [0]
	X [Enter]
Default:	0 (dhcp)
Parameters:	0 = dhcp -> The card obtains its dynamic IP-address from a DHCP server.
	1 = bootp -> The card obtains its static IP-address from the BOOTP server.
	2 = configured ip/mask/gw -> The card uses a static IP-address configured in its ROM (Parameters 2,3
	and 4, which follows).
Description:	Defines the way the SNMP plug in card boots and links itself up to the network.

2. ip-address	
Syntax:	IMV> 2
	Enter card ip [0.0.0.0]:
	XXX.XXX.XXX.XXX [Enter]
Default:	0.0.0.0
Description:	The static IP-address of the SNMP plug in card. Note: If BOOTP/ DHCP is used this value is ignored.

#### 3. submask mask

Syntax:	IMV> 3
	Enter netmask [255.255.255.0]:
	XXX.XXX.XXX [Enter]
Default:	255.255.255.0
Description:	The subnet the SNMP plug in card is situated in.
	Note: If BOOTP/DHCP is used AND the BOOTP/DHCP server provides the subnet mask, this value is ignored.

#### 4. gateway

Syntax:	IMV> 4
-	Enter gateway [0.0.0.0]:
	XXX.XXX.XXX [Enter]
Default:	0.0.0.0
Description:	The IP-address of the default gateway (default router).
	Note: If BOOTP/DHCP boot-method is used AND the BOOTP/DHCP server provides the IP-address to
	the default gateway this value is ignored.

5. traps addre	esses
Syntax:	IMV> 5
•	Enter trap 1 ip [0.0.0.0]:
	XXX.XXX.XXX.XXX [Enter]
	Enter trap 2 ip [0.0.0.0]:
	XXX.XXX.XXX.XXX [Enter]
	Enter trap 3 ip [0.0.0.0]:
	XXX.XXX.XXX.XXX [Enter]
	Enter trap 4 ip [0.0.0.0]:
	XXX.XXX.XXX.XXX [Enter]
Default:	[0.0.0.0] [0.0.0.0] [0.0.0.0]
Description:	Specifies the destination IP-addresses of Network Management Stations traps have to be sent to. A
	maximum of 4 trap addresses can be defined.
	To disable a trap, specify [0.0.0.0] as address.

6. traps comm	unity
Syntax:	IMV> 6
	Enter trap 1 community [public]:
	XXXXXXX [Enter]
	Enter trap 2 community [public]:
	AAAAAAA [EIIIEI]
	XXXXXXX [Enter]
	Enter trap 4 community [public]:
	XXXXXXX [Enter]
Default:	[public] [public] [public]
Description:	Specifies the community names of Network Management Stations traps are sent to.

7. traps UDP po	ort
Syntax:	IMV> 7
	Enter trap 1 UDP port [162]:
	XXXXXXX [Enter]
	Enter trap 2 UDP port [162]:
	XXXXXXX [Enter]
	Enter trap 3 UDP port [162]:
	Enter tran 4 LIDP port [162]
	XXXXXXX [Enter]
Default :	[162] [162] [162]
Description:	Assign the UDP port-number to every trap destination previously defined.
8. get-commun	ity
Syntax:	IMV>8
	Enter get-community [public]:
Defeult	XXXXXXX [Enter]
Default:	PUBLIC SNMP community name (password) to read SNMP LIPS information from the SNMP plug in card
Description.	Similar community name (password) to read Similar or Simoniation nom the Similar plug in card.
9. set-communi	ity
Syntax:	IMV> 9
	Enter set-community [public]:
Defeult	XXXXXXX [Enter]
Default:	PUDIIC SNMP community name (password) to write SNMP LIPS information to the SNMP plug in card
Description.	Similar community name (password) to write Similar of Simolination to the Similar plug in card.
A. sys-contact	
Syntax:	IMV> A
	Enter sys-contact [The contact person for this agent]:
	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Default:	The contact person for this agent
Description:	I ne contact person for this agent
B. sys-name	
Syntax:	IMV> B
	Enter sys-name [The administrative name of the agent]:
	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Default:	The administrative name of the agent
Description:	The administrative name of the agent
C. sys-location	
Syntax:	IMV> C
	Enter sys-location [The physical location of the agent]:
	XXXXXXXXXXXXXX [Enter]
Detault:	The physical location of the agent
Description:	The physical location of the agent

<i>D. upsName</i> Syntax:	IMV> D Enter upsName [The administrative name of the connected UPS]:
Default: Description:	The administrative name of the connected UPS The administrative name of the connected UPS
<i>E. upsAttached</i> Syntax:	Dev IMV> E Enter upsAttachedDev [The type of equipment connected to the UPS]: XXXXXXXXXXXXXXX [Enter]
Default: Description:	The type of equipment connected to the UPS The type of equipment connected to the UPS
<i>F. snmpport</i> Syntax:	IMV> F Enter snmp port [161]: XXX [Enter]
Default: Description:	[161] Specifies the SNMP plug in card's UDP communication port number.
<i>G. httpport</i> Syntax:	IMV> G Enter http port [80]: XXX [Enter]
Default: Description:	[80] Specifies the SNMP plug in card's HTTP communication port number.
<i>H. Telnet serve</i> Syntax:	r IMV> H Telnet server (0=off 1=on) [1]: X [Enter]
Default: Description:	1=on Enables (on) or disables (off) configuration via telnet.
<i>I. Http server</i> Syntax:	IMV> I Http server (0=off 1=on) [1]: X [Enter]
Default: Description:	1=on Enables (on) or disables (off) configuration via web browser.
<i>J. Telnet/Http u</i> Syntax:	sername IMV> J Enter new username [imv]:
Default: Description:	imv Username for protects the SNMP card from unauthorised access via http or telnet session.
K. Change Telr Syntax:	net/Http password IMV> K Enter new passwd [to keep current passwd just press enter]: XXXXX [Enter] Re-enter new passwd:
Default: Description:	XXXXX [Enter] imv Password for protects the SNMP card from unauthorised access via http or telnet session.
<i>L. Update firmw</i> Syntax:	vare IMV> L FTP Server Ready. Ftp the image and press Enter. [When the new release of the software has been transferred to the card using FTP protocol
Description:	press Enter. For more details see chapter 5] Enable and start the FTP server to update the firmware.

<i>M. MAC</i> Syntax:	IMV> M
Description:	Each card has unique MAC address. This value may be changed only by IMV. If you need to change it, contact IMV support. Press Enter to continue. It is possible to change the MAC address only if the IMV support is called. The IMV support give you the necessary instruction to make this change.
<i>N. reboot</i> Syntax: Description:	IMV> N Reboots the SNMP plug to activate the changes made to the configuration and exit from the current configuration session.
<i>O. CardAddr</i> Syntax:	IMV> O Enter card logical address (0=autoselect) [0]: XX [Enter]
Default: Description:	0 = autoselect This is the logical address of the card and, when different from zero, overrides the jumper setting. The valid range for this value is [8487]. See ch. 2.1.
<i>P. UpsAddr</i> Syntax: Default : Description:	IMV> P Enter ups logical address (0=autoselect) [0]: 0 = autoselect This is the logical address of the UPS. This address can be detected automatically if this parameter is
Q. logout	set to zero.
Syntax: Description: Note:	IMV>Q Quit (log out) Logout from the current configuration session. Some configuration parameters can be lost when they haven't been stored with the reboot command ("N").
<i>R. Clear reset o</i> Syntax: Description:	<i>count</i> IMV>R Clear the reset counter, which holds the number of times the board has been resetted.
<i>S. Ethernet</i> Syntax:	IMV> S Ethernet mode (0=Auto, 1=10/100TP, 2=10TP/BNC, 3=BNC, 4=100TP, 5=10TP) [0]: X [Enter]
Default: Description:	<ul> <li>0 = Auto</li> <li>Defines how the board should detect the correct Ethernet interface.</li> <li>Setting this parameters to zero (0), forces a full autodetection</li> <li>Setting this parameters to one (1), restricts the detection to the RJ45 connector (10 BASE-T or 100 BASE-TX)</li> <li>Setting this parameters to two (2), restricts the detection to 10 Mbits (10 BASE-T or BNC)</li> <li>Setting this parameters to 3.4 or 5 the board refrains from autodetection and imposes the specific</li> </ul>
<i>T. UpsAddr</i> Syntax:	interface and speed. IMV> T Enter IP of host to ping:
Description:	X.X.X.X [Enter] Ping the corresponding address TCP/IP.
<i>U.Trap Config</i> Syntax:	IMV>U RFC traps (sent always from ups 0) (0 = off 1 = on) [0] : X [Enter] IMV Traps sent from ups 0 (0 = off 1 = on) [0] : X [Enter] IMV Traps sent from ups 1 (0 = off 1 = on) [0] : X [Enter] IMV Traps sent from ups 2 (0 = off 1 = on) [0] : X [Enter]

IMV Traps sent from ups 3 (0 = off 1 = on) [0]:<br/>X [Enter]IMV Traps sent from ups 4 (0 = off 1 = on) [0]:<br/>X [Enter]IMV Traps sent from ups 5 (0 = off 1 = on) [0]:<br/>X [Enter]IMV Traps sent from ups 6 (0 = off 1 = on) [0]:<br/>X [Enter]IMV Traps sent from ups 7 (0 = off 1 = on) [0]:<br/>X [Enter]IMV Traps sent from ups 8 (0 = off 1 = on) [0]:<br/>X [Enter]IMV Traps sent from ups 8 (0 = off 1 = on) [0]:<br/>X [Enter]IMV Traps sent from ups 8 (0 = off 1 = on) [0]:<br/>X [Enter]Default:<br/>Description:all traps disabled<br/>Description:Enabled/Disabled the sent of trap for a specified UPS.

#### V. Responsible E-Mail

Syntax:	IMV>V
	Enter responsible e-mail : [yourname@yourservicedepartement.com]:
	XYZ [Enter]
Default:	yourname@yourservicedepartement.com
Description:	The E-Mail address of the responsible person for this agent.

### 6.1 SNMP Agent

The SNMP agent can be used for two applications:

• NMS (Network Management Software)

The card allows you to monitor a UPS with any NMS (eg. Tivoli, HP-Openview or CA Unicenter) to detect and react on any status change of the UPS. For this type of application the card needs to be configured to send traps to the computer on which the NMS runs. Up to four different trap addresses are configurable.

#### • Protection software

Besides from monitoring a locally connected UPS, protection software can also monitor the status of a UPS via the network when it has an SNMP agent installed. This creates the ability to configure very flexible protection schemes.

A typical example is an application server which is depending on a database server. The protection software on the application server will detect a power failure on the database server and will start to close all database connections before the database server shuts itself down.

#### 6.2 Web Server

The built-in web server functionality enables the user to monitor and control the UPS using a standard internet browser. The offered information of the web server gives a complete and detailed status overview in a very user friendly way. Besides, measurement values of the UPS and complete configuration can be done via the web browser.

### 6.2.1 Login and UPS Identification web page

To establish a connection with the Web Interface of the SNMP Interface card, open your web browser and enter the TCP/IP address of the card in the address line of your browser.

If the connection is established successfully, a screen very similar to the one below, will appear:

Welcome to GE SNMP/Web Card - Microsoft Internet Explorer	JØ X
Ele Bodifica Youakza Breferiti Strumenti 2	10
🖓 Indetro 🔹 🔿 🖉 🕼 🕼 Cerca 🖬 Preferiti 🥨 Cronologia 🗳 📲 🐨 👘	
Indirizzo 🖉 http://3.69.26.28	💌 🖓 Vai 🛛 Collegamenti 🍽
	*
8	
GE Digital Energy	
Welcome to The administrative name of the agent WEBServer	
This server will give you access to most of the SNMP card functionality using only your browser. All you need to do is to log in:	
Login	
GE Digital Energy Copyright 2002	
n	Transat

To see the details of the UPS, click in the "Login" button and enter the user loginname and password.

The default loginname and password are both 'imv'. For security reasons we suggest to change the default loginname and password immediately!

Password	di rete	<u>?×</u>				
<b>?</b> >	Immettere il nome utente e la password.					
۹ ال	Sito: 3.69.26.28					
	Area autenticazione SNMP/Web card					
	Nome utente					
	Password					
	Salva la password nell'elenco delle password					
	OK Ann	ulla				

After having passed the login info, the "UPS indentification" web page will appear. The page that appears will show some basic information regarding the UPS and the SNMP interface card.

File Modifica Youaloza Preferiti	Strumenti 2		
vindetro • → · 🔘 🔄 🖨	QCerca El Preferiti Coronologia	4 z - E	
Ingirizzo ani http://3.69.26.25/mv.htm	2		💌 🔗 Val 🛛 Collegamenti M
۵	Network Setting IP address	3.69.26.28	
GE Digital Energy	Subnet mask Default gateway	255.255.254.0 0.0.0.0	
UPS Identification UPS Details	Identification Group Manufacturer Model UPSsoftwareVersion	GE Sitepro 1.0.0.5	
UPS Alarms UPS Tests	AgentsoftwareVersion UPSName	D.65 The administrative name of the card	Apply
UPS Control	AttachedDevice ResponsibleEMail	The type of equipment connected yourname@yourservicedepartement.com	Apply
UPS Configuration Agent Configuration Trap Configuration	System Group SysDescription SysUpTime SysContact SysName	GE SNMP/Web card 0 days 0 hours 1 mins. 32 secs. The contectperson for this agent The administrative name of the agent	Apply Apply
Special Functions	SysLocation	The physical location of the agent	Apply
1 Occur stricts consider its	GE Digital Energy Copyright 2	8002	

Certain values in the web page, due to different hardware structures of the UPS's, cannot be displayed, in this case the field of this value is filled with the string "Not available" or "N/A" :

Networks Setting IP address : Subnet mask : Default gateway : Identification	The static IP-address of the SNMP plug in card. The subnet the SNMP plug in card is situated in. The IP-address of the default gateway (default router).
group	
Manufacturer :	The name of the UPS manufacturer.
Model :	The UPS Model designation.
UPS Software Agent :	The UPS firmware/software version(s).
Agent Software Version :	The UPS agent software version.
UPS Name :	The administrative name of the connected UPS
Attached Device :	The type of equipment connected to the UPS
Responsible E-Mail :	The E-Mail address of the responsible person for this agent.
System Group	
SysDescription :	A textual description of the entity. This value should include the full name and version identification of the system's hardware type, software operating-system, and networking software."
SysUpTime :	The time since the network management portion of the system was last re-initialized.
SysContact :	The contact person for this agent
SysName :	The administrative name of the agent
SysLocation :	The physical location of the agent

WARNING : Every time a change is made, remember to click onto the appropriate "Apply" button to confirm the change. Contrary if this "Apply" button has not been clicked, the change has no effect and when the web page is reloaded the old value appears. If, after having confirmed the change, a error pop-up appears, means that the UPS cannot accept this change at all, or perform this change at this moment.

The Web Interface includes different web pages To switch from one page to the other click simply with the mouse in the header indentifier of the desired page. For instance to see the details of the UPS, click in the "UPS Details" header indentifier (string).

Meaning of the different header identifiers:

UPS Identification :	Gives some basis information regarding the UPS and the SNMP
	Interface Card.
UPS Details :	Shows all details regarding the UPS (battery voltage, input voltage,)
UPS Alarms :	Shows the alarms (Events) of the UPS
UPS Tests :	Give the possibility to make some events in the UPS
UPS Control :	Shows or changes the parameters regarding the shutdown
UPS Configuration :	Shows or changes the parameters regarding the configuration of the battery, input,
Agent Configuration :	Shows or changes the parameters regarding the configuration of the agent (TCP/IP, submask,).
Trap Configuration :	Shows or changes the parameters regarding the configuration of the trap (TCP/IP trap, Trap UDP port, enabled/disabled trap,).
Special Function :	Offers the possibility to reboot or upgrade the firmware of the agent

### 6.2.2 UPS Details web page

Clicking in the header identifier page "UPS Details" a similar screen will appear :

drizzo 🛃 http://3.69.26.28/inv.htm	i?				▼ P(Val Col
0	Battery	Group			
w later	BatteryS	tatus	unknown		
GE Digital Energy	Seconds	DnBattery	0 sec.		
	Estimate	dMinuteRemain	15 min.		
	Estimate	dChargeRemain	10%		
UPS Identification	BatteryV	oltage	422.0 Volt	DC	
UPS Details	BatteryC	urrent	10.0 AMP D	G	
	Battery	emperature	25 Celsius		
UPS Alarms	Input G	roup			
UPS Tests	Phase	Frequency	Voltage	Current	TruePower
	1	50.0 Hertz	380 V	10.0 A	10000 Watts
UPS Control	2	50.0 Hertz	380 V	10.0 A	10000 Watts
UPS Configuration	3	50.0 Hertz	380 V	10.0 A	10000 Watts
	Transit Inc.				
	InputLine	Bads	20		
Agent Configuration	InputLine	Bads	20		
Agent Configuration	Output	Bads:	20		
Agent Configuration Trap Configuration	Output	Bads Group Voltage	20 Current	Power	Load
Agent Configuration Trap Configuration Special Functions	Output Output	Bads Group Voltage 228 V	20 Current 15.0 A	Power 6666 Watts	Load 56%
Agent Configuration Trap Configuration Special Functions	Output Phase	Bads Group Voltage 228 V 228 V	20 Current 15.0 A 15.0 A	Power 6666 Watts 50000 Watts	Load 56% 56%
Agent Configuration Trap Configuration Special Functions	Output Phase	Voltage         228 V           228 V         228 V           228 V         228 V	20 Current 15.0 A 15.0 A 15.0 A	Power 6666 Watts 50000 Watts 100000 Watts	Load 56% 56% 56%
Agent Configuration Trap Configuration Special Functions	Output Phase 1 2 3 OutputSo	Bads Group Voltage 228 V 228 V 228 V 228 V	20 Current 15.0 A 15.0 A 15.0 A	Power 6666 Watts 50000 Watts 100000 Watts	Load 56% 56% 56%
Agent Configuration Trap Configuration Special Functions	Output Phase 1 2 3 OutputSc OutputFr	Bads Group Voltage 228 V 228 V 228 V 228 V 228 V 228 V	20 Current 15.0 A 15.0 A 15.0 A normal 50.0 Hertz	Power 6666 Watts 50000 Watts 100000 Watts	Load 56% 56% 56%
Agent Configuration Trap Configuration Special Eunctions	Output C Phase 1 2 3 OutputSo OutputFr	Bads Group Voltage 228 V 228 V 228 V 228 V 228 V 228 V purce sequency	20 Current 15.0 A 15.0 A 15.0 A normal 50.0 Hertz	Power 6666 Watts 50000 Watts 100000 Watts	Load 56% 56% 56%
Agent Configuration Trap Configuration Special Functions	Output of Phase 1 2 3 Outputso Outputso Outputso Outputso	Bads Group 228 V 228 V 228 V 228 V burce equency Group	20 Current 15.0 A 15.0 A 15.0 A normal 50.0 Hertz	Power           6666 Watts           50000 Watts           100000 Watts	Load 56% 56% 56%
Agent Configuration Trap Configuration Special Functions	Output of Phase 1 2 3 Outputso Outputso Outputso Outputso Outputso	Bads Group Voltage 228 V 228 V 228 V 228 V curce equency Group Voltage	20 Current 15.0 A 15.0 A 15.0 A normal 50.0 Hertz	Power 6666 Watts 50000 Watts 100000 Watts	Load 56% 56% 56%
Agent Configuration Trap Configuration Special Functions	Output       Phase       1       2       3       OutputSc       OutputSc       OutputSc       Phase       1	Bads Group 228 V 228 V 228 V 228 V Surce equency Group Voltage 230 V	20 Current 15.0 A 15.0 A 15.0 A nernal 50.0 Hertz Cu 22	Power           6666 Watts           50000 Watts           100000 Watts	Load 56% 56% 56% 56%
Agent Configuration Trap Configuration Special Functions	Output of Phase 1 2 3 OutputSo OutputSo OutputSo OutputSo OutputSo OutputSo OutputSo OutputSo	Bads Group Voltage 228 V 228 V 228 V 228 V Group Voltage 230 V 230 V 230 V	20 Current 15.0 A 15.0 A 15.0 A 15.0 A nemsil 50.0 Hertz Cu 20 20 20 20 20 20 20 20 20 20	Power           6666 Watts           50000 Watts           100000 Watts	Load 56% 56% 56% 56%
Agent Configuration Irap Configuration Special Functions	Output of Phase 1 2 3 OutputSe OutputFr Bypass Phase 1 2 3	Bads Group Voltage 228 V 228 V 228 V 228 V Group Voltage 230 V 230 V 230 V 230 V	20 Current 15.0 A 15.0 A normal 50.0 Hertz Cu 20 20 20 20 20 20 20 20 20 20	Power           6666 Watts           50000 Watts           100000 Watts           0.0 A           .0 A	Load 56% 56% 56% 56% 15000 Watts 15000 Watts 15000 Watts

#### Meaning of the different fields present at the UPS Details page :

Battery Group	
Battery Status :	Indication of the remaining capacity in the UPS system's batteries. A value of battery Normal indicates that the remaining run-time is greater than LowBattTime (see UPS configuration page). A value of battery Low indicates that the remaining battery run-time is less than or equal to Low BattTime (see UPS configuration page). A value of battery Depleted indicates that the UPS will be unable to sustain the present load when and if the utility power is lost (including the possibility that the utility power is currently absent and the UPS is unable to sustain the output).
Second On battery :	If the unit is on battery power, the elapsed time since the UPS last switched to battery power, or the time since the network management subsystem was last restarted, whichever is less. Zero shall be returned if the unit is not on battery power.
EstimatedMinuteRemain :	An estimate of the time to battery charge depletion under the present load conditions if the utility power is off and remains off, or if it were to be lost and remains off.
EstimatedChargeRemain	An estimate of the battery charge remaining, expressed as a percent of full charge.
Battery voltage :	The value of the present battery voltage.
Battery current :	The present battery current.
Battery temperature :	The ambient temperature at or the temperature close to the UPS Battery.
Input Group	
Phase :	The input line identifier.
Frequency :	The present input frequency.
Voltage :	The magnitude of the present input voltage.
Current :	The magnitude of the present input current.
Irue Power :	The magnitude of the present input true power.
Bad input Line :	manufacturer. This count is incremented by one each time the input transitions from zero out-of- tolerance lines to one or more input lines out-of-tolerance.
Output Group	
Phase :	The output line identifier.
Voltage :	The magnitude of the present output voltage.
Current :	The magnitude of the present output current.
Power :	The present output true power.
Load :	The percentage of the UPS power capacity presently being used on this output line.
Output Source :	The present source of output power. The enumeration none indicates that there is no source of output power (and therefore no output power), for example, the system has opened the output breaker.
Output frequency :	The present output frequency.
Bypass Group	
Phase :	The bypass line identifier.
Voltage :	The present bypass voltage.
Current :	The present bypass current.
Power :	The present true power conveyed by the bypass.
Bypass Frequency :	The present bypass frequency.

### 6.2.3 UPS Alarms web page

Clicking in the header identifier page "UPS Alarms" a similar screen will appear :

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0	Alarm Group			
~	AlarmPresent	3		
GE Digital Energy	Communication	ok		
JPS Identification	Alarm ID	Duration	Alarm ID	Duration
JPS Details	BatteryBad	0 sec.	OnBattery	0 sec.
IDS Alarms	LowBattery	0 sec.	DepletedBattery	6926 sec.
DP3 Midritis	TempBad	0 sec.	InputBad	0 sec.
JPS Tests	OutputBad	6926 sec.	OutputOverload	6926 sec.
JPS Control	OnBypass	0 sec.	BypassBad	0 sec.
JPS Configuration	OutputOffAsRequested	0 sec.	UpsOffAsRequested	0 sec.
Agent	ChargerFailed	0 sec.	UpsOutputOff	0 sec.
Configuration	UpsSystemOff	0 sec.	FanFailure	0 sec.
Trap Configuration	FuseFailure	0 sec.	GeneralFault	0 sec.
Pagial Europtions	DiagnosticTestFailed	0 sec.	CommunicationLost	0 sec.
special Functions	AwaitingPower	0 sec.	ShutdownPending	0 sec.
	ShutdownImminent	0 sec.	TestInProgress	0 sec.
	ReceptacleOff	0 sec.		

Meaning of the different fields shown on the UPS Alarms page :

Alarm Group	
Alarm present :	The present number of active alarm conditions.
Communication :	The state of the communication with the UPS and the SNMP interface card. If this field is "ok" the card is communicating with the UPS, contrary with "failed" there is no communication between SNMP Interface card and UPS.
Alarm ID :	The name of the present alarm. When the box is red the alarm is activated, contrary when its white the alarm is inactive. The gray colors of the box means that this alarm is not supported by the UPS
Duration :	The time passed since the alarm has been activated.

### 6.2.4 UPS Tests web page

Clicking in the header identifier page "UPS Tests" a similar screen will appear :

Web/SNMP Interface - Microso	oft Internet Explorer						_ 8 ×
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🍪 GE Digital Energy	Test Group TestId TestResultsSummary		NoTestsInit doneWarnin	iated Ig			
	TestInit	QuickBatteryTest	•	Apply			
UPS Identification							
<u>UPS Details</u>	GE Digital Energy Copyright 2002						
<u>UPS Alarms</u>							
UPS Tests							
UPS Control							
UPS Configuration							
Agent Configuration							
Trap Configuration							
Special Functions							
Dperazione completata	•				👌 Inte	rnet	

Meaning of the different fields shown at the UPS Tests page :

Test Group	
Test ID :	Shows the name of the test in progress if a test is in progress or the name of the last test performed, if no test is in progress, unless no test has been run, in which case the value NoTestsInitiated is returned.
Test Result Summary :	The results of the current, or last UPS diagnostics test performed. The values for donePass,doneWarning, and doneError indicate that the test was completed either successfully, with a warning, or with an error, respectively. The value aborted is returned for tests which are aborted by setting the value TestInit to AbortTestInProgress. Tests which have not yet concluded are indicated by inProgress. The value noTestsInitiated indicates
	that no previous test results are available, such as is the case when no tests have been run since the last reinitialization of the network management subsystem and the system has no provision for non-volatile storage of test results.
Test Init :	<ul> <li>Gives the possibility to choose between four different actions that the UPS could perform :</li> <li>QuickBatteryTest : A test sufficient, to determine if the battery needs replacement.</li> <li>Abort Test In Progress : The test in progress has to be aborted.</li> <li>GeneralSystemTest : The manufacturer's standard test of UPS device systems.</li> <li>DeepBatteryCalibration : The system is placed on battery to a discharge level, set by the manufacturer, sufficient to determine battery replacement and battery run-time with a high degree of confidence. WARNING: this test will leave the battery in a low charge state and will require time for recharging to a level sufficient to provide normal battery duration for the protected load.</li> </ul>
	NOTE : Only after clicking in the "Apply" button the UPS starts to perform the action.

### 6.2.4 UPS Control web page

Clicking in the header identifier page "UPS Control" a similar screen appears :

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→Indetro - → - 🕼 🖞 🕼 🕄 Cerca 🗟 Preferiti 🥥 Connologia 🗳 - 🎯 🖾 - 🔄						
Ingirizzo 11 http://3.69.26.28/mv.htm?			💌 🔗 Val 🛛 Collegamenti ×			
GF Dinital Energy	Control Group ShutdownAfterDelay	-1	Apply			
- Digital Energy	StartupAfterDelay RebootWithDuration	-1	Apply			
UPS Identification	ShutdownType	output 💌	Apply			
UPS Details	AutoRestart	on 💌	Apply			
UPS Alarms	GE Digital Energy Copyright 20	02				
UPS Tests						
UPS Control						
UPS Configuration						
Agent Configuration						
Trap Configuration						
Special Functions						
Ð	1		👩 Internet			

Meaning of the different fields present at the UPS Tests page :

#### Control Group

Shutdown After Delay:	Setting this object will shutdown (i.e., turn off) either the UPS output or the UPS system (as determined by the value of ShutdownType at the time of shutdown) after the indicated number of seconds, or less if the UPS batteries become depleted. Setting this object to 0 will cause the shutdown to occur immediately. Setting this object to -1 will abort the countdown. If the system is already in the desired state at the time the countdown reaches 0, then nothing will happen. That is, there is no additional action at that time if upShutdownType = system and the system is already off. Similarly, there is no additional action at that time if upShutdownType = output and the output is already off. When the page is refreshed, the ShutdownAfterDelay will return the number of seconds remaining until shutdown, or -1 if no shutdown countdown is in effect. Sets to this object overrides any ShutdownAfterDelay already in effect.
Startup After Delay :	Setting this object will start the output after the indicated number of seconds, including starting the UPS, if necessary. Setting this object to 0 will cause the startup to occur immediately. Setting this object to -1 will abort the countdown. If the output is already on at the time the countdown reaches 0, then nothing will happen. Settings to this object override the effect of any StartupAfterDelay countdown or RebootWithDuration countdown in progress. When the page is refreshed, StartupAfterDelay will return the number of seconds until startup, or -1 if no startup countdown is in effect. If the countdown expires during a utility failure, the startup shall not occur until the utility power is restored.
Reboot with Duration :	Setting this object will immediately shutdown (i.e., turn off) either the UPS output or the UPS system (as determined by the value of ShutdownType at the time of shutdown) for a period equal to the indicated number of seconds, after which time the output will be started, including starting the UPS, if necessary. If the number of seconds required to perform the request is greater than the requested duration, then the requested shutdown and startup cycle shall be performed in the minimum time possible, but in no case shall this require more than the requested duration plus 60 seconds. When the page is refreshed, RebootWithDuration shall return the number of seconds remaining in the countdown, or -1 if no countdown is in progress. If the startup should occur during a utility failure, the startup shall not occur until the utility power is restored.
Shutdown Type :	This object determines the nature of the action to be taken at the time when the countdown of the ShutdownAfterDelay and RebootWithDuration objects reaches zero. Setting this object to output indicates that shutdown requests should cause only the output of the UPS to turn off. Setting this object to system indicates that shutdown requests will cause the entire UPS system to turn off.
Auto Restart :	Setting this object to 'on' will cause the UPS system to restart after a shutdown if the shutdown occurred during a power loss as a result of either a ShutdownAfterDelay or an internal battery depleted condition. Setting this object to 'off' will prevent the UPS system from restarting after a shutdown until an operator manually or remotely explicitly restarts it. If the UPS is in a startup or reboot countdown, then the UPS will not restart until that delay has been satisfied.

### 6.2.5 UPS Configuration web page

Clicking in the header identifier page "UPS Configuration" a similar screen appears :

Web/SNMP Interface - Microso	oft Internet Explorer		_ <u>- 8 ×</u>
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← Indietro • → • 🙆 🙆 🖆 🤅	🔍 Cerca 🖻 Preferiti 🥨 Cronologia 🛛 🎝 - 🎒 🗹 -		
Indirizzo 🙋 http://3.69.26.28/inv.htm?			💌 🧭 Vai 🛛 Collegamenti »
<b>A</b>	Configuration Group		
w	InputVoltage (Volt)	380	Apply
GE Digital Energy	InputFreq (0.1 Hertz)	500	Apply
	OutputVoltage (Volt)	240	Apply
UPS Identification	OutputFreq (0.1 Hertz)	500	Apply
LIPS Details	LowBattTime (min.)	3	Apply
	LowVoltageTransferPoint (Volt)	180	Apply
UPS Alarms	HighVoltageTransferPoint (Volt)	260	Apply
UPS Tests	AudibleStatus	disabled 💌	Apply
UPS Control	OutputVA (Volt-Amps)	10000 (Volt-Amps)	
UPS Configuration	OutputPower (Watts)	10000 (Watts)	
Agent Configuration	GE Digital Energy Copyright 2002		
Trap Configuration			
Special Functions			
Operazione completata			🔮 Internet

#### Meaning of the different fields present at the UPS Configuration page :

#### **Configuration Group**

Input Voltage :	The magnitude of the nominal input voltage.
Input Frequency :	The nominal input frequency.
Output Voltage :	The magnitude of the nominal output voltage.
Output Frequency :	The nominal output frequency.
Low Battery Time :	The value of EstimatedMinutesRemaining (see page "UPS Details") at which a lowBattery condition is declared.
Low Voltage Transfer Point :	The minimum input line voltage allowed before the UPS system transfers to battery backup.
High Voltage Transfer Point :	The maximum line voltage allowed before the UPS system transfers to battery backup.
Audible Status :	The requested state of the audible alarm. When in the disabled state, the audible alarm should never sound. The enabled state is self-describing. Setting this object to muted when the audible alarm is sounding shall temporarily silence the alarm. It will remain muted until it would normally stop sounding and the value returned for read operations during this period shall equal muted. At the end of this period, the value shall revert to enabled. Writes of the value muted when the audible alarm is not sounding shall be accepted but otherwise shall have no effect.
Output VA :	The magnitude of the nominal VA rating.
Output Power :	The magnitude of the nominal true power rating.

### 6.2.7 Agent Configuration web page

Clicking in the header identifier page "Agent Configuration" a similar screen appears :

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- Indietro - → - 🙆 🙆 🖓	🔍 Cerca 🗟 Preferiti 🎯 Cronologia 🛛 🗟 + 🎒 🖻	X • E	
Indirizzo i http://3.69.26.28/imv.htm?			💌 🧭 Vai 🛛 Collegamenti »
<b>6</b> 3	Agent Configuration		
	Boot-Method	configured ip/mask/gw 💌	Apply
GE Digital Energy	IPaddress	3.69.26.28	Apply
	Submask	255.255.254.0	Apply
UPS Identification	Gateway	0.0.0.0	Apply
LIPS Details	GetCommunity	public	Apply
<u>or o betuiis</u>	SetCommunity	public	Apply
UPS Alarms	SNMP-port	161	Apply
UPS Tests	Telnet-Server	on 💌	Apply
UPS Control	HTTP-Server	on 💌	Apply
	HTTP-port	80	Apply
UPS Configuration	Telnet/HTTP-Username	imv	Apply
Agent	Telnet/HTTP-Password	And A	Apply
Configuration	UPS-Address	0	Apply
Trap Configuration	Card-Address	0	Apply
Special Functions	Ethernet-Config	auto 💌	Apply
	GE Digital Energy Copyright 2002		
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<b>2</b>			S Internet

Meaning of the different fields present at the Agent Configuration page :

Agent Configuration	
Boot-Method :	Defines the way the SNMP plug in card boots and links itself up to the network.
	dhcp -> The card obtains its dynamic IP-address from a DHCP server.
	bootp -> The card obtains its static IP-address from the BOOTP server.
	configured ip/mask/gw -> The card uses a static IP-address configured in its ROM.
IP Address :	The static IP-address of the SNMP plug in card.
	Note: If BOOTP/ DHCP is used this value is ignored.
SubMask :	The subnet the SNMP plug in card is situated in.
	Note: If BOOTP/DHCP is used AND the BOOTP/DHCP server provides the subnet mask, this value is
-	ignored.
Gateway :	The IP-address of the default gateway (default router).
	Note: If BOOTP/DHCP boot-method is used AND the BOOTP/DHCP server provides the IP-address to the default gateway this value is ignored.
Get Community :	SNMP community name (password) to read SNMP UPS information from the SNMP plug in card.
Set Community :	SNMP community name (password) to write SNMP UPS information to the SNMP plug in card.
SNMP-port :	Specifies the SNMP plug in card's UDP communication port number.
Telnet-Server :	Enables (on) or disables (off) configuration via telnet.
HTTP-Server :	Enables (on) or disables (off) configuration via web browser.
HTTP-port :	Specifies the SNMP plug in card's HTTP communication port number.
Telnet/http-Username :	Username to protect the SNMP card from unauthorised access via http or telnet session.
Telnet/http -Password :	Password to protect the SNMP card from unauthorised access via http or telnet session.
UPS-Address :	This is the logical address of the UPS. This address can be detected automatically if this parameter is set to zero.
Card-Address :	This is the logical address of the card and, when different from zero, overrides the jumper setting. The valid range for this value is [8487].
Ethernet-Config :	Defines how the board should detect the correct Ethernet interface.
5	- Setting this parameters to "Auto", forces a full autodetection
	- Setting this parameters to "10/100TP", restricts the detection to the RJ45 connector (10 BASE-T or 100 BASE-TX)
	- Setting this parameters to "10 TP/BNC", restricts the detection to 10 Mbits (10 BASE-T or BNC)
	- Setting this parameters to BNC,100TP or 10TP the board refrains from autodetection and imposes the specific interface and speed.

### 6.2.8 Trap Configuration web page

Clicking in the header identifier page "Trap Configuration" a similar screen appears :

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ngirizzo 🚺 http://3.69.26.28/ww.htr	n?		▼ @Yal  Collegame
8	Trap Configuration		
-	Trap1	0.0.0.0	Apply
GE Digital Energy	Trap2	0.0.0.0	Apply
	Trap3	0.0.0.0	Apply
JPS Identification	Trap4	0.0.0.0	Apply
IPS Details	Trap1Community	public	Apply
	Trap2Community	public	Apply
JPS Alarms	Trap3Community	public	Apply
JPS Tests	Trap4Community	public	Apply
IPS Control	Trap1UDPPort	162	Apply
	Trap2UDPPort	162	Apply
JPS Configuration	Trap3UDPPort	162	Apply
Agent	Trap4UDPPort	162	Apply
Configuration	RFCTrapsUPS0	off 💌	Apply
Trap Configuration	IMVTrapsUPS0	off 💌	Apply
	IMVTrapsUPS1	off 💌	Apply
	IMVTrapsUPS2	off 💌	Apply
	IMVTrapsUPS3	off 💌	Apply
	IMVTrapsUPS4	off 💌	Apply
	IMVTrapsUPS5	off 💌	Apply
	IMVTrapsUPS6	off 💌	Apply
	IMVTrapsUPS7	off 💌	Apply
	IMVTrapsUPS8	off 💌	Apply
	GE Digital Energy Copyright 200	2	

Meaning of the different fields present at the Trap Configuration page :

Trap Configuration	
Trap 1 :	Specifies the destination IP-address of Network Management Stations trap 1 has to be sent to. To disable the trap specify [0.0.0.0] as address.
Trap 2 :	Specifies the destination IP-address of Network Management Stations trap 2 has to be sent to. To disable the trap specify [0.0.0.0] as address.
Trap 3 :	Specifies the destination IP-address of Network Management Stations trap 3 has to be sent to. To disable the trap specify [0.0.0.0] as address.
Trap 4 :	Specifies the destination IP-address of Network Management Stations trap 4 has to be sent to. To disable the trap specify [0.0.0.0] as address.
Trap 1 Community :	Specifies the community name of Network Management Stations trap 1 is sent to.
Trap 2 Community :	Specifies the community name of Network Management Stations trap 2 is sent to.
Trap 3 Community :	Specifies the community name of Network Management Stations trap 3 is sent to.
Trap 4 Community :	Specifies the community name of Network Management Stations trap 4 is sent to.
Trap 1 UDP Port :	The UDP port-number for the trap destination 1 previously defined
Trap 2 UDP Port :	The UDP port-number for the trap destination 2 previously defined
Trap 3 UDP Port :	The UDP port-number for the trap destination 3 previously defined
Trap 4 UDP Port :	The UDP port-number for the trap destination 4 previously defined
RFC Traps UPS 0 :	Enabled/Disabled the sent of RFC trap for the UPS 0.
IMV Traps UPS 0 :	Enabled/Disabled the sent of IMV trap for the UPS 0.
IMV Traps UPS 1 :	Enabled/Disabled the sent of IMV trap for the UPS 1.
IMV Traps UPS 2 :	Enabled/Disabled the sent of IMV trap for the UPS 2.
IMV Traps UPS 3 :	Enabled/Disabled the sent of IMV trap for the UPS 3.
IMV Traps UPS 4 :	Enabled/Disabled the sent of IMV trap for the UPS 4.
IMV Traps UPS 5 :	Enabled/Disabled the sent of IMV trap for the UPS 5.
IMV Traps UPS 6 :	Enabled/Disabled the sent of IMV trap for the UPS 6.
IMV Traps UPS 7 :	Enabled/Disabled the sent of IMV trap for the UPS 7.
IMV Traps UPS 8 :	Enabled/Disabled the sent of IMV trap for the UPS 8.

### 6.2.9 Special Functions web page

Clicking in the header identifier page "Special Functions" a similar screen appears :



Meaning of the different fields present at the Special Functions page :

#### Reboot

Reboot Agent :

#### Upgrade

Start FTP Server :

Reboots the SNMP plug to activate the changes made to the configuration and exit from the current configuration session.

Enable and start the FTP server to update the firmware. When the new release of the software has been transferred to the card using FTP protocol press the "Upgrade firmware " button. For more details see chapter 7

### 7 UPDATE Firmware

The SNMP card gives the possibility to update the firmware via LAN using a FTP server.

### 7.1 Update firmware using Telnet or serial line

Here, the necessary steps to update the firmware using Telnet or serial line:

1. Check the version of the firmware at the top of the setup menu (vZ.ZZ = firmware version, bX.XX backup version) :

--<<Current config>>---<<Code vZ.ZZ bX.XX>>----[MAC=00:50:c2:09:70:02]------

2. Enable the FTP server typing the key "L" in the setup menu

 FTP the new version of the firmare. This step can be accomplished using a windows FTP program or using DOS commands as follows:

```
C:\>ftp XXX.XXX.XXX.XXX [Enter]
Connected to XXX.XXX.XXX [Enter]
220 FTP Server (Version 1.0) ready.
User (XXX.XXX.XXX.XXX : (none)): [Enter]
230 User logged in, proceed.
ftp> bin
200 Command okay.
ftp> put <path of file for the new version firmware> [Enter]
200 Command okay.
150 File status okay; about to open data connection
226 Closing data connection. Requested file action successful.
XYXYXY nytes sent in ZZ,ZZ seconds (XYXY Kbyte/sec)
ftp> bye [Enter]
221 Service closing control connection. Logged out if appropriate.
C:\>
```

3. Press the key "Enter" in the setup menu.

#### Avoid after this step to reset or disconnect the card !

If the connection with the setup menu has been established using Telnet, after this step the connection is lost, otherwise if the connection has been established using RS232, the following screen appears in the setup menu:

Uploaded file found, checking md5 sum

MD5 sum ok. Flashing file: XXXXXXXXXXX

Please wait. After flashing, the card will be restarted.

. Starting sector erase

. Waiting for completion

*IMV> L FTP Server Ready. Ftp the image and press Enter.* 

- . Starting programming
- . Waiting for completion
- . Ok! Waiting for reset

-----

Waiting for reset (watchdog or manual).

4. Wait about 30 sec. to permit the card to update the software and then check if the version of the firmware has changed.

```
--<<Current config>>---<<Code v1.01>>----[MAC=00:50:c2:09:70:02]------
```

### 7.2 Update firmware using Web Browser

Here the necessary steps to update the firmware using a Web Browser :

- 1. Check the version of the firmware at the "AgentsoftwareVersion" field of the "UPS Identification" web page.
- 2. Enable the FTP server by clicking on the button "Start FTP Server" in the "Special Function" web page. After this step a similar web page will appear :

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Ingirizzo 🛃 http://3.69.26.28/mv.htm?	💌 🖓 Vai 🛛 Collegamenti 🏾
Configuration C	Reboot Reboot Agent Departure Product Agent Departure De

3. FTP the new version of the firmare.

This step can be accomplished using a windows FTP program or using the following DOS commands:

```
C:\>ftp XXX.XXX.XXX [Enter]
Connected to XXX.XXX.XXX
220 FTP Server (Version 1.0) ready.
User (XXX.XXX.XXX.XXX : (none)): [Enter]
230 User logged in, proceed.
ftp> bin
200 Command okay.
ftp> put <path of file for the new version firmware> [Enter]
SNMP INTERFACE CARD 25 user manual 2.0
```

```
200 Command okay.
150 File status okay; about to open data connection
226 Closing data connection. Requested file action successful.
XYXYXY nytes sent in ZZ,ZZ seconds (XYXY Kbyte/sec)
ftp> bye [Enter]
221 Service closing control connection. Logged out if appropriate.
C:\>
```

3. Click to the "Upgrade firmware" button and a similar web page appears :

Web/SNMP Interface - Microso	ft Internet Explorer		_ <del>_</del> 8 ×
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Ingirizzo Ahttp://3.69.26.28/mv.htm?		• PVai	Collegamenti »
0	Firmware Upgrade	e card	and do
GE Digital Energy	not turn card's power off. The card will restart itself when the process cor	pletes.	010 00
UPS Identification	GE Digital Energy Copyright 2002		
UPS Details			
UPS Alarms			
UPS Tests			
UPS Control			
UPS Configuration			
Agent Configuration			
Trap Configuration			
Special Functions			
Coperazione completata		Internet	

#### Avoid after this step to reset or disconnect the card !

4. Wait about 30 sec. to permit the card to update the software, then check if the version of the firmware has changed in the "UPS Identification" web page.

### **8 SUPPORTED MIB VARIABLES**

#### MIB VARIABLE

==== IDENTIFICATION Group ==== UpsIdentManufacturer UpsIdentModel UpsIdentUPSSoftwareVersion UpsIdentAgentSoftwareVersion upsIdentName upsIdentAttachedDevices

==== BATTERY Group ==== UpsBatteryStatus UpsSecondsOnBattery UpsEstimatedMinutesRemaining UpsEstimatedChargeRemaining UpsBatteryVoltage UpsBatteryCurrent UpsBatteryTemperature

==== INPUT Group ==== UpsInputLineBads UpsInputNumLines UpsInputFrequency UpsInputVoltage upsInputCurrent upsInputTruePower

==== OUTPUT Group ==== UpsOutputSource UpsOutputFrequecny UpsOutputNumLines UpsOutputVoltage UpsOutputCurrent UpsOutputPower UpsOutputPercentLoad

==== ALARM Group ==== upsAlarmsPresent

==== CONTROL Group ==== UpsShutdownType UpsShutdownAfterDelay UpsStartUpAfterDelay UpsRebootWithDuration UpsAutoRestart

==== Bypass Group ==== UpsBypassFrequency UpsBypassNumLines UpsBypassLineIndex UpsBypassVoltage UpsBypassCurrent UpsBypassPower ==== Test Group ==== UpsTestID UpsTestSpinLock UpsTestResultSummary UpsTestResultsDetails UpsTestStartTime UpsTestElapsedTime

#### POSSIBLE ALARMS

==== ALARM ID ==== UpsAlarmBatteryBad **UpsAlarmOnBattery** UpsAlarmLowBattery UpsAlarmDepletedBattery UpsAlarmTempBad UpsAlarmInputBad UpsAlarmOutputBad UpsAlarmOutputOverload UpsAlarmOnBypass UpsAlarmBypassBad UpsAlarmOutputOffAsRequested UpsAlarmUpsOffAsRequested UpsAlarmChargerFailed UpsAlarmUpsOutputOff UpsAlarmUpsSystemOff UpsAlarmFanFailure UpsAlarmFuseFailure upsAlarmGeneralFault upsAlarmDiagnosticTestFailed upsAlarmCommunicationsLost upsAlarmAwaitingPower upsAlarmShutdownPending upsAlarmShutdownImminent upsAlarmTestInProgress upsAlarmReceptacleOff

#### SUPPORTED TRAPS

==== TRAP TYPE ==== upsTrapOnBattery upsTrapTestCompleted upsTrapAlarmEntryAdded upsTrapAlarmEntryRemoved

### 9 SUPPORT

### 9.1 First line support

Please contact your local IMV distributor for problems with the installation or their use.

### 9.2 Internet Support

On-line support is possible on request, if your computer has access to the Internet.

### 9.3 WWW Server Support

We have a WWW server running at www.gedigitalenergy.com. With your favourite WEB browser you can access the latest information from GE IMV and besides you can download the last updates and manuals regarding this card from our GEDE IMV Interact (extranet.imv.com/interact/).

### 9.4 Fax and e-mail support

Completely filled out Support request forms can be used by our distributors only:

- faxed to +41 848 80 22 33
- e-mailed to <a href="mailto:service@imv.com">service@imv.com</a>

End users and corporate users can use the form to contact their supplier.

### 9.5 Inquiries and Suggestions

For inquiries about the product or suggestions for improvements, you may also use the addresses mentioned above.

### SUPPORT REQUEST FORM

Company:
Name:
Tel:
Fax:
E-mail:

Product name:

Version number: (please display the configuration screen, as specified on ch. 3 and ch. 4, and write down the code-version from the first line)

Computer brand / model: Processor: Operating System: Version / release of OS:

Type of UPS: Type of interface cable:

Problem description: