elektrolab
POWER SOLUTION
www.ups-napajanja.rs

User manual for CATV Smart Sinus Ups

CE

User manual and description

CONTENT:

1.1 Description and settings:

UPS have optional outputs: 48V~ / 63V~ / 70V~ / 220V~ +/- 5%.

On the all outpusts is Pure Sine wave

Varnished pcb boards, alow work in the extreme conditions

Operating temperature range –40C do +60C.

Ups has the ability to start –without batteries

Turn on UPS **– press the button „ON„-OR- connection to mains supply**

Turn OFF ups **: press and hold button „OFF„ 5 sec**

ATENTION: when is press „OFF„-UPS going to By-pass, and mains stabilization also at work.For total „shut-down„ it is necesery disconnection from mains supply

Battery charger:

Ups has an adjustable „super-charger„ from 26Ah to 100Ah (for C52 model, to 200Ah) with IU characteristics and temperature compesation

Lan *communication*:

Optional instalaton LAN card, with SNMP and HTTP protocols

Front panel:

-displey showing all vital measurements and system statuses
-buttons for: review Event+Log alarm and settings.

Connections:

-Input 220V, C13 cable with schuko connector
-Outputs for supply load: 48V/ 64V / 70V~ optionaly: SB30 / SB50
-Out 220V~ connector C14 or Schuko
-Battery input SB50.
Cables are obtained with the device

Real time and calendar –memorization of alarms in real time.

Settings:

-on the main page, press the button „up„ an arow will appear in the fourth row, now press MENU button, and make settings

-disabling settings, press button „down„ on the main page, and arow in the fourth row, will be dissapears

Energy module temperature display-press and hold „down„ button, on the main page, displey temperature in the third row will appear

Ambient temperature display-on the second row, showing every 2 sec

Battery self-test enables self testing batterys

Protections of: short-circuit, overload, battery deep discharge, battery overcharge, interference on the input-output, overheating of energy modul or ambient, overvoltage on the input or output.

MENU- displey of statues and settings:

On the first two pages stored network drop out voltage (N1- N4) is displayed with the overall time of the battery work time. Reset on zero by pressing the Off / Clear key.

On the third and fourth page, alarm statuses are displayed: overheating, overload, overchanging batteries and check batteries. Reset on zero by pressing the Off / Clear key.

On the fifth page, there is an UPS initial activation review, the total number of network voltage drop out and a total time of battery work:

ON: 14:57 17 / 4 / 2010 (Born date)
TOTAL N= 54
TOTAL WORK TIME:
33 : 12 : 05

All of the above positions and parameters are permanently stored on an unlimited long period, in situations when UPS is switched off and without battery and network voltage!

On the sixt page:

BATTERY SELF TEST:
TEST: for 90 Day 1min
00 : 12 : 05

Self test function batteries, allows independent batteries testing every 10 days to 90 days, a from 1 to 60 minute battery working time. If the capacity is reduced (bad), UPS will save the alarm „ Check the battery„ and sends the Mail to User via software.

„Battery self test„ settings :

-When is pressed button UP, then will be activated function of self test from 1min to max 60min (battery work time), after pressed 60min-than going to turn of, displeying „TEST OFF„

–Press button „Down„ alow to setting days from 10 to 90 days (example: if we set 20 days, when is come 20 days-start test)

Page seven : setting for battery charging:

BATTERY: 45Ah

Press UP-Down buttons from 26Ah to 100Ah (model C52 max 200Ah).

Page eight**:** showing Model od ups and his Serial number:

MODEL: C52 (example)
Serial number: 001052 (example)

Page nine show otuput current on the outputs 48V ili 63V~ ili 70V~, selected with press button UP / DW, on this page also is displey „discharge battery current„

Page ten show status of posibility for „START WITHOUT BATTERY„ (ENABLE)

1.2 MEASUREMENT

On the front panel display showing, next parameters:

-input voltage (Vi)
-output voltage (Vo)
-output power (P) VA / %
-number of mains power supply turn down (N)
-battery voltage / charge (Vb) V / %
-battery charge current (Ib)
-input frequency (fu)
-real time and calendar
-temperature of energy modul generator
-ambiental temperature

1.3 STATUES

„LINE„ mains power supply is in permitted borders

„BATTERY OPERATION„ mains power supply is out of permited bordes our disappeared.

„BATTERY EMPTY„ start countdown from 120sec to 0sec, and goind to „shut-down„ ups.This situations will be memorized in real time.

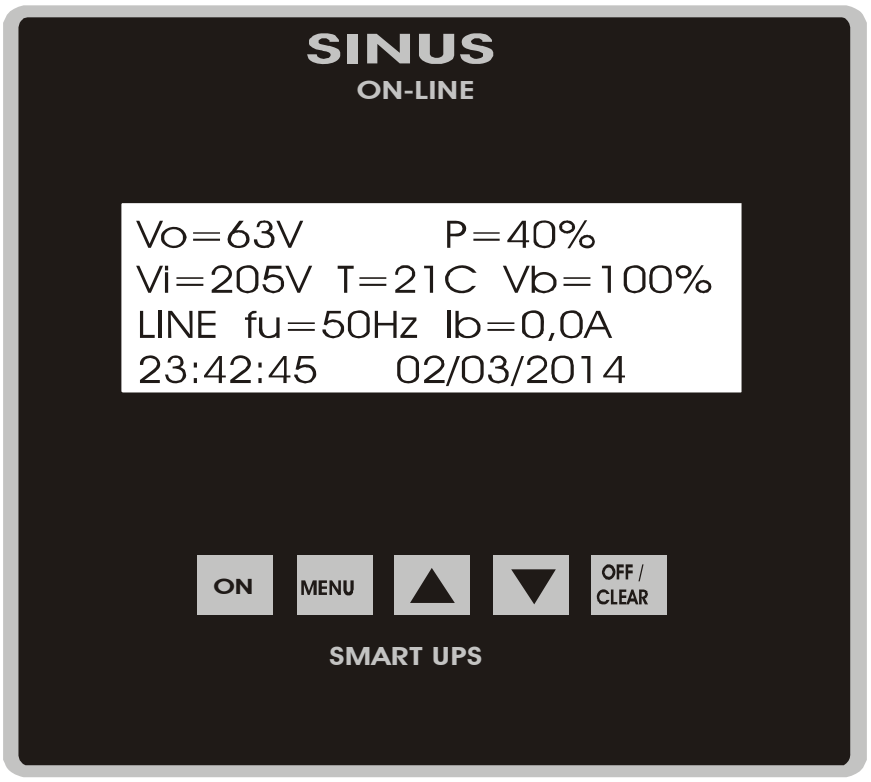
„OVERLOAD„ when is load 100% on the displey will be show attention, if load higher then 110% start countdown from 60sec to zero and turn off, if load higher then 130% shut down wil be after 5sec.This situations will be memorized in real time.

„OVERCHARGING„ if charging voltage higher 5%-start countdown from 60sec to zero and turn off, if charging voltage higher than 10% -shut down imidietly. This situations will be memorized in real time.

„CHECK BATTERY„ Due to the aging of the battery (degradation), when voltage is below the permitted UPS limit, this situation will be memorized.

„OVERHEAT„, High ambient temperature or defective fan, start countdown from 120sec to zero sec. This situations will be memorized in real time.

1.4 The appearance of the front panel

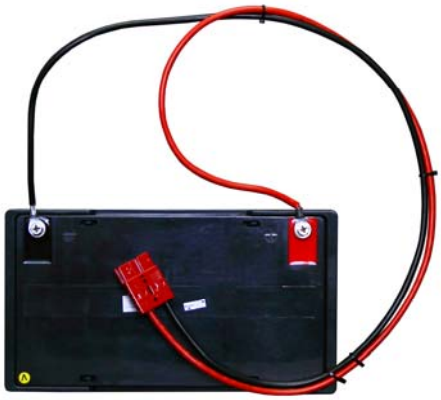


1.5 TECHNICAL CHARACTERISTICS

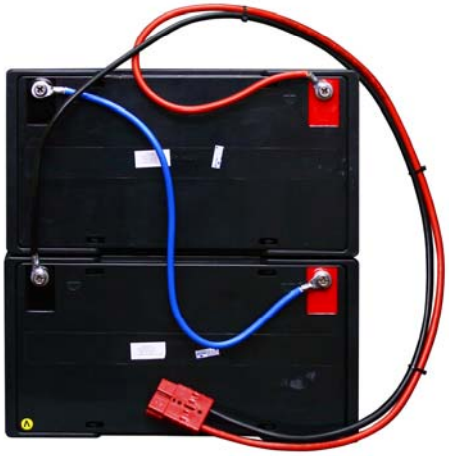
MODEL:	C3	C7	C12	C15	C23	C22	C52
INPUT:	230v~ (min 150Vac ~ max 290Vac) 50Hz ± 10 %						
OUTPUT:	Out 1 = 63 or 48V or 70V~ & Out 2 = 220V +/- 5% Pure Sine wave						
Output max current:	5A	8A	10A	15A	22A	22A	40A
Output power:	300VA / 300W	700VA / 500W	1000VA/ 700W	1500VA / 1000W	2000VA/ 1400W	2000VA/ 1400W	5000VA/ 3000W
Output frequency:	50Hz ± 0,1%						
Efficiency:	87%						
Transfer time:	2 msec						
Protections:	Excessive battery discharge; Overcurrent: short circuit output; Battery overcharged; Overvoltage output; Under voltage output; Internal thermo protection; Overload main: 150% for 15 seconds						
Front panel:	**Alfa-numeric display 4x20 character with back light and measurement**: input/output voltage; input frequency; batteries voltage (V); Ambiental and heatsink temperature (C) Charging / Discharging battery % Charge / Discharge current battery (A) Output power (VA/%) real time-calendar, ups status Button on/off Iout 48V / 63V~ Event alarm						
Battery self test:	Yes (settings: 10-90day / 1-60min)						
Start wihout batt:	Yes						
Battery charging:	Setting from 26Ah to 100Ah					26Ah- 200Ah	
Battery voltage (nominal / full):	12V (13,3V)	12V (13,3V)	24V (26,6V)	36V (40V)	36V (40V)	48V (53,2V)	
Temperature compesation	Yes						
Voltage distortion:	<5% (3-5%)						
Communication:	OPTIONAL LAN slot with HTTP, SNMP						
Remote monitoring:	Optional cable modem for: Docsis2.0&EuroDOCSIS2.0						
Dimensions HxWxD:	220 mm 370 mm 220 mm	220 mm 370 mm 220 mm	190 mm 490 mm 290 mm	190 mm 490 mm 290 mm	200 mm 515 mm 320 mm		240 mm 530 mm 320 mm
Temperature range:	-40C to +60C						
IP class:	IP20						
Safety:	CE						
Standards:	EN 60950; EN 62040-2:2006						
Weight in kg:	14,9	16,8	22,8	23,8	32,2		47

1.6 BATTERY CONNECTIONS

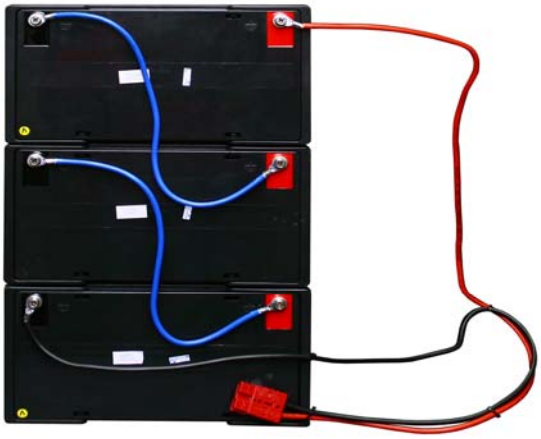
Connecting for C3 / C7 (12V)



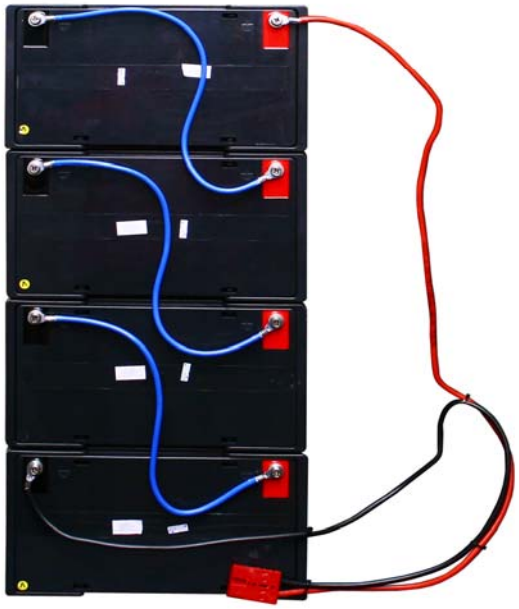
Connecting for C12 (24V)



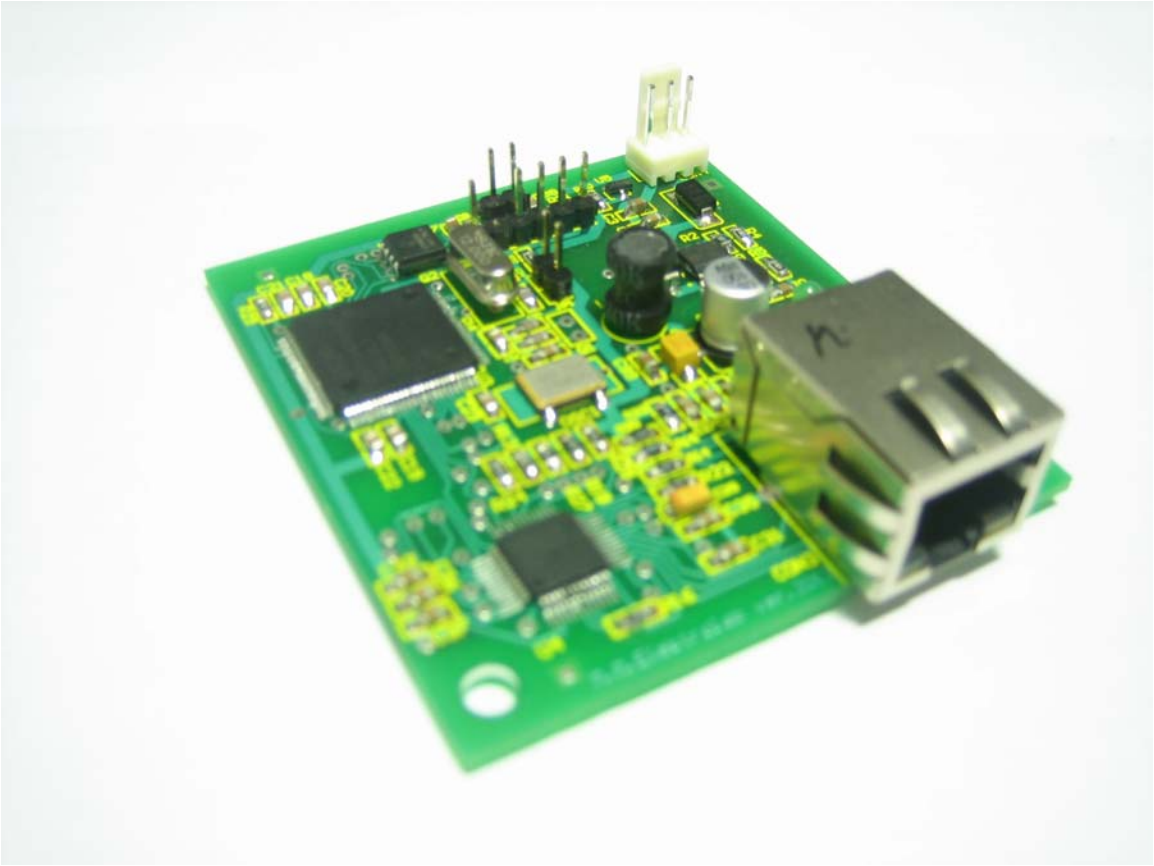
Connecting for C15 / C23 (36V)



Connecting for C22 / C52 (48V)



1.7. LAN COMMUNICATION CARD



-Lan card is used for communication between the UPS and the local network to which it is connected.

-All communication is done via SNMP and HTTP protocols!

-Manufacturer-LAN cards with hardware supplied MIB file that implements a user within its network.

-Supplied software that runs on Windows platforms to set various parameters such as the choice of activating / deactivating DHCP IP address assignment, adjustment, TRAP, address, etc..

-UPS is sending 18 bytes of data and trap, respectively:

Vo = The output voltage of the UPS sends the value to eg. 230 (V)
P = output power (total power consumers)-a value that is sent to a percentage, eg. 100 (%)
Vi = input voltage (at the entrance UPS)-a value that is sent eg.: 220 (V)
fi = input frequency network-value that is sent eg.: 50 (Hz)
Vb = voltage battery inside the UPS sends the value to the percentage eg.: 40 (%)
T = temperature (in Celsius from -40 to +125 C)
SN = Serial Number
Model = data model ups such as T52-sent to No. 52

Alarm (trap):

A1= Power failure, if enabled =001 / if disabled= 000
A2= Low battery, if enabled =002 / if disabled= 000
A3= Check the battery, if enabled =003 / if disabled= 000
A4= Overload, if enabled=004 / if disabled= 000
A5= Overcharging, if enabled 005 / if disabled= 000
A6= Overheat, if enabled=006 / if disabled= 000
A7= By-pass, if enabled=007 / if disabled= 000

If any alarm occurs, the UPS via the LAN card and sends SNMP TRAP messages.

The user can view the status of the UPS via the MIB files and the MIB Browser software

To enroll IP address into the browser can be accessed through the ups and HTTP!

OID LIST

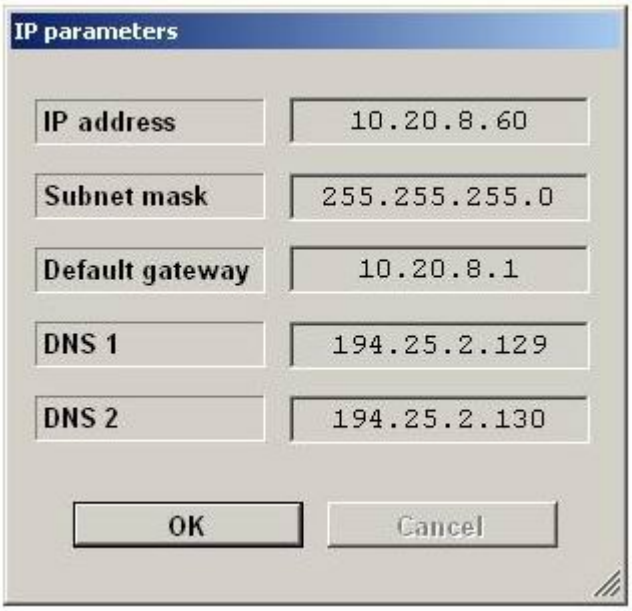
1. OID - .1.3.6.1.4.1.39385.1.1.0 - Model
2. OID - .1.3.6.1.4.1.39385.1.2.0 - Serial number
3. OID - .1.3.6.1.4.1.39385.1.3.0 - Output voltage
4. OID - .1.3.6.1.4.1.39385.1.4.0 - Output power
5. OID - .1.3.6.1.4.1.39385.1.5.0 - Input voltage
6. OID - .1.3.6.1.4.1.39385.1.6.0 - Input frequency
7. OID - .1.3.6.1.4.1.39385.1.7.0 - Batery charge %
8. OID - .1.3.6.1.4.1.39385.1.8.0 - Power failure
9. OID - .1.3.6.1.4.1.39385.1.9.0 - Battery empty
10. OID - .1.3.6.1.4.1.39385.1.10.0 - Check battery
11. OID - .1.3.6.1.4.1.39385.1.11.0 - Overload
12. OID - .1.3.6.1.4.1.39385.1.12.0 - Overcharging
13. OID - .1.3.6.1.4.1.39385.1.13.0 - Overheat
14. OID - .1.3.6.1.4.1.39385.1.14.0 - By-pass
15. OID - .1.3.6.1.4.1.39385.1.15.0 – Temperature

16. OID - .1.3.6.1.4.1.39385.2.1.0 – Sistem
17. OID - .1.3.6.1.4.1.39385.2.2.0 – Time
18. OID - .1.3.6.1.4.1.39385.2.3.0 – Contact

Setting the parameters of the SNMP card

IP adresS
DHCP
Trap IP adress

SNMP card is supplied with the following parameters entered.



DHCP - off

To make the setting SNMP card is required as parameters to the network PC (through which you set), enter:

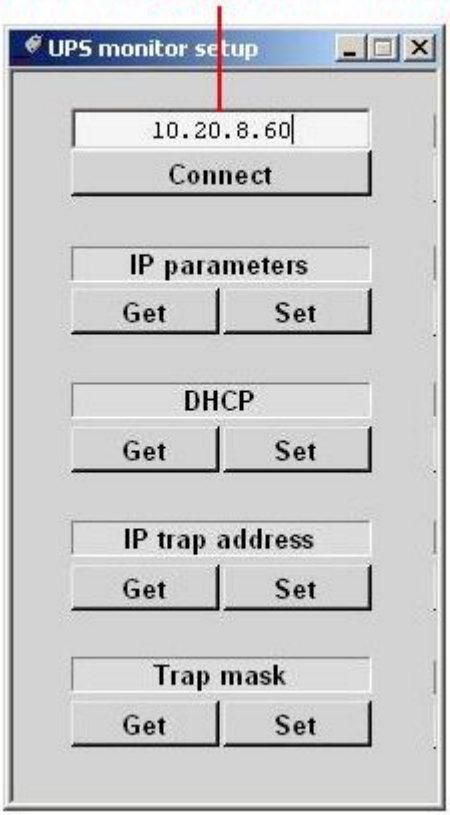
IP address 10.20.8.1
Subnet mask 255.255.255.0

Connect the SNMP card to a network or PC.
The Setup program uses ,,UPSmonitorSetup.exe,,

Enter the IP address of the SNMP card.
Then **Connect**.

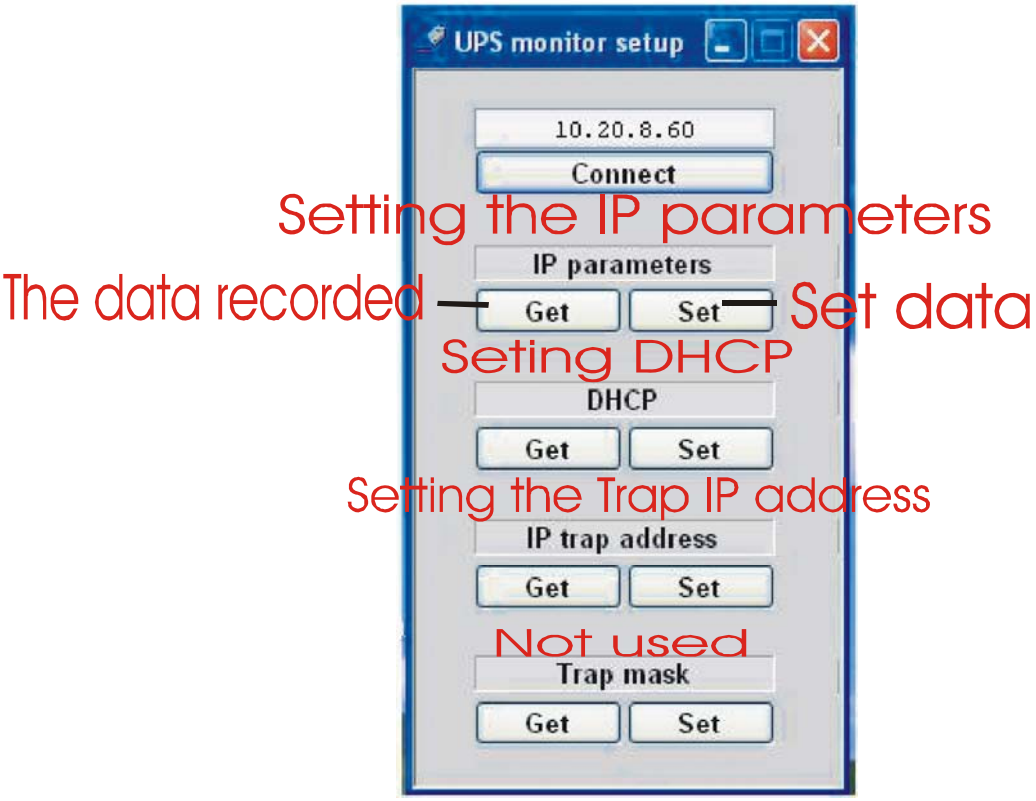
Enter the IP address of the LAN card

UPISATI IP ADRESU SNMP KARTICE



Get - reads data

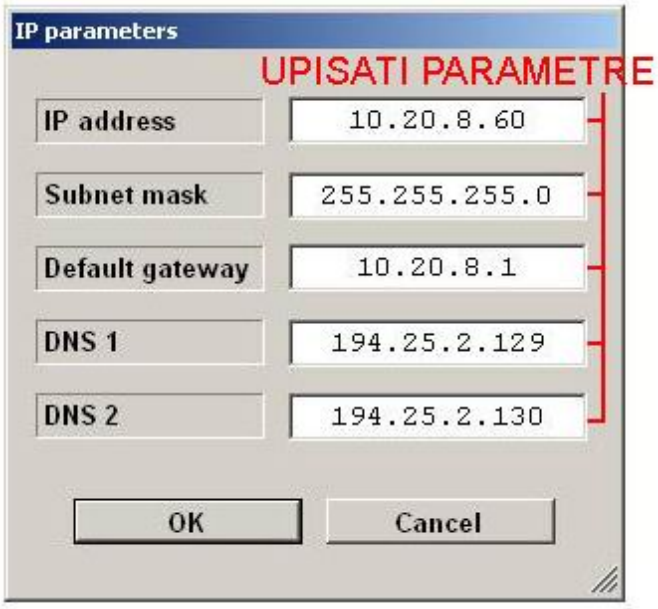
Set - writing data



Entering the IP address

Below the IP parameters to click the mouse on the Set.
Fields (to assign an IP address tab and fill in the parameters of the network to which it connects), and enter by clicking on OK.

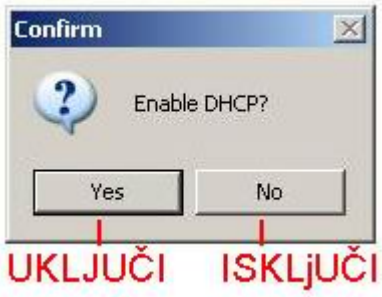
Enter the parameters



NOTE
After setting should be excluded UPS wait a few seconds and reconnect the UPS to the new IP address and network parameters become active.

DHCP

Below DHCP click Set.
Enable or disable DHCP.



Turn on **Turn off**

Setting the Trap IP address

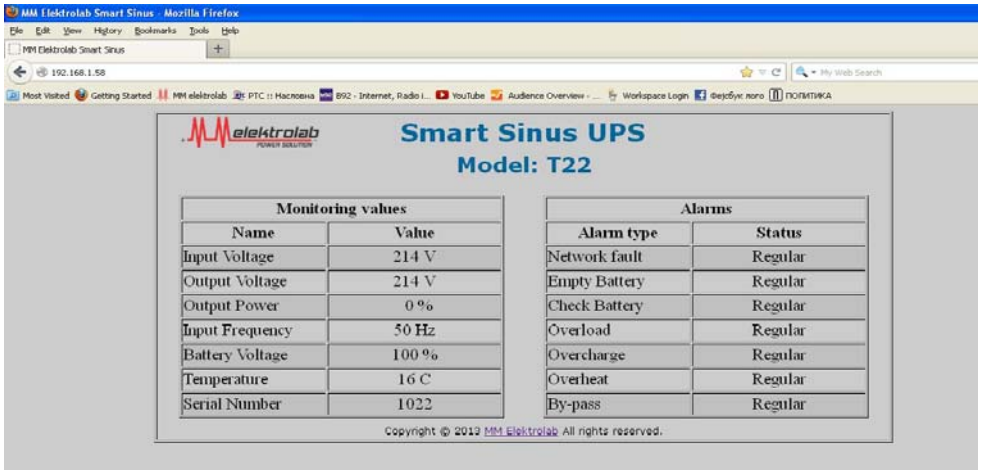
Below the trap IP address click Set.
The field enter the IP address of the computer that we want to follow traps (click on the icon, Local Area Networks, and choose, Support, and there you can see the IP address of the local computer and practically this IP Ares specify):

Enter the IP address of the trap

NOTE
After setting should be excluded UPS wait a few seconds and reconnect the UPS to the new IP address and network parameters become active.
Upon completion of the settings from the Setup - click **Disconnect.**

NOTE
In the event of a problem with the connection SNMP card can be reset as follows:
The printed circuit board LAN card (UPS is running)-set jumper JP1 in duration of 10s, then turn off the UPS, remove jumper and turn on the UPS.
It is important to note that this situation is only possible if the user loses their records the IP address that was entered.

HTTP:
In the browser enter the IP address of the UPS and will appear in the window to view the status.



1.8 WARRANTY CONDITIONS

The manufacturer guarantees that the product in the warranty period will function properly if it is handled according to the supplied manual, as well as to eliminate any faults incurred during exploitation.

Warranty 36 months and begins day delivery.

***The warranty does not enter damage caused*:**

-Transportation after delivery.

-Extractive installation, maintenance or non-compliant instruction.

-Mechanical damage to the user's guilt.