

FN/ FN SNMP DC UPS

12V/20A

24V/10A

24V/15A

-48V/5A

-48V/10A

**CONGRATULATIONS!**

*You have just acquired an ALGcom product.
Thanks for your trust at choosing our company.
We develop products to offer the best and most
modern solutions in telecommunications!*

READ THE INSTRUCTIONS

Before installing and connecting the product, read the instructions in this manual carefully.



This label has the meaning of attention.



This label has the meaning of danger and risk of electric shock.

Caution



A qualified technician may only do installation. Hazardous voltage and energy present can cause death or injury if the precautions in this manual are ignored.

Attention



Please follow the instructions contained in this manual carefully. If you have any doubt, please contact qualified technical support.

Attention



Only use the product indoors.



NECESSARY TOOLS

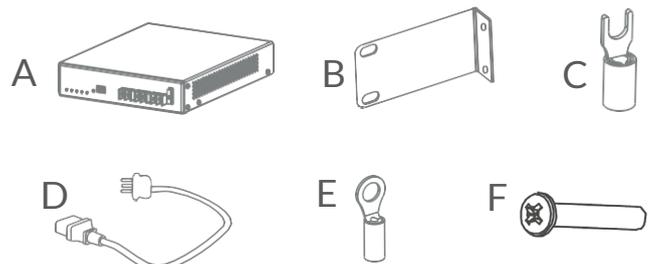
Qty	Description
1	Phillips Screwdriver
1	Pliers



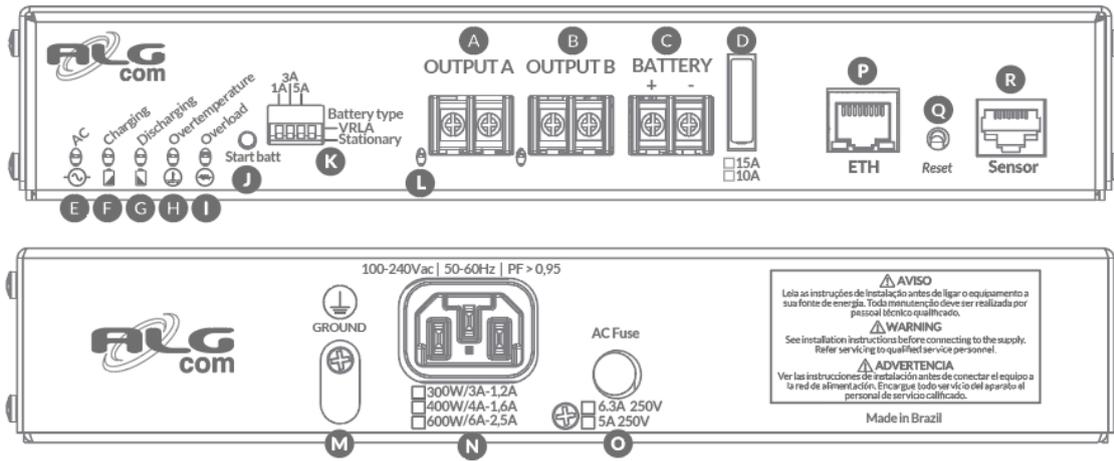
COMPONENTS

Qty	Item	Description
1	A	DC UPS
2	B	19" fixing tabs
6	C	Fork terminals
1	D	Power cable
1	E	Eye terminal
4	F	M3 x 10 mm Screw

The SNMP version comes with a temperature sensor.



DC UPS



A/B - A AND B OUTPUT CONNECTOR

Output DC UPS. Place where equipment should be connected. The voltage will vary depending on the operating state. See the table below.

Model	Nobreak mode output voltage		AC mode output voltage
	VBAT > 12V = 12V	VBAT < 12V = VBAT	
12V 20A	VBAT > 12V = 12V	VBAT < 12V = VBAT	12V
24V 15A 24V 10A	VBAT > 24V = 24V	VBAT < 24V = VBAT	24V
-48V 10A -48V 5A	42V to 58V according to battery bank status of charge (SOC).		

VBAT = Battery bank voltage.

C - BATTERY CONNECTOR

Place to connect the battery or bank of batteries.

D - BATTERY PROTECTION FUSE

Attention



The battery fuse varies depending on the model of the DC UPS check the fuse chart. If necessary replace, use one of the same model and value.

E - GRID INDICATOR LED

Indicates whether the DC UPS is being powered by the AC input.

F - CHARGING BATTERY INDICATOR LED

Indicates that the DC UPS is charging the battery bank.

G - DISCHARGING BATTERY INDICATOR LED

Indicates that the DC UPS is discharging the battery bank.

H - OVER TEMPERATURE INDICATOR LED

LED on, indicates that the DC UPS temperature is above acceptable. Blinking LED, indicates fan failure.

I - OVERLOAD INDICATOR LED

Led on, there is overload on DC UPS. Indicates that the DC UPS is delivering power above capacity, see power capacity according to model and charger configuration. In this situation, the DC UPS will charge the batteries only with 1A.

J - STARTING KEY

Used when the DC UPS is without AC power, it is possible to install the bank of batteries to start feeding equipment.

K - CHARGE CURRENT CONFIGURATION KEY

Charging current configuration: 1A, 3A or 5A. Battery Type Setting: Stationary or VRLA. The 10A charge current is only available for some models.

L - OUTPUT INDICATOR LED

Indicates that the outputs for equipment are in service.

M - GROUND CONNECTION

Place to connect the protective ground at the DC UPS. It is necessary to connect this conductor or connect the ground through the AC input connector.

Attention



The connection to protective ground is mandatory. It can be connected through power cable or chassis connection.

N - AC INPUT CONNECTION

Place for connecting the AC power cable.

O - AC PROTECTION FUSE

Caution



For replacing the AC fuse, please unplug the AC power from the DC UPS.

Attention



The AC fuse is 250VAC, your model must be seen according to the fuse table.

P - ETH

Ethernet port for network connection.

Q - RESET

Reset the Manageable DC UPS to the factory default setting IP 192.168.1.50 Username: admin Password: admin.

Q - EXTERNAL TEMPERATURE

Connection of temperature sensor.

1 INSTALLATION

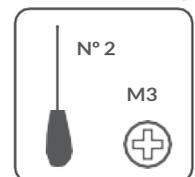
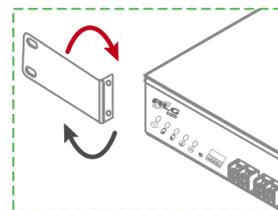
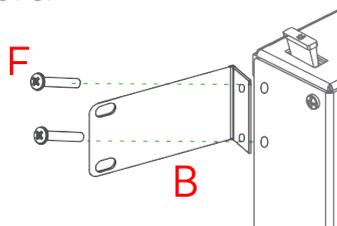
FIXING THE TABS ON THE DC UPS



Caution

To install the DC UPS, turn off the AC power. Only connect after it is fixed and the battery bank connected.

To attach the tabs to the DC UPS, loosen the side screws with the indicated wrench, position the tab and tighten the screws by the DC UPS.

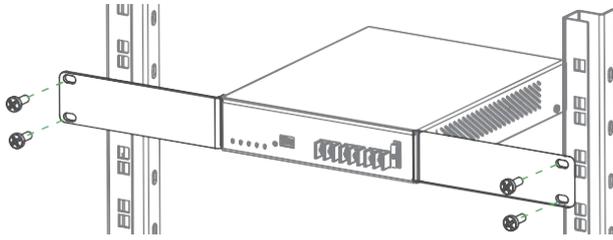


The fixing tabs can be installed at 0° or 90°.

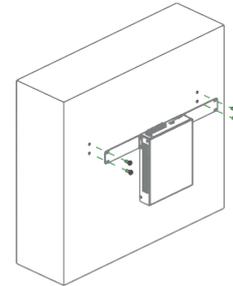
2 FIXATION

To attach to the rack, attach the screws to the securing tabs and tighten by the rail.

To attach to the wall, mount the side tabs 90°, fasten the screws first to the DC UPS and then to the wall.



Rack



Wall fixation

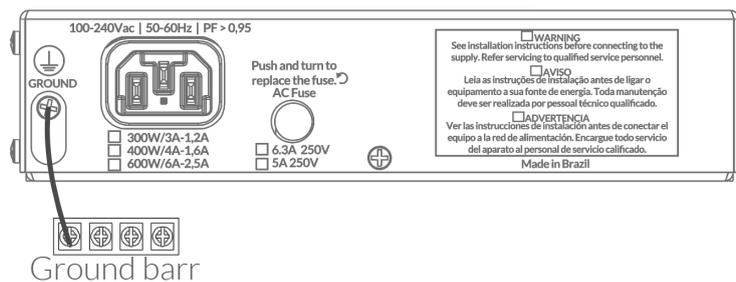
3 GROUND CONNECTION

Secure the protective ground connection to the ground bus.

Attention



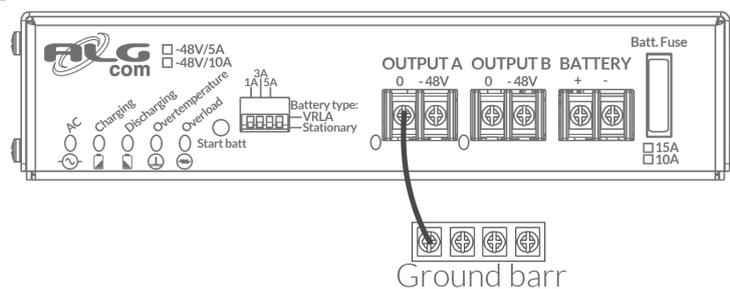
Either to comply with the warranty and complete protection, it is mandatory to ground the DC UPS by the socket or the eye terminal indicated below.



Ground bar

For -48V DC UPS:

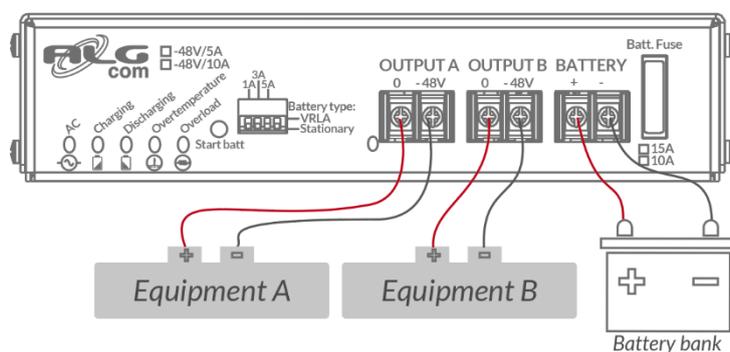
The outputs 0V of the DC UPS are isolated from the ground, being optional the connection to the system and grounding.



Ground bar

For +48V DC UPS:

To connect +48V equipment, see the wiring diagram below.



4 CHARGER CONFIGURATION

Manually set the battery charger to the desired charging current.

12V and 24V DC UPS



1A charger current mode
Key 1, 2, 3 and 4 down



3A charger current mode
Key 1 up



5A charger current mode
Key 1 and 2 up



10A charger current mode
Key 1, 2 and 3 up, except for 24V/10A AC/DC UPS, because this setting is equivalent to 5A load current mode.



Battery type VRLA (In VRLA mode there is no equalization stage in the battery charge)
Key 4 up

-48V DC UPS



1A charger current mode
Key 1 up



3A charger current mode
Key 1 and 2 up



5A charger current mode
Key 1, 2, 3 up



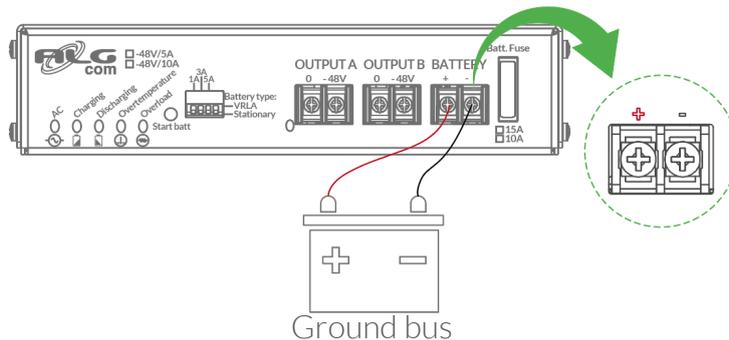
Battery type VRLA (In VRLA mode there is no equalization stage in the battery charge)
Key 4 up

In the table below, you can see the output power according to the charger configuration.

Model	Total output power	Maximum charger			Minimum charger		
		Equipment power	Equipment output current	Charger current	Equipment power	Equipment current	Charger current
12V 20A	240W	120W	10A	10A	228W	19A	1A
24V 10A	240W	120W	5A	5A	216W	9A	1A
24V 15A	360W	120W	5A	10A	336W	14A	1A
-48V 5A	270W	108W	2A	3A	216W	4A	1A
-48V 10A	540W	270W	5A	5A	486W	9A	1A

5 BATTERY CONNECTION

Connect the battery or battery bank to the indicated front connector, be careful to connect with the correct voltage and polarity.



Caution



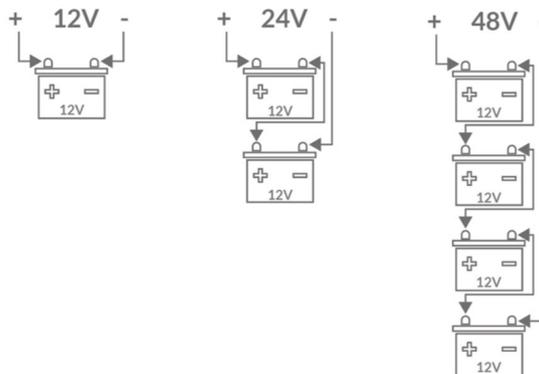
To install the battery bank, leave the batteries disconnected and switch on only after connect the cables to the DC UPS.

Attention



Use only stationary lead acid or VRLA batteries, and be aware of proper battery bank voltage.

Connection of battery bank according to DC UPS voltage.



Check the correct recommendation of the cables in the **table below**.

DC UPS output current	Recommended minimum gauge
0-10A	1mm ² ou 16AWG
10-16A	1,5mm ² ou 14AWG
16-25A	2,5mm ² ou 12AWG

The battery charger needs to recognize that the battery bank connected to its output is suitable. Without connecting the batteries, the voltage at the battery connector is 0V.

DC UPS output voltage	Minimum battery bank voltage	Maximum battery bank voltage
12V	10V	17V
24V	20V	30V
48V	42V	60V

Below are the voltages that the charger places on the seat according to the loading stage.

Model	Floating battery bank voltage	Battery bank equalization voltage
12V 20A	13,8V	14,4V
24V 15A 24V 10A	27,5V	28,8V
-48V 5A -48V 10A	54V	56,7V

6 POWER CABLE CONNECTION



Attention

The connection to protective ground is mandatory. Can be connected via power cable or chassis connection.

Connect the AC power to the DC UPS.

Connect the AC power in the back of the DC UPS!

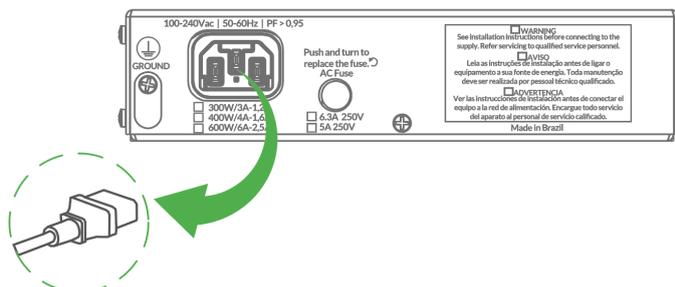


Table with values of voltage and input power.

Model	Voltage values			Maximum power	Input current	
	Minimal	Maximum	Frequency		Minimal	Maximum
12V 20A	100V	240V	50/60 Hz	300W	1,25A	3A
24V 10A					1,25A	3A
24V 15A				1,65A	4A	
-48V 5A				1,25A	3A	
-48V 10A				2,5A	6A	

The maximum voltage values are 90 - 264V.

7 EQUIPMENT CONNECTION

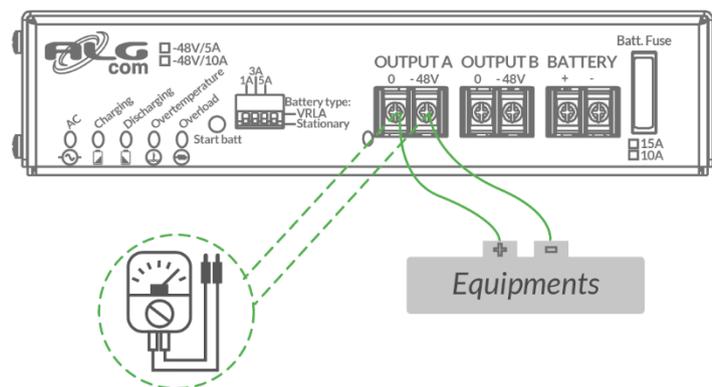
Measure the output voltage to see if it is suitable for your equipment.



Attention

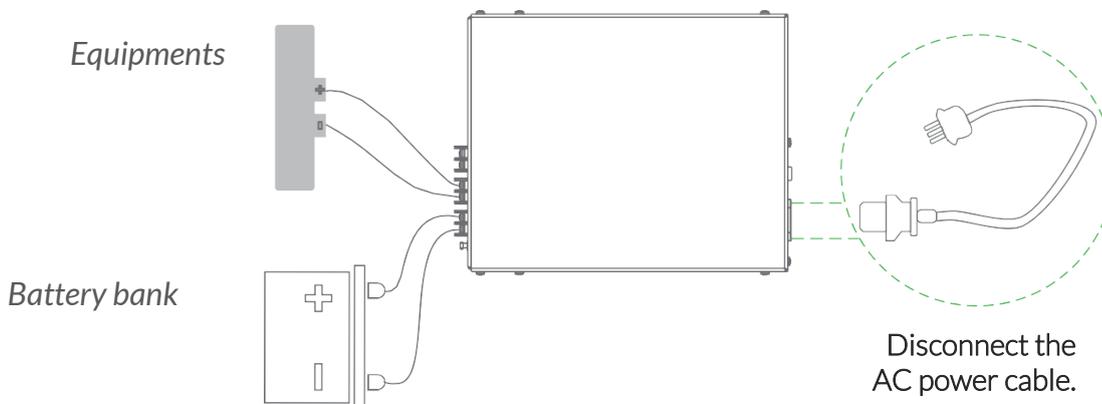
Check the voltage of the equipment connected to the DC UPS output.

Use a voltmeter to measure the output voltage.



8 FUNCTION TEST

- 1) With the load connected to the output or measuring with a voltmeter, unplug the AC power cable.

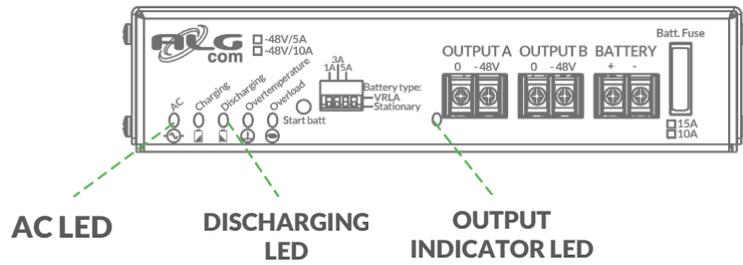


Caution

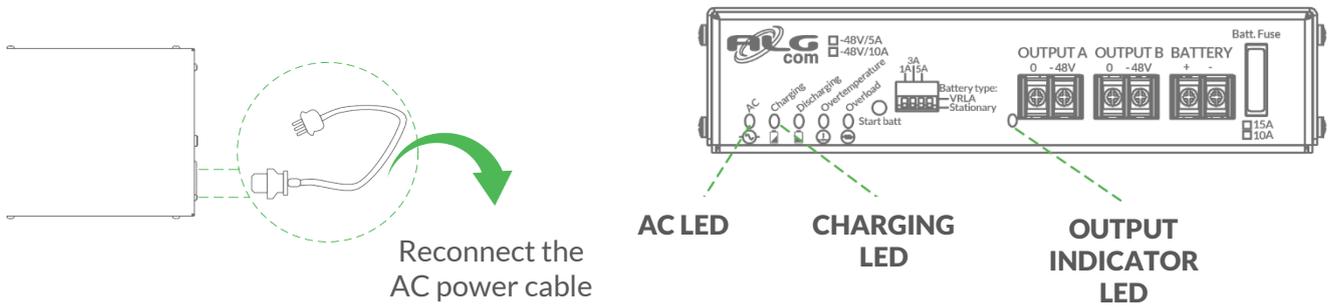


The test may only be performed by a qualified technician. Voltage and energy present can cause death or injury if the precautions in this manual are ignored.

- The load should continue to be powered from the battery, the "AC" LED should be off and the "Discharging" LED should be on.



- Reconnect the AC power cable to the DC UPS. The "AC" LED and "Charging" LED must be on.

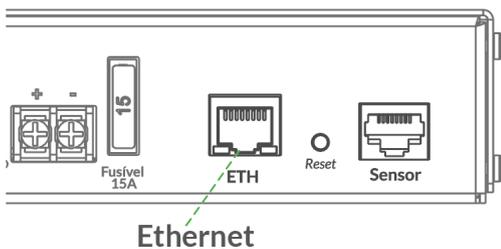


9 TABLE OF FUSES BY MODEL

Fuse table		
Model	AC fuse	Battery fuse
12V 20A	5A	20A
24V 10A		15A
24V 15A		15A
-48V 5A	6,3A	10A
-48V 10A		15A

10 SNMP INSTALLATION

- To connect the Manageable DC UPS to the network, connect an Ethernet Cable.



- The factory setting is as follows: IP 192.168.1.50 User name: admin Password: admin. If you need to return to the initial IP configuration and password, press the Reset button for 10 seconds.

11 COMPUTER CONFIGURATION (WINDOWS)

- 1) Click on: Start>Control Panel>Network and Sharing Center.
- 2) Click on: Change Adapter Settings> Local Connection> Properties.
- 3) TCP/IP Version 4 Protocol (TCP / IPv4)>Properties. Configure your local network with the parameters. Example IP: 192.168.1.10 and netmask: 55.255.255.0, IP Gateway address: 192.168.1.1.
- 4) Confirm the current settings by clicking the OK button on both setup screens.
- 5) Open your web browser and select Tools>Internet Options>Connections>LAN Settings.
- 6) Select “Automatically Detect Settings”. The other options must be disabled. Confirm the configuration by clicking the OK button.
- 7) In the browser, enter the factory default IP address 192.168.1.50 to open the Manageable DC UPS.

12 DESCRIPTION OF SCREEN FIELDS STATUS

- **Operation mode:** Indicates whether the Manageable DC UPS is operating powered by the AC power or Nobreak mode, powered by the battery bank.
- **Voltage drop in the last 10 minutes:** Indicates if there has been a drop in the AC supply voltage in the last 10 minutes from the time the information is being displayed, making it possible to monitor grid instabilities.
- **Output voltage:** Displays the output voltage of the Manageable DC UPS.
- **Output current:** Displays the output current of the Manageable DC UPS.
- **Charger status:** Indicates whether the battery is connected or not. When connected, it shows the charging stage of the charger.
- **Battery voltage:** Displays the voltage of the battery bank.
- **Battery current:** Displays battery bank current, whether charging or discharging.
- **Charger configuration:** Indicates the charging current value and battery type selected in the Manageable DC UPS.
- **Internal and external temperature:** Displays internal or external temperature. The measure of the external temperature is made by the proprietary sensor.

13 COMMAND SCREEN

- 1) The command screen displays the option to restart the Manageable DC UPS. This command only happens having AC power.

14 WATCHDOG CONFIGURATION SCREEN

The watchdog configuration screen allows the user to enter the IP addresses that will be monitored, the time between the monitoring tests and the respective output of the DC UPS that will act in the event of a negative response. Monitoring is done by sending a ping to the registered IP. The ping response timeout is fixed in 5 seconds. After the non-ping response timeout, the faulty IP output will be reset. The user defines the period between pings sends in minutes.

15 DESCRIPTION OF THE SNMP INTERFACE

Subgroup 1 – DC UPS Output Parameters

OID	Description	Type	Parameters	Access
.1.3.6.1.4.1.49136.1.1.1.0	Voltage measured at DC UPS output	All	V (Volts)	Read-only
.1.3.6.1.4.1.49136.1.1.2.0	Current measured at DC UPS output		A (Amp)	

Subgroup 2 – Charger Parameters

OID	Description	Type	Parameters	Access
.1.3.6.1.4.1.49136.1.2.1.0	Voltage measured in the battery	All	V (Volts)	Read- only
.1.3.6.1.4.1.49136.1.2.2.0	Current measured in the battery		A (Amp)	
.1.3.6.1.4.1.49136.1.2.3.0	Battery charger status		0x00=CHARGER_BATTERY_NOT_CONNECTED	
			0x01=CHARGER_WRONG_VOLTAGE_BATTERY	
			0x02=CHARGER_NOBREAK	
			0x03=CHARGER_CURRENT_CONST	
			0x04=CHARGER_EQUALIZATION	
			0x05=CHARGER_FLUTUATION	
			0x06=CHARGER_NOBREAK_TIMEOUT	

Subgroup 3 – DC UPS input Parameters

OID	Description	Type	Parameters	Access
.1.3.6.1.4.1.49136.1.3.1.0	Power status, whether AC power is on or not	All	0 - no, 1 - yes	Read-only
.1.3.6.1.4.1.49136.1.3.2.0	Indicates whether there was a power outage in the last 10 minutes			
.1.3.6.1.4.1.49136.1.3.3.0	Indicates whether the battery connected to the DC UPS is being charged			
.1.3.6.1.4.1.49136.1.3.4.0	Indicates whether the battery connected to the DC UPS is being discharged			
.1.3.6.1.4.1.49136.1.3.5.0	Indicates general overload at DC UPS. Occurs when the DC UPS is operating at a power above the specified	All	0 - normal, 1 - overheating	Read-only
.1.3.6.1.4.1.49136.1.3.6.0	Indicates general overload at DC UPS. Occurs when the DC UPS is operating at a power above the specified	All	0 - normal, 1 - overload	Read-only
.1.3.6.1.4.1.49136.1.3.7.0	Indicates malfunction of indoor fan A at DC UPS	All	0 - normal, 1 - fail	Read-only
.1.3.6.1.4.1.49136.1.3.8.0	Indicates malfunction of indoor fan B at DC UPS	All	0 - normal, 1 - fail	Read-only
.1.3.6.1.4.1.49136.1.3.11.0	Indicates system uptime in hours	All	Measured in hours	Read-only

Subgroup 4 – Temperature parameters

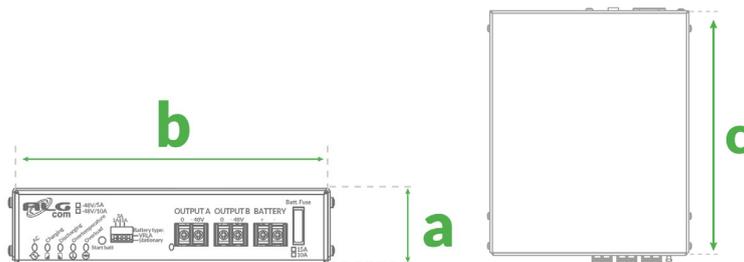
OID	Description	Type	Parameters	Access
.1.3.6.1.4.1.49136.1.4.1.0	Internal temperature	All	°C	Read-only
.1.3.6.1.4.1.49136.1.4.2.0	External temperature			
.1.3.6.1.4.1.49136.1.4.3.0	Internal heat sink temperature			

Subgroup 5 – DC UPS input Parameters

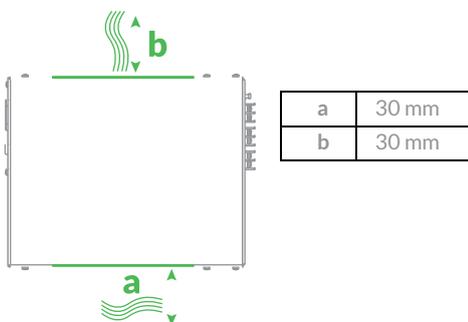
OID	Description	Type	Parameters	Access
.1.3.6.1.4.1.49136.1.5.1.0	Indicates the configured watchdog 1 action for 10 minutes since the last event occurred	All	0 - normal, 1 - watchdog actuated in the last 10 minutes	Read- only
.1.3.6.1.4.1.49136.1.5.2.0	Indicates the configured watchdog 2 action for 10 minutes since the last event occurred			
.1.3.6.1.4.1.49136.1.5.3.0	Indicates the configured watchdog 3 action for 10 minutes since the last event occurred	All	0 - normal, 1 - watchdog actuated in the last 10 minutes	Read- only
.1.3.6.1.4.1.49136.1.5.4.0	Indicates the configured watchdog 4 action for 10 minutes since the last event occurred			
.1.3.6.1.4.1.49136.1.5.5.0	Indicates the configured watchdog 5 action for 10 minutes since the last event occurred	All	0 - normal, 1 - watchdog actuated in the last 10 minutes	Read- only
.1.3.6.1.4.1.49136.1.7.5.0	Indicates the configured watchdog 6 action for 10 minutes since the last event occurred	All		Read- only
.1.3.6.1.4.1.49136.1.7.5.0	Indicates the configured watchdog 7 action for 10 minutes since the last event occurred	All	0 - normal, 1 - watchdog actuated in the last 10 minutes	Read- only
.1.3.6.1.4.1.49136.1.7.5.0	Indicates the configured watchdog 8 action for 10 minutes since the last event occurred	All		
.1.3.6.1.4.1.49136.1.7.5.0	Indicates the configured watchdog 9 action for 10 minutes since the last event occurred	All	0 - normal, 1 - watchdog actuated in the last 10 minutes	Read- only
.1.3.6.1.4.1.49136.1.5.1.0	Indicates the configured watchdog 10 action for 10 minutes since the last event occurred	All		
.1.3.6.1.4.1.49136.1.6.1.0	AC Power Supply Voltage - Optional	All	Measured in volts	Read- only

DIMENSIONS AND WEIGHT

	Standard model	SNMP model
Height (a)	45 mm	45 mm
Width (b)	186 mm	225 mm
Depth (c)	230 mm	230 mm
Weight	1,94 kg	2,35 kg

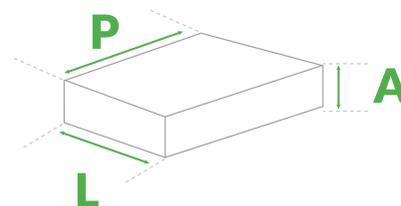


NECESSARY DISTANCE FOR VENTILATION



PACKING

	Standard model	SNMP model
Material	Cardboard	Cardboard
Height (A)	50 mm	50 mm
Width (L)	200 mm	270 mm
Depth (P)	320 mm	320 mm
Weight	2,5 kg	2,8 kg



PROTECTION



Outbreaks: Protects the DC UPS against lightning or various atmospheric discharges.



Overvoltage: Protects against the effects of electrical distribution network maneuvers.



Falls: Protects against the effect that happens in installations when the distribution network receives high loads.



Under voltage: Prevents a drop in the level of the electrical signal, a problem usually caused by the imbalance in the distribution of electric energy.



Noise: Prevents that the interference in the electrical network caused by electromagnetic emission or by radio frequency transmissions interferes with the DC UPS output.



Electrical faults: Caused by faults in the power supply.

Warranty Terms

1- Warranty term

- This warranty is granted by ALGcom and it is valid for a period of one (1) year from the date of purchase of the sales invoice.
- For further information about Warranty terms and expiration date, contact us by e-mail: sac@algcom.com.br, informing the model, serial number or batch number, manufacturing date and purchase invoice number.
- Please note that the Warranty will only be valid upon presentation of the purchase invoice.

2 - Warranty conditions

- It is the responsibility of the person installing the electronic device/piece of equipment to **comply with the company's regulations**, as well as to follow the installation instructions contained in this manual.
- Use only **components and fasteners provided by ALGcom** in the assembly kit.
- **Maintenance** should be performed by authorized and trained personnel to minimize hazards to you and to others.
- Perform at least one **annual inspection** to verify the condition of the electronic device/piece of equipment.

3 - Warranty Exclusions

- The warranty will not cover, and it is the sole responsibility of the buyer, any damages caused by: violation, modification, change of components, adjustment or repair done by unauthorized personnel.
- Damage of the product because of improper installation and use that do not follow the conditions established in this manual.
- Natural wear and tear caused by regular use, especially of parts such as connectors, power cord, fans, varistors or any other parts that characterize wear and tear.
- Damage caused by nature's phenomenon (rain, humidity, wind, solar rays, electric discharges, etc.).
- Damage caused by risks associated with improper grounding.
- Reversing the battery bank can cause damage and it is not covered by this Warranty.
- Any other malfunction that is not a manufacturing defect.

4 – Recommendations

- Please, read carefully the installation and operating instructions contained in this manual before starting/turning on the product.
- Make sure that the supply voltage is according to what is recommended in this manual.
- Keep the product away from rain, humidity, wind, sun, etc.

5 - Repair and Technical Assistance Services

- ALGcom provides repair and technical assistance services for its products. Please note: that out-of-warranty products will only be repaired under client approval of repair services quotation price.
- Products repaired outside the original warranty of the product have three (3) months warranty.
- For products repaired within the warranty period, the warranty expiration date remains the same.

6 – Warranty Service

- For products that were not purchased directly from the ALGcom factory you must first contact the authorized representative or reseller where the purchase was made, so that they can get in touch with the ALGcom Customer Service.
- In the case of product repair within the Warranty period, please contact the authorized ALGcom distributor in your country. If not, contact the ALGcom Customer Service (SAC) directly.
- For complaints, comments, questions or suggestions about products or repairs, call our Customer Service: +55 54 3201.1903.



DO YOU USE BATTERY BANK?

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