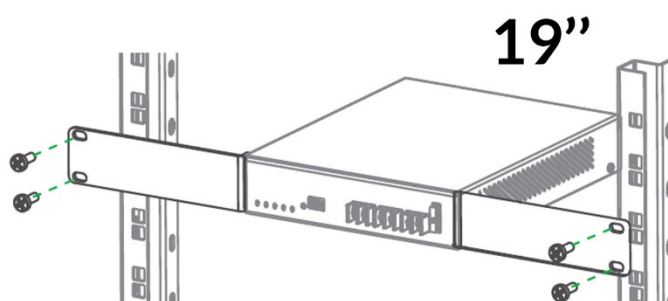


FX DC UPS

12V/10A
24V/7A



FX DC UPS

- Compact and easy to install
- 3-Stage Battery Charger
- Equipment protection
- Fixing in rails of 19"

1U

APPLICATION

The ALGcom DC UPS line is designed to protect your equipment against surges and faults, ensuring excellent performance and preventing your equipment from potential problems in the field.

COMPACT AND EASY TO INSTALL

The ALGcom DC UPS Line was thought to meet 1U Design standards. Taking up little space, with possibility of installation in vertical and horizontal, the ALGcom DC UPS is performance and efficiency guarantee in telecom.

BATTERIES CHARGER

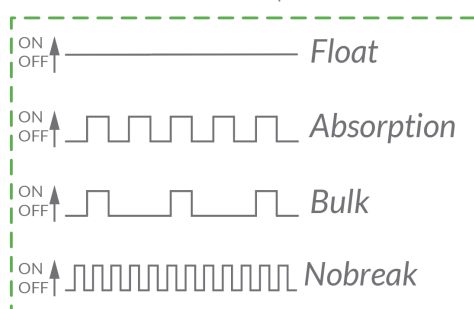
Designed to work with lead acid batteries, the ALGcom Nobreak Sources feature a 3-stage charger, described below. An intelligent algorithm that runs on the source microprocessor controls the charger.

Stage 01-Bulk: Operates with constant current that can be programmed in 1A, 2A or 3A, allowing gradual and controlled charging of the batteries. When they reach full charge, the charger goes to the next stage.

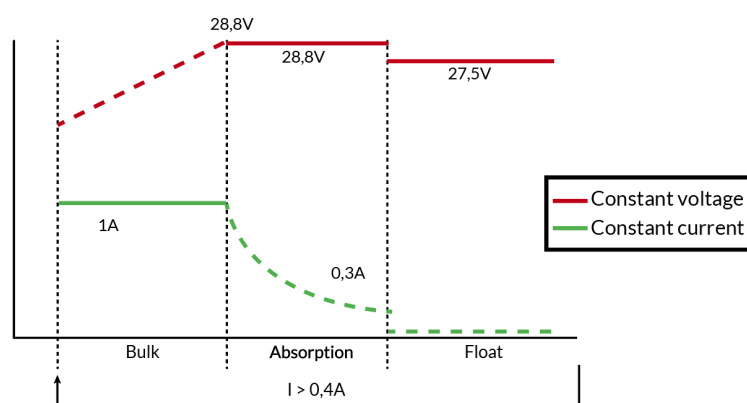
Stage 02-Absorption: At this stage, the charger applies a constant voltage in order to equalize the voltage of each cell of the battery. In this way, the effect of premature sulfating of the plates is minimized, promoting an increase in the battery charge capacity and, consequently, its lifespan. Once the equalization occurs, the charger switches to the next stage.

Stage 03-Float: This is the final stage of the battery charging process, where a constant fluctuating voltage is applied in order to cancel the self-discharge effect, allowing the battery to remain in its best state of charge for a long period.

Nobreak mode: Responsible for feeding the devices in case of a light fall.

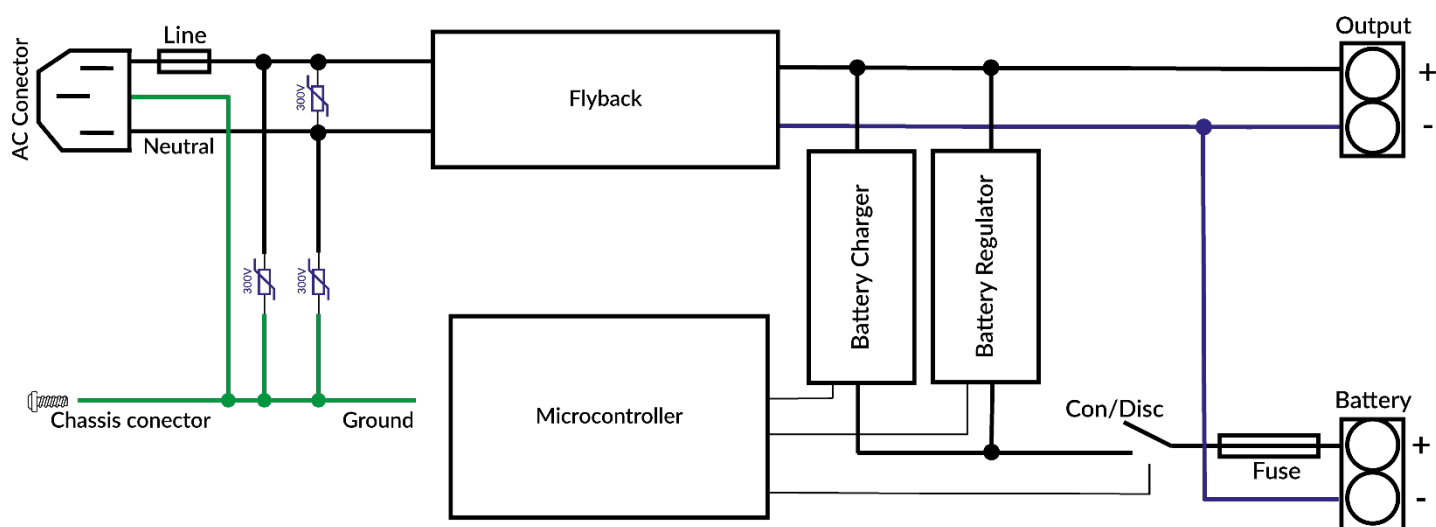


Stages of the battery charger: Indicated on the front panel, are symbolized by a LED that turns on and off according to the behavior shown in the figure on the right.



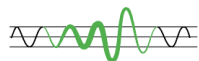
The graphic above shows the charging stages of the battery charger, illustrating the voltage and current behavior of the batteries as well as the migration point from one stage to the next. Current values might vary depending on the DC UPS model. **Note:** Graphic for the 24V/7A model

FUNCTIONAL DIAGRAM

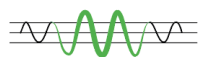


MICROCONTROLLED INTELLIGENT DC UPS

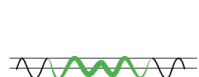
The ALGcom DC UPS features a microprocessor that runs the battery-charging algorithm, battery under voltage protection, Nobreak operation mode, time control for AC power return. All these functions are done with the mathematical calculations and precision of a digital control developed to deliver the most stable voltage at the output. Fast protections such as short circuit, input power loss, transient AC to battery, short circuit with battery connected, over temperature, are performed by fast analog circuits designed to protect the DC UPS, the user and the load connected to it. We put together the best of digital with the best of analog.



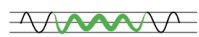
Outbreaks: Protects the DC UPS against lightning or various atmospheric discharges.



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 cause 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.

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 10A	120W	84W	7A	3A	108W	9A	1A
24V 7A	168W	96W	4A	3A	144W	6A	1A

REGULATORY COMPLIANCE

ELECTROMAGNETIC IMMUNITY

Electrostatic discharge (ESD)	IEC 61000-4-2	Discharge by contact Discharge by air	8kV 15kV	Criterion C*
Fast transients (Burst)	IEC 61000-4-4	Power input Output from AC/DC UPS	4kV 1kV	Criterion A*
Surge voltage input (Surge)	IEC 61000-4-5	Stage -> Neutral Phase -> Ground; Neutral -> Ground	4kV 4kV	Criterion A*
Surge voltage output (Surge)	IEC 61000-4-5	+ - - + - > Ground; - -> Ground	1kV 1kV	Criterion A*
Voltage dip (Dips)	IEC 61000-4-11	0% - 100Vac 40% - 100Vac 70% - 100Vac 0% - 220Vac 40% - 220Vac 70% - 220Vac	0Vac,20ms 40Vac,200ms 70Vac,500ms 0Vac,20ms 88Vac,200ms 154Vac,500ms	Criterion A*
Voltage interruption	IEC 6100-4-11	0% - 220Vac	5000ms	Criterion C*

***Criterion A:** AC/DC UPS exhibits normal behavior with output at its set value.

***Criterion C:** Temporary loss of function is possible. The DC UPS may shut down and return to normal operation.

ELECTRICAL SAFETY

Entrance/Exit	SELV	IEC 60950-1 Double isolation on reinforced isolation
Protection class	I	Needs ground connection
Leakage current	Typical <0,1mA/0,2mA Typical <0,4mA/1,0mA	100Vac,60hz 264Vac,60hz

DIELECTRIC STRENGTH

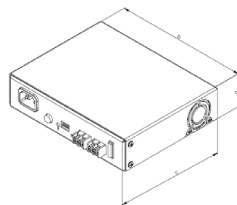
Phase+Neutral for output	3000 Vac	During 60s
Phase+Neutral for ground	2500 Vac	
Exit to ground	1000 Vac	

ISOLATION

Phase+Neutral for output	>5 Mohm	500 vcc test
Phase+Neutral for ground		
Exit to ground		

DIMENSIONS AND WEIGHT

a Height	45 mm
b Width	185 mm
c Depth	148 mm
d Weight	1,24 kg

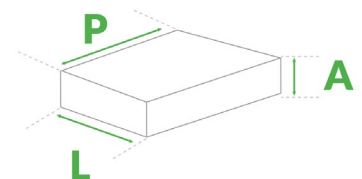
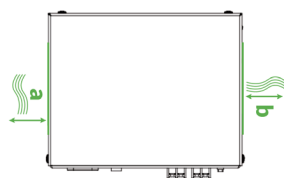


PACKING

Material	Cardboard
Height (A)	51 mm
Width(L)	245 mm
Depth (P)	200 mm
Weight	1,72 kg

FREE DISTANCE FOR VENTILATION

a	30 mm
b	30 mm



ATTENTION TO THE WARRANTY!



Installation and maintenance should be performed by trained and authorized personnel to minimize hazards to oneself and others.



It is installer's responsibility to **comply with regulations** applied to the installation, as well as follow the instructions of this guide.



Use only **components and fixing elements provided by ALGcom**.



Perform at least one **annual installation inspection** to verify the equipment conditions.



DO YOU USE BATTERY BANK?

Try the ALGcom Outdoor Cabinets with a reserved space for batteries.



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