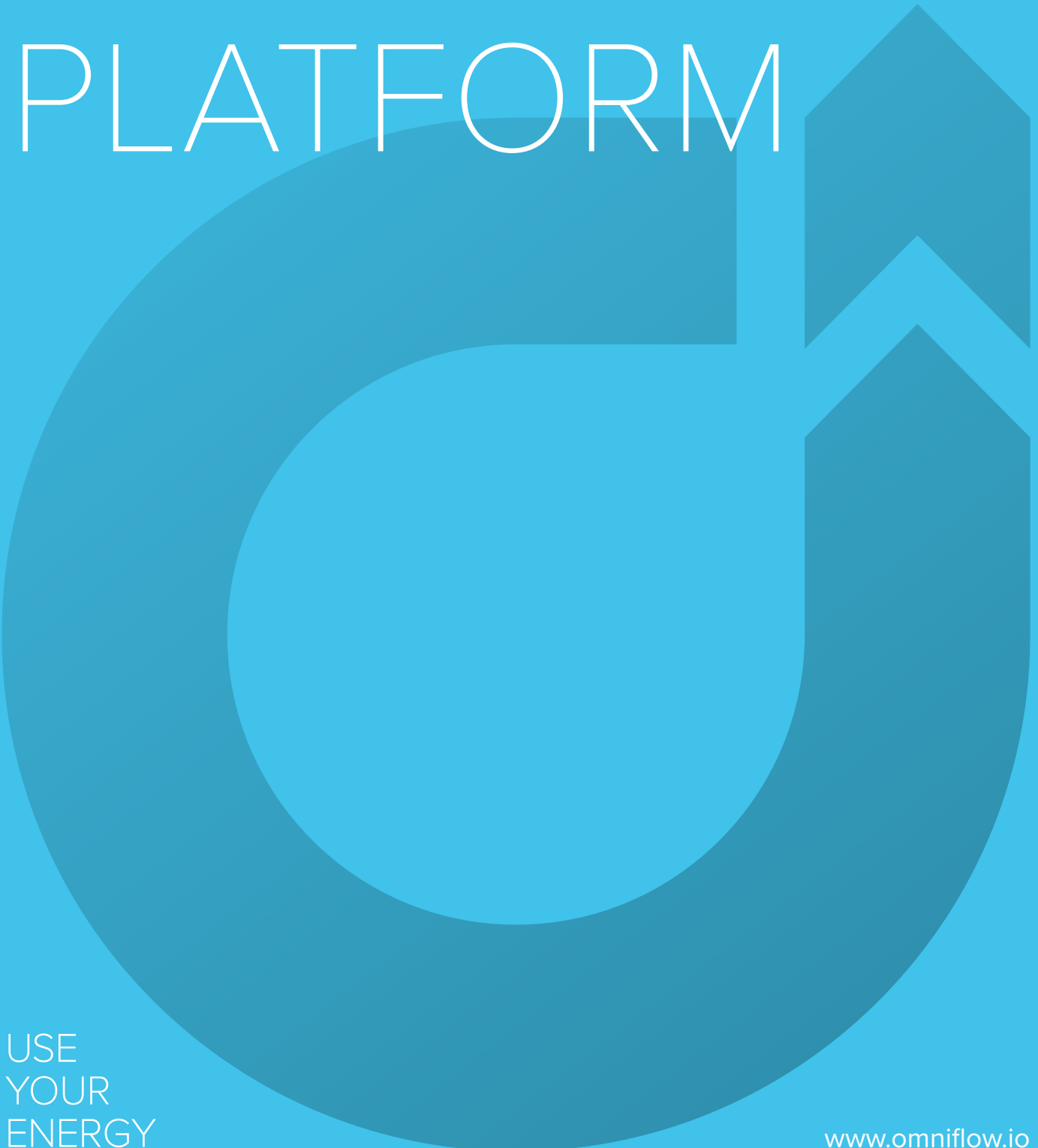


Omniflow®

SMART IoT PLATFORM



USE
YOUR
ENERGY

www.omniflow.io

OMNILED

Smart IoT Platform with Wind/Solar and Energy storage

Owner's Manual
installation | operation | maintenance
Version: 2024.12 (EN)



The OMNILED® smart energy platform for IoT is based on the award winning wind & solar hybrid electrical power generation OMNIFLOW® concept. It is a multifunctional a device designed for street lighting while being a power and location platform for urban monitoring, internet access and mobile telecommunications 1.

Please read this Owner's Manual prior to Installation and Operation of the Product.

1 Characteristics and functionalities dependent on markets and models.

Introduction

Welcome to the OMNILED® smart IoT platform!

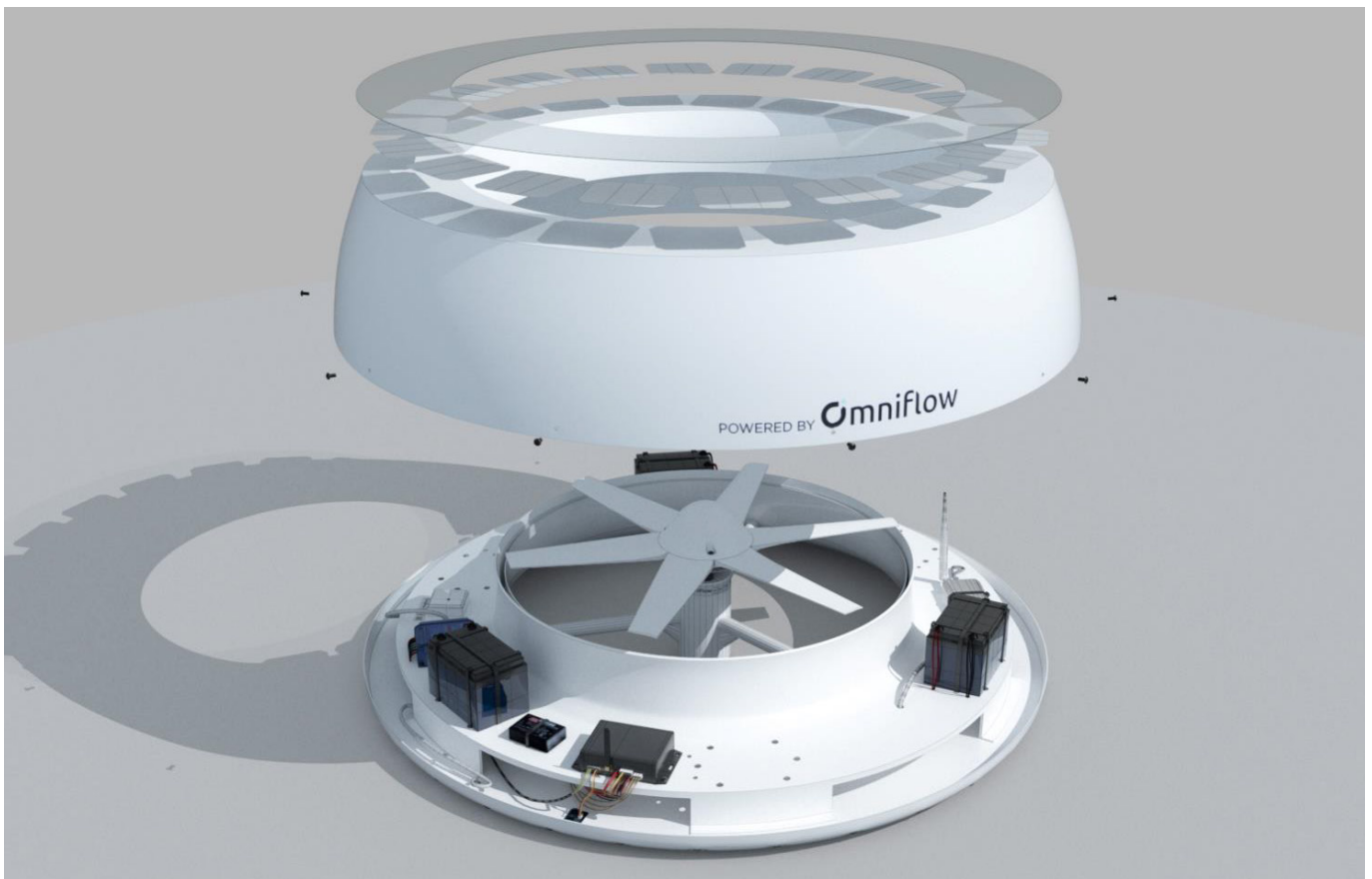
This owner manual includes notes on the installation, operation and regular maintenance instructions for safe and regular care of the OMNILED® hybrid wind & solar smart system.

Trained and properly equipped personnel, using appropriate lifting/handling equipment and tools, should do the installation of the pole.

If maintenance or installation/setup of any custom purpose functionality is intended, the appropriate Electrical/Electronic Supplements are required to complement this manual.

In the manual, you might have checklists to guide you through the intervention on the OMNILED. Following these step-by-step instructions, you will insure your installation is completed correctly.

As soon as you finish the installation, do not forget to activate the warranty, by sending an email with the serial number(s) of the installed equipment's and its location(s) to info@omniflow.pt.



For any questions or comments, feel free to contact your OMNIFLOW reseller or directly our company through info@omniflow.pt.

Safety Instructions

Caution: Please read these instructions carefully before installation



OMNILED® smart system should be installed [and maintained] by qualified personnel using appropriate safety gear.

Never touch any stripped cable ends or un-insulated connections. The electrical installation must be done by a qualified professional in accordance with the rules in force in each country.

Never move body parts or objects through the turbine because even if this is not in operation is easily actionable with a slight breeze.

Don't loose the rotor until all instalation is complete.

Please only install this product in open spaces without solar shading in the device and with "clear" wind flow as suggested in page 6 diagram

Motion sensor is easy damaged if the device is not handled with care. Do not remove the protective foams until the installation is complete and do not touch the LED/optic lens with your bare hands.

Check communications in OmniConnect platform. This should be done 1-5min after connection the fuse with the lifting equipment still in place in case anything is not correct. Do the LED test if unit has LED's.

Specifications

Caution: Please read these instructions carefully before installation

Technical Data	OMNILED 07
Dimensions (W/H/D) ft [m]	3.94 [1.2] / 1.0[0.3] / 3.94 [1.2]
Generator	Direct drive, ironless stator permanent magnet generator
DC controller	Hybrid wind/solar regulator
Power	Wind - 100Wp / Solar - 60Wp + (optional Extra solar 60Wp PV)
Weight lb [kg]	77.16 [35] – 132.28 [60]
Device type	Grid connected or Off-Grid (depending on the load)
Battery	500Wh C10 Lead Crystal (optional extension to 1000Wh)
Pole height ft [m]	20 [6] or 26 [8] or 40 [12]
Lighting power	30 W or 45W (up to 120W on-grid)
Luminance lumen	5100 lm or 6800 lm (18600 lm @120W)
Color temperature	4000K
Optional equipment	Wi-Fi Router
(if detailed in the packing list):	IP Camera
	Extra Solar PV
	Extra Battery
	Grid-Tie

Unpacking

The OMNILED box contains: **(1)** the fully Omniled unit, **(2)** a plastic bag with screws, bolts, washers, and a fuse. The serial number is printed on the packaging and on a label directly on the unit.

Carefully remove the OMNILED from the box, **ensuring the protective foam spacers remain in place.**



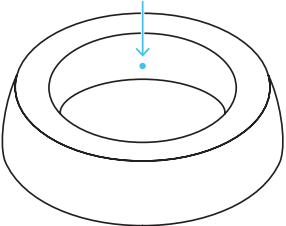
Installation



Use a safe lifting device to position the OMNILED in to the top of the mast previously fixed to the foundations.
Only use masts/foundations or projects provided or approved by Omniflow.


Omniiled installation

1



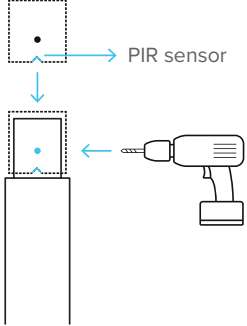
Insert the fuse

2



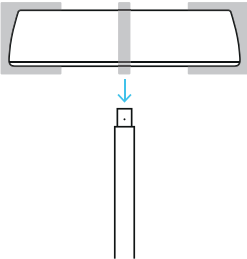
Verify communications

3



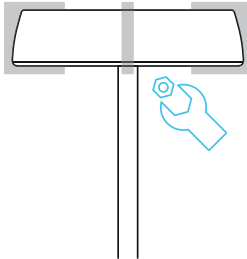
Drill the mast
Using the template
(Recommended drill size M11 / Metal thickness 4mm)

4



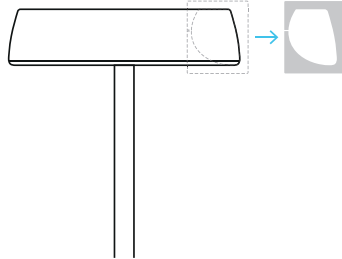
Install the Omniiled.
Keeping the foam protections.

5




Insert bolts into
the holes and tighten

6

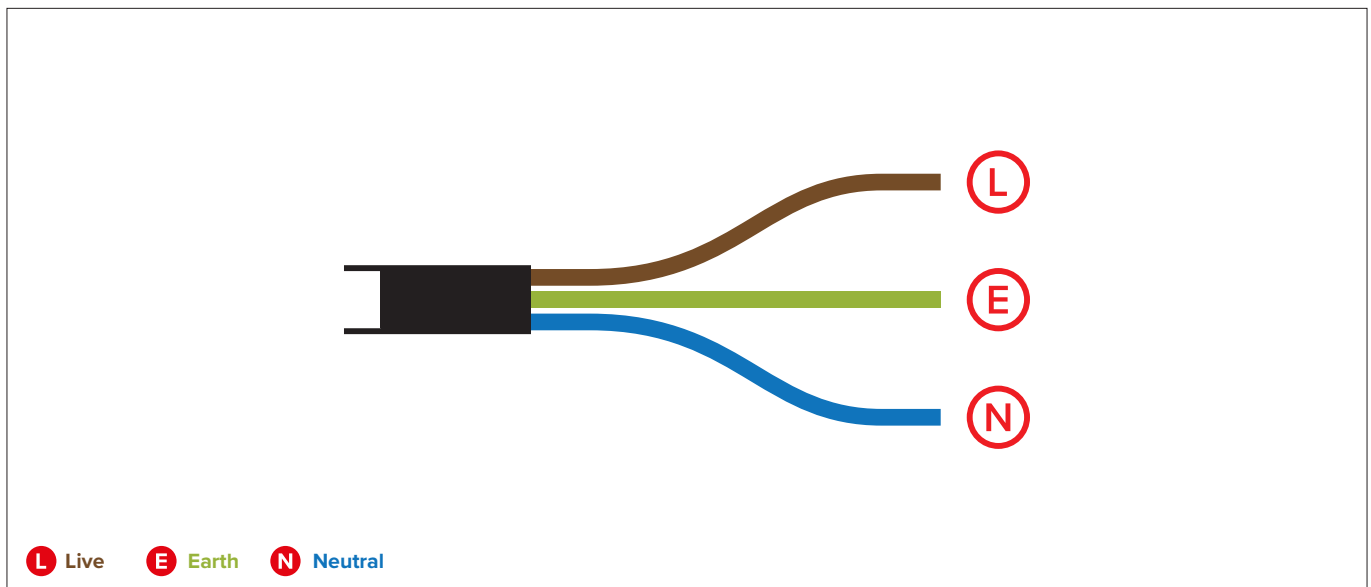
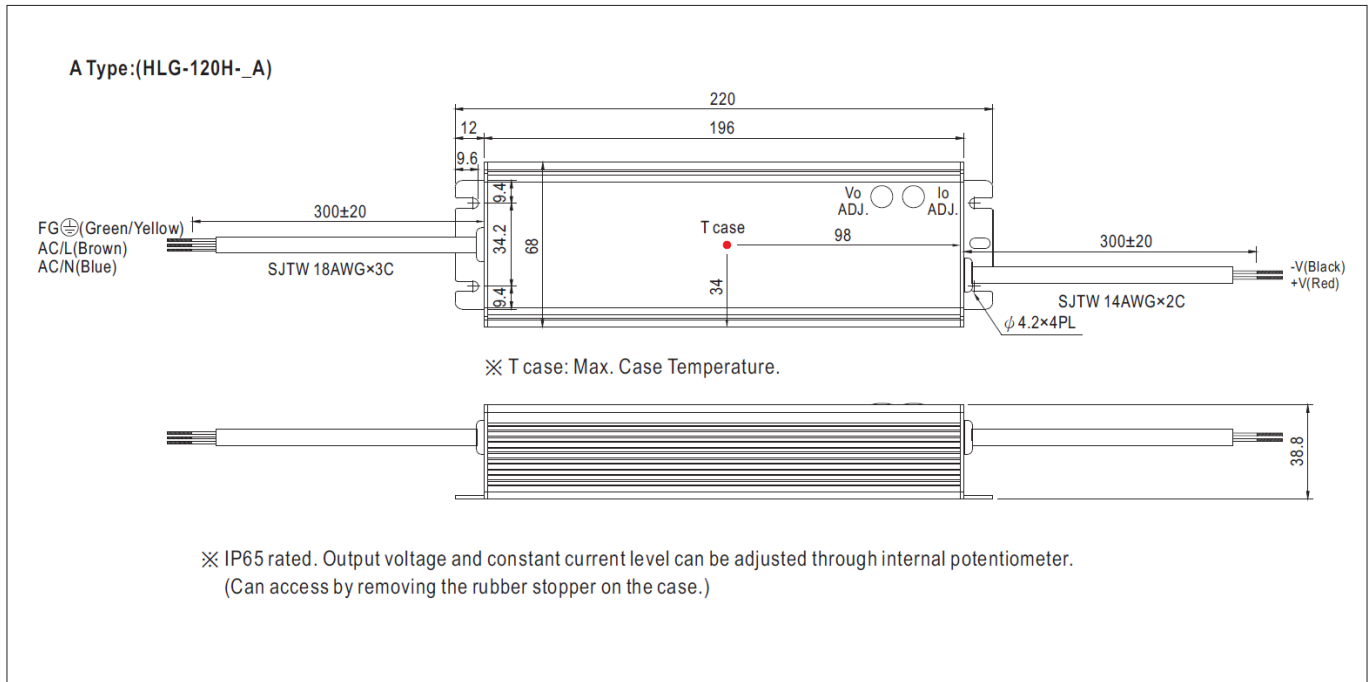


Remove the foam protections
after complete installation

 Bolt tightening torque	
Bolt Size (mm)	Strength Grade (N·m)
10	33

The OMNIFLOW® unit should be ready for operation

Optional Equipment (GRID-TIE):



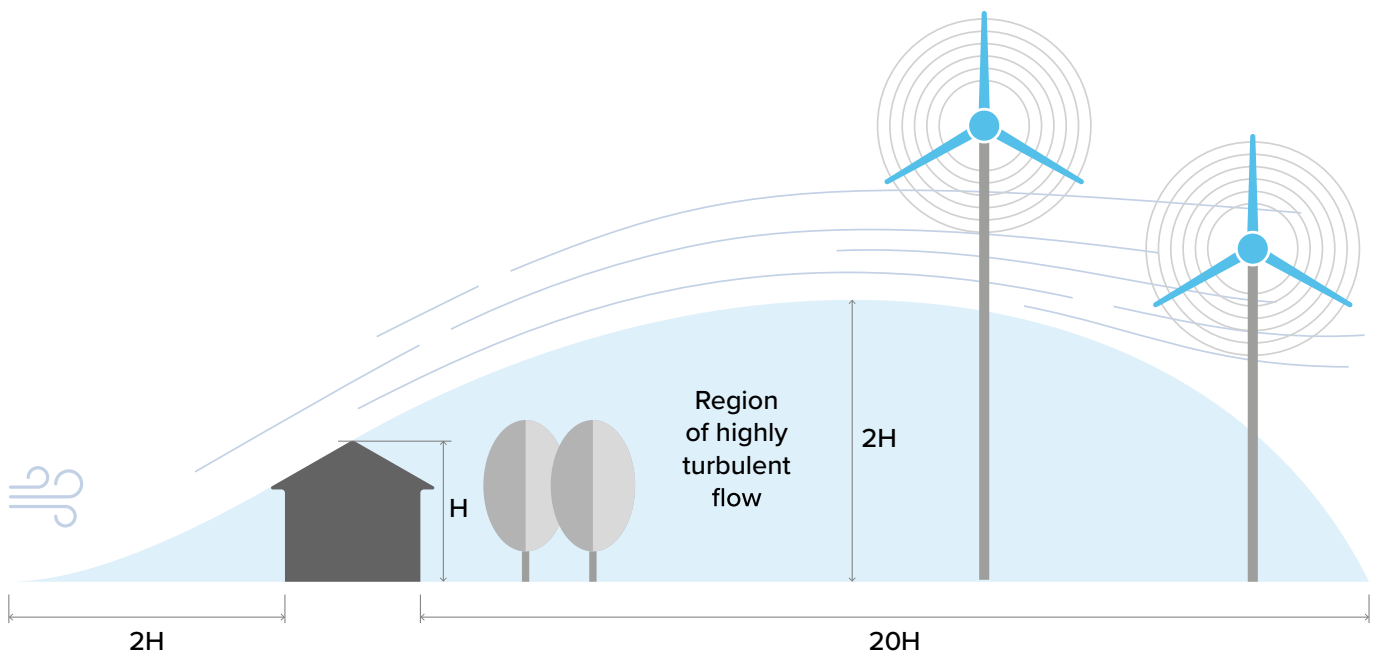
Grid-Tie cable will come out of the center metallic structure

Frequently asked questions

Situation	Solution
Lights don't turn on	Check if the fuse is installed or if it's damaged Normal if it is the first time running and batteries are not charged
Rotor spins faster than usual	Normal if there is high wind
Rotor spins at low speed	Check if there is enough wind
Rotor spins at low speed	Check for tall buildings or trees in the direction of the prevailing wind *** (check diagram)
Rotor spins at low speed	Normal when the batteries are fully-charged

Effect on the wind of an obstruction

(buildings or trees)



Warranty

The warranty is 24 months from the date that equipment becomes in Client responsibility. Client should also communicate by email the serial number(s) of the installed equipment's and its working location to info@omniflow.pt, with a subject line "Warranty OMNIFLOW".

Warranty may be void in the following situations:

- If the product is used with an accessory, equipment or part that does not meet product specifications.
- Manufacturer warranty if the products are not supplied by Omniflow S.A. representatives and/or its accredited reseller/installer.
- If the products are not used or maintained in accordance with the instructions provided by Omniflow with respect to placement, operation and maintenance.
- Any defect arising from intended damage, negligence, abnormal working conditions, failure to fulfill Omniflow instructions, misuse or alteration or repair of Products without Omniflow's approval.
- If the products are not used in normal operation conditions.
- If damages are from normal wear or tear.
- If the products are repaired, altered or modified not in accordance with Omniflow manufacturer's instructions.
- If the products are opened and altered with other electronics not supplied by Omniflow.

Equipment's being returned to distributor/manufacturer should be properly packaged to protect from damage during transportation. Shipping and insurance costs required to return to Omniflow, SA or its Distributor(s) are the solely responsibility of customer.

Before returning the product, we require the following information:

- Product Serial Number
- Description of the problem
- The location of the installation

Upon verification of failure due to defects in materials or workmanship, Omniflow will either repair or replace the product at our discretion.

Maintenance

Periodic visual inspection of the equipment should be taken, in particular to check whether:

- The rotor rotates freely;
- There is accumulated dirt in the Photovoltaic panel;
- Any sign of corrosion of the metallic components;
- Any visible damage especially after a storm;

Please check the maintenance manual for more information

In the event of any irregularities, please contact nearer Omniflow distributor

