

## Warning!

Please read the user manual included in this work as it contains important information related with safety of installation and use of the device.

Only persons who read the user manual may use the device.

The user manual must be kept because it may be required in the future. The device is to be used exclusively for purposes specified in this user manual.

The device must be unpacked prior to starting-up. After removing the packaging make sure the device is in working order. If the product has defects, it should not be used until it is repaired.

The product is intended for use at home and commercial use and may not be used for other than intended use.

The manufacturer is not liable for damages resulting from not adhering to the rules contained in the user manual, therefore, we recommend to follow the aforementioned safety rules for operation and maintenance of the device. In this way you will ensure yourself safety and avoid causing damage to the device.

The manufacturer and the supplier are not liable for losses or damages arising out of the product, including financial or intangible losses, loss of profits, income, data, pleasure from use of the product or other products related with it - indirect, incidental or consequential loss or damage. The above provisions apply whether the loss or damage concerns:

1. Deterioration of quality or the lack of operation of the products or products related with it due to damage as well as the lack of access to the product when it is undergoing repair, which results in stoppage the loss of user's time or a break in business activity;
2. Improper results of operation of the product or products related with it;
3. It applies to losses and damages according to any legal category, including negligence and other losses, termination of a contract, expressed or implied guarantee and strict liability (even if the manufacturer or the supplier was notified about the possibility of occurrence of such damages).

### Safety measures:

Particular attention at designing was directed to quality standards of the device where ensuring safety of operation is the most important factor.

The device must be secured against contact with caustic, staining and viscous fluids.

The GRAM-BOX ballast system for mounting solar panels is an innovative solution designed for use on flat surfaces and pitched roofs with a slope of up to 10 degrees. Tanks filled with liquid are much safer and more convenient during installation than standard systems using a metal frame and concrete blocks. The lack of sharp edges significantly reduces the risk of mechanical damage to the roof sheathing, and thanks to the low weight of the tank before filling, its transport to the final installation site is not a problem. After placing the elements in the final place and attaching the panels to them, the tanks should be filled with mains water. In order to increase the stability of the structure, additional stiffening strips can be used, mounted with M8 screws to dedicated inlets located in the front and rear walls of the tank.

The system can also be used in winter, at sub-zero temperatures. In the manufacturing process, the tanks are pre-filled with a suitable amount of non-freezing concentrate. After dilution during refilling with water, the concentration of the agent in the container remains high enough to prevent the water from freezing. The tank is delivered to the user with glycol concentrate and weighs 10 kg, therefore, to determine the recommended weight of 60 kg, add 50 liters of mains water to the tank, which translates to obtaining the recommended weight and concentration of the glycol solution of 10.7%.

In the upper part of the tank, mounting rails with slots for M8 screws are attached. The inclination of the plane determined by the rails to the ground is 21°. Mounting rails are fully compatible with mounting systems suitable for trapezoidal bridges.

**Attention!** The set **does not include** stabilizing strips, screws or rails for mounting solar panels. Appropriate accessories should be selected and purchased separately - according to the dimensions of the mounted panels.



Material:

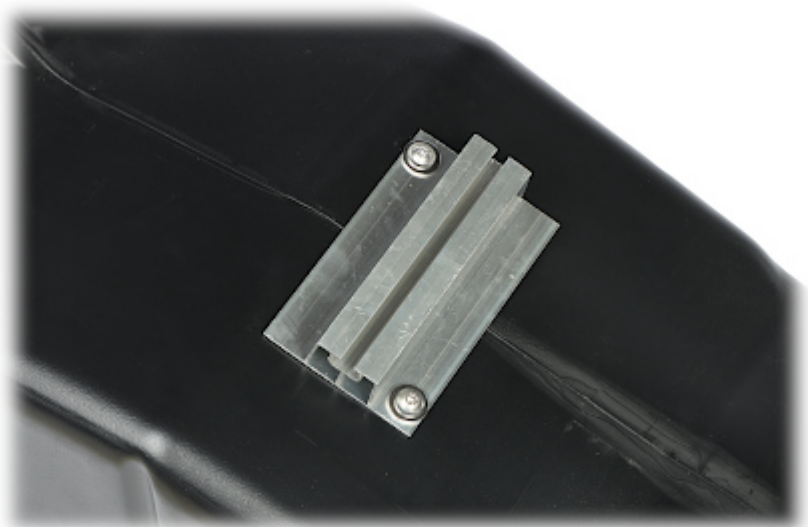
Plastic

Tank capacity:	60 l
The inclination of the panel surface relative to the ground:	21 °
Maximum inclination of the mounting surface:	10 °
Main features:	<ul style="list-style-type: none"> <li>• Low tank weight before filling</li> <li>• No sharp edges that could damage the roof sheathing</li> <li>• Very easy and quick assembly</li> <li>• Universal rails for mounting solar panels</li> <li>• The tank is delivered to the user with glycol concentrate and weighs 10 kg, therefore, to determine the recommended weight of 60 kg, add 50 liters of mains water to the tank, which translates to obtaining the recommended weight and concentration of the glycol solution of 10.7%</li> <li>• The tank has a "lip" in the lower part that prevents the panel from sliding off the ballast</li> </ul>
Weight:	9.6 kg
Dimensions:	920 x 460 x 380 mm
Guarantee:	2 years

Inlets with M8 thread - front:



mounting rails:



Rear view:



Inlets with M8 thread - rear:



Water filling hole:



Side view:



Example of application:



## PACKAGE

Dimensions (L x W x H): 0x0x0 mm	Gross Weight: 0 kg
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