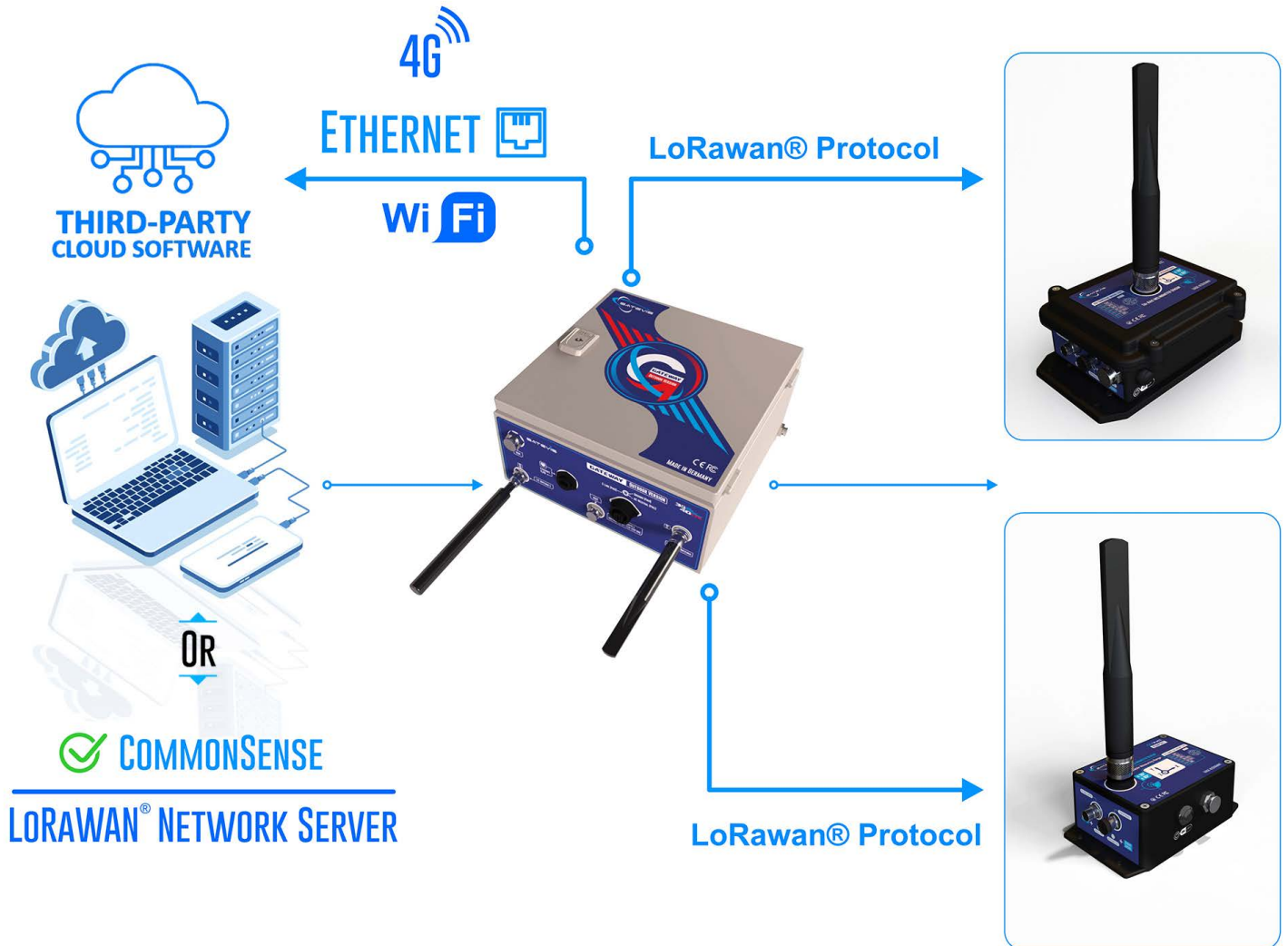


# SATEVIS<sup>®</sup> IOT SOLAR GATEWAY



## HOW IT WORKS ?



## PRODUCT REFERENCE

SATEVIS-IOT-SOL-GTW-FREQU-4G-BAT

### FREQU-LoraWan Frequency Plan

**EU868:** Europe, switchable to IN865

**US915:** USA & Canada, switchable to AU915/KR920/AS923

**AU915:** Australia, switchable to US915/KR920/AS923

**AS923:** Asia, switchable to US915/KR920/AU923

### 4G - Connectivity

**4G-EU:** 4G European frequency

**4G-US:** 4G US frequency

**Note:** 4G is provided on all Solar Gateway

### BAT - Battery Type

**VRLA:** Valve Regulated Lead-Acid (VRLA) battery, Capacity 14Ah

**LIFEP04:** LiFePO4 Battery Capacity 18Ah

**Note:** Solar panel is not included and can be purchased separately or from Local market.

**Example 1:** SATEVIS-IOT-GTW-SOL-EU868-4G-EU-VRLA, LoraWan 868MHz, 4G connectivity for Europe, VRLA Battery

**Example 2:** SATEVIS-IOT-GTW-OUT-EU915-4G-US-LIFEP04, LoraWan 915MHz, 4G connectivity for US, LiFePO4 battery

## LORAWAN® PROTOCOL

Processor	MT7628(MIPS24KEc@580MHz), RAM DDR2 128MB, FLASH 32MB
LoraWan® chipset	SX1302 with 8 channels
LoraWan® protocol	V1.0.3 Class A/Class B/Class C
Frequency Plan	IN865/EU868/RU864/US915/AU915/KR920/AS923
Long Range Sensitivity	-125dBm @125KHz/SF7 -139dBm @125KHz/SF12
Long Range TX Power	Up to 26 dBm

## 4G CONNECTIVITY SPECIFICATIONS (OPTIONAL)

4G Band	<p>4G-EU :</p> <p>LTE-FDD: B1/B3/B7/B8/B20</p> <p>LTE-TDD: B38/B40/B41</p> <p>WCDMA: B1/B8</p> <p>GSM: 900/1800MHz</p> <p>4G-US :</p> <p>LTE-FDD: B2/B4/B5/B8/B12/B13/B14/B66/B71</p> <p>WCDMA: B2/B4/B5</p> <p><a href="https://en.wikipedia.org/wiki/List_of_LTE_networks">For more info, consult the List of LTE network available in your country : https://en.wikipedia.org/wiki/List_of_LTE_networks</a></p>
4G Features	<p>4G-EU :</p> <p>Support non-CA Cat 4 FDD and TDD</p> <p>LTE-FDD: Max 150Mbps (DL), Max 50Mbps (UL)</p> <p>LTE-TDD: Max 130Mbps (DL), Max 30Mbps (UL)</p> <p>4G-US :</p> <p>Support non-CA Cat 4 FDD</p> <p>LTE-FDD: Max 150Mbps (DL), Max 50Mbps (UL)</p>
UMTS Features	<p>Support 3GPP R8 DC-HSDPA, HSPA+, HSDPA, HSUPA and WCDMA</p> <p>DC-HSDPA: Max 42Mbps (DL) HSUPA: Max 5.76Mbps (UL)</p> <p>WCDMA: Max 384Kbps (DL), Max 384Kbps (UL)</p>

## ENVIRONMENTAL AND MECHANICAL

Casing	Steel enclosure, Light gray color
Weight	10kg without solar panel
Dimension	300x300x155mm without solar panel
Operating Temperature	LieFePO4 battery version : 0°C to 55°C VRLA battery version : -15°C to 55°C
Mounting Process	Screw mounting on wall , Pole Mounting kit available (Option)
Norms and Radio certifications	<p>-CE Labelling Directive R&amp;TTE (Radio) ETSI EN 300 328 (Europe)</p> <p>-FCC Part 15.247 (North America)</p> <p>-ARIB STD-T66 Ver. 3.6 (Japan)</p> <p>-IC RS210</p> <p>-ROHS - Directive 2002/95/EC</p>

## BATTERY AND SOLAR CHARGING CONTROLLER

Battery	<p>LiFePO4 Battery with integrated Battery Management System            Charge cycle 2000 times at 100% and 5000 times at 70%            Capacity 18Ah            Valve Regulated Lead-Acid (VRLA) with deep discharge protection            Capacity 14Ah</p>
Solar Charging Controller	<p>MPPT solar controller with remote control and monitoring via Bluetooth (VictronConnect App)            Maximum Input current: 10A            Power consumption &lt; 19mA with Load and &lt; 10mA without Load            Output short circuit and Over Temperature protection            Nominal voltage :12VDC            Led displays: battery full and charging</p>
Socket for SOLAR Panel Configuration	<p>Industrial and Waterproof Socket            Circular Socket CA 3 GD - Hirschmann            Rated Voltage: 400VA            Rated Current: 16A</p>

## INCLUDED ACCESSORIES

List of Included accessories	<p>1 x LoraWan Antenna 5dBi with Magnet mounting            1x Wall-Mount Power Supply            1 x LAN cable 1.5 meters - Waterproof            1 x Hirschmann Plug for connecting to Solar Panel</p>
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## OPTIONS (TO BE ORDERED SEPARATELY)

Options (to be ordered separately)	<p>LoraWan® FiberGlass Antenna 824-960 MHz            Gain 8dBi , VSWR ≤ 1.5            Radiation : Omnidirectional            N-Female connector            Diameter : 2cm , Length : 60cm, Weight: 500g            Reference: SATEVIS-LORA-HG-8DBI</p>
4G Fiberglass Antenna	<p>4G FiberGlass Antenna 698-960 MHz, 1710-2700 MHz            Gain 6/8dBi , VSWR ≤ 1.5            Radiation : Omni-directional            N-Female connector            Diameter : 2cm , Length : 60cm, Weight: 650g            Reference: SATEVIS-4G-HG-8DBI</p>
Pole Clamp	<p>Pole Clamp, for reliable, convenient fastening to round or square poles.            For pole diameter: Ø from 40 to 170 mm            For pole size: from 50 to 150 m            Reference: SATEVIS-GTW-SOLAR-MAST</p>
Solar Panel	<p>Different models are available :            SATEVIS-GTW-SP-100W-5M            SATEVIS-GTW-SP-100W-10M            SATEVIS-GTW-SPFLEX-110W-5M            SATEVIS-GTW-SPFLEX-110W-10M</p>

## SOLAR PANEL OPTIONS

### SATEVIS-GTW-SP-100W-5M

PERC Monocrystalline Solar panel, 182mm solar cells, 10Bus-bars, 100W 12V

- Construction with 182mm monocrystalline PERC cells
- With 10 multi-busbars, less resistance, and more stability
- Increased cell efficiency above 23.1%
- Less gaps between the solar cells and thinner busbar design
- Integrated bypass diode
- Surface made of hardened ESG solar glass with weatherproof coating
- Unique, extra robust frame made of anodized aluminum
- TÜV certified according to standards IEC61215, IEC61730

Provided with 5 meters cable and Hirschmann Plug

Module dimension: 925 \* 580 \* 35 mm

Module weight: 6.3 kg



### SATEVIS-GTW-SP-100W-10M

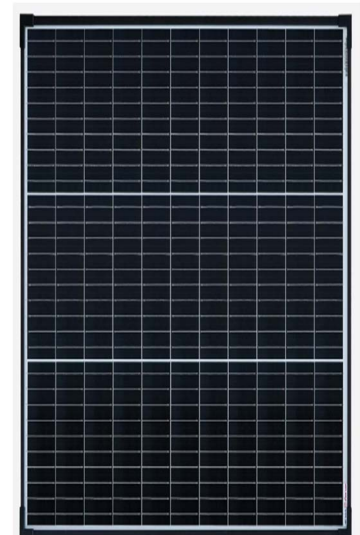
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Provided with 10 meters cable and Hirschmann Plug

Module dimension: 925 \* 580 \* 35 mm

Module weight: 6.3 kg





## SATEVIS-GTW-SPFLEX-110W-5M

ETFE Marine semi-flexible solar panel 166\*166mm 9 Busbars  
PERC Cells, 110W /12V

- Increased cell efficiency up to 22.62%.
- Structure with 166mm\*166mm monocrystalline solar cells
- With 9 multi-busbars, less resistance and more stability
- Bendability: max. 50°
- ETFE coating with high elasticity and durability
- Waterproof junction box with injected silicone
- High resistance to salt water, rain, hail and wind
- Lighter weight and easy installation

Provided with 5meters cable and Hirschmann Plug

Module dimension: 1080 \* 540 \* 2mm

Module weight: 2.1 kg



## SATEVIS-GTW-SPFLEX-110W-10M

ETFE Marine semi-flexible solar panel 166\*166mm 9 Busbars  
PERC Cells, 110W /12V

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Provided with 10meters cable and Hirschmann Plug

Module dimension: 1080 \* 540 \* 2mm

Module weight: 2.1 kg



## MECHANICAL MOUNTING OPTIONS

## SATEVIS-GTW-SOLAR-MAST

Pole Clamp, for reliable, convenient fastening to round or square poles.

- For pole diameter: Ø from 40 to 170 mm
- For pole size: from 50 to 150 m
- Material Profile rails, clamping section: Carbon steel
- Clamping strap: Stainless steel 1.4301 (AISI 304)
- 2 profile rails, 600 mm long
- 4 clamping sections
- 2 clamping straps
- 4 clamping brackets
- 4 self-threading M10 screws for mounting on the enclosure
- Gross Weight: 2kg

