



SolarGaps

SMART BLINDS WITH BUILT IN SOLAR PANELS



PRODUCT INFORMATION

Product description

SolarGaps is a smart blinds system which generates electrical power using built-in photovoltaic elements.

Solar panels built into venetian blinds convert solar energy into electricity. Blinds provide effective protection from the sun and eliminate unwanted solar heat gain through the windows.

The system is connected to the electrical grid through the inverter that transforms solar power into electricity. This, in turn, means the amount of energy used from local electrical providers will be reduced by the amount of electricity generated by the blinds.

SolarGaps blinds are designed only for the external (outdoor) installation to ensure sufficient energy generation and correct performance.

Awards

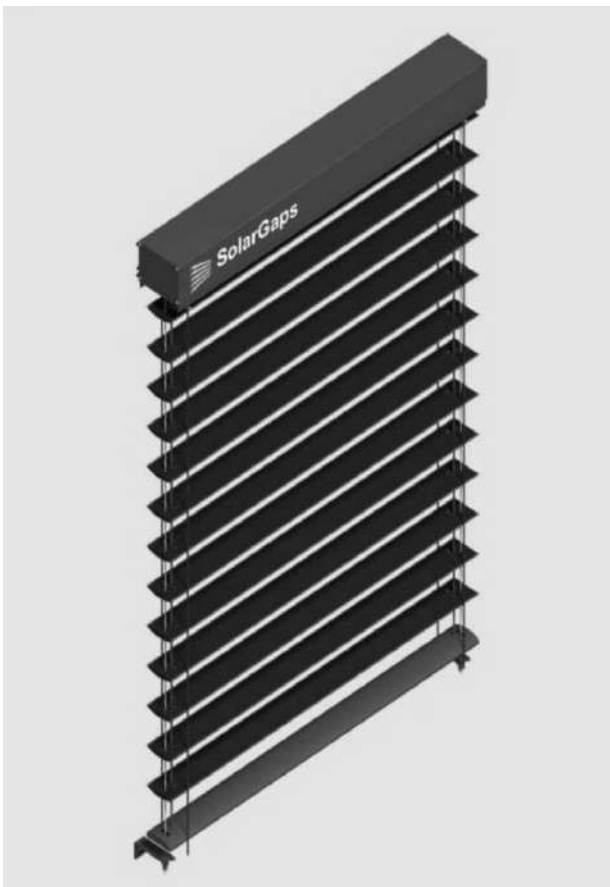


Model Range



SGVI-R

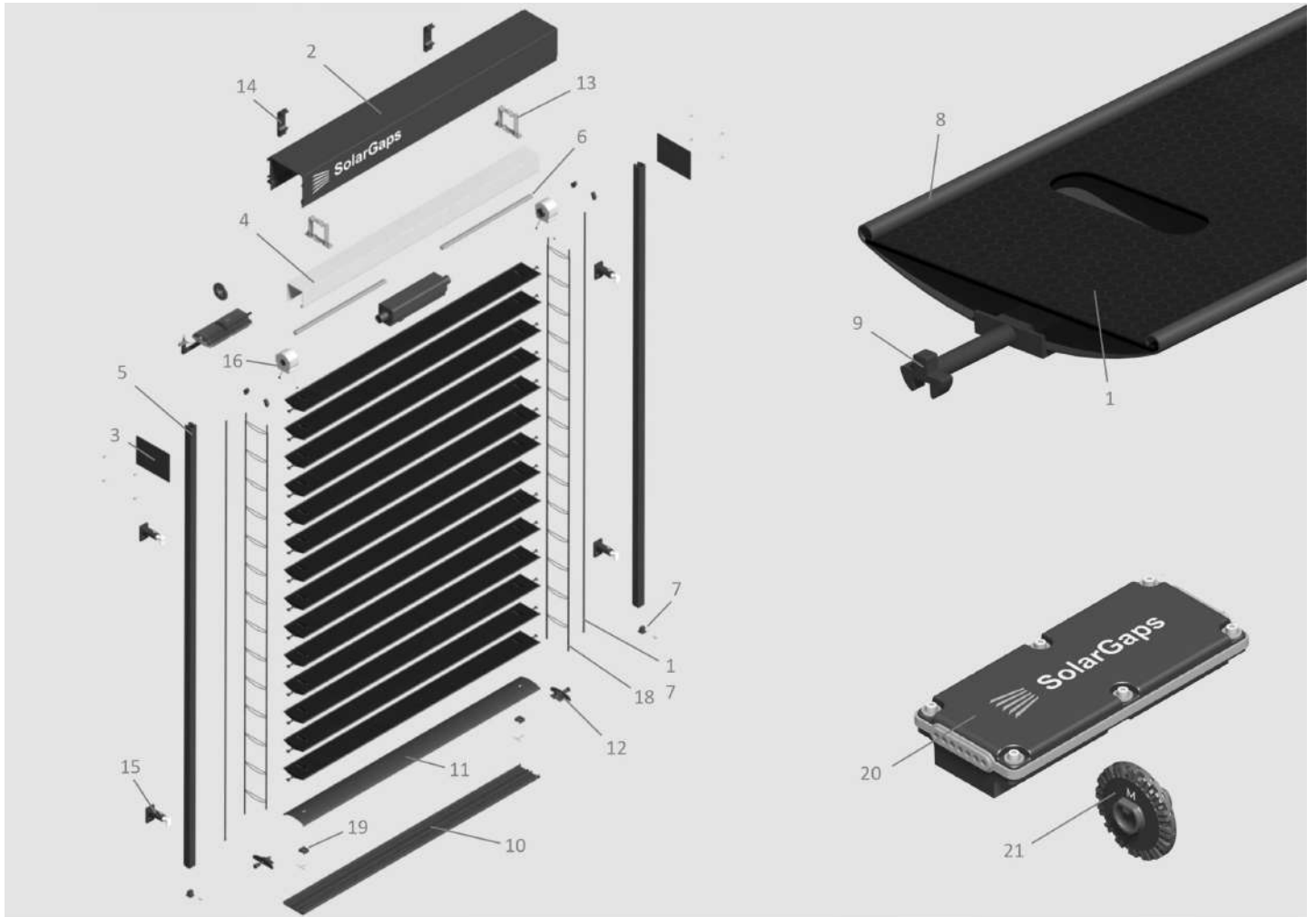
Solar blinds consist of solar panels connected by rigid guides, which provides reliable and secure fastening even in strong winds.



SGVI-W

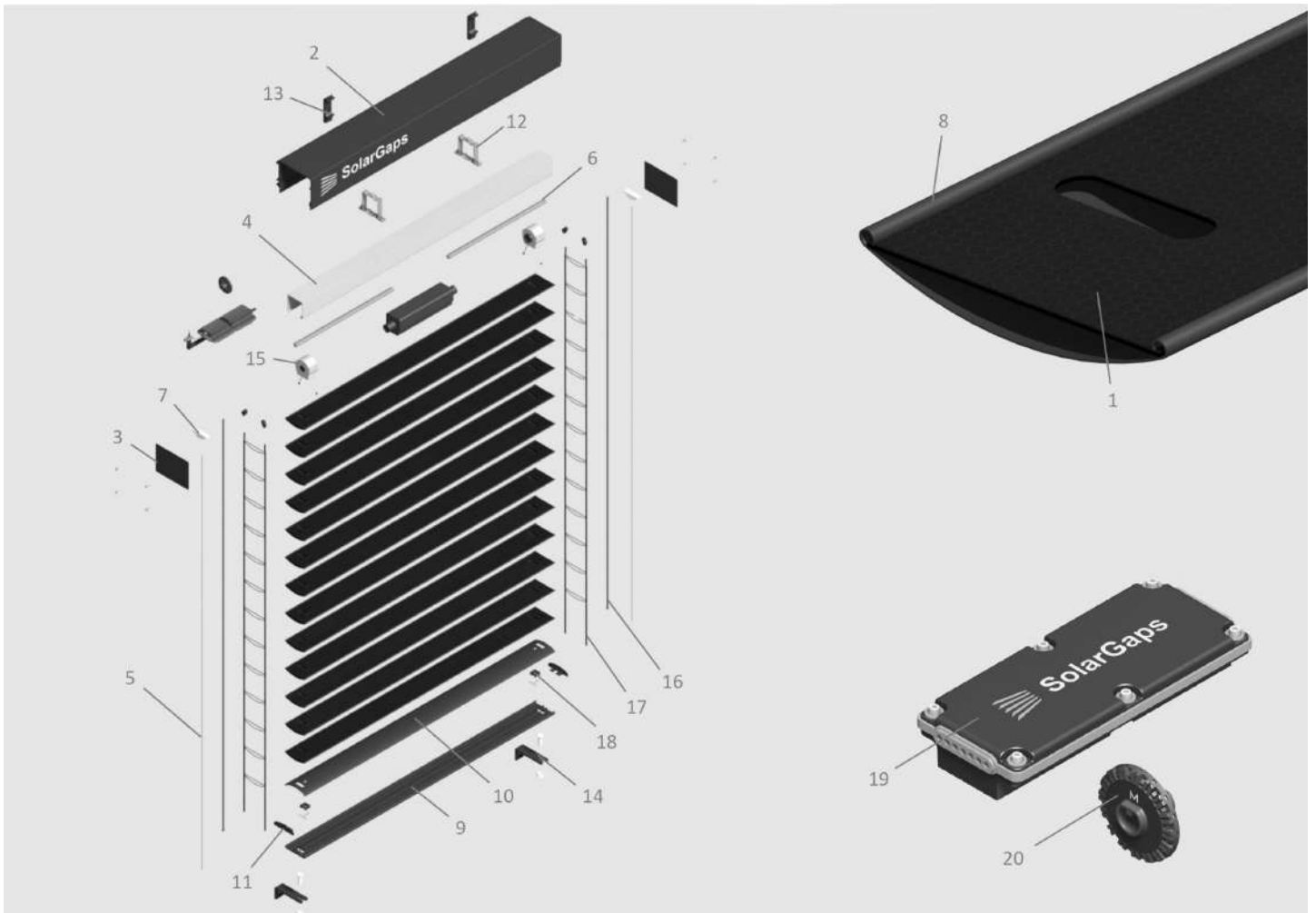
Solar blinds consist of solar panels connected by a strong steel cable, which provides simplicity and reliability of installation on a window.

SGV1-R parts list



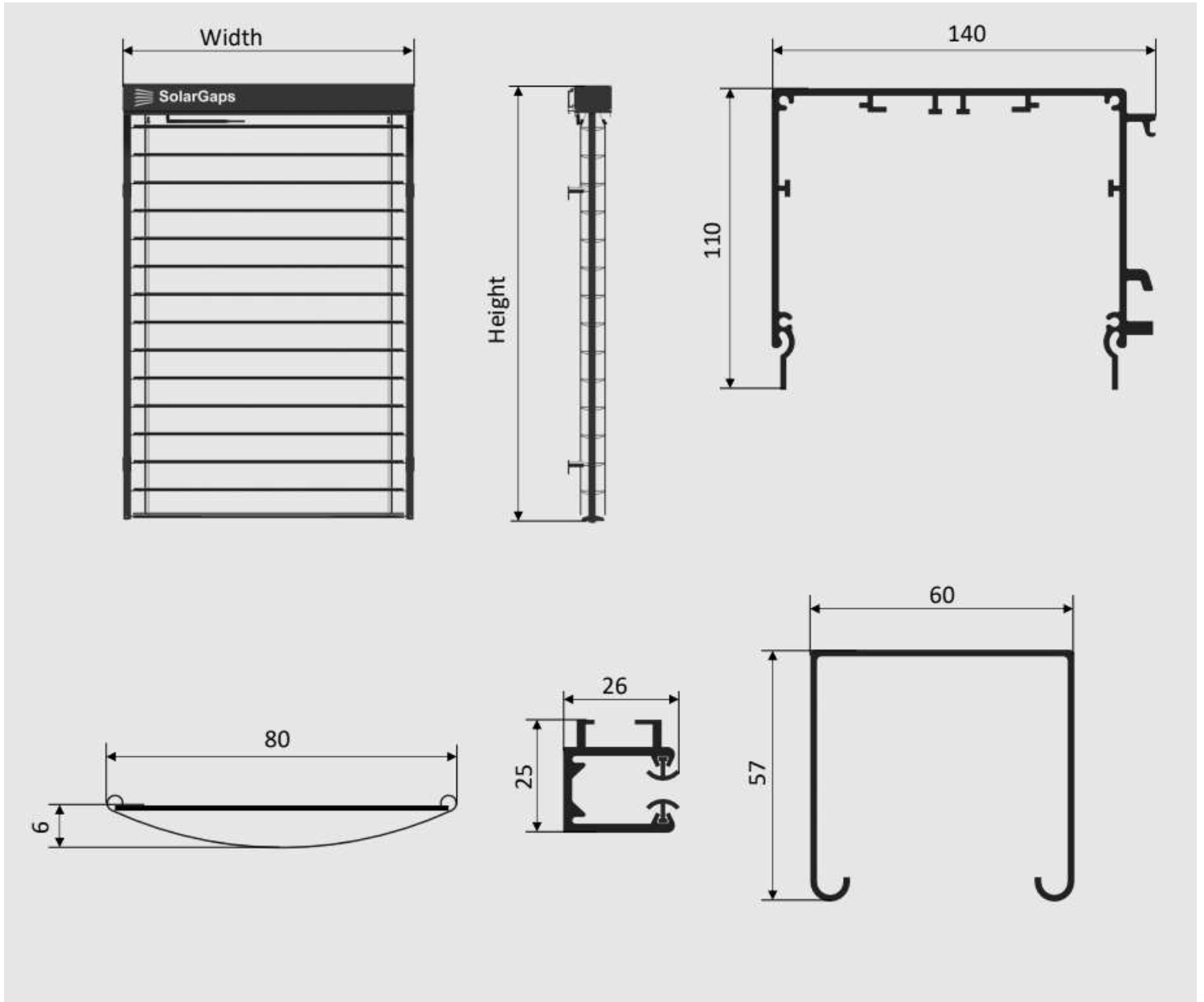
Item №	Description	Item №	Description
1	Solar panel	13	Head Rail Holder bracket
2	QM Box	14	QM Box bracket to wall
3	QM box side panel	15	Mounting Bracket
4	Head Rail	16	Reel
5	Side Rails	17	Lifting thread
6	Shaft	18	Ladder String
7	Side Rail Cap	19	Lifting thread holder
8	Lamella	20	PCB box
9	Holder for lamella	21	Ring
10	Bottom Rail		
11	Bottom Lamella		
12	Bottom rail side panel		

SGV1-W parts list

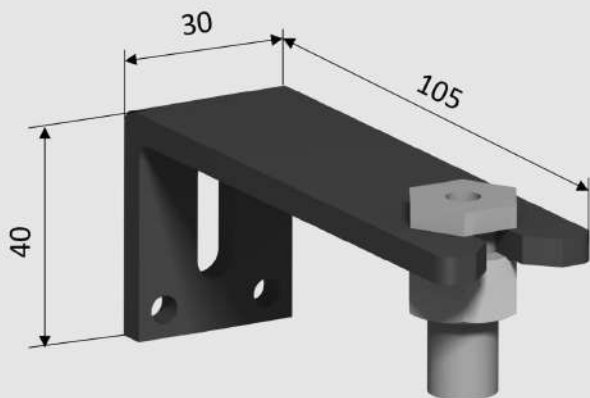
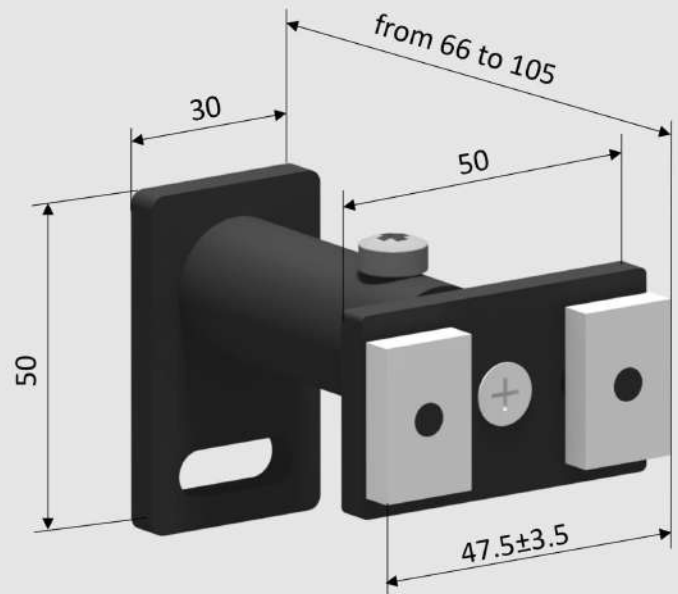
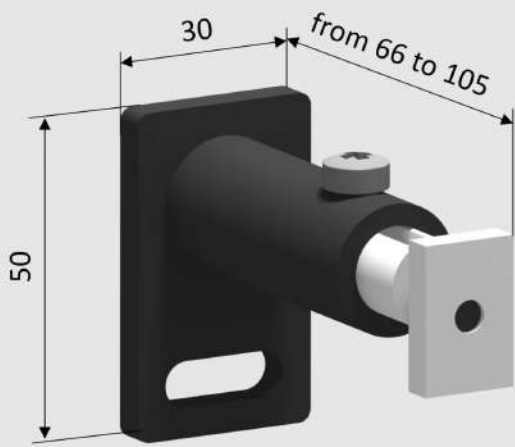
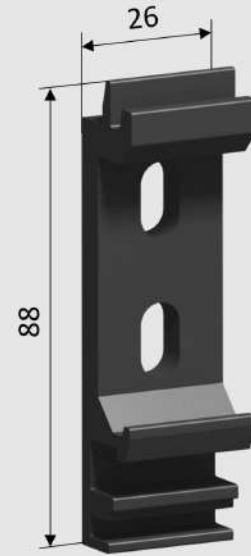
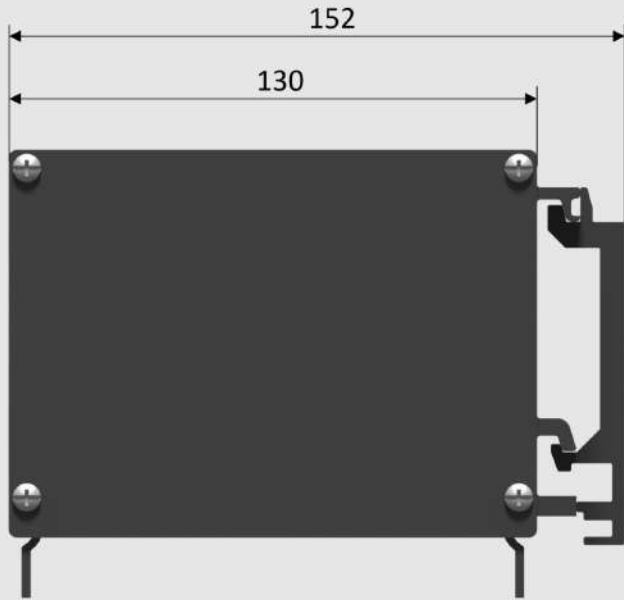


Item №	Description	Item №	Description
1	Solar panel	13	QM Box bracket to wall
2	QM Box	14	Mounting Bracket
3	QM box side panel	15	Reel
4	Head Rail	16	Lifting thread
5	Rope	17	Ladder String
6	Shaft	18	Lifting thread holder
7	Shell	19	PCB box
8	Lamella	20	Ring
9	Bottom Rail		
10	Bottom Lamella		
11	Bottom rail side panel		
12	Head Rail Holder bracket		

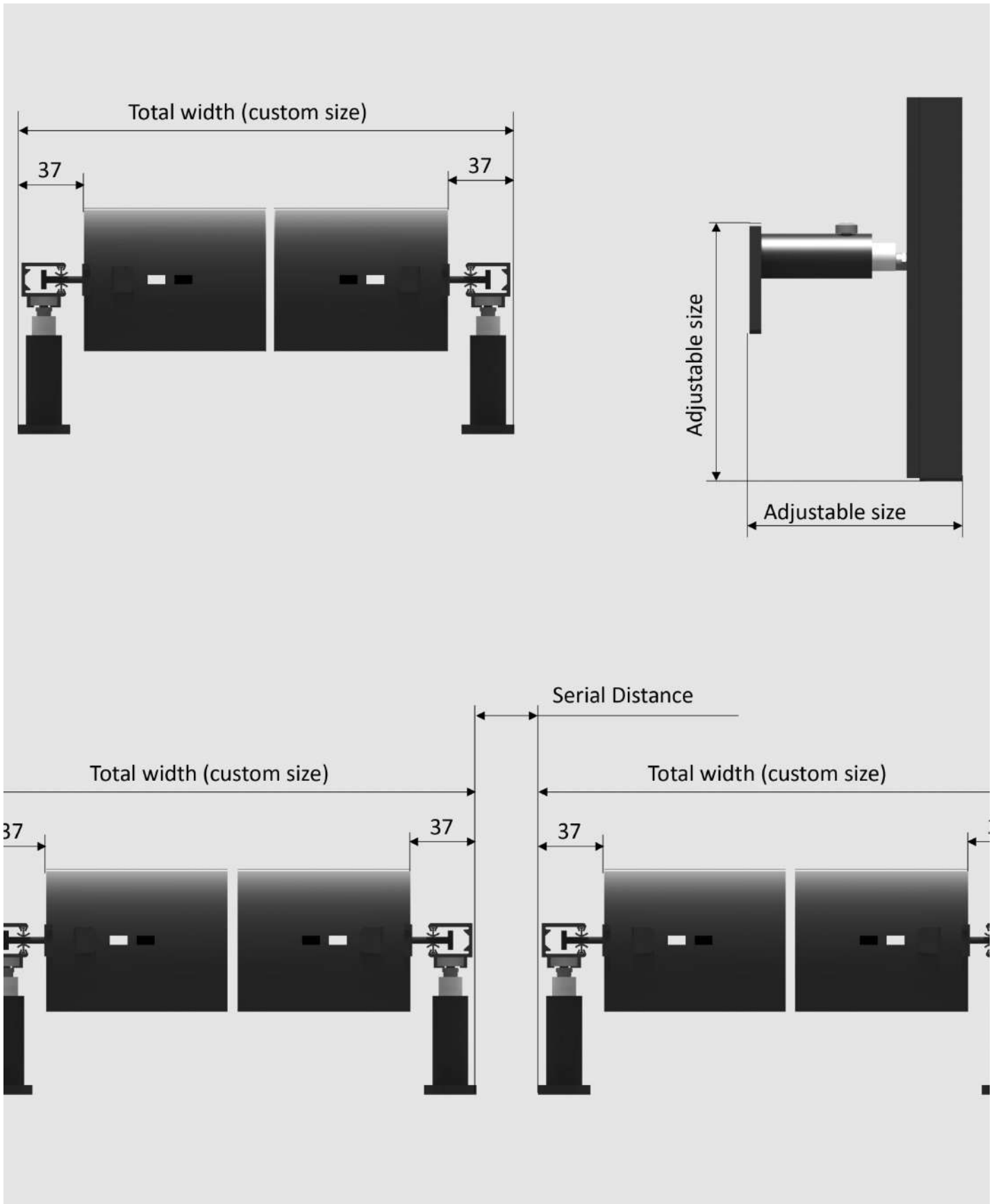
Product dimensions



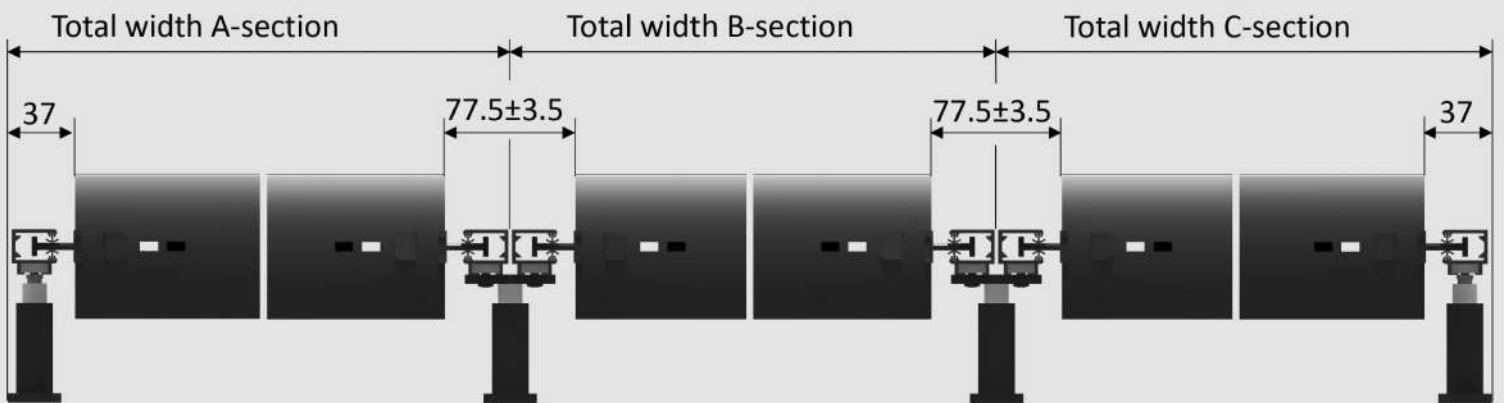
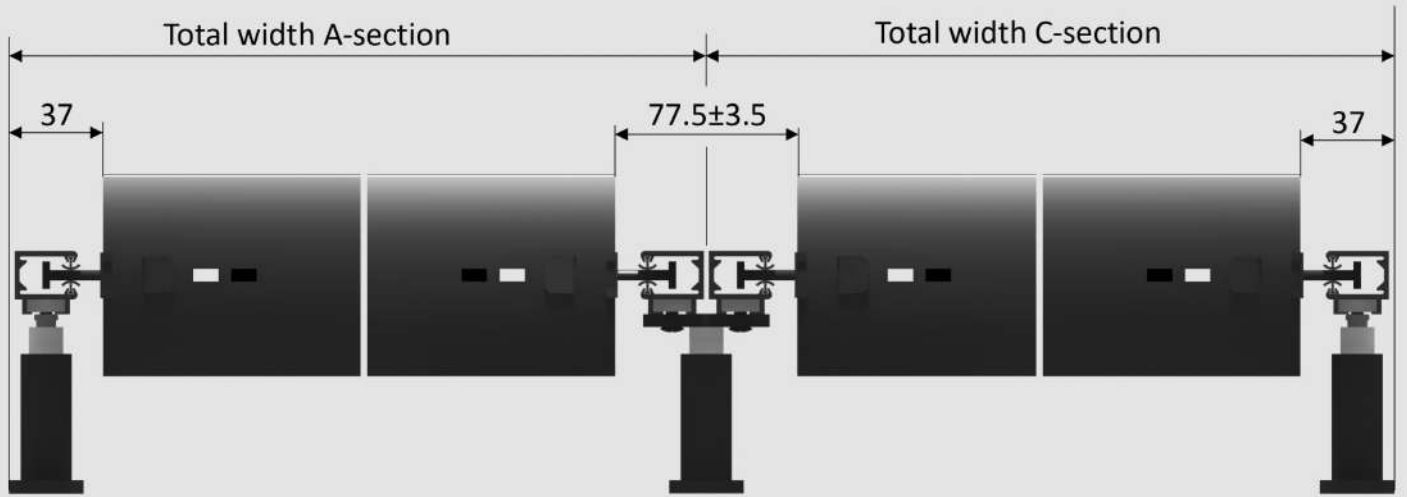
Mounting parts



Installation

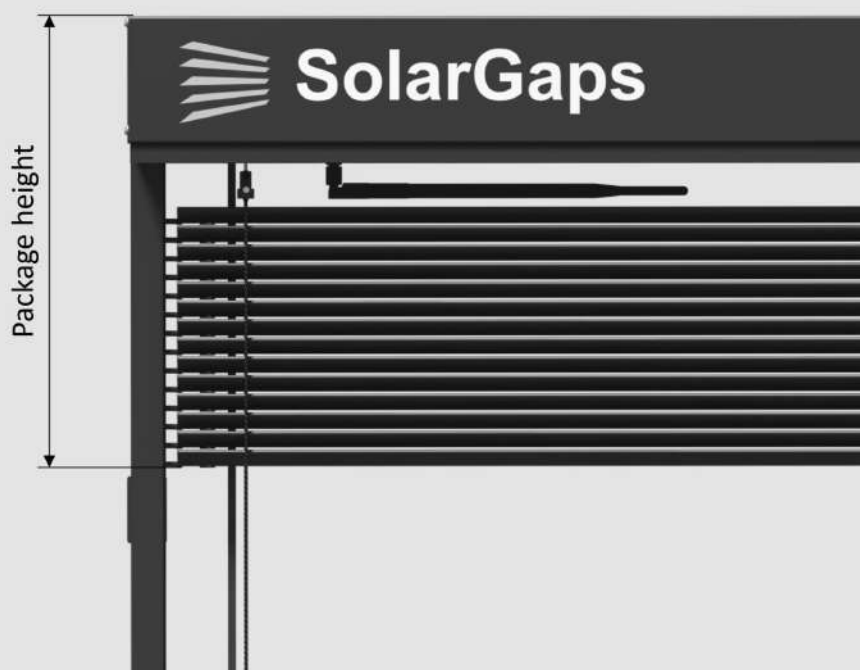


Installation



Package height

The height of the package can be adjusted between -20mm and +30mm



Height of the blinds	Package height	Quantity of lamellae	Height of the blinds	Package height	Quantity of lamellae
800	186	8	2500	305	25
900	193	9	2600	312	26
1000	200	10	2700	319	27
1100	207	11	2800	326	28
1200	214	12	2900	333	29
1300	221	13	3000	340	30
1400	228	14	3100	347	31
1500	235	15	3200	354	32
1600	242	16	3300	368	34
1700	249	17	3400	375	35
1800	256	18	3500	382	36
1900	263	19	3600	389	37
2000	270	20	3700	396	38
2100	277	21	3800	403	39
2200	284	22	3900	410	40
2300	291	23	4000	417	41
2400	298	24			

Technical specification

Characteristics	
Energy generation (m ²)	up to 100 Wh (at maximum solar radiation)
Solar cells	A-grade SunPower Maxeon with 22,4% efficiency
Available width	min 80cm - max 300cm
Available height	min 80cm - max 400cm
Box and lamellas material	aluminum
Solar panels materials	monocrystal cells laminated on fiberglass base
Operating temperature	-20°C - +60°C
Wind resistance	
Motor thermal overload protection	4min
Total solar energy transmittance g _{tot}	0,11 (11% of sun radiation/heat passes through)
Dust and water resistance	IP class 54
Installation type	external, on rigid guides or steel cable
Control	mobile app, wall switch, remote control, manual
Grid compatibility	110/220/230 V AC ± 10%, 60/50 Hz
Inverter	300/500/1000 W
Lamellas	C-shaped C-80
Solar panel cover	ETFE dust-protected coating, matt black
Warranty period	2 years

Color range



White



Anthracite



Brown



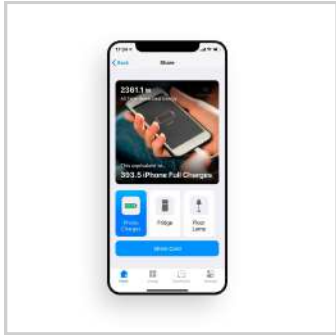
Grey metallic



Beige



Control options



Mobile application (standard version)

All the benefits of using SolarGaps smart external blinds are available in our easy-to-use application for iOS and Android.

A user can control full functionality from any location after setting up the system locally using Wi-Fi signal; monitor the statistics of generated energy by years/months/weeks/days; create different scenarios of operation to increase comfort.



Mobile application & EnOcean wireless wall switch

This option is a combination of our standard application solution and the EnOcean® wireless wall switch.

The self-powered wireless switch provides a flexible and convenient interface for changing vertical position and tilt angle of the blinds.

Energy generated by pressing the button is harvested and used for RF communications. Requires no batteries or cables, easy to install.



RTS Somfy Motor+Somfy remote control *

Radio Technology Somfy® (RTS) provides compatibility with the full range of RTS controls and accessories and allows operation of motorized applications within a range of 18 meters.

Live channel hand-held remote provides control of either five individual motorized applications or five groups of motorized applications.

Also features "my" function to program a favorite position.



Manual control winding handle *

This manual version includes a winding crank handle and does not come with any electronics which would rely on external electricity providers.

It is focused on complete energy self-reliance if used together with energy storage battery.

The handle comes in black and white colors to choose from and is meant for the internal installation.



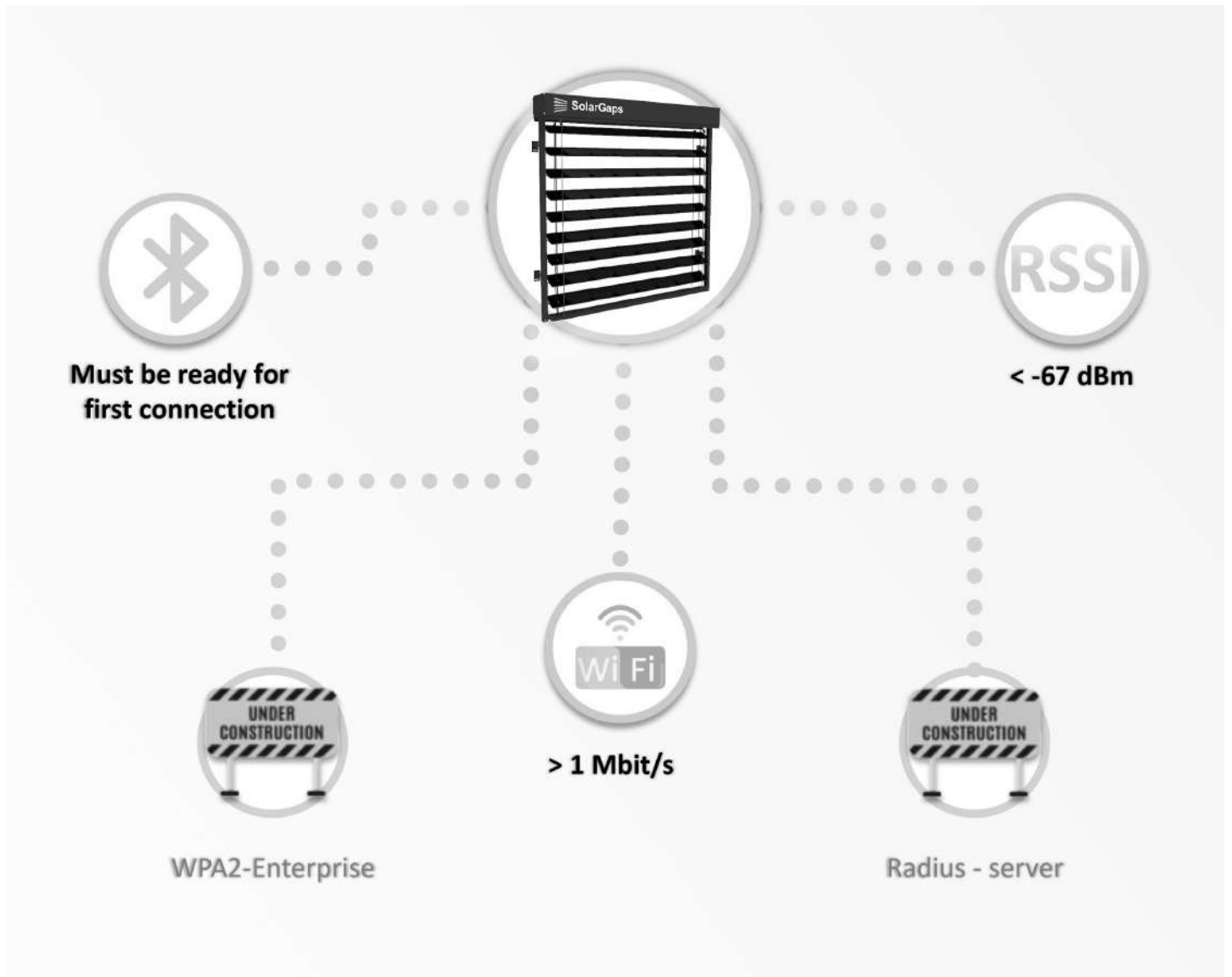
Wire wall switch *

Simple and stable wire switch to control up/down blinds position, as well as the slats' angle.

This version also does not envision alternative usage of SolarGaps mobile application to monitor and control the blinds.

* These versions do not include the energy generation monitoring in the app. If needed, generation can be displayed on some inverters models.

Connection requirements



Connection requirements

WiFi b/g/n 2.4GHz

Bluetooth
(when setup)

Min speed for correct
work must be 1Mbit/s

RSSI signal strength
from -40dbm to -68dbm

Micro-controller doesn't support: Radius-server, WPA2-Enterprise

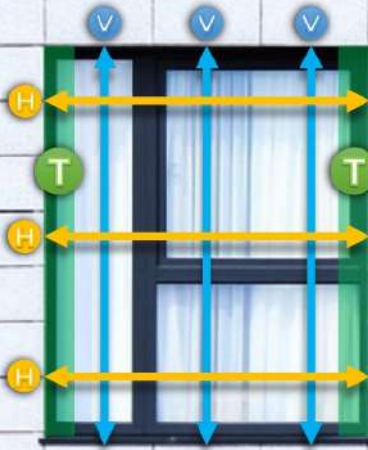
Measurement guide

Overhung (with architrave)



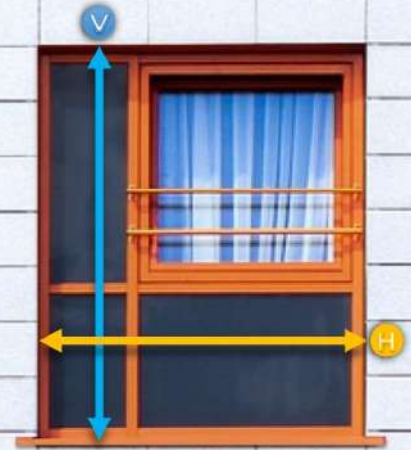
- Measure the width from one architrave edge to the opposite one
- Measure the height from the architrave top to the location, which you plan to be the lowest point for your BLINDS

Innerhung



- Measure the wall-to-wall window width in three locations. Record the shortest width measurement
- Measure the height from the upper part of the window aperture to the window sill in three locations. Record the shortest height measurement
- Tolerance to be taken into account when measuring width. The tolerance shall be at least 7 mm.

Overhung (without architrave)



- Measure the width from one edge of the window aperture to the opposite one.
- Measure the height from the window aperture top to the location, which you plan to be the lowest point for your BLINDS.



When measuring the width before mounting several systems side-by-side, take into account that the gap between external dimensions of the systems may be up to 10 mm.



To provide more dense mounting of several systems, it is possible to remove side caps with screws. In this case the gap will be up to 5 mm.



C E R T I F I C A T E

ATTESTATION CERTIFICATE OF ELECTROMAGNETIC COMPATIBILITY AND LOW VOLTAGE DIRECTIVES

Technical file of the company mentioned below has been inspected and audit has been completed successfully.

2014/30/EU Electromagnetic Compatibility and 2014/35/EU Low Voltage Directives has been taken as referances for these processes.

Company Name	: Limited Liability Company SolarGaps
Company Address	: Magnitogorska str., 1A letter 2 Kyiv, Ukraine, 02606
Related Directives and Annex	: 2014/35/EU Low Voltage Directive 2014/30/EU Electromagnetic Compatibility Directive
Related Standards	: EN 60335-1:2012; EN 60335-2-97:2006; EN 61000-3-2:2014; EN 61000-3-3:2013; EN 55014-1:2006; EN 55014-2:1997
Product Name	: Smart Solar Blinds
Report No and Date	: No L464-2/08-18 dated "30" August 2018
Product Brand/Model/Type	: TM SolarGaps SGVIC80-6-W-(WxH)(color)(QM) SGVIC80-10-W-(WxH)(color)(QM) SGVIC80-20-W-(WxH)(color)(QM) SGVIC80-6-R-(WxH)(color)(QM) SGVIC80-10-R-(WxH)(color)(QM) SGVIC80-20-R-(WxH)(color)(QM)
Certificate Number	: M.2018.103.10379
Initial Assessment Date	: 06.09.2018
Registration Date	: 12.09.2018
Reissue Date/No	: -
Expiry Date	: 11.09.2023

UDEM International Certification
Auditing Training Centre Industry
and Trade Inc. Co.

The validity of the certificate can be checked through www.udem.com.tr. The CE mark shown on the right can only be used under the responsibility of the manufacturer with the completion of EC Declaration of Conformity for all the relevant Directives. This certificate remains the property of UDEM International Certification Auditing Training Centre Industry and Trade Inc. Co. to whom it must be returned upon request. The above named firm must keep a copy of this certificate for 15 years from the registration of certificate. This certificate only covers the product(s) stated above and UDEM must be noticed in case of any changes on the product(s)



Address: Muflukent Mahallesi 2073 Sokak (Eski 93 Sokak) No:10 Çankaya – Ankara – TURKEY
Phone: +90 0312 443 03 90 **Fax:** +90 0312 443 03 76
E-mail: info@udemltd.com.tr www.udem.com.tr

Certificates



Declaration of Performance

No: DoP.005.2018



305/2011/EU Construction Products Regulation

1. Unique identification code of the product-type:
SGV1C80-6-W-(WxH)(color)(QM); SGV1C80-10-W-(WxH)(color)(QM); SGV1C80-20-W-(WxH)(color)(QM);
SGV1C80-6-R-(WxH)(color)(QM); SGV1C80-10-R-(WxH)(color)(QM); SGV1C80-20-R-(WxH)(color)(QM)
2. Type, batch or serial number or any other element allowing identification of the construction product as required under Article 11(4):

Smart Solar blinds

3. Intended use or uses of the construction product, in accordance with the applicable harmonized technical specification, as foreseen by the manufacturer:

External use in buildings and other construction works

4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required under Article 11(5):

Limited liability company SolarGaps
str. Magnitogorska, 1A letter 2, Kyiv, Ukraine, 02606
TM SolarGaps
Tel.: +38 067 333 82 33
e-mail: hello@solargaps.com

5. Where applicable, name and contact address of the authorized representative whose mandate covers the tasks specified in Article 12(2):

STANA (stana-certification.eu)
Loccumer Straße 55, 30519 Hannover, Germany
EU VAT number: DE316050721
Tel.: +49 511 87457693 Fax: +49 511 87457692
e-mail: office@stana-certification.eu

6. System or systems of assessment and verification of constancy of performance of the construction product as set out in CPR (305/2011/EU), Annex V:

System 4

7. Notified body:

Not applicable. Determination of product type and factory production control are held by the manufacturer.

8. Declared performance:

Essential characteristics	Performance	Harmonized technical specification
Resistance to wind loads	Class 2	EN 13561
Total solar energy transmittance g_{tot}	0,11	

9. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the authorized representative by

Authorized representative: STANA
Name and function: Dmytro Nechepurenko, Inhaber
Place / Date: Hannover, Germany, 2018, 10 September



Signature / Stamp:

Certificates

Declaration of Conformity

No: DoC.008.2022



The following products have been tested with the listed standards and found in compliance with European Parliament and the Council of the European Union Low Voltage Directive 2014/35/EU, Electromagnetic Compatibility Directive 2014/30/EU. Assessment of compliance of the product was based on the following standards:

**EN 60335-1:2012; EN 60335-2-97:2006; EN 61000-3-2:2014;
EN 61000-3-3:2013; EN 55014-1:2017; EN 55014-2:1997**

Manufacturer name: Limited liability company SolarGaps
Address: Magnitogorska str., 1A letter 2, Kyiv, Ukraine, 02606
Product: Smart Solar blinds
Type/Model: SGV1C80-6-W-(WxH)(color)(QM); SGV1C80-10-W-(WxH)(color)(QM); SGV1C80-20-W-(WxH)(color)(QM); SGV1C80-6-R-(WxH)(color)(QM); SGV1C80-10-R-(WxH)(color)(QM); SGV1C80-20-R-(WxH)(color)(QM)
Brand TM SolarGaps
Authorized representative: Stana-Certification OÜ, Estonia, Tallinn, Vesivärava str. 50-201, 10152. Authorized representative Agreement №001/22.

The statement is based on a single evaluation of one sample of above mentioned products. The statement is based on design and type of product, which is brought into circulation by us, and risk assessment of probably use.

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the Test report. Technical file is at the authorized representative's disposal.

Responsibility for product safety and compliance with the requirements of the Directives: European Parliament and the Council of the European Union Low Voltage Directive 2014/35/EU, Electromagnetic Compatibility Directive 2014/30/EU and harmonized standards are issued under the sole responsibility of the manufacturer.

Test report: №040.02CV-22 and L464-2/08-18



The declaration is valid until the next date of review or introduction of modifications of the technical parameters of the products and production process. In case of alteration in product characteristics, not agreed by authorized representative, this declaration will lose its validity.

Other relevant Directives have to be observed.

Date of issue: 18.02.2022

Date of next review: 17.02.2023

Signed for and on behalf of the manufacturer by

Authorized representative: **Stana-Certification OÜ**
Estonia, Tallinn, Vesivärava str. 50-201, 10152.
Tel.: +3726028421
E-mail: stanacert@gmail.com

Director  **Ihor Savenko**

Signature / Stamp



hello@solargaps.com



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