



# GSE IN-ROOF SYSTEM™

BIPV SYSTEM FOR ALL PHOTOVOLTAIC MODULES

+ 6 000 000 m<sup>2</sup>  
ALREADY  
INSTALLED

QUICK, AESTHETIC, LIGHTWEIGHT,  
WATERPROOF AND COST-COMPETITIVE



MADE IN FRANCE

[www.gseintegration.com](http://www.gseintegration.com)

# The GSE **IN-ROOF SYSTEM** range is expanding

**MODULES UP TO 400 Wp** **2012 AND 2020 RANGE**

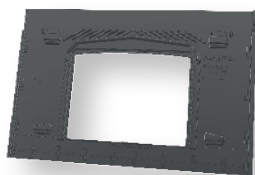
**MODULES UP TO 600 Wp** **2022 RANGE**

## PORTRAIT:



**19 available references\***  
**Module length:** 1535 to 1780 mm  
**Module width:** 803 to 1055 mm

## LANDSCAPE:



**21 available references\***  
**Module length:** 1554 to 1740 mm  
**Module width:** 768 to 1120 mm

## UP TO 450 Wp:



**21 available references\***  
**Module length:** 1610 to 1990 mm  
**Module width:** 990 to 1160 mm

## UP TO 600 Wp:

**NEW PORTRAIT FRAMES FOR XXL PV MODULES !**  
**5 available references\***  
**Module length:** 1990 to 2180 mm  
**Module width:** 991 to 1305 mm

\* Detailed list available on our website: [www.gseintegration.com](http://www.gseintegration.com)

## BENEFITS

- Economic: the most competitive system for roof renovations and new constructions
- Easy to install: 10 to 16 panels installed in 6 hours
- Flexible: achieve any desired configuration type (U-Shape, pyramid, etc...)
- Lightweight and space-saving: 58 frames per pallet

## PRODUCT CERTIFIED IN MANY COUNTRIES

- Resistance to fire
- Completely waterproof: ensures complete watertightness of the PV system and the roof
- Optimal ventilation
- Impact resistance
- Very important mechanical resistance:  
Downward pressure: 5400 Pa (IEC 61215)  
Upward pressure: up to 5500 Pa (NF EN 12179)  
Eurocode design values: Snow: 1800 Pa, Wind: 1700 Pa

## TECHNICAL SPECIFICATIONS

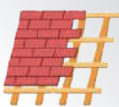
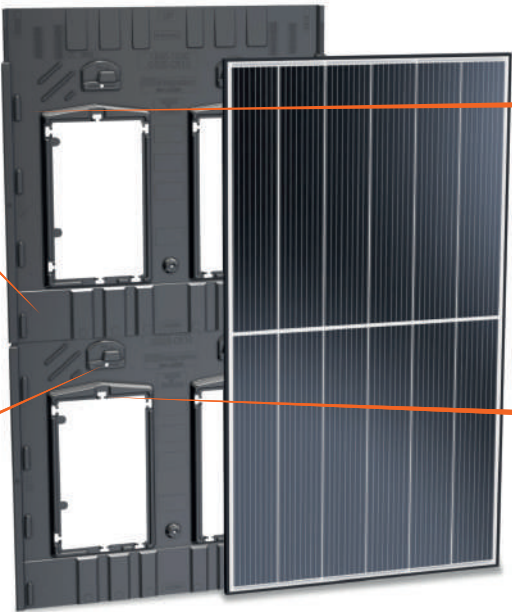
**NEW:** EVEN EASIER TO INSTALL

Integration of all new PV modules generations.  
Until 150 mm of height adjustment possible

Pre-drilled fixing points

Simplified clamps installation: position indication

Optimized cable passaged for all junction boxes



**All types**  
Roof covering



**Slope**  
12° to 50°



**Weight**  
2.8 to 3.7 kg/m<sup>2</sup>











**Temperature range**  
-30°C to 100°C



**Material**  
PP - Aluminium - Stainless steel  
(100% Recyclable)



## CERTIFICATIONS

-   Universel kit: ALPES CONTROLE: ETN A27T2109 Many modules approved (list available on our website)
-  Avis Technique n°21/16-57\_V5 7  
GSE Intégration "Toit Solaire" V. TS-2, A-2 et TN-1
-   BBA: MCS 012 certifie no. "MCS BBA 0156" -  
compatible with more than 30 PV panels - maximum wind load: 2.71 kN/m²
-   System Performance Assessment (certification in progress)
-  DIBt: Allgemeine bauaufsichtlichen Zulassung no. Z-14.4-817 (certification in progress)

## FIRE TESTS EXPOSURE

- BRoof T1   
- BRoof T2    
- BRoof T3 
- BRoof T4 

# GSE

## Intégration

OUR TIME-SAVING TOOLS

### CALCULATOR

Allows you to find out which GSE IN-ROOF SYSTEM plate is compatible with your panel and to determine the overall size of the final PV field in just a few clicks.

### CONFIGURATOR

Allows you to establish a list of materials needed for your GSE IN-ROOF SYSTEM installation.

### INSTALLATION MANUALS AND GUIDES

Find these tools here:



A DEDICATED CONTACT PERSON FOR EACH REQUEST

A battening plan or a technical question? [technical.support@gseintegration.fr](mailto:technical.support@gseintegration.fr)

Any other request? [contact@gseintegration.fr](mailto:contact@gseintegration.fr)

BUILDING-INTEGRATED  
PHOTOVOLTAIC

# GSE IN-ROOF SYSTEM™

BIPV system for traditional photovoltaic panels

**Simple, Quick, Aesthetic,  
Lightweight,  
Waterproof  
and Cost-Competitive**

More than  
4 500 000 m<sup>2</sup>  
installed over  
10 years



CHUBB®



[www.gseintegration.com](http://www.gseintegration.com)

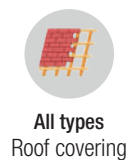
# GSE IN-ROOF SYSTEM™

## BENEFITS

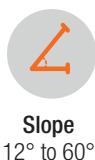
- Economic: the most competitive system for roof renovations and new constructions.
- Easy to install: 10 to 16 panels installed in 6 hours.
- Completely waterproof: ensures complete watertightness of the PV system and the roof.
- The system may be installed in portrait or landscape format.
- Flexible: achieve any desired configuration type (U-Shape, pyramid, etc...).
- Compatible with roof windows.
- Impact resistance.
- Very important mechanical resistance:
  - Downward pressure: **5400 Pa** (IEC 61215)
  - Upward pressure: up to **5500 Pa** (NF EN 12179)

" Eurocode design values: Snow: 1800 Pa, Wind: 1700 Pa "

## TECHNICAL SPECIFICATIONS



All types  
Roof covering



Slope  
12° to 60°



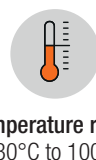
Portrait & Landscape



Color  
Alu / Black



Weight  
2 to 3 kg/m²

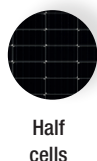


Temperature range  
-30°C to 100°C

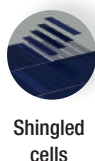


Material  
PP - Aluminum -  
Stainless steel  
(100% Recyclable)

## COMPATIBILITY WITH THE NEW MODULE TECHNOLOGIES:



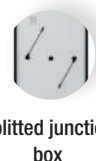
Half  
cells



Shingled  
cells



New  
size of Wafer



Splitted junction  
box



Support  
bars



Frame thickness  
from 30 to 50 mm



AC  
module

## AVAILABLE FLASHINGS:

- **Kit universal**
- **Kit v.A-2:** for traditional slates
- **Kit v.TS-2:** for curved tiles
- **Kit v.TN-1 (2020):** for flat interlocking tiles
- **Kit v.TP-1 (2020):** for traditional flat tiles

## COMPATIBILITY WITH ROOF WINDOWS:



## OUR TESTS & CERTIFICATIONS

CHUBB

- **Liability insurance trading and product** Liability insurance - CHUBB / 10 years product guarantee insurance: EPERS



- **CCFAT-CSTB:** ATEC N°21/16-57 V4 - « In Roof System »



- **FIRE TESTS EXPOSURE:** Compliance BROOF T1, T2 (in progress), T3, T4



- **ALPES CONTROLES:** ETN 010T170F Many modules approved (list available on our website)



- **BBA:** MCS 012 certificate no. "MCS BBA 0156" - compatible with more than 30 PV panels - maximum wind load: 2.71 kN/m²



- **DIBt:** Allgemeine bauaufsichtlichen Zulassung no. Z-14.4-817

## CONTACT

**GSE** Integration  
EUROPEAN LEADER IN PHOTOVOLTAIC INTEGRATION SYSTEMS

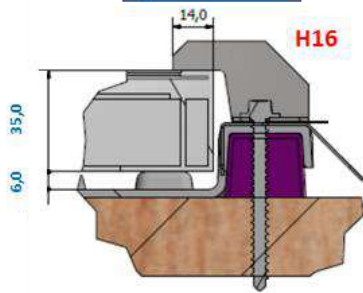
## GSE INTEGRATION

155-159 rue du Dr Bauer. 93400 SAINT-OUEN +33 1 70 32 08 00  
contact@gseintegration.com - [www.gseintegration.com](http://www.gseintegration.com)

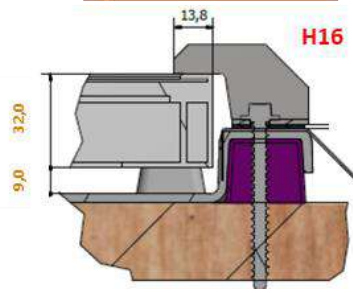


# GSE In-Roof – Evolution of the system

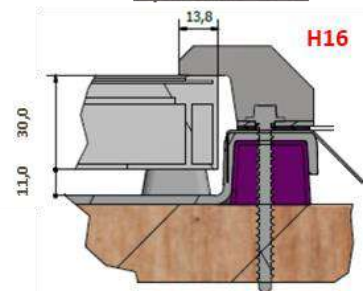
System 2012



System 2012 - P33



System 2020



		PV module dimensions					Clamps																				Compatibility with split Junction Box		
		Height			Width		Module thickness (mm)																						
		Réf.	Min. tolerated	Min. suggested	Max.	Min. suggested	Max.	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48		49	50
PORTRAIT	Version 2012	1580_808	1500	1540	1680	803	808							H16		H19	H21		H23		H26		H27			H31		NO	
		1575_1046	1495	1535	1675	1041	1046							H16		H19	H21		H23		H26		H27			H31		NO	
		1575_1053	1495	1535	1675	1048	1053							H16		H19	H21		H23		H26		H27			H31		NO	
		1575_1082	1495	1535	1675	1077	1082							H16		H19	H21		H23		H26		H27			H31		NO	
		1640_992	1560	1600	1740	987	992							H16		H19	H21		H23		H26		H27			H31		NO	
		1640_1001	1560	1600	1740	996	1001							H16		H19	H21		H23		H26		H27			H31		NO	
		1640_1001_33	1560	1600	1740	996	1001				H16			H19	H21		H23		H26	H27					H31			NO	
		1686-1700_1016	1605	1645	1755	1011	1016							H16		H19	H21		H23		H26		H27			H31		NO	
	Version 2020	1710_995	1630	1670	1780	990	995				H16			H19	H21		H23		H26	H27									YES
		1710_1000	1630	1670	1780	995	1000				H16			H19	H21		H23		H26	H27									YES
		1710_1005	1630	1670	1780	1000	1005				H16			H19	H21		H23		H26	H27									YES
		1710_1010	1630	1670	1780	1005	1010				H16			H19	H21		H23		H26	H27									YES
		1710_1020	1630	1670	1780	1015	1020				H16			H19	H21		H23		H26	H27									YES
		1710_1025	1630	1670	1780	1020	1025				H16			H19	H21		H23		H26	H27									YES
		1710_1030	1630	1670	1780	1025	1030				H16			H19	H21		H23		H26	H27									YES
		1710_1040	1630	1670	1780	1035	1040				H16			H19	H21		H23		H26	H27									YES
		1710_1045	1630	1670	1780	1040	1045				H16			H19	H21		H23		H26	H27									YES
		1710_1050	1630	1670	1780	1045	1050				H16			H19	H21		H23		H26	H27									YES
		1710_1055	1630	1670	1780	1050	1055				H16			H19	H21		H23		H26	H27									YES
LANDSCAPE	Version 2012	1559_1082	1002	1042	1182	1554	1559							H16		H19	H21		H23		H26		H27			H31		NO	
		1575_1082	1002	1042	1182	1570	1575							H16		H19	H21		H23		H26		H27			H31		NO	
		1580_808	728	768	908	1575	1580							H16		H19	H21		H23		H26		H27			H31		NO	
		1640_992	912	952	1092	1635	1640							H16		H19	H21		H23		H26		H27			H31		NO	
		1650_992	912	952	1092	1645	1650							H16		H19	H21		H23		H26		H27			H31		NO	
		1660_992	912	952	1092	1655	1660							H16		H19	H21		H23		H26		H27			H31		NO	
		1670_992	912	952	1092	1665	1670							H16		H19	H21		H23		H26		H27			H31		NO	
		1675_992_33	912	952	1092	1670	1675				H16			H19	H21		H23		H26	H27						H31		NO	
		1680_992	912	952	1092	1675	1680							H16		H19	H21		H23		H26		H27			H31		NO	
		1686_1016	912	952	1092	1681	1686							H16		H19	H21		H23		H26		H27			H31		NO	
		1700_1016	912	952	1062	1695	1700							H16		H19	H21		H23		H26		H27			H31		NO	
	Version 2020	1665_1020	940	980	1120	1660	1665				H16			H19	H21		H23		H26	H27								YES	
		1675_1020	940	980	1120	1670	1675				H16			H19	H21		H23		H26	H27								YES	
		1680_1020	940	980	1120	1675	1680				H16			H19	H21		H23		H26	H27								YES	
		1685_1020	940	980	1120	1680	1685				H16			H19	H21		H23		H26	H27								YES	
		1690_1020	940	980	1120	1685	1690				H16			H19	H21		H23		H26	H27								YES	
		1695_1020	940	980	1120	1690	1695				H16			H19	H21		H23		H26	H27								YES	
		1700_1020	940	980	1120	1695	1700				H16			H19	H21		H23		H26	H27							YES		
		1705_1020	940	980	1120	1700	1705				H16			H19	H21		H23		H26	H27							YES		
1720_1020		940	980	1120	1715	1720				H16			H19	H21		H23		H26	H27							YES			
1740_1020		940	980	1120	1735	1740				H16			H19	H21		H23		H26	H27							YES			