




PALLIUM ROOF-INTEGRATED SYSTEM

THE ROOF THAT MAKES THE DIFFERENCE

Elegant, integrated, well-proven



-  SOLAR CONSTRUCTION
-  SUSTAINABILITY
-  TECHNOLOGY

PALLIUM

ROOF-INTEGRATED SYSTEM



PALLIUM – THE ROOF THAT MAKES THE DIFFERENCE

High yield and elegance

With its Pallium roof-integrated system, Soltecture offers the perfect combination of aesthetics and efficiency. The roof-integrated solar solution enhances the building as its homogenous black glass surface and black frames meet the most demanding architectural demands. The integrated roof system is based on Soltecture's thin-film modules provide maximum efficiency thanks to the CIGSe absorbers. Unobstructed drainage and smooth cover glass ensures excellent self-cleaning and minimizes system losses.

Highest Quality made in Germany

Pallium is based on the Solrif® roof-integrated system that has been successfully deployed for more than ten years. Soltecture only uses the highest quality materials, which guarantee a long system life span: the tempered safety glass and a high quality edge seal permanently protect the module against environmental influences. The proven frame design ensures leak-tightness comparable with conventional roof tiles. An intelligent ceramic pressure provides the module with a perfectly uniform surface also in the corners.

Easy roof integration – Flexible and easy to install

With Pallium, Soltecture provides a complete system – ready for installation and with all parts required for integration into the roof. The compact module format enables easy installation by a single installer where the modules are laid like tiles on simple roof battens. Soltecture even provides the corresponding system accessories, which enable a simple connection to the roof covering. The highest flexibility is given in the module arrangement.

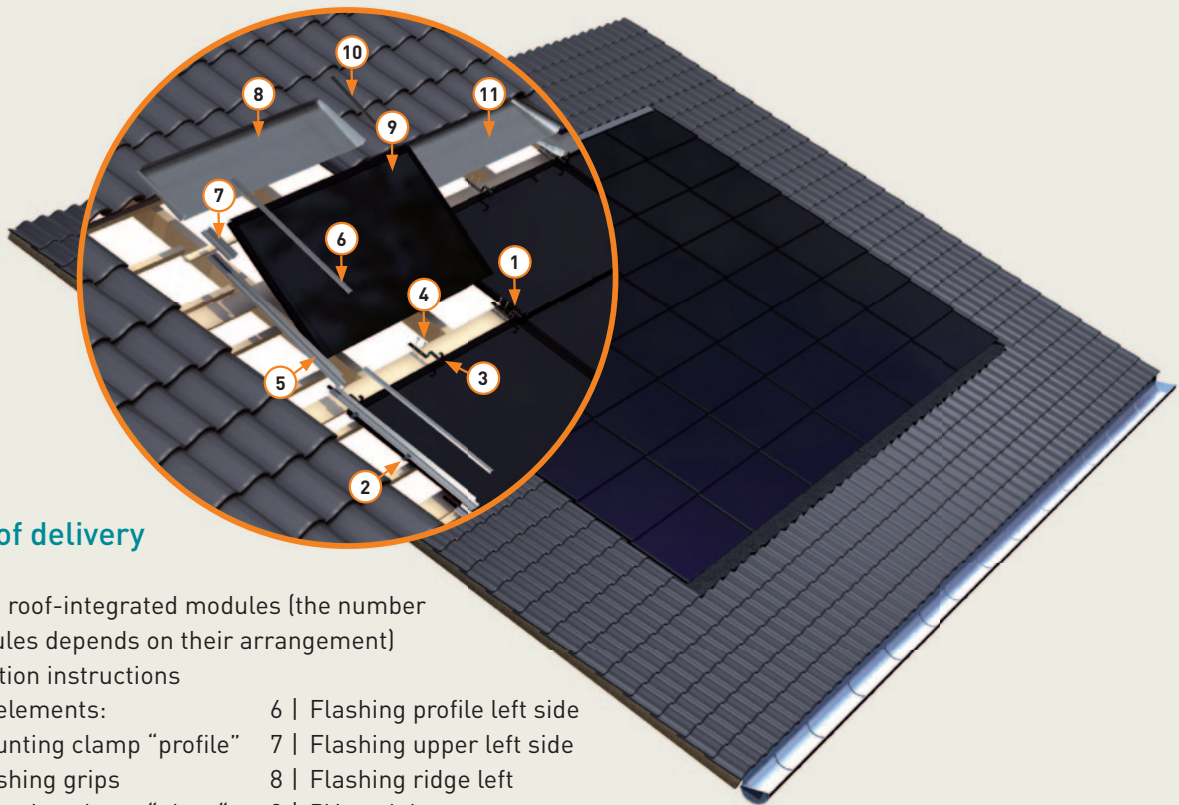
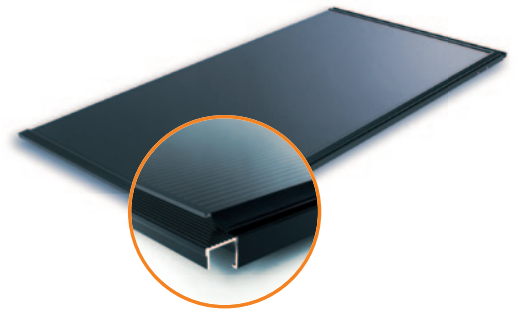
Simple Maintenance

The Pallium roof-integrated system for Soltecture is exceedingly robust and meets the simplest module and electrical servicing demands. If desired, Soltecture can provide a monitoring system, which ensures immediate response in case of system losses.



The elegant and intelligent system solution

The Pallium roof-integrated system embodies exemplary solar construction. The perfect combination of form and function does not detract from the appearance of the roof and the solar modules integrate beautifully in the overall design. Therefore, the system opens up new possibilities in solar construction. The modules are installed like tiles on the roof battens of your house and completely replace conventional tiled roofs.



Scope of delivery

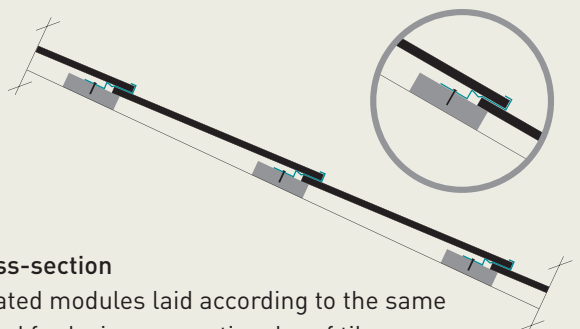
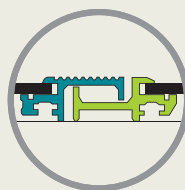
- Pallium roof-integrated modules (the number of modules depends on their arrangement)
- Installation instructions
- Solrif® elements:

1 Mounting clamp "profile"	6 Flashing profile left side
2 Flashing grips	7 Flashing upper left side
3 Mounting clamp "glass"	8 Flashing ridge left
4 Cylinder-head screws	9 PV module
5 Flashing left side	10 Join capping piece
	11 Flashing ridge middle

Easy to install



Horizontal cross-section
Solrif® connections
between the modules



Vertical cross-section
Roof-integrated modules laid according to the same
principle used for laying conventional roof tiles

Roof-integrated system	PALLIUM 90	PALLIUM 95	PALLIUM 100
Electrical characteristics at 1000 W/m²; 25 °C; AM1.5			
Rated power P _{max}	90.0 W	95.0 W	100 W
Tolerance (P _{max})	+5/-0 W	+5/-0 W	+5/-0 W
Module efficiency	10.9%	11.5%	12.1%
Rated voltage ¹⁾ U _{mpp}	56.2 V	57.2 V	58.2 V
Rated current ¹⁾ I _{mpp}	1.64 A	1.67 A	1.70 A
Open circuit voltage ¹⁾ U _{oc}	72.2 V	73.1 V	74.0 V
Short circuit current ¹⁾ I _{sc}	1.80 A	1.82 A	1.83 A
Maximum system voltage	IEC 61730	1000 V	1000 V
	UL 1703	600 V	600 V
Reverse current rating	3 A	3 A	3 A
Max. no. of modules connected in series per string +10% tol., 1000 V, -10 °C [IEC] [600 V, 14 °F [UL]]	11 (UL: 6)	11 (UL: 6)	11 (UL: 6)
Maximum no. of modules in parallel ²⁾	Individual strings connected to a blocking diode in (+) and 3 A fuse in (-).		
Electrical characteristics at 800 W/m²; NOCT; AM1.5			
Power ¹⁾ P _{max}	65.2 W	67.8 W	70.5 W
Voltage ¹⁾ U _{mpp}	49.6 V	50.8 V	51.9 V
Current ¹⁾ I _{mpp}	1.31 A	1.34 A	1.36 A
Open circuit voltage ¹⁾ U _{oc}	64.7 V	65.9 V	67.1 V
Short circuit current ¹⁾ I _{sc}	1.44 A	1.45 A	1.47 A
Electrical characteristics at 200 W/m²; 25 °C; AM1.5			
Maximum absolute reduction of efficiency	0.8%	0.8%	0.8%
Thermal behavior			
Working temperature (NOCT)	49 °C (120 °F)	49 °C (120 °F)	49 °C (120 °F)
Power temperature coefficient T _c (P _{max})	-0.45%/K	-0.43%/K	-0.41%/K
Voltage temperature coefficient T _c (U _{oc})	-0.35%/K	-0.33%/K	-0.31%/K
Current temperature coefficient T _c (I _{sc})	+0.01%/K	+0.01%/K	+0.01%/K
Operating conditions			
Temperature range	-40 °C to +85 °C (-40 °F to 185 °F)		
Maximum mechanical load ³⁾	IEC 61730	2400 Pa; 245 kg/m ²	
	UL 1703	1600 Pa; 33 lbs/ft ²	
Maximum torsion	1.2°		
IP code (to IEC 60529)	IP65		
Protection class (to IEC 61140)	II		
Application class (to IEC 61730)	A		
Fire rating (to IEC 61730)	C		

Notes

- ¹⁾ Tolerance of the electrical parameters ± 10%
- ²⁾ Limited: See explanation in the Electrical Configuration section in the installation instructions for Solteature PV modules.
- ³⁾ See Solteature GmbH's independent manufacturer warranty for Linion PV modules (last revised October 2011).

The modules are not suitable for mobile or maritime applications. Please note that if the Linion PV modules are stored in dark spaces for long periods, they must then be exposed to sufficient solar radiation to attain their rated output. **Please refer to our user information at www.solteature.com/download-centre. As we continually optimize our solar modules, related data pertinent to these changes will be cited in the technical data sheet.** All information applies exclusively to modules produced during the most recent product revision. The modules are certified for use in the following countries: EU countries, Switzerland, Norway, Turkey, Liechtenstein, Israel, Lebanon, Croatia, Bosnia and Herzegovina, Serbia. [09/2010]

For technical questions, please contact us at: service@solteature.de

Pallium modul dimensions

Height / Width	1302 mm / 681 mm (51.3 in / 26.8 in)
Layout grid	1285 mm / 650 mm (50.6 in / 25.6 in)
Frame thickness	23 mm (0.9 in)
Frame thickness with junction box	23 mm (0.9 in)
Weight	14.6 kg (32.2 lbs)

Additional data

Maximum roof slope	15 degrees
Maximum string fuse	3 A (e.g. Socomec 60PV0003)
Included bypass diode	1 x Diotec BY550-1000
Connection cable	2 x 1000 mm (39.4 in.) / 4 mm ² (AWG 11)
Plug connector	Y-SOL 4
Cell type	CIGSe thin-film
Front glass	3 mm (0.12 in) tempered safety glass
Rear glass	3 mm (0.12 in) float glass
Encapsulation	EVA
Frame type	Acrylic paint

Certificates and warranties Linion R (Pallium)

TÜV certificates:
IEC 61646, IEC 61730
UL 1703 Listed
Manufactured in the EU
CE-marking



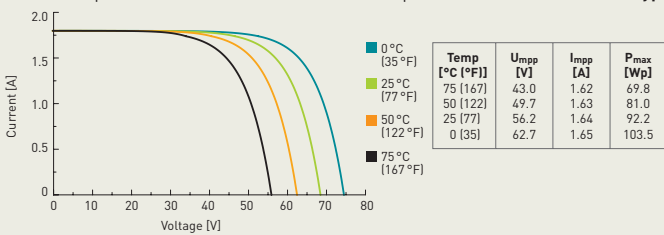
- Qualified, IEC EN 61646
- Safety tested, IEC 61730
- Periodic Inspection



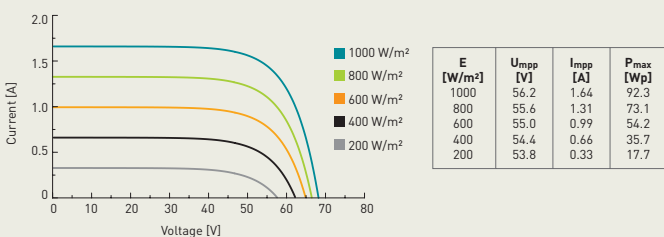
Further information at
www.tuv.com ID: 000033202 and
www.solteature.com/download-centre

Independent product warranty	10 years (for Linion R modules) ³⁾
Independent output warranty	25 years (for Linion R modules) ³⁾

Example characteristic curves at various temperatures – Linion 90 module type



Example characteristic curves at various irradiances – Linion 90 module type



Sketch of the Pallium module

