

SERTUM ROOF-MOUNTED SYSTEM

THE APPEALING SOURCE OF ENERGY

Robust, attractive, easy to adapt



-  SOLAR CONSTRUCTION
-  SUSTAINABILITY
-  TECHNOLOGY

SERTUM

ROOF-MOUNTED SYSTEM

SERTUM – THE APPEALING SOURCE OF ENERGY

Economic and elegant

With this patented roof-mounted system Soltecture offers the perfect balance between design and efficiency. The high quality components perfectly match the high efficiency Linion module series and meet the highest demands in regards to economic yields and aesthetics. Black corrosion-resistant aluminum profiles complete the elegant high-efficiency modules even at the system edges. This ensures that the overall visual appearance of the generator array is maintained throughout the service life of the modules and thus guarantees investment security. The flexible insertion system ensures, even on an uneven surface, a uniform, uninterrupted generator surface, which can be easily expanded at any time if desired. Elegant end caps on the horizontal and vertical profiles combined with the optional theft protection make the Soltecture Sertum roof-mounted system the number one choice for homeowners.

Safe and Flexible

The Sertum roof-mounted system sets highest benchmarks in regards to flexibility and safety. The efficient use of the horizontal profiles plays an important role ensuring a robust, double-layered installation with optimized material usage. The modules are fastened to the roof-mounted system using interlocking, tension-free connections, thus creating optimum conditions that ensure the operational safety and durability of the modules. The special fluting on the horizontal profiles ensures safe drainage and ventilation.

Ground-Breaking and Robust

With its cutting-edge mounting concept the roof-mounted system is suitable for almost all roof covers. This is ensured by a weight-optimized mounting system enabling a quick and safe installation. The compact modules are simply inserted in the robust racking system. In addition, solid, corrosion-resistant materials guarantee a long system life span.

Simple Maintenance

As all Soltecture system solutions, the high-end roof mounted system Sertum requires minimum maintenance 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 functional and elegant system solution

The Sertum system persuades through its uniform visual appearance and acts as a roof integrated solution. Sertum guarantees the fastest way to install Soltecture's modules. The modules are inserted into black aluminum frames and are held by an intelligent fastening mechanism. The system combines modules to a uniform, black glass surface and captivates with its subtle elegance.



Plan the Sertum system online

Plan and order the Sertum roof-mounted system using the online SOLdesign planning tool. This convenient software looks after the entire planning, calculation and documentation of the Sertum solar power system.

Find out more at:

www.soltecture-soldesign.de



Scope of delivery: Soltecture Sertum roof-mounted system

- Soltecture Linion F modules (the number of modules required depends on their arrangement)
- Installation instructions

Components

- | | |
|--|-------------------------------|
| · Aluminum roof hooks, height-adjustable or hanger bolts | · Cover strips, black |
| · Vertical profiles | · End caps/horizontal black |
| · Horizontal profiles, black | · Theft protection (optional) |
| · Horizontal and vertical profile connectors | · Cable safety net |

Roof-mounted system	SERTUM 90	SERTUM 95	SERTUM 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 Soltecture PV modules.
 - ³⁾ See Soltecture 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.soltecture.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@soltecture.de**

Dimensions (Linion F module)

Height / Width / Thickness	1258 / 658 / 30 mm (49.5 / 25.9 / 1.18 in)
Thickness with junction box	30 mm (1.18 in)
Weight	14.6 kg (32.2 lbs)

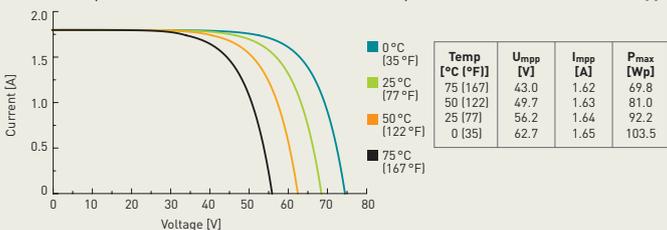
Additional data

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	IGSe 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	Anodised aluminum

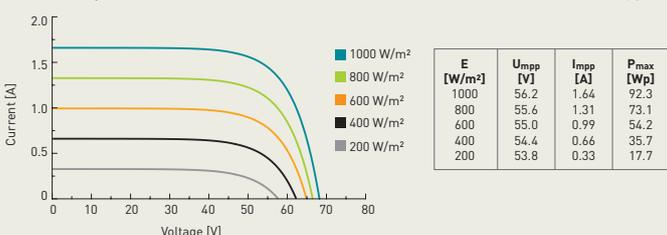
Certificates and warranties (Linion F module)

TÜV certificates: IEC 61646, IEC 61730 Manufactured in the EU CE-marking	<ul style="list-style-type: none"> • Qualified, IEC EN 61646 • Safety tested, IEC 61730 • Periodic inspection 	
	Further information at www.tuv.com ID: 000033202 and www.soltecture.com/download-centre	
Independent product warranty	10 years (for Linion F modules) ³⁾	
Independent output warranty	25 years (for Linion F 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 Linion F module

