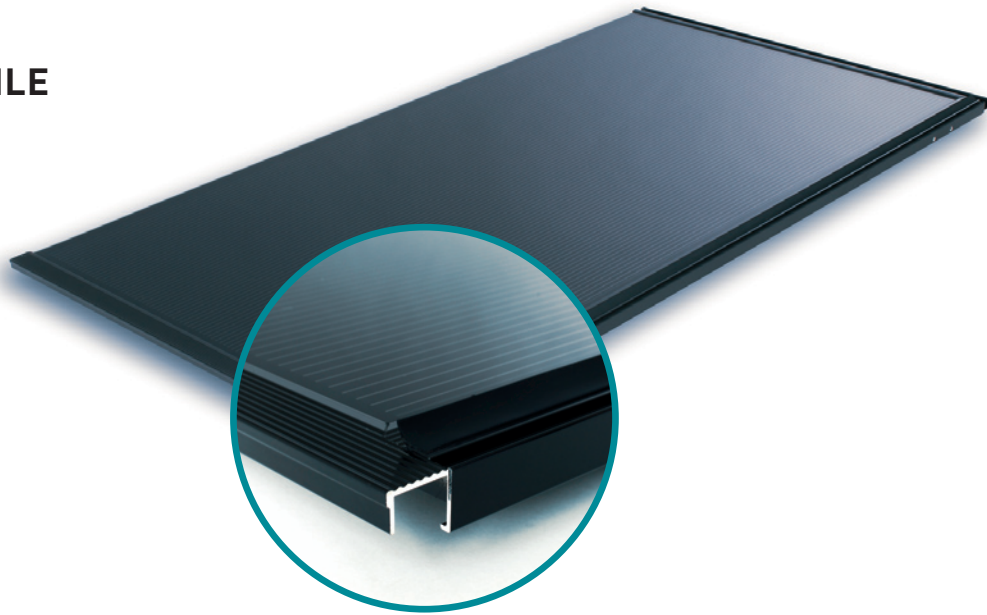


## SOLAR ROOF TILE



- Integrated** · Module with twin benefits: Roof tile and energy generator  
· Elegant, building-integrated solution that enhances the building

- Easy installation** · Modules laid like tiles on roof battens  
· Compact module format enables easy mounting by a single installer

- High yields** · Positive output tolerance (+8/-2 per cent), excellent self-cleaning  
· Excellent temperature coefficient also ensures high yields at hot locations

### Quality made in Germany

Solteature's production accords with the high quality standards of the semiconductor industry and it manufactures its CIS-based thin-film solar modules solely in Germany. The uniformly black glass surfaces provide visible proof of the quality and make the modules amongst the most attractive on the market. Solteature products are fully mature: they were already launched on the market in 2005 and have been continually improved since then. The modules are IEC-certified and more than meet this standard: for example, they maintain their performance capability not only when they are aged for the standard 1 000 hours at 85 °C and 85% humidity but also after 2 000 hours. This durability is reflected in the comprehensive warranty: Solteature not only grants its end customers an independent product warranty lasting 10 years for all modules but also grants an output warranty for 25 years\*\*\*.

### Roof-integrated modules are suitable for:

- Building-integrated photovoltaics (BIPV)
- Large-scale sloping roofs on private and commercial properties
- And as an intelligent roofing material for new buildings and refurbishments

### About Solteature GmbH

The Solteature technology company is one of the leading manufacturers of CIS-based thin-film solar modules and is the exclusive partner for the Helmholtz Centre Berlin, Europe's largest research facility for thin-film photovoltaics. Its shareholders and owners include Intel Capital, Vattenfall Europe and Gaz de France Suez.



# ROOF-INTEGRATED MODULE SULFURCELL-SCG-HV-RI



Module	SULFURCELL-	SCG57-HV-RI	SCG60-HV-RI	SCG62-HV-RI
<b>Electrical parameters at 1000 W/m<sup>2</sup>; 25 °C; AM1.5</b>				
Rated power ** P <sub>max</sub>		57.5 W	60.0 W	62.5 W
Tolerance (P <sub>max</sub> )		+8/-2%	+8/-2%	+8/-2%
Module efficiency		7.0%	7.3%	7.6%
Rated voltage* U <sub>mpp</sub>		39.7 V	40.3 V	41.5 V
Rated current* I <sub>mpp</sub>		1.45 A	1.49 A	1.51 A
Open circuit voltage* U <sub>oc</sub>		51.4 V	52.1 V	53.7 V
Short circuit current* I <sub>sc</sub>		1.71 A	1.74 A	1.76 A
Max. system voltage		1000 V	1000 V	1000 V
Reverse current load capacity		5 A	5 A	5 A
Max. number of series modules in string (+10% tolerance; 1000 V [IEC]; -10 °C)		16	15	15
Max. no. of modules in parallel	Optional. Each individual string must be fitted with a 3 A fuse.			
<b>Electrical parameters at 800 W/m<sup>2</sup>; NOCT; AM1.5</b>				
Power* P <sub>max</sub>		44.1 W	44.7 W	45.9 W
Voltage* U <sub>mpp</sub>		36.7 V	36.7 V	36.9 V
Current* I <sub>mpp</sub>		1.20 A	1.22 A	1.24 A
Open circuit voltage* U <sub>oc</sub>		47.1 V	47.7 V	47.8 V
Short circuit current* I <sub>sc</sub>		1.41 A	1.42 A	1.43 A
<b>Electrical parameters at 200 W/m<sup>2</sup>; 25 °C; AM1.5</b>				
Maximum absolute reduction in efficiency		0.8%	0.8%	0.8%

## Notes

\* Tolerance of the electrical parameters  $\pm 10\%$   
 \*\* Determined under standard test conditions: 25 °C, 1000 W/m<sup>2</sup>, AM1.5  
 The modules are not suitable for mobile and maritime applications.  
 Please note that if the modules are stored in darkness for longer periods of time, they only attain their rated output once they have been exposed to sufficient solar radiation. **Please refer to our user information, which is available at [www.solteature.com](http://www.solteature.com). Since we continually optimise our solar modules, this can lead to changes in the technical data specified in the data sheet.** All data applies exclusively to modules produced from the given date.  
 \*\*\* See Solteature GmbH's independent manufacturer's warranty for end customers for SCG-type PV modules (as of July 2010).  
 The modules are currently permitted for use in the following countries: EU Member States, Switzerland, Norway, Turkey, Liechtenstein, Israel, Lebanon, Croatia, Bosnia-Herzegovina, Serbia. (09/2010)  
 \*\*\*\* Observe installation instructions.



- Qualified, IEC EN 61646
- Safety tested, IEC EN 61730
- Periodic Inspection
- Salt corrosion resistance tested, IEC EN 61701
- Ammoniac-tested in accordance to DIN 50916:1985

Thermal behaviour	
Working temperature (NOCT)	47 °C
Power-temperature coefficient T <sub>K</sub> (P <sub>max</sub> )	-0.30%/K
Voltage-temperature coefficient T <sub>K</sub> (U <sub>oc</sub> )	-0.26%/K
Current-temperature coefficient T <sub>K</sub> (I <sub>sc</sub> )	+0.04%/K
Operating conditions	
Temperature range	-40 °C to +85 °C
Maximum mechanical load****	2400 Pa
Maximum winding	1.2°
Protection class (i. a. w. DIN EN 60529)	IP65
Protection class (i. a. w. DIN EN 61140)	II
Application class (i. a. w. IEC 61730)	A
Fire class (to IEC 61730)	C (Undergoing certification)

Dimensions	
Height / Width	1302 mm / 684 mm
Thickness / Thickness with canister	23 mm / 30 mm
Weight	14.6 kg
Other information	
Recommended string fuse	3 A (e.g. Socomec 60PV0003)
Included bypass diode	1 x Diotec BY550-1000
Connector cable	(+) 1000 mm; (-) 1000 mm
Connection plug	Y-SOL 4
Covering glass	4 mm tempered glass
Rear-side glass	2 mm float glass
Encapsulation	EVA
Frame type	Acrylic paint

