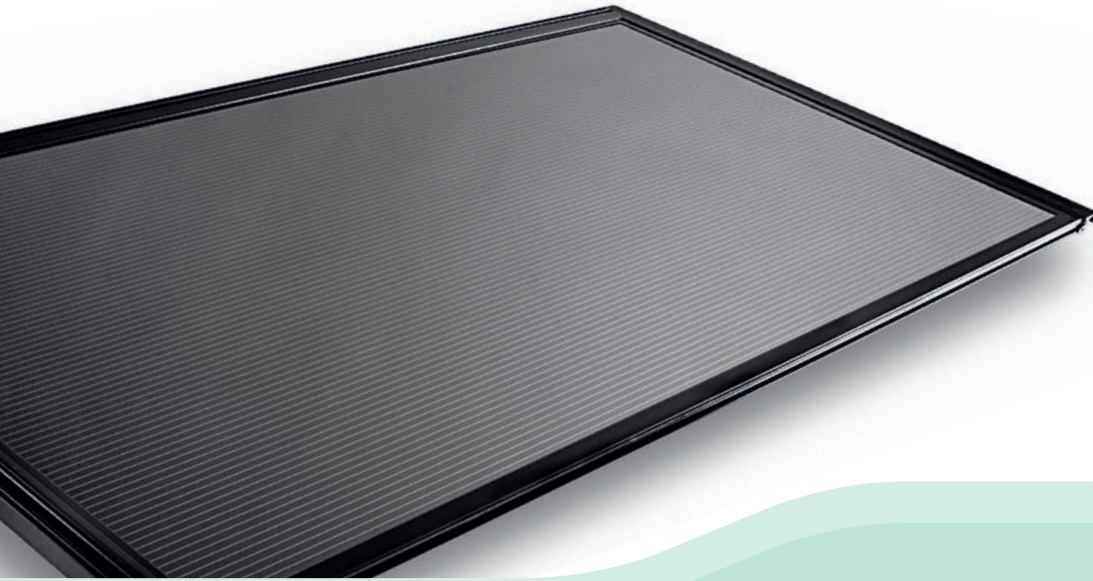


# Roof Integrated Module

Data Sheet Model SCG-HV-RI



## The Product

Sulfurcell modules have a thin CIS layer that absorbs just as much sunlight as the hundred times thicker silicon used in conventional modules. This means that less material and energy is used in their production. The modules also remain highly efficient when it is very hot or there is partial shading. The particularly low voltage of our modules, compared to other thin-film modules, enables long module strings and reduces the system costs. The evenly dark appearance of the modules gives your solar power system a particularly elegant look.

### Quality

Permanent monitoring ensures the high quality of the Sulfurcell products. Each module undergoes a visual and electrical inspection. For all modules, Sulfurcell provides a 2-year product warranty and guarantees 90 per cent of the output power for 10 years and 80 per cent of the output power for 20 years.

### Product Features

Sulfurcell's RI modules are used for covering sloping roofs and replace roof tiles. They are equipped with the SOLRIF® frame system, which was developed by Ernst Schweizer AG in Hedingen (Switzerland) in 1999, and has been continually improved since then. The modules can be quickly and easily installed. They are laid on the roof battens like tiles – thus saving on tile costs. Used as solar construction material, they meet the highest aesthetic standards.

### Our roof-integrated modules are particularly suitable for:

- Architecturally sophisticated projects
- Sloping roofs on private homes and office buildings

## The Company

**Sulfurcell is an established producer of CIS solar modules and utilises proven thin-film technology. The solar modules meet the highest aesthetic demands and offer advantages in many different applications. This innovative product originated at the Hahn-Meitner Institute in Berlin, where CIS solar cells were developed during the 1990s.**

**Today, the company is situated at the Technology Park at Berlin Adlershof, where it is continually expanding its production facilities. The production encompasses all stages from coating to the fully equipped solar module. This enables Sulfurcell to ensure a consistently high quality.**



Electrical Characteristics at 1000 W/m <sup>2</sup> , 25°C, AM 1,5					
Modul	SCG50-HV-RI	SCG52-HV-RI	SCG55-HV-RI	SCG57-HV-RI	SCG60-HV-RI
Rated Power**	50 W	52,5 W	55 W	57,5 W	60 W
Tolerance	+/- 5%	+/- 5%	+/- 5%	+/- 5%	+/- 5%
Module efficiency	6,1%	6,4%	6,7%	7,0%	7,3%
Voltage at Vmpp	36,8 V	37,8 V	38,8 V	39,7 V	40,3 V
Current at Imp	1,36 A	1,39 A	1,42 A	1,45 A	1,49 A
Open-Circuit Voltage (Voc)	49,5 V	50,2 V	50,9 V	51,4 V	52,1 V
Short-Circuit Current (Isc)	1,66 A	1,67 A	1,69 A	1,71 A	1,74 A
max. system Voltage	1000 V	1000 V	1000 V	1000 V	1000 V
Reverse Current Load	5 A	5 A	5 A	5 A	5 A

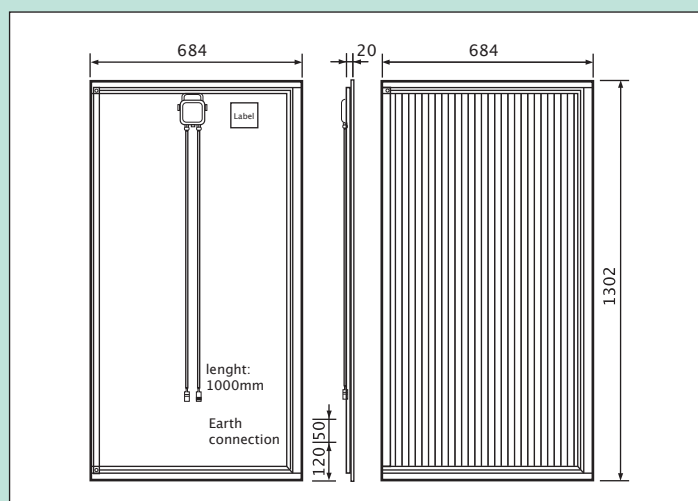
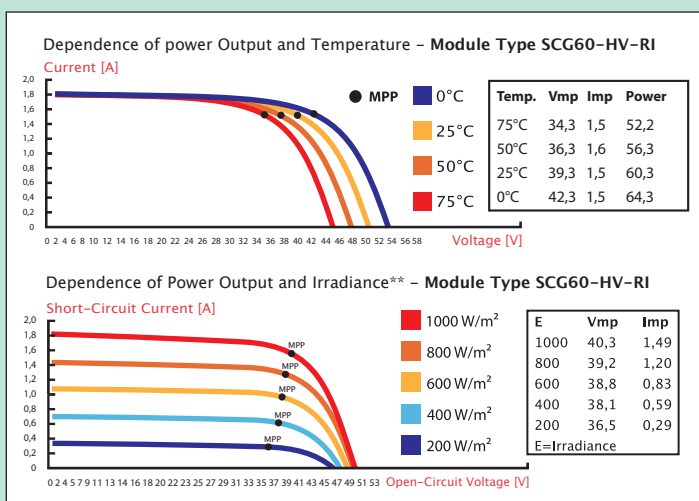
Electrical Characteristics at 800 W/m <sup>2</sup> and NOCT					
Current at Imp*	1,10 A	1,12 A	1,14 A	1,20 A	1,22 A
Open-Circuit Voltage* (Voc)	46,3 V	46,5 V	47,7 V	47,7 V	47,3 V
Short-Circuit Current* (Isc)	1,37 A	1,37 A	1,36 A	1,41 A	1,42 A
Power	36,9 W	38,4 W	41,8 W	44,1 W	44,7 W

Electrical characteristics at 200 W/m <sup>2</sup> , 25°C, AM 1,5					
Absolute Efficiency Reduction (from 1000 W/m <sup>2</sup> to 200 W/m <sup>2</sup> )	1,3%	1,3%	1,0%	0,8%	0,8%

Thermal Parameters	
Temperature Coefficient of (Isc)	0,04%/K
Temperature Coefficient of (Voc)	-0,26%/K
Temperature Coefficient of (Pmpp)	-0,30%/K
NOCT	47°C
Operating Conditions	
Temperature Range	-40°C/+85°C
Static Load	2400 Pa/245 kg/m <sup>2</sup>
Max. Torsion	1,2°
Hail test	passed

\* Tolerance of the electrical parameters ±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 installation instructions available at [www.sulfurcell.de](http://www.sulfurcell.de). Since we continually optimise our solar modules, this can lead to changes in the technical data specified in the data sheet. Version: 11/2008**

Mechanical Characteristics			
Length	1302 mm	Bypass Diode	1x
Width	684 mm	IP-Code	65
Thickness of the module with junction box	30 mm	Protection class	II
Thickness of the frame	20 mm	Cell	CuInS2 thinfilm technology
Weight	14,6 kg	Glass	High-transmission 4 mm tempered glass
Output Cables Length (mm)	(+) 1000; (-) 1000	Back side glass	2 mm float glass
Connector	MC 4	Encapsulation	EVA



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