



## MODEL SV48



Premium quality



Power output  
range 225-230 Wp



100% EL testing



Mechanical load  
up to 5400 Pa



Low weight



Module efficiency  
up to 17,51 %



Positive power  
tolerance -0/+4,9 W



Made in Europe



IEC EN 61215  
IEC EN 61730-1, -2



IEC EN 62716 Ed.1



IEC EN 61701



IEC TS 62804-1  
(PID resistance)

### Warranty:

**10** years manufacturing defects

**12** years limited,  
90% output power

**25** years limited,  
80% output power



Electrical parameters at Standard Test Conditions (STC)			
MODEL		SV48-225	SV48-230
Peak power $P_{MPP}$	[W]	225	230
Peak power tolerance	[W]	-0/+4,9	
Short circuit current $I_{SC}$	[A]	9,04	9,10
Open circuit voltage $V_{OC}$	[V]	31,63	31,87
Rated current $I_{MPP}$	[A]	8,59	8,65
Rated voltage $V_{MPP}$	[V]	26,31	26,67
Current and voltage tolerance	[%]	± 3	
Module efficiency	[%]	17,13	17,51

STC: 1000W/m<sup>2</sup> irradiance, 25 °C cell temperature, AM1, 5 g spectrum according to EN 60904-3  
Average relative efficiency reduction of 3,4 % at 200 W/m<sup>2</sup> according to EN 60904-1

Electrical parameters at Nominal Operating Cell Temperature (NOCT)			
MODEL		SV48-225	SV48-230
Peak power $P_{MPP}$	[W]	163,1	166,5
Peak power tolerance	[W]	-0/+4,9	
Short circuit current $I_{SC}$	[A]	7,31	7,36
Open circuit voltage $V_{OC}$	[V]	28,8	29,0
Rated current $I_{MPP}$	[A]	6,94	7,00
Rated voltage $V_{MPP}$	[V]	23,5	23,8

NOCT: module operating parameters at 800 W/m<sup>2</sup> irradiance, 20 °C ambient temperature, 1 m/s wind speed

MECHANICAL DATA	
Dimensions (H x W x D)	[mm] 1324 x 992 x 35
Weight	[kg] 15,0
Solar cells	48 cells, polycrystalline Si (PERC), 156 x 156 mm +/- 1 mm
Cells encapsulation	Ethylene vinyl acetate (EVA)
Front	Tempered solar glass, 3,2 mm
Back	Composite polyester Film
Frame	Anodized aluminium frame with twin-wall profile and drainage holes
Junction box	IP67 with 3 Bypass diodes,
Cable and connectors	Solar cable 4 mm <sup>2</sup> , length 1200 mm

NOTE: For extended models, SV48 YYY, voltages and currents can vary where YYY is optional based on the chosen YYY variant (YYY = letter(s), F for black frame, B for silver frame and black backsheet, BC for full black module)

OPERATING CONDITIONS		
Temperature range	[°C]	-40 to +85
Maximum system voltage	[V]	1000
Max. series fuse rating		15A
Limiting reverse current		15A
Maximum surface load capacity		5400 Pa (Snow load)
Resistance against hail		Max. diameter of 25 mm with impact speed 23 m/s

THERMAL CHARACTERISTICS		
Temperature coefficient of $P_{MPP}$	[%/K]	-0,41
Temperature coefficient of $I_{SC}$	[%/K]	0,05
Temperature coefficient of $V_{OC}$	[%/K]	-0,31

