



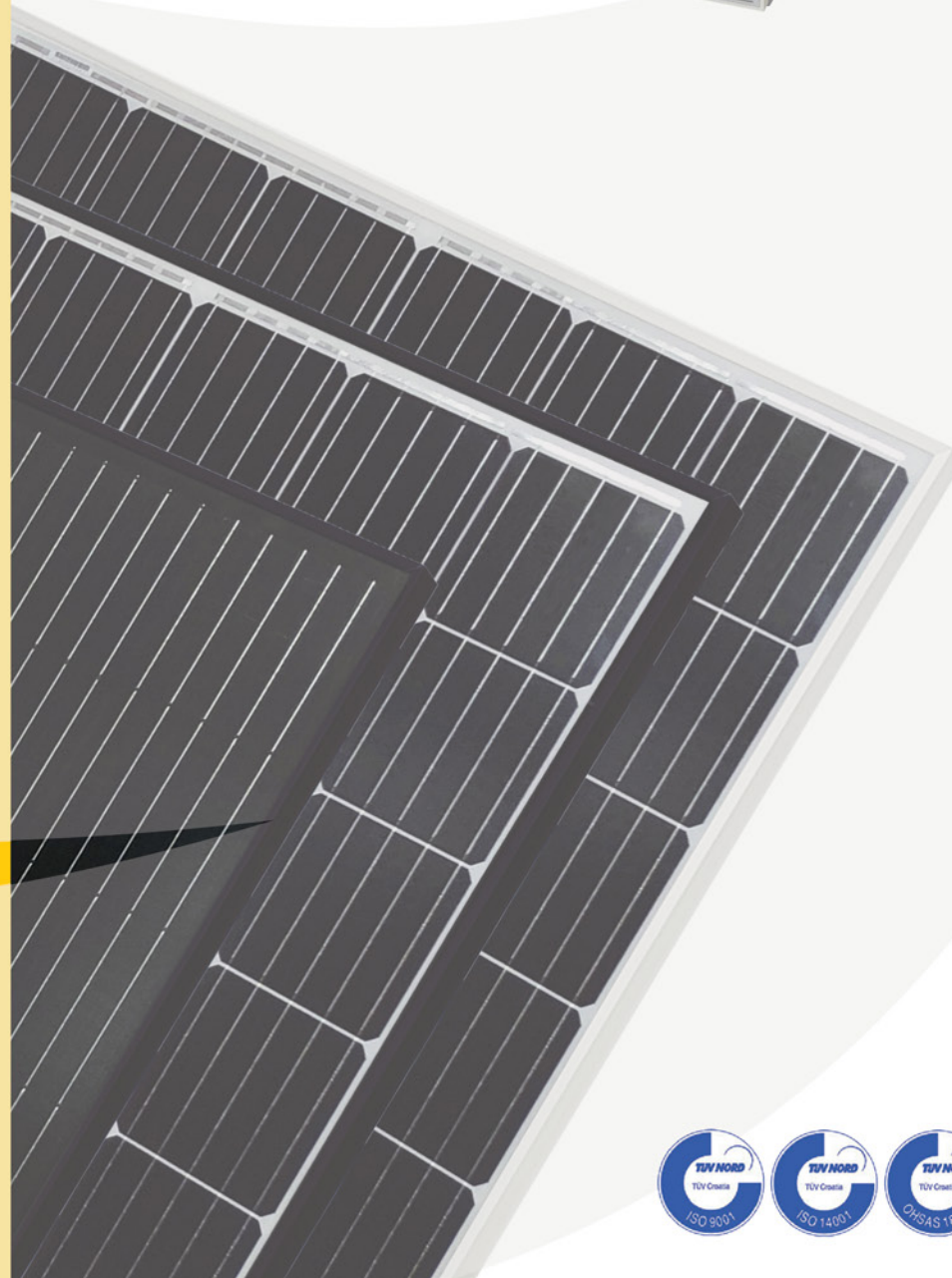
## MODEL SV48 E



-  Premium quality
-  Power output range 235-245 Wp
-  100% EL testing
-  Mechanical load up to 5400 Pa
-  Low weight
-  Module efficiency up to 18,65 %
-  Positive power tolerance -0/+4,9 Wp
-  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		SV48-235 E	SV48-240 E	SV48-245 E
Peak power $P_{MPP}$	[W]	235	240	245
Peak power tolerance	[W]		-0/+4,9	
Short circuit current $I_{SC}$	[A]	9,73	9,73	9,77
Open circuit voltage $V_{OC}$	[V]	31,64	32,12	32,21
Rated current $I_{MPP}$	[A]	9,20	9,13	9,26
Rated voltage $V_{MPP}$	[V]	25,71	26,42	26,54
Current and voltage tolerance	[%]		$\pm 3$	
Module efficiency	[%]	17,89	18,27	18,65

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		SV48-235 E	SV48-240 E	SV48-245 E
Peak power $P_{MPP}$	[W]	172,2	175,5	178,8
Peak power tolerance	[W]		-0/+4,9	
Short circuit current $I_{SC}$	[A]	7,81	7,81	7,85
Open circuit voltage $V_{OC}$	[V]	29,1	29,5	29,6
Rated current $I_{MPP}$	[A]	7,36	7,31	7,42
Rated voltage $V_{MPP}$	[V]	23,4	24,0	24,1

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, monocrystalline Si (PERC), 156 x 156 mm +/- 1mm
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 E 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]	-0,42
Temperature coefficient of $I_{SC}$	[%/K]	0,05
Temperature coefficient of $V_{OC}$	[%/K]	-0,33

