



MODEL SV144 E HC9B



Premium quality



Power output
range 440-450 Wp



100% EL testing



Mechanical load
up to 5400 Pa



Low weight



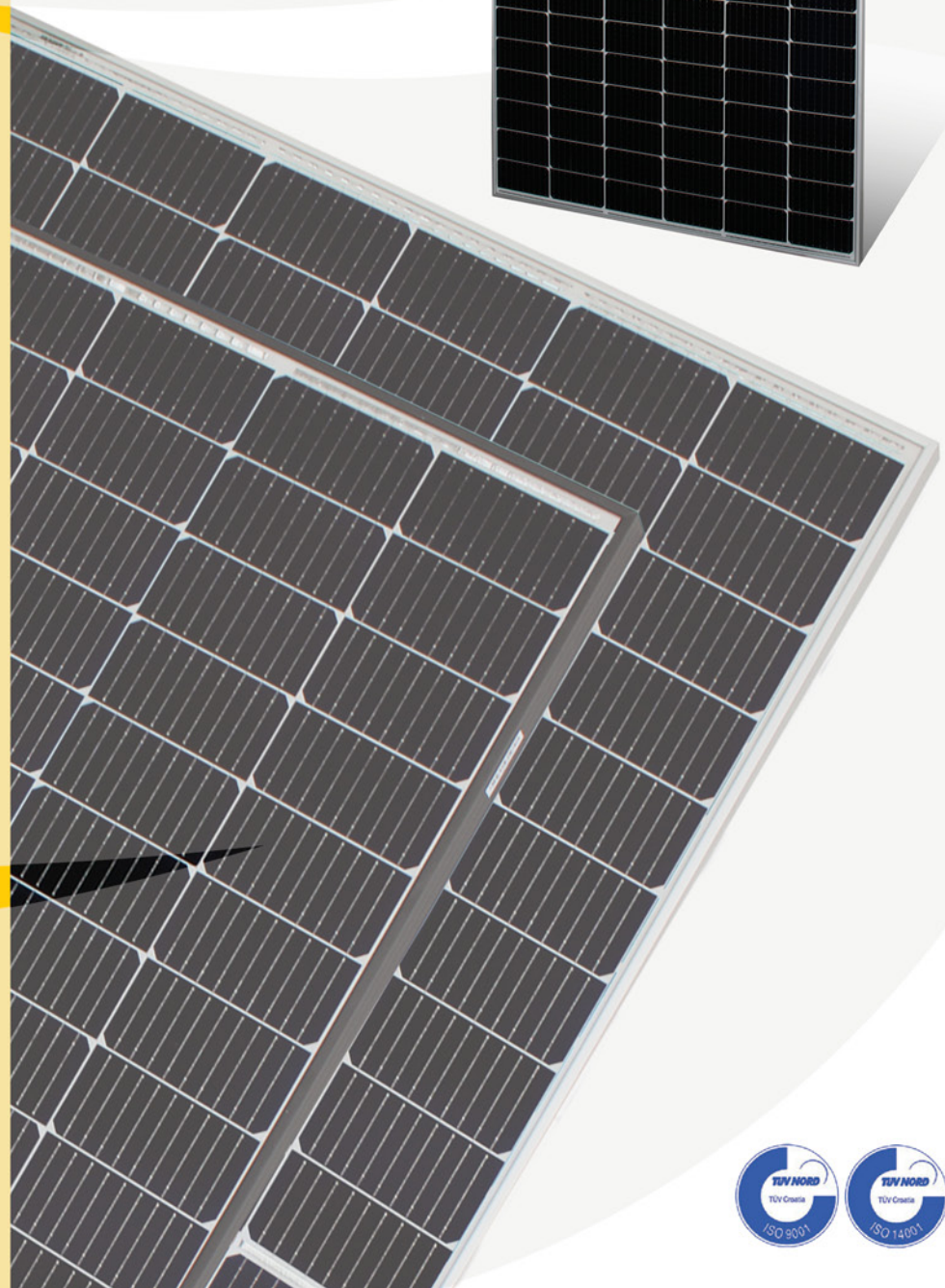
Module efficiency
up to 20,70%



Positive power
tolerance -0/+5 W



IEC EN 61215
IEC EN 61730-1, -2



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		SV144-440 E HC9B	SV144-445 E HC9B	SV144-450 E HC9B
Peak power P_{MPP}	[W]	440	445	450
Peak power tolerance	[W]		-0/+5	
Short circuit current I_{SC}	[A]	11,30	11,33	11,35
Open circuit voltage V_{OC}	[V]	48,57	48,74	48,98
Rated current I_{MPP}	[A]	10,85	10,88	10,90
Rated voltage V_{MPP}	[V]	40,75	41,03	41,28
Current and voltage tolerance	[%]		± 3	
Module efficiency	[%]	20,24	20,47	20,70

STC: 1000W/m² irradiance, 25 °C cell temperature, AM1, 5 g spectrum according to EN 60904-3
Average relative efficiency reduction of 3,4 % at 200 W/m² according to EN 60904-1

Electrical parameters at Nominal Module Operating Temperature (NMOT)				
MODEL		SV144-440 E HC9B	SV144-445 E HC9B	SV144-450 E HC9B
Peak power P_{MPP}	[W]	326,7	329,9	332,5
Peak power tolerance	[W]		-0/+5	
Short circuit current I_{SC}	[A]	9,13	9,16	9,18
Open circuit voltage V_{OC}	[V]	44,4	44,6	44,8
Rated current I_{MPP}	[A]	8,76	8,80	8,80
Rated voltage V_{MPP}	[V]	37,3	37,5	37,8

NMOT: module operating parameters at 800 W/m² irradiance, 20 °C ambient temperature, 1 m/s wind speed

MECHANICAL DATA	
Dimensions (H x W x D)	[mm] 2094 x 1038 x 35
Weight	[kg] 25,0
Solar cells	144 cells, mono-Si, 166x83 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 ² , length >=1000 mm, MC4 compatible connectors

NOTE: For extended models, SV144 E HC9B, 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]	1500
Max. series fuse rating		20A
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

