



MODEL SV144 E HC9B



Premium quality



Power output
range 435-455 Wp



100% EL testing



Mechanical load
up to 2400 Pa



Low weight



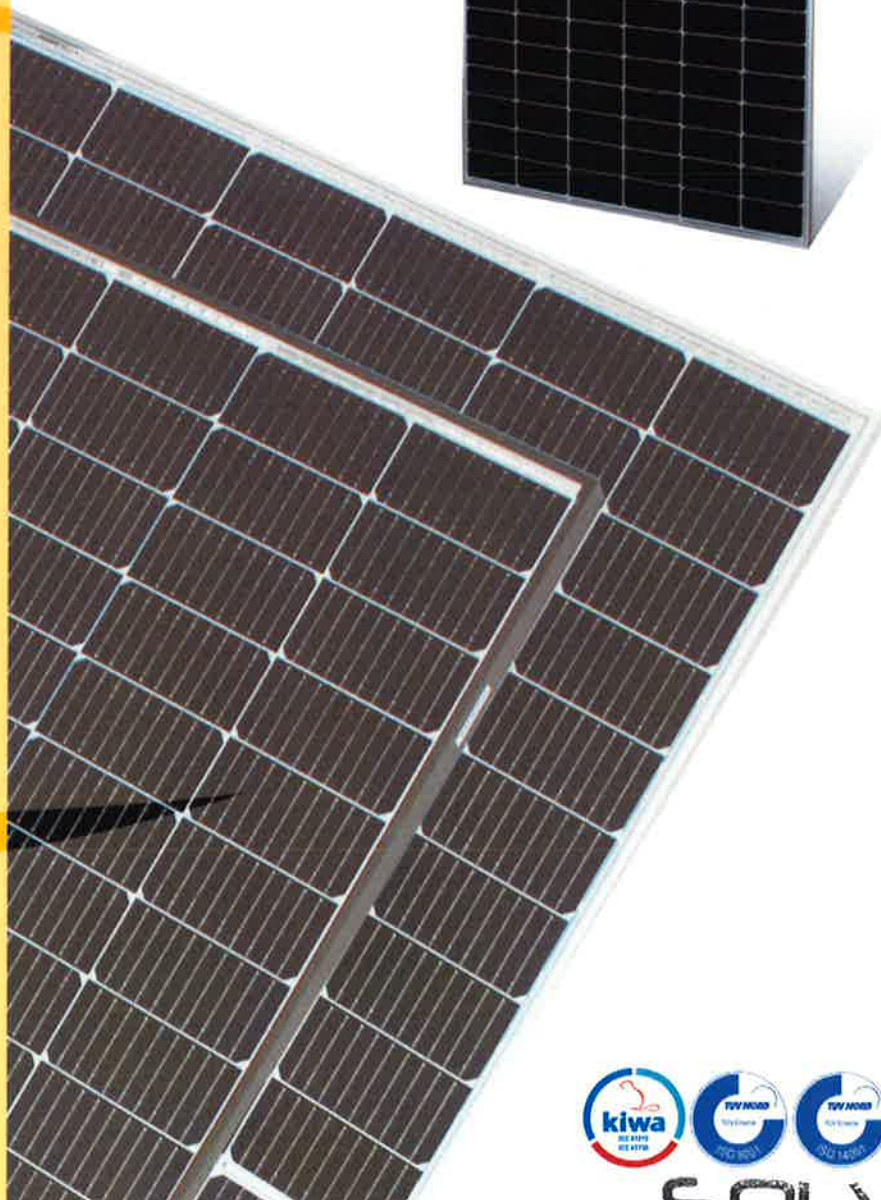
Module efficiency
up to 20,93%



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		SV144-435 E HC9B	SV144-440 E HC9B	SV144-445 E HC9B	SV144-450 E HC9B	SV144-455 E HC9B
Peak power P_{MPP}	[W]	435	440	445	450	455
Peak power tolerance	[W]			-0/+5		
Short circuit current I_{sc}	[A]	11,24	11,24	11,24	11,27	11,29
Open circuit voltage V_{oc}	[V]	48,81	49,08	49,53	49,70	49,94
Rated current I_{MPP}	[A]	10,55	10,57	10,60	10,63	10,66
Rated voltage V_{MPP}	[V]	41,36	41,69	42,12	42,34	42,69
Current and voltage tolerance	[%]			± 3		
Module efficiency	[%]	20,01%	20,24%	20,47%	20,70%	20,93%

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		SV144-435 E HC9B	SV144-440 E HC9B	SV144-445 E HC9B	SV144-450 E HC9B	SV144-455 E HC9B
Peak power P_{MPP}	[W]	321,4	325,1	328,8	332,5	336,2
Peak power tolerance	[W]			-0/+5		
Short circuit current I_{sc}	[A]	9,09	9,09	9,09	9,11	9,13
Open circuit voltage V_{oc}	[V]	44,6	44,9	45,3	45,5	45,7
Rated current I_{MPP}	[A]	8,50	8,53	8,54	8,59	8,60
Rated voltage V_{MPP}	[V]	37,8	38,1	38,5	38,7	39,1

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 = letters): F for black frame, B for silver frame and black backsheet, W 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		2400 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]	-0,338
Temperature coefficient of I_{sc}	[%/K]	0,047
Temperature coefficient of V_{oc}	[%/K]	-0,268

