



MODEL SV96 E F HCG12R

TOPCon technology

460 W

Maximum power output

-0/+4,9 W

Positive power sorting

23,02%

Maximum Efficiency



Premium quality



100% EL testing



Power output range
450-460 W



Mechanical load
up to 5400 Pa*



Low weight



EN IEC 61215-1,-1-1,-2
EN IEC 61730-1,-2



Module efficiency
up to **23,02%**



Made in Europe



Transizione 5.0



Made-in-Europe-Bonus

Warranty:

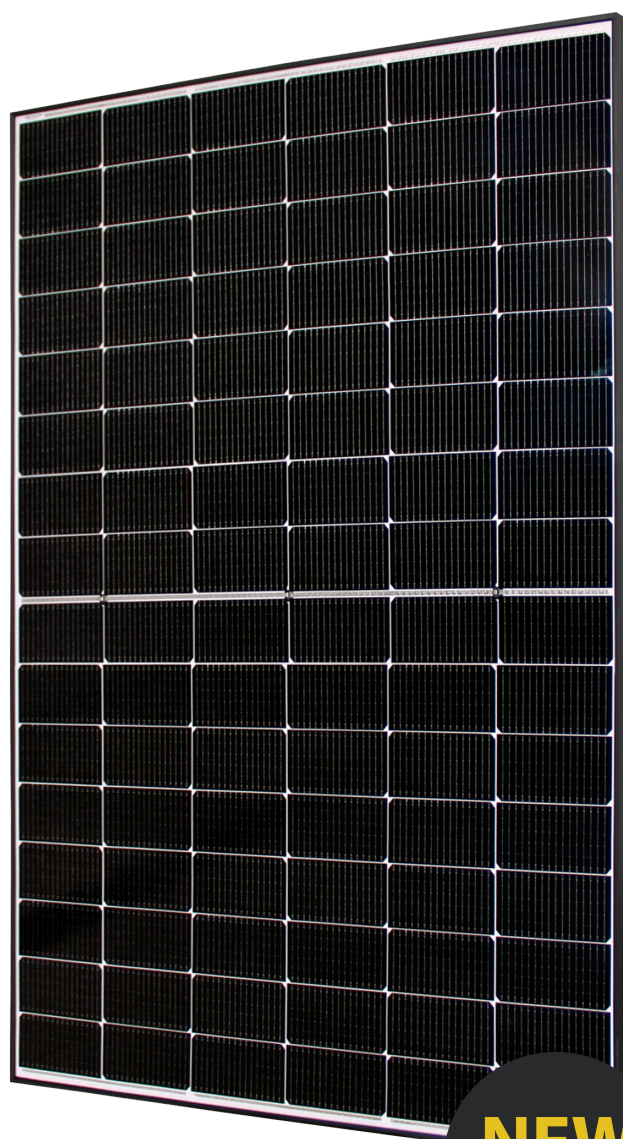
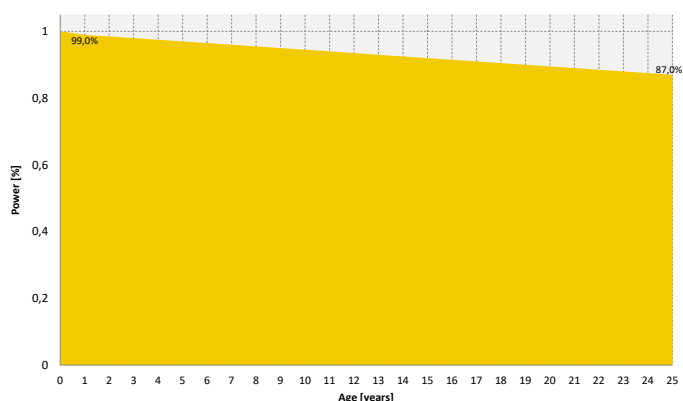
15

years manufacturing
defects

25

years limited,
87% output power

Module power degradation:



**NEW
MODULE**



Electrical parameters at Standard Test Conditions (STC)

MODEL		SV96-450 E F HCG12R	SV96-455 E F HCG12R	SV96-460 E F HCG12R
Peak power P_{MPP}	[W]	450	455	460
Peak power sorting	[W]	-0/+4,9		
Short circuit current I_{SC}	[A]	16,00	16,10	16,20
Open circuit voltage V_{OC}	[V]	35,72	35,84	35,96
Rated current I_{MPP}	[A]	15,30	15,40	15,50
Rated voltage V_{MPP}	[V]	29,42	29,55	29,68
Module efficiency	[%]	22,52	22,77	23,02
Cell efficiency	[%]	>25,0	>25,2	>25,4

STC: 1000 W/m² irradiance, 25 °C cell temperature, AM 1,5 g spectrum according to EN 60904-3. Machine measurement tolerance: +/- 3%. Machine measurement rating: AAA. Primary electrical value for product type rating is P_{MPP} . I and V values can vary up to +/- 10% for the same P_{MPP} rating. 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		SV96-450 E F HCG12R	SV96-455 E F HCG12R	SV96-460 E F HCG12R
Peak power P_{MPP}	[W]	340,7	344,5	348,3
Short circuit current I_{SC}	[A]	12,93	13,01	13,09
Open circuit voltage V_{OC}	[V]	33,9	34,0	34,2
Rated current I_{MPP}	[A]	12,17	12,26	12,35
Rated voltage V_{MPP}	[V]	28,0	28,1	28,2

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]	1762 x 1134 x 30
Weight	[kg]	20,8
Solar cells		TOPCon, 96 cells, mono-Si, 182x105 mm ± 1 mm
Front		AR Coated, Tempered solar glass, 3,2 mm
Back		Composite polyester film
Frame		Black anodized aluminium frame with twin-wall profile and drainage holes
Junction box		IP68 with 3 Bypass diodes
Cable and connectors		Solar cable 4 mm ² , length 1100 mm, Stäubli MC4/EVO2 connectors

OPERATING CONDITIONS

Temperature range	[°C]	-40 to +85
Maximum system voltage	[V]	1500
Max. series fuse rating	[A]	25
Limiting reverse current	[A]	20
Maximum surface load capacity	[Pa]	Down: 5400* Up: 2400
Resistance against hail		Max. diameter of 35 mm with impact speed 27,2 m/s

*Please refer to installation manual

THERMAL CHARACTERISTICS

Temperature coefficient of P_{MPP}	[%/K]	-0,32
Temperature coefficient of I_{SC}	[%/K]	0,033
Temperature coefficient of V_{OC}	[%/K]	-0,22

PACKAGING:

Quantity/Pallet	pcs	36
Truck	pcs	1008
Pallets	pcs	28

