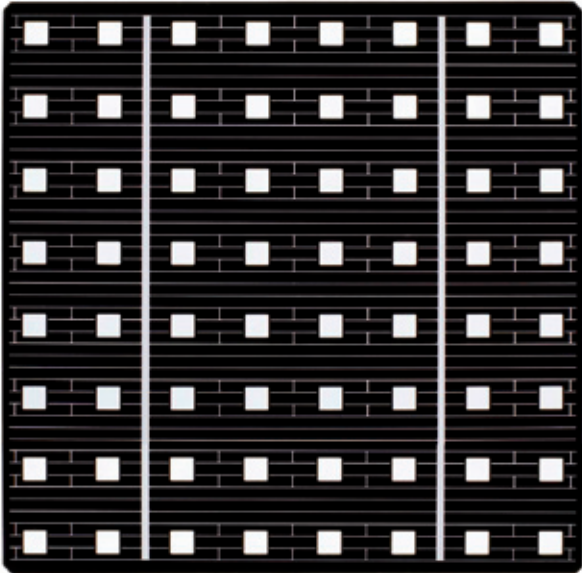


SOLAR CELLS

Sunways Solar Cells



The new transparent Sunways Solar Cell is a square high performance solar cell based on mono- and multicrystalline silicon. Its new manufacturing technique using laser technology is a technical innovation. With the new manufacturing technique for the transparent Sunways Solar Cell, it has been possible to achieve efficiencies of up to 13.8 percent with 10 percent transmittance.

Product description

Category:	Transparent
Format:	125 \pm 0,7 mm x 125 \pm 0,7 mm
Cell thickness:	200 \pm 40 μ m
Temperature coefficients:	Output -0.33 %/K Open-circuit voltage -2,1 mV/K Short-circuit current 0,05 %/K

Electrical key data

Current class as per I (V _{FIX})	Efficiency [%]	Output at V _{FIX} [W]	I (V _{FIX} = 490 mV) [A]	Fill factor [%]	V _{OC} [mV]	I _{SC} [A]
AH814400	13,7	2,14	4,37	74,6	603	4,76
AH814300	13,4	2,10	4,28	74,2	600	4,71
AH814200	13,2	2,06	4,20	73,5	598	4,68
AH814100	12,9	2,01	4,11	72,5	596	4,66
AH814000	12,6	1,96	4,01	71,4	595	4,64
AH813900	12,3	1,92	3,91	69,6	594	4,64

All figures are averages, all figures \pm 3 %. Cell class measurement at V_{FIX} = 490 mV.

Information and Sales

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Photovoltaic Technology

Solar Cells

Recommendations for further processing

Monocrystalline Sunways Solar Cell can be processed using tin-coated copper bands (2 – 2.5 mm x 0.15 mm), which are coated with 10 - 15 μm Sn (62 %), Pb (36 %) and Ag (2%). We recommend the use of no clean flux. The solar cells should be pre-heated to 80 - 150°C and soldered at a temperature of 250 - 350°C. Contact is provided by two continuous busbars on the front of the solar cell measuring 1.54 ± 0.15 mm and on the rear side with a width of 3.5 ± 0.5 mm.

Production and Packing

Each Sunways Solar Cell is subjected to mechanical and optical quality control before the individual cells are divided into narrowly defined current classes, and classified according to $I(V_{\text{FIX}} = 490 \text{ mV})$. The solar cells are sealed in foil packaging of 50 cells each. The foam packaging can hold up to 2 x 12 packaging units (= 1200 solar cells) and offers optimal protection during transportation.

Metallization drawing

