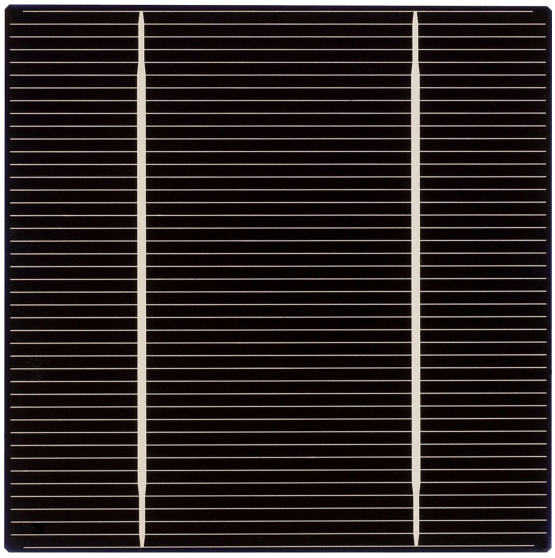
SOLAR CELLS



Sunways Solar-Cells Mono 100 Premium (A70-PE)

Sunways Solar Cells optical premium quality for applications in the automotive sector are manufactured based on top quality standards. The Solar Cells is characterised by a uniform surface, homogeneous colour and meets highest visual and quality standards.

Product description

Category:	Monocrystalline, automotive, premium
Format:	100 $^{+/-0.5}$ mm x 100 $^{+/-0.5}$ mm
Cell thickness:	200 $^{+/-40}$ µm
Temperature coefficients:	Output -0.34%/K Open-circuit voltage -0.34%/K Short-circuit current +0.03%/K
Current class sorting:	Current class sorting following 100 % electronic measurement with measuring equipment calibrated in accordance with ISO 9001:2000

Electrical parameters

Current class nach I(V_{FIX})	Efficiency [%]	Output bei V_{FIX} [W]	I (V_{FIX} = 500 mV) [A]	Fill factor [%]	V_{OC} [mV]	I_{SC} [A]
A70335PE	16.8	1.68	3.33	77.8	608	3.53
A70330PE	16.5	1.65	3.29	77.7	602	3.52
A70325PE	16.3	1.63	3.24	77.4	600	3.50
A70320PE	16.0	1.60	3.20	76.9	598	3.48
A70315PE	15.8	1.58	3.15	76.1	597	3.47

All values are mean values, all specifications +/- 3%. Measurement of cell classes at V_{FIX} = 500 mV.

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Recommendations for further processing

Due to the special requirements of the automotive industry, other pastes are used than for our standard cells. The product should therefore be regarded as an independent cell type for which a separate approval process should be carried out.

The monocrystalline Sunways Solar Cells can be linked to form strings using soft solder (SN, 2% to 4% Ag). The front of the cells features two continuous busbars with a width of 1.54 $^{+/- 0.5}$ mm. Two further continuous busbars with a width of 3.5 $^{+/- 0.5}$ mm enable contacting on the back.

Manufacturing and packaging

Each Sunways Solar Cell is subjected to mechanical and visual quality control. The individual solar cells are then classified according to closely defined current classes. The classification is based on I (V_{FIX} = 500 mV). The solar cells are then film-wrapped in packs of 100. The foam packing material can hold 2 x 4 packing units (= 800 solar cells) and offers optimum protection for transport.

Metallization drawing