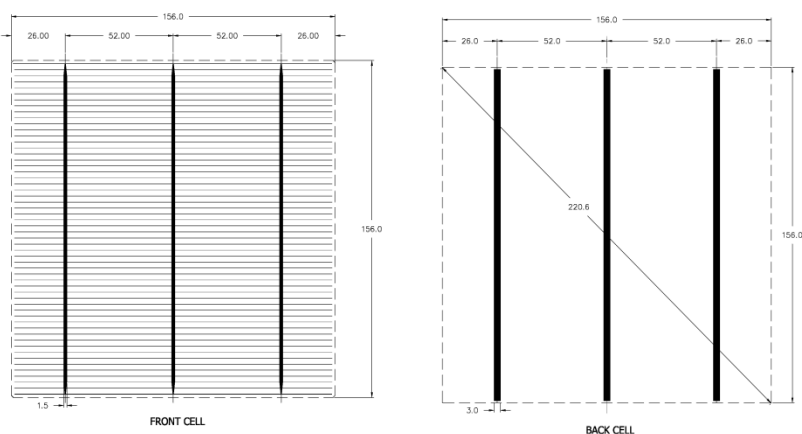


A3P1-XXX Polycrystalline Solar Cell

DATA SHEET

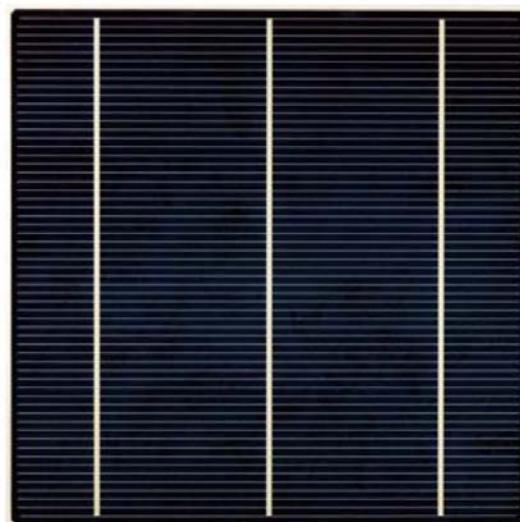
Product Overview

The A3P1-XXX Polycrystalline Solar Cell incorporates the latest technology including front surface texturing. A third bus bar yields improved performance and fill factor. Utilizing Solar Power Industries fully automated production process, the A3P1-XXX cell consistently outperforms other solar cells in its class.



A3P1-XXX Solar Cell Front

A3P1-XXX Solar Cell Back



Key Features

Electrical Features:

- Proven crystalline silicon technology providing electrical stability
- Narrow current classifications
- Three bus system yields improved performance
- Shunt Resistance measurements on every cell ensuring superior low level light performance

Quality Control

- All measurements conducted under STC to provide accurate cell classification
- Reverse current tested to prevent hot spot generation (<2 amps @ -10 volts)
- Each cell sorted on cosmetic criteria for uniform appearance

Module Recommendations

- Recommended solder connection: Tin coated copper ribbons: 62% Sn, 36% Pb, 2% Ag. Solder coating 10-15 μ m



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A3P1-XXX

Polycrystalline Solar Cell

DATA SHEET

Electrical Performance Data

Product ID	Eff (%)	Pm (Wp)	Im (A)	Vm (V)	Isc (A)	Voc (V)
A3P1-170	17.00	4.15	8.05	.516	8.65	.621
A3P1-167	16.75	4.09	7.98	.513	8.57	.618
A3P1-165	16.50	4.02	7.90	.509	8.50	.616
A3P1-162	16.25	3.96	7.83	.506	8.42	.613
A3P1-160	16.00	3.90	7.76	.503	8.34	.610
A3P1-157	15.75	3.84	7.69	.500	8.27	.608
A3P1-155	15.50	3.78	7.62	.497	8.19	.605
A3P1-152	15.25	3.72	7.54	.493	8.12	.603
A3P1-150	15.00	3.66	7.47	.490	8.04	.600
A3P1-147	14.75	3.60	7.40	.487	7.97	.597
A3P1-145	14.50	3.54	7.33	.484	7.89	.595
A3P1-142	14.25	3.48	7.25	.481	7.81	.592
A3P1-140	14.00	3.41	7.18	.478	7.74	.589
A3P1-135	13.75	3.35	7.11	.474	7.66	.587
A3P1-130	13.50	3.29	7.04	.471	7.59	.584
A3P1-120	13.25	3.23	6.96	.468	7.51	.582

* Test Conditions (STC): 1000 W/m², AM1.5 spectrum, 25°C +/- 2°C

Mechanical Dimensions

Cell Size	Average Cell Thickness	Front Bus Bar	Back Bus Bar
156mm x 156mm +/- 0.5mm	200µm +/- 20µm	3 x 1.5mm Silver Soldering Pads	3 x 3.0mm Silver Soldering Pads

Intensity Dependencies

Intensity	V Max	I Max
1000	1.000	1.0
800	0.999	0.8
500	0.994	0.5
400	0.986	0.4
300	0.970	0.3
200	0.936	0.2
100	0.862	0.1

Temperature Coefficients

POWER	-.44% / °C
CURRENT	+.0438% / °C
VOLTAGE	-2.17 mV / °C

* Specifications subject to technical changes



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