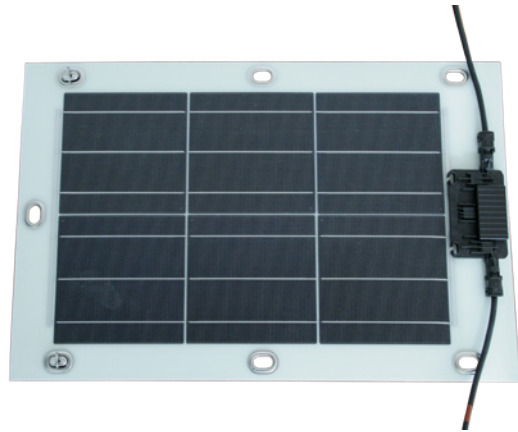
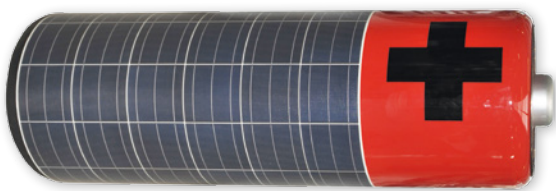


DAS Energy

The world's first fully IEC certified non-glass silicon solar cell based semi-flexible lightweight module

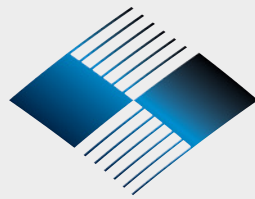


DAS Series Module DAS 240 - 250P UNIQUE CHARACTERISTICS

- No glass used - the proprietary fiber reinforced plastic core together with state-of-the art front, back and EVA sheets, ensures rigidity, flexibility, quality and durability, all-in-one
- This base laminate can be delivered standalone, or attached to a stiff or semi-flexible lightweight substrate, and be integrated in a standard PV module frame for standard applications, or into a custom fixing system for BIPV or automotive applications
- Fully IEC certified (UL planned)
- Available in both mono- and multi-crystalline versions
- 156 mm x 156 mm cells, 2BB or 3BB
- Standard 60- and 72-cell versions
- Sizes, shapes and forms (2D and 3D) can be altered to customer needs

DAS Energy Solar Module Production Facility





DAS Energy

TECHNICAL DATA

Solar Cells	60 polycrystalline silicon cells
Cell Characteristics	156mm x 156mm, with 3 bus bars
Front sheet	High transmission polymeric film
Core material	Proprietary fiber reinforced plastic
Encapsulant	EVA
Back Cover	Weather resistant back sheet (white, black, transparent)
Junction Box	TÜV certified (IP 65) with 3 bypass diodes (12 A)
Output Cables	Two 4 mm ² cables; 1 meter in length
Connector Type	Matching MC4 compatible connectors
Dimensions (L x W x H)	1657 mm x 991 mm x 2 mm
Weight	4.5 kg

ELECTRIC CHARACTERISTICS

	Power (Wp)	Isc (A)	Voc (V)	Imp (A)	Vmp (V)
DAS 240P	240	8.40	37.53	7.87	30.61
DAS 245P	245	8.41	37.56	7.98	30.70
DAS 250P	250	8.41	37.57	8.02	31.17

THERMAL CHARACTERISTICS

Operating Temperature Range	-40 to 85°C
Ambient Temperature Range	-45 to 45°C
Temperature Coefficient Pmpp	-0.393 %/°K
Temperature Coefficient Voc	-0.310 %/°K
Temperature Coefficient Isc	0.051 %/°K

CERTIFICATES

IEC 61215
Safety Class II
IEC 61730
5400 Pa according to IEC 61215
IEC 61701

HIGHLY RELIABLE

25-year limited warranty on power output
10-year product warranty
Maximum system voltage 1000 V
Maximum over current protection: 20 A
All data given relative to STC (1000 W/m ² , 25°C)



A collaboration with the Company Diamond Aircraft has brought together Diamond's vast experience in the design of composite materials for the manufacturing of light-weight single- and twin-engine airplanes with DAS Energy's Photovoltaics industrial and technology expertise.

Version: 06/2015 EN

The world's first fully-certified non-glass silicon solar cell based semi-flexible lightweight module

UNIQUE SELLING PROPOSITIONS

Ultra lightweight PV module

Weight in the size of a standard module only 3.5 kg – compared to ~ 20 kg for a standard module

Thickness of only 2 mm

Flexible PV module: the PV module can be fixed extremely flexibly – assimilates perfectly to the respective underground

Higher efficiency in terms of energy production for example in vertical applications: the production process allows to use an optical effect which focuses the light and microchip technology to optimize the energy production

Any silicon based cell can be used (mono, poly, backside-contact, smart wire...)

Coloured applications

Machinable for fixing: drilling, sawing...

Various mounting possibilities: gluing, screwing, riveting

Minimized sunlight reflection

Very high insulation resistance:

$\geq 30 \text{ G}\Omega$ (IEC 61215 requires $24.1 \text{ M}\Omega$)

Soil resisting surface

No PID (TÜV confirmed)

Version: 05/2015 EN