

The Most Powerful Battery-Charging Photovoltaic Module in the World.

The ASE 300/DGF-17 is the perfect large-area module for low-voltage battery charging applications. With proven performance in demanding environments around the world, the ASE module reliably powers everything from mountaintop telecommunication sites to remote pipeline monitoring systems. As a key component of a rugged solar battery charging system, the ASE-300/DGF-17 is the single most powerful module you can buy and consistently delivers steady low-voltage power day-after-day, year-after-year.

Faster Installation

The ASE module's size, power and simplicity make system design and installation fast and easy:

- Large surface area requires fewer interconnects and structural members
- All module-to-module wiring and connectors are built right into the module
- Multi-Contact Plug-n-Play connectors mean source-circuit wiring takes just minutes
- Unique mounting systems available for residential and commercial roofs eliminate need for traditional mounting rails, heavy ballast, and roof penetrations

More Reliability

- Bypass diode protection for every 18 solar cells in series, thus minimizing power loss, and mitigating overheating/safety problems
- Advanced RSS encapsulation system ensures steady long-term module performance by eliminating degradation associated with traditional EVA-encapsulated modules
- A weather barrier system on *both* sides of the module protects against tears, perforations, fire, electrical conductivity, delamination and moisture
- Patented no-lead, high-reliability soldering system guarantees long life and ensures against environmental harm should the module break or be discarded

Higher Quality

- Each of the module's 216 individual semi-crystalline silicon cells is inspected and power matched to ensure consistent performance between modules
- Every module is tested utilizing a calibrated solar simulator to ensure that it meets or exceeds minimum labeled electrical ratings for power, voltage and current
- Any module-to-module wiring loss is factored into the module's labeled electrical ratings by testing through the module's cable/connector assemblies

Independently Certified

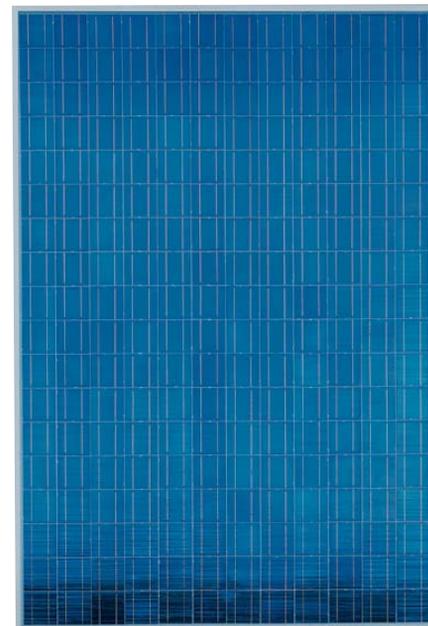
- The ASE-300/DGF-17 is independently certified to meet both IEEE 1262 and IEC 1215 standards
- It is also the *only* module in the industry to receive a UL (Underwriters Laboratories) Class A fire rating

Flexible Versions

- While the standard module power rating is 300 watts, RSS can also supply 285- and 315-watt versions if needed. A variety of wiring options, three frame finishes, two back-skin colors, and modules without frames are also available upon request

Additional RWE SCHOTT Solar Advantages

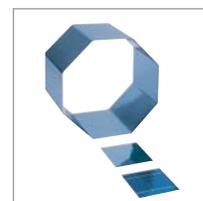
- For reliability, energy saving, and a dramatic reduction in material waste, RWE SCHOTT Solar developed the patented EFG (Edge-defined, Film-fed Growth) process that allows material-intensive wafer sawing to be replaced by a highly efficient laser cutting



ASE-300-DGF/17



ASE-300-DGF/17 diode housing with bypass diodes. Module – module wiring with MC@-connectors.



Crystalline octagonal Si tubes are drawn from the melt, then laser cut into wafers. There are no losses due to sawing.

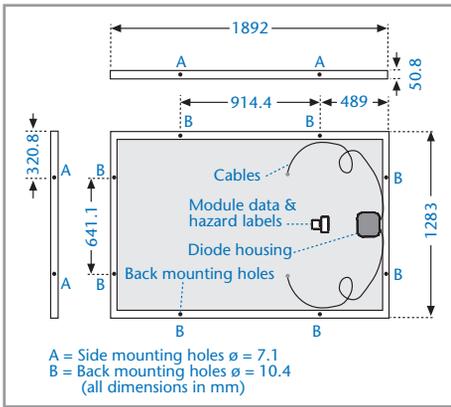
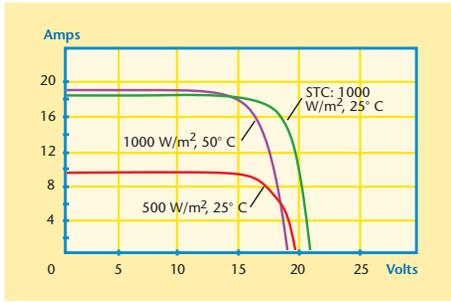
Designation:

DG = Double Glass

F = Frame

/17 = Nominal Voltage at STC

Current/voltage characteristics with dependence on irradiance and module-temperature.



Electrical data

The electrical data applies to standard test conditions (STC):

Irradiance at the module level of 1,000 W/m² with spectrum AM 1.5 and a cell temperature of 25° C.

Power (max.)	P _p (watts)	285 W	300 W	315 W
Voltage at maximum-power point	V _p (volts)	16.7 V	17.0 V	17.3 V
Current at maximum-power point	I _p (amps)	17.1 A	17.7 A	18.2 A
Open-circuit voltage	V _{oc} (volts)	20.0 V	20.0 V	20.0 V
Short-circuit current	I _{sc} (amps)	19.0 A	19.5 A	19.9 A

The quoted technical data refers to the usual series cell configuration.

The rated power may only vary by $\pm 4\%$ and all other electrical parameters by $\pm 10\%$.

NOCT-value (800 W/m², 20° C, 1m/sec.): 45° C.

Dimensions and weights

Length mm (in)	1,892.3 (74.5")
Width mm (in)	1,282.7 (50.5")
Weight kg (lbs)	46.6 \pm 2 kg (107 \pm 5 lbs)
Area	2.43 sq meters (26.13 ft sq)

Characteristic data

Solar cells per module	216
Type of solar cell	Semi-crystalline solar cells (EFG process), 10x10 cm ²
Connections	10 AWG single conductor, stranded copper with Multi-Contact connector. Diode housing comes with 2 built-in bypass diodes

Cell temperature coefficients

Power	T _K (P _p)	- 0.47 % / °C
Open-circuit voltage	T _K (V _{oc})	- 0.38 % / °C
Short-circuit current	T _K (I _{sc})	+ 0.10 % / °C

Limits

Max. system voltage	600 VDC U.S.
Operating module temperature	-40 to +90° C
Tested wind resistance	Wind speed of 192 km/h (120 mph)

The right is reserved to make technical modifications.

For detailed product drawings and specifications please contact RWE SCHOTT Solar or an authorized reseller.

Certifications and Warranty

The ASE-300-DGF/17 has been independently certified to IEC 1215 and IEEE 1262, UL 1703 (Class A Fire rating).

The ASE-300-DGF/17 comes with a 20 year power warranty (see terms and conditions for details)

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