



# Photovoltaic Standard Module with 72 EFG-Cells



## ASE-100-GT-FT

## Mounting System:



Clamps for universal mounting



Mounting channel for quick assembly

This module represents an excellent combination of the advantages of cell production by ASE and module manufacturing at SolarFabrik GmbH.

#### **Environmental Balance**

The patented EFG process (Edge-defined Film-fed Growth) provides an energy and material-saving technique for the production of silicon wafers. Due to the synergy between EFG solar-cell technology of ASE and manufacturing with neutral environmental emissions by SolarFabrik, who themselves supply their own power demand based on renewable energy, the result is a highly environmentally friendly product.

## **Tight Power Tolerances**

An especially narrow selection in three power classes enables series connections having low mismatch losses. The new module has a standard power rating of 100 W and is approved for a system voltage of up to 800 Volt. It is suitable for grid-connecting as well as for 24 Volt battery charging applications.

#### **Module Design and Mounting**

Full-square EFG cells offer a homogeneous appearance, optimal use of the area and are known for high energy yields. Due to its construction of glass/Tedlar the module weighs only 8.5 kg. The galvanised aluminium frame facilitates easy mounting. Three bypass diodes are integrated into the connection box. Cage clamps provide a fast and longterm secure connection for wires of up to 4 mm<sup>2</sup> cross-section.

ASE also offers special mounting devices and profile rods made of aluminium.

## Assignments:

- i = glass
- T = tedlar F = frame
- **T** = cells embedded in thermoplastic





# Electrical data

The electrical data apply to standard test conditions (STC): Irridiance at the module level of 1,000 W/m<sup>2</sup> with spectrum AM 1.5 and a cell temperature of 25° C.

Power (max.)	P <sub>mpp</sub>	95 Wp	100 Wp	105 Wp
Voltage at maximum-power point	U <sub>mpp</sub>	34.1 V	34.5 V	35.0 V
Current at maximum-power point	Impp	2.8 A	2.9 A	3.0 A
Open-circuit voltage	U <sub>oc</sub>	42.3 V	42.5 V	42.6 V
Short-circuit current	I <sub>sc</sub>	3.2 A	3.2 A	3.3 A

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

The rated power may only vary by  $\pm$  3% and all other electrical parameters by  $\pm$  10%.



## Dimensions and weights

Dimensions (tolerances ± 2 mm)	644 x 1,282 mm <sup>2</sup>
Thickness with frame (tolerances ± 1 mm)	35 mm
Overall height incl. connection box (tolerances ± 1 mm)	60 mm
Weight	approx. 8.5 kg



# **Characteristic data**

Solar cells per module	72
Type of solar cell	EFG solar cell (multi-crystalline, 10 x 10 cm <sup>2</sup> , full-square)
Connection	Connection box with cage clamps up to 4 mm <sup>2</sup> , three bypass diodes
Cable entry	PG 13.5 cable gland



# **Cell temperature coefficients**

Power	T <sub>K</sub> (P <sub>n</sub> )	- 0.47 % / °C
Open-circuit voltage	T <sub>K</sub> (U <sub>oc</sub> )	- 0.38 % / °C
Short-circuit current	T <sub>K</sub> (I <sub>sc</sub> )	+0.10 % / °C



## Limits

Max. system voltage	800 V <sub>DC</sub>
Operating module temperature	-40 +90° C
Storm resistance	Wind speed of 130 km/h ≜ 800 Pa and safety factor of 3

The right is reserved to make technical modifications.



#### Qualifications

The ASE-100-GT-FT complies with the requirements of IEC 61215, Electrical Protection Class II and the EWG guideline 89/392 (CE).

## Current/voltage characteristics

with dependence on irradiance and module-temperature









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