



The Delta SM series solar modules are manufactured from high efficiency solar cells of Grade A quality class, which guarantees high performance, durability and reliability. The strength of the modules is provided by the use of a tempered glass and an anodized aluminum profile frame (with drainage holes). Exclusive module's frame prevents its deformation under extreme weather conditions.



#### Cells

Technology.....	Polycrystalline
Cell thickness .....	180 µm
Number of cells.....	36 (4x9)
Quality class .....	Grade A

#### Electrical parameters (STC)\*

Peak electrical power ( $P_{max}$ ).....	100 W
Tolerance.....	+3 %
Nominal voltage ( $U_{nom}$ ).....	12 V
Voltage at maximum power point ( $U_{mp}$ ).....	18,1 V
Current at maximum power point ( $I_{mp}$ ).....	5,52 A
Short-circuit current ( $I_{sc}$ ).....	5,88 A
Open-circuit voltage ( $U_{oc}$ ).....	22,63 V
Maximum series fuse rating.....	15 A
Cell efficiency .....	17,65 %
Module efficiency .....	14,63 %

\*Standard measurement conditions (STC): light density 1000 W/m<sup>2</sup>, air mass AM = 1,5,  
nominal temperature 25°C

#### Temperature coefficients

NOCT* ( $\pm 2^{\circ}\text{C}$ ).....	45±2°C
Of power ( $P_{max}$ ).....	-0,44 %/°C
Of voltage ( $U_{oc}$ ).....	-0,34 %/°C
Of current ( $I_{sc}$ ).....	0,06 %/°C
Operating and storage temperature .....	-40 ÷ 85°C

\*NOCT - normal operating temperature of solar module

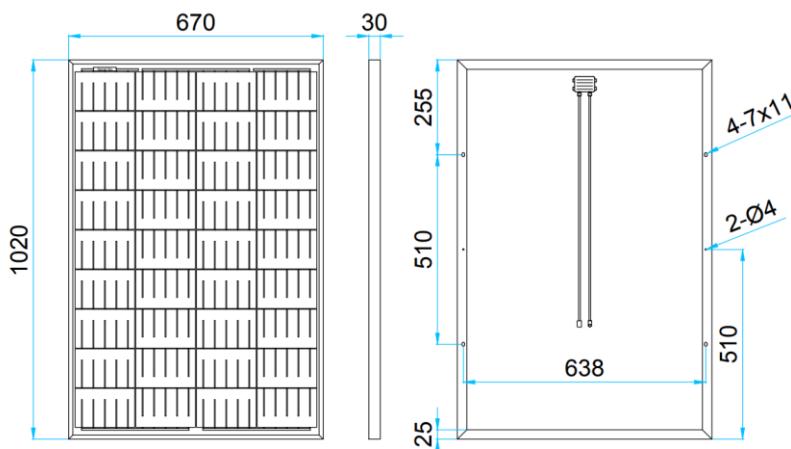
#### Mechanical characteristics

Module dimensions.....	1020 x 670 x 30 mm
Weight.....	12 kg
Front glass.....	Tempered non-reflecting glass 3,2 mm
Frame.....	Anodized aluminum
Terminal box .....	IP 65
Connectors.....	MC4
Cable length .....	900 mm
Output cable .....	4 mm <sup>2</sup>
Number of diodes.....	2
Wind load.....	5400 Pa

Our products are constantly being improved, so we reserve the right to make changes without prior notice.

#### Quality and warranty

- The quality control complies with IEC61215 and IEC61730 standards.
- The warranty for solar module is 10 years and does not cover any damages caused by mechanical, thermal or other external actions.
- The manufacturer guarantees that more than 90% of the declared nominal power will be retained for 10 years. 80% of the declared minimum nominal power will be retained for 25 years.



**ATTENTION!** The solar module should be installed and connected by a qualified technician with the corresponding access level. While connecting the solar module, strictly observe the connection polarity. Be sure to use a solar charge controller to charge the battery and power the load. Before using the module, read the manual carefully.