

DATASHEET

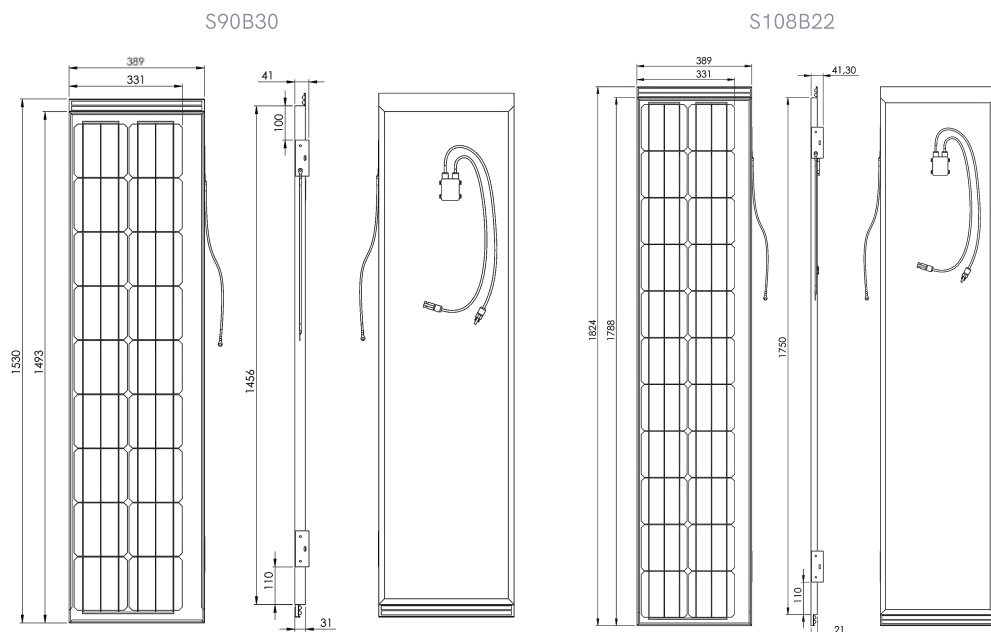
Solar Tiled Roof™

90 W and 108 W modules

Premium in-roof solar system. 5 or 6 roof tiles are replaced by one solar module with a guaranteed seamless transition.



Drawings



Materials & Tests

- Designed to meet the requirements of IEC 61215 & 61730
- $B_{roof}(t1)(t2)$
- Black aluminum frame
- Monocrystalline silicon cells
- Tempered 3,2 mm glass
- Flash testing to ensure rated level of output
- Lead-free solder protects health and the environment
- Utility-patented solution (EPO)
- Snow load 4900 Pa (500 kg/m²)



Mechanical Specifications

Manufacturer	Solarstone	Solarstone
Model name (main)	STR21MO90WC18	STR21MO108WC22
Model name (variation)	STR30BE90WC18	STR30TU108WC22
Cell type	Monocrystalline, 156 x 156mm	Monocrystalline, 156 x 156mm
Number of cells	18	22
Weight (kg)	7	8.2 and 8.5
Junction box	1 diode. IP65	1 diode. IP65
Dimensions (mm) - main	1530 x 395 x 21	1824 x 389 x 21
Dimensions (mm) - variation	1530 x 395 x 30	1824 x 389 x 30

Electrical Specifications (STC)

Maximum power rating (Pmax)	90 ± 3%	108 ± 3%
Tolerance of max power rating	± 3%	± 3%
Power temperature coef. (°C)	-0.414%	-0.414%
Open circuit voltage (Voc)	11.9 ± 5%	14.1 ± 5%
Short circuit current (Isc)	9.3 ± 5%	8.7 ± 5%
Maximum power voltage (Vmp)	11.2 ± 5%	12.6 ± 5%
Maximum power current (Imp)	9.6 ± 5%	8.6 ± 5%
Maximum system voltage (V)	600	600
Fuse rating (A)	12	12
Module efficiency	19%	19%
Output terminal	MC4	MC4

Tile Compatibility & Batten Spacing

Roof tile model	Batten spacing	Module compatibility
Benders Carisma	340...350 mm	90 W with 30 mm frame
BMI Monier Turmalin	355...380 mm	108 W with 30 mm frame
BMI Monier Evo, Teviva, Tegalit	335...340 mm	90 W & 108 W with 21 mm frame

Solar Tiled Roof™ Specifications (STC)

Warranty	10-year product & 25-year power output
Roof pitch	According to installation manual
Temperature range	-30°C to 100°C
Compatible roof windows	Velux, Roto, Keylite, Fakro
Inverter	Required to use inverter with AFCI
Roof underlay	Solarstone recommends Riwega USB Protector Head FH 240 or similar

Installation Clamps & Accessories

90 W installation clamps

(suitable for 30x50 mm battens)
 Product code: STR-402.BE3050R
 Product code: STR-402.MO2150R



108 W installation clamps

(suitable for 21x50 mm battens)
 Product code: STR-402.MO2150R
 Product code: STR-402.TU3050R

90 W installation Nordic clamps

(suitable for 30x36 mm battens)
 Product code: STR-402.BE3036R
 Product code: STR-402.MO2136R



108 W installation Nordic clamps

(suitable for 21x36 mm battens)
 Product code: STR-402.MO2136R
 Product code: STR-402.TU3036R

Plastic L-profile (38 x 38 x 1 mm) or 3 x 30 polyethylene foam sealing tape
 Installed on the top row to protect module glass and frame from roof tile.
 Read more from installation manual.

