midsummer



Unique thin film solar panels

PRODUCT DATA SHEET

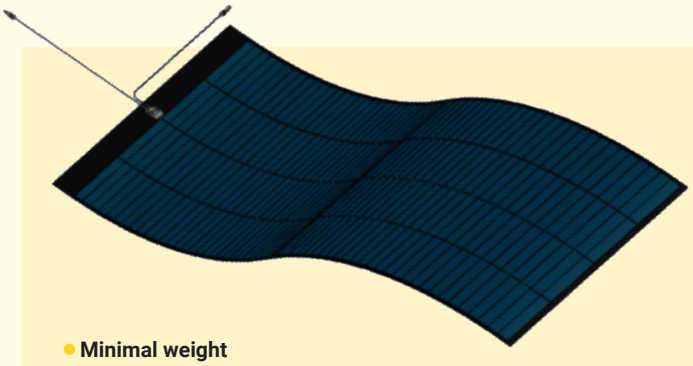
MIDSUMMER BOLD S

Solar roof for bitumen- and membrane roofs

Midsummer BOLD S is an ultralight and flexible solar panel which, among other, is intended for roofing felt and membrane roofs as a base, where the end product becomes a discreet solar roof. Midsummer BOLD S is suitable for flat and sloping roofs and follows the shape of the roof, regardless of whether it is flat or curved. No extra stands are required to angle the panels.

The solar panel is only 1,7 mm thin, consists of thin film solar cells and weighs less than 2 kg/m². With its low weight, Midsummer BOLD S is a new alternative for roofs with weight restrictions. This means less cost of strengthening the roof structure. Thanks to the low weight, you can also cover more roof space and increase the number of solar panels on your roof = more solar power.

Midsummer BOLD S is suitable for installation on commercial properties, industrial buildings, warehouses and sports arenas, but also apartment buildings and private homes.

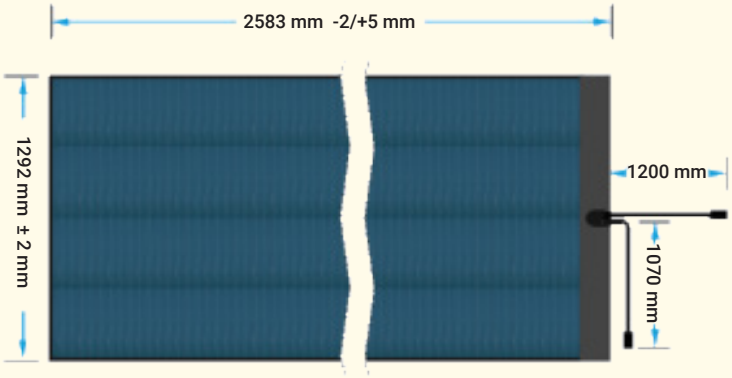


- **Minimal weight**
  Minimal weight enables easy and safe installation without penetrating the waterproofing layer of the roof.
- **Access to the roof**
  The solar panels can be carefully walked on during maintenance.
- **Safe and complete installation**
  We at Midsummer guides our customers through the entire process and offers turnkey installations - ready to go.
- **Flexible solar panels.**
  Flexible solar panels allow installation on curved surfaces and roofs. The panels can also be walked on during maintenance.
- **Superior shading performance.**
  The bypass technology ensures that shading on one or more solar cells only affects the current cells instead of the entire panel.

VERSION 1.3 - 240520

Technical characteristics

BOLD S



PRODUCT INFORMATION	BOLD S-500	BOLD S-510
Weight (with adhesive)	6,6 kg (2 kg/m²)	6,6 kg (2 kg/m²)
Width	1292 ±2 mm	1292 ±2 mm
Length	2583 (-2/+5) mm	2583 (-2/+5) mm
Max thickness (junction box with adhesive)	17 ±0,5 mm	17 ±0,5 mm
Min thickness (module with adhesive)	2,5 mm	2,5 mm
Roof pitch	min 2°	min 2°
Min bending radius	0,5 m	0,5 m
Cell type thin film	CIGS (Cu (In, Ga) Se2)	CIGS (Cu (In, Ga) Se2)
Warranty	20 years	20 years
Power guarantee after 10 years	90%	90%
Power guarantee after 25 years	80%	80%
Certifications	IEC 61215, 61730	IEC 61215, 61730
Fire Safety	Class C	Class C
Color of the panel	Black	Black

TECHNICAL DATA	BOLD S-500	BOLD S-510
Nominal Power, P_{MAX}*	500 W	510 W
Power/m²	150 W/m²	153 W/m²
Power/kg	89 W/kg	91 W/kg
Maximum Power Voltage, V_{MPP}	60,16 V	60,24 V
Maximum Power Current, I_{MPP}	8,31 A	8,47 A
Open Circuit Voltage, V_{OC}*	75,08 V	75,21 V
Short Circuit Current, I_{SC}*	9,32 A	9,42 A
Maximum Series Fuse Rating	25 A	25 A
Maximum System Voltage, V_{DC}	1000 V	1000 V
Protection class against electrical shock	II	II
Design Load**	± 3600 Pa	± 3600 Pa
Module operating range	-40 to +85 °C	-40 to +85 °C
Temperature coefficient, P_{MAX} (W), γ	-0,38 % / °C	-0,38 % / °C
Temperature coefficient, V_{OC} (V), β	-0,28 % / °C	-0,28 % / °C
Temperature coefficient, I_{SC} (A), α	0,008 % / °C	0,008 % / °C

Description

Solar modules consisting of thin film cells (CIGS) on ultra thin stainless steel substrate. The cells are protected and encapsulated by several film layers to ensure a long time durabillity. The module is delivered with IP68 rated junction boxes to endure a durable and weather resistant electrical connection.

Midsummer BOLD S can be retrofitted to an existing roof or mounted at the same time as a complete roof replacement, without drilling holes in the roof's waterproofing layer.

** Testing performed at STC (Standard test conditions): solar radiation of 1000 W/ m2 with perpendicular incidence towards the module surface, module temperature 25°C, Air mass 1.5 (AM 1.5 spectrum). The tolerance for the value is ±10%.*

*** Test load ± 5400 Pa, Max altitude: 2000 m*