Product data sheet

midsummer
discrete solar roofs



midsummer BOLD

Solar roof for bitumen- and membrane roofs

Midsummer BOLD is an ultralight and flexible solar panel which, among other things, is intended for roofing felt and membrane roofs as a base, where the end product becomes a discreet solar roof. Midsummer BOLD 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 2 mm thin, comes in 2 variants- BOLD 6 (1 m wide) and BOLD 8 (1,3 m wide), and each of lengths starting from 1,7 m up to 6 m. The BOLD weighs less than 3 kg / m^2. With its low weight, Midsummer BOLD 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 is suitable for installation on commercial properties, industrial buildings, warehouses and sports arenas, but also apartment buildings and private homes.



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.

Made in Sweden – We at Midsummer owns the entire value chain from production to installation and have the entire production in Järfälla outside Stockholm. This means low climate footprints and decent working conditions.

Safe and complete installation throughout Sweden – We at Midsummer guides our customers through the entire process and offers turnkey installations - ready to go.

Flexible solar panels allow installation on curved surfaces and roofs.

Superior shading performance
The bypass diodes between each cell ensures that shading on one or more solar cells only affects the current cells instead of the entire panel.

Highly efficient CIGS cells without toxic cadmium thanks to our unique Midsummer DUO system.

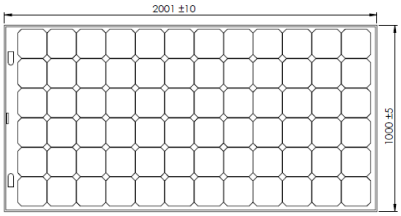
Version 8 - 2023-11-28

MADE IN SWEDEN

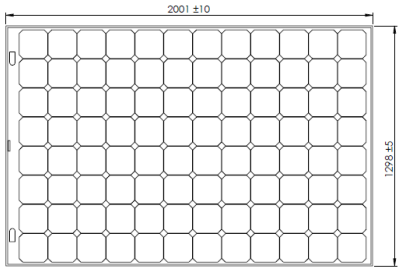
TÜVRheinland CERTIFIED

CE

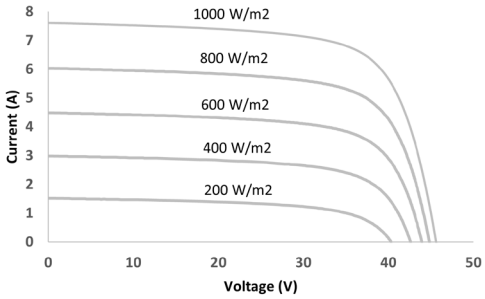
Technical characteristics



BOLD 6x12



BOLD 8x12



DESCRIPTION: Midsummer BOLD consists of series connected thin film cells (CIGS) on ultra thin 15 micron stainless steel substrate. The cells are protected and encapsulated by several film layers to ensure a long time durability. The module is delivered with IP68 rated junction boxes to endure a durable and weather resistant electrical connection. Midsummer BOLD 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.

ARTICLE INFORMATION	BOLD 6	BOLD 8
BOLD model	**BOLD 6x12**	**BOLD 8x12**
Number of cells (1 bypass diode between each cell)	**72**	**96**
Weight	**6 kg/panel**	**7,5 kg/panel**
Width	**1000 ±5 mm**	**1298 ±5 mm**
Length	**2001 ±10mm**	**2001 ±10 mm**
Thickness	**2 ±0,5 mm**	
Roof pitch	**min 2 °**	
Minimum bend radius	**0,25 m**	
Cell type thin film	**CIGS (Cu (In, Ga) Se_2)**	
Product warranty	**30 years**	
Power guarantee after 10 years	**90 %**	
Power guarantee after 25 years	**80 %**	
Certifications (TÜV Rheinland certified)	**IEC 61730, IEC 61215 (ongoing for BOLD 8)**	
Fire Safety	**BROOF (t2)*** **	

TECHNICAL DATA	BOLD 6	BOLD 8
Nominal Power, P_{MAX}**	**240 W**	**320 W**
Power/m^2	**120 W/m²**	**123 W/m²**
Power/kg	**40 W/kg**	**42,6 W/kg**
Maximum Power Voltage, V_{MPP}	**37,4 V**	**49,9 V**
Maximum Power Current, I_{MPP}	**6,6 A**	**6,6 A**
Open Circuit Voltage, V_{OC}**	**45,7 V**	**60,9 V**
Short Circuit Current, I_{SC}**	**7,6 A**	**7,6 A**
Maximum Series Fuse Rating	**10 A**	
Maximum System Voltage, V_{DC}	**1000 V**	
Protection class against electrical shock	**II**	
Design Load***	**± 3600 Pa**	
Module operating range	**-40 to +85 °C**	
Temperature coefficient, P_{MAX} (W), γ	**-0,3992 % / °C**	
Temperature coefficient, V_{OC} (V), β	**-0,3279 % / °C**	
Temperature coefficient, I_{SC} (A), α	**0,0099 % / °C**	

MADE IN SWEDEN

TÜVRheinland CERTIFIED

CE

* 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

*** Classification has been carried out by RISE Research Institutes of Sweden AB in accordance with EN 13501-5-2016

BOLD models

BOLD 6

Panel dimension	Number of cells	Length (mm)	P_{MAX} (W)	V_{MPP} (V)	I_{MPP} (A)	V_{OC} (V)	I_{SC} (A)
6x10	60	1685	200	31,2	6,6	37,9	7,5
6x11	66	1843	220	34,3	6,6	41,9	7,6
6x12	72	2001	240	37,4	6,6	45,7	7,6
6x14	84	2317	280	43,7	6,6	53,3	7,6
6x16	96	2633	320	49,9	6,6	60,9	7,6
6x18	108	2949	360	56,1	6,6	68,6	7,6
6x20	120	3265	400	62,3	6,6	76,2	7,6
6x22	132	3581	440	68,6	6,6	83,9	7,6
6x24	144	3897	480	74,8	6,6	91,3	7,6

BOLD 8

Panel dimension	Number of cells	Length (mm)	P_{MAX} (W)	V_{MPP} (V)	I_{MPP} (A)	V_{OC} (V)	I_{SC} (A)
8x10	80	1685	270	41,5	6,6	50,7	7,5
8x11	88	1843	295	45,7	6,6	55,8	7,6
8x12	96	2001	320	49,9	6,6	60,9	7,6
8x14	112	2317	375	58,1	6,6	71,0	7,6
8x16	128	2633	425	66,4	6,6	81,2	7,6
8x18	144	2949	480	74,8	6,6	91,3	7,6
8x20	160	3265	535	83,1	6,6	101,5	7,6
8x22	176	3581	585	91,4	6,6	111,7	7,6
8x24	192	3897	640	99,7	6,6	121,8	7,6
8x36	288	5793	960	149,5	6,6	182,7	7,6

BOLD 6



BOLD 8

