Product data sheet

midsummer



midsummer SLIM

More than a metal roof

Midsummer SLIM is a combination of thin solar panels and a folded metal roof, where the end product becomes a discreet solar roof. The plate for Midsummer SLIM has the same fold width as the solar panel to maximize the installed power without claiming the discreet design.

The sheet metal and solar panels can be tailored to the desired length, from 865 mm up to 4 025 mm. It is also possible to join the panels up to a total length of 12 meters. When joining, the wiring is covered with a discreet sheet metal protection.

Combining roof replacement and installation of solar panels is both smooth, safe and cost-effective.



MADE IN SWEDEN

TÜVRheinland CERTIFIED

CE

Version 6 - 2023-02-14

Minimalist and elegant Scandinavian design – Adapted for private homes as well as commercial and historic buildings, without changing the original architectural design.

Made in Sweden – Midsummer owns the entire value chain from development to delivery and has the entire production in Järfälla outside Stockholm. This means delivery security, low climate footprints and decent working conditions.

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

90% lower carbon dioxide emissions compared to traditional solar panels. Only 12,2 kg CO_2 per m^2 installed solar panel against over 200 kg according to independent third-party review.

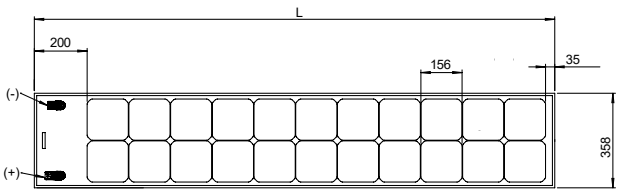
Superior shading performance
The bypass technology between each cell ensures that shading on one or more solar cells only affects the current cells instead of the entire panel.

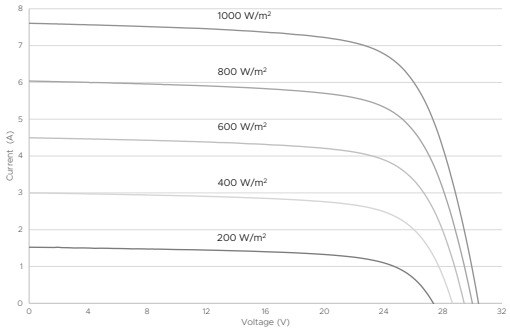
Minimal weight enables easy and safe installation without penetrating the waterproofing layer of the roof.
High power of 41,7 W / kg, which is less than 30% of the weight for the same power for traditional solar panels.

Flexible solar panels allow installation on curved surfaces and roofs. The panels can also be walked on during maintenance.

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

Technical characteristics





ARTICLE INFORMATION	SLIM 2 X 10	SLIM 2 X 18	SLIM 2 X 24
Number of cells (1 bypass diode between each cell)	**20**	**36**	**48**
Weight	**2 kg/panel**	**3 kg/panel**	**4 kg/panel**
Width	**358 mm**	**358 mm**	**358 mm**
Length	**1813 mm**	**3077 mm**	**4025 mm**
Thickness	**2 mm**		
Roof pitch	**min 5,7 °**		
Minimum bend radius	**0,25 m**		
Cell type thin film	**CIGS (Cu (In, Ga) Se_2)**		
CO_2-footprint	**12,2 kg CO_2/m²**		
Product warranty	**10 years**		
Power guarantee after 10 years	**90 %**		
Power guarantee after 25 years	**80 %**		
Certifications (TÜV Rheinland certified)	**IEC 61730, IEC 61215**		
Fire Safety	**BROOF (t2)***		
Color of the panel	**Black**		

TECHNICAL DATA	SLIM 2 X 10	SLIM 2 X 18	SLIM 2 X 24
Nominal Power, P_{MAX}**	**65 W**	**125 W**	**165 W**
Power/m²	**100,1 W**	**113,5 W**	**114,5 W**
Power/kg	**32,5 W**	**41,7 W**	**41,3 W**
Maximum Power Voltage, V_{MPP}	**10,2 V**	**18,8 V**	**25 V**
Maximum Power Current, I_{MPP}	**6,7 A**	**6,7 A**	**6,7 A**
Open Circuit Voltage, V_{OC}**	**12,6 V**	**22,9 V**	**30,4 V**
Short Circuit Current, I_{SC}**	**7,7 A**	**7,7 A**	**7,7 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

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

** 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

Consult Midsummer for a technical assessment of your roof.

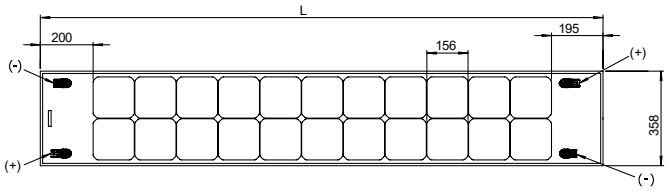
SLIM Extended



NUMBER OF CELLS	LENGTH SLIM (mm)	LENGTH SLIM EXT. (mm)
2 x 4	**865**	**1025**
2 x 5	**1023**	**1183**
2 x 6	**1181**	**1341**
2 x 7	**1339**	**1499**
2 x 8	**1497**	**1657**
2 x 9	**1655**	**1815**
2 x 10	**1813**	**1973**
2 x 11	**1971**	**2131**
2 x 12	**2129**	**2289**
2 x 14	**2445**	**2605**
2 x 16	**2761**	**2921**
2 x 18	**3077**	**3237**
2 x 20	**3393**	**3553**
2 x 22	**3709**	**3869**
2 x 24	**4025**	**4185**



For roofs over 4 meters, we use our SLIM extended solar panel. This allows us to connect panels up to 12 meters in series, which increases the installed power. The wiring is easily hidden under a cover, so that the aesthetics of the roof are not compromised.



MADE IN SWEDEN