

ARCHITECTURALLY THE FITTEST

Sunflare's PowerFit 20 is a light, thin, flexible and nearly invisible solar panel that brings you energy without the ugly. Sunflare's new PowerFit 20 lies flat and fabulous nestling in between the seams of your metal standing seam roof. For those who value the power of aesthetics as well as power of the sun, these are the modules for you.

MORE POWER IN REAL-WORLD CONDITIONS

Won't Crack Under Pressure

Traditional cells are made with silicon, which is brittle, and are covered with glass, which can be damaged by hail. Sunflare modules start with a flexible, stainless steel substrate with a mere micron layer of semiconductors. Then they are covered with a polymer top sheet. This combination creates a durable panel for a long, productive life.

Easy Installation

Fast and low-cost installation. With PowerFit there are no roof penetrations needed. The modules come with a butyl adhesive backing—just peel and stick for a secure, water-tight hold that can withstand gale force winds. Regarding the metal roof requirements, the flat channel between standing seams must be at least 15.5 inches wide to accommodate the module and conduit and must not have any ribs or striations.

Shading

Sunflare modules have bypass diodes for each individual cell. This means when a cell is shaded, only that individual cell is inactive. Traditional solar panels have a bypass diode per string of cells. Therefore, if just one cell is covered the whole string will not produce power. If the shade is across a single row, the entire panel can be knocked out.

GUARANTEED RELIABILITY FOR 25 YEARS

90% efficiency output for first 10 years
80% efficiency output 11-25 years



Lightweight
75% lighter than c-Si panels.



Thin
95% thinner than c-Si panels.



Flexible
The .127mm stainless steel substrate allows for generous curvature.



Durable
Withstands high impact. Impervious to heat, wind and cold. Will not crack.

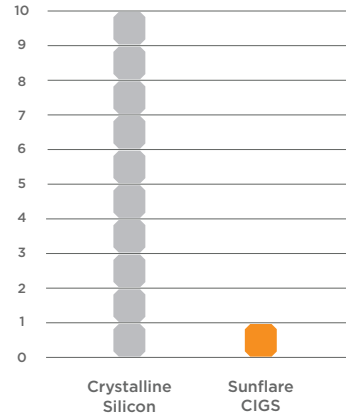
ELECTRICAL DATA

Standard Test Conditions:

Peak Power (+3/-3%)	Pmax	60W
Aperture Efficiency	η	15.0%
Peak Power Voltage	Vmpp	9.3V
Peak Power Current	Impp	6.5A
Open Circuit Voltage	Voc	12.0V
Short Circuit Current	Isc	7.3A
Maximum System Voltage	UL/IEC	1000V
Temperature Coefficient Power		-0.35 %/°C
Temperature Coefficient Voltage		-0.25 %/°C
Temperature Coefficient Current		+0.03%/°C
NOCT		52.1°C
Series Fuse Rating		12A
Grounding		Not Required

Environmentally Cleanest

1/10 Carbon Footprint of Silicon modules



Source: Life cycle assessment of CIGS solar modules and future integration in Zbee 2017-12-18 Sandra Roos, Magdalena Juntikka. Study reviewed and approved by Swedish independent third-party institute Miljögraff AB.

*Irradiance of 1000W/m², AM 1.5 and cell temperature 25 degree C

MECHANICAL DATA

Solar Cells	SUN ² CIGS
Junction Box	IP-65, MC4 compatible
Frame	No frame
Weight	1.6kg (3.7 lbs)
Hot Spot Protection	Bypass diode per cell
Top Sheet Material	ETFE
Wind Up-Force Load	113 lbs./sqft
Snow Down-Force Load	125 lbs./sqft

Module Thickness
1.7 mm

Temperature F (C)
-40° F to + 185° F (-40°C to +85°C)

Impact Resistance
25mm (1 in) diameter hail at 52 mph (23 m/s)

TESTS AND CERTIFICATIONS

Standard Tests	UL 1703 IEC 61215, IEC 61730
Management System Certs	ISO 9001:2015, ISO 14001:2015, CEC Listed

REVISION HISTORY

Sunflare_spec_PowerFit 20_V8	06/03/2021
Sunflare_spec_PowerFit 20_V9	06/04/2021
Sunflare_spec_PowerFit 20_V10	07/23/2021
Sunflare_spec_PowerFit 20_V11	09/13/2021

MODULE SPECS

Module Dimension

* Regarding the roof panel size, the standing seam "flat" must be at least 15.5 inches to accommodate wire management.

