

welflare[®] Energy
Ecosystems

5050
THE FUTURE IS
GROUP

DATASHEET

Balcony Hero IBC Interdigitated Back Contact



More Generation, Less Space, 4x Less
Weight per Square Meter. Social, Sustainable,
and Economic Impact in All Sectors.

→ Contáctanos



Direct European
Allies

Balcony Hero

Turn your balcony into a clean and efficient energy source. With our balcony solar system, you can reduce your electric bill, make your home more sustainable and make the most of sunlight without taking up extra space. Installation is fast, safe and requires no complicated permits. Perfect for those seeking energy independence in the city.

● 2.5 kg/m²
Ultra-light weight

● 0.25 m
Minimum bending radius

● 4–5 °C
Lower operating temperature

● +1.2%
Energy yield gain from cooler operation

● 3000 h
Damp heat DH85 (85 °C / 85% RH)

● 15 / 25 yrs
Product / linear performance warranty



Quick installation

All-in-one design, easy to handle and mount on the railing or any space you want.



Excellent power generation capacity

Flexible, high-efficiency module with U-IBC 2.0 solar cells



Light Weight and versatile

Ultra-thin, lightweight and flexible design for any type of space.

- 
Easy to install: mounts easily on balconies with no structural modifications needed.
- 
Energy access: Now apartment dwellers can also lower their electricity bill.
- 
Supremely practical: comes with microinverter, battery* and connections, so you can move it wherever you like.

*Based on availability

Turn your balcony into a source of power.





SOLAR SYSTEM FOR BALCONIES

U-IBC Half Cell

22.2%

Maximum module efficiency

0~3%

Power tolerance

<2%

Degradation first year

0.5%

2-25 years power degradation

 Solar module

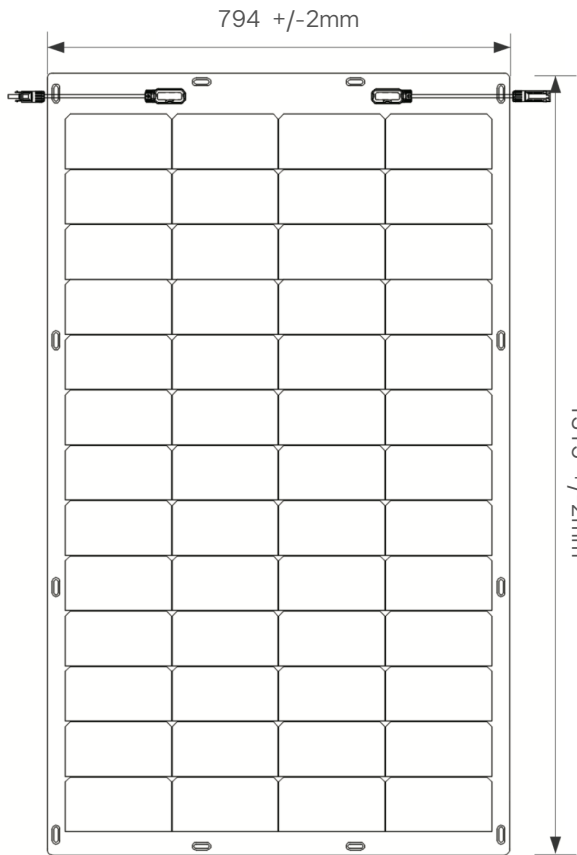
Test condition	STC		NOCT	
Maximum Power (Pmax)	195W	200W	143W	147W
Maximum Power Voltage (Vmp)	15.69V	15.78V	14.77V	14.86V
Maximum Power Current (Imp)	12.12A	12.36A	9.71A	9.90A
Open Circuit Voltage (Voc)	18.74V	18.83V	17.83V	17.92V
Short Circuit Current (Isc)	12.80A	13.10A	10.47A	10.72A
Effective Module Efficiency (η)	21.52%	22.09%	21.52%	22.09%
Operating Temperature	-40 °C to 85 °C			
Maximum System Voltage	1500VDC			
Maximum Series Fuse Rating	25A			
Safety Class	II			
Power Tolerance	0~+5W			

STC (Standard Test Conditions): Irradiance 1000 W/m², Air mass 1.5, Cell temperature 25 °C, Measurement tolerance ±3%

NOCT (Nominal Operating Cell Temperature): Irradiance 800 W/m², Ambient temperature 20 °C, Air mass 1.5, Wind speed 1 m/s

 Mechanical Characteristics

Solar Cell	Monocrystalline U-IBC 182mm×91.9mm
Number of Cells	52 (4 x13)
Effective Module Dimension (L×W)	1206.4mm×731.8mm
Installation Module Dimension	1315mm x 794mm x 2mm
Rear Side	Black PV backsheet
Weight	2.6±0.3kg
J-Box	IP68 with three bypass diodes
Output Cables	4mm2 (IEC), 160mm or customized length
Connector	Original MC4





Suggested Micro Inversor

INPUT | DC

Maximum Recommended Maximum PV Power (Wp)	450 x 2
Maximum DC Open Circuit Voltage (Vdc)	60
Maximum DC Inrush Current (Adc)	20 × 2
MPPT Tracking Accuracy	>99.5%
MPPT Tracking Range (Vdc)	28 - 45
PV Isc (absolute maximum) (Adc)	25 x 2
Maximum Inverter Feedback Current to Array (Adc)	0

OUTPUT | AC

Maximum Continuous Output Power (VA)	799
Rated Output Voltage (Vac)	230
Rated Output Voltage Range (Vac)	184 - 253
Allowable Mains Power Frequency (Hz)	48 -51
Total Harmonic Distortion (THD)	<3% at rated power
Power Factor (cos phi, fixed)	>0.99 at rated power
Rated Output Current (Aac)	3.5

Mechanical Data

Ambient Operating Temperature Range	- 40 °C to + 65 °C
Dimensions (W x H x D, mm)	263mm x 218mm x 36.5mm
DC Connector Type	Stäubli MC4
Cooling	Natural Convection
Housing Environmental Rating	IP67

System Efficiency

Rango de temperatura ambiente de funcionamiento	97.50%
Nighttime Rate Loss (Wp)	0.02

Tests & Certifications

- IEC 61215 · IEC 61730
- Sand/dust: IEC 60068-2-68:1994 (modified)
- Salt mist: IEC 61701:2020 / EN IEC 61701:2020
- Ammonia (NH₃): IEC 62716:2013 / EN 62716:2013
- Potential Induced Degradation (PID): IEC TS 62804-1:2015

