

# THE UNIVERSAL MODULE



**ULTRA-LIGHTWEIGHT**  
Only 3.3 kg/m<sup>2</sup>



**HIGH-EFFICIENCY**  
Monocrystalline cells  
No thin film!



**UNIQUE "LOW DEGRADATION" WARRANTY**  
Minimum 85 % yield after 40 years



**PATENTED MULTI-LAYER  
CELL ENCAPSULATION**  
Maximal microcrack protection  
Increased longevity



**ETFE FRONT SHEET**  
Soil-repellent (high self-cleaning effect)  
UV & salt resistant  
Optimal heat dissipation



**HIGH YIELD IN ANY POSITION**  
Multi-directional lens structure



**BENDABLE**  
Smallest bending diameter (2 m)



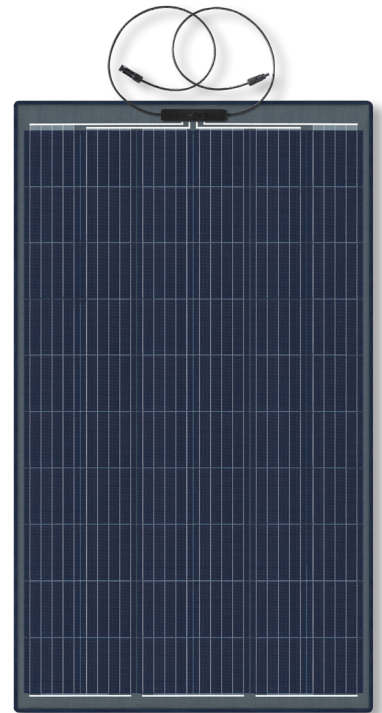
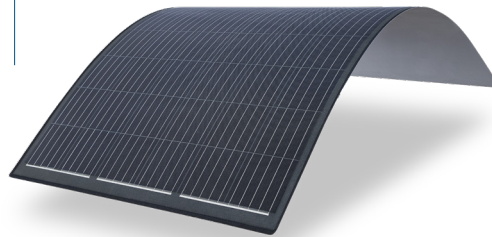
**EASY TO INSTALL**  
Simple but strong adhesive bonding  
No metal subsystem required  
No ballast required



**TAILOR-MADE OPTIONS AVAILABLE**  
Sizing to your requirement  
Transparent back sheet



**EXTREME WEATHER CONDITIONS**  
Even in heat, sandstorms and dusty  
conditions, the module provides stable  
and durable performance



## THERMAL CHARACTERISTICS

Operating temperature range	-40°C to +85°C
Temperature coefficient P <sub>mp</sub>	-0.38 % / °C
Temperature coefficient V <sub>oc</sub>	-0.36 % / °C
Temperature coefficient I <sub>sc</sub>	+0.07 % / °C

## TECHNICAL DATA

Solar cells	5BB monocrystalline solar cells
Maximum system voltage	1000 V
Maximum overcurrent protection rating	20 A
I <sub>sc</sub>	9.28 A
I <sub>mp</sub>	8.86 A
Weight	3.3 kg/m <sup>2</sup>
Front sheet	Soil-repellent ETFE
Encapsulation	Patented fiberglass-reinforced plastic
Back sheet	High-resistance PET
Junction box	TÜV-certified (IP67/68) with bypass diodes
Cables	2 x 4 mm <sup>2</sup>
Connector	PV4-S

# THE UNIVERSAL MODULE

Available standard sizes

ULTRA-LIGHTWEIGHT

HIGH-EFFICIENCY SILICON CELL TECHNOLOGY

UNIQUE "LOW DEGRADATION" WARRANTY

PATENTED MULTI-LAYER CELL ENCAPSULATION

ETFE FRONT SHEET

HIGH YIELD IN ANY POSITION

BENDABLE

EASY TO INSTALL

TAILOR-MADE OPTIONS AVAILABLE

EXTREME WEATHER CONDITIONS



Length FJB & RJB	2035 mm	12	12 x 1 M 60 Wp 8,25 Voc 6,83 Vmp	12 x 2 M 120 Wp 16,50 Voc 13,67 Vmp				
	1917 mm	11	11 x 1 M 55 Wp 7,56 Voc 6,26 Vmp	11 x 2 M 110 Wp 15,13 Voc 12,53 Vmp	11 x 3 M 165 Wp 22,69 Voc 18,80 Vmp	11 x 4 M 220 Wp 30,26 Voc 25,06 Vmp	11 x 5 M 275 Wp 37,83 Voc 31,33 Vmp	11 x 6 M 330 Wp 45,39 Voc 37,60 Vmp
	1756 mm	10	10 x 1 M 50 Wp 6,87 Voc 5,69 Vmp	10 x 2 M 100 Wp 13,75 Voc 11,39 Vmp	10 x 3 M 150 Wp 20,63 Voc 17,09 Vmp	10 x 4 M 200 Wp 27,51 Voc 22,78 Vmp	10 x 5 M 250 Wp 34,39 Voc 28,48 Vmp	10 x 6 M 300 Wp 41,26 Voc 34,18 Vmp
	1595 mm	9	9 x 1 M 45 Wp 6,19 Voc 5,12 Vmp	9 x 2 M 90 Wp 12,38 Voc 10,25 Vmp	9 x 3 M 135 Wp 18,57 Voc 15,38 Vmp	9 x 4 M 180 Wp 24,76 Voc 20,50 Vmp	9 x 5 M 225 Wp 30,95 Voc 25,63 Vmp	9 x 6 M 270 Wp 37,14 Voc 30,76 Vmp
	1434 mm	8	8 x 1 M 40 Wp 5,50 Voc 4,55 Vmp	8 x 2 M 80 Wp 11,00 Voc 9,11 Vmp	8 x 3 M 120 Wp 16,50 Voc 13,67 Vmp	8 x 4 M 160 Wp 22,01 Voc 18,23 Vmp	8 x 5 M 200 Wp 27,51 Voc 22,78 Vmp	8 x 6 M 240 Wp 33,01 Voc 27,34 Vmp
	1274 mm	7	7 x 1 M 35 Wp 4,81 Voc 3,98 Vmp	7 x 2 M 70 Wp 9,62 Voc 7,97 Vmp	7 x 3 M 105 Wp 14,44 Voc 11,96 Vmp	7 x 4 M 140 Wp 19,25 Voc 15,95 Vmp	7 x 5 M 175 Wp 24,07 Voc 19,93 Vmp	7 x 6 M 210 Wp 28,88 Voc 23,92 Vmp
	1113 mm	6	6 x 1 M 30 Wp 4,12 Voc 3,41 Vmp	6 x 2 M 60 Wp 8,25 Voc 6,83 Vmp	6 x 3 M 90 Wp 12,38 Voc 10,25 Vmp	6 x 4 M 120 Wp 16,50 Voc 13,67 Vmp	6 x 5 M 150 Wp 20,63 Voc 17,09 Vmp	6 x 6 M 180 Wp 24,76 Voc 20,50 Vmp
	Thickness 2 mm ± 0.3			1	2	3	4	5
			227 mm	377 mm	548 mm	699 mm	870 mm	1020 mm
			Width					

RJB = rear junction box FJB = front junction box

## APPLICATIONS

Building-integrated and building-applied PV (rooftop, facade), special applications

## POWER RANGE 20 - 350 Wp

Tolerances\*  
 ≥ 250 Wp: - 0 / + 10 W  
 < 250 Wp: - 5 / + 5 W  
 Ics: +/- 10 %  
 Voc: +/- 10 %

\* all electrical data at STC (1.000 W/m², 25 +/- 2 °C, AM 1.5 according to IEC 60904-3)

## HIGH RELIABILITY

IEC 61730 | IEC 61215  
 IEC 62804-1 Potential-induced degradation  
 IEC 61701 Salt mist corrosion  
 IEC 62716 Ammonia corrosion  
 EN 13501-5 B<sub>ROOF</sub> (t1) "Flying sparks test"

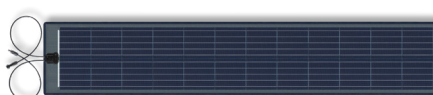
## WARRANTY

10-year product warranty  
 40-year linear performance warranty for building-integrated and building-applied installations

## SCIENTIFIC PARTNERS AND ASSOCIATIONS



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