

# DANDELION

(PKQJH24L 180W )

Light, flexible, perfect

**More** hotspot resistance

based on our new PEC technology

**More** contact reliability

as there are no contact ribbons used

**More** moisture barrier

as the more layers form a vapor barrier

**More** efficiency

as the cell conversion is up to 26% and performance been optimized by lower temperature



The next level of lightweight photovoltaic – addressing and solving challenges of people and companies which are in need for glass and lightweight photovoltaic by using our innovative PEC and U-IBC technology – while keeping the weight low.

- Higher output - 2% more out of every module due to “miss” of busbars in the front of the cell and no shade created
- Higher reliability - as the lower degradation rate, superiority in fire-resistance, excellent performance in dynamic load (wind, snow, hail etc.) make them more durable and reliable
- Higher performance – due to optimized heat transmission using copper



Materialprüfungsanstalt  
Universität Stuttgart



Product Warranty



Linear Performance  
Warranty

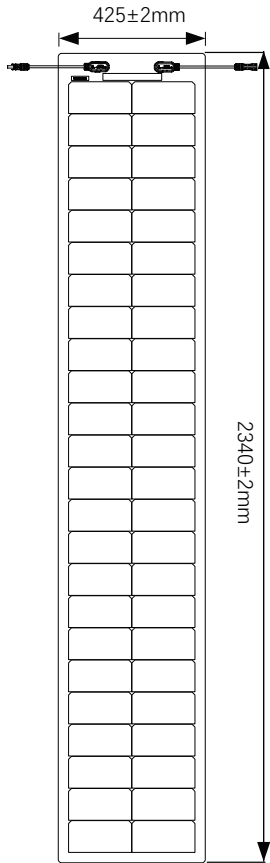
For details regarding tests and certificates please refer to the rear page.

**22.1%**  
MAX MODULE  
EFFICIENCY

**0~3%**  
POWER  
TOLERANCE

**≤2%**  
FIRST YEAR  
POWER DEGRADATION

**0.55%**  
YEAR 2-25  
POWER DEGRADATION

**U-IBC HALF-CELL**  
Lower operating temperature

**TYPICAL ELECTRICAL PARAMETERS**

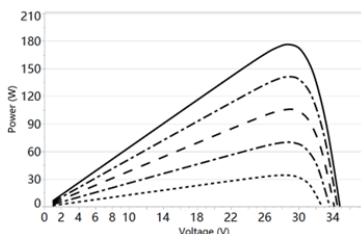
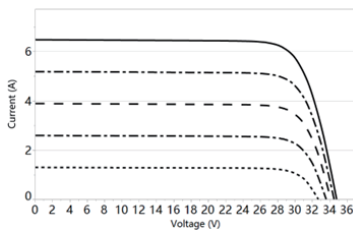
Module	PKQJH24L180	
Testing Condition	STC	NOCT
Rated Power (P <sub>mpp</sub> ) /W	180	136
Rated Current (I <sub>mpp</sub> ) /A	6.09	4.88
Rated Voltage (V <sub>mpp</sub> ) / V	29.57	27.91
Short Circuit Current (I <sub>sc</sub> ) /A	6.55	5.36
Open Circuit Voltage (V <sub>oc</sub> ) /V	35.22	33.56
Effective Module Efficiency(η) /%	22.11%	
STC(Standard Testing Conditions):Irradiance 1000W/m <sup>2</sup> , Air Mass 1.5, Cell Temperature 25°C, Measuring Tolerance ±3%		
NOCT(Nominal Operating Cell Temperature): Irradiance 800W/m <sup>2</sup> , Ambient Temperature 20°C, Air Mass 1.5, Wind speed 1m/s		

**ABSOLUTE MAXIMUM RATING**

Operating Temperature	From -40 to +85°C
Maximum Series Fuse Rating	12A
PV Module Classification	II
Fire Rating (IEC 61730)	C
Maximum System Voltage	DC1500V

**MECHANICAL CHARACTERISTICS**

Cell Type	Mono-crystalline U-IBC 182mm×91.9mm, 48 (2×24)
Effective Module Dimension(L×W)	2228mm×365.4mm
Dimension (L×W×H)	2340mm x 425mm x 2mm(92.1x16.7x0.07 inches)
Weight	2.5±0.2kg
Cable	4mm <sup>2</sup> (IEC), 160mm or customized length
Junction Box	IP68 with two bypass diodes
Connector	Original MC4


**TEMPERATURE RATINGS**

Voltage Temperature Coefficient	-0.22%/°C
Current Temperature Coefficient	+0.05%/°C
Power Temperature Coefficient	-0.24%/°C
Tolerance	0~+4W
NOCT	43 ± 2°C

**Test&classifications**

- CE passed (according to low voltage directive (LVD) (2014/35/EU))
- Sand/dust: IEC 60068-2-68: 1994 modified
- Salt mist: IEC 61701:2020 / EN IEC 61701:2020
- Potential Induced Degradation (PID): IEC TS 62804-1:2015 modified
- Ammonia (NH<sub>3</sub>): IEC 62716: 2013 / EN 62716: 2013

- Design qualification
  - IEC 61215-1:2021 / EN IEC 61215-1:2021;
  - IEC 61215-1-1:2021 / EN IEC 61215-1-1:2021;
  - IEC 61215-2:2021 / EN IEC 61215-2:2021;
- Construction requirements&safety
  - IEC 61730-1:2023;
  - IEC 61730-2:2023.

- Classification of external fire exposure
  - Class E (acc. DIN EN 13 501-1 : 2019)
  - Broof (t1) (for roofing-pitches < 20°) (acc. DIN EN 13 501-5: 2016 using test data from external fire exposure to roofs)

