

DANDELION

Light, flexible, perfect

(PKQJH55J-415W)

More hotspot resistance

based on our new PEC technology

More contact reliability

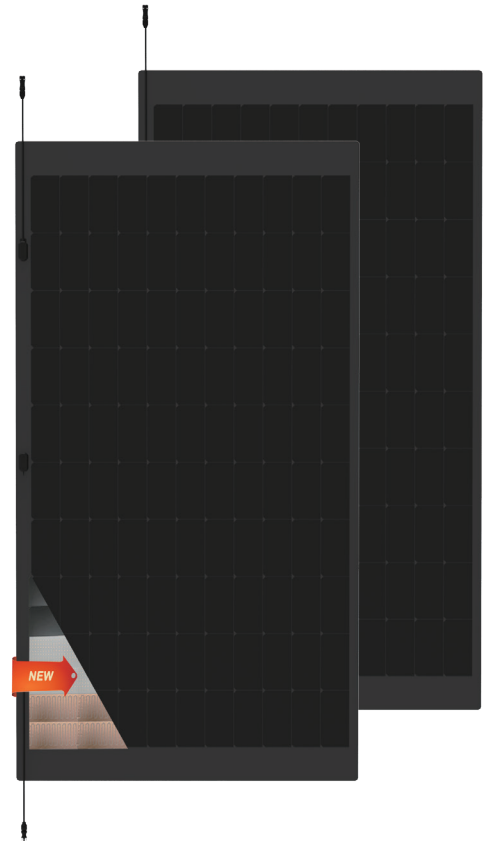
as there are no contact ribbons used

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



MIPA
STUTTGART
Materialprüfungsanstalt
Universität Stuttgart



Product Warranty



Linear Performance
Warranty

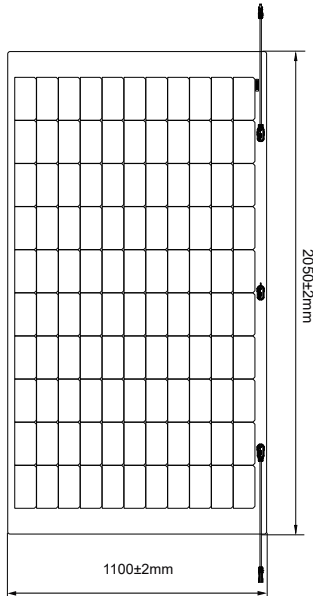
For details regarding tests and certificates please refer to the rear page.

22.2%
MAX MODULE
EFFICIENCY

0~3%
POWER
TOLERANCE

≤2%
FIRST YEAR
POWER DEGRADATION

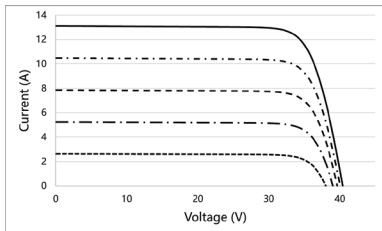
0.55%
YEAR 2-25
POWER DEGRADATION

U-IBC HALF-CELL
Lower operating temperature

TYPICAL ELECTRICAL PARAMETERS

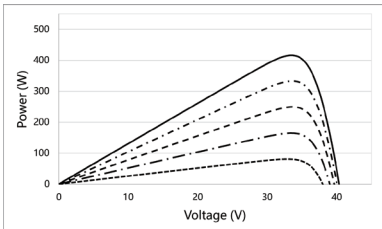
Model	PKQJH55J415	
Testing Condition	STC	NOCT
Rated Power (P _{mpp}) /W	415	313
Rated Current (I _{mpp}) /A	12.23	9.80
Rated Voltage (V _{mpp}) / V	33.94	32.04
Short Circuit Current (I _{sc}) /A	13.11	10.74
Open Circuit Voltage (V _{oc}) /V	40.36	38.46
Effective Module Efficiency(η) /%	22.21%	
STC(Standard Testing Conditions):Irradiance 1000W/m ² , Air Mass 1.5, Cell Temperature 25°C, Measuring Tolerance ±3%		
NOCT(Nominal Operating Cell Temperature): Irradiance 800W/m ² , 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	25 A
Safety Class	II
Fire Rating (IEC 61730)	C
Maximum System Voltage	DC 1500V


MECHANICAL CHARACTERISTICS

Cell Type	Mono-crystalline U-IBC182mm × 91.9mm, 110(10x11)
Effective Module Dimension(L×W)	1831mm×1020.63mm
Dimension (L×W×H)	2050mm x 1100mm x 2mm(52.1x27.9x0.07 inches)
Weight	5.6±0.5kg
Cable	4 mm ² (IEC) , 450mm
Junction Box	IP 68 with three bypass diodes
Connector	Evo2


TEMPERATURE RATINGS

Voltage Temperature Coefficient	-0.220%/°C
Current Temperature Coefficient	+0.050%/°C
Power Temperature Coefficient	-0.240%/°C
Tolerance	0 ~ +5 W
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 (NH₃): 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)

