

## KS470M-SH

Monocrystalline Shingled

SILVER FRAME, WHITE BACKSHEET

Output: **470 W**



### SHINGLED CELLS TECHNOLOGY

Innovative technology allows more cells fit on standard-sized module and avoids the influence of bus bar shadowing



### REDUCED RESISTANCE

Shingled modules reduce resistance and decrease impedance increasing power



### MORE POWER WITH STANDARD SIZE

High efficiency of the product allows for more effective use of available area for solar installation



### OPTIMIZED INSTALLATION COSTS

Higher energy production combined with standard size decreases costs of transportation and reduces BOS



### POLISH BRAND POLISH GUARANTOR

designed with the expertise of the largest Polish PV distributor



### RELIABILITY

25-year product performance warranty  
25-year linear warranty

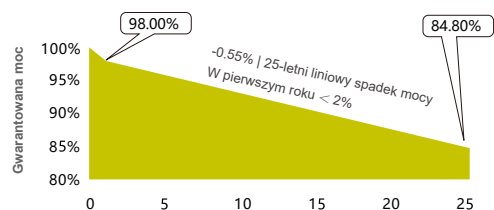


### HIGHEST QUALITY FAVOURABLE PRICE

Quality Control at each stage of production

### HIGH PERFORMANCE FOR MANY YEARS

#### Gwarancja mocy



## Electrical Characteristics at Standard Test Conditions (STC)

Module Type	KS470M-SH
Maximum Power Pm [Wp]	470
Open-Circuit Voltage Voc [V]	49.4
Short-Circuit Current Isc [A]	12.07
Maximum Power Voltage Vm [V]	40.9
Maximum Power Current Im [A]	11.49
Module Efficiency $\eta$ [%]	20.94

## Electrical Characteristics at Nominal Module Operating Temperature (NMOT)

Maximum Power Pm [Wp]	354
Open-Circuit Voltage Voc [V]	47.1
Short-Circuit Current Isc [A]	9.72
Maximum Power Voltage Vm [V]	39.0
Maximum Power Current Im [A]	9.08

### Note:

- Standard Test Conditions [STC]: irradiance 1000 W/m<sup>2</sup>; AM 1.5; ambient temperature 25°C according to EN 60904-3;
- Nominal Module Operating Temperature (NMOT): Irradiance 800W/ m<sup>2</sup>; wind speed 1m/s, ambient temperature 20°C;
- Tolerance of Pm: 0~+5W, Measuring uncertainty of power:  $\pm 3\%$ . Performance deviation of Voc [V], Isc [A], Vm [V] and Im [A]:  $\pm 3\%$ .

## Maximum Ratings Parameter

Max. System Voltage	DC 1500(IEC)
Max. Fuse Rated Current [A]	20
Max.Surface Load Capacity [Pa]	5 400
Max. Rear Load Capacity [Pa]	2 400
Operating Temperature [°C]	- 40 to + 85
Withstanding Hail	Max. diameter of 25mm with impact speed of 23m/s

## Other Characteristics

Packaging	22 pcs/pallet 31 pallet/container container 40' = 682 pcs
Warranty	25-year product performance warranty 25-year linear warranty

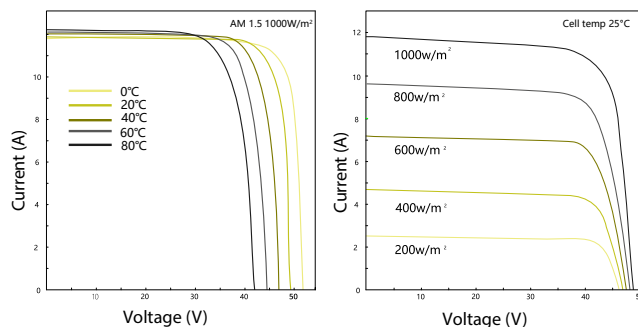
## Temperature Characteristics

Temperature Coefficient of Voc	-0.27%/°C
Temperature Coefficient of Isc	0.04%/°C
Temperature Coefficient of Pm	-0.34%/°C

## Mechanical Parameters

Dimensions	1969×1140×35 (L×W×H)
Weight	24 kg
Encapsulation	White toughened safety glass 3.2mm
Lamination	EVA (Ethylene-Vinyl-Acetate)
Cells	Monocrystalline shingled PERC
Backsheet	White composite film
Frame	Anodized aluminum profile
Junction Box	IP68, two diodes
Cable	1m
Connector	MC4 equivalent

## I-V Curves



## Dimensions

Unit: mm

