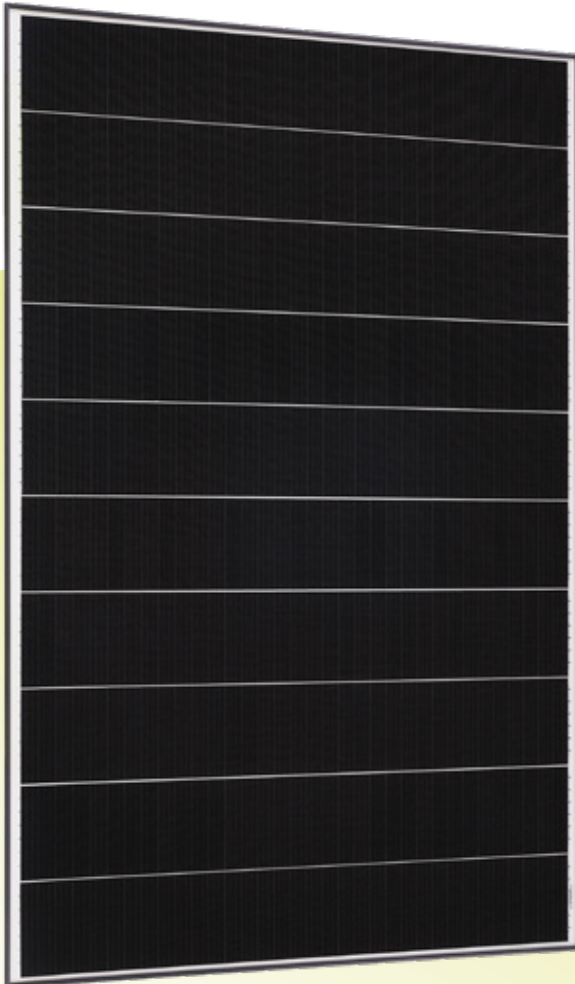


# KS405-415MB5-SBS

Monocrystalline Shingled

BLACK FRAME, WHITE BACKSHEET

Output: **405-415 W**

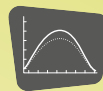


## SHINGLED CELLS TECHNOLOGY



Innovative technology allows more cells fit on standard-sized module, avoiding 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

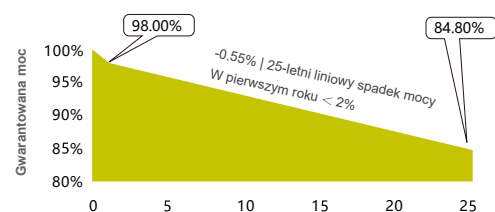


## HIGHEST QUALITY FAVOURABLE PRICE

Quality Control at each stage of production

## HIGH PERFORMANCE FOR MANY YEARS

Gwarancja mocy



## Electrical Characteristics at Standard Test Conditions (STC)

Module Type	KS405MB5-SBS	KS410MB5-SBS	KS415MB5-SBS
Maximum Power Pm [Wp]	405	410	415
Open-Circuit Voltage Voc [V]	46.5	46.6	46.7
Short-Circuit Current Isc [A]	11.02	11.07	11.12
Maximum Power Voltage Vm [V]	38.7	38.8	38.9
Maximum Power Current Im [A]	10.47	10.57	10.67
Module Efficiency $\eta$ [%]	20.7	20.9	21.2

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

Maximum Power Pm [Wp]	305	309	312
Open-Circuit Voltage Voc [V]	44.3	44.4	44.5
Short-Circuit Current Isc [A]	8.89	8.93	8.97
Maximum Power Voltage Vm [V]	36.9	37.0	37.1
Maximum Power Current Im [A]	8.27	8.35	8.43

### 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	36 pcs/pallet 26 pallet/container container 40' = 936 pcs
Warranty	25-year product performance warranty 25-year linear warranty

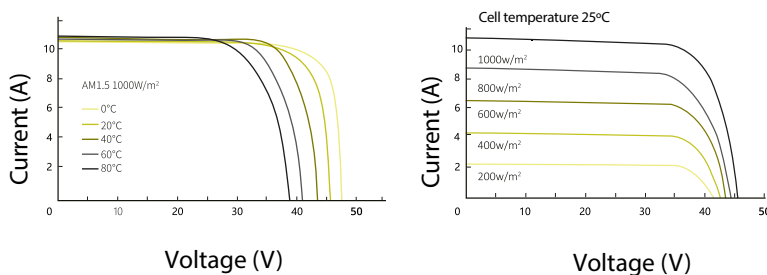
## Temperature Characteristics

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

## Mechanical Parameters

Dimensions	1719×1140×30 (L×W×H)
Weight	21 kg
Encapsulation	White toughened safety glass 3.2mm
Lamination	EVA (Ethylene-Vinyl-Acetate)
Cells	Monocrystalline shingle, 340 cells (34x10)
Backsheet	White composite film
Frame	Black anodized aluminum profile
Junction Box	IP68, two diodes
Cable	1m
Connector	MC4 equivalent

## I-V Curves



## Dimensions

Unit: mm

