



*...Powering  
Sustainable Growth*



## Monocrystalline 12v 10w Solar Panel



MONO

5 Years warranty of quality and workmanship  
20 Years warranty of power output

Rigorous quality control to meet highest international factory manufacturing standards including MCS, CE and ISO

High performance under low light conditions (cloudy days, mornings and evenings)

High Cell efficiency of 17%

Tested to withstand snow loads of 200kg /sqm

Highly transparent low iron tempered glass with enhanced stiffness and impact resistance

Unique frame design with high mechanical strength for easy installation

Advanced encapsulation material with multi-layer sheet lamination to provide efficient protection from the severest environmental conditions

### Electrical Data @ STC

Sunstore 10/12

Peak Power Watts- $P_{MAX}$ (WP)	10
Power Output Tolerance- $P_{MAX}$ (%)	+/- 3%
Maximum Power Voltage- $V_{MAX}$ (V)	17.5
Maximum Power Current- $I_{MPP}$ (A)	0.57
Open Circuit Voltage- $V_{OC}$ (V)	21.9
Short Circuit Current- $I_{SC}$ (A)	0.63
Module Efficiency $\eta_m$ (%)	11.3

### Temperature Ratings

Nominal Operating Cell Temperature (NOCT)	46°C ( $\pm 2^\circ\text{C}$ )
Temperature Coefficient of $P_{MPP}$	- 0.45%/°C
Temperature Coefficient of $V_c$	- 0.35%/°C
Temperature Coefficient of $I_{sc}$	0.05%/°C

Values at Standard Test Conditions STC (Air Mass AM1.5, Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C)

### Mechanical Data

Solar cells	Monocrystalline
Cells orientation	36 cells
Module dimension	280 x 335 x 25mm
Weight	1.3kg
Glass	High transparency solar glass 3.2mm (0.13inches)
Frame	Anodized aluminium alloy
J-Box	IP 65 rated
Cables/Connector	Photovoltaic Technology cable 2.0mm <sup>2</sup> 2m , crocodile clips

**RELIABILITY Power Systems** Tel: +61 2 8415 9828  
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## Monocrystalline 12v 30w Solar Panel



MONO

5 Years warranty of quality and workmanship  
20 Years warranty of power output

Rigorous quality control to meet highest international factory manufacturing standards including MCS, CE and ISO

High performance under low light conditions (cloudy days, mornings and evenings)

High Cell efficiency of 17%

Tested to withstand snow loads of 200kg /sqm

Highly transparent low iron tempered glass with enhanced stiffness and impact resistance

Unique frame design with high mechanical strength for easy installation

Advanced encapsulation material with multi-layer sheet lamination to provide efficient protection from the severest environmental conditions

### Electrical Data @ STC

Sunstore -30/12

Peak Power Watts- $P_{MAX}$ (WP)	30
Power Output Tolerance- $P_{MAX}$ (%)	+/- 3%
Maximum Power Voltage- $V_{MAX}$ (V)	18.3
Maximum Power Current- $I_{MPP}$ (A)	1.64
Open Circuit Voltage- $V_{OC}$ (V)	22.5
Short Circuit Current- $I_{SC}$ (A)	1.80
Module Efficiency $\eta_m$ (%)	13.7

### Temperature Ratings

Nominal Operating Cell Temperature (NOCT)	46°C ( $\pm 2^\circ\text{C}$ )
Temperature Coefficient of $P_{MPP}$	- 0.45%/°C
Temperature Coefficient of $V_c$	- 0.35%/°C
Temperature Coefficient of $I_{sc}$	0.05%/°C

Values at Standard Test Conditions STC (Air Mass AM1.5, Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C)

### Mechanical Data

Solar cells	Monocrystalline
Cells orientation	36 cells
Module dimension	549 x 447 x 34mm
Weight	3.2kg
Glass	High transparency solar glass 3.2mm (0.13inches)
Frame	Anodized aluminium alloy
J-Box	IP 65 rated
Cables/Connector	Photovoltaic Technology cable 4.0mm <sup>2</sup> 340mm (39.4inches), MC4

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## Monocrystalline 12v 45w Solar Panel



MONO

5 Years warranty of quality and workmanship  
20 Years warranty of power output

Rigorous quality control to meet highest international factory manufacturing standards including MCS, CE and ISO

High performance under low light conditions (cloudy days, mornings and evenings)

High Cell efficiency of 17%

Tested to withstand snow loads of 200kg /sqm

Highly transparent low iron tempered glass with enhanced stiffness and impact resistance

Unique frame design with high mechanical strength for easy installation

Advanced encapsulation material with multiplayer sheet lamination to provide efficient protection from the severest environmental conditions

### Electrical Data @ STC

### Sunstore 45 /12

Peak Power Watts- $P_{MAX}$ (WP)	40
Power Output Tolerance- $P_{MAX}$ (%)	+/- 3%
Maximum Power Voltage- $V_{MAX}$ (V)	18.22
Maximum Power Current- $I_{MPP}$ (A)	2.20
Open Circuit Voltage- $V_{OC}$ (V)	22.72
Short Circuit Current- $I_{SC}$ (A)	2.33
Module Efficiency $\eta_m$ (%)	13.7

### Temperature Ratings

Nominal Operating Cell Temperature (NOCT)	46°C ( $\pm 2^\circ\text{C}$ )
Temperature Coefficient of $P_{MPP}$	- 0.45%/°C
Temperature Coefficient of $V_c$	- 0.35%/°C
Temperature Coefficient of $I_{sc}$	0.05%/°C

Values at Standard Test Conditions STC (Air Mass AM1.5, Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C)

### Mechanical Data

Solar cells	Monocrystalline
Cells orientation	36 cells
Module dimension	629 x 547 x 35mm
Weight	4.0kg
Glass	High transparency solar glass 3.2mm (0.13inches)
Frame	Anodized aluminium alloy
J-Box	IP 65 rated
Cables/Connector	Photovoltaic Technology cable 4.0mm <sup>2</sup> 340mm , MC4

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## Monocrystalline 12v 100w Solar Panel



MONO

5 Years warranty of quality and workmanship  
20 Years warranty of power output

Rigorous quality control to meet highest international factory manufacturing standards including MCS, CE and ISO

High performance under low light conditions (cloudy days, mornings and evenings)

High Cell efficiency of 17%

Tested to withstand snow loads of 200kg /sqm

Highly transparent low iron tempered glass with enhanced stiffness and impact resistance

Unique frame design with high mechanical strength for easy installation

Advanced encapsulation material with multi-layer sheet lamination to provide efficient protection from the severest environmental conditions

### Electrical Data @ STC

### Sunstore 100/12

Peak Power Watts- $P_{MAX}$ (WP)	100
Power Output Tolerance- $P_{MAX}$ (%)	+/- 3%
Maximum Power Voltage- $V_{MAX}$ (V)	17.5
Maximum Power Current- $I_{MPP}$ (A)	5.71
Open Circuit Voltage- $V_{OC}$ (V)	21.5
Short Circuit Current- $I_{SC}$ (A)	6.37
Module Efficiency $\eta_m$ (%)	13.8

### Temperature Ratings

Nominal Operating Cell Temperature (NOCT)	46°C ( $\pm 2^\circ\text{C}$ )
Temperature Coefficient of $P_{MPP}$	- 0.45%/°C
Temperature Coefficient of $V_C$	- 0.35%/°C
Temperature Coefficient of $I_{SC}$	0.05%/°C

Values at Standard Test Conditions STC (Air Mass AM1.5, Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C)

### Mechanical Data

Solar cells	Monocrystalline
Cells orientation	36 cells
Module dimension	1040 x 670 x 34mm
Weight	8.25kg
Glass	High transparency solar glass 3.2mm (0.13inches)
Frame	Anodized aluminium alloy
J-Box	IP 65 rated
Cables/Connector	Photovoltaic Technology cable 4.0mm <sup>2</sup> 340mm , MC4

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# ZXM5 | 72 Cells

## Monocrystalline PV module 195-215 Watt



Made with selected materials and components to grant quality, duration, efficiency and thorough outputs, the 72-celled monocrystalline modules by RELIABILITY (power output 195 up to 215 Wp, black modules up to 210 Wp) represent a highly flexible solution for diverse installation types, from industrial rooftop plants to small home PV-systems. This allows you to produce clean energy whilst reducing your energy bill.

The 72-celled monocrystalline solar modules by RELIABILITY are tested and approved by internationally acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product. The linear warranty on product outputs further ensures increased security and return on investments over time.



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High module efficiency up to 16.84%



25-year-linear warranty on outputs



Certified to withstand extreme static loads of 5400 Pa



Free from PID (Potential Induced Degradation)



Extensive green certificates

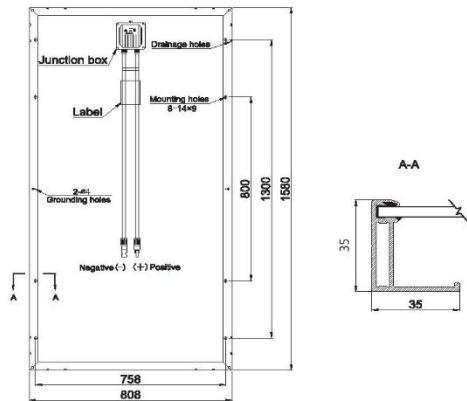


Also available from Japan production

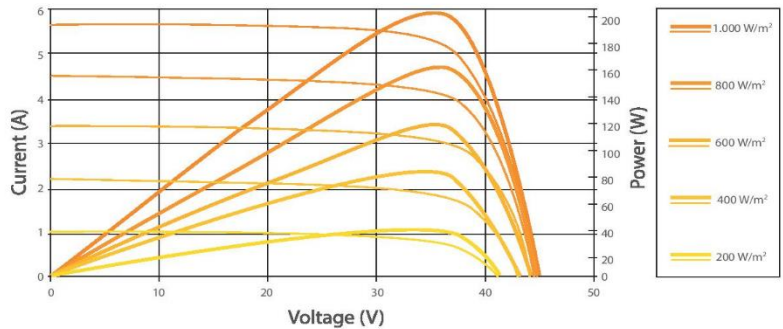


# ZXM5 | 72 Cells

## Dimensions of the PV module



## I-V Curves of the PV module



## Electrical data<sup>1</sup>

	ZXM5-72-195/MS	ZXM5-72-200/MS	ZXM5-72-205/MS	ZXM5-72-210/MS	ZXM5-72-215/MS
Nominal Power Watt $P_{max}$ ( $W_p$ )	195	200	205	210	215
Power Output Tolerance $P_{max}$ (%)	0 ~ +3	0 ~ +3	0 ~ +3	0 ~ +3	0 ~ +3
Maximum Power Voltage $V_{Mpp}$ (V)	36.90	37.30	37.55	37.64	36.72
Maximum Power Current $I_{Mpp}$ (A)	5.28	5.36	5.46	5.58	5.70
Open Circuit Voltage $V_{oc}$ (V)	45.60	45.75	46.00	46.25	46.50
Short Circuit Current $I_{sc}$ (A)	5.64	5.70	5.75	5.85	5.95
Module Efficiency $\eta_m$ (%)	15.27	15.67	16.06	16.45	16.84

## Mechanical data

Solar cells	Mono 125 × 125 mm
Cells orientation	72 (6 × 12)
Module dimensions	1580 × 808 × 35 mm
Weight	16.0 kg
Glass	High transparency, low iron, tempered glass 3.2 mm (AR-coating)
Frame	Anodized aluminum alloy. Frame in alu or black, backside in white or black
Junction box	IP 67
Cables/ connectors	4 mm <sup>2</sup> , 900 mm, MC4-compatible
Number of diodes	3

## Temperature ratings

Nominal Operating Cell Temperature	45°C (±2°C)
Temperature coefficient of $P_{mpp}$	-0.42 %/K
Temperature coefficient of $V_{oc}$	-0.29 %/K
Temperature coefficient of $I_{sc}$	0.04 %/K

## Working conditions

Maximum system voltage	1000 V DC (TÜV)
Operating temperature	-40 up to +85 °C
Maximum series fuse	10 A
Maximum load (snow/wind)	5400 Pa / 2400 Pa

## Warranty information

10 years workmanship warranty

25 years output warranty (monocrystalline): 3.5% in the 1<sup>st</sup> year, thereafter 0.68% per year ending with 80% in the 25<sup>th</sup> year



<sup>1</sup> Measurement Tolerance STC: ± 3% ( $P_{max}$ ), ± 10% ( $V_{max}$ ,  $I_{Mpp}$ ,  $V_{oc}$ ,  $I_{sc}$ ). Values at Standard Test Conditions STC (Air Mass AM 1.5, Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25 °C) | Remark: please read safety and installation instructions before using the product | Subject to change without prior notice



## ZXM5 | 96 Cells

### Monocrystalline PV module 250-275 Watt



Made with selected materials and components to grant quality, duration, efficiency and thorough outputs, the 96-celled monocrystalline modules by RELIABILITY (power output 250 up to 275 Wp, black modules up to 270 Wp) represent a highly flexible solution for diverse installation types, from industrial rooftop plants to home PV-systems or large ground surfaces. This allows you to produce clean energy whilst reducing your energy bill.

RELIABILITY 96-celled monocrystalline solar modules are tested and approved by internationally acknowledged laboratories, so that we can offer our customers a reliable and price-quality optimized product. The linear warranty on product outputs further ensures increased security and return on investments over time.



High module efficiency up to 16.16%



25-year-linear warranty on outputs



Certified to withstand extreme static loads of 5400 Pa



Free from PID (Potential Induced Degradation)



Extensive green certificates

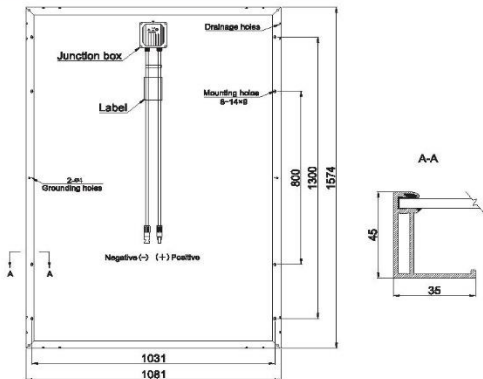


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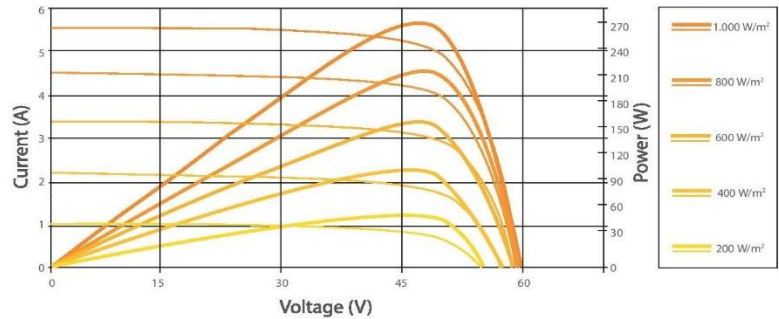
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## Dimensions of the PV module



## I-V Curves of the PV module



## Electrical data<sup>1</sup>

	ZXM5-96-250/M	ZXM5-96-255/M	ZXM5-96-260/M	ZXM5-96-265/M	ZXM5-96-270/M	ZXM5-96-275/M
Nominal Power Watt $P_{max}$ (W <sub>p</sub> )	250	255	260	265	270	275
Power Output Tolerance $P_{max}$ (%)	0 ~ +3	0 ~ +3	0 ~ +3	0 ~ +3	0 ~ +3	0 ~ +3
Maximum Power Voltage $V_{Mpp}$ (V)	48.70	49.00	49.30	49.40	49.50	49.50
Maximum Power Current $I_{Mpp}$ (A)	5.14	5.21	5.27	5.36	5.45	5.56
Open Circuit Voltage $V_{oc}$ (V)	59.60	59.80	60.00	60.10	60.40	60.60
Short Circuit Current $I_{sc}$ (A)	5.49	5.55	5.64	5.73	5.83	5.94
Module Efficiency $\eta_m$ (%)	14.69	14.99	15.28	15.57	15.87	16.16

## Mechanical data

Solar cells	Mono 125 × 125 mm
Cells orientation	96 (8 × 12)
Module dimensions	1574 × 1081 × 45 mm
Weight	22.0 kg
Glass	High transparency, low iron, tempered glass 3.2 mm (AR-coating)
Frame	Anodized aluminum alloy. Frame in alu or black, backside in white or black
Junction box	≥ IP 65
Cables/ connectors	4 mm <sup>2</sup> , 900 mm, MC4-compatible
Number of diodes	4

## Temperature ratings

Nominal Operating Cell Temperature	45°C (±2°C)
Temperature coefficient of $P_{mpp}$	-0.42 %/K
Temperature coefficient of $V_{oc}$	-0.29 %/K
Temperature coefficient of $I_{sc}$	0.04 %/K

## Working conditions

Maximum system voltage	1000 V DC (TÜV)
Operating temperature	-40 up to +85 °C
Maximum series fuse	10 A
Maximum load (snow/wind)	5400 Pa / 2400 Pa

## Warranty information

10 years workmanship warranty

25 years output warranty (monocrystalline): 3.5% in the 1<sup>st</sup> year, thereafter 0.68% per year ending with 80% in the 25<sup>th</sup> year



<sup>1</sup> Measurement Tolerance STC: ± 3% ( $P_{max}$ ), ± 10% ( $V_{max}$ ,  $I_{Mpp}$ ,  $V_{oc}$ ,  $I_{sc}$ ). Values at Standard Test Conditions STC (Air Mass AM 1.5, Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25 °C) | Remark: please read safety and installation instructions before using the product | Subject to change without prior notice ©



## ZXM5 | 96 Cells

### Monocrystalline PV module 250-275 Watt



Made with selected materials and components to grant quality, duration, efficiency and thorough outputs, the 96-celled monocrystalline modules by RELIABILITY (power output 250 up to 275 Wp, black modules up to 270 Wp) represent a highly flexible solution for diverse installation types, from industrial rooftop plants to home PV-systems or large ground surfaces. This allows you to produce clean energy whilst reducing your energy bill.

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High module efficiency up to 16.16%



25-year-linear warranty on outputs



Certified to withstand extreme static loads of 5400 Pa



Free from PID (Potential Induced Degradation)



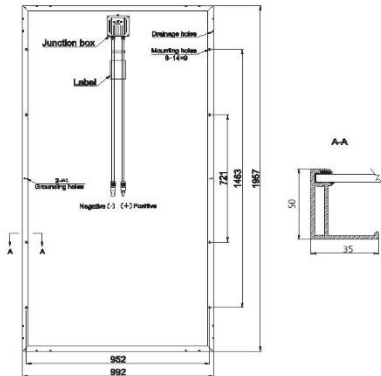
Extensive green certificates



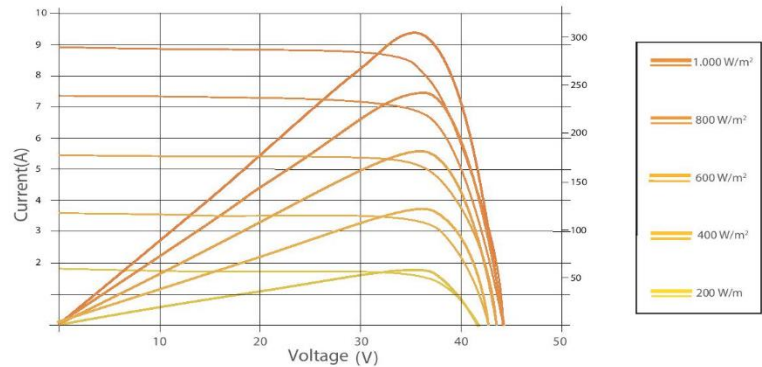
Also available from Japan production



## Dimensions of the PV module



## I-V Curves of the PV module



## Electrical data<sup>1</sup>

	ZXM6-72-305/M	ZXM6-72-310/M	ZXM6-72-315/M	ZXM6-72-320/M
Nominal Power Watt $P_{max}$ ( $W_p$ )	305	310	315	320
Power Output Tolerance $P_{max}$ (%)	0 ~ +3	0 ~ +3	0 ~ +3	0 ~ +3
Maximum Power Voltage $V_{Mpp}$ (V)	37.50	37.72	37.86	37.96
Maximum Power Current $I_{Mpp}$ (A)	8.13	8.22	8.32	8.43
Open Circuit Voltage $V_{oc}$ (V)	46.26	46.36	46.45	46.54
Short Circuit Current $I_{sc}$ (A)	8.73	8.82	8.91	8.99
Module Efficiency $\eta_m$ (%)	15.71	15.97	16.23	16.48

## Mechanical data

Solar cells	Mono 156 × 156 mm
Cells orientation	72 (6 × 12)
Module dimensions	1957 × 992 × 50 mm
Weight	22.5 kg
Glass	High transparency, low iron, tempered glass 3.2 mm (AR-coating)
Frame	Anodized aluminum alloy. Frame in alu or black, backside in white or black
Junction box	IP 67
Cables/ connectors	4 mm <sup>2</sup> , 1200 mm, MC4-compatible
Number of diodes	3

## Temperature ratings

Nominal Operating Cell Temperature	45°C (±2°C)
Temperature coefficient of $P_{mpp}$	-0.42 %/K
Temperature coefficient of $V_{oc}$	-0.29 %/K
Temperature coefficient of $I_{sc}$	0.04 %/K

## Working conditions

Maximum system voltage	1000 V DC (TÜV)
Operating temperature	-40 up to +85 °C
Maximum series fuse	15 A
Maximum load (snow/wind)	5400 Pa / 2400 Pa

## Warranty information

10 years workmanship warranty  
 25 years output warranty (monocrystalline): 3.5% in the 1<sup>st</sup> year, thereafter 0.68% per year ending with 80% in the 25<sup>th</sup> year



<sup>1</sup> Measurement Tolerance STC: ± 3% ( $P_{max}$ ), ± 10% ( $V_{max}$ ,  $I_{Mpp}$ ,  $V_{oc}$ ,  $I_{sc}$ ). Values at Standard Test Conditions STC (Air Mass AM 1.5, Irradiance 1000 W/m<sup>2</sup>, Cell Temperature 25 °C) | Remark: please read safety and installation instructions before using the product | Subject to change without prior notice

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