



# AEG HIGH EFFICIENCY SERIES

## AS-M1082Z-H(RM10) / HALF-CUT N-TYPE TOPCON PHOTOVOLTAIC MODULE

### Characteristics

Power range: 440-450 Wp  
Half-Cut N-Type cell technology  
Suitable for: residential installation

### Product Name Code (PNC)

AS-M1082Z-H(RM10)-440/445/450  
(Black frame, White backsheet)



### Extra peace of mind

Extensive certifications and rigorous Quality Control  
30 years product warranty  
30 years performance warranty



### Advantages

Optimized design for more energy output  
Maximized efficiency thanks to N-Type cells  
Extra power thanks to rectangular solar cells



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### PRODUCT SERIES & NAMECODE (PNC)

AEG HIGH EFFICIENCY SERIES  
AS-M1082Z-H(RM10)-440/445/450  
Black frame, White backsheet

### ELECTRICAL CHARACTERISTICS AT STC<sup>1,2</sup>

|                             |      |       |       |       |
|-----------------------------|------|-------|-------|-------|
| Nominal Power (Pmax)        | [Wp] | 440   | 445   | 450   |
| Power Sorting <sup>3</sup>  | [W]  | 0-5   | 0-5   | 0-5   |
| Maximum Power Voltage (Vmp) | [V]  | 32.81 | 33.03 | 33.24 |
| Maximum Power Current (Imp) | [A]  | 13.42 | 13.48 | 13.54 |
| Open Circuit Voltage (Voc)  | [V]  | 39.40 | 39.60 | 39.80 |
| Short Circuit Current (Isc) | [A]  | 13.84 | 13.90 | 13.96 |
| Module Efficiency (ηm)      | [%]  | 22.02 | 22.27 | 22.52 |
| Maximum System Voltage      | [V]  | 1000  | 1000  | 1000  |
| Series Fuse Maximum Rating  | [A]  | 25    | 25    | 25    |

### ELECTRICAL CHARACTERISTICS AT NMOT<sup>4</sup>

|                             |     |       |       |       |
|-----------------------------|-----|-------|-------|-------|
| Maximum Power (Pmax)        | [W] | 331   | 335   | 339   |
| Maximum Power Voltage (Vmp) | [V] | 30.65 | 30.86 | 31.06 |
| Maximum Power Current (Imp) | [A] | 10.84 | 10.89 | 10.94 |
| Open Circuit Voltage (Voc)  | [V] | 37.32 | 37.51 | 37.70 |
| Short Circuit Current (Isc) | [A] | 11.20 | 11.25 | 11.30 |

### MECHANICAL CHARACTERISTICS

|                     |                            |                           |
|---------------------|----------------------------|---------------------------|
| Solar cells         | monocrystalline [pcs]      | 108                       |
|                     | Dimensions [mm]            | RM10 Half-cut [182 x 199] |
| Front glass         | high-transparency          |                           |
|                     | Thickness [mm] / [in]      | 3.2 / 0.126               |
| Backsheet           | White                      |                           |
| Encapsulant         | EVA                        |                           |
| Frame               | Anodized aluminum alloy    | Black                     |
| Junction box        | Split-type, IP68           |                           |
|                     | Bypass diodes              | 3                         |
| UV-resistant cables | Length [mm] / [in]         | 1100 / 43.31              |
|                     | Section [mm <sup>2</sup> ] | 4                         |
| Connectors          | MC4Original                |                           |
| Dimensions          | H x L x W [mm]             | 1762 x 1134 x 30          |
|                     | H x L x W [in]             | 69.37 x 44.64 x 1.18      |
| Weight              | [kg] / [lbs]               | 20.6 / 45.40              |
| Maximum load        | Wind / Snow [Pa]           | 2400 / 5400               |
| Fire Class          | Class C                    |                           |

### PACKAGING

|                       |                       |     |
|-----------------------|-----------------------|-----|
| Packing configuration | [pcs/pallet]          | 36  |
| Loading capacity      | [pcs/40 ft container] | 936 |

### NOTES

1-Standard Test Conditions (STC): Irradiance 1000 W/m<sup>2</sup>, Air Mass AM = 1.5, Cell Temperature 25°C

2-Measurement tolerances (IEC 61215:2016): Pmax±3%, Voc±3%, Isc±4%

3-AEG photovoltaic modules are classified according to a principle of positive power tolerance: the Power Output measured at STC of the delivered modules exceeds their assigned Nameplate Nominal Power

4-NMOT: Nominal operating temperature of module, Irradiance 800 W/m<sup>2</sup>, Wind Speed 1m/s; Ambient Temperature 20°C, Air Mass AM=1.5

5-Full text of the Warranty Terms available at: [www.aeg-solar.com](http://www.aeg-solar.com)

6-(HE/GB) No less than 99% of the minimum "Peak Power at STC" in the first year; power output decline no more than 0.4% per year thereafter, ending with 87.4%.

Dimensions in the technical picture are expressed in mm with tolerance ±2 mm (±0.079 ") / Version 2024.01.01.EN © Solar Solutions Group. Specifications in this datasheet are subject to change without notice.

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### CERTIFICATIONS

|         |   |
|---------|---|
| System  | ISO 9001, ISO 14001, ISO 45001  |
| Product | IEC 61215-1:2016, IEC 61215-1-1:2016, IEC 61215-2:2016, IEC 61730-1/2:2016, EN 61215-1:2016, EN 61215-1-1:2016, EN 61730-1/2:2018, EN IEC 61730-1/2:2018/AC:2018-06 |

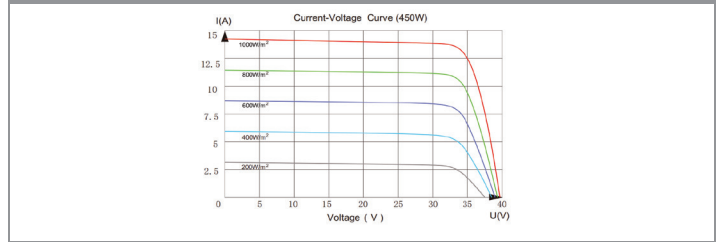
### WARRANTIES

|  |         |    |
|--|---------|----|
| Product warranty <sup>5</sup>              | [years] | 30 |
| Performance warranty (linear) <sup>6</sup> | [years] | 30 |

### TEMPERATURE CHARACTERISTICS

|                            |       |         |
|----------------------------|-------|---------|
| NMOT                       | [°C]  | 45 (±2) |
| Pmax Temp. Coefficient (γ) | [%°C] | -0.31   |
| Voc Temp. Coefficient (β)  | [%°C] | -0.25   |
| Isc Temp. Coefficient (α)  | [%°C] | 0.06    |
| Operating temperature      | [°C]  | -40~+85 |

### I/V CURVES - IRRADIANCES



### TECHNICAL DRAWINGS

