

# AEG

## AEG PREMIUM SERIES

ABC TECHNOLOGY,  
SUPERIOR EFFICIENCY

EFFICIENCY UP TO  
**23.6%**

AS-M1089B-A(M10)/HV / N-TYPE ABC PHOTOVOLTAIC MODULE

### CHARACTERISTICS



Power range: 450-460 Wp  
ABC N-type back-contact technology  
Suitable for: residential / commercial installations

### EXTRA PEACE OF MIND



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

### PRODUCT NAME CODE (PNC)



AS-M1089B-A(M10)-450/455/460/HV  
(black frame, white module back side)

### ADVANTAGES



Superior efficiency (up to 23.6%)  
thanks to ABC N-type back-contact technology  
Sleek full black look, premium aesthetics  
Higher sustainability thanks to silver-free metallization  
Outstanding performance / low degradation over product lifetime



# AEG

## AS-M1089B-A(M10)/HV / N-TYPE ABC PHOTOVOLTAIC MODULE

### PRODUCT SERIES & NAMECODE (PNC)

|                                     |
|-------------------------------------|
| AEG PREMIUM SERIES                  |
| AS-M1089B-A(M10)-450/455/460/HV     |
| black frame, white module back side |

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

|                             | [Wp] | 450   | 455   | 460   |
|-----------------------------|------|-------|-------|-------|
| Nominal Power (Pmax)        | [Wp] | 450   | 455   | 460   |
| Power Sorting <sup>3</sup>  | [W]  | 0-5   | 0-5   | 0-5   |
| Maximum Power Voltage (Vmp) | [V]  | 33.70 | 33.80 | 33.90 |
| Maximum Power Current (Imp) | [A]  | 13.36 | 13.47 | 13.58 |
| Open Circuit Voltage (Voc)  | [V]  | 40.70 | 40.80 | 40.90 |
| Short Circuit Current (Isc) | [A]  | 13.92 | 13.98 | 14.04 |
| Module Efficiency (ηm)      | [%]  | 23.0  | 23.3  | 23.6  |
| Maximum System Voltage      | [V]  | 1500  | 1500  | 1500  |
| Series Fuse Maximum Rating  | [A]  | 25    | 25    | 25    |

### ELECTRICAL CHARACTERISTICS AT NOCT

|                             | [W] | 339   | 343   | 346   |
|-----------------------------|-----|-------|-------|-------|
| Maximum Power (Pmax)        | [W] | 339   | 343   | 346   |
| Maximum Power Voltage (Vmp) | [V] | 31.82 | 31.92 | 32.01 |
| Maximum Power Current (Imp) | [A] | 10.66 | 10.75 | 10.84 |
| Open Circuit Voltage (Voc)  | [V] | 38.44 | 38.53 | 38.63 |
| Short Circuit Current (Isc) | [A] | 11.26 | 11.31 | 11.36 |

### MECHANICAL CHARACTERISTICS

|                     |                            |                             |
|---------------------|----------------------------|-----------------------------|
| Solar cells         | monocrystalline [pcs]      | 108                         |
|                     | Dimensions [mm]            | M10 Half-cut ABC [182 x 91] |
| Front glass         | Tempered glass, AR coating |                             |
|                     | Thickness [mm] / [in]      | 3.2 / 1.25                  |
| Backsheet           | White module back side     |                             |
| Frame               | Anodized aluminum alloy    | Black                       |
| Junction box        | Split-type, IP68           |                             |
|                     | Bypass diodes              | 3                           |
| UV-resistant cables | Length [mm] / [in]         | 1200 / 47.24                |
|                     | Section [mm <sup>2</sup> ] | 4                           |
| Connectors          | MC4 EVO2                   |                             |
| Dimensions          | H x L x W [mm]             | 1722 x 1134 x 30            |
|                     | H x L x W [in]             | 67.80 x 44.65 x 1.18        |
| Weight              | [kg] / [lbs]               | 20.5 / 45.19                |
| 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

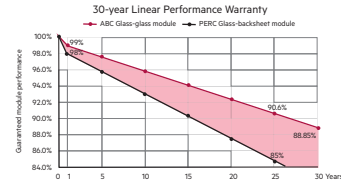
|   |
|---|
| 1-Standard Test Conditions (STC): Irradiance 1000 W/m <sup>2</sup> , Air Mass AM = 1.5, Cell Temperature 25°C   |
| 2-Measurement tolerances (IEC 61215:2016): Pmax±3%, Voc±3%, Isc±3%  |
| 3-AEG photovoltaic modules are classified according to a principle of positive power tolerance: the Power Output measured at STC of the delivered modules exceeds their assigned Nameplate Nominal Power    |
| 4-NOCT: Nominal operating cell temperature; STC: AM1.5 1000W/m <sup>2</sup> 25 °C; NOCT: AM1.5 800W/m <sup>2</sup> 20 °C  |
| 5-Full text of the Warranty Terms available at: <a href="http://www.aeg-solar.com">www.aeg-solar.com</a> . If not offered by your distributor, the standard warranty conditions apply.                      |
| 6-(PRE/GB) No less than 99% of the minimum *Peak Power at STC* in the first year; power output decline no more than 0.35% per year thereafter, ending with at least 88.85%.                                 |
| Dimensions in the technical picture are expressed in mm with tolerance ±2 mm (±0.079") / Version 2023.08.V1.EN © Solar Solutions AG. Specifications in this datasheet are subject to change without notice. |
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### CERTIFICATIONS

|         |                                |
|---------|--------------------------------|
| System  | ISO 9001, ISO 14001, ISO 45001 |
| Product | IEC 61730, IEC 61215           |

### WARRANTIES

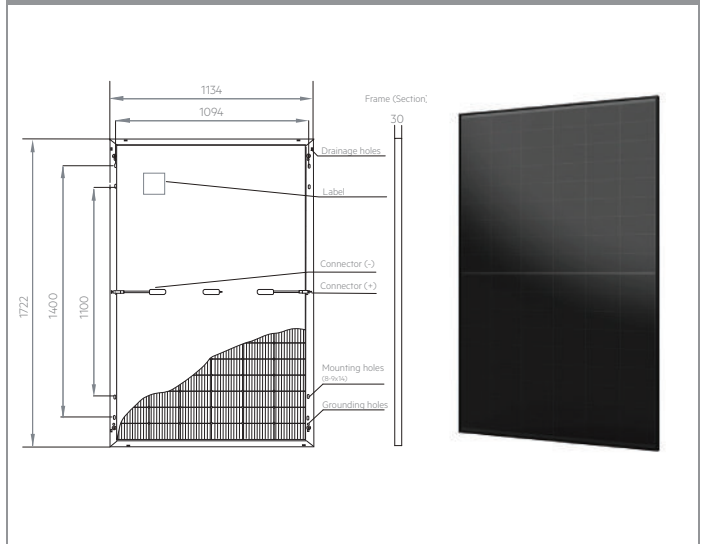
|  |         |    |
|--|---------|----|
| Product warranty <sup>5</sup>              | [years] | 15 |
| Performance warranty (linear) <sup>6</sup> | [years] | 30 |



### TEMPERATURE CHARACTERISTICS

|                            |        |         |
|----------------------------|--------|---------|
| NOCT                       | [°C]   | 45 (±2) |
| Pmax Temp. Coefficient (γ) | [%/°C] | -0.29   |
| Voc Temp. Coefficient (β)  | [%/°C] | -0.24   |
| Isc Temp. Coefficient (α)  | [%/°C] | 0.05    |
| Operating temperature      | [°C]   | -40~+85 |

### TECHNICAL DRAWINGS



### CONTACT US

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