

# AEG PREMIUM SERIES

# ABC TECHNOLOGY, SUPERIOR EFFICIENCY



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

#### CHARACTERISTICS

Power range: 445-455 Wp Glass-glass and ABC N-type back-contact technology Suitable for: residential / commercial installations

#### PRODUCT NAME CODE (PNC)

AS-M1089B-GA(M10)-445/450/455/HV (black rear glass, black frame)







Extensive certifications and rigorous Quality Control 25 years product warranty 30 years performance warranty

ADVANTAGES

Superior efficiency (up to 23.3%) 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-GA(M10)/HV / N-TYPE ABC GLASS-GLASS MODULE PHOTOVOLTAIC MODULE

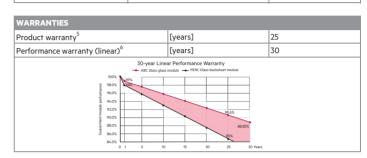
| PRODUCT SERIES & NAMECODE (PNC)     |
|-------------------------------------|
| AEG PREMIUM SERIES                  |
| AS-M1089B-GA(M10)/HV-445/450/455/HV |
| black frame, black rear glass       |

| ELECTRICAL CHARACTERISTICS AT STC <sup>1,2</sup> |      |       |       |       |
|--|------|-------|-------|-------|
| Nominal Power (Pmax)                             | [Wp] | 445   | 450   | 455   |
| Power Sorting <sup>3</sup>                       | [W]  | 0-5   | 0-5   | 0-5   |
| Maximum Power Voltage (Vmp)                      | [V]  | 33.79 | 33.89 | 33.99 |
| Maximum Power Current (Imp)                      | [A]  | 13.18 | 13.28 | 13.39 |
| Open Circuit Voltage (Voc)                       | [V]  | 40.15 | 40.25 | 40.35 |
| Short Circuit Current (Isc)                      | [A]  | 13.68 | 13.74 | 13.80 |
| Module Efficiency (ηm)                           | [%]  | 22.8  | 23.0  | 23.3  |
| Maximum System Voltage                           | [V]  | 1500  | 1500  | 1500  |
| Series Fuse Maximum Rating                       | [A]  | 25    | 25    | 25    |

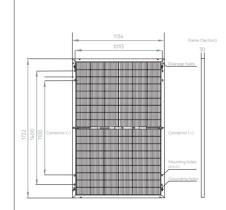
| ELECTRICAL CHARACTERISTICS AT NOCT |     |       |       |       |
|------------------------------------|-----|-------|-------|-------|
| Maximum Power (Pmax)               | [W] | 336   | 339   | 343   |
| Maximum Power Voltage (Vmp)        | [V] | 31.83 | 31.92 | 32.01 |
| Maximum Power Current (Imp)        | [A] | 10.56 | 10.65 | 10.73 |
| Open Circuit Voltage (Voc)         | [V] | 37.82 | 37.91 | 38.00 |
| Short Circuit Current (Isc)        | [A] | 11.03 | 11.08 | 11.13 |

| Solar cells         | monocrystalline [pcs]      | 108                        |  |  |  |
|---------------------|----------------------------|----------------------------|--|--|--|
|                     | Dimensions [mm]            | M10 Half-cut ABC [182 x 91 |  |  |  |
| Front glass         | Coated semi-tempered glass | Coated semi-tempered glass |  |  |  |
|                     | Thickness [mm] / [in]      | 2.0 / 0.08                 |  |  |  |
| Back glass          | 2.0 / 0.08                 | Black                      |  |  |  |
| Frame               | Anodized aluminum alloy    | Black                      |  |  |  |
| Junction box        | Split-type, IP68           | Split-type, IP68           |  |  |  |
|                     | Bypass diodes              | 3                          |  |  |  |
| UV-resistant cables | Length [mm] / [in]         | 1200 / 47.24               |  |  |  |
|                     | Section [mm <sup>2</sup> ] | 4                          |  |  |  |
| Connectors          | MC4 EVO2                   | MC4 EVO2                   |  |  |  |
| Dimensions          | H×L×W [mm]                 | 1722 x 1134 x 30           |  |  |  |
| Dimensions          | H×L×W [in]                 | 67.80 x 44.65 x 1.18       |  |  |  |
| Weight              | [kg] / [lbs]               | 24 / 52.90                 |  |  |  |
| Maximum load        | Wind / Snow [Pa]           | 2400 / 5400                |  |  |  |
| Fire Class          | Class C                    |                            |  |  |  |

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



| TEMPERATURE CHARACTERISTICS |       |         |  |
|-----------------------------|-------|---------|--|
| NOCT                        | [°C]  | 45 (±2) |  |
| Pmax Temp. Coefficient (γ)  | [%°C] | -0.29   |  |
| Voc Temp. Coefficient (β)   | [%°C] | -0.24   |  |
| lsc Temp.Coefficient (α)    | [%°C] | 0,05    |  |
| Operating temperature       | [°C]  | -40~+85 |  |



TECHNICAL DRAWINGS



#### NOTES

Packing configuration

Loading capacity

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

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936

4-NOCT: Nominal operating cell temperature; STC: AM1.5 1000W/m<sup>2</sup> 25 NOCT:AM1.5 800W/m<sup>2</sup> 20 1m/s)

5-Full text of the Warranty Terms available at: www.aeg-solar.com. If not offered by your distributor, the standard warranty conditions apply.

[pcs/pallet]

[pcs/40 ft container]

- 6-(PRE/GG) 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.V1EN 🕫 Solar Solutions AG. Specifications in this datasheet are subject to change without notice.

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