

# AEG

## N-TYPE TOPCON BIFACIAL MODULE AS-M1202B-BH(RM10)/HV

### CHARACTERISTICS

Power range: 495-510 Wp  
Double glass bifacial Photovoltaic Module  
Half-Cut N-Type TOPCON cell technology  
Efficiency up to 23.10%

2.0 mm glass thickness

2 mm

### ADVANTAGES

Extra converting surface on the module back thanks to bifaciality  
Outstanding sleek optics  
Extra long cables for greater installation flexibility  
Extra power thanks to rectangular solar cells



**30 YEARS PRODUCT WARRANTY AND  
30 YEARS PERFORMANCE WARRANTY  
30 YEARS EXCHANGE AND REFUND SERVICE**

## N-TYPE TOPCON BIFACIAL MODULE | AS-M1202B-BH(RM10)/HV

| PRODUCT SERIES & NAMECODE (PNC)       |  |
|---------------------------------------|--|
| AEG HIGH EFFICIENCY SERIES            |  |
| AS-M1202B-BH(RM10)-490/495/500/505/HV |  |
| Black glass, Black frame              |  |

| ELECTRICAL CHARACTERISTICS AT STC <sup>1,2</sup> |      |       |       |       |       |
|--|------|-------|-------|-------|-------|
| Nominal Power (Pmax)                             | [Wp] | 495   | 500   | 505   | 510   |
| Power Sorting <sup>3</sup>                       | [W]  | 0-5   | 0-5   | 0-5   | 0-5   |
| Maximum Power Voltage (Vmp)                      | [V]  | 36.67 | 36.87 | 37.07 | 38.06 |
| Maximum Power Current (Imp)                      | [A]  | 13.50 | 13.56 | 13.62 | 13.42 |
| Open Circuit Voltage (Voc)                       | [V]  | 44.02 | 44.22 | 44.42 | 45.10 |
| Short Circuit Current (Isc)                      | [A]  | 13.98 | 14.04 | 14.10 | 14.34 |
| Module Efficiency (ηm)                           | [%]  | 22.4  | 22.6  | 22.8  | 23.1  |
| Maximum System Voltage                           | [V]  | 1500  | 1500  | 1500  | 1500  |
| Series Fuse Maximum Rating                       | [A]  | 30    | 30    | 30    | 30    |

| ELECTRICAL CHARACTERISTICS AT NMOT <sup>4</sup> |     |       |       |       |       |
|---|-----|-------|-------|-------|-------|
| Maximum Power (Pmax)                            | [W] | 373   | 376   | 380   | 384   |
| Maximum Power Voltage (Vmp)                     | [V] | 34.25 | 34.44 | 34.63 | 35.59 |
| Maximum Power Current (Imp)                     | [A] | 10.90 | 10.95 | 10.99 | 10.79 |
| Open Circuit Voltage (Voc)                      | [V] | 41.65 | 41.84 | 42.03 | 42.47 |
| Short Circuit Current (Isc)                     | [A] | 11.26 | 11.31 | 11.35 | 11.62 |

| ELECTRICAL SPECIFICATIONS - INTEGRATED POWER / POWER GAIN <sup>5</sup> |         |       |       |       |       |
|--|---------|-------|-------|-------|-------|
| Bifaciality Factor   | 85 ± 5% |       |       |       |       |
| Pmpp Gain  |         | 10%   | 15%   | 20%   | 25%   |
| Maximum Power (Pmax)   | [W]     | 561   | 587   | 612   | 638   |
| Maximum Power Voltage (Vmp)  | [V]     | 42.00 | 44.00 | 46.00 | 48.00 |
| Maximum Power Current (Imp)  | [A]     | 15.00 | 15.43 | 16.10 | 17.00 |
| Open Circuit Voltage (Voc)   | [V]     | 50.00 | 52.00 | 54.12 | 56.37 |
| Short Circuit Current (Isc)  | [A]     | 16.00 | 16.49 | 17.20 | 18.00 |

| MECHANICAL CHARACTERISTICS |                            |                                    |
|----------------------------|----------------------------|------------------------------------|
| Solar cells                | monocrystalline [pcs]      | 120                                |
|                            | Dimensions [mm]            | RM10 Bifacial Half-cut [182 x 199] |
| Front glass                | high-transparency          |                                    |
|                            | Thickness [mm] / [in]      | 2 / 0.08                           |
| Back glass                 | Transparent                | 2 / 0.08                           |
| Encapsulant                | EVA                        | transparent                        |
| Frame                      | Anodized aluminum alloy    | black color                        |
| Junction box               | Split-type, IP68           |                                    |
|                            | Bypass diodes              | 3                                  |
| UV-resistant cables        | Length [mm] / [in]         | 1300 / 51.18                       |
|                            | Section [mm <sup>2</sup> ] | 4                                  |
| Connectors                 | MC4 Original               |                                    |
| Dimensions                 | H x L x W [mm]             | 1950 x 1134 x 30                   |
|                            | H x L x W [in]             | 76.77 x 44.65 x 1.18               |
| Weight                     | [kg] / [lbs]               | 26.8 / 59.07                       |
| Maximum load               | Wind / Snow [Pa]           | 2400 / 5400                        |
| Fire Class                 | Class C                    |                                    |

| PACKAGING             |                       |     |
|-----------------------|-----------------------|-----|
| Packing configuration | [pcs/pallet]          | 36  |
| Loading capacity      | [pcs/40 ft container] | 864 |

| 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±3.0%, Voc±3.0%, Isc±4.0%  |
| 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-Electrical characteristics with different rear power gain. Reference to 510 W   |
| 6-Full text of the Warranty Terms available at: <a href="http://www.aeg-solar.com">www.aeg-solar.com</a>  |
| 7-CHÉ/GG) 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 2025.04.V1.EN © Solar Solutions Group. Specifications in this datasheet are subject to change without notice. |
| AEG is a registered trademark used under license from AB Electroflux (publ).  |

| CERTIFICATIONS |   |
|----------------|---|
| System         | ISO 9001, ISO 14001, ISO 45001  |
| Product        | IEC/EN IEC 61215-1:2021, IEC 61730-1:2016, EN IEC 61730-1:2018, IEC 61730-2:2016, EN IEC 61730-2:2018, IEC/EN IEC 61215-1:2021, IEC/EN IEC 61215-2:2021 |

| WARRANTIES                                 |         |    |
|--|---------|----|
| Product warranty <sup>6</sup>              | [years] | 30 |
| Performance warranty (linear) <sup>7</sup> | [years] | 30 |

| TEMPERATURE CHARACTERISTICS |        |         |
|-----------------------------|--------|---------|
| NMOT                        | [°C]   | 42 (±2) |
| Pmax Temp. Coefficient (γ)  | [%/°C] | -0.29   |
| Voc Temp. Coefficient (β)   | [%/°C] | -0.25   |
| Isc Temp. Coefficient (α)   | [%/°C] | 0.048   |
| Operating temperature       | [°C]   | -40~+85 |

