


## Constructional Data Form for Photovoltaic Modules

|  |   |                 |             |                 |   |
|--|---|-----------------|-------------|-----------------|---|
| <b>Licence holder (full address)</b>           | Daxler Enerji Anonim Şirketi<br>Büyükkayacık OSB Mah. 102. Cad. No: 3 /1 Selçuklu / Konya |                 |             |                 |   |
| <b>Production factory (full address)</b>       | Daxler Enerji Anonim Şirketi<br>Büyükkayacık OSB Mah. 102. Cad. No: 3 /1 Selçuklu / Konya |                 |             |                 |   |
| <b>Type of product</b>                         | Photovoltaic (PV) modules   |                 |             |                 |   |
| <b>Trademark</b>                               |          |                 |             |                 |   |
| <b>Type name or model no.</b>                  | 2H-72P-xxx  | 2H-60P-265      | 2H-72M-xxx  | 2H-60M-xxx      | — |
| <b>Nominal maximum STC power [W]</b>           | 300 - 315   | 265             | 350 - 375   | 285 - 310       | — |
| <b>Tolerance of rating [%]</b>                 | ±3  | ±3              | ±3          | ±3              | — |
| <b>Nominal short-circuit current [A]</b>       | 8.60 – 9.04   | 8.97            | 9.39 – 9.68 | 9.33 – 9.68     | — |
| <b>Tolerance of rating [%]</b>                 | ±3  | ±3              | ±3          | ±3              | — |
| <b>Nominal open-circuit voltage [V]</b>        | 45.25 – 46.03   | 37.89           | 47.9 – 49.1 | 40.0 – 41.0     | — |
| <b>Tolerance of rating [%]</b>                 | ±3  | ±3              | ±3          | ±3              | — |
| <b>Dimensions (L x W x H) [mm]</b>             | 1973 x 988 x 40   | 1649 x 992 x 35 | 1973x988x40 | 1649 x 992 x 35 | — |
| <b>Module area [m<sup>2</sup>]</b>             | 1.95  | 1.6             | 1.95        | 1.6             | — |
| <b>Class (IEC 61730-1:2016)</b>                | II  | II              | II          | II              | — |
| <b>Maximum system voltage [V<sub>DC</sub>]</b> | 1500  | 1500            | 1500        | 1500            | — |
| <b>Over-current protection rating [A]</b>      | 15  | 15              | 15          | 15              | — |
| <b>Min. creepage distance [mm]</b>             | 17  | 17              | 17          | 17              | — |
| <b>Min. clearance distance [mm]</b>            | 19.4  | 19.4            | 19.4        | 19.4            | — |
| <b>Max. operational altitude [masl]</b>        | 2000  | 2000            | 2000        | 2000            | — |
| <b>Design load [Pa]</b>                        | 1600  | 1600            | 1600        | 1600            | — |
| <b>Safety factor for mechanical load</b>       | 1.5   | 1.5             | 1.5         | 1.5             | — |

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|   |               |               |   |   |   |
|---|---------------|---------------|---|---|---|
| Type name or model no.                    | 211-72M3-xxx  | 211-60M3-xxx  | — | — | — |
| Nominal maximum STC power [W]             | 365 - 385     | 305 - 320     | — | — | — |
| Tolerance of rating [%]                   | ±3            | ±3            | — | — | — |
| Nominal short-circuit current [A]         | 9.68 – 9.92   | 9.68 – 9.98   | — | — | — |
| Tolerance of rating [%]                   | ±3            | ±3            | — | — | — |
| Nominal open-circuit voltage [V]          | 48.75 – 49.15 | 40.65 – 41.00 | — | — | — |
| Tolerance of rating [%]                   | ±3            | ±3            | — | — | — |
| Dimensions (L x W x H) [mm]               | 1983x1002x40  | 1669x1002x35  | — | — | — |
| Module area [m <sup>2</sup> ]             | 2             | 1.65          | — | — | — |
| Class (IEC 61730-1:2016)                  | II            | II            | — | — | — |
| Maximum system voltage [V <sub>DC</sub> ] | 1500          | 1500          | — | — | — |
| Over-current protection rating [A]        | 15            | 15            | — | — | — |
| Min. creepage distance [mm]               | 16.25         | 16.25         | — | — | — |
| Min. clearance distance [mm]              | 19.4          | 19.4          | — | — | — |
| Max. operational altitude [masl]          | 2000          | 2000          | — | — | — |
| Design load [Pa]                          | 1600          | 1600          | — | — | — |
| Safety factor for mechanical load         | 1.5           | 1.5           | — | — | — |

## Constructional Data Form for Photovoltaic Modules

### Marking plate




**Winasol** Model: 2H-60M3-320

|   |       |   |
|---|-------|---|
| Maximum Power / Maksimum Güç                  | 320   | W |
| Power Selection / Güç Sınıflandırması         | 0-+5  | W |
| Maximum Power Voltage / Maksimum Güç Gerilimi | 33.40 | V |
| Maximum Power Current / Maksimum Güç Akımı    | 9.59  | A |
| Open-Circuit Voltage / Açık Devre Gerilimi    | 41.00 | V |
| Short-Circuit Current / Kısa Devre Akımı      | 9.98  | A |
| Tolerances / Toleranslar (Pmpp, Isc, Voc)     | ± 3%  |   |

|  |  |    |
|--|--|----|
| Max. System Voltage / Maksimum Sistem Gerilimi                       | 1500                                     | V  |
| Max. Overcurrent Protection Rating<br>(Maksimum Aşırı Akım Koruması) | 15                                       | A  |
| Class / Sınıf  | II (IEC 61140)                           |    |
| Dimensions / Ölçüler   | 1669x1002x36 mm                          |    |
| Weight / Ağırlık   | 19                                       | Kg |
| STC / Standart Test Koşulları<br>(According to IEC 60904-3)          | E=1000W/m <sup>2</sup> , Tc=25°C, AM=1.5 |    |


 IEC 61215  
IEC 61730  
Regular Production  
Surveillance  
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 Address/Adres: Büyükkaymakçık OSB Mah.  
102. Cad. No:3/1 Selçuklu/KONYA  
DAXLER  
Made in Turkey  
WINASOL, bir Daxler Energy markasıdır  
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**Winasol** Model: 2H-72M3-380

|   |       |   |
|---|-------|---|
| Maximum Power / Maksimum Güç                  | 380   | W |
| Power Selection / Güç Sınıflandırması         | 0-+5  | W |
| Maximum Power Voltage / Maksimum Güç Gerilimi | 40.60 | V |
| Maximum Power Current / Maksimum Güç Akımı    | 9.37  | A |
| Open-Circuit Voltage / Açık Devre Gerilimi    | 49.06 | V |
| Short-Circuit Current / Kısa Devre Akımı      | 9.83  | A |
| Tolerances / Toleranslar (Pmpp, Isc, Voc)     | ± 3%  |   |

|  |  |    |
|--|--|----|
| Max. System Voltage / Maksimum Sistem Gerilimi                       | 1500                                     | V  |
| Max. Overcurrent Protection Rating<br>(Maksimum Aşırı Akım Koruması) | 15                                       | A  |
| Class / Sınıf  | II (IEC 61140)                           |    |
| Dimensions / Ölçüler   | 1983x1002x40 mm                          |    |
| Weight / Ağırlık   | 22.5                                     | Kg |
| STC / Standart Test Koşulları<br>(According to IEC 60904-3)          | E=1000W/m <sup>2</sup> , Tc=25°C, AM=1.5 |    |


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Marking plate is in compliance with IEC 61215-1:2016 and IEC 61730-1:2016.

Please note: The stated test mark ID is still of former 2h Enerji certificate and will be replaced with a new ID within this project.

### Constructional Data Form for Photovoltaic Modules

List of critical components (add lines for multiple material sources)

| Object                        | Manufacturer                     | Type / model             | Technical data / ratings   | Standard (if applicable) | Certificates (if applicable) |
|-------------------------------|----------------------------------|--------------------------|--|--------------------------|------------------------------|
| Solar cell                    | Motech                           | Poly / IM156B5           | Technology: Poly<br>L x W x T (± %) [mm]: 156.75x 156.75 x 200mikron+20mikron<br>Power classes [W]: 4.42, 4.57, 4.67<br>Number of busbars: 5               | —                        | —                            |
| Solar cell                    | Tongwei Solar (Chengdu) Co., Ltd | M1565BPERC               | Technology: Mono (PERC)<br>L x W x T (± %) [mm]: 156.75x156.75 (x190 µm ±30µm )<br>Power classes [W]: 5.42, 5.38, 5.25, 5.2<br>Number of busbars: 5        | —                        | —                            |
| Solar cell                    | Tongwei Solar (Chengdu) Co., Ltd | M1585BPERC               | Technology: Mono (PERC)<br>L x W x T (± %) [mm]: 158.75x158.75 (x190 µm ±30µm )<br>Power classes [W]: 5.42, 5.57, 5.59, 5.62, 5.65<br>Number of busbars: 5 | —                        | —                            |
| Number of solar cells         | —                                | —                        | 60, 72   | —                        | —                            |
| Connection of cells (S,SP,PS) | —                                | —                        | 60S, 1P  | —                        | —                            |
| Number of diodes              | —                                | —                        | 3  | —                        | —                            |
| Cells per diode               | —                                | —                        | 20/24  | —                        | —                            |
| Front cover                   | Okandan                          | Sandy                    | Thickness [mm]: 3.2<br>Surface treatment: uncoated   | EN 12150                 | —                            |
| Backside cover                | Cynagard                         | 2x5A (R) (X=0 or 1 or 3) | Thickness [µm]: 311.5 micron<br>CTI: ≥600<br>RTI [°C]: 120   | —                        | —                            |
| Cell connector                | Sunby                            | 0.9 x 0.2                | Dimensions [mm]: 0.9*0.2<br>Composition of alloy: Sn=60、Pb=40  | —                        | —                            |
| String connector              | Sunby                            | 5 x 0.3                  | Dimensions [mm]: 5 x 0.3<br>Composition of alloy: Sn=60、Pb=40  | —                        | —                            |
| Soldering material            | Flux Clean alpha                 | NR215                    | Alloy:   | —                        | —                            |
| Fluxing agent                 | —                                | —                        | —  | —                        | —                            |
| Cell fixing tape              | Tesa                             | Tesa 4129                | —  | —                        | —                            |
| Junction box                  | UKTR                             | PV-JB06A                 | Max. voltage [V]: 1500<br>Max. current [A]: 15<br>RTI [°C]: 120  | IEC 62790:2014           | No.: R 50337524              |
| Bypass diode                  | UKT                              | UKTD3045-06              | Max. diode current [A]:<br>T <sub>J</sub> [°C]: 200  | —                        | —                            |

### Constructional Data Form for Photovoltaic Modules

|  |  |                                   |  |                |                 |
|--|--|-----------------------------------|--|----------------|-----------------|
| <b>Cable</b>                           | Ningbo   | Kibor Wire                        | Max. voltage [V]: 2000<br>Max. current [A]: 30<br>RTI [°C]: 120        | EN 50618:2014  | No.: R 50311889 |
| <b>Connector</b>                       | SUZHOU UKT NEW ENERGY TECHNOLOGY CO.,  | PV-C002                           | Max. voltage [V]:<br>Max. current [A]:<br>RTI [°C]: 120                | IEC 62852:2014 | No.: R 50390097 |
| <b>Adhesive (junction box)</b>         | HUITIAN  | HT906-Z                           | —  | —              | —               |
| <b>Potting material (junction box)</b> | HUITIAN  | 5299W-S                           | —  | —              | —               |
| <b>Encapsulation material</b>          | Vista Solar<br>TPI   | ST308P, ST308PF                   | Thickness [mm]: 0.460<br>CTI: 600                                      | —              | —               |
| <b>Frame parts</b>                     | Zahit Aliminyum  | 1649*988*35<br>1973*992*40        | Material /<br>hardness: Aliminyum<br>Coating: Eloksal, 12-<br>15mikron | —              | —               |
| <b>Adhesive (frame)</b>                | HUITIAN  | HT906-Z                           | —  | —              | —               |
| <b>Mounting and attachment parts</b>   | —  | —                                 | —  | —              | —               |
| <b>Markings</b>                        | Bahçivanlar  | Label 100*90mm<br>Barcode 50*10mm | —  | —              | —               |
| <b>Additional materials</b>            | —  | —                                 | —  | —              | —               |
| <b>(Optional) Accessories</b>          | —  | —                                 | —  | —              | —               |
| <b>Remarks</b>                         | For extension qualifications, new materials introduced shall be highlighted in <b>bold</b> .<br>Substituted materials shall however still be listed. |                                   |  |                |                 |

### Constructional Data Form for Photovoltaic Modules

| Qualified material combinations (one column represents one possible combination, based on encapsulant) |                         |                            |                            |  |
|--|-------------------------|----------------------------|----------------------------|--|
|  | Combination A           | Combination B              | Combination C              |  |
| Encapsulation material   | VISTA SOLAR TPI         | VISTA SOLAR TPI            | VISTA SOLAR TPI            |  |
| Front cover  | OKANDAN CAM             | OKANDAN CAM                | OKANDAN CAM                |  |
| Solar cell   | MOTECH (Poly / IM156B5) | Tongwei Solar (M1565BPERC) | Tongwei Solar (M1585BPERC) |  |
| Backside cover   | CYBRID                  | CYBRID                     | CYBRID                     |  |
| Frame parts  | ZAHIT ALIMINYUM         | ZAHIT ALIMINYUM            | ZAHIT ALIMINYUM            |  |
| Adhesive (frame)   | HUITIAN                 | HUITIAN                    | HUITIAN                    |  |
| Cell connector   | SUNBY                   | SUNBY                      | SUNBY                      |  |
| String connector   | SUNBY                   | SUNBY                      | SUNBY                      |  |
| Soldering material   | FLUX Clean Alpha NR215  | FLUX Clean Alpha NR215     | FLUX Clean Alpha NR215     |  |

| Qualified material combinations (one column represents one possible combination, based on backside cover) |               |               |               |  |
|---|---------------|---------------|---------------|--|
|   | Combination X | Combination Y | Combination Z |  |
| Backside cover  | CYBRID        |               |               |  |
| Junction box  | UKT           |               |               |  |
| Adhesive (JB)   | HUITIAN       |               |               |  |

Cologne, 19/10/2021

TÜV Rheinland Energy GmbH  
Am Grauen Stein,  
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KONYA / TURKEY  
(city)

  
(stamp and/or signature of applicant)

19.10.2021  
(date)

