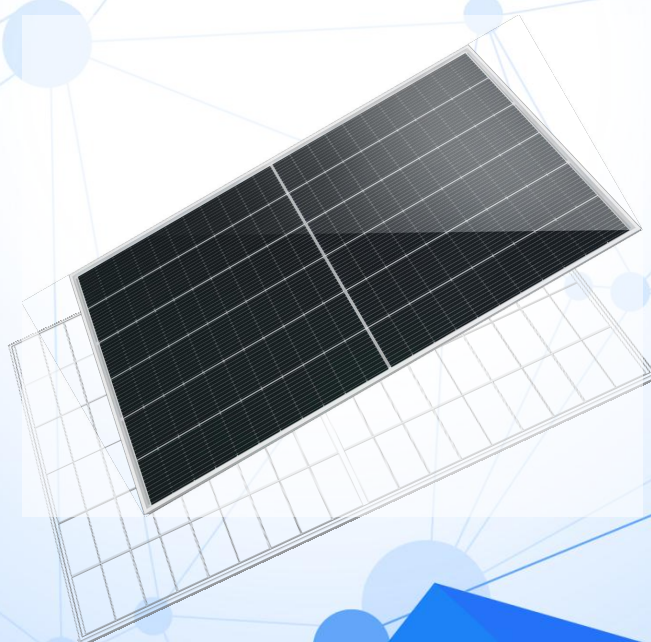


# TOPCon Mono-crystalline PV Module

210 Cell | Non-destructive Cut | Bifacial

Module Type: ☐ VAL-G12R-48 | ☐ VAL-G12R

☐ VAL-G12R-60 | ☒ VAL-G12R-66



## High Power High Compatibility

Outstanding performance in weak-light conditions, lower operating temperature

Different types of modules are suitable for various application scenarios



# Mono-crystalline Solar PV Modules

**M210-66N**  
**TOPCon**

**735W**

VAL735G12NHB-132

TOPCon Mono-crystalline Bifacial Module

**23.7%**

Module efficiency

## Electrical Specifications

| Module Type                                                                              |                               | VAL735G12NHB-132 |            |
|------------------------------------------------------------------------------------------|-------------------------------|------------------|------------|
| STC:<br>AM1.5<br>Temperature 25°C<br>Irradiance 1000 W/m <sup>2</sup>                    | Peak Power(Pmax)±3%           | (W)              | 735        |
|                                                                                          | Power Sorting                 | (W)              | 0~+4.99    |
|                                                                                          | Max.Power Voltage(Vmp)        | (V)              | 41.70      |
|                                                                                          | Max.Power Current(Imp)        | (A)              | 17.64      |
|                                                                                          | Open-circuit Voltage(Voc)±3%  | (V)              | 49.63      |
| NMOT:<br>AM1.5<br>Temperature 20°C<br>Wind speed 1m/s<br>Irradiance 800 W/m <sup>2</sup> | Short-circuit Current(Isc)±3% | (A)              | 18.41      |
|                                                                                          | Peak Power(Pmax)±3%           | (W)              | 549.8      |
|                                                                                          | Max.Power Voltage(Vmp)        | (V)              | 38.78      |
|                                                                                          | Max.Power Current(Imp)        | (A)              | 14.18      |
|                                                                                          | Open-circuit Voltage(Voc)±3%  | (V)              | 46.15      |
|                                                                                          | Short-circuit Current(Isc)±3% | (A)              | 15.08      |
|                                                                                          | Operating Temperature         | (°C)             | -40~+85    |
| Max. Series Fuse Rating                                                                  |                               | (A)              | 35         |
| Max. System Voltage(DC)                                                                  |                               | (V)              | 1500 (IEC) |

## Mechanical Specifications

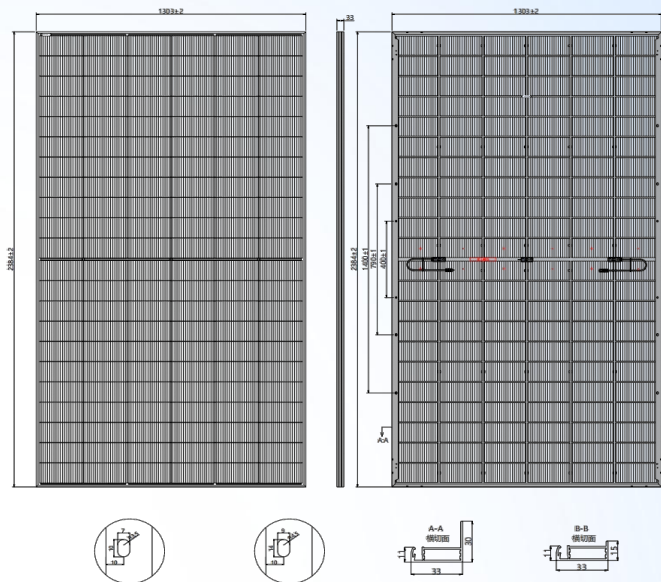
|                       |                                        |
|-----------------------|----------------------------------------|
| Solar Cells           | N-Topcon-Mono-210                      |
| Arrangement           | Type-6*11*2                            |
| Front Glass           | 2.0mm tempered glass                   |
| Back Glass            | 2.0mm tempered glass                   |
| Frame                 | Anodized aluminium alloy               |
| Junction Box          | IP68, 3 diodes                         |
| Cables                | 4.0mm <sup>2</sup> photovoltaic cables |
| Connectors            | MC4 compatible/DC 1500V                |
| Maximum Load Capacity | Snow-5400Pa/Wind-2400Pa                |
| Safety Rate           | Class II (IEC)                         |
| Fire Rate             | Class C (TUV)                          |
| Bifaciality           | 80±5%                                  |

## Packing Configuration

|                 |                  |                  |         |
|-----------------|------------------|------------------|---------|
| Package Weight  | 1195Kg/pallet    |                  |         |
| Package Size    | 1320*1120*2520mm |                  |         |
| 20'GP Container | /                | /                | /       |
| 40'HQ Container | 33 pcs/pallet    | 18 pallets/40'HQ | 594 pcs |

## Dimensions of PV Module

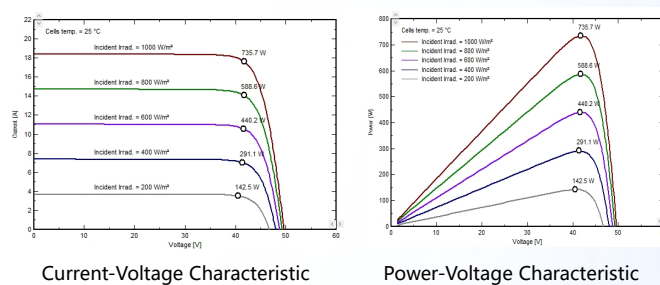
|                   |                |
|-------------------|----------------|
| Module Dimensions | 2384*1303*33mm |
| Module Weight     | 35.3 kg(±3%)   |



## Temperature Characteristics

|                                    |         |          |
|------------------------------------|---------|----------|
| Temperature Coefficient (Pmax)     | δ[%/°C] | -0.30    |
| Temperature Coefficient (Voc)      | β[%/°C] | -0.25    |
| Temperature Coefficient (Isc)      | α[%/°C] | +0.05    |
| Nominal Operating Cell Temperature | NMOT    | 45°C±2°C |

## I-V & P-V Curves



Current-Voltage Characteristic

Power-Voltage Characteristic

## Different Backside Power Gain

| Power Gain                 |     | 5%    | 15%   | 25%   |
|----------------------------|-----|-------|-------|-------|
| Maximum Power(Pmax)        | (W) | 771.8 | 845.3 | 918.8 |
| Max.Power Voltage(Vmp)     | (V) | 41.70 | 41.70 | 41.70 |
| Max.Power Current(Imp)     | (A) | 18.51 | 20.27 | 22.03 |
| Open-circuit Voltage(Voc)  | (V) | 49.63 | 49.63 | 49.63 |
| Short-circuit Current(Isc) | (A) | 19.68 | 21.56 | 23.43 |

