

**AS435-455G12R-96**

Bifacial Half-Cell PV Module

**MECHANICAL SPECIFICATION**



**RELATIVE POWER [%]**

|  |  |
| --- | --- |
| Cell | N-type TOPCon Mono |
| No.of cells | 96(6x16) |
| Cable Length | 300mm(+)/300mm(-) |
| Cable Cross Section Size | 4mm²(IEC) |
| Junction Box | IP68 |
| Connector | MC4 Compatible |
| Weight | 24.5kgs±3% |
| Cells Type | Mono 182x105mm |
| Dimension(LxWxT) | 1762±2mmx1134±2mmx30±1mm |
| Packaging | 36pcs/pallet, 936pcs/40HQ(30mm)31pcs/pallet, 806pcs/40HQ(35mm) |

N-type TOPCon Mono

**435-455W**

AS435-455G12R-96 Bifacial

Bifacial Half-Cell PV Module

**OPCON**

W

**N-TYPE TOPCON** moduIe couId increase power

generaⅥon by 3%+ per wa廿 compared with PERC

**HIGHER** power output

BifaciaI moduIe back–side power increase 5–25%

+

**COMPATIBLE** with mainstream trackers eﬀecⅥve product for uⅥIity power pIant

Lower degradaⅥon rate, **BETTER** shading toIerance First–year ≤1%, 2–30 year ≤0.4%

**0.4**%

Annual degradation

**30**

**15**

Year

Warranty for Materials and Processing

Year

Warranty for Extra Linear Power Output



**LINEAR PERFORMANCE WARRANTY**

|  |  |
| --- | --- |
|  |  |

**LOWER** Temp. **COEFFICIENT**

More power generaⅥon under high–temperature

 **99%**

100%

95%

90%

85%

80%

75%

 Standard p-Type PERC  n-Type TOPCon



|  |  |  |
| --- | --- | --- |
|  |  |  **87.4%** |
|  |  |
|  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

 ISO

9001:2015

*INMETRO*

1 5 10 15 20 25 30

**Years**

***Amosolar Co.,ltd***

30/35±1

Remark: customized frame color and cable length available upon request

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| --- |
| **ELECTRICAL CHARACTERISTICS** STC:AM1.5 1000W/m² 25℃ NOCT:AM1.5 800W/m² 20℃ 1m/s Test uncertainty for Pmax ±3% |
| Module Type AS435G12R-96 AS440G12R-96 AS445G12R-96 AS450G12R-96 AS455G12R-96 |
| Testing Condition STC NOCT STC NOCT STC NOCT STC NOCT STC NOCT |
| Maximum Power(Pmax/W) 435 327 440 331 445 335 450 339 455 343 |
| Open Circuit Voltage(Voc/V) 34.66 32.80 34.84 33.00 35.02 33.10 35.20 33.30 35.38 33.50 |
| Short Circuit Current(Isc/A) 15.89 12.90 15.94 12.90 15.99 12.90 16.04 13.00 16.09 13.00 |
| Voltage at Maximum Power(Vmp/V) 29.55 27.50 29.73 27.70 29.91 27.90 30.09 28.00 30.27 28.20 |
| Current at Maximum Power(Imp/A) 14.73 11.90 14.81 12.00 14.89 12.00 14.97 12.10 15.05 12.20 |
| Module Efficiency(%) 21.77 22.02 22.27 22.52 22.77 |
| **ELECTRICAL CHARACTERISTICS OPERATING PARAMETERS** |
| Maximum power（W） 457 462 467 472 478 | Maximum System Voltage 1500VDC |
| Module efficiency STC（%） 22.9% 23.1% 23.4% 23.6% 24.0%5% | Operating Temperature -40℃~+85℃ |
| Maximum 15% | power（Total） 500 506 512 518 523 | Maximum Series Fuse 30A |
| Module efficiency STC（%） 25.0% 25.3% 25.6% 26.0% 26.1% | Maximum StaticLoad,Front 5400Pa(112lb/ft²) |
| Maximum 25% | power（Total） 544 550 556 563 569 | Maximum StaticLoad,Back 2400Pa(50lb/ft²) |
| Module efficiency STC（%） 27.2% 27.5% 27.8% 28.1% 28.5% | Safety Class Class Ⅱ |
|  **I-V CURVE(AS435-455G12R-96 )** |
| **OPERATING PARAMETERS** |  Current(A) Power(W)  Voltage(V) |  Current(A)Voltage(V) |
| Norminal Operating Cell Temperature(NOCT) 45±2℃ |
| Temperature Coefficiency of Isc +0.045%/℃ |
| Temperature Coefficiency of Voc -0.26%/℃ |
| Temperature Coefficiency of Pmax -0.29%/℃ |
| \*Specs are subject to change without further notification***Amosolar Co.,ltd*** |
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