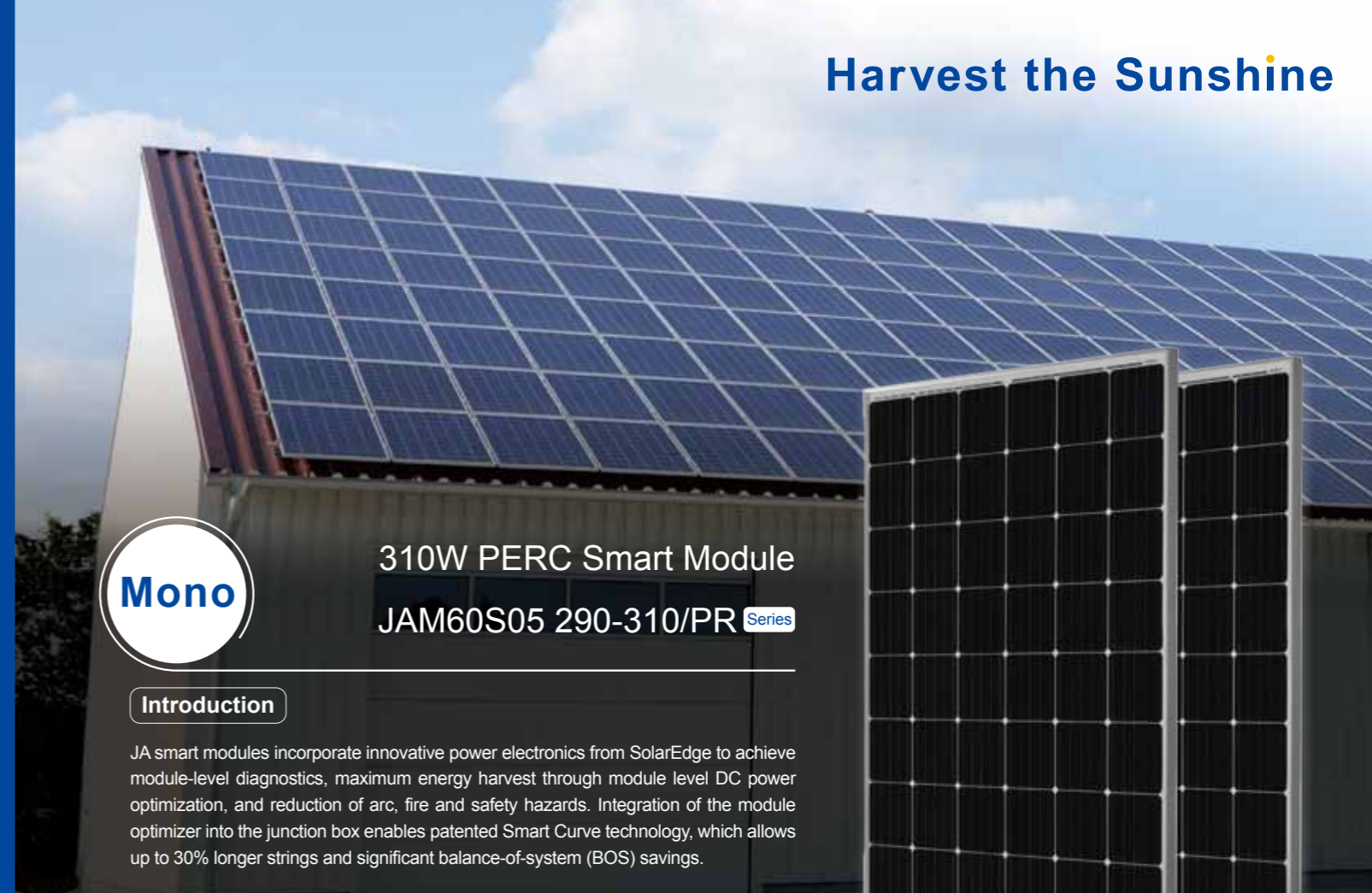


# JASOLAR



[www.jasolar.com](http://www.jasolar.com)

Specifications subject to technical changes and tests.  
JA Solar reserves the right of final interpretation.



**Mono**

310W PERC Smart Module

JAM60S05 290-310/PR Series

**Introduction**

JA smart modules incorporate innovative power electronics from SolarEdge to achieve module-level diagnostics, maximum energy harvest through module level DC power optimization, and reduction of arc, fire and safety hazards. Integration of the module optimizer into the junction box enables patented Smart Curve technology, which allows up to 30% longer strings and significant balance-of-system (BOS) savings.



Safer solar



More efficient O&M



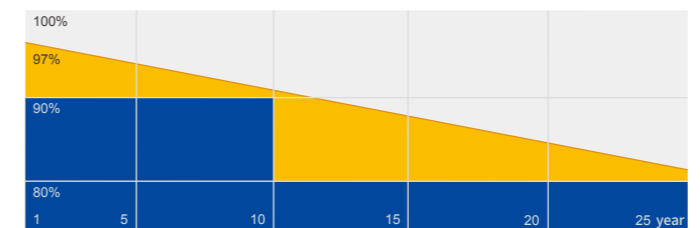
Flexible system assembly



Maximized energy Harvest

**Superior Warranty**

- 12-year product warranty
- 25-year linear power output warranty



■ JA Linear Power Warranty ■ Industry Warranty

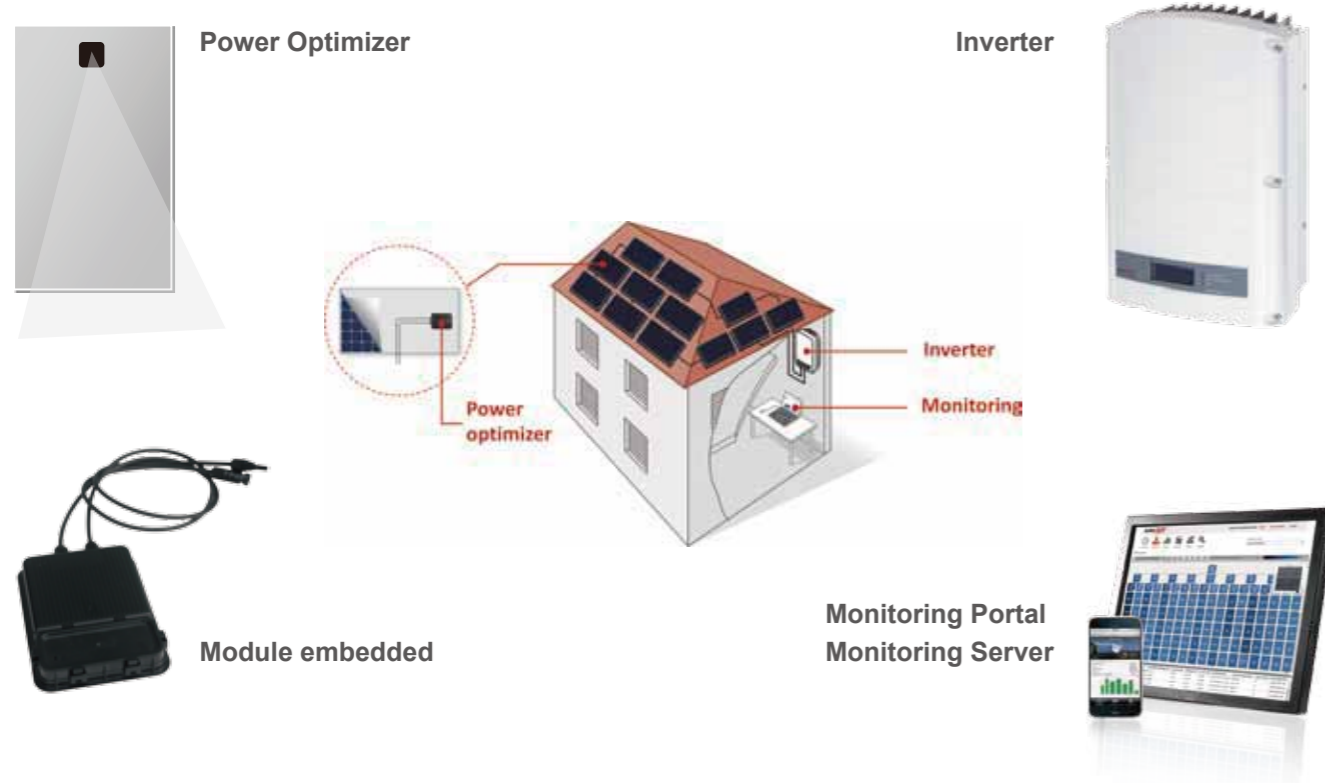
**Comprehensive Certificates**

- IEC 61215, IEC 61730, IEC TS 62804
- ISO 9001: 2015 Quality management systems
- ISO 14001: 2015 Environmental management systems
- OHSAS 18001: 2007 Occupational health and safety management systems
- IEC TS 62941: 2016 Terrestrial photovoltaic (PV) modules – Guidelines for increased confidence in PV module design qualification and type approval



**SYSTEM ARCHITECTURE**

JA smart system components work together with any inverter to maximize energy harvest. JA smart modules can communicate by electrical line, allowing users to monitor system performance in real time.



**STRING LENGTHS(computed automatically by SolarEdge Site Designer)**

| Module Power                                | 290                                | 295 | 300 | 305 | 310 |
|---|------------------------------------|-----|-----|-----|-----|
| MINIMUM string size with SolarEdge inverter | 1ph                                | 8   |     |     |     |
|   | 3ph                                |     | 16  |     |     |
|   | 3ph-MV                             |     |     | 18  |     |
| MINIMUM string size with SolarEdge inverter | 1ph                                | 18  |     | 177 | 17  |
|   | 3ph                                | 38  |     | 388 | 36  |
|   | 3ph-MV                             | 43  |     | 433 | 41  |
| String size with Non-SolarEdge              | According to inverter design rules |     |     |     |     |

**OUTPUT VOLTAGES AND CURRENTS**

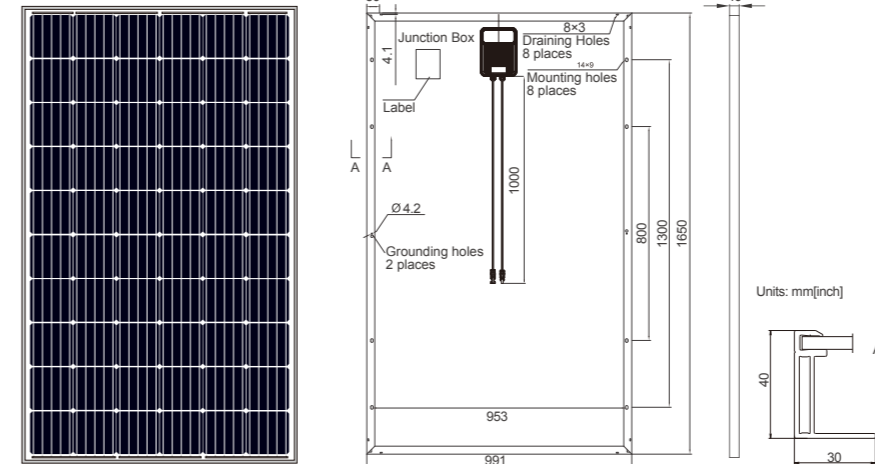
|   |                 |     |
|---|-----------------|-----|
| Operating Output Voltage when connected to SolarEdge Inverter   | 5-60            | Vdc |
| Operating Output Voltage when connected to Non-SolarEdge Inverter   | 5-Voc of module | Vdc |
| Maximum Output Current when connected to SolarEdge Inverter   | 15              | Adc |
| Maximum Output Current when connected to Non-SolarEdge Inverter   | 10              | Adc |
| Output in Standby mode with SolarEdge inverter or with SMI and Non-SolarEdge inverter (when disconnected from inverter or inverter off) | 1               | Vdc |

**STANDARD COMPLIANCE**

|                        |   |
|------------------------|---|
| Fire Safety            | VDE-AR-E 2100-712:2013-05   |
| PV Junction Box Safety | IEC62109-1 (class II safety, TUV-SUD), UL1741 (TUV-Rheinland & CSA) |
| PV Junction Box        | EN50548 (TUV-SUD), UL3730 (TUV-Rheinland & CSA)                     |

Premium Cells, Premium Modules

**MECHANICAL DIAGRAMS**



Remark: customized frame color and cable length available upon request

**SPECIFICATIONS**

|                          |                        |
|--------------------------|------------------------|
| Cell                     | Mono                   |
| Weight                   | 18.7kg±3%              |
| Dimensions               | 1650mm×991mm×40mm      |
| Cable Cross Section Size | 6mm <sup>2</sup>       |
| No. of cells             | 60(6x10)               |
| Junction Box             | Solar edge smart J-Box |
| Connector                | MC4                    |
| Packaging Configuration  | 27 Per Pallet          |

**ELECTRICAL PARAMETERS AT STC**

| TYPE                                   | JAM60S05 -290/PR  | JAM60S05 -295/PR | JAM60S05 -300/PR | JAM60S05 -305/PR | JAM60S05 -310/PR |
|--|---|------------------|------------------|------------------|------------------|
| Rated Maximum Power(Pmax) [W]          | 290   | 295              | 300              | 305              | 310              |
| Open Circuit Voltage(Voc) [V]          | 39.46   | 39.64            | 39.85            | 40.05            | 40.30            |
| Maximum Power Voltage(Vmp) [V]         | 31.80   | 32.03            | 32.26            | 32.57            | 32.84            |
| Short Circuit Current(Isc) [A]         | 9.57  | 9.66             | 9.75             | 9.85             | 9.91             |
| Maximum Power Current(Imp) [A]         | 9.12  | 9.21             | 9.30             | 9.37             | 9.44             |
| Module Efficiency [%]                  | 17.7  | 18.0             | 18.3             | 18.7             | 19.0             |
| Power Tolerance                        | 0~+5W   |                  |                  |                  |                  |
| Temperature Coefficient of Isc(α_Isc)  | +0.060%/°C  |                  |                  |                  |                  |
| Temperature Coefficient of Voc(β_Voc)  | -0.300%/°C  |                  |                  |                  |                  |
| Temperature Coefficient of Pmax(γ_Pmp) | -0.380%/°C  |                  |                  |                  |                  |
| STC                                    | Irradiance 1000W/m <sup>2</sup> , cell temperature 25°C, AM1.5G |                  |                  |                  |                  |

Remark: Electrical data in this catalog do not refer to a single module and they are not part of the offer.They only serve for comparison among different module types.

**ELECTRICAL PARAMETERS AT NOCT**

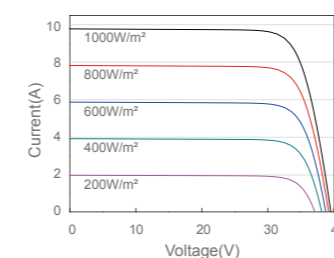
| TYPE                           | JAM60S05 -290/PR   | JAM60S05 -295/PR | JAM60S05 -300/PR | JAM60S05 -305/PR | JAM60S05 -310/PR |
|--------------------------------|--|------------------|------------------|------------------|------------------|
| Rated Max Power(Pmax) [W]      | 213  | 217              | 221              | 224              | 228              |
| Open Circuit Voltage(Voc) [V]  | 36.34  | 36.57            | 36.75            | 36.95            | 37.15            |
| Max Power Voltage(Vmp) [V]     | 29.56  | 29.63            | 29.69            | 29.90            | 30.18            |
| Short Circuit Current(Isc) [A] | 7.61   | 7.69             | 7.78             | 7.86             | 7.93             |
| Max Power Current(Imp) [A]     | 7.21   | 7.32             | 7.43             | 7.50             | 7.55             |
| NOCT                           | Irradiance 800W/m <sup>2</sup> , ambient temperature 20°C, wind speed 1m/s, AM1.5G |                  |                  |                  |                  |

**OPERATING CONDITIONS**

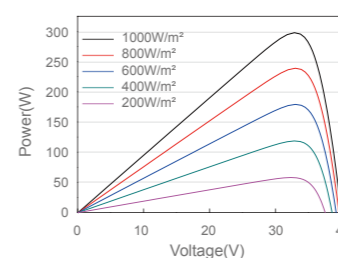
|                           |               |
|---------------------------|---------------|
| Maximum System Voltage    | 1000V DC(IEC) |
| Operating Temperature     | -40°C~+85°C   |
| Maximum Series Fuse       | 20A           |
| Maximum Static Load,Front | 5400Pa        |
| Maximum Static Load,Back  | 2400Pa        |
| NOCT                      | 45±2°C        |
| Application Class         | Class A       |

**CHARACTERISTICS**

Current-Voltage Curve JAM60S05-300/PR



Power-Voltage Curve JAM60S05-300/PR



Current-Voltage Curve JAM60S05-300/PR

