










RAYSTECH

M12 Monocrystalline Series 10W-360W

Products Characteristics

-  Widely using of the most popular and mature type of modules for off-grid system.
-  Leading manufacturing technology in PV industry, strictly controlling the quality of raw materials and the process of producing.
-  100% EL inspection, ensures modules are defects free.
-  Cells binned by current to improve module performance.
-  Anti reflective glass. Not only to increase the light absorption, but also to make the module has the function of self-cleaning in water environment, effectively reducing the power loss caused by dust.
-  Outstanding performance in low-light irradiance environments.
-  Excellent mechanical load resistance: Certified to withstand high wind loads(2400pa) and snow loads(5400pa).
-  High salt and ammonia resistance.
-  Positive power tolerance: 0~+5w.

Warranty



5 year product warranty.



10-years 90% of Min. rated output power, and 25-years 80% of Min. rated output power warranty.

Comprehensive Certificates

- ◆ ISO Certificate
- ◆ SGS-TUV Certificate
- ◆ CQC Certificate
- ◆ IEC61215、IEC61730 Certificate
- ◆ CE Certificate



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*Specifications subject to technology and test conditions, RAYSTECH reserves the right of final interpretation.

| | Model No. | Pmax (W) | Dimension(mm) | Weight (kg) | Power Tolerance | Operating Temperature | Junction-Box | Application Grade | Packing | Cell Efficiency | Voc (V) | Vmp (V) | Isc (A) | Imp (A) | Cell Size (mm) |
|--|-------------|----------|----------------|-------------|-----------------|-----------------------|--------------|-------------------|-----------------|-----------------|---------|---------|---------|---------|----------------|
| | M12-28-10 | 10W | 270x310x17x17 | 0.8 | 0+5W | -45~+80 C | IP65/IP67 | ClassA | 30pieces/box | 21.9% | 19.6 | 16.0 | 0.67 | 0.63 | 70x30 |
| | M12-36-20 | 20W | 380x310x17x17 | 1.3 | 0+5W | -45~+80 C | IP65/IP67 | ClassA | 20pieces/box | 22.6% | 21.9 | 17.9 | 1.19 | 1.12 | 70x35 |
| | M12-36-30 | 30W | 380x450x17x17 | 2.0 | 0+5W | -45~+80 C | IP65/IP67 | ClassA | 10pieces/box | 22.6% | 24.3 | 19.9 | 1.60 | 1.51 | 105x35 |
| | M12-32-40 | 40W | 490x450x25x25 | 2.4 | 0+5W | -45~+80 C | IP65/IP67 | ClassA | 10pieces/box | 22.6% | 21.9 | 17.9 | 2.37 | 2.24 | 105x52.5 |
| | M12-32-50 | 50W | 620x450x25x25 | 3.1 | 0+5W | -45~+80 C | IP65/IP67 | ClassA | 6pieces/box | 21.9% | 21.9 | 17.9 | 2.97 | 2.80 | 105x70 |
| | M12-36-60 | 60W | 690x450x25x25 | 3.4 | 0+5W | -45~+80 C | IP65/IP67 | ClassA | 6pieces/box | 22.6% | 24.3 | 19.9 | 3.20 | 3.02 | |
| | M12-32-80 | 80W | 900x450x25x25 | 4.5 | 0+5W | -45~+80 C | IP65/IP67 | ClassA | 5pieces/box | 22.6% | 21.9 | 17.9 | 4.74 | 4.47 | 105x105 |
| | M12-36-90 | 90W | 1010x450x25x25 | 5.0 | 0+5W | -45~+80 C | IP65/IP67 | ClassA | 5pieces/box | 22.6% | 24.3 | 19.9 | 4.80 | 4.53 | |
| | M12-60-150 | 150W | 1120x670x28x25 | 8.3 | 0+5W | -45~+80 C | IP65/IP67 | ClassA | 38pieces/Pallet | 22.6% | 40.8 | 33.4 | 4.77 | 4.50 | |
| | M12-66-165 | 165W | 1225x670x28x25 | 9.1 | 0+5W | -45~+80 C | IP65/IP67 | ClassA | 38pieces/Pallet | 22.7% | 44.5 | 36.4 | 4.80 | 4.53 | 105x105 |
| | M12-66-170 | 170W | | | | | | | | 23.4% | 44.8 | 36.6 | 4.92 | 4.64 | |
| | M12-66-180 | 180W | | | | | | | | 24.1% | 45.4 | 37.1 | 5.14 | 4.86 | |
| | M12-72-175 | 175W | 1330x670x28x25 | 9.9 | 0+5W | -45~+80 C | IP65/IP67 | ClassA | 38pieces/Pallet | 22.0% | 48.6 | 39.7 | 4.67 | 4.41 | 105x105 |
| | M12-72-180 | 180W | | | | | | | | 22.6% | 48.8 | 39.9 | 4.78 | 4.51 | |
| | M12-72-185 | 185W | | | | | | | | 23.3% | 49.0 | 40.1 | 4.90 | 4.62 | |
| | M12-72-190 | 190W | | | | | | | | 23.9% | 49.3 | 40.3 | 5.00 | 4.72 | |
| | M12-72-200 | 200W | | | | | | | | 24.5% | 49.5 | 40.5 | 5.23 | 4.94 | |
| | M12-144-360 | 360W | 1956x885x28x25 | 19.2 | 0+5W | -45~+80 C | IP65/IP67 | ClassA | 36pieces/Pallet | 22.8% | 49.4 | 42.0 | 9.03 | 8.57 | 105x70 |

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|--------------------------------|---|
| Glass | 3.2mm Tempered Glass |
| Encapsulation | EVA |
| Backsheet | Multilayer Composite |
| Aluminium-Frame | Silvery/Black Anodized aluminium alloy |
| Cable | NA, but customized is acceptable |
| Connector | NA, but MC4 and MC4 Compatible are acceptable |
| Maximum System Voltage | 700V |
| Maximum Series Fuse | 10A |
| Temperature Coefficient of Isc | +0.06% |
| Temperature Coefficient of Voc | -0.32% |
| Temperature Coefficient of Pmp | -0.45% |
| Standard Test Condition | Irradiance:1000W/M ² , Cell Temperature:25 C., Spectrum AM:1.5 |

Engineering Drawings (Back Side)

