

MONO CRYSTALLINE - SHINGLED CELL TECHNOLOGY

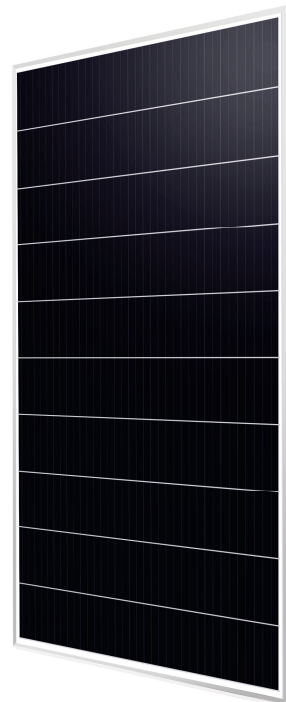
385 / 390 / 395 / 400 / 405 / 410 / 415 Watts

Puma Series



Superior Performance and Reliability

Shingled technology eliminates traditional ribbon connection with shingles connected in series. By removing the soldered ribbons, the active area of the module is improved and thermal stresses are reduced - resulting in exceptional efficiency and reliability over standard interconnections.



Outstanding performance under extreme heat as well as low intensity solar radiation



Significantly low Pmax thermal coefficient

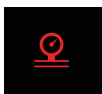


Positive Tolerance



100 % electro-luminescence tested

Key Benefits



Higher yield per surface area



Low Pmax Temperature Coefficient



Higher yield in hot climate



25 Years Limited Product Warranty



Low LCOE

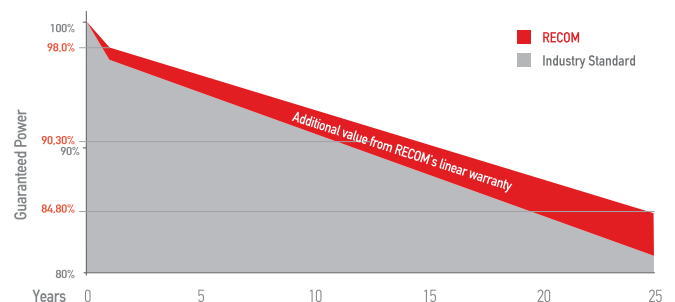


Low Resistive Losses

Tests, Certifications and Warranties

| | |
|-----------------------------|---|
| Standard Tests | IEC 61215, IEC 61730 |
| Factory Quality Tests | ISO 9001: 2015, ISO 14001: 2015 |
| Certifications | Conformity to CE, PV CYCLE |
| Insurance | Third party liability insurance provided by Liberty Mutual |
| Wind and Snow Loads Testing | Module certified to withstand extreme wind (2400 Pascal) and snow loads (5400 Pascal) |
| Power Tolerance | Guaranteed +0%/+5% (STC condition) |
| Warranties | <ul style="list-style-type: none"> • 25-year limited product warranty • 15-year manufacturer warranty on 90.30% of the nominal performance • 25-year transferable linear power output warranty |

Linear Performance Warranty



First Year Output $\geq 98.0\%$ 2-25 Year Decline $\leq 0.55\%$ 25 Year Output $\geq 84.80\%$

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RCM-xxx-SMB (xxx=385-415)

Electrical Characteristics

| POWER CLASS ⁽¹⁾ | | 380 | | 385 | | 390 | | 395 | | 400 | | 405 | | 410 | | 415 | |
|----------------------------|-----------------------|-----------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| Testing Condition | | STC | NMOT | STC | NMOT | STC | NMOT | STC | NMOT | STC | NMOT | STC | NMOT | STC | NMOT | STC | NMOT |
| Maximum Power | P _{max} [Wp] | 380 | 286 | 385 | 290 | 390 | 294 | 395 | 297 | 400 | 301 | 405 | 305 | 410 | 309 | 415 | 312 |
| Maximum Power Voltage | V _{mp} [V] | 38.3 | 36.5 | 38.4 | 36.6 | 38.5 | 36.7 | 38.5 | 36.7 | 38.6 | 36.8 | 38.7 | 36.9 | 38.8 | 37.0 | 38.9 | 37.1 |
| Maximum Power Current | I _{mp} [A] | 9.92 | 7.84 | 10.03 | 7.92 | 10.13 | 8.00 | 10.26 | 8.10 | 10.36 | 8.18 | 10.47 | 8.27 | 10.57 | 8.35 | 10.67 | 8.43 |
| Open Circuit Voltage | V _{oc} [V] | 46.1 | 43.9 | 46.2 | 44.0 | 46.3 | 44.1 | 46.3 | 44.1 | 46.4 | 44.2 | 46.5 | 44.3 | 46.6 | 44.4 | 46.7 | 44.5 |
| Short Circuit Current | I _{sc} [A] | 10.77 | 8.69 | 10.82 | 8.73 | 10.87 | 8.77 | 10.92 | 8.81 | 10.97 | 8.85 | 11.02 | 8.89 | 11.07 | 8.93 | 11.12 | 8.97 |
| Module Efficiency | Eff [%] | 19,4 | | 19,6 | | 19,9 | | 20,2 | | 20,4 | | 20,7 | | 20,9 | | 21,2 | |
| Maximum Series Fuse | I _R [A] | 20 | | | | | | | | | | | | | | | |
| Maximum System Voltage | V _{sys} [V] | 1.000 VDC / 1.500 VDC (IEC) | | | | | | | | | | | | | | | |

(1) Measurement Tolerances: P_{max} (± 3%), I_{sc} & V_{oc} (± 3%) - Power Classification 0/+5W

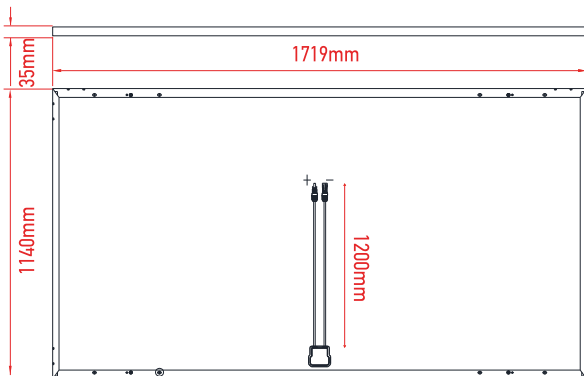
(2) STC (Standard Testing Condition): Irradiance 1000W/m², Cell Temperature 25°C, AM 1.5

(3) NMOT (Nominal Operating Module Temperature): Irradiance 800W/m², NMOT, Ambient Temperature 20°C, AM 1.5, Wind Speed 1m/s

Mechanical Data

| | |
|--------------|--|
| Dimensions | 1719mm x 1140mm x 35mm |
| Weight | 22.0 Kg |
| Cell Type | PERC Mono-166 x 33mm - 340 pcs - M6 |
| Front Glass | 3.2mm Tempered and low iron glass + ARC |
| Backsheet | Anti-aging film |
| Frame | Anodized Aluminium Alloy |
| Junction Box | IP68 - 2 bypass diodes |
| Connector | MC4 compatible |
| Cable | 4.0mm ² - Length 1200mm or customized |

Dimensions

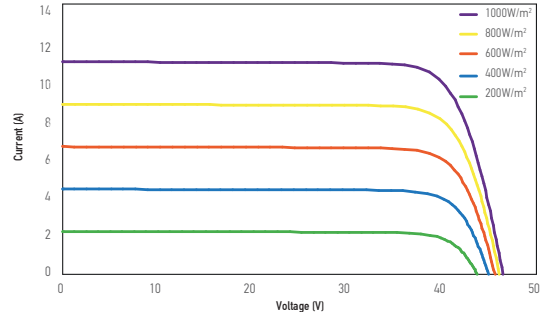


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I-V Curve

The module relative power loss at low light irradiance of 200W/m² is less than 3%.



Temperature Characteristics

| | |
|---|--------------|
| P _{max} Temperature Coefficient | -0.34% / °C |
| V _{oc} Temperature Coefficient | -0.27% / °C |
| I _{sc} Temperature Coefficient | +0.04% / °C |
| Operating Temperature | -40 ~ +85 °C |
| (NMOT) Nominal Module Operating Temperature | 42.3 ± 2 °C |

Packing Configuration

| | |
|-----------------------|--------|
| Container | 40' HC |
| Pieces per Pallet | 31 |
| Pallets per Container | 26 |
| Pieces per Container | 806 |

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