



MBB HC BIFACIAL RECTANGULAR TOPCON CELL PV MODULE

620 - 640 W



CELL TECHNOLOGY 16BB Half-Cut TOPCon Cells

Low LID/LeTID loss and high performance under low irradiance conditions.



BIFACIAL PERFORMANCE Dual-side power generation

Higher energy yield and lower LCOE thanks to rear-side gain.



PID PROTECTION Advanced Anti-PID Technology

Long-term performance under high system voltage conditions



HIGH PERFORMANCE WARRANTY 30-Year Linear Power Output Warranty

Stable and reliable module performance for long-term operation



HARSH ENVIRONMENT RESISTANCE Design suitable for all climate conditions

Suitable for sand, humidity, wind, and dusty environments



MECHANICAL STRENGTH High durability

5400 Pa snow load / 2400 Pa wind load.



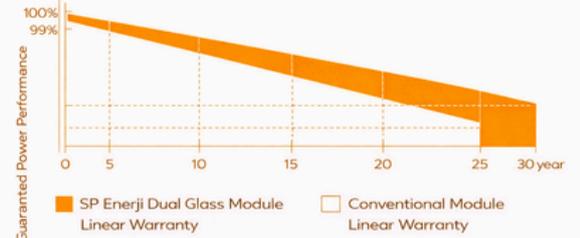
ENVIRONMENTALLY FRIENDLY PRODUCTION Low carbon footprint

Composite frame and sustainable manufacturing process.

WARRANTY

Additional Linear Performance Warranty

12-Year Product Warranty · 30-Year Linear Power Warranty
Average annual power degradation of 0.4% over 30 years



Product
Warranty



Linear Power
Output
Warranty

CERTIFICATIONS

TUV AUSTRIA CERTIFICATION
CE CONFORMITY
ISO 9001:2015 QUALITY MANAGEMENT SYSTEM
ISO 14001:2015 ENVIRONMENTAL MANAGEMENT SYSTEM
OHSAS 18001 - OCCUPATIONAL HEALTH & SAFETY
FPC FACTORY PROCESS CONTROL CERTIFICATION

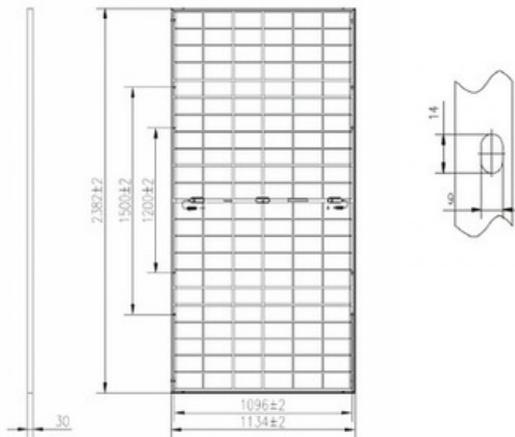


SP ENERJİ ELEKTRİK ÜRETİM LİMİTED ŞİRKETİ

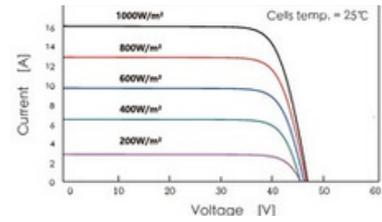
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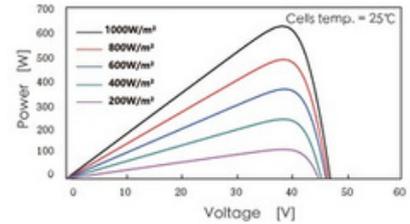
TECHNICAL DRAWING



I-V CURVE



P-V CURVE



ELECTRICAL PARAMETERS

| | | | | | |
|---------------------------------|--------|--------|--------|--------|--------|
| Maximum Power (Pmax) | 620 | 625 | 630 | 635 | 640 |
| Open Circuit Voltage (Voc) [V] | 48.98 | 49.17 | 49.35 | 49.47 | 49.66 |
| Short Circuit Current (Isc) [A] | 15.97 | 16.02 | 16.1 | 16.17 | 16.23 |
| Voltage at Pmax (Vmp) [V] | 40.8 | 40.97 | 41.12 | 41.24 | 41.39 |
| Current at Pmax (Imp) [A] | 15.2 | 15.26 | 15.33 | 15.4 | 15.47 |
| Module Efficiency (STC) [%] | 22.95% | 23.14% | 23.33% | 23.51% | 23.70% |

REAR SIDE GAIN

| | | | | | | |
|-----|--------------------------|--------|--------|--------|--------|--------|
| 5% | Maximum Power (W) | 651 | 656.25 | 661.5 | 666.75 | 672 |
| | Module Efficiency (STC): | 24.10% | 24.30% | 24.50% | 24.69% | 24.89% |
| 15% | Maximum Power (W) | 713 | 718.75 | 724.5 | 730.25 | 736 |
| | Module Efficiency (STC): | 26% | 26.61% | 26.82% | 27.03% | 27.24% |
| 25% | Maximum Power (W) | 775 | 781.25 | 787.5 | 793.75 | 800 |
| | Module Efficiency (STC): | 28.69% | 28.93% | 29.16% | 29.39% | 29.62% |

MECHANICAL PARAMETERS

| | |
|---|------------|
| Power Tolerance | (0,+4,99) |
| Maximum System Voltage | 1500V DC |
| Pmax Temperature Coefficient | -0.30%/°C |
| Voc Temperature Coefficient | -0.25%/°C |
| Isc Temperature Coefficient | -0.045%/°C |
| Maximum Series Fuse Rating | 30A |
| Operating Temperature | -40~ +85°C |
| Nominal Operating Cell Temperature (NOCT) | 42±2°C |

DIMENSIONS & CONSTRUCTION

| | |
|----------------------|--|
| Dimensions | 2382*1134*30mm |
| Weight | 32.5Kg±5% |
| Solar Cells | 132Cells (2*6*11) |
| Glass | Dual glass 2.0 + 2.0 mm, AR coated, tempered, low iron |
| Frame | Composite (Colored) |
| Junction Box & Cable | IP68, 3 diodes, 4 mm², 350 mm cable |
| Mechanical Load | Front 5400 Pa / Rear 2400 Pa |
| Packaging | 36 modules per pallet |

* Cable length can be customized upon customer request during order.

