SPEED S\(\pi\)LAR



445W Bifacial Panel

UP TO 25% MORF POWFR

FASTER SNOW SHEDDING

40mm BLACK FRAMES

12 Year Product Warranty/ 30 Year Output Warranty 0.5% Annual Degradation over 30 Years



Features

- 40mm Black frames attractive and effective at snow shedding in northern climates
- Operating Temperature range -40°C to 85°C /-40°F to 185°F
- Max snow load 5400 Pa / wind load 2400 Pa
- Use for any installation type particularly suited to ground mounted arrays.



Bifacial Technology

Additional energy harvesting from the back of the panel. (up to 25%)



Works Better in Low Light

Lower temperature coefficient and wide spectral response produce a higher power output, even under low-light conditions.



Anti PID

Power degradation of NE-ZXM6-NHLDD144-445M module caused by PID effect is guaranteed to be limited under strict testing conditions for mass production.



High Efficiency

A high efficiency PERC solar cell with 9 busbars technology ensures this solar module is up to 20.7% more efficient with stable operation.



More Power

Module RS decreases, FF (fill factor) increases, power gain is stable above 1.5%, and can be increased by 5-10W.



Tier-1 Bankable Modules

This product is listed on the Bloomberg New Energy Finance PV Module Tiering System Report.



























NE-ZXM6-NHLDD144-445M | ZenShine HALF-CELL Bifacial Double Glass PV Module with 40mm Black Frames | SPEED S\(\)



| Electrical Properties STC* | | | | | | |
|--|-----------------------------------|--|-------------------------|-------------------------|-------------------------|-------------------------|
| Module Type | ZXM6-NHLDD144 -425/M | ZXM6-NHLDD144 -430/M | ZXM6-NHLDD144 -435/M | ZXM6-NHLDD144 -440/M | ZXM6-NHLDD144 -445/M | ZXM6-NHLDD144 -450/M |
| Nominal Power Watt Pmax (W) | 425 | 430 | 435 | 440 | 445 | 450 |
| Power Output Tolerance Pmax (%) | 0~+3 | 0~+3 | 0~+3 | 0~+3 | 0~+3 | 0~+3 |
| Maximum Power Voltage Vmp (V) | 41.1 | 41.3 | 41.5 | 41.7 | 41.9 | 42.1 |
| Maximum Power Current Imp (A) | 10.35 | 10.42 | 10.49 | 10.56 | 10.63 | 10.70 |
| Open Circuit Voltage Voc (V) | 49.5 | 49.7 | 49.9 | 50.1 | 50.3 | 50.5 |
| Short Circuit Current Isc (A) | 11.00 | 11.07 | 11.14 | 11.21 | 11.28 | 11.35 |
| Module Efficiency (%) | 19.55 | 19.78 | 20.01 | 20.24 | 20.47 | 20.70 |
| STC (Standard Test Condition): Irradiance 1000W/m ² The data above is for reference only and the actual of Electrical Properties NOCT/NMO | data is in accordance with the p | M 1.5 practical testing | | | | |
| Maximum Power Pmax (Wp) | 316.7 | 320.3 | 323.9 | 327.6 | 330.6 | 334.3 |
| Maximum Power Voltage Vmpp (V) | 38.0 | 38.2 | 38.4 | 38.5 | 38.7 | 38.9 |
| Maximum Power Current Impp (A) | 8.34 | 8.39 | 8.44 | 8.50 | 8.53 | 8.58 |
| Open Circuit Voltage Voc (V) | 46.1 | 46.3 | 46.5 | 46.6 | 46.8 | 47.0 |
| Short Circuit Current Isc (A) | 8.88 | 8.94 | 8.99 | 9.05 | 9.11 | 9.17 |
| MOT(Nominal module operating temperature):Irradia the data above is for reference only and the actual data lectrical characteristics with 25% re | ta is in accordance with the prac | ature 20°C, AM 1.5, Wind S tical testing. | peed 1m/s | | | |
| Front power Pmax/W | 425 | 430 | 435 | 440 | 445 | 450 |
| Total power Pmax/W | 531 | 538 | 544 | 550 | 556 | 562 |
| Vmp/V (Total) | 41.2 | 41.4 | 41.6 | 41.8 | 42.0 | 42.2 |
| Imp/A (Total) | 12.89 | 13.00 | 13.08 | 13.16 | 13.24 | 13.32 |
| Voc/V (Total) | 49.6 | 49.8 | 50.0 | 50.2 | 50.4 | 50.6 |
| lsc/A (Total) | 13.54 | 13.65 | 13.73 | 13.81 | 13.89 | 13.97 |
| | | | | | | |

Temperature Ratings

| NMOT | 44°C ±2°C |
|---|-----------|
| Temperature coefficient of Pmax | -0.36%/℃ |
| Temperature coefficient of Voc | -0.29%/℃ |
| Temperature coefficient of Isc | 0.05%/℃ |
| Refer. Bifacial Factor | 70±5% |
| Do not connect Euro in Combiner Box with two or more strings in parallel connection | |

^{*}Do not connect Fuse in Combiner Box with two or more strings in parallel connection

Working Conditions

| Maximum system voltage | 1500 V DC | |
|--------------------------|----------------------------|--|
| Operating temperature | -40°C~+85°C / -40°F~+185°F | |
| Maximum series fuse | 20 A | |
| Maximum load (snow/wind) | 5400 Pa / 2400 Pa | |

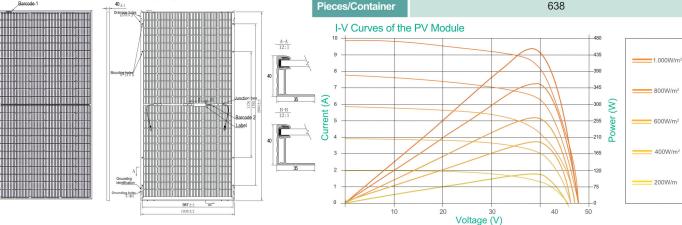
Dimensions of the PV Module (mm)

Mechanical Data

| Solar cells | Mono 166×83mm |
|------------------|---|
| No. of Cells | 144 (6 × 24) |
| Module dimension | 2094×1038×40mm / 82.44×40.87×1.57" (W/ Frame) |
| Weight | 28.2 kg / 62.17 lbs |
| Glass | 2.0mm + 2.0mm heat strengthened glass |
| Junction box | IP 68, 3 diodes |
| Cables | 4mm² , 350mm / 13.78" |
| Connectors | MC4-compatible |

Packaging Information

| Packing Type | 40' HQ |
|------------------|--------|
| Pieces/Box | 27 |
| Pieces/Container | 638 |



Speed Solar Inc., P.O. Box 245, Deerfield, WI 53531 Tel: 608-264-4900 E-mail: sales@speedsolar.net www.speedsolar.net

Note: Please read safety and installation instructions available from Speed Solar before using the product | Specifications are subject to change without prior notice © Speed Solar 2020 | Version: ZXM6-NHLDD144-2007.E