

FRONT

BACK

BiHiKu

HIGH POWER BIFACIAL MONO PERC MODULE

430 W ~ 455 W

UP TO 30% MORE POWER FROM THE BACK SIDE

CS3W-430 | 435 | 440 | 445 | 450 | 455MB-AG

MORE POWER



Up to 30% more power from the back side



24 % higher front side power than conventional modules



Low NMOT: $41 \pm 3 \text{ }^\circ\text{C}$
Low temperature coefficient (Pmax): $-0.35 \text{ \% / }^\circ\text{C}$



Better shading tolerance

MORE RELIABLE



Lower internal current, lower hot spot temperature



Minimizes micro-crack impacts



Heavy snow load up to 5400 Pa, wind load up to 3600 Pa *



Enhanced Product Warranty on Materials and Workmanship*



Linear Power Performance Warranty*

**1st year power degradation no more than 2%
Subsequent annual power degradation no more than 0.45%**

*According to the applicable Canadian Solar Limited Warranty Statement.

MANAGEMENT SYSTEM CERTIFICATES*

ISO 9001:2015 / Quality management system
ISO 14001:2015 / Standards for environmental management system
ISO 45001: 2018 / International standards for occupational health & safety

PRODUCT CERTIFICATES*

IEC 61215 / IEC 61730 / CE / MCS / INMETRO
FSEC (US Florida) / UL 61730 / IEC 61701 / IEC 62716 / IEC 60068-2-68
Take-e-way



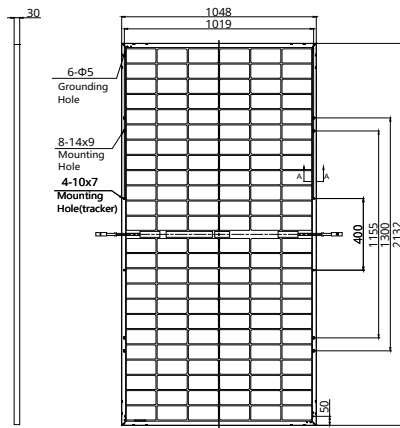
* The specific certificates applicable to different module types and markets will vary, and therefore not all of the certifications listed herein will simultaneously apply to the products you order or use. Please contact your local Canadian Solar sales representative to confirm the specific certificates available for your product and applicable in the regions in which the products will be used.

CSI Solar Co., Ltd. is committed to providing high quality solar products, solar system solutions and services to customers around the world. Canadian Solar was recognized as the No. 1 module supplier for quality and performance/price ratio in the IHS Module Customer Insight Survey, and is a leading PV project developer and manufacturer of solar modules, with over 50 GW deployed around the world since 2001.

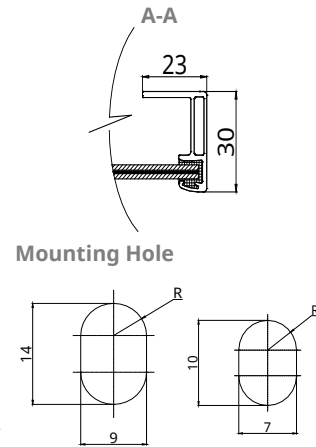
* For detailed information, please refer to Installation Manual.

ENGINEERING DRAWING (mm)

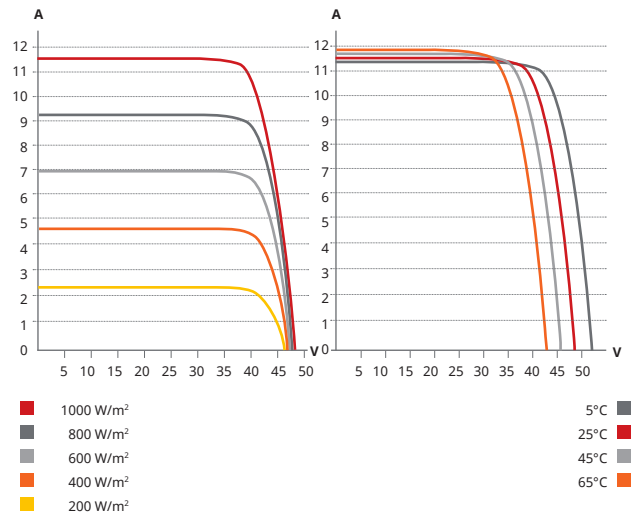
Rear View



Frame Cross Section



CS3W-435MB-AG / I-V CURVES



ELECTRICAL DATA | STC*

| | Nominal Max. Power (Pmax) | Opt. Operating Voltage (Vmp) | Opt. Operating Current (Imp) | Open Circuit Voltage (Voc) | Short Circuit Current (Isc) | Module Efficiency |
|------------------------|---------------------------|------------------------------|------------------------------|----------------------------|-----------------------------|-------------------|
| CS3W-430MB-AG | 430 W | 40.3 V | 10.68 A | 48.3 V | 11.37 A | 19.2% |
| Bifacial Gain** | 5% | 452 W | 40.3 V | 11.21 A | 48.3 V | 20.2% |
| | 10% | 473 W | 40.3 V | 11.75 A | 48.3 V | 21.2% |
| | 20% | 516 W | 40.3 V | 12.82 A | 48.3 V | 23.1% |
| | 30% | 559 W | 40.3 V | 13.88 A | 48.3 V | 25.0% |
| CS3W-435MB-AG | 435 W | 40.5 V | 10.75 A | 48.5 V | 11.42 A | 19.5% |
| Bifacial Gain** | 5% | 457 W | 40.5 V | 11.29 A | 48.5 V | 20.5% |
| | 10% | 479 W | 40.5 V | 11.83 A | 48.5 V | 21.4% |
| | 20% | 522 W | 40.5 V | 12.90 A | 48.5 V | 23.4% |
| | 30% | 566 W | 40.5 V | 13.98 A | 48.5 V | 25.3% |
| CS3W-440MB-AG | 440 W | 40.7 V | 10.82 A | 48.7 V | 11.48 A | 19.7% |
| Bifacial Gain** | 5% | 462 W | 40.7 V | 11.36 A | 48.7 V | 20.7% |
| | 10% | 484 W | 40.7 V | 11.90 A | 48.7 V | 21.7% |
| | 20% | 528 W | 40.7 V | 12.98 A | 48.7 V | 23.6% |
| | 30% | 572 W | 40.7 V | 14.07 A | 48.7 V | 25.6% |
| CS3W-445MB-AG | 445 W | 40.9 V | 10.89 A | 48.9 V | 11.54 A | 19.9% |
| Bifacial Gain** | 5% | 467 W | 40.9 V | 11.43 A | 48.9 V | 20.9% |
| | 10% | 490 W | 40.9 V | 11.98 A | 48.9 V | 21.9% |
| | 20% | 534 W | 40.9 V | 13.07 A | 48.9 V | 23.9% |
| | 30% | 579 W | 40.9 V | 14.16 A | 48.9 V | 25.9% |
| CS3W-450MB-AG | 450 W | 41.1 V | 10.96 A | 49.1 V | 11.60 A | 20.1% |
| Bifacial Gain** | 5% | 473 W | 41.1 V | 11.51 A | 49.1 V | 21.2% |
| | 10% | 495 W | 41.1 V | 12.06 A | 49.1 V | 22.2% |
| | 20% | 540 W | 41.1 V | 13.15 A | 49.1 V | 24.2% |
| | 30% | 585 W | 41.1 V | 14.25 A | 49.1 V | 26.2% |
| CS3W-455MB-AG | 455 W | 41.3 V | 11.02 A | 49.3 V | 11.66 A | 20.4% |
| Bifacial Gain** | 5% | 478 W | 41.3 V | 11.57 A | 49.3 V | 21.4% |
| | 10% | 501 W | 41.3 V | 12.12 A | 49.3 V | 22.4% |
| | 20% | 546 W | 41.3 V | 13.22 A | 49.3 V | 24.4% |
| | 30% | 592 W | 41.3 V | 14.33 A | 49.3 V | 26.5% |

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m², spectrum AM 1.5 and cell temperature of 25°C.

** Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on mounting (structure, height, tilt angle etc.) and albedo of the ground.

ELECTRICAL DATA

| | |
|----------------------------|--|
| Operating Temperature | -40°C ~ +85°C |
| Max. System Voltage | 1500 V (IEC/UL) or 1000 V (IEC/UL) |
| Module Fire Performance | TYPE 29 (UL 61730) or CLASS C (IEC61730) |
| Max. Series Fuse Rating | 25 A |
| Application Classification | Class A |
| Power Tolerance | 0 ~ + 10 W |
| Power Bifaciality* | 70 % |

* Power Bifaciality = $P_{max_{rear}} / P_{max_{front}}$, both $P_{max_{rear}}$ and $P_{max_{front}}$ are tested under STC, Bifaciality Tolerance: ± 5 %

* The specifications and key features contained in this datasheet may deviate slightly from our actual products due to the on-going innovation and product enhancement. CSI Solar Co., Ltd. reserves the right to make necessary adjustment to the information described herein at any time without further notice. Please be kindly advised that PV modules should be handled and installed by qualified people who have professional skills and please carefully read the safety and installation instructions before using our PV modules.

ELECTRICAL DATA | NMOT*

| | Nominal Max. Power (Pmax) | Opt. Operating Voltage (Vmp) | Opt. Operating Current (Imp) | Open Circuit Voltage (Voc) | Short Circuit Current (Isc) |
|----------------------|---------------------------|------------------------------|------------------------------|----------------------------|-----------------------------|
| CS3W-430MB-AG | 322 W | 37.7 V | 8.54 A | 45.6 V | 9.17 A |
| CS3W-435MB-AG | 326 W | 37.9 V | 8.59 A | 45.8 V | 9.21 A |
| CS3W-440MB-AG | 329 W | 38.1 V | 8.65 A | 46 V | 9.26 A |
| CS3W-445MB-AG | 333 W | 38.3 V | 8.71 A | 46.1 V | 9.31 A |
| CS3W-450MB-AG | 337 W | 38.5 V | 8.76 A | 46.3 V | 9.35 A |
| CS3W-455MB-AG | 341 W | 38.7 V | 8.82 A | 46.5 V | 9.40 A |

* Under Nominal Module Operating Temperature (NMOT), irradiance of 800 W/m², spectrum AM 1.5, ambient temperature 20°C, wind speed 1 m/s.

MECHANICAL DATA


| Specification | Data |
|------------------------------------|---|
| Cell Type | Mono-crystalline |
| Cell Arrangement | 144 [2 X (12 X 6)] |
| Dimensions | 2132 × 1048 × 30 mm (83.9 × 41.3 × 1.2 in) |
| Weight | 28.4 kg (62.6 lbs) |
| Front / Back Glass | 2.0 mm heat strengthened glass |
| Frame | Anodized aluminium alloy |
| J-Box | IP68, 3 diodes |
| Cable | 4.0 mm ² (IEC), 12 AWG (UL) |
| Cable Length (Including Connector) | 400 mm (15.7 in) (+) / 280 mm (11.0 in) (-) or customized length* |
| Connector | T4 series or H4 UTX or MC4-EVO2 |
| Per Pallet | 33 pieces |
| Per Container (40' HQ) | 660 pieces or 561 pieces (only for US) |

* For detailed information, please contact your local Canadian Solar sales and technical representatives.

TEMPERATURE CHARACTERISTICS

| Specification | Data |
|--------------------------------------|--------------|
| Temperature Coefficient (Pmax) | -0.35 % / °C |
| Temperature Coefficient (Voc) | -0.27 % / °C |
| Temperature Coefficient (Isc) | 0.05 % / °C |
| Nominal Module Operating Temperature | 41 ± 3°C |

PARTNER SECTION



BayWa r.e. Solar Systems Inc.
4703-101 Street NW, T6E 5G5
Edmonton, AB
Tel: +1 844 851 2390
solar.distribution@baywa-re.ca