ECLIPSE

N-TYPE BACK CONTACT TECHNOLOGY

Wood Mackenzie Grade A | TIER 1 BloombergNEF | SMM TIER 1 GLOBAL TIER 1 AWARD

Deutsche Qualität Garantiert

470W-490W / ICMD-108BDE

108
HALF CELLS

24.00%
MAXIMUM EFFICIENCY

- **5%** higher power density per unit area versus conventional modules
- True all-black aesthetics with **front gridless cells** for architectural integration
- **>88.8%** power retention guaranteed after 30 years – industry-leading durability
- **Hotspot-resistant** design prevents fire risks under shading conditions
- **-0.26%/°C** temperature coefficient ensures superior performance in heat

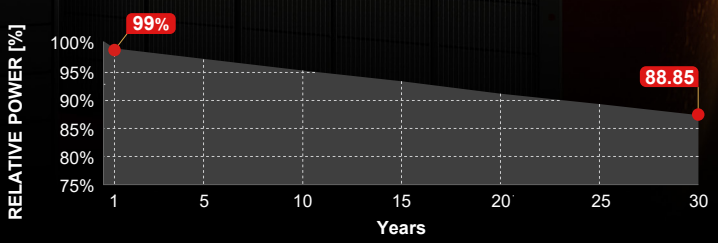


30 YEARS
Performance Warranty

up to 30 YEARS*
Product Warranty

*The regular product warranty is 15 years, please refer to the latest version of AESOLAR Limited Warranty for the duration of the product warranty under special conditions. for extensions, please contact AESOLAR staff.

OUR PERFORMANCE WARRANTY



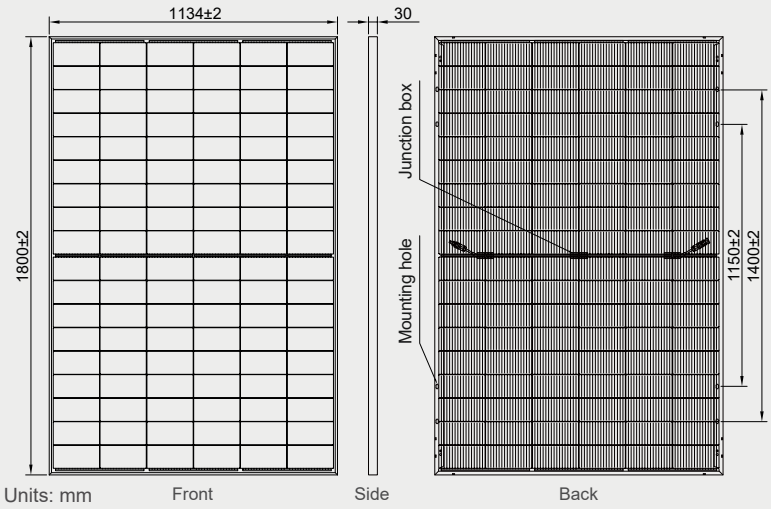
AESOLAR SINCE 2003

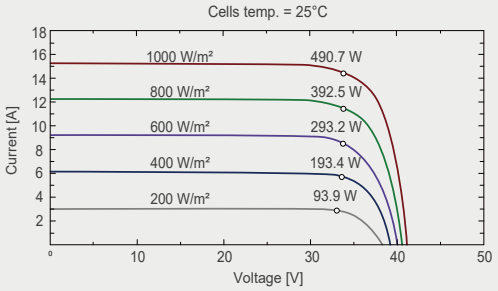
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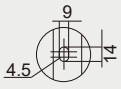
AE ICMD-108BDE 470W-490W

N-TYPE BACK CONTACT TECHNOLOGY

BLACK • DOUBLE-GLASS







Mounting hole



Section A-A



Section B-B

Electrical specifications (STC*):

Nominal max. power	P_{max} (Wp)	470	475	480	485	490
Maximum operating voltage	V_{MPP} (V)	33.29	33.40	33.51	33.62	33.73
Maximum operating current	I_{MPP} (A)	14.13	14.23	14.33	14.43	14.53
Open-circuit voltage	V_{oc} (V)	40.31	40.42	40.53	40.64	40.75
Short-circuit current	I_{sc} (A)	14.78	14.88	14.98	15.08	15.18
Module efficiency	η (%)	23.00	23.30	23.50	23.80	24.00
Power tolerance		0~3%				
Maximum system voltage	(V)	DC1500V (IEC)				
Maximum series fuse rating	(A)	30				

*STC: Standard Test Conditions (irradiance 1000 W/m², cell temperature 25°C and air mass of AM1.5), measurement tolerance Pmax: ±3%

Electrical specifications (NOCT*):

Nominal max. power	P_{max} (Wp)	357	361	365	369	373
Maximum operating voltage	V_{MPP} (V)	31.60	31.71	31.82	31.93	32.05
Maximum operating current	I_{MPP} (A)	11.30	11.39	11.48	11.56	11.65
Open-circuit voltage	V_{oc} (V)	38.28	38.39	38.50	38.61	38.73
Short-circuit current	I_{sc} (A)	11.84	11.93	12.02	12.10	12.19

*NOCT: Nominal Operating Cell Temperature (irradiance 800 W/m², ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

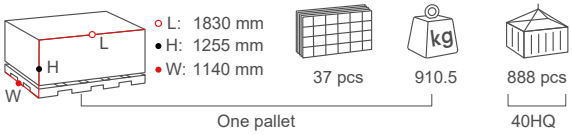
Electrical specifications
with different rear side power gain (reference to 470W front)

Nominal max. power	P_{max} (Wp)	494	517	541	564	588
Maximum operating voltage	V_{MPP} (V)	33.29	33.29	33.39	33.39	33.39
Maximum operating current	I_{MPP} (A)	14.82	15.53	16.19	16.89	17.60
Open-circuit voltage	V_{oc} (V)	40.31	40.31	40.41	40.41	40.41
Short-circuit current	I_{sc} (A)	15.52	16.26	17.00	17.74	18.48
$P_{max\ gain}$		5%	10%	15%	20%	25%

Mechanical and design specification

Cell type	n-Type Back Contact technology, half-cut cells
No. of cells	108
Glass	Dual glass, 2.0+1.6 mm, semi-tempered
Bifaciality	70 ± 5%
Junction box	IP68 rated, 3 bypass diodes
Frame	30 mm black anodized aluminum alloy frame
Cable (Including Connector)	4mm² +400, -200mm/±1400mm length can be customized
Connectors	MC 4 / MC 4 compatible
Dimension	1800 mm x 1134 mm x 30 mm
Weight	23.5 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa or 244 kg/m²
Snow load	5400 Pa or 550 kg/m²
Fire rating	IEC Class C (UL type 29)
Protection class	Class II

Packaging information



Temperature ratings

Operating temperature	-40 to +85°C
Temp. coefficient of P_{max}	-0.26 %/°C
Temp. coefficient of V_{oc}	-0.20 %/°C
Temp. coefficient of I_{sc}	0.050 %/°C
Nom. operating cell temp. NOCT	45 ± 2°C

SYSTEM AND PRODUCT CERTIFICATIONS

The specifications and characteristics contained in this datasheet may deviate slightly from our actual products due to the product developments and uncertainty of measurement devices. The specifications included in the datasheet are subject to change without prior notice.

AESOLAR Since 2003

+49 8231 978268 0
sales@ae-solar.com
www.ae-solar.com

AESOLAR
Senefelderstraße 23
86368 Gersthofen, Germany