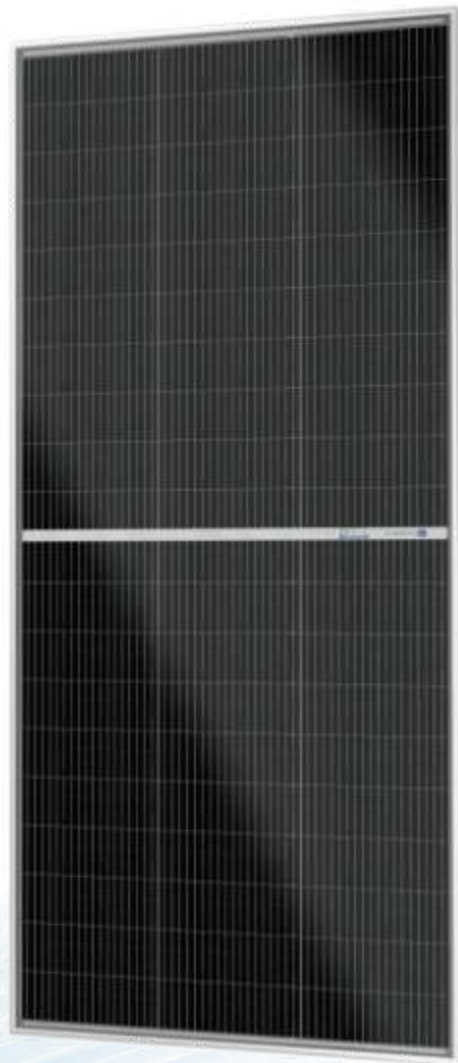




Monocrystalline

# SOLAR PANEL MANUAL



## SUPPORT

If you are experiencing technical problems and cannot find a solution in this manual, please contact ECO-WORTHY for further assistance.



·Call: 1-866 939 8222(US)  
+44 7553 4069 88(UK)  
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·Web: [www.eco-worthy.com/](http://www.eco-worthy.com/)

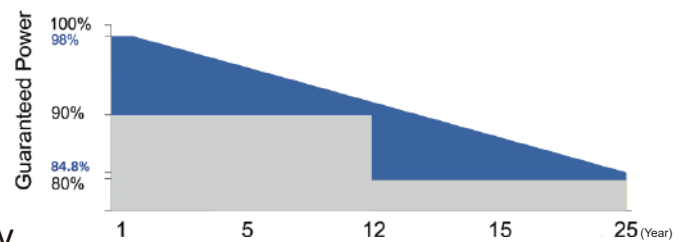
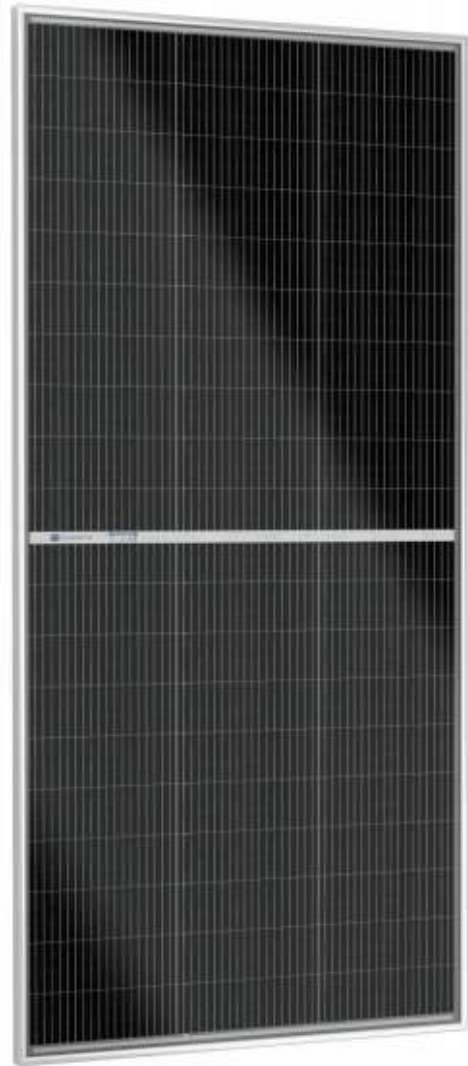
·E-mail: [customer.service@eco-worthy.com](mailto:customer.service@eco-worthy.com)



## 195W 18V Bifacial MONO Solar Panel

High-Efficiency Monocrystalline  
N-Type PV Module

- ▶ Bifacial generation
- ▶ IP68 waterproof
- ▶ Durable aluminum frame
- ▶ Over 25 years lifespan
- ▶ Built-in diode to prevent reverse current
- ▶ High bearing capacity with tempered glass
- ▶ Up to 15% bifacial gain in generation efficiency



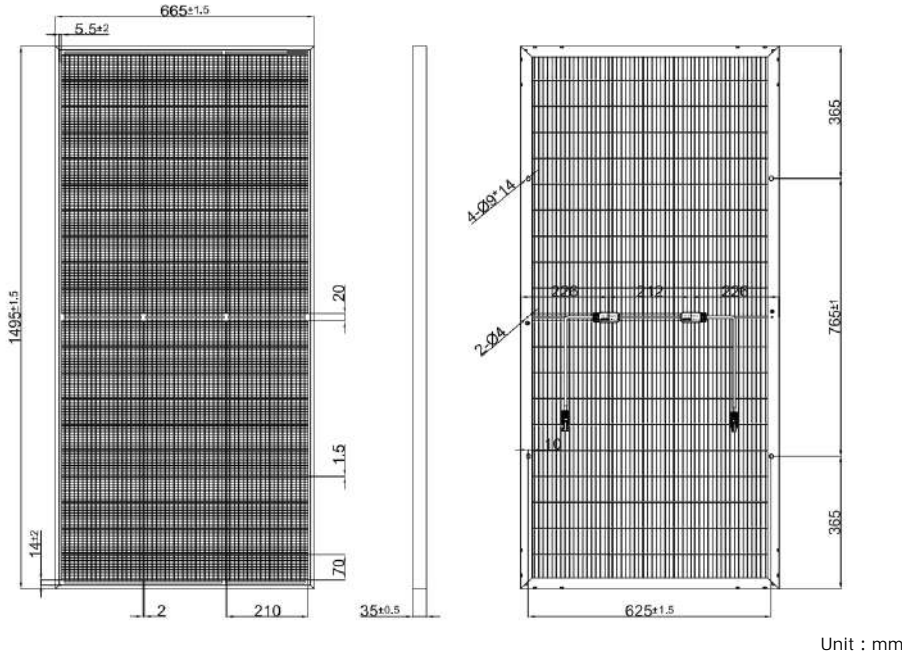
# 195W 18V

## Bifacial Mono Solar Panel



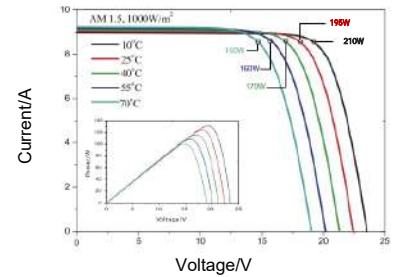
# ECO-WORTHY

### Module Diagram:

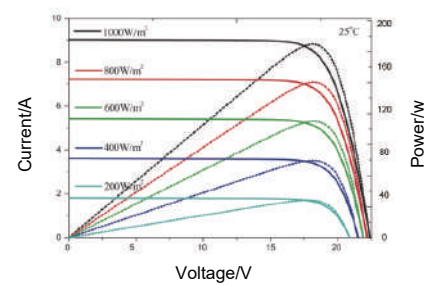


### I-V Curves:

I-V Curves of PV Module(195W)



P-V Curves of PV Module(195W)



Mechanical Parameters	
Cell Type	Monocrystalline Silicon N-Type
No. of cells	60 (3*10*2)
Front Glass	3.2mm, High Transmission, AR Coated Tempered Glass
Frame	Anodized aluminum alloy frame
Junction Box	IP68
Number of Diodes	2
Protection Class	Class II
Fire Rating	Class C
Connector Type	MC4
Output Cable	4mm², 900mm (with Connectors)
Dimension	1495*665*35mm/58.86*26.18*1.37in
Weight	10.50kg/23.15 lbs
Operating Temperature	-40°C~+80°C

Electrical Characteristics	
Module Type	ECO-SM-BM195W
Maximum Power - Pmax [W]	195W ±3%
Maximum Power Voltage - Vmp [V]	18.3V ±3%
Maximum Power Current - Imp [A]	10.90A ±3%
Open Circuit Voltage - Voc [V]	21.2V ±3%
Short Circuit Current - Isc [A]	11.60A ±3%
Module Efficiency STC [%]	19.60%
Power Tolerance	±3%
Temperature Coefficient of Pmax	-0.35%/C
Temperature Coefficient of Voc	-0.23%/C
Temperature Coefficient of Isc	+0.05%/C
Testing Condition(STC)	All technical data at STC: AM=1.5 Irradiance=1000w/m² Tc=25 C
Maximum System Voltage	1000Vdc
Maximum Series Fuse Rating	15A



## 1) Customer service telephone numbers:

**Tel(DE):** +49 6175 6514 999

**Tel(US):** 1-866-939-8222

**Tel(UK):** +44 7553 4069 88

## 2) Company address: USA/Germany



**Address(US):** 4411 East State Hwy D Suite C Springfield, Missouri 65809



**Address(DE):** ECO-Worthy Europe GmbH Otto-Hahn-Str. 20  
61381 Friedrichsdorf - Köppern Germany

## 3) Customer service email:



**E-mail:** [customer.service@eco-worthy.com](mailto:customer.service@eco-worthy.com)

## 4) Official website address:



**Web:** <https://www.eco-worthy.com/>

## 5) Official social media:



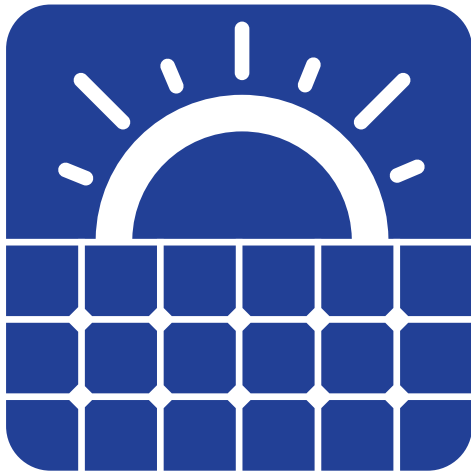
**Facebook:** <https://www.facebook.com/ecoworthy.store/>



**Youtube:** @ecoworthy



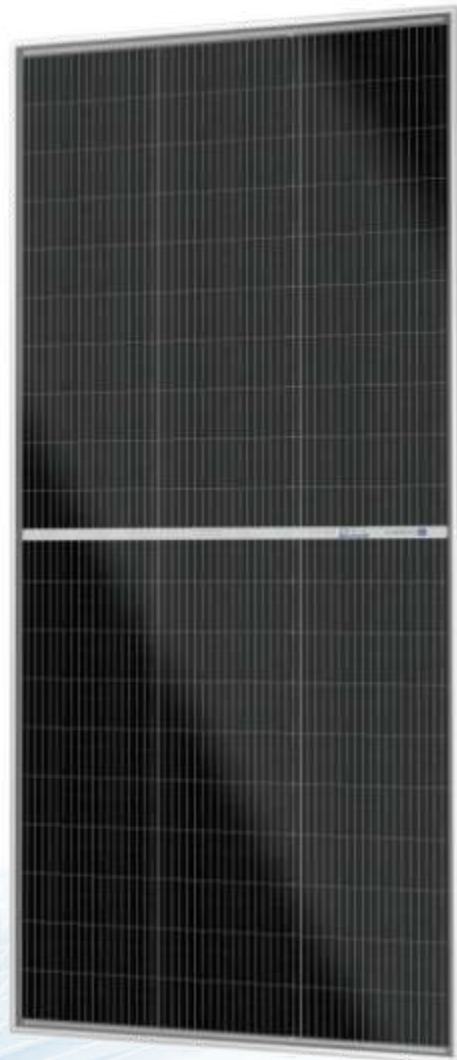
**Tiktok:** [https://www.tiktok.com/@eco\\_worthy](https://www.tiktok.com/@eco_worthy)



**ECO-WORTHY**

**Monokristallin**

# SONNENKOLLEKTOR HANDBUCH



## UNTERSTÜTZUNG

Wenn Sie technische Probleme haben und in diesem Handbuch keine Lösung finden können, wenden Sie sich für weitere Unterstützung bitte an ECO-WORTHY.



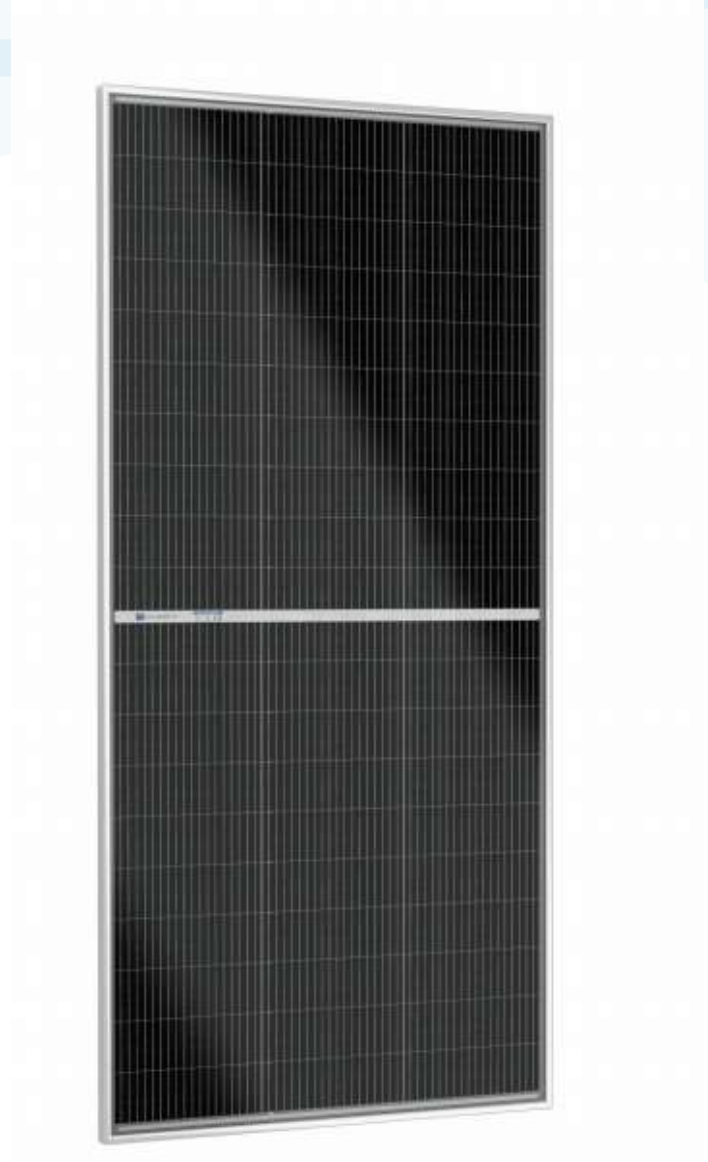
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+49 6175 6514 999(DE)

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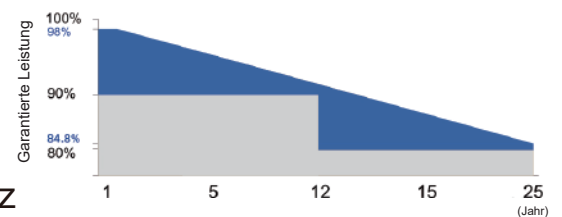
·E-mail: [customer.service@eco-worthy.com](mailto:customer.service@eco-worthy.com)

# 195W 18V bifaziales MONO-Solarmodul

Hocheffiziente Monokristalline  
N-Typ PV Module



- ▶ Bifaziale Erzeugung
- ▶ IP68 wasserdicht
- ▶ Robuster Aluminiumrahmen
- ▶ Über 25 Jahre Lebensdauer
- ▶ Eingebaute Diode zur Vermeidung von Rückstrom
- ▶ Hohe Tragkraft durch gehärtetes Glas
- ▶ Bis zu 15 % mehr bifaziale Energieerzeugungseffizienz



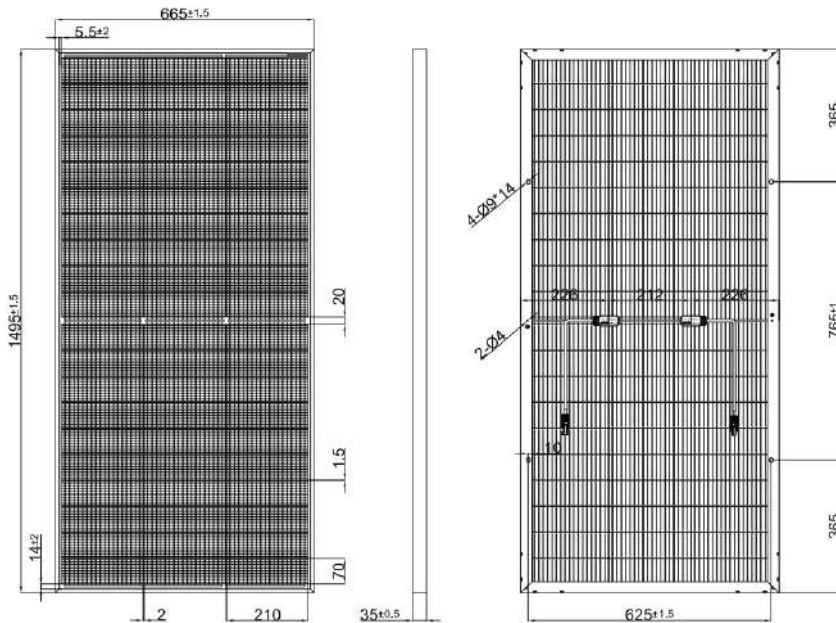
# 195W 18V

Bifaziales monokristallines Solarmodul



# ECO-WORTHY

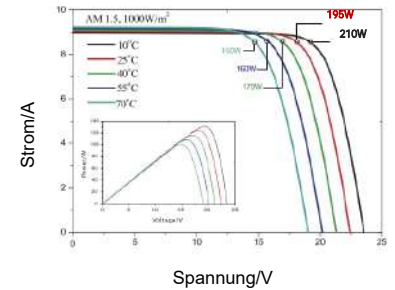
## Moduldiagramm:



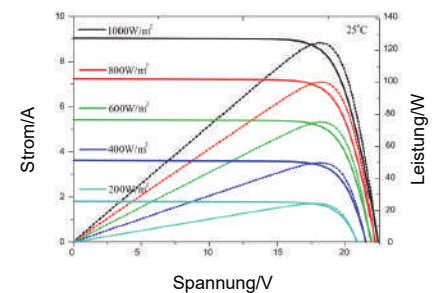
Unit : mm

## I-V-Kurven:

I-V-Kurven des PV-Moduls (195 W)



P-V-Kurven des PV-Moduls (195 W)



Mechanische Parameter	
Zelltyp	Monokristallin Silizium N-Type
Zellenzahl	60 (3*10*2)
Frontglas	3,2 mm, hohe Lichtdurchlässigkeit, AR-beschichtetes gehärtetes Glas
Rahmen	Rahmen aus eloxierter Aluminiumlegierung
Anschlussdose	IP68
Anzahl Dioden	2
Schutzklasse	Klasse II
Brandschutzklasse	Klasse C
Anschlusstyp	MC4
Ausgangskabel	4 mm², 900 mm (mit Anschlüssen)
Abmessungen	1495*665*35 mm/58,86*26,18*1,37 Zoll
Gewicht	10,5 kg/23,15 lbs
Betriebstemperatur	-40 °C ~ +80 °C

Elektrische Eigenschaften	
Modultyp	ECO-SM-BM195W
Maximale Leistung - Pmax [W]	195W ±3%
Maximale Leistungsspannung - Vmp [V]	18,3V ±3%
Maximaler Leistungsstrom - Imp [A]	10,9 A ±3%
Leerlaufspannung - Voc [V]	21,2 V ±3%
Kurzschlussstrom - Isc [A]	11,60A ±3%
Modulwirkungsgrad STC [%]	19,60%
Leistungstoleranz	±3%
Temperaturkoeffizient von Pmax	-0,35%/C
Temperaturkoeffizient von Voc	-0,23%/C
Temperaturkoeffizient von Isc	+0,05%/C
Testbedingung (STC)	Alle technischen Daten bei STC:AM=1,5 Bestrahlungs- sstärke=1000w/m² Tc=25 C
Maximale Systemspannung	1000Vdc
Maximale Nennleistung der Seriensicherung	15A



## 1) Telefonnummern des Kundendienstes:

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## 4) Offizielle Website-Adresse:



**Web:** <https://www.eco-worthy.com/>

## 5) Offizielle soziale Medien:



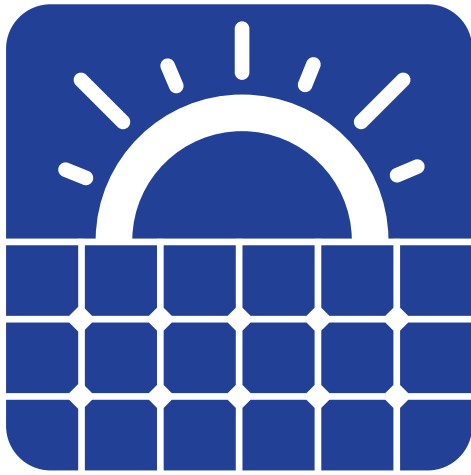
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