

# Half Cut

DOUBLE GLASS



### Reliability Tested & Verified

High Performance Durability Under Extended Stress



### High Conversion Efficiency

High panel efficiency to guarantee high power output



### Self-Cleaning And Anti-Reflection Glass

Coating glass for self-cleaning reduces surface dust



### Outstanding Low Irradiation Glass

Outstanding panel performance even in weak light conditions



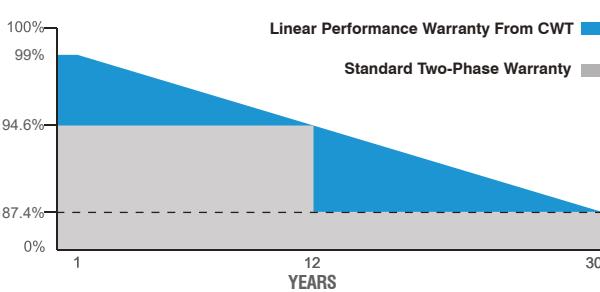
### 0~+5Wp Positive Power Tolerance



### Easy Installation



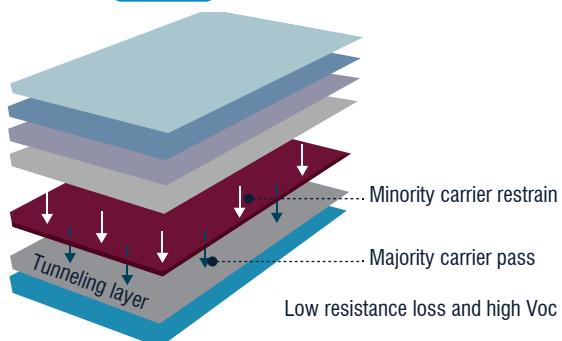
### Double Sided Power Generation



30 Years Performance Warranty



12 Years Product Warranty



**CWT450-108TNB10 450 Wp**  
**CWT445-108TNB10 445 Wp**  
**CWT440-108TNB10 440 Wp**  
**CWT435-108TNB10 435 Wp**  
**CWT430-108TNB10 430 Wp**  
**CWT425-108TNB10 425 Wp**  
**CWT420-108TNB10 420 Wp**



IEC 61215, IEC 61730-1, IEC 61730-2 IEC 63209-1  
 ISO 9001:2015, ISO 14001:2015, ISO 45001:2018  
 UL 61730-1, UL 61730-2

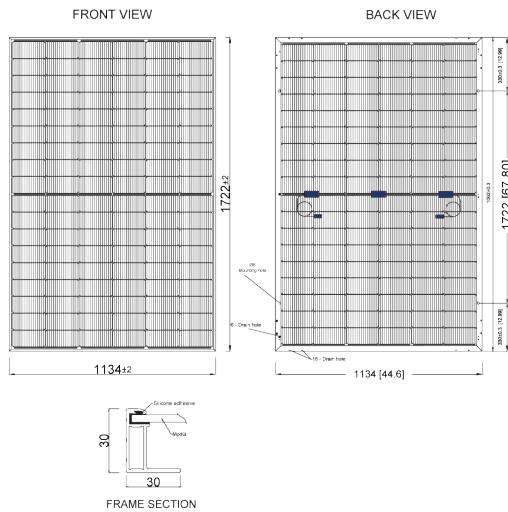
## ELECTRICAL CHARACTERISTICS

Model Type	CWT420 108TNB10	CWT425 108TNB10	CWT430 108TNB10	CWT435 108TNB10	CWT440 108TNB10	CWT445 108TNB10	CWT450 108TNB10
<b>Peak Power (Pmax)</b>	420 Wp	425 Wp	430 Wp	435 Wp	440 Wp	445 Wp	450 Wp
<b>Module Efficiency</b>	21.51	21.76	22.02	22.28	22.53	22.79	23.04
<b>Maximum Power Voltage (VmP)</b>	31.94	32.14	32.34	32.54	32.74	32.94	33.14
<b>Maximum Power Current (ImP)</b>	13.15	13.23	13.30	13.37	13.44	13.51	13.58
<b>Open Circuit Voltage (Voc)</b>	38.11	38.31	38.51	38.71	38.91	39.11	39.31
<b>Short Circuit Current (Isc)</b>	13.95	14.03	14.10	14.17	14.24	14.31	14.38
<b>Power Tolerance</b>	0~+5W						
<b>Maximum System Voltage</b>	1500V DC						
<b>Operating Temperature</b>	-40 ~ +85°C						
<b>Protection Class</b>	Class II						
<b>Fire Class</b>	Type 29						
<b>Maximum Series Fuse Rating</b>	25A						
<b>Bifaciality Rate</b>	%80±5						

## MECHANICAL SPECIFICATIONS

<b>Cell Dimensions(mm)</b>	182,2x91,8
<b>Cells per Module(pcs)</b>	108 (6x18)
<b>Weight(kg)</b>	25.0
<b>Panel Dimensions(mm)</b>	1722x1134x30
<b>Max. Wind/Snow Load(Pa)</b>	2400/5400
<b>Junction Box</b>	IP68
<b>Junction Box Cable Length(mm)</b>	300-1600
<b>Glass Thickness (mm)</b>	2.0 / 2.0

## PHYSICAL CHARACTERISTICS



## TEMPERATURE CHARACTERISTICS

(435W Front Power Referenced)

<b>Rear Side Power Gain</b>	5%	10%	15%	20%	25%
<b>Peak Power (Pmax)</b>	456,75	478,50	500,25	522	543,75
<b>Short Circuit Current (Isc)</b>	14,88	15,59	16,30	17,00	17,71
<b>Open Circuit Voltage (Voc)</b>	40,65	42,58	44,52	46,45	48,39
<b>Maximum Power Current (ImP)</b>	14,04	14,71	15,38	16,04	16,71
<b>Maximum Power Voltage (VmP)</b>	34,17	35,80	37,42	39,05	40,68

## TEMPERATURE CHARACTERISTICS

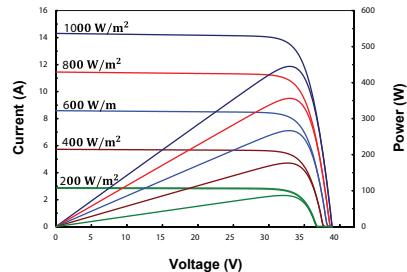
<b>Temp. Coeff. of (Isc)</b>	0.040%/°C
<b>Temp. Coeff. of (Voc)</b>	-0.260%/°C
<b>Temp. Coeff. of (Pmax)</b>	-0.300%/°C

## PACKING CONFIGURATION

<b>Container</b>	40' HC
<b>Pieces per Pallet</b>	35
<b>Pieces Per Container</b>	910
<b>Pallet Per Container</b>	26

## ELECTRICAL CHARACTERISTICS

Current - Voltage &amp; Power - Voltage Curve (CWT445 - 108TNB10)



\* The specifications are obtained under the standard test conditions: 1000W/m<sup>2</sup> solar irradiance, 1.5 Air Mass and cell temperature of 25°C. Measurement uncertainty for all panels is 3%. The actual transactions will be subject to the contracts. These parameters are for reference only and it is not a part of the contracts. The technical specifications in this document may vary. For more information, refer to the "Installation Manual".

\* For roof, facades and installations on similar surfaces, solar panels should be mounted over a fire-resistant covering suitable for this application, with adequate ventilation between the back of the solar panels and the mounting surface. Improper installations are hazardous and may spark a fire. Solar panels must not be mounted on structures and roofs which are made of not fire-resistant materials such as plastic layer, transparent plastic, PVC or similar materials without any fire-protection layer. Usage and installation not in accordance with the guidelines as outlined in the installation manual will terminate the warranty. Please refer to the installation manual and the warranty documents for further details.

\* CW Enerji reserves the right to change the specification of products without prior notice.

Ver.2601.30