

Half Cut BIFACIAL HIGH-EFFICIENCY SOLAR PANELS • 132TNB12R



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~+5W Positive Power Tolerance



Easy Installation



Twice EVA Laminated Double Glass

DNV 
BANKABILITY

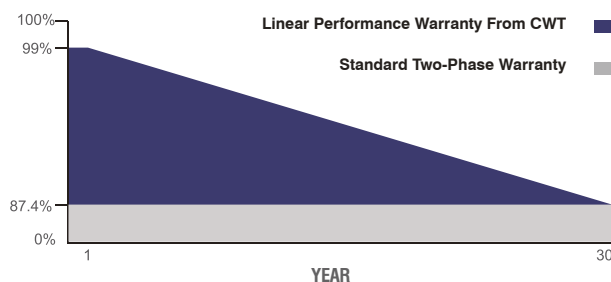
CW Enerji Module
Bankability Technical
Assessment

**DOUBLE
GLASS**



16BB

**LONG-TERM
PERFORMANCE
UNDER EXTENDED
STRESS**



CWT640-132TNB12R 640 Wp

CWT635-132TNB12R 635 Wp

CWT630-132TNB12R 630 Wp

CWT625-132TNB12R 625 Wp

CWT620-132TNB12R 620 Wp

CWT615-132TNB12R 615 Wp

CWT610-132TNB12R 610 Wp



30 Years Performance Warranty



30 Years Product Warranty



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

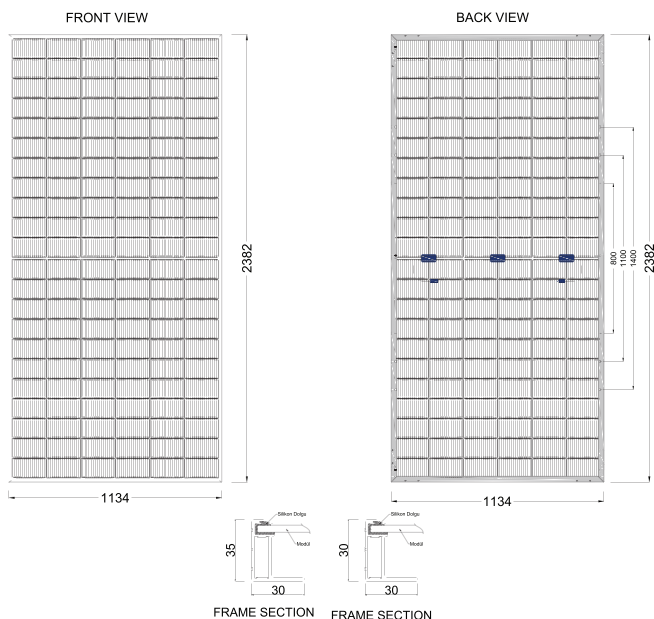
ELECTRICAL CHARACTERISTICS

Model Type	CWT610 132TNB12R	CWT615 132TNB12R	CWT620 132TNB12R	CWT625 132TNB12R	CWT630 132TNB12R	CWT635 132TNB12R	CWT640 132TNB12R
Peak Power (P _{max})	610 Wp	615 Wp	620 Wp	625 Wp	630 Wp	635 Wp	640 Wp
Module Efficiency (%)	22.58	22.77	22.95	23.14	23.32	23.51	23.69
Maximum Power Voltage (V _{mp})	40.62	40.82	41.02	41.22	41.42	41.62	41.82
Maximum Power Current (I _{mp})	15.02	15.07	15.12	15.17	15.22	15.26	15.31
Open Circuit Voltage (V _{oc})	48.59	48.79	48.99	49.19	49.39	49.59	49.79
Short Circuit Current (I _{sc})	15.90	15.96	16.02	16.08	16.14	16.20	16.26
Power Tolerance	0~+5W						
Maximum System Voltage	1500V DC						
Operating Temperature	-40 ~ +85°C						
Protection Class	Class II						
Fire Class	UL type 29 / IEC Class C						
Maximum Series Fuse Rating	25A						
Bifaciality Rate	%80±5						

MECHANICAL SPECIFICATIONS

Cell Dimensions(mm/inch)	182,3x105 / 7,17x4,14
Cells per Module(pcs)	132 (6x22)
Weight(kg/lbs)	(30 mm) 34,95 / 77,05 (35 mm) 35,95 / 79,25
Panel Dimensions(mm/inch)	2382x1134x30 / 93.78 x 44.65x1.18 2382x1134x35 / 93.78 x 44.65 x1.38
Max. Wind/Snow Load(Pa)/(lb/ft ²)	(2400 / 5400) / (50 / 112.8)
Junction Box	IP68
Connector	Original Staubli MC4-EVO2
Junction Box Cable Length(mm/inch)	350-1600 / 13.78-63.00
Glass Thickness(mm/inch)	(2.0 / 2.0) / (0.08 / 0.08)
Frame Color	Silver / Black

PHYSICAL CHARACTERISTICS



* The specifications are obtained under the standard test conditions: 1000W/m² 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.

REAR SIDE POWER GAIN

(630W Front Power Referenced)

Rear Side Power Gain	10%	20%	30%
Peak Power (P _{max})	693.00	732.00	819.00

TEMPERATURE CHARACTERISTICS

Temp. Coeff. of (I _{sc})	0.040%/°C
Temp. Coeff. of (V _{oc})	-0.260%/°C
Temp. Coeff. of (P _{max})	-0.30%/°C

PACKING CONFIGURATION

Container	40' GP	40' GP
Frame Thickness (mm)	35	30
Pieces per Pallet	31	36
Pieces Per Container	558	648
Pallet Per Container	18	18

ELECTRICAL CHARACTERISTICS

Current - Voltage & Power - Voltage Curve (CWT630 - 132TNB12R)

