

Triple≡Cut



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

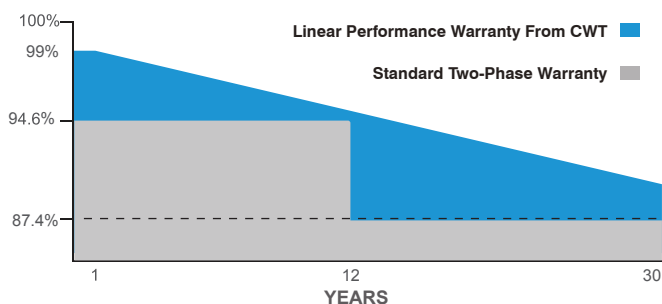
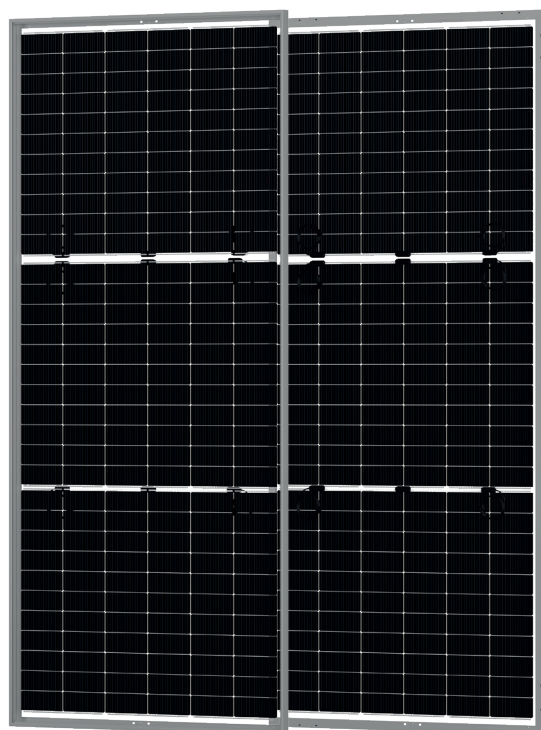
Outstanding panel performance even in weak light conditions



0~+5W Positive Power Tolerance



Easy Installation



CWT660-198TNBTS12R 660 Wp
CWT645-198TNBTS12R 645 Wp
CWT630-198TNBTS12R 630 Wp



30 Years Performance Warranty



12 Years Product Warranty



ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

BIFACIAL TOPCON MONOCRYSTALLINE • 198TNBTS12R Triple≡Cut

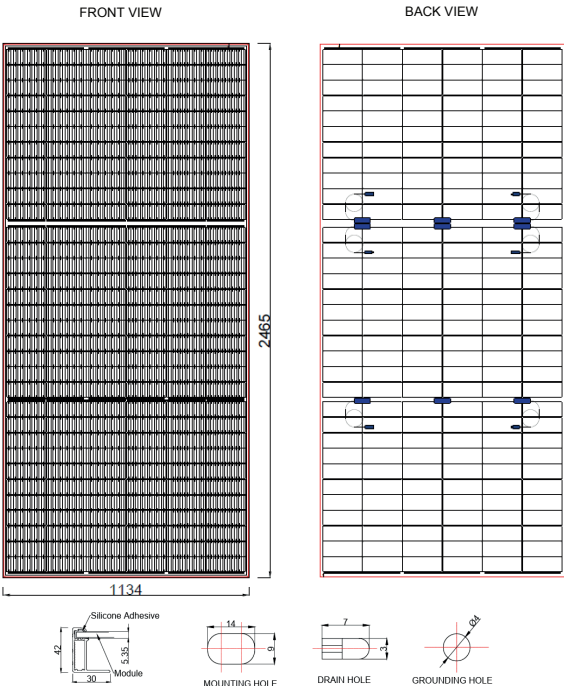
ELECTRICAL CHARACTERISTICS

Connection Type	Single Submodule			Series Connection			Parallel Connection		
Model Type	CWT210 198TNBTS12R	CWT215 198TNBTS12R	CWT220 198TNBTS12R	CWT630 198TNBTS12R	CWT645 198TNBTS12R	CWT660 198TNBTS12R	CWT630 198TNBTS12R	CWT645 198TNBTS12R	CWT660 198TNBTS12R
Peak Power (Pmax)	210	215	220	630	645	660	630	645	660
Module Efficiency	22.54	23.07	23.61	22.54	23.07	23.61	22.54	23.07	23.61
Maximum Power Voltage (Vmp)	41.92	42.12	42.32	126.01	126.61	127.21	41.84	42.04	42.24
Maximum Power Current (Imp)	5.01	5.11	5.20	5.00	5.10	5.19	15.06	15.35	15.63
Open Circuit Voltage (Voc)	50.94	51.14	51.34	153.20	153.80	154.40	50.84	51.04	51.24
Short Circuit Voltage (Isc)	5.29	5.38	5.46	5.27	5.36	5.42	15.86	16.12	16.31
Power Tolerance	0~+5W								
Maximum System Voltage	1500V DC								
Operating Temperature	-40 ~ +85°C								
Protection Class	Class II								
Fire Class	Type 29								
Maximum Series Fuse Rating	30A								

MECHANICAL SPECIFICATIONS

Cell Dimensions(mm)	182.3x70
Cells per Module(pcs)	198 (66x3)
Weight(kg)	31.46
Panel Dimensions(mm)	2465x1134x42
Max. Wind/Snow Load(Pa)	2400/5400
Junction Box	IP68
Junction Box Cable Length(mm)	300-1600

PHYSICAL CHARACTERISTICS



REAR SIDE POWER GAIN

Based on a Front-Side Rated Power of 645 Wp (Parallel Connection)

Rear-Side Power Gain	5%	10%	15%	20%	25%
Maximum Power (Pmax)	677.25	709.50	741.75	774.00	806.25
Short-Circuit Current (Isc)	16.93	17.73	18.54	19.34	20.15
Open-Circuit Voltage (Voc)	53.59	56.14	58.70	61.25	63.80
Current at Maximum Power (Imp)	16.12	16.89	17.65	18.42	19.19
Voltage at Maximum Power (Vmp)	44.14	46.24	48.35	50.45	52.55

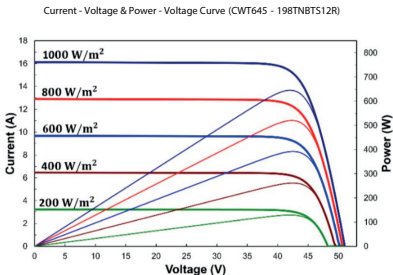
TEMPERATURE CHARACTERISTICS

Connection Type	Single Submodule	Series Connection	Parallel Connection
Temperature Coefficient of (Isc)	0.043 %/C	0.044 %/C	0.045 %/C
Temperature Coefficient of (Voc)	-0.26 %/C	-0.25 %/C	-0.24 %/C
Temperature Coefficient of (Pmax)	-0.30 %/C	-0.29 %/C	-0.28 %/C

PACKING CONFIGURATION

Container	40' GP
Pieces Per Pallet	31
Pieces Per Container	620
Pallet Per Container	20

ELECTRICAL 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.