

DS-Titan-500TC

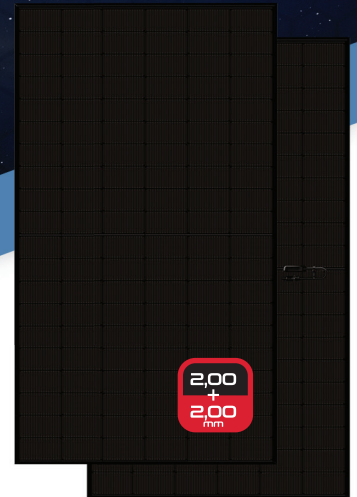
N-TOPCon

Bifacial Dual Glass Module

470-500W

22.55%

Max. Efficiency



TOPCon Technology

N-type solar cells represent a significant advancement in photovoltaic technology, offering several benefits over traditional P-type cells. Notably, N-type cells are less prone to light-induced degradation and have a higher tolerance to impurities, which results in better performance and a longer lifespan. These cells also typically exhibit higher efficiency rates, meaning they can convert more sunlight into electricity.



Boosted Power Output

Advanced tech ensures higher power from every module.



Reliable Performance

Proven durability for a long-lasting lifecycle.



Extra Energy Yield

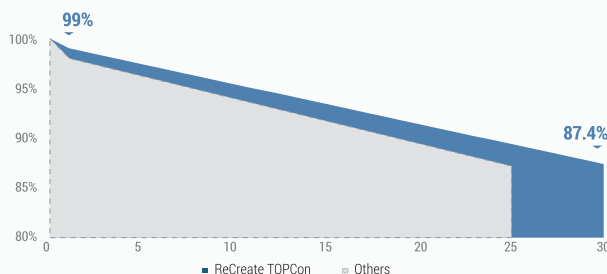
Low degradation and better low-light performance.



Optimized ROI

Bifacial reduces BOS & LCOE, increasing returns.

LINEAR PERFORMANCE WARRANTY



First Year Degradation

1.00%

Annual Degradation

0.40%

CERTIFICATIONS AND WARRANTY

Certifications	IEC 61215, IEC 61730, IEC 61701: Salt mist corrosion test
	IEC 62716: Ammonia corrosion test, IEC 60068: Dust and Sand test
Product Warranty	ISO 9001:2015; Quality Management System
	ISO 14001:2015; Environment Management System
	ISO 45001:2018; Occupational Health and Safety Management Systems
Product Warranty	12 years Product Warranty
Peak Power Warranty	30 years linear warranty



About ReCreate: Founded in 2024 by Dean Solon, Founder of Create Energy, and Hamlet Tunyan, CEO of RECOM Technologies, ReCreate is set to transform the solar energy industry. Our Portland, Tennessee facility produces up to 5GW of solar modules and cells for North America and the EU. We are dedicated to delivering superior quality, American craftsmanship, and advanced technology for sustainable energy solutions.

Electrical Characteristics (STC¹-NMOT²)

Module Type	DS-Titan-470TC		DS-Titan-475TC		DS-Titan-480TC		DS-Titan-485TC		DS-Titan-490TC		DS-Titan-495TC		DS-Titan-500TC	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Maximum Power (Pmax/W)	470	354,6	475	358,5	480	362,2	485	362,2	490	370	495	374	500	377,80
Open-circuit Voltage (Voc/V)	43,00	40,6	43,15	40,7	43,29	40,9	43,43	41	43,57	41,2	43,72	41,3	43,87	41,50
Maximum Power Voltage (Vmp/V)	35,56	33,7	35,72	33,9	35,88	34	36,04	34,2	36,19	34,4	36,35	34,5	36,53	34,70
Short-circuit Current (Isc/A)	13,77	11,10	13,85	11,16	13,94	11,24	14,02	11,30	14,09	11,36	14,17	11,42	14,25	11,48
Maximum Power Current (Imp/A)	13,22	10,51	13,30	10,57	13,38	10,64	13,46	10,71	13,54	10,77	13,62	10,83	13,69	10,90
Module Efficiency (%)	21.20		21.43		21.65		21.88		22.10		22.33		22.55	

¹ STC: Irradiation 1000 W/m², Cell temperature 20°C, AM = 1.5

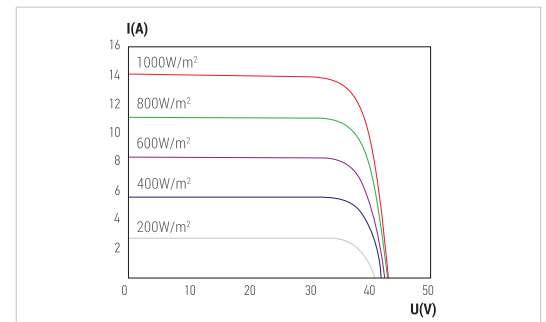
² NMOT: Irradiation 800 W/m², Ambient temperature 20°C, AM = 1.5

Bifacial Output - Rearside power gain

Power Class	470		475		480		485		490		495		500		
	Pmax [Wp]	Eff [%]	Pmax	Eff	Pmax	Eff	Pmax	Eff	Pmax	Eff	Pmax	Eff	Pmax	Eff	
Power with Backside Gain	5 [%]	493,5	22,3%	498,8	22,5%	504,0	22,7%	509,3	23,0%	514,5	23,2%	519,8	23,4%	525,0	23,7%
	10 [%]	517,0	23,3%	522,5	23,6%	528,0	23,8%	533,5	24,1%	539,0	24,3%	544,5	24,6%	550,0	24,8%
	15 [%]	540,5	24,4%	546,3	24,6%	552,0	24,9%	557,8	25,2%	563,5	25,4%	569,3	25,7%	575,0	25,9%
	20 [%]	564,0	25,4%	570,0	25,7%	576,0	26,0%	582,0	26,3%	588,0	26,5%	594,0	26,8%	600,0	27,1%
	25 [%]	587,5	26,5%	593,8	26,8%	600,0	27,1%	606,3	27,3%	612,5	27,6%	618,8	27,9%	625,0	28,2%
	30 [%]	611,0	27,6%	617,5	27,9%	624,0	28,1%	630,5	28,4%	637,0	28,7%	643,5	29,0%	650,0	29,3%

[4] Bifaciality Factor > 80% - Back-side power gain depends upon the specific project albedo - Efficiency is according to the surface of the module

Current-Voltage Curve



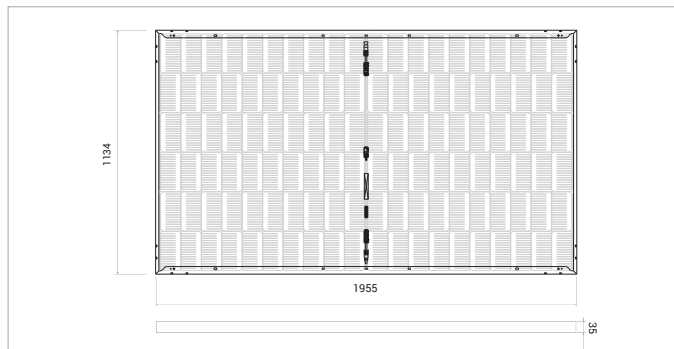
Temperature Characteristics

Nominal Module Operating Temperature (NMOT)	45 ± 2°C
Temperature Coefficient of Pmax (%/°C)	-0.30% / °C
Temperature Coefficient of Voc (%/°C)	-0.25% / °C
Temperature Coefficient of Isc (%/°C)	+0.046% / °C

Packing

Container	40'HQ
Pieces per Pallet	31
Pieces per Container	744

Dimensions



Mechanical Characteristics

Dimensions (mm)	1955 x 1134 x 35
Weight (kg)	26.5 kg
Cell Type	N-TOPCon, 132 (6x20)
Front Glass	2.0mm ultra clear embossed double layer colorless glass
Back Glass	2.0mm black mesh semi-tempered glass
Frame	Anodized Aluminium Alloy (Black)
Cables	4mm ² (IEC), 12 AWG (UL) 1200mm (including connector) or can be customized
Junction Box	IP68 Rated, 3 diodes
Connector	MC4 compatible

Operating Conditions

Operating Temperature (°C)	-40 to +85
Maximum System Voltage (V)	1500 DC (IEC)
Maximum Series Fuse rating (A)	30
Power Performance Tolerance (%)	0 / +3
Bifaciality	80±10%
Mechanical load front rear	5400 Pa
Mechanical load back rear	2400 Pa

Specifications included in this data sheet are subject to change without notice. ReCreate reserves the right to final interpretation.