



# Dawn Series

## 210R N Type Solar Module

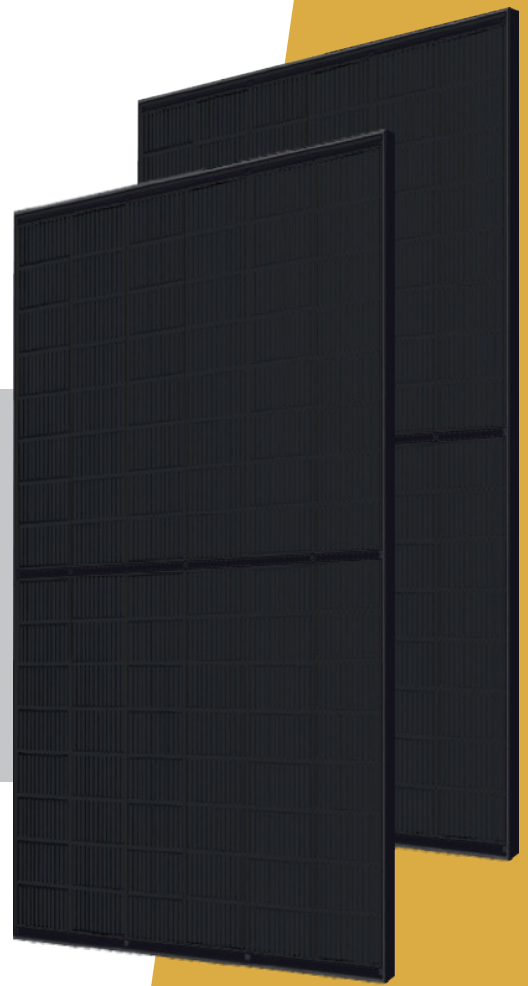
PRODUCT:

### T1148D-TB

POWER RANGE:

# 425-450W

\*Recommend for residential rooftop



**450W**

Max Power Output

**22.6%**

Max Panel Efficiency

**SMBB**

Super Multi-busbar  
Technology

**N Type**

210R Wafer



### Excellent Energy Efficiency

- Market leading temperature coefficient (-0.29%/°C);
- 182\*105mm and SMBB technology provide higher efficiency (22.6%)



### Multi-busbar Technology

- Extremely high light utilization;
- Greater power collection capability;
- Effectively improve power output and reliability



### Aesthetic Appearance Design

- Elegant design in all-black appearance, harmonious integration with the components of the building to provide an intense aesthetic experience



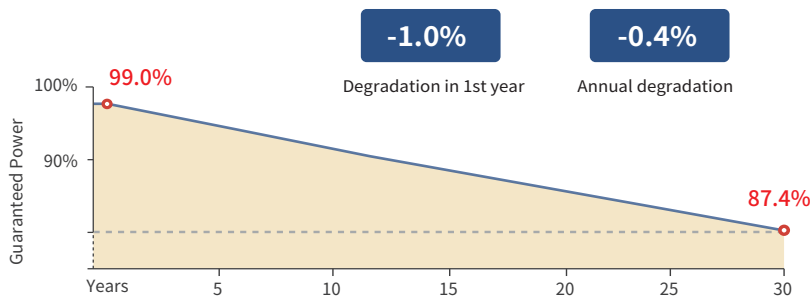
### Highest Fire Rating

- Class A



### Excellent Low Light Performance

- More power output in low light conditions such as cloudy day, mornings and evenings



**15**

15 years Product Warranty

**30**

30 years Power Warranty

### Certificates & Warranty

IEC61215 2016&IEC61730 2016



Electrical data(STC)

Max. Power (W)	425	430	435	440	445	450
Max. Power Voltage Vmp(V)	28.58	28.81	29.04	29.27	29.50	29.73
Max. Power Current Imp(A)	14.88	14.93	14.98	15.04	15.09	15.14
Open Circuit Voltage Voc(V)	34.00	34.22	34.44	34.66	34.88	35.10
Short Circuit Current Isc(A)	15.73	15.78	15.83	15.88	15.93	15.98
Module Efficiency (%)	21.3	21.6	21.8	22.1	22.3	22.6

\*STC (Standard Test Condition): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass 1.5  
 \*Measurement Tolerance (±3.0%)

Electrical data(NOCT)

Max. Power (W)	322	326	330	334	337	341
Max. Power Voltage Vmp (V)	27.11	27.35	27.6	27.82	27.97	28.21
Max. Power Current Imp (A)	11.88	11.92	11.96	12.01	12.05	12.09
Open Circuit Voltage Voc (V)	32.47	32.68	32.89	33.10	33.31	33.52
Short Circuit Current Isc (A)	12.69	12.73	12.77	12.81	12.85	12.89

\*NOCT: Irradiance at 800W/m<sup>2</sup>, Ambient Temperature 20°C, Wind Speed 1m/s

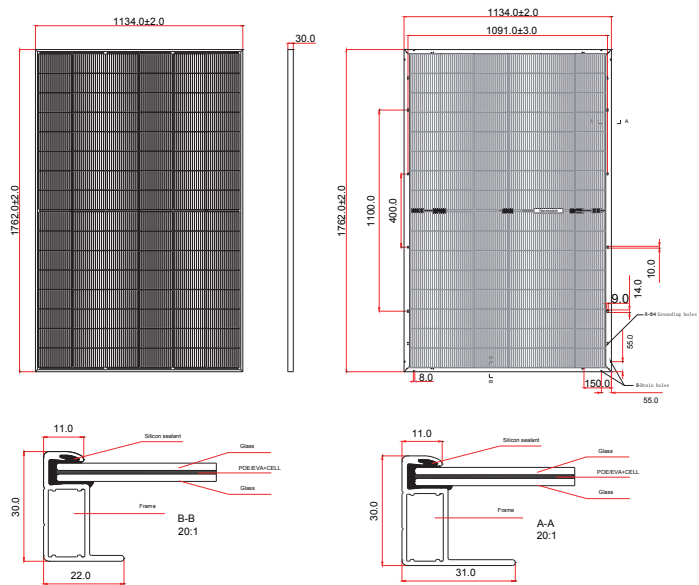
Temperature Ratings

Power Tolerance (W)	0~+5
Temperature Coefficients of γPmp (%/K)	-0.29
Temperature Coefficients of βVoc (%/K)	-0.25
Temperature Coefficients of αIsc (%/K)	+0.049
Max. Over-Current (A)	25
Bifacial Factor (%)	≥85
NOCT(Nominal Operating Cell Temperature)	43±2°C

Mechanical Parameters

Cell Type (mm)	N Type 182*105
NO. of Cells and Connections	96(6×16)
Dimensions(L*W*H) (mm)	1762*1134*30
Double AR Coated Glass (mm)	1.6+1.6
Cable Length (mm)	300,Length can be customized
Weight (kg)	21.5
NO. of Diodes	3
Container 40'HQ (pcs)	36/936

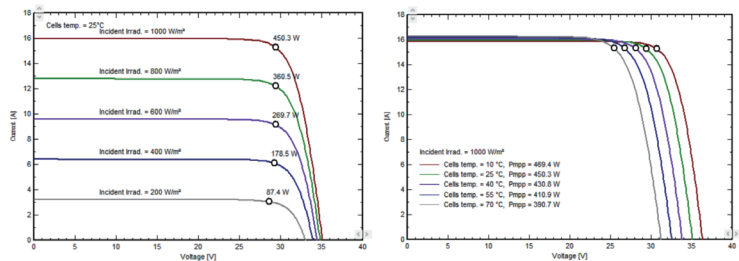
Dimensions of PV Module(mm)



Working Condition

Maximum System Voltage (V)	1500V DC
Operating Temp (°C)	-40~+85
Max. Wind Load (Pa)	2400
Max. Snow Load (Pa)	5400

Characteristic Curves(450W)



[Public Platform] [Official Web]

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Notice: All data and specifications are preliminary and subject to change without notice.

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