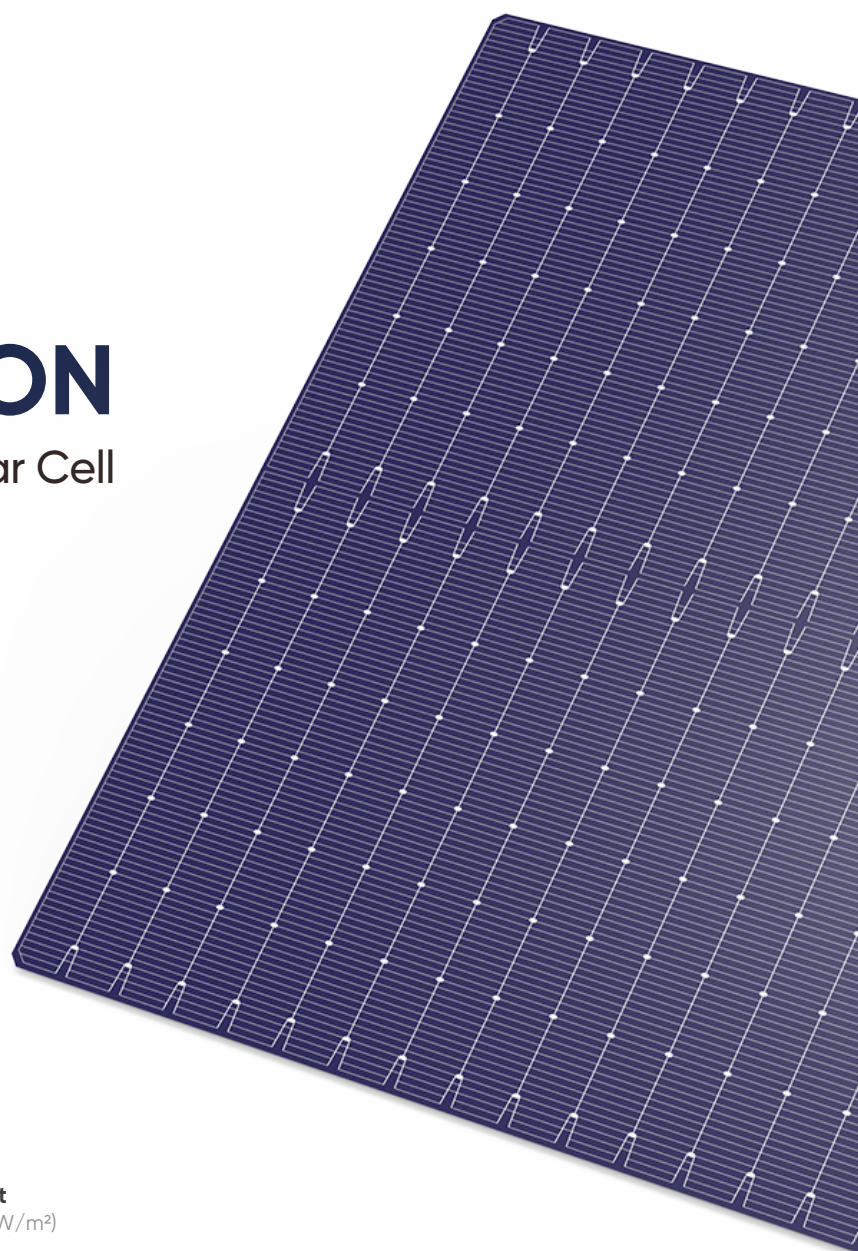


# 210M-18D1

# N-TYPE TOPCON

**N** The Pioneer of N-type Solar Cell



## Product Characteristics



**LID**  
Lower LID



**PID Resistance**  
Superior anti-PID performance



**Lower Sealing Damage**  
Lower Cell to Module (CTM) Loss Rate, more suitable for high-efficiency module



**Lower Power Temperature Coefficient**  
Temperature coefficient of Power as low as  $-0.30\%/^{\circ}\text{C}$



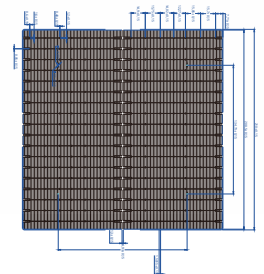
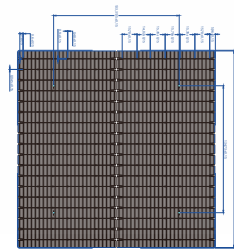
**Better Performance In Low Irradiance Environment**  
Relative conversion efficiency  $\geq 98\%$  under low light ( $200\text{W}/\text{m}^2$ )



**High Conversion Efficiency**  
Front efficiency  $\geq 25\%$ , Bifaciality rate  $\geq 80\%$

## Mechanical Characteristics

Model	210 mono-crystalline Bifacial solar cell (SE-210M-18D1)
Dimension	210mmx210mm $\pm 0.25\text{mm}$ , $\Phi 295\text{mm}\pm 0.25\text{mm}$
Thickness	150 $\mu\text{m}\pm 20\mu\text{m}$
Front	18 busbars, 12 pads, 148 fingers, busbar width 0.045 $\pm 0.02\text{mm}$
Back	18 busbars, 12 pads, 140 fingers, busbar width 0.045 $\pm 0.02\text{mm}$



### Temperature Coefficients

TkCurrent	0.045%/ $^{\circ}\text{C}$
TkPower	-0.30%/ $^{\circ}\text{C}$
TkVoltage	-0.25%/ $^{\circ}\text{C}$

### Quality Control

$\pm 0.1\%$  Efficiency Tolerance

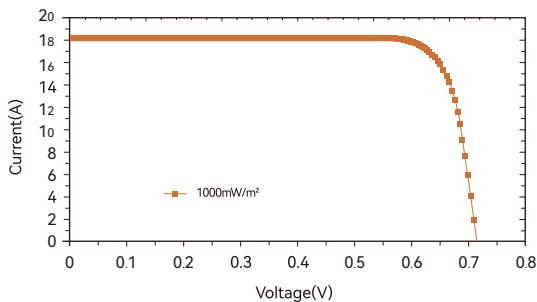
The accuracy of the efficiency test is controlled within  $\pm 0.1\%$   
Electrical performance, appearance, EL 100% automatic inspection  
Calibration cells are traceable to Fraunhofer ISE

## Electrical Characteristics

Efficiency (%)	Power Pmpp (W)	Max.Power Current Impp (A)	Short Circuit Current Isc (A)	Max.Power Voltage Vmpp (V)	Open Circuit Voltage Voc (V)	Fill Factor (%)
>24.8	10.938	17.505	18.367	0.625	0.720	82.77
24.7~24.8	10.903	17.491	18.366	0.623	0.718	82.69
24.6~24.7	10.868	17.477	18.360	0.622	0.717	82.56
24.5~24.6	10.826	17.463	18.357	0.621	0.716	82.37
24.4~24.5	10.800	17.429	18.197	0.620	0.714	83.13
24.3~24.4	10.748	17.358	18.180	0.619	0.712	83.08
24.2~24.3	10.715	17.351	18.180	0.618	0.711	82.84
24.1~24.2	10.671	17.285	18.162	0.617	0.711	82.68
24.0~24.1	10.626	17.349	18.128	0.613	0.710	82.58
23.9~24.0	10.582	17.317	18.110	0.611	0.709	82.40
23.8~23.9	10.544	17.289	18.091	0.610	0.708	82.27
23.7~23.8	10.497	17.271	18.057	0.608	0.707	82.24
23.6~23.7	10.450	17.271	18.039	0.605	0.705	82.12
23.5~23.6	10.406	17.230	18.022	0.604	0.704	81.97
23.4~23.5	10.362	17.203	18.005	0.602	0.703	81.80
23.3~23.4	10.317	17.173	17.970	0.601	0.702	81.77
23.2~23.3	10.274	17.119	17.935	0.600	0.701	81.71
23.1~23.2	10.232	17.075	17.935	0.599	0.700	81.47
23.0~23.1	10.184	17.060	17.899	0.597	0.699	81.43
22.9~23.0	10.142	17.015	17.882	0.596	0.698	81.23

\* Standard Test Condition (STC): 1000W/ m<sup>2</sup>, AM 1.5G, 25°C / Solar Cell Efficiency Positive Tolerance / Specifications and data for reference only

## IV Curve



## Spectral Response

