


N-TopCon series

## 210R N-TopCon Bifacial Module

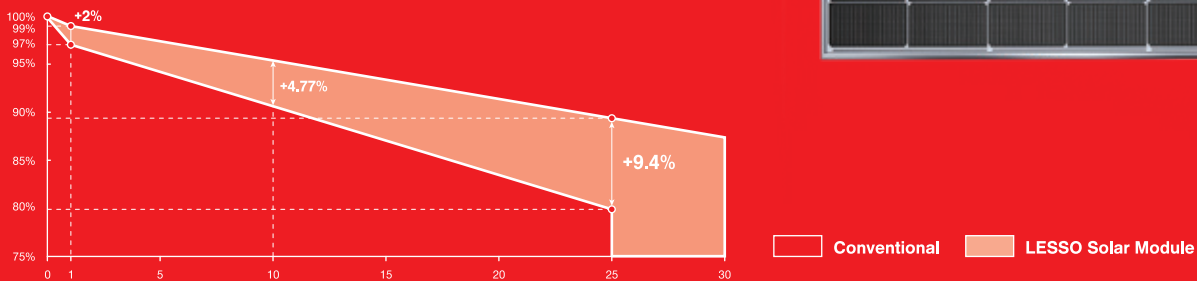
590W ~ 625W










 **12** years product workmanship warranty

 **30** years linear power output warranty

 **1%** 1st-year degradation  
**0.40%** annual degradation



### FEATURES AND BENEFITS

-  MBB Half-cut Cell Technology, high light utilization rate, better power collection capacity.
-  Non-destructive cutting technology, avoid the damage of cutting surface.
-  By series and parallel design, to reduce the series RS, achieve higher power output and decrease BOS cost.
-  Double sides power output to reach higher comprehensive efficiency and get more profit.
-  High-density interconnect technology, efficiency increased by 0.2~0.3%.
-  Perfectly matches the container size, the system cost is reduced by 0.1~0.15%.
-  Suitable for scenes with high ground reflectivity, making full use of reflected light and increase the power generation.

# LESSO 210R N-TopCon Bifacial Module



Power Range  
**590W ~ 625W**



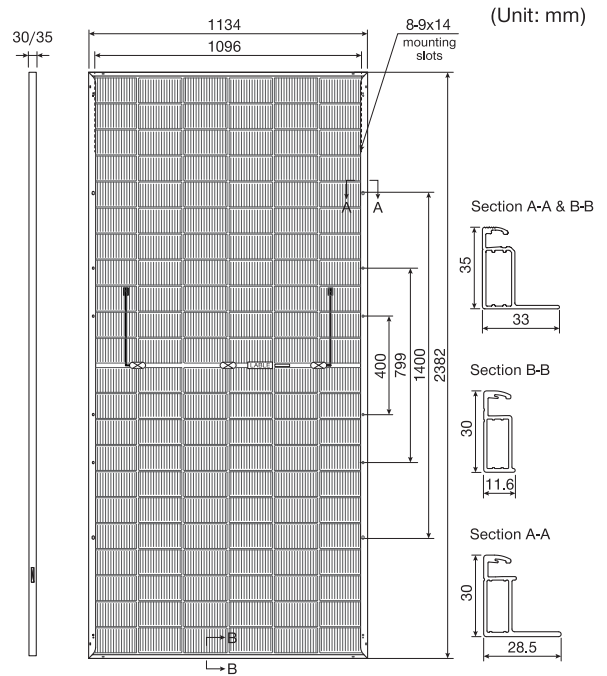
Power Output Tolerance  
**0W ~ +5W**



Maximum Efficiency  
**23.14%**

## Structure Performance

Solar Cell Type	210R N-TopCon Mono Cell (Half Cell)
Solar Cell Arrangement	132pcs(6x22)
Module Dimension	2382×1134×35mm/30mm
Weight	35.2kg(35mm) / 33.4kg(30mm)
Front Glass	2.0mm, highly transparent tempered glass with anti-reflective coating
Frame	Anodized Aluminum Alloy
Junction Box	IP68 rated
Cable	4mm <sup>2</sup> , portrait <sup>400mm (+)</sup> / <sub>200mm (-)</sub> , landscape <sup>1400mm (+)</sup> / <sub>1400mm (-)</sub> Length can be customized
Diode Quantity	3 pcs
Front side / Rear side	5400pa / 2400pa
Connector	MC4 Compatible
Per Pallet	31pcs(35mm) / 36pcs(30mm)
Per Container(40'HQ)	558pcs(35mm) / 648pcs(30mm)

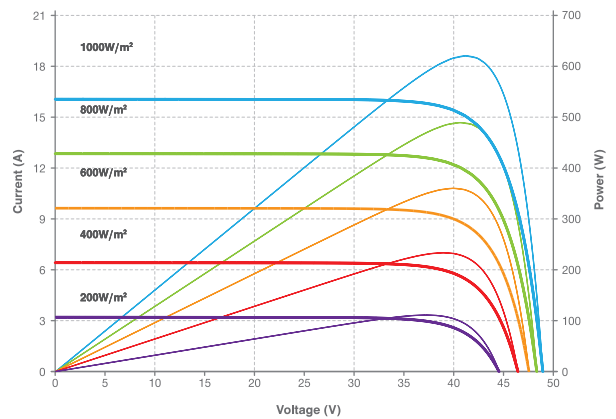


## Electrical Performance Parameters | STC

Model Type		590C(HBD) 66(210R)	595C(HBD) 66(210R)	600C(HBD) 66(210R)	605C(HBD) 66(210R)	610C(HBD) 66(210R)	615C(HBD) 66(210R)	620C(HBD) 66(210R)	625C(HBD) 66(210R)
Nominal Max. Power	P <sub>max</sub> (W)	590	595	600	605	610	615	620	625
Max. Power Voltage	V <sub>mp</sub> (V)	40.14	40.26	40.38	40.51	40.64	40.76	40.88	40.99
Max. Power Current	I <sub>mp</sub> (A)	14.70	14.78	14.86	14.94	15.01	15.09	15.17	15.25
Open Circuit Voltage	V <sub>oc</sub> (V)	48.15	48.29	48.42	48.55	48.69	48.82	48.95	49.08
Short Circuit Current	I <sub>sc</sub> (A)	15.54	15.63	15.71	15.80	15.89	15.98	16.06	16.15
Module Efficiency	(%)	21.84	22.03	22.21	22.40	22.58	22.77	22.95	23.14
Power Output Tolerance	(W)	0~+5W							

\* STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, Air Mass AM1.5.  
\* Power measurement tolerance ±3%.

## Current-Voltage & Power-Voltage Curve (625C)



## Electrical Performance Parameters | NMOT

Model Type		590C(HBD) 66(210R)	595C(HBD) 66(210R)	600C(HBD) 66(210R)	605C(HBD) 66(210R)	610C(HBD) 66(210R)	615C(HBD) 66(210R)	620C(HBD) 66(210R)	625C(HBD) 66(210R)
Nominal Max. Power	P <sub>max</sub> (W)	444	448	452	456	460	464	468	472
Max. Power Voltage	V <sub>mp</sub> (V)	37.47	37.62	37.77	37.94	38.10	38.26	38.43	38.59
Max. Power Current	I <sub>mp</sub> (A)	11.85	11.91	11.97	12.02	12.08	12.13	12.18	12.24
Open Circuit Voltage	V <sub>oc</sub> (V)	45.69	45.82	45.95	46.07	46.20	46.33	46.46	46.59
Short Circuit Current	I <sub>sc</sub> (A)	12.54	12.60	12.68	12.75	12.82	12.89	12.96	13.03

\* NMOT: Irradiance 800W/m<sup>2</sup>, Cell Temperature 20°C, Wind Speed 1m/s.  
\* Power measurement tolerance ±3%.

## Temperature Characteristics

Nominal Module Operating Temperature	44±2°C
Temperature Coefficient (I <sub>sc</sub> )	+0.043%
Temperature Coefficient (V <sub>oc</sub> )	-0.25%
Temperature Coefficient (P <sub>max</sub> )	-0.30%

## Maximum Parameters

Working Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Nominal Maximum Fuse Current	35A