


N series

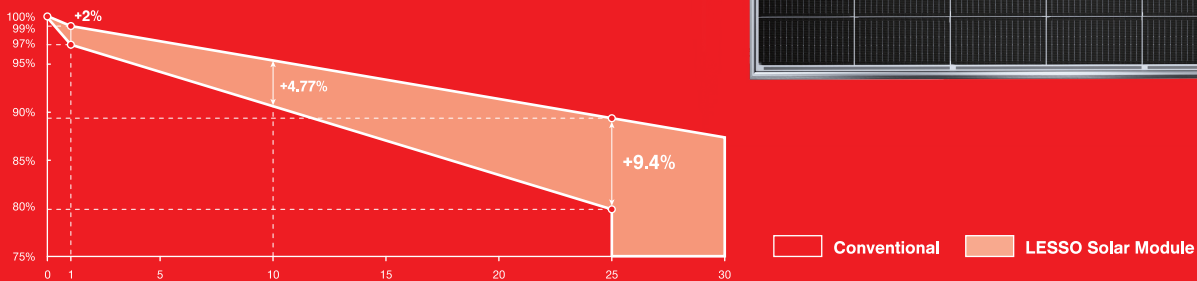
210 N-type Bifacial Module

630W ~ 650W

 **12** years product workmanship warranty

 **30** years linear power output warranty

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



FEATURES AND BENEFITS



Topcon technology, higher power generation.



High density packaging, improving energy density.



Even cloudy or foggy days, better weak illumination response.



Zero LID, increase power generation.



Better temperature coefficient, more power generation.



Higher power output, lower bos cost.



Multiple weather, resistance tests, wider applicability.



Double-sided generation, powerfully energy boost.

LESSO 210 N-type Bifacial Module (60)



Power Range
630W ~ 650W



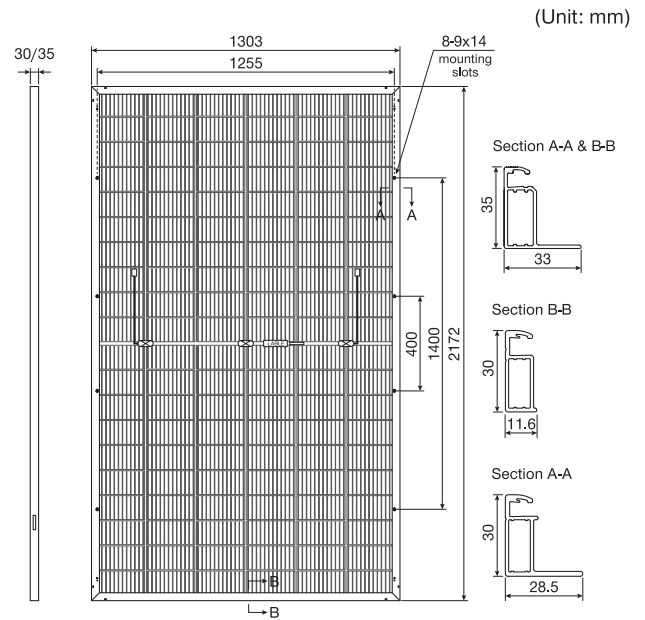
Power Output Tolerance
0W ~ +5W



Maximum Efficiency
22.97%

Structure Performance

Solar Cell Type	210mm N-TOPCon Mono Cell (Half Cell)
Solar Cell Arrangement	120pcs(6×20)
Module Dimension	2172×1303×35mm/30mm
Weight	35.6kg(35mm) / 34.5kg(30mm)
Front Glass	2.0mm, highly transparent tempered glass with anti-reflective coating
Frame	Anodized Aluminum Alloy
Junction Box	IP68 rated
Cable	4mm ² , portrait ^{400mm(+)} / _{200mm(-)} , landscape ^{1400mm(+)} / _{1400mm(-)} 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)	527pcs(35mm) / 612pcs(30mm)

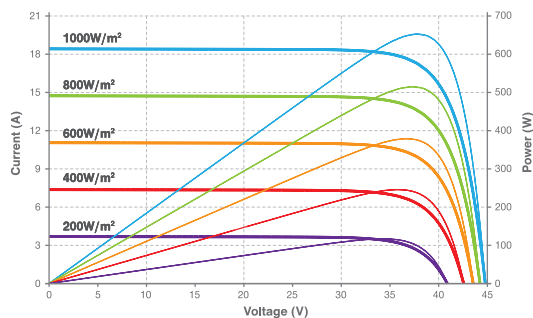


Electrical Performance Parameters

Model Type	630C(HBD)60(210)		635C(HBD)60(210)		640C(HBD)60(210)		645C(HBD)60(210)		650C(HBD)60(210)		
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	
Nominal Max. Power	P_{MAX} (W)	630	482	635	486	640	490	645	494	650	498
Max. Power Voltage	V_{MP} (V)	36.11	34.04	36.33	34.25	36.54	34.46	36.74	34.67	36.94	34.88
Max. Power Current	I_{MP} (A)	17.45	14.16	17.48	14.19	17.52	14.22	17.56	14.25	17.60	14.28
Open Circuit Voltage	V_{OC} (V)	43.95	41.58	44.16	41.79	44.37	42.01	44.58	42.22	44.79	42.44
Short Circuit Current	I_{SC} (A)	18.26	14.73	18.30	14.77	18.34	14.81	18.38	14.85	18.42	14.89
Module Efficiency	(%)	22.26		22.44		22.61		22.79		22.97	

* STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5; NMOT: Irradiance 800W/m², Ambient Temperature 20°C, Air Mass AM1.5, Wind Speed 1m/s; Power measurement tolerance ±3%.

Current-Voltage & Power-Voltage Curve (650C)



Bifacial Output-rearside Power Gain

Gain	Maximum Power		P_{MAX} (W)				
			662	667	672	677	683
5%	Maximum Power	P_{MAX} (W)	662	667	672	677	683
	Module Efficiency	(%)	23.37%	23.56%	23.74%	23.93%	24.12%
10%	Maximum Power	P_{MAX} (W)	693	699	704	710	715
	Module Efficiency	(%)	24.49%	24.68%	24.88%	25.07%	25.26%
25%	Maximum Power	P_{MAX} (W)	788	794	800	806	813
	Module Efficiency	(%)	27.83%	28.05%	28.27%	28.49%	28.71%

Temperature Characteristics

Nominal Module Operating Temperature	44±2°C	Temperature Coefficient (V_{OC})	-0.25%
Temperature Coefficient (I_{SC})	+0.043%	Temperature Coefficient (P_{MAX})	-0.30%

Maximum Parameters

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