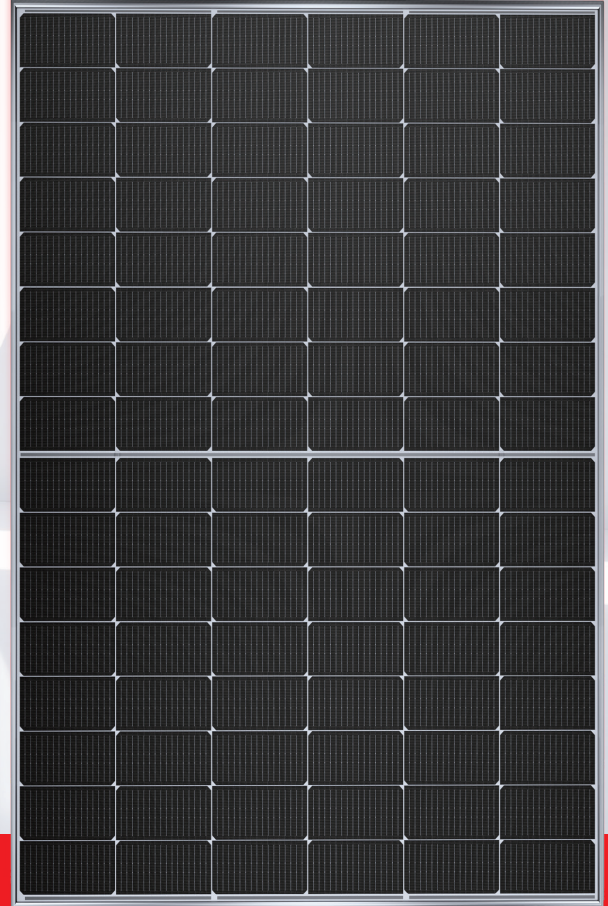


LTH series

445 - 465W

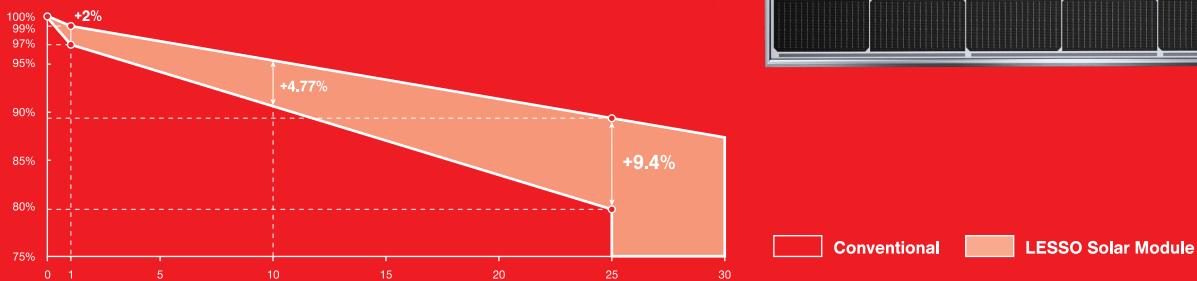
210R-48 N-TOPCon
Dual-glass Bifacial Module



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 210R N-TOPCon Dual-glass Bifacial Module (48)



Power Range
445W ~ 465W



Power Output Tolerance
0W ~ +5W

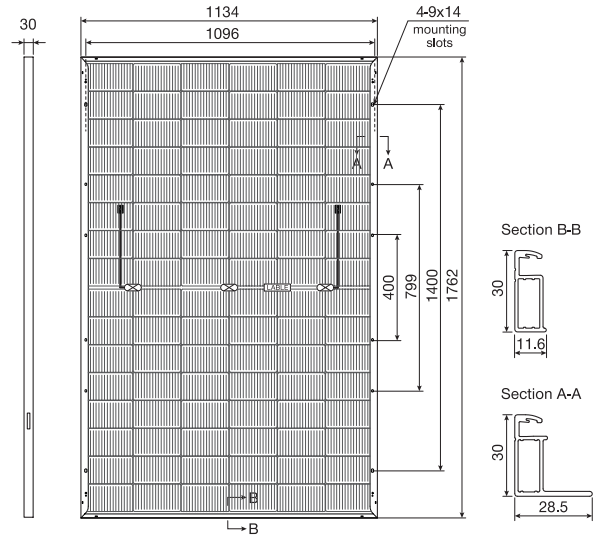


Maximum Efficiency
23.27%

(Unit: mm)

Structure Performance

Solar Cell Type	210R N-TOPCon Mono Cell (Half Cell)
Solar Cell Arrangement	96pcs(6x16)
Module Dimension	1762×1134×30mm
Weight	24.7kg
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	36pcs
Per Container(40'HQ)	936pcs

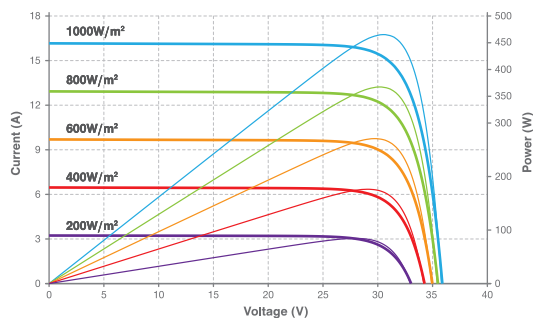


Electrical Performance Parameters

Model Type		445C(HBD)48(210R)	450C(HBD)48(210R)	455C(HBD)48(210R)	460C(HBD)48(210R)	465C(HBD)48(210R)
Nominal Max. Power	P_{MAX} (W)	445	450	455	460	465
Max. Power Voltage	V_{MP} (V)	30.05	30.19	30.34	30.48	30.63
Max. Power Current	I_{MP} (A)	14.81	14.91	15.00	15.09	15.19
Open Circuit Voltage	V_{OC} (V)	35.20	35.35	35.50	35.65	35.80
Short Circuit Current	I_{SC} (A)	15.83	15.92	16.00	16.08	16.16
Module Efficiency	(%)	22.27	22.52	22.77	23.02	23.27

* STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5; Power measurement tolerance ±3%.

Current-Voltage & Power-Voltage Curve (465W)



Bifacial Output-rearside Power Gain

		P_{MAX} (W)					
			467	473	478	483	488
5%	Maximum Power	P_{MAX} (W)	467	473	478	483	488
	Module Efficiency	(%)	23.38	23.65	23.91	24.17	24.44
10%	Maximum Power	P_{MAX} (W)	490	495	501	506	512
	Module Efficiency	(%)	24.50	24.77	25.05	25.32	25.60
25%	Maximum Power	P_{MAX} (W)	556	563	569	575	581
	Module Efficiency	(%)	27.84	28.15	28.46	28.78	29.09

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