


Pure Black series

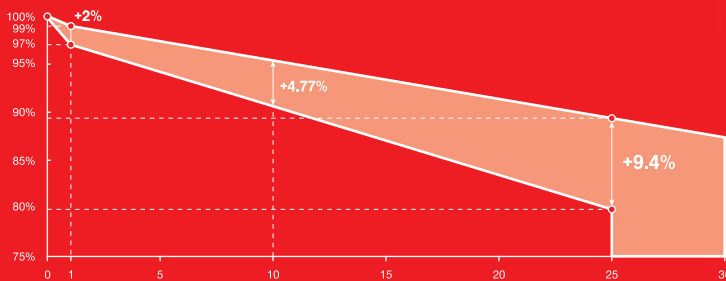
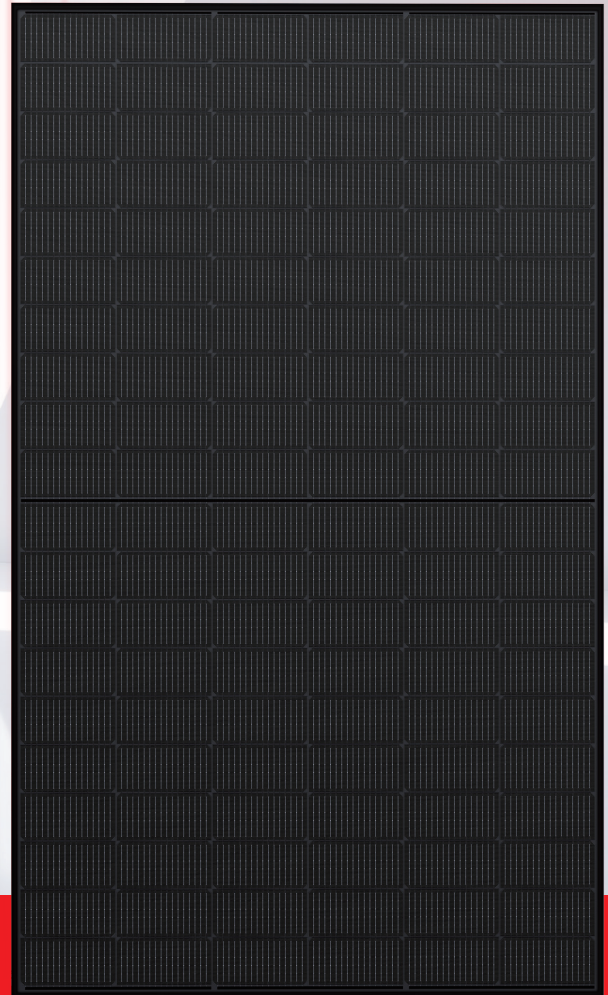
182 N-type Monofacial Module

470W ~ 490W

 **12** years product workmanship warranty

 **30** years linear power output warranty

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



 Conventional  LESSO Solar Module

FEATURES AND BENEFITS



Topcon technology, higher power generation.



Highly-resistant black, crystal material, modernity to buildings.



Better temperature coefficient, more power generation.



Zero LID, increase power generation.



Even cloudy or foggy days, better weak illumination response.



Multiple weather, resistance tests, wider applicability.

LESSO 182 Pure Black N-type Monofacial Module (60)



Power Range
470W ~ 490W



Power Output Tolerance
0W ~ +5W

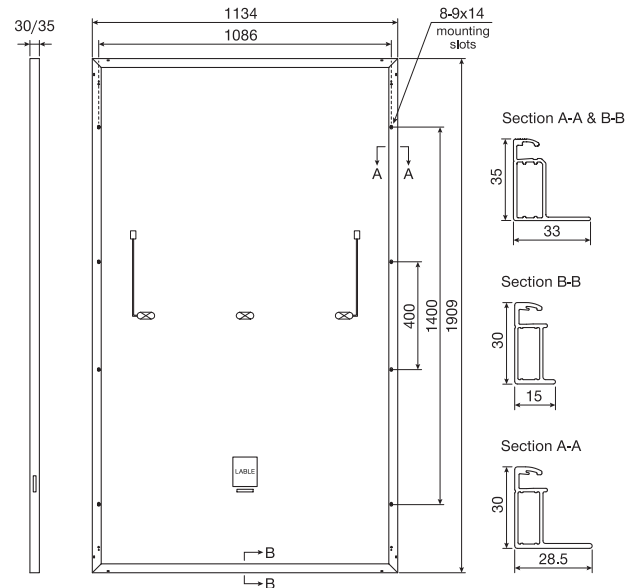


Maximum Efficiency
22.63%

Structure Performance

Solar Cell Type	182mm N-TOPCon Mono Cell (Half Cell)
Solar Cell Arrangement	120pcs(6×20)
Module Dimension	1909×1134×35mm/30mm
Weight	23.2kg(35mm) / 22.1kg(30mm)
Front Glass	3.2mm, highly transparent tempered glass with anti-reflective coating
Back Sheet	Black
Frame	Anodized Aluminum Alloy (Black)
Junction Box	IP68 rated
Cable	4mm ² , portrait ^{400mm (+)} / _{230mm (-)} , 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)	744pcs(35mm) / 864pcs(30mm)

(Unit: mm)

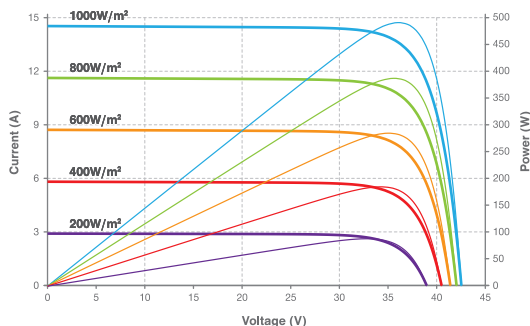


Electrical Performance Parameters

Model Type	470C(BPM)60(182)		475C(BPM)60(182)		480C(BPM)60(182)		485C(BPM)60(182)		490C(BPM)60(182)	
	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT	STC	NMOT
Nominal Max. Power P_{MAX} (W)	470	354	475	358	480	362	485	366	490	370
Max. Power Voltage V_{MP} (V)	34.98	32.97	35.14	33.15	35.30	33.34	35.46	33.51	35.62	33.69
Max. Power Current I_{MP} (A)	13.44	10.74	13.52	10.80	13.60	10.86	13.68	10.93	13.76	10.99
Open Circuit Voltage V_{OC} (V)	42.09	40.05	42.25	40.21	42.42	40.37	42.48	40.53	42.54	40.69
Short Circuit Current I_{SC} (A)	14.19	11.49	14.28	11.56	14.36	11.63	14.44	11.70	14.53	11.77
Module Efficiency (%)	21.71		21.94		22.17		22.40		22.63	

* 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 (490C)



Temperature Characteristics

Nominal Module Operating Temperature	44±2°C
Temperature Coefficient (I_{sc})	+0.043%
Temperature Coefficient (V_{oc})	-0.25%
Temperature Coefficient (P_{max})	-0.30%

Maximum Parameters

Working Temperature	-40~+85°C
Maximum System Voltage	1500V DC
Nominal Maximum Fuse Current	25A