



415W Mono Crystalline Solar Cell 1500VDC IP68 Rated Junction Box

Our Product Introduction

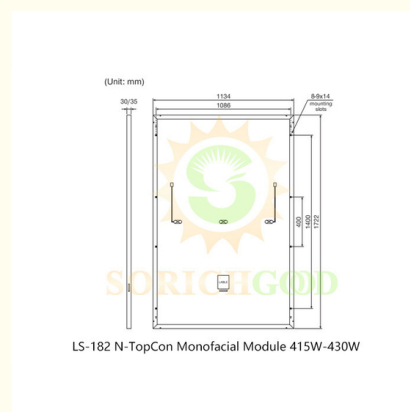
Basic Information

- Place of Origin: China
- Brand Name: LS
- Certification: IEC 61215/IEC 61730/ISO 9001/ISO 14001/ISO 45001
- Model Number: LS-NM415
- Minimum Order Quantity: 806 pcs
- Price: consult prices online
- Packaging Details: Per Pallet Quantity: 31pcs (35mm thickness) / 36pcs (30mm thickness) Per Container (40'HQ) Quantity: 806pcs (35mm thickness) / 936pcs (30mm thickness)
- Payment Terms: T/T



Product Specification

- Nominal Max. Power (Pmax): 415W - 430W
- Module Efficiency: Up To 22.02%
- Temperature Coefficient (Pmax): -0.30%/°C
- Operating Temperature Range: -40°C To +85°C
- Nominal Module Operating Temperature (NMOT): 44±2°C
- Maximum System Voltage: 1500V DC
- Glass Material: 3.2mm Highly Transparent Tempered Glass With Anti-reflective Coating
- Protection Level: IP68 Rated Junction Box
- Highlight: 415W mono crystalline solar cell, 1500V mono crystalline solar cell, IP68 monocrystalline silicon



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Product Description

415W 22.02% Efficiency Monocrystalline Silicon Panels for Optimal Performance in Any Environment

182 N-TopCon Monofacial Module



Power Range

415W ~ 430W



Power Output Tolerance

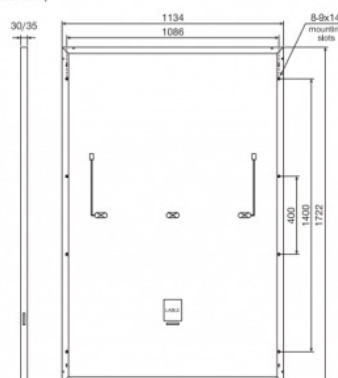
0W ~ +5W



Maximum Efficiency

22.02%

(Unit: mm)



Product Description

The 182mm N-TopCon Monofacial Module (415W-430W) represents the latest innovation in photovoltaic technology, designed for maximum efficiency and performance across a wide range of environmental conditions. Utilizing advanced N-TopCon mono cells, this module achieves up to 22.02% efficiency, making it one of the highest-performing modules available. The superior weak illumination response and ZERO LID (Light-Induced Degradation) ensure consistent power generation even in low-light conditions, such as cloudy or foggy days. The module's enhanced temperature coefficient guarantees better performance in higher temperatures, while the lower LCOE (Levelized Cost of Energy) offers an excellent return on investment. The module's robust design, featuring anodized aluminum alloy frames and high-transparency tempered glass, ensures durability and longevity, even in challenging environments.

Electrical Performance Parameters STC					
Model Type		415C(HPM) 54(182)	420C(HPM) 54(182)	425C(HPM) 54(182)	430C(HPM) 54(182)
Nominal Max.Power	Pmax(W)	415	420	425	430
Max.Power Voltage	Vmp(V)	31.44	31.63	31.82	32.00
Max.Power Current	Imp(A)	13.20	13.28	13.36	13.44
Open Circuit Voltage	Voc(V)	37.97	38.16	38.35	38.54
Short Circuit Current	Isc(A)	13.97	14.05	14.13	14.21
Module Efficiency	(%)	21.25	21.51	21.76	22.02
Power Output Tolerance	(W)	0~+5W			
*STC:Irradiance 1000W/m²,Cell Temperature 25°C,Air Mass AM1.5.					
*Power measurement tolerance ±3%.					
Electrical Performance Parameters NMOT					
Model Type		415C(HPM) 54(182)	420C(HPM) 54(182)	425C(HPM) 54(182)	430C(HPM) 54(182)
Nominal Max.Power	Pmax(W)	312	316	320	323
Max.Power Voltage	Vmp(V)	29.36	29.51	29.69	29.75
Max.Power Current	Imp(A)	10.63	10.71	10.78	10.86
Open Circuit Voltage	Voc(V)	36.07	36.25	36.43	36.61
Short Circuit Current	Isc(A)	11.28	11.35	11.42	11.49
*NMOT:Irradiance 800W/m²,Cell Temperature 20°C,Wind Speed 1m/s.					
*Power measurement tolerance ±3%.					

Solar Cell Type	182mm N-TopCon Mono Cell (Half Cell)
Solar Cell Arrangement	108pcs(6×18)

Module Dimension	1722×1134×35mm/30mm
Weight	21.7kg(35mm)/20.6kg(30mm)
Front Glass	3.2mm,highly transparent tempered glass with anti-reflective coating
Back Sheet	White
Frame	Anodized Aluminum Alloy
Junction Box	IP68 rated
Diode Quantity	3 pcs
Front side/Rear side	5400pa/2400pa
Connector	MC4 Compatible
Per Pallet	31pcs(35mm)/36pcs(30mm)
Per Container(40'HQ)	806pcs(35mm)/936pcs(30mm)

Temperature Characteristics	
Nominal Module Operating Temperature	44±2°C
Temperature Coefficient(Isc)	+0.043%
Temperature Coefficient (Voc)	-0.25%
Temperature Coefficient(Pmax)	-0.30%

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

Application

The 182mm N-TopCon Monofacial Module is ideal for residential, commercial, and utility-scale projects where efficiency and long-term performance are critical. Its high efficiency and superior temperature performance make it especially suitable for installations in areas with high temperatures or frequent cloudy weather. The module's robust construction and resistance to harsh environmental conditions, such as high winds and snow loads, make it an excellent choice for various applications, including rooftop installations, ground-mounted systems, and even solar farms in challenging climates.

Our Certificates

IEC61215, IEC61730,
ISO 9001:2015 Quality management system,
ISO 14001:2015 Environment management system,
ISO 45001:2018 Occupational health and safety management system



Shipping Methods

Supports global air and sea shipping



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