

415W TED Solar Panel

- **High Efficiency** - The multi-busbar half-cut technology can boost energy density to deliver higher output.
- **Highly Reliable** - Certified in TUV salt spray, ammonia corrosion, 2400Pa wind load and 5400Pa snow load testing.
- **High Yield** - Effectively reducing BOS costs to achieve lower LCOE and enhanced project profitability.
- **Low Degradation** - First-year degradation is less than 2.0%, with linear degradation of 0.55% per year for 25 years.
- **Low Hot-spot Risk** - The next-generation cell technology and optimized circuit design adopted can support improved temperature coefficient and better hotspot resistance.
- **Low Micro Crack Risk** - The multi-busbar technology contributes to more effective prevention of Micro crack and broken busbars.



Electrical Characteristics (STC)	
Max. power (Pm)	415 W
Open circuit voltage (Voc)	37.41 V
Short circuit current (Isc)	13.89 A
Voltage at max. power point (Vm)	31.45 V
Current at max. power point (Im)	13.20 A
Module efficiency (η)	21.25 %
Electrical Characteristics (NMOT)	
Max. power (Pm)	312 W
Open circuit voltage (Voc)	34.42 V
Short circuit current (Isc)	11.35 A
Voltage at max. power point (Vm)	28.64 V
Current at max. power point (Im)	10.90 A
Maximum Rated Parameters	
Max. system voltage	DC 1000 V / 1500 V (IEC)
Max. fuse rated current	25 A
Max. front statistic load	5400 Pa
Working temperature	from - 40°C to + 85°C
Hail resistance	Max. diametre 25mm, impact speed 23 m/s

Due to continuous product improvements, program specifications are subject to change without notice

Address: Holland, City: Wassenaar, Dr. Mansveltkaade Street 48, Postal code: 2242XM

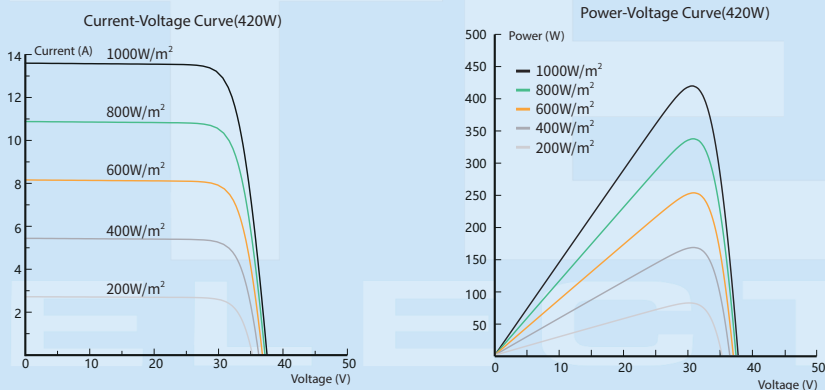
Mechanical Parameters

Size (L x W x H)	1722 x 1134 x 35 mm
Weight	22.0 kg
Front glass	3.2 mm high transmittance, toughened glass
Cell	Monocrystalline 156.75 x 156.75 mm
Backplate	High weather resistance
Frame	Anodized aluminum alloy
Junction box	IP68
Cable section	4mm ² cross section
Connector	MC4 compatible

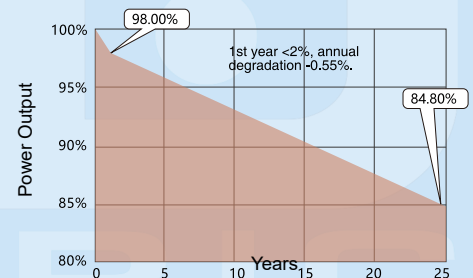
Temperature Parameters

NMOT	41 °C (+/-3 °C)
Open circuit voltage temp. coefficient	- 0.27 % / °C
Short circuit current temp. coefficient	+ 0.048 % / °C
Maximum power temp. coefficient	- 0.34 % / °C

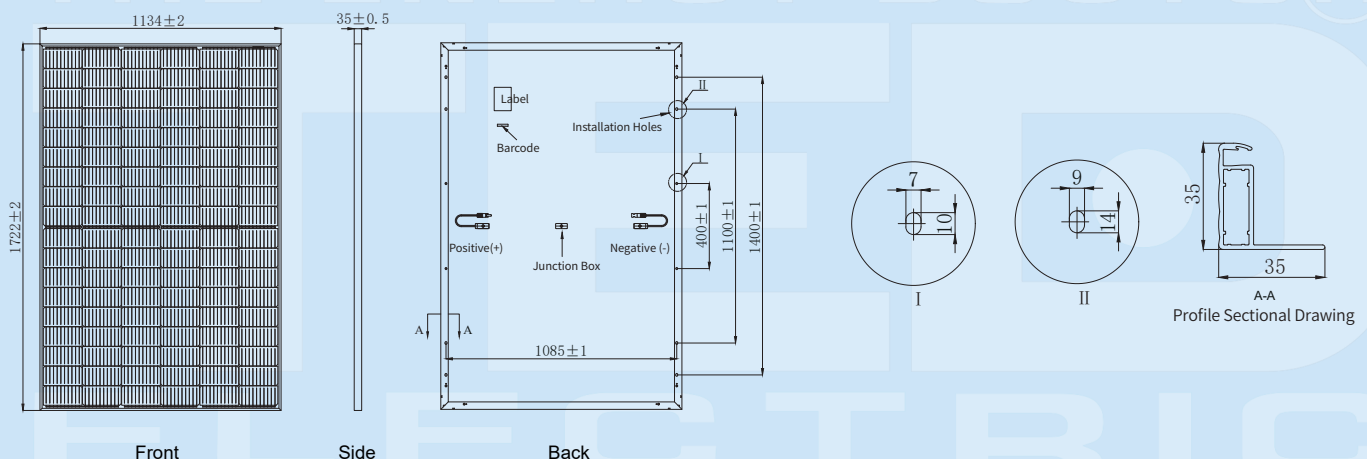
I-V Curve



Linear Power Output



Technical Drawings



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