

ATENOS

ASIA PACIFIC

Introducing

VOOU Solar Battery Modules

For Readily Available Clean Energy

DEVELOPED IN GERMANY
USING ENHANCED FUNCTIONAL INK

Advantages



Fast Return on Investment

Return of investment after 1 year.



Weather Independent

Suitable for outdoor & indoor under diffuse subdued light.



Effective Energy Storage

Battery included. Energy storage without chemical transformation. Over 500.000 charging cycles.



Minimal Space

Space reduction >80% compared to current solar farms.



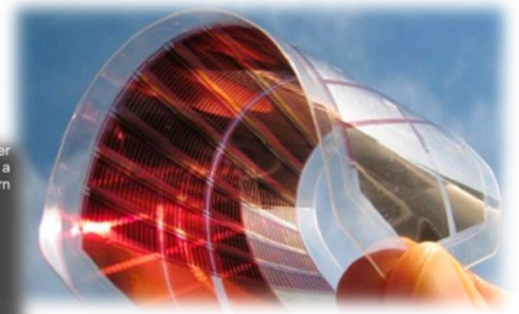
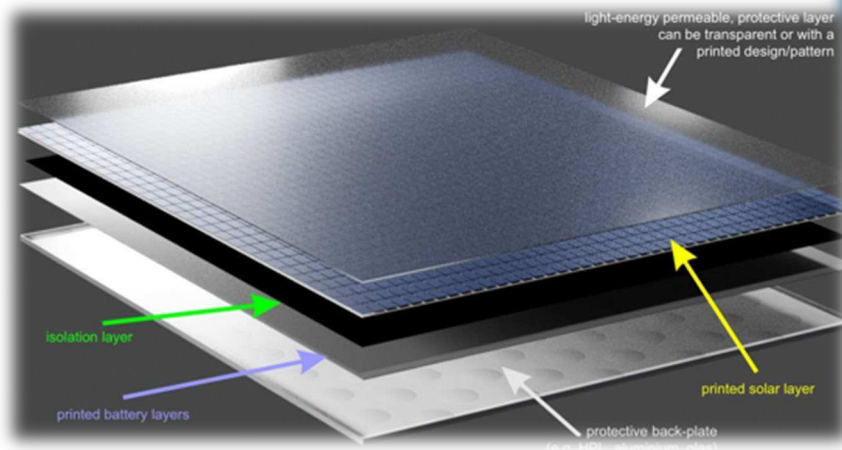
Pollution-Free

Only eco-friendly and certified materials used.

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High cost performance with high efficiency, low price, and 30-year quality assurance.



Because it is produced by printing using environmentally friendly and low-cost special nanoparticles instead of silicon semiconductors, it can be freely designed and shaped, making it suitable for installation on building facade tiles, roof coverings, pedestrian walkways, and other applications. Other functional surfaces that generate light, heat, or cooling can also be printed.



Supercapacitors allow energy to be retained until use. They are ultra-fast to charge and discharge, and have a literal sustainability performance with a charge life of over 500,000 cycles.














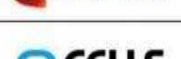
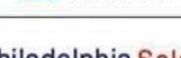







VOOU solar modules enable the scalability of business models for projects that are in line with the Singapore Green Plan 2030 and the Asian Zero Emission Community (AZEC).

VOOU太陽電池モジュールの特徴と強み

- 高効率、低価格と30年の品質保証による高いコストパフォーマンスを実現。
- シリコン半導体ではなく、環境にやさしく低コストの特
殊なナノ粒子を使用した印刷によって生産するためデザ
インや形状も自在で建物のファサードタイル、屋根カバー、
歩行者用通路などへの設置に好適です。さらに光、熱、
冷却を発生する他の機能性表面の印刷も可能。
- スーパーキャパシターによって使用するまでエネルギー
の保持が可能。充放電が超高速でなうえ、50万回以
上の充電耐用性を持ち文字通りのサステナビリティ
性能の持ちます。
- シンガポール・グリーン・プラン2030やアジア・ゼロ・エ
ミッション・コミュニティ（AZEC）の方針に合致する事業
展開において、VOOUの太陽電池モジュールがビジネス
モデルの拡張性を可能にします。

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Manufacturer	Model	Power Rating	Cell Technology	Efficiency
VOOU Solutions	SB Module	400W	Printable Battery Module	> 24.0%
 AIKO	Black Hole Series	460W	N-Type ABC Back Contact	23.6 %
 RECOM	Black Tiger	460W	N-Type TOPcon Back Contact	23.6 %
 LONGI Solar	Hi-MO 6 Scientist	450W	N-Type HPBC Hybrid Back Contact	23.0 %
 HUASUN	Himalaya G10	450W	N-Type HJT	23.0 % <small>New</small>
 SUNPOWER	Maxeon 6	440W	N-Type IBC	22.8 %
 CanadianSolar	HiHero HJT	445W	N-Type HJT	22.8 %
 REC Solar	Alpha Pure RX	470W	N-Type HJT	22.6 % <small>New</small>
 Jinko Solar	Tiger NEO N-Type	440W	N-Type TOPcon	22.5 %
 Trinasolar	Vertex S +	450W	N-Type TOPCon	22.5 % <small>New</small>
 JA SOLAR	Ultra V Pro Mini	440W	N-Type TOPcon	22.5 % <small>New</small>
 risen	Hyper-Ion HJT	440W	N-Type TOPcon	22.5 %
 DASOLAR	Black Series	440W	N-Type TOPcon	22.5 % <small>New</small>
 TW SOLAR	182TOPCon	440W	N-Type TOPcon	22.5 % <small>New</small>
 SPIC	Andromeda 2.0	440W	N-Type IBC	22.3 %
 Q CELLS	Q.TRON-G1+	400W	N-Type TOPcon	22.3 %
 Philadelphia Solar	PS-MN108 Series	435W	N-Type TOPcon	22.3 %
 Panasonic	EverVolt H	410W	N-Type HJT	22.2 %
 中來股份 JOLYWOOD	Niwa Light	430W	N-Type TOPcon	22.0 %
 AE SOLAR	Comet	430W	N-Type TOPcon	22.0 %
 belinus	M8 IBC Ultra	400W	N-Type IBC	22.0 %

* Residential panels - 54, 60, 66 cells (108, 120, 132HC), or 96 & 104 full cell. Does not include commercial panels >2m