全球领先的双面PERC电池制造商
The World's Leading Bifacial PERC Cell Manufacturer

- 更高效率
  Higher Efficiency
- 更高可靠性
  Higher Reliability
- 更多发电量
  More Power Generation

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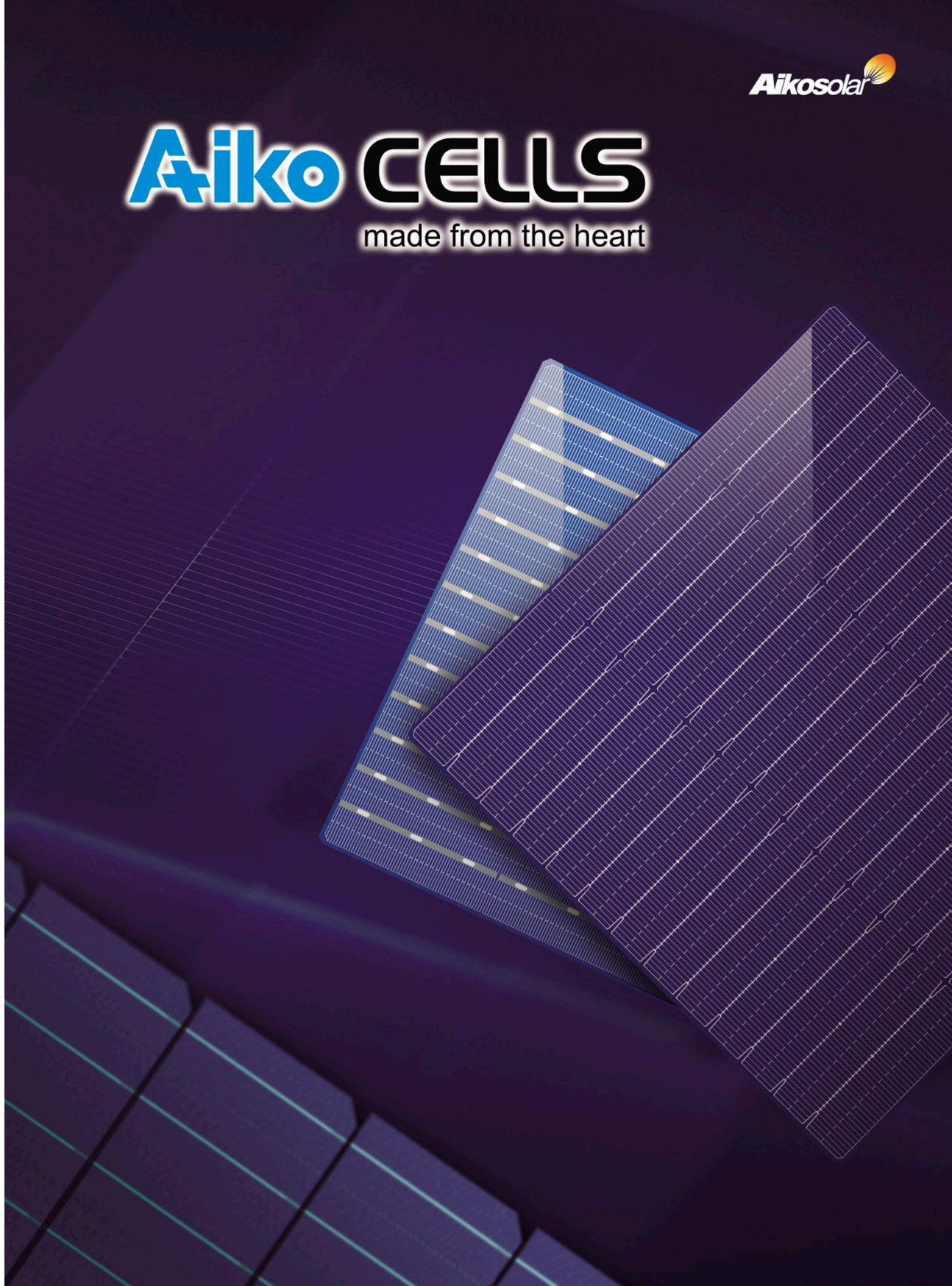
扫一扫

Aikosolar

Aiko CELLS

made from the heart



用心做 好电池
Made From the Heart

Aiko CELLS
made from the heart

2020年底拥有166尺寸10GW
和180-210尺寸24GW产能，
助力组件600W+

10GW&24GW Cell Production Capacity
for 166 & 180-210 by the End of 2020,
Boost Module to 600W+

Aikosolar

高效电池生产基地

爱旭股份（证券代码：600732）成立于2009年，专业从事晶体硅太阳电池的研究、制造、销售、服务的高新科技公司。在广东佛山、浙江义乌、天津均设有大型生产制造基地，预期2020年底爱旭电池总产能将达到36GW，并且爱旭高效P型单晶PERC电池片转换效率继续提升。爱旭拥有省级企业技术中心、省级企业重点实验室、省级工程中心和数百项专利技术，持续为客户提供“高效率、高可靠性、高发电量”产品，深受全球前十大晶硅组件企业的喜爱。

与世界前三的材料、设备供应商深度合作，将企业的原创技术落实到全球最大的单体太阳能制作车间之一，创新性的开发出高效率PERC电池的全新工艺和设备体系，结合品质领先的硅片、网版、浆料，为客户制造高效PERC双面电池。

爱旭科技秉承让太阳能成为最广泛使用的经济能源的愿景，以创造超越客户期望的商业价值、成为太阳能产业发动机为使命，通过精细化管理和量产技术创新的双轮驱动，达到光伏电力度电成本不断降低的目标。

High Efficiency PERC Cell Production Bases

Founded in 2009, Aikosolar (stock code: 600732) is a high-tech company which specializes in the research， manufacture，sale and service of crystalline silicon solar cells. Aikosolar has production bases in Foshan of Guangdong、Yiwu of Zhejiang and Tianjin. Aikosolar's total capacity will reach 36GW in 2020. The conversion efficiency of High-Eff P-type mono PERC cells will continue to be improved, and cells of bigger size can be mass produced. Aikosolar owns provincial technical center, provincial key laboratory, provincial engineering center as well as hundreds of patents, which enable Aikosolar to provide customers with products featured by' higher efficiency, higher reliability and higher power generation’. Such products are preferred by the global top 10 crystalline silicon module enterprises.

In cooperation with world's top 3 material and equipment suppliers, Aikosolar implements the original technology of the enterprise into one of the world's largest solar cell manufacturing workshop and innovatively develops brand-new technology and devices for high efficiency PERC cells. Combined with leading silicon wafer, pattern, paste, Manufactures high efficiency PERC cells for the customers.

Adehering to the vision of making solar energy the most widely used economical green energy ,Aikosolar trives to create business value beyond customers' expectation and to become the engine of solar industry. And driven by both detail management and innovations in mass production technology, to achieve the reducing the cost of per kilowatt.

广东佛山基地
Guangdong manufacturing base

浙江义乌基地
Zhejiang manufacturing base

天津基地
Tianjin manufacturing base

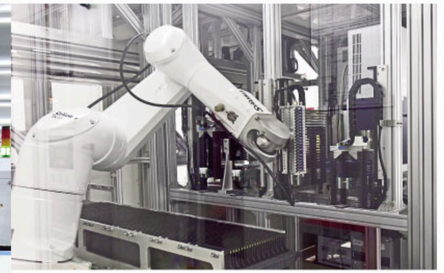
领先于全球的智能制造
World's Leading Intelligent Manufacturing

与世界领先的材料、设备供应商深度合作，创新性的开发出高效率PERC电池的全新工艺和设备体系，结合数字化管理体系为客户制造高效太阳能电池。

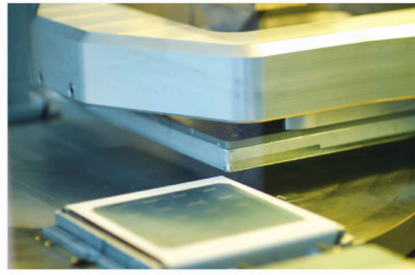
全球首创基于工业4.0具备人工智能的太阳能电池制造体系，把人工智能领域的神经网络和视觉识别研究成果应用到生产各环节中，拥有移动搬运机器人、自动中转仓、原材料仓和成品仓，配备自动化物流、传输和MES、人工智能检测等智能化体系，率先将5G技术融入太阳能电池智能制造中，高效提升产品质量和转换效率。

In cooperation with world's leading material and equipment suppliers, Aikosolar implements the original technology of the enterprise into one of the world's largest solar cell manufacturing workshop and innovatively develops brand-new technology and devices for high efficiency PERC cells. Combined with digital management systems such as SAP, MES, GE, etc., we manufacture high-efficiency solar cells under highly purified environment.

With the world's first solar cell manufacturing system based on Industry 4.0, Aikosolar has applied the research findings of neural networks and visual identity in AI field to industrial production lines. To improve cell quality and efficiency, Aikosolar takes the lead in integrating 5G technology into solar cell intellectual manufacturing, with the help of AGV, automated logistics, MES, AI detection, MEMS, etc.





爱旭始终坚持品质高标准
Top-Class Quality Standard

爱旭建立了完整的品质管理体系，取得了ISO9001、ISO14000、OHSAS18000、TUV、UL、SGS等国际认证体系和产品认证。

自成立以来100%采用优质的A级硅片，主要原辅材料均来自行业领先企业。

品质实验室拥有从硅片、网版、银铝浆等关键原材料、到电池、组件产品等全过程的检测设备和能力，让我们为客户提供质量稳定的产品。

提供客户需要的产品使其能够获得更大的价值是我们努力的方向，全球排名前二十名的晶硅组件制造商全部为爱旭长期战略客户，客户的成功就是我们的成功！

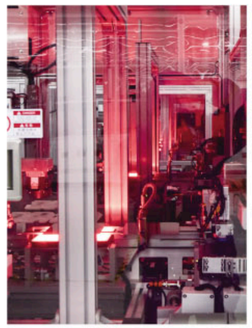
Aikosolar built up a thorough quality management system, acquiring international system and product certifications like ISO 9001, ISO 14000, OHSAS 18000, TUV, UL, SGS, etc.

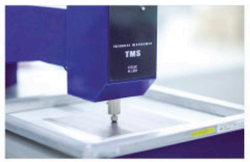
Process indicator monitoring covering the whole production process, combined with Cell ID tracing system, various data gathering systems, advanced automatic equipment and AGV robots between production process, enable Aikosolar to produce solar cells of premium quality.

The quality laboratory owns the capability of detecting devices from key materials (wafers, screen printing plates, Ag & Al pastes) to cells and modules on the entire production line, thus enable us to deliver customers products of stable quality.

We are making unremitting efforts to provide customers with products that enable them to achieve greater business values. Most of the top 20 global solar module manufacturers are Aikosolar's long-term strategic customers. Our customer's success is our success!





Aiko CELLS
用心做 好电池

创新的“双面双测”电池为客户带来更大的价值
Innovative "Bifacial Cells Metrology and Classification" Brings Greater Values to Customers

EL、膜色和I-V测试一体化整合提供更高品质保证。

全球首创双面电池双面测试，在每片电池单次测试序列内，同时完成电池双面闪光检测，获取正面、背面的检测数据和EL测试数据。

为客户提供正、背面效率互为一致的电池片产品，使客户能够创造出正面瓦数和背面瓦数互为一致的组件，是光伏电站增加更大的发电量。

低于0.6%的光衰（5KWH测试）为电站提供持久发电能力。先进的光注入光衰解决方案（灯源电流和光照更均匀）最大限度保障电站发电量和持久发电能力。

The integration of EL, AOI and I-V test can provide higher quality assurance for products.

The innovative test of both sides of the one piece of cell can be completed within the single test sequence of each cell, thus to gain testing data of front/rear side and EL testing data.

Such technology provides customers with identical cells of both front and rear side efficiencies, helping encapsulate solar modules of identical front-side and identical rear-side efficiencies, and thus to increase the power generation of PV power stations.

The light-induced degradation of below 0.6% (5KWH Test) supplies durable power generation capacity for power stations. The advanced light injection solution (current and illumination of light source more uniform) ensures power generation and sustainable generating capability.

测试过程：
Testing Process:

过程1: STC下测背面功率

过程2: 正面1000W/m^2 + 背面200W/m^2测总功率

过程3: STC下测正面功率

Process1: Test the back power on the STC

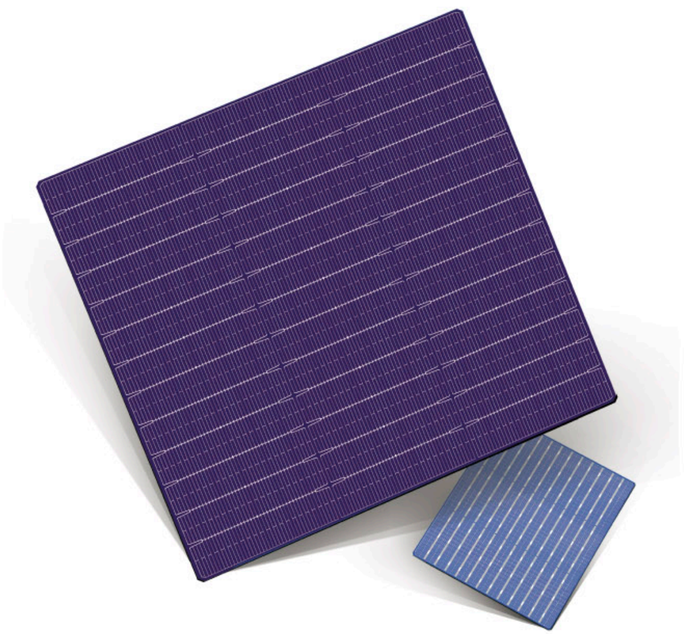
Process2: Test the total power with 1000W/m^2 on the front + 200W/m^2 on the back side

Process3: Measuring front power under STC

集合优势技术资源的光伏联合创新中心
Photovoltaic Joint Innovation Centre with Superior Resources

爱旭整合产业链优势资源和人才建立了光伏联合创新中心，结合世界领先的光伏企业和全球著名的科研院校，融合领先的行业理论，探索最具前沿的行业技术。为爱旭提供最先进的理论和技术支持，给客户提供最优质的产品。并以全面、合理的眼光审视行业发展，规划未来技术路线，为光伏全行业的突破性发展做出贡献，实现全行业合作共赢。

Aikosolar has established a PV joint innovation Centre with superior resources from the industrial chain, built a pool of business and specialized human resources. Combining world-leading photovoltaic companies and world-renowned scientific research institutions to integrate leading industry theories and explore cutting-edge industry technologies. It provides Aikosolar with the most advanced theoretical and technical support, thus giving customers the best quality products. With a comprehensive and reasonable view on PV industry development, future technology roadmap is programmed carefully, aiming at contributing to PV industry breakthrough and mutually beneficial cooperation.



210mm *210mm MBB 双面PERC电池
210mm *210mm MBB Bifacial PERC Cell

尺寸：	210mm× 210mm（直径295± 0.25mm）
厚度（电池）：	190± 20μ m
Size:	210mm× 210mm± 0.25 mm (diameter295± 0.25mm)
Thickness(cell):	190± 20μ m
正面（-）：	二氧化硅加上氮化硅蓝色复合减反膜（PID Free）;三分段设计，主栅M根，副栅120-180根；主栅三分段，每分段头尾大双叉设计，头尾两焊点设计，中间主栅与细栅连接处有4个焊点。
背面（+）：	氧化铝及氮化硅复合层；背电场由M根背面复合主栅线、150-250根Al栅线和8根防断栅Al栅线组成；九段式1.4± 0.3 mm Ag电极。
Front (-):	Silicon dioxide + blue nitride composite anti-reflection film (PID free);Three-Segment design, M roots bus bar and 120-180 roots fingers; Three-Segment design, and the bus bar has two forks head ; the size of 4 padsat the junction of bus bar.
Back (+):	AlOX and SiNX dual layer rear contact; the rear electrode is composed of M roots rear compound bus bar and 150-250 roots rear Al fingers,9 sections,1.4± 0.3 mm silver anode.

182mm*182mm MBB 双面PERC电池

182mm*182mm MBB Bifacial PERC Cell

尺寸： 182mm× 182mm± 0.5mm（直径247± 0.5mm）
厚度（电池）： 190± 20 μ m

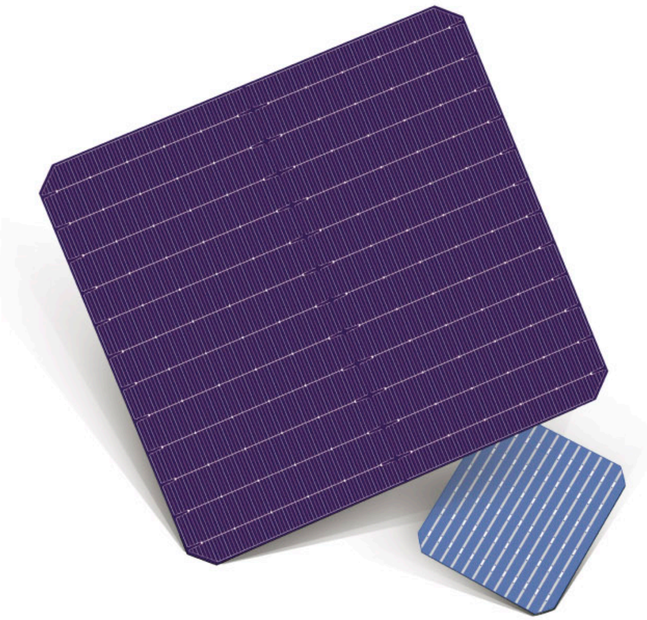
Size: 182mm× 182mm± 0.5mm (diameter 247± 0.5mm)
Thickness(cell): 190± 20 μ m

正面（-）： 二氧化硅+蓝色氮化硅复合减反膜（PID Free）；正面图形为半片设计；主栅头部为大双叉，主栅的焊盘呈间断性分步。

背面（+）： 钝化复合层 (氧化铝及氮化硅)；背电极由M根背面复合主栅线和背面Al副栅线组成；复合主栅线为局部收窄；8段式Ag背电极，背电极下无激光槽，背电极圆头且两端镂空。

Front (-): Silicon oxide + blue silicon nitride compound anti-reflection coating（PID Free）;The front side is a half-cut design; the busbar head is a large double fork, and the pads of the busbar are intermittently stepped.

Back (+): Passivated layer (AlOx and SiNx) and Rear Contact (Al); the rear electrode is composed of M roots rear compound busbar and Al fingers. The composite busbar is locally narrowed respectively 8 sections silver anode, no laser pattern under the rear electrode. Silver electrode has round head, and silver electrode is hollow at both ends.



166mm*166mm 9BB/12BB 双面PERC电池

166mm*166mm 9BB/12BB Bifacial PERC Cell

尺寸： 166mm× 166mm± 0.25mm (直径223± 0.25mm)
厚度（电池）： 190± 20 μ m

Size: 166mm× 166mm± 0.25mm (diameter223± 0.25mm)
Thickness(cell): 190± 20 μ m

正面（-）： 二氧化硅+蓝色氮化硅复合减反膜 (PID Free)；主栅宽度分别为0.1± 0.1mm/0.14± 0.1mm ，主栅头部为双叉；副栅数量为 122；图形呈半片设计。

背面（+）： 钝化发射极 (氧化铝及氮化硅复合层)；背面由9/12根背面复合主栅线和138/150根背面Al副栅线组成：背面复合主栅线局部收窄；6段式宽度为2.1± 0.3mmAg电极镶嵌在Al主栅中，背场镂空宽度1.9± 0.3mm，背银露白宽度1.5± 0.3mm；背电极下无激光槽。

Front (-): Silicon oxide + blue silicon nitride compound anti-reflection coating (PID Free); The width of bus bar is 0.1± 0.1/0.14± 0.1 mm and the head of bus bar is forked; The number of fingers is 122 ; The front side of the solar cell is designed as a half sheet.

Back (+): Rear side of bifacial cell: Passivated Emitter (AlOx and SiNx dual layer) rear contact ; the rear side is composed of 9/12 roots rear compound bus bar and 138/150 roots rear Al fingers: the rear compound bus bar is partially narrowed; 6 section Ag electrode with a width of 2.1± 0.3 mm was embedded in rear Al bus bar; The width of hollow section in Al field is 1.9± 0.3 mm, and the width of exposed Ag electrode is 1.5± 0.3 mm; there is no laser groove under the rear electrode.

爱旭股份的全球布局

Aikosolar电池结合了各种组件制造技术。
半片，切片，叠瓦，板块互连... ...
协助全球客户提供差异化市场并提升市场竞争力！

Aikosolar's Global Layout

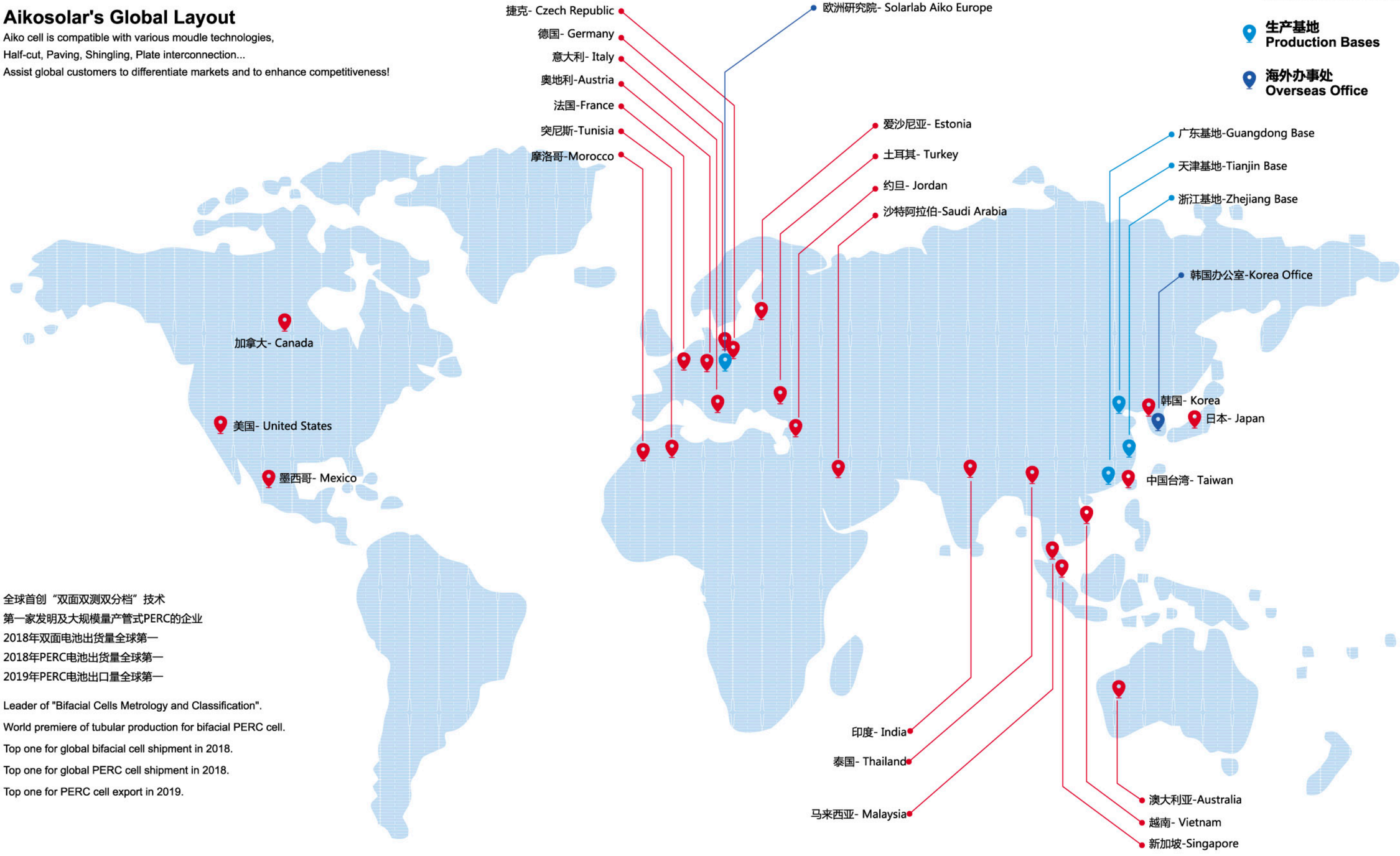
Aiko cell is compatible with various moudle technologies,
Half-cut, Paving, Shingling, Plate interconnection...
Assist global customers to differentiate markets and to enhance competitiveness!

Aiko CELLS
made from the heart

海外销售网
Aiko Solar Oversea Sales Markets

生产基地
Production Bases

海外办事处
Overseas Office



全球首创“双面双测双分档”技术
第一家发明及大规模量产管式PERC的企业
2018年双面电池出货量全球第一
2018年PERC电池出货量全球第一
2019年PERC电池出口量全球第一

Leader of "Bifacial Cells Metrology and Classification".
World premiere of tubular production for bifacial PERC cell.
Top one for global bifacial cell shipment in 2018.
Top one for global PERC cell shipment in 2018.
Top one for PERC cell export in 2019.