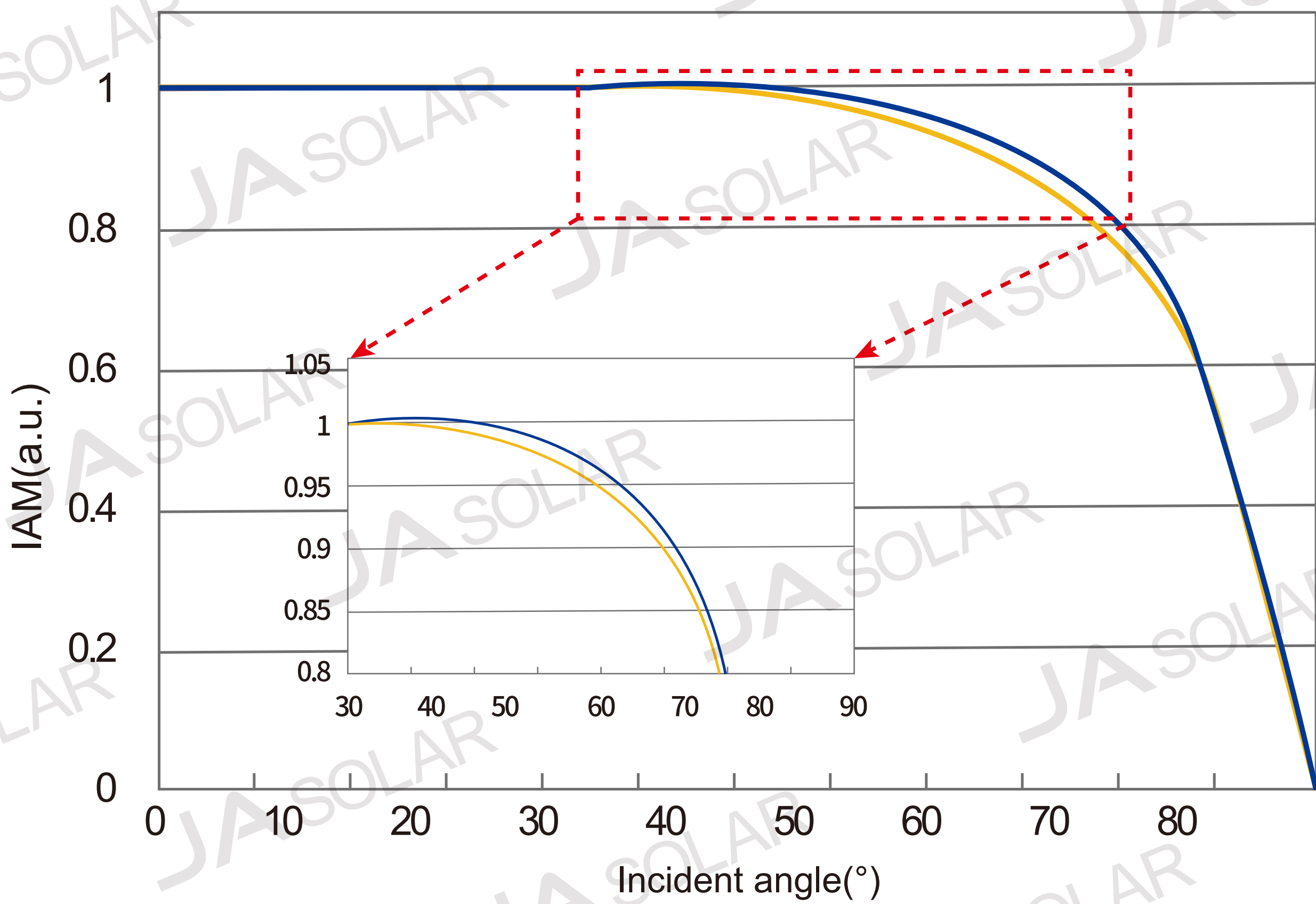
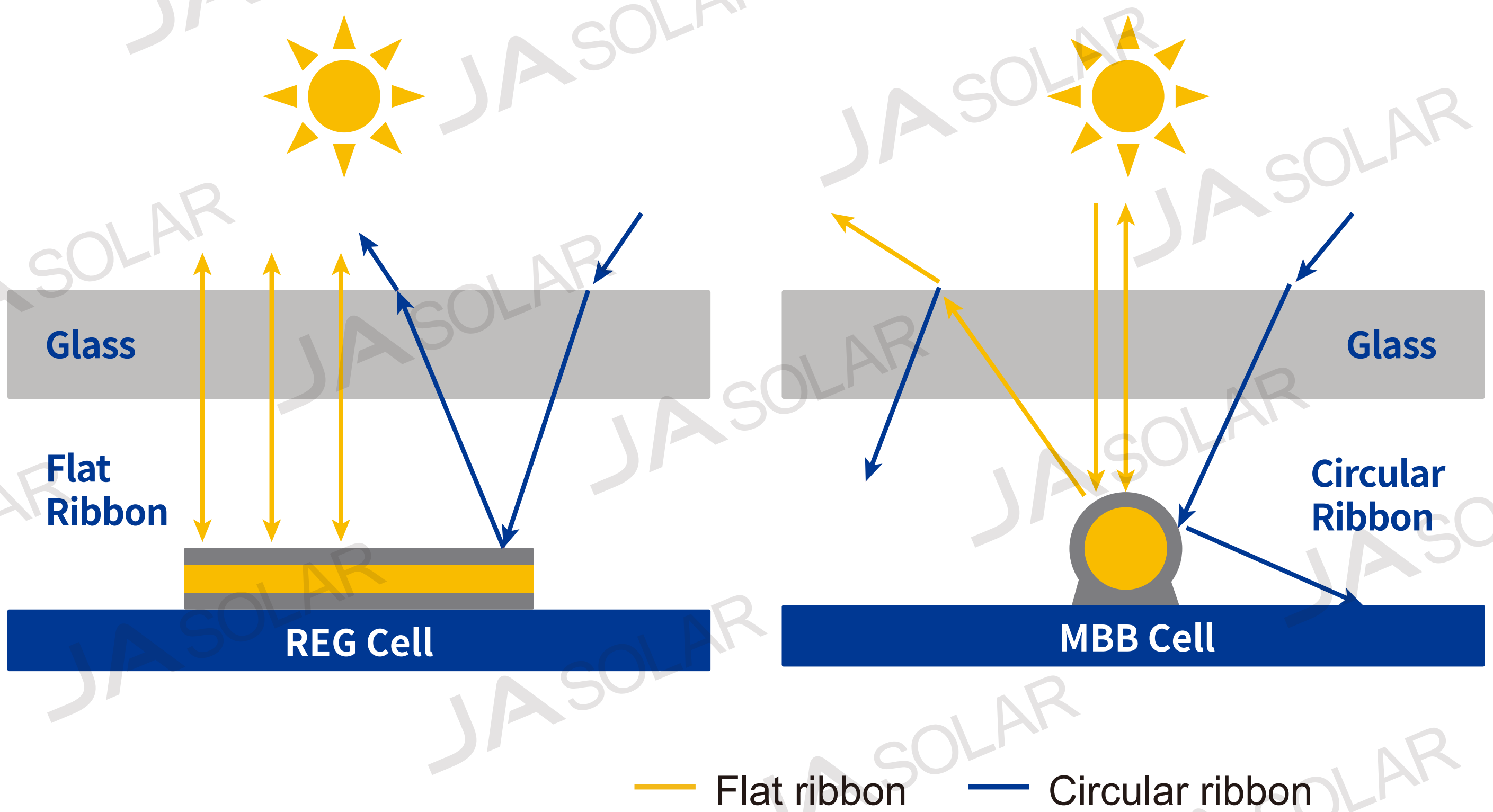


The cells are designed with circular ribbons, and the IAM performance is better than those with conventional flat ribbons at the time of oblique light incidence. Moreover, more busbar designed with smaller diameter circular ribbons can reduce the impact of stress, and effectively improve the high and low temperature resistance performance and mechanical load performance of modules.



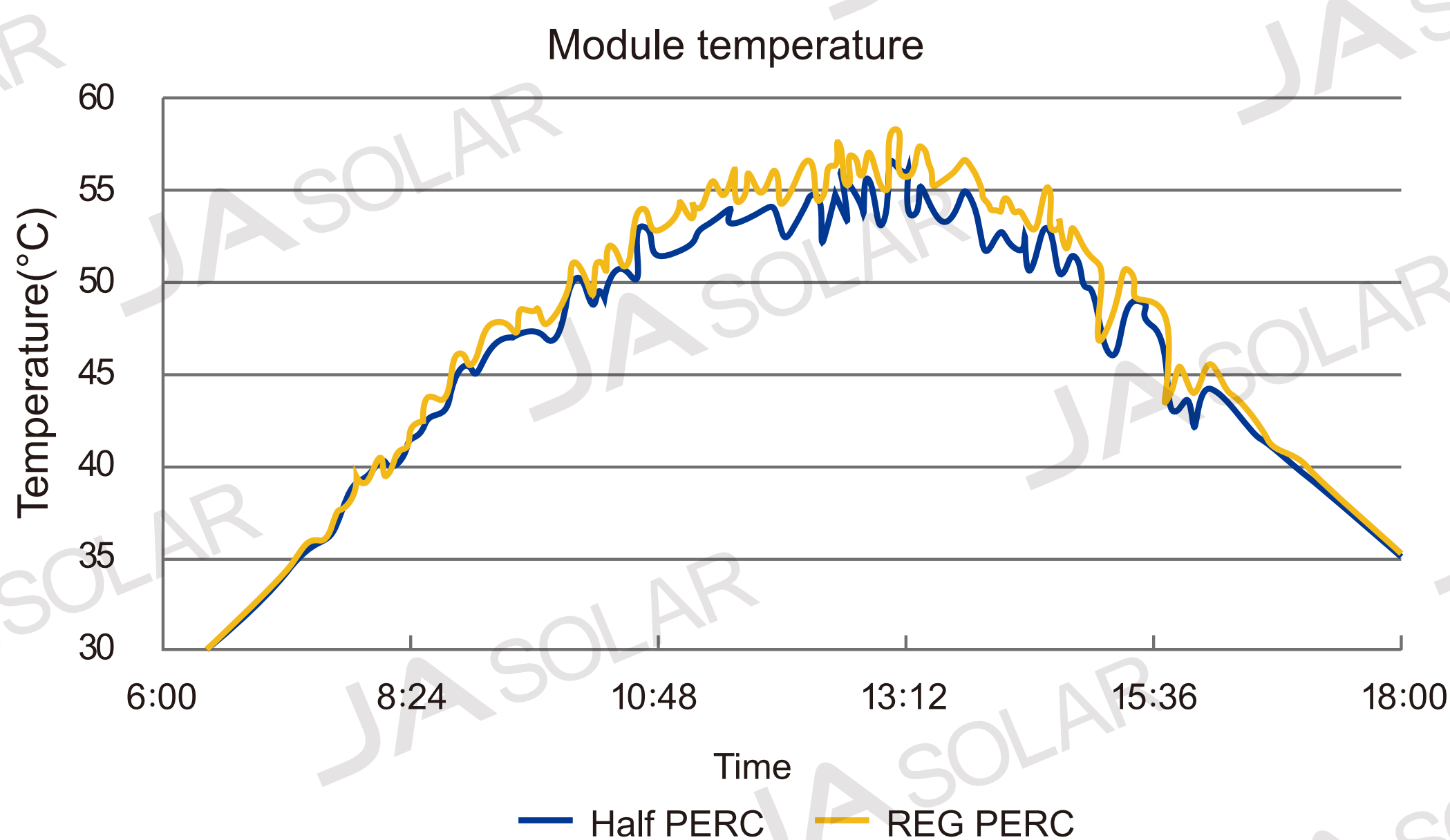
Circular ribbon design and IAM performance advantages

3.4 Half-cell technology

Adopting the half-cell technology, DeepBlue 3.0 series modules have both higher conversion efficiency and lower normal operating cell temperature (NOCT). The working temperature of half-cell modules is 2-3°C lower than that of full-cell modules, and the hot spot temperature of half-cell modules is 10-20°C lower than that of full-cell modules. In addition, half-cell modules have lower shading loss.



Full cell and half cell

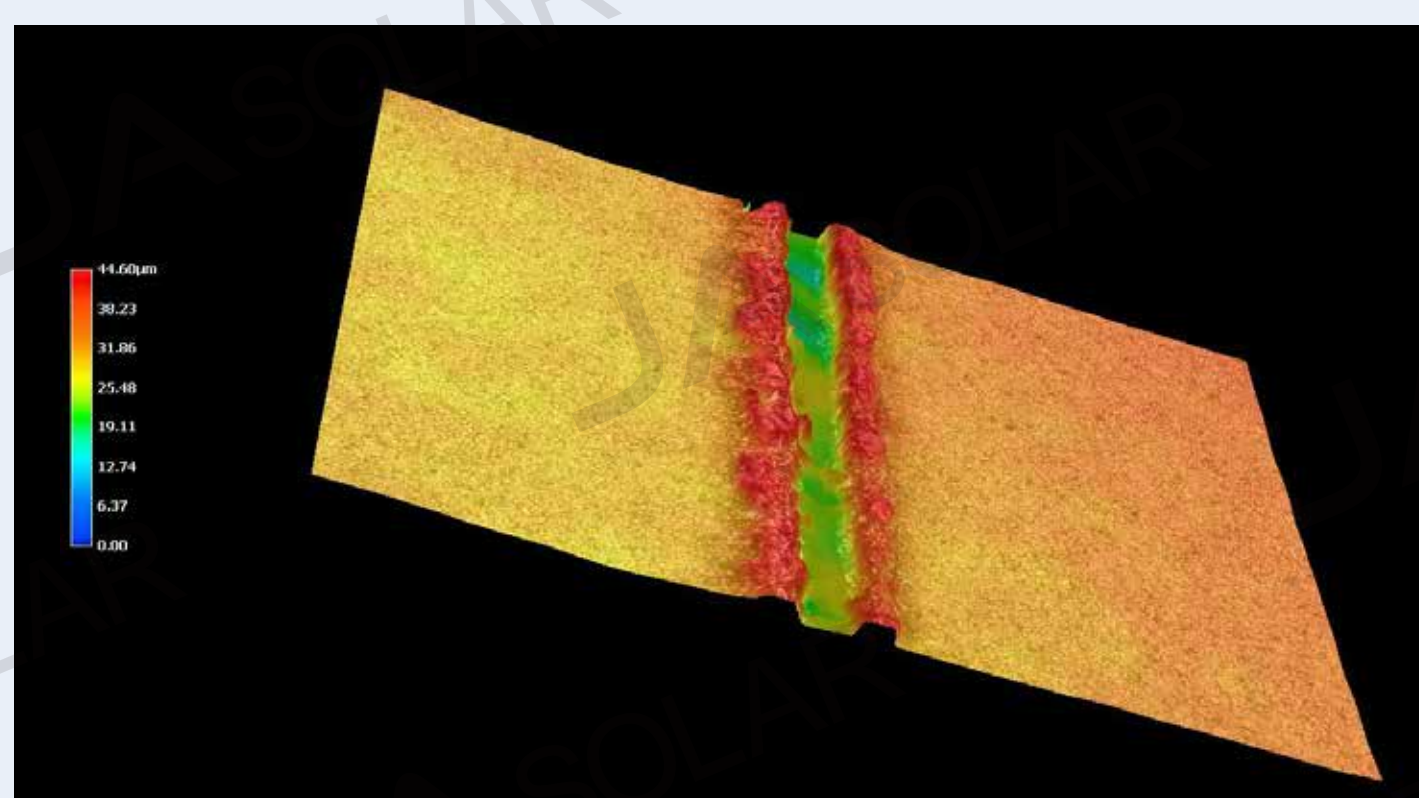


Working temperature of full-cell and half-cell modules

3.5 Advanced module technologies

DeepBlue 3.0 series modules gain higher conversion efficiency and reliability with the following improvements in module process and materials:

- ◆ high-transmittance glasses are used to improve light transmittance and weather resistance of the modules.
- ◆ Encapsulation film and backsheet are optimized to improve the power and reliability of the modules.
- ◆ cell-cutting technology is improved to reduce the damage from laser and improve the product reliability.
- ◆ with optional innovative slot frame design, the modules feature lighter weight, more convenient installation and better performance in mechanical load.



Improvement in laser-cutting technology

Advanced module technologies(1)