JA SOLAR | DEEP BLUE 3.0

DeepBlue 3.0

TECHNICAL WHITE PAPER

Stock Code:002459.SZ

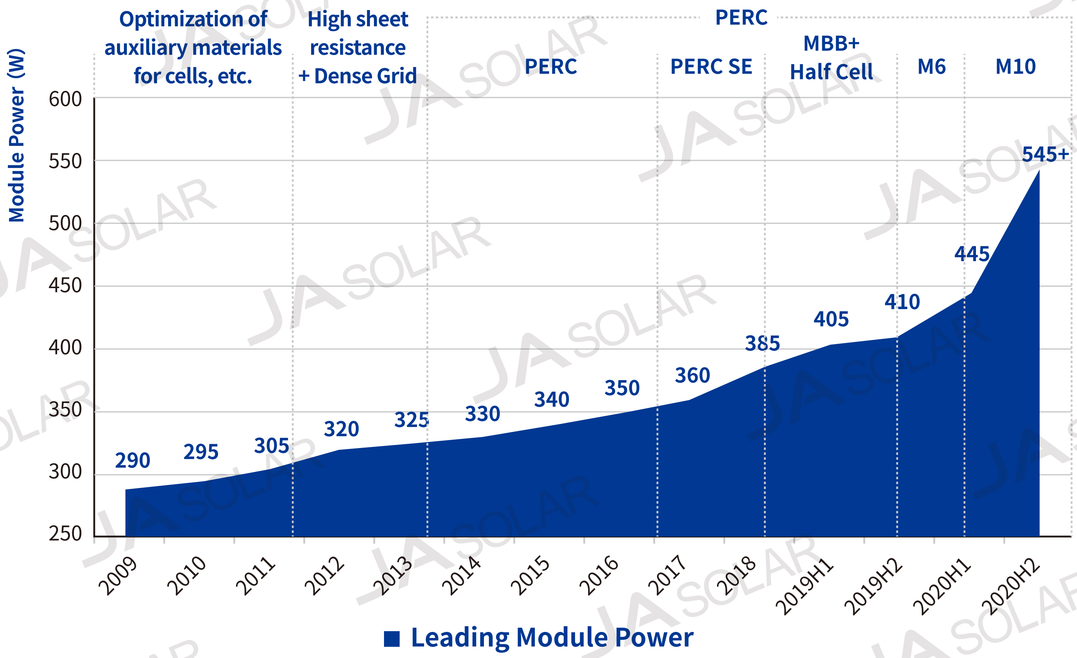
www.jasolar.com

01 PART
EMERGENCE BACKGROUND

The development of the PV industry is a continuous pursuit of the lowest levelized cost of electricity (LCOE), especially at the critical moment of global energy transition, reducing cost and improving efficiency in relation to PV modules has become an important way to reduce LCOE, which is usually achieved in two ways: continuous improvement in the cells' conversion efficiency and module power output and constant decrease in the cost per watt of PV modules.

In recent years, PV power generation technology seems to be updated at a quicker pace, as evidenced by the faster-than-conventional speed in updating product technology. Especially since 2019, as driven by large-size silicon wafer technology, there have appeared various types of ultra-high-power modules, directly pushing up the most leading module power from 410W in 2019 to 445W in the first half of 2020 and further to 500W+ or even higher in the second half of 2020.

JA Solar has always taken technological innovation as its development foundation, especially since the start of 2020, JA Solar has further increased its product R&D investment. By applying multiple technologies including M10 wafer (182mm size) technology, PERCIUM+ technology, multi-busbar (MBB) and half-cell technology, etc., JA Solar has launched its powerful product -- DeepBlue 3.0, a high-efficiency and high-power PV module which brings customers a lower LCOE solution with the power of modules available for mass production up to 590W at the moment.



Module power development trend and main efficiency improvement methods