

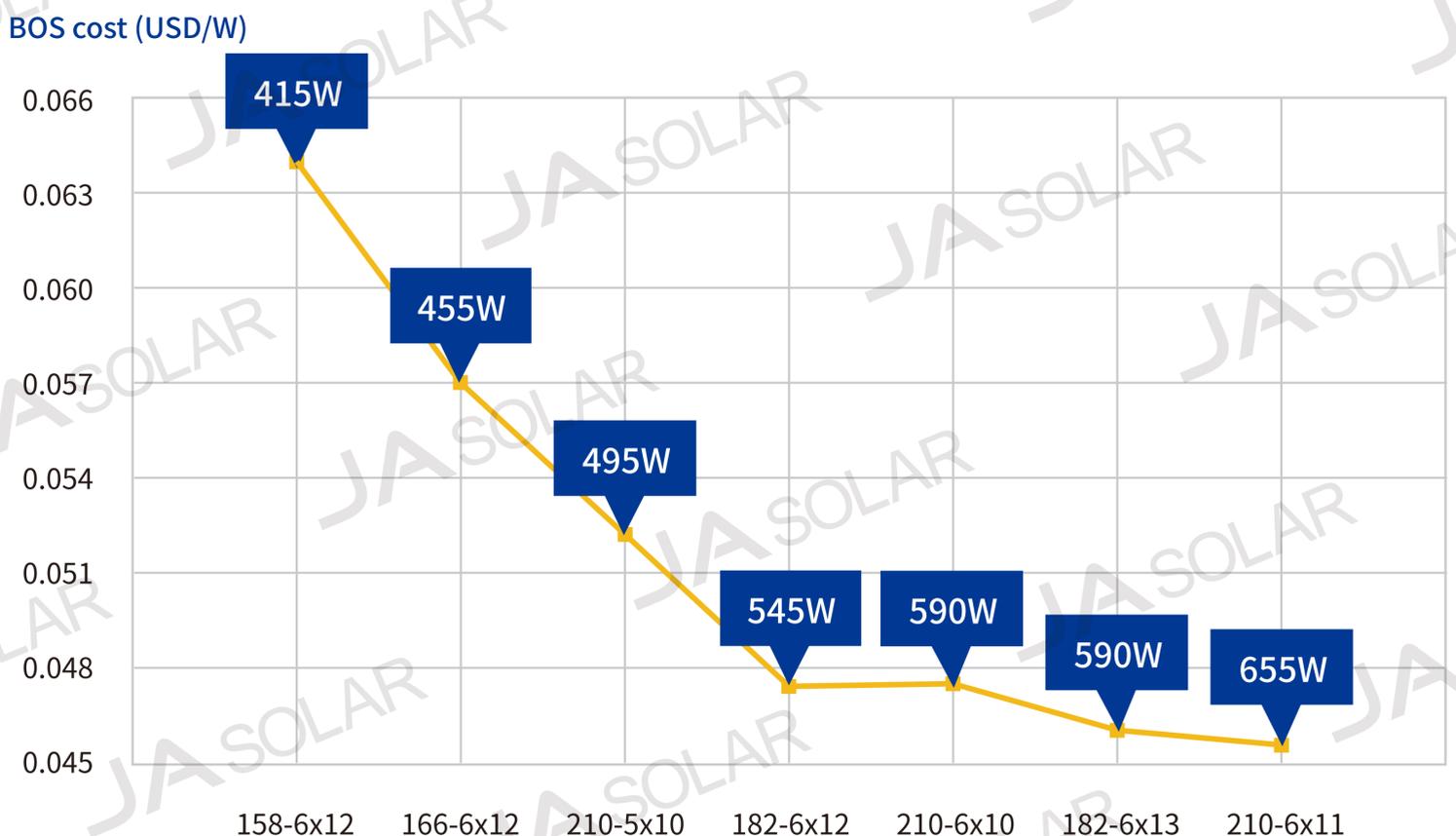
flexible operating range of the arms.

6) System compatibility

Primary consideration will be given to the compatibility with the mounting system and inverter. Regards to Structure, 182mm modules are compatible with the mainstream installations such as fixed structure and trackers; as for inverters, 182mm modules are fully compatible with all mainstream central inverters. Regarding string inverters, mainstream inverter manufacturers have launched or plan to launch solutions to match large currents.

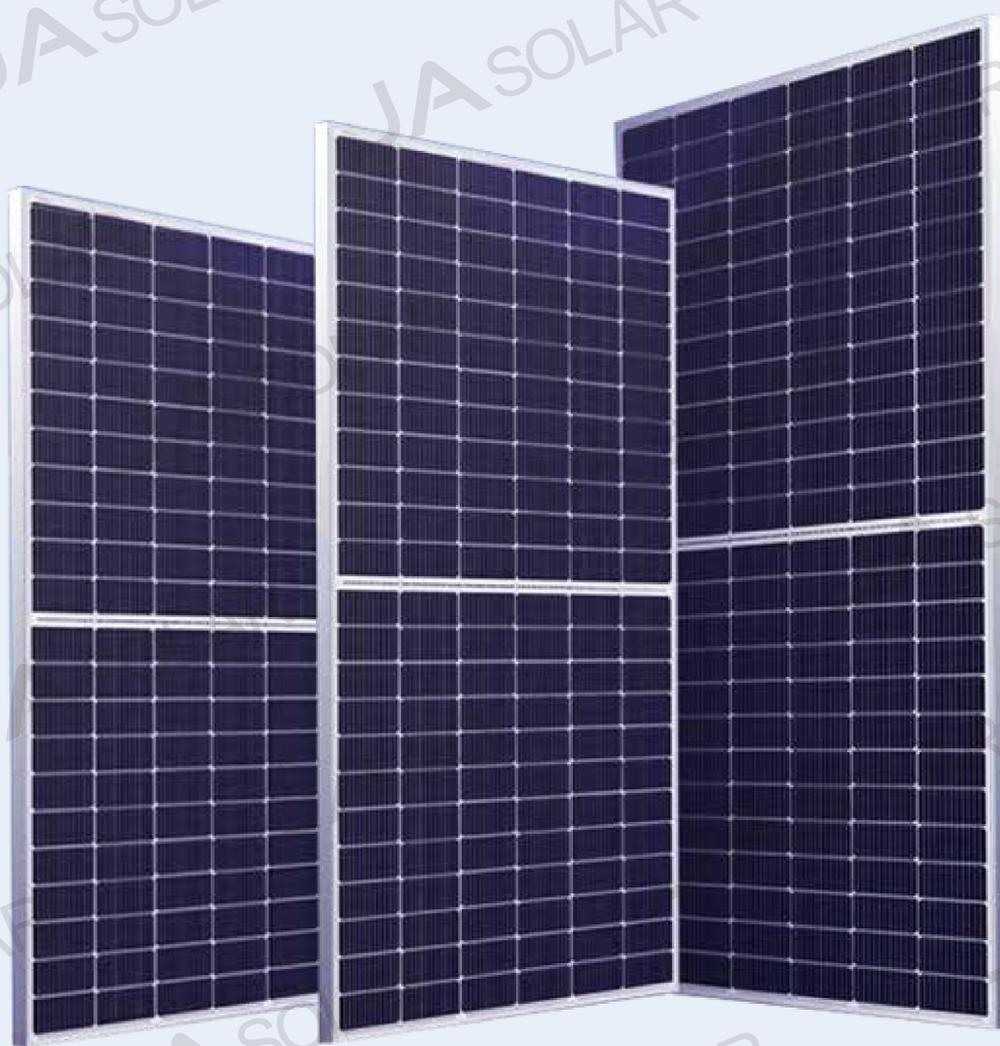
7) Manufacturing cost and BOS cost

The integrated manufacturing cost of 182 series products is significantly reduced based on compatibility with all industry links. The upgrade of silicon wafer size plays a positive role in reducing the cost per watt. However, it does not mean the larger the wafer size, the lower the integration cost, as the flux value resulting from oversized wafers may be offset by the wafer and module side. Given similar module efficiency, an appropriate increase in module size can effectively reduce BOS cost, but further increase in module size causes increasingly insignificant decrease in BOS cost, and the risk of mechanical load, difficulty in transportation and installation, bearing capacity of structures and other limitations brought by the increase in size greatly reduce the actual utility of modules. Therefore, the biggest is not necessarily the best for module size. Instead, a comprehensive evaluation on the whole industry chain and the whole PV system should be conducted to obtain a reasonable size, the optimal manufacturing cost, variable BOS cost and LCOE.



Relationship among module power, size and BOS cost (variable BOS cost (USD/W))

To sum up, compared with the existing products, DeepBlue 3.0 products feature smaller span in process, higher maturity of existing equipment and process, less difficulty and low cost in upgrading production lines, small limitation in supply materials, low manufacturing cost per watt under integration, and low BOS cost, therefore, we finally decide to use 182mm silicon wafers and design modules of 66/72/78-cell.



66-Cell

72-Cell

78-Cell

66/72/78-cell type of DeepBlue 3.0 modules