

PV String Connection Guideline For Micro-grid Sungiga (Boost Mode)



PRODUCT	JKH100LTA	JKH150LTA	JKH250LTA	JKH500LTA
Battery SIDE				
BATT Capacity (kWh)	215~1720	430~1720	645~1720	1075~2150
BATT Rated Voltage (V)	768	768	768	768
BATT Voltage Range (V)	672~864	672~864	672~864	672~864
Hybrid PCS SIDE				
PCS Rated Power (kW)	100	150	250	500
DC-DC Rated Power (kW)	100	150	250	500
DC-DC Extended Power (kW)	150	200	300	600
PV Input				
Min. String Vmp (V)	250	250	250	250
Max. String Voc (V)	642	642	642	642
Max. Input Current (A)/MPPT	200	200	200	200
No. of MPPTs	2(3)	3(4)	5(6)	10(12)

Min. String Vmp (V): The minimum power input voltage of a PV module string at site high temperature. The full load MPPT Min. String Vmp is 450V.
Max. String Voc (V): The maximum open-circuit input voltage of a PV module string at site low temperature.

Calculation Sample:

JKM580N-72HL4-V Tiger Neo Solar Panel

Module Parameters:

JKM580N-72HL4-V 580Wp Vmp = 43.35V Voc = 52.47V Temperature coefficients (K) of V = -0.29%/°C

Example Site Conditions:

Site low temperature (Tmin) = 10°C. Site high temperature (Tmax) = 65°C

Calculation Results:

Min. number of panels = $\frac{\text{Min. String Vmp}}{V_{mp} \times [1 + K \times (T_{max} - 25^\circ\text{C})]} = 250 \div \{43.35 \times [1 - 0.29\% \times (65 - 25)]\} = 6.5$ So; Min. panels per string is 7

Max. number of panels = $\frac{\text{Max. String Voc}}{V_{oc} \times [1 + K \times (T_{min} - 25^\circ\text{C})]} = 642 \div \{52.47 \times [1 - 0.29\% \times (10 - 25)]\} = 11.7$ So; Max. panels per string is 11

The calculative logic only lists Jinko ESS's mainstream product models. Please contact Jinko ESS technician for more requirements or clarification.
The project case is for reference only, please contact the Jinko ESS technician for the specific connection method.
This guideline does not assume any financial loss and security. The latest version is available without prior notice.
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