Pika PV Link S2501 String Sizing Worksheet



WARNING

Never mix and match panels: each discreet substring should be comprised of panels of the same make and model. Substrings controled by different PV Links may be made of different panels and connected on a single home run.

Use this worksheet to determine the maximum number of a chosen PV module will work on a PV Link controlled substring. Fewer panels can always be used. Fill in panel information first. Then, calculate an adjusted VOC for the panel you are installing in step 1 using the cold factor voltage correction table.

NEC Cold Factor Voltage Correction Notes:

Ambient temperature can have a huge impact on panel efficiency. At low temperatures, VOC can increase by up to 1.25x. If a system is designed without correcting for this cold factor, serious and permanant system damage will occour.

Use the NEC cold-factor voltage correction table to match the record low temperature for the area of installation to the corresponding cold factor. When in doubt, use a larger factor. For the Northeast and New England, a cold factor of 1.25 is standard.

ALWAYS consider NEC cold factor. Only areas that have never been below 77° F (25° C) are exempt from this consideration.

Min. Temp (°C)	NEC Cold Factor	Min. Temp (°F)
24 to 20	1.02	76 to 68
19 to 15	1.04	67 to 59
14 to 10	1.06	58 to 50
9 to 5	1.08	49 to 41
4 to 0	1.10	40 to 32
-1 to -5	1.12	22 to 14
-6 to -10	1.14	22 to 14
-11 to -15	1.16	13 to 5
- 16 to -20	1.18	4 to -4
-21 to -25	1.20	-5 to -13
-26 to -30	1.21	-14 to -22
-31 to -35	1.23	-23 to -31
-36 and below	1.25	-31 and below

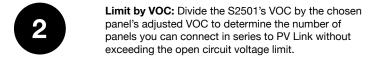
Max. Panels per Sub-String

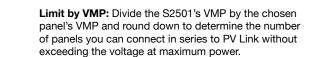
Panel Make: Panel VOC:

Panel Model: Panel VMP:

Rated Power (W): NEC Cold Factor:

1	Adjust VOC: Use an appropriate NEC cold factor to calculate an adjusted VOC for the panel you are installing
1	to calculate an adjusted VOC for the panel you ar





Panel VOC		NEC Cold Factor		Adjusted VOC Result
	x		=	
S2501 max. VOC		Adjusted VOC		VOC Limit Result
420 V	÷		=	
S2501 max. VMP		Panel VMP		VMP Limit Result
360 V	÷		=	
			•	

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Choose the smaller of the two limit results and round down: Choose the smaller of the two numbers from the results of steps 3 and 4. Round the number down to the nearest integer and write it here. This is the maximum number of panels of this type that you can connect to PV Link given the specified cold factor.