

**CLASSIC SIZING TOOL****PV Module Data**

Power:	128	Watts
VOC (Open Circuit Voltage):	47.6	Volts
VMP (Maximum Power Point Voltage):	33	Volts
ISC: (Short Circuit Amperage)	4.8	Amps
IMP (Maximum Power Point Amperage):	3.88	Amps
VOC Temp Coef %:	0.38	C°
VMP Temp Coef %:	0.31	C°

**Environmental Data**

Coldest Ambient Temperature:	-30	C°
Hottest Ambient Temperature:	40	C°
Nominal Battery Volts:	48	Volts

**PV Array**

Number Of Modules In Series:	2
Number Of Parallel Strings:	15
Total Modules	30
Rated PV Array Power:	3840 Watts
Anticipated Array Power @ 120C:	2709 Watts
Rated PV Array Current:	58.2 Amps
Battery Charging Current @ 57.6 V:	66.7 Amps
VMP (Maximum Power Point Voltage) :	66 Volts
VOC (Open Circuit Voltage):	95.2 Volts
VMP @ -30 C°:	77.2 Volts
VOC @ -30 C°:	115 Volts

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**Charge Controller Selection**

	<b>Classic150/Lite</b>	<b>Classic200/Lite</b>	<b>Classic250/Lite</b>	<b>Classic250KS</b>
Max Operating Voltage	150	200	250	250
Max Non operating VOC ( <a href="#">HyperVOC</a> ) @ 48V Nominal Battery Voltage	198	248	298	298
Maximun Number Of Modules In Series	2	3	4	4
Max Number Of Modules In Series ( <a href="#">Using HyperVOC</a> )	3	4	5	5
Max Allowable Output Current Per Classic Based On This Current Configuration	86	78	55	50
Max Allowable Wattage Per Classic Based On This Current Configuration	5022	4550	3212	2900
Present PV Array Wattage Of This Configuration	3840	3840	3840	3840

**Design Check**

Max VOC	<b>OK</b>	<b>OK</b>	<b>OK</b>	<b>OK</b>
Temperature The Classic Will Enter <a href="#">HyperVOC</a>	-126 C°	-265 C°	-403 C°	-403 C°
Array Power (Wattage)	<b>OK</b>	<b>OK</b>	<b>EXCESSIVE</b>	<b>EXCESSIVE</b>
Classics Required	0.8	0.9	1.2	1.4

**NOTE:** MidNite Solar recommends a second controller be added after 1.2

**WARNING:** MidNite Solar makes no representation, warranty or assumption of liability regarding the use of the String Calculator. This tool uses data provided by other parties (such as PV module specs) and makes calculations based on assumptions which may or may not prove to be valid.