Classic Sizing Tool

PV Module Data		
Power	250	Watts
VOC	37.3	Volts
VMP	30.1	Volts
ISC	8.78	Amps
IMP	8.31	Amps
VOC Temp Coef %	0.307	C
VMP Temp Coef %	0.423	Amps

Environmental Data		
Coldest Ambient Temperature	-10	C
Hottest Ambient Temperature	40	C
Nominal Battery Volts	12	Volts

PV Array		
Number Of Modules In Series	2	
Number Of Parallel Strings	3	
Total Modules	6	
Rated PV Array Power	1500	Watts
Anticipated Array Power @ 50 C	1341	Watts
Rated PV Array Current	24.93	Amps
Battery Charging Current @ 14.4V	104.2	Amps
VMP (Maximum Power Point Voltage	60.2	Volts
VOC (Open Circuit Voltage)	74.6	Volts
VMP @ -10 C	69.2	Volts
VOC @ -10 C	82.6	Volts

Charge Controllers

	CLASSIC 150/LITE	CLASSIC 200/LITE	CLASSIC 250/LITE	CLASSIC 250KS/LITE
Max Operating Voltage	150	200	250	250KS
Max None Operating VOC (HyperVOC) @ 48V Nominal Bat Voltage	162	212	262	262
Maximum Number Of Modules In Series Configuration	3	4	6	6
Max Number Of Modules In Series Using HyperVOC	3	5	6	6
Max Allowable Output Current Per Classic Based On This Current	96	79	61	56
Max Allowable Wattage Per Classic Based On This Configuration	1380	1137	878	800
Present PV Array Wattage Of This Configuration	1500	1500	1500	1500

Design Check

Max VOC	**OK**	**OK**	**OK**	**OK**
Temp The Classic Enters HyperVOC	-304 C°	-523 C°	-741 C°	-741 C°
Array Power (Wattage)	**EXCESSIVE**	**EXCESSIVE**	**EXCESSIVE**	**EXCESSIVE**
Classics Required	**1.1**	**1.4**	**1.8**	**1.9**

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.

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