



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	1			
Number Of Parallel Strings	6			
Total Modules	6			
Rated PV Array Power	1500	Watts		
Anticipated Array Power @ 50 C	1341	Watts		
Rated PV Array Current	49.86	Amps		
Battery Charging Current @ 14.4V	104.2	Amps		
VMP (Maximum Power Point Voltage)	30.1	Volts		
VOC (Open Circuit Voltage)	37.3	Volts		
VMP @ -10 C	34.6	Volts		
VOC @ -10 C	41.3	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	-959 C°	-1396 C°	-1832 C°	-1832 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.