



Classic Sizing Tool

PV Module Data			
Power	270	Watts	
VOC	38.5	Volts	
VMP	31.3	Volts	
ISC	9.09	Amps	
IMP	8.63	Amps	
VOC Temp Coef %	0.33	C	
VMP Temp Coef %	0.45	Amps	
Environmental Data			
Coldest Ambient Temperature	-30	C	
Hottest Ambient Temperature	40	C	
Nominal Battery Volts	48	Volts	
PV Array			
Number Of Modules In Series	5		
Number Of Parallel Strings	2		
Total Modules	10		
Rated PV Array Power	2700	Watts	
Anticipated Array Power @ 40 C	2518	Watts	
Rated PV Array Current	17.26	Amps	
Battery Charging Current @ 57.6V	46.9	Amps	
VMP (Maximum Power Point Voltage)	156.5	Volts	
VOC (Open Circuit Voltage)	192.5	Volts	
VMP @ -30 C	195	Volts	
VOC @ -30 C	227.5	Volts	
Charge Controllers			
	CLASSIC 150/LITE	CLASSIC 200/LITE	CLASSIC 250/LITE
Max Operating Voltage	150	200	250
Max None Operating VOC (HyperVOC) @ 48V Nominal Bat Voltage	198	248	298
Maximum Number Of Modules In Series Configuration	3	4	5
Max Number Of Modules In Series Using HyperVOC	4	5	6
Max Allowable Output Current Per Classic Based On This Current	76	65	55
Max Allowable Wattage Per Classic Based On This Configuration	4438	3796	3212
Present PV Array Wattage Of This Configuration	2700	2700	2700
Design Check			
Max VOC	TOO HIGH	MARGINAL (HyperVOC)	OK
Temp The Classic Enters HyperVOC	ALWAYS	13 C°	-66 C°
Array Power (Wattage)	OK	OK	OK
Classics Required	0.7	0.8	0.9

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.