



## Classic Sizing Tool

PV Module Data				
Power	435	Watts		
VOC	85.6	Volts		
VMP	72.9	Volts		
ISC	5.97	Amps		
IMP	4.81	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	12	Volts		
PV Array				
Number Of Modules In Series	1			
Number Of Parallel Strings	2			
Total Modules	2			
Rated PV Array Power	870	Watts		
Anticipated Array Power @ 40 C	811	Watts		
Rated PV Array Current	9.62	Amps		
Battery Charging Current @ 14.4V	60.4	Amps		
VMP (Maximum Power Point Voltage)	72.9	Volts		
VOC (Open Circuit Voltage)	85.6	Volts		
VMP @ -30 C	90.9	Volts		
VOC @ -30 C	101.1	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	1	1	2	2
Max Number Of Modules In Series Using HyperVOC	1	2	2	2
Max Allowable Output Current Per Classic Based On This Current	96	77	61	56
Max Allowable Wattage Per Classic Based On This Configuration	1380	1108	878	800
Present PV Array Wattage Of This Configuration	870	870	870	870
Design Check				
Max VOC	OK	OK	OK	OK
Temp The Classic Enters HyperVOC	-203 C°	-380 C°	-557 C°	-557 C°
Array Power (Wattage)	OK	OK	OK	EXCESSIVE
Classics Required	0.7	0.8	1	1.1

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.