Classic Sizing Tool

PV Module Data		
Power	405	Watts
VOC	50.8	Volts
VMP	41.4	Volts
ISC	10.23	Amps
IMP	9.79	Amps
VOC Temp Coef %	0.26	C
VMP Temp Coef %	0.36	Amps

Environmental Data		
Coldest Ambient Temperature	-40	C
Hottest Ambient Temperature	85	C
Nominal Battery Volts	48	Volts

PV Array		
Number Of Modules In Series	3	
Number Of Parallel Strings	2	
Total Modules	6	
Rated PV Array Power	2430	Watts
Anticipated Array Power @ 85 C	1905	Watts
Rated PV Array Current	19.58	Amps
Battery Charging Current @ 57.6V	42.2	Amps
VMP (Maximum Power Point Voltage	124.2	Volts
VOC (Open Circuit Voltage)	152.4	Volts
VMP @ -40 C	153.3	Volts
VOC @ -40 C	178.2	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	2	3	4
Max Number Of Modules In Series Using HyperVOC	3	4	5
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	2430	2430	2430

Design Check

Max VOC	**MARGINAL (HyperVOC)**	**OK**	**OK**
Temp The Classic Enters HyperVOC	**ALWAYS**	-95 C°	-221 C°
Array Power (Wattage)	**OK**	**OK**	**OK**
Classics Required	**0.6**	**0.7**	**0.8**

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.

www.midnitesolar.com
17722 - 67th Ave NE, Arlington, WA. 98223 PH: 360-403-7207 FAX: 360-691-6862