



SILENT KNIGHT

5496 Power Expander Calculations
Version 02.24.09

Global Project Values:

Project Name:
Project ID:
Prepared By:
Date:

Standby Hours:
Alarm Mins:
Derating Factor:
Voltage Drop Warning
Threshold %:

Panel ID:
Location:

Model: 5496 Power Expander
Volts: 24 VDC

Max NAC Current: 3.0 Amps
Max Panel Current: 6.0 Amps

Part.#	Description	Qty	Current Draw		Wire AWG & Type	Ohms Per 1000 Ft.	Length(ft) One-Way	Actual Ohms	Volts @ EOL	%Drop
			Standby	Alarm						
5496	5496 Pwr Module	1	0.040	0.160						
NAC #1	Notification Appl Circuit		0.000	2.800	#12 Solid	1.59		0.00	20.40	0.00%
NAC #2	Notification Appl Circuit		0.000	2.800	#12 Solid	1.59		0.00	20.40	0.00%
NAC #3	Notification Appl Circuit		0.000	0.129	#12 Solid	1.59		0.00	20.40	0.00%
NAC #4	Notification Appl Circuit		0.000	0.000	#12 Solid	1.59		0.00	20.40	0.00%
Total Standby Current (Amps)			0.040	5.889	Total Alarm Current (Amps)					
Standby Time In Hours			24	0.083	Alarm Time In Minutes / 60 (5 Mins)					
Total Standby AH Required			0.960	0.491	Total Alarm AH Required					
Total Combined AH Required			1.45							
Multiply By The Derating Factor			1.20							
Minimum Battery AmpHours Required			1.74							

Command Shortcuts

Wire resistance is taken from Chapter 9 Table 8 of the National Electric Code (NFPA70).