



**SILENT
KNIGHT**

5495 Power Expander Calculations
Version 02.18.09

Global Project Values:

Project Name: CITC
Project ID: 90076
Prepared By: RED HAWK FIRE PROTECTION
Date: 8/31/2023

Standby Hours: 24
Alarm Mins: 5
Derating Factor: 1.2
Voltage Drop Warning
Threshold %: 10

Panel ID: 5495
Location: SUITE 101-104

Model: 5495 Power Expander
Volts: 24 VDC

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

Ckt.#	Circuit Name		Current Draw		Wire AWG	Ohms Per	Length(ft)	Actual	Volts @	%Drop
			Standby	Alarm	& Type	1000 Ft.	One-Way	Ohms	EOL	
5495	5495 Pwr Module	1	0.075	0.205						
NAC #1	5495 Circuit 1		0.000	0.620	#14 Solid	2.52	85	0.43	20.13	1.30%
NAC #2	5495 Circuit 2		0.000	0.000	#12 Solid	1.59		0.00	20.40	0.00%
NAC #3	5495 Circuit 3		0.000	0.000	#12 Solid	1.59		0.00	20.40	0.00%
NAC #4	5495 Circuit 4		0.000	0.000	#12 Solid	1.59		0.00	20.40	0.00%
Aux	5495 Aux Power Out		0.000	0.000	#12 Solid	1.59		0.00	20.40	0.00%
Total Standby Current (Amps)			0.075	0.825	Total Alarm Current (Amps)					
Standby Time In Hours			24	0.083	Alarm Time In Minutes / 60		(5 Mins)			
Total Standby AH Required			1.800	0.069	Total Alarm AH Required					
Total Combined AH Required			1.87		Wire resistances are based upon an ambient temperature of 72 degrees F. Because of the minimal difference between solid and stranded wire no differential was made.					
Multiply By The Derating Factor			1.20							
Minimum Battery AmpHours Required			2.24							

Configure Circuits

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