



PSN-64

Battery & Voltage Drop
Calculations

Project Name: Sonny
Standby Hours: 24
Alarm Mins: 5
Efficiency Factor: 20%
Installed By: Fire Alarm Solutions
Designed By: Fire Alarm Solutions
Date: 8/20/2025
NAC Source Voltage: 24

Model #: PSN-64

Max Panel Current (amps): 6

Panel ID:
Location: Warehouse

User assumes all responsibility to ensure the quantities and current draw values in this worksheet are accurate prior to submittal.

Qty	Panel Part #	Description	Standby (amps)		Alarm (amps)	
			Each	Total	Each	Total
1	PSN-64	NAC Power Expander	0.075	0.075	0.075	0.075
Panel Standby:			0.075		Panel Alarm:	0.075

NAC Circuits (See NAC Configuration below)				Standby (amps)		Alarm (amps)	
Ckt	Use	Description	Class	Total		Total	
1	Notification		Class B	0.00000		0.17400	
2	Notification		Class B	0.00000		0.08700	
3			Class B	0.00000		0.00000	
4			Class B	0.00000		0.00000	
AUX				0.00000		0.00000	
NAC Standby:				0.00000		NAC Alarm:	0.26100

Battery Calculation Summary				Standby (amps)		Alarm (amps)	
Panel Current:				0.07500		0.07500	
NAC Circuit Current:				0.00000		0.26100	
Total Standby:				0.075000		Total Alarm:	0.33600
Standby Hours:				24		Alarm Mins:	5
AH Required:				1.80		AH Required:	0.03
Total Combined Standby & Alarm AmpHours Required:						1.83	
Safety Margin:						20%	
Required Battery AmpHours:						2.20	
Battery AmpHours Provided:						7ah	

NAC Circuit Configuration & Voltage Drop

Sonny

8/20/2025

NAC 1		MAX Circuit Current (amps): 3		Source Voltage Used (VDC): 24	
Class:	Class B	Usage:	Notification	Description:	

Wire Type	Ohms/1000ft	Length 1-Way	Actual Ohms	Max Load (amps)	Volts @ EOL	Min Volts Req'd
#14 Solid	3.19	280	1.786	0.174	23.69	16

Qty	Lookup Type	Circuit Devices Description	Standby (amps)		Alarm (amps)	
			Each	Total	Each	Total
2	User Defined	System Sensor P2L (75cd)	0.000000	0.000000	0.087000	0.174000
Total Standby:			0.00000		Total Alarm:	0.17400

NAC 2		MAX Circuit Current (amps): 3		Source Voltage Used (VDC): 24	
Class:	Class B	Usage:	Notification	Description:	

Wire Type	Ohms/1000ft	Length 1-Way	Actual Ohms	Max Load (amps)	Volts @ EOL	Min Volts Req'd
#14 Solid	3.19	100	0.638	0.087	23.94	16

Qty	Lookup Type	Circuit Devices Description	Standby (amps)		Alarm (amps)	
			Each	Total	Each	Total
1	User Defined	System Sensor P2L (75cd)	0.000000	0.000000	0.087000	0.087000

Total Standby:				0.00000	Total Alarm: 0.08700

NAC 3		MAX Circuit Current (amps): 3		Source Voltage Used (VDC): 24		
Class:	Class B	Usage:		Description:		

Wire Type	Ohms/1000ft	Length 1-Way	Actual Ohms	Max Load (amps)	Volts @ EOL	Min Volts Req'd
#12 Solid	2.01		0.000	0.000	24.00	16

Circuit Devices			Standby (amps)		Alarm (amps)	
Qty	Lookup Type	Description	Each	Total	Each	Total
		User can add devices on the fly				
		to these bottom 5 rows				
		(No lookup function)				
Total Standby:			0.00000		Total Alarm:	0.00000

NAC 4		MAX Circuit Current (amps): 3		Source Voltage Used (VDC): 24		
Class:	Class B	Usage:		Description:		

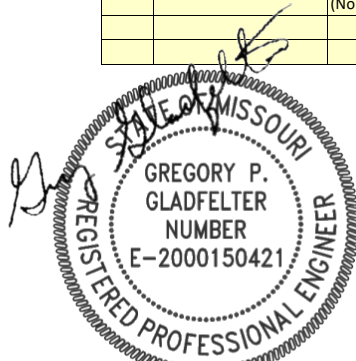
Wire Type	Ohms/1000ft	Length 1-Way	Actual Ohms	Max Load (amps)	Volts @ EOL	Min Volts Req'd
#12 Solid	2.01		0.000	0.000	24.00	16

Circuit Devices			Standby (amps)		Alarm (amps)	
Qty	Lookup Type	Description	Each	Total	Each	Total
		User can add devices on the fly				
		to these bottom 5 rows				
		(No lookup function)				
Total Standby:			0.00000		Total Alarm:	0.00000

AUX Power		MAX Circuit Current (amps): 3		Source Voltage Used (VDC): 24		
Usage:		Description:				

Wire Type	Ohms/1000ft	Length 1-Way	Actual Ohms	Max Load (amps)	Volts @ Last Device	Min Volts Req'd
#12 Solid	2.01		0.000	0.000	24.00	16

Circuit Devices			Standby (amps)		Alarm (amps)	
Qty	Lookup Type	Description	Each	Total	Each	Total
		User can add devices on the fly				
		to these bottom 5 rows				
		(No lookup function)				
Total Standby:			0.00000		Total Alarm:	0.00000



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08/25/2025