

MRP-2002 Battery Calculation

Secondary Power Source Requirements

Device Type	Standby Current (amps)				Secondary Alarm Current (amps)					
	Qty		Current Draw	Total	Qty		Current Draw	Total		
1. System										
Main Circuit Board	1	x	0.122000	=	0.122000	1	x	0.185000	=	0.185000
4XTMF	0	x	0.005000	=		0	x	0.011000	=	
CAC-5X	0	x	0.001000	=		0	x	0.001000	=	
2. Annunciators										
ANN-80(-W)	0	x	0.015000	=		0	x	0.040000	=	
ANN-RLY	0	x	0.015000	=		0	x	0.075000	=	
ANN-I/O	0	x	0.035000	=		0	x	0.200000	=	
ANN-I/O LEDs	0	x	0.000000	=		0	x	0.010000	=	
ANN-S/PG	0	x	0.045000	=		0	x	0.045000	=	
ANN-(R)LED	0	x	0.028000	=		0	x	0.068000	=	
3. Conventional Detectors										
2-Wire Detectors	0	x	0.000000	=		0	x	0.000000	=	
4-Wire Detectors	0	x	0.000000	=		0	x	0.000000	=	
Power Supervision Relays	0	x	0.025000	=		0	x	0.025000	=	
4. Other Devices										
Miscellaneous Device 1	0	x	0.000000	=		0	x	0.000000	=	
Miscellaneous Device 2	0	x	0.000000	=		0	x	0.000000	=	
Miscellaneous Device 3	0	x	0.000000	=		0	x	0.000000	=	
Miscellaneous Device 4	0	x	0.000000	=		0	x	0.000000	=	
Miscellaneous Device 5	0	x	0.000000	=		0	x	0.000000	=	
5. Notification Appliances										
NAC 1						0	x	0.000000	=	
NAC 2						0	x	0.000000	=	
NAC 3						0	x	0.000000	=	
NAC 4						0	x	0.000000	=	
Total Standby Load					0.122000	Total Alarm Load			0.185000	

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Note 1: You are **fully responsible for verifying these calculations.**

Note 2: Use the dropdowns in the **yellow** cells to enter values.

Calculation in Total Sheet

		Required Standby Time in Hours			
		24 Hours			
Standby Load Current	0.12200 Amps	x	24	=	2.928 AH
		Required Alarm Time in Minutes			
		5 Minutes			
Alarm Load Current (Amps)	0.18500 Amps	x	0.084	=	0.016 AH
Total Current Load					2.944 AH
Multiply by the Derating Factor			1.2	=	x 1.20
Total Ampere Hours Required					3.53 AH

Recommended Batteries:	BAT-1270 - 7AH Batteries
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Battery Check

The batteries can be charged by the MRP-2002 Charger.

The batteries can be housed in the MRP-2002 Cabinet.

Current Draw Check

NAC#1 current is within the limitations of the circuit.

NAC#2 current is within the limitations of the circuit.

NAC#3 current is within the limitations of the circuit.

NAC#4 current is within the limitations of the circuit.

MRP-2002 Control Panel:

The output current is within the panel's limitations.