

## MS-9200UDLS Rev.3 Battery Calculation

### Secondary Power Source Requirements

Device Type	Standby Current (amps)				Secondary Alarm Current (amps)			
	Qty		Current Draw	Total	Qty		Current Draw	Total
Main Circuit Board	1	x	0.145000	= 0.145000	1	x	0.275000	= 0.275000
XRM-24B	0	x	0.000000	=	0	x	0.000000	=
4XTMF	0	x	0.005000	=	0	x	0.011000	=
IPDACT-2	0	x	0.093000	=	0	x	0.136000	=
IPDACT-2UD	0	x	0.098000	=	0	x	0.155000	=
<b>ANN-BUS Devices</b>								
ANN-80(-W)	0	x	0.015000	=	0	x	0.040000	=
ANN-LED	0	x	0.028000	=	0	x	0.068000	=
ANN-RLED	0	x	0.028000	=	0	x	0.068000	=
ANN-RLY	0	x	0.015000	=	0	x	0.075000	=
ANN-I/O	0	x	0.035000	=	0	x	0.200000	=
ANN-S/PG	0	x	0.045000	=	0	x	0.045000	=
<b>ACS Annunciators</b>								
ACM-8RF	0	x	0.030000	=	0	x	0.158000	=
ACM-16ATF	0	x	0.040000	=	0	x	0.056000	=
ACM-32AF	0	x	0.040000	=	0	x	0.056000	=
AEM-16ATF	0	x	0.002000	=	0	x	0.018000	=
AEM-32AF	0	x	0.002000	=	0	x	0.018000	=
AFM-16ATF	0	x	0.040000	=	0	x	0.056000	=
AFM-32AF	0	x	0.040000	=	0	x	0.056000	=
AFM-16AF	0	x	0.025000	=	0	x	0.065000	=
LDM-32F	0	x	0.040000	=	0	x	0.056000	=
LDM-E32F	0	x	0.002000	=	0	x	0.018000	=
LCD-80F	0	x	0.025000	=	0	x	0.064000	=
<b>Resettable Power</b>								
4-Wire Smoke Detectors	0	x	0.000000	=	0	x	0.000000	=
<b>Addressable Devices</b>								
BEAM355	0	x	0.002000	=				
BEAM355S	0	x	0.002000	=				
BEAM1224	0	x	0.017000	=				
CP355	0	x	0.000300	=				
SD355	6	x	0.000300	= 0.001800				
SD355T	0	x	0.000300	=				
AD355	0	x	0.000300	=				
H355	0	x	0.000300	=				
H355R	1	x	0.000300	= 0.000300				
H355HT	1	x	0.000300	= 0.000300				
D350P	4	x	0.000300	= 0.001200				
D350RP	0	x	0.000300	=				
D350PL	0	x	0.000300	=				
D350RPL	0	x	0.000300	=				
D355PL	0	x	0.000300	=				
MMF-300	7	x	0.000400	= 0.002800				
MMF-300-10	0	x	0.003500	=				
MDF-300	4	x	0.000750	= 0.003000				
MMF-301	0	x	0.000375	=				
MMF-302	0	x	0.000270	=				
MMF-302-6	0	x	0.002000	=				
BG-12LX	14	x	0.000300	= 0.004200				
CMF-300	1	x	0.000390	= 0.000390				
CMF-300-6	0	x	0.002250	=				
CRF-300		x	0.000270	=				
CRF-300-6	0	x	0.001450	=				
I300	0	x	0.000400	=				
B501BH-2	0	x	0.001000	=				
B501BHT-2	0	x	0.001000	=				
B224RB	0	x	0.000500	=				
B224BI	0	x	0.000450	=				

B200SR	0	x	0.000500	=						
CDRM-300	0	x	0.001300	=						
Maximum alarm draw for all Addressable devices ----->								0.400000		
EOLR-1	0	x	0.020000	=		0	x	0.020000	=	
FCPS (Remote Sync)						0	x	0.021700	=	
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	=	
NAC 1						1	x	1.056000	= 1.056000	
NAC 2						1	x	0.890000	= 0.890000	
NAC 3						1	x	0.000000	= 0.000000	
NAC 4						1	x	0.000000	= 0.000000	
Current Draw from TB3			0.000000	=				0.000000	=	
<b>Total Standby Load</b>					<b>0.158990</b>	<b>Total Alarm Load</b>				<b>2.621000</b>

## MS-9200UDLS Rev.3 Battery Calculation

Calculation in Total Sheet

		<b>Required Standby Time in Hours</b>		
		24 Hours		
Standby Load Current	0.15899 Amps	x	24	= 3.816 AH
		<b>Required Alarm Time in Minutes</b>		
		5 Minutes		
Alarm Load Current (Amps)	2.62100 Amps	x	0.084	= 0.220 AH
<b>Total Current Load</b>				<b>4.036 AH</b>
Multiply by the Derating Factor			1.2	= x 1.20
<b>Total Ampere Hours Required</b>				<b>4.84 AH</b>

<b>Recommended Batteries:</b>	BAT-1270 - 7AH Batteries
-------------------------------	--------------------------

<b>Battery Check</b>	
The batteries can be charged by the MS-9200UDLS Charger.	
The batteries can be housed in the MS-9200UDLS Cabinet.	

<b>Current Draw Check</b>	
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.	
MS 9200UDLS Control Panel:	
The output current is within the panel's limitations.	

### Altronix NAC Power Extender Battery Calculator

NAC Power Extender: AL602ULADA

Output Voltage: 24VDC  
 Maximum Available Current: 6.5A  
 Maximum Available NAC Current Per Circuit: 2.5A  
 Maximum Available Aux Current: 1A

Device Type	Device Name	Quantity	Load per Device		Total Device Load	
			Stand-By	Alarm	Stand-By	Alarm
	AL602ULADA	1			0.09A	0.175A
Notification Appliances						
<b>NAC1</b>						
Notif. Appliance	Horn Strobe	9		.176 A		1.584 A
Notif. Appliance	Strobe	2		.066 A		0.132 A
<b>NAC2</b>						
Notif. Appliance	Horn Strobe	2		.176 A		0.352 A
Notif. Appliance	Strobe	3		.066 A		0.198 A
<b>NAC3</b>						
Notif. Appliance	Horn Strobe	5		.176 A		0.880 A
Notif. Appliance	Strobe	5		.066 A		0.330 A
<b>NAC4</b>						
Notif. Appliance		0		0.000 A		0 A
Auxiliary Devices						
<b>Aux Output (total auxilliary current draw must not exceed 1mA)</b>						
Auxiliary Device		0	0 A	0.000 A	0.000 A	0.000 A
Total System Load:					0.09A	3.651A
Calculation Results						
Total Stand-By Amp Hours:					2.160AH	
Total Alarm Amp Hours:					0.304AH	
Minimum battery size required:					2.957AH	

Minimum allowable battery power rating is 7 AH

Units are capable of recharging 40AH battery max. If total ampere - hour required exceeds 40AH, decrease AUX current to provide enough stand-by time for the application.

[Back to Calculator](#)