

SAMPLE NAC POWER SUPPLY OR		Project			
AMPLIFIER BATTERY BACKUP CALCULATION		Date			
PWR SUPPLY 1A (OR AMPLIFIER #2 ETC...) BATTERY BACKUP CALCULATION					
EQUIPMENT/DEVICES		Current Draw			
		STDBY	ALARM	TTL STDBY	TTL ALARM
PANEL COMPONENTS	QTY	Amps	Amps	Amps	Amps
SK 5495 NAC POWER SUPPLY	1	0.075000	0.205000	0.075000	0.205000
AMPLIFIERS					
3-ZA20 20WATT AMPLIFIER	1	0.035000	1.250000	0.035000	1.250000
REMOTE ANNUNCIATORS					
RLCD Remote LCD Annunciator	1	0.098000	0.113000	0.098000	0.113000
DETECTORS/MODULES					
D4120 INNOVAIR 4-Wire Duct Mounted Smoke Detector	2	0.021000	0.065000	0.042000	0.130000
NOTIFICATION APPLIANCES					
WALL STROBE (15cd)	10	0.000000	0.059000	0.000000	0.590000
WALL STROBE (30cd)	3	0.000000	0.082000	0.000000	0.246000
WALL STROBE (110cd)	2	0.000000	0.191000	0.000000	0.382000
CEILING STROBE (75cd)	2	0.000000	0.168000	0.000000	0.336000
CEILING STROBE (95cd)	1	0.000000	0.194000	0.000000	0.194000
WALL SPEAKER/STROBE (15cd)	7	0.000000	0.065000	0.000000	0.455000
WALL SPEAKER/STROBE (30cd)	2	0.000000	0.086000	0.000000	0.172000
WALL SPEAKER/STROBE (110cd)	4	0.000000	0.203000	0.000000	0.812000
CEILING SPEAKER/STROBE (30cd)	2	0.000000	0.090000	0.000000	0.180000
RE-ENTRANT SPEAKER/STROBE (15/75cd)	1	0.000000	0.090000	0.000000	0.090000
OTHER DEVICES/APPLIANCES					
SSM24-6 6" ELECTRIC BELL	1	0.000000	0.033100	0.000000	0.033100
Electromagnetic Door Holder	2	0.000000	0.015000	0.000000	0.030000
TOTAL CURRENT DRAW		A	0.250000	4.885000	
NUMBER OF STANDBY HOURS		B	24		
STANDBY CURRENT REQUIRED = A (STDBY) X B		C	6.000	AH	
ALARM SOUNDING PERIOD IN HOURS		D		0.250	
ALARM CURRENT REQUIRED = A (ALARM) X E		E		1.221	
TOTAL CURRENT REQUIRED = C + E		F	7.221	AH	
FACTOR OF SAFETY		G	20%		
MIN AMP HOUR BATTERIES REQUIRED = F X 1.2		H	8.666	AH	
EXISTING BATTERIES =		I	10	AH	

Format shown is a sample format the contractor may format calculations as they like as long as the following information is clearly indicated in the calculation:

SEE SHADED ITEMS ABOVE FOR EXAMPLES OF EACH NUMBERED ITEM BELOW

1. Clearly indicate the panel the calculation is for.
2. Clearly indicate units for calculations.
3. Breakdown of panel parts and system devices by type, part number and quantities of each.
4. Clearly indicate individual and total currents for standby & alarm conditions for each component or system device.
5. Clearly indicate total panel load for standby and alarm conditions.
6. Clearly indicate required time for standby and alarm in HOURS.
7. Clearly indicate Factor of Safety Value used.
8. Clearly indicate the minimum required battery backup in Amp Hours (AH)
9. Clearly indicate the amount of battery backup provided or existing in Amp Hours (AH)
10. Clearly show the progression of the calculation.

Note:

Manufacturers calculations are acceptable but they must contain the minimum information listed above.