

Notifier NFS-320 Fire Alarm Control Panel

Protected Premises: <u>Brick North West Wing</u>	Date: <u>10/23/2014</u>
Address: <u>Thompson's Point</u>	
City: <u>Portland</u> State: <u>Maine</u>	Zip: <u>04104</u>
Prepared By: <u>Norris Inc.</u>	Phone: <u>207-883-3473</u>
Address: <u>2257 Broadway</u>	Email: _____
City: <u>South Portland</u> State: <u>Maine</u>	Zip: <u>04106</u>

AC Branch Current Requirements 5.00 AMPS @ 120 VAC

Current required by source to power the fire alarm system.

Primary Standby Load 0.46 Amps

Current load on the primary power supply during **non-alarm** conditions.

Primary Alarm Load 0.96 Amps

Current load on the primary power supply during **alarm** conditions.

Secondary Load Requirements 13.26 Amp Hours

Total Secondary Load from the calculation table below.

Current Draw		Time (hours)	Total (AH)
Secondary Standby Load 0.457 A	x	Required Standby Time	
		24 hours	10.97
Secondary Alarm Load 1.001 A	x	Required Alarm Time (hours)	
		0.084 hours	0.08
Total Secondary Load			11.05
Derating factor			x 1.2
Secondary Load Requirements (Amp Hours)			13.26 AH

Battery Selection 18 Amp Hours

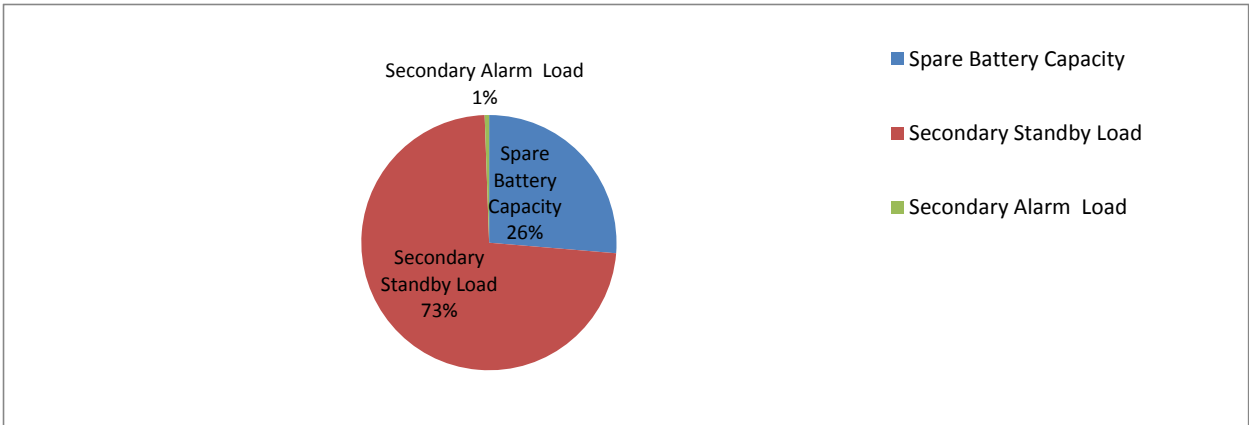
Select batteries from the list below.

18 AH BAT-12180 Battery (12 volt)

- Two
 Four (two 12VDC sets in parallel)

Battery Distribution Chart

Shows amp-hour distribution of your selections.



Comments

1. Batteries will fit in the FACP cabinet.
2. Selected battery size meets secondary load requirements.
3. The selected batteries (18AH) are within the charger range of this power supply (18-200AH).

Spare Battery Capacity	4.74	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	13.16	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	0.10	Secondary Alarm Load (AH) * Derating Factor

NOTIFICATION APPLIANCE CIRCUIT VOLTAGE DROPS						
BRICK NORTH WEST WING						
PORTLAND, MAINE						
PANEL	CIRCUIT	LENGTH	CURRENT DRAW	VOLTAGE DROP	VOLTAGE LOSS	END VOLTAGE
FACP	NAC 1	218 FT	.877A	.97VDC	4.04%	23.03VDC
FACP	NAC 2	211 FT	.812A	.87VDC	3.63%	23.13VDC
FACP	NAC 3	98 FT	0.352A	.17VDC	0.71%	23.83VDC
FACP	NAC 4	350 FT	1.408	2.49VDC	10.38%	21.51VDC
Calculated Using #14AWG Wire @ Max. Length/Current						

System Power Requirements

FCPS-24s8 Power Supply

Protected Premises: <u>Brick North West Wing</u>	Date: <u>10/24/2014</u>
Address: <u>Thompson's Point</u>	
City: <u>Portland</u> State: <u>ME</u>	Zip: <u>04104</u>
Prepared By: <u>Norris Inc.</u>	Phone: <u>207-883-3473</u>
Address: <u>2257 Broadway</u>	Email: _____
City: <u>South Portland</u> State: <u>ME</u>	Zip: <u>04106</u>

AC Branch Current Requirements 3.20 AMPS @ 120 VAC

Current required by source to power the fire alarm system.

Primary Standby Load 0.09 Amps

Current load on the primary power supply during non-alarm conditions.

Primary Alarm Load 3.59 Amps

Current load on the primary power supply during alarm conditions.

Secondary Load Requirements 2.23 Amp Hours

Total Secondary Load from the calculation table below.

Current Draw		Time (hours)	Total (AH)
Secondary Standby Load 0.065 A	x	Required Standby Time	
		24 hours	1.56
Secondary Alarm Load 3.594 A	x	Required Alarm Time (hours)	
		0.084 hours	0.30
Total Secondary Load			1.86
Derating factor			x 1.2
Secondary Load Requirements			2.23

AH

Battery Selection 7 Amp Hours

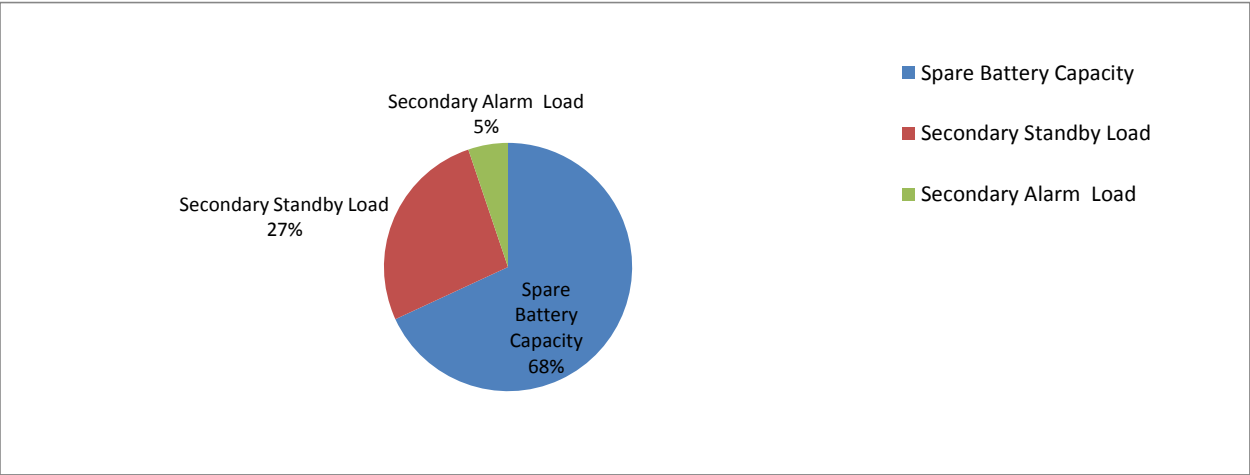
Select batteries from the list below.

7 AH BAT-1270 Battery (12 volt)

- Two Four (two 12VDC sets in parallel)

Battery Distribution Chart

Shows amp-hour distribution of your selections.



Comments

- 1. Batteries will fit in the FACP cabinet.
- 2. Selected battery size meets secondary load requirements.
- 3. The selected batteries (7AH) are within the charger range of this power supply (7-18AH).

Spare Battery Capacity	4.77	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	1.87	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	0.36	Secondary Alarm Load (AH) * Derating Factor

NFC-50/100 Digital Audio Amplifier

Protected Premises: <u>Brick North West Wing Phase One - Voice Evac</u>	Date: <u>11/25/2014</u>
Address: <u>Thompson's Point</u>	
City: <u>Portland</u> State: <u>ME</u> Zip: <u>04104</u>	
Prepared By: <u>Norris Inc.</u>	Phone: <u>207-883-3473</u>
Address: <u>2257 Broadway</u> Email: _____	
City: <u>South Portland</u> State: <u>ME</u> Zip: <u>04106</u>	

AC Branch Current Requirements 3.50 AMPS @ 120 VAC

Current required by source to power the fire alarm system.

Secondary Load Requirements 9.62 Amp Hours

Total Secondary Load from the calculation table below.

Current Draw		Time (hours)	Total (AH)
Secondary Standby Load 0.322 A	x	Required Standby Time 24 hours	7.73
Secondary Alarm Load 1.150 A	x	Required Alarm Time (hours) 0.250 hours	0.29
Total Secondary Load			8.02
Derating factor			x 1.2
Secondary Load Requirements			9.62

AH

Battery Selection 18 Amp Hours

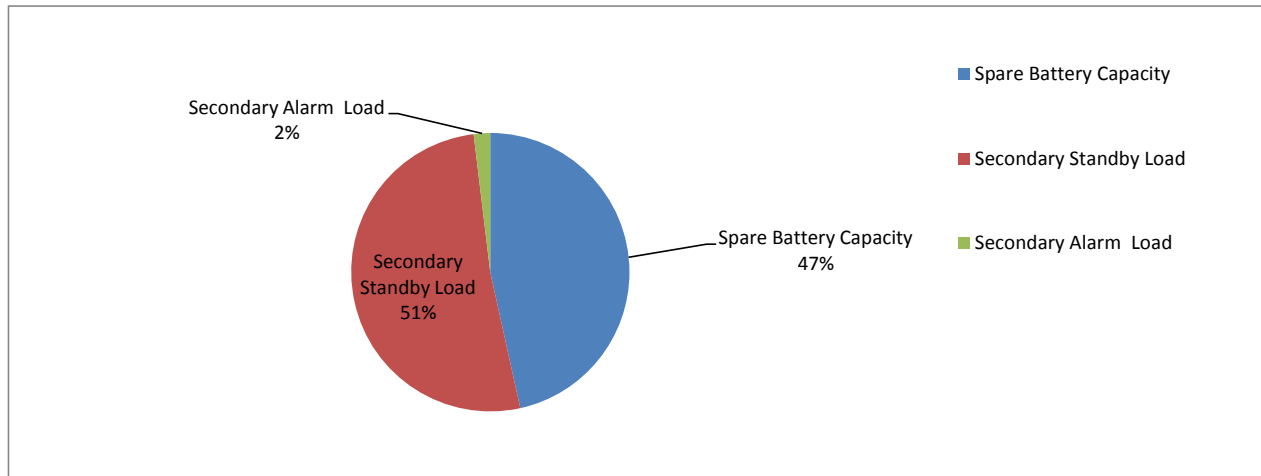
Select batteries from the list below.

18 AH BAT-12180 Battery (12 volt)

- Two
 Four (two 12VDC sets in parallel)

Battery Distribution Chart

Shows amp-hour distribution of your selections.



Comments

1. Batteries will fit in the FACP cabinet.
2. Selected battery size meets secondary load requirements.
3. The selected batteries (18AH) are within the charger range of this power supply (12-26AH).

Spare Battery Capacity	8.38	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	9.27	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	0.35	Secondary Alarm Load (AH) * Derating Factor