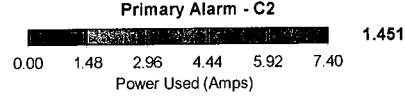
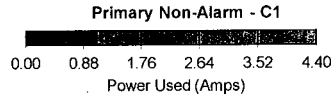




System Current Draw - NFS2-640

Total Current	
C1	1.069 A
C2	1.451 A
C3	1.220 A
C4	23.391 A



Device	C1 - Primary Non-Alarm			C2 - Primary Alarm			C3 - Secondary Non-Alarm				
	Qty	Draw	Total	Qty	Draw	Total	Qty	Draw	Total		
CPU2-640	1	x 0.25000	0.25000	1	x 0.25000	0.25000	1	x 0.25000	0.25000		
CPS-24	1	x 0.00000	0.00000	1	x 0.00000	0.00000	1	x 0.04000	0.04000		
KDM-R2 (Backlight On)	1	x 0.10000	0.10000	1	x 0.10000	0.10000	1	x 0.10000	0.10000		
NCM-W, NCM-F	2	x 0.11000	0.22000	2	x 0.11000	0.22000	2	x 0.11000	0.22000		
AA-100, AA-120	3	x 0.00000	0.00000	3	x 0.00000	0.00000	3	x 0.05000	0.15000		
DVC-KD	1	x 0.06000	0.06000	1	x 0.06000	0.06000	1	x 0.06000	0.06000		
DVC-AO	1	x 0.17500	0.17500	1	x 0.17500	0.17500	1	x 0.17500	0.17500		
RM-1 (with DVC-EM)	1	x 0.07500	0.07500	1	x 0.07500	0.07500	1	x 0.07500	0.07500		
RM-1	1	x 0.02000	0.02000	1	x 0.02000	0.02000	1	x 0.02000	0.02000		
FDU-80	1	x 0.06400	0.06400	1	x 0.06400	0.06400	1	x 0.02500	0.02500		
UDACT-2 Communicator	1	x 0.05200	0.05200	1	x 0.08700	0.08700	1	x 0.05200	0.05200		
NBG-12LX	20	x 0.00038	0.00750				20	x 0.00038	0.00750		
FSP-851	26	x 0.00030	0.00780				26	x 0.00030	0.00780		
FST-851	4	x 0.00030	0.00120				4	x 0.00030	0.00120		
FST-851R	43	x 0.00030	0.01290				43	x 0.00030	0.01290		
FSP-851R	12	x 0.00030	0.00360				12	x 0.00030	0.00360		
RTS151	18	x 0.00000	0.00000				18	x 0.00000	0.00000		
FRM-1	27	x 0.00026	0.00689				27	x 0.00026	0.00689		
FMM-101	4	x 0.00035	0.00140				4	x 0.00035	0.00140		
FSB-200S	6	x 0.00200	0.01200				6	x 0.00200	0.01200		
SLC Loop Device Activation Current				1	x 0.40000	0.40000					
Total Non-Alarm Load:			1.069	Total Alarm Load:			1.451	Total Standby Load:			1.220

C4 - Maximum Secondary Fire Alarm Current Draw

Only include those additional power supplies that are backed up by the control panels batteries.

Device	Qty	Draw	Total
Total Primary Alarm Load - C2	1	1.451	1.451
CPS-24	1	x 0.040	0.040
NCA2 - Backlight Off with loss of AC	0	x -0.200	
APS-6R Power Supplies		0.000	
APS2-6R Power Supplies		0.000	
ACPS-610 Power Supplies		0.000	
FCPS-24S6 Power Supplies		0.000	
FCPS-24S8 Power Supplies		0.000	
HPFF8 Power Supplies		0.000	
HPFF12 Power Supplies		0.000	
DAA2 Series		0.000	
DAX Series		0.000	
DAA Series		0.000	
DS-DB		0.000	
FireVoice Panels		0.000	
FireVoice Distributed Audio Panels		0.000	
XPIQ		0.000	
AA-30	0	x 3.000	
AA-120	3	x 7.300	21.900
Other Power Supply	0	x 0.000	
Other Power Supply	0	x 0.000	
Total Standby Alarm Load:			23.391



System Power Requirements

Notifier NFS2-640 Fire Alarm Control Panel

Protected Premises: <u>C.C.C.C FACP</u>	Date: <u>3/7/2013</u>
Address: _____	
City: <u>Portland</u>	State: <u>Maine</u> Zip: _____
Prepared By: <u>Norris Inc.</u> Phone: _____	
Address: <u>2257 West 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 1.07 Amps
 Current load on the primary power supply during non-alarm conditions.

Primary Alarm Load 1.45 Amps
 Current load on the primary power supply during alarm conditions.

Secondary Load Requirements 37.50 Amp Hours
 Total Secondary Load from the calculation table below.

Current Draw		Time (hours)	Total (AH)
Secondary Standby Load 1.220 A	x	Required Standby Time	
		24 hours	29.29
Secondary Alarm Load 23.391 A	x	Required Alarm Time	
		0.084 hours	1.96
Total Secondary Load			31.25
Derating factor			x 1.2
Secondary Load Requirements (Amp Hours)			37.50 AH

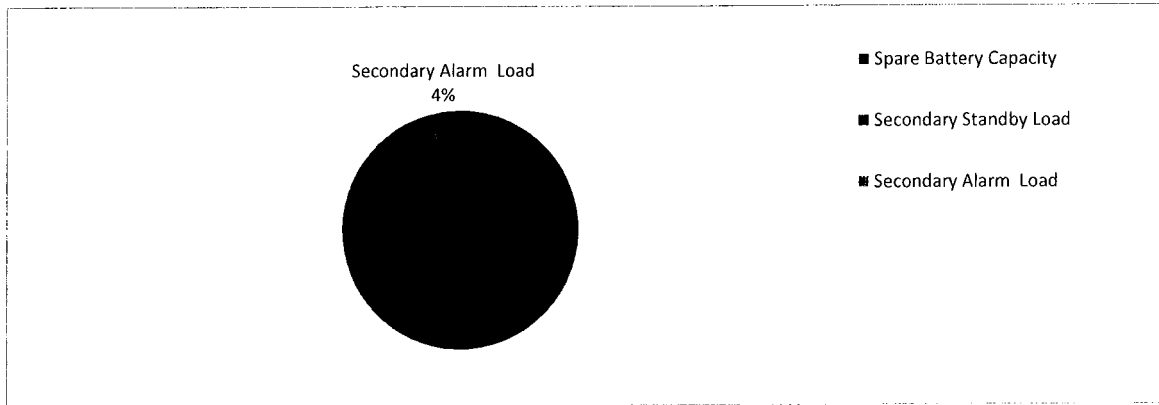
Battery Selection 55 Amp Hours
 Select batteries from the list below.

55 AH BAT-12550 Battery (12 volt)

- Two Four (two 12VDC sets in parallel)

Battery Distribution Chart

Shows amp-hour distribution of your selections.



Comments

1. Battery size exceeds FACP capacity. BB-55 or other external battery box
2. Selected battery size meets secondary load requirements.
3. The selected batteries (55AH) are within the charger range of this power supply (18-200AH).

Spare Battery Capacity	17.50	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	35.14	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	2.36	Secondary Alarm Load (AH) * Derating Factor



System Current Draw - FCPS-24s8

Total Current	
C1	0.091 A
C2	5.127 A
C3	0.065 A

Select devices using the "Qty" column.

Use yellow cells to enter quantities and current values.

To show only selected devices, select "Show Selected Devices".

To clear selected devices, select "Clear Selections".

Device	C1 - Primary Non-Alarm				C2 - Primary Alarm			C3 - Secondary Non-Alarm				
	Qty		Draw	Non-Alarm	Qty		Draw	Alarm	Qty		Draw	Non-Alarm
FCPS-24S8 Main Circuit Board	1	x	0.09100	0.09100	1	x	0.14500	0.14500	1	x	0.06500	0.06500
SPSR110	5	x	0.00000	0.00000	5	x	0.20200	1.01000	5	x	0.00000	0.00000
SPSCR110	1	x	0.00000	0.00000	1	x	0.20200	0.20200	1	x	0.00000	0.00000
SPSCR75	2	x	0.00000	0.00000	2	x	0.15800	0.31600	2	x	0.00000	0.00000
SPSR75	5	x	0.00000	0.00000	5	x	0.15800	0.79000	5	x	0.00000	0.00000
SPSCR30	4	x	0.00000	0.00000	4	x	0.09400	0.37600	4	x	0.00000	0.00000
SPSCR15	9	x	0.00000	0.00000	9	x	0.06600	0.59400	9	x	0.00000	0.00000
SPSR15	7	x	0.00000	0.00000	7	x	0.06600	0.46200	7	x	0.00000	0.00000
SR15	5	x	0.00000	0.00000	5	x	0.06600	0.33000	5	x	0.00000	0.00000
SPSR30	3	x	0.00000	0.00000	3	x	0.09400	0.28200	3	x	0.00000	0.00000
SRK15	6	x	0.00000	0.00000	6	x	0.06600	0.39600	6	x	0.00000	0.00000
SPSRK75	1	x	0.00000	0.00000	1	x	0.15800	0.15800	1	x	0.00000	0.00000
SPSRK15	1	x	0.00000	0.00000	1	x	0.06600	0.06600	1	x	0.00000	0.00000
Total Non-Alarm Load:				0.091	Total Alarm Load:			5.127	Total Standby Load:		0.065	



System Power Requirements

FCPS-24s8 Power Supply

Protected Premises: <u>C.C.C.C. FCPS 1</u>		Date: <u>3/7/2013</u>
Address: _____		
City: <u>Portland</u>	State: <u>Maine</u>	Zip: _____
Prepared By: <u>Norris Inc.</u>		Phone: _____
Address: <u>2257 West Broadway</u>		Email: _____
City: <u>South Portland</u>	State: <u>Maine</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 5.13 Amps

Current load on the primary power supply during alarm conditions.

Secondary Load Requirements 3.41 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 5.127 A	x	Required Alarm Time (hours)	
		0.250 hours	1.28
Total Secondary Load			2.84
Derating factor			x 1.2
Secondary Load Requirements			3.41

Battery Selection 7 Amp Hours

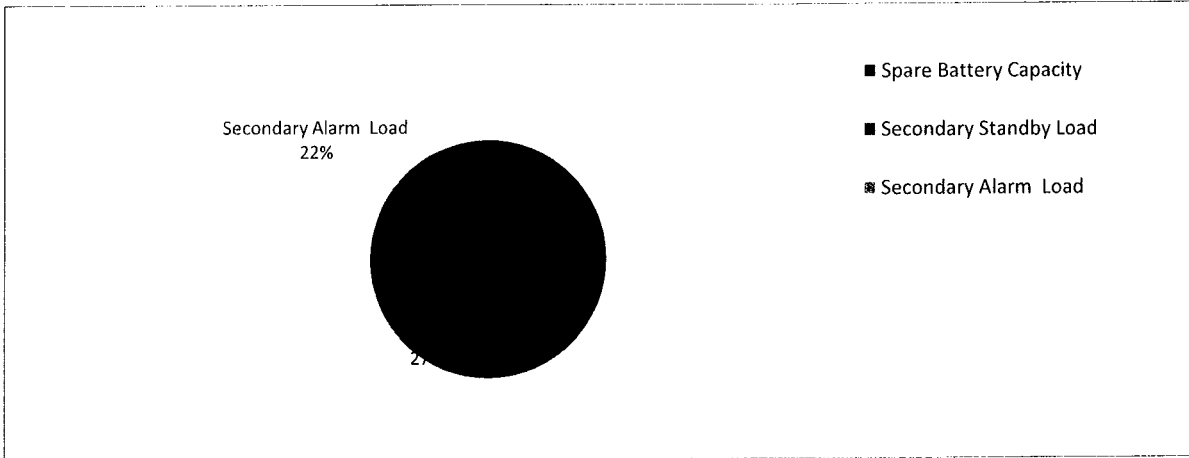
Select batteries from the list below.

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	3.59	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	1.87	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	1.54	Secondary Alarm Load (AH) * Derating Factor



System Current Draw - FCPS-24s8

Total Current	
C1	0.091 A
C2	5.289 A
C3	0.065 A

Select devices using the "Qty" column.

Use yellow cells to enter quantities and current values.

To show only selected devices, select "Show Selected Devices".

To clear selected devices, select "Clear Selections".

Device	C1 - Primary Non-Alarm				C2 - Primary Alarm				C3 - Secondary Non-Alarm					
	Qty		Draw	Non-Alarm	Qty		Draw	Alarm	Qty		Draw	Non-Alarm		
FCPS-24S8 Main Circuit Board	1	x	0.09100	0.09100	1	x	0.14500	0.14500	1	x	0.06500	0.06500		
SPSR110	5	x	0.00000	0.00000	5	x	0.20200	1.01000	5	x	0.00000	0.00000		
SPSCR110	4	x	0.00000	0.00000	4	x	0.20200	0.80800	4	x	0.00000	0.00000		
SPSCR75	4	x	0.00000	0.00000	4	x	0.15800	0.63200	4	x	0.00000	0.00000		
SPSR75	4	x	0.00000	0.00000	4	x	0.15800	0.63200	4	x	0.00000	0.00000		
SPSCR30	6	x	0.00000	0.00000	6	x	0.09400	0.56400	6	x	0.00000	0.00000		
SPSCR15	4	x	0.00000	0.00000	4	x	0.06600	0.26400	4	x	0.00000	0.00000		
SPSR15	4	x	0.00000	0.00000	4	x	0.06600	0.26400	4	x	0.00000	0.00000		
SR15	8	x	0.00000	0.00000	8	x	0.06600	0.52800	8	x	0.00000	0.00000		
SPSR30	4	x	0.00000	0.00000	4	x	0.09400	0.37600	4	x	0.00000	0.00000		
SRK15	1	x	0.00000	0.00000	1	x	0.06600	0.06600	1	x	0.00000	0.00000		
Total Non-Alarm Load:				0.091	Total Alarm Load:				5.289	Total Standby Load:				0.065



System Power Requirements

FCPS-24s8 Power Supply

Protected Premises: <u>C.C.C.C. FCPS 2</u>		Date: <u>3/7/2013</u>
Address: _____		
City: <u>Portland</u>	State: <u>Maine</u>	Zip: _____
Prepared By: <u>Norris Inc.</u>		Phone: _____
Address: <u>2257 West Broadway</u>		Email: _____
City: <u>South Portland</u>	State: <u>Maine</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 5.29 Amps
 Current load on the primary power supply during alarm conditions.

Secondary Load Requirements 3.46 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 5.289 A	x	Required Alarm Time (hours)	
		0.250 hours	1.32
Total Secondary Load			2.88
Derating factor			x 1.2
Secondary Load Requirements			3.46

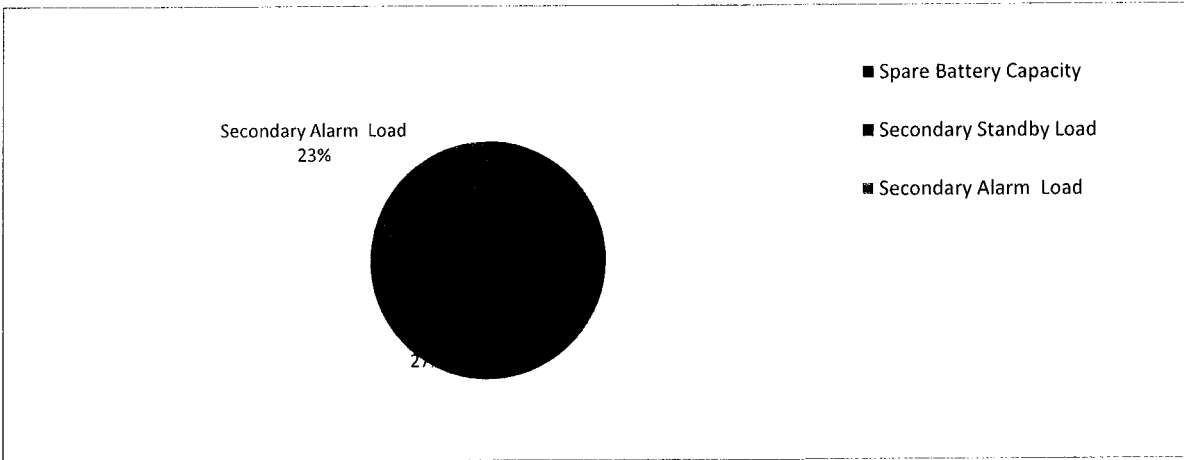
Battery Selection 7 Amp Hours
 Select batteries from the list below.

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	3.54	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	1.87	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	1.59	Secondary Alarm Load (AH) * Derating Factor



System Current Draw - FCPS-24s8

Total Current	
C1	0.091 A
C2	5.073 A
C3	0.065 A

Select devices using the "Qty" column.

Use yellow cells to enter quantities and current values.

To show only selected devices, select "Show Selected Devices".

To clear selected devices, select "Clear Selections".

Device	C1 - Primary Non-Alarm				C2 - Primary Alarm				C3 - Secondary Non-Alarm					
	Qty		Draw	Non-Alarm	Qty		Draw	Alarm	Qty		Draw	Non-Alarm		
FCPS-24S8 Main Circuit Board	1	x	0.09100	0.09100	1	x	0.14500	0.14500	1	x	0.06500	0.06500		
SPSR110	4	x	0.00000	0.00000	4	x	0.20200	0.80800	4	x	0.00000	0.00000		
SPSCR110	5	x	0.00000	0.00000	5	x	0.20200	1.01000	5	x	0.00000	0.00000		
SPSCR75	8	x	0.00000	0.00000	8	x	0.15800	1.26400	8	x	0.00000	0.00000		
SPSCR30	7	x	0.00000	0.00000	7	x	0.09400	0.65800	7	x	0.00000	0.00000		
SPSCR15	12	x	0.00000	0.00000	12	x	0.06600	0.79200	12	x	0.00000	0.00000		
SPSR15	3	x	0.00000	0.00000	3	x	0.06600	0.19800	3	x	0.00000	0.00000		
SR15	3	x	0.00000	0.00000	3	x	0.06600	0.19800	3	x	0.00000	0.00000		
Total Non-Alarm Load:				0.091	Total Alarm Load:				5.073	Total Standby Load:				0.065



System Power Requirements

FCPS-24s8 Power Supply

Protected Premises: <u>C.C.C.C. FCPS 3</u>		Date: <u>3/7/2013</u>
Address: _____		
City: <u>Portland</u>	State: <u>Maine</u>	Zip: _____
Prepared By: <u>Norris Inc.</u>		Phone: _____
Address: <u>2257 West Broadway</u>		Email: _____
City: <u>South Portland</u>	State: <u>Maine</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 5.07 Amps

Current load on the primary power supply during alarm conditions.

Secondary Load Requirements 3.39 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 5.073 A	x	Required Alarm Time (hours)	
		0.250 hours	1.27
Total Secondary Load			2.83
Derating factor			x 1.2
Secondary Load Requirements			3.39

Battery Selection 7 Amp Hours

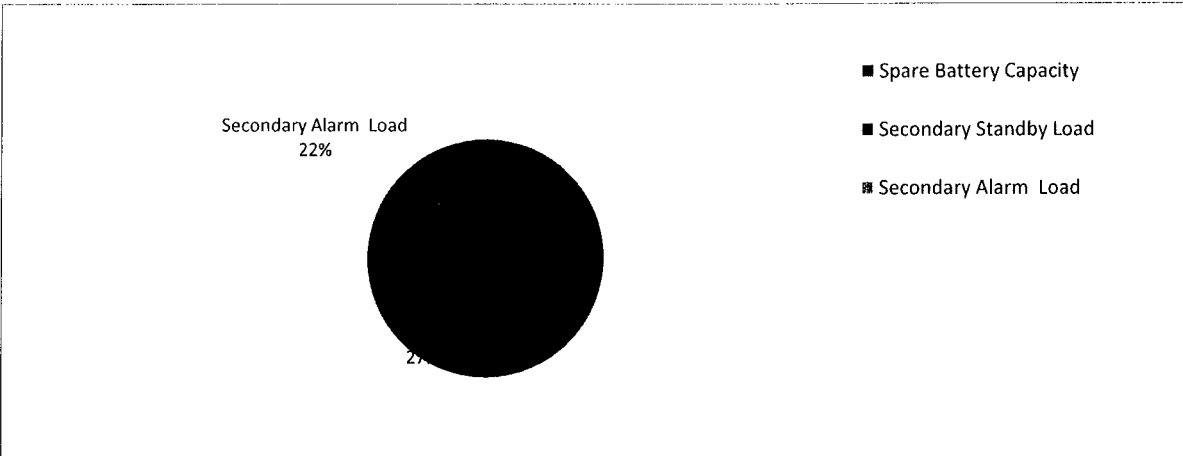
Select batteries from the list below.

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	3.61	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	1.87	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	1.52	Secondary Alarm Load (AH) * Derating Factor



System Current Draw - FCPS-24s8

Total Current	
C1	0.091 A
C2	3.656 A
C3	0.065 A

Select devices using the "Qty" column.

Use yellow cells to enter quantities and current values.

To show only selected devices, select "Show Selected Devices".

To clear selected devices, select "Clear Selections".

Device	C1 - Primary Non-Alarm				C2 - Primary Alarm			C3 - Secondary Non-Alarm					
	Qty		Draw	Non-Alarm	Qty	Draw	Alarm	Qty	Draw	Non-Alarm			
FCPS-24S8 Main Circuit Board	1	x	0.09100	0.09100	1	x	0.14500	0.14500	1	x	0.06500	0.06500	
SPSCR30	4	x	0.00000	0.00000	4	x	0.09400	0.37600	4	x	0.00000	0.00000	
SPSCR15	5	x	0.00000	0.00000	5	x	0.06600	0.33000	5	x	0.00000	0.00000	
SPSR15	3	x	0.00000	0.00000	3	x	0.06600	0.19800	3	x	0.00000	0.00000	
SR15	4	x	0.00000	0.00000	4	x	0.06600	0.26400	4	x	0.00000	0.00000	
SPSCRH177	7	x	0.00000	0.00000	7	x	0.28100	1.96700	7	x	0.00000	0.00000	
SPSR30	4	x	0.00000	0.00000	4	x	0.09400	0.37600	4	x	0.00000	0.00000	
Total Non-Alarm Load:				0.091	Total Alarm Load:			3.656	Total Standby Load:				0.065



System Power Requirements

FCPS-24s8 Power Supply

Protected Premises: <u>C.C.C.C. FCPS 4</u>		Date: <u>3/7/2013</u>
Address: _____		
City: <u>Portland</u>	State: <u>Maine</u>	Zip: _____
Prepared By: <u>Norris Inc.</u>		Phone: _____
Address: <u>2257 West Broadway</u>		Email: _____
City: <u>South Portland</u>	State: <u>Maine</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 3.66 Amps

Current load on the primary power supply during alarm conditions.

Secondary Load Requirements 2.97 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 3.656 A	x	Required Alarm Time (hours)	
		0.250 hours	0.91
Total Secondary Load			2.47
Derating factor			x 1.2
Secondary Load Requirements			2.97

Battery Selection 7 Amp Hours

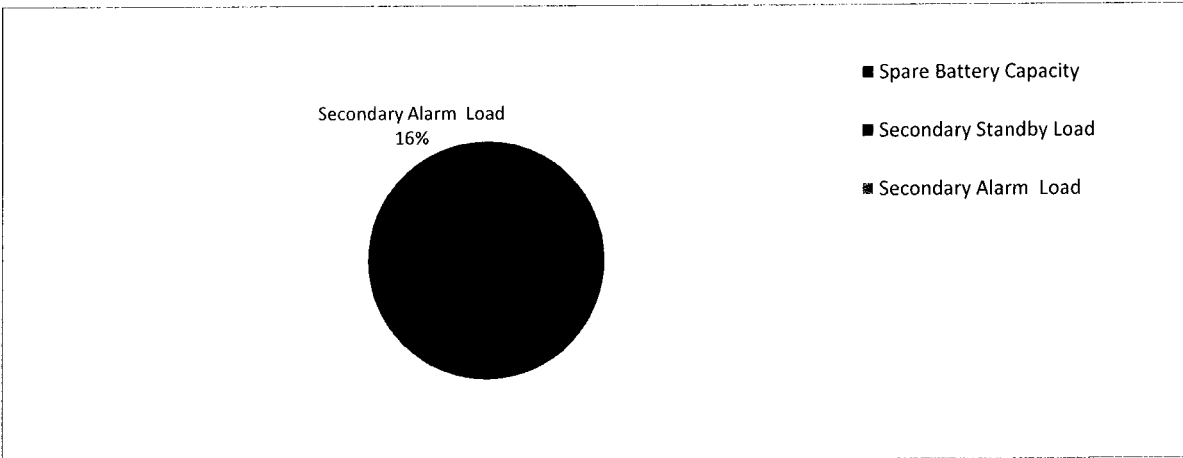
Select batteries from the list below.

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	4.03	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	1.87	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	1.10	Secondary Alarm Load (AH) * Derating Factor