

Public Safety Systems

UL2524 Certified AC Backup Power Systems

ORDERING GUIDE



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GUIDE FOR SELECTING UL 2524 CERTIFIED INDOOR POWER SYSTEMS FOR 120VAC AC LOADS

Information required to select system and battery

- 1) Maximum load size in watts
- 2) Run time required: 2, 12 or 24 Hours
- 3) Does the specification require an End of Life design margin added for battery?*

Ordering Equipment:

Section 1: Power System & Batteries	Item 1: Power System Item 2: Batteries
Section 2: Mounting Options	Item 1: Plinth Kit (Optional) Item 2: Wall Mount Kit (Optional)
Section 3: UATS Option	Item 1: Automatic Power Supply Bypass (Optional)



PS41-2730 Enclosure with (8) batteries and FXM650



PS27-2220 Enclosure with (4) batteries and FXM350

Battery Calculations and Selection

Use of this ordering guide to select systems and batteries will ensure that the UL 2524 requirements are met. Refer to the PS27-2220-AC and the PS41-2730-AC manuals for a description of battery calculation.

*What is an end of life design margin?

An end-of-life design margin of 25% is a method of sizing batteries such that the battery rating exceeds the actual capacity rating by a factor of 1.25 (sometimes referred to as the aging factor). This allows the batteries to be replaced when its actual capacity drops to 80% of its rated capacity.

Example:

If you have an actual load size of 400W, you will multiply 400W by 1.25.

$$400W \times 1.25 = 500W$$

The battery capacity would be calculated for 500W instead of 400W. This ensures the batteries will continue to provide the specified run time once it has degraded to 80% capacity.



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Step 1

Select power system and batteries based on load size and required runtime

Step 1 a - Select Desired Run Time & Load Size

Step 1 b: Order the corresponding items

120VAC, 2 Hour Rate System Selection

LOAD SIZE (WATTS)	PART NUMBER		DESCRIPTION	QTY	BATTERY POSITION
225W	Power System:	0570214-001	PS27, FXM350-24, 1BT	1	(2) in a row
	Batteries:	181-013-10	34Ah Std Life Battery	2	
525W	Power System:	0570188-001	PS41, FXM650-24, 1BT	1	(2) in a row
	Batteries:	1810227	AlphaCell XTV 150	2	
750W	Power System:	0570189-001	PS41, FXM1100, 2BT	1	(4) in a row
	Batteries:	1810226	AlphaCell XTV 100	4	
1100W	Power System:	0570189-001	PS41, FXM1100, 2BT	1	(2) in front & (2) behind
	Batteries:	1810227	AlphaCell XTV 150	4	

120VAC, 2 Hour Rate System Selection with an End of Life Design Margin of 25%

LOAD SIZE (WATTS)	PART NUMBER		DESCRIPTION	QTY	BATTERY POSITION
275W	Power System:	0570214-001	PS27, FXM350-24, 1BT	1	(2) in a row
	Batteries:	1810226	AlphaCell XTV 100	2	
425W	Power System:	0570188-001	PS41, FXM650-24, 1BT	1	(2) in a row
	Batteries:	1810227	AlphaCell XTV 150	2	
600W	Power System:	0570189-001	PS41, FXM1100, 2BT	1	(2) in front & (2) behind
	Batteries:	1810226	AlphaCell XTV 100	4	
850W	Power System:	0570189-001	PS41, FXM1100, 2BT	1	(2) in front & (2) behind
	Batteries:	1810227	AlphaCell XTV 150	4	



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120VAC, 12 Hour Rate System Selection

LOAD SIZE (WATTS)	PART NUMBER		DESCRIPTION	QTY	BATTERY POSITION
60W	Power System:	0570214-001	PS27, FXM350-24, 1BT	1	(2) in a row
	Batteries:	181-013-10	34Ah Std Life Battery	2	
150W	Power System:	0570214-001	PS27, FXM350-24, 1BT	1	(2) in a row
	Batteries:	1810229	AlphaCell XTV 240	2	
300W	Power System:	0570214-001	PS27, FXM350-24, 1BT	1	(4) in a row
	Batteries:	1810477	NSB 100FT HT Red	4	
500W	Power System:	0570188-001	PS41, FXM650-24, 1BT	1	(4) in a row
	Batteries:	1810495	NSB 170FT HT Red	4	
650W	Power System:	0570189-001	PS41, FXM1100, 2BT	1	(4) in a row (both shelves)
	Batteries:	1810477	NSB 100FT HT Red	8	
1000W	Power System:	0570189-001	PS41, FXM1100, 2BT	1	(4) in a row (both shelves)
	Batteries:	1810495	NSB 170FT HT Red	8	

120VAC, 12 Hour Rate System Selection with an End of Life Design Margin 25%

LOAD SIZE (WATTS)	PART NUMBER		DESCRIPTION	QTY	BATTERY POSITION
60W	Power System:	0570214-001	PS27, FXM350-24, 1BT	1	(2) in a row
	Batteries:	1810226	AlphaCell XTV 100	2	
120W	Power System:	0570214-001	PS27, FXM350-24, 1BT	1	(2) in a row
	Batteries:	1810229	AlphaCell XTV 240	2	
240W	Power System:	0570214-001	PS27, FXM350-24, 1BT	1	(4) in a row
	Batteries:	1810477	NSB 100FT HT Red	4	
400W	Power System:	0570187-001	PS41, FXM650-24, 2BT	1	(4) in a row
	Batteries:	1810495	NSB 170FT HT Red	4	
800W	Power System:	0570189-001	PS41, FXM1100, 2BT	1	(4) in a row (both shelves)
	Batteries:	1810495	NSB 170FT HT Red	8	



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120VAC, 24 Hour Rate System Selection

LOAD SIZE (WATTS)	PART NUMBER		DESCRIPTION	QTY	BATTERY POSITION
75W	Power System:	0570214-001	PS27, FXM350-24, 1BT	1	(2) in a row
	Batteries:	1810229	AlphaCell XTV 240	2	
175W	Power System:	0570214-001	PS27, FXM350-24, 1BT	1	(4) in a row
	Batteries:	1810477	NSB100FT HT RED	4	
300W	Power System:	0570187-001	PS41, FXM650, 2BT	1	(4) in a row
	Batteries:	1810445	AlphaCell 210 HP	4	
450W	Power System:	0570187-001	PS41, FXM650, 2BT	1	(4) in a row (bottom shelf)
	Batteries:	1810445	AlphaCell 210 HP	6	(2) in a row (top shelf)
600W	Power System:	0570187-001	PS41, FXM650, 2BT	1	(4) in a row (both shelves)
	Batteries:	1810445	AlphaCell 210 HP	8	

24 Hour Rate System Selection with an End of Life Design Margin 25%

LOAD SIZE (WATTS)	PART NUMBER		DESCRIPTION	QTY	BATTERY POSITION
60W	Power System:	0570214-001	PS27, FXM350-24, 1BT	1	(2) in a row
	Batteries:	1810229	AlphaCell XTV 240	2	
140W	Power System:	0570214-001	PS27, FXM350-24, 1BT	1	(4) in a row
	Batteries:	1810477	NSB100FT HT RED	4	
350W	Power System:	0570187-001	PS41, FXM650, 2BT	1	(4) in a row (bottom shelf)
	Batteries:	1810445	AlphaCell 210 HP	6	(2) in a row (top shelf)
480W	Power System:	0570187-001	PS41, FXM650, 2BT	1	(4) in a row (both shelves)
	Batteries:	1810445	AlphaCell 210 HP	8	

Step 2

Select Plinth Kit (Optional)

PART NUMBER	DESCRIPTION	COMMENTS
740-760-23	Kit, 8" Plinth, PS27, Aluminum, Red	Plinth kit for PS27 enclosure
0370231-002	Kit, 4" Plinth, PS41, Aluminum, Red	Plinth kit for PS41 enclosure
0370531-001	Kit, Wall Mount Bracket, PS27-2220	Wall mount kit is for PS27 enclosure only

Step 3

UATS Option (Optional)

PART NUMBER	DESCRIPTION	COMMENTS
0370498-001	KIT, Accessory Shelf, UATS, PS27/PS41	- Used for both PS27 & PS41 enclosures
020-165-21	UATS, 120V,30A	- Must order both part numbers

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