



Interlock™ Battery Ordering Guide

How to Order *Your Battery for Your Application*

Number of Cells:

Number of cells per battery is based on the required system DC voltage. When determining number of cells, system operating float voltages and end voltages should both be considered.

Example: System DC Voltage Requirements are the following:

Minimum Voltage = 42 VDC

Nominal Voltage = 48 VDC

Maximum Voltage = 54 VDC

These voltages should be compared against number of cells selected. If 24 cells selected:

42 VDC / 24 cells = 1.75 vpc (minimum end voltage per cell)

54 VDC / 24 cells = 2.25 vpc (maximum float voltage per cell)

Ensure that the above voltages fall within the manufacturer specifications.

Model Number:

This number is located in the sales literature and specifies the cell size requested.

Example: AVR95-33 (this cell is 95AH/positive plate with 16 positive plates and 17 negative plates.)

Material Option:

East Penn offers the Unigy II cell in two material options - Standard Polypropylene and Flame Retardant Polypropylene.

Standard Polypropylene: This material is typically used when there are no requirements for a flame retardant material.

Flame Retardant Polypropylene: This material is a V-0 halogenated polypropylene. V-0 is the highest rated flame retardant standard per UL-94. This material has a LOI (Limiting Oxygen Index) of 28.

Termination:

Top termination and side termination are both available for the Unigy II product. It is the choice of the customer which terminal is preferred. Reference back for standard terminations.

Top Termination: This termination extends above the top of the system and is useful when cables run along the ceiling of the battery room. It also provides a smaller footprint (width) to the battery system.

Side Termination: This termination extends beyond the side of the battery stack and is useful when cables run along the back wall or when overall system height is an issue.

Module Size:

There are two standard module sizes, a 6-cell module for 7 thru 15 plate cells and a 3-cell module for 17 thru 33 plate cells. These module sizes are our most popular configurations. However for those special requirements, there are two optional sizes, a 4-cell module for 7 thru 15 plate cells and a 2-cell module for 17 thru 33 plate cells. This provides complete versatility for your special needs.

Maximum Tiers:

Modules can be arranged from one module high all the way up to eight modules high and still meet UBC 97 seismic zone 4 standards. Reference back for standard stacking arrangements.

Connector Package:

Connector packages are available to provide the proper cell hardware for your application. The following chart shows a detailed breakdown of how each connector package is rated:

	CONNECTOR OPTION		
	A	B	C
Discharge Requirements	900 amps or 1700 watts	1800 amps or 3400 watts	2800 amps or 5200 watts

Base Support:

East Penn offers two base supports depending upon your requirements:

Standard Two-Piece Base: This is the standard base support. It is made up of two pieces - a left and a right side support. The standard two-piece base is UBC 97 certified up to and including seismic zone 3 faultline.



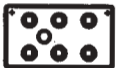

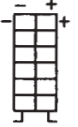


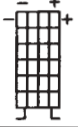
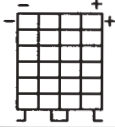

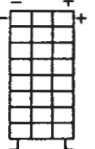
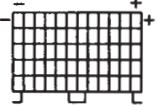

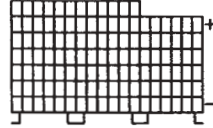
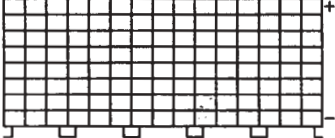
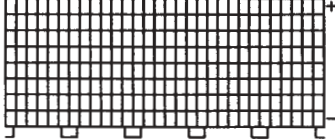
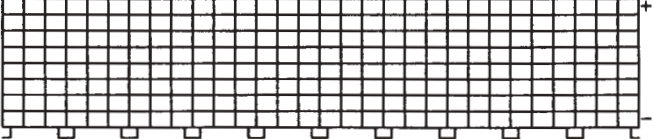
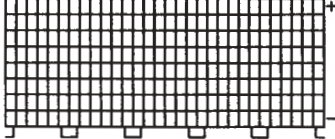
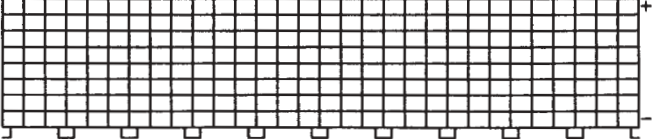
Optional One-Piece Base: When seismic zone 4 is required, order the one-piece base support. This base is UBC 97 certified to meet seismic zone 4, top of building up to eight modules high of the largest AVR95-33 battery. This support also provides easier installation by not having to align two supports. Just bolt to the floor and start assembling the battery system.

Special Requirements:

This section allows the customer to provide any special requirements for their battery that is not specified in all of the above required fields.

If there are any additional questions or comments, please call your local East Penn representative.

Standard Unigy II Interlock Layouts

		7-15 Plate Cell (2 Posts per Cell) (4 or 6 Cells per Module) 	17-27 Plate Cell (4 Posts per Cell) (2 or 3 Cells per Module) 	29-33 Plate Cell (6 Posts per Cell) (2 or 3 Cells per Module) 
24 Volt (12 Cells)	4 CELL MODULE	 Max Tiers=3 modules high # Stacks=1 module wide Side or Top Termination	 Max Tiers=6 modules high # Stacks=1 module wide Side or Top Termination	
	6 CELL MODULE	 Max Tiers=2 modules high # Stacks=1 module wide Side or Top Termination	 Max Tiers=4 modules high # Stacks=1 module wide Side or Top Termination	
48 Volt (24 Cells)	4 CELL MODULE	 Max Tiers=6 modules high # Stacks=1 module wide Side or Top Termination	 Max Tiers=8 modules high # Stacks=1 module wide Side or Top Termination	
	6 CELL MODULE	 Max Tiers=4 modules high # Stacks=1 module wide Side or Top Termination	 Max Tiers=8 modules high # Stacks=1 module wide Side or Top Termination	
120 Volt (60 Cells)	6 CELL MODULE	 Max Tiers=5 modules high # Stacks=2 module wide Side or Top Termination	 Max Tiers=7 modules high # Stacks=3 module wide Side Termination	
	6 CELL MODULE	 Max Tiers=7 modules high # Stacks=3 module wide Side Termination	 Max Tiers=8 modules high # Stacks=5 module wide Side Termination	
240 Volt (120 Cells)	6 CELL MODULE	 Max Tiers=8 modules high # Stacks=5 module wide Side Termination	 Max Tiers=8 modules high # Stacks=10 module wide Side Termination	
	6 CELL MODULE	 Max Tiers=8 modules high # Stacks=5 module wide Side Termination	 Max Tiers=8 modules high # Stacks=10 module wide Side Termination	

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