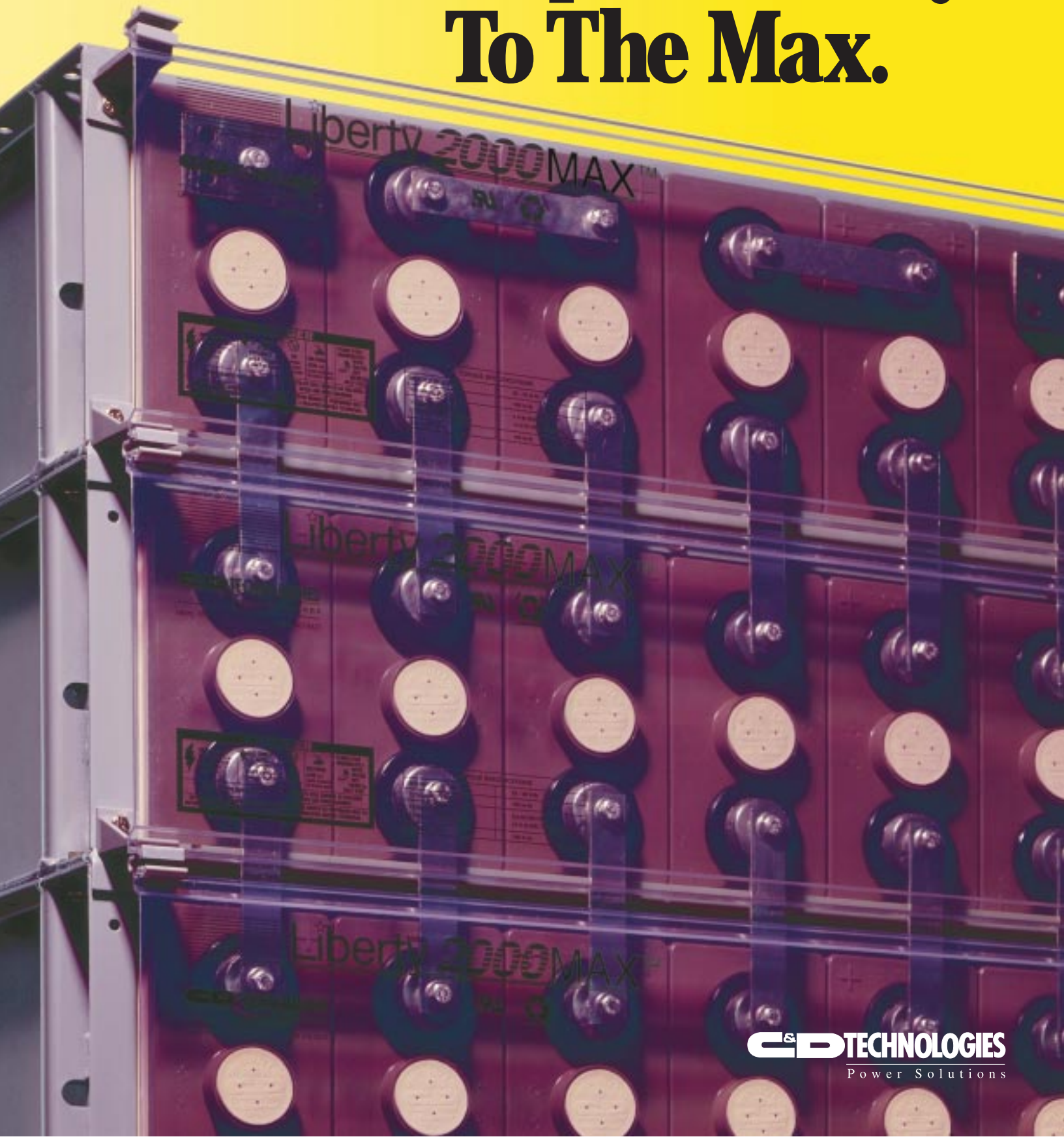


Liberty [★]SERIES **2000** MAX™

Dependability. To The Max.



Dependability

We have taken the top-rated, most dependable VRLA battery available and added the latest technology to create the Liberty 2000 MAX™. You get maximum back-up performance and reliability whether you are supporting a cell site, central office, uninterruptible power system, switchgear or Internet server applications.

The Liberty 2000 MAX is the result of years of research in refining the best VRLA battery system on the market. Our numerous patents provide longer life and reduced maintenance. This translates to a lower life cycle cost, while ensuring maximum back-up power when you need it.

Measurable quality. Outstanding performance.

- Consistent float voltage +/- .050 Vpc
- On average, 100 percent system capacity at time of shipment
- 1200 cycles to 80 percent depth of discharge at 8-hour rate to 1.75 Vpc at 77F
- 20-year design life at 77F (25C) full float service

Discover the newest VRLA technology for yourself.

For more information on the Liberty 2000 MAX, or to speak with a sales representative, please call us at (800) 543-8630 or your local C&D Representative. You can also e-mail us at powercom@cdtechno.com. Visit us on the Internet at www.cdpowercom.com.

Insulated Plate Boot

- Prevents shorting at bottom of plate
- Boot and c-wrap fully insulate plate

Deep Well Support Bridge

- Allows plate growth without affecting performance
- Increases the life of battery
- Reduces stress on Jar-to-Cover and Post seals
- Supports the element in horizontal position

Patented Ribbed Jar Design

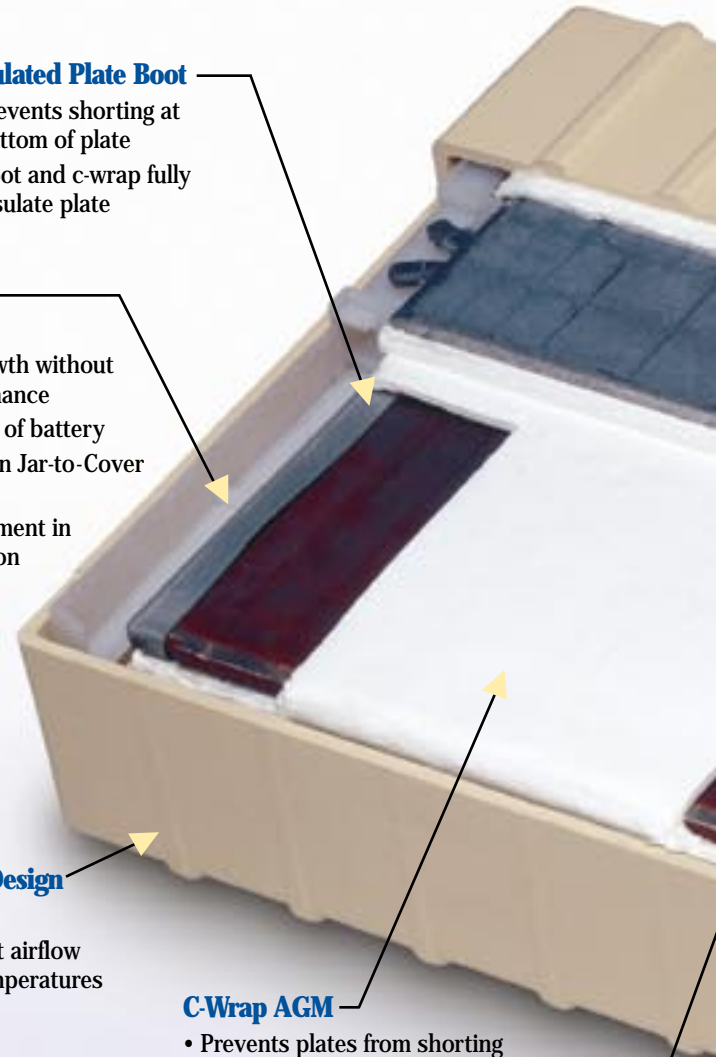
- Provides extra strength
- Provides space-efficient airflow gap for uniform cell temperatures
- Better heat dissipation optimizes cell life
- Five times more tolerant against thermal runaway effects than non-ribbed designs

C-Wrap AGM

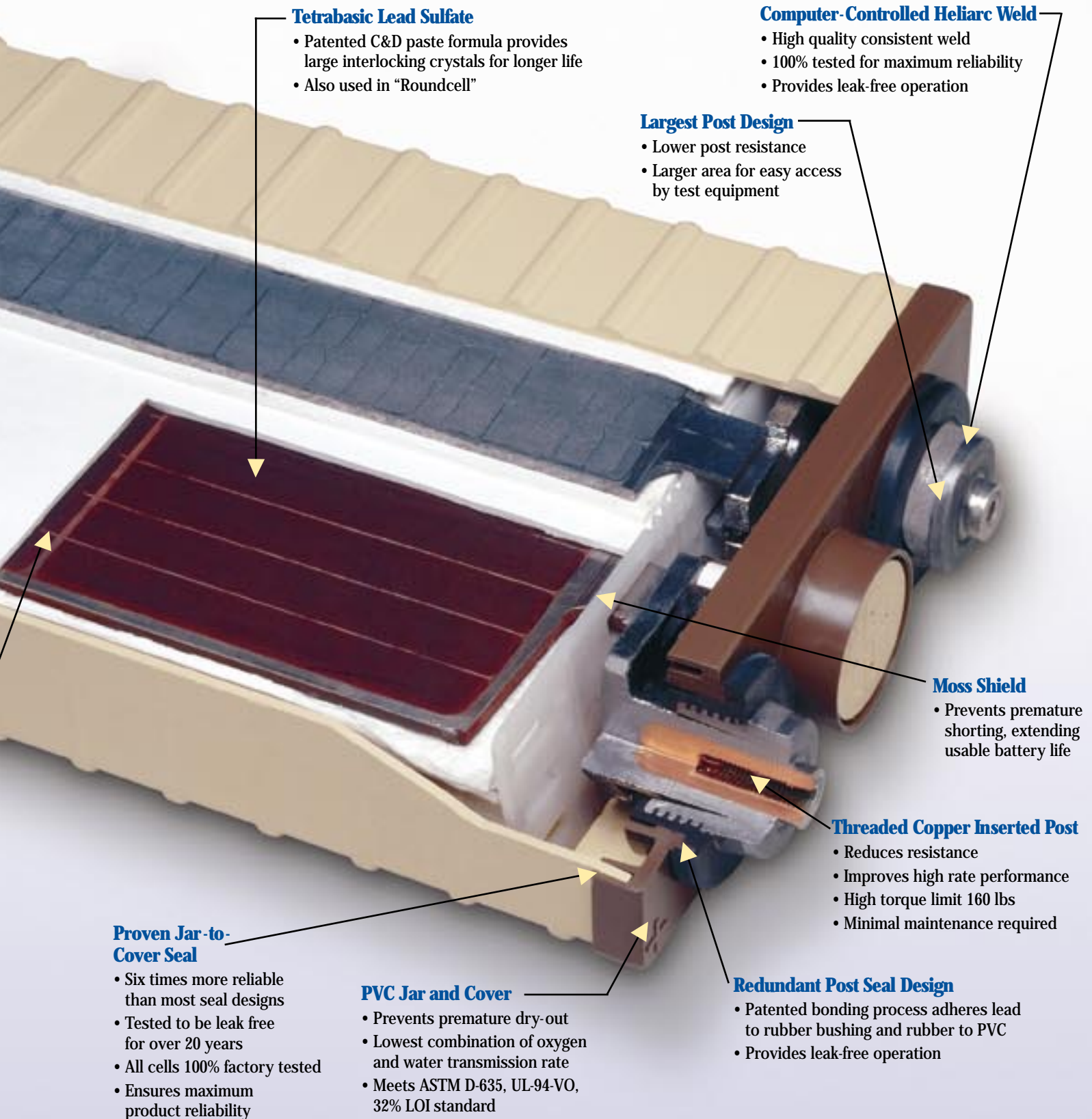
- Prevents plates from shorting on the side and edges
- Extra thick and absorbent mats for long life

Patented Positive Grid Design

- Proprietary grid design reduces plate growth
- Excellent cycling capability of 1200 cycles at 80% DOD to 1.75 Vpc at 77F
- Thick lead-calcium-tin positive plate — 0.240 inches (6 mm) for 20-year design life



y... Inside and C



Tetrabasic Lead Sulfate

- Patented C&D paste formula provides large interlocking crystals for longer life
- Also used in "Roundcell"

Computer-Controlled Heliarc Weld

- High quality consistent weld
- 100% tested for maximum reliability
- Provides leak-free operation

Largest Post Design

- Lower post resistance
- Larger area for easy access by test equipment

Moss Shield

- Prevents premature shorting, extending usable battery life

Threaded Copper Inserted Post

- Reduces resistance
- Improves high rate performance
- High torque limit 160 lbs
- Minimal maintenance required

Proven Jar-to-Cover Seal

- Six times more reliable than most seal designs
- Tested to be leak free for over 20 years
- All cells 100% factory tested
- Ensures maximum product reliability

PVC Jar and Cover

- Prevents premature dry-out
- Lowest combination of oxygen and water transmission rate
- Meets ASTM D-635, UL-94-VO, 32% LOI standard

Redundant Post Seal Design

- Patented bonding process adheres lead to rubber bushing and rubber to PVC
- Provides leak-free operation

Out.

Exclusive and Patented Module Pressure Plate Design

- Provides optimum cell performance
- Easy removal and installation of cells
- Front or side access available

Modular Steel Tray

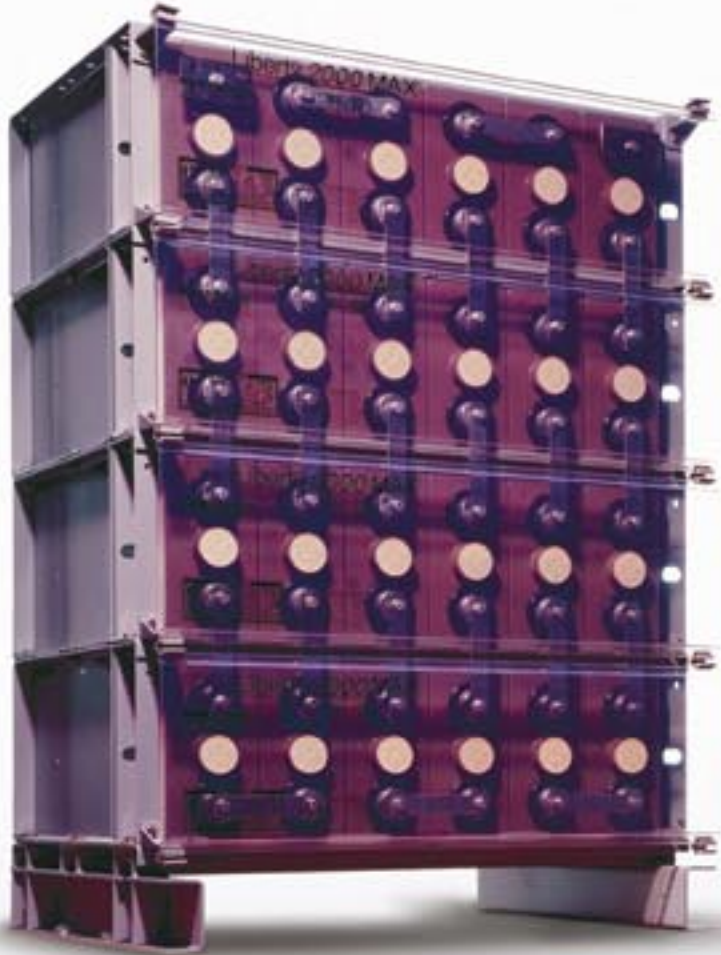
- Meets Zone 4 seismic requirements stacked eight high
- Easy to install and assemble

Tin-Plated Intercell Connectors

- Less maintenance

Clear Safety Shields

- Enables visual inspection of cells and connections without removal

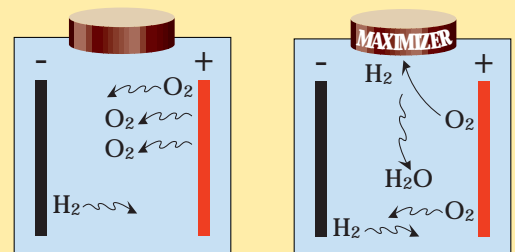


The Maximizer™ Makes the Best VRLA Battery Even Better



The Maximizer is the patented cap system that reduces corrosion of the positive grids, maintains a properly charged negative plate, and virtually eliminates dry-out. The Maximizer also:

- Reduces float current
- Maintains cell capacity
- Creates lower impedance
- Saves you money (with its lower current and longer useful life)



Excess oxygen is attracted to the Maximizer and prevented from affecting the negative plate potential.

CELL SPECIFICATIONS

RHD/RHDL

Product model number	Positive plates	Width in (mm)	Depth in (mm)	Height in (mm)	Weight lbs (kgs)	Electrolyte specific gravity	Float voltage
RHD-190 RHDL-160	3	3.0 (76.2)	15.44 (392.2)	8.9 (226.1)	40 (18)	1.300 RHD/ 1.250 RHDL	2.25–2.27 Vpc at 77F (25C) RHD/ 2.19–2.21 Vpc at 77F (25C) RHDL
RHD-250 RHDL-215	4	3.8 (96.5)			50 (23)		
RHD-315 RHDL-270	5	4.5 (114.3)			61 (28)		
RHD-440 RHDL-375	7	5.9 (149.9)			83 (38)		
RHD-600 RHDL-500	9	7.4 (188.0)			104 (47)		

Note: RHDL and HDL cells are designed with 1.250 specific gravity acid for low float voltage applications or parallel operation with flooded cells.

HD/HDL

Product model number	Positive plates	Width in (mm)	Depth in (mm)	Height in (mm)	Weight lbs (kgs)	Electrolyte specific gravity	Float voltage
HD-300 HDL-260	3	3.0 (76.2)	23.13 (587.5)	8.9 (226.1)	55 (25)	1.300 HD/ 1.250 HDL	2.25–2.27 Vpc at 77F (25C) HD/ 2.19–2.21 Vpc at 77F (25C) HDL
HD-400 HDL-350	4	3.8 (96.5)			80 (36)		
HD-500 HDL-440	5	4.5 (114.3)			98 (45)		
HD-700 HDL-610	7	5.9 (149.9)			132 (60)		
HD-900 HDL-785	9	7.4 (188.0)			166 (75)		
HD-1100 HDL-960	11	8.9 (226.0)			200 (91)		
HD-1300 HDL-1135	13	10.3 (261.6)			237 (108)		

MODULE SPECIFICATIONS

RHD/RHDL

Module building blocks	No. of cells	Volts	8-Hour capacity (ampere hours)	Width in (mm)	Height* in (mm)	Depth** in (mm)	Weight lbs (kgs)
6-RHD-190† 6-RHDL-160†	6	12	200	21.2	9.9 (251.5)	16.95 (430.5)	310 (141)
4-RHD-250† 4-RHDL-215†			4	8			260
6-RHD-250 6-RHDL-215	6	12					260
4-RHD-315† 4-RHDL-270†			4	8			330
6-RHD-315 6-RHDL-270	6	12					330
3-RHD-440† 4-RHDL-375†			3	6			460
4-RHD-440 4-RHDL-375	4	8					460
6-RHD-440 6-RHDL-375			6	12			460
3-RHD-600 3-RHDL-500	3	6					600
4-RHD-600 4-RHDL-500			4	8			600

For ampere rates see publication 12-371-AMP
For kilowatt rates see publication 12-371-KW
For RHDL/HDL see publication 12-376

HD/HDL

Module building blocks	No. of cells	Volts	8-Hour capacity (ampere hours)	Width in (mm)	Height* in (mm)	Depth** in (mm)	Weight lbs (kgs)
6-HD-300† 6-HDL-260†	6	12	330	21.4	9.9 (251.5)	25.5 (647.7)	425 (193)
4-HD-400† 4-HDL-350†			4	8			440
6-HD-400 6-HDL-350	6	12					440
4-HD-500† 4-HDL-440†			4	8			550
6-HD-500 6-HDL-440	6	12					550
3-HD-700† 3-HDL-610†			3	6			770
4-HD-700 4-HDL-610	4	8					770
6-HD-700 6-HDL-610			6	12			770
3-HD-900 3-HDL-785	3	6					990
4-HD-900 4-HDL-785			4	8			990
3-HD-1100 3-HDL-960	3	6					1210
4-HD-1100 4-HDL-960			4	8			1210
3-HD-1300 3-HDL-1135	3	6					1430
4-HD-1300†† 4-HDL-1135††			4	8			1430

Note: All ratings conform to IEEE-485, 1997

*Add 4.9 inches (125 mm) for HD/HDL, or 4.4 inches (112 mm) for RHD/RHDL, to the height of the base support, for total stack height.

The base support weight ranges from 34 lbs (15.3 kgs) to 55 lbs (25 kgs) depending on width. A reduced height (2.5 inches tall) base is available as an option.

**Total depth includes clear faceplate over terminal connections. Subtract 1/2 inch (12.7 mm) without faceplates.

† These modules can be installed in a 23-inch relay rack. Allow 4 inches (102 mm), the height of the rack base, for the total stack height.

†† Stack height is limited to six modules for seismic zone 4.

Design a system using these standard building blocks. You can:

- Mount modules in relay racks
- Mount relay rack on top of modules
- Build complete front access system
- Vary module widths to spread floor load

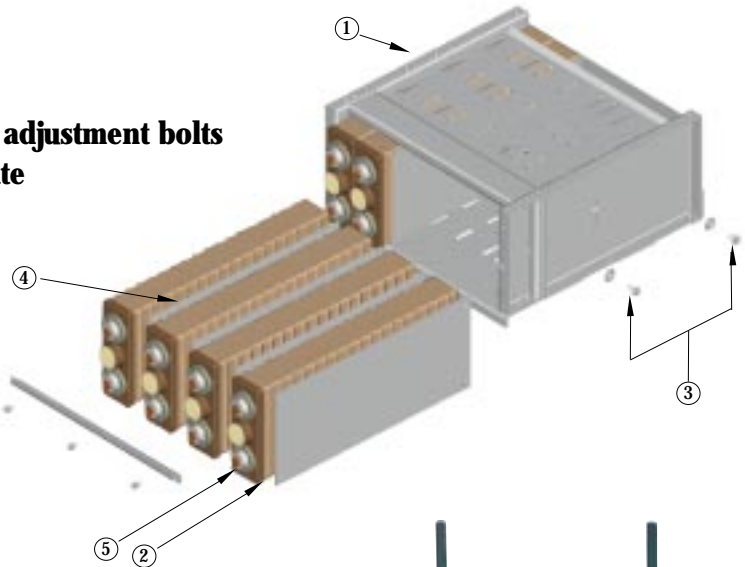
Power Equipment can be mounted on top.



UNIQUE MODULAR DESIGN STACK SYSTEM (patent pending)

- Integrated module system *exceeds 1994 UBC Zone 4* requirements
- Provides *thermal management* of cells
- Allows *simple, quick installation* and removal of cells
- Provides *consistent compression* of cells
- Provides *airflow channels* between cells

1. Steel Module
2. Pressure plate
3. Pressure plate adjustment bolts
4. Cell spacer plate
5. Cells



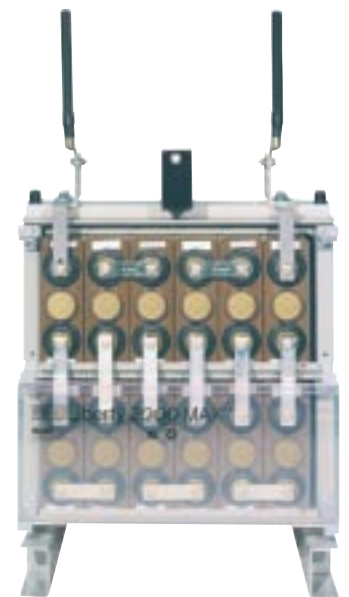
MOUNTING AND TERMINATING CHOICES

Standard Termination

Low Profile Mounting
Modules stacked on optional low profile base (shown with protective faceplates and optional front access cam system)

Top Termination

Standard Mounting
Modules stacked on standard height base module (shown with protective faceplate removed)



Side Bus Bar Termination (not shown)

Used with multiple stack applications

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