

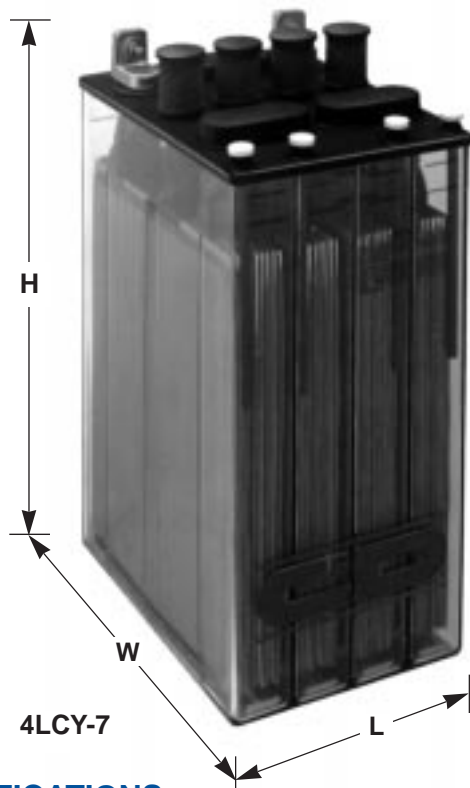
# C&D TECHNOLOGIES

## Power Solutions

### 4LCY LEAD-CALCIUM

For switchgear applications

Capacities from 285 to 646 Ampere-hours



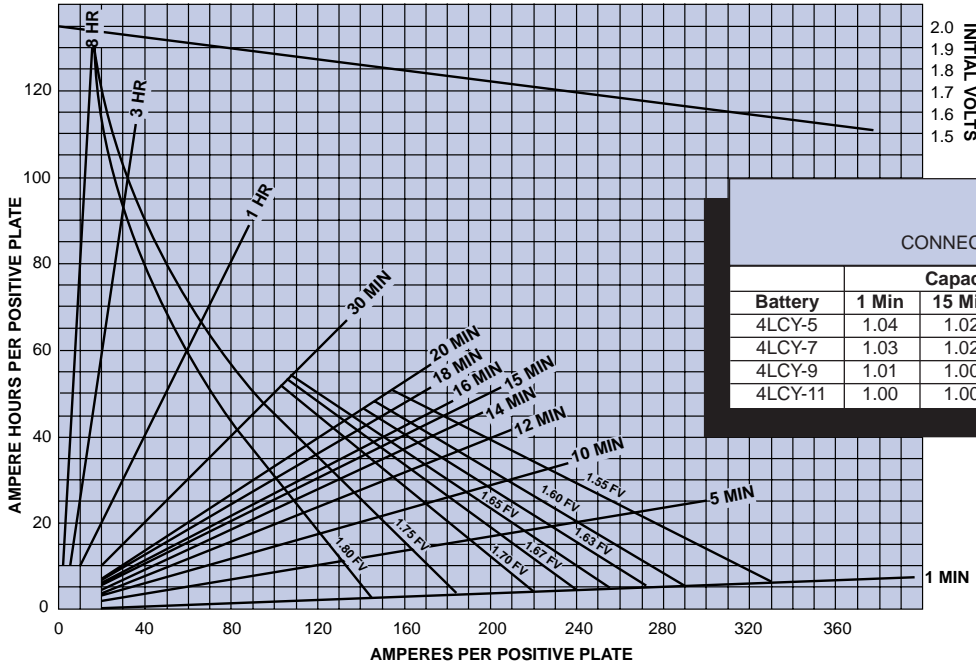
#### FEATURES AND BENEFITS

- Vacuum-assisted, bottom-pour, positive grid casting assures plate quality and long life
- Four-cell design offers reduced length for optimum space utilization (shorter racks)
- Flame-retardant covers enhance battery plant safety
- Suspended positive plate permits free growth without pressure on jar and cover
- Snap-on, intercell-connector-insulating covers
- Terminals accessible for measurement of individual cell voltages
- Transparent container allows visual inspection of plates
- Electrical testing to 100 percent capacity assures performance of every battery

#### SPECIFICATIONS

Plates	Height	Width	Thickness
Positive	15 in (381 mm)	12 in (305 mm)	0.250 in (6.4 mm)
Negative	15 in (381 mm)	12 in (305 mm)	0.180 in (4.6 mm)
Outside negative	15 in (381 mm)	12 in (305 mm)	0.130 in (3.3 mm)
Electrolyte height above plates	2.88 in (73 mm)		
Sediment space	0.63 in (16 mm)		
Electrolyte @ 77F (25C)	Sulfuric acid, 1.215 specific gravity nominal		
Float voltages	2.20–2.25 volts per cell		
Container†	Thermoplastic, transparent		
Cover	High-impact, flame-retardant thermoplastic (PVC) with tongue-and-groove seal Flammability ratings: UL 94-V0; LOI>33; ASTM D-635 self-extinguishing		
Separator	Microporous with fibrous glass mat		
Safety vent system	Flame-arrester type with dust cover		
Terminals 4LCY-5 and 7 4LCY-9 and 11	Two, 0.5 in (12.7 mm) x 1.38 in (35.1 mm) cast-lead terminals Two, 1 in (25 mm) square posts per unit		
Withdrawal tubes	One per cell		
†Optional Container	Transparent, flame-retardant polycarbonate. Flammability ratings: UL 94-HB; ASTM D-635 self-extinguishing		
Special voltages	Models with dummy cells are available		

# TYPICAL DISCHARGE CHARACTERISTICS OF 4LCY



4LCY 1.215 SG 77°F CONNECTOR DROP INCLUDED						
Capacity correction factor						
Battery	1 Min	15 Min	30 Min	60 Min	180 Min	480 Min
4LCY-5	1.04	1.02	1.04	1.10	1.10	1.10
4LCY-7	1.03	1.02	1.04	1.06	1.06	1.06
4LCY-9	1.01	1.00	1.02	1.03	1.03	1.03
4LCY-11	1.00	1.00	1.00	1.00	1.00	1.00

To convert rates from 1.215 to 1.250, multiply the printed rate by 10 percent.

Data based on discharge from float at 77F (25C) for a minimum of 72 hours.

Type of battery	Cells per unit	Plates per cell	Nominal cap. to 1.75 avg. Vpc @ 77F (25C) (Includes connector voltage drop)*						Overall Dimensions			Approx. wt. lbs. (kgs)		Electrolyte per cell lbs (kgs)
			Ampere-hours			Amperes			L in (mm)	W in (mm)	H in (mm)	Net filled	Dom. packed	
			8 Hr	3 Hr	1 Hr	30 Min	15 Min	1 Min						
4LCY-5	4	5	285	218	146	201	262	386	10.08 (256)	14.12 (359)	22.75 (578)	253 (114.8)	288 (121.6)	20 (9.1)
4LCY-7	4	7	411	313	212	302	392	574	10.08 (256)			310 (140.6)	325 (147.4)	18 (8.2)
4LCY-9	4	9	532	407	274	393	516	750	15.00 (381)			395 (179.2)	415 (188.2)	25 (11.3)
4LCY-11	4	11	646	494	332	484	644	929	15.00 (381)			450 (204.1)	470 (213.2)	23 (10.4)

Notes: Electrolyte weighs approximately 10 lbs per gallon (1.210 kgs per liter). \*Data based on discharge from float at 77F (25C) for a minimum of 72 hours.

## RACK SPECIFICATIONS

Battery	TWO-STEP Model RDB-903-(L) Width: 44.8 in (1138 mm) Height: 52.3 in (1329 mm)					TWO-TIER Model RDB-901-(L) Width: 24.0 in (611 mm) Height: 65.8 in (1672 mm)					THREE-TIER Model RDB-902-(L) Width: 25.0 in (637 mm) Height: 94.8 in (2408 mm)				
	Length (L)		Weight		No. req'd	Length (L)		Weight		No. req'd	Length (L)		Weight		No. req'd
	ft	mm	lbs	kg		ft	mm	lbs	kgs		ft	mm	lbs	kgs	
<b>60-CELL BATTERY</b>															
4LCY-5	7	2134	285	130	1	7	2134	280	127	1	5	1524	265	120	1
4LCY-7															
4LCY-9	11	3353	400	182	1	11	3353	380	173	1	7	2134	400	182	1
4LCY-11															

- Notes:
- For more information on racks, see brochure 12-560.
  - Rack lengths for other than 60-cell batteries can be calculated by the formula: Number of cells per tier or step x (L+0.5) - 0.5 = total rack length. (Where "L" is length of cell.) Where dimensions are critical, check with C&D engineering.
  - Rack width does not include thickness of crossbracing; increase width by 0.5 in. (12.7 mm) for crossbracing when this dimension is critical.
  - Height measured from base to top terminal of upper tier battery.

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