FLOODED

NATIONWIDE BATTERY

MARINE | GOLF | INDUSTRIAL | AUTO | SPECIAL APPLICATIONS | SOLAR

LEAD-CALCIUM BATTERY

LCR-23

LCR SERIES

- Voltage: 2V
- Reserve Capacity: 1,650 Ah@8hr rate to 1.75VPC @ 77F
- Weight: 310 lbs (141 kg)
- Length: 10.62 in (270 mm)
- Width: 14.12 in (359 mm)
- Height: 22.70 in (577 mm)
- Positive Thickness: 0.312in (7.9mm)
- Negative Thickness: 0.210in (5.3mm)
- Separator: Microporous with fibrous glass mat
- Container: Thermoplastic, transparent (SAN)
- Cover: High-Impact, flame retardant UL 94-V0; ASTM D-635 self-extinguishing
- Recommended Float Voltage: 2.20-2.25 VPC
- Terminals: Four, 1-in square copper-inserted posts with single-bolt holes

EVERY BATTERY 100% CAPACITY TESTED

FOR SWITCHGEAR & CONTROL APPLICATIONS

C&D Technologies flooded batteries are engineered to provide superior performance and reliability over the life of the product. These batteries are designed using proprietary techniques and quality components and materials for reduced maintenance and extended battery life.

C&D TECHNOLOGIES

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MODEL **LCR-23**
VOLTAGE **2V**
CAPACITY **1,650Ah @ hr to 1.75VPC**
CONTAINER **Thermoplastic, transparent (SAN)**
COVER **Flame-retardant, tongue-and-groove seal. UL 94-V0; ASTM D-635 self-extinguishing**
BATTERY TYPE **Lead-Calcium**

2V

PRODUCT + PHYSICAL SPECIFICATIONS

Serie	Model	Voltage	Cell(s)	Terminal Quantity	Dimensions [C] Inches (mm)			Weight Lbs. (kg)
					Length	Width	Height [F]	
LCR	**LCR-23**	**2**	**1**	4	**10.62 (270)**	**14.12 (359)**	**22.70 (577)**	**310 (141)**

ELECTRICAL SPECIFICATIONS

VPC	Ah @ 8hr Rate	NOMINAL RATE @ 77F (+25C) IN 1.215 SPECIFIC GRAVITY (INCLUDES CONNECTION DROP)									
		AMPERES									
		1 MIN	15 MIN	30 MIN	1 HR	2 HR	3 HR	4 HR	5HR	8 HR	12 HR
1.75	1,650	1667	1371	1137	849	575	440	358	303	207	147
1.78	1627	1445	1231	1047	801	551	425	347	294	203	145
1.81	1578	1219	1075	941	742	521	404	332	283	197	140
1.85	1473	938	857	774	635	460	363	302	259	184	134

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NATIONWIDE BATTERY

CHARGING INSTRUCTIONS

Charger Voltage Settings (at 77°F/25°C)					
System Voltage	2V	4V	24V	48V	125V
Bulk / Equalize Charge	2.35	4.70	28.20	56.40	141.00
Float Charge	2.25	4.50	27.00	54.00	135.00
High Voltage Alarm	2.45	4.90	29.40	58.80	147.00
Low Voltage Alarm	1.75	3.50	21.00	42.00	105.00

Do not install or charge batteries in a sealed or non-ventilated compartment. Constant under or overcharging will damage the battery and shorten its life as with any battery.

CHARGING TEMPERATURE COMPENSATION

Add	Subtract
0.005 volt per cell for every 1°C below 25°C 0.0028 volt per cell for every 1°F below 77°F	0.005 volt per cell for every 1°C above 25°C 0.0028 volt per cell for every 1°F above 77°F

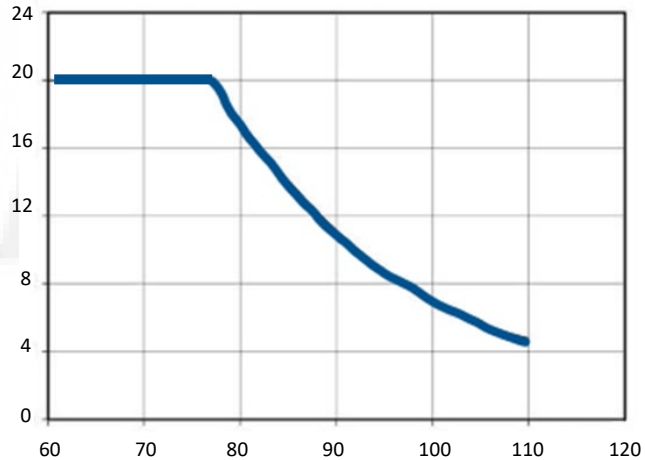
OPERATIONAL DATA

Operating Temperature	Self Discharge
Reccomended operating temperature range 60F (15 C) – 90F (32 C) Limit Operating Range 32F (0 C) – 120F (49 C)	Less than 3% per month depending on storage temperature conditions

STATE OF CHARGE MEASURE OF OPEN-CIRCUIT VOLTAGE

Percentage Charge	Cell	Specific Gravity
100	2.06 - 2.08	1.210 - 1.220
75	2.03 – 2.04	1.185 -1.195
50	2.00 – 2.01	1.160 – 1.170
25	1.97 – 1.98	1.135 – 1.145
0	1.95 or less	1.110 – 1.120

BATTERY LIFE v AMBIENT TEMPERATURE



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NATIONWIDE BATTERY

LCR and LCY Lead-Calcium Battery

FOR SWITCHGEAR & CONTROL APPLICATIONS

Capacities from 900 to 2400 Ampere-hours

C&D Technologies flooded batteries are engineered to provide superior perfor-mance and reliability over the life of the product. These batteries are designed using proprietary techniques and quality components and materials for reduced maintenance and extended battery life.

FEATURES & BENEFITS

- Electrical testing to 100% capacity of all battery cells prior to shipping ensures performance of every battery string upon delivery
- Long life positive plates cast with a proprietary process and alloy
- Suspended positive plates permit free growth without pressure on jar and cover
- Waterbath charging results in consistently formed plates for reliable performance out of the box (no cycling required in the field)
- Nuclear versions qualified per IEEE 535 for Class 1E nuclear applications

SAFE OPERATION

- Standard flame-retardant covers enhance battery plant safety with self-extinguishing properties, LOI>32%, UL94V-0
- Low-evaporation, flame-arrester vent to extend watering intervals and prevent external sparks from reacting with the hydrogen inside the cell.

COST SAVINGS

- Transparent container allows visual inspection of plates
- Soft rubber post seal minimizes stress on post reducing maintenance requirements
- Computer controlled heli-arc welded post seals result in consistent and reliable seals for less maintenance and longer product life

APPLICATIONS

- Electric Power Generations
  - Facilities
- Nuclear Power Plants
- Emergency Systems
- Manufacturing Facilities
  - Assembly Lines
  - Process Controls
- Petrochemical Plants
- Pipelines

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LEAD RETURN RECYCLE