

# **Deka<sup>®</sup>**

# **SOLAR**

## *PHOTOVOLTAIC BATTERIES*



Made in USA  
with US and  
imported materials

## **Renewable Energy Storage Solutions**

Deka batteries are engineered and tested to provide reliable, long-lasting back-up power for Photovoltaic (PV) and renewable energy applications where frequent deep cycles are required and minimum maintenance is desirable:

- Water Pumping
- Residential/Small Village
- Communications
- Cathodic Protection
- Remote Monitoring
- Refrigeration
- Lighting
- Aids to Navigation
- Wind Generation
- Road Repair Work
- Railway Signal Applications
- Missile Tracking
- Solar Panel Electricity Collection
- Uninterruptible Power Supply (U.P.S.)





## FLOODED MONOBLOC / 6V & 12V

Deka Solar Flooded Monobloc batteries are designed to offer reliable, low-maintenance power for renewable energy applications where frequent deep cycles are required and minimum maintenance is desirable. The Deka Solar Flooded Monobloc series include 3 cell (6 volt) and 6 cell (12 volt) batteries.

### FEATURES AND BENEFITS

Case and Cover	Molded high impact polypropylene
Separators	Microporous polyethylene envelopes/separators
Retainers	20 mil glass mat (DC27- 10 mil)
Positive and Negative Plate	Antimony
Specific Gravity (fully charged)	1.275 @ 25°C (77°F)
Self Discharge	4% per month
Plates Formed using IPF™ Technology	Ensures voltage matching between cells



## GEL MONOBLOC / 6V & 12V

The Deka Solar Valve-Regulated Genuine Gel Monobloc series offers reliable, versatile, maintenance-free power. The thixotropic gel enables these batteries to be completely spillproof providing many available options for installation. Genuine gelled electrolyte gives more protection to the battery plates, and provides a superior deep discharge resiliency. With longer discharge and less charging time, these batteries are ideal for many renewable energy applications.

### FEATURES AND BENEFITS

Valve-Regulated	Sealed construction eliminates periodic watering, corrosive acid fumes, and spills
Gelled Electrolyte	Electrolyte will not stratify
Positive and Negative Plate	Lead calcium
Self-Discharge	Less than 2% per month stand loss means little deterioration during transport and storage
Plates Formed using IPF™ Technology	Ensures voltage matching between cells
Rated Non-Spillable by ICAO, IATA, and DOT	Transports easily and safely by air, no special containers needed



## FLOODED SYSTEM / 2V

Higher voltage systems naturally have greater power requirements. The Deka Solar Maintenance Saver® Flooded battery is available as a single cell or system. It is designed to offer reliable, low maintenance power for renewable energy applications where frequent deep cycles are required and minimum maintenance is desirable.

### FEATURES AND BENEFITS

Jar and Cover	Molded high impact polypropylene
Separators	Microporous polyethylene material
Retainers	Vertically and horizontally wrapped glass mat, folded perforated envelope, molded plastic bottom shield
Positive and Negative Plate	Antimony
Specific Gravity (fully charged)	1.250 @ 25°C (77°F)
Self-Discharge	4% per month
Large Reservoir	Allows an increased volume of electrolyte, enabling the batteries to work longer without needing watering



## GEL SYSTEM / 2V

The Deka Solar Dominator® Valve-Regulated Genuine Gel electrolyte battery is designed to offer reliable, maintenance-free power. It is available as a single cell or system. Genuine gelled electrolyte protects the battery plates and provides a deep discharge resiliency. It is completely spillproof making it ideal for renewable energy superior deep cycle applications.

### FEATURES AND BENEFITS

Valve-Regulated	Sealed construction eliminates periodic watering, corrosive acid fumes, and spills
Gelled Electrolyte	Electrolyte will not stratify
Positive and Negative Plate	Lead calcium
Self-Discharge	Less than 2% per month stand loss means little deterioration during transport and storage
Plates Formed using IPF™ Technology	Ensures voltage matching between cells





## AGM MODULES / 2V

The Deka Unigy® II line, available in single cell or system designs, includes a wide range of capacities and sizes to fit the requirements of renewable energy applications. The Deka Unigy® II STANDARD DESIGN allows modules to be stacked horizontally and connected by only four bolts (two in front - two in back), for quick and safe battery installation. The cell terminals are solid copper with lead plating, and are designed for maximum conductivity.

The Deka Unigy® II INTERLOCK™ SYSTEM utilizes interlocking modules to maximize convenience with front access bolting. This system delivers more power in less space while maintaining cooling requirements. Advanced features provide easy and safe installation such as "two way" post, and easy on/off front shields. Equipped with a standard one-piece INTERLOCK™ base, the system meets Zone 4 seismic specifications and is certified up to 8 modules high.

### FEATURES AND BENEFITS

Valve-Regulated	Sealed construction eliminates periodic watering, corrosive acid fumes, and spills
Case and Cover	Molded high impact flame retardant polypropylene, UL 94 V-0, 28% L.O.I.
Separators	Microporous glass mat
Positive and Negative Plate	Lead tin
MICROCAT™ Catalyst	Lowers float current, decreases internal temps, and the risk of dryout
Self-Discharge	Less than 2% per month stand loss means little deterioration during transport and storage
Plates Formed using IPF™ Technology	Ensures voltage matching between cells
Rated Non-Spillable by ICAO, IATA, and DOT	Transports easily and safely by air, no special containers needed



## SOLAR PRODUCT COMPARISON CHART

		Monobloc (6-volt & 12-volt)			2-volt		
		Flooded	Gel	AGM	Flooded	Gel	AGM
Cycle Life	High	*	*		*	*	
	Moderate			*			*
Capacity	High				*	*	*
	Moderate	*	*	*			
Temperature (Tolerance)	High Temp.	*	*		*	*	*
	Low Temp.		*	*		*	*
Maintenance	Reg. Schedule	*			*		
	Minimal		*	*		*	*
Electrolyte	Free Flowing	*			*		
	Suspended		*	*		*	*
Special Ventilation	Required	*			*		
	Not Required		*	*		*	*
Installation	Upright	*			*	*	
	Other		*	*			*
Weight	Heavy				*	*	*
	Moderate	*	*	*			

## ENVIRONMENTAL PROTECTION PROGRAM

East Penn is committed to implementing the highest environmental standards, and has labeled this sixty-year plus tradition as it's "Environmental Protection Program." Through state-of-the-art recycling facilities and a company wide dedication to environmental health and safety, the company has made safe recycling and environmental stewardship an everyday practice.

Its lead smelter and refinery is a model for the industry recycling virtually 100% of every used lead-acid battery component brought to the facility. East Penn built the battery industry's first acid reclamation plant, avoiding potentially hazardous acid disposal.

The company also treats and reuses wastewater from its manufacturing plants in our modern Wastewater Distillation and Treatment Plant



reducing the use of precious ground-water by over 100,000 gallons per day. Companywide sustainability initiatives are spread throughout its facilities such as collections to recycle paper, cardboard, plastic, used aluminum cans, and glass bottles.

East Penn was one of the first in the nation to install a scrubber unit, which eliminates sulfur dioxide emissions.

The company continually monitors the ambient emissions around its plant site, which continues to decline even with a steady increase in production.

The company's modern facilities as well as its long-standing "green" culture has made East Penn the most environmentally conscious proactive battery manufacturer, and recycler in the world.



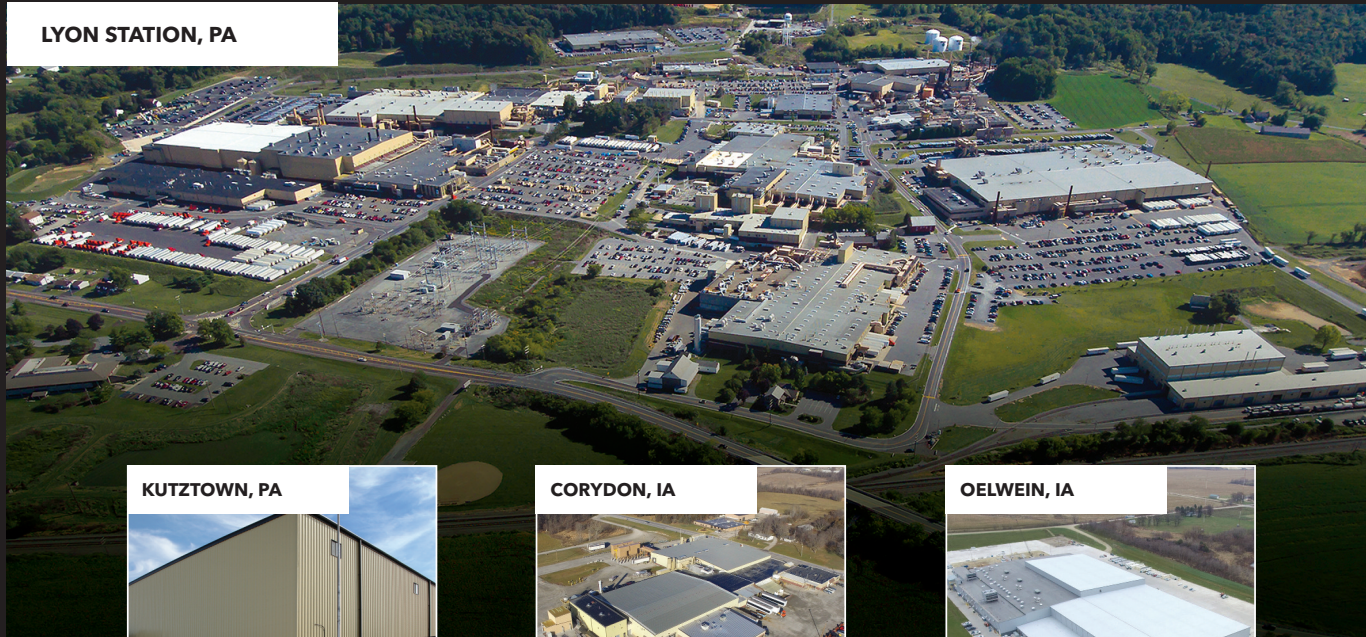
Wastewater treatment



# A Passion for Power

A private, family-owned company founded in 1946 offering a broad range of power solutions for transportation, motive power, reserve power, and wire and cable. The company produces more than 515 battery types under our Deka brand as well as other well-known brands for cars, boats, motorcycles, forklifts, stationary backup systems and many other applications.

LYON STATION, PA



KUTZTOWN, PA



WIRE, CABLE, AND BATTERY  
ACCESSORY PRODUCTS FACILITY

CORYDON, IA



BATTERY PRODUCTION  
FACILITY

OELWEIN, IA



FILL, FORM, FINISH, AND  
DISTRIBUTION FACILITY

**Operating the largest, single-site battery manufacturing facility in the world with on-site battery recycling in Lyon Station, PA, and distribution facilities across the country.**

- Five large battery manufacturing plants
- Five distribution centers across the U.S.
- One Finishing Distribution Center
- Extensive warehouse network throughout U.S. and Canada
- Company-owned fleet
- Oxide production & lead refinery
- Plastic refinery and molding
- Acid reclamation and wastewater treatment
- Machine tooling & maintenance
- Construction & electrical
- Continuous Improvement, Technical and Innovation Centers

## CERTIFICATIONS

QUALITY SYSTEM  
CERTIFIED  
**ISO 9001**  
**IATF 16949**  
ENVIRONMENTAL  
SYSTEM CERTIFIED  
**ISO 14001**

**PROPOSITION 65 WARNING:** Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Batteries also contain other chemicals known to the State of California to cause cancer. **WASH HANDS AFTER HANDLING.**

## SUSTAINABILITY



Committed to protecting the health, safety, and vitality of environment, employees, and surrounding community. See our sustainability report at [www.dekabatteries.com](http://www.dekabatteries.com)



**An East Penn Manufacturing Co. Subsidiary**  
1-800-372-9253. [www.mkbattery.com](http://www.mkbattery.com)  
e-mail: [sales@mkbattery.com](mailto:sales@mkbattery.com)

All data subject to change without notice. No part of this document may be copied or reproduced, electronically or mechanically, without written permission from the company.