Deka Solar™/PV batteries provide reliable back-up power for any solar power application. A few of these include:

- Water Pumping
- Cathodic Protection
- Lighting
- Road Repair Work
- Residential/Small Village
- Remote Monitoring
- Navigational Aids
- Railway Signal
- Solar Panel Electricity Collection
- Communications
- Refrigeration
- Wind Generation
- Missile Tracking

The Most Dependable Batteries Under the Sun
Deka Solar photovoltaic flooded, lead-acid batteries are designed to deliver reliable, low-maintenance power for virtually any renewable energy application.

For smaller systems, Deka features a series of six and 12-volt Solar/PV batteries that have been specially engineered to provide maximum deep-cycle output in solar or photovoltaic applications. With a self-discharge rate of no more than 1% per week, battery replacement costs are significantly lowered providing the kind of reliability you can depend on.

Because larger voltage systems have greater power requirements, Deka also offers 6- to 36-cell Solar/PV flooded batteries which deliver slow-amp draw service. These batteries require minimum maintenance, even for severe service applications. The batteries have been engineered with extended watering intervals and operate up to six months between watering.* Deka high power Solar batteries are designed to provide long service life – up to 14 years of cycle life.

Valve-Regulated

The Deka Solar photovoltaic series of valve-regulated, gelled-electrolyte lead-acid batteries is designed to offer reliable, maintenance-free power for renewable energy applications where frequent deep-discharge cycles are required and minimum maintenance is desired.

Ideal for smaller energy system needs, these 6- and 12-volt batteries are housed in polypropylene containers and covers with forged terminal bushings and self-sealing vents.

The Deka Solar/PV maintenance-free gel technology is also available for larger voltage system requirements and has the capability to provide up to 72 volts of reliable power.

Deka gel batteries are not simply a flooded design with gelled electrolyte. These batteries have been specially engineered to maximize the benefits of the gelled electrolyte while maintaining the power and performance needed. They are completely sealed and never require watering. The result...years of dependable, trouble-free service.

* Under normal use conditions, if maintained correctly.
The Deka Solar series of valve-regulated, gelled-electrolyte batteries is designed to offer reliable, maintenance-free power for renewable energy applications where frequent deep cycles are required and minimum maintenance is desirable.

**Specifications**

- **Voltage:** 12 volts nominal (8GGC2 is 6 volts)
- **Plate alloy:** Lead calcium
- **Voltage:** 12 volts nominal (8GGC2 is 6 volts)
- **Container/cover:** Polypropylene
- **Charge voltage:** Cycle 2.30 to 2.35; Float 2.25 to 2.30 per cell
- **Electrolyte:** Sulfuric acid thixotropic gel

IMPORTANT CHARGING INSTRUCTIONS:

- Use a constant potential, voltage-regulated charger.
- Install in a sealed container. Constant under or overcharging will damage any battery and shorten its life! Use a good charger.
- For 12-volt batteries, charge to at least 13.8 volts but no more than 14.1 volts at 68°F (20°C). For 6-volt batteries, charge to at least 6.3 volts but no more than 7.05 volts at 68°F (20°C). The open circuit voltage of a fully charged 12-volt battery is 12.8V at 68°F (20°C). However, as the battery charges, the building internal pressure (voltage) causes resistance to the charge. Therefore, the on-charge voltage must be higher (at least 13.8V) to overcome this internal pressure (voltage) during charging.

**Cycling Ability**

- **TYPICAL CYCLING PERFORMANCE**
  - **CAPACITY WITHDRAWN**
  - **Cycles**
    - 100% 300
    - 50% 600
    - 25% 1,200
    - 10% 3,000

- **Percent of Available Capacity**
  - **Ambient temperature**
    - 0°F: 90%
    - 10°F: 92%
    - 20°F: 95%
    - 30°F: 97%
    - 40°F: 99%

- **Capacity vs. Operating Temperatures:**
  - Shown is the constant charging voltage in relation to the ambient temperature. The bandwidth shows a tolerance of ± 30mV/cell. The curves show the behavior of the battery after thawing for different ambient temperatures. The bandwidth shows a tolerance of ± 30mV/cell. The values for the upper edge of the curve were obtained from charging at an ambient temperature of +20°C with a voltage limit of 2.3 V/cell. For the lower edge, charging was carried out at the specified ambient temperature. The curves show the behavior of the battery after a number of cycles.

**Applications**

- Water pumping
- Residential Communications
- Cathodic protection
- Remote monitoring
- Refrigeration
- Lighting
- Aids to navigation
- Wind generation

**Constant Charging Voltage**

- **V per 12-Volt battery**

**Capacity vs. Operating Temperature**

- **Percent of Available Capacity**
  - **Ambient temperature**
    - 0°F: 100%
    - 10°F: 92%
    - 20°F: 95%
    - 30°F: 97%
    - 40°F: 99%

**Terminal Information**

- **T872M**
- **T873**
- **T876**
- **T881**
- **Stud**

**Discharge Amps per unit to 1.75VPC at 80°F (27°C)**

- **Approx. Wt.**
  - **Lbs. (Kgs.)**
    - 7% (197) 5 (150)
    - 6% (130) 7% (184)

**Dimensions In (mm)**

- **L**
  - **W**
  - **H**

**Notes:**

- **H:** Includes handles
- **P:** Polypropylene container and cover
- **O:** Combination terminals, offset with 1/4" stainless stud and wing nuts
- **T:** Dual top terminals with SAE posts and stainless steel 3/8" stud and wing nuts.
- **V:** Combination terminals, offset post with horizontal hole, 1/4" bolt and hex nut

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