



PHOTOVOLTAIC BATTERIES



GEL MONOBLOC/ 6V & 12V

The **Deka Solar Valve-Regulated 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. The gelled electrolyte gives more protection to the battery plates, and is better suited for deep cycle discharge. With longer discharge and less charging time, these batteries are ideal for many renewable energy applications.

FEATURES & 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
Exclusive IPF™ Technology	Optimizes power capacity, cell consistency, and long-term reliability
Rated Non-Spillable by ICAO, IATA, and DOT	Transports easily and safely by air, no special containers needed

APPLICATIONS

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



QUALITY SYSTEM
CERTIFIED
ISO 9001
ISO/TS 16949
ENVIRONMENTAL
SYSTEM CERTIFIED
ISO 14001



Deka[®]

SOLAR[®]

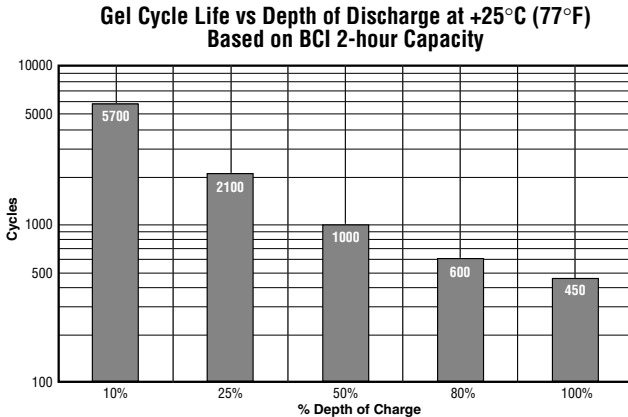
PHOTOVOLTAIC BATTERIES

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
 Element, post Threaded stud or "flag" terminal, forged bushing
 Container/cover ... Polypropylene
 Electrolyte Sulfuric acid thixotropic gel
 Vent Self sealing

**Gel Cycle Life vs Depth of Discharge at +25°C (77°F)*
Based on BCI 2-hour Capacity**



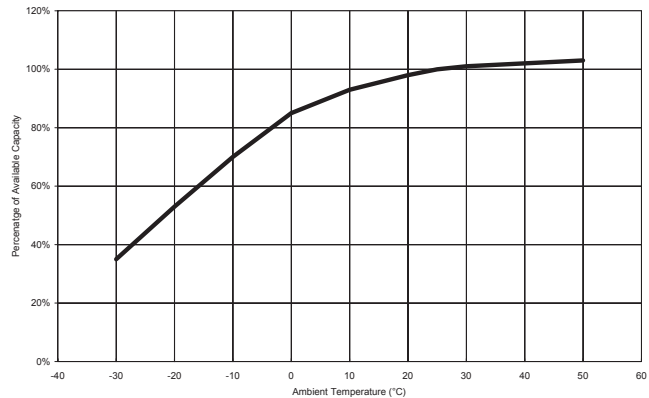
Cycle Chart applies to types with similar design characteristics, ex., U1, 22NF, 24, 27, 31.

The solar battery excels in cycling applications.
**Dependent upon proper charging and ambient temperatures.*

Photovoltaic Charging Parameters		
Bulk Charge	Max Current (amps)	30% of 20 Hr Rate
Absorption (Regulation) Charge	Constant Voltage	2.35 - 2.40 vpc
Float Charge	Constant Voltage	2.25 - 2.30 vpc
Equalize Charge	Constant Voltage	2.40 - 2.45 vpc
Temperature Coefficient	0.005 mv / °C	

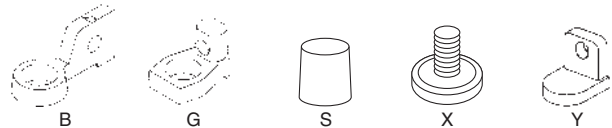
Cut-off parameters per charge & equalize intervals are application specific and will vary dependent upon site specific characteristics such as temperature, days of autonomy, array to load ratio, ect.

Capacity vs. Operating Temperature



Capacity vs. Operating Temperatures: Above are the changes in capacity for wider ambient temperature range, giving the available capacity, as a percentage of the rated capacity, at different ambient temperatures. The curves show the behavior of the battery after a number of cycles.

Terminal Information



Type No.	Footnotes	Volts	Discharge Amps per unit to 1.75VPC at 77°F (25°C)														Approx. Wt. Lbs. (Kgs.)	Dimensions In (mm)		
			5 Min	10 Min	15 Min	20 Min	30 Min	60 Min	90 Min	3 Hr	6 Hr	8 Hr	20 Hr	24 Hr	48 Hr	100 Hr		L	W	H
8GU1	4,38,39,Y	12	74.7	54.3	44.6	38.8	31.9	21	15	8.50	4.67	3.56	1.58	1.33	0.73	0.36	23.4 (10.6)	7¼ (197)	5½ (130)	7¼ (184)
8GU1H	4,17,38,39,Y	12	74.7	54.3	44.6	38.8	31.9	21	15	8.50	4.67	3.56	1.58	1.33	0.73	0.36	23.4 (10.6)	8¾ (211)	5½ (130)	7¼ (184)
8G22NF	4,38,39,G	12	120	86.7	69.1	60	47	31.8	23.2	13.30	7.65	5.74	2.55	2.15	1.16	0.58	37 (16.8)	9¾ (238)	5½ (140)	9¼ (235)
8G24	4,17,38,39,G	12	204	152	119	100	78	48.5	35	19.77	10.75	8.30	3.68	3.12	1.68	0.845	52 (23.6)	10¾ (276)	6¾ (171)	9¼ (235)
8G27	4,17,38,39,G	12	242	185.3	142.5	118.8	90.25	57	41.5	23.30	12.67	9.80	4.32	3.67	1.99	0.99	62.7 (28.4)	12¾ (324)	6¾ (171)	9¼ (235)
8G30H	4,17,38,39,B	12	266	199.5	161.5	137.8	104.5	64.5	47	26.20	14.20	11.00	4.88	4.10	2.15	1.08	69.5 (31.5)	12½ (329)	6¾ (171)	9¾ (248)
8G31	4,17,38,39,X	12	266	199.5	161.5	137.8	104.5	64.5	47	26.20	14.20	11.00	4.88	4.10	2.15	1.08	69.5 (31.5)	12½ (329)	6¾ (171)	9¾ (238)
8GGC2	4,38,39,G	6	325	250	210	180	150	99	76	45.30	25.80	20.00	9.00	7.60	3.90	1.98	68.4 (31.0)	10¾ (260)	7¾ (181)	11 (279)
8G4D	4,17,38,39,S	12	485	375	300	255	195	122	88	49.20	26.70	20.70	9.15	7.78	4.22	2.10	127 (57.5)	20¾ (527)	8¾ (216)	10 (254)
8G8D	4,17,38,39,S	12	600	460	370	315	245	150	105	60.60	33.00	25.50	11.25	9.54	5.18	2.65	157 (71.1)	20¾ (527)	11 (279)	10 (254)

ALL RATINGS ARE AFTER 15 CYCLES AND CONFORM TO B.C.I. SPECIFICATIONS.
IMPORTANT CHARGING INSTRUCTIONS: WARRANTY VOID IF OPENED OR IMPROPERLY CHARGED. Do not install in a sealed container. Constant under or overcharging will damage any battery and shorten its life! Use a good constant potential, voltage-regulated charger. The **open circuit voltage** of a fully charged 12-volt battery is 12.8V at 68°F (20°C).

Batteries manufactured in polypropylene cases and covers.

Footnotes:

- 4 - Gray Cover / Gray Case
- 17 - Includes handle
- 38 - "Non-Spillable" defined by DOT(Department of Transportation) definitions
- 39 - "Non-Spillable" defined by ICAO (International Commercial Airline Organization) and IATA (International Airline Transport Association) definitions

- B - Flag terminal w/ 3/8" diameter hole
- G - Offset post w/ horizontal hole, stainless steel 5/16" bolt & hex nut
- S - SAE "automotive type" post
- X - 3/8" x 16" stainless steel stud posts
- Y - Small L terminal with round holes

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