



# PHOTOVOLTAIC BATTERIES

## FLOODED - MONOBLOC

### 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** include 3 cell (6 volt) and 6 cell (12 volt) photovoltaic batteries.



FEATURES & BENEFITS	
Case and Cover	Heat sealed, lightweight, crack resistant, molded high impact polypropylene.
Separators	Microporous polyethylene envelopes/separators
Retainers	20 mil glass mat (DC27- 10 mil).
Positive and Negative Plate	Antimony flat plate
Specific Gravity (fully charged)	1.275 @ 25°C (77°F).
Cell Connections	TP welded (through partition)
Vents	Individual quarter - turn bayonet vent cap (DC27 - removable pod vents, 3 cells per vent)
Self discharge	4% per month
Cycle life for DC25, DC27	200 cycles @ 80% DOD, 900 cycles @ 20% DOD (Number of cycles based on 25 amp discharge to 1.75 vpc @ 29°C (85°F))



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



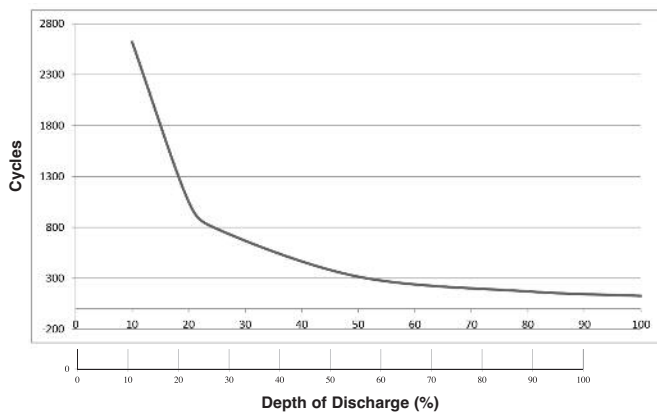
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Photovoltaic Charging Parameters		
<b>Bulk Charge</b>	Max Current (amps)	30% of 20 Hr Rate
<b>Absorption (Regulation) Charge</b>	Constant Voltage	2.40 - 2.45 vpc
<b>Float Charge</b>	Constant Voltage	2.30 - 2.35 vpc
<b>Equalize Charge</b>	Constant Voltage	2.50 - 2.55 vpc
<b>Temperature Coefficient</b>	0.003 V / °C	

### IMPORTANT CHARGING INSTRUCTIONS:

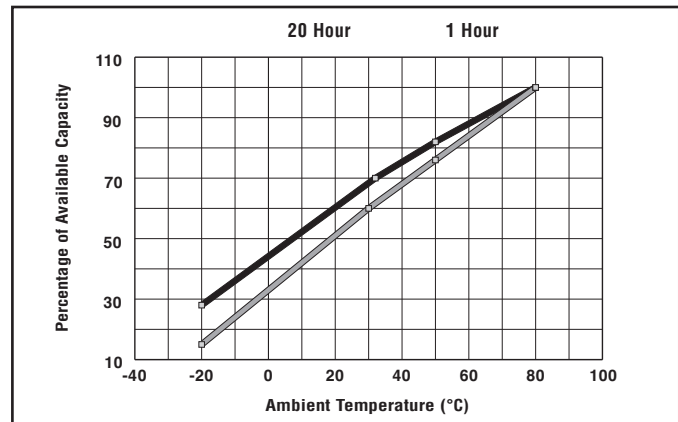
- Use a good constant potential charger.
- Do not install battery in a sealed container.
- Cut-off parameters per charge & equalize intervals are application specific and will vary dependent upon site specific characteristics such as temperature, days of autonomy, array to load ratio, etc.
- Constant under or overcharging will damage battery and shorten its life.

Cycle Life vs Depth of Discharge at +25°C (77°F)\*



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

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.

TYPE NO.		FOOTNOTES	PERFORMANCE (Ah) <sup>1</sup>			SHORT CIRCUIT CURRENT	ELECTROLYTE VOLUME		APPROXIMATE WEIGHT				MAXIMUM OVERALL DIMENSIONS																						
WET	DRY <sup>2</sup>		20 HR	100 HR			QUART	LITER	WET		DRY		LENGTH		WIDTH		HEIGHT																		
																		lb	kg	lb	kg	in	mm	in	mm	in	mm								
<b>6-VOLT SOLAR FLOODED MONOBLOC</b>																																			
8C11	8C11D	17, U	235	260	2636	8.0	7.6	66.5	30	48.0	22	11.75	298	7.00	178	11.50	292																		
9C11	9C11D	17, U	250	290	2465	7.5	7.1	73.0	33	52.5	24	11.75	298	7.00	178	11.50	292																		
8L16	8L16D	17, W	370	420	2339	11.5	10.9	113	51	83.0	38	11.75	298	7.00	178	16.50	419																		
GC10	-	U	215	239	2400	7.5	7.1	60.5	27	-	-	10.25	260	7.13	181	10.88	276																		
GC15	GC15D	U	230	258	2620	19.0	18.0	63.0	29	44.0	20	10.25	260	7.13	181	10.88	276																		
GC25	GC25D	U	235	260	2850	7.3	6.9	68.0	31	-	-	10.25	260	7.13	181	11.13	283																		
GC45	-	U	255	280	3750	6.7	6.3	77	35	-	-	10.25	260	6.81	173	11.58	294																		
8C6V	-	17, U	330	365	3200	9.9	9.4	97.5	44	-	-	11.73	198	7.02	178	14.41	366																		
<b>12-VOLT SOLAR FLOODED MONOBLOC</b>																																			
DC24	-	17, U	75	80	2000	5.1	4.8	45.5	21	-	-	10.75	273	6.75	171	9.38	238																		
DC27	-	17, U	90	95.5	2339	6.0	5.7	53.0	24	-	-	12.50	318	6.75	171	9.38	238																		
DC31DT	-	17, U	105	111	2200	6.1	5.8	60	27	-	-	12.95	320	6.81	173	9.29	236																		
9C12	-	17, U	228	250	2650	12.3	11.6	127	58	-	-	15.50	394	7.00	178	14.25	362																		

- 1 - Ratings after 15 cycles
- 2 - "D" suffix indicated dry option available

### FOOTNOTES:

- 17 - Includes Handle
- U - Molded-in offset SAE post and 5/16 threaded post
- W - Flag terminal with 5/16" diameter hole

### Terminal Information



An East Penn Manufacturing Co. Subsidiary  
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