



## GEL SYSTEM / 2V

The **DEKA SOLAR DOMINATOR®** Valve-Regulated Gel electrolyte battery is designed to offer reliable, maintenance-free power. It is available as a single cell or system. The gelled electrolyte protects the battery plates making it ideal for renewable energy deep cycle applications.

### FEATURES AND BENEFITS

Valve-Regulated	Sealed construction eliminates watering, corrosive acid fumes, and spills
Gelled Electrolyte	Electrolyte will not stratify
Positive & 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

### APPLICATIONS

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



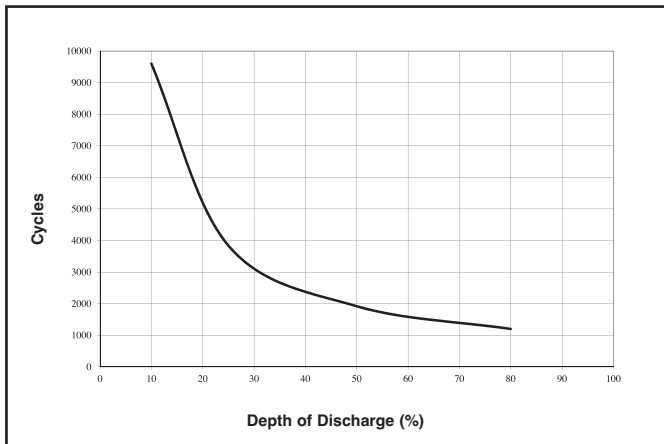
QUALITY SYSTEM  
CERTIFIED  
**ISO 9001**  
**ISO/TS 16949**  
ENVIRONMENTAL  
SYSTEM CERTIFIED  
**ISO 14001**



Photovoltaic Charging Parameters		
Bulk Charge	Max Current (amps)	15% of 20 Hr Rate
Absorption (Regulation) Charge	Constant Voltage	2.37 - 2.42 vpc
Float Charge	Constant Voltage	2.25 - 2.30 vpc
Equalize Charge	Constant Voltage	2.43 - 2.48 vpc
Temperature Coefficient	0.003 v / °C	

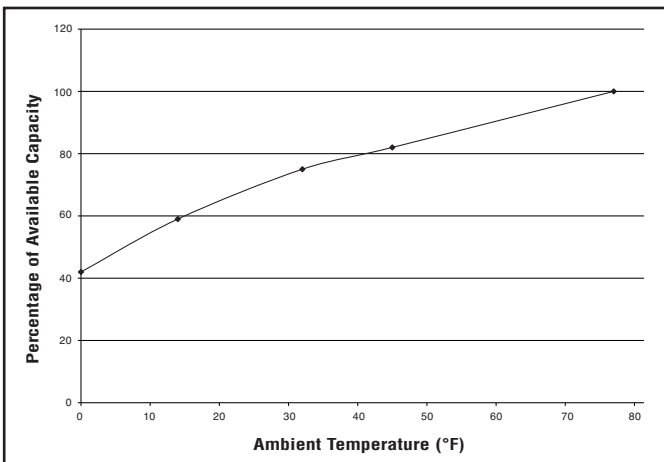
Cut-off parameters per charge & equalize intervals are application specific and will vary dependent upon site specific characteristics such as temperature, days of autonomy, array to load ratio, etc.

**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.

**Cell Performance – Photovoltaic Batteries**

Amp Hours at 77°F (25°C) to 1.75 v.p.c.					
Cell Type	10	20	24	100	Cell Weights**
G45-5	95	104	107	127	22
G45-7	141	155	159	189	29
G45-9	188	207	212	252	37
G45-11	236	259	265	316	45
G45-13	283	311	319	379	54
G45-15	330	362	371	441	67
G45-17	377	414	424	505	73
G45-19	424	466	477	568	82
G45-21	472	518	531	632	90
G45-23	518	569	583	694	99
G45-25	565	621	636	757	108
G45-27	613	673	689	821	117
G45-29	660	725	743	884	125
G45-31	707	776	795	946	134
G45-33	754	828	848	1010	143

Amp Hours at 77°F (25°C) to 1.75 v.p.c.					
Cell Type	10	20	24	100	Cell Weights**
G75-5	158	173	177	211	34
G75-7	236	259	265	316	46
G75-9	314	345	353	421	59
G75-11	392	431	442	526	71
G75-13	472	518	531	632	85
G75-15	550	604	619	737	105
G75-17	628	690	707	841	115
G75-19	707	776	795	946	130
G75-21	786	863	884	1052	142
G75-23	864	949	972	1157	150
G75-25	942	1035	1060	1262	162
G75-27	1021	1121	1148	1367	174
G75-29	1100	1208	1237	1473	182
G75-31	1178	1294	1326	1578	193
G75-33	1257	1380	1414	1683	206

Amp Hours at 77°F (25°C) to 1.75 v.p.c.					
Cell Type	10	20	24	100	Cell Weights**
G105-5	220	242	248	295	45
G105-7	330	362	371	441	63
G105-9	440	483	495	589	81
G105-11	550	604	619	737	100
G105-13	660	725	743	884	117
G105-15	769	845	866	1030	138
G105-17	880	966	990	1178	155
G105-19	990	1087	1114	1326	173
G105-21	1100	1208	1237	1473	192
G105-23	1209	1328	1360	1620	210
G105-25	1319	1449	1484	1767	229
G105-27	1430	1570	1608	1915	247

\*\* = Cell weight does not include steel tray



East Penn Manufacturing Co., Lyon Station, PA 19536-0147  
**Domestic & International Inquiries Call: 610-682-3263**  
 Phone: 610-682-6361 • Fax: 610-682-0891  
 www.dekabatteries.com • e-mail: reservepowersales@dekabatteries.com



**Domestic Inquiries Call: 1-800-372-9253**  
 www.mkbattery.com • e-mail: 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.