




Total Power Solutions

member of The  Group™

AlphaCell RE Batteries

Power



AlphaCell RE Overview

- Alpha product recognized in over 90 countries
- Leading supplier to broadband and telecom markets worldwide
- Provide new battery solution to Renewable Energy market – Front Terminal design
- Provide superior top terminal battery with greater cycle life



AlphaCell RE Specifications

- AlphaCell RE – Renewable Energy
- Front and Top Terminal Configurations
 - 34 RE – 34Ah @ 100hr rate (Top Terminal)
 - 52 RE – 52Ah @ 100hr rate (Top Terminal)
 - 78 RE – 78Ah @ 100hr rate (Top Terminal)
 - 95 RE – 95Ah @ 100hr rate (Top Terminal)
 - 106 RE – 106Ah @ 100hr rate (Top Terminal)
 - 170 RE – 170Ah @ 100hr rate (Front Terminal)
 - 200 RE – 200Ah @ 100hr rate (Front Terminal)



AlphaCell RE Features

- Deep Cycle AGM – Advanced Glass Mat
- Extended Cycle Life
 - Robust Plates with Lead Calcium Alloy
 - 1800 Cycles @ 50% DOD
- Various Capacities Available
 - 34 to 200 Ah
- Low Calcium Grid Alloy
- UL-Recognized
- Multiple Orientations for Use
 - Upright or Side Mounting
- Non-Hazardous Transport Rating
- 2 Year Full Warranty



AlphaCell RE Deep Cycle Design

- How is the high cycle life obtained?
 - Robust plate construction with lead calcium design leads to higher cycle life
 - Battery specifically designed for deep cycle renewable energy applications
 - Excellent out of box capability



AlphaCell RE Label Configuration

20Hr and 100Hr Ratings

Outback Power Color Scheme

ALPHACellTM 106RE Renewable Energy

Date: Vdc: Mhos:

Made in USA • Non-Spillable Call Alpha Technology for battery replacement information at +1 360 647 2363 or visit www.alpha.com

WARNING: Hardware size: 1/4"-20 UNC x 3/4" max length
 12 Volts
 100Ah: 20 hour rate to 1.75VPC @ 77°F (25°C)
 106Ah: 100 hour rate to 1.75VPC @ 77°F (25°C)
 Terminal Hardware Torque: 110 in-lbs (12.4Nm)
 Float Charge Voltage: 13.5 to 13.8Vdc @ 77°F (25°C)
 Recharge Voltage: 14.4 to 14.8 Vdc @ 77°F (25°C)

ADVERTENCIA: Tamaño del herraje: 1/4"-20 UNC x 3/4" Largo máximo
 12 Voltios
 100Ah: tasa de 20 horas a 1.75VPC @ 25°C
 106Ah: tasa de 100 horas a 1.75VPC @ 25°C
 Torque en la terminal: 110 in-lbs (12.4 Nm)
 Tensión de carga: 13.5 a 13.8VDC @ 25°C
 Tensión de Recarga: 14.4 a 14.8 VCC @ 25°C

ATTENTION: Boulon 1/4"-20 UNC x 3/4" Longueur maximum
 12 Volts
 100Ah: en 20 h jusqu'à 1.75V/élément @ 25°C
 106 Ah: en 100 h jusqu'à 1.75V/élément @ 25°C
 Serrage cosse: 110 in-lbs 12.4Nm maximum
 Tension de maintien: 13.5 à 13.8 Vdc @ 25°C
 Tension de recharge : 14.4 à 14.8 Vdc

ACHTUNG: Schrauben 1/4", Max. Länge 3/4"
 12 V
 100Ah: 20 stündige Entladung bis 1.75VPC @ 77°F (25°C)
 106Ah: 100 stündige Entladung bis 1.75VPC @ 77°F (25°C)
 Max. Drehmoment für Batterieanschluss: 110 in-lbs 12.4 Nm
 Nominale Ladespannung bei 25°C: 13.5 – 13.8Vdc
 Ladespannung: 14.4 bis 14.8 Vdc @ 77°F (25°C)

Ventilate well when in an enclosed space and when charging.

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. Wash hands after handling.

International Warning Labels

Spanish, French, German Warning Translations

AlphaCell RE Front Terminal

- **Unique Design for Space Efficiency**
 - Multi-tier racks or cabinets
- **Maximum Performance**
 - Excellent out of box capacity
 - Long life in float service
 - Industry leading cycle count
- **Key Design Features**
 - True front access terminals
 - Reduces maintenance
 - Improves energy output
 - Easy voltage or ohmic measurements
 - Carrying handles
 - Ease of handling
 - Allows for portability
 - Non-spillable design
 - Ease of transport by land, water, or air



AlphaCell RE Front Terminal

Renewable Energy Deep Cycle Front Terminal**

- 170 and 200 Ah Capacity
- 1800 Cycles @ 50% DOD
- First FT Deep Cycle battery in the marketplace



Terminals



Easy-to-Use Carrying Handles

For Portability. Can be removed if needed

Terminal Protection Covers for Safety

AlphaCell RE Application Examples

- 34 RE, 52 RE
 - Solar LED Traffic lights with low duty cycle
 - Small traffic applications
- 78 RE, 95 RE, 106 RE
 - Pole or ground mounted solar power supplies
 - Current specification on Alpha Energy SPS being quoted
- 170 RE, 200 RE
 - Rack or shelf mounted for larger solar power supplies or grid-interactive backup power.
 - Small telecom applications
 - PV upgradable battery backup system

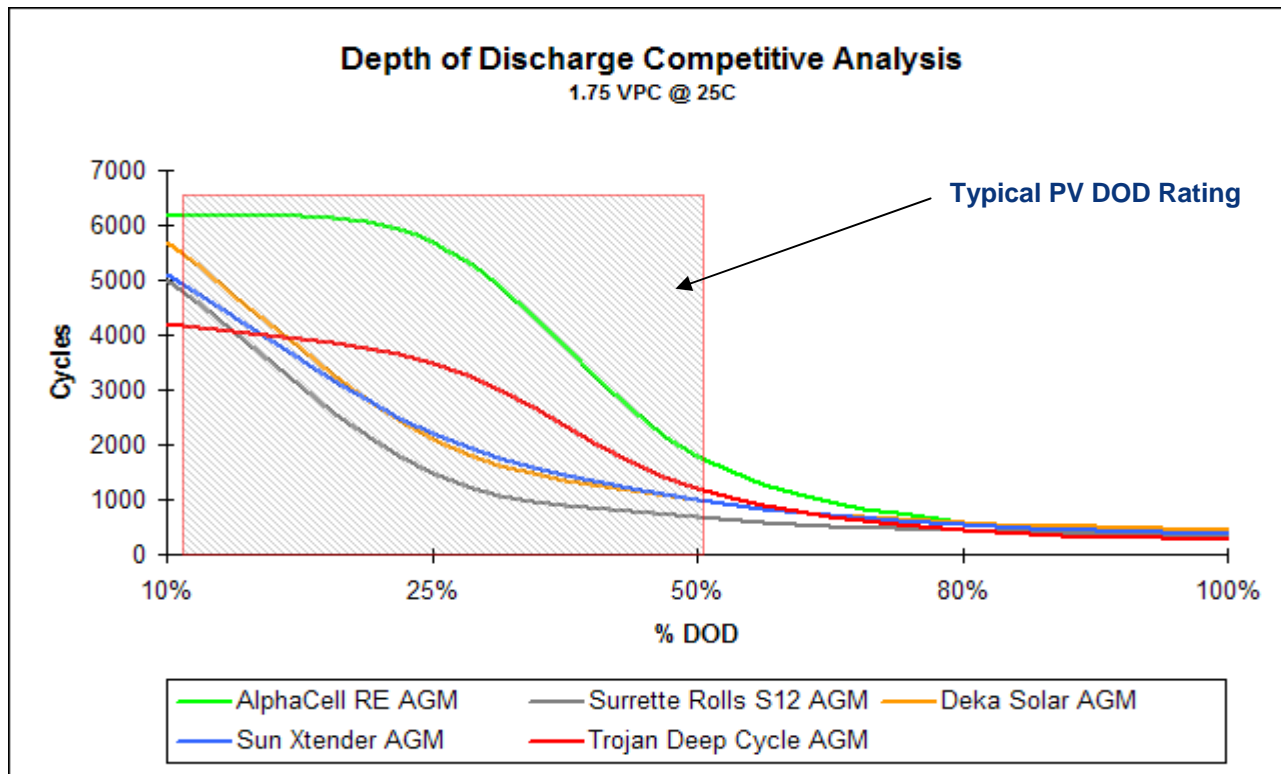


AlphaCell RE Competitive Analysis

MFR/Product	Sizes	Warranty	Cycle Count (50% DOD)
AlphaCell RE (AGM)	34AH to 200AH	2 Year Full	1800
MK/East Penn (GEL)	30AH to 230AH	2 Year Full	1000
Exide Sunlyte (AGM)	100AH	1 Year Full	600
Concorde SunXtender (AGM)	37AH to 300AH	1 Year Full	1000
Surrette/Rolls (AGM)	85AH to 260AH	2 Year Full	700
Trojan (AGM & GEL)	33 to 230AH	1 Year Full	600 to 1500

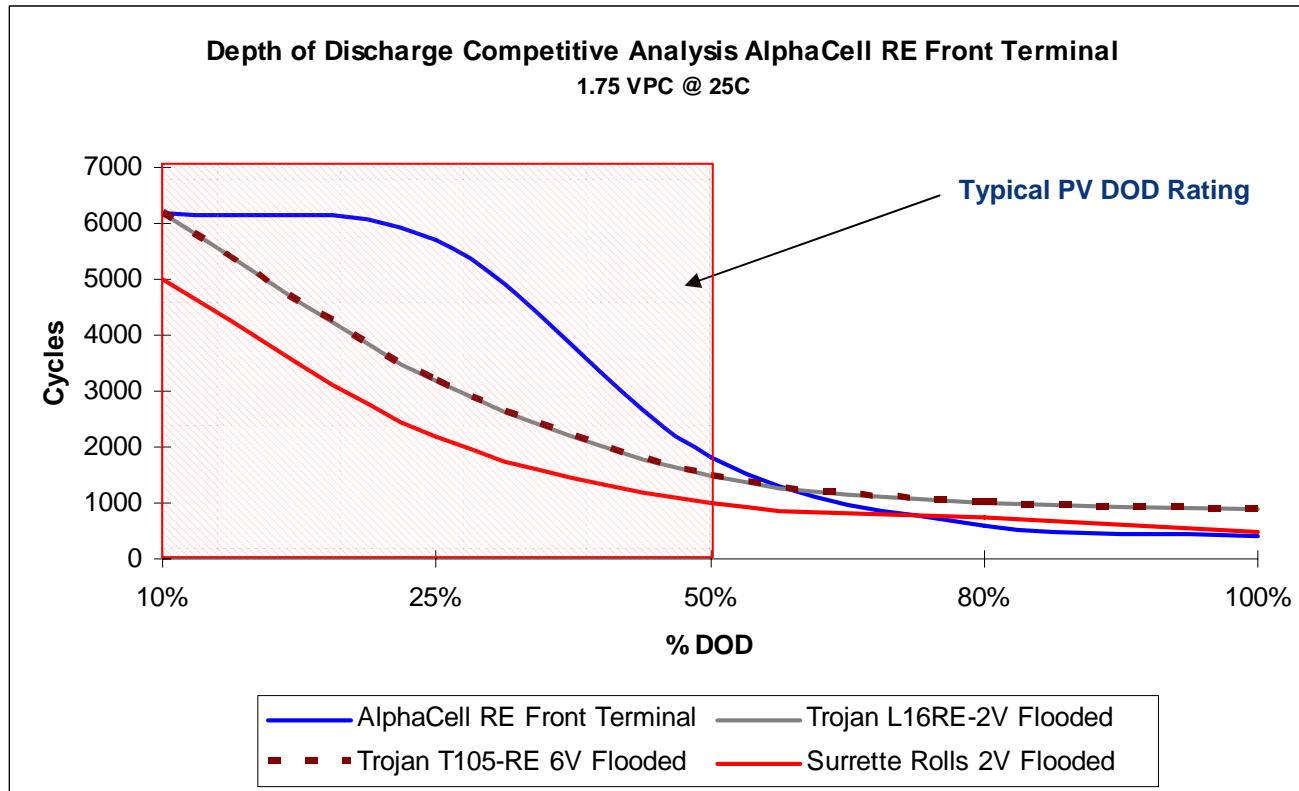


Depth of Discharge Competitive Analysis Top Terminal Batteries



	<u>10%</u>	<u>25%</u>	<u>50%</u>	<u>80%</u>	<u>100%</u>
AlphaCell RE AGM	6200	5700	1800	600	425
Surrrette Rolls S12 AGM	5000	1500	700	450	300
Deka Solar AGM	5700	2100	1000	600	450
Sun Xtender AGM	5100	2200	1000	550	375
Trojan Deep Cycle AGM	4200	3500	1200	450	290

Depth of Discharge Competitive Analysis AlphaCell RE Front Terminal vs Flooded L16 Cell



	<u>10%</u>	<u>25%</u>	<u>50%</u>	<u>80%</u>	<u>100%</u>
AlphaCell RE Front Terminal	6200	5700	1800	600	425
Trojan L16RE-2V Flooded	6200	3200	1500	1000	900
Trojan T105-RE 6V Flooded	6200	3200	1500	1000	900
Surrette Rolls 2V Flooded	5000	2200	1000	750	500

AlphaCell RE Advantages

- Extended cycle life for typical PV applications
- Competitive pricing available
- Made in the USA
- First true FT deep cycle battery designed specifically for renewable energy storage
- Non-hazardous transportation
- Established relationship between vendor and Alpha with proven battery technology worldwide

