

Power

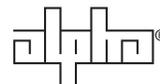
AlphaGuard™

Potted Battery Charge Management System
for Below Grade Applications



- Extends life of batteries installed below grade
- Replace only single batteries, not the entire string
- Spreads charge voltage equally across batteries
- Compensates for battery differences as they age
- Optional status monitoring communications interface modules

AlphaGuard monitors and protects your batteries by spreading the charge voltage equally across all the batteries in a string, ensuring that every battery in the string, whether old or new, is properly charged. With an ideal voltage consistency across each battery, life and runtime are optimized. Individual batteries in a string can be replaced as they fail, allowing batteries to be left in service longer. This stops the wasteful and costly practice of replacing batteries based on a scheduled maintenance program or disposing of batteries that may have years of useful life left because one battery in a string fails. The Potted Alpha Guard model is ideal for applications where batteries are installed below grade and subject to damp conditions or possible immersion.



AlphaGuard

The AlphaGuard employs a patented Charge Management Technology (CMT) to shuttle excess charge current from one battery to another battery requiring a greater charge. The AlphaGuard is a small plastic enclosure that installs directly on top of the battery string. A short service cable connects the AlphaGuard to each of the batteries in the string. Both 36VDC (3 battery) and 48VDC (4 battery) versions are available. One AlphaGuard is required per string.

An AlphaGuard configured with optional voltage sense cabling and interface module (DSM, ESM, EDSM or External DOCSIS®) allows the AlphaGuard to interface with a status-monitoring module. Two AlphaGuard modules can be connected to an interface module. Refer to individual interface module documentation for additional information.

Models

- 012-306-30-001 AG CMT-3SC-P-C AlphaGuard 36VDC, Potted with 6ft sense wires
- 012-306-32-001 AG CMT-3SC-P AlphaGuard 36VDC, Potted without sense wires
- 012-306-31-001 AG CMT-4SC-P-C AlphaGuard 48VDC, Potted with 6ft sense wires
- 012-306-33-001 AG CMT-4SC-P AlphaGuard 48VDC, Potted without sense wires

The sense wires are preconnectorized and 6ft in length. The 6ft length allows connection to one of the four extension cables shown below.

Specifications

Configuration

Quantity: One (1) AlphaGuard is required per battery string
 Service Location: With the battery string

Cabling

- AG-S9-Cable: AG-CMT-36/48SC Voltage Sense Cable, Single String, 9'
- AG-D9-Cable: AG-CMT-36/48SC Voltage Sense Cable, Two String, 9'
- AG-S35-Cable: AG-CMT-36/48SC Voltage Sense Cable, Single String, 35'
- AG-D35-Cable: AG-CMT-36/48SC Voltage Sense Cable, Two String, 35'



AG-DSM-S9-Cable



AG-DSM-D9-Cable



AG-DSM-D35-Cable



AG-DSM-S35-Cable

Mechanical

Housing Material: High impact epoxy
 Dimensions (in/mm): 1.44H x 4.82W x 4.25D/ 36H x 122W x 108D
 Weight (lb/kg): 1.5/67

Electrical

Batteries: Individual 12VDC nominal batteries configured into 36 or 48VDC strings
 Circuit Protection: Single blow fuse, reverse polarity protected
 Environmental: -40 to 55°C (-40 to 131°F), 5 to 95% humidity
 Quiescent Current Draw: 1mA max. (Current consumed by AlphaGuard after low voltage total shutdown)
 Charge Management: Most effective during float period of charge
 Max. Current: 2A @ 25°C
 Quality of Final Balance: ±100mV max. between any two (2) batteries
 Charging Efficiency: 80 to 90%
 Charge Balance: ±100mV typical
 Low Voltage Cutoff: 34.5VDC/46VDC ±5%
 Communication to XM2: AlphaGuard configured DSM communications card



Battery Ring Lug



Battery Cable 36V 6ft



Battery Cable 48V 6ft

Warranty

5 years

For more information visit www.alpha.com

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