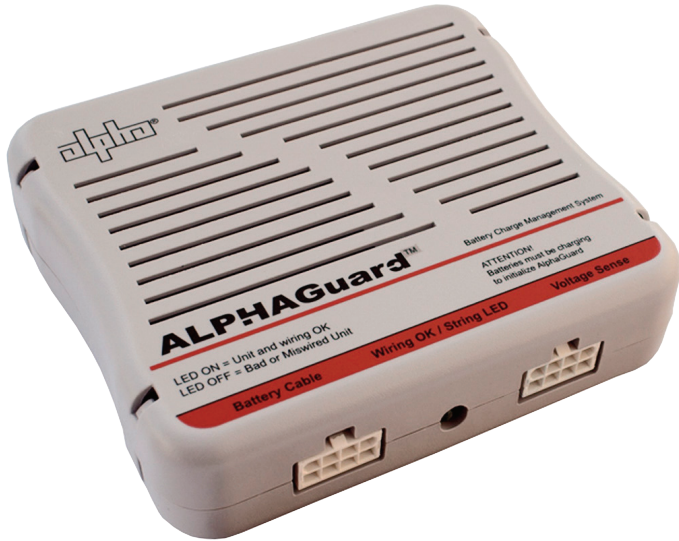




AlphaGuard™

Battery Charge Management System



- Extends battery life
- Replace 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
- Safe unattended operation certified to CSA C22.2 No. 107.1 and UL 1778 standards

AlphaGuard™ battery charge management system monitors and protects your batteries by spreading the charge voltage equally across all the batteries in the string, ensuring that every battery—whether old or new—is properly charged.



With an ideal voltage always 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 has failed.

The AlphaGuard™ system employs a patented Charge Management

Technology (CMT) to shuttle excess charge current to batteries requiring a greater charge, and is contained in a small plastic enclosure that installs directly on top of one of the batteries in the string. A short service cable connects the AlphaGuard module to each of the batteries in the string. Both 36VDC (three battery) and 48VDC (four battery) versions are available. One AlphaGuard module is required per string.



An AlphaGuard system configured with the optional voltage sense cabling and interface module (AlphaNet™ DM3X, DSM3X, DSM, ESM, EDSM status monitoring card or other DOCSIS®-based device) allows the AlphaGuard system to interface with a status monitoring module. Up to two AlphaGuard modules can be connected to an interface module. Refer to individual interface module documentation for additional information.

AlphaGuard™ Battery Charge Management System Specifications

Model:	AG-CMT-3SC (36V)	AG-CMT-4SC (48V)
Included Equipment:	AlphaGuard™ battery charge management system module for 36V strings and 36VDC battery voltage sense cable (6ft / 1.83m)	AlphaGuard™ battery charge management system module for 48V strings and 48VDC battery voltage sense cable (6ft / 1.83m)
		

Mechanical	
Configuration:	One AlphaGuard module is required per battery string
Housing Material:	High impact plastic
Dimensions H × W × D (in/mm):	1.44 × 4.82 × 4.25 / 36 × 122 × 108
Weight (lb/kg):	0.8 / 0.36
Battery Interface Cable (ft/m):	6 / 1.83
Battery Interface Cable Ring Lug Diameter (in/mm):	Inside: 0.40 / 10.2 Outside: 0.52 / 13.2

Electrical		
Batteries:	Individual 12VDC nominal batteries configured into 36VDC string	Individual 12VDC nominal batteries configured into 48VDC string
Circuit Protection:	Single blow fuse, reverse polarity protected	
Environmental:	-40 to 55°C (-40 to 131°F), 5 to 95% relative humidity non-condensing	
Quiescent Current Draw:	1mA max. (current consumed by AlphaGuard system after low voltage total shutdown)	
Charge Management:	Most effective during float period of charge	
Max. Current:	2A at 25°C (77°F)	
Quality of Final Balance:	±100mV max. between any two batteries	
Charging Efficiency:	80 to 90%	
Charge Balance:	±100mV typical	
Low Voltage Cutoff:	34.5VDC ±5%	46VDC ±5%
Communication to Power Supply:	AlphaGuard system connected to AlphaNet™ DSM or DM3X (PN: X2-DM3X or X3-DM3X) status monitoring card. Requires optional voltage sense cabling noted below.	
Voltage Sense Regulation:	±100mV	

Optional Voltage Sense Cabling for Status Monitoring				
Model:	AG-S9-Cable:	AG-D9-Cable:	AG-S35-Cable:	AG-D35-Cable:
Compatibility:	AG-CMT-3SC (36V) / AG-CMT-4SC (48V)			
Description:	Voltage sense cable, single string	Voltage sense cable, dual string	Voltage sense cable, single string	Voltage sense cable, dual string
Length (ft/m):	9 / 2.7	9 / 2.7	35 / 10.7	35 / 10.7
Photo:				

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World Headquarters
2366 Bernville Road
Reading, PA 19605 USA
+1 610-208-1991 / +1 800-538-3627

EnerSys EMEA
EH Europe GmbH
Baarerstrasse 18
6300 Zug Switzerland

EnerSys Asia
152 Beach Road
Gateway East Building #11-08
Singapore 189721 / +65 6416-4800