

## **PRODUCT WARRANTY**

# VALVE REGULATED LEAD ACID STATIONARY FLOAT SERVICE BATTERY AND RACKS

## **General Product Quality Warranty**

EnerSys Inc. warrants modular batteries and battery racks against defective materials and workmanship for a period of one full year from the date the battery is placed in service or eighteen months from the date of shipment, whichever occurs first. Any storage shall be in a dry area having an average ambient temperature of 77° (25°C), or less, and in accordance with EnerSys Inc.'s published installation/operating/maintenance instructions.

If initial physical inspection identifies flaws in material or workmanship that would impair life, as defined by this warranty, or product performance, as defined by EnerSys Inc.'s electrical and physical specification as published at the time of shipment and these flaws are not due to transportation damage or installation abuse;

OR

If on initial "Acceptance Test", as defined in IEEE Std. 1188, "IEEE Recommended Practice for Maintenance Testing, and Replacing of VRLA Batteries for Stationary Applications", the properly installed battery string fails to meet the published performance ratings\* per EnerSys Inc.'s latest published catalog data at time of shipment;

Then contact your nearest EnerSys Inc. sales representative to request instructions. You will be instructed either a) to return the equipment to an EnerSys Inc. factory or service center location, F.O.B. Destination-Freight Prepaid, for examination, or b) to wait until an EnerSys Inc. representative arrives at the site to inspect the equipment.

If the battery or the rack is physically or electrically unsound due to defective materials or workmanship on the part of EnerSys Inc., the defective cell(s) or rack component(s) will be repaired or replaced at the option of EnerSys Inc. without charge to the purchaser (user) for replacement materials or repair labor. However, costs of replacement installation including but not limited to equipment, travel expenses of EnerSys Inc. representatives(s), and costs of material transportation expenses shall be borne by the purchaser (user). The replacement battery shall only complete the remaining unused portion of the original warranty of the replaced battery.

(over)

<sup>\*</sup> Published performance ratings: Initial capacity shall be a minimum of 90 percent of the rated string capacity upon shipment per IEEE-1188.

The battery is designed to have a Float Service Life/Cycle Life, whichever occurs first, from the date of shipment, as stated below, and based on conditions stipulated in publication US-VR-OM.

#### DESIGNED FLOAT SERVICE LIFE

VRLA DDm 20 Years (240 Months)
VRLA DDS 20 Years (240 Months)
VRLA DGX 20 Years (240 Months)
VRLA SC 10 Years (120 Months)

WARRANTED CYCLE LIFE					
Discharge	Discharge*	Avg.	# of Discharge	per Year 1	
Rate	Duration	SC	DDS-DDm	DGX	
8 hr.	8 hr.	6	19	40	
4 hr.	4 hr.	9	26	50	
1 hr.	1 hr.	16	48	95	

<sup>\*</sup>Discharge cycles are based on an end voltage of 1.75 volts per cell.

<sup>1</sup>For maximum cycle life, multiply average discharge per year by service life.

BATTERY OPERATING TEMPERATURES				
VRLA Type	Annual Average Battery Temp.	Any Cell Temp. Not to Exceed For More Than 30 Days Per Year		
DDm / DDS / DGX / SC	77°F (25°C)	89°F (32°C)		

Normal battery Float/Cycle life may be expected only when the battery is operated under the aforementioned cycle/temperature conditions. If operation of the battery is not within these parameters the battery warranty shall be null and void.

Useful service is considered to have expired when the battery fails to deliver 80% of its rated string capacity. The rated string capacity is that which is published in EnerSys Inc. catalog literature at the time of shipment. The determination of actual capacity shall be made in accordance with the "performance test" guidelines of IEEE Std. 1188. If the battery is maintained per publication US-VR-OM and other recommendations contained in this document and fails to deliver 80% of its rated string capacity, EnerSys Inc. shall credit the purchaser (user) toward the purchase of a new EnerSys Inc. battery of equal or greater amp-hour capacity.

1 Year full warranty and the remainder of designed float service life as Pro-Rata.

Credit (\$)=Original Net Price 
$$X\left(1-\frac{\text{Months of Expired Life}}{\text{Months of Designed Life}}\right)$$

### EXCLUSIONS AND LIMITATIONS

- 1. The purchaser (user) shall give freshening charges to the battery every three months for Lead-Antimony and every six months for Lead-Calcium after factory shipment until final installation.
- 2. At least once every six months, Purchaser (user) must take readings and record information per EnerSys Inc.'s publication US-VR-OM and maintain the records for warranty claims. If the records are not kept, the warranty shall be null and void.
- 3. This warranty applies only to the original U.S. domestic purchaser (user) and is non-transferable internationally, except with expressed written consent from EnerSys Inc. headquarters in Reading, PA.
- 4. This warranty does not cover physical damage due to the acts of nature or man which stress the battery beyond design limits and exert undesirable influence aside from normal wear and tear.
- 5. EnerSys Inc. assumes no responsibility for any work accomplished or expenses incurred except with expressed written consent from EnerSys Inc. headquarters in Reading. PA.
- 6. Movement of batteries from original point of installation shall immediately void this product warranty, except with expressed written consent from EnerSys Inc. headquarters in Reading, PA.
- 7. EnerSys Inc. shall not be liable for indirect, incidental or consequential damages arising out of the sale or relating to the use of this product, and the purchaser assumes responsibility for all personal injury and property damage resulting from the handling, possession or use of the product. In no event shall the liability of EnerSys Inc. for any and all claims, including claims of breach of warranty or negligence, exceed the purchase price of the product.
- 8. THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER REMEDIES, INCLUDING ACTIONS FOR CONTRACT OR NEGLIGENCE. ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED.

DATE	DATE
Signed by EnerSys Inc. representative	Signed by purchaser (user)
Print Name, Title	Print Name, Title
EnerSys Order #	