



PRODUCT WARRANTY

DataSafe™ HX, HX-FT

LEAD ACID STATIONARY BATTERIES VALVE REGULATED LEAD ACID UPS CYCLE SERVICE

General Product Limited Warranty

EnerSys Delaware Inc. (“EnerSys”) warrants its DataSafe™ HX and HX-FT valve regulated lead acid (VRLA) UPS cycle service batteries, racks and cabinets against defective materials and workmanship for the full period as defined in Table A or Table B set forth below, from the date the battery is placed in service or the full period plus six months from the date of shipment, whichever occurs first.

- A. If initial physical inspection identifies flaws in material or workmanship that would impair life of the battery, as defined by this warranty, or product performance, as defined by the EnerSys electrical and physical specification as published at the time of shipment and these flaws are not due to transportation damage or installation abuse;
OR
- B. If on initial “Acceptance Test”, as defined in IEEE Std. 1188, “IEEE Recommended Practice for Maintenance, Testing, and Replacement of Valve Regulated Lead Acid (VRLA) Batteries for Stationary Applications”, the properly installed battery string fails to meet the published performance ratings* per the latest catalog data published by EnerSys at the time of shipment.

In the event of either A or B above, then contact your nearest EnerSys sales representative to request instructions. You will be instructed either a) to return the equipment to an EnerSys factory or service center location, FOB Destination-Freight Prepaid, for examination, or b) to wait until an EnerSys representative arrives at the site to inspect the equipment.

If EnerSys determines the battery, rack or cabinet is physically or electrically unsound due to defective materials or workmanship on the part of EnerSys, the defective cell(s) or rack component(s) will be repaired or replaced at the option of EnerSys 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 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.

The battery is warranted to have a float or cycle life, whichever occurs first, from the date of shipment, as stated below, and based on conditions stipulated in the installation/maintenance instructions.

Type	Full Warranty Period	Pro Rata Period
HX	3 years	7 years
HX-FT	3 years	7 years

Discharge Rate	Discharge** Duration	Maximum Cycle Life HX
30 min.	30 min.	100
15 min.	15 min.	120
10 min.	10 min.	140
5 min.	5 min.	180

**Discharge cycles are based on an end voltage of 1.67 Vpc.

*Published performance ratings. Initial capacity shall be a minimum of 100% of the rated string capacity (kWb) upon shipment per IEEE-1188. (over)

BATTERY OPERATING TEMPERATURES	
Annual average battery temperature	Any cell temperature not to exceed for more than 30 days per year
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 temperature conditions. If operation of the battery is not within these parameters, the battery warranty shall be null and void.

Useful service life 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 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 the installation/maintenance instructions and other recommendations contained in this document and fails to deliver 80% of its rated string capacity, EnerSys shall credit the purchaser (user) toward the purchase of a new EnerSys battery of equal or greater amp-hour capacity.

Either the cycle or float service warranty will be used to determine warranty credit. The type of duty that shows the most use will be the governing factor.

Cycle Credit – Cycle credit is determined on battery usage. An approved cycle monitor must be used in order to obtain the cycle warranty. Cycle credit is determined as follows: (Refer to Table B)

$$\% \text{ cycle credit} = 1 - \left(\frac{\# \text{ of } 30 \text{ min cycles}}{20 \text{ cycles}} + \frac{\# \text{ of } 15 \text{ min cycles}}{25 \text{ cycles}} + \frac{\# \text{ of } 10 \text{ min cycles}}{32 \text{ cycles}} + \frac{\# \text{ of } 5 \text{ min cycles}}{38 \text{ cycles}} \right) \times 100$$

Float Credit – Float service is determined from the install date or six months after shipment, whichever occurs first. Table A will be used to determine float credit.

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

Example: A 40 month old DataSafe™ HX battery has been cycled as follows:

- Qty. 3 cycles between 15 to 30 minutes
- Qty. 5 cycles between 10 and 15 minutes
- Qty. 0 cycles between 5 and 10 minutes
- Qty. 5 cycles between 0 and 5 minutes

$$\text{Cycle credit} = 1.00 - \left(\frac{3}{20} + \frac{5}{25} + \frac{0}{32} + \frac{5}{38} \right) = (1.00 - .48) \times 100 = 52\% \text{ credit}$$

$$\text{Float credit} = 1 - \frac{40}{120} \times 100\% = 67\% \text{ credit}$$

Result = Cycle Credit of 52% applies

EXCLUSIONS AND LIMITATIONS

- The purchaser (user) shall give freshening charges to the battery a minimum of every three (3) months for Lead-Antimony and every six (6) months for Lead-Calcium after shipment from the factory and until final installation. Refer to the installation and maintenance instructions for maximum storage intervals.
- At least once every twelve (12) months, purchaser (user) must take readings and record information per the EnerSys installation/maintenance instructions. These records must be maintained for warranty claim purposes. If warranty records are not kept, the warranty shall be null and void.
- Parallel strings should be limited to five (5) strings, except with an expressed written consent from EnerSys headquarters in Reading, PA.
- This warranty applies only to the original United States and Canada domestic purchaser (user) and is non-transferable internationally, except with the expressed written consent from EnerSys headquarters in Reading, PA.
- 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.
- EnerSys assumes no responsibility for any work accomplished or expenses incurred, except with the expressed written consent from EnerSys headquarters in Reading, PA.
- Movement of batteries from original point of installation shall immediately void this product warranty, except with the expressed written consent from EnerSys headquarters in Reading, PA.
- Any storage shall be in a dry area having an average ambient temperature of 77°F (25°C), or less, and in accordance with EnerSys published installation/maintenance instructions. Failure to follow EnerSys published guidelines and/or instructions may invalidate the product warranty, at the sole discretion of EnerSys.
- Manufacturer's acceptance of any items shipped to Manufacturer shall not be deemed an admission that the items so shipped are defective. Any items shipped back to Manufacturer, shall in Manufacturer's sole discretion, become Manufacturer's sole property.

THIS LIMITED WARRANTY IS IN LIEU OF, AND MANUFACTURER DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, STATUTORY, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. MANUFACTURER'S EXCLUSIVE LIABILITY FOR BREACH OF WARRANTY SHALL BE TO REPLACE THE BATTERY WITHIN THE EFFECTIVE WARRANTY PERIOD. IN NO EVENT SHALL MANUFACTURER BE LIABLE FOR ANY LOSS OR DAMAGES OF ANY OTHER KIND, WHETHER DIRECT, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY, SPECIAL OR OTHERWISE. NOR SHALL MANUFACTURER BE LIABLE FOR ANY REMOVAL OR INSTALLATION EXPENSE, OR THE LOSS OF TIME OR PROFITS.

Some countries and/or states do not allow limitation on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, which may vary from country to country and/or state to state.

Signed by EnerSys Delaware Inc. Representative _____ Date _____

Signed by Purchaser (user) _____ Date _____

Print Name, Title _____

Print Name, Title _____

EnerSys Order # _____