



PRODUCT WARRANTY

LEAD ACID STATIONARY BATTERIES FLOODED UPS CYCLE SERVICE

DataSafe™ CX, DX, DXC, ES

General Product Limited Warranty

EnerSys Delaware Inc. (“EnerSys”) warrants its DataSafe™ CX, DX, DXC and ES flooded UPS cycle service batteries and racks against defective materials and workmanship for the full period as defined in Table A or Table B 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 EnerSys’ electrical and physical specifications 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. 450, “IEEE Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead Acid Batteries for Stationary Applications”, the properly installed battery string fails to meet the published performance ratings* per EnerSys’ latest published catalog data 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 or rack 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
CX	3 years	17 years
DX	3 years	17 years
DXC	3 years	17 years
ES	3 years	17 years

Discharge Rate	Discharge* Duration	Maximum Cycle Life	
		CX, DX, ES	DXC
8 hrs.	8 hrs.	40	100
4 hrs.	4 hrs.	60	150
1 hr.	1 hr.	80	200
30 min.	30 min.	100	250
15 min.	4-15 min.	120	300
15 min.	1.5 min.	210	660
15 min.	45 sec. UPS walk-in.	960	2,100
15 min.	0-0.5 min.	2,700	10,500

* 8, 4 and 1 hour discharge cycles are based on an end voltage of 1.75 Vpc. The 30 and 15 minutes discharge cycles are based on end voltage of 1.67 Vpc.

* Published performance ratings. Initial capacity shall be a minimum of 100 percent of the rated string capacity (kWb) upon shipment per IEEE-450.
(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 cycle/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. 450. 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:

$$CX, DX, ES = 1 - \left(\frac{\# \text{ of 30 min cycles}}{100} + \frac{\# \text{ of 15 min cycles}}{120} + \frac{\# \text{ of 1.5 min cycles}}{210} + \frac{\# \text{ of 45 sec cycles}}{960} + \frac{\# \text{ of .5 sec cycles}}{2,700} \right)$$

$$DXC = 1 - \left(\frac{\# \text{ of 30 min cycles}}{250} + \frac{\# \text{ of 15 min cycles}}{300} + \frac{\# \text{ of 1.5 min cycles}}{660} + \frac{\# \text{ of 45 sec cycles}}{2,100} + \frac{\# \text{ of 0.5 sec cycles}}{10,500} \right)$$

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: *Battery DX-15B, Calcium Battery, that is 120 months old with the following duty cycle:*

- Qty 30 cycles between 15 to 30 minutes
- Qty 2 cycles between 10 and 15 minutes
- Qty 20 cycles between 45 seconds and 1.5 minutes
- Qty 100 cycles between 30 seconds and 45 seconds
- Qty 500 cycles below 30 seconds

$$\text{Cycle Credit} = 1.00 - \left(\frac{30}{100} + \frac{2}{120} + \frac{20}{210} + \frac{100}{960} + \frac{500}{2700} \right) = (1.00 - .70) \times 100\% = 30\% \text{ Credit}$$

$$\text{Float credit} = \frac{120 \text{ months old}}{240 \text{ warranty}} \times 100\% = 50\% \text{ credit}$$

Result = Cycle Credit of 30% 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 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.
- 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.
- EnerSys 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 for any and all claims of breach of warranty or negligence, exceed the purchase price of the product.**
- THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER REMEDIES, INCLUDING BUT NOT LIMITED TO ACTIONS FOR BREACH OF 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.**

Signed by EnerSys Delaware Inc. Representative

Print Name, Title

EnerSys Order # _____

Signed by purchaser (user)

Print Name, Title