

UPS System Maintenance & PM Requirements

- **One (1) year full maintenance coverage: (2 Liebert UPS & 5 STS)**
 - **Emergency Service 7x24, 365**
 - **All parts, labor and expenses**
 - **Response time: four (4) hours or less**
- **One PM Inspections: (2 Liebert UPS @ 5 STS)**
 - **System overview with customer and detailed inspection report**

The successful vendor must be certified to conduct work on Liebert UPS/Power/Battery modules. All bidders must submit documentation of Liebert Certification with submitted quote.

STATIC TRANSFER SWITCH

SCOPE OF WORK

- Perform a complete visual inspection of the equipment, including sub-assemblies, wiring harnesses, contacts, cables and major components.
- Check all mechanical connections for tightness and heat discoloration, making corrections where necessary.
- Clean foreign material and dust from internal compartments. Perform a status check of alarm circuits.
- Calibration of the equipment to meet manufacturer's specifications.
- Operational checkout of the system to include transfers and proper status indications.
- Install or perform Engineering Field Change Notices (FCN) as necessary.
- Return unit to operational service with normal load then measure and verify display indications.
- Perform additional checks as consistent with customary commercial practice.
- Review system performance with customer to address any questions and to schedule any repairs.
- Provide a detailed written report noting any deficiencies and corrective action needed, taken and/or planned.

BATTERY SYSTEM SCOPE OF WORK

- Clean normal cell top dirt accumulation.
- Measure and record the total battery float voltage and charging current.
- Measure and record the overall AC ripple voltage.
- Visually inspect the jars and covers for cracks and leakage.
- Visually inspect for evidence of corrosion.
- Measure and record the ambient temperature.
- Verify the integrity of the battery rack/cabinet.
- Measure and record 100% of the jar temperatures.
- Measure and record the float voltage of all jars.
- Measure and record all internal ohmic readings.
- Re-tighten all connections to the battery manufacturer's specifications, if required.
- Measure and record all battery connection resistances in micro-ohms, when applicable.
- Refurbish cell connections as deemed necessary.
- Check integrity of battery cabinet.
- Check for NO-OX grease or oil on all connections (if applicable).
- Check battery jars for proper liquid level (if flooded cells).
- Check for corrosion on all the terminals and cables.
- Examine the physical cleanliness of the battery room and jars.
- Measure and record DC bus ripple voltage (if applicable). Measure and record total battery float voltage.
- Perform additional checks as consistent with customary commercial practice.
- Review system performance with customer to address any questions and to schedule any repairs.
- Provide a detailed written report noting any deficiencies and corrective action needed, taken and/or planned.

UNINTERRUPTIBLE POWER SYSTEMS SCOPE OF WORK

- Perform temperature check on all breakers, connections, and associated controls. Repair and/or report all high temperature areas.
- Perform a complete visual inspection of the equipment including subassemblies, wiring harnesses, contacts, cables, and major components.
- Check air filters for cleanliness. (if applicable)
- Check rectifier and inverter snubber boards for discoloration.
- Check power capacitors for swelling or leaking oil.
- Check for DC capacitor vent caps that have extruded more than 1/8". (if applicable)
- Record all voltage and current meter readings on the module control cabinet or the system control cabinet.
- Measure and record harmonic trap filter currents.

- Check the inverter and rectifier snubbers.
- Check all nuts, bolts, screws, and connectors for tightness and heat discoloration.
- Check fuses on the DC capacitor deck for continuity (if applicable).
- With customer approval, perform operational test of the system including unit transfer and battery discharge.
- Calibrate and record all electronics to system specifications.
- Check or perform Engineering Field Change Notices (FCN) as necessary. Measure and record all low-voltage power supply levels.
- Record phase-to-phase input voltage and currents.
- Perform additional checks as consistent with customary commercial practice.
- Review system performance with customer to address any questions and to schedule any repairs.
- Provide a detailed written report noting any deficiencies and corrective action needed, taken and/or planned.

UPS SYSTEM INFO

1. Liebert s610 SMS UPS Model # UDA63154A36AD68 Tag #
1303573

Battery:

Manufacturer: ENERSYS

No of Jars: 40

Model: HX505-FR

Cells per Jar: 6

Battery Type: VRLA

Cells per string: 240

MBCPM Model# U36MB15430AA25S

TAG# 1303576

2. Liebert s610 SMS UPS Model # UDA63154A36AD68 Tag #
1303573

Battery:

Manufacturer: ENERSYS

No of Jars: 40

Model: HX505-FR

Cells per Jar: 6

Battery Type: VRLA

Cells per string: 240

UNINTERRUPTIBLE POWER SYSTEM

MODULE INPUT: 3 Ø	3	WIRE	VAC	480	AMPS	167	HZ	60
INPUT KVA	139			INPUT KW	128			
NEUTRAL INPUT: AMPS	N/A			INPUT FILTER	B			
DC INPUT INTERMITTENT DUTY	2	WIRE	VOLTS RANGE	384-576	AMPS	326	MAX @	384 VDC
BYPASS INPUT: 3 Ø	3&4	WIRE	VAC	480/277	AMPS	180	HZ	60
OUTPUT: 3 Ø	4	WIRE	VAC	480/277	AMPS	180	HZ	60
OUTPUT KVA	150			OUTPUT KW	120			
PART NO.	02-799615-64			SERIAL NO.	C255742/LI-05250			
MODEL NO.	UDA63154A36AD68			WEIGHT	2905 LBS			

UNBALANCED LOAD CURRENT CAPABILITY: 100% OF PHASE AMPS

MFR'S ID - E72328	LR 51263	MFG. DATE	08-29-03
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 **Liebert**
FOR SERVICE CALL 1-800-LIEBERT

9650 Jeronimo Road, Irvine, CA 92618 USA

12-776092-00 REV.6

 **ETL LISTED
UNINTERRUPTIBLE
POWER SUPPLY**

 **LR51263**

data safe[®]
HX

12HX505-FR

12V, 506W/Cell 15 min.
FLAME RETARDANT

Float voltage / Tension de floating
13.6 ± 0.1V at 77°F (25°C)

Connection torque / Couple de serrage
6.8 Nm 60 in lbs

Non-spillable lead-acid battery Made in Mexico



WARNING: Risk of fire, explosion or burns. Do not disassemble, heat above 65°C or incinerate. Ventilate spaces where used or charged.
WARNING: Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Batteries also contain other chemicals known to the state of California to cause cancer.
WASH HANDS AFTER HANDLING.

www.enersys.com



EnerSys

This equipment is manufactured and sold under one or more of the following United States patents:
4,459,652 4,467,261
Other patents pending.

12-715104-01 Rev.5

**BATTERY CABINET
INTERMITTENT DUTY**

Date: 37-03

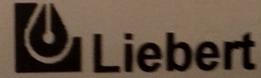


Listed
L8486432290
Uninterruptible
Power Supply
Equipment

Amps 395 Amps DC, Max. at 480 Volts DC
Model No. U36BP150WHBNUUU
BPAJ10F24027000
Serial No. See Attached Label
Battery No. 12HR500
Weight 4900 lbs



MAY BE MANUFACTURED AND SOLD UNDER ONE OR MORE UNITED STATES PATENTS. PATENT NUMBERS: 3,267,889 3,525,385 3,714,980 3,522,451 3,660,635 3,844,475 3,883,757 3,853,100 4,126,857 4,270,362 4,271,678 4,305,833 4,544,877 4,684,875 AND OTHERS PENDING.



1050 Dearborn Drive, P.O. Box 29186,
Columbus, Ohio 43229

Ref. Drawings: