

# Uninterruptible Power Systems (UPS)

Scope of Work (SOW)

ALL SINGLE-PHASE MODELS (EXCLUDES LIEBERT® NFINITY) ESSENTIAL SERVICE- 1 PM

## **SOW Section Outline**

- 1. Service Summary
- 2. Service Performed
- 3. Assumptions and Clarifications
- 4. Customer Responsibilities
- 5. Terms and Conditions

## 1. Service Summary

FEATURE	DETAIL
On-site Service	Includes one (1) Preventative Maintenance Service, scheduled by the customer between 8 AM- 5 PM, Monday through Friday (excluding national holidays).
Response Time	Guaranteed two to four (2-4) hours of on-site emergency response, seven (7) days/week, 24 hours/day, within 100 kms of a Vertiv "service city".
Customer Support Parts	Includes access to the Customer Resolution Center. Includes parts coverage, including internal batteries (limits may apply). See the Assumptions and Clarifications section of this SOW for more details where applicable.
Labor and Travel Service Professional	Includes 100% labor and travel coverage, seven (7) days/week, 24 hours/day. Service performed by Vertiv factory- trained and authorized technician. Vertiv is the OEM service provider for Liebert® products.

# 2. Service Performed

#### **UPS Full Preventive Maintenance Service**

- 1. Record the phase-to-phase and phase-to-neutral input voltages.
- 2. Perform a temperature check on all breakers, connections and associated controls. Repair and/or report all high temperature areas.
- 3. Perform a complete visual inspection of the equipment, including sub-assemblies, wiring harnesses, contacts, cables and major components.
- 4. Check all nuts, bolts, screws and connectors for tightness and heat discoloration.
- 5. Inspect for broken, brittle, damaged or heat stressed components and cables.
- 6. Clean any foreign material and dust from internal compartments.
- 7. Perform a status check of alarm circuits.
- 8. Perform an operational test of the system including unit transfer and battery discharge.
- 9. Check or perform Engineering Field Change Notices (FCN) as necessary.
- 10. Return the system to normal load and verify the output voltage. Calibrate as necessary.
- 11. Review system performance with customer to address any system questions.



#### **Battery Full Preventive Maintenance Service**

- 1. Check integrity of battery cabinet.
- 2. Visually inspect battery system for swelling, leaks, loose foreign objects, overheated or corroded cables and connectors, loose connections on batteries, and appropriate product labels related to safety and warning hazards.
- 3. Clean and neutralize cell tops as required.
- 4. Tighten all battery terminal connections to their proper specifications.
- 5. Measure and record DC bus ripple voltage.
- 6. Measure and record total battery float voltage.
- 7. Record room ambient temperature.

#### 3. Assumptions and Clarifications

Parts coverage excludes air filters, proactive full bank capacitor replacement and fan replacement.

#### 4. Customer Responsibilities

In order to provide timely, accurate and thorough execution of the services described herein, Vertiv requests the following:

- Point of Contact: Provide an authorized point of contact(s), specific for the scope of work, for scheduling and coordination purposes.
- Scheduling: Make dates available for scheduling service. All visits must be requested ten (10) business days in advance of need by contacting the Vertiv Customer Resolution Center.
- Site Access: Prior to time of scheduled work, provide site access including any customer required escort, security clearance, safety training and badging for Vertiv service personnel.
- Equipment Access: Convenient access to the equipment covered by the Scope of Work. Prior to scheduled time of work, notify Vertiv service personnel
  of any special requirements for equipment access including lifts, ladders, etc.
- Shutdown: Service may require shutdown of load to ensure electrical connection integrity.
- Notification: If for any reason the work cannot be performed during scheduled time, notify Vertiv service personnel 24 hours prior to scheduled event.

#### 5. Terms and Conditions

This SOW is subject to all Terms and Conditions as noted in the Vertiv Terms and Conditions.

-or-

The terms of a Master Agreement between the parties, if any, shall apply.