

DIVISION 16 - ELECTRICAL

Section 16610 - Uninterruptable Power Supply Systems

Introduction

The design of UPS systems is normally associated only with specialized computer room distribution systems. At the present most of these systems are not associated with the renovation of any building or facility, but rather a piece of equipment that would be provided by the user as a separate item. However where they are to be provided by the contractor as a part of the construction package the following guidelines should be taken into account for the design.

- A minimum of a 20 minute battery backup shall be used.
- Only static UPS units should be used.
- Design should provide for a minimum of 30% spare capacity.
- Design shall be based on those supplied by APC which the University of Arizona has standardized on using.
- Design for the electrical service to the unit should take into account the losses for the system.
- Since these units generate a large amount of heat and are usually somewhat noisy it is recommended that they be located in a room where the general public will not normally be working, where there is adequate air conditioning for the required heat load, and where the walls provide a good deal of noise attenuation.
- The UPS room or area shall be engineered so that the UPS will operate in its environment without overheating. Cool as necessary.
- Equipment shall be front access only.
- Transformerless UPS systems should be considered.

Should this section be required for an actual project please consult with the UA Electrical Engineer.

Part 1 - General

- All systems must be UL listed.
- Provide complete submittals on UPS system including operations and maintenance manuals (minimum of 4 copies).
- Provide for two years of preventative maintenance as a part of the cost of the UPS.
- Specify seismic anchoring of all UPS cabinets. Provide remote status monitoring for all systems.
- Provide external bypass panel.
- Provide monitor panels for unattended UPS units. Connect to a location satisfactory to the PDC Electrical Engineer.

Part 2 - Products

- To be determined at time of design. Suggested manufacturers to be Liebert or approved equal.

Part 3 - Execution

- Install units in an area where they are fully accessible for maintenance, and with adequate ventilation.

End of Section 16610