

BOSTON TRANSPORTATION DEPARTMENT
Specification for Battery Backup System

November 22, 2023

The system shall monitor 120VAC input from the electric utility source and automatically switch to/from a system consisting of batteries and electronics mounted in a single enclosure separate from the traffic controller cabinet. The typical traffic controller will be NEMA TS2 with LED field displays for vehicles and pedestrians. In some cases traffic system components to be powered will include video monitoring camera system electronics.

Wiring of appropriate size shall be provided to/from the traffic controller. The battery backup shall not be wired to street lighting circuits where present. A maintenance bypass switch shall be included to allow operation of the traffic signal system while repairs are made to the battery backup system.

The system shall be designed to provide a minimum of 2.5 hours of operation while providing 1500 watts of continuous power at 77 degrees F.

The cabinet equipment shall be plug connected and shelf mounted.

The battery backup system shall be designed to operate over a temperature range from -30F to +165F and shall include a surge suppressor wired to the input from utility power.

The system shall include an RJ45 ethernet port to allow for remote monitoring of the battery backup system. The ethernet connection shall provide access to a web page interface to allow system configuration as well as SNMP and email notifications.

Unless otherwise indicated by plans or specifications, the battery backup system shall be mounted in a type CB sheet aluminum cabinet designed to fit a foundation per BTD detail A3.1.

Wiring diagrams and manuals shall be supplied for all equipment installed as part of the Battery Backup System. Documentation shall involve instructions for set up and troubleshooting of all components in the Battery Backup System.

The battery backup system shall be warranted by its supplier for two (2) years from the date of delivery.

Training sessions shall be conducted by a manufacturer's representative in the setup and troubleshooting of the system. Four (4) hours of training shall be provided during periods to be approved by the Boston Transportation Department Engineer.