**ITEM 633 UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN**

*Designer note: this note is intended to be used for UPS retrofit applications where the existing controller cabinet is to remain.*

SUPPLY AND INSTALL PER MANUFACTURER INSTRUCTIONS A BATTERY BACKUP UPS SYSTEM. IN ADDITION TO THE REQUIREMENTS OF 633 AND 733, THIS ITEM SHALL INCLUDE A REMOTE BATTERY MONITORING SYSTEM WITH A REMOTE BATTERY MONITORING CONTROLLER UNIT AND A BATTERY SENSOR FOR EACH BATTERY. UPS EQUIPMENT PROVIDED SHALL BE IN ACCORDANCE WITH THE COLUMBUS TRAFFIC QUALIFIED PRODUCTS LIST.

THE UPS OUTPUT NOTIFICATIONS FOR ON BATTERY, BATTERY 2-HOUR TIMER, AND LOW BATTERY SHALL BE WIRED INTO THE TRAFFIC SIGNAL CABINET BACK PANEL TO PROVIDE SPECIAL STATUS ALARMS FOR EACH OUTPUT INTO THE SIGNAL CONTROLLER PER THE FOLLOWING TABLES:

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| --- | --- | --- | --- |
| UPS CONFIGURATION AND ALARMS – TS1 CABINETS | | |  |
| DRY CONTACT RELAY ON | DRY CONTACT CONFIGURATION | TERMINATION | CONTROLLER FUNCTION |
| C1 | ON BATTERY | TEST C | ALARM 3 |
| C2 | LOW BATTERY | TEST E | ALARM 5 |
| C3 | LOW BATTERY | AUTO FLASH | AUTO FLASH |
| C4 | TIMER – 2 HR | TEST D | ALARM 4 |
| C8 | ON BATTERY | 48 VDC INDICATOR LAMP |  |

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| --- | --- | --- | --- |
| UPS CONFIGURATION AND ALARMS – TS2 CABINETS | | |  |
| DRY CONTACT RELAY ON | DRY CONTACT CONFIGURATION | TERMINATION | CONTROLLER FUNCTION |
| C1 | ON BATTERY | TEST A | ALARM 3 |
| C2 | LOW BATTERY | TEST C | ALARM 5 |
| C3 | LOW BATTERY | AUTO FLASH | AUTO FLASH |
| C4 | TIMER – 2 HR | TEST B | ALARM 4 |
| C8 | ON BATTERY | 48 VDC INDICATOR LAMP |  |

THE UPS INVERTER AND THE REMOTE BATTERY MONITORING CONTROLLER UNIT SHALL BE CONNECTED TO THE COLUMBUS FIBER OPTIC NETWORK FOR COMMUNICATION TO THE TRAFFIC MANAGEMENT CENTER. A CAT5E CABLE SHALL BE INSTALLED FROM EACH TO THE LAYER 2 SWITCH. PORT CONNECTIONS TO THE LAYER 2 SWITCH SHALL BE AS SHOWN ON THE COMMUNICATIONS DIAGRAM CONTAINED IN THESE PLANS. THE CAT5E CABLES SHALL BE INCIDENTAL TO THIS PAY ITEM.

THE UPS CABINET FOUNDATION SHALL BE CONSTRUCTED PER SCD 4162. The UPS cabinet foundation shall be installed in such a manner that prevents differential settlement between the UPS cabinet foundation and the controller cabinet foundation by dowelling or another method approved by the Engineer. Additionally, sealant shall be applied be applied between the existing foundation and the proposed UPS cabinet foundation.

ALL CONNECTIONS, WIRING, AND MISCELLANEOUS MATERIALS FOR FULL OPERATION OF THE UPS SYSTEM SHALL BE IN THE UNIT PRICE BID FOR THIS ITEM. PAYMENT SHALL BE PER ITEM 633 AND SHALL BE MADE AT THE UNIT PRICE BID PER EACH, COMPLETE IN PLACE, TESTED, AND ACCEPTED. 7/1/24