
Low Voltage Bypass/ Isolation Closed Transition

Automatic Transfer Switch Preventative Maintenance Statement of Work

Equipment

1. Verify that the equipment installation complies with O&M documentation.
2. Enclosure is properly secured to wall or floor.
3. Equipment interior is clear of debris and unit may be safely transferred.
4. Verify with site personnel that equipment may be transferred and occasional service interruptions are acceptable.
5. If an engine-generator is a secondary source, verify with site personnel that the engine-generator is in the AUTOMATIC POSITION and may be started and operated under load.

Power

1. Verify that the transfer switch nameplate values are correct with the application (voltage, current, etc.).
2. Verify that the equipment ground connection is properly terminated.
3. Torque main lug terminals for S1 and S2 connections.
4. Torque main lug terminals for load connections if permitted. Power outage will be required.
5. Verify that the phase rotations of both sources are matched.
6. Perform a MX Controller calibration for S1 and S2 source voltages.
7. Measure and record S1 voltage and frequency.
8. Measure and record S2 voltage and frequency.
9. Measure and record a millivolt drop test across the movable contact assemblies.
10. Measure and record a millivolt drop test across transfer switch load-side finger assemblies.

Control Circuits

1. Verify any engine start connections are properly terminated.
2. Verify that any external power source and/or breaker shunt trip circuits are properly connected.
3. Verify that any customer auxiliary contacts are properly terminated (position, pre-signal, etc.).
4. If applicable, verify that any load control wiring is properly terminated (load add, shed, etc.).
5. Review communications connections to an external SCADA or Building Automation System if applicable.

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Maintenance

1. Lubricate any necessary moving linkages, bearings, etc.
2. Lubricate transfer switch rails, linkages and/or chains.
3. Adjust mechanical limit switches if necessary.
4. Apply dielectric grease to movable finger assemblies if possible.
5. If applicable, review and set clock and engine exerciser period according to on-site personnel.

Testing

1. Perform a NO-LOAD TEST of the transfer switch through the MX Controller.
2. Perform an open-transition FAST LOAD TEST or LOAD TEST of the transfer switch through the MX Controller.
3. Perform a closed-transition FAST LOAD TEST or LOAD TEST of the transfer switch through the MX Controller.
4. Measure and record transfer results including time periods.
5. Adjust time delays if necessary and review sequence with on-site personnel.
6. Perform a second closed-transition LOAD TEST of the transfer switch. With the transfer switch in the S2 position, open the S2 source breaker and verify immediate re-transfer to S1 position.
7. Place the unit in BYPASS MODE and rack the transfer switch in the TEST POSITION. Repeat a FAST LOAD TEST of the transfer switch through the MX Controller.
8. Place the unit in ISOLATE MODE and observe proper operations and interlocking.
9. Perform a breaker shunt trip test to verify proper connection and operation.

Service Report

1. Recorded values of all measurements taken, voltages, amperage, frequency and millivolt.
2. Note any field adjustments.
3. Record MX Controller transfer log details.
4. Note any recommendations relative to repairs or upgrades.
5. 6-month parts and labor limited warranty period on any repairs performed.

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