
Low Voltage Bypass/ Isolation Closed Transition Automatic Transfer Switch Start-up/Commissioning 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 enginegenerator 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. Verify that all connections are on the proper terminals and properly torqued to proper specifications.
4. Verify that the phase rotations of both sources are matched.
5. Perform a MX Controller calibration for S1 and S2 source voltages.
6. Measure and record S1 voltage and frequency.
7. Measure and record S2 voltage and frequency.
8. Measure and record millivolt drop readings across transfer switch load-side movable connections.

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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Settings

1. Review applicable project specifications if available and verify proper options are active and operational.
2. Set MX Controller to customer specifications for voltages, frequency and timers. If multiple transfer switches, review loads with on-site personnel for staggered transfer/loading.
3. If applicable, set 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 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 open-transition 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.

Training (maximum 4 persons)

1. Explain active features of the transfer switch MX Controller and provide instruction for adjustment(s).
2. Instruct operating personnel how to set timers and properly negotiate MX Controller screens.
3. Instruct operating personnel on manual bypassing operations, controls and functions.
4. Instruct operating personnel how to test the transfer switch with open- and closed-transition NO LOAD TEST or LOAD TEST features.
5. Explain alarm circuitry of the closed-transition circuitry.
6. If applicable, explain systems interfaces to external equipment (BAS, load shed, elevator controllers, etc.).

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