

# QC Electrical Switches & Circuit Breakers Checklist

## Section 26.28.16

<p>Nameplate voltage and ampere rating on each enclosed switch or circuit breaker matches project one-line diagram and feeder conductor ampacity.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span style="background-color: green; color: white; padding: 2px 5px;">✓</span> <span>QC</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Short-circuit current rating (SCCR) marked on enclosure equals or exceeds calculated available fault current at installation location.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span style="background-color: green; color: white; padding: 2px 5px;">✓</span> <span>QC</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Enclosure type (NEMA/IP) corresponds to environmental exposure at mounting location (e.g., NEMA 3R for exterior, NEMA 12 for dusty interior).</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span>FTQ</span> <span style="background-color: #90EE90; color: white; padding: 2px 5px;">✓</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Required working space and approach clearance in front of enclosure meet NEC 110.26; operating handle height between 0.9 m and 2.0 m above finished floor.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span>FTQ</span> <span style="background-color: #90EE90; color: white; padding: 2px 5px;">✓</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Line and load conductors terminate in UL-listed lugs sized for conductor material and rating; termination torque values achieved and recorded.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span style="background-color: green; color: white; padding: 2px 5px;">✓</span> <span>QC</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Equipment grounding conductor correctly landed at grounding bar and metallic raceways bonded with grounding bushings or bonding jumpers.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span style="background-color: green; color: white; padding: 2px 5px;">✓</span> <span>QC</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Phase conductors landed in A-B-C sequence consistent with upstream gear to prevent reverse motor rotation.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span style="background-color: green; color: white; padding: 2px 5px;">✓</span> <span>QC</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Neutral conductor (if required) landed on insulated neutral block with removable link or disconnect means provided for service equipment.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span>FTQ</span> <span>QC</span> <span style="background-color: red; color: white; padding: 2px 5px;">✓</span> <span>NA</span> <span></span> <span></span> </div>
<p>Overcurrent protective device (fuses or breaker trip unit) size and type comply with design documents and do not exceed conductor ampacity.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span style="background-color: green; color: white; padding: 2px 5px;">✓</span> <span>QC</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Door safety interlock and handle mechanism operate smoothly; door cannot be opened with switch in ON position where interlock is specified.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span>FTQ</span> <span>QC</span> <span style="background-color: red; color: white; padding: 2px 5px;">✓</span> <span>NA</span> <span></span> <span></span> </div>
<p>Arc-flash, shock hazard, and identification labels installed, legible, and display calculated incident energy values per NFPA 70E study.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span style="background-color: green; color: white; padding: 2px 5px;">✓</span> <span>QC</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Enclosure door gaskets intact; no visible damage, rust, or deformation; unused openings sealed with manufacturer's listed closure plates or hub plugs.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span style="background-color: green; color: white; padding: 2px 5px;">✓</span> <span>QC</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Enclosure securely anchored to wall or structure with hardware size and pattern per manufacturer seismic/weight requirements.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span style="background-color: green; color: white; padding: 2px 5px;">✓</span> <span>QC</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Parallel conductors terminate in lugs listed for multiple conductors or utilize approved mechanical adapters; no double-lugging in single-conductor lugs.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span style="background-color: green; color: white; padding: 2px 5px;">✓</span> <span>QC</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Interior of enclosure free of moisture, construction debris, or metal shavings prior to energization; cover installed with all fasteners tight.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span style="background-color: green; color: white; padding: 2px 5px;">✓</span> <span>QC</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Control and accessory wiring routed separately from power conductors, terminated with ferrules, and identified per wiring diagrams.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span>FTQ</span> <span>QC</span> <span style="background-color: red; color: white; padding: 2px 5px;">✓</span> <span>NA</span> <span></span> <span></span> </div>
<p>Insulation resistance test performed on feeder conductors after terminations; resistance values meet or exceed 1 MΩ per 1 kV rating and are documented.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span style="background-color: green; color: white; padding: 2px 5px;">✓</span> <span>QC</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>
<p>Adjustable circuit breaker trip unit settings (long-time, short-time, instantaneous, ground-fault) match protective coordination study values and are recorded.</p> <p>Observations</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <span style="background-color: green; color: white; padding: 2px 5px;">✓</span> <span>QC</span> <span>OPN</span> <span>NA</span> <span></span> <span></span> </div>