DUXNET

Installer Surge Protection Checklist

Best Practices for Grounding and Surge Protection in South African Conditions

PRE-INSTALLATION CHECKS

- [ ] Confirm site conditions: indoor/outdoor, cable runs, and power layout
- [ ] Identify nearby surge sources: aircons, fridges, generators, heavy equipment
- [ ] Check for existing grounding points in the cabinet/rack

GROUNDING SETUP

- [ ] Use a grounding cable to connect the switch's grounding screw to the rack
- [ ] If the rack is metal: ensure rack is also properly earthed to the building grounding system
- [ ] Use crimped ring terminals for secure connection (avoid loose or frayed ends)
- [ ] Avoid paint/insulation between grounding points – metal-to-metal contact required

SURGE PROTECTION PROTOCOL

- [ ] Install surge protection on all AC power inputs (UPS or surge plug boards)
- [ ] For outdoor cables: use shielded CAT6 and external surge protectors
- [ ] Separate power and data cabling in tight spaces
- [ ] Avoid using daisy-chained or overloaded multi-plugs
- [ ] Don't mix power sources across devices (e.g., generator + grid)

POST-INSTALLATION TEST

- [ ] Check for grounding continuity using a multimeter (resistance should be <5Ω)
- [ ] Label grounding cable connections and mark them in install documentation
- [ ] Run a basic PoE device test to verify stable port activity
- [ ] Document switch serial number, firmware version, and grounding photo for records

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