VacClad-W metal-clad switchgear protective relay schemes

Protective relays

Figure 1. Feeder circuit
Phase CT rating = 200% feeder full load
EDR-3000 = Eaton distribution relay
① Alternate to 50/51G.

Figure 2. Induction motors below 1500 hp minimum adequate protection
Phase CT rating = 150% full load
EMR-4000 = Eaton motor relay
URTD = Universal RTD interface module
① Alternate to 50/51G.

Figure 3. Transformer feeder
Phase CT rating = 200% full load
ETR-4000 = Eaton transformer relay
87T = Transformer differential relay (above 5 MVA)
86GD = Ground differential relay (above 5 MVA and low resistance grounded)
86 = Lockout relay
63 = Sudden pressure relay (liquid above 5 MVA)
① Alternate to 50/51G.

Figure 4. Induction motors above 1500 hp and synchronous motors
Phase CT rating = 150% full load
EMR-5000 = Eaton motor relay
URTD = Universal RTD interface module
① Alternate to 50/51G.
EDR-5000 relay—typical one-line diagram

Figure 5. Eaton EDR-5000 distribution relay—typical main or feeder breaker application diagram

1. Can be set for forward, reverse or both directions.
2. Can be set for underfreq, overfreq, rate of change or vector change.

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