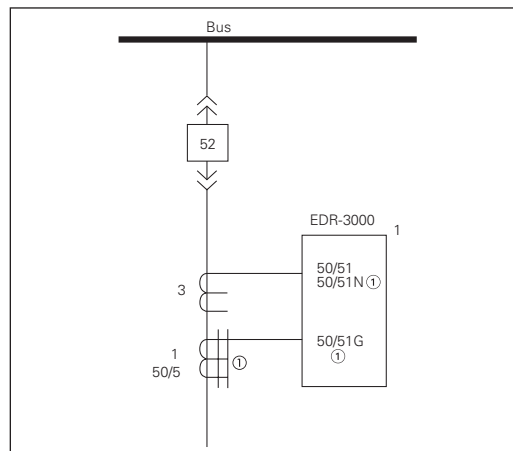


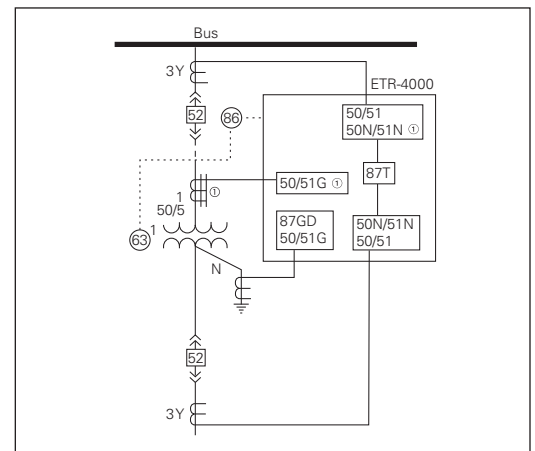
# VacClad-W metal-clad switchgear protective relay schemes

## Protective relays



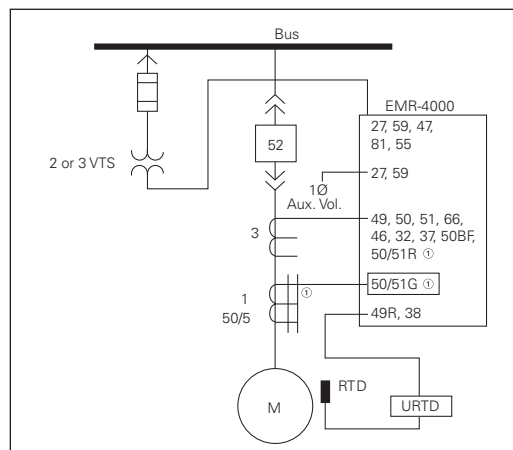
**Figure 1. Feeder circuit**

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



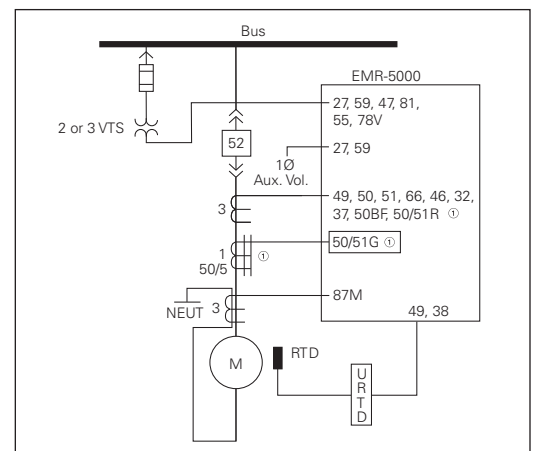
**Figure 3. Transformer feeder**

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)  
Ⓢ 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  
Ⓢ Alternate to 50/51G.



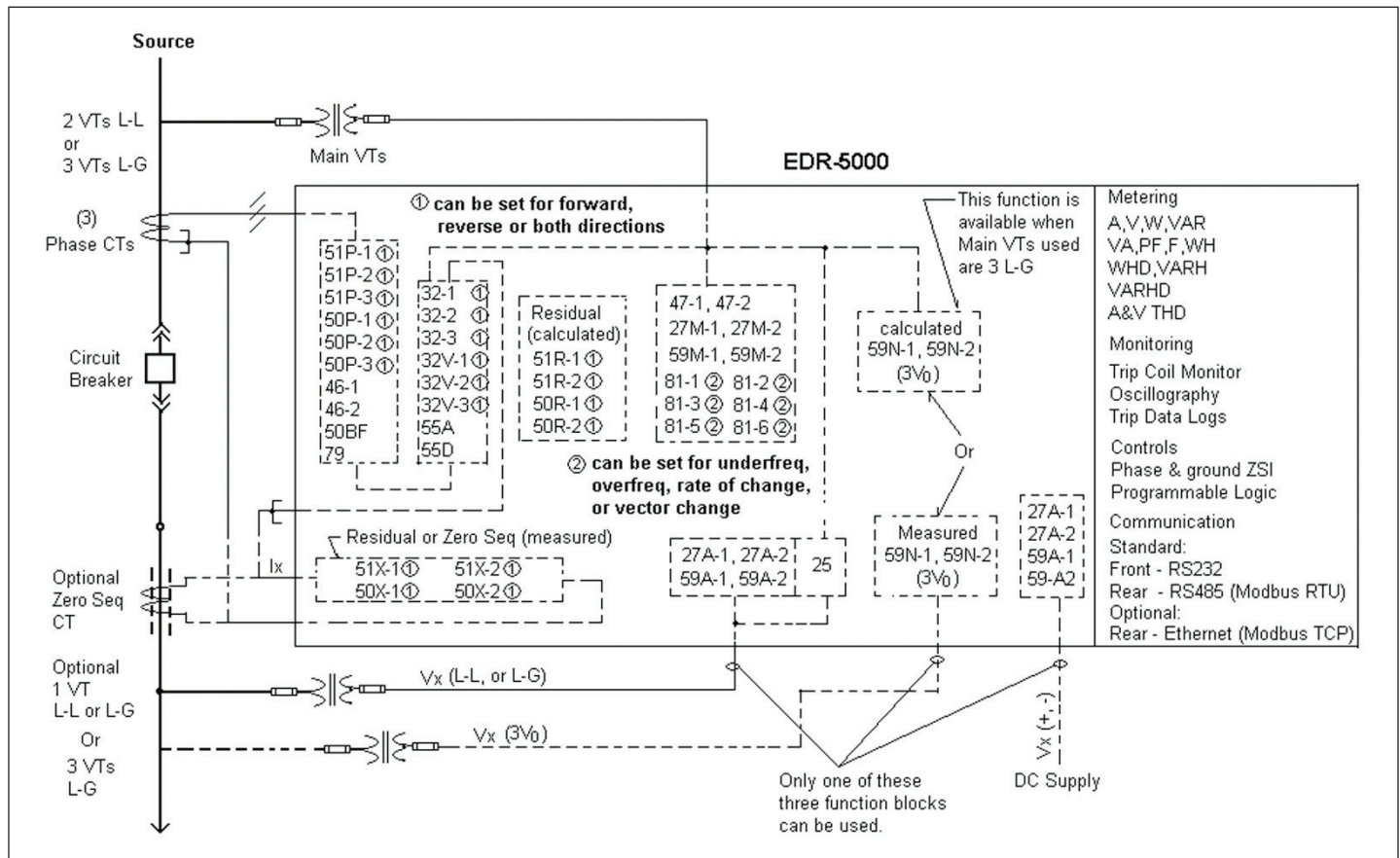
**Figure 4. Induction motors above 1500 hp and synchronous motors**

Phase CT rating = 150% full load  
EMR-5000 = Eaton motor relay  
URTD = Universal RTD interface module  
Ⓢ Alternate to 50/51G.



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**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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