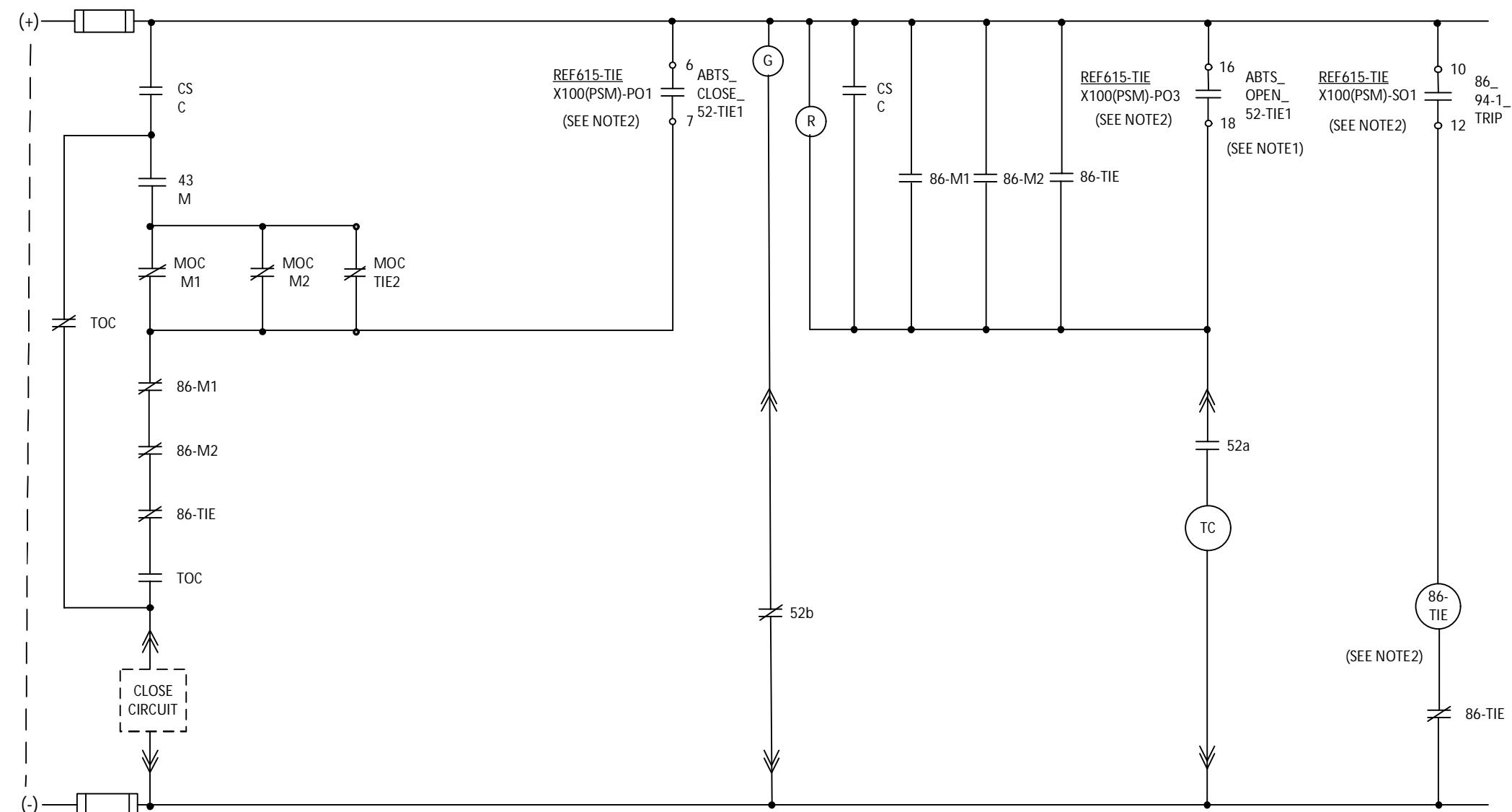


BREAKER CONTROL SCHEMATIC – TIE1 (M-T-T-M)

Scheme: Closed Transition

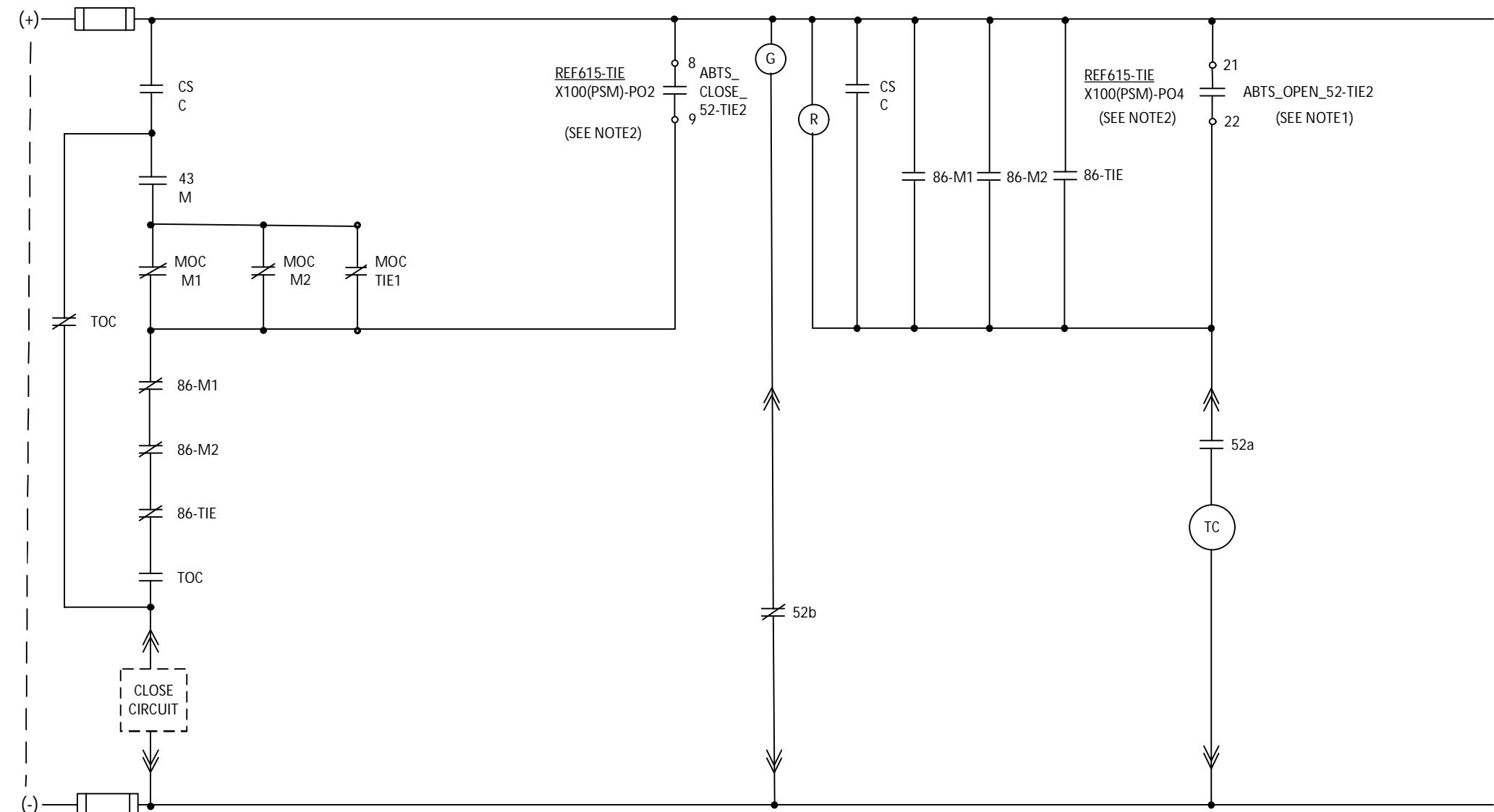


NOTES

1. Refer to DC RELAY SCHEMATIC - TIE for Trip Coil Monitoring connections.
 2. 'TIE' notation is used to designate lockout relay and trip contacts from 'TIE' relay (REF615-TIE) regardless of number of tie breakers used (ie., TIE(M-T-M) or TIE1/2 (M-T-T-M) since only one relay protecting tie in both schemes.

BREAKER CONTROL SCHEMATIC – TIE2 (M-T-T-M)

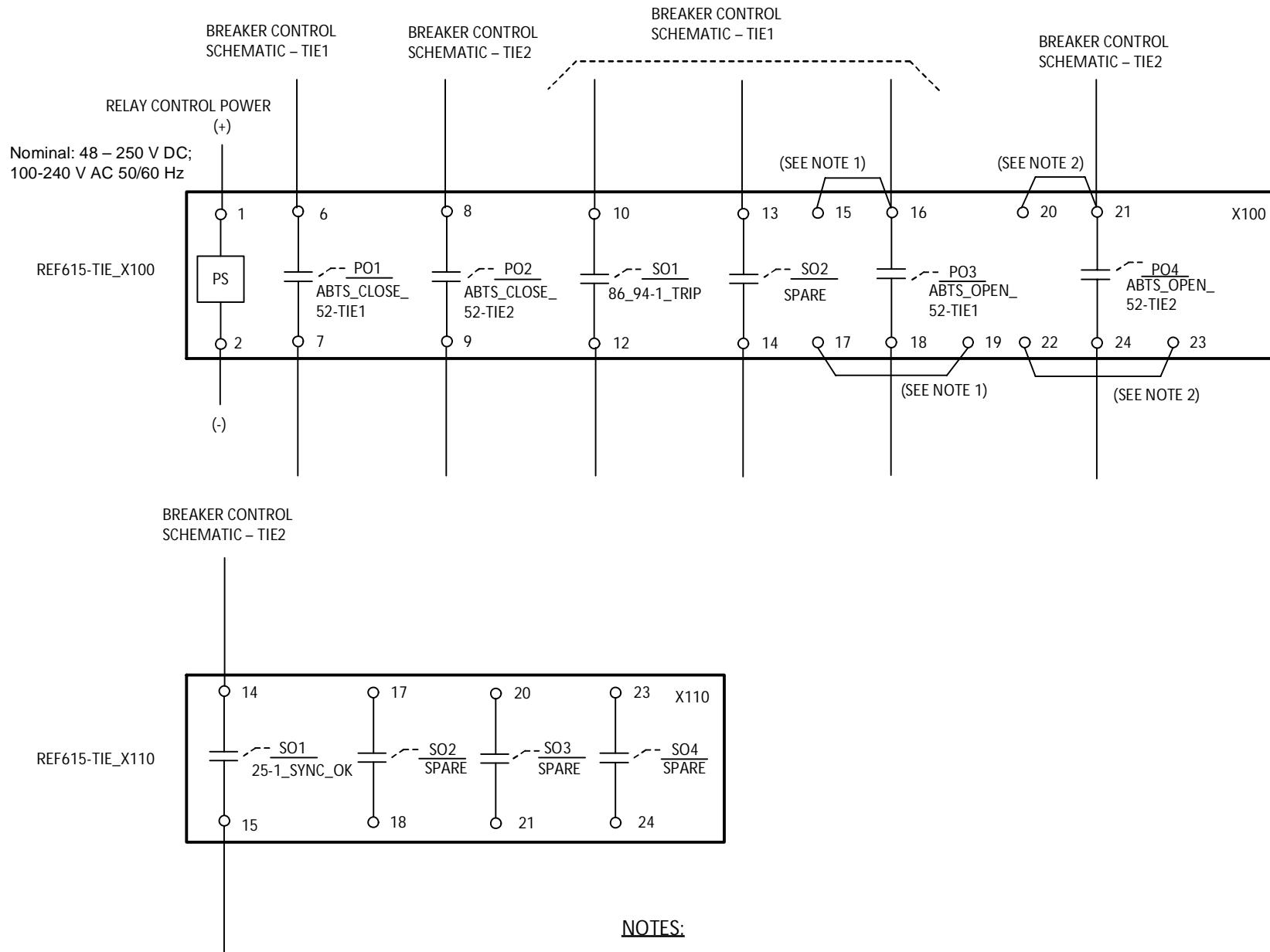
Scheme: Closed Transition



NOTES:

1. Refer to DC RELAY SCHEMATIC - TIE for Trip Coil Monitoring connections.
2. 'TIE' notation is used to designate lockout relay and trip contacts from 'TIE' relay (REF615-TIE) regardless of number of tie breakers used (ie., TIE (M-T-T-M) or TIE1/2 (M-T-T-M) since only one relay protecting tie in both schemes.

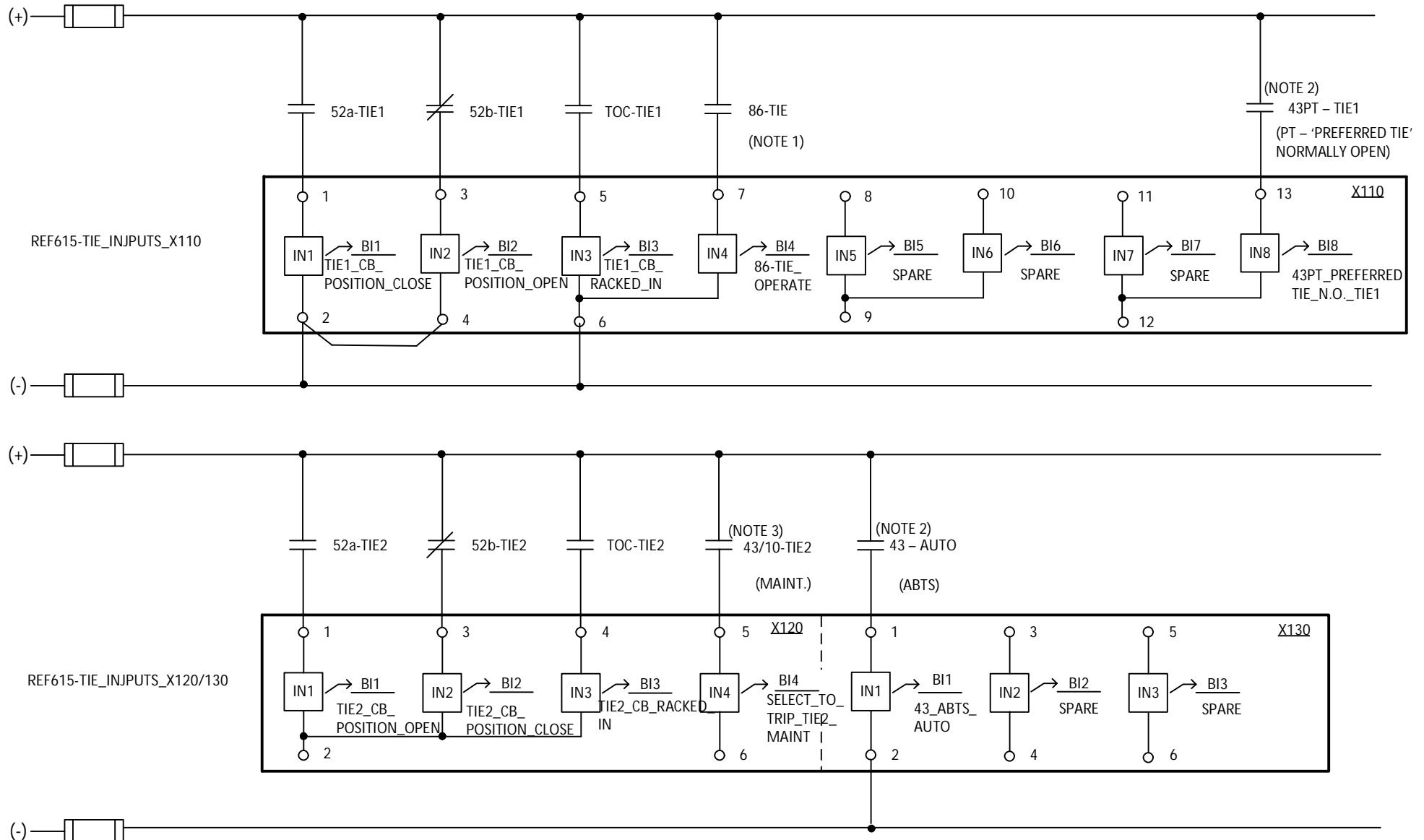
TEMPLATE FOR DC RELAY SCHEMATIC – TIE (PS &OUTPUTS)



NOTES:

1. Jumpers connected to PO3 (X100_15-16, 17-19) used for Trip Coil Monitoring on TIE(1) breaker.
2. Jumpers connected to PO4 (X100_20-21, 22-23) used for Trip Coil Monitoring on TIE2 breaker.

TEMPLATE FOR DC RELAY SCHEMATIC – TIE (INPUTS)



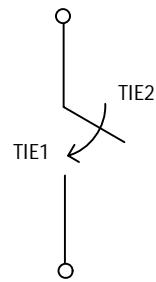
NOTES:

1. 'TIE' notation is used to designate lockout relay and trip contacts from 'TIE' relay (REF615-TIE) regardless of number of tie breakers used (ie., TIE (M-T-M) or TIE1/2 (M-T-T-M)) since only one relay protecting tie in both schemes.
2. Two position switch. See SWITCH POSITIONS drawing for other position.
3. Four (M-T-T-M) position switch. See SWITCH POSITIONS drawing

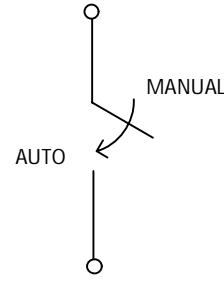
SWITCH POSITIONS – TIE RELAY INPUTS

NOTE 2 – RELAY INPUTS_TIE

43PT (PREFERRED TIE N.O.)

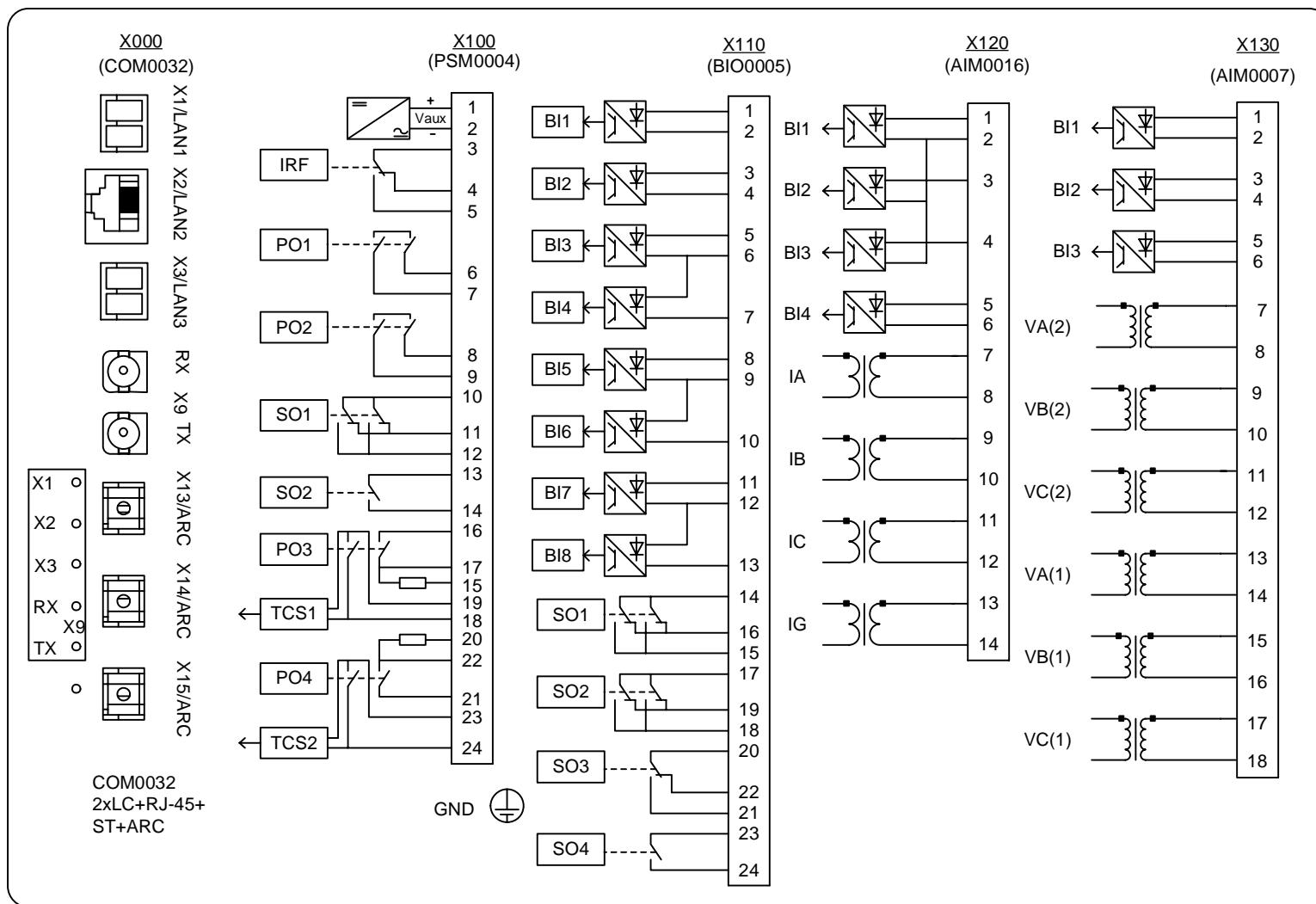


43 (ABTS)



RELAY REAR VIEW HARDWARE AND TERMINAL DIAGRAM - TIE

REF615 'F' - TIE



X000-X1:
X000-X2:
X000-X3:
X000-X9:
X000-X13:
X000-X14:
X000-X15:

X100-1:
X100-2:
X100-3:
X100-4:
X100-5:
X100-6:
X100-7:
X100-8:
X100-9:
X100-10:
X100-11:
X100-12:
X100-13:
X100-14:
X100-15:
X100-16:
X100-17:
X100-18:
X100-19:
X100-20:
X100-21:
X100-22:
X100-23:
X100-24:

X110-1:
X110-2:
X110-3:
X110-4:
X110-5:
X110-6:
X110-7:
X110-8:
X110-9:
X110-10:
X110-11:
X110-12:
X110-13:
X110-14:
X110-15:
X110-16:
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X110-22:
X110-23:
X110-24:

X120-1:
X120-2:
X120-3:
X120-4:
X120-5:
X120-6:
X120-7:
X120-8:
X120-9:
X120-10:
X120-11:
X120-12:
X120-13:
X120-14:

X130-1:
X130-2:
X130-3:
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X130-5:
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X130-18:

GND: