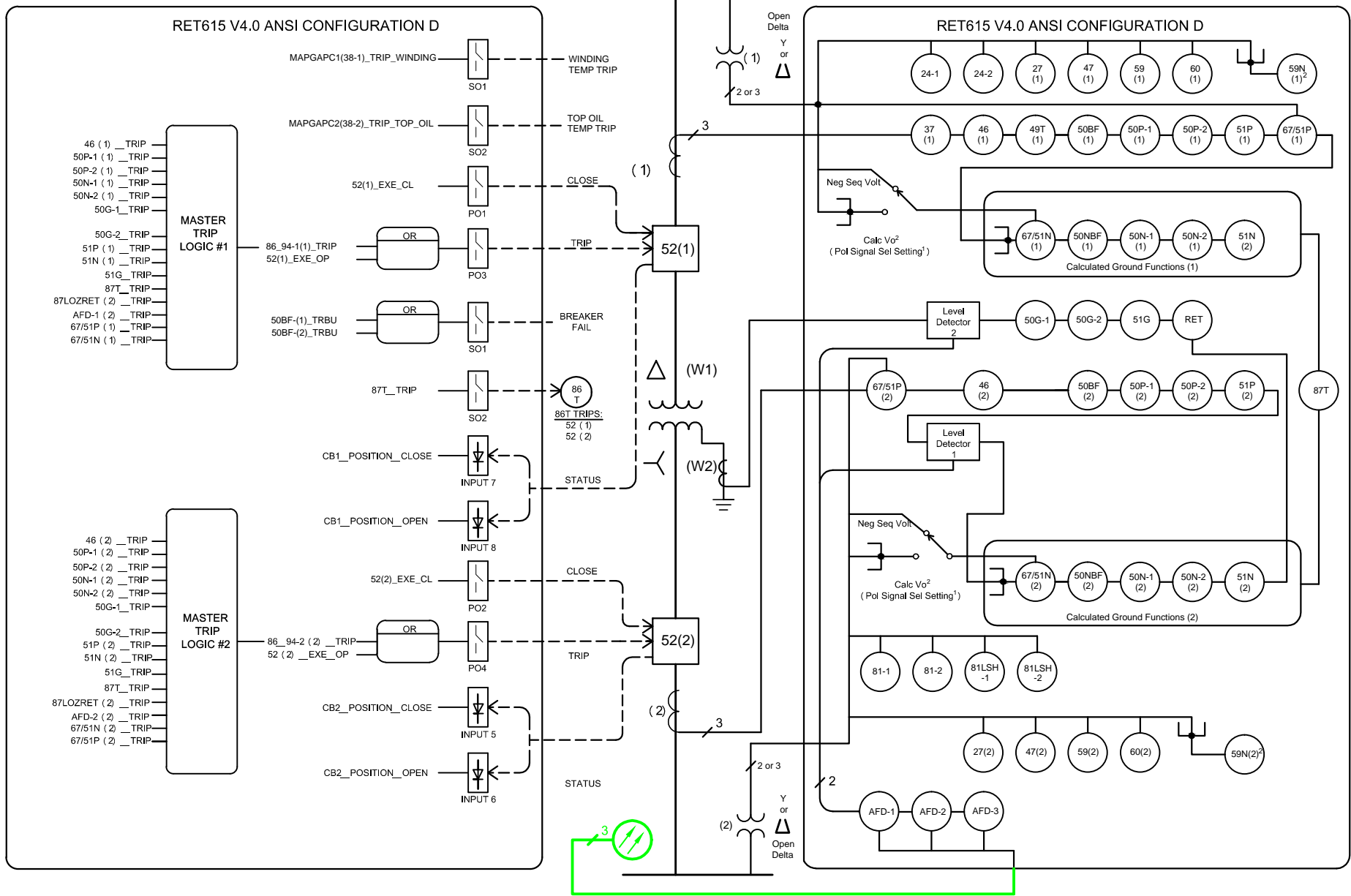


RET615_HATDDADAF1BNN1XE



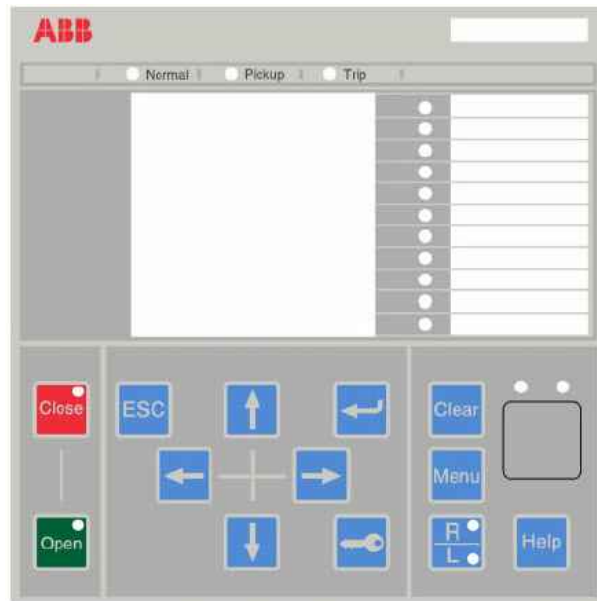
General Notes:

PCM600 ACT (Application Configuration Tool) logic is shown in default state with exception of 86T lockout relay trip (contact SO2).

Notes:

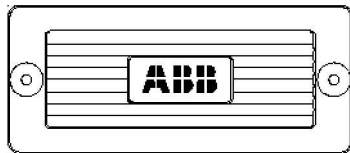
1. Rotary Switch emulates drop down menu for "Pol Signal Sel" parameter setting in PCM600. Switch position shown for default setting (Neg Seq Volt). Switch is typical for all connected functions. Position can be set individually for each function.
2. "Pol Signal Sel" parameter setting "Calc Vo", 59N(1) and 59N(2) functions not applicable for open delta connected VTs.

RET615_HATDDADAFPE1BNN1XE



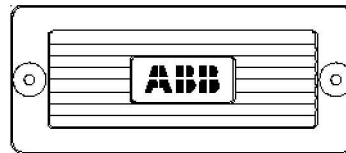
FT-1/TS1

Style No: 837A407G01
CODE No: 083



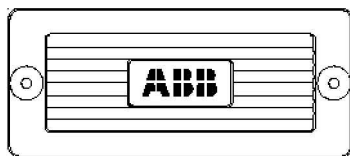
FT-1/TS2

Style No: 129A501G01
Code No: 001



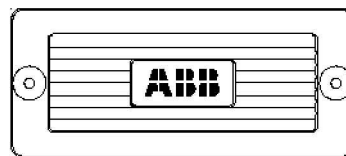
FT-1/TS3

Style No: 774B430G20
CODE No: 171



FT-1/TS4

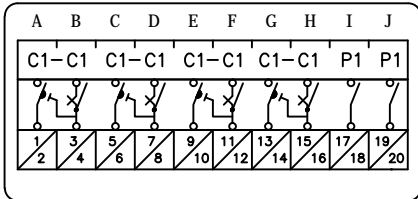
Style No: 129A501G01
Code No: 001



General Notes:

1. Style and code numbers for FT-1 switches provide black covers and handles, screw terminals and standard depth. Poles selection follows arrangement shown in this drawing set. For custom designs, different selection options can be made by using FT-1 configurator at ft1switch.com
2. Refer to 615 series ANSI Installation Manual for relay and cutout dimensions (Document ID: 1MACCO51065-MB, Revision: D, Product version 4.0)

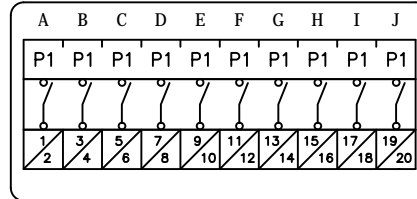
PHASE CURRENT
 ■ IA (1)
 PHASE CURRENT
 ■ IB (1)
 PHASE CURRENT
 ■ IC (1)
 GROUND CURRENT
 ■ IG
 RELAY POS. VDC
 RELAY NEG. VDC



FT-1/TS1

(BREAKER 1 CURRENTS,
 TRANSFORMER NEUTRAL CURRENT
 AND POWER SUPPLY)

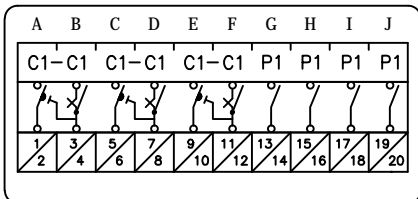
PHASE VOLTAGE ■ VA(1)
 PHASE VOLTAGE ■ VB(1)
 PHASE VOLTAGE ■ VC(1)
 52(1)_EXE_CL(PO1)
 86_94-1_TRIP/52(1)_EXE_OP(PO3)
 50BF(1)_TRBU/50BF(2)_TRBU(SO1)
 87T_TRIP(SO2)
 CB1_POSITION_CLOSE (IN7)
 CB1_POSITION_OPEN (IN8)



FT-1/TS2

(BUS I PHASE POTENTIALS AND
 BREAKER 1 BINARY I/O)

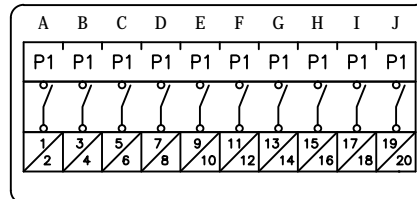
PHASE CURRENT
 ■ IA (2)
 PHASE CURRENT
 ■ IB (2)
 PHASE CURRENT
 ■ IC (2)



FT-1/TS3

(BREAKER 2 CURRENTS)

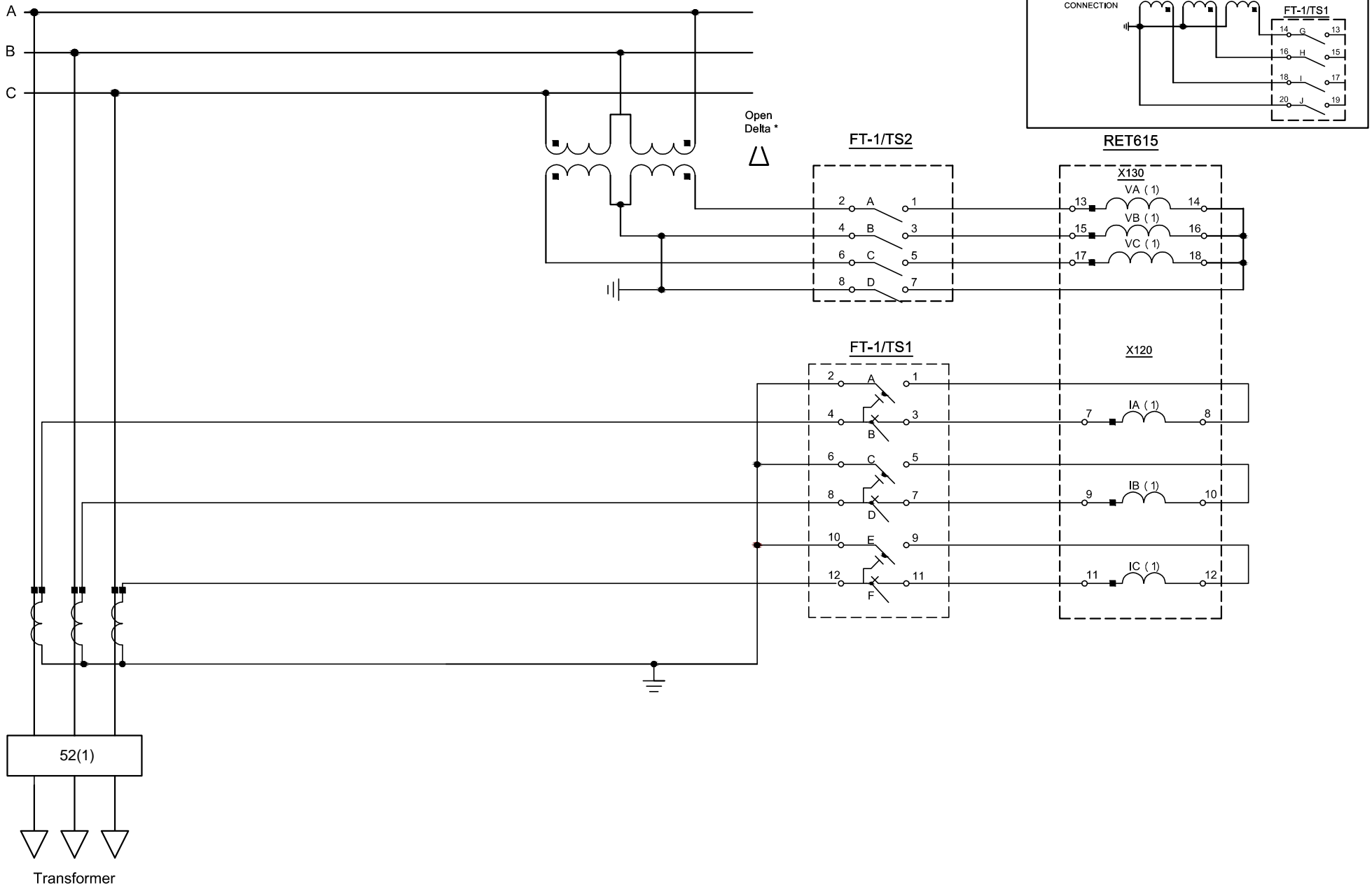
PHASE VOLTAGE ■ VA(2)
 PHASE VOLTAGE ■ VB(2)
 PHASE VOLTAGE ■ VC(2)
 52(2)_EXE_CL_(PO2)
 86_94-2_TRIP 52(2)_EXE_OP(PO4)
 CB2_POSITION_CLOSE(IN5)
 CB2_POSITION_OPEN(IN6)



FT-1/TS4

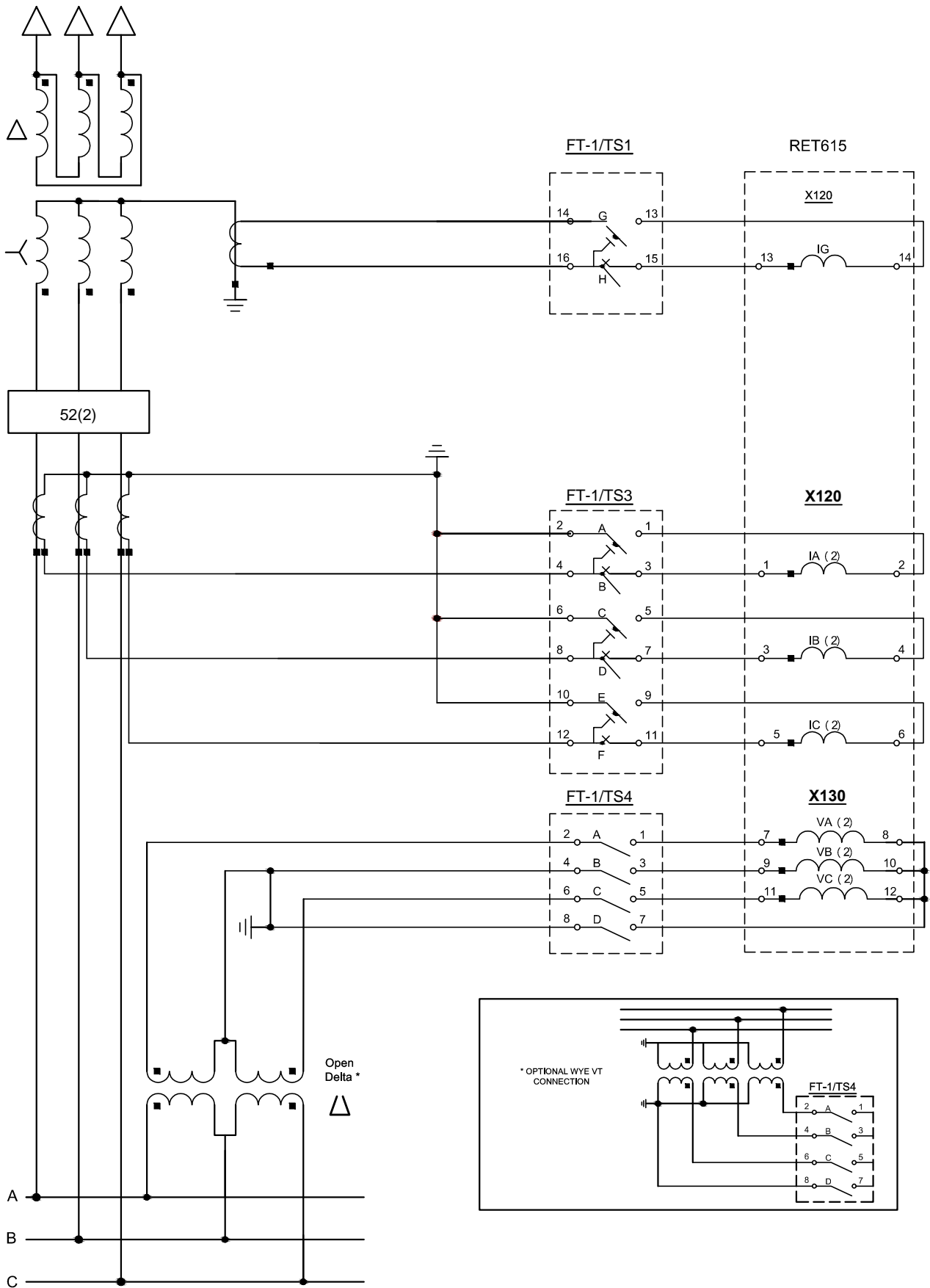
(BUS 2 PHASE POTENTIALS
 AND BREAKER 2 BINARY I/O)

RET615_HATDDADAFE1BCN1XE

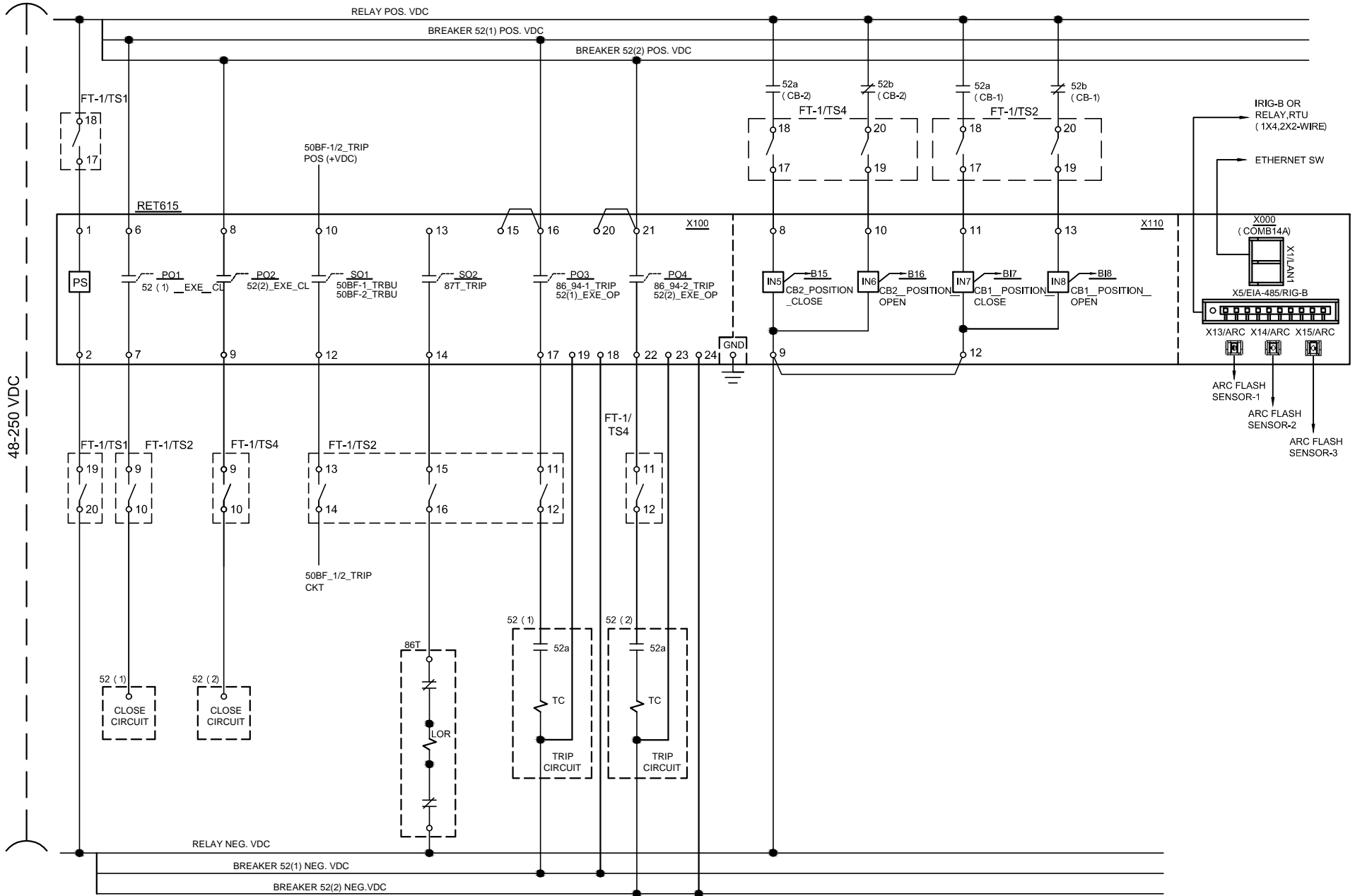


Circuit Breaker 52 (1)

RET615_HATDDADAFPE1BNN1XE



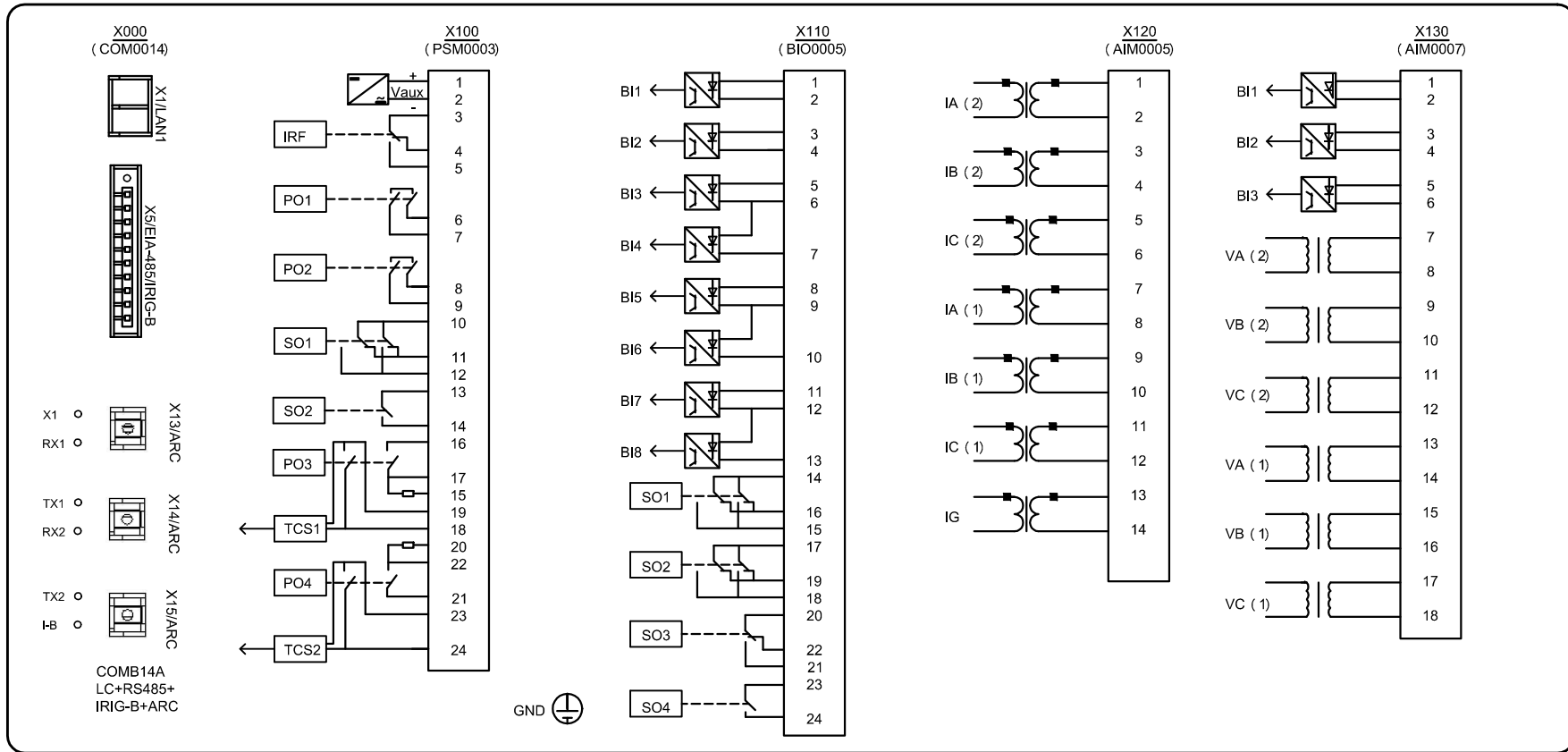
RET615_HATDDADAF1BNN1XE



General Notes:

Binary I/O shown is from default PCM600 Application Configuration Tool (ACT).
Connections shown are typical though more connections may be needed for specific application.

RET615_HATDDADAF1BNN1XE



RR
RET615

X000-X1:
X000-X5:
X000-X13:
X000-X14:
X000-X15:

X100-1: TT17
X100-2: TT19
X100-3:
X100-4:
X100-5:
X100-6:
X100-7: SS9
X100-8:
X100-9: UU9
X100-10:
X100-11:
X100-12: SS13
X100-13:
X100-14: SS15
X100-15: X100-16
X100-16: X100-15
X100-17: SS11
X100-18:
X100-19:
X100-20: X100-21
X100-21: X100-20
X100-22: UU11
X100-23:
X100-24:

X110-1:
X110-2:
X110-3:
X110-4:
X110-5:
X110-6:
X110-7:
X110-8: UU17
X110-9: X110-12
X110-10: UU19
X110-11: SS17
X110-12: X110-9
X110-13: SS19
X110-14:
X110-15:
X110-16:
X110-17:
X110-18:
X110-19:
X110-20:
X110-21:
X110-22:
X110-23:
X110-24:

X120-1: VV3
X120-2: VV1
X120-3: VV7
X120-4: VV5
X120-5: VV11
X120-6: VV9
X120-7: TT3
X120-8: TT1
X120-9: TT7
X120-10: TT5
X120-11: TT11
X120-12: TT9
X120-13: TT15
X120-14: TT13

X130-1:
X130-2:
X130-3:
X130-4:
X130-5:
X130-6:
X130-7: UU1
X130-8: X130-10
X130-9: UU3
X130-10: X130-8, X130-12
X130-11: UU5
X130-12: X130-10, UU7
X130-13: SS1
X130-14: X130-16
X130-15: SS3
X130-16: X130-14, 130-18
X130-17: SS5
X130-18: 130-16, SS7

GND:

