

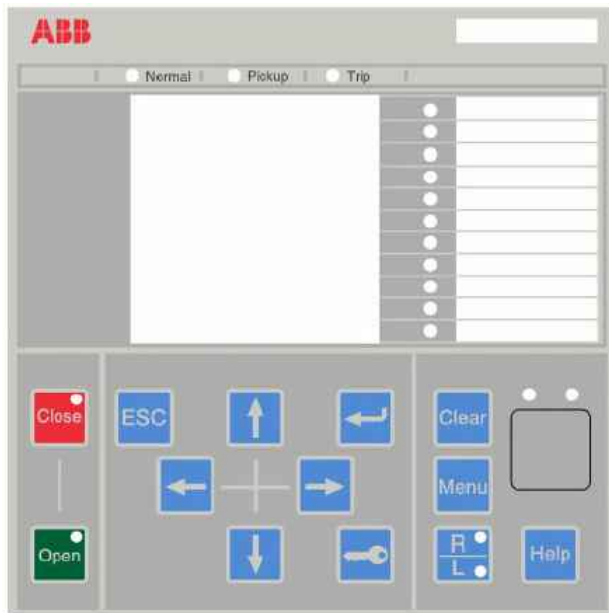
General Notes:

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

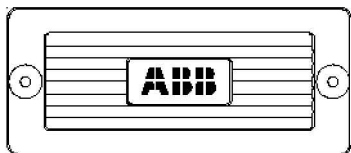
Notes:

1. Rotary Switch emulates drop down menu for "Pol Signal Sel" parameter setting in PCM600. Switch position shown for default setting (Neg Seq Volt).
2. "Pol Signal Sel" parameter setting "Calc Vo", and 59N(2) functions not applicable for open delta connected VTs.

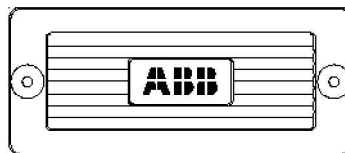
RET615_HATCCACAFFE1BNN1XE



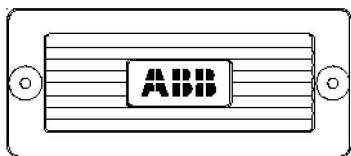
FT-1/TS1
Style No: 837A407G01
CODE No: 083



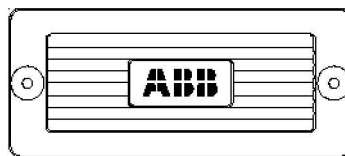
FT-1/TS2
Style No: 129A501G01
Code No: 001



FT-1/TS3
Style No: 774B430G20
CODE No: 171



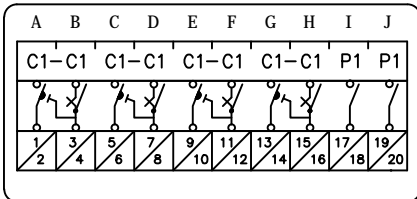
FT-1/TS4
Style No: 129A501G01
Code No: 001



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)

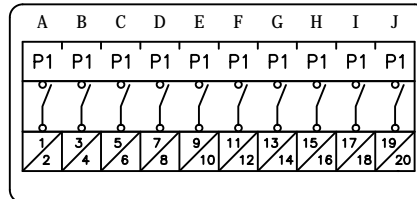
PHASE CURRENT
 ■ IA (1)
 PHASE CURRENT
 ■ IB (1)
 PHASE CURRENT
 ■ IC (1)
 GROUND CURRENT
 ■ IG



FT-1/TS1

(BREAKER 1 CURRENTS AND
 TRANSFORMER NEUTRAL CURRENT)

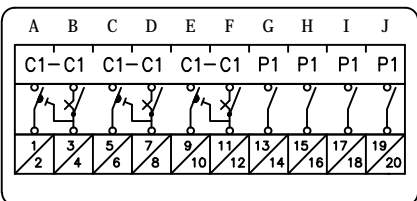
RELAY POS. VDC
 RELAY NEG. VDC
 52(1)_EXE_CL(PO1)
 86_94-1_TRIP/52(1)_EXE_OP(PO3)
 50BF(1)_TRBU/50BF(2)_TRBU(SO1)
 87T_TRIP(SO2)
 MAPGAPC1(38-1)_TRIP_WINDING(S01)
 MAPGAPC2(38-2)_TRIP_TOP_OIL(S02)
 CB1_POSITION_CLOSE(IN7)
 CB1_POSITION_OPEN(IN8)



FT-1/TS2

(POWER SUPPLY AND
 BREAKER 1 BINARY I/O)

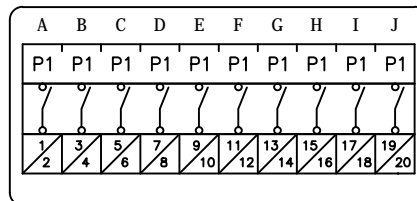
PHASE CURRENT
 ■ IA (2)
 PHASE CURRENT
 ■ IB (2)
 PHASE CURRENT
 ■ IC (2)
 PHASE VOLTAGE ■ VA (2)
 PHASE VOLTAGE ■ VB (2)
 PHASE VOLTAGE ■ VC (2)



FT-1/TS3

(BREAKER 2 CURRENTS AND BUS 2
 PHASE POTENTIALS)

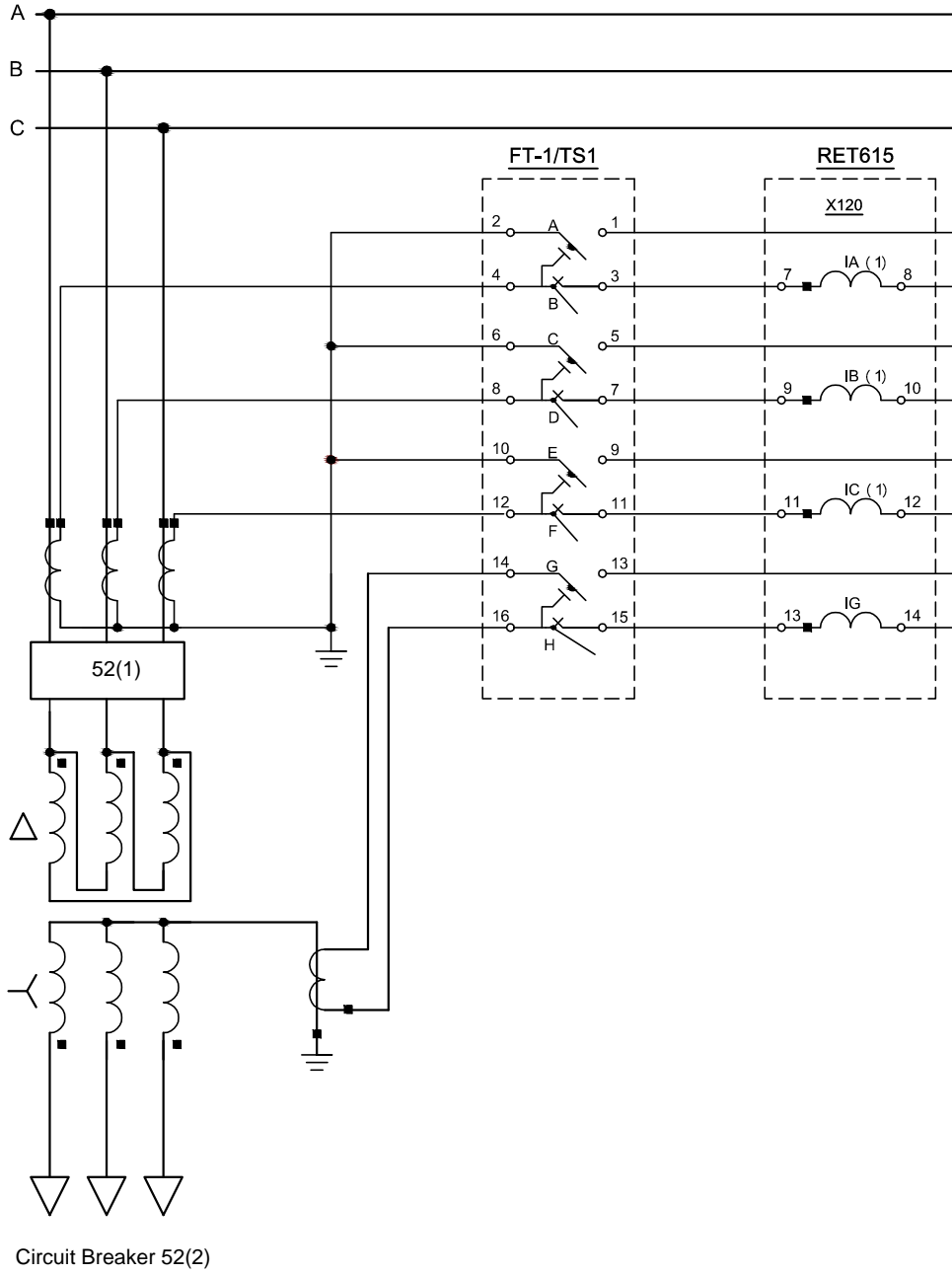
GROUND VOLTAGE ■ VG(2)
 52 (2) _EXE_CL_ (PO2)
 86_94-2_TRIP/52 (2) _EXE_OP (PO4)
 CB2_POSITION_CLOSE (IN5)
 CB2_POSITION_OPEN (IN6)

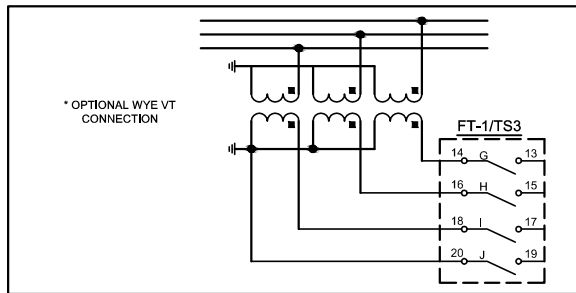
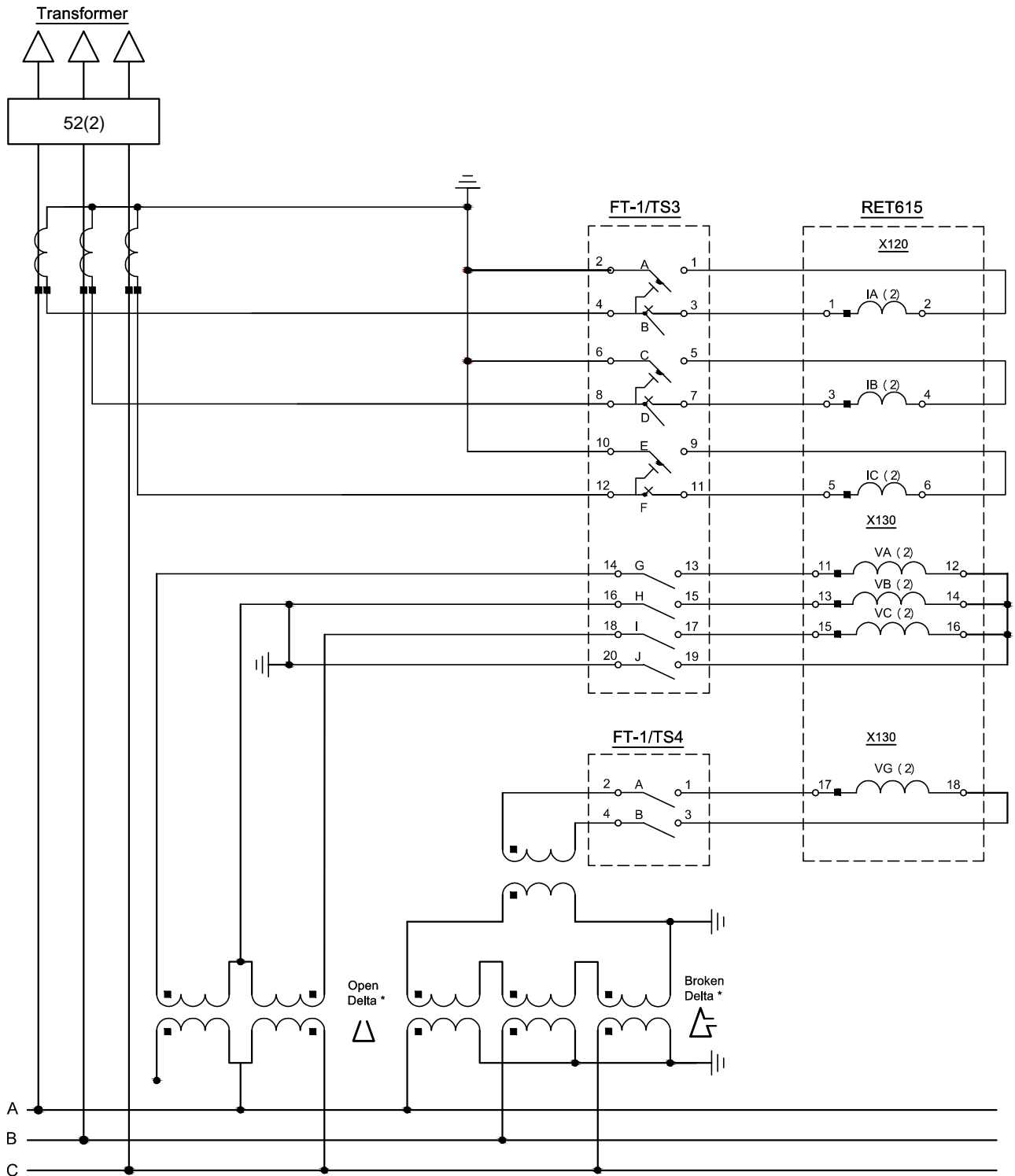


FT-1/TS4

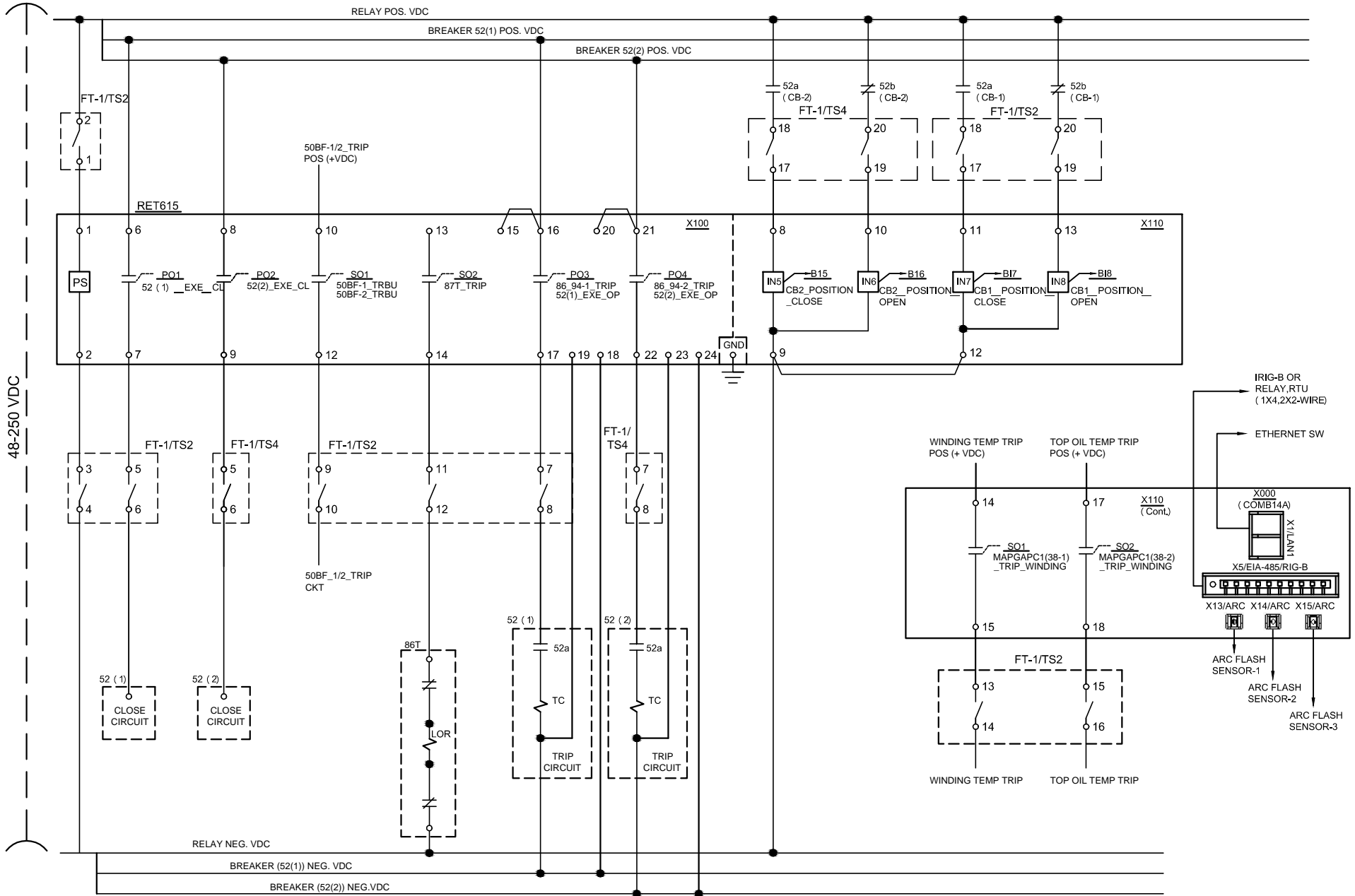
(BUS 2 GROUND POTENTIAL AND
 BREAKER 2 BINARY I/O)

RET615_HATCCACAFFE1BNN1XE





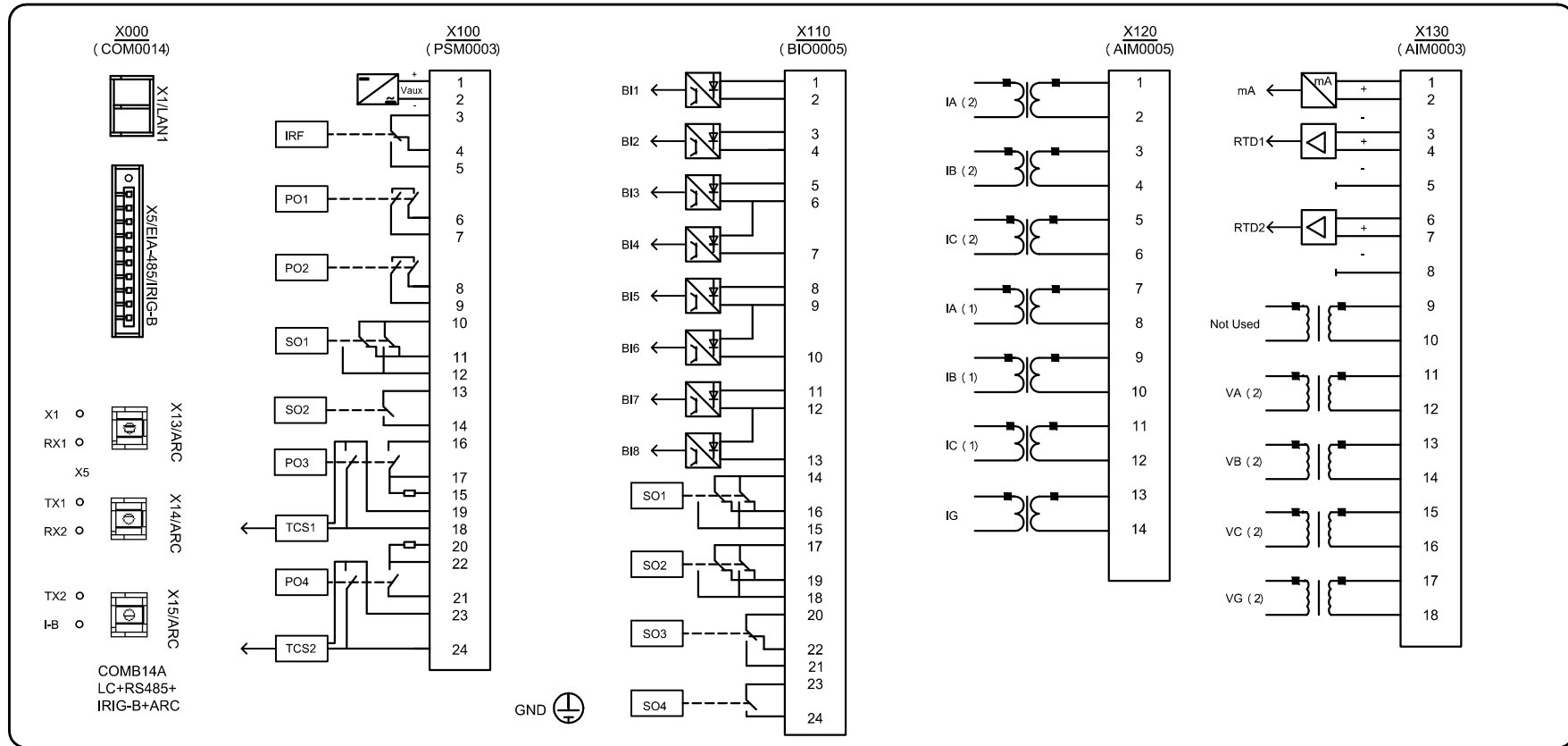
RET615_HATCCACAFFE1BNN1XE



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_HATCCACAFFE1BNN1XE



RR
RET615

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

X100-1: SS1
X100-2: SS3
X100-3:
X100-4:
X100-5:
X100-6:
X100-7: SS5
X100-8:
X100-9: UU5
X100-10:
X100-11:
X100-12: SS9
X100-13:
X100-14: SS11
X100-15: X100-16
X100-16: X100-15
X100-17: SS7
X100-18:
X100-19:
X100-20: X100-21
X100-21: X100-20
X100-22: UU7
X100-23:
X100-24:

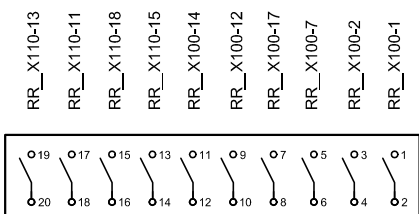
X110-1:
X110-2:
X110-3:
X110-4:
X110-5:
X110-6:
X110-7:
X110-8: UU17
X110-9: X110-12
X110-10: UU19
X110-11: SS17
X110-12: X110-9
X110-13: SS19
X110-14:
X110-15: SS13
X110-16:
X110-17:
X110-18: SS15
X110-19:
X110-20:
X110-21:
X110-22:
X110-23:
X110-24:

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

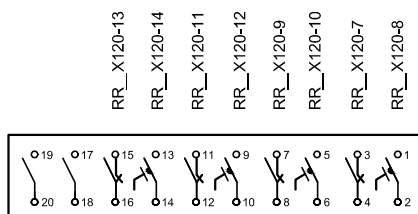
X130-1:
X130-2:
X130-3:
X130-4:
X130-5:
X130-6:
X130-7:
X130-8:
X130-9:
X130-10:
X130-11: VV13
X130-12: X130-14
X130-13: VV15
X130-14: X130-12, X130-16
X130-15: VV17
X130-16: X130-14, VV19
X130-17: UU1
X130-18: UU3

GND:

RET615_HATCCACAFFE1BNN1XE

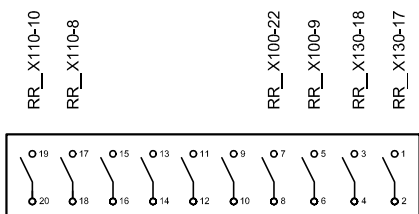


SS
FT-1/TS2

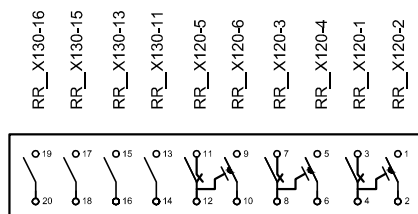


TT
FT-1/TS1

TT6
TT2, TT10
TT6



UU
FT-1/TS4



VV
FT-1/TS3

VV6
VV2, VV10
VV6