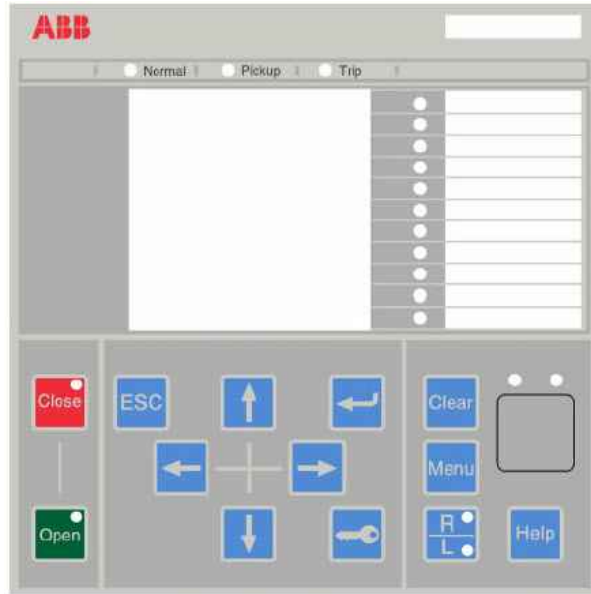


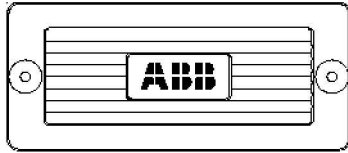
General Notes:

1. This drawing does not show all functions available in REF615 configuration A relay. The functions shown are for a distribution feeder application.
2. PCM600 ACT (Application Configuration Tool) logic is shown in default state.

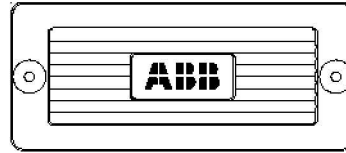
REF615_HAFAABABFFE1BCN1XE



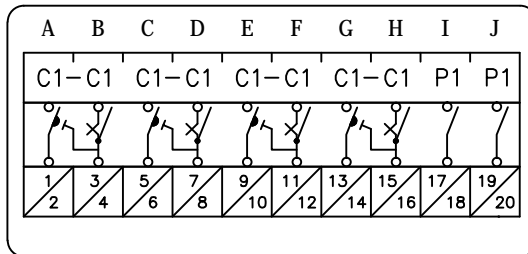
FT-1/TS1
Style No: 837A407G01
Code No: 083



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

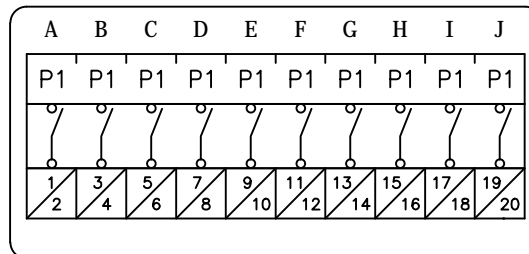


PHASE CURRENT
■ (IA)
PHASE CURRENT
■ (IB)
PHASE CURRENT
■ (IC)
GROUND CURRENT
■ (IG)



(CURRENTS)

RELAY POS.VDC
GRRELAY NEG.VDC
52_EXE_CL/79_CLOSE_CB (PO1)
50BF_TRBU (PO2)
86_94-1_TRIP/52_EXE_OP (PO3)
86_94-2_TRIP (PO4)
GROUND_BLOCKING (IN1)
CB_POSITION_CLOSE (IN2)
CB_POSITION_OPEN (IN3)
EXTERNAL_AR_BLOCKING (IN4)

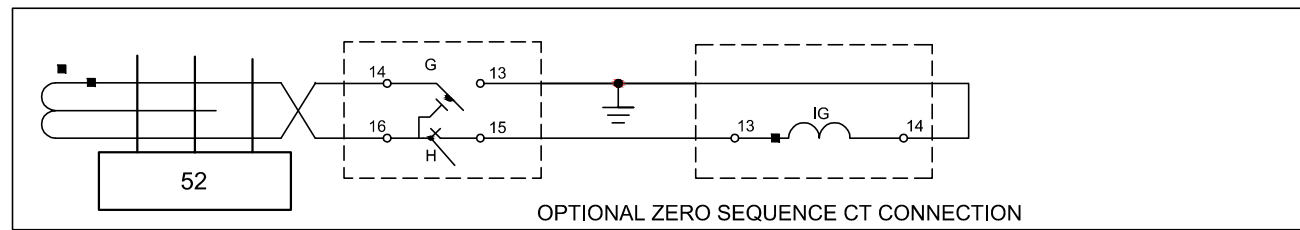
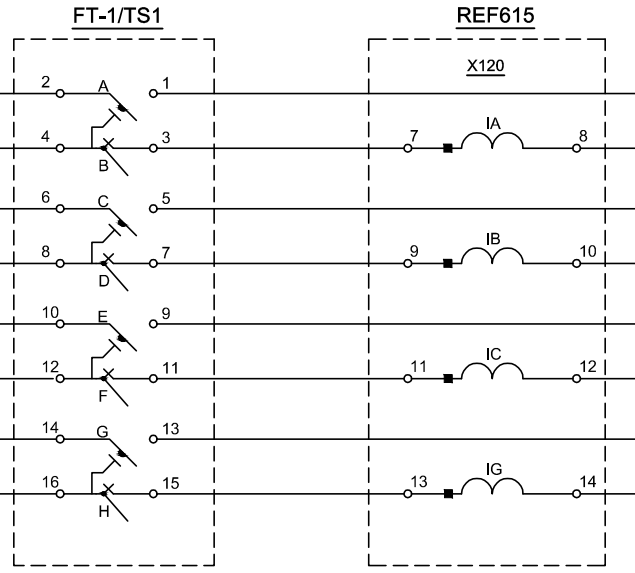
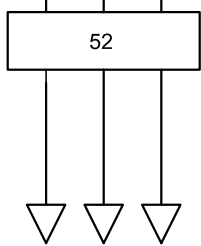
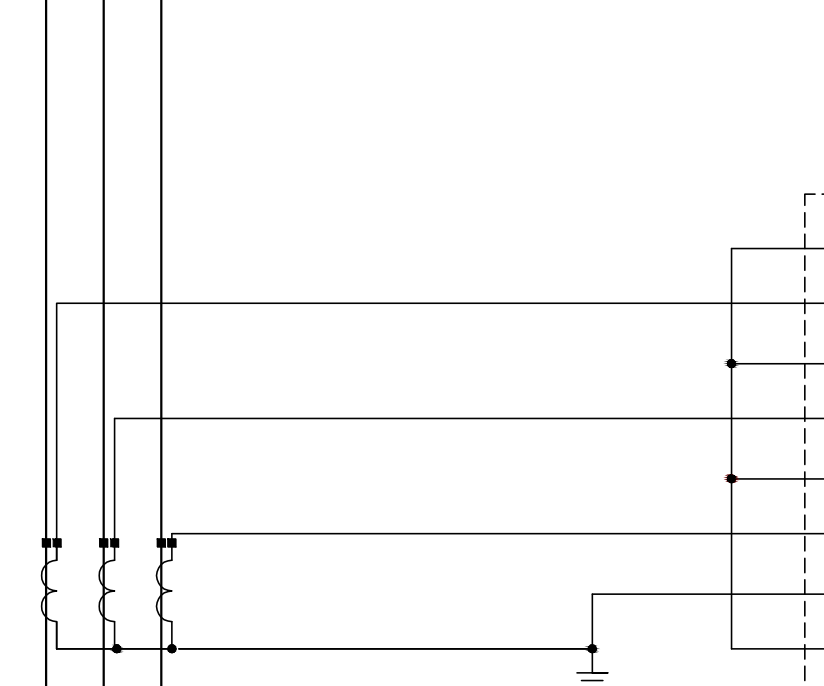
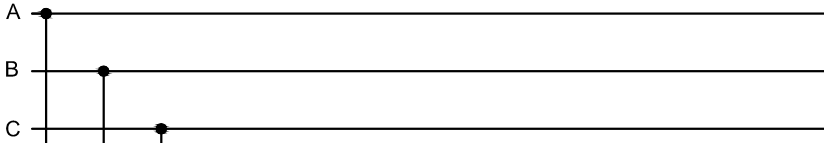


(POWER SUPPLY AND BINARY I/O)

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: MACCO51065-MB, Revision: D, Product version 4.0)

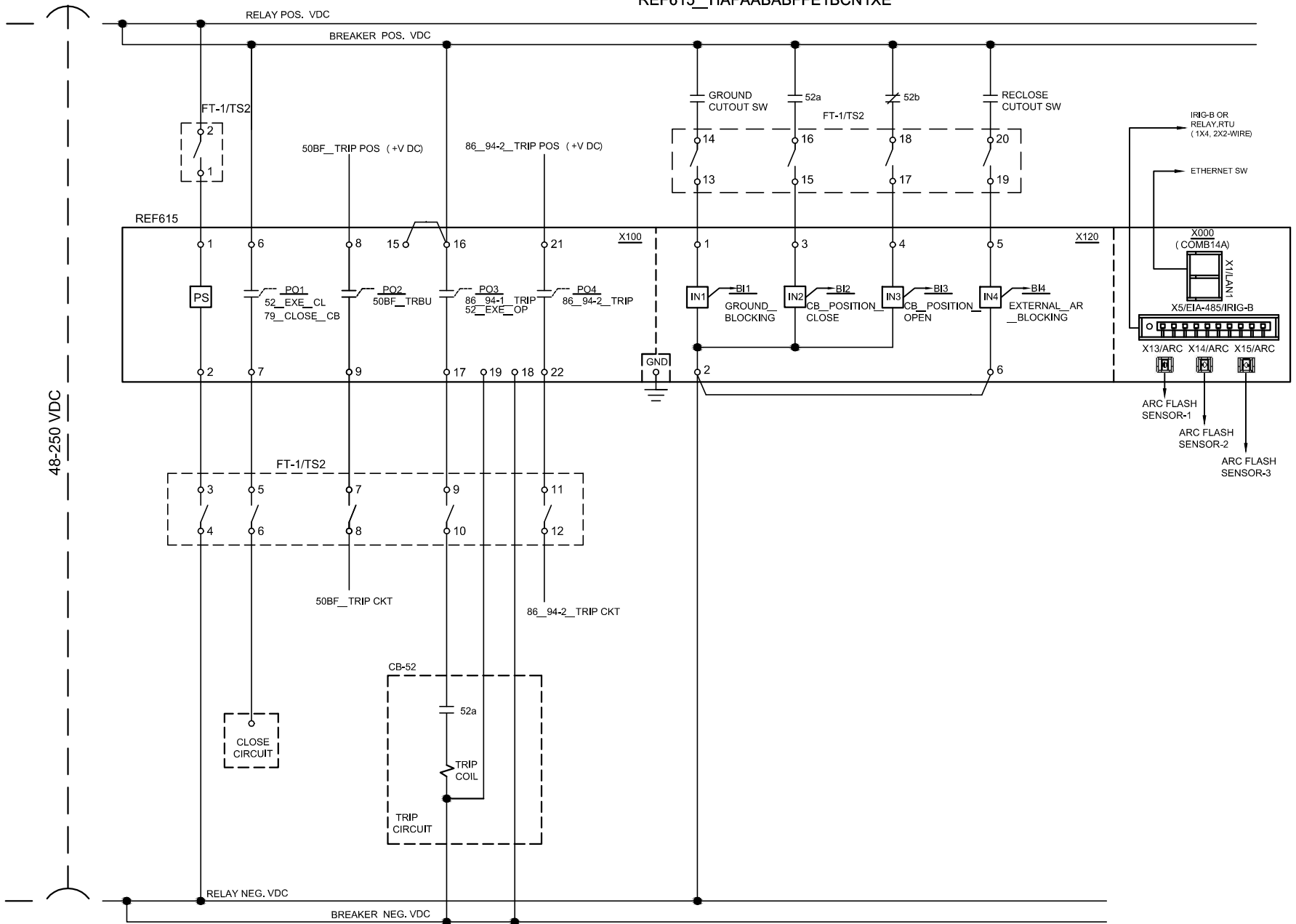
REF615_HAFAABABFFE1BCN1XE



OPTIONAL ZERO SEQUENCE CT CONNECTION



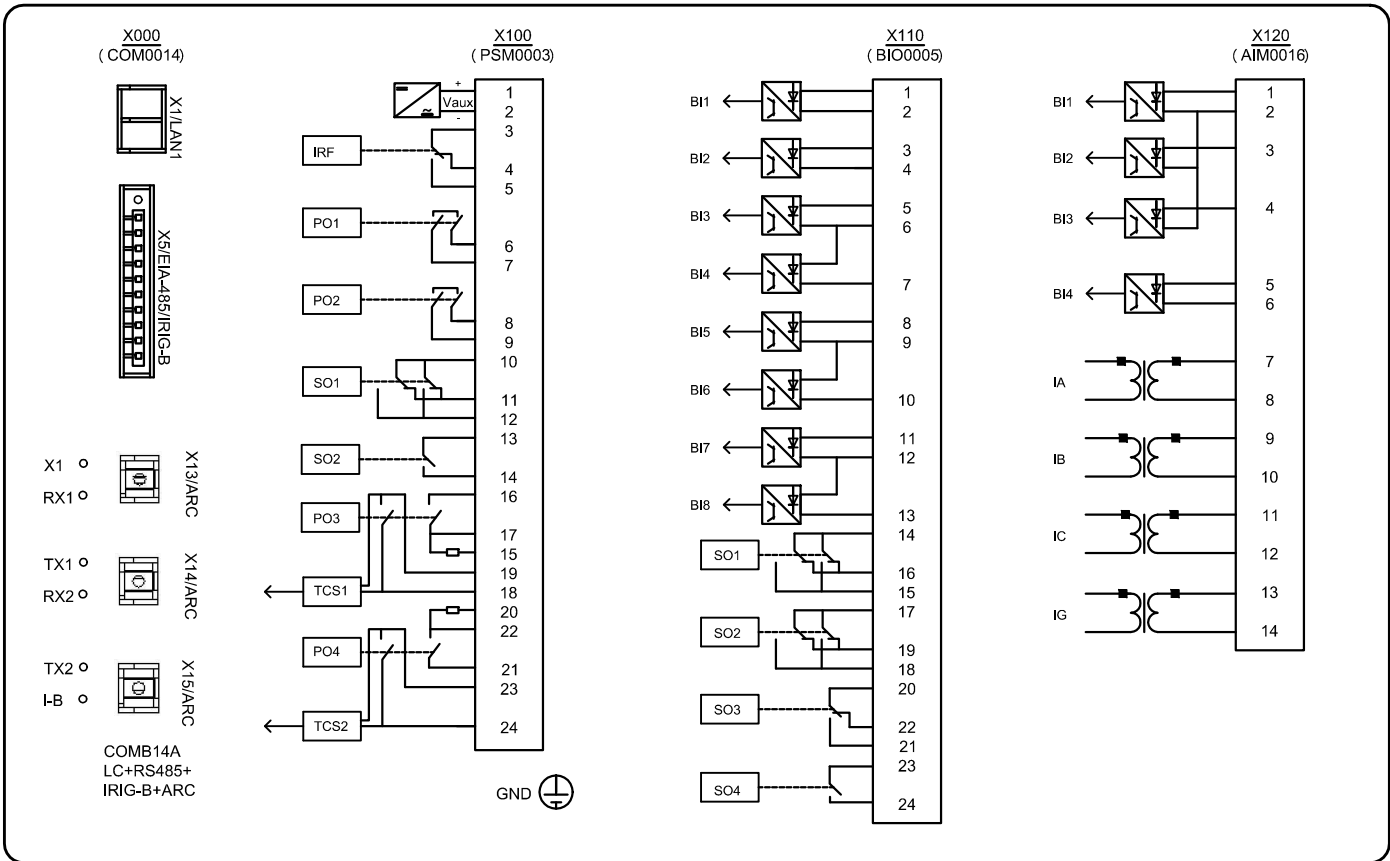
REF615_HAFAABABFFE1BCN1XE



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.

REF615_HAFAABABFFE1BCN1XE



RR
REF615

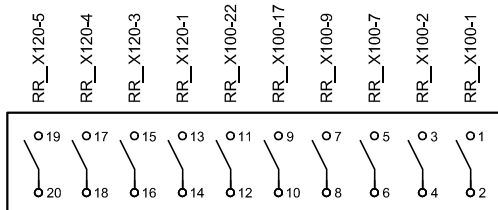
X000-X1:
X000-X5:
X000-X13:
X000-X14:
X000-X15:

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

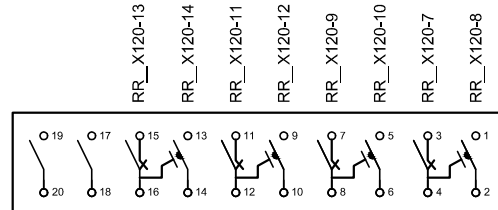
X110-1:
X110-2:
X110-3:
X110-4:
X110-5:
X110-6:
X110-7:
X110-8:
X110-9:
X110-10:
X110-11:
X110-12:
X110-13:
X110-14:
X110-15:
X110-16:
X110-17:
X110-18:
X110-19:
X110-20:
X110-21:
X110-22:
X110-23:
X110-24:

X120-1: SS13
X120-2: X120-6
X120-3: SS15
X120-4: SS17
X120-5: SS19
X120-6: X120-2
X120-7: TT3
X120-8: TT1
X120-9: TT7
X120-10: TT5
X120-11: TT11
X120-12: TT9
X120-13: TT15
X120-14: TT13

GND:



SS
FT-1/TS2



TT
FT-1/TS1

TT10

TT6, TT16

TT2, TT10

TT6