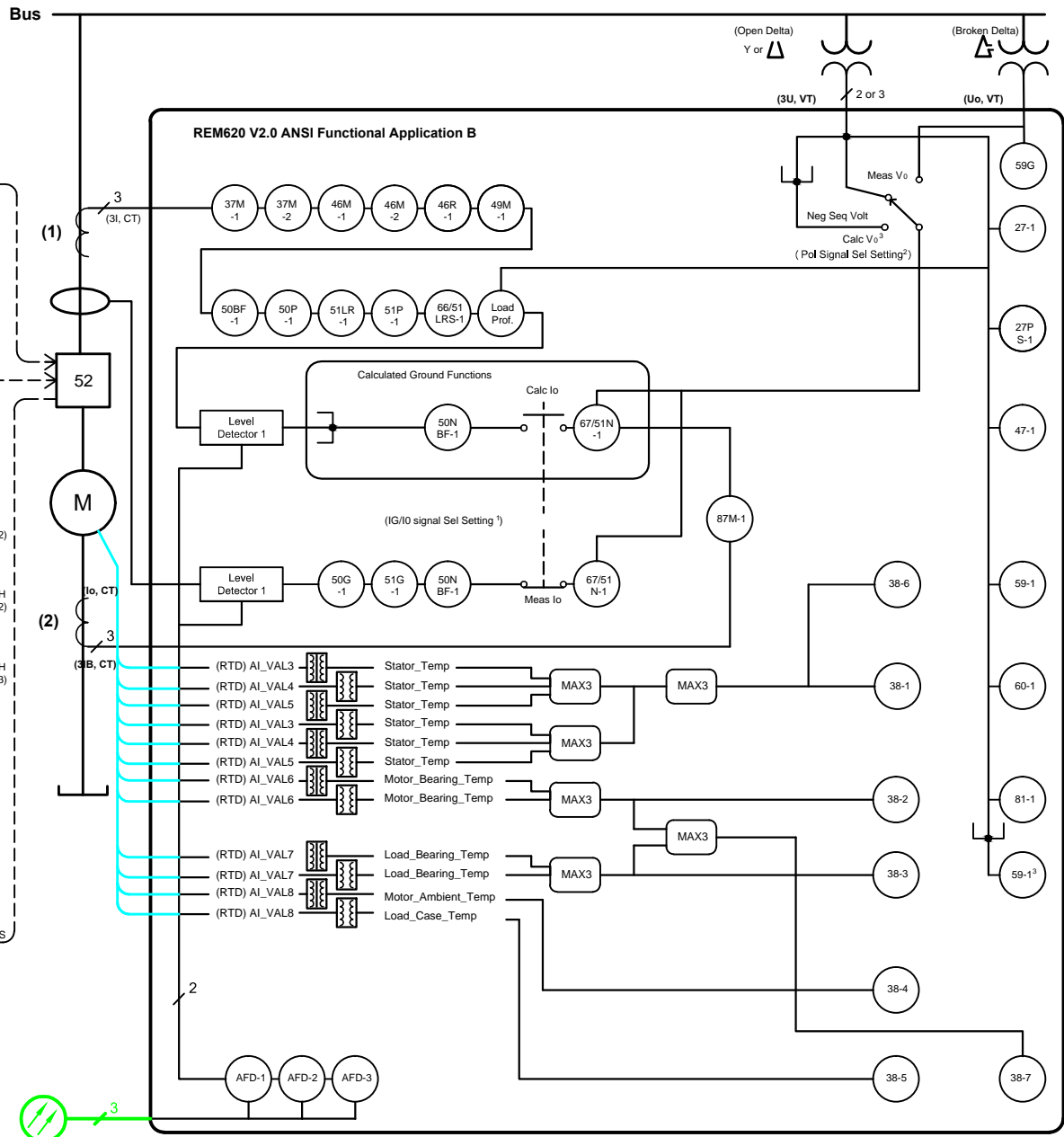
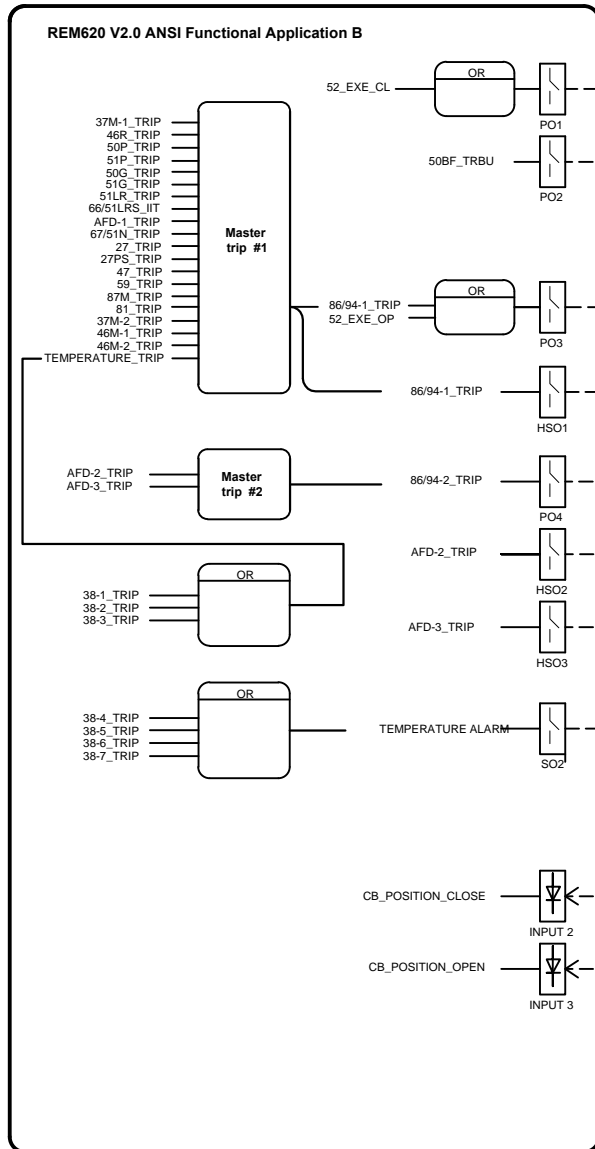


REM620_NAMBBAB1FFxxxNx1xx



Notes:

1. Latched pushbutton switch emulates drop down menu for "IG/I0 signal Sel" parameter in PCM600. Switch position shown for default setting (Meas Io).
2. Rotary switch emulates drop down menu for "Pol Signal Sel" parameter setting in PCM600. Switch position shown for default setting (Neg Seq Volt).
3. "Pol Signal Sel" parameter setting Calc Vo, and 59N-1 function not applicable for open delta connected VTs.

TITLE: **SINGLE LINE DIAGRAM (TYPICAL)**

RELAY ORDER CODE: **NAMBBAB1FFxxxNx1xx**

SOFTWARE TYPE:

AUTOCAD 2014

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SIZE DWG. NO.

A

1MAC602626-DR

REV.

A

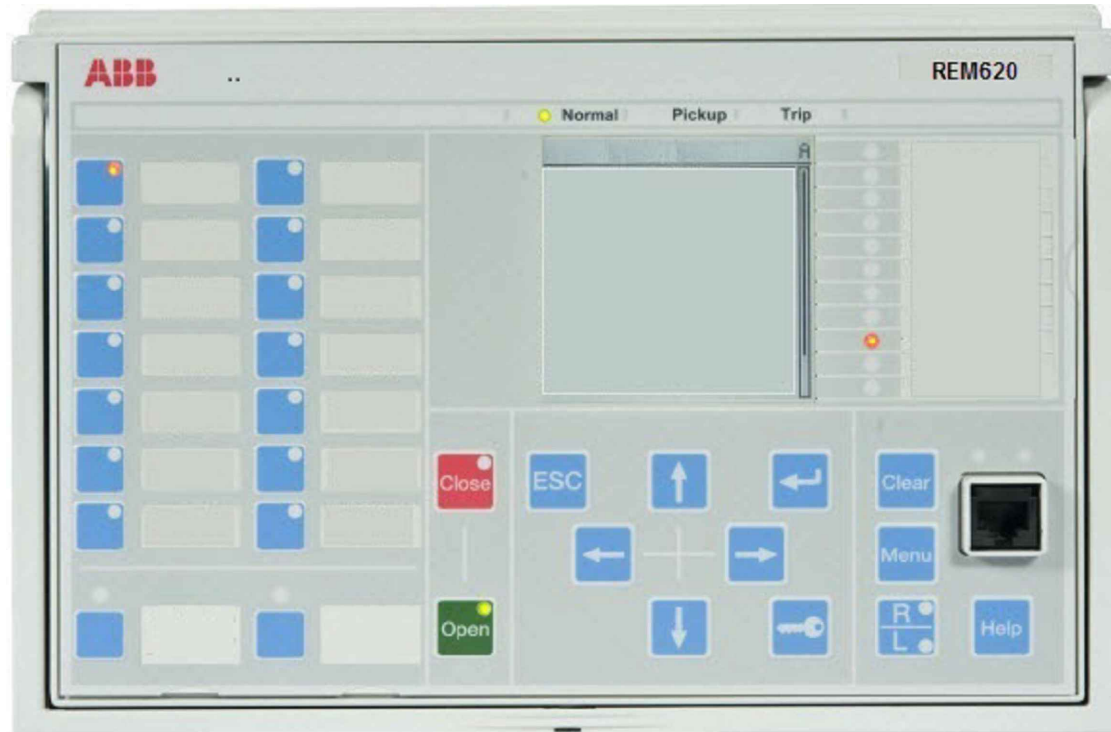


ABB Protective Relays and Switches, Coral Springs Fl, U.S.A.

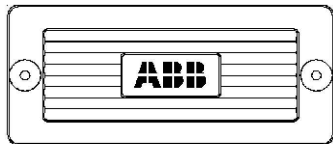
SCALE:

SHEET 1 OF 9

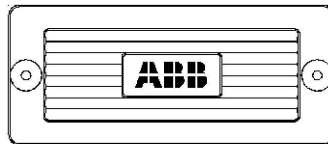
REM620_NAMBBAB1FFxxxNx1xx



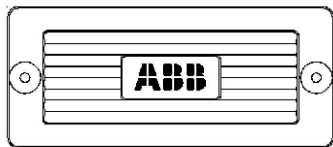
FT-1/TS1
Style No: 837A407G01
Code No: 083



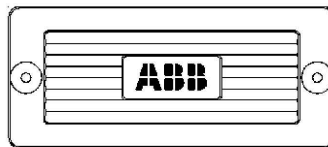
FT-1/TS2
Style No: 129A501G01
Code No: 001



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: 1MAC457436-iB, Revision: A, Product version 2.0)

TITLE: **FRONT PANEL ELEVATION**

RELAY ORDER CODE: **NAMBBAB1FFxxxNx1xx**

SOFTWARE TYPE:
AUTOCAD 2014

ABB Protective Relays and Switches, Coral Springs FL U.S.A.

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SIZE DWG. NO.
A

1MAC602626-DR

SCALE:

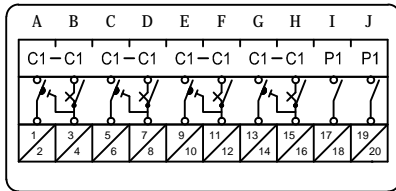
REV.
A

SHEET 2 OF 3



REM620_NAMBBAB1FFxxxNx1xx

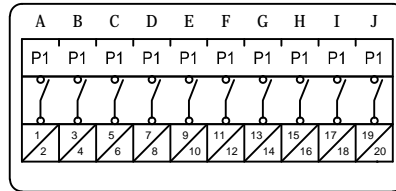
PHASE CURRENT
 ■ IA (1)
 PHASE CURRENT
 ■ IB (1)
 PHASE CURRENT
 ■ IC (1)
 GROUND CURRENT
 ■ IG
 RELAY POS. VDC
 RELAY NEG. VDC



FT-1/TS1

(CT (1) CURRENTS AND RELAY POWER SUPPLY)

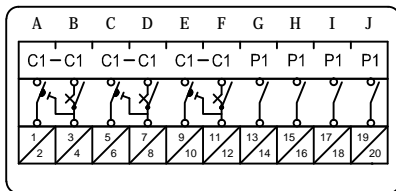
PHASE VOLTAGE ■ VA
 PHASE VOLTAGE ■ VB
 PHASE VOLTAGE ■ VC
 GROUND VOLTAGE ■ VG



FT-1/TS2

(POTENTIALS)

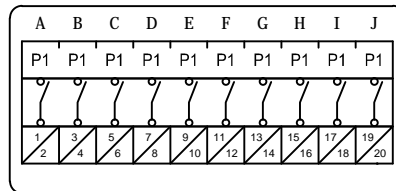
PHASE CURRENT
 ■ IA (2)
 PHASE CURRENT
 ■ IB (2)
 PHASE CURRENT
 ■ IC (2)



FT-1/TS3

(CT (2) CURRENTS)

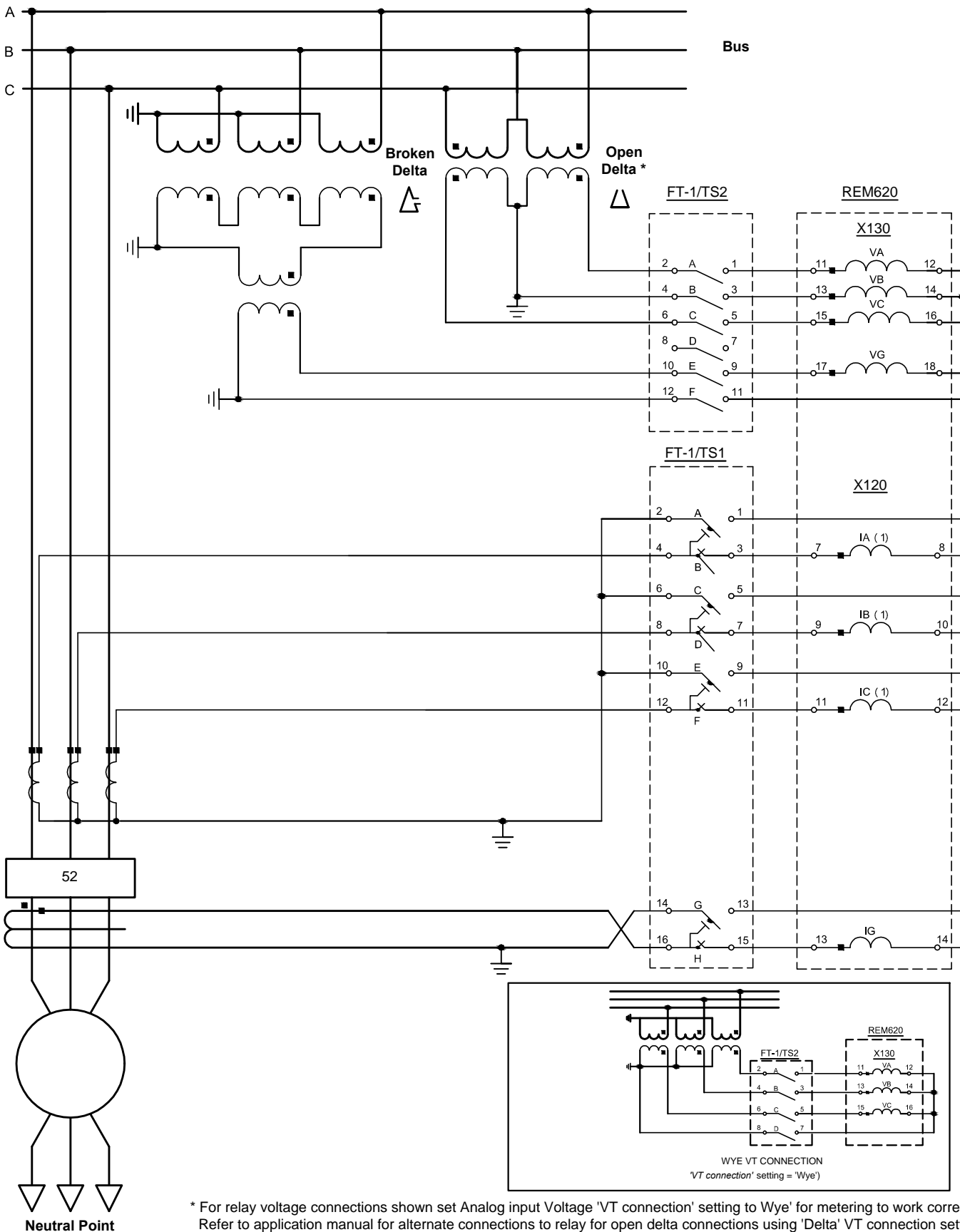
52_EXE_CL_ (PO1)
 50BF_TRBU (PO2)
 86_94-1_TRIP/52_EXE_OP (PO3)
 86_94-2_TRIP (PO4)
 TEMPERATURE_ALARM (SO2)
 86_94-1_TRIP (HSO1)
 AFD-2_TRIP (HSO2)
 AFD-3_TRIP (HSO3)
 CB_POSITION_CLOSE (IN2)
 CB_POSITION_OPEN (IN3)



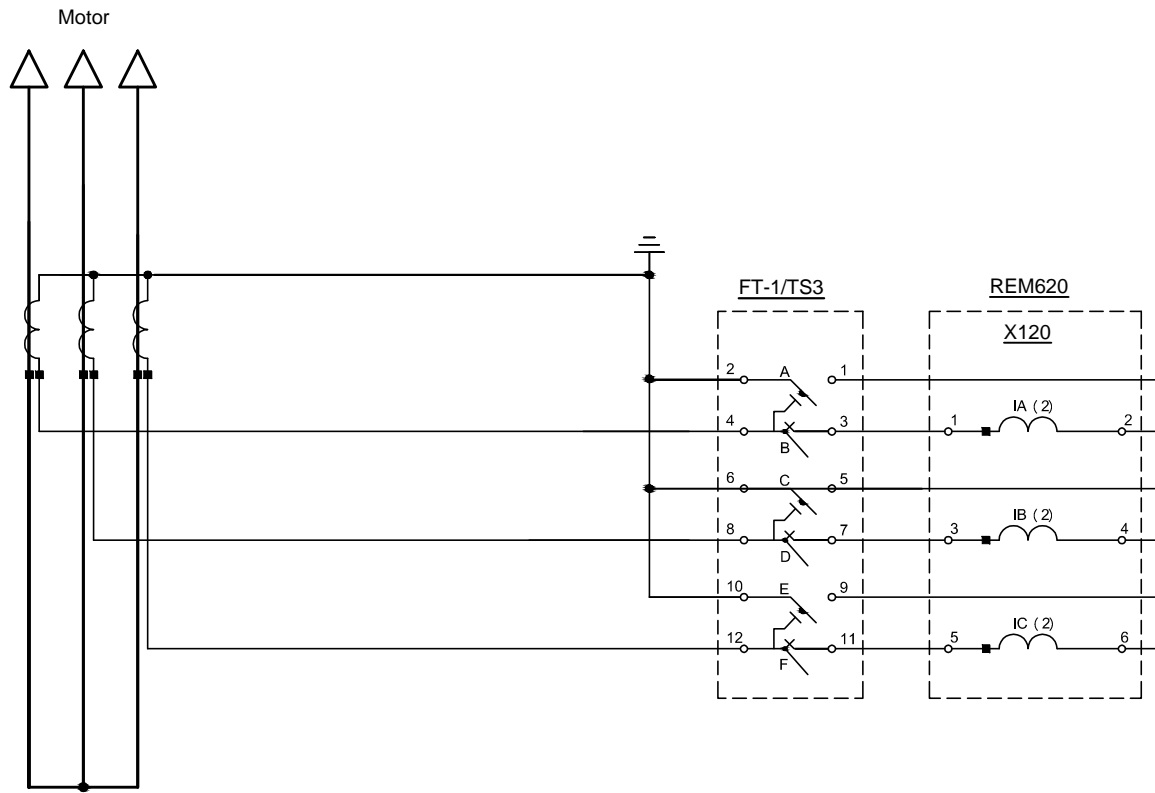
FT-1/TS4

(BINARY I/O AND HIGH SPEED OUTPUTS)

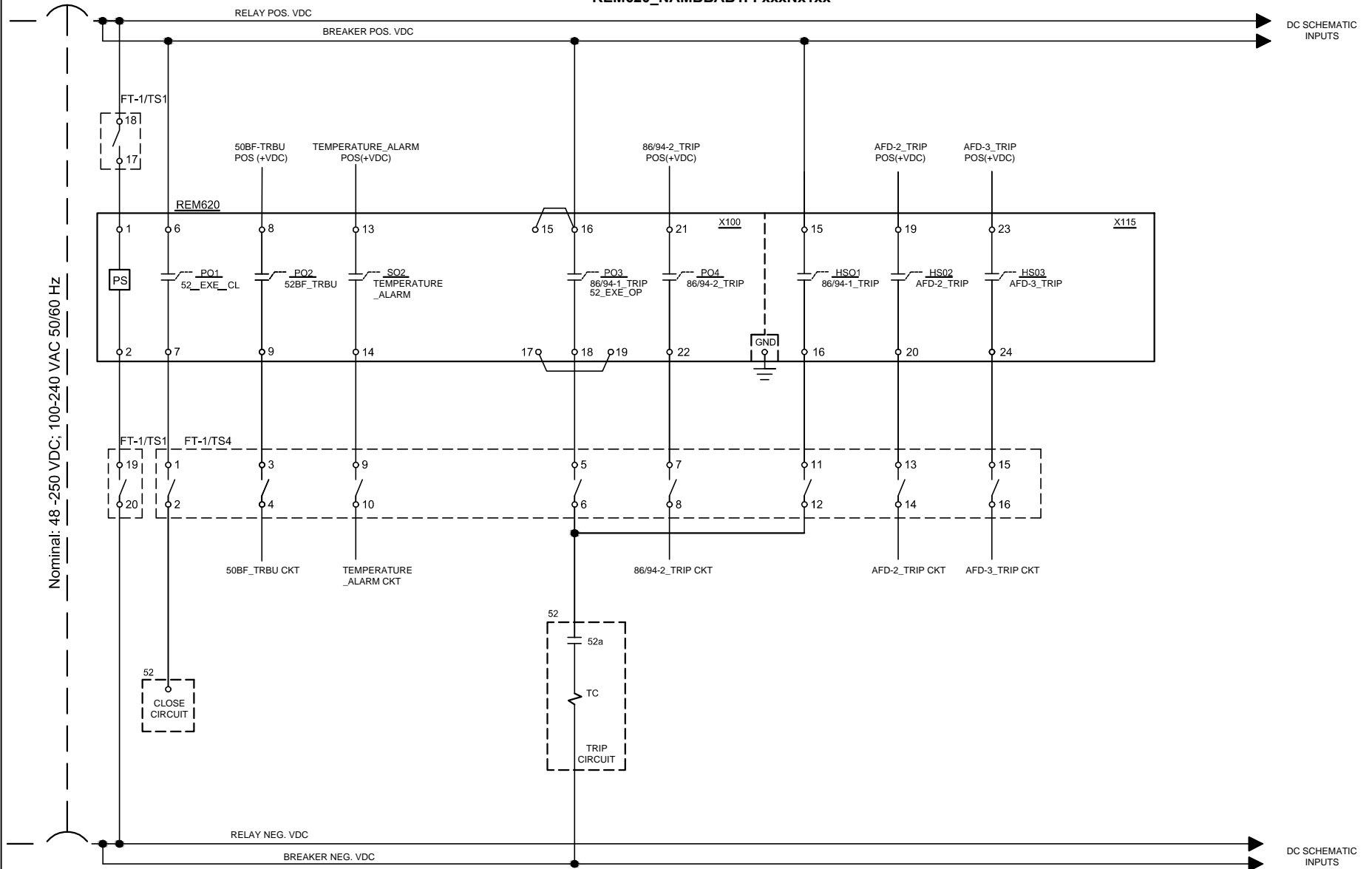
REM620_NAMBBAB1FFxxxNx1xx



* For relay voltage connections shown set Analog input Voltage 'VT connection' setting to 'Wye' for metering to work correctly. Refer to application manual for alternate connections to relay for open delta connections using 'Delta' VT connection setting.



REM620_NAMBBAB1FFxxxNx1xx



General Notes:

1. 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.
2. Connections are for Trip Circuit Supervision without an external resistor. For this application the Trip Circuit Monitoring function is blocked when the circuit breaker is open. Refer to technical manual for connections with an external resistor to monitor trip coil when breaker is open or closed.

TITLE: **DC SCHEMATIC - OUTPUTS, PS (TYPICAL)**

RELAY ORDER CODE: **NAMBBAB1FFxxxNx1xx**

SOFTWARE TYPE:
AUTOCAD 2014

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SIZE DWG. NO.
A

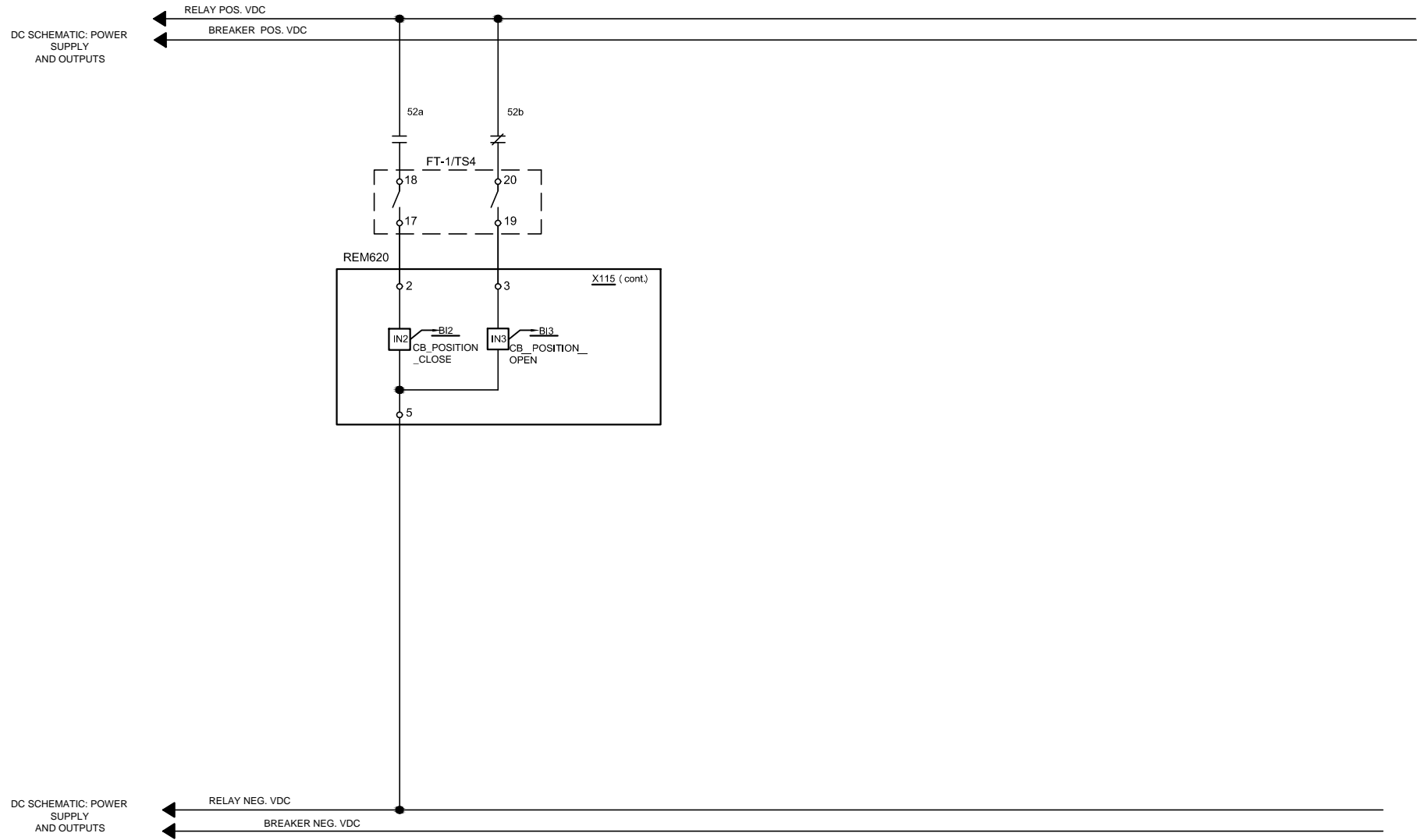
1MAC602626-DR

REV.
B



SHEET 6 OF 9

REM620_NAMBBAB1FFxxxNx1xx



TITLE: DC SCHEMATIC - INPUTS (TYPICAL)

RELAY ORDER CODE: NAMBBAB1FFxxxNx1xx

SOFTWARE TYPE:
AUTOCAD 2014

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SIZE DWG. NO.
A

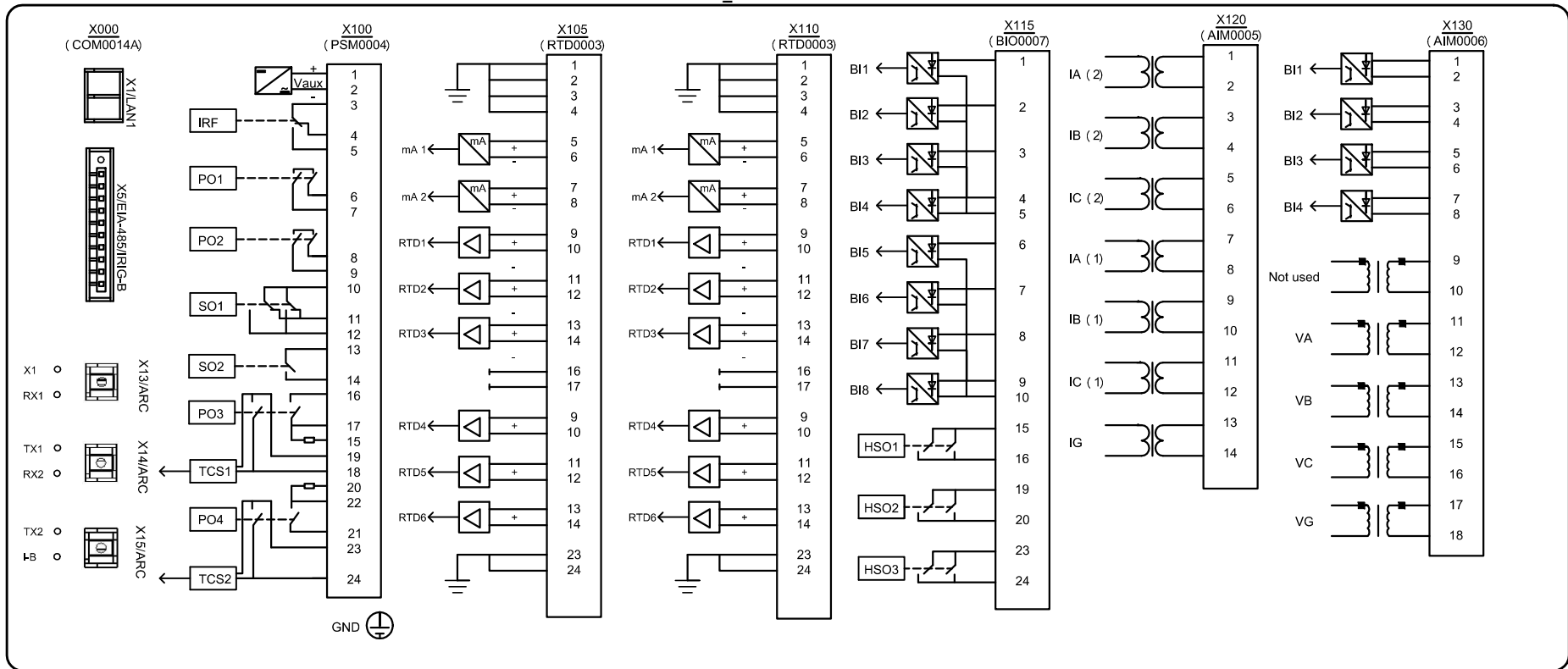
1MAC602626-DR

REV.
B

SHEET 7 OF 9



REM620_NAMBBAB1FFxxNx1xx



RR
REM620

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: UU1
X100-8:
X100-9: UU3
X100-10:
X100-11:
X100-12:
X100-13:
X100-14: UU9
X100-15: X100-16
X100-16: X100-15
X100-17: X100-19
X100-18: UU5
X100-19: X100-17
X100-20:
X100-21:
X100-22: UU7
X100-23:
X100-24:

X105-1:
X105-2: TT17
X105-3:
X105-4:
X105-5:
X105-6:
X105-7:
X105-8:
X105-9:
X105-10:
X105-11:
X105-12:
X105-13:
X105-14:
X105-15:
X105-16:
X105-17:
X105-18:
X105-19:
X105-20:
X105-21:
X105-22:
X105-23:
X105-24:

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:
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X110-21:
X110-22:
X110-23:
X110-24:

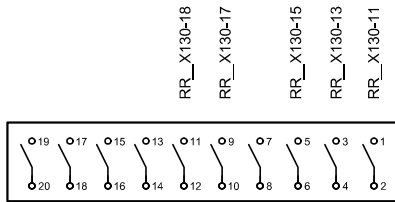
X115-1:
X115-2: UU17
X115-3: UU19
X115-4:
X115-5:
X115-6:
X115-7:
X115-8:
X115-9:
X115-10:
X115-11:
X115-12:
X115-13:
X115-14:
X115-15:
X115-16: UU11
X115-17:
X115-18:
X115-19:
X115-20: UU13
X115-21:
X115-22:
X115-23:
X115-24: UU15

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

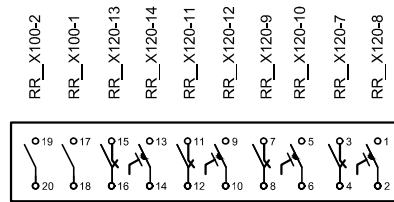
X130-1:
X130-2:
X130-3:
X130-4:
X130-5:
X130-6:
X130-7:
X130-8:
X130-9:
X130-10:
X130-11: SS1
X130-12: X130-14
X130-13: SS3
X130-14: X130-12, X130-16
X130-15: SS5
X130-16: X130-14
X130-17: SS9
X130-18: SS11

GND:

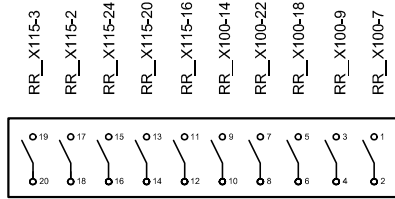
REM620_NAMBBAB1FFxxxNx1xx



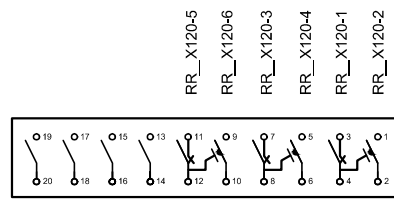
SS
FT-1/TS2



TT
FT-1/TS1



UU
FT-1/TS4



WV
FT-1/TS3