

THREE PHASE WIRING FOR ASCO® 300 SERIES TRANSFER SWITCHES TYPES H3ATS & H3NTS RATED 800, 1000 & 1200 AMPERES

GENERAL INFORMATION

THIS WIRING APPLIES TO 300 SERIES TRANSFER SWITCHES THAT UTILIZE THE "H" FRAME POWER TRANSFER SWITCH RATED 800-1200 AMPERES.

THE GROUP G CONTROLLER PROVIDES EITHER AUTOMATIC (D3ATS) OR NON-AUTOMATIC [MANUAL] (H3NTS) OPERATION BASED ON ITS FACTORY SETTING ACCORDING TO THE CUSTOMER ORDER REQUIREMENTS.

THE TYPE OF TRANSFER SWITCH PROVIDED CAN BE DETERMINED FROM THE PRODUCT IDENTIFICATION MARKINGS LOCATED ON BOTH THE POWER TRANSFER SWITCH AND THE COVER OF THE GROUP G CONTROLLER.

ALL OPERATIONAL SETTINGS AND SEQUENCES OF THE GROUP G CONTROLLER AND ITS RELATED OPTIONAL ACCESSORIES (1UP, 18RX, 23G) ARE PROVIDED IN THE USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400.

INFORMATION FOR INSTALLATION AND TESTING OF THE TRANSFER SWITCH IS PROVIDED IN THE INSTALLATION MANUAL, ASCO 3ATS & 3NTS, H-DESIGN 800-1200 A TRANSFER SWITCHES, PART NUMBER 381333-405.

ENGINE CONTROL CONTACTS

FEATURE 7 & FEATURE 8:

ONE SET OF FORM C CONTACTS "NR" (FEAT. 7 N/C, FEAT. 8 N/O) THAT CHANGE POSITION ON EXPIRATION OF THE FEATURE 1C, OVERRIDE MOMENTARY NORMAL SOURCE OUTAGES TIME DELAY, AND RESET ON EXPIRATION OF THE FEATURE 2E ENGINE COOLDOWN TIME DELAY.

AN ADDITIONAL SET OF ENGINE STARTING CONTACTS ARE AVAILABLE ON THE GROUP G CONTROLLER WHEN THE FEATURE SETTING OF THE CONTROLLER OUTPUT CONTACTS "OP1" IS SET TO OPERATE AS "NR2".

ADDITIONAL, OPTIONAL ENGINE STARTING CONTACTS "NR2" ARE AVAILABLE WHEN OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY.

CONTACTS ARE RATED 5 AMPS RESISTIVE AT 30 VDC MAXIMUM, 100 mA AT 5 VDC MINIMUM.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

LOAD DISCONNECT FEATURE

FEATURE 31: INCLUDES SUB-FEATURES 31F, 31G, 31M, 31N

A SET OF FORM C CONTACTS ARE PROVIDED ON THE GROUP G CONTROLLER AS "OP1". WHEN THE FEATURE SETTING OF "OP1" IS SET TO OPERATE THE CONTACTS AS "FEATURE 31", THE TIME DELAY SETTINGS OF THE SUB-FEATURES ARE AVAILABLE.

"OP1" CAN BE SET TO OPERATE TO PROVIDE THE FOLLOWING FUNCTIONS USING THE TIME DELAY SETTINGS ASSOCIATED WITH EACH SUB-FEATURE:

- 31F - NORMAL TO EMERGENCY PRE-TRANSFER SIGNAL
31G - EMERGENCY TO NORMAL PRE-TRANSFER SIGNAL
31M - NORMAL TO EMERGENCY POST-TRANSFER SIGNAL
31N - EMERGENCY TO NORMAL POST TRANSFER SIGNAL

THE "OP1" OUTPUT CONTACTS CHANGE POSITION FOLLOWING EACH OF THE ABOVE TIME DELAYS.

ADDITIONAL LOAD DISCONNECT CONTACTS, "FEATURE 31" ARE AVAILABLE WHEN OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY.

ALL OUTPUT CONTACTS ("OP1", "OP2", "OP3") SET TO OPERATE AS "FEATURE 31", SHARE THE COMMON TIME DELAY SETTINGS OF SUB-FEATURES 31F, 31G, 31M, AND 31N.

CONTACTS ARE RATED 5 AMPS RESISTIVE AT 30 VDC MAXIMUM, 100 mA AT 5 VDC MINIMUM.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

INPHASE TRANSFER FEATURE FOR LOAD TRANSFER

INPHASE TRANSFER CONTROL INITIATES AN INPHASE TRANSFER OF LOADS BETWEEN LIVE SOURCES. THIS IS USED TO PREVENT NUISANCE TRIPPING OF DISTRIBUTION CIRCUIT BREAKERS AND POSSIBLE DAMAGE TO MECHANICAL LOADS ASSOCIATED WITH OUT OF PHASE TRANSFER.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

SOURCE AVAILABILITY SIGNALS

SIGNALS INDICATING THE AVAILABILITY OF THE NORMAL & EMERGENCY SOURCES IS PROVIDED WHEN OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY.

CONTACTS ARE RATED 5 AMPS RESISTIVE AT 30 VDC MAXIMUM, 100 mA AT 5 VDC MINIMUM.

COMMON ALARM & NOT IN AUTO SIGNALING FEATURES

A SET OF FORM C CONTACTS IS PROVIDED ON THE GROUP G CONTROLLER AS "OP1". THE FEATURE SETTING OF "OP1" CAN BE SET TO OPERATE THE CONTACTS AS A "NOT IN AUTO" SIGNAL.

WHEN "OP1" IS SET FOR "NOT IN AUTO", THE OUTPUT CONTACTS CHANGE POSITION WHEN THE TRANSFER IS BEING INHIBITED FROM TRANSFERRING TO THE EMERGENCY SOURCE (FEATURE 34B) OR THE TRANSFER SWITCH HAS BEEN SET FOR NON-AUTOMATIC (MANUAL) OPERATION.

WHEN OPTIONAL ACCESSORY 11BE "SOFTWARE BUNDLE" IS PART OF THE TRANSFER SWITCH ASSEMBLY, "OP1" MAY ALTERNATIVELY SET FOR A "COMMON ALARM" SIGNAL.

ADDITIONAL "COMMON ALARM" AND "NOT IN AUTO" CONTACTS ARE AVAILABLE WHEN OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY.

CONTACTS ARE RATED 5 AMPS RESISTIVE AT 30 VDC MAXIMUM, 100 mA AT 5 VDC MINIMUM.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

EXTERNAL POWER SUPPLY COMPATIBILITY

USE OF AN EXTERNAL POWER SUPPLY IS USEFUL WHEN REQUIRED TO EXTEND THE FOLLOWING CONTROLLER TIME DELAYS BEYOND 6 SECONDS;

- FEATURE 1C - OVERRIDE MOMENTARY NORMAL SOURCE OUTAGES
FEATURE 1F - OVERRIDE MOMENTARY EMERGENCY SOURCE OUTAGES

AN EXTERNAL POWER SUPPLY IS ALSO USEFUL WHEN THE TRANSFER SWITCH IS USED WITH COMMUNICATIONS FEATURES BY ENABLING THE CONTROLLER TO CONTINUE COMMUNICATING.

AN EXTERNAL POWER SOURCE MAY BE PROVIDED TO THE CONTROLLER, UNTIL THE NORMAL SOURCE OR EMERGENCY SOURCE IS AVAILABLE, BY USE OF;

- AN EXTERNAL 24 VDC POWER SUPPLY WITH ACCESSORY 18RX (RELAY EXPANSION MODULE) OR
- OPTIONAL ACCESSORY 1UP (UNINTERRUPTIBLE POWER SUPPLY MODULE)

EXTERNAL 24 VDC POWER SUPPLY "1G":

AN EXTERNAL 24 VDC POWER SUPPLY MAY BE USED TO POWER THE CONTROLLER WHEN ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY.

REMOVE JUMPERS "J1" 1-2 & "J1" 3-4
CONNECT JUMPERS "J1" 5-7 & "J1" 6-8

THE OUTPUT CONTACTS CHANGE POSITION WHEN EITHER THE NORMAL SOURCE OR EMERGENCY SOURCE IS AVAILABLE AND RESET WHEN NEITHER SOURCE IS AVAILABLE.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

ACCESSORY 1UP (UNINTERRUPTIBLE POWER SUPPLY):

WHEN OPTIONAL ACCESSORY 1UP IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY, THE CONTROLLER IS PROVIDED WITH LIMITED RESERVE POWER (APPROXIMATELY 3 MINUTES).

LOAD CURRENT METERING

WHEN OPTIONAL ACCESSORY 23GB IS PART OF THE TRANSFER SWITCH ASSEMBLY, THREE PHASE CURRENT MEASUREMENTS ARE AVAILABLE FOR DISPLAY ON THE GROUP G CONTROLLER.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR INFORMATION ON USE.

ADVANCED-FUNCTION SOFTWARE BUNDLE

WHEN OPTIONAL ACCESSORY 11BE IS PART OF THE TRANSFER SWITCH ASSEMBLY, AN ADVANCED-FUNCTION SOFTWARE BUNDLE IS AVAILABLE TO PERFORM THE FOLLOWING FUNCTIONS:

- SERIAL COMMUNICATIONS (RS-485)
- PROGRAMMABLE ENGINE EXERCISER
- EVENT LOG
- COMMON ALARM SIGNAL CAPABILITY ON GROUP G CONTROLLER "OP1" OUTPUT.

- (3 PHASE SENSING ONLY)
- 3 PHASE EMERGENCY SOURCE SENSING.
- PHASE ROTATION SENSING.
- EMERGENCY VOLTAGE UNBALANCE SENSING.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR INFORMATION ON THESE FUNCTIONS.

NON-AUTOMATIC (MANUAL) OPERATION

TRANSFER SWITCH ASSEMBLIES FACTORY SET FOR NON-AUTOMATIC OPERATION PROVIDE USER INITIATED, ELECTRICAL OPERATION OF THE TRANSFER SWITCH TO EITHER AVAILABLE SOURCE. THE TRANSFER SWITCH ASSEMBLY IS PHYSICALLY IDENTICAL TO THAT OF THE AUTOMATIC TYPE.

WHEN THE TRANSFER SWITCH IS SET FOR NON-AUTOMATIC OPERATION, A CUSTOMER PROVIDED SELECTOR SWITCH MAY BE USED TO OPERATE IT FROM A REMOTE LOCATION.

REMOTE CONTROL FEATURES

THE FOLLOWING CONTROL PANEL INPUTS PROVIDE REMOTE CONTROL FUNCTIONS FOR THE TRANSFER SWITCH. EACH FUNCTION CAN BE IMPLEMENTED BY THE CUSTOMER PROVIDING THE FORM OF CONTROL DESCRIBED. EACH CONTROL CONTACT MUST BE SUITABLE FOR A 5 VDC LOW ENERGY CIRCUIT.

EXTERNAL FEATURE 17: REMOTE TRANSFER TO EMERGENCY FEATURE (FOR AUTOMATIC TRANSFER TYPE ONLY) - REQUIRES A CUSTOMER SUPPLIED, NORMALLY CLOSED CONTACT.

EXTERNAL FEATURE 6B: REMOTE BYPASS OF RETRANSFER TO NORMAL TIME DELAY - REQUIRES A CUSTOMER SUPPLIED, NORMALLY CLOSED CONTACT.

REFER TO USER'S GUIDE, ASCO GROUP G CONTROLLER FOR AUTOMATIC & NON-AUTOMATIC TRANSFER SWITCHES, PART NUMBER 381333-400 FOR SETTING INFORMATION.

NOTES

- 1. SWITCH SHOWN DE-ENERGIZED CONNECTED TO NORMAL SOURCE.
2. DEVICE SYMBOLS AND DESIGNATIONS ARE IN ACCORDANCE WITH NEMA PUB. ICS 1, PART 1-101A.
3. ALL WIRING IS #16 AWG, TINNED, STRANDED COPPER UNLESS OTHERWISE INDICATED.
4. O INDICATES CUSTOMER CONNECTION POINTS.
5. ● INDICATES FACTORY CONNECTION POINTS.
6. CONNECTION POINTS THAT HAVE BOTH CUSTOMER CONNECTIONS AND FACTORY CONNECTIONS ARE SHOWN OPEN AS CUSTOMER CONNECTION POINTS.
7. AN OPERATOR'S MANUAL IS FURNISHED WITH EACH AUTOMATIC TRANSFER SWITCH. REFER TO THIS PUBLICATION PRIOR TO INSTALLATION AND OPERATION OF THE SWITCH.
8. GROUND STRAP ON CONTROL PANEL IS AFFIXED TO CHASSIS (ENCLOSURE) AT LOWER LEFT CONTROL PANEL MOUNTING STUD.

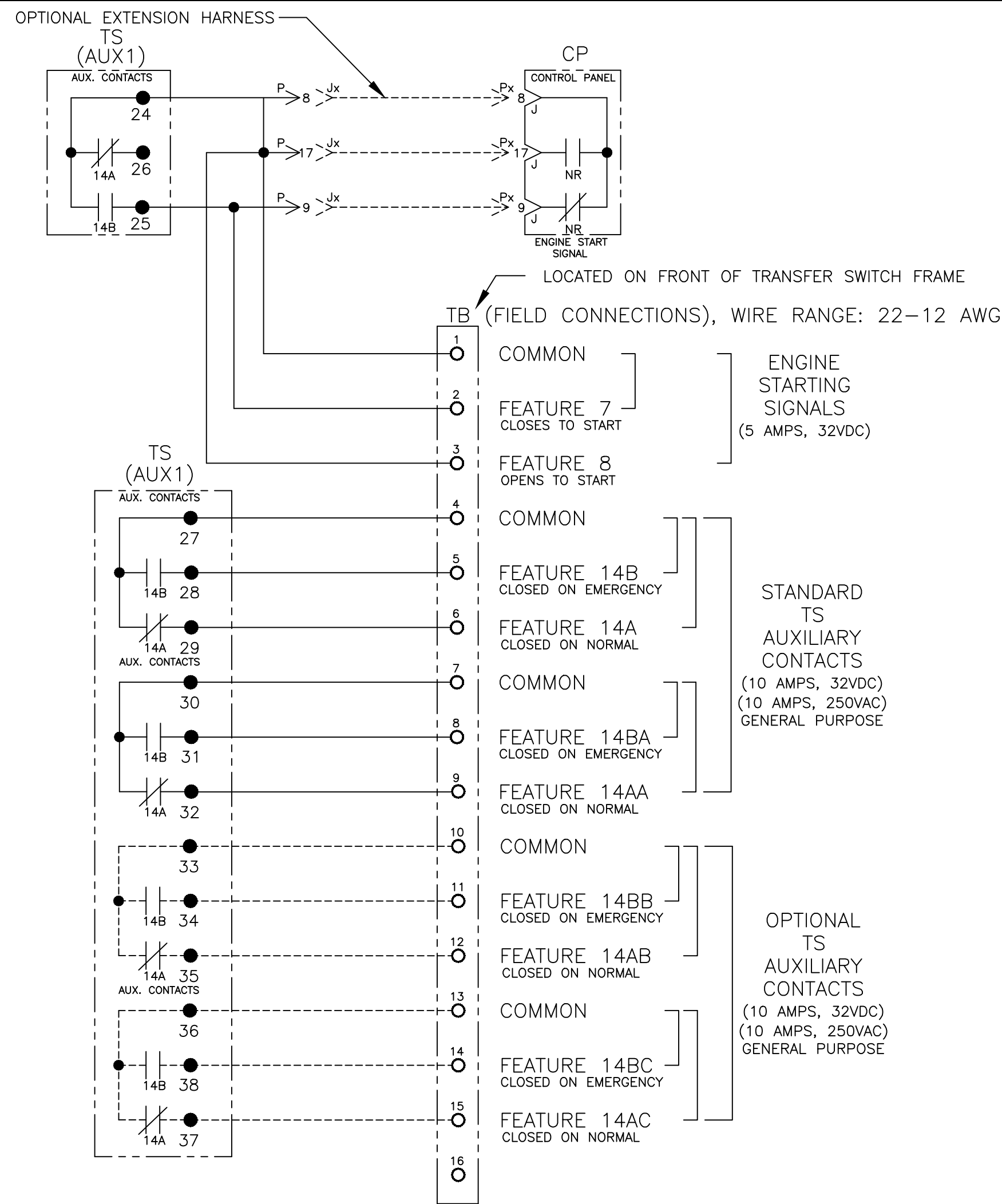
Table with columns: TS FRAME, CATALOG TYPE, NEUTRAL TYPE, PHASE POLES, AMPS, VOLT CODE, CONTROLLER, CATALOG ACCESSORY, ENCLOSURE CODE. Includes rows for 3ATS and 3NTS with various options.

Table with columns: CATALOG TYPE, NEUTRAL TYPE, VOLTAGE CODES (3 PHASE, 3 OR 4 WIRE, 50 OR 60 Hz), ENCLOSURE CODES. Includes rows for AUTOMATIC and MANUAL with enclosure types like OPEN TYPE, INDUSTRIAL ENVIRONMENTS, etc.

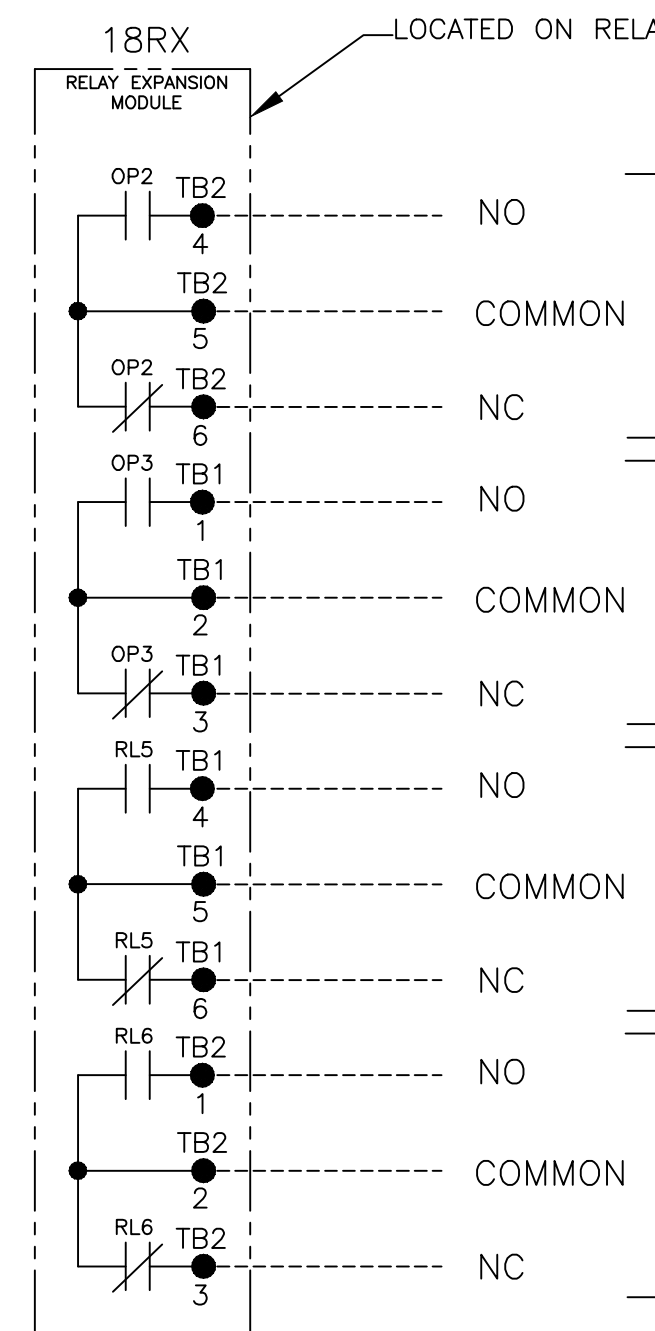
ASCO CERTIFIED TO S.O. section with project name 'WIRING DIAGRAM', catalog number '300 SERIES (H3ATS/H3NTS) 3PH 800-1200 AMPS', and various drawing control fields like 'COMPUTER GENERATED DRAWING' and 'DRAWN BY: DUB'.

Revision table with columns: G, F, E, D, C, B, A. Includes revision dates and descriptions like '278250 TR BK 04/22/19 SEE ECN'.

FIELD CONNECTIONS



OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE)

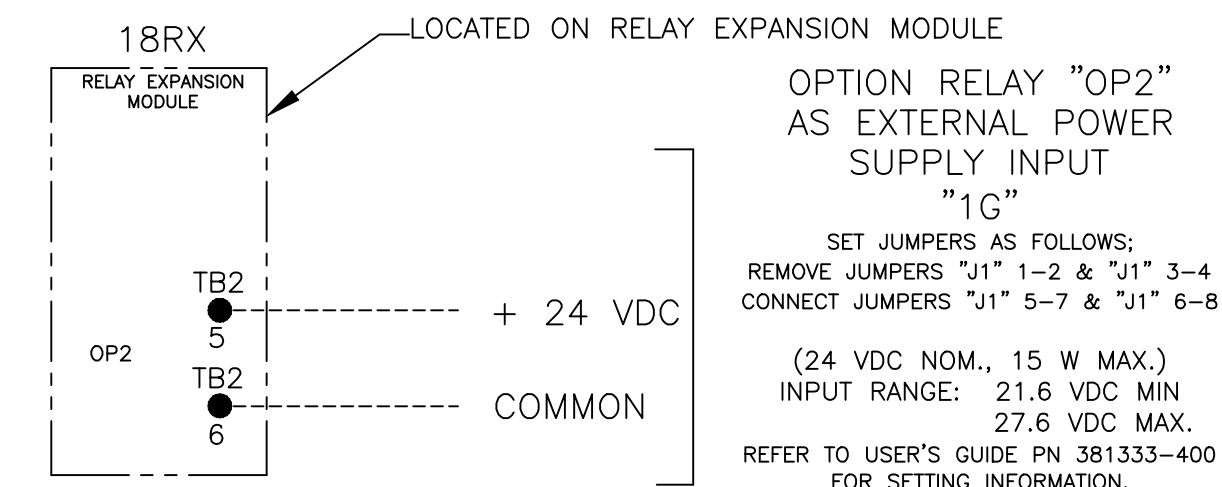
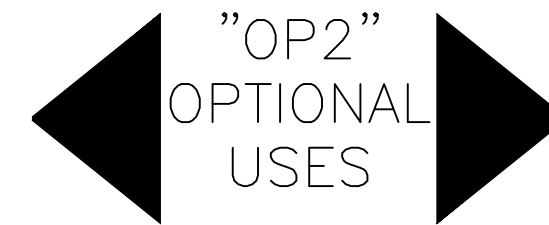


OPTION RELAY "OP2" AS OUTPUT RELAY
SET JUMPERS J1: 1-2 & 3-4 (5 AMPS, 30 VDC MAX.) (100 mA, 5 VDC MIN.) REFER TO USER'S GUIDE PN 381333-400 FOR SETTING INFORMATION.

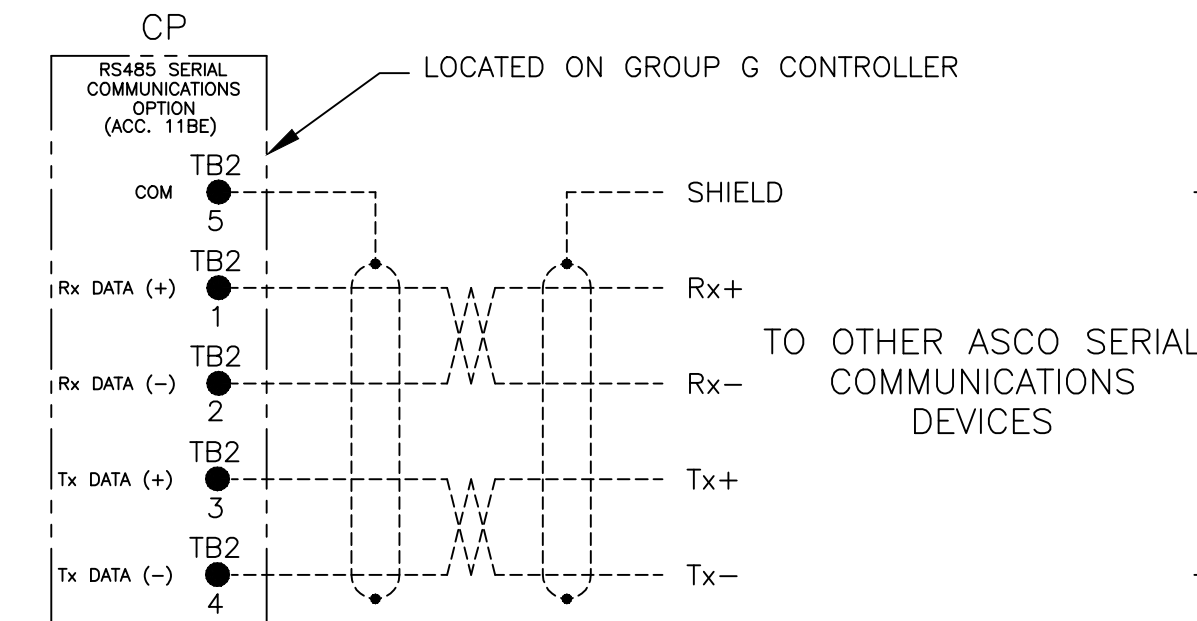
OPTION RELAY "OP3"
(5 AMPS, 30 VDC MAX.) (100 mA, 5 VDC MIN.) REFER TO USER'S GUIDE PN 381333-400 FOR SETTING INFORMATION.

EMERGENCY SOURCE ACCEPTABLE SIGNAL
(5 AMPS, 30 VDC MAX.) (100 mA, 5 VDC MIN.)

NORMAL SOURCE ACCEPTABLE SIGNAL
(5 AMPS, 30 VDC MAX.) (100 mA, 5 VDC MIN.)



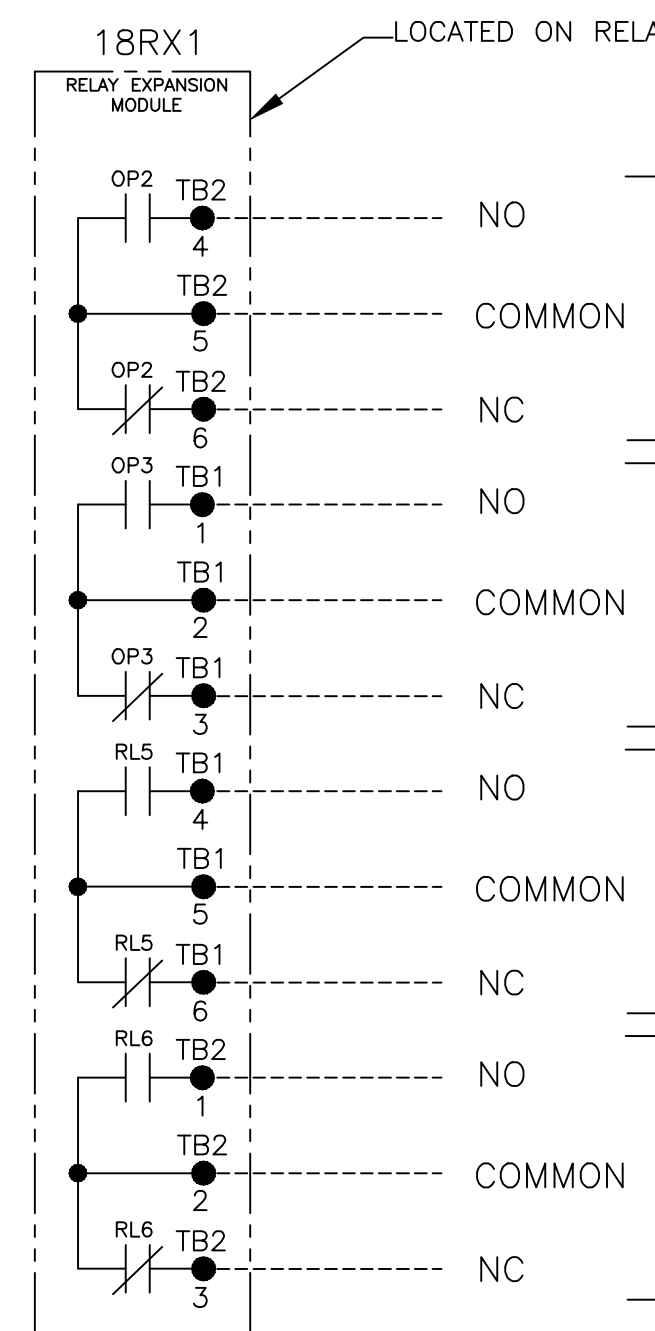
RS485 SERIAL COMMUNICATIONS OPTION
AVAILABLE WITH OPTIONAL ACCESSORY 11BE: ADVANCED-FUNCTION SOFTWARE BUNDLE
REFER TO USER'S GUIDE PN 381333-400 FOR SETTING INFORMATION.



NOTES:

- EARTH GROUND SHIELD AT HOST DEVICE ONLY.
- FIELD WIRING: USE UL LISTED, STRANDED, TWISTED PAIRS, OVERALL FOIL SHIELD WITH STRANDED DRAIN WIRE SUITABLE FOR RS422 EQUIVALENT TO:
(STANDARD 80°C) BELDEN 9842 OR 9829 OR ALPHA 6202C OR 6222C
(PLENUM RATED) BELDEN 89729 OR 82729 OR ALPHA 58902

OPTIONAL ACCESSORY 18RX1 (SECOND RELAY EXPANSION MODULE)



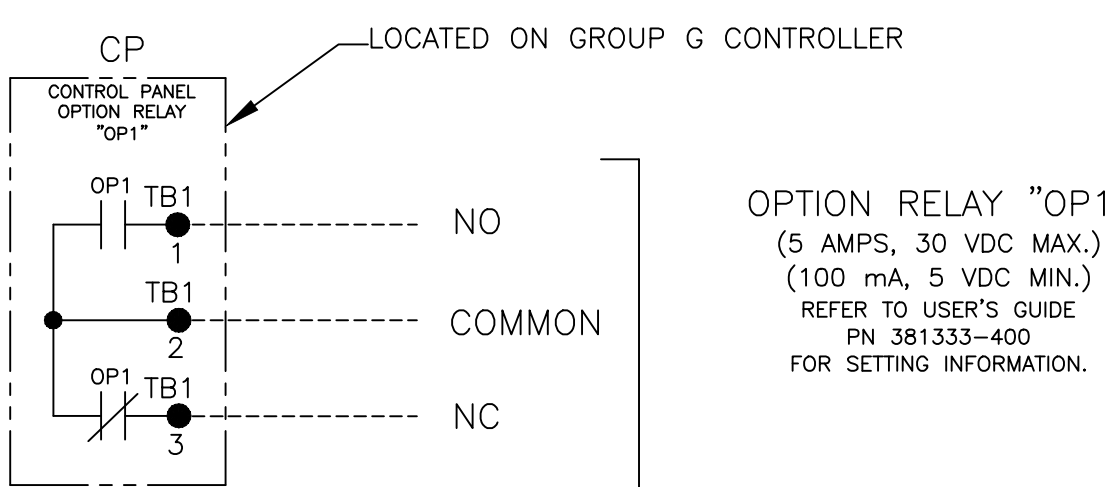
OPTION RELAY "OP2" AS OUTPUT RELAY
SET JUMPERS J1: 1-2 & 3-4 (5 AMPS, 30 VDC MAX.) (100 mA, 5 VDC MIN.) REFER TO USER'S GUIDE PN 381333-400 FOR SETTING INFORMATION.

OPTION RELAY "OP3"
(5 AMPS, 30 VDC MAX.) (100 mA, 5 VDC MIN.) REFER TO USER'S GUIDE PN 381333-400 FOR SETTING INFORMATION.

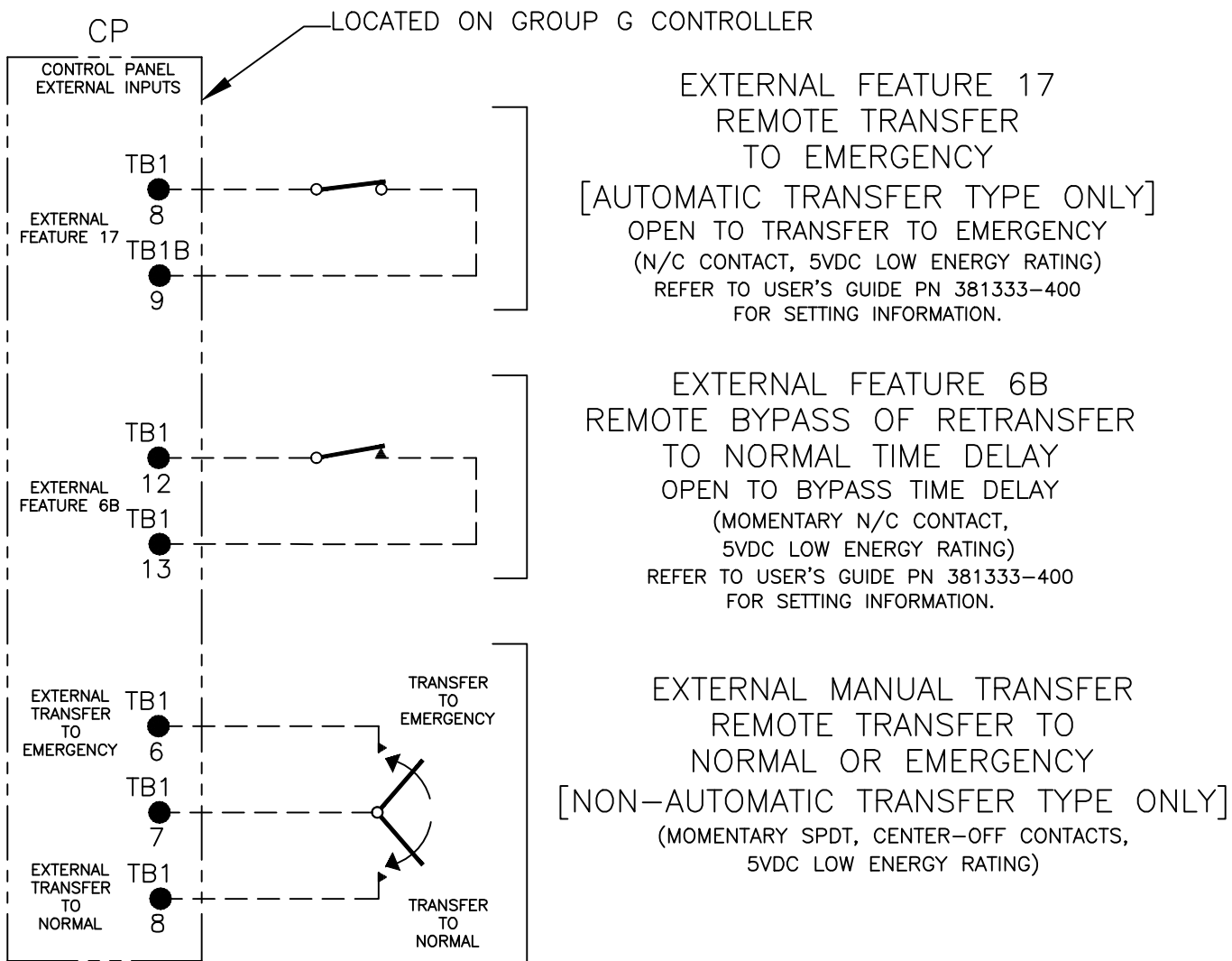
EMERGENCY SOURCE ACCEPTABLE SIGNAL
(5 AMPS, 30 VDC MAX.) (100 mA, 5 VDC MIN.)

NORMAL SOURCE ACCEPTABLE SIGNAL
(5 AMPS, 30 VDC MAX.) (100 mA, 5 VDC MIN.)

CONTROLLER OPTION RELAY "OP1" (STANDARD)



CONTROLLER REMOTE CONTROL FEATURES



| | | | | |
|---|---------|-----|----------------|----------|
| G | 278250 | TR | BK | 04/22/19 |
| | SEE ECN | | | |
| F | 275211 | TR | BK | 10/15/18 |
| | SEE ECN | | | |
| E | 255133 | TR | BK | 6/4/15 |
| | SEE ECN | | (REMOVED 600A) | |
| D | 248402 | AE | BK | |
| | SEE ECN | | | |
| C | 247772 | SDH | SDH | 4/14/14 |
| | SEE ECN | | | |
| B | 246325 | AE | BK | 01/16/14 |
| | SEE ECN | | | |
| A | 245959 | BK | BK | 12/23/13 |
| | SEE ECN | | | |
| | 245204 | BK | BK | 11/07/13 |
| | ISSUE | | | |

| | | | | | | | | |
|---|----------|---|-----------------|--|---------|------|------|------|
| PROJECT NAME: | | | | REV. TO SHEET | ECN NO. | BY | APP. | DATE |
| WIRING DIAGRAM | | | | | | | | |
| 300 SERIES (H3ATS/H3NTS) 3PH 800-1200 AMPS | | | | | | | | |
| "H" FRAME, GROUP G CONTROLS | | | | | | | | |
| DRAWN BY | DATE | MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-035 | ASSEM. REF. NO. | COMPUTER GENERATED DRAWING | | | | |
| DJB | 11/07/13 | | | SCALE | NONE | SIZE | DS | |
| CHECKED | DATE | PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | | DWG. NO. | | | | |
| BK | 11/07/13 | | | 1001657 | | | | |
| PROJECT APPROVAL | DATE | | | DRAWING G | | | | |
| BK | 11/07/13 | | | REV. ECN NO. 278250 | | | | |
| FINAL APPROVAL | | | | SHEET 2 OF 6 | | | | |
| | | | | ASCOPowerTechnologies, L.P. FLORHAM PARK, NEW JERSEY 07932 U.S.A. | | | | |

MAIN POWER POLES

TS OPERATOR CIRCUIT

EMERGENCY

NORMAL

LOAD

EMERGENCY

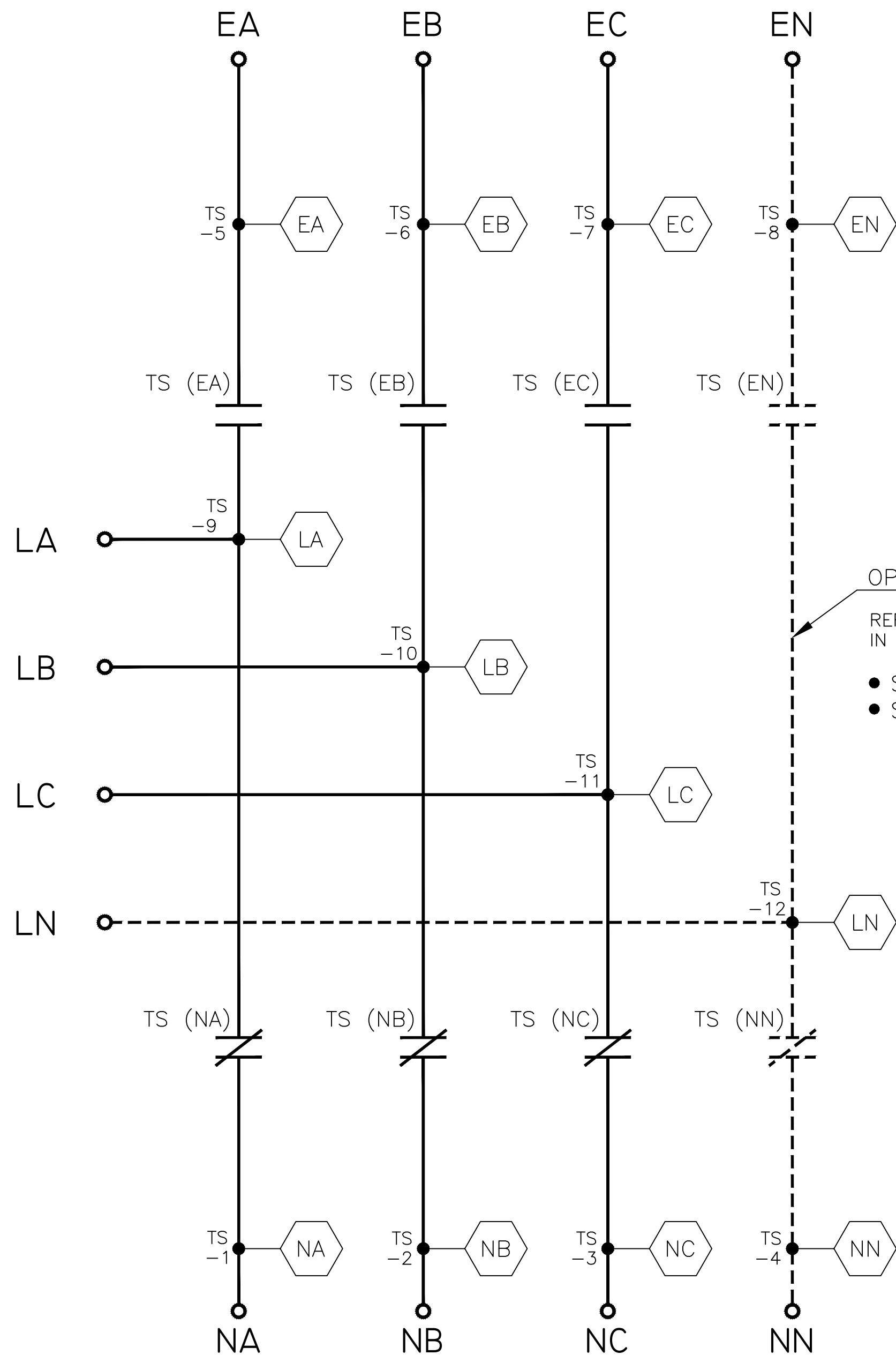
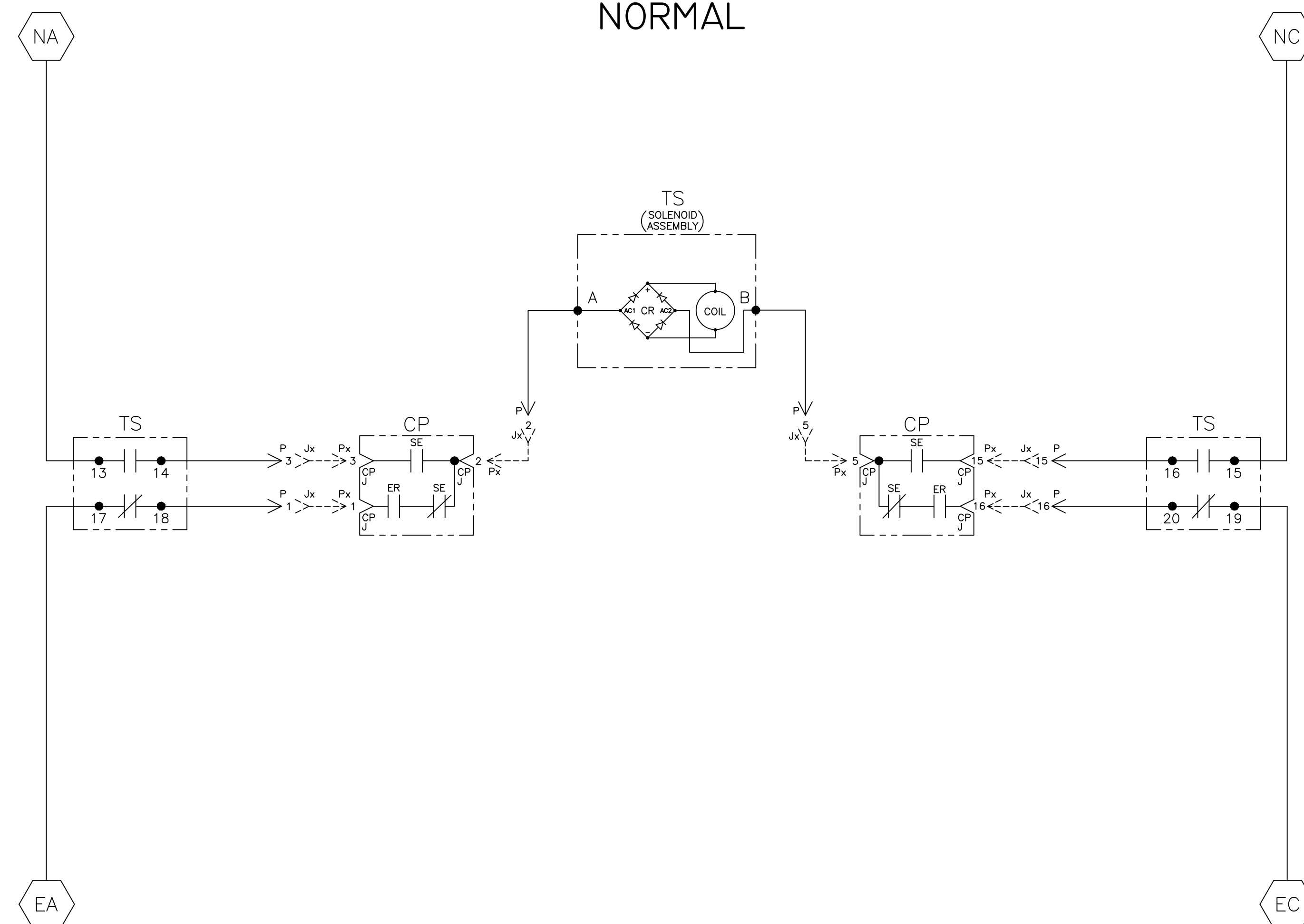
NORMAL

NOTE:
ATS/NTS SHOWN CLOSED ON NORMAL SOURCE.

OPTIONAL NEUTRAL TYPES

REFER TO "EXPLANATION OF CATALOG NUMBER CODES"
IN CATALOG NUMBER CHART ON SHEET 1.

- SWITCHING CONTACTS
- SOLID BUS PLATE



| TS | SOLENOID POSITION | | | |
|-------|----------------------|------------|------------|--------------|
| | CLOSED BEFORE NORMAL | BEFORE TDC | BEFORE TDC | CLOSED EMERG |
| 13-14 | | | | |
| 15-16 | | | | |
| 17-18 | | | | |
| 19-20 | | | | |

TDC (TOP DEAD CENTER)
TRANSFER SWITCH TEST & ADJUSTMENT PROCEDURE
SPECIFIES CONTROL CUT-OFF (CONTACT OPENING)
SETTING.

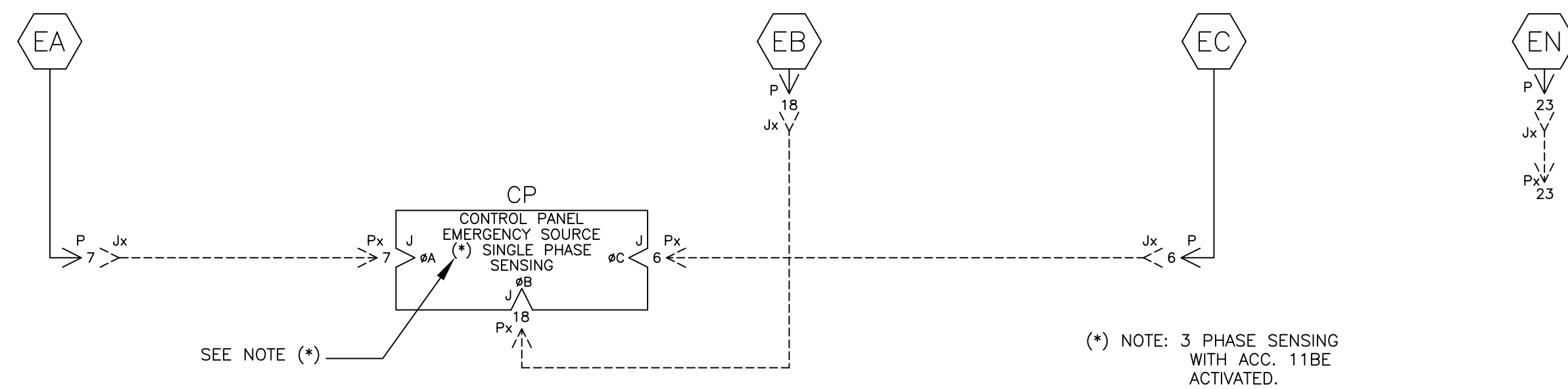
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|---|--------|-----|-----|----------|
| G | 278250 | TR | BK | 04/22/19 |
| F | 275211 | TR | BK | 10/15/18 |
| E | 255133 | TR | BK | 6/4/15 |
| D | 248402 | AE | BK | |
| C | 247772 | SDH | SDH | 4/14/14 |
| B | 246325 | AE | BK | 01/16/14 |
| A | 245959 | BK | BK | 12/23/13 |
| - | 245204 | BK | BK | 11/07/13 |
| - | | | | ISSUE |

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|---|-----|---------------|----------|---|-----------------|----------------------------|
| PROJECT NAME: | | REV. TO SHEET | ECN NO. | BY | APP. | DATE |
| WIRING DIAGRAM | | | | | | |
| 300 SERIES (H3ATS/H3NTS) 3PH 800-1200 AMPS "H" FRAME, GROUP G CONTROLS | | | | | | |
| DRAWN BY | DJB | DATE | 11/07/13 | MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-035. | ASSEM. REF. NO. | COMPUTER GENERATED DRAWING |
| CHECKED | BK | DATE | 11/07/13 | PROPERTY OF ASCO POWER TECHNOLOGIES, USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | SCALE | NONE |
| PROJECT APPROVAL | BK | DATE | 11/07/13 | | SIZE | DS |
| FINAL APPROVAL | | | | | DWG. NO. | 1001657 |
| | | | | | DRAWING G | ECN NO. 278250 |
| | | | | | REV. | 3 OF 6 |

ASCO ASCO POWER TECHNOLOGIES, L.P.
FLORHAM PARK, NEW JERSEY 07932 U.S.A.

EMERGENCY SOURCE CIRCUITS

EMERGENCY



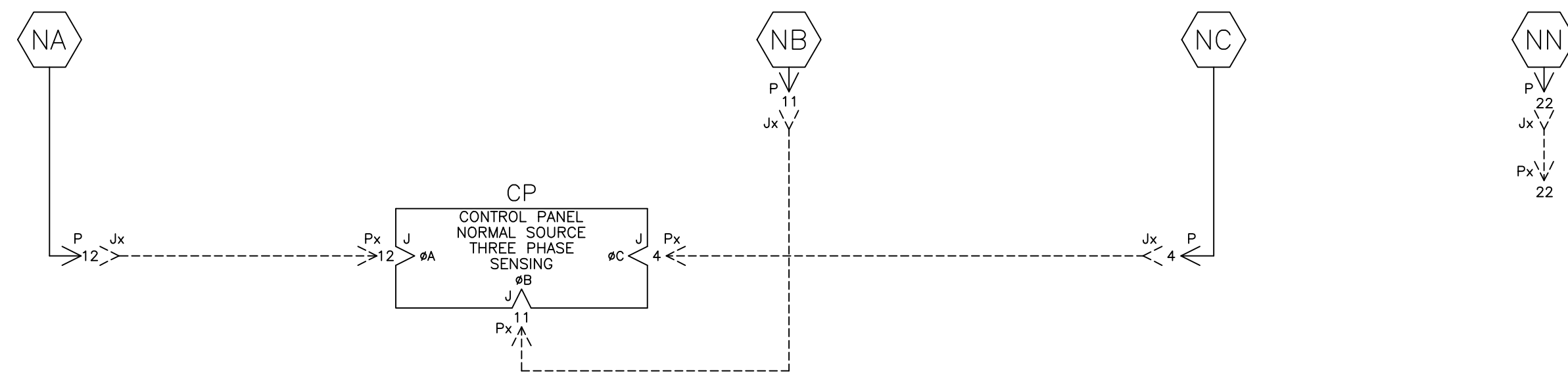
LOAD TERMINAL CIRCUITS

LOAD

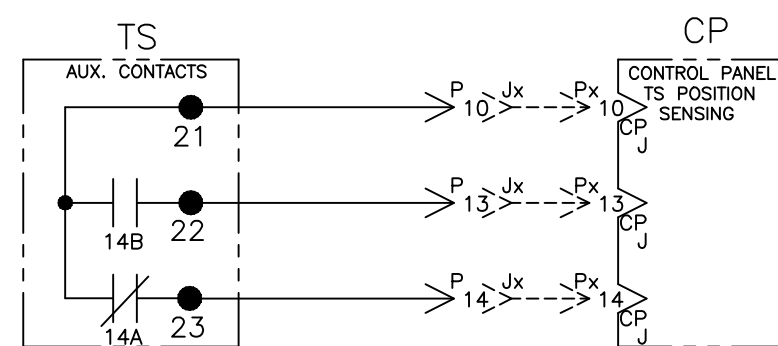


NORMAL SOURCE CIRCUITS

NORMAL



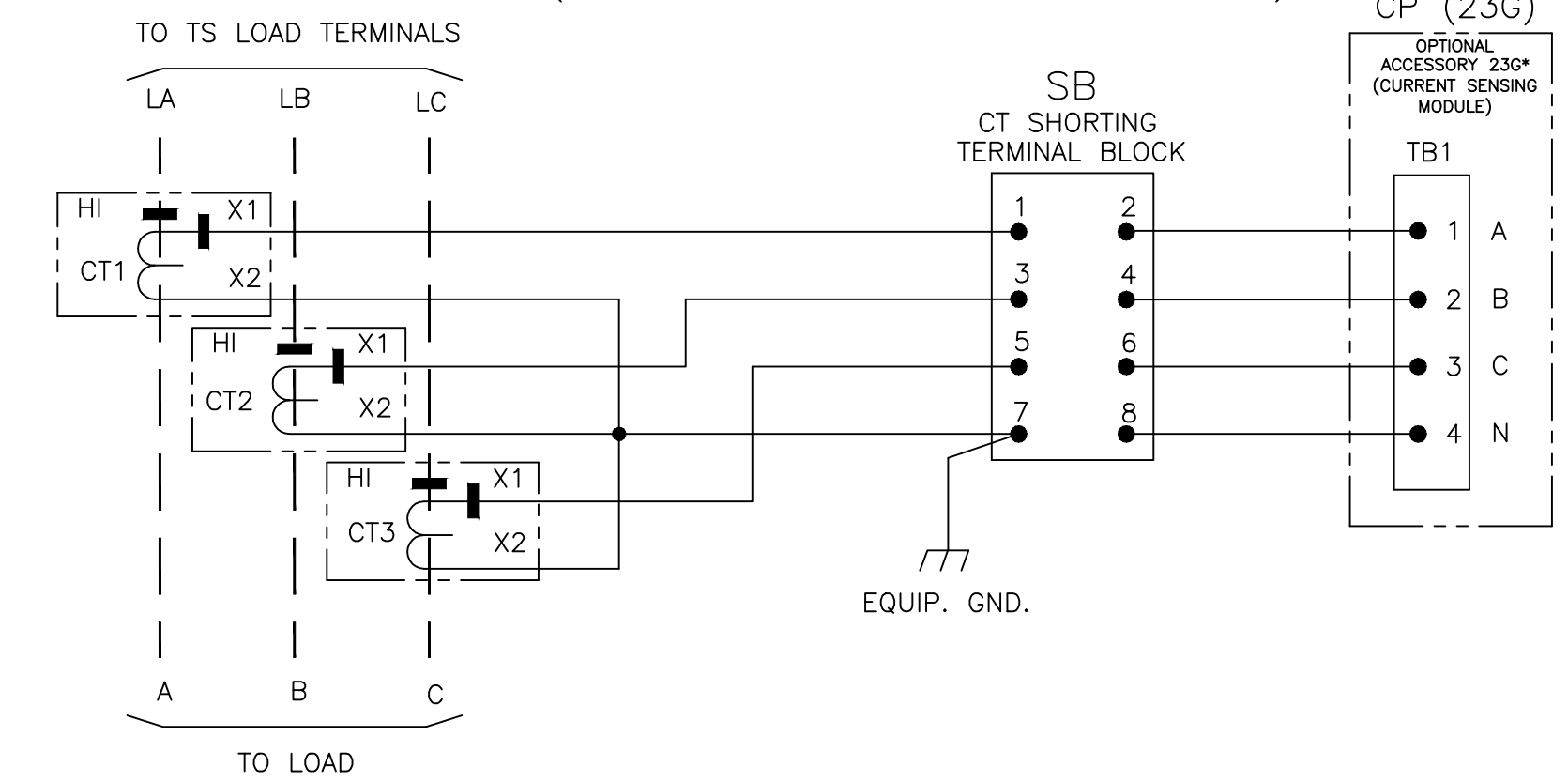
CONTROL CIRCUITS



ADDITIONAL CIRCUITS

OPTIONAL ACCESSORY 23GB (LOAD CURRENT METERING)

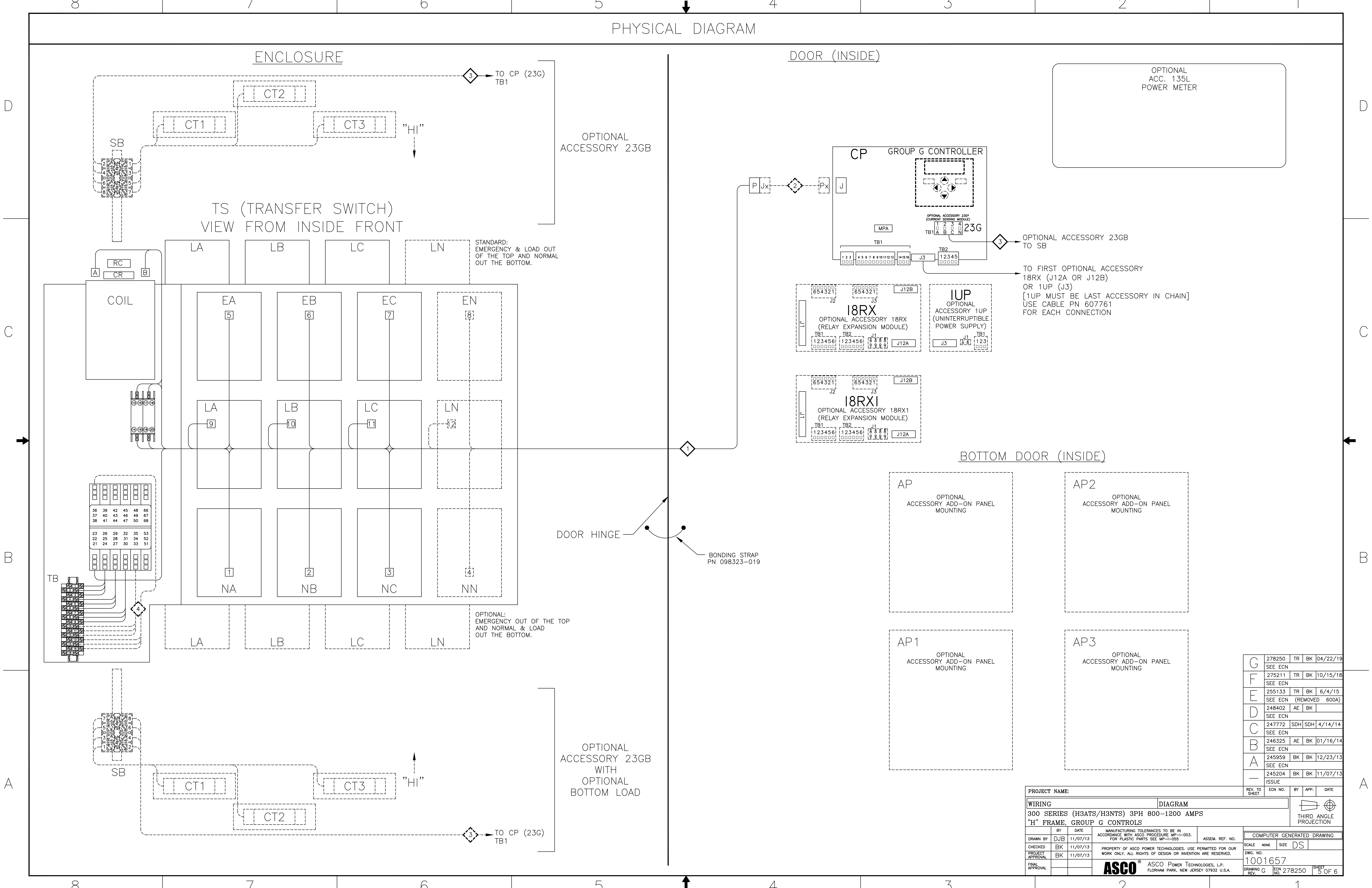
| SWITCH RATING | CT RATIO |
|---------------|----------|
| 800A | 800:5A |
| 1000A | 1200:5A |
| 1200A | 1200:5A |



| | | | | |
|---|---------|-----|----------------|----------|
| G | 278250 | TR | BK | 04/22/19 |
| | SEE ECN | | | |
| F | 275211 | TR | BK | 10/15/18 |
| | SEE ECN | | | |
| E | 255133 | TR | BK | 6/4/15 |
| | SEE ECN | | (REMOVED 600A) | |
| D | 248402 | AE | BK | |
| | SEE ECN | | | |
| C | 247772 | SDH | SDH | 4/14/14 |
| | SEE ECN | | | |
| B | 246325 | AE | BK | 01/16/14 |
| | SEE ECN | | | |
| A | 245959 | BK | BK | 12/23/13 |
| | SEE ECN | | | |
| - | 245204 | BK | BK | 11/07/13 |
| | ISSUE | | | |

| | | | | | | |
|---|------|---|---|-----------------|----------------------------|----------------|
| PROJECT NAME: | | REV. TO SHEET | ECN NO. | BY | APP. | DATE |
| WIRING DIAGRAM | | | | | | |
| 300 SERIES (H3ATS/H3NTS) 3PH 800-1200 AMPS "H" FRAME, GROUP G CONTROLS | | | | | | |
| BY | DATE | MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-055 | | ASSEM. REF. NO. | COMPUTER GENERATED DRAWING | |
| DRAWN BY | DJB | 11/07/13 | | | SCALE | NONE |
| CHECKED | BK | 11/07/13 | PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | | SIZE | DS |
| PROJECT APPROVAL | BK | 11/07/13 | | | DWG. NO. | 1001657 |
| FINAL APPROVAL | | | ASCO® ASCO POWER TECHNOLOGIES, L.P. FLORHAM PARK, NEW JERSEY 07932 U.S.A. | | DRAWING G | ECN NO. 278250 |
| | | | | | | SHEET 4 OF 6 |

PHYSICAL DIAGRAM



ENCLOSURE

DOOR (INSIDE)

TS (TRANSFER SWITCH)
VIEW FROM INSIDE FRONT

CP GROUP G CONTROLLER

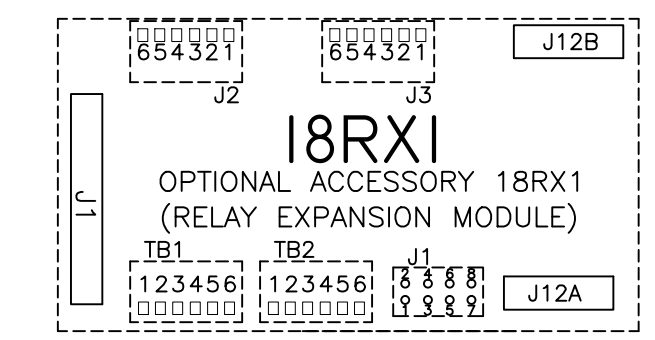
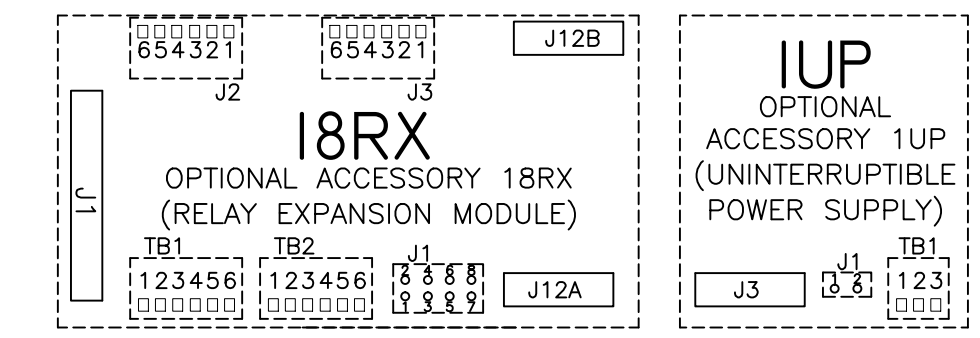
OPTIONAL
ACC. 135L
POWER METER

OPTIONAL
ACCESSORY 23GB

STANDARD:
EMERGENCY & LOAD OUT
OF THE TOP AND NORMAL
OUT THE BOTTOM.

OPTIONAL ACCESSORY 23GB
TO SB

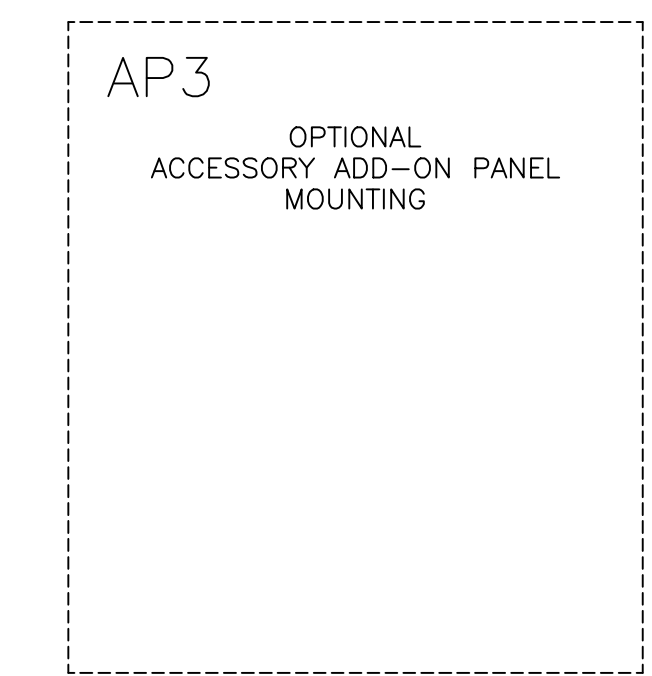
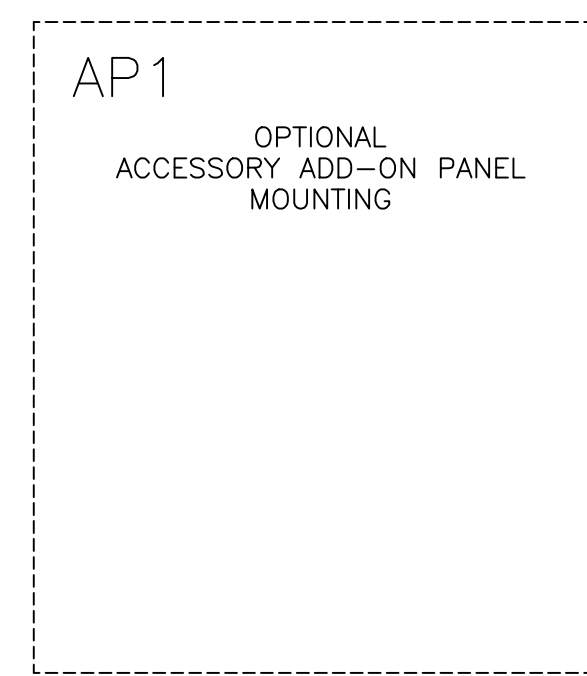
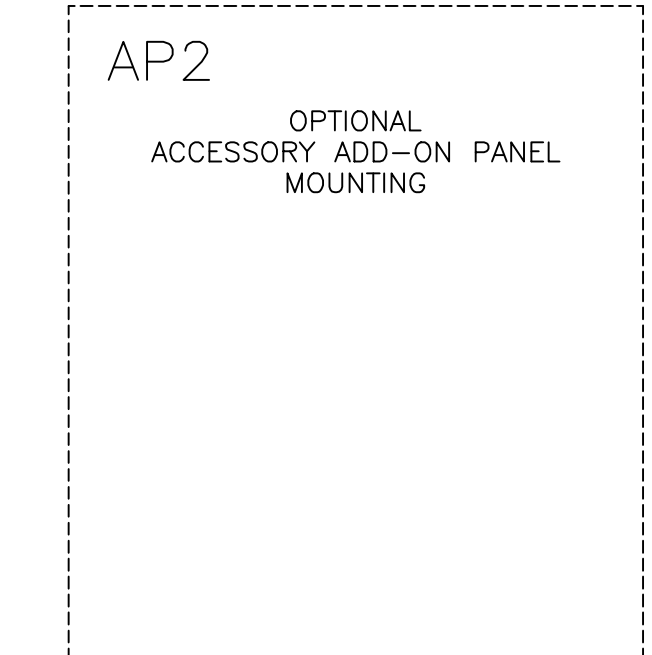
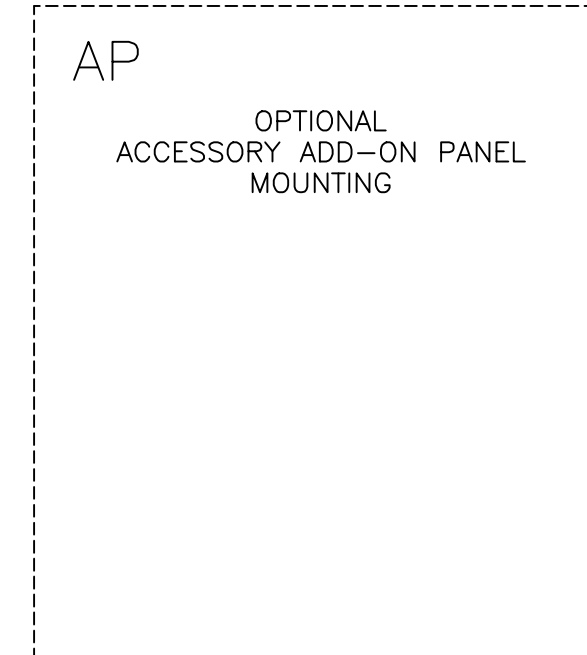
TO FIRST OPTIONAL ACCESSORY
18RX (J12A OR J12B)
OR IUP (J3)
[IUP MUST BE LAST ACCESSORY IN CHAIN]
USE CABLE PN 607761
FOR EACH CONNECTION



BOTTOM DOOR (INSIDE)

DOOR HINGE

BONDING STRAP
PN 098323-019



OPTIONAL:
EMERGENCY OUT OF THE TOP
AND NORMAL & LOAD
OUT THE BOTTOM.

OPTIONAL
ACCESSORY 23GB
WITH
OPTIONAL
BOTTOM
LOAD

| | | | | |
|---|---------|-----|----------------|----------|
| G | 278250 | TR | BK | 04/22/19 |
| | SEE ECN | | | |
| F | 275211 | TR | BK | 10/15/18 |
| | SEE ECN | | | |
| E | 255133 | TR | BK | 6/4/15 |
| | SEE ECN | | (REMOVED 600A) | |
| D | 248402 | AE | BK | |
| | SEE ECN | | | |
| C | 247772 | SDH | SDH | 4/14/14 |
| | SEE ECN | | | |
| B | 246325 | AE | BK | 01/16/14 |
| | SEE ECN | | | |
| A | 245959 | BK | BK | 12/23/13 |
| | SEE ECN | | | |
| - | 245204 | BK | BK | 11/07/13 |
| | ISSUE | | | |

| | | | | | | |
|--|-----|---------------|----------|---|-----------------|----------------------------|
| PROJECT NAME: | | REV. TO SHEET | ECN NO. | BY | APP. | DATE |
| WIRING DIAGRAM | | | | | | |
| 300 SERIES (H3ATS/H3NTS) 3PH 800-1200 AMPS | | | | | | |
| "H" FRAME, GROUP G CONTROLS | | | | | | |
| DRAWN BY | DJB | DATE | 11/07/13 | MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-005 | ASSEM. REF. NO. | COMPUTER GENERATED DRAWING |
| CHECKED | BK | DATE | 11/07/13 | PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | SCALE | NONE |
| PROJECT APPROVAL | BK | DATE | 11/07/13 | | SIZE | DS |
| FINAL APPROVAL | | | | | DWG. NO. | 1001657 |
| | | | | | DRAWING G | ECN NO. 278250 |
| | | | | | | SHEET 5 OF 6 |

ASCO POWER TECHNOLOGIES, L.P.
FLORHAM PARK, NEW JERSEY 07932 U.S.A.

WIRE RUN LISTING

| HARNESS LOCATOR | | BOX CHECKED IF HARNESS IS MODIFIED | CLR | AWG |
|-----------------|----------------------------|-------------------------------------|-----|-----|
| WIRE No. | HARNESS 713082 (P) MAIN TS | <input checked="" type="checkbox"/> | | 16 |
| 1 | P-1,TS-18 | | | |
| 2 | P-2,TS-A | | | |
| 3 | P-3,TS-14 | | | |
| 4 | P-4,TS-3 | | | |
| 4 | TS-3,TS-15 | | | |
| 5 | P-5,TS-B | | | |
| 6 | P-6,TS-7 | | | |
| 6 | TS-7,TS-19 | | | |
| 7 | P-7,TS-5 | | | |
| 7 | TS-5,TS-17 | | | |
| 8 | P-8,TS-24 | | | |
| 8 | TS-24,TB-1 | | | |
| 9 | P-9,TS-25 | | | |
| 9 | TS-25,TB-2 | | | |
| 10 | P-10,TS-21 | | | |
| 11 | P-11,TS-2 | | | |
| 12 | P-12,TS-1 | | | |
| 12 | TS-1,TS-13 | | | |
| 13 | P-13,TS-22 | | | |
| 14 | P-14,TS-23 | | | |
| 15 | P-15,TS-18 | | | |
| 16 | P-16,TS-20 | | | |
| 17 | P-17,TB-3 | | | |
| 18 | P-18,TS-6 | | | |
| 19 | P-19,TS-9 | | | |
| 20 | P-20,TS-10 | | | |
| 21 | P-21,TS-11 | | | |
| 22 | P-22,TS-4 | | | |
| 23 | P-23,TS-8 | | | |
| 24 | P-24,TS-12 | | | |
| 25 | TS-27,TB-4 | | | |
| 26 | TS-28,TB-5 | | | |
| 27 | TS-29,TB-6 | | | |
| ADD WIRES | | | | |
| 31 | TS-30,TB-7 | | | |
| 32 | TS-31,TB-8 | | | |
| 33 | TS-32,TB-9 | | | |

| HARNESS LOCATOR | | BOX CHECKED IF HARNESS IS MODIFIED | CLR | AWG |
|-----------------|--|------------------------------------|-----|-----|
| WIRE No. | HARNESS 309320-005 (Px,Jx OPTIONAL 8" EXTENSION HARNESS) | <input type="checkbox"/> | | 16 |
| 1 | Px-1,Jx-1 | | | |
| 2 | Px-2,Jx-2 | | | |
| 3 | Px-3,Jx-3 | | | |
| 4 | Px-4,Jx-4 | | | |
| 5 | Px-5,Jx-5 | | | |
| 6 | Px-6,Jx-6 | | | |
| 7 | Px-7,Jx-7 | | | |
| 8 | Px-8,Jx-8 | | | |
| 9 | Px-9,Jx-9 | | | |
| 10 | Px-10,Jx-10 | | | |
| 11 | Px-11,Jx-11 | | | |
| 12 | Px-12,Jx-12 | | | |
| 13 | Px-13,Jx-13 | | | |
| 14 | Px-14,Jx-14 | | | |
| 15 | Px-15,Jx-15 | | | |
| 16 | Px-16,Jx-16 | | | |
| 17 | Px-17,Jx-17 | | | |
| 18 | Px-18,Jx-18 | | | |
| 19 | Px-19,Jx-19 | | | |
| 20 | Px-20,Jx-20 | | | |
| 21 | Px-21,Jx-21 | | | |
| 22 | Px-22,Jx-22 | | | |
| 23 | Px-23,Jx-23 | | | |
| 24 | Px-24,Jx-24 | | | |
| REMOVE WIRES | | | | |
| ADD WIRES | | | | |

| HARNESS LOCATOR | | BOX CHECKED IF HARNESS IS MODIFIED | CLR | AWG |
|-----------------|---|------------------------------------|-----|-----|
| WIRE No. | OPTIONAL ACCESSORY 23GB (CT,SB,CP(23G)-TB1) | <input type="checkbox"/> | | 16 |
| 300 | CT1-X1,SB-1 | | | |
| 301 | CT2-X1,SB-3 | | | |
| 302 | CT3-X1,SB-5 | | | |
| 300 | SB-2,CP(23G)-TB1-1 | | | |
| 301 | SB-4,CP(23G)-TB1-2 | | | |
| 302 | SB-6,CP(23G)-TB1-3 | | | |
| 303 | CT1-X2,CT2-X2 | | GRN | |
| 303 | CT2-X2,CT3-X2 | | GRN | |
| 303 | CT3-X2,SB-7 | | GRN | |
| 303 | SB-7,EQUIP-GND | | GRN | |
| 303 | SB-8,CP(23G)-TB1-4 | | GRN | |

| HARNESS LOCATOR | | BOX CHECKED IF HARNESS IS MODIFIED | CLR | AWG |
|-----------------|------------------------|------------------------------------|-----|-----|
| WIRE No. | OPTIONAL AUX. CONTACTS | <input type="checkbox"/> | | 16 |
| 35 | TB-10,TS(AUX1)-33 | | | |
| 36 | TB-11,TS(AUX1)-34 | | | |
| 37 | TB-12,TS(AUX1)-35 | | | |
| 38 | TB-13,TS(AUX1)-36 | | | |
| 39 | TB-14,TS(AUX1)-38 | | | |
| 40 | TB-15,TS(AUX1)-37 | | | |

| WIRE No. | ADDITIONAL WIRES | CLR | AWG |
|----------|------------------|-----|-----|
| | | | 16 |

| | | | | |
|---------|----------------|-----|-----|----------|
| G | 278250 | TR | BK | 04/22/19 |
| SEE ECN | | | | |
| F | 275211 | TR | BK | 10/15/18 |
| SEE ECN | | | | |
| E | 255133 | TR | BK | 6/4/15 |
| SEE ECN | (REMOVED 600A) | | | |
| D | 248402 | AE | BK | |
| SEE ECN | | | | |
| C | 247772 | SDH | SDH | 4/14/14 |
| SEE ECN | | | | |
| B | 246325 | AE | BK | 01/16/14 |
| SEE ECN | | | | |
| A | 245959 | BK | BK | 12/23/13 |
| SEE ECN | | | | |
| - | 245204 | BK | BK | 11/07/13 |
| ISSUE | | | | |

| | | | | | | |
|--|--|---------------|---|----|-----------------|-----------------------------|
| PROJECT NAME: | | REV. TO SHEET | ECN NO. | BY | APP. | DATE |
| WIRING DIAGRAM | | | | | | |
| 300 SERIES (H3ATS/H3NTS) 3PH 800-1200 AMPS | | | | | | |
| "H" FRAME, GROUP G CONTROLS | | | | | | |
| DRAWN BY | | DATE | MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-055 | | ASSEM. REF. NO. | COMPUTER GENERATED DRAWING |
| CHECKED | | DATE | PROPERTY OF ASCO POWER TECHNOLOGIES, USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | | SCALE | NO. SIZE DS |
| PROJECT APPROVAL | | DATE | | | DWG. NO. | |
| FINAL APPROVAL | | DATE | | | 1001657 | |
| | | | ASCO POWER TECHNOLOGIES, L.P. FLORHAM PARK, NEW JERSEY 07932 U.S.A. | | DRAWING G | ECN NO. 278250 SHEET 6 OF 6 |