



Request for Proposals Clarifications Issued for:
RFP #1509-22C OnPoint Generator Replacement
March 8, 2024

County clarifications to the RFP: None

County answers provided to contractor questions received about the RFP

- 1 Q: There is a new, existing generator pad already in place, with electrical conduits and gas in rough-in provided. What manufacturer provided the spec's for this generator pad? For what brand of generator is this pad intended?
- A: The transfer switch and generator pad were installed after the building was completed. Attached is a specification sheet for the installation of the transfer switch which appears to indicate that the pad was perhaps designed and poured for a Kohler generator. However, OnPoint is not partial to the Kohler brand and Generac, Cummins or Kohler generator brands are all acceptable for bid provided they will fit on the existing pad and are compatible with the existing transfer switch. If work on the pad or transfer switch are needed to support the proposed generator, please describe and include any additional costs.
- 2 Q: There is a new, existing transfer switch already in place. The RFP mentions furnishing an automatic transfer switch. Are we to assume the existing transfer switch will remain and be utilized?
- A: The installation/replacement of the existing transfer switch was included in error as it is the desire of OnPoint to use the existing transfer switch with the new generator. The specifications of the current transfer switch are attached. It is assumed that the generator proposed for installation by bidders will be compatible with the existing transfer switch without having to modify or replace it and its replacement can be omitted from bids. However, if the proposed generator is not compatible, bidders should include the cost of replacing/upgrading the transfer switch in their bid.
- 3 Q: The new generator shall be sufficient to provide power to all systems and outlets, except cooling. Include BACnet or Modbus connection to BAS. 1. Are we to assume that the generator will communicate through the BACnet or Modbus so the BMS will disable cooling during a power outage? 2. Are we to provide pricing for the BMS programming required to disable the cooling or will Allegan County handle that portion?
- A: OnPoint is looking for a turnkey solution and it is up to the bidder to identify and propose a solution for providing generator power to all systems and outlets, except cooling (assuming there is one). The existing HVAC controls were installed by Control Solutions and it is suggested that bidders reach out to this company to discuss the current control system and how it could be configured to enable a shut-off of cooling equipment if the generator is running. Any costs for control work by bidder or any subcontractor such as Control Solutions for additional controls or programming work should be itemized separately and included in the bid. The Control Solutions point of contact for OnPoint is:

Tim Kerkstra
Service Projects Engineer
Control Solutions
Office: 616-2478-9422
Cell: 269-207-4292
Email: tkerkstra@controlyourbuilding.com



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- 4 Q: Main Electrical Service and transfer switch have 600 amp over current protection. Are there currently any plans for consumers energy to up-size the metering at the building? Consumers is currently metering this with a 320 amp meter socket. Existing Feeder conductors are only 400 amp rated.
- A: There are no current plans for Consumers Energy to up-size the metering at the building. If your bid requires this or the current meter limits present challenges, please provide some explanation so OnPoint can investigate with Consumers Energy or identify and include these costs in your bid.
- 5 Q: Is there an electrical one line drawing available for this site?
- A: The entire construction plan set has been uploaded to the Bidding Opportunities website.
- 6 Q: Are specifications available for the transfer switch in place?
- A: Transfer switch specifications are attached.
- 7 Q: Are there going to be any additional construction documents issued showing required conduit and wire sizing from the generator to the automatic transfer switch? If not, can this information be provided?
- A: Bidders should base their bid on the assumption that appropriately sized conduit has been installed between the building and the generator pad through which they can run wiring. Wire sizing should be determined by the bidder as appropriate for connecting their proposed generator to the transfer switch.
- 8 Q: Are there going to be any additional construction documents issued showing the specific requirements (specifications) for the generator? The available options for generators vary and can greatly affect the cost depending on what is required. Additional information on what is required would help to ensure all parties are providing pricing on similar generators.
- A: No additional construction documents are available or to be issued. OnPoint believes sufficient information is provided in the original RFP and through these clarifications to allow bidders to determine and propose an appropriate generator for installation.
- 9 Q: Under “2. Scope Of Services” in the RFP it states that the generator is to be sufficient to provide power to all systems and outlets except cooling systems. The current transfer switch is designed to feed all loads in the building. How are we to isolate the cooling system loads so they are not powered by the generator?
- A: See OnPoint response to Question #3.



Submittal

Architects Project Number: 19-127
CCM Job Number: 21527

Spec Section: 263500

Job Name: ACCMHS

Submittal No: 55

Submittal Title: Transfer Switches

Revision No:

Submittal Date: 10/22/22

Sent Date: 10/24/22

Requested Return: 10/28/22

Subcontractor / Supplier: Circuit Electric

Architect: Schley Nelson Architects
4200 S. 9th Street
Oshtemo, MI 49077

Architect's Stamp

Contractor's Stamp

Reviewed Rejected
 Revise & Resubmit Furnish As Corrected

Corrections or comments made on the shop drawings during this review do not relieve subcontractors / suppliers from compliance with requirements of the drawings and specifications. This check is only for review of the general conformance with the design concept of the project and general compliance with the information given in the contract documents. The subcontractor / supplier is responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating his or her work with that of all other trades and performing all work in a safe and satisfactory manner.

Cornerstone Construction Management, Inc.

By Brady Zimmerman Date 10/24/22

Engineer's Stamp

No Exception Taken Rejected
 Revise and Resubmit Make Corrections Noted

Corrections and comments made on the shop drawings during this review do not relieve contractor from compliance with requirements of the drawings and specifications. This check is only for review of the general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for: Confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his/her work with that of all other trades and performing work in a safe and satisfactory manner.

Comprehensive Engineering, P.C.

Date: 01/06/23 (received 01/06/23)
By: J. Corrigan

Submittal

For Approval

For Record

Dated: 10/24/2022

To: Brady Zimmerman

Cornerstone Construction

From: Andrew Clemens

Project: ACCMHS

Spec Section Number: 263600 - Transfer Switches

Submittal Detail:

Manufacture/Supplier: ASCO / Total Energy Systems

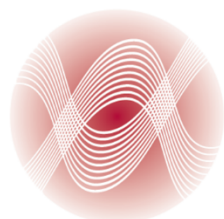
Notes:

10/20/2022

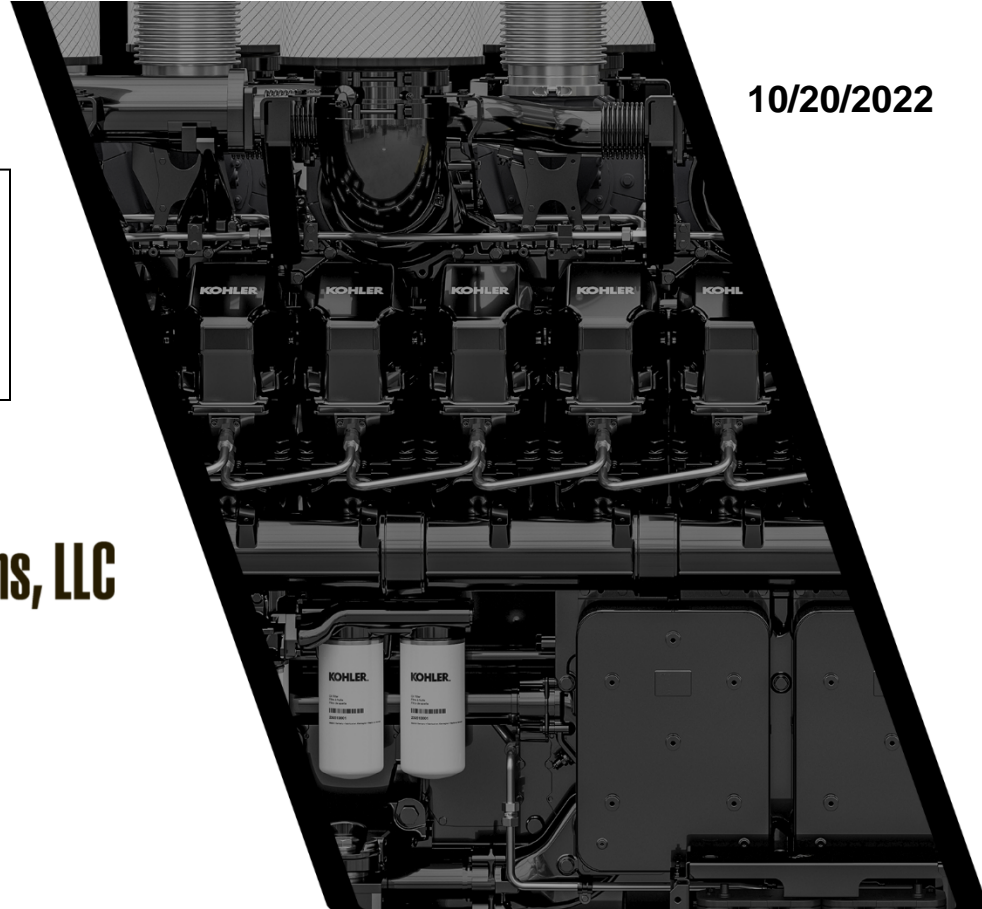
Approved as Submitted

By: _____

Date: _____



Total Energy Systems, LLC



SUBMITTAL PACKAGE

Allegan County Community Mental Health Services

CONTRACTOR / INSTALLER: CIRCUIT ELECTRIC, INC

Project Manager: Alexander Tomscheck
Mobile: 616-306-9026
Email: atomscheck@totalenergysystems.com

Project Engineer: Trevor Price
Mobile: 920-301-0197
Email: tprice@totalenergysystems.com

Sales Specialist: Scott Proux
Mobile: 616-612-8186
Email: sproux@totalenergysystems.com



Alexander Tomscheck
PROJECT MANAGER

Trevor Price
PROJECT ENGINEER



CONTACT:

☎ 616-306-9026
✉ atomscheck@totalenergysystems.com
📍 ,

CONTACT:

☎ 920-301-0197
✉ tprice@totalenergysystems.com
📍 De Pere, WI



WORK EXPERIENCE:

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-



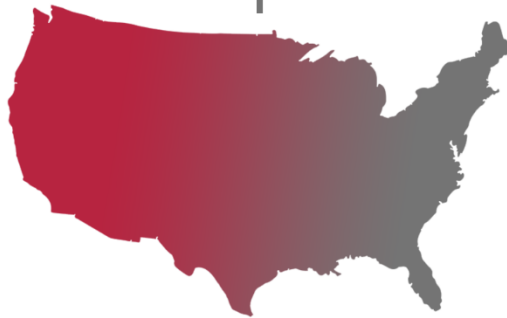
WORK EXPERIENCE:

- **FABCO CAT**
EPG Field Service Technician
- **Harbor Town Harley Davidson**
General Manager



RESPONSIBILITIES:

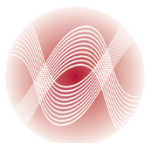
- Internal Project Setup
- Submittal Requests
- Release Equipment
- Vendor POC
- Track Shipping Schedules
- Coordinate Delivery
- Invoice Management
- Close Out Documents



RESPONSIBILITIES

- Submittal Follow Up
- Submittal Approvals
- On-Site Walk Thru
- Engineering Diagrams
- Oversee Equip. Installation
- Pre-Startup Inspections
- Startup Planning/Scheduling
- Commissioning Assistance

WI & MI



Total Energy Systems, LLC

KOHLER
IN POWER. SINCE 1920.



Project Engineer

T

SUBMITTAL Preparation



Project Engineer

I

FOLLOW UP on Submittal STATUS



Project Manager

M

Once Submittal Approved **RELEASE EQUIPMENT for MANUFACTURING**



Kohler

E

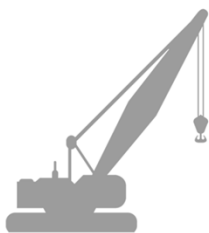
Build EQUIPMENT



Project Manager

L

COORDINATE site DELIVERY



Project Engineer

I

Equipment INSTALLATION



Project Engineer

N

STARTUP



Project Manager

E

JOB CLOSEOUT

ALLEGAN COUNTY COMMUNITY MENTAL HEALTH SERVICES

Bill of Materials

Reference Quote: H1-22--488551-2-4
Sales Order: TBD

| ATS NAME | QTY | AMPS/ POLES | BYPASS | TRANSITION TYPE | CATALOG NUMBER | ACCESSORIES | OUTLINE DRAWING | WIRING DIAGRAM | BOM NUMBER |
|----------|-----|-------------|--------|-----------------|------------------|---|-----------------|----------------|------------------|
| - | 1 | 600 / 4 | NO | OPEN | J03AUSB30600NGXM | 11BE,18RX,44G Activate 6DL Activate 31Z | 882678-058 | 978745 | TO BE ENGINEERED |

Fault Current Rating for Service Entrance Rated 300 series units

| Catalog Number | ATS Ampacity | Square D Breaker Model (Rating) | Fault Current Rating (480V) |
|----------------|--------------|---------------------------------|-----------------------------|
| J3AUS/J3ADUS | 450-600A | LJL (600A) | 65kA |

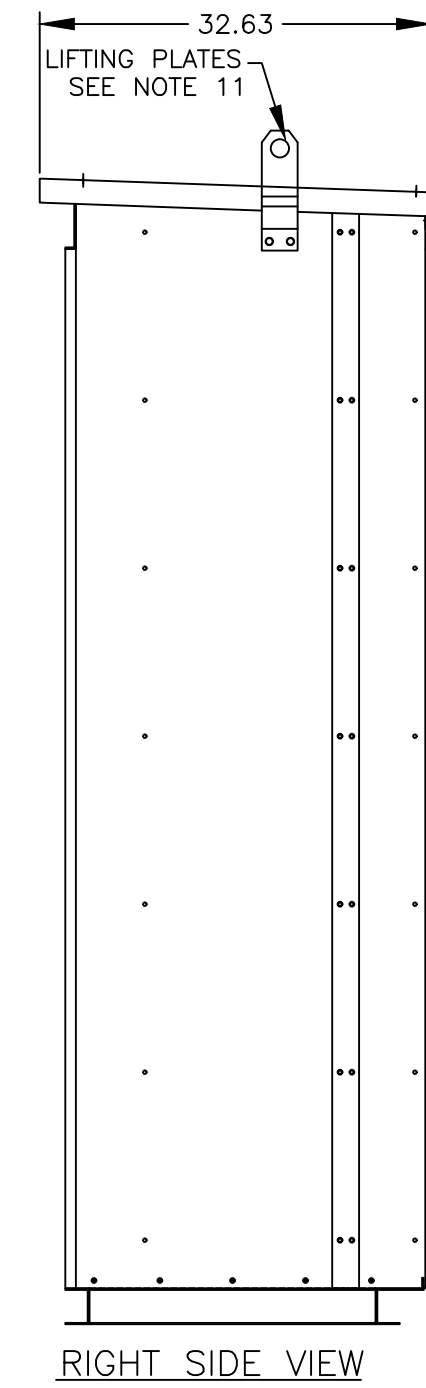
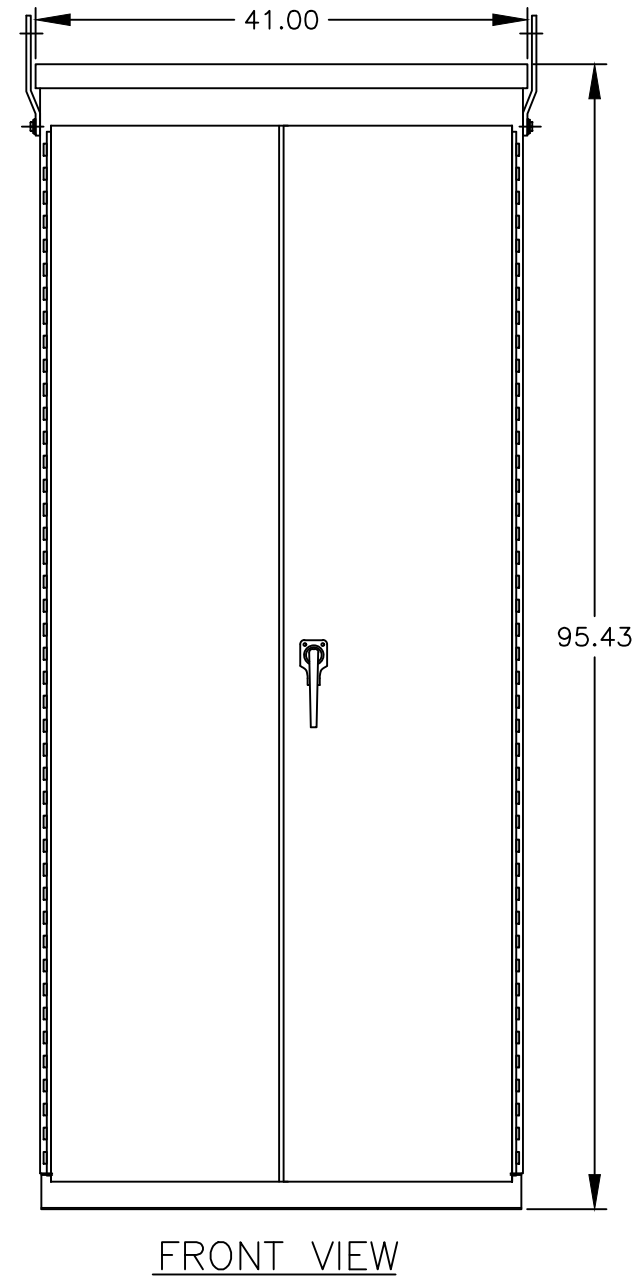
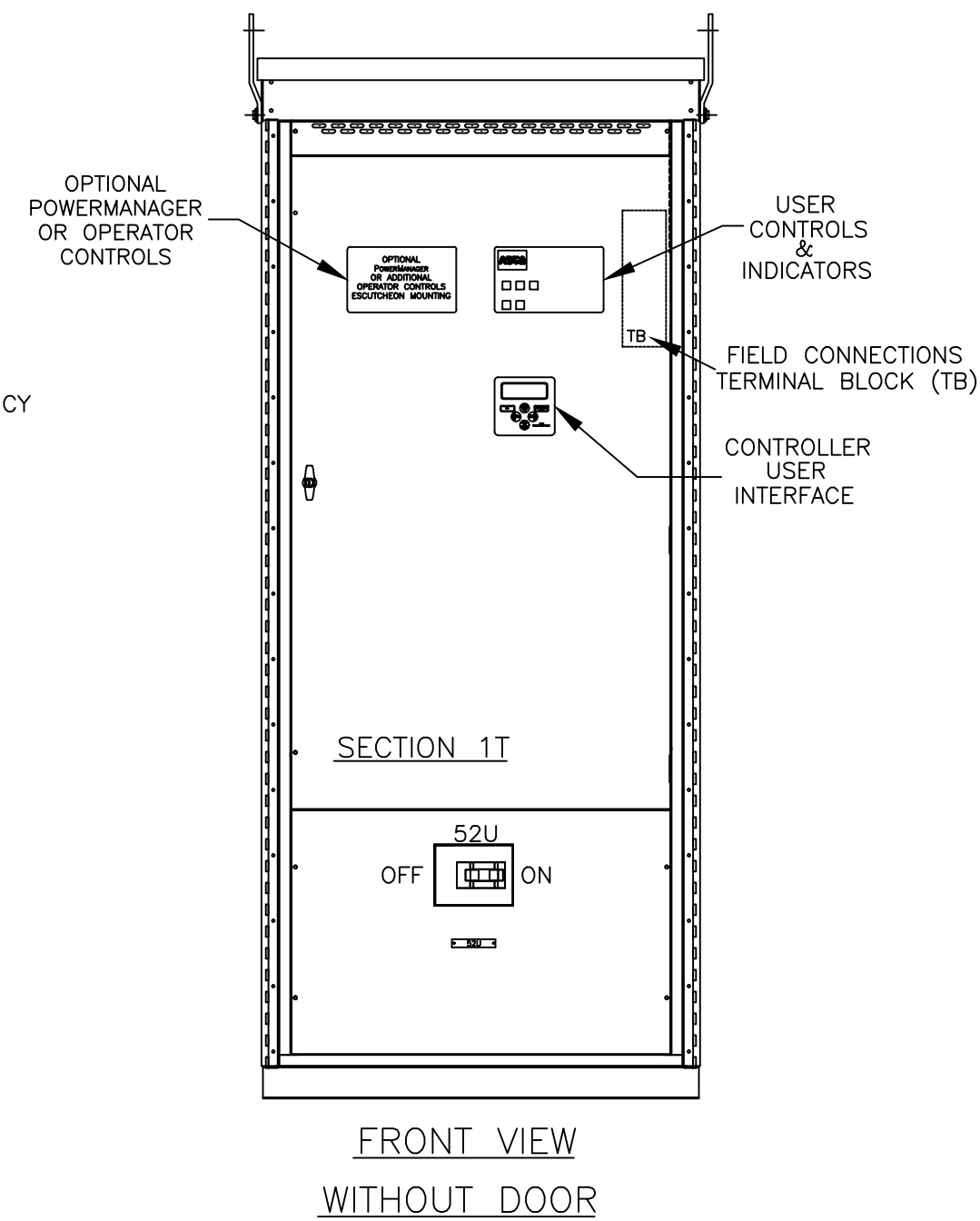
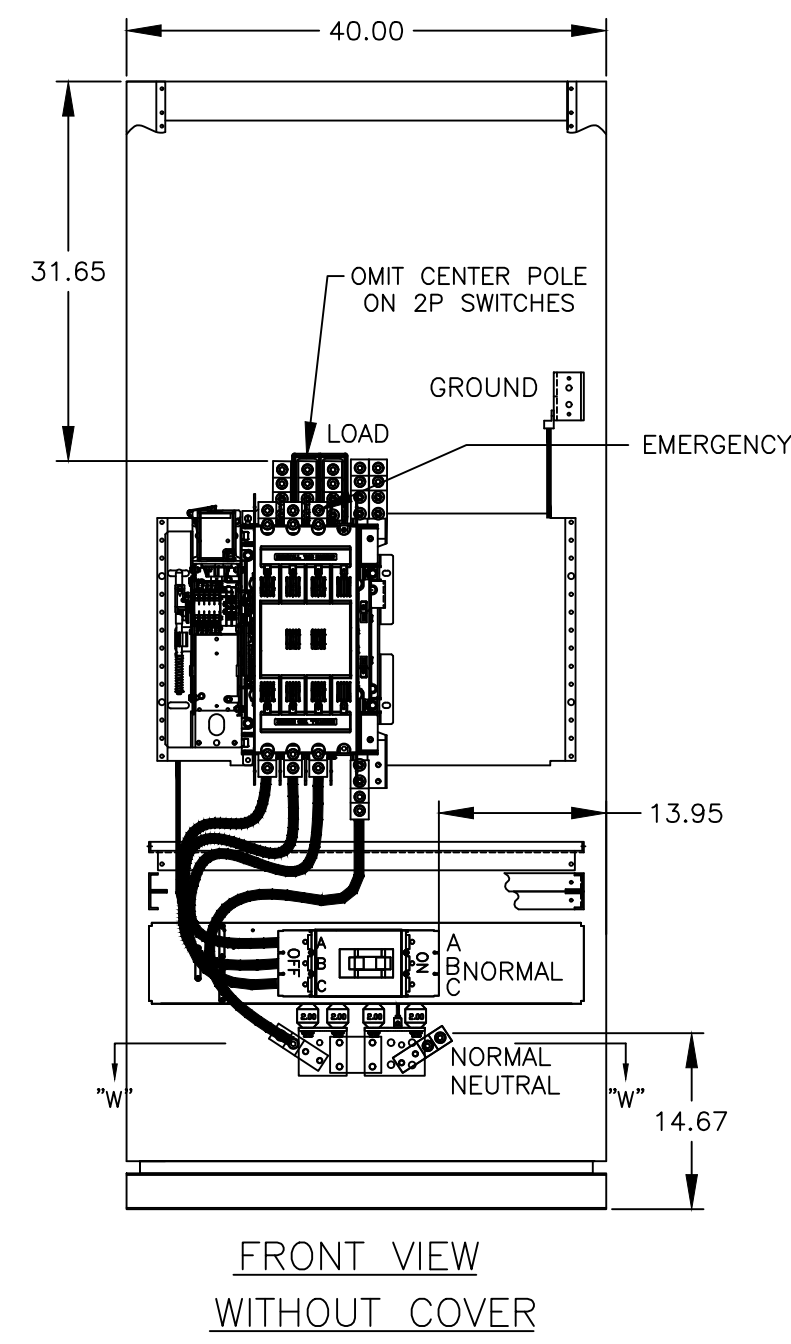
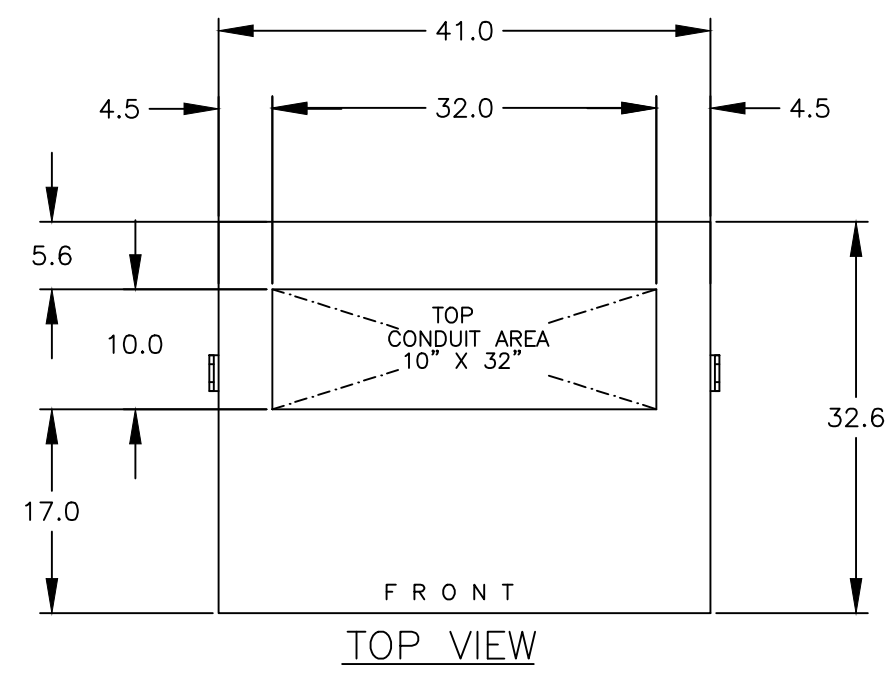
ALLEGAN MENTAL HEALTH SERVICES

Transfer Switch Details

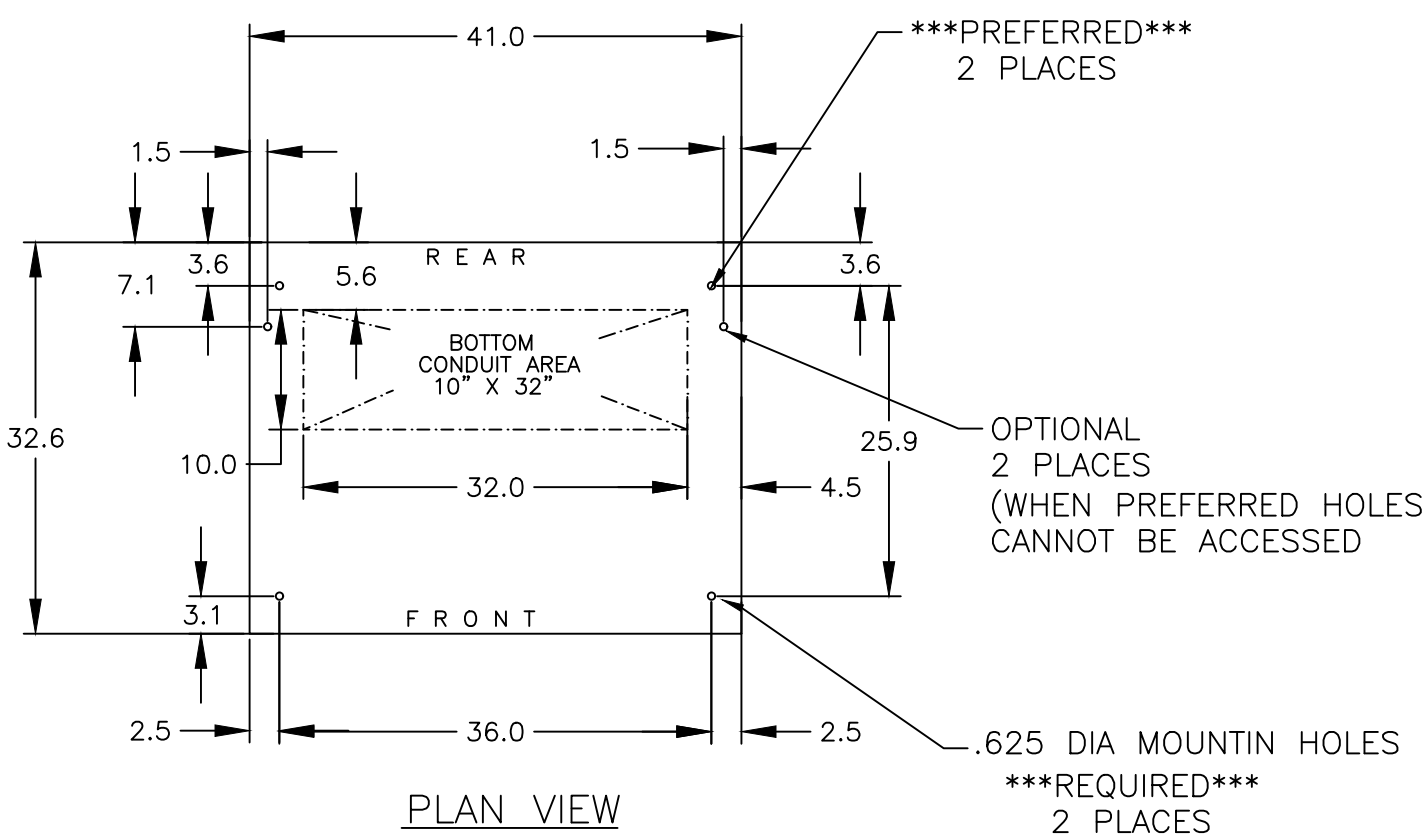
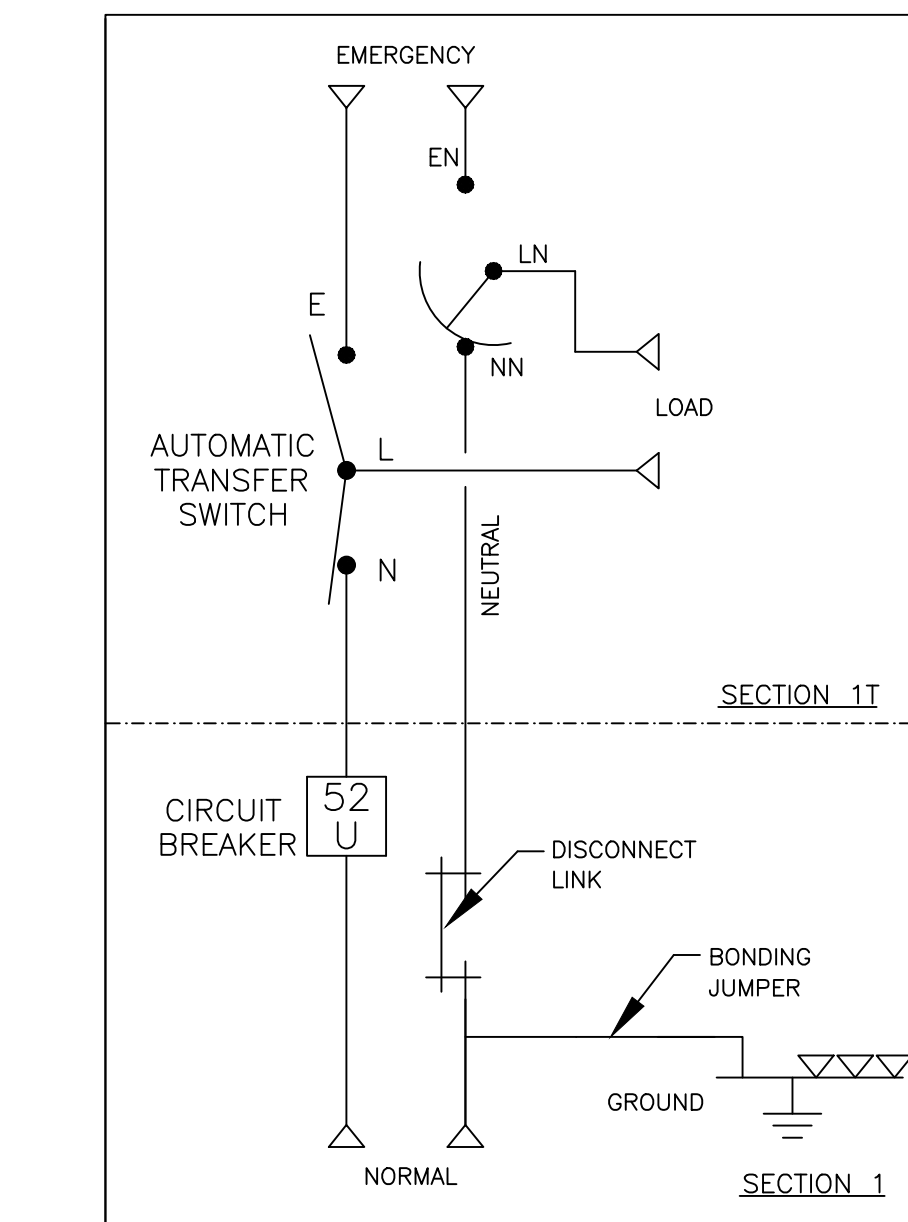
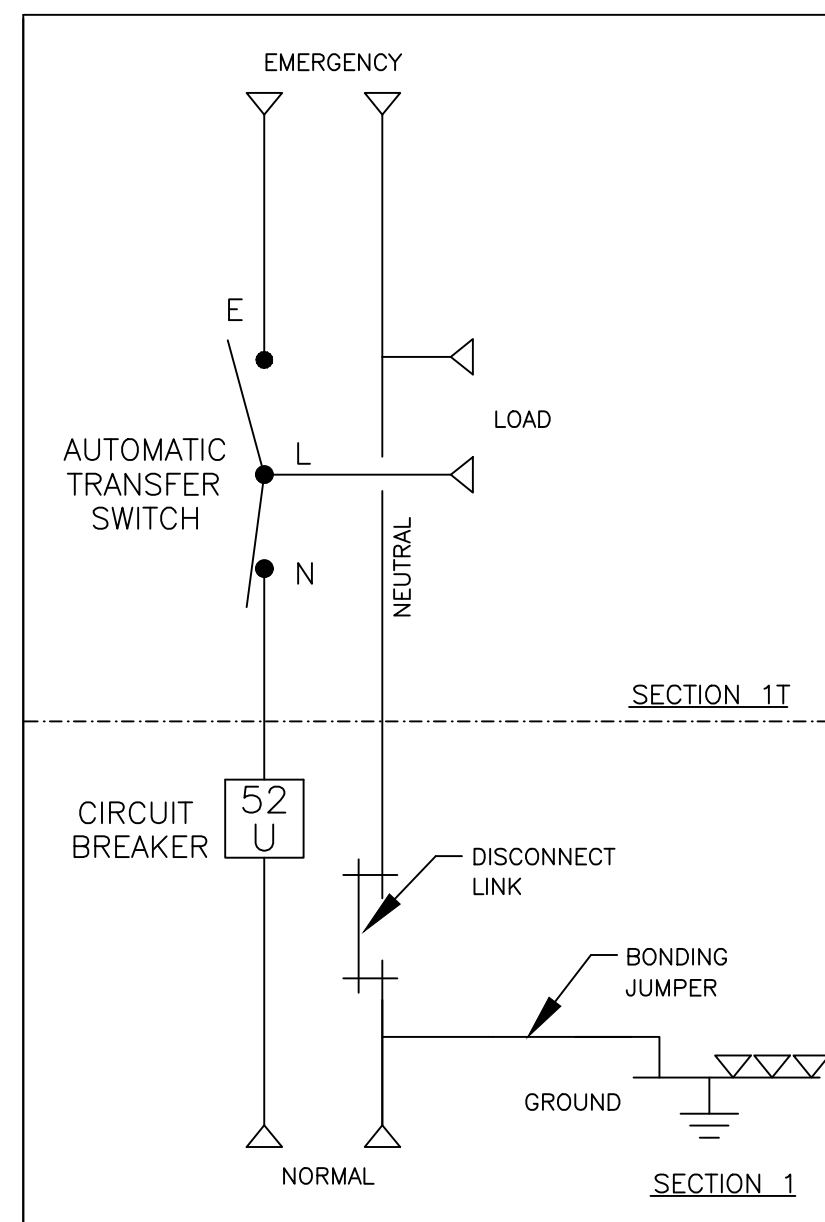
| ATS | AMPS: 0600 | QTY: 1 |
|---|--|--------|
| Product : Series 300 Transfer Switches | Catalog Number : J03AUSB30600NGXM | |
| Service Voltage / Hz : 480V/60Hz | Optional Accessories : 11BE,18RX,44G Activate 6DL Activate 31Z | |
| Bypass Isolation : Not Applicable | Product Description : 300 Series, Automatic Service Entrance Transfer Switch | |
| Switched Poles : 4 | Neutral Configuration : Switched [B] | |
| Withstand Rating : Please refer to WCR chart Frame = J, Switch Rating = 0600 | Cables and Lug Sizes : See Outline Diagram | |
| Enclosure : 3R(M) Secure 3R | Service : Three Phase, 4-wire | |
| Extended Warranty : Not Included | Markings : | |

ACCESSORIES DESCRIPTIONS

| Item | Accessory Code | Description |
|------|----------------|---|
| 1 | 6DL | Retransfer to normal mode. While in manual retransfer mode if an emergency source failure should occur and the normal source is still available manual retransfer will be automatically bypassed. A pilot light indicates manual retransfer mode. |
| 2 | 11BE | Adds the following features to the Group G controller: (1) Serial RS-485 Modbus Communications (2) Multi-Schedule Engine Exerciser (3) a 300 Entry Event Log and (4) a common alarm output function. When applied on 3-phase systems it also enables: (1) 3-Phase Emergency Source VLL sensing (2) Phase Rotation Monitoring (3) Emergency Source VLL Unbalance Monitoring. |
| 3 | 18RX | REX (Relay Expansion Module) with Normal and Emergency available output contacts (18B & 18G) |
| 4 | 31Z | Load disconnect contacts, with TD which operate before/after transfer |
| 5 | 44G | Strip heater w/ thermostat, wired to load terminals: 208-600 volts |



ONE LINE DIAGRAMS



GENERAL NOTES

- FLOOR MOUNTED ENCLOSURE.
TYPE 3R CONSTRUCTED FROM CODE GAUGE STEEL.
FINISH: TYPE 3R, ANSI 61 GRAY POLYESTER SEMI GLOSS ELECTROSTATIC POWDER.
TYPE 3RX EXTERIOR CONSTRUCTED FROM CODE GAUGE STAINLESS STEEL.
(R) EXTERIOR CONSTRUCTED FROM TYPE 304 STAINLESS STEEL.
(S) EXTERIOR CONSTRUCTED FROM TYPE 316 STAINLESS STEEL.
- EXTERIOR DOORS HAVE PADLOCKABLE HANDLES WITH 3-POINT LATCH
- DESIGNED FOR FRONT ACCESS ONLY.
- RECOMMENDED CLEARANCES: FRONT: 38" REAR: NONE.
- LIFTING PLATES: SECTIONS ARE SUPPLIED WITH LIFTING PLATES. INSPECT PLATES FOR DAMAGE AND TORQUE BOLTS TO 45 FT LBS BEFORE USE. REFER TO ANSI/NEMA PB 2.1 FOR PROPER HANDLING OF EQUIPMENT. AFTER INSTALLATION OF SECTION, REMOVE LIFTING PLATES. REINSTALL BOLTS INTO EXTERIOR HOLES AND TORQUE TO APPROXIMATELY 20 FT LBS.
- SECTION 1 & SECTION 1T SHIP AS 1 UNIT.

SYSTEM NOTES

- SYSTEM RATING: 600 AMPS, 3 ϕ , 4W OR 1 ϕ , 3W.
SHORT CIRCUIT RATING: 50,000 RMS SYM @ 480V.
THE EMERGENCY SOURCE MUST BE PROTECTED BY A REMOTE OVERCURRENT PROTECTION DEVICE AS LISTED ON THE MARKINGS ON THE TRANSFER SWITCH.
- ALL BUS IS SILVER-PLATED COPPER, BASED ON 1000A PER SQ. IN. DENSITY.
- GROUND: 20% RATED.
- NEUTRAL: 100% RATED.
- APPLICABLE LABEL(S): U.L. 891, SUITABLE ONLY FOR USE AS SERVICE EQUIPMENT.

TRANSFER SWITCH

- J FRAME AUTOMATIC TRANSFER SWITCH.
- TRANSFER SWITCH RATING: 600 AMPS
SHORT CIRCUIT RATING WHEN PROTECTED BY A CIRCUIT BREAKER
TIME RESPONSE, MAXIMUM 0.05 SECONDS:
42,000 RMS SYM @ 480V (SWITCHED AND SOLID NEUTRAL).
35,000 RMS SYM @ 480V (OVERLAPPING NEUTRAL).
SPECIFIC BREAKER RATING: 50,000 RMS SYM @ 480V.
- A FULL RATED NEUTRAL CONNECTION FOR EACH SOURCE AND THE LOAD IS OPTIONAL.
WHEN PROVIDED IT IS IN ONE OF THE FOLLOWING FORMATS.
A. SOLID NEUTRAL
B. SWITCHED NEUTRAL POLE
C. OVERLAPPING NEUTRAL POLE
- UL 1008

TERMINATIONS 600A

- SUPPLIED WITH MECHANICAL (SCREW TYPE) LUGS FOR CU/AL CABLE.
NORMAL: (2) 2/0 - 500MCM PER PHASE & NEUTRAL
LOAD: (2) #2 - 600MCM PER PHASE & NEUTRAL
EMERGENCY: (2) #2 - 600MCM PER PHASE & NEUTRAL
GROUND: (6) 1/0 - 600MCM
A. SUITABLE WIRE BENDING SPACE IS PROVIDED AS PER NEC.
- OPTIONAL LUGS MAY BE SUPPLIED.

CIRCUIT BREAKER: ITEM 52U

- SQUARE "D" 80% RATED TYPE 'LJL', 600AF/600AT MANUALLY OPERATED, ELECTRONIC TRIP WITH LONG DELAY AND INSTANTANEOUS TRIP SETTINGS.
SHORT CIRCUIT RATING: AIC 65,000 RMS SYM @ 480V.
- U.L. 489

| | | | |
|---|----------|---|-----------------|
| PROJECT NAME: | | 290369 RP RN 07-14-21 | |
| OUTLINE | | MOUNTING | |
| JAUS 600A, LJI SERVICE ENTRANCE BREAKER ON NORMAL | | | |
| TYPE 3R/3RX 96 X 41 X 33, SECTION 1 AND 1T | | | |
| BY | DATE | MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-055 | ASSEM. REF. NO. |
| RP | 07-14-21 | | |
| CHECKED | RN | PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | |
| PROJECT APPROVAL | | COMPUTER GENERATED DRAWING | |
| FINAL APPROVAL | | SCALE 1:1 | SIZE DS |
| | | DWG. NO. 882678-058 | |
| | | REV. 1 | ECN NO. 290369 |
| | | SHEET 1 OF 1 | |

THREE PHASE WIRING FOR ASCO® 300 SERIES TRANSFER SWITCHES (J3ATS/J3NTS) 600 AMPERES WITH GROUP G CONTROLS

GENERAL INFORMATION

THIS WIRING APPLIES TO 300 SERIES TRANSFER SWITCHES THAT UTILIZE THE "J" FRAME POWER TRANSFER SWITCH RATED 600 AMPERES.

THE GROUP G CONTROLLER PROVIDES EITHER AUTOMATIC (J3ATS) OR NON-AUTOMATIC [MANUAL] (J3NTS) 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, 3ADTS, 3NTS & 3NDTS, J-DESIGN 150-600 A TRANSFER SWITCHES, PART NUMBER 381333-404.

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. THE OUTPUT CONTACTS CHANGE POSITION WHEN A "COMMON ALARM" IS NOT PRESENT AND RESET WHEN A "COMMON ALARM" CONDITION IS PRESENT. THE "COMMON ALARM" SIGNAL CONDITIONS ARE SELECTABLE.

ADDITIONAL "COMMON ALARM" AND "NOT IN AUTO" CONTACTS ARE AVAILABLE WHEN OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE) IS INCLUDED IN THE TRANSFER SWITCH ASSEMBLY. OUTPUT CONTACTS "OP2 AND/OR "OP3" WILL PROVIDE SIGNAL FUNCTIONS WHEN THE FEATURE SETTING OF EACH IS SET TO OPERATE AS "COMMON ALARM" OR "NOT IN AUTO".

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.

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. OPENING OF THE CONTACT CAUSES ENGINE START AND TRANSFER TO THE EMERGENCY SOURCE. RE-CLOSURE OF THE CONTACT ACTIVATES THE FEATURE 3A "RETRANSFER TO NORMAL (IF JUST TEST) TIME DELAY PRIOR TO RETRANSFER. IN THE EVENT THAT THE EMERGENCY SOURCE FAILS WHILE THE TRANSFER SWITCH IS CONNECTED TO EMERGENCY AND THE CUSTOMER SUPPLIED CONTACT IS OPEN, THE TRANSFER SWITCH WILL AUTOMATICALLY RETRANSFER TO THE NORMAL SOURCE.

EXTERNAL FEATURE 6B: REMOTE BYPASS OF RETRANSFER TO NORMAL TIME DELAY - REQUIRES A CUSTOMER SUPPLIED, NORMALLY CLOSED CONTACT. OPENING OF THE CONTACT BYPASSES FEATURE 3A RETRANSFER TO NORMAL DELAY IF ACTIVE.

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

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 AUXILIARY CONTACT THAT IS CLOSED WHEN THE TRANSFER SWITCH IS CONNECTED TO THE EMERGENCY SOURCE, IS CONNECTED ACROSS THE N/C CONTACT (FEATURE 7).

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. OUTPUT CONTACTS "OP2" AND/OR "OP3" PROVIDE THE ENGINE STARTING FUNCTION WHEN THE FEATURE SETTING OF EACH IS SET TO OPERATE AS "NR2".

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)

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. OUTPUT CONTACTS "OP2 AND/OR "OP3" WILL PROVIDE LOAD DISCONNECT FUNCTIONS WHEN THE FEATURE SETTING OF EACH IS SET TO OPERATE AS "FEATURE 31".

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.

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. OUTPUT CONTACTS "OP2" WILL PROVIDE EXTERNAL 24 VDC POWER SUPPLY FUNCTIONALITY WHEN ITS FEATURE SETTING IS SET TO OPERATE AS "1G". ADDITIONALLY, JUMPERS MUST BE RECONFIGURED ON ACCESSORY 18RX (RELAY EXPANSION MODULE) TO ENABLE THIS FUNCTION AS FOLLOWS:

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. THE "OP2" N/C CONTACT SWITCHES CUSTOMER PROVIDED +24 VDC FROM THE EXTERNAL POWER SUPPLY TO THE CONTROLLER.

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).

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.

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.

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. OUTPUT CONTACTS "RL5" (EMERGENCY SOURCE AVAILABLE) AND "RL6" (NORMAL SOURCE AVAILABLE) CHANGE POSITION WHEN THE SOURCE IS ACCEPTABLE.

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

FOUR-FUNCTION SOFTWARE BUNDLE

WHEN OPTIONAL ACCESSORY 11BE IS PART OF THE TRANSFER SWITCH ASSEMBLY, A FOUR-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.

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

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. ○ 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. THE TRANSFER UNIT IS MOUNTED ON THE BACK INSIDE SURFACE OF THE ENCLOSURE. THE CONTROL PANEL AND ANY OPTIONAL ACCESSORIES ARE MOUNTED ON THE INSIDE SURFACE OF THE DOOR.
8. AN OPERATOR'S MANUAL IS FURNISHED WITH EACH AUTOMATIC TRANSFER SWITCH. REFER TO THIS PUBLICATION PRIOR TO INSTALLATION AND OPERATION OF THE SWITCH.
9. GROUND STRAP ON CONTROL PANEL IS AFFIXED TO CHASSIS (ENCLOSURE) AT LOWER LEFT CONTROL PANEL MOUNTING STUD.

| CATALOG NUMBER SUFFIXES | | | | | | | | | |
|-------------------------|--------------|--------------|-------------|------|-----------|------------|--------------------|----------------|--|
| TS FRAME | CATALOG TYPE | NEUTRAL TYPE | PHASE POLES | AMPS | VOLT CODE | CONTROLLER | OPTIONAL ACCESSORY | ENCLOSURE CODE | |
| J | 3ATS | A | 3 | 600 | | G | X | | |

| EXPLANATION OF CATALOG NUMBER CODES | | | | | | | | | |
|-------------------------------------|-------------|---|-----------------|-----------------|------|---|--|--|--|
| NEUTRAL TYPE | | VOLTAGE CODES 3 PHASE (3 OR 4 WIRE) 50 OR 60 Hz | | ENCLOSURE CODES | | | | | |
| CODE | DESCRIPTION | CODE | NOMINAL VOLTAGE | CODE | TYPE | DESCRIPTION | | | |
| A | SOLID | | | BLANK | C | OPEN TYPE (NO ENCLOSURE) | | | |
| B | SWITCHING | | | C | 1 | GENERAL PURPOSE, INDOOR | | | |
| | | C | 208 | F | 3R | OUTDOOR, RAINPROOF, SLEET & ICE RESISTANT | | | |
| | | D | 220 | G | 4 | INDOOR/OUTDOOR, WATERTIGHT & DUSTTIGHT | | | |
| | | E | 230 | H | 4X | TYPE 4 PLUS CORROSION RESISTANCE (STAINLESS STEEL) | | | |
| | | F | 240 | L | 12 | INDOOR, INDUSTRIAL ENVIRONMENTS, OILTIGHT & DUSTTIGHT | | | |
| | | G | 277 | | | (SECURE ENCLOSURES) | | | |
| | | H | 380 | M | 3R | OUTDOOR, RAINPROOF, SLEET & ICE RESISTANT | | | |
| | | J | 400 | N | 4 | INDOOR/OUTDOOR, WATERTIGHT & DUSTTIGHT | | | |
| | | K | 415 | P | 4X | TYPE 4 PLUS CORROSION RESISTANCE (STAINLESS STEEL) | | | |
| | | L | 440 | Q | 12 | INDOOR, INDUSTRIAL ENVIRONMENTS, OILTIGHT & DUSTTIGHT | | | |
| | | M | 460 | | | | | | |
| | | N | 480 | | | | | | |
| | | P | 550* | | | | | | |
| | | Q | 575* | | | | | | |
| | | R | 600* | | | | | | |

CATALOG NUMBER _____
ASCO® CERTIFIED TO
 S.O. _____
 BY _____
 DATE _____

FORM REV E

| | | | | |
|---------------|---------|----|------|------|
| REV. TO SHEET | ECN NO. | BY | APP. | DATE |
| | | | | |

WIRING DIAGRAM

300 SERIES J3ATS/J3NTS, THREE PHASE 600 AMPS
 "J" FRAME, GROUP G CONTROLS

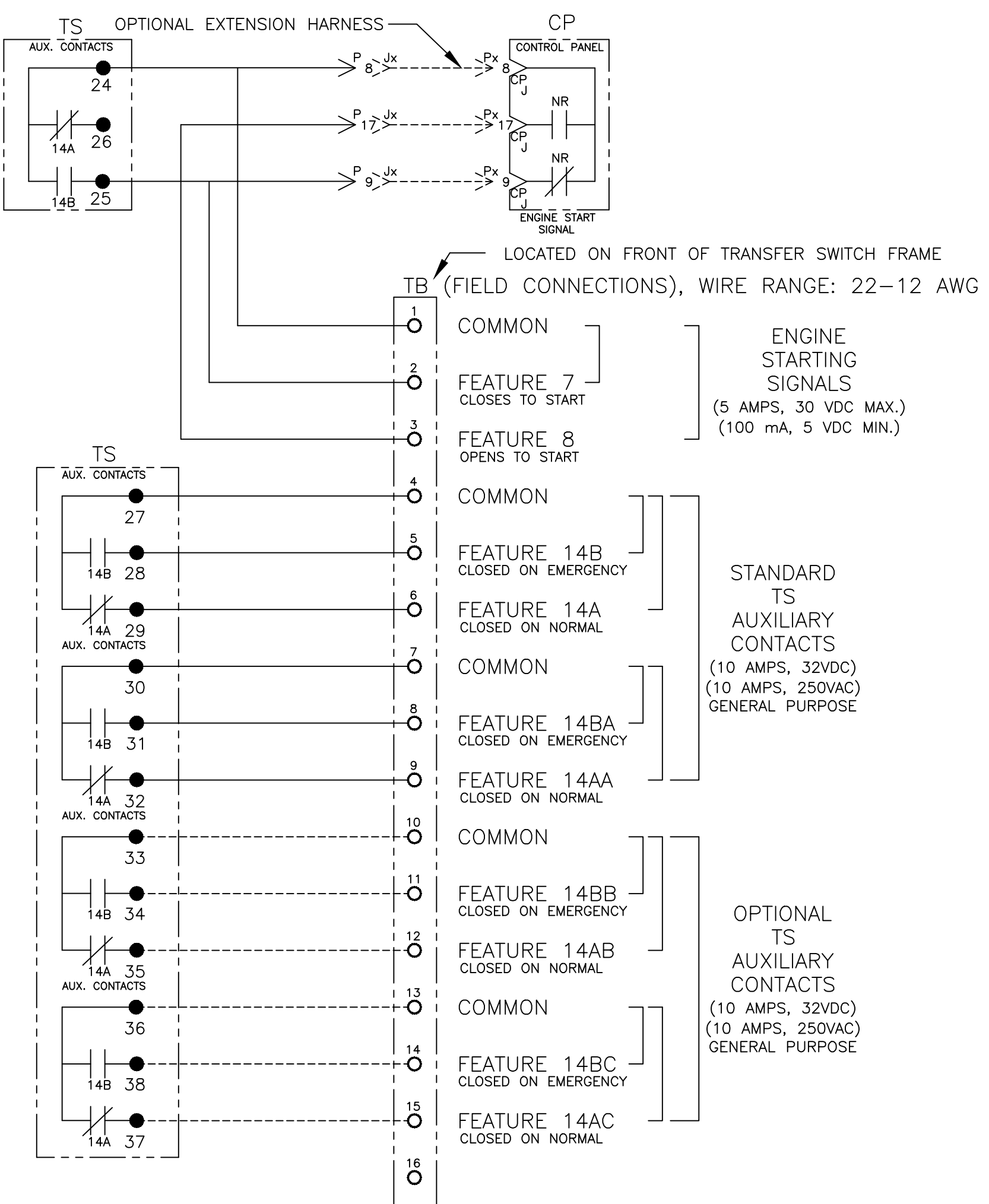
THIRD ANGLE PROJECTION

| | | | | | | | | | | |
|------------------|-----|--------|--------|---|-----------------|--|-------|-----|------|----|
| DRAWN BY | SDH | DATE | 5/6/13 | MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-055 | ASSEM. REF. NO. | | SCALE | NO. | SIZE | DS |
| CHECKED | | | | PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | | | | | | |
| PROJECT APPROVAL | | | | | | | | | | |
| FINAL APPROVAL | SDH | 5/6/13 | | | | | | | | |

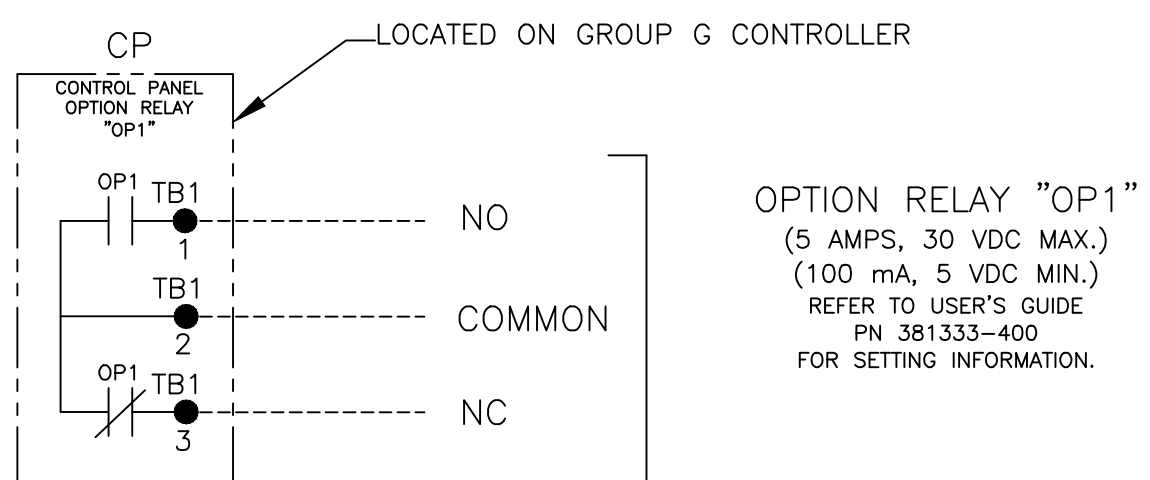
ASCO® ASCO Power Technologies, L.P.
 FLOHAM PARK, NEW JERSEY 07932 U.S.A.

978745
 DRAWING E ECN NO. 266495 SHEET 1 OF 6

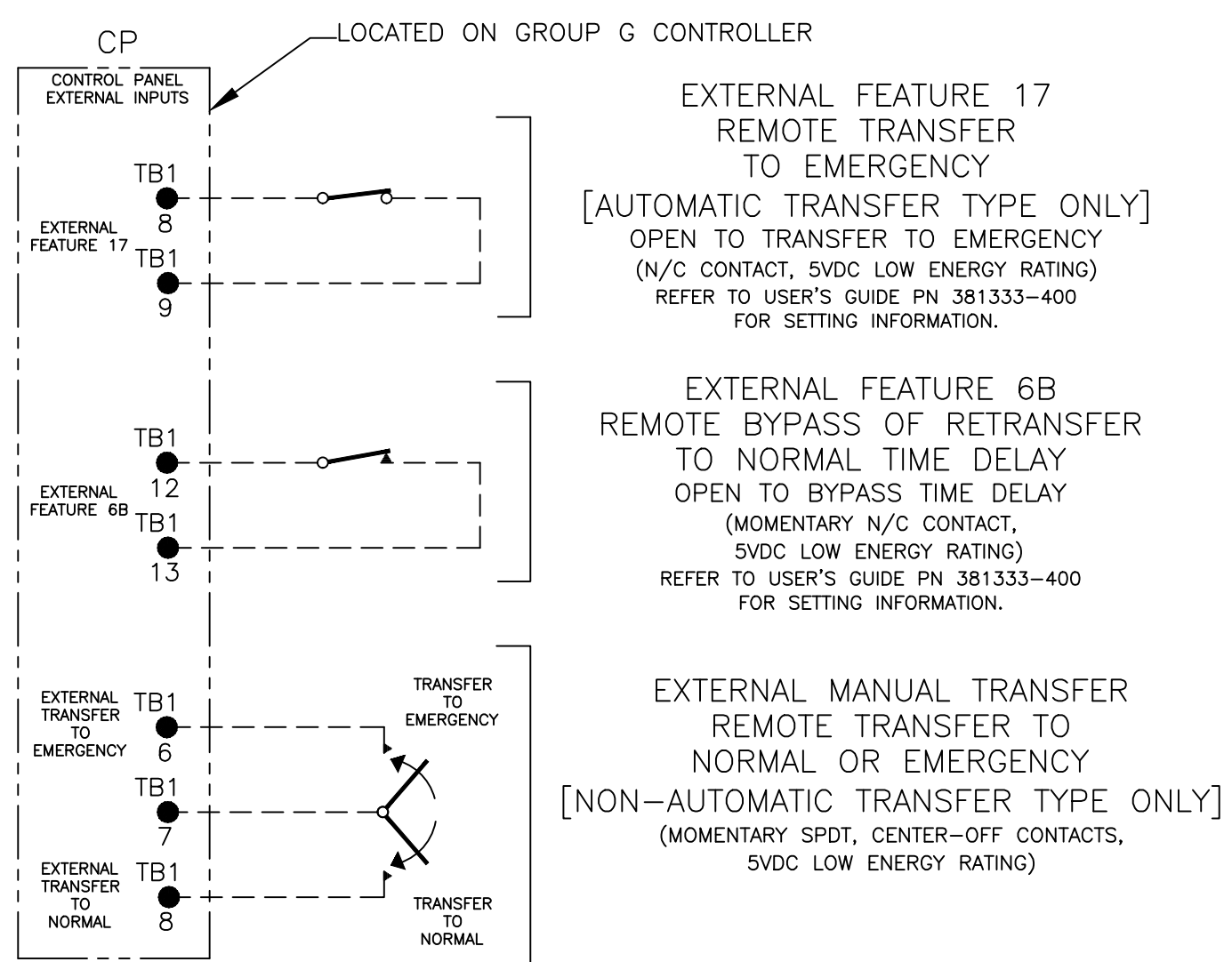
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|---|--------|-----|-----|----------|
| E | 266495 | MKA | JPB | 04/10/17 |
| D | 251210 | AJ | MM | 10/17/14 |
| C | 247770 | SDH | SDH | 4/14/14 |
| B | 246325 | AE | BK | 01/16/14 |
| A | 242580 | SDH | SDH | 5/30/13 |
| | 242255 | SDH | SDH | 5/6/13 |



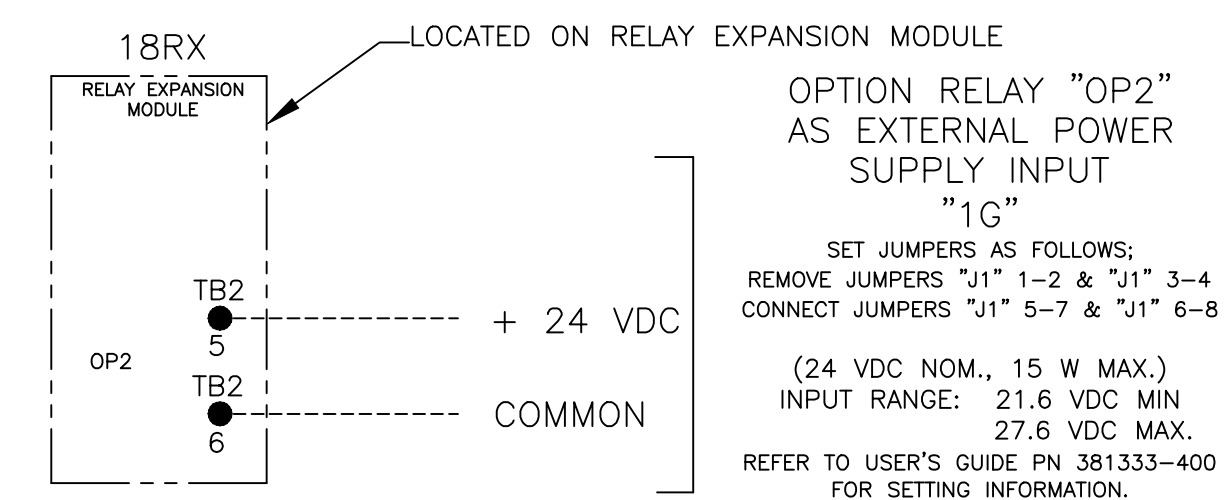
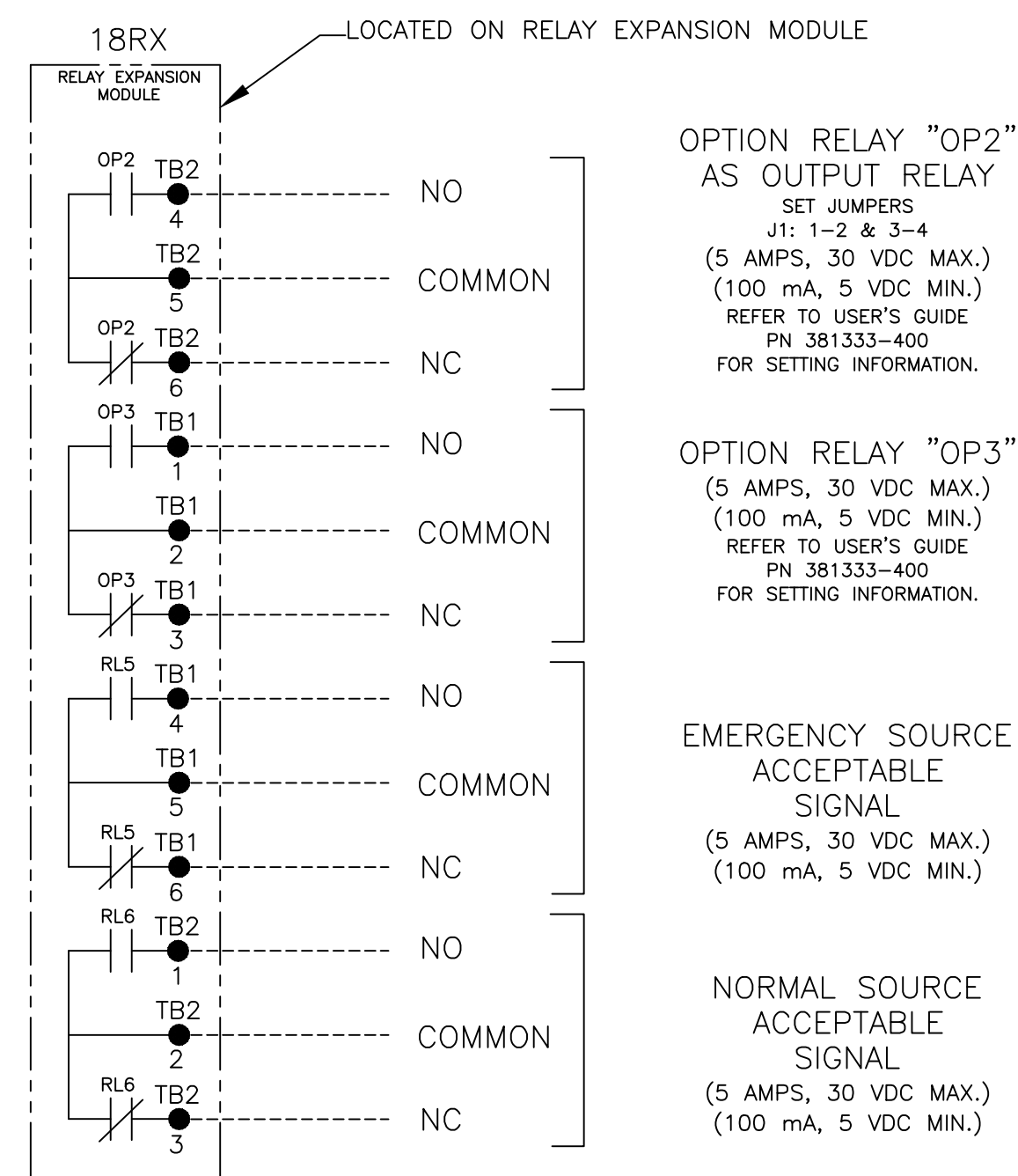
CONTROLLER OPTION RELAY "OP1" (STANDARD)



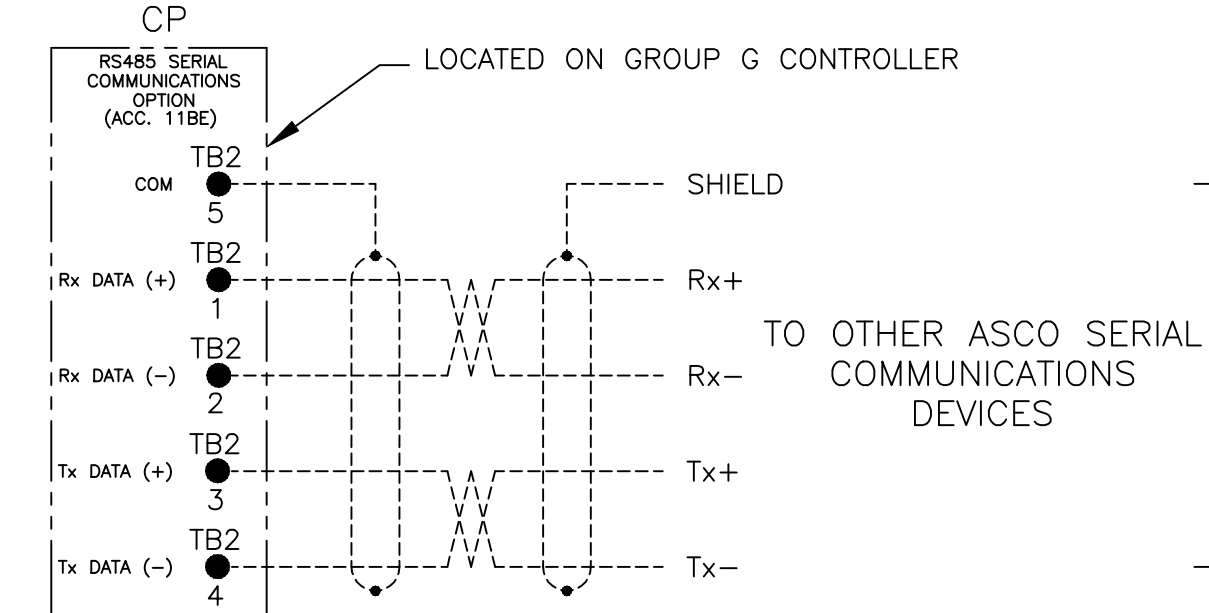
CONTROLLER REMOTE CONTROL FEATURES



OPTIONAL ACCESSORY 18RX (RELAY EXPANSION MODULE)

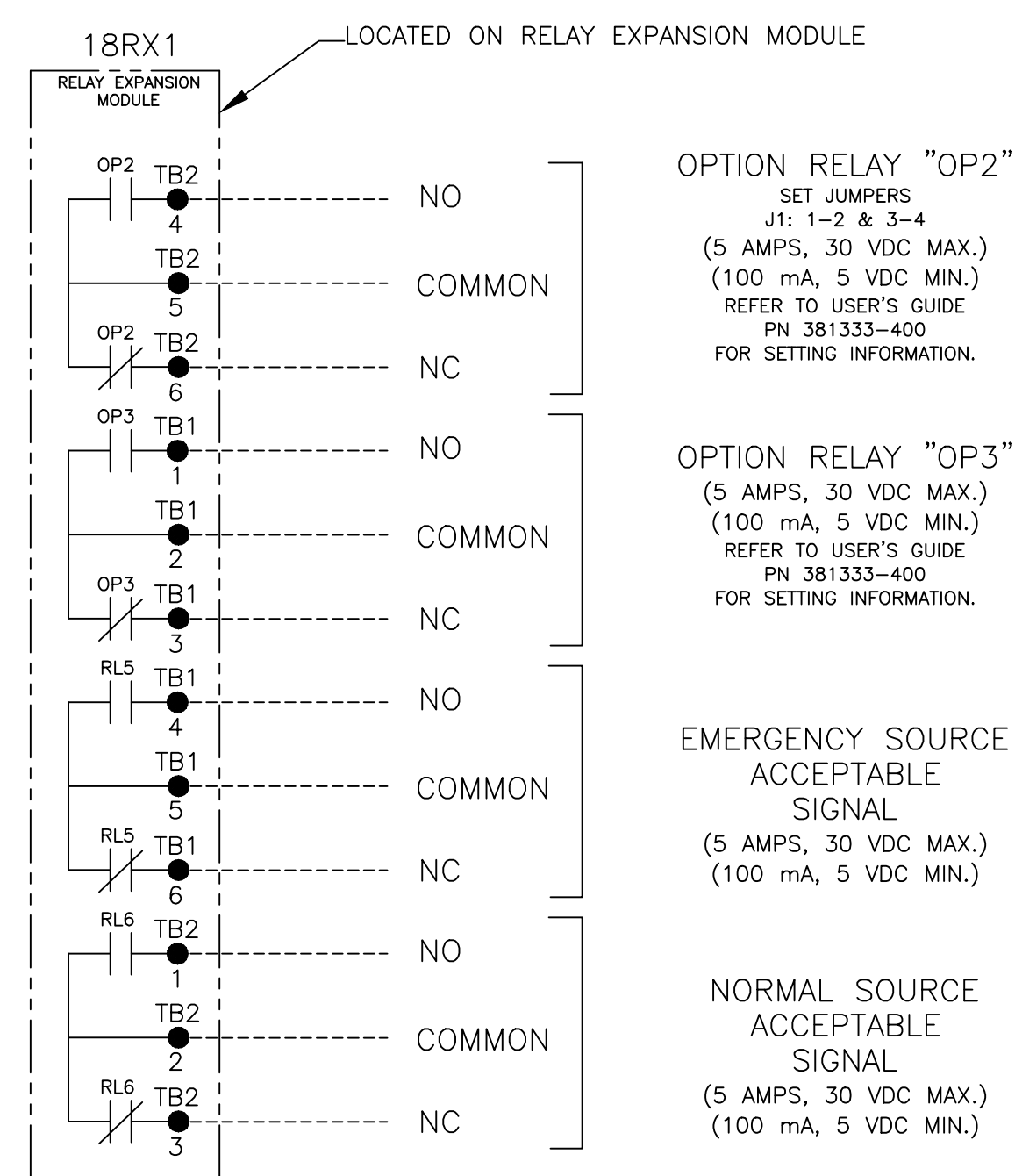


RS485 SERIAL COMMUNICATIONS OPTION AVAILABLE WITH OPTIONAL ACCESSORY 11BE: FOUR-FUNCTION SOFTWARE BUNDLE REFER TO USER'S GUIDE PN 381333-400 FOR SETTING INFORMATION.



- 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
- TO OTHER ASCO SERIAL COMMUNICATIONS DEVICES

OPTIONAL ACCESSORY 18RX1 (SECOND RELAY EXPANSION MODULE)



| | | | | |
|---|--------|-----|-----|----------|
| E | 266495 | MKA | JPB | 04/10/17 |
| D | 251210 | AJ | MM | 10/17/14 |
| C | 247770 | SDH | SDH | 4/14/14 |
| B | 246325 | AE | BK | 01/16/14 |
| A | 242580 | SDH | SDH | 5/30/13 |
| - | 242255 | SDH | SDH | 5/6/13 |
| | | | | ISSUE |

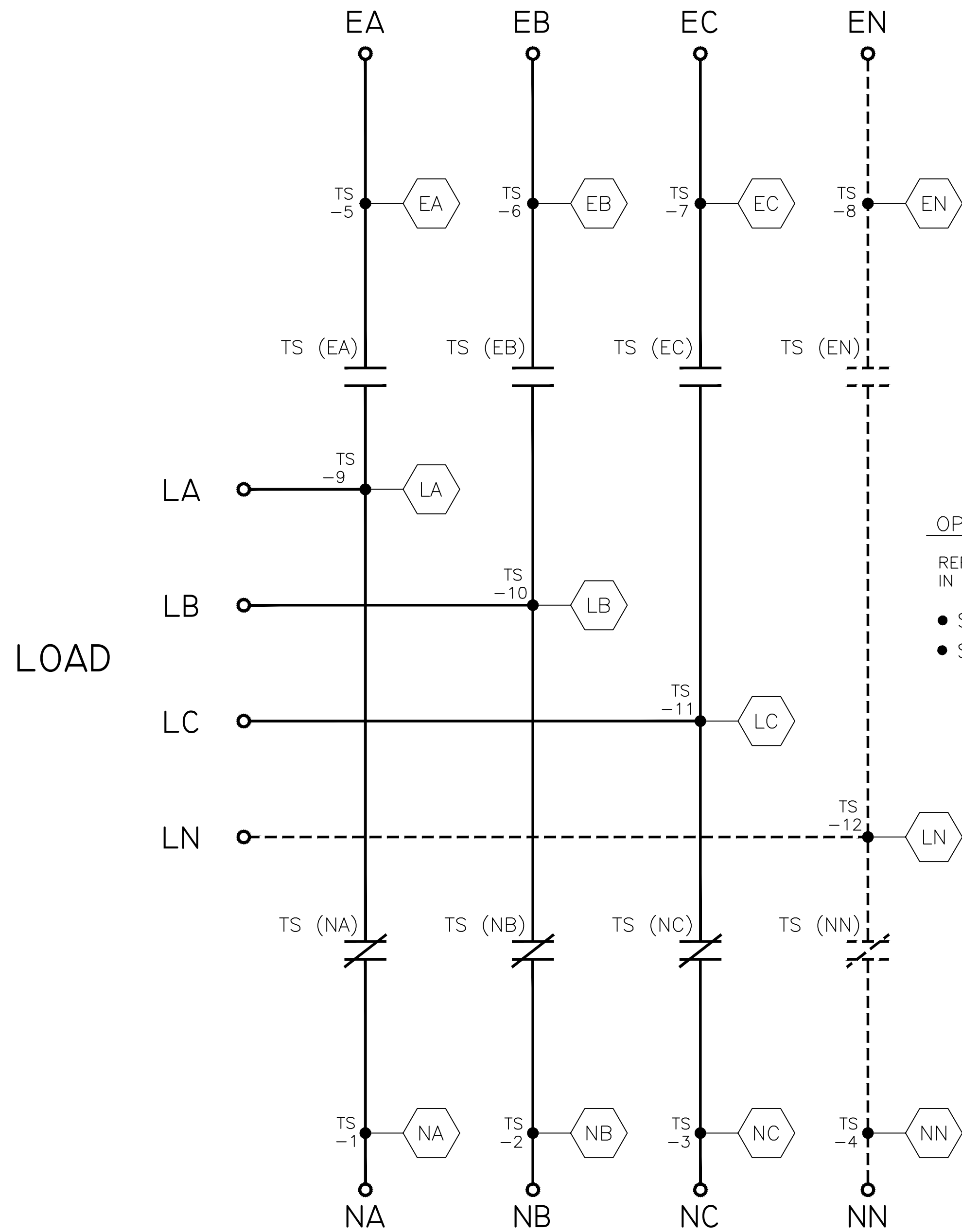
| | | | | | | |
|---|-----|-----------------|---------|-----------------------------|------|---------|
| PROJECT NAME: | | REV. TO SHEET | ECN NO. | BY | APP. | DATE |
| WIRING DIAGRAM | | | | | | |
| 300 SERIES J3ATS/J3NTS, THREE PHASE 600 AMPS "J" FRAME, GROUP G CONTROLS | | | | | | |
| MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-005. | | ASSEM. REF. NO. | | COMPUTER GENERATED DRAWING | | |
| DRAWN BY | SDH | DATE | 5/6/13 | SCALE | NONE | SIZE DS |
| CHECKED | | | | | | |
| PROJECT APPROVAL | | | | | | |
| FINAL APPROVAL | SDH | DATE | 5/6/13 | DWG. NO. 978745 | | |
| PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | | | | ECN NO. 266495 SHEET 2 OF 6 | | |
| ASCO POWER TECHNOLOGIES, L.P. FLORHAM PARK, NEW JERSEY 07932 U.S.A. | | | | | | |

MAIN POWER POLES

TS OPERATOR CIRCUIT

EMERGENCY

NORMAL



LOAD

OPTIONAL NEUTRAL TYPES

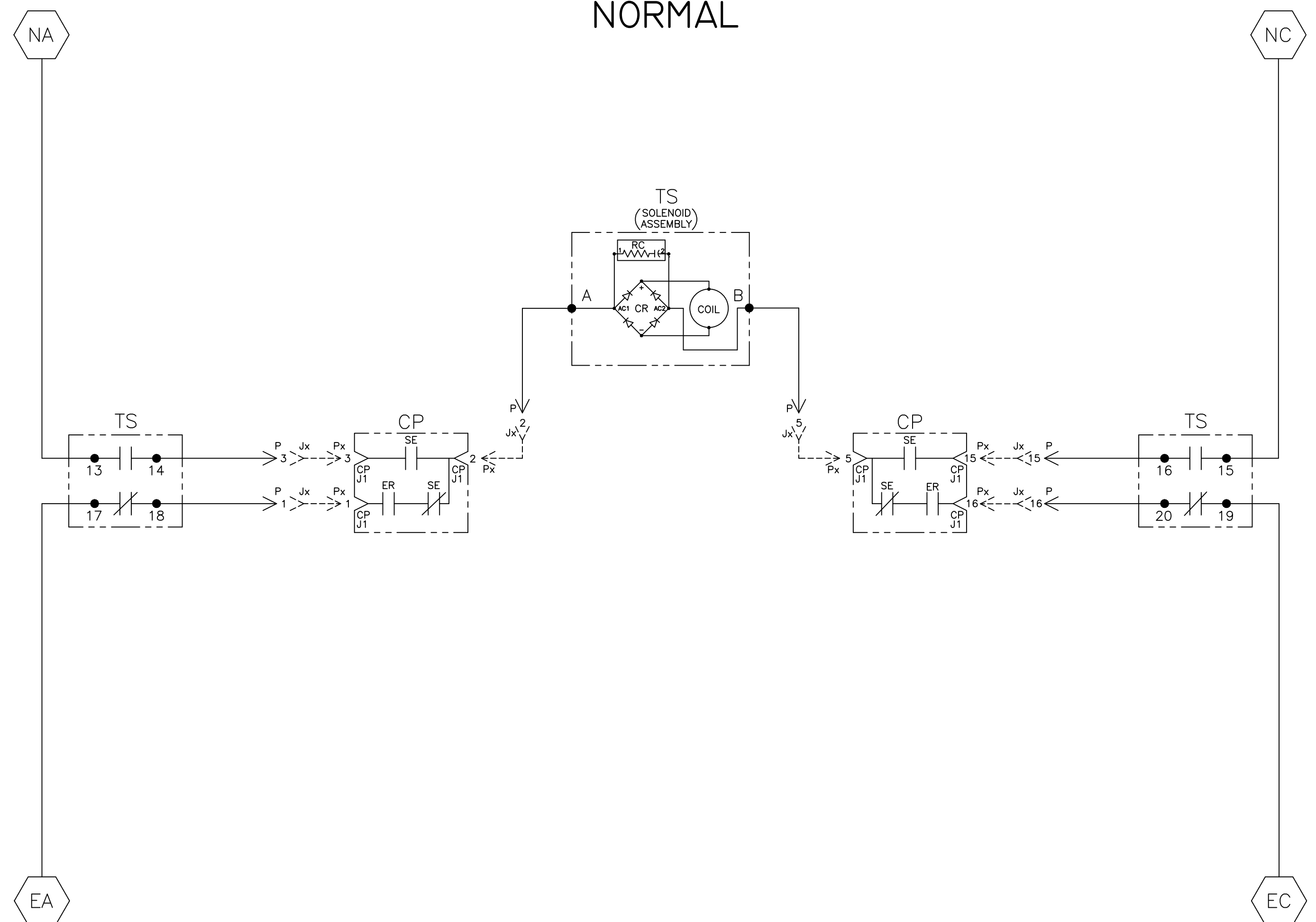
REFER TO "EXPLANATION OF CATALOG NUMBER CODES" IN CATALOG NUMBER CHART ON SHEET 1.

- SOLID BUS PLATE
- SWITCHING CONTACTS

NORMAL

EMERGENCY

NOTE:
ATS SHOWN CLOSED ON NORMAL SOURCE.



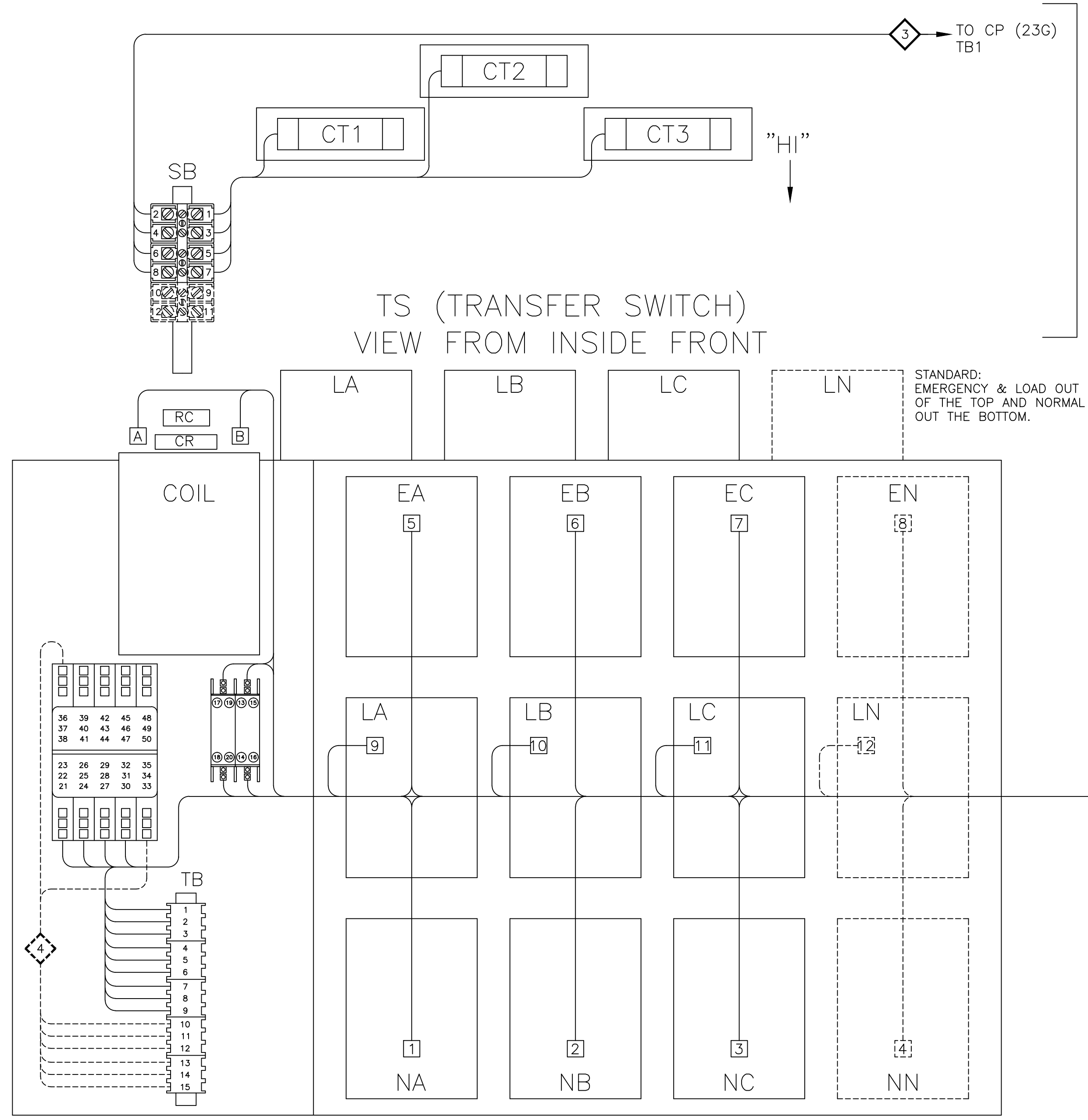
| TS | SOLENOID POSITION | | | |
|-------|----------------------|------------|--------------------|-------|
| | CLOSED BEFORE NORMAL | BEFORE TDC | BEFORE CLOSED <TDC | EMERG |
| 13-14 | | | | |
| 15-16 | | | | |
| 17-18 | | | | |
| 19-20 | | | | |

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

| | | | | |
|---|--------|-----|-----|----------|
| E | 266495 | MKA | JPB | 04/10/17 |
| D | 251210 | AJ | MM | 10/17/14 |
| C | 247770 | SDH | SDH | 4/14/14 |
| B | 246325 | AE | BK | 01/16/14 |
| A | 242580 | SDH | SDH | 5/30/13 |
| - | 242255 | SDH | SDH | 5/6/13 |
| - | ISSUE | | | |

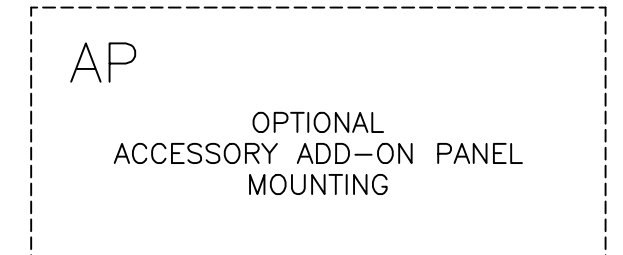
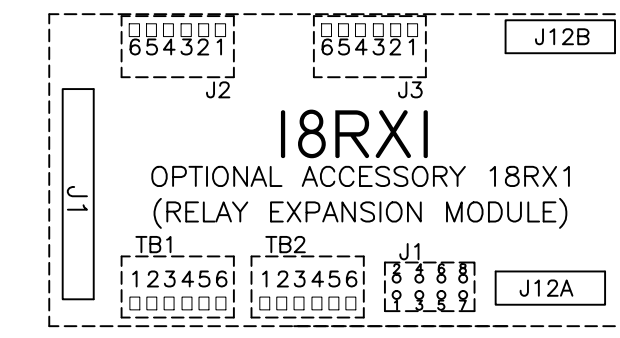
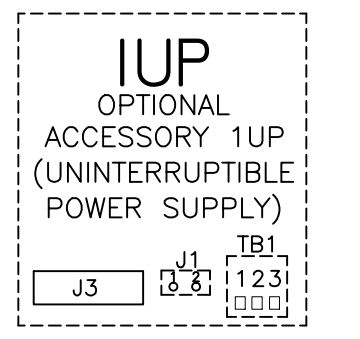
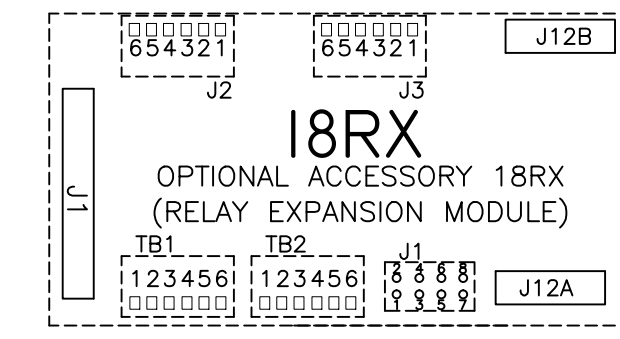
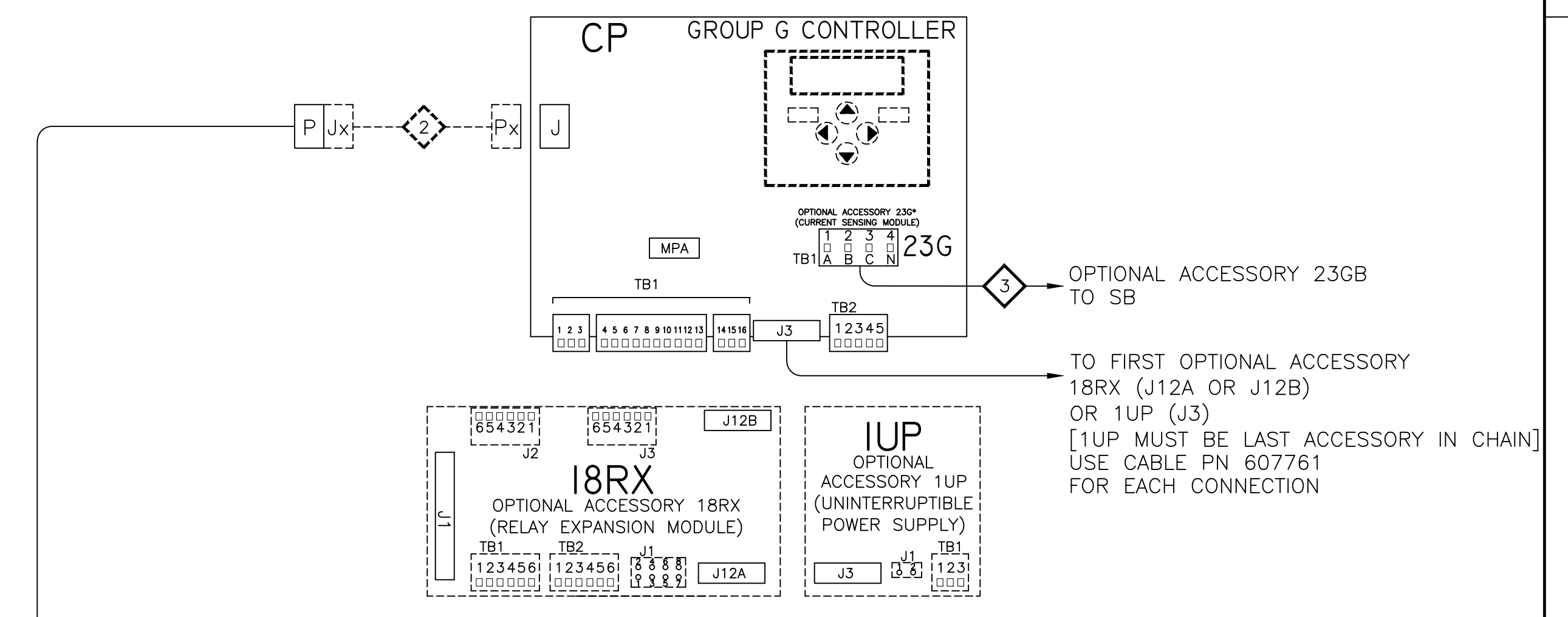
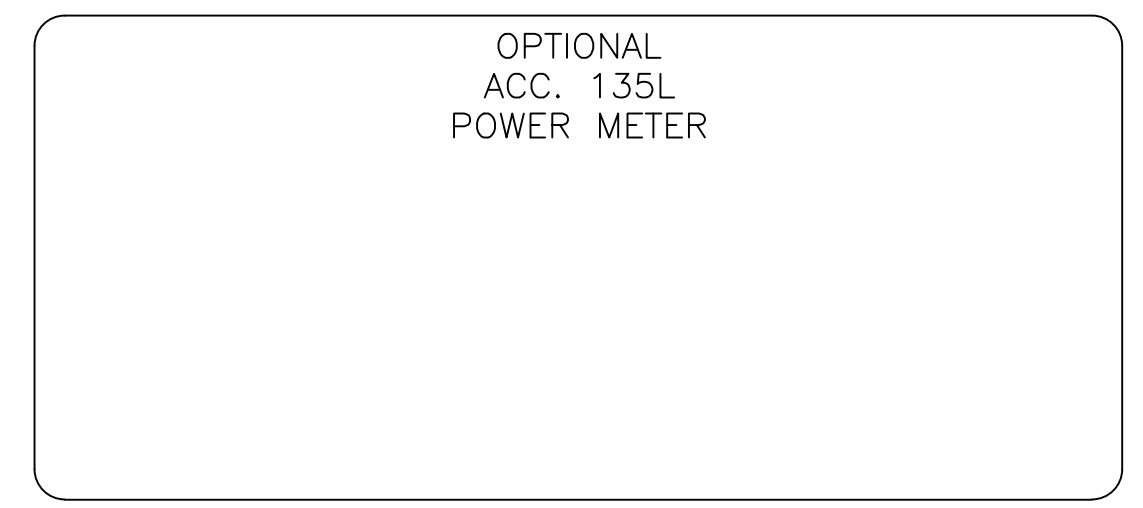
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|---|-----|---------------|---------|---|-----------------|---------------------------------------|
| PROJECT NAME: | | REV. TO SHEET | ECN NO. | BY | APP. | DATE |
| WIRING DIAGRAM | | | | | | |
| 300 SERIES J3ATS/J3NTS, THREE PHASE 600 AMPS "J" FRAME, GROUP G CONTROLS | | | | | | |
| DRAWN BY | SDH | DATE | 5/6/13 | 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 | | | | PROPERTY OF ASCO POWER TECHNOLOGIES, USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | | SCALE NONE SIZE DS |
| PROJECT APPROVAL | | | | | | DWG. NO. 978745 |
| FINAL APPROVAL | SDH | 5/6/13 | | ASCO® ASCO POWER TECHNOLOGIES, L.P. FLORHAM PARK, NEW JERSEY 07932 U.S.A. | | DRAWING E ECN NO. 266495 SHEET 3 OF 6 |

PHYSICAL DIAGRAM



OPTIONAL ACCESSORY 23GB

DOOR (INSIDE)



| | | | | |
|---|--------|-----|-----|----------|
| E | 266495 | MKA | JPB | 04/10/17 |
| D | 251210 | AJ | MM | 10/17/14 |
| C | 247770 | SDH | SDH | 4/14/14 |
| B | 246325 | AE | BK | 01/16/14 |
| A | 242580 | SDH | SDH | 5/30/13 |
| - | 242255 | SDH | SDH | 5/16/13 |
| - | ISSUE | | | |

| | | | | | | |
|---|-----|---------------|---------|---|-----------------|----------------------------|
| PROJECT NAME: | | REV. TO SHEET | ECN NO. | BY | APP. | DATE |
| WIRING DIAGRAM | | | | | | |
| 300 SERIES J3ATS/J3NTS, THREE PHASE 600 AMPS "J" FRAME, GROUP G CONTROLS | | | | | | |
| DRAWN BY | SDH | DATE | 5/16/13 | 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 | | | | PROPERTY OF ASCO POWER TECHNOLOGIES, USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | SCALE | NONE |
| PROJECT APPROVAL | | | | | DWG. NO. | 978745 |
| FINAL APPROVAL | SDH | DATE | 5/16/13 | | DRAWING E | ECN NO. 266495 |
| | | | | | | SHEET 5 OF 6 |

DOOR HINGE

BONDING STRAP
PN 098323-019

The ASCO Service Entrance Power Transfer Switch combines automatic power switching with the necessary disconnecting, grounding, and bonding required for use as service entrance equipment. The power transfer switch meets all National Electrical Code requirements for service entrance use.

Product Features:

- Suitable for use as service entrance equipment.
- Sizes available from 70 - 3000 amps, 600 VAC, 50 or 60 Hz, single or three phase.
- 70 - 400 Ampere listed to UL 1008.
- 600 - 3000 Ampere listed to UL 891.
- Automatic Transfer Switch is listed to UL 1008 for total system loads.
- Silver plated copper ground and neutral bus with solderless screw type terminals.
- Ground fault trip protection provided on sizes 1000 amps and above.
- Available with solid or switched neutral.

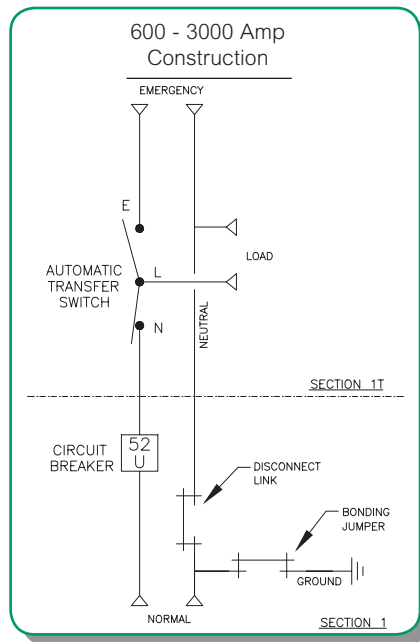
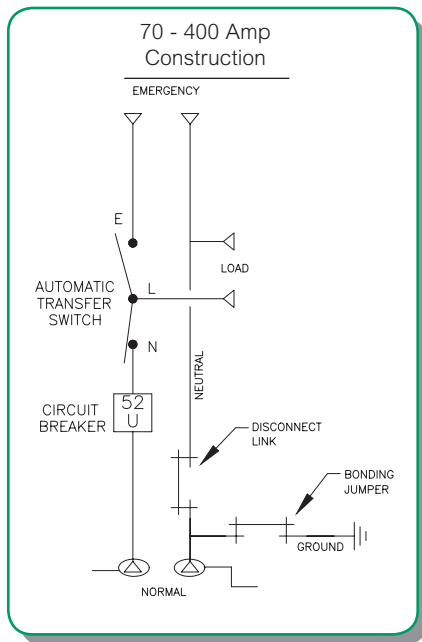


ASCO SERIES 300
SE Rated 800 amperes Type 1 enclosure



ASCO SERIES 300
SE Rated 200 amperes in Type 3R enclosure

ASCO SERIES 300SE products use two types of construction.



Products 400 amperes or less, utilize a single enclosure including a service (utility source) disconnect circuit breaker, as well as the power transfer switch, grounding and bonding provisions.

Products 600 amperes and above, utilize a multi-section switchboard construction including a service equipment section containing the service (utility source) disconnect circuit breaker, grounding, and bonding provisions. A second section contains the power transfer switch.

To order an ASCO SERIES 300SE Power Transfer Switch, complete the following catalog number:

| J | + | 03AUS | + | B | + | 3 | + | 0600 | + | N | + | GX | + | C |
|--------------------------------|---|---|---|-------------------------|---|-------------|---|---|---|---|---|--|---|--|
| Frame | | Product Type | | Neutral Code | | Phase Poles | | Amperes Continuous Rating | | Voltage Code | | Controller Code | | Enclosure |
| D = 70 - 225 Amp | | 03AUS = Automatic | | A = Solid Neutral | | 2 | | 0070, 0100, 0150, 0200, 0225 ⁴ , 0250 ⁴ , | | A ¹ = 115 B ¹ = 120 C = 208 D = 220 E = 230 F = 240 H = 380 J = 400 K = 415 L = 440 M = 460 N = 480 P = 550 Q = 575 R = 600 | | G = No Optional Accessories GX = Optional Accessories | | C = Type 1 (Standard) M = Type 3R Secure Double Door N = Type 4 [†] Secure Double Door P = Type 4X ^{5,6} Secure Double Door 304 SS Q = Type 12 [†] Secure Double Door R = Type 3RX ^{5,6} Secure Double Door 316 SS S = Type 3RX ^{5,6} Secure Double Door 304 SS V = Type 4X ^{5,6} Secure Double Door 316 SS |
| J = 150 - 600 [†] Amp | | 03NUS = Non-Automatic | | B = Switched Neutral | | 3 | | 0400, 0600, 0800, 1000, 1200, 1600, 2000 2500, 3000 | | | | | | |
| H = 800 - 1200 Amp | | 3ADUS = Automatic Delayed Transition | | | | | | | | | | | | |
| G = 1600 - 3000 Amp | | 3NDUS = Non-Automatic, Delayed Transition | | | | | | | | | | | | |

- Notes:**
- 115-120 volt available 150-400 amperes for 3AUS, 3NUS only.
 - Available for 70-1600 amperes, use type 3R for 2000-3000 ampere applications.
 - A solid neutral is provided as standard.
 - 200, 225 ampere rated switches suitable for use with copper cable only. Refer to paragraph 310.15 of the NEC for additional information.
 - Type 316 stainless steel is the standard. It provides an improved reduction in corrosion of salt and some chemicals. It is the preferred choice for marine environments.
 - Available only on switches rated 1600, 2000, 2600 and 3000 amperes.
 - J 150-225 ampere for SERIES 3ADUS/3NDUS only.
 - Available only on switches rated 70 - 1600 amperes.

ASCO SERIES 300SE Power Transfer Switch Dimensions and Shipping Weights

UL Type 1 Enclosure⁴

| Switch Rating Amps | Phase Poles | Neutral Code | Dimensions, In. (mm) | | | Approx. Shipping Weight Lb. (kg) |
|--|-------------|--------------|----------------------|-----------|------------|----------------------------------|
| | | | Width | Height | Depth | |
| 70, 100, 150, 200, 225 | 2 | A | 36 (914) | 48 (1219) | 13 (330) | 400 (185) |
| | 2 | B | 36 (914) | 48 (1219) | 13 (330) | 410 (189) |
| | 3 | A | 36 (914) | 48 (1219) | 13 (330) | 410 (189) |
| | 3 | B | 36 (914) | 48 (1219) | 13 (330) | 430 (198) |
| 150, 200, 225, SERIES 3ADUS/3NDUS Only | 2 | A | 36 (914) | 48 (1219) | 13 (330) | 400 (185) |
| | 2 | B | 36 (914) | 48 (1219) | 13 (330) | 408 (188) |
| | 3 | A | 36 (914) | 48 (1219) | 13 (330) | 408 (188) |
| | 3 | B | 36 (914) | 48 (1219) | 13 (330) | 420 (193) |
| 250 [†] , 400 [†] | 2 | A | 42 (1067) | 48 (1219) | 15.5 (394) | 420 (193) |
| | 2 | B | 42 (1067) | 48 (1219) | 15.5 (394) | 430 (198) |
| | 3 | A | 42 (1067) | 48 (1219) | 15.5 (394) | 430 (198) |
| | 3 | B | 42 (1067) | 48 (1219) | 15.5 (394) | 450 (207) |
| 600 [†] | 2 | A | 38 (965) | 91 (2311) | 28 (711) | 860 (396) |
| | 2 | B | 38 (965) | 91 (2311) | 28 (711) | 870 (401) |
| | 3 | A | 38 (965) | 91 (2311) | 28 (711) | 870 (401) |
| | 3 | B | 38 (965) | 91 (2311) | 28 (711) | 880 (405) |
| 800 [†] | 2 | A | 38 (965) | 91 (2311) | 28 (711) | 1460 (673) |
| | 2 | B | 38 (965) | 91 (2311) | 28 (711) | 1470 (677) |
| | 3 | A | 38 (965) | 91 (2311) | 28 (711) | 1470 (677) |
| | 3 | B | 38 (965) | 91 (2311) | 28 (711) | 1480 (682) |
| 1000 [†] , 1200 [†] | 2 | A | 38 (965) | 91 (2311) | 48 (1218) | 1460 (673) |
| | 2 | B | 38 (965) | 91 (2311) | 48 (1218) | 1470 (677) |
| | 3 | A | 38 (965) | 91 (2311) | 48 (1218) | 1470 (677) |
| | 3 | B | 38 (965) | 91 (2311) | 48 (1218) | 1480 (682) |
| 1600 [†] , 2000 [†] | 3 | A | 38 (965) | 91 (2311) | 48 (1218) | 1580 (727) |
| | 3 | B | 38 (965) | 91 (2311) | 48 (1218) | 1680 (773) |
| 2500 [†] , 3000 [†] | 3 | A | 38 (965) | 91 (2311) | 72 (1829) | 4590 (2111) |
| | 3 | B | 38 (965) | 91 (2311) | 72 (1829) | 4690 (2157) |

UL Type 3R Enclosure⁴

| Switch Rating Amps | Phase Poles | Neutral Code | Dimensions, In. (mm) | | | Approx. Shipping Weight Lb. (kg) |
|--|-------------|--------------|----------------------|-------------|-----------|----------------------------------|
| | | | Width | Height | Depth | |
| 70, 100, 150, 200, 225 | 2 | A | 36 (914) | 48 (1219) | 16 (406) | 500 (232) |
| | 2 | B | 36 (914) | 48 (1219) | 16 (406) | 520 (241) |
| | 3 | A | 36 (914) | 48 (1219) | 16 (406) | 520 (241) |
| | 3 | B | 36 (914) | 48 (1219) | 16 (406) | 530 (246) |
| 150, 200, 225, SERIES 3ADUS/3NDUS Only | 2 | A | 41 (1041) | 95.5 (2424) | 33 (838) | 500 (232) |
| | 2 | B | 41 (1041) | 95.5 (2424) | 33 (838) | 520 (241) |
| | 3 | A | 41 (1041) | 95.5 (2424) | 33 (838) | 520 (241) |
| | 3 | B | 41 (1041) | 95.5 (2424) | 33 (838) | 530 (246) |
| 250 [†] , 400 [†] | 2 | A | 42 (1067) | 48 (1219) | 18 (487) | 500 (232) |
| | 2 | B | 42 (1067) | 48 (1219) | 18 (487) | 520 (241) |
| | 3 | A | 42 (1067) | 48 (1219) | 18 (487) | 520 (241) |
| | 3 | B | 42 (1067) | 48 (1219) | 18 (487) | 530 (246) |
| 600 [†] | 2 | A | 41 (1041) | 95.5 (2425) | 33 (838) | 1200 (555) |
| | 2 | B | 41 (1041) | 95.5 (2425) | 33 (838) | 1220 (564) |
| | 3 | A | 41 (1041) | 95.5 (2425) | 33 (838) | 1220 (564) |
| | 3 | B | 41 (1041) | 95.5 (2425) | 33 (838) | 1240 (574) |
| 800 [†] | 2 | A | 38 (965) | 91 (2311) | 28 (711) | 1520 (703) |
| | 2 | B | 38 (965) | 91 (2311) | 28 (711) | 1540 (712) |
| | 3 | A | 38 (965) | 91 (2311) | 28 (711) | 1540 (712) |
| | 3 | B | 38 (965) | 91 (2311) | 28 (711) | 1580 (731) |
| 1000 [†] , 1200 [†] | 2 | A | 38 (965) | 91 (2311) | 48 (1218) | 1520 (703) |
| | 2 | B | 38 (965) | 91 (2311) | 48 (1218) | 1540 (712) |
| | 3 | A | 38 (965) | 91 (2311) | 48 (1218) | 1540 (712) |
| | 3 | B | 38 (965) | 91 (2311) | 48 (1218) | 1580 (731) |
| 1600 [†] , 2000 [†] | 3 | A | 38 (965) | 91 (2311) | 48 (1218) | 2200 (1018) |
| | 3 | B | 38 (965) | 91 (2311) | 48 (1218) | 2240 (1036) |
| 2500 [†] , 3000 [†] | 3 | A | 38 (965) | 91 (2311) | 72 (1829) | 5280 (2479) |
| | 3 | B | 38 (965) | 91 (2311) | 72 (1829) | 5380 (2475) |

- Notes:**
- Unit is designed for top and bottom cable entry for all services and load.
 - Enclosures for 600 - 3000 amps are freestanding.
 - A space heater accessory 44G is required with all service entrance (Type 3R) switches to help reduce condensation and protect the circuit breaker. It is recommended when environmental enclosures (Type 4, 12) are ordered for installation outdoors. See Optional Accessories page for space heater options (acc. 44G).
 - Dimensional data is approximate and subject to change. Certified dimensions available upon request.

SERIES 300SE External Power Connections

| Switch Rating | Ranges of AL-CU Wire Sizes |
|---|---|
| 70, 100, 150, 200 [†] , 225 [†] | One #14 to 4/0 AWG |
| 150 [†] , 200 [†] , 225 [†] , 250, 400 | One #4 AWG to 600 MCM Two 1/0 to 250 MCM |
| 600 | Two 1/0 to 600 MCM |
| 800, 1000, 1200 | Four 1/0 to 600 MCM |
| 1600, 2000 | Six 1/0 to 600 MCM |
| 2500 | Twelve 3/0 to 750 MCM |
| 3000 | Twelve 3/0 to 750 MCM |

- Notes:**
- All SERIES 300SE switches are furnished with a solid neutral plate (unless switched neutral configuration is specified) and terminal lugs.
 - 200 and 225 ampere rated switches for use with copper cable only. Refer to paragraph 310.15 of the NEC for all additional information.
 - J 150-225 ampere for SERIES 3ADUS/3NDUS only.
 - Use wire rated 75 degrees minimum for all power connections.
 - Refer to the outline drawing for maximum power cable connections for circuit breaker.

Extended Warranties for SERIES 300SE Transfer Switches (3AUS/3NUS/3ADUS/3NDUS)

| Description |
|-------------------------------------|
| 1 Year Extension (Total of 3 Years) |
| 2 Year Extension (Total of 4 Years) |
| 3 Year Extension (Total of 5 Years) |

- Notes:**
- Standard warranty is (24) months, 2 years from date of shipment, extended warranty is in addition to the two years, for a total of 3, 4 or 5 years, except where the warranty period for the circuit breaker shall be limited to 24 months from date of shipment from ASCO.
 - Refer to Publication 3223 for warranty terms and conditions.

SERIES 300SE AIC Breaker Rating¹

| Switch Rating | AIC Rating (KA) | Voltage |
|--|-----------------|---------|
| 70, 100, 150, 200, 225 | 25,000 | 480 |
| 150, 200, 225 SERIES 3ADUS/3NDUS Only | 35,000 | 480 |
| 250, 400, 600 | 35,000 | 480 |
| 800 | 65,000 | 480 |
| 1000, 1200 | 50,000 | 480 |
| 1600, 2000 | 65,000 | 480 |
| 2500, 3000 | 100,000 | 480 |

- Notes:**
- Refer to SERIES 300 Publication 1195 for switch ratings.