

THREE PHASE WIRING FOR ASCO® 7000 SERIES AUTOMATIC DELAYED TRANSITION TRANSFER SWITCHES TYPE J7ADTS RATED 150, 260, 400, & 600 AMPERES

FEATURES, SETTINGS, OPERATION, ACCESSORIES & NOTES

THE FOLLOWING FEATURES AND RELATED SETTINGS ARE PART OF THE GROUP 5 CONTROL PANEL'S USER CONFIGURABLE PARAMETERS. FOR DETAILED INFORMATION REGARDING THE CONFIGURATION OF THESE PARAMETERS AND OTHER FEATURES OF THE GROUP 5 CONTROL PANEL, REFER TO THE GROUP 5 CONTROL PANEL FOR ASCO® 7000 SERIES AUTOMATIC TRANSFER SWITCHES USER'S GUIDE (PART NO. 381333-126) PROVIDED WITH EVERY 7000 SERIES AUTOMATIC TRANSFER SWITCH.

THE NOMINAL OPERATING VOLTAGE & FREQUENCY IS PRE-PROGRAMMED AT THE FACTORY BASED ON THE NAMEPLATE DATA PRINTED ON THE TRANSFER SWITCH & CONTROL PANEL NAMEPLATES.

VOLTAGE & FREQUENCY SENSING

THE FOLLOWING SETTINGS ARE EXPRESSED AS A PERCENTAGE OF THE CONTROL PANEL'S NOMINAL VOLTAGE SETTING UNLESS STATED OTHERWISE. ALL SETTINGS ARE ADJUSTABLE IN INCREMENTS OF 1%.

A. RMS VOLTAGE SENSING ON ALL PHASES OF THE NORMAL & EMERGENCY SOURCES.

| PARAMETER | RANGE OF SETTINGS | DEFAULT SETTING |
|-------------------------------------|---------------------------------|-----------------|
| NORMAL VOLTAGE DROPOUT | 70-98% | 85% |
| NORMAL VOLTAGE PICKUP | 85-100% | 90% |
| NORMAL OVER VOLTAGE TRIP | 102-115% | OFF |
| NORMAL VOLTAGE UNBALANCE | YES/NO | NO |
| NORMAL VOLTAGE UNBALANCE DROPOUT | 5-20% OF AVG. NORMAL VOLTAGE | 20% (if ON) |
| NORMAL VOLTAGE UNBALANCE PICKUP | 3-18% OF AVG. NORMAL VOLTAGE | 10% (if ON) |
| EMERGENCY VOLTAGE DROPOUT | 70-98% | 75% |
| EMERGENCY VOLTAGE PICKUP | 85-100% | 90% |
| EMERGENCY OVER VOLTAGE TRIP | 102-115% | OFF |
| EMERGENCY VOLTAGE UNBALANCE | YES/NO | NO |
| EMERGENCY VOLTAGE UNBALANCE DROPOUT | 5-20% OF AVG. EMERGENCY VOLTAGE | 20% (if ON) |
| EMERGENCY VOLTAGE UNBALANCE PICKUP | 3-18% OF AVG. EMERGENCY VOLTAGE | 10% (if ON) |

B. FREQUENCY SENSING OF THE NORMAL & EMERGENCY SOURCES.

| PARAMETER | RANGE OF SETTINGS | DEFAULT SETTING |
|-------------------------------|-------------------|-----------------|
| NORMAL FREQUENCY DROPOUT | 85-98% | 90% |
| NORMAL FREQUENCY PICKUP | 90-100% | 95% |
| NORMAL OVER FREQUENCY TRIP | 102-110% | OFF |
| EMERGENCY FREQUENCY DROPOUT | 85-98% | 90% |
| EMERGENCY FREQUENCY PICKUP | 90-100% | 95% |
| EMERGENCY OVER FREQUENCY TRIP | 102-110% | OFF |

TIME DELAYS

THE FOLLOWING TIME DELAY SETTINGS ALL HAVE AN ADJUSTABLE RANGE OF 0-60 min 59 sec UNLESS STATED OTHERWISE. ADJUSTABLE IN INCREMENTS OF 1 sec.

NOTE: SOME TIME DELAYS MAY BE EFFECTED BY CUSTOMER REQUESTED ACCESSORIES PROVIDED WITH THE UNIT. REFER TO THE DESCRIPTIONS PROVIDED UNDER THE "ACCESSORIES" NOTES ON THIS PAGE.

| FEATURE | NAME | DEFAULT SETTING |
|---------|---|-----------------|
| 1C | NORMAL SOURCE FAILURE TO ENGINE START | 1 sec |
| 2B | TRANSFER TO EMERGENCY ON AVAILABILITY OF EMERGENCY SOURCE | 0 sec |
| 1F | EMERGENCY SOURCE FAILURE RETRANSFER (NORMAL SOURCE AVAILABLE) | 0 sec |
| 2E | ENGINE COOLDOWN FOLLOWING RETRANSFER TO NORMAL | 5 min |
| 3A | RETRANSFER TO NORMAL (NORMAL FAILURE MODE) | 30 min |
| 3A | RETRANSFER TO NORMAL (TEST MODE) | 30 sec |
| - | DELAYED TRANSFER (LOAD "OFF" TIME), [0-5 min 59 sec] | 3 sec |

DESCRIPTIONS OF TIME DELAYS:

- FEAT. 1C - DELAY ON NORMAL SOURCE OUTAGE. STARTS ON FAILURE OF NORMAL SOURCE. RESETS IF NORMAL SOURCE IS ACCEPTED BEFORE EXPIRATION. INHIBITS ENGINE STARTING AND AUTOMATIC TRANSFER UNTIL EXPIRATION.
- FEAT. 2B - DELAY PRIOR TO TRANSFER TO THE EMERGENCY SOURCE. DELAY STARTS ON EXPIRATION OF FEAT. 1C AND WHEN THE EMERGENCY SOURCE HAS BEEN ACCEPTED. DELAY RESETS IF THE EMERGENCY SOURCE FAILS PRIOR TO EXPIRATION. ON EXPIRATION, TRANSFER TO EMERGENCY IS INITIATED UNLESS THE NORMAL SOURCE HAS RECOVERED AND THE "COMMIT TO TRANSFER" FEATURE IS SET TO "NO" COMMIT. PROVIDES A PERIOD FOR EMERGENCY SOURCE STABILIZATION OR STAGING OF MULTIPLE TRANSFER SWITCH CONTROLLED LOADS TO THE EMERGENCY SOURCE.
- FEAT. 1F - DELAY ON RETRANSFER TO NORMAL IN THE EVENT OF EMERGENCY SOURCE FAILURE. DELAY BEGINS ON FAILURE OF THE EMERGENCY SOURCE IF THE NORMAL SOURCE IS ACCEPTABLE. ON EXPIRATION, RETRANSFER TO NORMAL WILL BE INITIATED.
- FEAT. 2E - DELAY ON ENGINE SHUTDOWN (ENGINE COOL DOWN PERIOD). DELAY STARTS FOLLOWING RETRANSFER TO THE NORMAL SOURCE. PROVIDES A PERIOD FOR THE ENGINE-GENERATOR SET TO RUN UNLOADED PRIOR TO SHUTDOWN.
- FEAT. 3A - RETRANSFER TO NORMAL DELAY (NORMAL FAILURE MODE) DELAY STARTS WHEN NORMAL SOURCE IS ACCEPTED (FOLLOWING IT'S FAILURE) AND WHILE THE LOAD IS CONNECTED TO EMERGENCY. RESETS IF NORMAL FAILS PRIOR TO EXPIRATION OR IF THE EMERGENCY SOURCE FAILS BEFORE EXPIRATION AND FEAT. 1F EXPIRES (AUTOMATIC BYPASS ON EMERGENCY SOURCE FAILURE). PROVIDES A PERIOD FOR THE NORMAL SOURCE TO STABILIZE PRIOR TO RETRANSFER.
- FEAT. 3A - RETRANSFER TO NORMAL DELAY (TEST MODE) DELAY STARTS WHEN THE "TRANSFER TEST" SWITCH IS RESET TO "AUTO" (FOLLOWING A USER INITIATED TRANSFER TEST) AND WHILE THE LOAD IS CONNECTED TO EMERGENCY. RESETS IF NORMAL FAILS PRIOR TO EXPIRATION OR IF THE EMERGENCY SOURCE FAILS BEFORE EXPIRATION AND FEAT. 1F EXPIRES (AUTOMATIC BYPASS ON EMERGENCY SOURCE FAILURE).

DELAYED TRANSFER (LOAD "OFF" TIME) - PROVIDES A USER DEFINABLE PERIOD DURING WHICH THE LOAD IS DISCONNECTED FROM BOTH THE NORMAL AND EMERGENCY SOURCES DURING TRANSFER IN EITHER DIRECTION. THE DELAY ("OFF" PERIOD) BEGINS FOLLOWING THE OPENING OF THE SOURCE CONTACTOR, CN OR CE, CONNECTED TO THE SOURCE FROM WHICH TRANSFER IS BEING MADE. UPON EXPIRATION, CLOSURE OF THE OPPOSITE SOURCE CONTACTOR IS INITIATED.

ENGINE EXERCISER

THE ENGINE EXERCISER FEATURE PROVIDES A MEANS TO PERFORM AUTOMATIC EXERCISING OF THE ENGINE-GENERATOR SET EITHER WITH OR WITHOUT LOAD TRANSFER. THE USER CAN PROGRAM UP TO SEVEN DIFFERENT EXERCISE ROUTINES. EACH ROUTINE INCLUDES:

1. ENABLE OR DISABLE THE ROUTINE
2. ENABLE OR DISABLE TRANSFER OF THE LOAD DURING THE ROUTINE
3. SET START TIME OF ROUTINE -
- TIME OF DAY
- DAY OF WEEK
- WEEK OF MONTH (1st, 2nd, 3rd, 4th, ALTERNATE OR ALL)
4. SET THE DURATION OF THE ROUTINE

| PARAMETER | RANGE OF SETTING | DEFAULT SETTING |
|------------------------------|---|-----------------------|
| MONTH (CLOCK SET) | JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC | CURRENT DATE |
| DAY | 1-31 | ↓ |
| YEAR | 00-99 | Eastern Standard Time |
| HOUR | 0-23 | ↓ |
| MINUTE | 0-59 | ↓ |
| ENABLE ROUTINE (ROUTINE 1-7) | YES/NO | NO |
| TRANSFER LOAD | YES/NO | NO |
| START HOUR | 0-23 | 0 |
| START MINUTE | 0-59 | 0 |
| RUN WEEK | ALL, ALTERNATE, 1st, 2nd, 3rd, 4th, 5th | ALL |
| RUN DAY | SUN MON TUE WED THU FRI SAT | SUN |
| DURATION HOURS | 0-23 | 0 |
| DURATION MINUTES | 0-59 | 0 |

SIGNALS & AUXILIARIES

A. FEATURES 7 & 8- ENGINE START SIGNAL

SIGNAL INITIATED BY DROPOUT OF CONTROL PANEL RELAY (NR) FOLLOWING EXPIRATION OF THE FEATURE 1C TIME DELAY (DELAY TO OVERRIDE MOMENTARY NORMAL SOURCE OUTAGES). FEATURE 7 CLOSURES TO SIGNAL ENGINE START. FEATURE 8 OPENS TO SIGNAL ENGINE START. ENGINE STARTING SIGNAL RESETS FOLLOWING RETRANSFER TO THE NORMAL SOURCE AND EXPIRATION OF THE FEATURE 2E (ENGINE COOL DOWN) TIME DELAY. FEATURES 7 & 8 ARE PROVIDED AS A SINGLE FORM C CONTACT CONNECTED TO THE FIELD CONNECTIONS TERMINAL BLOCK (TB). CONTACT RATED 10 AMPS AT 32 VDC/120 VAC RESISTIVE.

B. FEATURES 14AF & 14BF - TRANSFER SWITCH AUXILIARY POSITION INDICATING CONTACTS. SEVEN (7) FORM A CONTACTS EACH TO INDICATE CONNECTION OF THE TRANSFER SWITCH TO NORMAL (14A) OR EMERGENCY (14B). CONTACTS CONNECTED TO THE FIELD CONNECTIONS TERMINAL BLOCK (TB). CONTACTS RATED 10 AMPS, 32 VDC, 250 VAC.

C. FEATURE 17 - REMOTE TRANSFER TO EMERGENCY.

REQUIRES A CUSTOMER SUPPLIED NORMALLY OPEN CONTACT. CLOSING OF THE CONTACT CAUSES ENGINE START AND TRANSFER TO THE EMERGENCY SOURCE. OPENING OF THE CONTACT ACTIVATES THE FEATURE 3A (RETRANSFER TO NORMAL) DELAY PRIOR TO RETRANSFER. IN THE EVENT THE EMERGENCY SOURCE FAILS WHILE THE TRANSFER SWITCH IS CONNECTED TO EMERGENCY AND THE REMOTE CONTACT IS CLOSED, THE TRANSFER SWITCH WILL RETRANSFER TO THE NORMAL SOURCE. CONNECTED TO THE FIELD CONNECTIONS TERMINAL BLOCK (TB).

OPERATION

IF THE NORMAL SOURCE FAILS, THE TRANSFER SWITCH INITIATES STARTING OF THE ENGINE-GENERATOR SET. WHEN PROPER VOLTAGE AND FREQUENCY HAVE BEEN ATTAINED, THE LOAD WILL BE TRANSFERRED TO THE EMERGENCY SOURCE BY MEANS OF A DELAYED TRANSITION, (PROGRAMMED LOAD DISCONNECT PERIOD).

DELAYED TRANSITION TRANSFER TO EMERGENCY WILL CAUSE THE NORMAL SOURCE CONTACTOR (CN) TO OPEN. AFTER THE LOAD DISCONNECT DELAY, AS SET VIA THE USER INTERFACE OF THE GROUP 5 CONTROL PANEL, THE EMERGENCY SOURCE CONTACTOR (CE) WILL CLOSE. DURING THE PERIOD THAT BOTH CONTACTORS ARE OPEN AND THE TIME DELAY IS ACTIVE, A "LOAD DISCONNECT ACTIVE" LED WILL BE LIT (AMBER LED).

WHEN THE NORMAL SOURCE IS RESTORED FOR THE DURATION OF THE FEATURE 3A, RETRANSFER TO NORMAL TIME DELAY SETTING, THE LOAD WILL BE RETRANSFERRED TO THE NORMAL SOURCE IN A DELAYED TRANSITION MANNER.

DELAYED TRANSITION RETRANSFER TO NORMAL WILL CAUSE THE EMERGENCY SOURCE CONTACTOR (CE) TO OPEN. AFTER THE LOAD DISCONNECT TIME DELAY EXPIRES, THE NORMAL SOURCE CONTACTOR (CN) WILL CLOSE.

THE ENGINE WILL CONTINUE TO RUN FOR THE ENGINE COOL DOWN PERIOD, FEATURE 2E.

DELAYED TRANSITION TRANSFER WILL ALSO OCCUR DURING TRANSFER TO EMERGENCY BY OPERATING THE TEST SWITCH. RETRANSFER TO NORMAL WILL OCCUR AS PREVIOUSLY DESCRIBED.

USER CONTROLS AND INDICATIONS

A. FEATURES 5 & 6B - TRANSFER TEST/RETRANSFER TIME DELAY BYPASS CONTROLS.

TRANSFER TEST:

OPERATION CAUSES A NORMAL SOURCE FAILURE SEQUENCE. ACTIVATE AND HOLD FOR AT LEAST 15 SECONDS TO ALLOW TIME FOR THE ENGINE-GENERATOR TO START.

RETRANSFER TIME DELAY BYPASS:

OPERATION WILL BYPASS THE FEATURE 3A (RETRANSFER TO NORMAL DELAY).

B. FEATURES 9A & 9B - TRANSFER SWITCH POSITION INDICATORS.
FEATURE 9A: TRANSFER SWITCH CLOSED ON NORMAL (GREEN LED)
FEATURE 9B: TRANSFER SWITCH CLOSED ON EMERGENCY (RED LED)

C. FEATURES 9C & 9D - SOURCE ACCEPTANCE INDICATORS.
FEATURE 9C: NORMAL SOURCE ACCEPTED (GREEN LED)
FEATURE 9D: EMERGENCY SOURCE ACCEPTED (RED LED)

D. LOAD DISCONNECT ACTIVE - INDICATES THAT THE TRANSFER SWITCH IS IN THE LOAD DISCONNECTED POSITION (BOTH NORMAL (CN) AND EMERGENCY (CE) CONTACTORS OPEN) (AMBER LED).

GENERAL NOTES

1. SWITCH SHOWN DE-ENERGIZED AND CONNECTED TO THE NORMAL SOURCE.
2. DEVICE SYMBOLS AND DESIGNATIONS ARE IN ACCORDANCE WITH NEMA PUBLICATION ICS 1-1983, PART 1-101A.
3. ALL WIRING IS #16 AWG, TINNED, STRANDED COPPER UNLESS OTHERWISE INDICATED.
4. ○ ON TERMINAL BLOCKS INDICATES AVAILABLE FIELD CONNECTION POINT.
5. ● ON TERMINAL BLOCKS INDICATES FACTORY CONNECTION POINT.
6. CONTROL AND ACCESSORY WIRING IS ROUTED IN ACCORDANCE WITH ASCO ASSEMBLY PROCEDURE CS451261.
7. AN OPERATOR'S MANUAL IS FURNISHED WITH EACH AUTOMATIC TRANSFER SWITCH. REFER TO THIS PUBLICATION PRIOR TO INSTALLATION AND OPERATION OF THE UNIT.

| BASE CATALOG NUMBER | | | | CATALOG NUMBER SUFFIXES | | | | EXPLANATION OF CATALOG NUMBER CODES | | | | | | | | |
|---------------------|---------|----------------|-------|--------------------------|---|------------|----------------|--|-----------------|----------------------------|---|--|--|------------------|---------------------|---|
| TS | CATALOG | NEUTRAL | PHASE | AMPS | VOLT | CONTROLLER | OPTIONAL | ENCLOSURE | NEUTRAL TYPE | | | | ENCLOSURE CODES | | | |
| FRAME | TYPE | TYPE | POLES | | CODE | | ACCESSORY | CODE | CODE | DESCRIPTION | CODE | TYPE | DESCRIPTION | CODE | TYPE | DESCRIPTION |
| J | 7ADTS | A | 3 | 150 260 400 600 | H J K L M N P Q R | 5 | X | C E F G H J K L M N P Q | BLANK A B | NONE SOLID SWITCHING | C D E F G H J K L | 1 2 3R 4 4X 4X 7 12 | OPEN TYPE (NO ENCLOSURE) GENERAL PURPOSE, INDOOR INDOOR, WATER & DUST RESISTANT OUTDOOR, RAINPROOF, SLEET & ICE RESISTANT INDOOR/OUTDOOR, WATERTIGHT & DUST TIGHT TYPE 4 PLUS CORROSION RESISTANCE (STAINLESS STEEL) TYPE 4 PLUS CORROSION RESISTANCE (FIBERGLASS) EXPLOSION PROOF INDOOR, INDUSTRIAL ENVIRONMENTS, OIL TIGHT & DUST TIGHT | M N P Q | 3R 4 4X 12 | (SECURE ENCLOSURES) OUTDOOR, RAINPROOF, SLEET & ICE RESISTANT INDOOR/OUTDOOR, WATERTIGHT & DUSTTIGHT TYPE 4 PLUS CORROSION RESISTANCE (STAINLESS STEEL) INDOOR, INDUSTRIAL ENVIRONMENTS, OILTIGHT & DUSTTIGHT |
| | | BLANK FOR NONE | | | | | BLANK FOR NONE | BLANK FOR OPEN TYPE | | | | | | | | |

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

FORM REV C

PROJECT NAME: _____

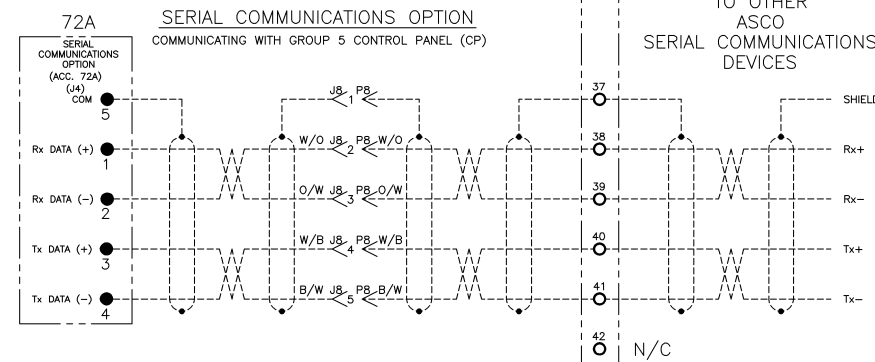
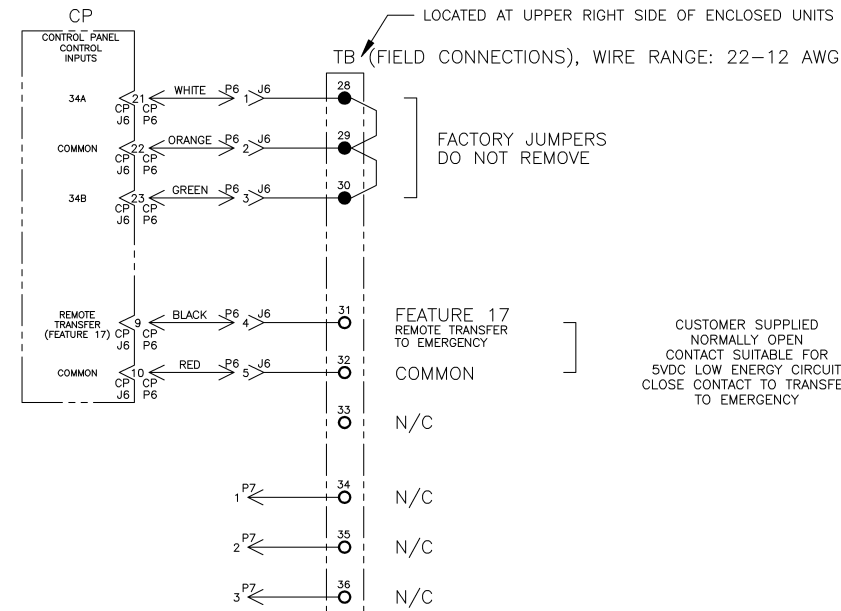
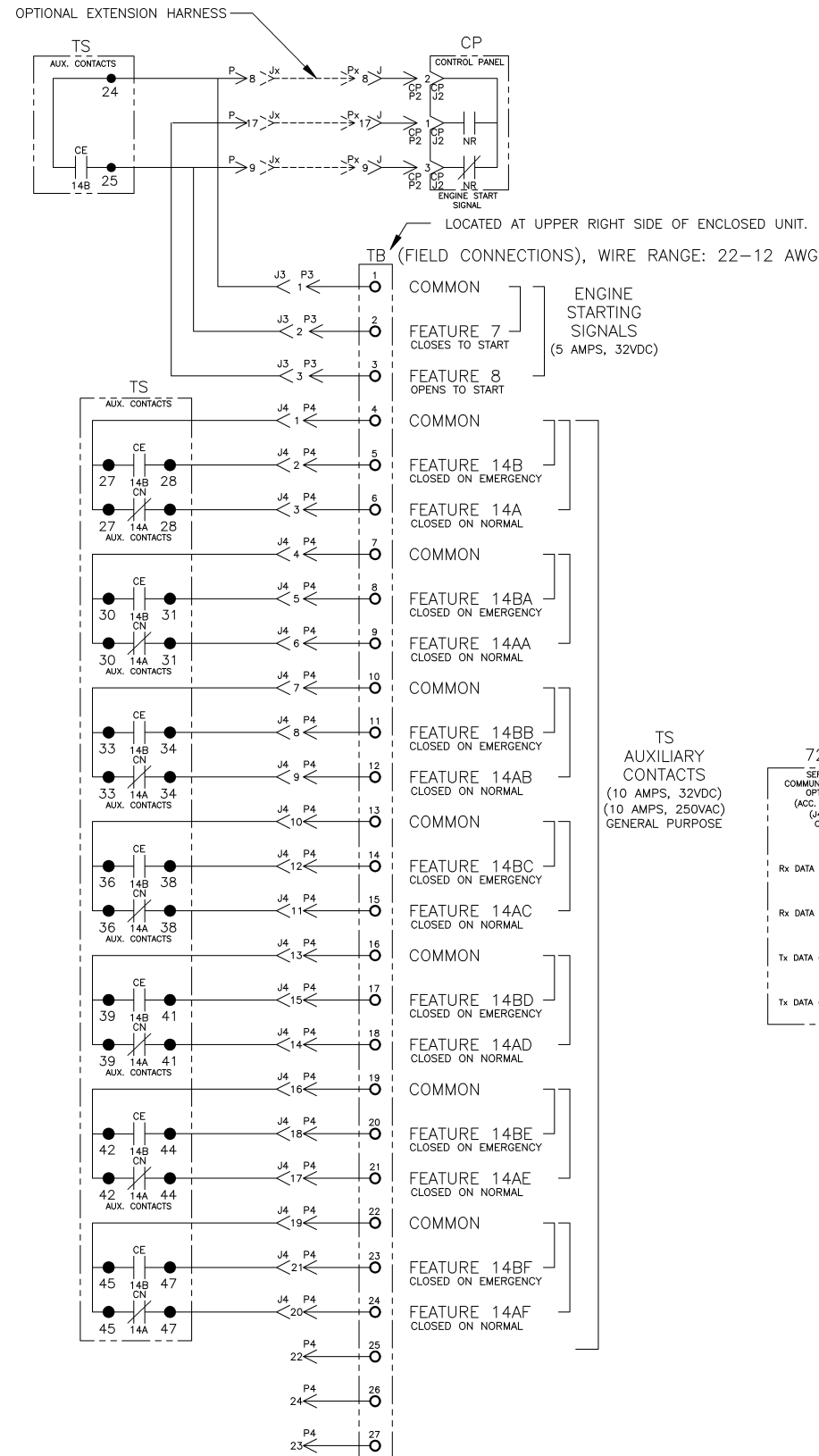
WIRING DIAGRAM

7000 SERIES (J7ADTS) 3PH 150-600 AMPS
 "J" FRAME GROUP 5 CONTROLS

THIRD ANGLE PROJECTION

| | | | | |
|------------------|----------|---|-----------------|--|
| DRAWN BY | DATE | 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 | 6/05 | | | SCALE 1:1 SIZE DS |
| PROJECT APPROVAL | | PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | | DWG. NO. 777238 |
| FINAL APPROVAL | SDH 6/05 | ASCO ASCO POWER TECHNOLOGIES, L.P. FLORHAM PARK, NEW JERSEY 07932 U.S.A. | | DRAWING C ECH. NO. 218490 SHEET 1 OF 6 |

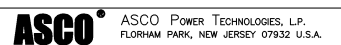
FIELD CONNECTIONS



72A NOTES:
 1. EARTH GROUND SHIELD AT HOST DEVICE ONLY.
 2. FIELD WIRING: USE UL LISTED, STRANDED, TWISTED PAIRS, OVERALL FOIL SHIELD WITH STRANDED DRAIN WIRE SUITABLE FOR RS-422 EQUIVALENT TO:
 (STANDARD 80°C) BELDEN 9842 OR 9829 OR ALPHA 6202C OR 6222C
 (PLENUM RATED) BELDEN 89729 OR 82729 OR ALPHA 58902

| | | | | |
|---|--------|-----|-----|----------|
| C | 218490 | MM | MM | 05/20/08 |
| B | 205857 | JPB | JPB | 9/12/05 |
| A | 205163 | BWM | JPB | 7/14/05 |
| - | 204419 | BWM | SDH | 6/05 |
| - | ISSUE | | | |

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| PROJECT NAME: | | WIRING DIAGRAM | |
| 7000 SERIES (J7ADTS) 3PH 150-600 AMPS | | | |
| "J" FRAME GROUP 5 CONTROLS | | | |
| BY | DATE | MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-005. | ASSEM. REF. NO. |
| BWM | 6/05 | | |
| CHECKED | | PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | SCALE |
| PROJECT APPROVAL | | | 1:1 |
| FINAL APPROVAL | SDH | 6/05 | SIZE DS |
| DRAWING NO. 777238 | | COMPUTER GENERATED DRAWING | |
| REV. C | | ECON NO. 218490 | |
| SHEET 2 | | OF 6 | |

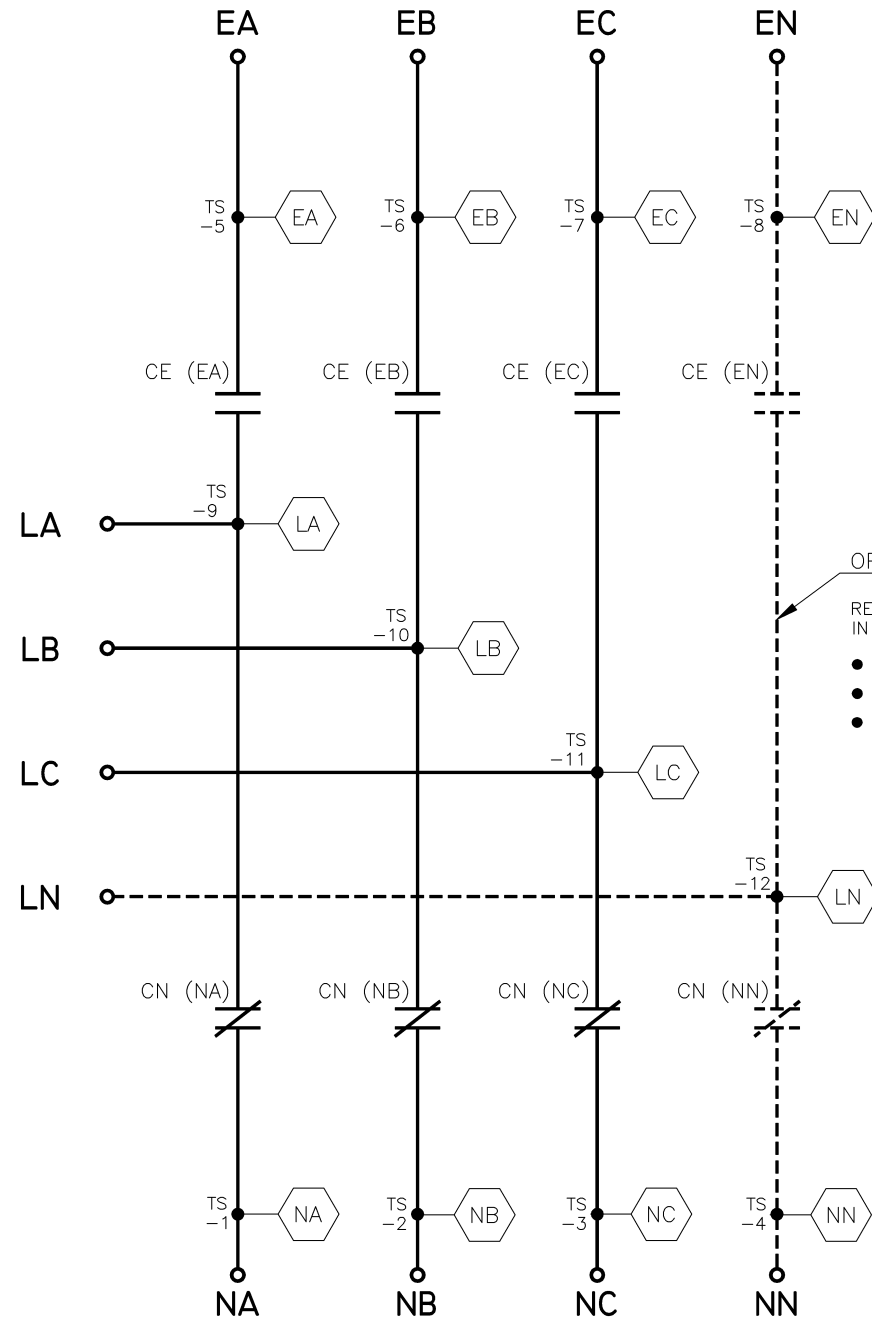


MAIN POWER POLES

TS OPERATOR CIRCUIT

EMERGENCY

NORMAL



LOAD

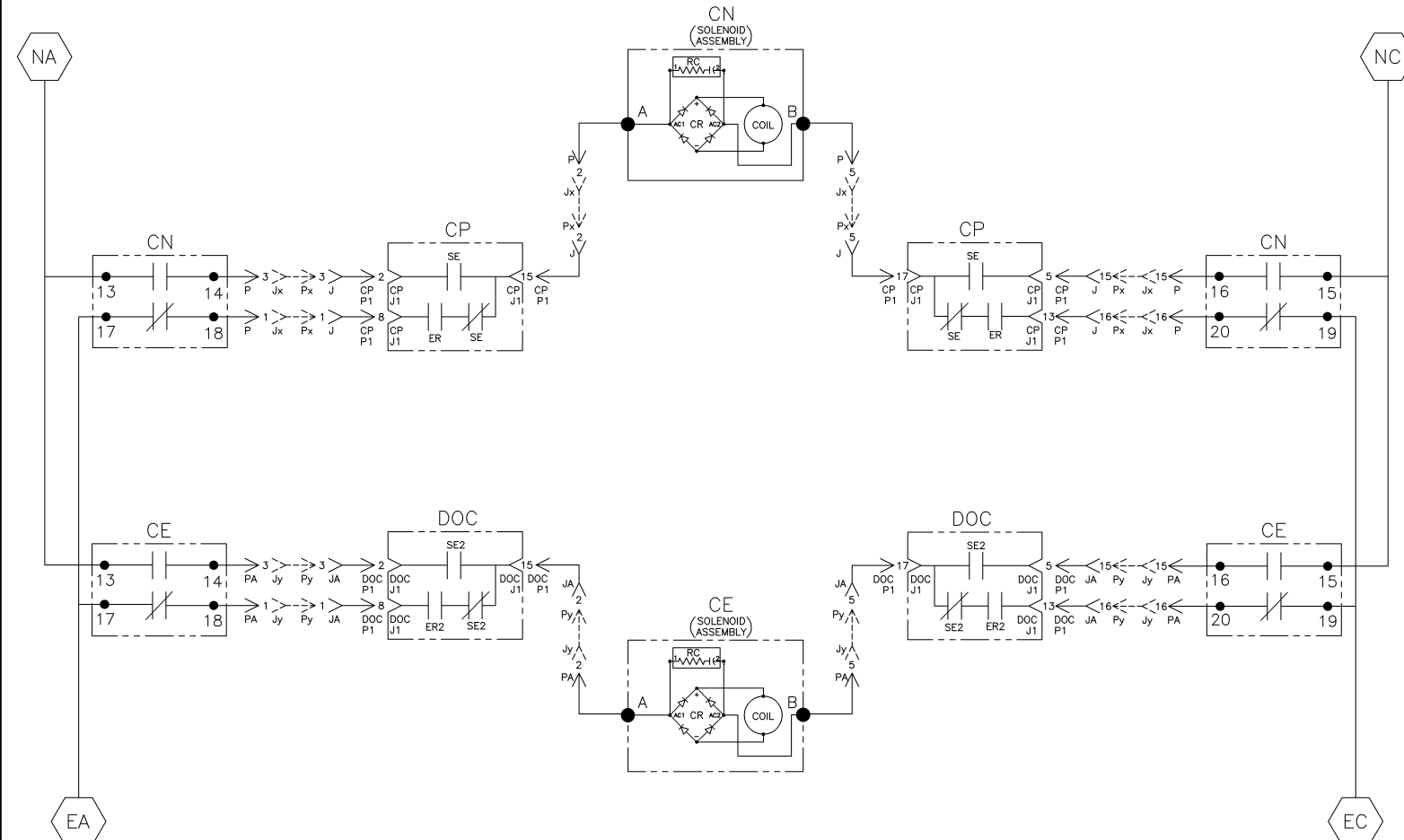
OPTIONAL NEUTRAL TYPES
REFER TO "EXPLANATION OF CATALOG NUMBER CODES" IN CATALOG NUMBER CHART ON SHEET 1.

- NONE
- SWITCHING
- SOLID BUS PLATE

NOTE:
ATS SHOWN CLOSED ON NORMAL SOURCE.

NORMAL

EMERGENCY



| CN | SOLENOID POSITION | | | |
|-------|----------------------|-------------|-------------|------|
| | CLOSED BEFORE NORMAL | BEFORE TDC* | BEFORE TDC* | OPEN |
| 13-14 | | | | |
| 15-16 | | | | |
| 17-18 | | | | |
| 19-20 | | | | |

| CE | SOLENOID POSITION | | | |
|-------|-------------------|-------------|-------------|----------------------|
| | OPEN | BEFORE TDC* | BEFORE TDC* | CLOSED BEFORE 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.

| | | | |
|---|--|-----------------|--------------|
| PROJECT NAME: | | WIRING | DIAGRAM |
| DRAWN BY: | | BWM | 6/05 |
| CHECKED: | | SDH | 6/05 |
| PROJECT APPROVAL: | | | |
| FINAL APPROVAL: | | | |
| MANUFACTURING TOLERANCES TO BE IN ACCORDANCE WITH ASCO PROCEDURE MP-1-003. FOR PLASTIC PARTS SEE MP-1-005. | | ASSEM. REF. NO. | |
| PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | | SCALE: | 1:1 DS |
| DRAWING NO. 777238 | | ECN NO. 218490 | SHEET 3 OF 6 |

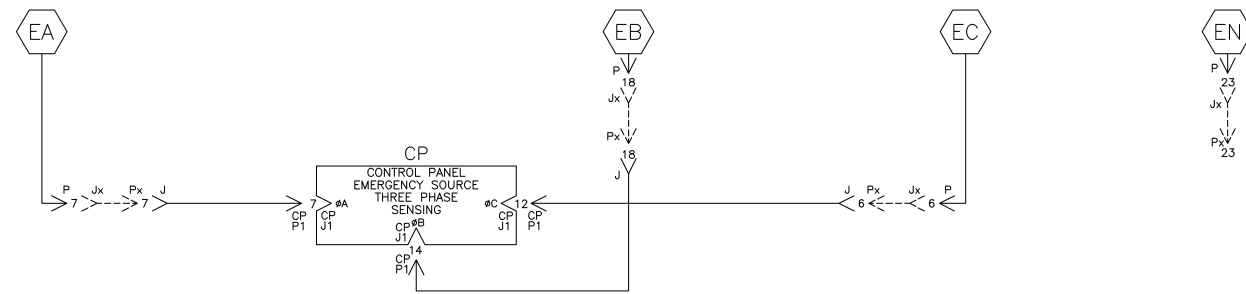
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| C | 218490 | MM | MM | 05/20/08 |
| B | 205857 | JPB | JPB | 9/12/05 |
| A | 205163 | BWM | JPB | 7/14/05 |
| - | 204419 | BWM | SDH | 6/05 |
| - | ISSUE | | | |



EMERGENCY SOURCE CIRCUITS

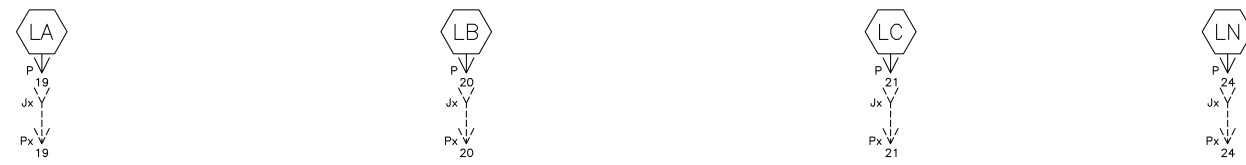
ADDITIONAL CIRCUITS

EMERGENCY



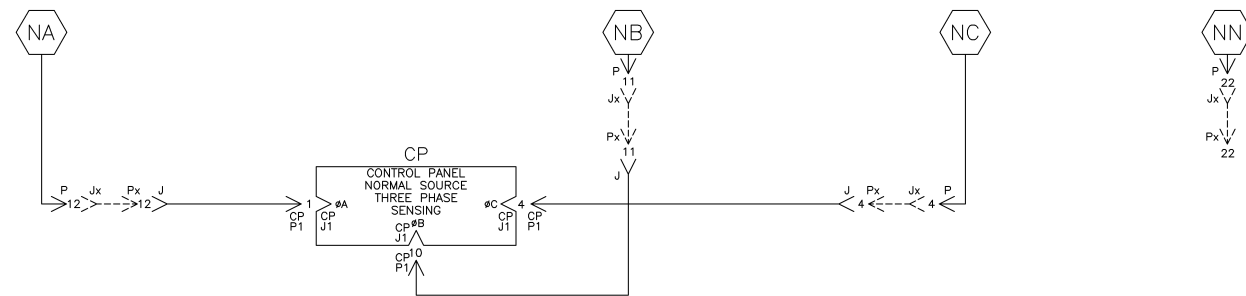
LOAD TERMINAL CIRCUITS

LOAD



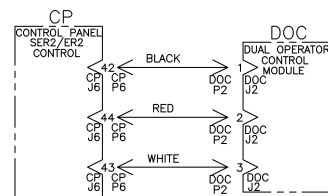
NORMAL SOURCE CIRCUITS

NORMAL

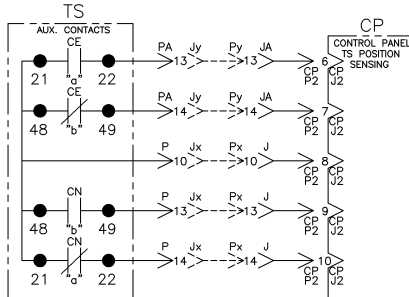


CONTROL CIRCUITS

SER2/ER2 CONTROL



TS POSITION SENSING



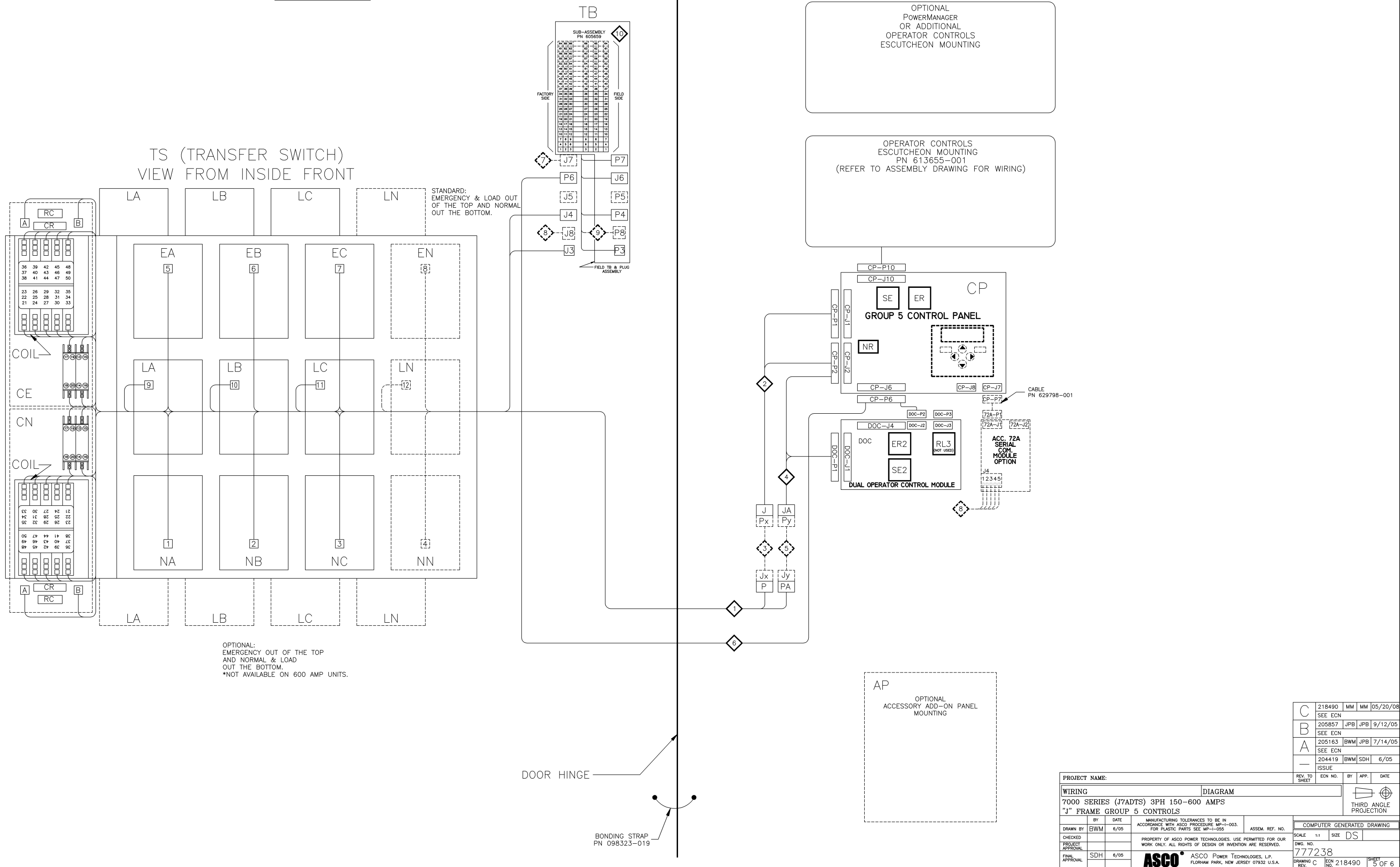
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| C | 218490 | MM | MM | 05/20/08 |
| SEE ECN | | | | |
| B | 205857 | JPB | JPB | 9/12/05 |
| SEE ECN | | | | |
| A | 205163 | BWM | JPB | 7/14/05 |
| SEE ECN | | | | |
| - | 204419 | BWM | SDH | 6/05 |
| ISSUE | | | | |

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| PROJECT NAME: | | REV. TO SHEET | ECN NO. | BY | APP. | DATE |
| WIRING DIAGRAM | | | | | | |
| 7000 SERIES (J7ADTS) 3PH 150-600 AMPS | | | | | | |
| "J" FRAME GROUP 5 CONTROLS | | | | | | |
| DRAWN BY | BY | DATE | 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 | BWM | 6/05 | | | SCALE | 1:1 |
| PROJECT APPROVAL | | | PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | | SIZE | DS |
| FINAL APPROVAL | SDH | 6/05 | | | DWG. NO. | 777238 |
| | | | ASCO ASCO POWER TECHNOLOGIES, L.P. FLORHAM PARK, NEW JERSEY 07932 U.S.A. | | DRAWING ECN | NO. 218490 |
| | | | | | SHEET | 4 OF 6 |

PHYSICAL DIAGRAM

ENCLOSURE

DOOR (INSIDE)



TS (TRANSFER SWITCH)
VIEW FROM INSIDE FRONT

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

OPTIONAL:
EMERGENCY OUT OF THE TOP
AND NORMAL & LOAD
OUT THE BOTTOM.
*NOT AVAILABLE ON 600 AMP UNITS.

DOOR HINGE

BONDING STRAP
PN 098323-019

| | | | | |
|---|--------|-----|-----|----------|
| C | 218490 | MM | MM | 05/20/08 |
| B | 205857 | JPB | JPB | 9/12/05 |
| A | 205163 | BWM | JPB | 7/14/05 |
| - | 204419 | BWM | SDH | 6/05 |
| - | ISSUE | | | |

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|---|----------|---|-----------------|----------------------------|----------------|
| REV. TO SHEET | | ECN NO. | BY | APP. | DATE |
| PROJECT NAME: WIRING DIAGRAM | | | | | |
| 7000 SERIES (J7ADTS) 3PH 150-600 AMPS "J" FRAME GROUP 5 CONTROLS | | | | | |
| DRAWN BY | DATE | 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 | | PROPERTY OF ASCO POWER TECHNOLOGIES. USE PERMITTED FOR OUR WORK ONLY. ALL RIGHTS OF DESIGN OR INVENTION ARE RESERVED. | | SCALE | 1:1 |
| PROJECT APPROVAL | | | | DWG. NO. | 777238 |
| FINAL APPROVAL | SDH 6/05 | ASCO POWER TECHNOLOGIES, L.P. FLORHAM PARK, NEW JERSEY 07932 U.S.A. | | DRAWING C | ECN NO. 218490 |
| | | | | | SHEET 5 OF 6 |

WIRE RUN LISTING

Table 1: HARNESS LOCATOR 1. HARNESS 619510-061 (P,PA,J3,J4) MAIN TS. WIRE No. 1-24, 107-118, 125-130. CLR, AWG 18.

Table 2: HARNESS LOCATOR 2. HARNESS 483763 (J,CP-P1,CP-P2) CONTROL PANEL. WIRE No. 1-18, 19-24. CLR, AWG 16.

Table 3: HARNESS LOCATOR 5. HARNESS 309320-005 OPTIONAL 8 IN. EXTENSION HARNESS. WIRE No. 107-130. CLR, AWG 16.

Table 4: HARNESS LOCATOR 8. HARNESS 605454-005 (J8) OPTIONAL SERIAL I/O. WIRE No. 98-106. CLR, AWG 22 COND.

Table 5: WIRE No. 134-136. ADDITIONAL WIRING. CLR, AWG 22 COND.

Table 6: HARNESS LOCATOR 3. HARNESS 309320-005 OPTIONAL 8" EXTENSION HARNESS. WIRE No. 1-24. CLR, AWG 16.

Table 7: HARNESS LOCATOR 6. HARNESS 619510-005 (P6) FIELD INPUTS. WIRE No. 49-72. CLR, AWG 12 COND.

Table 8: HARNESS LOCATOR 9. HARNESS 605454-007 (P8,TB) OPTIONAL SERIAL I/O. WIRE No. 98-106. CLR, AWG 22 COND.

Table 9: HARNESS LOCATOR 4. HARNESS 619385 (JA,CP-P2,DOC-P1) CONTROL MODULE. WIRE No. 107-130. CLR, AWG 16.

Table 10: HARNESS LOCATOR 7. HARNESS (J7) OPTIONAL FIELD OUTPUTS. WIRE No. 73-96. CLR, AWG 16.

Table 11: HARNESS LOCATOR 10. SUB-ASSEMBLY 605659 (P3,PA4,J6,P7,TB) STD. FIELD TB. WIRE No. 8-75. CLR, AWG 16.

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