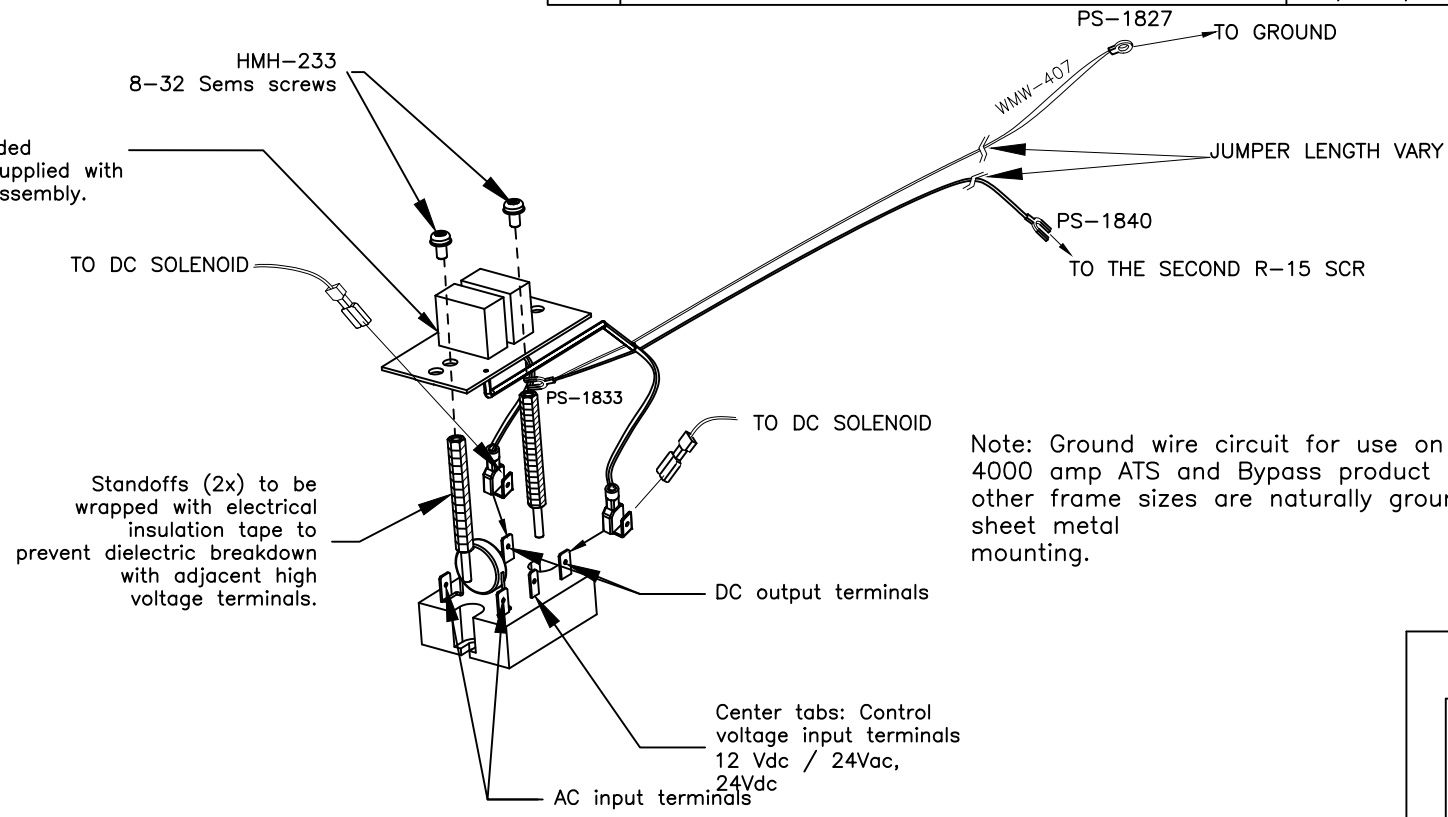


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
2	C076422	09/05/19	AR MAS

Crydom Base assembly: 50P-1247

50P-1245
Note: 8-32 threaded standoffs to be supplied with capacitor board assembly. See PS-8909



Note: Ground wire circuit for use on 1600 - 4000 amp ATS and Bypass product Only. All other frame sizes are naturally grounded due to sheet metal mounting.

WIRING DETAILS	
-	+
206R	209R
SCR-CE2	
I	C.V. I
453A	900
201	31
AC	AC

Note: Above diagram is for use on Bypass Isolation. For non-Bypass, replace wire marked 201 with wire marker 30.

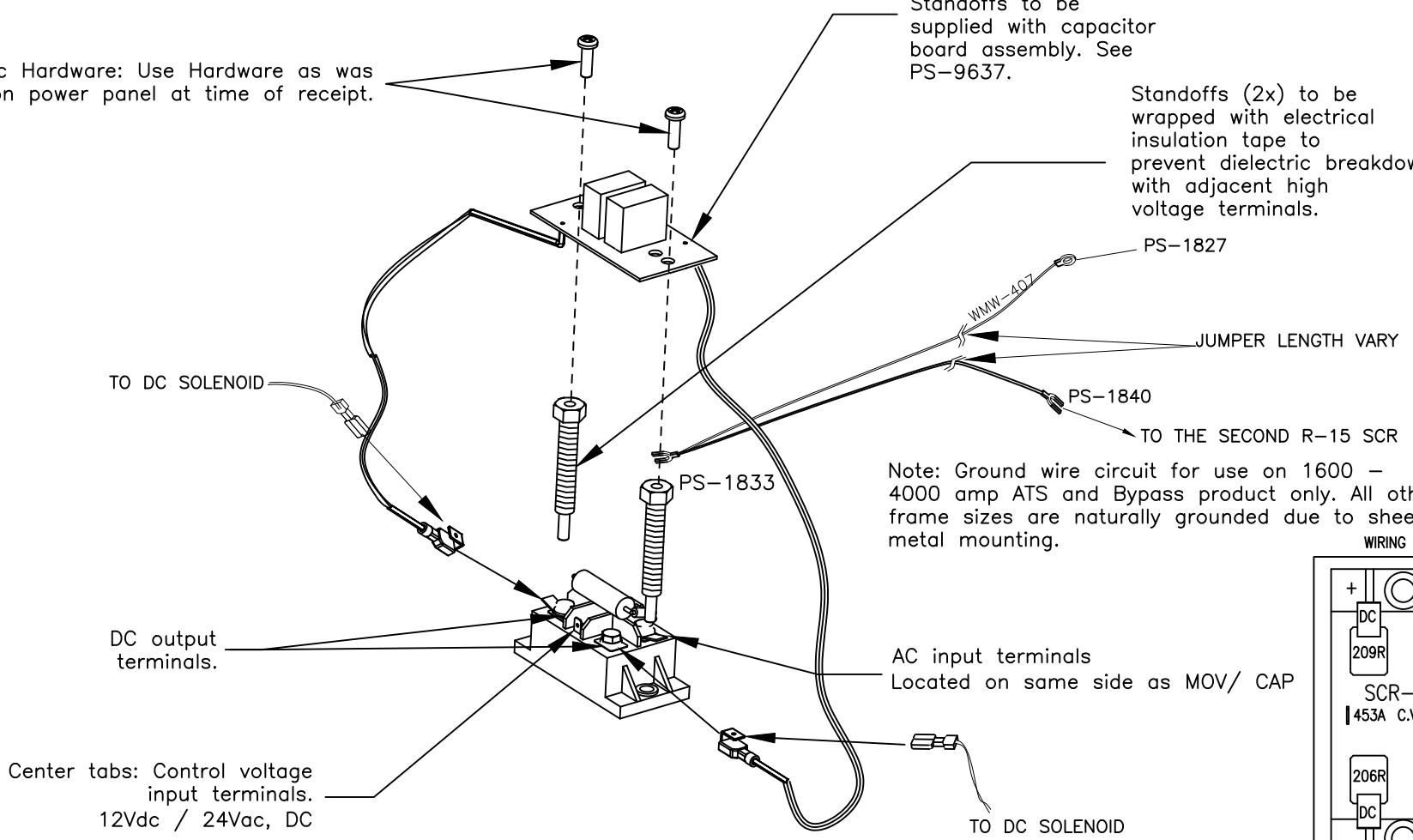
Standard R15 load shed assembly for use with SCR PS-8903/PS-8910 supplied by Crydom.

Ruihua Base assembly: 50P-1248

50P-1246
Note: Metric M6 Standoffs to be supplied with capacitor board assembly. See PS-9637.

Metric Hardware: Use Hardware as was supplied on power panel at time of receipt.

Standoffs (2x) to be wrapped with electrical insulation tape to prevent dielectric breakdown with adjacent high voltage terminals.


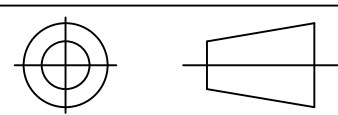


Note: Ground wire circuit for use on 1600 - 4000 amp ATS and Bypass product only. All other frame sizes are naturally grounded due to sheet metal mounting.

WIRING DETAILS	
+	+
DC	AC
209R	31
SCR-CE2	
453A C.V. 900	
DC	AC
206R	30
-	-

Above diagram is for use on Stand-alone ATS. For Bypass Isolation, replace wire marker 30 with wire marker 201.

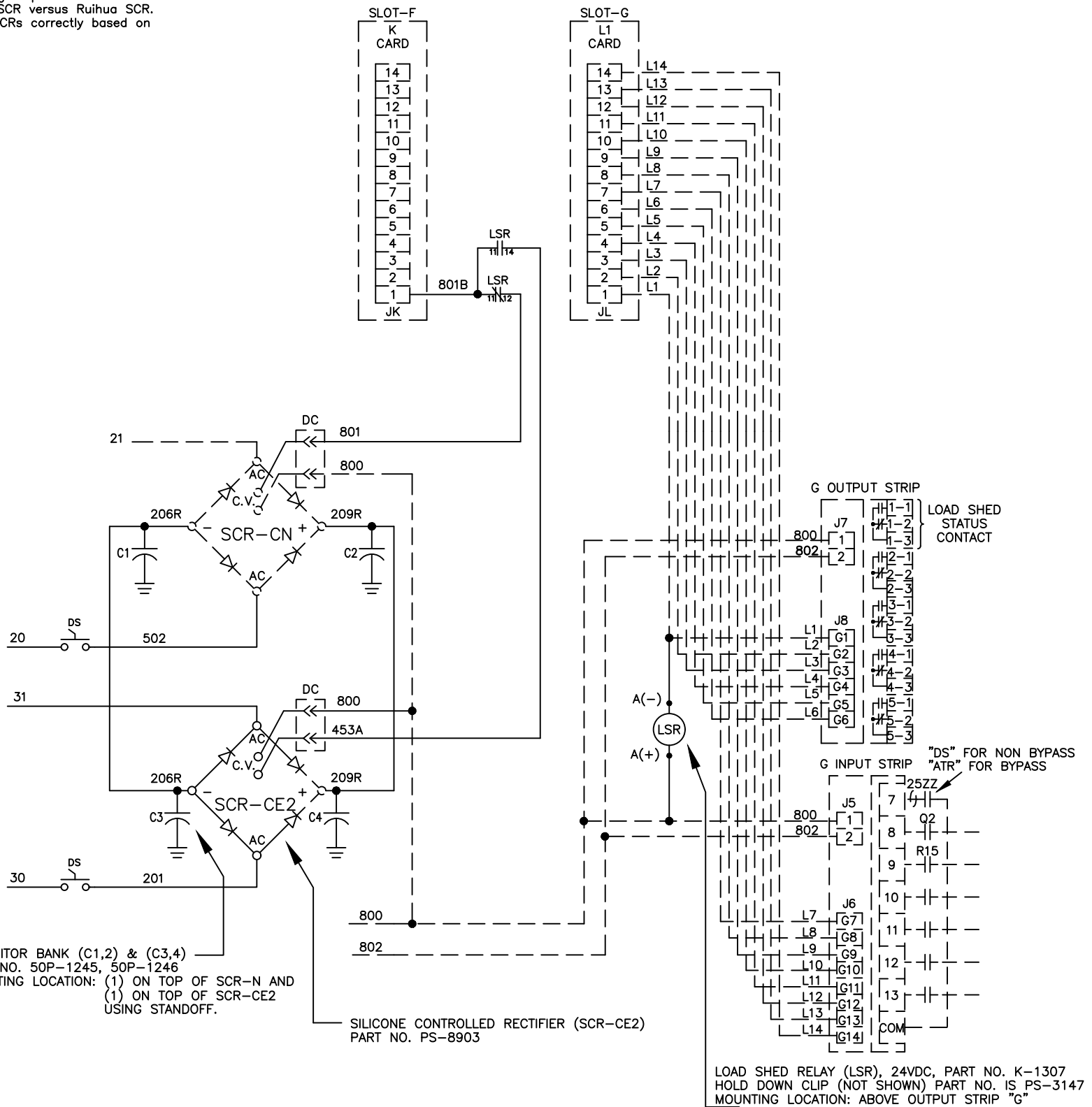
Standard R15 load shed assembly for use with SCR PS-8903/PS-8910 supplied by Ruihua.

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	TOLERANCES ON: 2 PL. DECIMALS ± .020 3 PL. DECIMALS ± .005 ANGLES ± 1' FRACTIONS ± 1/64 FINISH ✓	DRAWING FILE: 91r-2015.dwg MODEL / ASSEMBLY FILE:	FIRST MADE FOR: ZTE(40-4000A)/ZBTE(100-4000A) TRANSFER SWITCHES SIZE B CAGE CODE DWG NO	
THIRD ANGLE PROJECTION 	AutoCad Generated	# CTQs CRITICAL TO QUALITY CHARACTERISTIC	SCALE: NA	SHEET 1 OF 6

NOTES	
DS	DISCONNECT SWITCH
C1,2,3,4	CAPACITOR BANK ASSEMBLY, P/N: 50-1245, 50P-1246
CLIP	RELAY HOLD DOWN CLIP (NOT SHOWN), P/N: PS-3147
CV	CONTROL VOLTAGE
DC,JK,JL	CONNECTION PLUG
LSR	LOAD SHED RELAY, P/N: K-1305
R15	REMOTE LOAD SHED CONTACT
SCR-CE2	SOURCE 2 OPEN CONTROL RECTIFIER FOR LOAD SHED, P/N: PS-8903
SCR-N	SOURCE 1 CLOSE CONTROL RECTIFIER

Note: See page 1 of drawing set for details of SCR wiring sequence. Focus on use of Crydom SCR versus Ruihua SCR. Verify to wire the SCRs correctly based on individual models

MX350 CONTROLLER CARDS



OPERATION


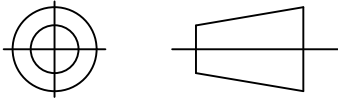
R15 IS A LOAD SHED SIGNAL OPERATES VIA EXTERNAL CUSTOMER CONTACT INPUT.

CONDITION 1: LOAD CONNECTED TO SOURCE 2 DUE TO SOURCE 1 LOSS OF NORMAL POWER.

UPON RECEIPT OF R15 SIGNAL (R15 CONTACT CLOSED), THE LSR WILL BE ENERGIZED FROM MX350 DIGITAL OUTPUT WHICH WILL CAUSE THE ATS TO TRANSFER FROM SOURCE 2 TO SOURCE 1. IF R15 CONTACT IS STILL CLOSED, UPON LOSS OF SOURCE 1 NORMAL POWER, THE ATS WILL REMAIN IN SOURCE 1 UNTIL SIGNAL IS REMOVED.

CONDITION 2: LOAD CONNECTED TO SOURCE 2 OPERATING IN SYSTEM TEST.

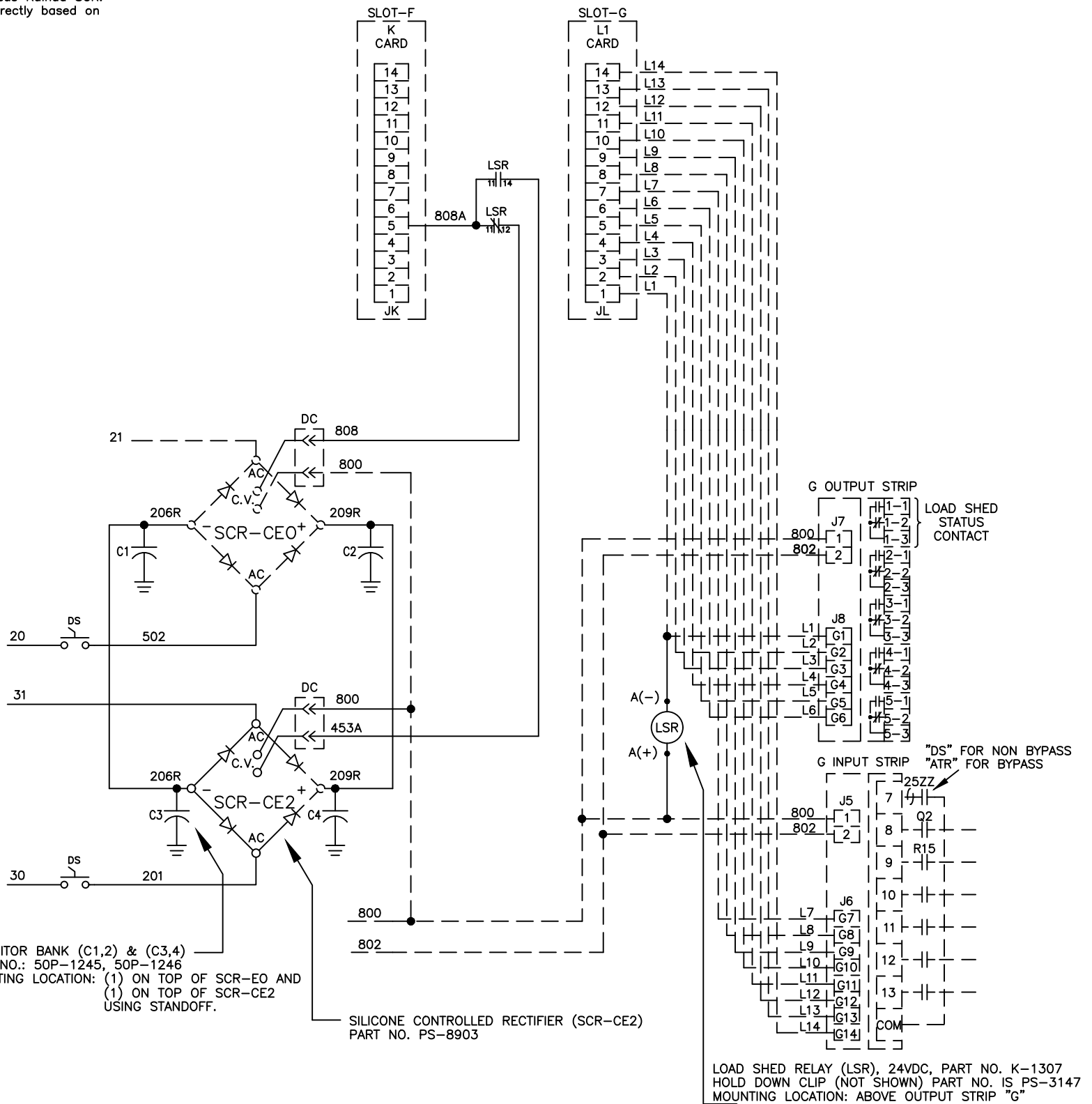
UPON RECEIPT OF R15 SIGNAL (R15 CONTACT CLOSED), THE LSR WILL BE ENERGIZED FROM MX350 DIGITAL OUTPUT WHICH WILL CAUSE THE ATS TO TRANSFER FROM SOURCE 2 TO SOURCE 1. REMOVING THE R15 SIGNAL (OPENING R15 CONTACT) WILL ALLOW THE ATS TO TRANSFER BACK TO SOURCE 2 POSITION.

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	TOLERANCES ON: 2 PL. DECIMALS ± .020 3 PL. DECIMALS ± .005 ANGLES ± 1° FRACTIONS ± 1/64 FINISH ✓	CHECKED ENGRG CEE MFG QUALITY ISSUED	
THIRD ANGLE PROJECTION 	AutoCad Generated	DRAWING FILE: 91R-2015.dwg MODEL / ASSEMBLY FILE: # CTQs CRITICAL TO QUALITY CHARACTERISTIC	SCALE: NA SHEET 2 OF 6

NOTES	
DS	DISCONNECT SWITCH
C1,2,3,4	CAPACITOR BANK ASSEMBLY, P/N: 50-1245, 50P-1246
CLIP	RELAY HOLD DOWN CLIP (NOT SHOWN), P/N: PS-3147
CV	CONTROL VOLTAGE
DC,JK,JL	CONNECTION PLUG
LSR	LOAD SHED RELAY, P/N: K-1305
R15	REMOTE LOAD SHED CONTACT
SCR-CE2	SOURCE 2 OPEN CONTROL RECTIFIER FOR LOAD SHED, P/N: PS-8896
SCR-N	SOURCE 1 CLOSE CONTROL RECTIFIER

Note: See page 1 of drawing set for details of SCR wiring sequence. Focus on use of Crydom SCR versus Ruihua SCR. Verify to wire the SCRs correctly based on individual models

MX350 CONTROLLER CARDS



OPERATION


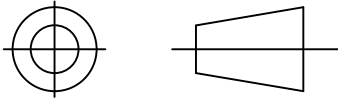
R15D IS A LOAD SHED SIGNAL OPERATES VIA EXTERNAL CUSTOMER CONTACT INPUT.

CONDITION 1: LOAD CONNECTED TO SOURCE 2 DUE TO SOURCE 1 LOSS OF NORMAL POWER.

UPON RECEIPT OF R15D SIGNAL (R15D CONTACT CLOSED), THE LSR WILL BE ENERGIZED FROM MX350 DIGITAL OUTPUT WHICH WILL CAUSE THE ATS TO TRANSFER FROM SOURCE 2 TO OPEN SOURCE. IF R15D CONTACT STILL REMAINED CLOSED THE NEXT TIME LOSS OF SOURCE 1 NORMAL POWER OCCUR, THE ATS WILL NOT TRANSFER TO SOURCE 2 POSITION.

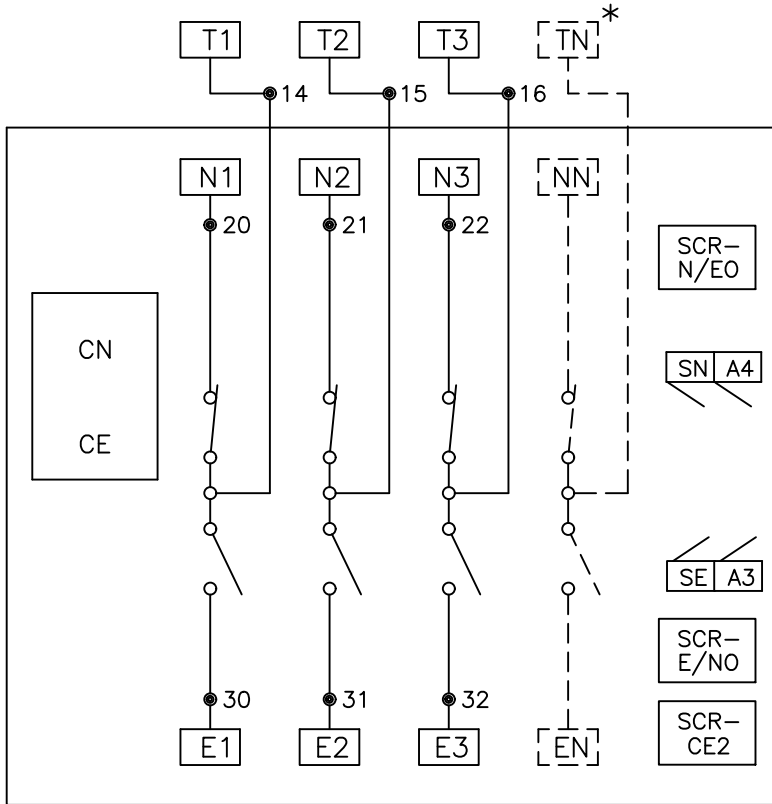
CONDITION 2: LOAD CONNECTED TO SOURCE 2 OPERATING IN SYSTEM TEST.

UPON RECEIPT OF R15D SIGNAL (R15D CONTACT CLOSED), THE LSR WILL BE ENERGIZED FROM MX350 DIGITAL OUTPUT WHICH WILL CAUSE THE ATS TO TRANSFER FROM SOURCE 2 TO OPEN SOURCE AND THEN TO SOURCE 1. REMOVING THE R15D SIGNAL (OPENING R15D CONTACT) WILL ALLOW THE ATS TO TRANSFER BACK TO SOURCE 2 POSITION.

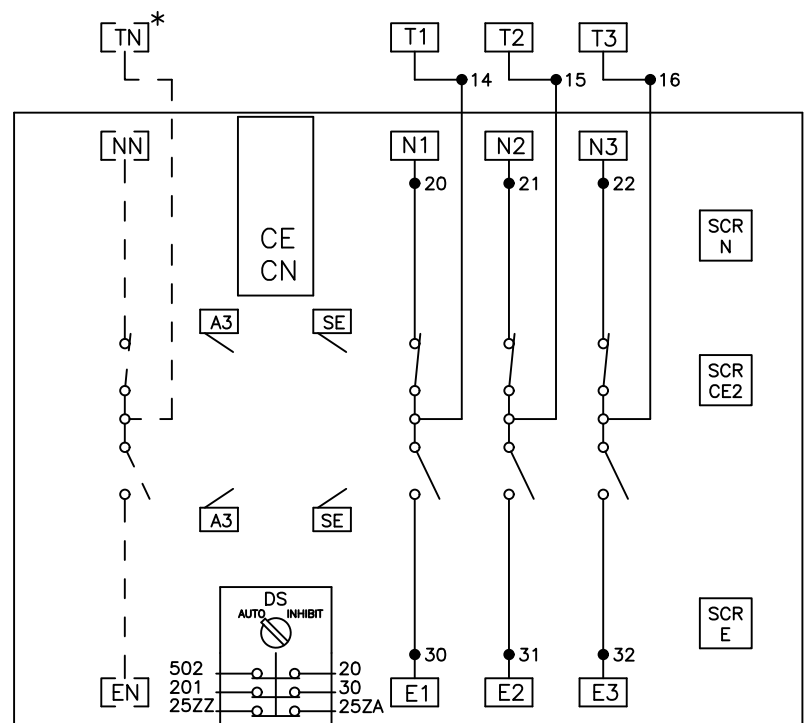
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	TOLERANCES ON: 2 PL. DECIMALS ± .020 3 PL. DECIMALS ± .005 ANGLES ± 1° FRACTIONS ± 1/64 FINISH ✓	CHECKED ENGRG CEE DATE 03/03/08 MFG QUALITY ISSUED	
THIRD ANGLE PROJECTION 	DRAWING FILE: 91R-2015.dwg MODEL / ASSEMBLY FILE:	SCALE: NA	SHEET 3 OF 6
AutoCad Generated	# CTQs CRITICAL TO QUALITY CHARACTERISTIC		



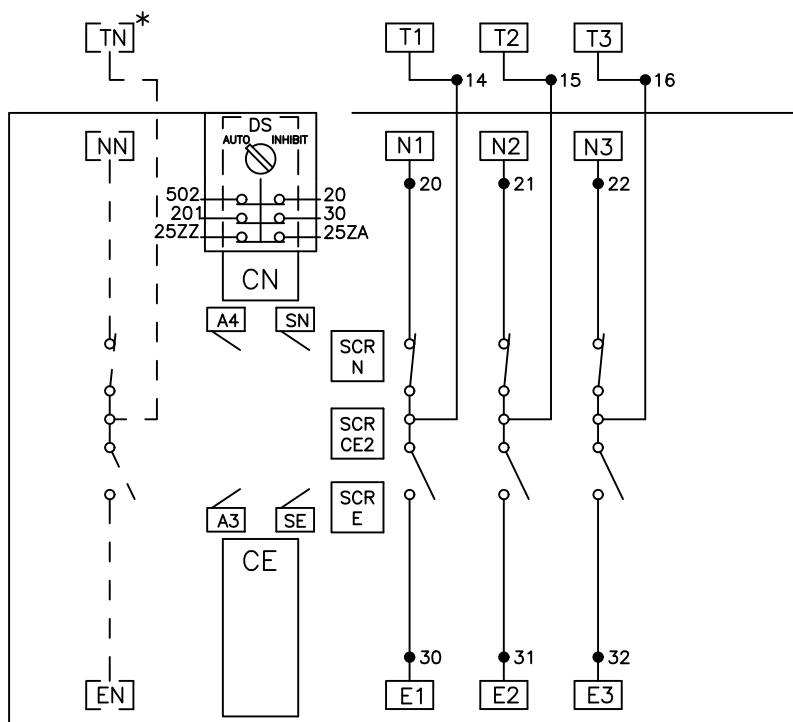
ZTE(225-400A) STANDARD TRANSITION



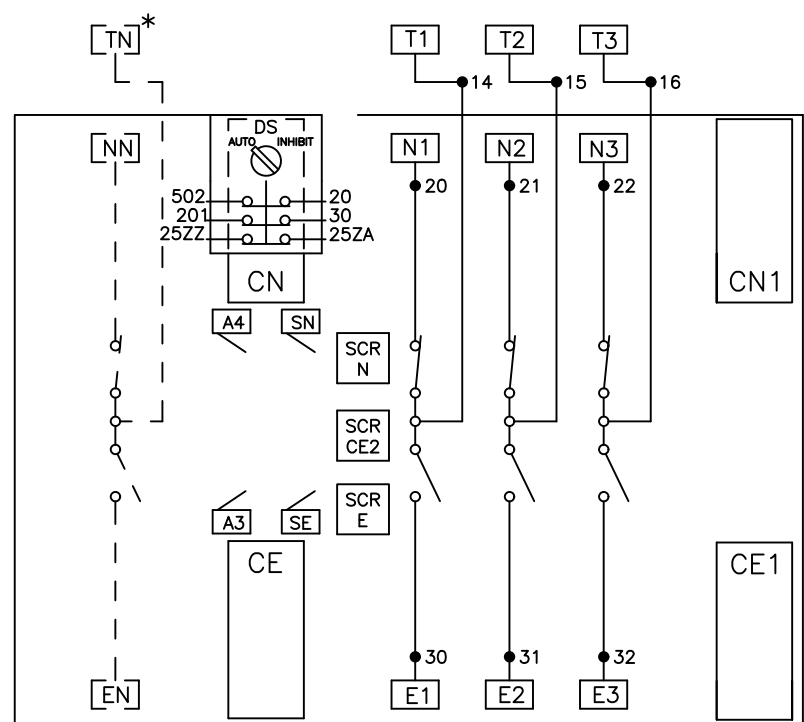
ZTE(600-1200A) STANDARD TRANSITION



ZTE(1600-3000A) STANDARD TRANSITION



ZTE(4000A) STANDARD TRANSITION



NOTES:

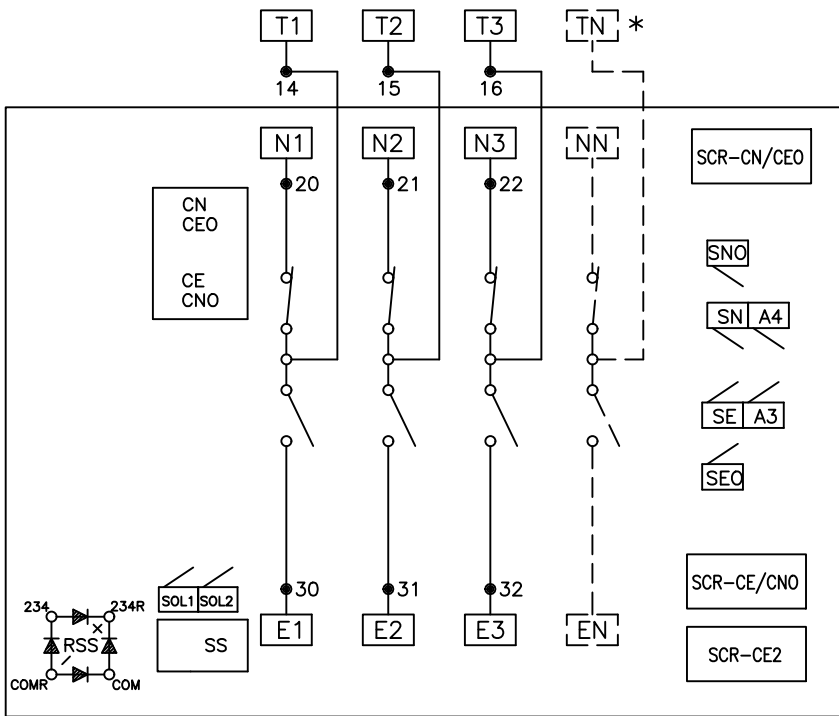
- * - SWITCHED OR SOLID NEUTRAL AS SPECIFIED FOR 4 WIRE SYSTEM.
- ATS SHOWN IN SOURCE 1 POSITION WITH NO POWER AVAILABLE.

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	TOLERANCES ON: 2 PL. DECIMALS ± .020 3 PL. DECIMALS ± .005 ANGLES ± 1° FRACTIONS ± 1/64 FINISH ✓	CHECKED ENGRG CEE MFG QUALITY ISSUED	DATE 03/03/08	
THIRD ANGLE PROJECTION 	AutoCad Generated	DRAWING FILE: 91R-2015.dwg MODEL / ASSEMBLY FILE:	FIRST MADE FOR: ZTE (100-4000 AMP) SIZE B CAGE CODE DWG NO	SCALE: N/A
	# CTQs CRITICAL TO QUALITY CHARACTERISTIC			SHEET 4 OF 6

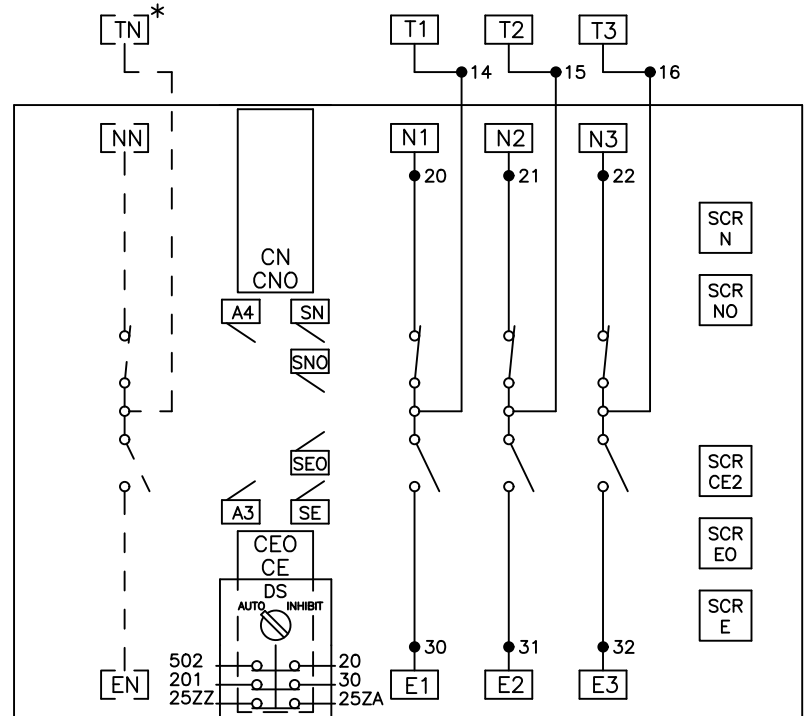




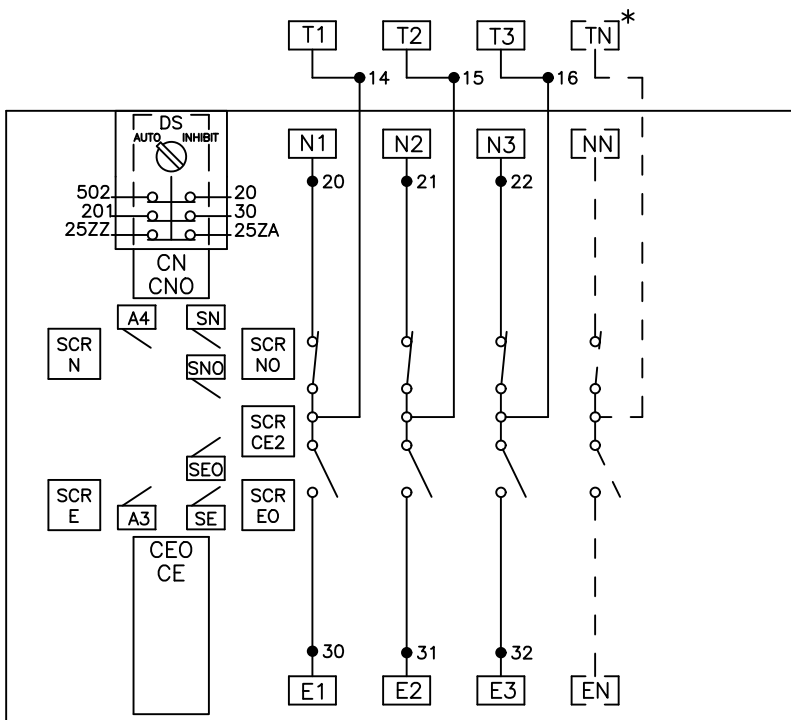
ZTED(80-400A) DELAYED TRANSITION



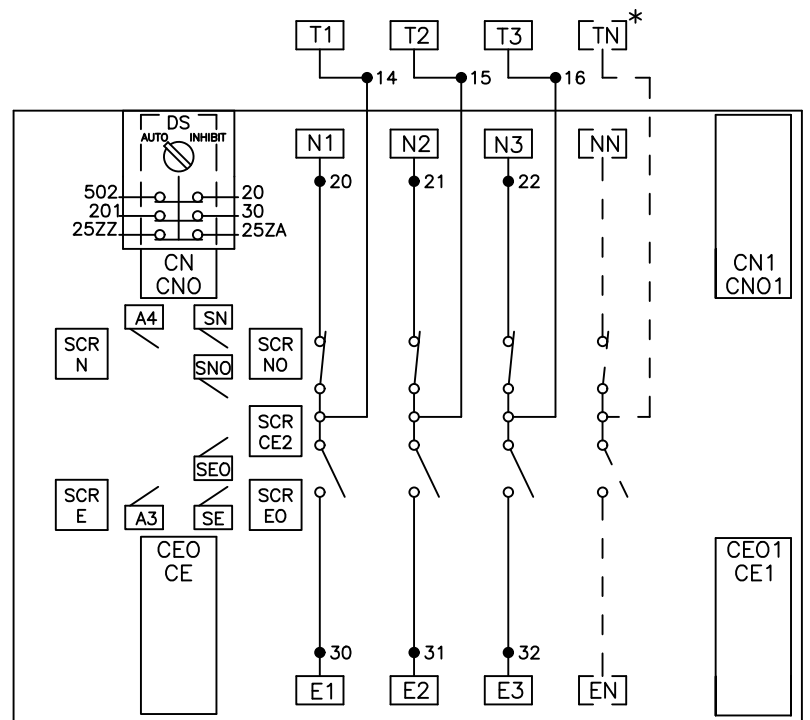
(600-1200A) DELAY TRANSITION (ZTED)
(100-1200A) CLOSED TRANSITION (ZTECT)



(1600-3000A) DELAY TRANSITION (ZTED)/ CLOSE TRANSITION (ZTECT)


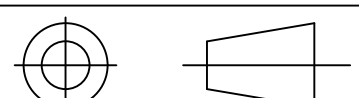


(4000A) DELAY TRANSITION (ZTED)/ CLOSE TRANSITION (ZTECT)



NOTES:

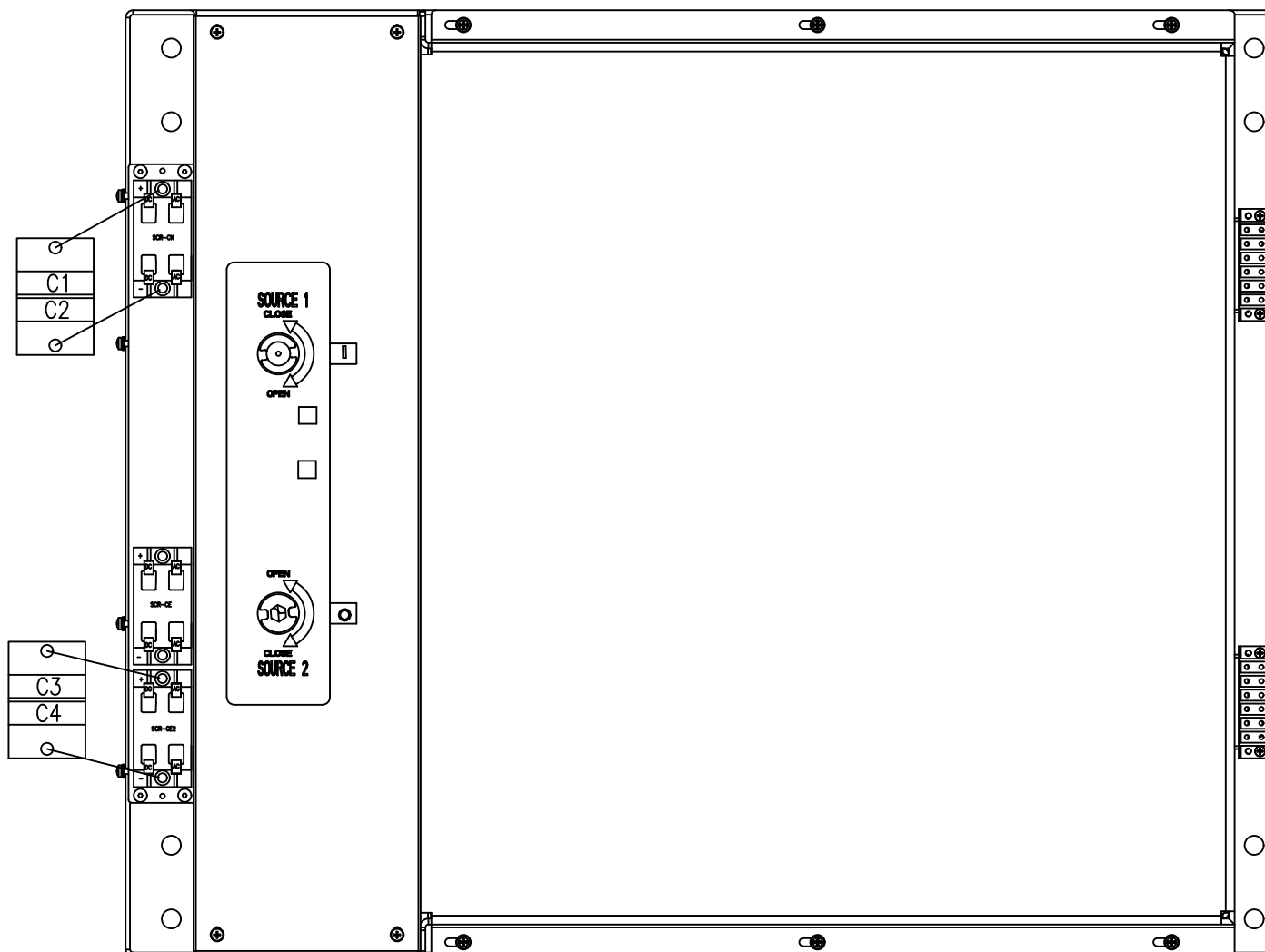
- 1. * - SWITCHED OR SOLID NEUTRAL AS SPECIFIED FOR 4 WIRE SYSTEM.
- 2. ATS SHOWN IN SOURCE 1 POSITION WITH NO POWER AVAILABLE.

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	TOLERANCES ON: 2 PL. DECIMALS ± .020 3 PL. DECIMALS ± .005 ANGLES ± 1° FRACTIONS ± 1/64 FINISH ✓	CHECKED ENGRG CEE MFG QUALITY ISSUED	
THIRD ANGLE PROJECTION 	AutoCad Generated	# CTQs CRITICAL TO QUALITY CHARACTERISTIC	SCALE: N/A SHEET 5 OF 6

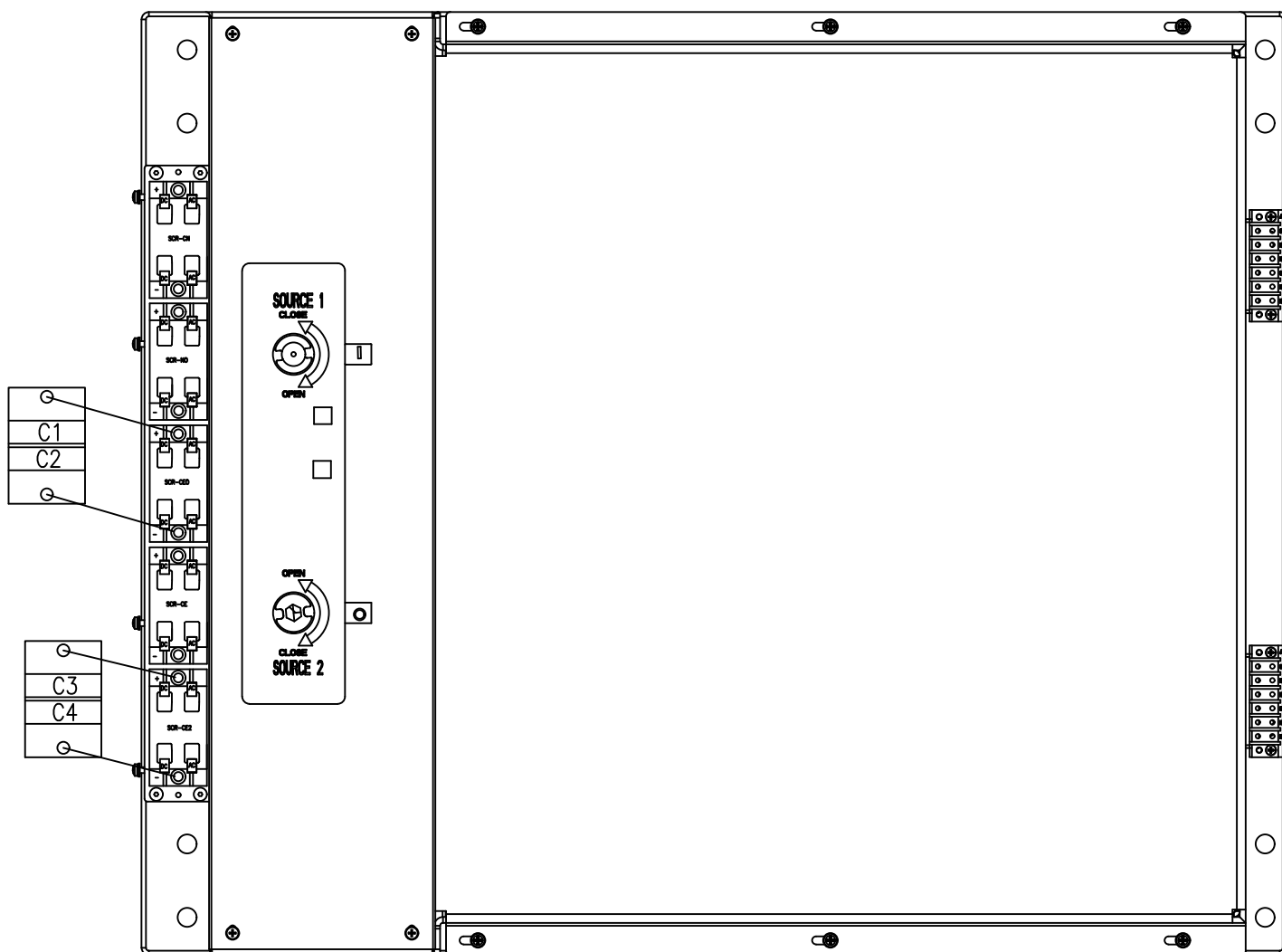


1600 - 3000 AMP ATS - STR RATED (SHORT TIME RATED)

STANDARD TRANSITION


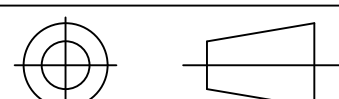


DELAY / CLOSED TRANSITION



NOTES:

1. Mount & wire SCR-CE2 on power panel as shown below.
2. See page 2 for wiring details. Verify use of Ruihua for wiring sequence.

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	TOLERANCES ON: 2 PL. DECIMALS ± .020 3 PL. DECIMALS ± .005 ANGLES ± 1' FRACTIONS ± 1/64 FINISH ✓	DRAWING FILE: 91R-2015.dwg MODEL / ASSEMBLY FILE: MX350 STR MODELS	FIRST MADE FOR: ZTE(40-4000A) TRANSFER SWITCHES SIZE B CAGE CODE DWG NO	
THIRD ANGLE PROJECTION 	AutoCad Generated	# CTQs CRITICAL TO QUALITY CHARACTERISTIC	SCALE: NA	SHEET 6 OF 6