

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	S-8713-3	ESTABLISHED DWG	03/12/08 GG CEE

Transient Voltage Surge Suppressor (TVSS) devices are designed to protect loads and equipment from damaging effects of electrical surges or spikes. Under normal conditions, all three of the green Operational Status Indicating LED's will be illuminated. If one or more of these LED's are extinguished, contact factory for service. ONLY QUALIFIED PERSONNEL SHOULD INSTALL OR SERVICE THIS SYSTEM.

TVSS CIRCUIT SCHEMATIC

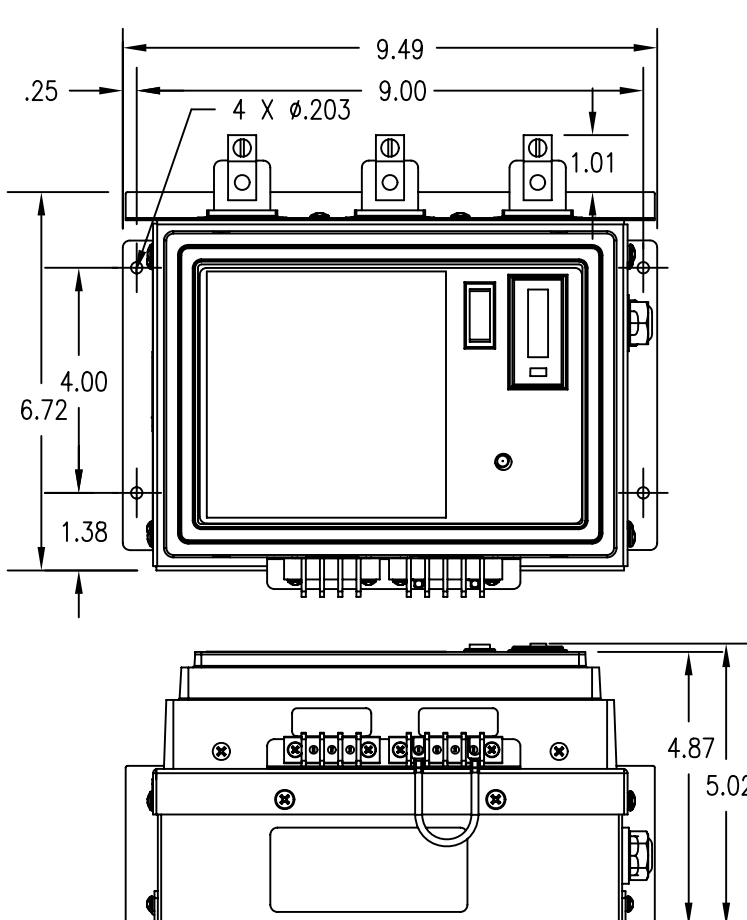
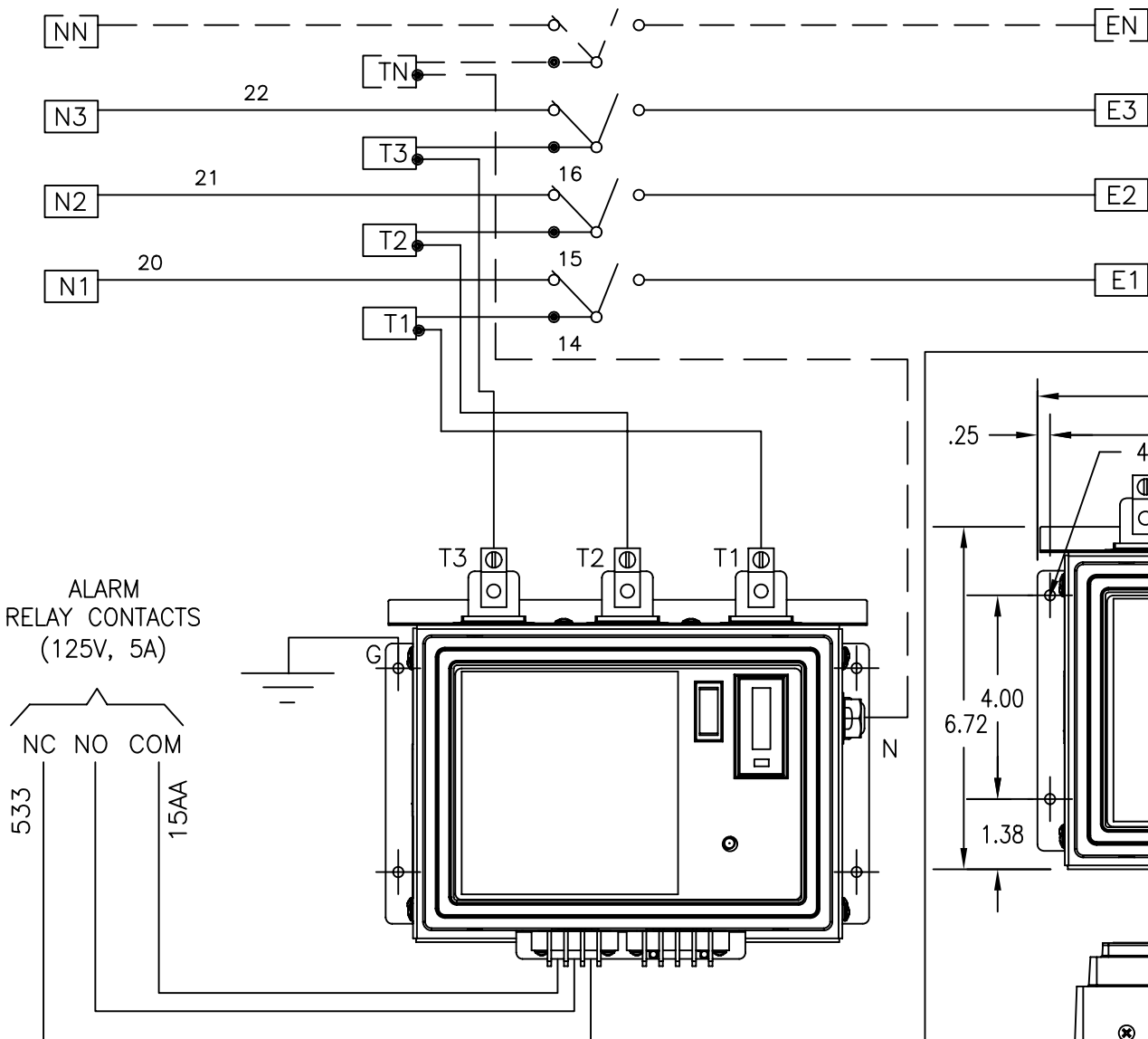
N1,2,3,N - SOURCE 1 LINE

T1,2,3,N - LOAD

E1,2,3,N - SOURCE 2 LINE

* SWITCHED OR SOLID NEUTRAL AS SPECIFIED FOR 4 WIRE SYSTEMS.

FOR SOLID NEUTRAL, CONNECT TVSS NEUTRAL WIRE TO NEUTRAL BAR ASSEMBLY.



USE THE LAYOUT ABOVE FOR DRILLING AND LOCATING THE TVSS IN THE ENCLOSURE SEE REMAINING PAGES FOR TVSS LOCATION

LEGEND	NOTES	REFERENCE
<ul style="list-style-type: none"> ● WIRE CONNECTION ○ WIRE ON TERMINAL BLOCK * OPTIONAL 	1. ATS SHOWN IN SOURCE 1 POSITION WITH NO POWER AVAILABLE.	

PART NUMBER TABLE

NC STANDARD (NO OPTIONS) PART NUMBER (MAX. SURGE CURRENT RATING DEPENDANT)			NF OPTION (SURGE COUNTER NO NOISE FILTER) PART NUMBER (MAX. SURGE CURRENT RATING DEPENDANT)			WC OPTION (SURGE COUNTER AND NOISE FILTER) PART NUMBER (MAX. SURGE CURRENT RATING DEPENDANT)			NOMINAL VOLTAGE (VOLTS RMS)	CONFIGURATION	SUPPRESSED VOLTAGE RATING UL1499 2nd EDITION L-N/L-G/N-G	MOCV% MAX. CONTINUOUS OPERATING VOLTAGE
65kA/MODE	80kA/MODE	100kA/MODE	65kA/MODE	80kA/MODE	100kA/MODE	65kA/MODE	80kA/MODE	100kA/MODE				
TPME120S06WCNC	TPME120S08WCNC	TPME120S10WCNC	TPME120S06WCNF	TPME120S08WCNF	TPME120S10WCNF	TPME120S06WC	TPME120S08WC	TPME120S10WC	120/240	1 PHASE, 3W+G	400/400/400	125%
TPME120Y06WCNC	TPME120Y08WCNC	TPME120Y10WCNC	TPME120Y06WCNF	TPME120Y08WCNF	TPME120Y10WCNF	TPME120Y06WC	TPME120Y08WC	TPME120Y10WC	120Y/208	3 PHASE, 4W+G	400/400/400	125%
TPME240D06WCNC	TPME240D08WCNC	TPME240D10WCNC	TPME240D06WCNF	TPME240D08WCNF	TPME240D10WCNF	TPME240D06WC	TPME240D08WC	TPME240D10WC	240 DELTA	3 PHASE, 4W+G	-/700/-	115%
TPME240H06WCNC	TPME240H08WCNC	TPME240H10WCNC	TPME240H06WCNF	TPME240H08WCNF	TPME240H10WCNF	TPME240H06WC	TPME240H08WC	TPME240H10WC	120/240 DELTA HL	3 PHASE, 4W+G	400/700/400/700/400	115%
TPME240Y06WCNC	TPME240Y08WCNC	TPME240Y10WCNC	TPME240Y06WCNF	TPME240Y08WCNF	TPME240Y10WCNF	TPME240Y06WC	TPME240Y08WC	TPME240Y10WC	240Y/415	3 PHASE, 4W+G	800/800/1500	130%
TPME277Y06WCNC	TPME277Y08WCNC	TPME277Y10WCNC	TPME277Y06WCNF	TPME277Y08WCNF	TPME277Y10WCNF	TPME277Y06WC	TPME277Y08WC	TPME277Y10WC	277Y/480	3 PHASE, 4W+G	800/800/1500	115%
TPME220Y06WCNC	TPME220Y08WCNC	TPME220Y10WCNC	TPME220Y06WCNF	TPME220Y08WCNF	TPME220Y10WCNF	TPME220Y06WC	TPME220Y08WC	TPME220Y10WC	220Y/380	3 PHASE, 4W+G	800/800/1500	145%
TPME480D06WCNC	TPME480D08WCNC	TPME480D10WCNC	TPME480D06WCNF	TPME480D08WCNF	TPME480D10WCNF	TPME480D06WC	TPME480D08WC	TPME480D10WC	480 DELTA	3 PHASE, 4W+G	-/1500/-	170%
TPME347Y06WCNC	TPME347Y08WCNC	TPME347Y10WCNC	TPME347Y06WCNF	TPME347Y08WCNF	TPME347Y10WCNF	TPME347Y06WC	TPME347Y08WC	TPME347Y10WC	347Y/600	3 PHASE, 4W+G	1200/1200/1800	115%
TME600D065WCNC	TME600D080WCNC	TME600D100WCNC	TME600D065WCNF	TME600D080WCNF	TME600D100WCNF	TME600D065WC	TME600D080WC	TME600D100WC	600 DELTA	3 PHASE, 4W+G	-/1500/-	170%

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THIRD ANGLE PROJECTION

FOR ADDITIONAL INFO REFER TO	SIGNATURES	DATE
APPLIED PRACTICES	MODEL GG	05/26/05
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	DETAIL	
TOLERANCES ON:	CHECKED	
2 PL. DECIMALS ± .020	ENGRG CEE	
3 PL. DECIMALS ± .005	MFG	
ANGLES ± 1°	QUALITY	
FRACTIONS ± 1/64	ISSUED	
FINISH ✓	DRAWING FILE: 91r-2086-a-1.dwg	
AutoCad Generated	MODEL / ASSEMBLY FILE: Z(B)TE(D/CT)40-800AMP	
	# CTQS	CRITICAL TO QUALITY CHARACTERISTIC

GE Zenith Controls

TITLE: TVSS, GE TRANQUELL TME MEDIUM EXPOSURE

FIRST MADE FOR: Z(B)TE(D/CT)40-800AMP

SIZE: B CAGE CODE: DWG NO: 91R-2086

SCALE: 3 : 10 SHEET 1 OF 12

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	S-8713-4	ESTABLISHED DWG	03/12/08 GG CEE

Transient Voltage Surge Suppressor (TVSS) devices are designed to protect loads and equipment from damaging effects of electrical surges or spikes. Under normal conditions, all three of the green Operational Status Indicating LED's will be illuminated. If one or more of these LED's are extinguished, contact factory for service. ONLY QUALIFIED PERSONNEL SHOULD INSTALL OR SERVICE THIS SYSTEM.

TVSS CIRCUIT SCHEMATIC

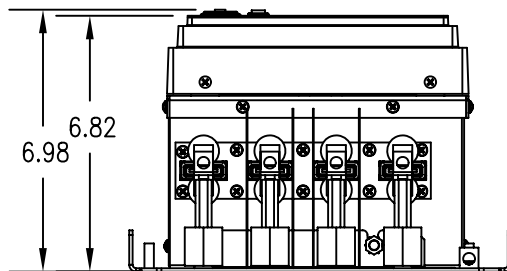
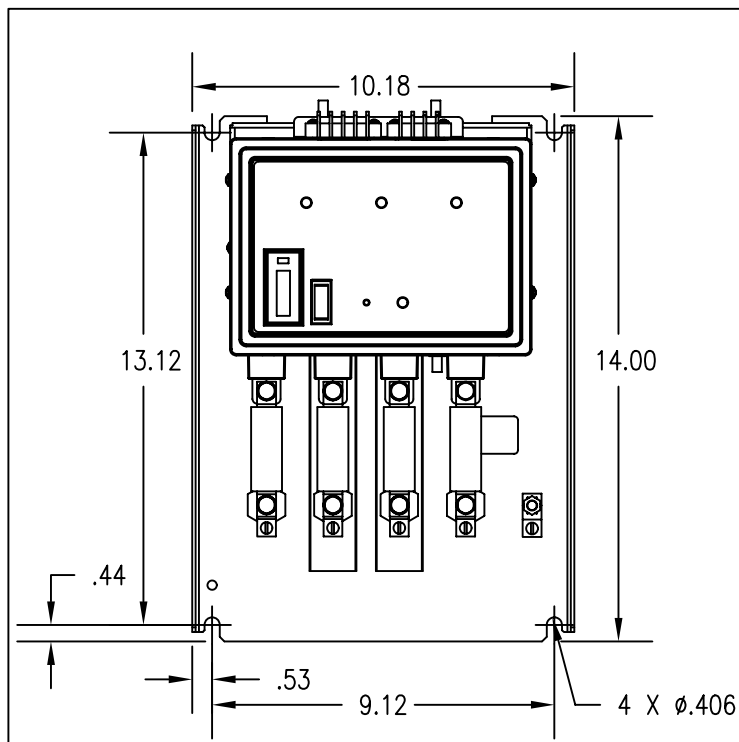
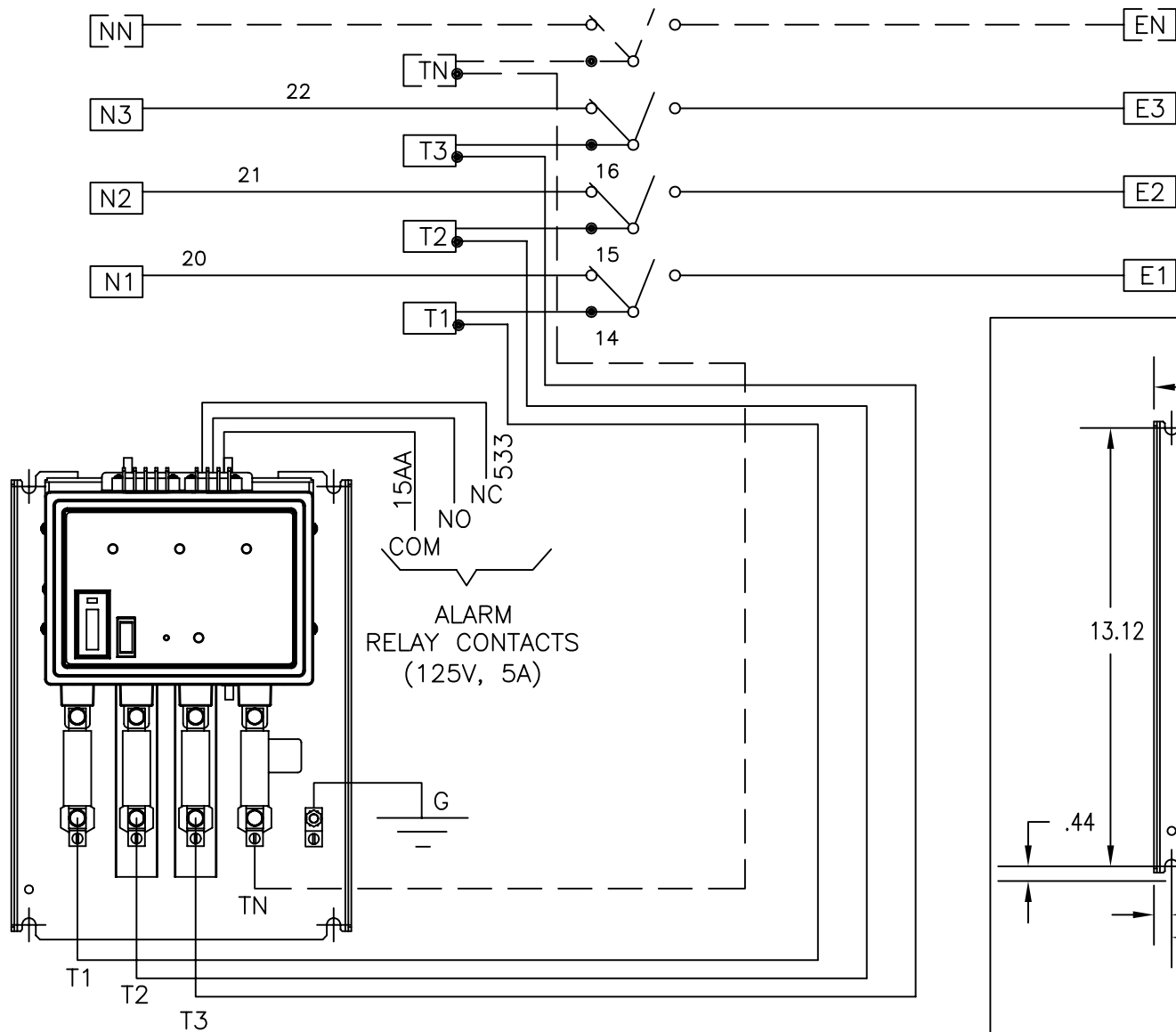
N1,2,3,N - SOURCE 1 LINE

T1,2,3,N - LOAD

E1,2,3,N - SOURCE 2 LINE

* SWITCHED OR SOLID NEUTRAL AS SPECIFIED FOR 4 WIRE SYSTEMS.

FOR SOLID NEUTRAL, CONNECT TVSS NEUTRAL WIRE TO NEUTRAL BAR ASSEMBLY.



USE THE LAYOUT ABOVE FOR DRILLING AND LOCATING THE TVSS IN THE ENCLOSURE SEE REMAINING PAGES FOR TVSS LOCATION

LEGEND	NOTES
<ul style="list-style-type: none"> ● WIRE CONNECTION ○ WIRE ON TERMINAL BLOCK * OPTIONAL 	1. ATS SHOWN IN SOURCE 1 POSITION WITH NO POWER AVAILABLE.
REFERENCE	

PART NUMBER TABLE

PART NUMBER (MAXIMUM SURGE CURRENT RATING DEPENDANT)				NOMINAL VOLTAGE (VOLTS RMS)	CONFIGURATION	SUPPRESSED VOLTAGE RATING UL1499 2nd EDITION L-N/L-G/N-G	MOCV% MAX. CONTINUOUS OPERATING VOLTAGE
100kA/MODE	150kA/MODE	200kA/MODE	300kA/MODE				
TPHE120S10NSBX	TPHE120S15NSBX	TPHE120S20NSBX	TPHE120S30NSBX	120/240	1 PHASE, 3W+G	500/500/400	125%
TPHE120Y10NSBX	TPHE120Y15NSBX	TPHE120Y20NSBX	TPHE120Y30NSBX	120Y/208	3 PHASE, 4W+G	500/500/400	125%
TPHE240D10NSBX	TPHE240D15NSBX	TPHE240D20NSBX	TPHE240D30NSBX	240 DELTA	3 PHASE, 4W+G	-/700/-	115%
TPHE240H10NSBX	TPHE240H15NSBX	TPHE240H20NSBX	TPHE240H30NSBX	120/240 DELTA HL	3 PHASE, 4W+G	500/700/500/700/400	115%
TPHE240Y10NSBX	TPHE240Y15NSBX	TPHE240Y20NSBX	TPHE240Y30NSBX	240Y/415	3 PHASE, 4W+G	800/800/800	130%
TPHE277Y10NSBX	TPHE277Y15NSBX	TPHE277Y20NSBX	TPHE277Y30NSBX	277Y/480	3 PHASE, 4W+G	800/800/800	115%
TPHE220Y10NSBX	TPHE220Y15NSBX	TPHE220Y20NSBX	TPHE220Y30NSBX	220Y/380	3 PHASE, 4W+G	800/800/800	145%
TPHE480D10NSBX	TPHE480D15NSBX	TPHE480D20NSBX	TPHE480D30NSBX	480 DELTA	3 PHASE, 4W+G	-/1500/-	170%
TPHE347Y10NSBX	TPHE347Y15NSBX	TPHE347Y20NSBX	TPHE347Y30NSBX	347Y/600	3 PHASE, 4W+G	1000/1000/1000	115%
THE600D100NSBX	THE600D150NSBX	THE600D200NSBX	THE600D300NSBX	600 DELTA	3 PHASE, 4W+G	-/1500/-	170%

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THIRD ANGLE PROJECTION

FOR ADDITIONAL INFO REFER TO APPLIED PRACTICES UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES ON:
 2 PL. DECIMALS ± .020
 3 PL. DECIMALS ± .005
 ANGLES ± 1°
 FRACTIONS ± 1/64

FINISH ✓

AutoCad Generated

SIGNATURES
 MODEL GG
 DATE 05/26/05
 CHECKED MF/FS
 ENGRG MF/FS
 MFG
 QUALITY
 ISSUED

DRAWING FILE: 91r-2086-a-2.dwg
 MODEL / ASSEMBLY FILE: Z(B)TE(D/CT)1000-4000AMP

CTQs

CRITICAL TO QUALITY CHARACTERISTIC

GE **GE Zenith Controls**

TITLE
 TVSS, GE TRANQUELL THE HIGH EXPOSURE

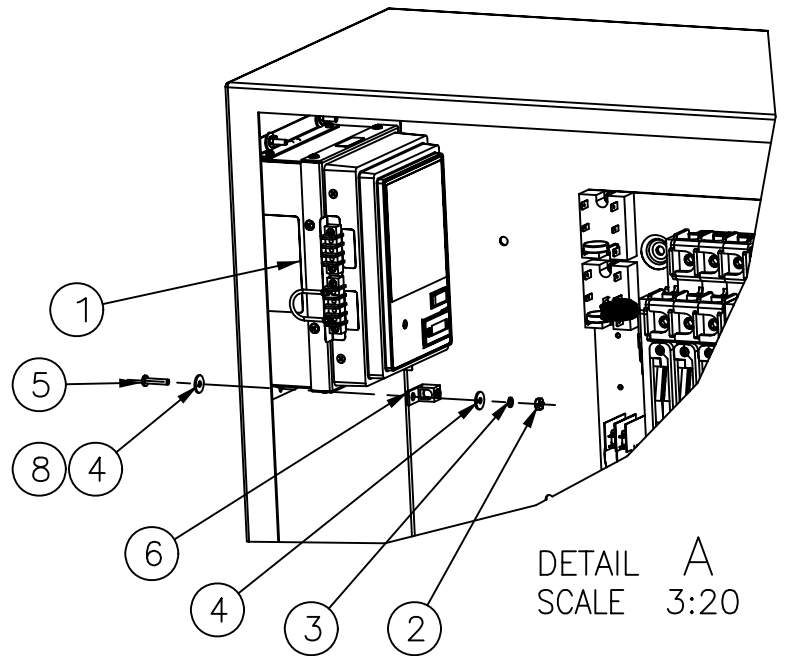
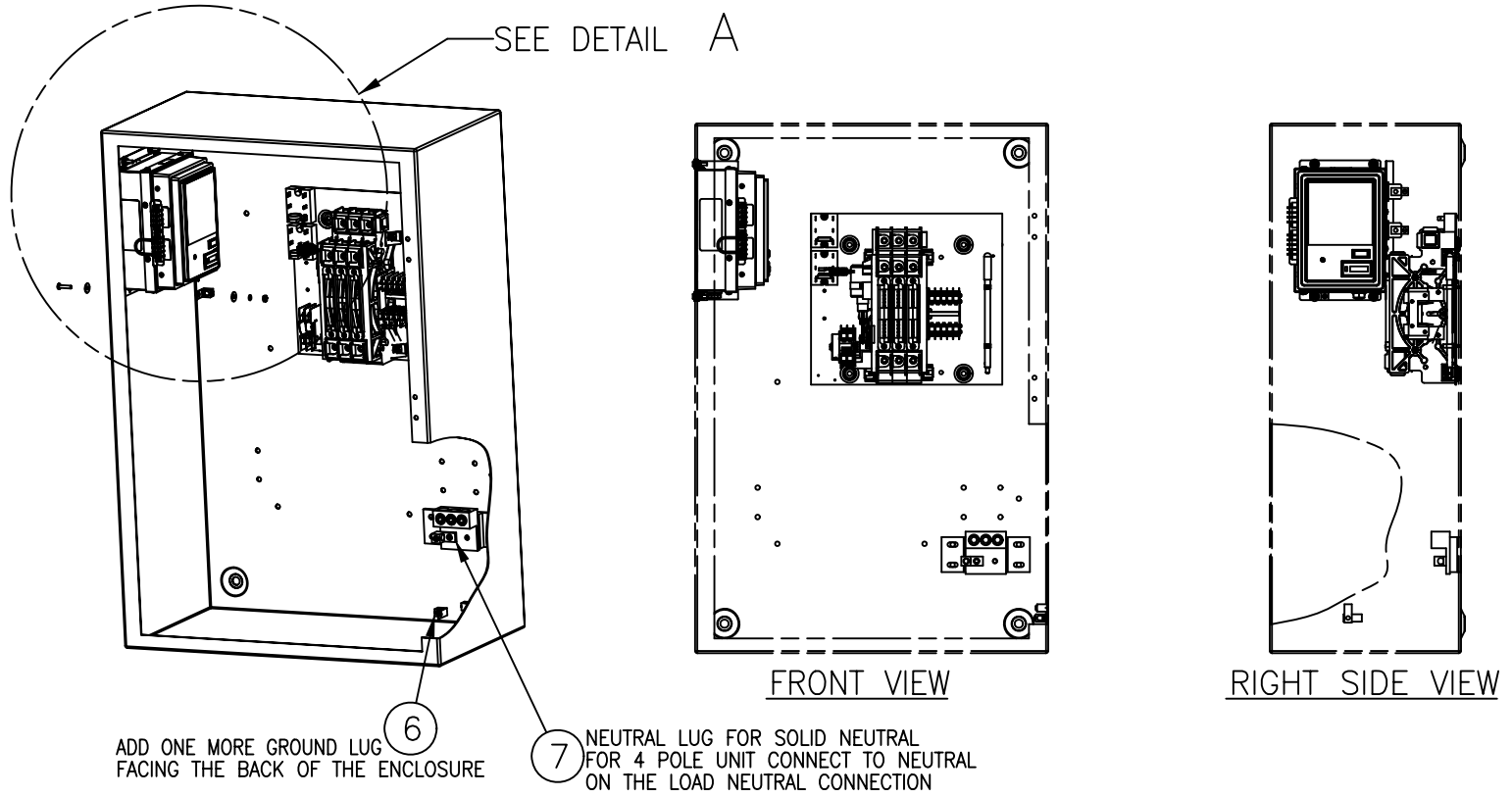
FIRST MADE FOR: Z(B)TE(D/CT)1000-4000AMP

SIZE B
 CAGE CODE
 DWG NO 91R-2086

SCALE: 1 : 5
 SHEET 2 OF 12

40-200 AMP ZTE UNITS

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	S-8713-4	ESTABLISHED DWG	03/12/08 GG CEE



BILL OF MATERIALS						
ITEM	PART NO.	DESCRIPTION	NEMA 1		NEMA 3R	
			3W+G	4W+G	3W+G	4W+G
1	TVSS	SEE TME TVSS TABLE ON PAGE 1			1	
2	HMH-13	10-32 HEX MACHINE SCREW NUT			4	
3	HMH-52	#10 SPLIT LOCK WASHER			4	
4	HMH-56	#10 FLAT WASHER	8		4	
5	HMH-267	10-32 X .88 PAN HD M/S			4	
6	PS-1248	4-14 SINGLE PORT LUG			2	
7	PS-4423F	LUG 1/0-14AWG			1	
8	PS-1860	#10 SEALING WASHER				4
9	PS-1859	#10-12 RECEPTACLE .250"X.032"	SEE NOTE			
10	Y740036	#10 AWG, COPPER WIRE, S/S	8ft	10ft	8ft	10ft

ITEM #9 USE QTY OF 2 FOR 2 POLE, 3 FOR 3 POLE AND 4 FOR 4 POLE UNIT.

1. INSTALLATION:

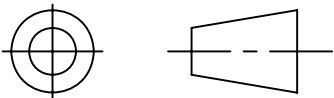
- 1.1 PLACE THE TVSS UNIT IN THE PROXIMATE LOCATION AS SHOWN IN THE ABOVE DRAWING. MAKE SURE THAT THERE IS A LEAST 1 INCH OF DIELECTRIC DISTANCE FROM ANY LIVE PARTS TO THE TVSS UNIT.
- 1.2 MARK THE MOUNTING HOLES EITHER BY TAKING THE TVSS DIMENSION FROM THE DRAWING ON PAGE 1 OR BY MARKING IT OF FROM THE TVSS UNIT DIRECTLY. DRILL THE 4 MOUNTING HOLES AND INSTALL USING THE HARDWARE FROM THE BOM.
- 1.3 CONNECT THE WIRES FROM TVSS UNIT TO ATS LOAD SIDE LUGS USING SPECIFIED CONNECTORS.
NOTE: IT IS VERY IMPORTANT TO MINIMIZE THE WIRE LENGTH BETWEEN THE TVSS AND ATS. RUN THE WIRES USING THE SHORTEST ROUTE.

2. FOR UNITS 40-200 CHANGE ENCLOSURES:

F-1872MP FOR NEMA1
F-1875MP FOR NEMA 3R

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THIRD ANGLE PROJECTION



FOR ADDITIONAL INFO REFER TO

APPLIED PRACTICES
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES ON:
2 PL. DECIMALS ± .020
3 PL. DECIMALS ± .005
ANGLES ± 1°
FRACTIONS ± 1/64

FINISH ✓

AutoCad Generated

SIGNATURES

MODEL	GG	DATE	05/26/05
DETAIL			
CHECKED			
ENGRG	CEE		
MFG			
QUALITY			
ISSUED			
DRAWING FILE:	91r-2086-a-3.dwg	SIZE	B
MODEL / ASSEMBLY FILE:	ZTE 40-200AMP	CAGE CODE	
# CTQs	⊖ CRITICAL TO QUALITY CHARACTERISTIC	SCALE:	NA



GE PROPRIETARY AND CONFIDENTIAL INFORMATION

GE Zenith Controls

TITLE
TVSS, GE TRANQUELL ME
MEDIUM EXPOSURE

FIRST MADE FOR: ZTE 40-200AMP

SIZE B CAGE CODE DWG NO

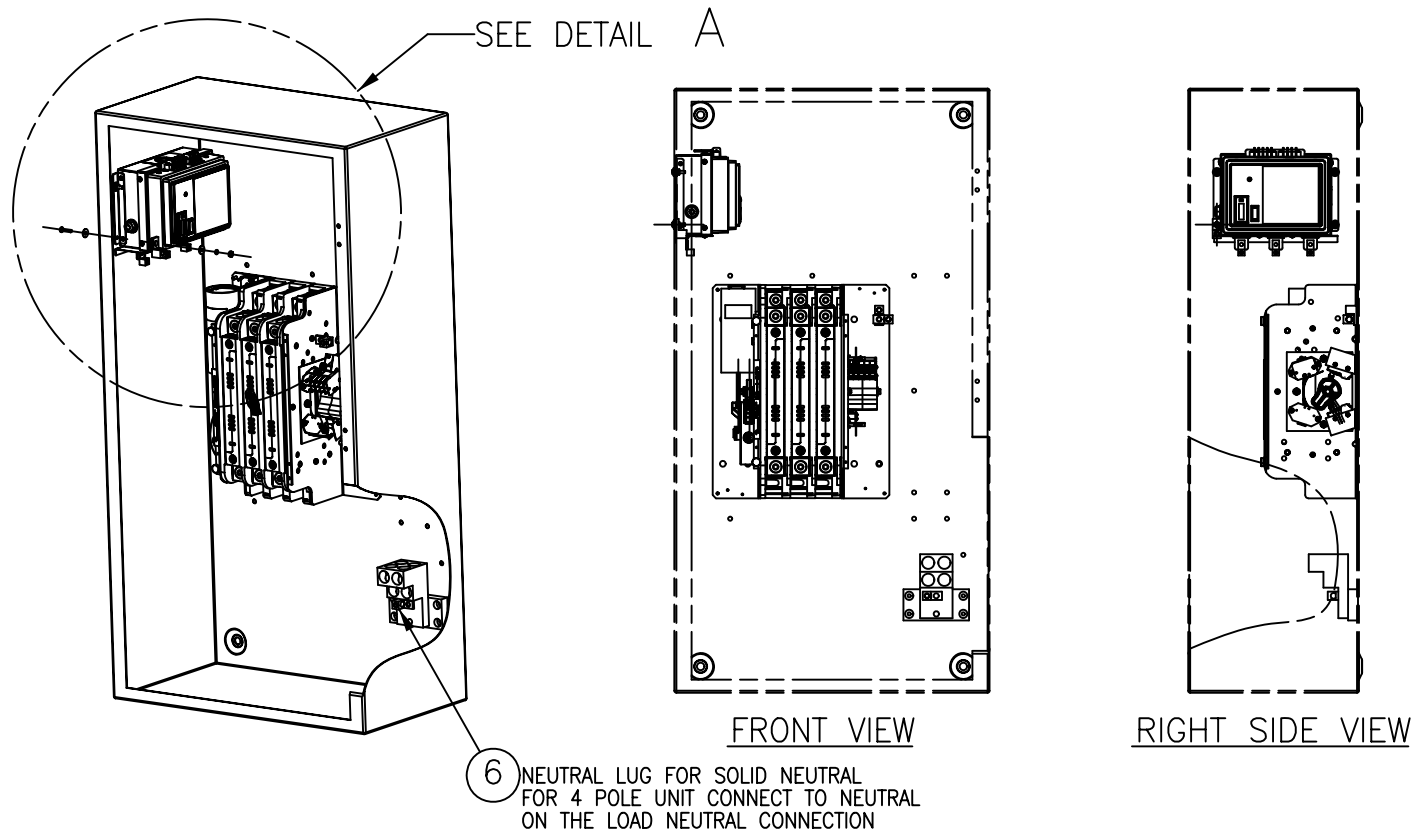
91R-2086

SCALE: NA

SHEET 3 OF 12

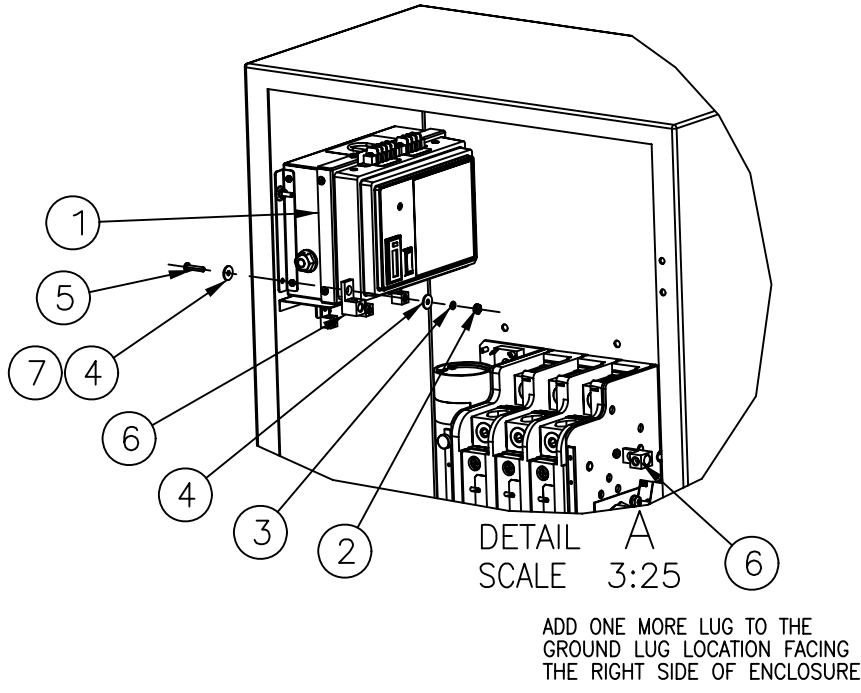
260-400 AMP ZTE(D) UNITS

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	S-8713-4	ESTABLISHED DWG	03/12/08 GG CEE



BILL OF MATERIALS						
ITEM	PART NO.	DESCRIPTION	NEMA 1		NEMA 3R	
			3W+G	4W+G	3W+G	4W+G
1	TVSS	SEE TME TVSS TABLE ON PAGE 1			1	
2	HMH-13	10-32 HEX NUT			4	
3	HMH-52	#10 SPLIT LOCK WASHER			4	
4	HMH-56	#10 FLAT WASHER		8	4	4
5	HMH-267	10-32 x .88 PAN HEAD MS			4	
6	PS-4423F	LUG 1/0-14AWG			3	
7	PS-1860	#10 SEALING WASHER		-		4
8	Y740036	10 AWG, COPPER WIRE, S/S	8ft	10ft	8ft	10ft
9	PS-1859	#10-12 RECEPTACLE .250"X.032"				SEE NOTE

ITEM #9 USE QTY OF 2 FOR 2 POLE, 3 FOR 3 POLE AND 4 FOR 4 POLE UNIT.



1. INSTALLATION:
- 1.1 PLACE THE TVSS UNIT IN THE PROXIMATE LOCATION AS SHOWN IN THE ABOVE DRAWING. MAKE SURE THAT THERE IS A LEAST 1 INCH OF DIELECTRIC DISTANCE FROM ANY LIVE PARTS TO THE TVSS UNIT.
 - 1.2 MARK THE MOUNTING HOLES EITHER BY TAKING THE TVSS DIMENSION FROM THE DRAWING ON PAGE 1 OR BY MARKING IT OFF FROM THE TVSS UNIT DIRECTLY. DRILL THE 4 MOUNTING HOLES AND INSTALL USING THE HARDWARE FROM THE BOM.
 - 1.3 CONNECT THE WIRES FROM TVSS UNIT TO ATS LOAD SIDE LUGS USING SPECIFIED CONNECTORS.
NOTE: IT IS VERY IMPORTANT TO MINIMIZE THE WIRE LENGTH BETWEEN THE TVSS AND ATS. RUN THE WIRES USING THE SHORTEST ROUTE.

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	<p>DRAWING FILE: 91r-2086-a-4.dwg</p> <p>MODEL / ASSEMBLY FILE: ZTE 260-400AMP, ZTED 40-400AMP</p>	<p>FIRST MADE FOR: ZTE 260-400AMP, ZTED 40-400AMP</p> <p>SIZE B</p> <p>CAGE CODE</p> <p>DWG NO 91R-2086</p>	<p>SCALE: NA</p>	<p>SHEET 4 OF 12</p>
	<p>AutoCad Generated</p>	<p># CTQs</p> <p>CRITICAL TO QUALITY CHARACTERISTIC</p>	<p>GE PROPRIETARY AND CONFIDENTIAL INFORMATION</p>	<p>DATE</p>
	<p>AutoCad Generated</p>	<p># CTQs</p> <p>CRITICAL TO QUALITY CHARACTERISTIC</p>	<p>GE PROPRIETARY AND CONFIDENTIAL INFORMATION</p>	<p>DATE</p>