



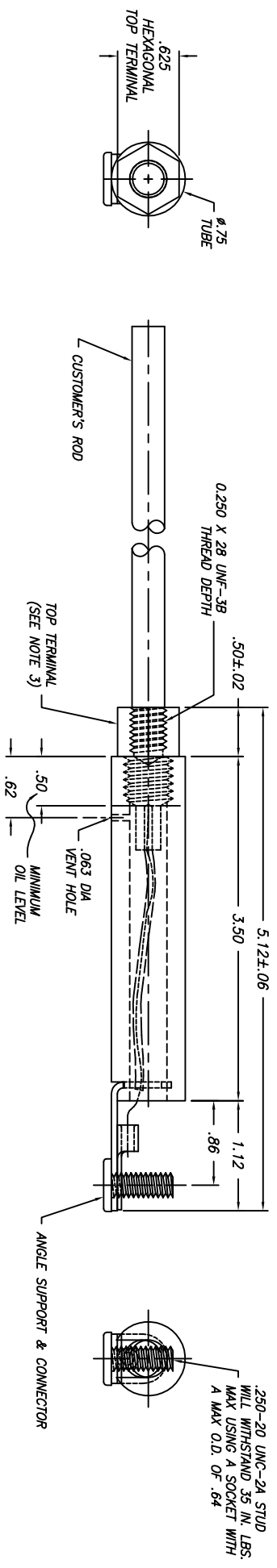
TITLE

OUTLINE (EXPULSION FUSE)

3 2B548087
SH 1

UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE			
SURFACES	± 0.01	2 PL. DEC	3 PL. DEC
✓	± 0.005	ANGLES	± 5 DEG

FIRST MADE FOR 9F541BE - 9F541BG EXPULSION FUSE W/ HEX SCREW ON TERMINAL



MODEL NUMBER	TIME CURRENT CURVE NO.	MAXIMUM DESIGN KV	AMP RATING
9F54VBE103	V1 SEE NOTE 1	8.4	4
9F54VBE203	V2 SEE NOTE 1	8.4	5
9F54VBE303	V3 SEE NOTE 1	8.4	6
9F54VBE403	V4 SEE NOTE 1	8.4	7
9F54VBE503	V5 SEE NOTE 1	8.4	10
9F54VBE603	V6 SEE NOTE 1	8.4	12
9F54VBE703	V7 SEE NOTE 1	8.4	14
9F54VBE803	V8 SEE NOTE 1	8.4	17
9F54VBE903	V9 SEE NOTE 1	8.4	20
9F54VBG153	V10 SEE NOTE 1	8.4	26
9F54VBG253	V11 SEE NOTE 1	8.4	40
9F54VBG353	V12 SEE NOTE 1	8.4	65
9F54VBG453	V13 SEE NOTE 1	8.4	94
9F54VBG553	V14 SEE NOTE 1	8.4	142

F01

- NOTES:
1. MINIMUM MELTING T.C.C. - GES 8314
MAXIMUM TOTAL CLEARING T.C.C. - GES 8304
 2. FUSE WILL PASS THROUGH .88 DIA. TUBE.
 3. TOP TO TERMINAL TO BE CONCENTRIC TO
AXIS OF THE TUBE WITHIN ±.026
 4. FOR VERTICAL MOUNTING ONLY.

REVISIONS

1	GINA BRYANT MAY 03, 1996	ECN#R29
THIS DRAWING CORRESPONDS TO DWG # 32B548083 P00		
2	GINA BRYANT JUNE 04, 1996	ECN#R33
CHG'D LAST DIGIT IN MODEL # FROM 2 TO 3; REF. HEX TRMNL		
3	K. Carroll 02-July-97	
Updated Routing Added Sheet 2		
4	STULPIN 04-FEB-99	
UPDATED TEMPLATE CHG THRD SIZE-WAS .375-16UNC-2B		
5	STULPIN 20-APR-01	
ADDED AMP RATINGS		

MADE BY: GINA BRYANT MAY 03, 1996	APPROVAL:	HICKORY ERMCO	3 2B548087
ISSUED BY: S. STULPIN 20-APR-01			SH 1



TITLE

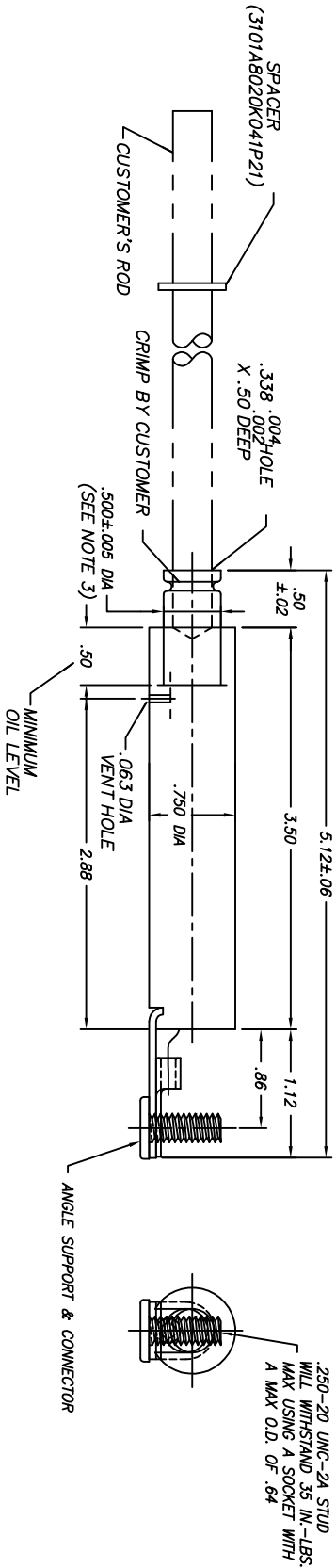
OUTLINE (EXPULSION FUSE)

3 2B548087 SH 2

UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE	2 PL DEC	3 PL DEC	ANGLES
SURFACES	± 0.01	± 0.005	± 5 DEG

FIRST MADE FOR

9F54 EXPULSION FUSE W/ CRIMP TERMINAL



MODEL NUMBER	TIME CURRENT CURVE NO.	MAXIMUM DESIGN KV	AMP RATING
9F54VBE101	V1 SEE NOTE 1	8.4	4
9F54VBE201	V2 SEE NOTE 1	8.4	5
9F54VBE301	V3 SEE NOTE 1	8.4	6
9F54VBE401	V4 SEE NOTE 1	8.4	7
9F54VBE501	V5 SEE NOTE 1	8.4	10
9F54VBE601	V6 SEE NOTE 1	8.4	12
9F54VBE701	V7 SEE NOTE 1	8.4	14
9F54VBE801	V8 SEE NOTE 1	8.4	17
9F54VBE901	V9 SEE NOTE 1	8.4	20
9F54VBG151	V10 SEE NOTE 1	8.4	26
9F54VBG251	V11 SEE NOTE 1	8.4	40
9F54VBG351	V12 SEE NOTE 1	8.4	65
9F54VBG451	V13 SEE NOTE 1	8.4	94
9F54VBG551	V14 SEE NOTE 1	8.4	142

F02

- NOTES:
1. MINIMUM MELTING T.C.C. - GES 8314
MAXIMUM TOTAL CLEARING T.C.C. - GES 8304
 2. FUSE WILL PASS THROUGH .88 DIA. TUBE.
 3. TOP TO TERMINAL TO BE CONCENTRIC TO
AXIS OF THE TUBE WITHIN ±.026
 4. FOR VERTICAL MOUNTING ONLY.

REVISIONS

NO.	DESCRIPTION	DATE	BY	CHKD.	APP'D.	DATE	BY	CHKD.	APP'D.	DATE	BY	CHKD.	APP'D.
1	STULPIN 04-FEB-99												
UPDATED TEMPLATE													
2	STULPIN 20-APR-01												
ADDE AMP RATINGS													
3	GILLAND 28-FEB-02												
UPDATE TEMPLATE													

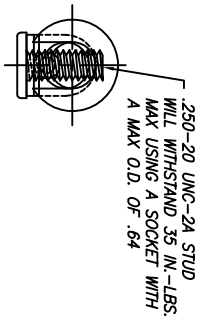
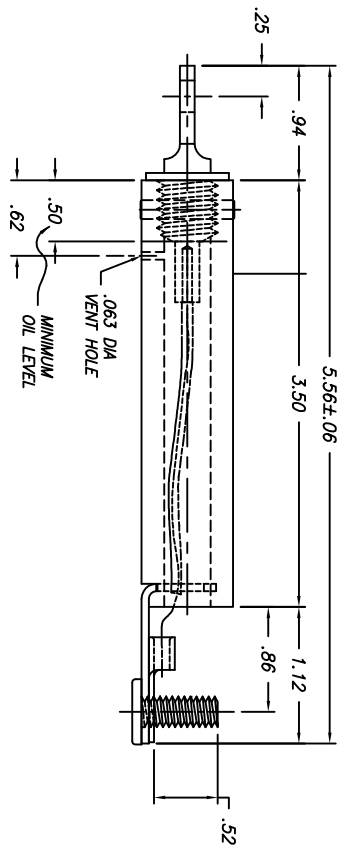
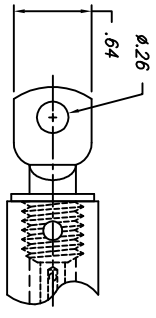
MADE BY: K. Carroll 02-July-97 ECN #899
ISSUED BY: R. GILLAND 28-FEB-02

APPROVAL

HICKORY
ERMCO

3 2B548087 SH 2

SH 2



MODEL NUMBER	TIME CURRENT CURVE NO.	MAXIMUM DESIGN KV	AMP RATING
9F54VBE102	V1 SEE NOTE 1	8.4	4
9F54VBE202	V2 SEE NOTE 1	8.4	5
9F54VBE302	V3 SEE NOTE 1	8.4	6
9F54VBE402	V4 SEE NOTE 1	8.4	7
9F54VBE502	V5 SEE NOTE 1	8.4	10
9F54VBE602	V6 SEE NOTE 1	8.4	12
9F54VBE702	V7 SEE NOTE 1	8.4	14
9F54VBE802	V8 SEE NOTE 1	8.4	17
9F54VBE902	V9 SEE NOTE 1	8.4	20
9F54VBE152	V10 SEE NOTE 1	8.4	26
9F54VBE252	V11 SEE NOTE 1	8.4	40
9F54VBE352	V12 SEE NOTE 1	8.4	65
9F54VBE452	V13 SEE NOTE 1	8.4	94
9F54VBE552	V14 SEE NOTE 1	8.4	142

F03

ERMCO COMPONENTS, INC

UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE

SURFACES	± 0.01	2 PL DEC ANGLES	± 0.005	3 PL DEC ANGLES	± 5 DEG
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TITLE: **OUTLINE (EXPULSION FUSE)**

FIRST MADE FOR: **9F54 EXPULSION FUSE W/ SPADE TERMINAL**

32B548087

SH 3

- NOTES:
1. MINIMUM MELTING T.C.C. - GES 8314
MAXIMUM TOTAL CLEARING T.C.C. - GES 8304
 2. FUSE WILL PASS THROUGH .88 DIA. TUBE.
 3. TOP TO TERMINAL TO BE CONCENTRIC TO
AXIS OF THE TUBE WITHIN ±.026
 4. FOR VERTICAL MOUNTING ONLY.

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHKD	APP'D	REVISIONS	PRINTS
1	04-FEB-99	STULPIN UPDATED TEMPLATE					
2	20-APR-01	STULPIN ADDED AMP RATINGS					

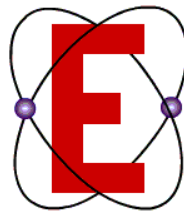
MADE BY: K. Carroll 02-July-97 ECN #R99

ISSUED BY: S. Stulpin 20-APR-01

APPROVAL: HICKORY ERMCO

32B548087

SH 3



ECI, ERMCO Components Inc.

1607 Industrial Road
 Greeneville, TN 37745
 Phone: 423-638-2302 Toll Free: 877-267-1855
 Fax: 423-638-9380

Bushing Fuse 8.3kV and 15kV

ERMCO Components Incorporated manufactures the 8.3kV/15kV oil-immersed expulsion fuses for mounting on distribution transformer bushings. These weak link fuses are designed for application in the primary circuit of a distribution transformer. The purpose of the weak link fuse is to protect the power system from a faulty distribution transformer by isolating it from the system. Note one catalog number is applicable for both 8.3kV and 15kV Systems.

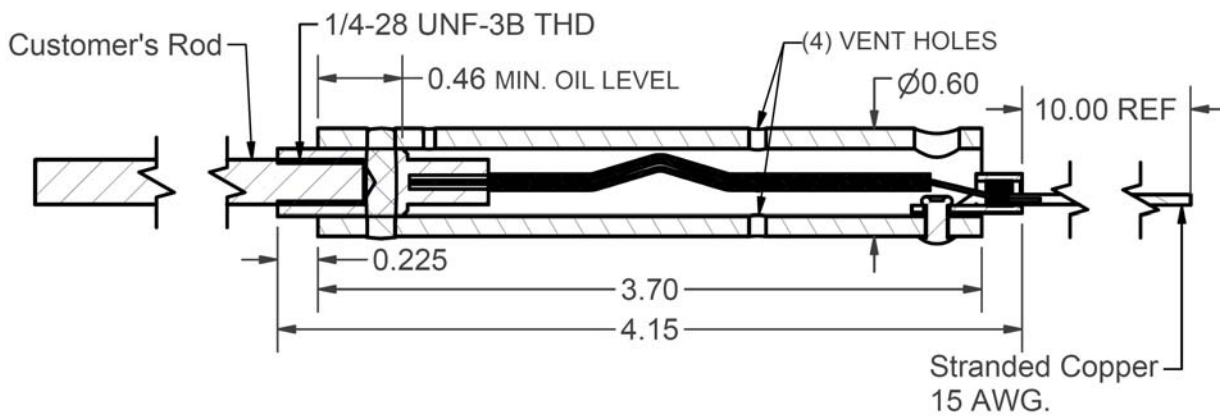


Figure 1. Outline drawing of the 8.3kV/15kV Oil-Immersed Weak Link Bushing Mounted Fuses

Dimensions of the bushing mounted oil-immersed expulsion fuses are shown in figure 1 above.

Time-Current Characteristics are shown in separate graphs available upon request from your ERMCO Components Inc. representative.

Minimum Melting TCC ----- GES 8314
 Maximum Total Clearing TCC --- GES 8304

Catalog Series number	Max Interrupting Rating (asym. rms amps)		Curve	Amps
	@ 8.3 KV	@ 15 KV		
9F54VDE104	3500	2000	V1	4
9F54VDE204	3500	2000	V2	5
9F54VDE304	3500	2000	V3	6
9F54VDE404	3500	2000	V4	7
9F54VDE504	3500	2000	V5	10
9F54VDE604	3500	2000	V6	12
9F54VDE704	3500	2000	V7	14
9F54VDE804	2000	2000	V8	17
9F54VDE904	2000	2000	V9	20

Table 1. Oil-Immersed Bushing Mounted Expulsion Fuse interrupting capability, current rating, and Time Current Curves

This Product Bulletin is not intended to cover all details regarding the equipment discussed. If additional information is required please contact ERMCO Components Inc. at the address indicated above.



TITLE

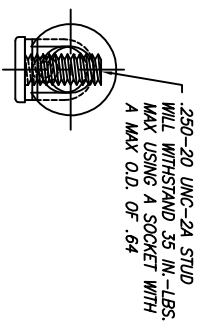
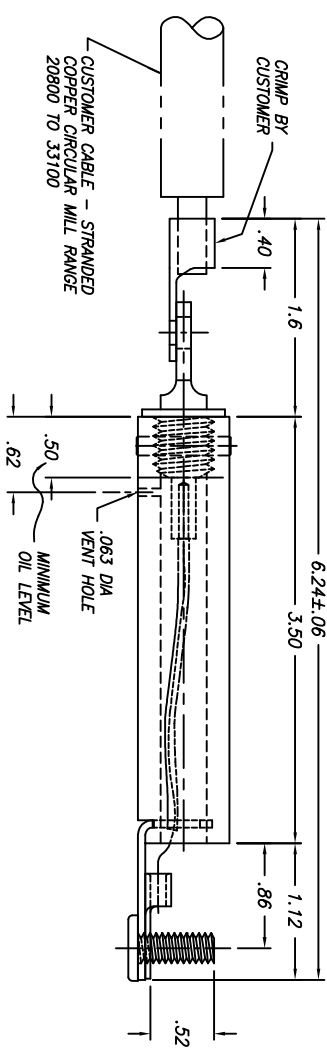
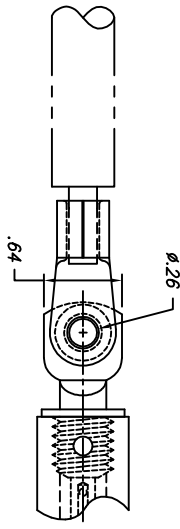
OUTLINE (EXPULSION FUSE)

3 2B548091
SH 1

UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE			
SURFACES	2 PL DEC	3 PL DEC	ANGLES
✓	± 0.01	± 0.005	± 5 DEG

FIRST MADE FOR

9F54 Expulsion Fuses



MODEL NUMBER	TIME CURRENT CURVE NO.	MAXIMUM DESIGN KV	AMP RATING
9F54VCE101	V1 SEE NOTE 1	15.0	4
9F54VCE201	V2 SEE NOTE 1	15.0	5
9F54VCE301	V3 SEE NOTE 1	15.0	6
9F54VCE401	V4 SEE NOTE 1	15.0	7
9F54VCE501	V5 SEE NOTE 1	15.0	10
9F54VCE601	V6 SEE NOTE 1	15.0	12
9F54VCE701	V7 SEE NOTE 1	15.0	14
9F54VCE801	V8 SEE NOTE 1	15.0	17
9F54VCE901	V9 SEE NOTE 1	15.0	20
9F54VCG151	V10 SEE NOTE 1	15.0	26
9F54VCG251	V11 SEE NOTE 1	15.0	40
9F54VCG351	V12 SEE NOTE 1	15.0	65
9F54VCG451	V13 SEE NOTE 1	15.0	94
9F54VCG551	V14 SEE NOTE 1	15.0	142

- NOTES:
1. MINIMUM MELTING T.C.C. - GES 8314
MAXIMUM TOTAL CLEARING T.C.C. - GES 8304
 2. FUSE WILL PASS THROUGH .88 INSIDE DIA. TUBE.
 3. MAXIMUM INTERRUPTING RATING
2000 AMPS RMS ASYMMETRICAL.
 4. FOR VERTICAL MOUNTING ONLY.

REVISIONS

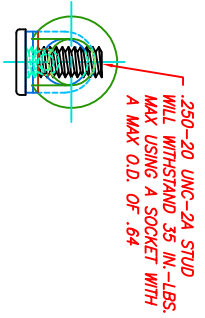
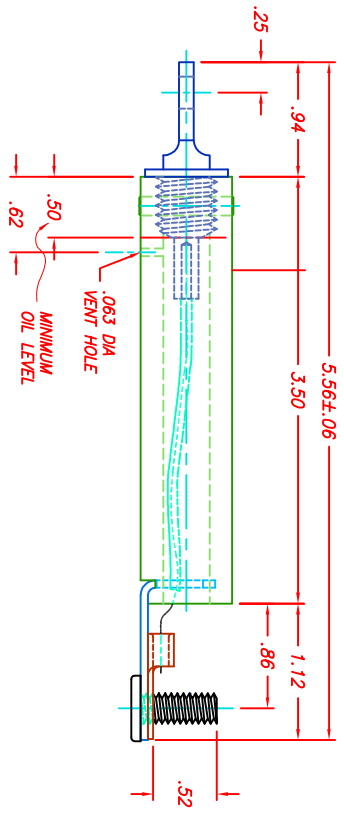
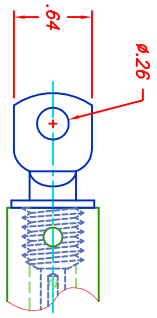
1	OCT. 24, 1980
2	G. DAVIS JUNE 20, 1989 RETRACED; UPDATE DELIN.
3	G. DAVIS JULY 05, 1989 CHANGE NOTE 2; ADD CRIMP BY CUSTOMER.
4	G. DAVIS AUG. 27, 1992 ADD SH 2
5	ABD 17 MAR 95 CHG ROUTING
6	GINA BRYANT MAY 22, 1996 PUT INTO CPO OUTLINE FORMAT; REPLACED ANGLE SUPP. & CONN. w/ 32A541011603 (NEW)
7	GINA BRYANT ECN# R52 DECEMBER 12, 1996 Changed terminal 32A543007 was P01 now P02 (crimped); Added top view; Was CPO-6
8	STULPIN 04-FEB-99 UPDATED TEMPLATE
9	STULPIN 20-APR-01 ADDED AMP RATINGS

MADE BY: A. MILLIKAN MAY 25, 1980
ISSUED BY: S. STULPIN 20-APR-01
APPROVAL: HICKORY ERMCO
3 2B548091
SH 1



UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE:
 SURFACES 2 PL DEC ± .001
 ANGLES 3 PL DEC ± 0.005 ± 5 DEG

TITLE
OUTLINE (15KV BUSHING FUSE)
 FIRST MADE FOR 9F54 EXPULSION FUSE
 3 2B548091 SH 2
 CONT ON SH 3



MODEL NUMBER	TIME CURRENT CURVE NO.	MAXIMUM DESIGN KV	AMP RATING
9F54VCE102	V1 SEE NOTE 1	15.0	4
9F54VCE202	V2 SEE NOTE 1	15.0	5
9F54VCE302	V3 SEE NOTE 1	15.0	6
9F54VCE402	V4 SEE NOTE 1	15.0	7
9F54VCE502	V5 SEE NOTE 1	15.0	10
9F54VCE602	V6 SEE NOTE 1	15.0	12
9F54VCE702	V7 SEE NOTE 1	15.0	14
9F54VCE802	V8 SEE NOTE 1	15.0	17
9F54VCE902	V9 SEE NOTE 1	15.0	20
9F54VCG152	V10 SEE NOTE 1	15.0	26
9F54VCG252	V11 SEE NOTE 1	15.0	40
9F54VCG352	V12 SEE NOTE 1	15.0	65
9F54VCG452	V13 SEE NOTE 1	15.0	94
9F54VCG552	V14 SEE NOTE 1	15.0	142

- NOTES:
1. MINIMUM MELTING T.C.C. - GES 8314
 MAXIMUM TOTAL CLEARING T.C.C. - GES 8304
 2. FUSE WILL PASS THROUGH .88 INSIDE DIA. TUBE.
 3. MAXIMUM INTERRUPTING RATING
 2000 AMPS RMS ASYMMETRICAL.
 4. FOR VERTICAL MOUNTING ONLY.

REVISIONS

1	GINA BRYANT MAY 23, 1996
2	PUT INTO CPO OUTLINE FORMAT; REPLACED ANGLE SUPP.& CONN. w/ 32A541011G03 (NEW)
3	GINA BRYANT ECN#R33 JUNE 04, 1996
4	ADDED CONT ON SH 3
5	GINA BRYANT ECN#R52 NOVEMBER 26, 1996
6	CHG. TERMINAL 32A543007 WAS P01 NOW P02 (CRIMPED)
7	STULPIN 04-FEB-99
8	UPDATED TEMPLATE
9	STULPIN 20-APR-01
10	ADDED AMP RATINGS

MADE BY: G. DAVIS AUG. 27, 1992
 ISSUED BY: S. STULPIN 20-APR-01
 APPROVALS: HICKORY ERMCO
 3 2B548091 SH 2
 PRINTS TO

ERMCO COMPONENTS INC

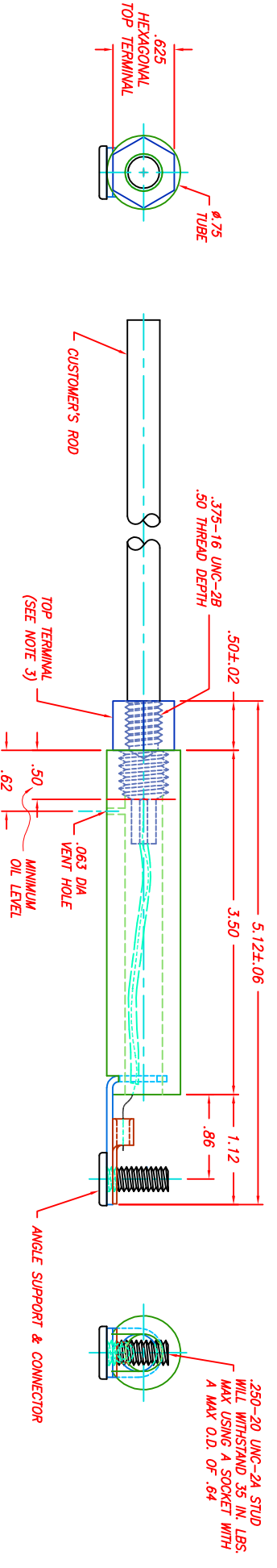
TITLE
OUTLINE (15KV BUSHING FUSE)

CONT ON SH
3 2B548091

SH 3

FIRST MADE FOR
9F54 EXPULSION FUSE

UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE	2 PL DEC	3 PL DEC	ANGLES
SURFACES	± .001	± .0005	± 5 DEG



- NOTES:
1. MINIMUM MELTING T.C.C. - GES 8314
MAXIMUM TOTAL CLEARING T.C.C. - GES 8304
 2. FUSE WILL PASS THROUGH .88 DIA. TUBE.
 3. TOP TO TERMINAL TO BE CONCENTRIC TO
AXIS OF THE TUBE WITHIN ±.026
 4. FOR VERTICAL MOUNTING ONLY.

MODEL NUMBER	TIME CURRENT CURVE NO.	MAXIMUM DESIGN KV	MAXIMUM DESIGN KV
9F54VCE103	V1 SEE NOTE 1	15.0	4
9F54VCE203	V2 SEE NOTE 1	15.0	5
9F54VCE303	V3 SEE NOTE 1	15.0	6
9F54VCE403	V4 SEE NOTE 1	15.0	7
9F54VCE503	V5 SEE NOTE 1	15.0	10
9F54VCE603	V6 SEE NOTE 1	15.0	12
9F54VCE703	V7 SEE NOTE 1	15.0	14
9F54VCE803	V8 SEE NOTE 1	15.0	17
9F54VCE903	V9 SEE NOTE 1	15.0	20
9F54VCG153	V10 SEE NOTE 1	15.0	26
9F54VCG253	V11 SEE NOTE 1	15.0	40
9F54VCG353	V12 SEE NOTE 1	15.0	65
9F54VCG453	V13 SEE NOTE 1	15.0	94
9F54VCG553	V14 SEE NOTE 1	15.0	142

REVISIONS

1	STULPIN 04-FEB-99 UPDATED TEMPLATE			
2	STULPIN 20-APR-01 ADDED AMP RATING			

MADE BY: GINA BRYANT JUNE 04, 1996
ISSUED BY: S. STULPIN 20-APR-01

APPROVAL: HICKORY ERMCO

3 2B548091

PRINTS TO SH 3