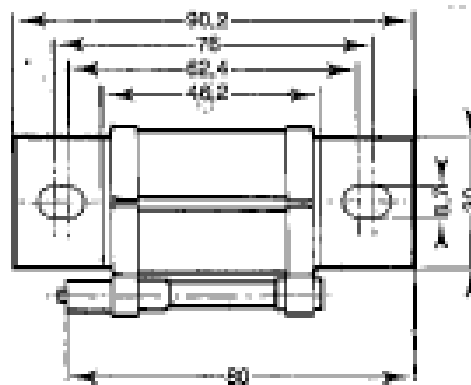


Ultra Rapid Semiconductor Protection Fuse

BS 88 Round Body Type Fuses – 690V

**British Standard
Voltage Rating to 690V
Current Ratings from 5A to 160A
gR Characteristics
Sizes 10x51, 17x49, 2x17x49**



Key Features:

- ❖ Extremely high interrupting rating fuses for the protection of power semiconductors in accordance with IEC Standard 60269.1 and 4.
- ❖ 690V voltage rating complying with IEC 33
- ❖ Non Magnetic construction
- ❖ gR Characteristics (current ratings from 5 to 160A) according to VDE 636-23 and EC 60269.4
- ❖ Models are available with or without separate trip indicator
- ❖ Microswitch MC 6,3 GR 2-5N for fuses with separate trip indicator
- ❖ 17x49 gR fuses are UL recognised

Main Characteristics:

CW : 10x51 Without trip indicator

Size	Voltage U _N (V)	Ref:	Micro Switch	Current rating I _N (A)	Pre-arcing I ² t @ 1 ms I ² t _p (A ² s)	Total Clearing I ² t @ U _N (A ² s)		Power Losses @		Tested Interrupting rating
						I _p ≤ 50 I _n	I _p > 50 I _n	0.8 I _n	I _n	
10x51	690	5CW	N	5	1.3	10	15	1.05	2	200kA @ 690V
		6CW	N	6	1.3	13.5	20.5	1.3	2.5	
		10CW	N	10	3.3	25	35	2.2	4.1	
		12CW	N	12	5.5	40	58	2.3	4.3	
		15CW	N	15	9.7	70	100	2.4	4.4	
		20CW	N	20	19.4	120	200	3.1	5.8	

EEW : 2x17x49 Without trip indicator

Size	Voltage U _N (V)	Ref:	Micro Switch	Current rating I _N (A)	Pre-arcing I ² t @ 1 ms I ² t _p (A ² s)	Total Clearing I ² t @ U _N (A ² s)		Power Losses @		Tested Interrupting rating
						I _p ≤ 50 I _n	I _p > 50 I _n	0.8 I _n	I _n	
2x17x49	690	65EEW	N	65	210	1590	2270	9.5	17.4	200kA @ 690V
		75EEW	N	75	310	2300	3280	10.9	20	
		85EEW	N	85	430	3050	4350	11.9	21.9	
		90EEW	N	90	525	3600	5130	12.4	22.8	
		110EEW	N	110	850	5500	7840	13.8	26.5	
		140EEW	N	140	1730	11000	15700	15.5	28.5	
		150EEW	N	150	2090	13400	18500	15.6	28.7	
		160EEW	N	160	2500	15600	22800	16.9	31.5	

EEWI : 2x17x49 With separated trip indicator

Size	Voltage U _N (V)	Ref:	Micro Switch	Current rating I _N (A)	Pre-arcing I ² t @ 1 ms I ² t _p (A ² s)	Total Clearing I ² t @ U _N (A ² s)		Power Losses @		Tested Interrupting rating
						I _p ≤ 50 I _n	I _p > 50 I _n	0.8 I _n	I _n	
2x17x49	690	65EEWI	Y	65	210	1590	2270	9.5	17.4	200kA @ 690V
		75EEWI	Y	75	310	2300	3280	10.9	20	
		85EEWI	Y	85	430	3050	4350	11.9	21.9	
		90EEWI	Y	90	525	3600	5130	12.4	22.8	
		110EEWI	Y	110	850	5500	7840	13.8	26.5	
		140EEWI	Y	140	1730	11000	15700	15.5	28.5	
		150EEWI	Y	150	2090	13400	18500	15.6	28.7	
		160EEWI	Y	160	2500	15600	22800	16.9	31.5	

Notes: Minimum operating voltage for integrated trip indicator = 20V.

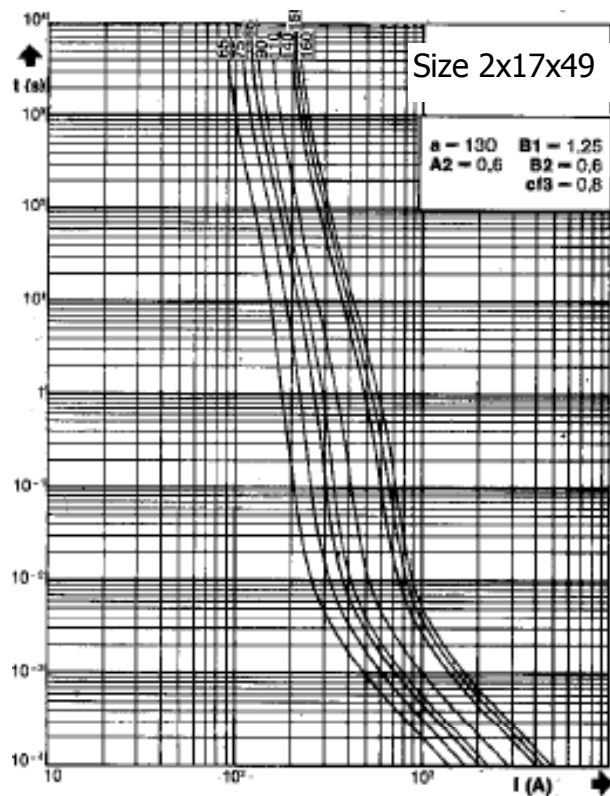
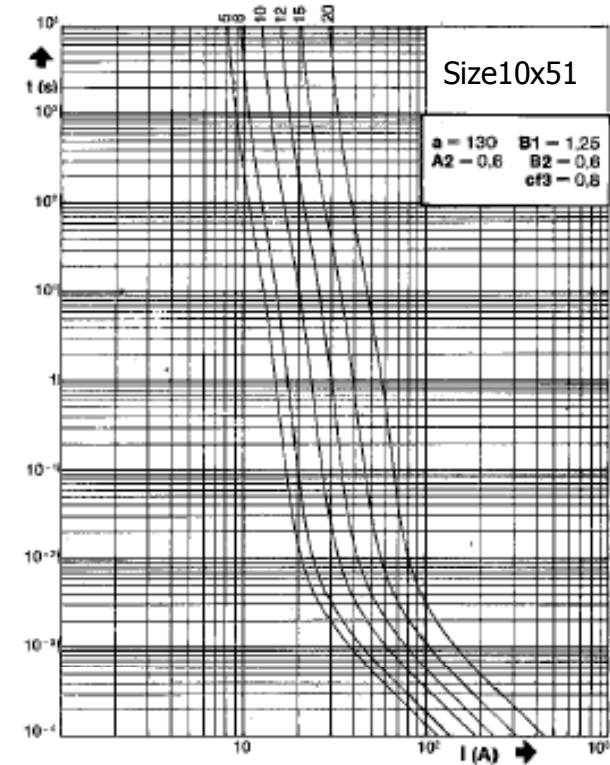
Microswitch reference : MS 6.3 GR 2-5N

Electrical Characteristics:

Times vs current characteristics

These curves indicate, for each rated current, the pre-arcing time vs. the RMS pre-arcing current.

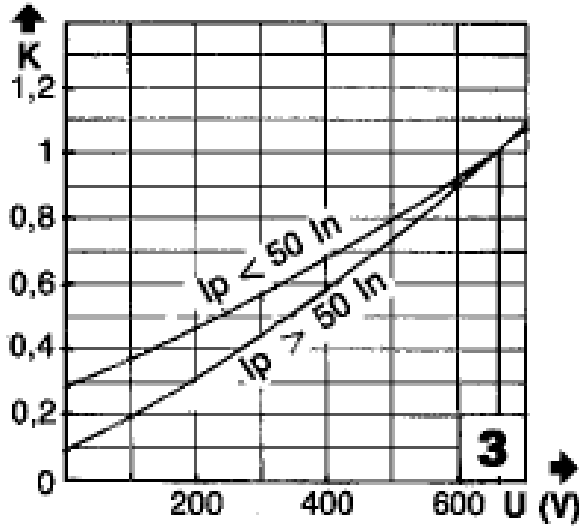
Tolerance for the mean pre-arcing current $\pm 10\%$



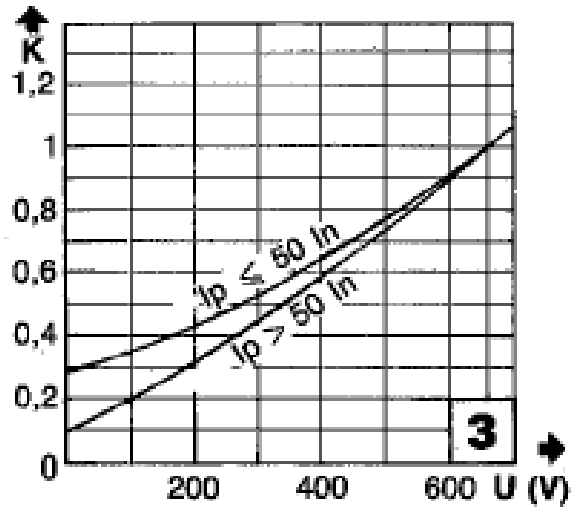
Corrective Factor

The mean curves show the variation of the total clearing time (I^2t_c) and the total clearing duration t_c as a function of operating voltage U.

CW – Size 10x51



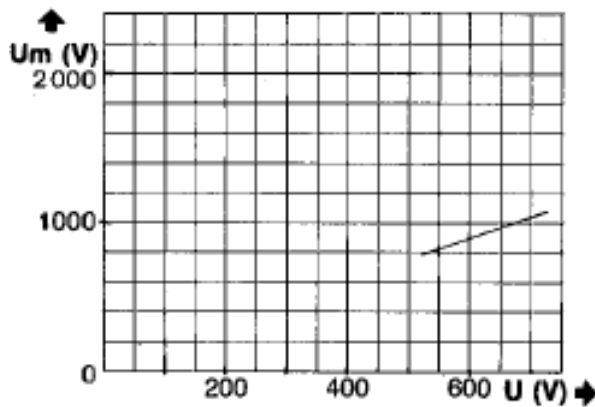
EEW & EEWI – Size 2x17x49



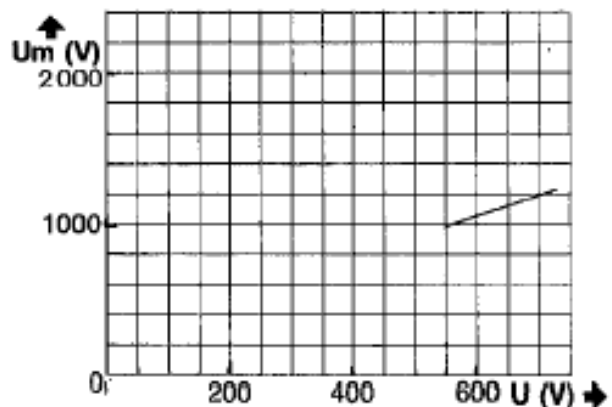
Peak Arc Voltage

This curve shows the peak value U_m of the arc voltage which appears across the fuse link as a function of the operating voltage U @ $\cos \varphi = 0.15$.

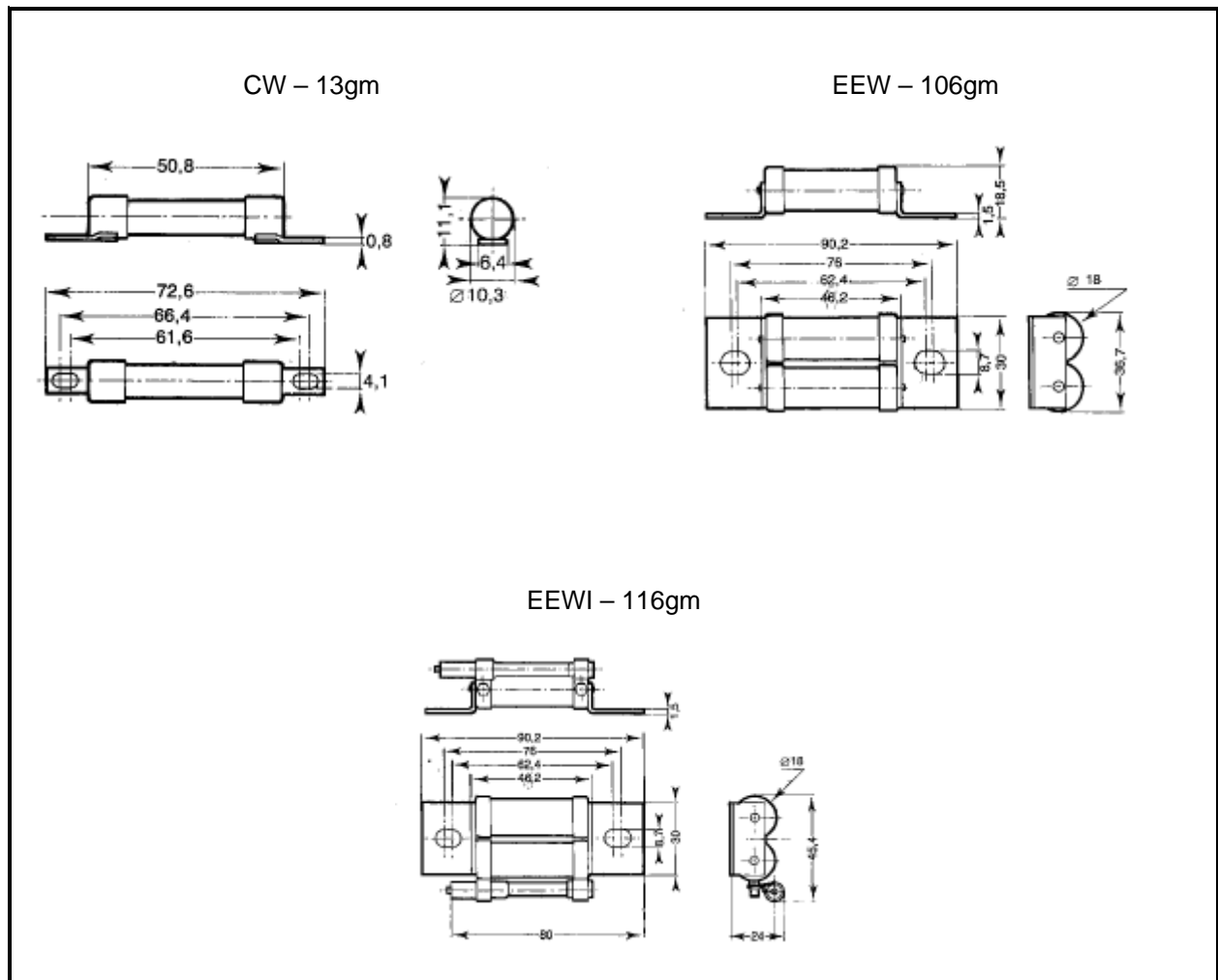
CW – Size 10x51



EEW & EEWI – Size 2x17x49



Outline Drawing & Ordering Information



ORDERING INFORMATION

(Please quote code as below)

Style	Voltage	Current Rating (A)	Type	Trip Indicator
BS 88 Round Body	690V	5 to 160	CW or EEW	I

Order code: e.g. **65EEWI** = BS 88 Round Body – 65amp fuse with Trip indicator

IXYS Semiconductor GmbH
 Edisonstraße 15
 D-68623 Lampertheim
 Tel: +49 6206 503-0
 Fax: +49 6206 503-627
 E-mail: marcom@ixys.de

WESTCODE

An IXYS Company

Westcode Semiconductors Ltd
 Langley Park Way Langley Park
 Chippenham Wiltshire SN15 1GE
 Tel: +44 (0)1249 444524
 Fax: +44 (0)1249 659448
 E-mail: WSL.sales@westcode.com

IXYS Corporation
 3540 Bassett Street
 Santa Clara CA 95054 USA
 Tel: +1 (408) 982 0700
 Fax: +1 (408) 496 0670
 E-mail: sales@ixys.com

www.westcode.com

www.ixys.com

Westcode Semiconductors Inc
 3270 Cherry Avenue
 Long Beach CA 90807 USA
 Tel: +1 (562) 595 6971
 Fax: +1 (562) 595 8182
 E-mail: WSI.sales@westcode.com

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