

Cylindrical Fuse Links – Sizes A, B & C 700V/690VAC, 1-100A

October 2013 – Issue 1

The IXYS UK range of ferrule fuse links are fast acting fuses with superior cycling ability, available for voltages up to 700V/690VAC and operating currents up to 100A

They are available in three internationally recognised sizes; A (10x38mm), B (14x51mm) and C (22x58mm) for worldwide acceptance

OPTIMAL PROTECTION OF POWER EQUIPMENT

gR-class fuses are capable of clearing all types of overloads, from low multiples of current ratings up to very high short-circuit currents. Enhanced performance enables these fuses to provide solutions to many previously unsolved problems in power electronics: protection of cables without the use of additional components, protection of equipment from fire hazards, selective coordination of different fuses within a single power distribution installation.



Features and Benefits

- Extremely-fast acting
- Current limiting
- Low I^2t for improved semiconductor protection
- Superior cycling capability
- Striker version available (Sizes B & C only)
- gR class according to VDE 636-23 and IEC 60269-4
- Eliminates all overloads

Applications

Protection of small inverters, UPS systems, motor drives and similar equipment rated at 700V/690V or less

Approvals

- UL recognised component (10x38 gR class fuses, 14x51 gR class fuses 8-50A, 22x58 gR class fuses)
- AC: UL guide no. E76491
- CCC and CSA recognised (10x38 fuses)
- IEC 60269-4 compliance
- RoHS compliant



Nomenclature

The IXYS UK range of 700V/690V protistor fuse links with end contact terminals consists of two different body styles and the following nomenclature details the breakdown of each type

1	2	3	4	5
F	070	A	016	N
Fuse type	Voltage rating (÷100)	Size	Current rating	Indicator

Type

F – Ferrule fuse type

Voltage rating

070 – 700VAC UL recognised/690VAC IEC 60269-4

Size

A – 10×38mm ferrule

B – 14×51mm ferrule

C – 22×58mm ferrule

Indicator Type

N – No indicator

S – Striker type indicator

Example

F070A016N is – Ferrule fuse, 700VAC/690VAC, 10×38mm dimension, 16A, No striker

Size A fuses – Part numbers

Weight – 10g Max.

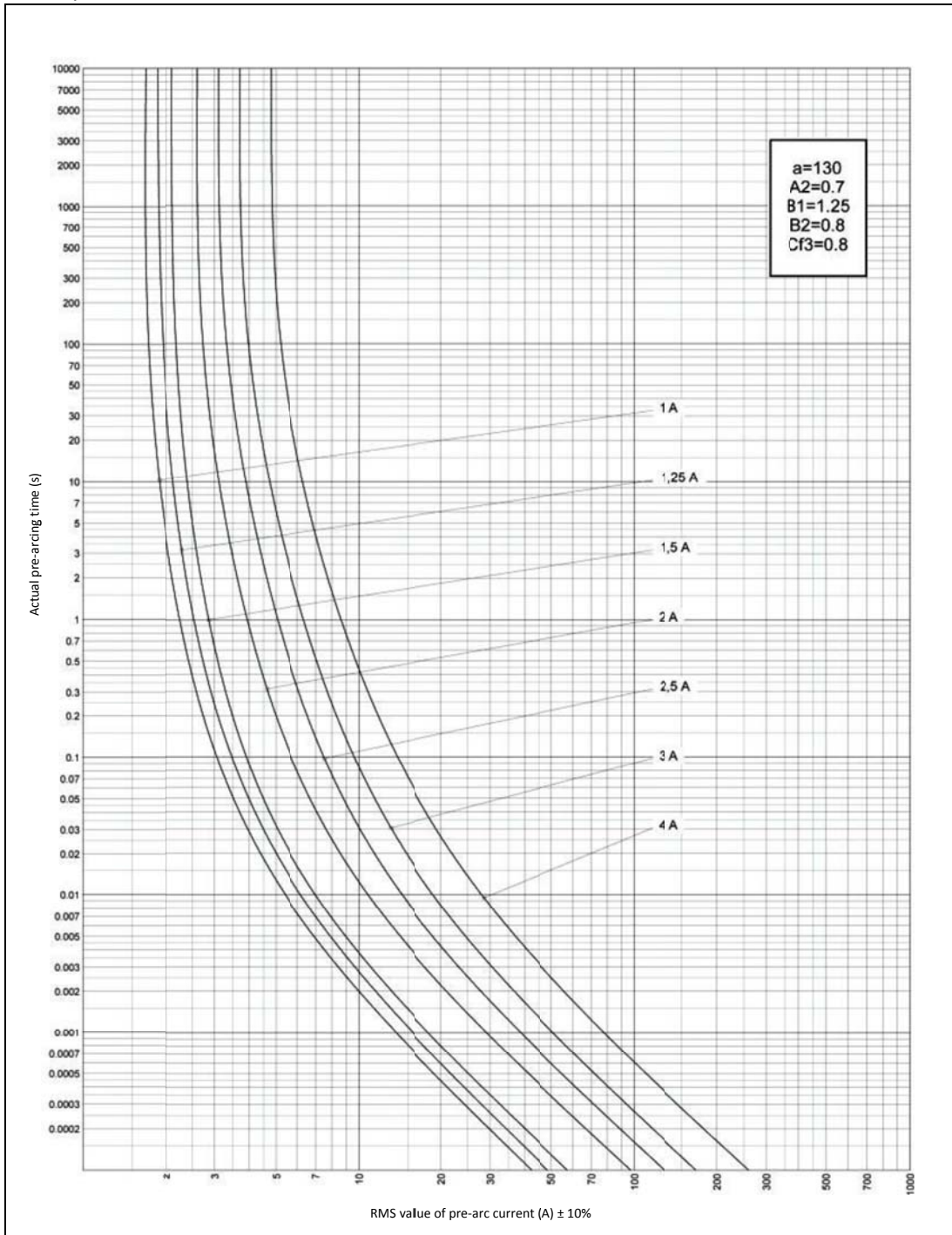
Rated Voltage (UL/IEC) V	Nominal Current A	Class	Part Number
700/690	1	gR	F070A001N
700/690	2	gR	F070A002N
700/690	4	gR	F070A004N
700/690	5	gR	F070A005N
700/690	6	gR	F070A006N
700/690	8	gR	F070A008N
700/690	10	gR	F070A010N
700/690	12	gR	F070A012N
700/690	16	gR	F070A016N
700/690	20	gR	F070A020N
700/690	25	gR	F070A025N
700/690	30	gR	F070A030N
650/600	32	gR	F070A032N

Size A fuses – Ratings

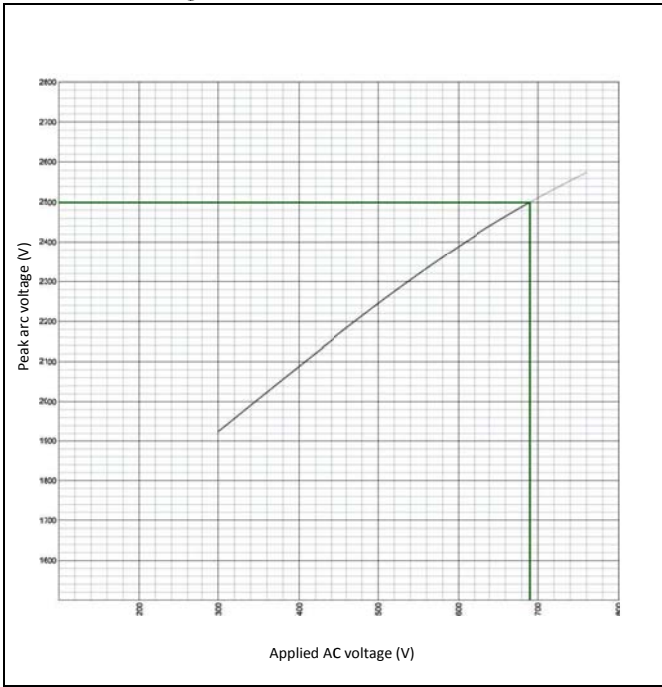
Rated Voltage (UL/IEC) V	Nominal Current A	Class	Pre-arcing I ² t A ² s	Clearing I ² t @ rated voltage A ² s	Watts loss @ 100% In W	Breaking capacity @ rated voltage kA
700/690	1	gR	0.17	0.48	0.8	160
700/690	2	gR	0.94	2.5	1.3	160
700/690	4	gR	6.7	12	1.7	160
700/690	5	gR	7.5	30	0.9	160
700/690	6	gR	8.5	40	1.4	160
700/690	8	gR	5.4	35	1.9	160
700/690	10	gR	6.7	55	2.1	160
700/690	12	gR	11	90	2.8	160
700/690	16	gR	19	140	3.0	160
700/690	20	gR	39	245	3.7	160
700/690	25	gR	69	425	4.3	160
700/690	30	gR	107	675	4.8	160
650/600	32	gR	154	945	5.1	160

Size A fuses – 1-4A curves

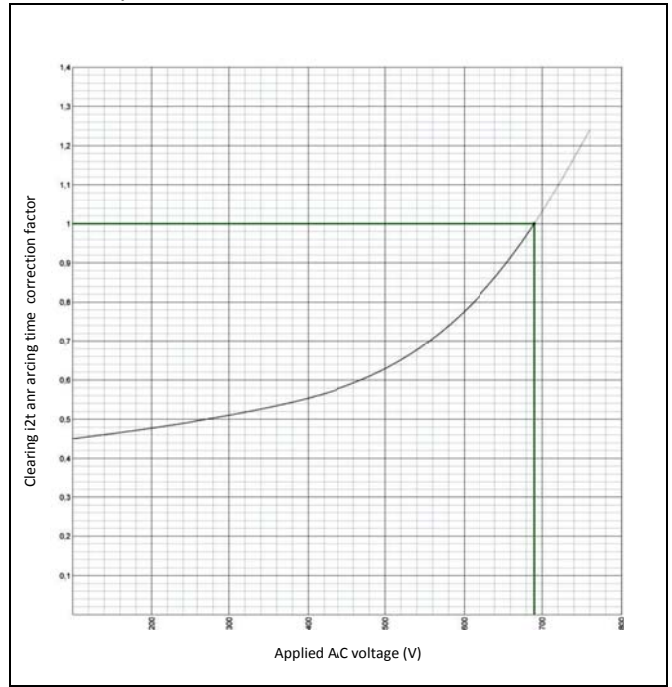
Time/Current characteristics



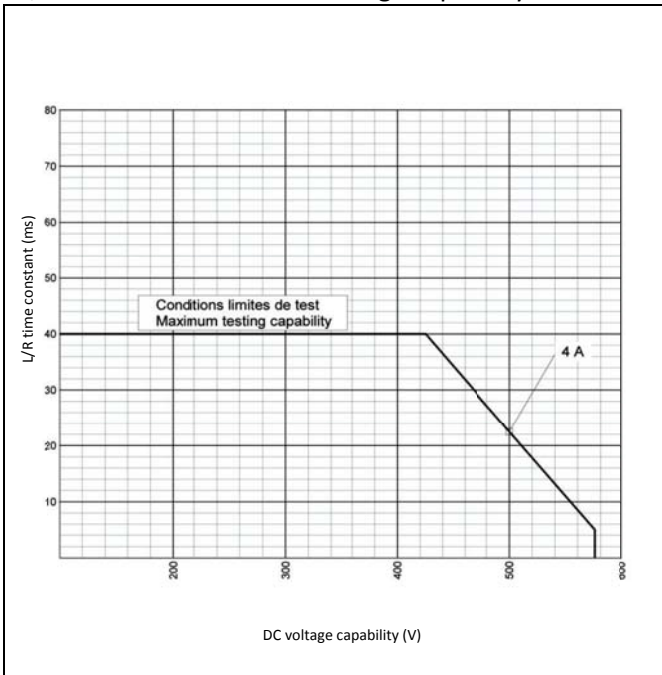
Peak arc voltage



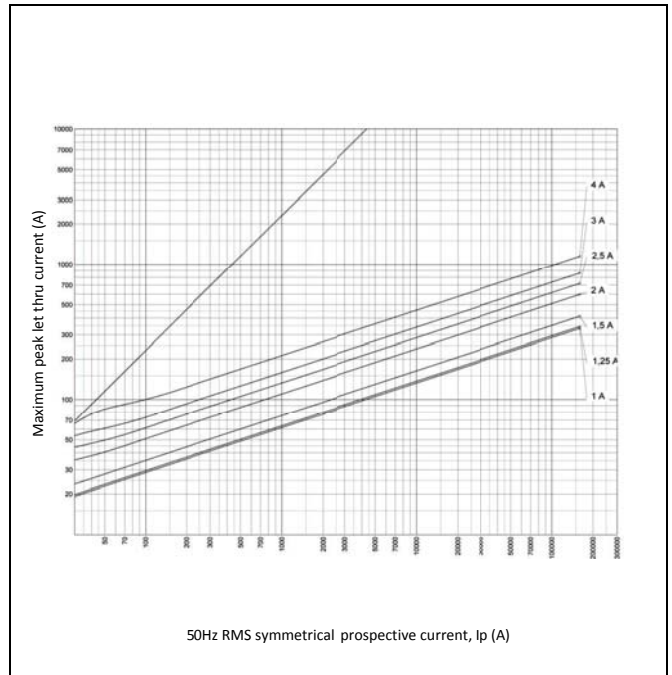
I^2t multiplier coefficient



L/R time constant Vs. DC voltage capability

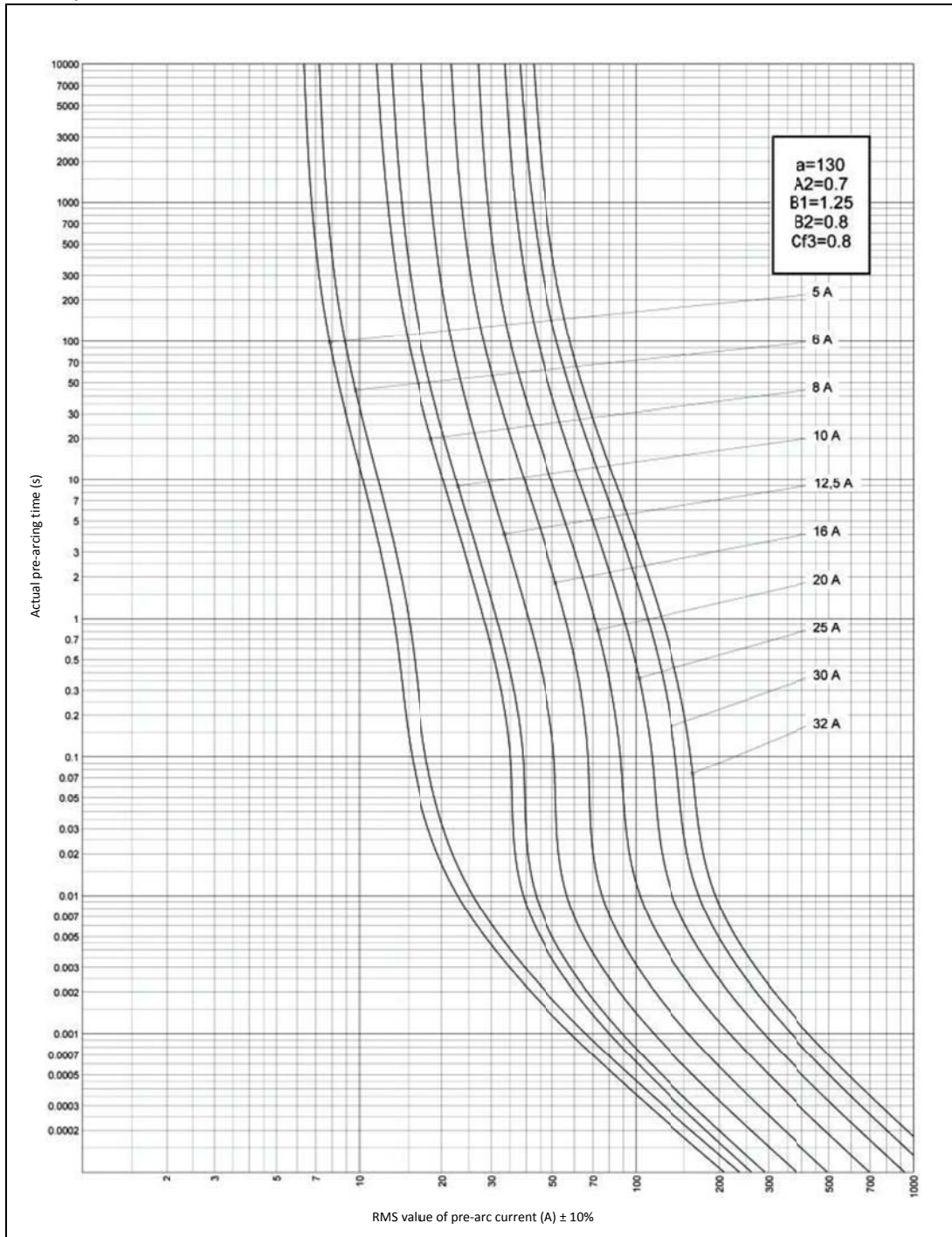


Peak let thru characteristics

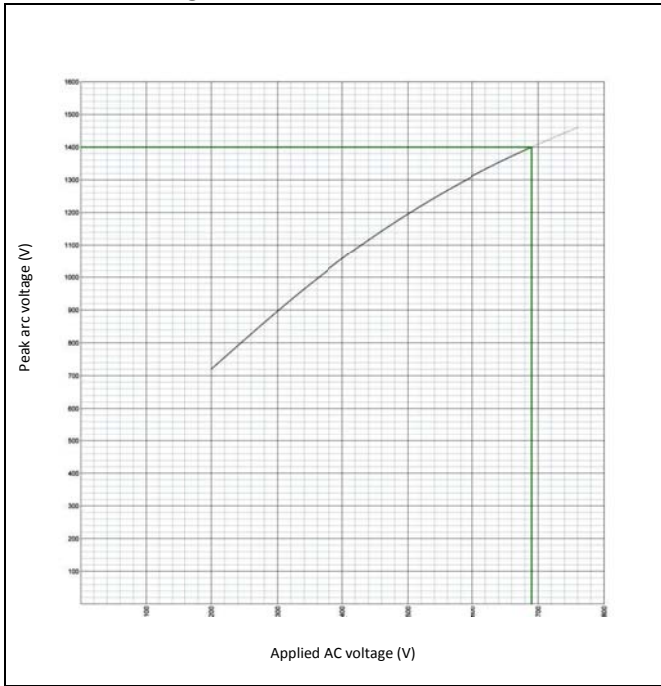


Size A fuses – 5-32A curves

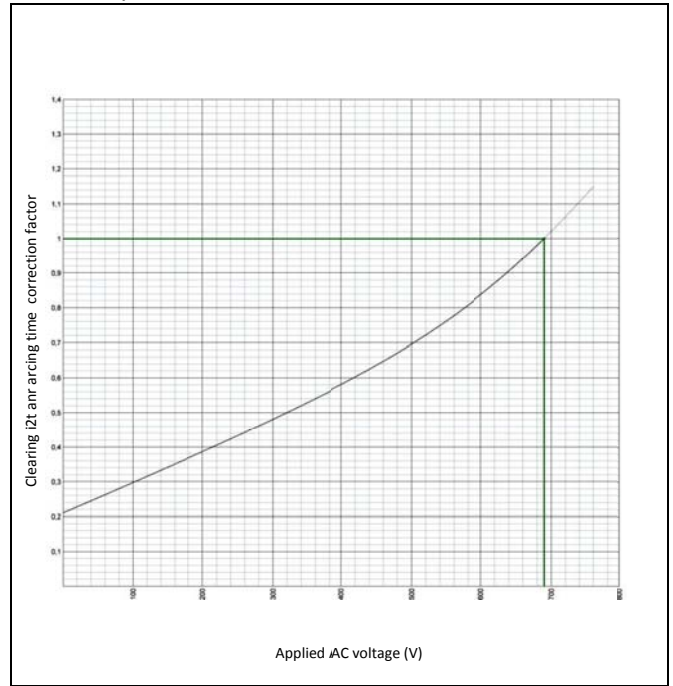
Time/Current characteristics



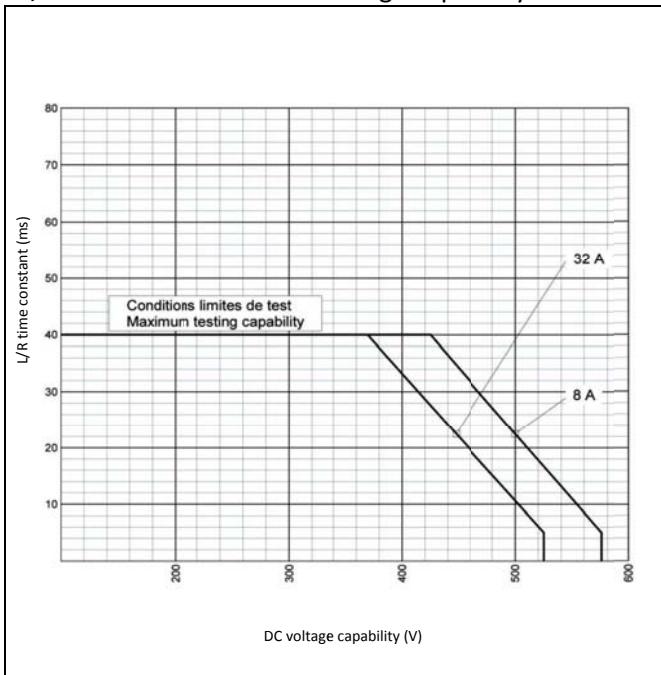
Peak arc voltage



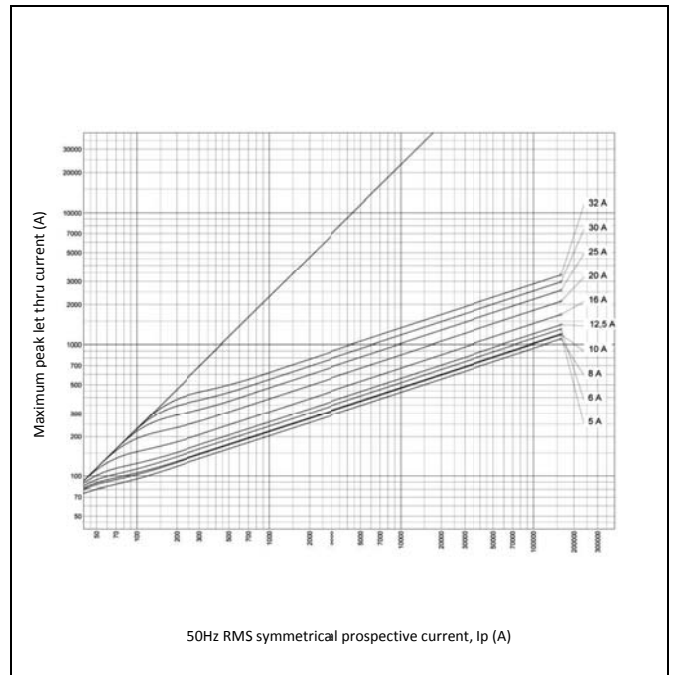
I^2t multiplier coefficient



L/R time constant Vs. DC voltage capability



Peak let thru characteristics



Size B fuses – Part numbers

Weight – 18g Max.

Rated Voltage (UL/IEC) V	Nominal Current A	Class	Part Number	Trip indicator
700/690	1	gRC	F070B001N	N
			F070B001S	Y
	2		F070B002N	N
			F070B002S	Y
	4		F070B004N	N
			F070B004S	Y
	6		F070B006N	N
			F070B006S	Y
	8		F070B008N	N
			F070B008S	Y
	10		F070B010N	N
			F070B010S	Y
	12		F070B012N	N
			F070B012S	Y
	16		F070B016N	N
			F070B016S	Y
	20		F070B020N	N
			F070B020S	Y
	25		F070B025N	N
			F070B025S	Y
32	F070B032N	N		
	F070B032S	Y		
40	F070B040N	N		
	F070B040S	Y		
50	F070B050N	N		
	F070B050S	Y		

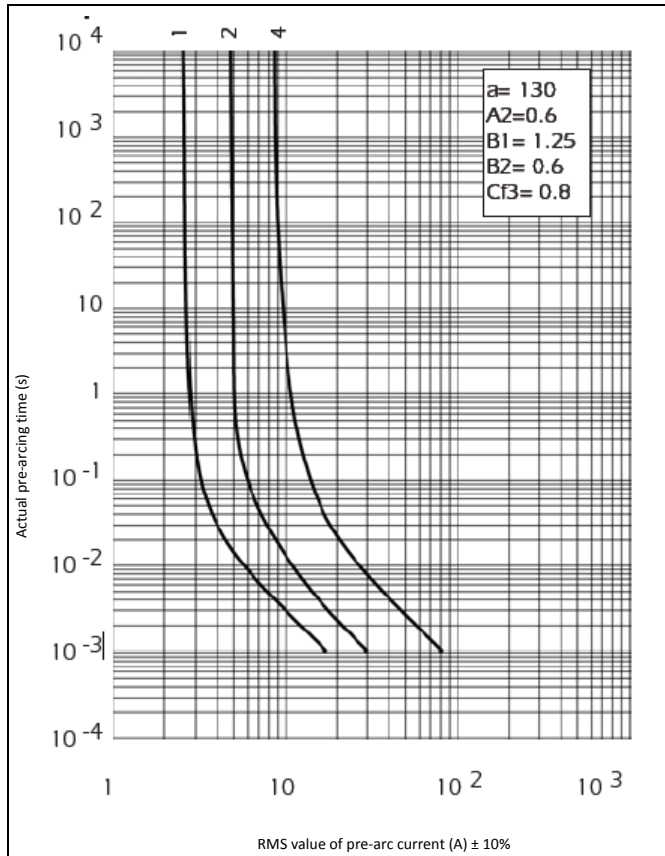
Size B fuses – Ratings

Rated Voltage (UL/IEC) V	Current rating, I _N A	Class	Pre-arcing I ² t A ² s	Clearing I ² t @ rated voltage A ² s	Watts loss @ 100% I _N W	Breaking capacity @ rated voltage kA
700/690	1	gRC	0.8/0.31*	3.5/1.4*	0.35	100
700/690	2	gRC	1.5/1.0*	6.7/4.3*	0.6	100
700/690	4	gRC	7.2/6.7*	33/30*	1.4	100
700/690	6	gRC	1.4	19	2.5	100
700/690	8	gRC	2.4	30	3.0	100
700/690	10	gRC	4.3	44	3.3	100
700/690	12	gRC	5.4	65	4.25	100
700/690	16	gRC	13	110	4.8	100
700/690	20	gRC	27	175	5.25	100
700/690	25	gRC	53	300	5.8	100
700/690	32	gRC	97	550	7.0	100
700/690	40	gRC	210	1210	8.8	100
700/690	50	gRC	390	2250	10	100

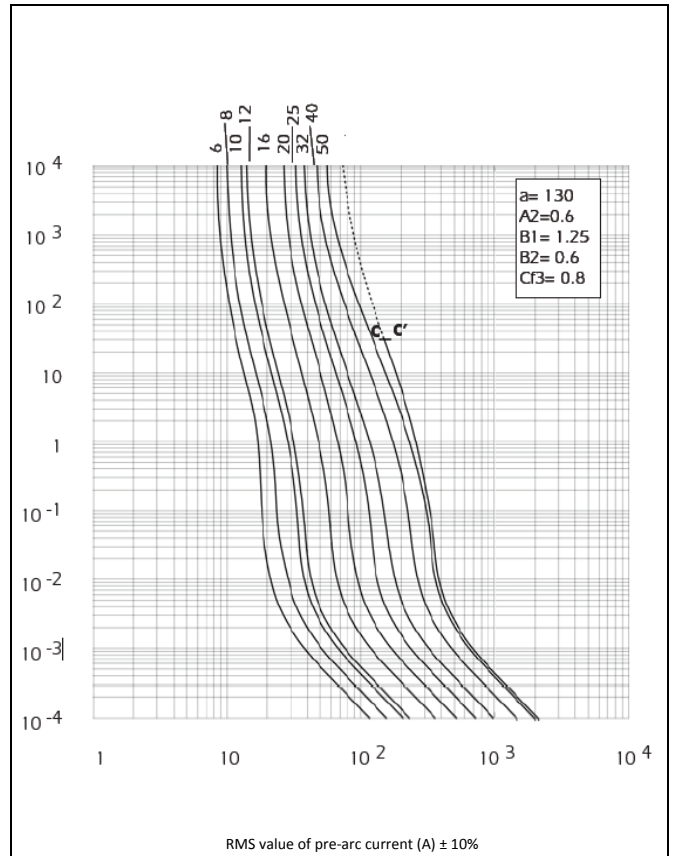
* - I²t value for fuses without trip indicator

Size B fuses – Curves

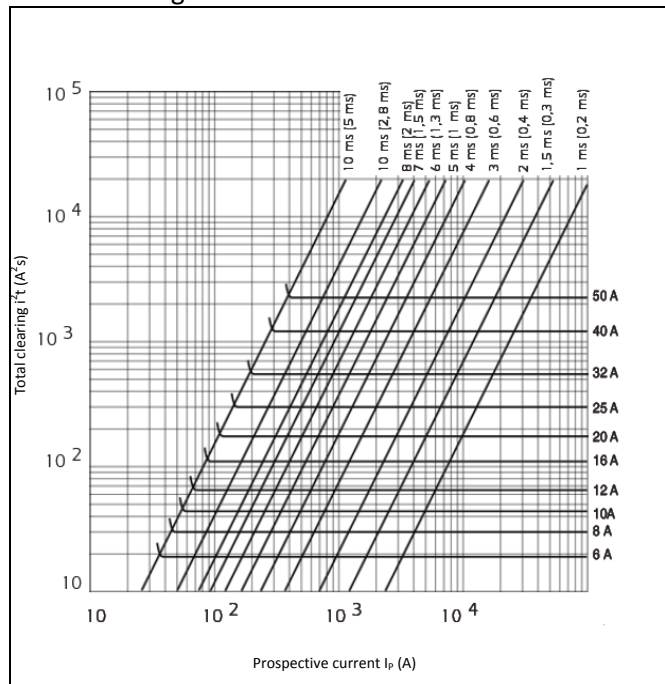
Time-current characteristics – 1-4A



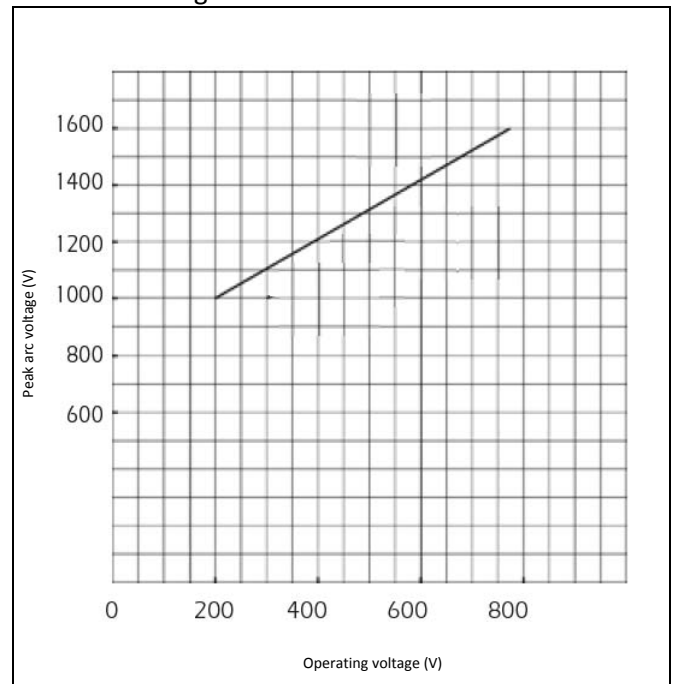
Time-current characteristics – 6-50A



Total clearing i^2t



Peak arc voltage



Size C fuses – Part numbers

Weight – 57g Max.

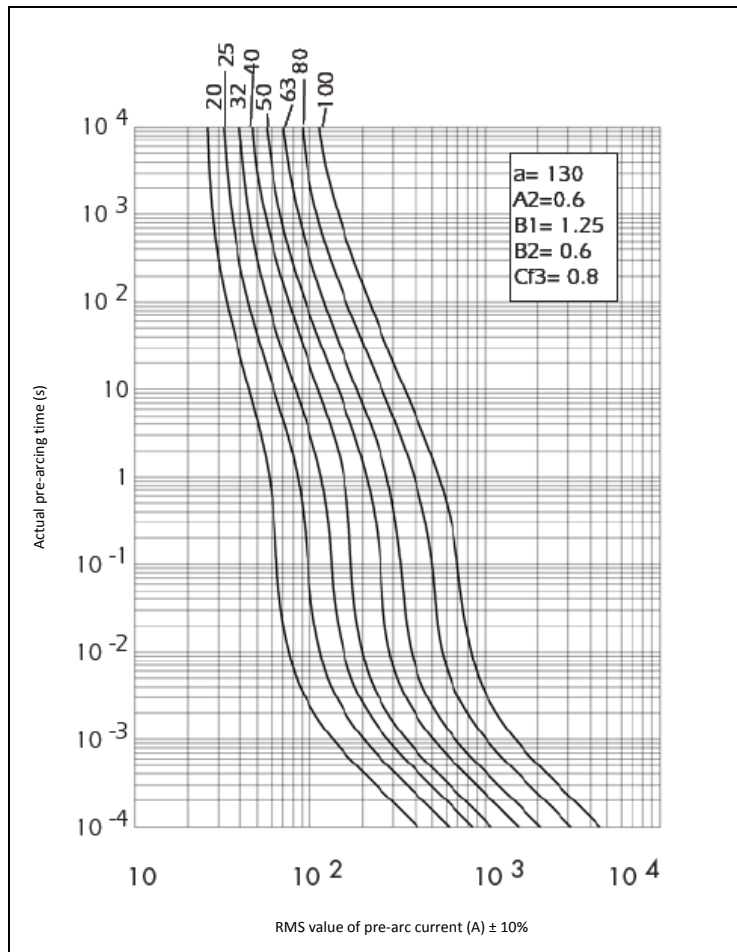
Rated Voltage (UL/IEC) V	Nominal Current A	Class	Part Number	Trip indicator
700/690	20	gRC	F070B020N	N
			F070B020S	Y
	25		F070B025N	N
			F070B025S	Y
	32		F070B032N	N
			F070B032S	Y
	40		F070B040N	N
			F070B040S	Y
	50		F070B050N	N
			F070B050S	Y
	63		F070B063N	N
			F070B063S	Y
	80		F070B080N	N
			F070B080S	Y
100	F070B100N	N		
	F070B100S	Y		

Size C fuses – Ratings

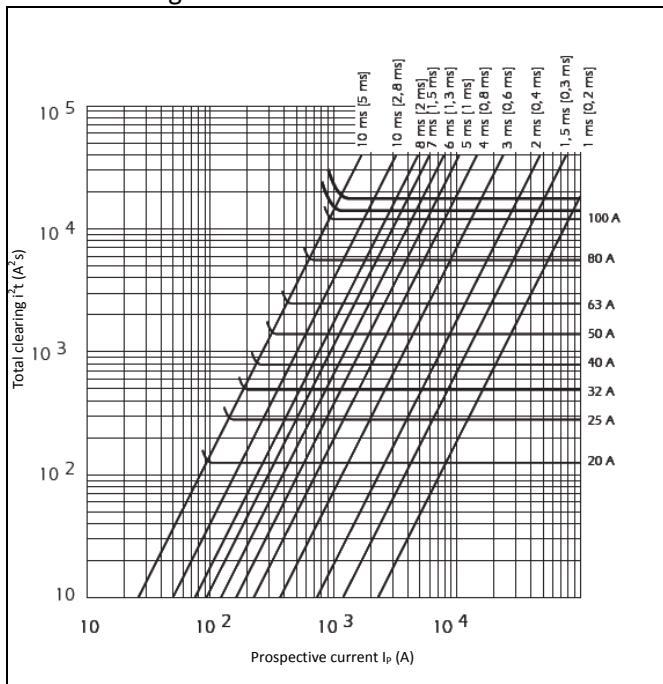
Rated Voltage (UL/IEC) V	Current rating, I _N A	Class	Pre-arcing I ² t A ² s	Clearing I ² t @ rated voltage A ² s	Watts loss @ 100% I _N W	Breaking capacity @ rated voltage kA
700/690	20	gRC	17	125	6.5	100
700/690	25	gRC	39	280	7.5	100
700/690	32	gRC	72	490	9.0	100
700/690	40	gRC	118	785	10	100
700/690	50	gRC	242	1390	11.5	100
700/690	63	gRC	430	2460	13.5	100
700/690	80	gRC	970	5565	15.5	100
700/690	100	gRC	2080	11950	17	100

Size C fuses – Curves

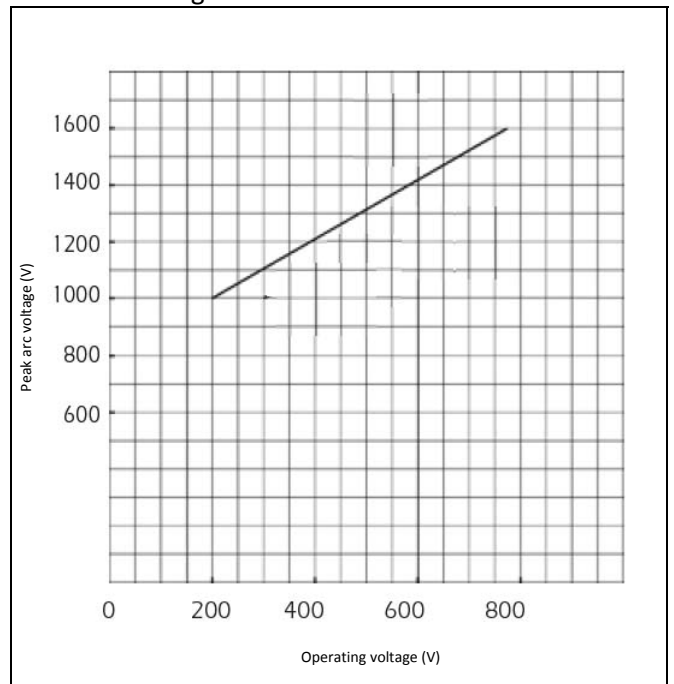
Time-current characteristics



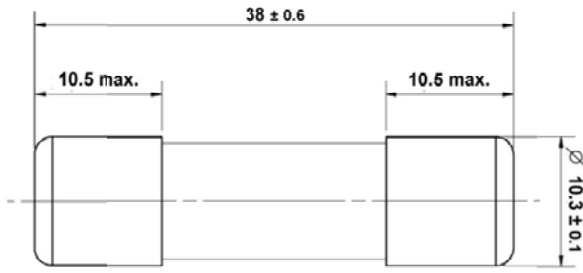
Total clearing I^2t



Peak arc voltage

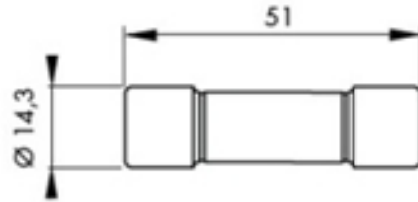


Dimensions

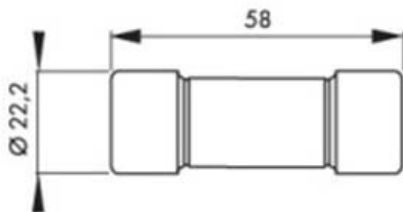
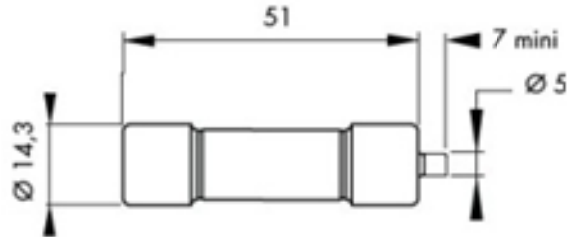


F070AxxxN

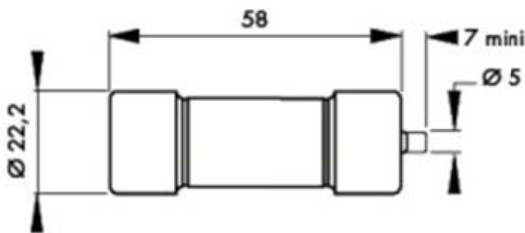
F070BxxxN



F070BxxxS



F070CxxxN



F070CxxxS



Certificate FM26085

IXYS UK Westcode Ltd's BS EN ISO9001 quality system is registered by BSI



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