

ULTRA QUICK

GENERAL INFORMATION	12
D0	20
D	21
C	22
BS	25
NV/NH	27
ACCESSORIES	61
CHARACTERISTICS	64
INDEX	117

FUSES FOR PROTECTION OF SEMICONDUCTORS



Typical applications protected by Ultra Quick fuse-links

more info in "Ultra Quick industry application.pdf"

DC drives



Power controls

Soft- starters



AC servo regulators-brushless

Frequency inverters



Thyristor switches

UPS



Variable power regulators

Power rectifiers



Voltage regulators

SSR-
semiconductor
relays



Welding inverters

Solbrakes



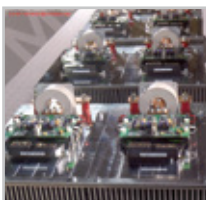
Temperature controlers

Batery chargers



Solar power

Traction inverters



Wind power

Ultra Quick Cross-Reference

The products on this cross-reference table are some of the most commonly used fuses for semiconductor protection.

Cylindrical

ETI	Bussmann	Ferraz	Siba
SIZE 10 x 3.8			
CH10/6A/690V	FMC 6A10F	E33008	603205
CH10/8A/690V	FMC 8A10F	F33009	603205
CH10/10A/690V	FMC 10A10F	G30010	603205
CH10/12A/690V	FMC 12A10F	H33011	603206
CH10/16A/690V	FMC 16A10F	J30012	603206
CH10/20A/690V	FMC 20A10F	K30013	603206
CH10/25A/690V	FMC 25A10F	L30014	603205
CH10/32A/690V	FMC 32A10F	V33028	-
SIZE 14 x 5.1			
CH14/10A/690V	FMP 10A14F	T09303	5012406
CH14/12A/690V	FMP 12A14F	W09305	5012406
CH14/16A/690V	FMP 16A14F	X09306	5012406
CH14/20A/690V	FMP 20A14F	Y09307	5012406
CH14/25A/690V	FMP 25A14F	Z09308	5012406
CH14/32A/690V	FMP 32A14F	A09309	5012406
CH14/40A/690V	FMP 40A14F	B09310	5058806
SIZE 22 x 5.8			
CH22/20A/690V	FMP 20A22F	-	5014006
CH22/25A/690V	FMP 25A22F	B09396	5014006
CH22/32A/690V	FMP 32A22F	Z09428	5014006
CH22/40A/690V	FMP 40A22F	S09482	5014006
CH22/50A/690V	FMP 50A22F	W09479	5014006
CH22/63A/690V	FMP 63A22F	T09483	5014006
CH22/80A/690V	FMP 80A22F	A09482	5014006
CH22/100A/500V	FMP 100A22F	Y09482	5014006



BS88 part 4 – 690V

ETI	Bussmann	Ferraz	GE
BS17			
BS17/63/25A/690V	ET25	J07585	G825
BS17/63/32A/690V	ET32	K07586	G5680
BS17/63/40A/690V	FE35	-	G5685
BS17/63/45A/690V	FE45	-	G5690
BS17/63/50A/690V	FE50	-	G5695
BS17/63/56A/690V	FE56	-	G5685
BS17/63/63A/690V	FE63	-	G5685
BS17/63/71A/690V	FE71	-	G5680
BS17/63/80A/690V	FE80	-	G5685
BS17/63/90A/690V	FE90	-	G5685
BS17/63/100A/690V	FE100	-	-
BS17D			
BS17D/70/80A/690V	ET90	A09959	G5685
BS17D/70/100A/690V	ET100	B09959	G56810
BS17D/70/120A/690V	FE20	B09959	G56812
BS17D/70/140A/690V	FE40	J07908	-
BS17D/70/160A/690V	FE160	K07909	G56816
BS38			
BS38/83/160A/690V	MT160	097166	G38100
BS38/83/180A/690V	RM180	-	G56810
BS38/83/200A/690V	RM200	-	G56810
BS38/83/250A/690V	RM250	-	G56825
BS38/83/315A/690V	RM315	-	G56830
BS38/83/380A/690V	RM380	-	G56830
BS381			
BS381/83/200A/690V	MM200	F097272	-
BS381/83/250A/690V	MM250	097275	-
BS381/83/315A/690V	MM315	K097276	-
BS381/83/355A/690V	MM355	S097278	-
BS381/83/400A/690V	FM400	-	-
BS381/83/450A/690V	FM450	-	G56840
BS381/83/500A/690V	FM500	-	G56850
BS381/83/630A/690V	FM630	-	-
BS381/83/700A/690V	FM700	-	-



Square body type M: DIN 43620 – 690V

ETI	Bussmann	Ferraz	Siba
SIZE 00C			
M00/5A/690V	T0M162	E32043	-
M00/40A/690V	T0M163	E32047	-
M00/50A/690V	T0M164	F32051	-
M00/63A/690V	T0M165	F32055	-
M00/80A/690V	T0M166	G32059	-
M00/100A/690V	T0M167	V32063	-
M00/125A/690V	T0M168	E32065	-
M00/160A/690V	T0M169	K32069	-
M00/200A/690V	T0M170	D32071	-
M00/250A/690V	T0M171	H32075	-
SIZE 1			
M1/6.3A/690V	T0M3810	M32055	20.03.04
M1/8A/690V	T0M3811	K32059	20.03.04
M1/10A/690V	T0M3812	M32063	20.03.04
M1/12.5A/690V	T0M3813	E32065	20.03.04
M1/16A/690V	T0M3814	G32069	20.03.04
M1/20A/690V	T0M3815	E32071	20.03.04
M1/25A/690V	T0M3816	E32075	20.03.04
M1/31.5A/690V	T0M3817	M32079	20.03.04
M1/35A/690V	T0M3818	P32080	20.03.04
M1/40A/690V	T0M3819	S32083	20.03.04
SIZE 2			
M2/40A/690V	T0M5808	E32088	20.04.04
M2/50A/690V	T0M5809	D32085	20.04.04
M2/63A/690V	T0M5810	F32087	20.04.04
M2/80A/690V	T0M5812	H32089	20.04.04
SIZE 3			
M3/50A/690V	T0M6808	E32087	20.05.04
M3/63A/690V	T0M6810	E32089	20.05.04
M3/70A/690V	T0M6811	S32090	20.05.04
M3/80A/690V	T0M6812	T32091	20.05.04



Square body type G: DIN 43653 – 690V

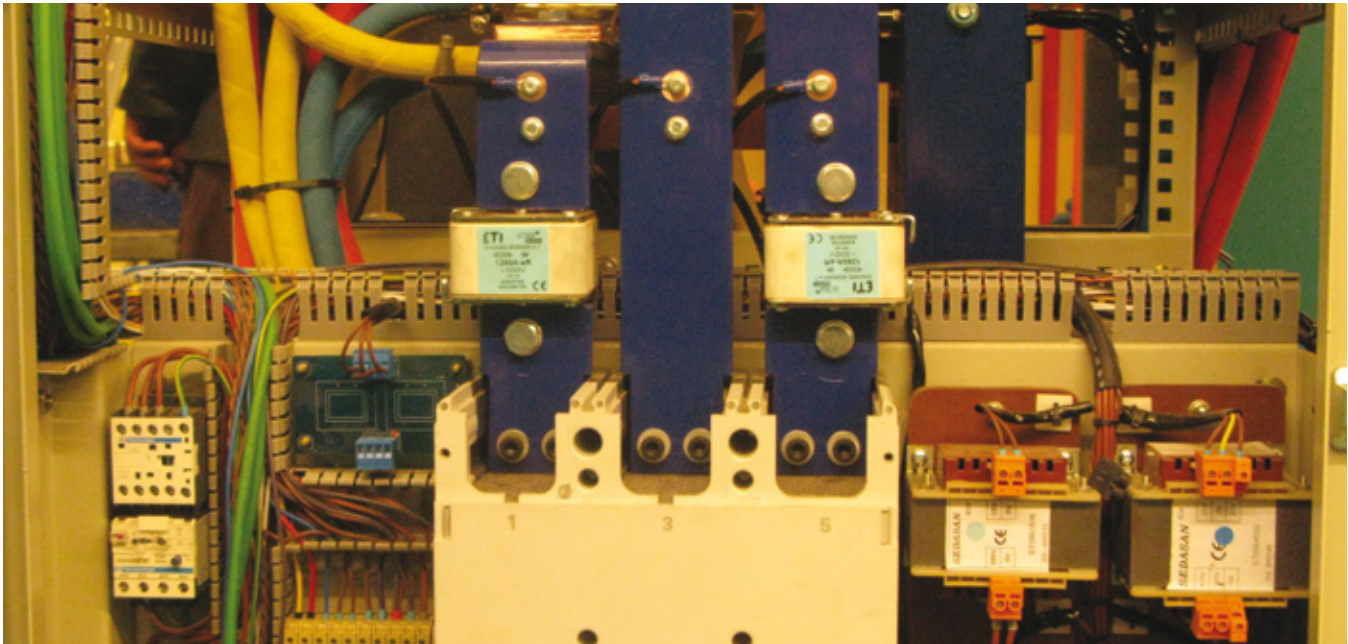
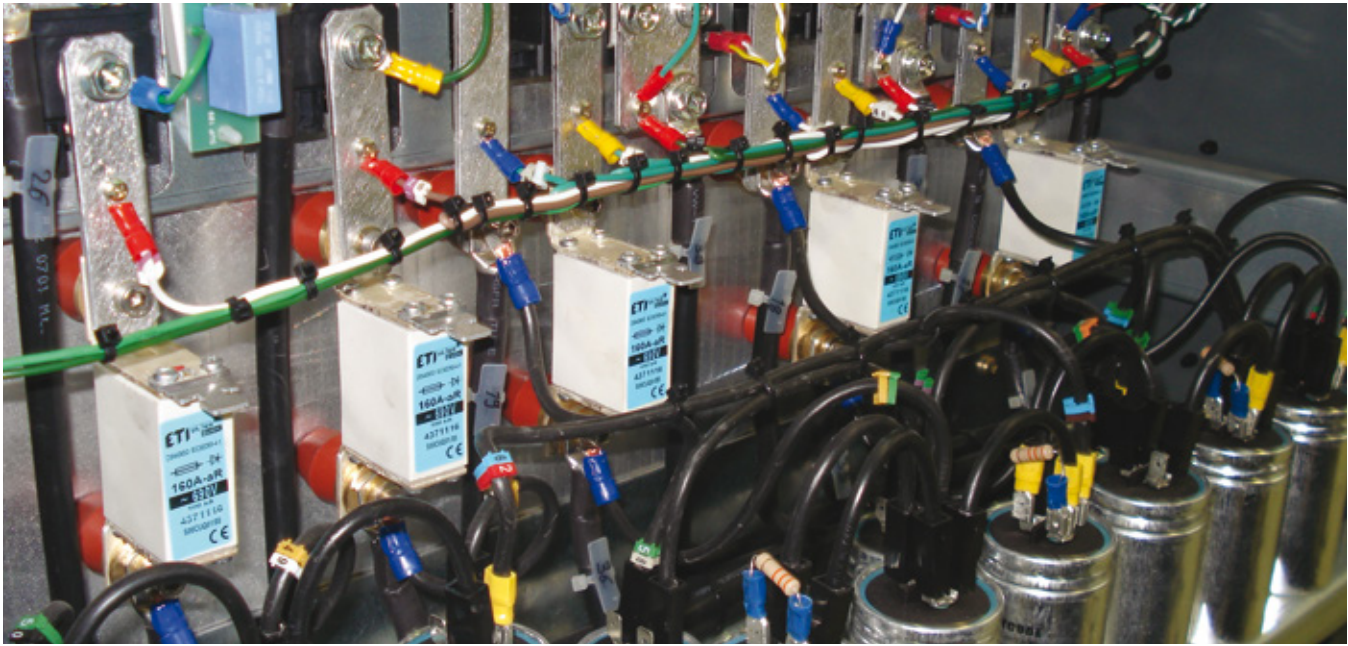
ETI	Bussmann	Ferraz	Siba
SIZE 1			
G1M/250A/690V	T0M4459	X30056C	20.32.20
G1M/315A/690V	T0M4460	M30162C	20.32.20
G1M/350A/690V	T0M4461	A30058C	20.32.20
G1M/400A/690V	T0M4462	B30059C	20.32.20
G1M/450A/690V	T0M4463	S30055C	20.32.20
G1M/500A/690V	T0M4464	T30006C	20.32.20
G1M/630A/690V	T0M4465	H30049	20.32.20
G1M/700A/690V	T0M4466	W30008C	20.32.20
G1M/700A/690V	T0M4467	C30481	20.32.20
SIZE 2			
G2M/50A/690V	T0M5460	K30067C	20.33.42
G2M/55A/690V	T0M5461	R30464	20.33.42
G2M/63A/690V	T0M5462	L30068C	20.33.42
G2M/70A/690V	T0M5463	B30070C	20.33.42
G2M/80A/690V	T0M5464	F30071C	20.33.42
G2M/90A/690V	T0M5465	W30468	20.33.42
G2M/100A/690V	T0M5466	X30469	20.33.42
SIZE 3			
G3M/630A/690V	T0M6460	X30078	20.34.22
G3M/700A/690V	T0M6461	F30079C	20.34.22
G3M/800A/690V	T0M6462	Z30080C	20.34.22
G3M/900A/690V	T0M6463	B30950	20.34.22
G3M/1000A/690V	T0M6464	B30082C	20.34.22
G3M/1250A/690V	T0M6466	D30084C	20.34.22
G3M/1400A/690V	T0M6467	F30954	20.34.22

Square body type S: DIN 43653 – 690V

ETI	Bussmann	Ferraz	Siba
SIZE 00C			
S00C/80/63A/690V	T0M2662	R330272C	20.28.04
S00C/80/80A/690V	T0M2663	A330073	20.28.04
S00C/80/100A/690V	T0M2664	L330087	20.28.04
S00C/80/125A/690V	T0M2665	M330058	20.28.04
S00C/80/160A/690V	T0M2666	N330059	20.28.04
S00C/80/200A/690V	T0M2667	P330040	20.28.04
S00C/80/250A/690V	T0M2668	B33028	20.28.04
S00C/80/315A/690V	T0M2669	A330188	20.28.04
S00/80/350A/690V	T0M2670	B330189	20.28.04
S00/80/400A/690V	T0M2671	E330192	20.28.04
SIZE 1			
S1M/110/25A/690V	T0M4209	B00020C	20.27.34
S1M/110/31.5A/690V	T0M4210	K30021C	20.27.34
S1M/110/35A/690V	T0M4211	L302161C	20.27.34
S1M/110/40A/690V	T0M4212	A30127C	20.27.34
S1M/110/45A/690V	T0M4213	M30023C	20.27.34
S1M/110/50A/690V	T0M4214	N30024C	20.27.34
S1M/110/55A/690V	T0M4215	P20025C	20.27.34
S1M/110/63A/690V	T0M4216	Q30026C	20.27.34
S1M/110/70A/690V	T0M4217	R30027C	20.27.34
SIZE 2			
S2M/110/50A/690V	T0M6210	S30028C	20.27.34
S2M/110/55A/690V	T0M6211	S30018C	20.27.34
S2M/110/63A/690V	T0M6212	T30019C	20.27.34
S2M/110/70A/690V	T0M6213	R30027C	20.27.34
S2M/110/80A/690V	T0M6214	H30079C	20.27.34
S2M/110/90A/690V	T0M6215	X30019C	20.27.34
S2M/110/100A/690V	T0M6216	Y300194C	20.27.34
SIZE 3			
S3M/110/63A/690V	T0M6210	V30026C	20.27.34
S3M/110/70A/690V	T0M6211	W30261C	20.27.34
S3M/110/80A/690V	T0M6212	X30262C	20.27.34
S3M/110/90A/690V	T0M6213	Y300194C	20.27.34
S3M/110/100A/690V	T0M6214	Y300194	20.27.34
S3M/110/125A/690V	T0M6216	B30026C	20.27.34
S3M/110/140A/690V	T0M6217	C30026C	20.27.34



Ultra Quick Application

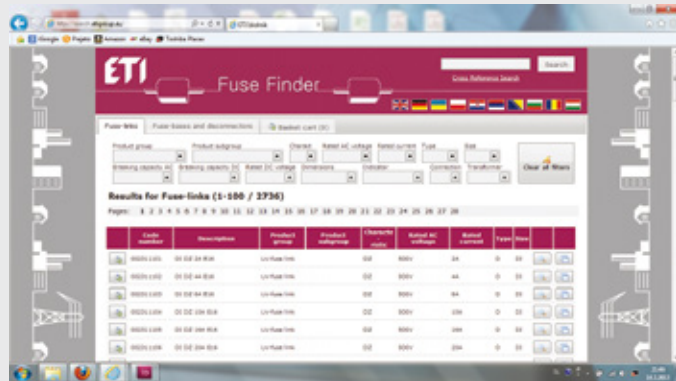


ULTRA QUICK

Support for Ultra Quick

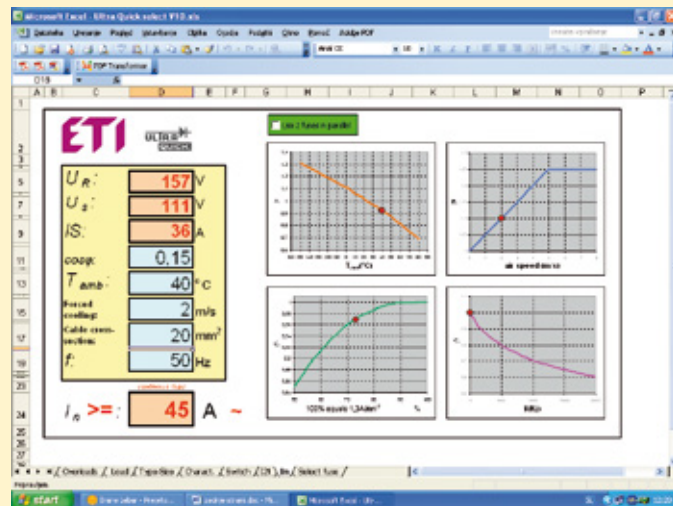
Cross-reference on internet

for MRO (maintenance replacement operation)



Software Ultra Quick select

for OEM (original equipment manufacturer)



Application guide

Introduction

The fuse links of ULTRA-QUICK type are used for the protection of power semiconductor, such as

Power Semiconductor Switches

Spontaneous ON and OFF	Gated ON and OFF	Gated ON Spontaneous OFF	Gated OFF Spontaneous ON
Diode PN Schottky	Transistor Bipolar MOSFET IGBT GTO Thyristor	Thyristor Standard SCR Asymmetrical MCT	Diode Thyristor Mixing Tri-AC

diodes, thyristors, triacs...IGBT transistors. These elements are due to their low thermal capacity very sensitive to over-loads, therefore a normal protection with fuse links for installation protection is not enough, because they are too slow. The fuse links for semiconductor protection must fulfill a series of requirements, the most important of them are:

- Fast acting in the overload and short-circuit range
- Extremely low value of the operating Joule integral (I^2t)
- Low switching overvoltage at circuit opening
- Low power dissipation (P_s)

Fuses for semiconductor devices protection

General information

Fuses are the oldest protective devices in the electrical industry. Because of the advantageous features, fuses have been and are used in an extensive fields of applications – one of them is protection of semiconductor devices (diodes, thyristors, power transistors, GTO) in current and frequency converters. Semiconductor devices are being produced with high maximum continuous currents and peak inverse voltages. Unfortunately, that devices still have poor overload capacities and continue to need sensitive and fast-acting protection.

ETI fuses for semiconductor protection series ULTRA-QUICK are optimal solution for the protection of power semiconductors.

General informations about fuse marking

Fuse marking consists of two letters, where the first letter describes the breaking ranges

a - partial range

Operates by all currents between the lowest current indicated on its operating time current characteristic and its rated breaking capacity.

g - full range

Operates by all currents which cause the melting of the fuse element up to its rated breaking capacity

The second letter describes the applications (characteristics or utilization category).

- L** – mainly for conductor protection
- B** – mining equipment
- M** – motor circuit and switching devices protection
- R** – semiconductor protection
- Tr** – transformers protection

The combination of “breaking ranges” and “applications” indicate many combinations describes in standards and technical report IEC TR 61818 “Application-guide for low voltage fuses”

- | | | |
|----------------|-------------------------|--|
| gL: | Full range | - general application, mainly for conductor protection |
| aM: | Partial range (back-up) | - short-circuit protection of motor circuit |
| gR, gS: | Full range | - semiconductor protection |
| aR: | Partial range (back-up) | - semiconductor protection |
| gB: | Full range | - mining equipment protection |
| gTr: | Full range | - transformer protection |

ETI fuses for semiconductor protection series “ULTRA-QUICK” comply with the IEC 60269 and VDE 0636 series standard. A list of the standards for characteristics and dimensions is included below:

- IEC 60269-4: Supplementary requirements for fuselinks for the protection of semiconductor devices
- IEC 60269-4-1: Examples of standardized fuses
- IEC 60269-3-1: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications)
- IEC 60269-2-1: Supplementary requirements for fuses for use by authorized persons (fuses mainly for industrial application) for the protection of semiconductor devices
- DIN 43 620, DIN 43 653
- VDE 0636-201 Niederspannungssicherungen (NH-System)
- DIN EN 60269-4, VDE 0636 Teil 40 Niederspannungssicherungen Teil 4: Zusätzliche Anforderung an
- BS 88 Part 4

Fuse-links as protective equipment for semiconductors should ensure that the following conditions are met:

- Interruption should be effected quickly enough to prevent damage to other devices
- Interruption should take place before damage to semiconductor devices – quick action
- High rated breaking capacity
- High d.c. switching capacity
- High current limitation
- Operation of the protective equipment should not cause unacceptably high over-voltages to be impressed on any of the semiconductor devices – low arc voltage

Selecting the fuses for semiconductor protection (FSP)

What the user should know about FSP to be able to select the best FSP for his special purpose?

In practice, there exist no common regulations covering FSPs, except IEC60146-6 „Applications guide for the protection of semiconductor converters against overcurrent by fuses“. The object of this report is to advise on the specific fuse features and on the specific converter features which are to be observed to ensure correct application of FSP in converters, and to give specific recommendations for trouble-free operation of converters protected by fuses.

Before the fuse selection the user must be fully aware of the conditions under which the FSP is to function. This applies to normal service conditions as well as to conditions during fault. Here is few basic suggestions for FSP selection:

A: The load current through the semiconductor (I_{sem}) should be lower or equal as the rated current of the selected fuse-link (I_{nv}). For continuous duty the FSP can withstand this current indefinitely. In case of pulsed current, the user should consult ETI.

$$I_{sem} \leq I_{nv}$$

B: The operating voltage on the semiconductor (U_{sem}) should be lower or equal as the rated voltage of the fuse-link (U_{nv}). Consult ETI with respect to a.c. and d.c. applied voltage, time constant and power factor.

$$U_{sem} \leq U_{nv}$$

C: The operating (pre-arcing + arcing) I^2t values of the selected fuse-link (I^2t_{opv}) should be lower than I^2t of the semiconductor (I^2t_{sem}). Consult ETI with respect to parallel operation, discrimination and loss of coordination at higher fault levels

$$I^2t_{opv} < I^2t_{sem}$$

D: For other current rating, which are not included in this catalogue, please consult ETI R&D department.

Short product range review of fuses for semiconductor protection series ULTRA-QUICK

Systems	Types	Sizes	Rated current	Rated voltage	Characteristic	Pages	
DO		D01, D02	2A – 63A	400V	gR	20	
D		DI, DII, DIII, DIV, DV	2A – 200A	500V	gR	21	
C		CH10x38, CH10x38 SU	6A – 32A	600V	aR	22	
		CH10x85, CH10x85 SU	2A – 35A	700V, 900V a.c./d.c.	gR	23	
		CH14, CH-S 14,	6A – 50A	690V	aR	22	
		CH22, CH-S 22	20A – 100A	690V	aR	22	
BS		BS8, BS17, BS38, BS38T	6A – 800A	240V	aR	25	
		BS8, BS17, BS17D, BS38, BS38T	6A – 700A	690V	aR	26	
NV/NH 10 kA	M	1XL, 2XL, 3L	36A – 400A	1100V d.c.	gR	54	
NV/NH 20 kA	M	0, 1C	32A – 160A	750V, 1000V d.c.	gR	53	
NV/NH 50 kA	M	00C, 00, 0, 1, 2, 3	6A – 630A	690V	aR/gR	27-28	
	S80mm	00C, 00	6A – 160A	690V	aR/gR	29	
	S97mm	0	6A – 160A	690V	aR/gR	29	
	S110mm	1, 2, 3	35A – 630A	690V	aR/gR	30	
NV/NH 200 kA	M	00	10A – 250A	690V	aR	31	
		1, 2, 3	63A – 800A	690V	aR	32	
	S80mm	00C, 00	10A – 400A	690V	aR	33	
		1, 2, 3	80A – 1400A	690V	aR	34	
	S110mm	1, 2, 3	80A – 1400A	690V	aR	35	
	G	1, 2, 3	80A – 1400A	690V	aR	36-37	
	M	0	32A – 160A	1000V	aR	38	
		1, 2, 3	63A – 800A	1000V	aR	39	
		1, 2, 3	80A – 630A	1200V	aR	40	
		S80mm	00	32A – 315A	1000V	aR	41
		S	0	16A – 160A	1000V	aR	42
		S110mm	1, 2, 3	63A – 1250A	1000V	aR	43
NV/NH 100 kA	S	2, 3	250A – 1000A	1250V	aR	45	
	G	3	315A – 1000A	1250V	aR	46	
NV/NH 50 kA	S	3	250A – 550A	1500V	aR	47	
	G	3	200A, 250A	1500V	aR	48	
	S	3	250A – 710A	2000V	aR	49	
NV/NH 200 kA	M, striker	00C	10A – 160A	690V	gR	50	
		1, 2, 3	35A – 630A	690V	gR	51	
	M, S150mm	4, 4a	800A – 1600A	500V	gR	52	
	S80mm	00C	10A – 160A	690V	gR	55	
	S110mm	1, 2, 3	80A – 630A	690V	gR	56	
	G	1, 2, 3	35A – 630A	500V	gR	57	
	M	00C, 00	16A – 160A	690V	gS	58	
		1, 2, 3	160A – 630A	690V	gS	59	
		S110mm	1,2,3	160A – 630A	690V	gS	60
Accessories					61-62		

1. System D and D0

D0-fuse links

D01	UQ	2A
D02		max. 63A

size trade mark current

D-fuse links

DI	UQ	2A
DII		max. 200A
DIII		
DIV		
DV		

size trade mark current

2. System BS and NV/NH

BS - fuse links

BS	8	UQ	38	2A	240V
	17		41	max. 800A	690V
	17D		59		
	38		63		
	38T		64		
			70		
			83		

type diameter (T-twin, D-double) trade mark length current voltage

NV/NH - fuse links

S	00	M	UQ	U	/80	/10A	/690V
M	0	*		U-N	110	max. 1600A	500V
G	00C				97		1000V
	1						1200V
	2						
	3						
	4						
	4a						

type size micro-switch trade mark 50kA breaking capacity distance current voltage

3. System C

CH - fuse links

CH	22	UQ	/2A	/600V
CH-S	14		max. 100A	690V
	10			500V

type size trade mark current voltage

Operation indicators of ULTRA-QUICK fuse links

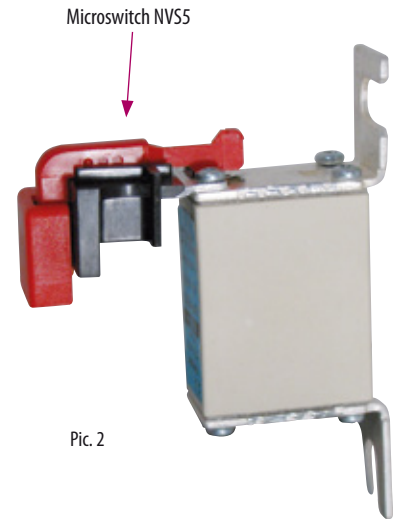
The operation-sensing device is a fine wire which is connected in parallel with the fuse melting element. This wire is used to hold in a flag (made of thin metal band) usually placed on the upper cover. When the wire breaks because of fuse operate, the flag is pushed out and in this way an indication of operation is given.

The indicator on pic.1 is a visual indication of fuse operating. When only indication is not enough, we offering possibility to add a microswitch NV55 on the upper cover for remote signalling of fuse operating (Pic.2).

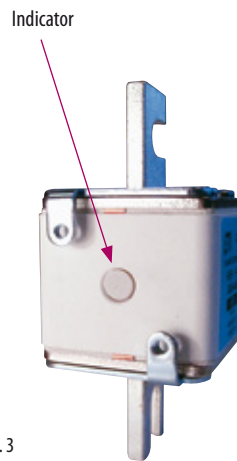
Another type of signalling of fuse operating is indicator, called "middle". It is located in the center of the ceramic body in front of the fuse link. After fuse operation, the particular plastic striker is pushed out from the ceramic body (Pic.3).



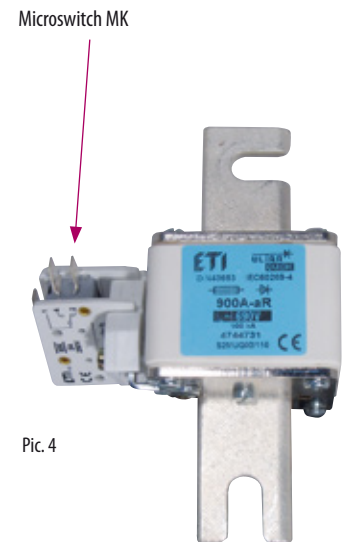
Pic. 1



Pic. 2

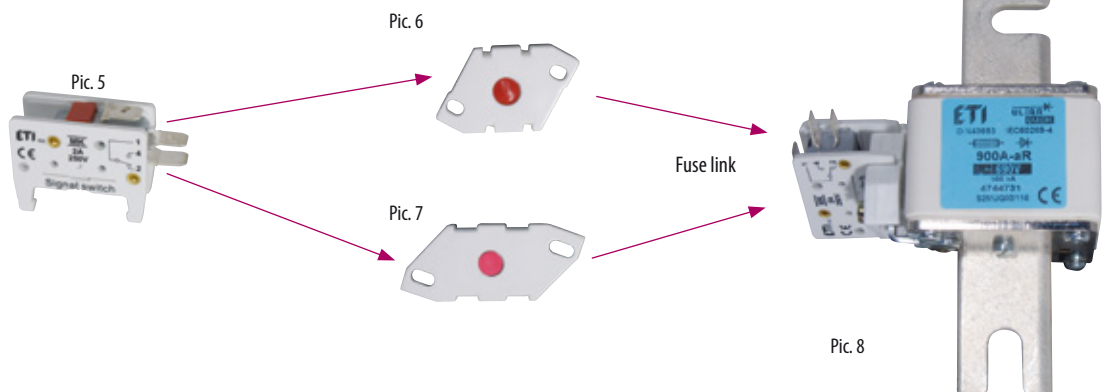


Pic. 3



Pic. 4

For remote signaling we offering microswitch MK (Pic.4 and Pic.5) mounted on additional adapters AMK (Pic.6 and Pic.7)



The purpose of adapters AMK1 and AMK2 are microswitch type MK setting up on the fuse link body of sizes for 690V and 1000V.

gR

RATED VOLTAGE
~400V

D01UQ6A



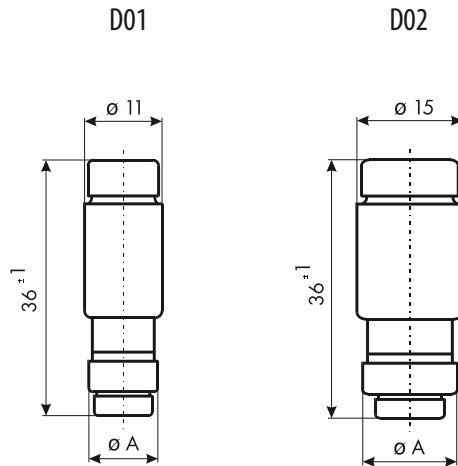
D02UQ50A



Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~50kA / --- 8kA Rated voltage: ~400V / --- 250V	Fuse-links of system D0 are applied in fuse base E14 and E18 and fuse-switch disconnectors VLD01 and STV D02.

Size	In (A)	Type	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Char.	Colour	Dimension A	Packaging (pcs)	Weight (g)
D01	2	D01UQ2A	004311001	6,3	2,3	gR	pink	7.3	10/500	6
	4	D01UQ4A	004311002	13	3,1	gR	brown	7.3	10/500	6
	6	D01UQ6A	004311003	20	4,0	gR	green	7.3	10/500	6
	10	D01UQ10A	004311004	65	4,2	gR	red	8.5	10/500	6
	16	D01UQ16A	004311005	200	5,3	gR	grey	9.7	10/500	6
D02	20	D02UQ20A	004312001	275	8,0	gR	blue	10.9	10/500	11
	25	D02UQ25A	004312002	480	9,0	gR	brown	12.1	10/500	12
	35	D02UQ35A	004312003	1.000	10,0	gR	black	13.3	10/500	13
	50	D02UQ50A	004312004	1.800	15,0	gR	white	14.5	10/500	13
	63	D02UQ63A	004312005	2.500	17,0	qR	copper	15.9	10/500	15

Dimensions:



remember

The standard IEC 60947-4-2 defines two types of co-ordination according to the expected level of service continuity. The standard IEC 60947-1, general rule are applicable to this standard, where specifically called for.

Type 1: Coordination requires that, under short-circuit conditions, the device shall cause no danger to persons or installation and may not be suitable for further service without repair and replacement of parts.

Type 2: Coordination requires that, under short-circuit conditions, the device shall cause no danger to persons or installation and shall be suitable for further use. For hybrid controllers and starters, the risk of contact welding is recognized in which case the manufacturer shall indicate the measures to be taken as regards the maintenance of the equipment.

Note: When using a softstarter in a type 2 co-ordination, replacing the fuses and restart has to be accepted after a short-circuit. Only »fuses for semiconductor protection« can be used to achieve a type 2 coordination for soft-starters.

Technical data on page 65

gR

RATED VOLTAGE
~500V

Technical data:

Standards:
IEC 60269-4

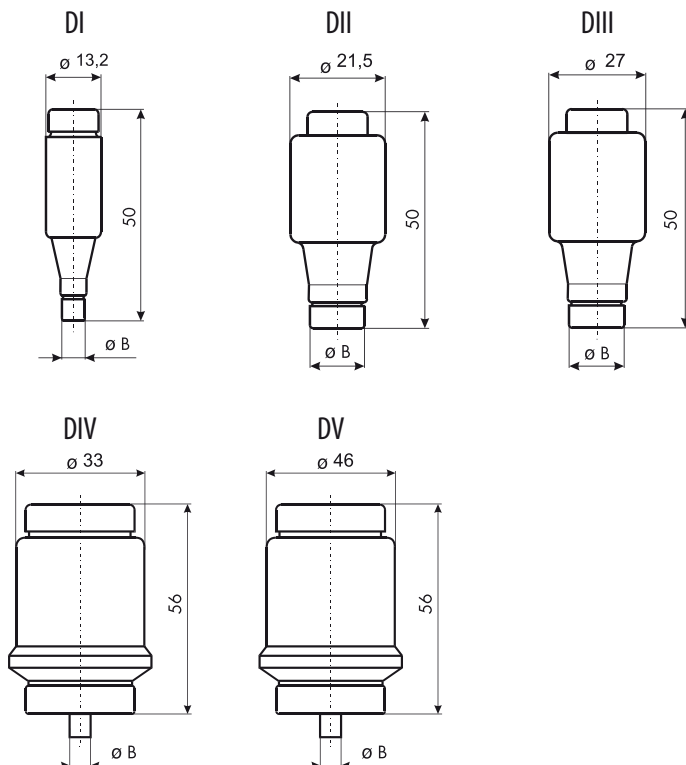
Breaking capacity:
~50kA / --- 8kA
Rated voltage:
~500V / --- 315V

Application:

Fuse-links of system D are mounted in fuse base E16, E27, E33, R 1 1/4", R2".

Size	In (A)	Type	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Char.	Colour	Dimension B	Packaging (pcs)	Weight (g)
D I	2	DIUQ2A	004321001	5,8	2,1	gR	pink	6	10/500	12
	4	DIUQ4A	004321002	11	2,5	gR	brown	6	10/500	12
	6	DIUQ6A	004321003	18	3,2	gR	green	6	10/500	12
	10	DIUQ10A	004321004	40	3,6	gR	red	8	10/500	13
	16	DIUQ16A	004321005	60	6,3	gR	grey	10	10/500	14
	20	DIUQ20A	004321006	139	7,3	gR	blue	12	10/500	15
	25	DIUQ25A	004321007	205	9,0	gR	yellow	14	10/500	16
D II	2	DIUQ2A	004322001	5,8	2,1	gR	pink	6	5/500	27
	4	DIUQ4A	004322002	11	2,5	gR	brown	6	5/500	27
	6	DIUQ6A	004322003	18	3,2	gR	green	6	5/500	27
	10	DIUQ10A	004322004	40	3,6	gR	red	8	5/500	27
	16	DIUQ16A	004322005	60	6,3	gR	grey	10	5/500	28
	20	DIUQ20A	004322006	139	7,3	gR	blue	12	5/500	29
	25	DIUQ25A	004322007	205	9,0	gR	yellow	14	5/500	30
D III	30	DIUQ30A	004322008	310	10,0	gR	black	14	5/500	30
	35	DIUQ35A	004323001	539	12,0	gR	black	16	5/500	48
	50	DIUQ50A	004323002	1.250	19,0	gR	white	18	5/500	49
D IV	63	DIUQ63A	004323003	1.890	23,0	gR	copper	20	5/500	52
	80	DIUQ80A	004324001	4.200	33,0	gR	silver	5	3/48	105
	100	DIUQ100A	004324002	8.450	51,0	gR	red	7	3/48	110
D V	125	DVUQ125A	004325001	16.000	60,0	gR	yellow	5	10/60	185
	160	DVUQ160A	004325002	24.000	71,0	gR	copper	7	10/60	210
	200	DVUQ200A	004325003	40.000	90,0	gR	blue	9	10/60	215

Dimensions:



DIUQ4A



DIUQ16A



DIUQ35A



DIUQ80A



DVUQ200A



ULTRA QUICK

aR

TYPES
CH, CH-S

RATED VOLTAGE
~690V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
~200 kA
Rated voltage:
~600V, ~690V

Application:

Fuse-links of system C are applied in fuse disconnectors EFD, EFH and PCF.

CH10



CH22



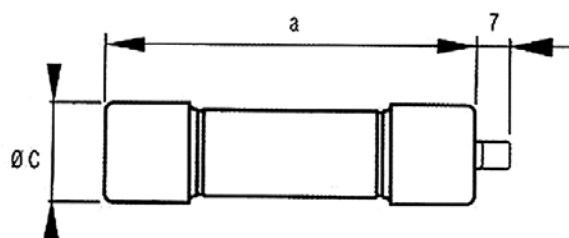
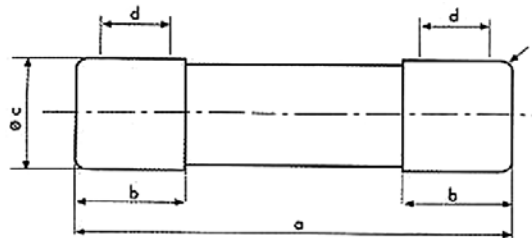
Size	In (A)	Type without indicator	Code No. ETI	Operating I ^t -value (A ² s)	Power dissipation (W)	Type with striker	Code No. ETI	Char.	Pack. (pcs.)	Weight (g)
10x38	6	CH10UQ/6A/600V	002625005	30	1,5	-		aR	10	10
	8	CH10UQ/8A/600V	002625006	50	2	-		aR	10	10
	10	CH10UQ/10A/600V	002625007	70	2,5	-		aR	10	10
	12	CH10UQ/12A/600V	002625008	120	3	-		aR	10	10
	16	CH10UQ/16A/600V	002625009	150	3,5	-		aR	10	10
	20	CH10UQ/20A/600V	002625011	260	4,8	-		aR	10	10
	25	CH10UQ/25A/600V	002625013	290	6	-		aR	10	10
14x51	32	CH10UQ/32A/600V	002625015	600	7,5	-		aR	10	10
	10	CH14UQ/10A/690V	002635007	22	4	CH-S14/10A/690V	002635107	aR	10	22.5
	12	CH14UQ/12A/690V	002635008	50	5	CH-S14/12A/690V	002635108	aR	10	22.5
	16	CH14UQ/16A/690V	002635009	75	5,5	CH-S14/16A/690V	002635109	aR	10	22.5
	20	CH14UQ/20A/690V	002635011	180	6	CH-S14/20A/690V	002635111	aR	10	22.5
	25	CH14UQ/25A/690V	002635013	320	7	CH-S14/25A/690V	002635113	aR	10	22.5
	32	CH14UQ/32A/690V	002635015	600	7,6	CH-S14/32A/690V	002635115	aR	10	22.5
22x58	40	CH14UQ/40A/600V	002635017	750	8	CH-S14/40A/600V	002635117	aR	10	22.5
	50	CH14UQ/50A/500V	002635019	1.800	9	CH-S14/50A/500V	002635119	aR	10	22.5
	20	CH22UQ/20A/690V	002645011	260	5,6	CH-S22/20A/690V	002645111	aR	10	45
	25	CH22UQ/25A/690V	002645013	410	5,6	CH-S22/25A/690V	002645113	aR	10	45
	32	CH22UQ/32A/690V	002645015	605	7	CH-S22/32A/690V	002645115	aR	10	45
	40	CH22UQ/40A/690V	002645017	750	8,5	CH-S22/40A/690V	002645117	aR	10	45
	50	CH22UQ/50A/690V	002645019	1.600	9,5	CH-S22/50A/690V	002645119	aR	10	45
22x58	63	CH22UQ/63A/690V	002645021	3.080	11	CH-S22/63A/690V	002645121	aR	10	45
	80	CH22UQ/80A/600V	002645023	6.600	13,5	CH-S22/80A/600V	002645123	aR	10	45
	100	CH22UQ/100A/500V	002645025	12.500	16	CH-S22/100A/500V	002645125	aR	10	45

CH10
6-25A (700V DC/breaking capacity ~ 50kA)
32A (400V DC/breaking capacity ~ 50kA)

CH14, CH-S 14
700V DC/breaking capacity ~ 50kA

CH22, CH-S 22
500V DC/breaking capacity ~ 50kA

Dimensions: CH and CH-S



Size	a	b	c	d
10x38	38	10,5	10,3	6
14x51	51	13,8	14,3	7,5
22x58	58	16,2	22,3	11

Technical data on page 70

gR

TYPES
CH, CH SU

RATED VOLTAGE
~700V, ~900V

Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~50kA / =8kA Rated voltage: ~700V / =700V L/R=2ms ~900V / =900V L/R=2ms	Fuse-links of system C are applied in fuse disconnectors EFD, EFH and PCF.

Size	In (A)	Code No. "standard contacts"	Code No. "type SU contacts"	Pre-arcing Joule integral I ² t-value (A ² s)	Operating Joule integral I ² t-value (A ² s)	Power dissipation [0,7x I _n] (W)	Power dissipation (W)	Packaging (pcs)	Weight (g)
10x38 700 V	2	002625017	002625300	1,2	1,41	0,44	1,10	10/500	10
	4	002625018	002625301	7,6	28	0,55	1,30		
	6	002625019	002625302	14	63	0,73	1,70		
	8	002625020	002625303	30	98	0,70	1,62		
	10	002625021	002625304	20	73	0,98	2,44	10/380	12
	12	002625022	002625305	48	122	0,82	1,85		
	16	002625023	002625306	97	182	1,06	2,61		
	20	002625024	002625307	164	301	1,27	3,00		
10x38 900 V	2	002625027	002625310	1,2	1,89	0,44	1,10	10/500	10
	4	002625028	002625311	7,6	37	0,55	1,30		
	6	002625029	002625312	14	81	0,73	1,70		
	8	002625030	002625313	30	126	0,70	1,62		
	10	002625031	002625314	20	94	0,98	2,44	10/380	12
	12	002625032	002625315	48	157	0,82	1,85		
	16	002625033	002625316	97	234	1,06	2,61		
	20	002625034	002625317	164	387	1,27	3,00		
	25	002625035	002625318	246	558	1,61	4,00		

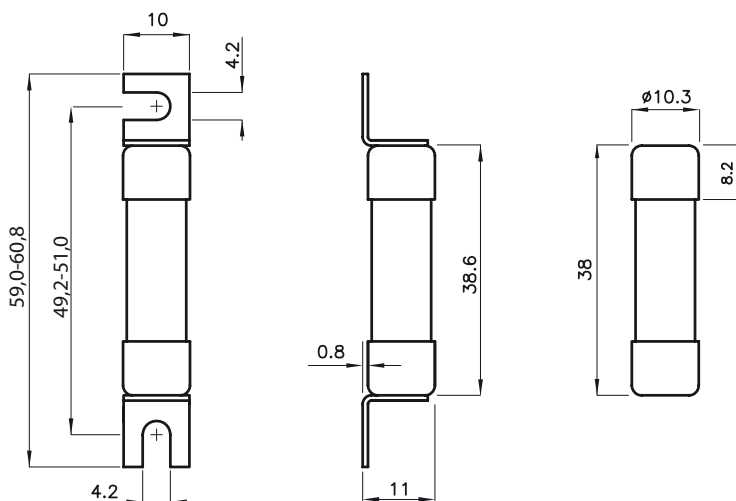


Standard Contacts



Type SU Contacts

Dimensions: CH and CH SU



ULTRA QUICK

gR

TYPES
CH, CH SU

RATED VOLTAGE
= 1200V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
= 30kA
Rated voltage:
= 1200V L/R=2ms

Application:

Fuse-links of system C are applied in fuseholders EFH.



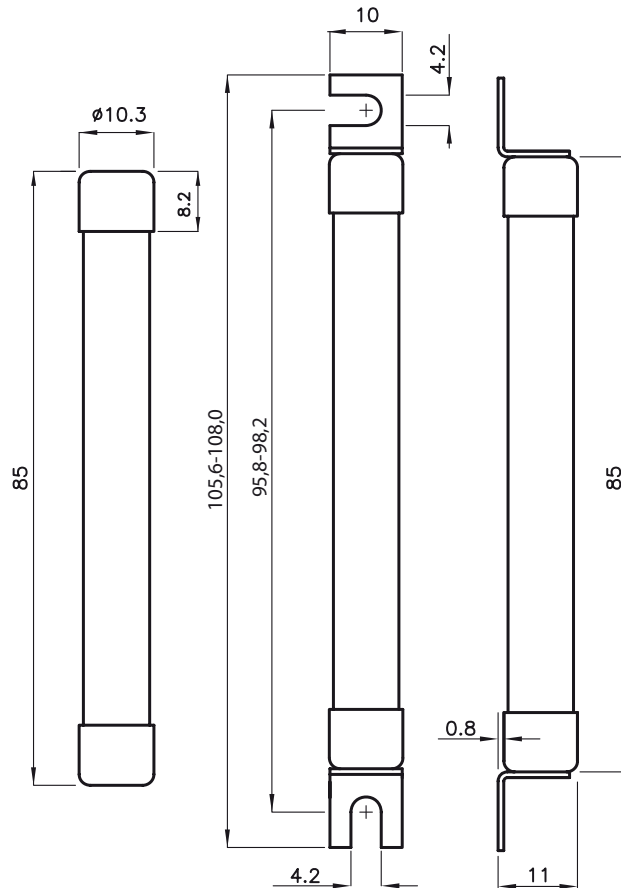
Standard
Contacts

Size	In (A)	Code No. "standard contacts"	Code No. "type SU contacts"	Pre-arcing Joule integral I ² t-value (A ² s)	Operating Joule integral I ² t-value (A ² s)	Power dissipation [0,7 x I _n] (W)	Power dissipation (W)	Packaging (pcs)	Weight (g)
10x85	2	002625220	002625230	1,6	1,7	1,13	2,74	10/210	15
	4	002625221	002625231	12,5	13	1,19	2,96		
	6	002625222	002625232	21	28	1,33	3,20	SU: 10/160	17
	8	002625223	002625233	22	61	1,60	4,19		
	10	002625224	002625234	53	91	1,63	4,20		
	12	002625225	002625235	41	63	1,31	3,47		
	16	002625226	002625236	141	177	1,57	3,65		
	20	002625227	002625237	212	314	1,68	3,85		
25	002625228	002625238	273	438	2,17	5,00			



Type SU
Contacts

Dimensions: CH and CH SU



Technical data on page 72

aR

RATED VOLTAGE
~240V

Technical data:

Standards:
BS88: Part 4
IEC 60269-4

Breaking capacity:
~100kA / = 100kA
Rated voltage:
~240V / = 120V

Application:

Fuse-links of system BS are mounted by screws to busbars.

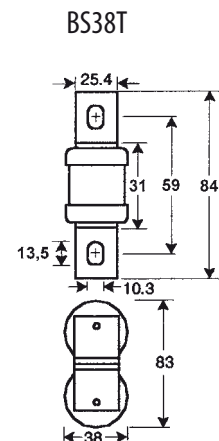
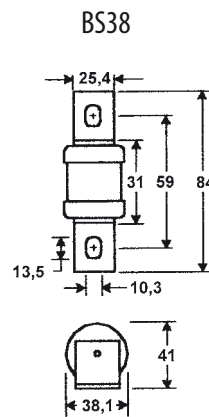
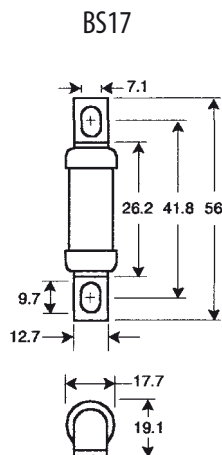
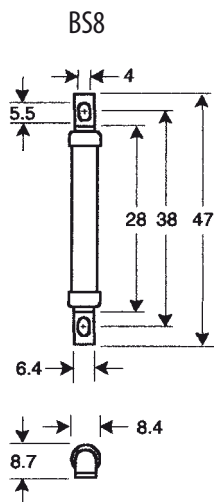
Size	In (A)	Type	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
BS8	6	BS8UQ/38/6A/240V	004750001	9	1	aR	10	5.5
	10	BS8UQ/38/10A/240V	004750002	22	2,5	aR	10	5.5
	12	BS8UQ/38/12A/240V	004750003	32	2,5	aR	10	5.5
	16	BS8UQ/38/16A/240V	004750004	100	2,5	aR	10	5.5
	20	BS8UQ/38/20A/240V	004750005	160	4	aR	10	5.5
BS17	25	BS17UQ/41/25A/240V	004750106	240	1,7	aR	10	31
	32	BS17UQ/41/32A/240V	004750108	420	2,2	aR	10	31
	35	BS17UQ/41/35A/240V	004750109	500	2,3	aR	10	31
	50	BS17UQ/41/50A/240V	004750112	1.200	3,3	aR	10	31
	63	BS17UQ/41/63A/240V	004750115	1.900	4,3	aR	10	31
	80	BS17UQ/41/80A/240V	004750119	3.100	6	aR	10	31
	100	BS17UQ/41/100A/240V	004750122	5.000	7,5	aR	10	31
	125	BS17UQ/41/125A/240V	004750125	5.500	12	aR	10	31
	160	BS17UQ/41/160A/240V	004750128	6.500	19,5	aR	10	31
	180	BS17UQ/41/180A/240V	004750131	8.700	24	aR	10	31
BS38	160	BS38UQ/59/160A/240V	004750227	12.500	12	aR	10	180
	200	BS38UQ/59/200A/240V	004750233	18.500	16,5	aR	10	180
	250	BS38UQ/59/250A/240V	004750236	27.500	20	aR	10	180
	315	BS38UQ/59/315A/240V	004750239	42.500	28,4	aR	10	180
	355	BS38UQ/59/355A/240V	004750242	67.000	30	aR	10	180
	400	BS38UQ/59/400A/240V	004750244	78.000	37	aR	10	180
BS38T	450	BS38UQ/59/450A/240V	004750245	96.000	44,5	aR	10	180
	400	BS38TUQ/59/400A/240V	004750344	88.000	30	aR	5	370
	500	BS38TUQ/59/500A/240V	004750346	145.000	38	aR	5	370
	630	BS38TUQ/59/630A/240V	004750349	214.000	50	aR	5	370
	710	BS38TUQ/59/710A/240V	004750352	290.000	62	aR	5	370
800	BS38TUQ/59/800A/240V	004750353	335.000	78	aR	5	370	

Note: brand name Italtweber



ULTRA QUICK

Dimensions:



aR

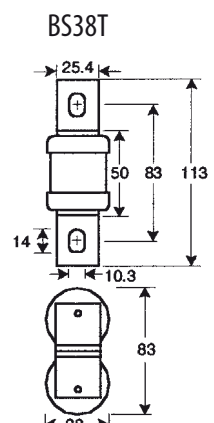
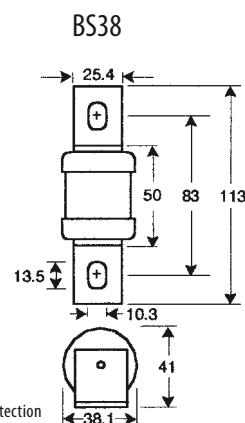
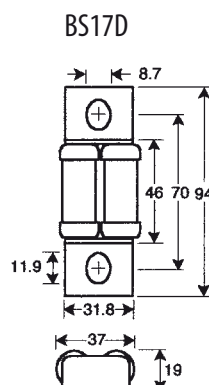
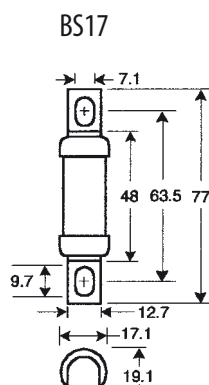
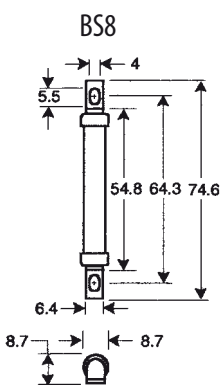
RATED VOLTAGE
~690V

Technical data:			Application:
Standards: BS88: Part 4 IEC 60269-4	Breaking capacity: ~100kA / =100kA Rated voltage: ~690V / =350V		Fuse-links of system BS are mounted by screws to busbars.

Size	In (A)	Type	Code No.	Operating I ^t -value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
BS8	6	BS8UQ/64/6A/690V	004750501	12	2	aR	10	8
	10	BS8UQ/64/10A/690V	004750502	48	3	aR	10	8
	12	BS8UQ/64/12A/690V	004750503	65	3	aR	10	8
	16	BS8UQ/64/16A/690V	004750504	110	7	aR	10	8
	20	BS8UQ/64/20A/690V	004750505	220	7	aR	10	8
BS17	25	BS17UQ/63/25A/690V	004750606	250	5,8	aR	10	42
	32	BS17UQ/63/32A/690V	004750608	350	6,8	aR	10	42
	35	BS17UQ/63/35A/690V	004750609	200	7,2	aR	10	42
	40	BS17UQ/63/40A/690V	004750610	700	8	aR	10	42
	45	BS17UQ/63/45A/690V	004750611	900	8,5	aR	10	42
	50	BS17UQ/63/50A/690V	004750612	1.300	9,5	aR	10	42
	56	BS17UQ/63/56A/690V	004750613	1.450	10,4	aR	10	42
	63	BS17UQ/63/63A/690V	004750615	2.100	11,5	aR	10	42
	71	BS17UQ/63/71A/690V	004750617	2.800	13	aR	10	42
	80	BS17UQ/63/80A/690V	004750619	3.500	14,5	aR	10	42
BS17D	90	BS17DUQ/70/90A/690V	004750721	3.600	16,6	aR	5	90
	110	BS17DUQ/70/110A/690V	004750723	5.900	21	aR	5	90
	120	BS17DUQ/70/120A/690V	004750724	7.400	22	aR	5	90
	140	BS17DUQ/70/140A/690V	004750726	11.000	24,5	aR	5	90
	160	BS17DUQ/70/160A/690V	004750728	14.500	28	aR	5	90
BS38	160	BS38UQ/83/160A/690V	004750628	14.500	27,7	aR	5	240
	180	BS38UQ/83/180A/690V	004750631	23.000	29	aR	5	240
	200	BS38UQ/83/200A/690V	004750633	30.000	31	aR	5	240
	250	BS38UQ/83/250A/690V	004750636	53.000	37	aR	5	240
	315	BS38UQ/83/315A/690V	004750640	97.000	47	aR	5	240
	350	BS38UQ/83/350A/690V	004750642	140.000	57	aR	5	240
BS38T	200	BS38TUQ/83/200A/690V	004750933	21.000	32	aR	5	450
	225	BS38TUQ/83/225A/690V	004750935	30.000	39	aR	5	450
	315	BS38TUQ/83/315A/690V	004750939	75.000	48	aR	5	450
	355	BS38TUQ/83/355A/690V	004750943	110.000	56	aR	5	450
	400	BS38TUQ/83/400A/690V	004750944	147.000	60	aR	5	450
	450	BS38TUQ/83/450A/690V	004750945	210.000	65	aR	5	450
	500	BS38TUQ/83/500A/690V	004750946	277.000	68	aR	5	450
	630	BS38TUQ/83/630A/690V	004750950	520.000	83	aR	5	450
700	BS38TUQ/83/700A/690V	004750952	600.000	94	aR	5	450	

Note: brand name Italtweber

Dimensions:



For more information visit: www.eti.si/Electrotechnical_products/Semiconductor_protection

Technical data on page 80

aR/gR

TYPES
M

RATED VOLTAGE
~690V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
~50kA
Rated voltage:
~690V

Application:

Fuse-links type M are applied in fuse base
(for example) PK.

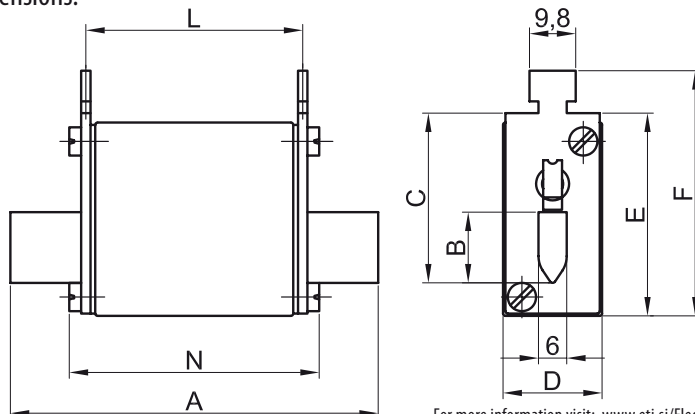
Size	In (A)	Type (visual indicator with grip for microswitch NVS 5)	Code No.	Operating I _t -value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
00C	6	M00CUQU-N/6A/690V	004331018	19	2,8	gR	3/120	180
	10	M00CUQU-N/10A/690V	004331019	62	3,3	gR	3/120	180
	16	M00CUQU-N/16A/690V	004331020	154	4,1	gR	3/120	180
	20	M00CUQU-N/20A/690V	004331021	290	5	gR	3/120	180
	25	M00CUQU-N/25A/690V	004331022	590	5,8	gR	3/120	180
	35	M00CUQU-N/35A/690V	004331023	1.160	8	gR	3/120	180
	40	M00CUQU-N/40A/690V	004331024	1.500	11	gR	3/120	180
	50	M00CUQU-N/50A/690V	004331025	2.370	16	gR	3/120	180
	63	M00CUQU-N/63A/690V	004331026	4.650	20	gR	3/120	180
	80	M00CUQU-N/80A/690V	004331027	5.350	25	gR	3/120	180
	100	M00CUQU-N/100A/690V	004331028	10.500	32	gR	3/120	180
	125	M00CUQU-N/125A/690V	004331029	21.300	40	gR	3/120	180
00	6	M00UQU-N/6A/690V	004331201	18	2,8	gR	3/90	180
	10	M00UQU-N/10A/690V	004331202	60	3,3	gR	3/90	180
	16	M00UQU-N/16A/690V	004331203	170	4,1	gR	3/90	180
	20	M00UQU-N/20A/690V	004331204	250	5	gR	3/90	180
	25	M00UQU-N/25A/690V	004331205	460	5,8	gR	3/90	180
	35	M00UQU-N/35A/690V	004331214	1.000	8	gR	3/90	180
	40	M00UQU-N/40A/690V	004331208	1.300	11	gR	3/90	180
	50	M00UQU-N/50A/690V	004331209	1.500	16	gR	3/90	180
	63	M00UQU-N/63A/690V	004331210	3.000	20	gR	3/90	180
	80	M00UQU-N/80A/690V	004331211	5.300	25	gR	3/90	180
	100	M00UQU-N/100A/690V	004331212	9.000	32	gR	3/90	180
	125	M00UQU-N/125A/690V	004331213	16.000	40	gR	3/90	180
160	M00UQU-N/160A/690V	004331215	24.000	44	aR	3/90	180	
0	6	M0UQU-N/6A/690V	004332201	18	2,8	gR	3/45	320
	10	M0UQU-N/10A/690V	004332202	60	3,3	gR	3/45	320
	16	M0UQU-N/16A/690V	004332203	170	4,1	gR	3/45	320
	20	M0UQU-N/20A/690V	004332204	250	5	gR	3/45	320
	25	M0UQU-N/25A/690V	004332205	460	5,8	gR	3/45	320
	35	M0UQU-N/35A/690V	004332216	1.000	8	gR	3/45	320
	40	M0UQU-N/40A/690V	004332208	1.300	11	gR	3/45	320
	50	M0UQU-N/50A/690V	004332209	1.500	16	gR	3/45	320
	63	M0UQU-N/63A/690V	004332210	3.000	20	gR	3/45	320
	80	M0UQU-N/80A/690V	004332211	5.300	25	gR	3/45	320
	100	M0UQU-N/100A/690V	004332212	9.000	32	gR	3/45	320
	125	M0UQU-N/125A/690V	004332213	16.000	40	gR	3/45	320
160	M0UQU-N/160A/690V	004332214	24.000	44	aR	3/45	320	

M00 UQU-N/160A/690V



ULTRA QUICK

Dimensions:



Size	A	B	C	D	E	F	L	N
00C	80	15	35	21	40	50,5	47	54
00	80	15	35	28	40	50,5	47	54
0	125	15	35	28	47	56,5	66	66

For more information visit: www.eti.si/Electrotechnical_products/Semiconductor_protection

aR/gR

TYPES
M

RATED VOLTAGE
~690V

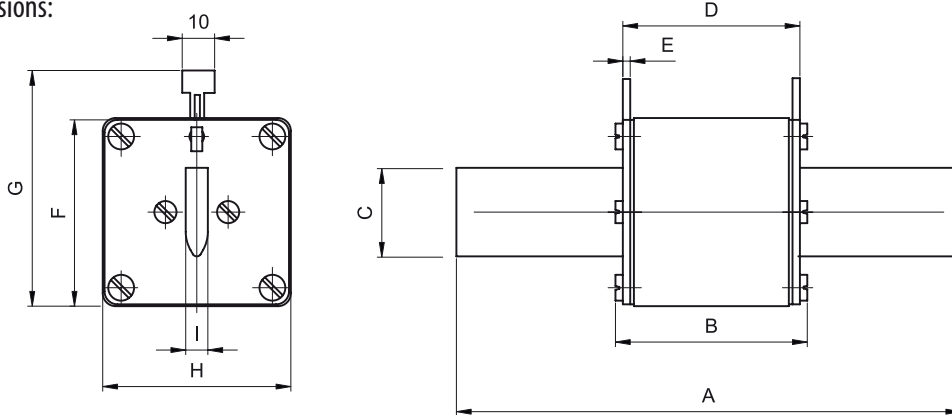
Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~50kA Rated voltage: ~690V	Fuse-links type M are applied in fuse base (for example) PK.

M2UQU-N/400A/690V



Size	In (A)	Type (visual indicator with grip for microswitch NVS 5)	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
1	35	M1UQU-N/35A/690V	004333217	1.000	8	gR	3/24	450
	50	M1UQU-N/50A/690V	004333208	1.500	16	gR	3/24	450
	63	M1UQU-N/63A/690V	004333209	3.000	20	gR	3/24	450
	80	M1UQU-N/80A/690V	004333210	5.300	25	gR	3/24	450
	100	M1UQU-N/100A/690V	004333211	9.000	32	gR	3/24	450
	125	M1UQU-N/125A/690V	004333212	16.000	40	gR	3/24	450
	160	M1UQU-N/160A/690V	004333213	24.000	44	aR	3/24	450
	200	M1UQU-N/200A/690V	004333214	40.000	58	aR	3/24	450
	224	M1UQU-N/224A/690V	004333215	52.000	60	aR	3/24	450
	250	M1UQU-N/250A/690V	004333216	65.000	63	aR	3/24	450
2	80	M2UQU-N/80A/690V	004334209	5.300	25	gR	3/15	680
	100	M2UQU-N/100A/690V	004334210	9.000	32	gR	3/15	680
	125	M2UQU-N/125A/690V	004334211	16.000	40	gR	3/15	680
	160	M2UQU-N/160A/690V	004334213	24.000	44	aR	3/15	680
	200	M2UQU-N/200A/690V	004334214	40.000	58	aR	3/15	680
	250	M2UQU-N/250A/690V	004334216	60.000	63	aR	3/15	680
	280	M2UQU-N/280A/690V	004334218	100.000	75	aR	3/15	680
	300	M2UQU-N/300A/690V	004334219	140.000	85	aR	3/15	680
	315	M2UQU-N/315A/690V	004334220	175.000	95	aR	3/15	680
	355	M2UQU-N/355A/690V	004334221	220.000	100	aR	3/15	680
3	400	M2UQU-N/400A/690V	004334222	270.000	105	aR	3/15	680
	250	M3UQU-N/250A/690V	004335207	60.000	63	aR	3/12	880
	280	M3UQU-N/280A/690V	004335208	100.000	75	aR	3/12	880
	315	M3UQU-N/315A/690V	004335209	175.000	95	aR	3/12	880
	355	M3UQU-N/355A/690V	004335210	300.000	100	aR	3/12	880
	400	M3UQU-N/400A/690V	004335211	441.700	105	aR	3/12	880
	450	M3UQU-N/450A/690V	004335213	530.000	115	aR	3/12	880
	500	M3UQU-N/500A/690V	004335214	620.000	130	aR	3/12	880
	560	M3UQU-N/560A/690V	004335215	730.000	135	aR	3/12	880
	630	M3UQU-N/630A/690V	004335216	850.000	140	aR	3/12	880

Dimensions:



Size	A	B	C	D	E	F	G	H	I
1	135	75	20	68	2	40	61,5	46	6
2	150	75	26	68	2	48	71,5	57	6
3	150	75	36	68	2	60	81,5	69	6

Technical data on page 80

aR/gR

TYPES
S80mm/97mm

RATED VOLTAGE
~690V

Technical data:			Application:
Standards: IEC 60269-4	Breaking capacity: ~50kA Rated voltage: ~690V		Fuse-links type S of size 00C, 00 and 0 are applied in fuse base US00-1/80 and mounted by screws to busbars.

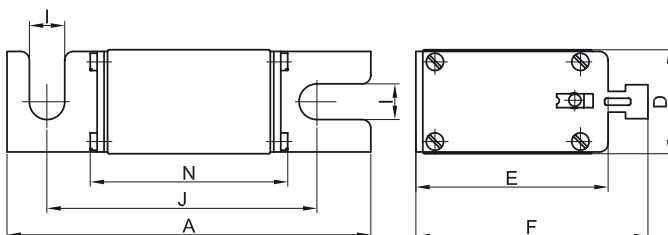
Size	In (A)	Type (visual indicator with grip for microswitch NVS 5)	Code No.	Operating I _t -value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
00C	6	S00CUQU/80/6A/690V	004331003	19	2,8	aR	3/120	180
	10	S00CUQU/80/10A/690V	004331004	62	3,3	aR	3/120	180
	16	S00CUQU/80/16A/690V	004331005	154	4,1	aR	3/120	180
	20	S00CUQU/80/20A/690V	004331006	290	5	aR	3/120	180
	25	S00CUQU/80/25A/690V	004331007	590	5,8	aR	3/120	180
	35	S00CUQU/80/35A/690V	004331008	1.160	8	aR	3/120	180
	40	S00CUQU/80/40A/690V	004331009	1.500	11	aR	3/120	180
	50	S00CUQU/80/50A/690V	004331010	2.370	16	aR	3/120	180
	63	S00CUQU/80/63A/690V	004331011	4.650	20	aR	3/120	180
	80	S00CUQU/80/80A/690V	004331012	5.350	25	aR	3/120	180
	100	S00CUQU/80/100A/690V	004331013	10.500	32	aR	3/120	180
	125	S00CUQU/80/125A/690V	004331014	21.300	40	aR	3/120	180
00	6	S00UQU/80/6A/690V	004331102	18	2,8	gR	3/90	180
	10	S00UQU/80/10A/690V	004331103	60	3,3	gR	3/90	180
	16	S00UQU/80/16A/690V	004331104	170	4,1	gR	3/90	180
	20	S00UQU/80/20A/690V	004331105	250	5	gR	3/90	180
	25	S00UQU/80/25A/690V	004331106	460	5,8	gR	3/90	180
	35	S00UQU/80/35A/690V	004331116	1.000	8	gR	3/90	180
	40	S00UQU/80/40A/690V	004331110	1.300	11	gR	3/90	180
	50	S00UQU/80/50A/690V	004331111	1.500	16	gR	3/90	180
	63	S00UQU/80/63A/690V	004331112	3.000	20	gR	3/90	180
	80	S00UQU/80/80A/690V	004331113	5.300	25	gR	3/90	180
	100	S00UQU/80/100A/690V	004331114	9.000	32	gR	3/90	180
	125	S00UQU/80/125A/690V	004331115	16.000	40	gR	3/90	180
160	S00UQU/80/160A/690V	004331117	24.000	44	aR	3/90	180	
0	6	S0UQU/97/6A/690V	004332101	18	2,8	gR	3/45	320
	10	S0UQU/97/10A/690V	004332102	60	3,3	gR	3/45	320
	16	S0UQU/97/16A/690V	004332103	170	4,1	gR	3/45	320
	20	S0UQU/97/20A/690V	004332104	250	5	gR	3/45	320
	25	S0UQU/97/25A/690V	004332105	460	5,8	gR	3/45	320
	35	S0UQU/97/35A/690V	004332116	1.000	8	gR	3/45	320
	40	S0UQU/97/40A/690V	004332108	1.300	11	gR	3/45	320
	50	S0UQU/97/50A/690V	004332109	1.500	16	gR	3/45	320
	63	S0UQU/97/63A/690V	004332110	3.000	20	gR	3/45	320
	80	S0UQU/97/80A/690V	004332111	5.300	25	gR	3/45	320
	100	S0UQU/97/100A/690V	004332112	9.000	32	gR	3/45	320
	125	S0UQU/97/125A/690V	004332113	16.000	40	gR	3/45	320
160	S0UQU/97/160A/690V	004332114	24.000	44	aR	3/45	320	

S00UQU/80/160A/690V



ULTRA QUICK

Dimensions:



Size	A	D	E	F	I	J	N
00C	105	21	48	58	8,5	80	54
00	105	27	48	58	11,5	80	54
0	121	27	48	58	11,5	97	69

aR/gR

TYPES
S110mm

RATED VOLTAGE
~690V

Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~50kA Rated voltage: ~690V	Fuse-links type S 110mm of size 1, 2, 3 are applied in universal fuse base US1..3-1/80-110 and mounted by screws to busbars.

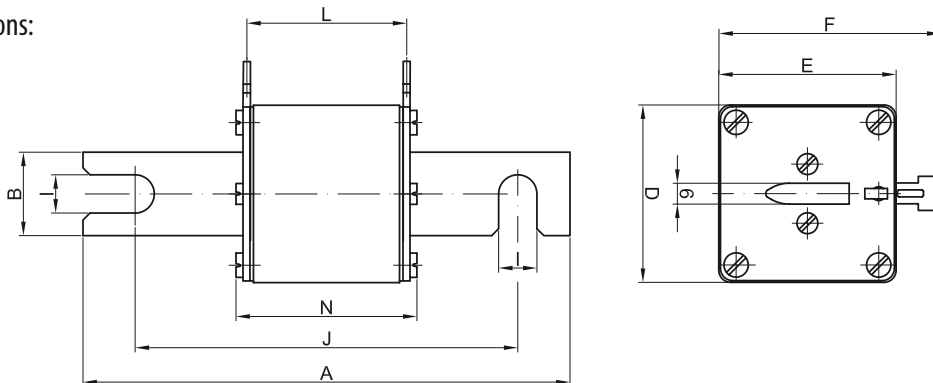
S2UQU/110/0A/690V



Size	In (A)	Type (visual indicator with grip for microswitch NVS S)	Code No.	Operating I _t -value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
1	35	S1UQU/110/35A/690V	004333117	1.000	8	gR	3/24	450
	50	S1UQU/110/50A/690V	004333108	1.500	16	gR	3/24	450
	63	S1UQU/110/63A/690V	004333109	3.000	20	gR	3/24	450
	80	S1UQU/110/80A/690V	004333110	5.300	25	gR	3/24	450
	100	S1UQU/110/100A/690V	004333111	9.000	32	gR	3/24	450
	125	S1UQU/110/125A/690V	004333112	16.000	40	gR	3/24	450
	160	S1UQU/110/160A/690V	004333113	24.000	44	aR	3/24	450
	200	S1UQU/110/200A/690V	004333114	40.000	58	aR	3/24	450
	224	S1UQU/110/224A/690V	004333115	52.000	60	aR	3/24	450
	250	S1UQU/110/250A/690V	004333116	65.000	63	aR	3/24	450
2	80	S2UQU/110/80A/690V	004334109	5.300	25	gR	3/15	680
	100	S2UQU/110/100A/690V	004334110	9.000	32	gR	3/15	680
	125	S2UQU/110/125A/690V	004334111	16.000	40	gR	3/15	680
	160	S2UQU/110/160A/690V	004334112	24.000	44	aR	3/15	680
	200	S2UQU/110/200A/690V	004334113	40.000	58	aR	3/15	680
	250	S2UQU/110/250A/690V	004334115	60.000	63	aR	3/15	680
	280	S2UQU/110/280A/690V	004334116	100.000	75	aR	3/15	680
	300	S2UQU/110/300A/690V	004334121	140.000	85	aR	3/15	680
	315	S2UQU/110/315A/690V	004334117	175.000	95	aR	3/15	680
	355	S2UQU/110/355A/690V	004334118	220.000	100	aR	3/15	680
3	400	S2UQU/110/400A/690V	004334119	270.000	105	aR	3/15	680
	250	S3UQU/110/250A/690V	004335117	60.000	63	aR	3/12	880
	280	S3UQU/110/280A/690V	004335108	100.000	75	aR	3/12	880
	315	S3UQU/110/315A/690V	004335109	175.000	95	aR	3/12	880
	355	S3UQU/110/355A/690V	004335110	300.000	100	aR	3/12	880
	400	S3UQU/110/400A/690V	004335111	441.700	105	aR	3/12	880
	450	S3UQU/110/450A/690V	004335113	530.000	115	aR	3/12	880
	500	S3UQU/110/500A/690V	004335114	620.000	130	aR	3/12	880
	560	S3UQU/110/560A/690V	004335115	730.000	135	aR	3/12	880
	630	S3UQU/110/630A/690V	004335116	850.000	140	aR	3/12	880

Not possible for mounting NVS5 for size 1.

Dimensions:



Size	A	B	D	E	F	I	J	L	N
1	140	26	46	46	57,5	11,5	110	66	75
2	140	26	57	57	71,5	11,5	110	66	75
3	140	36	69	69	81,5	11,5	110	66	75

Technical data on page 83

aR	TYPES	RATED VOLTAGE
	M	~690V

Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~200kA Rated voltage: ~690V	Fuse-links type M are applied in fuse base (for example PK).

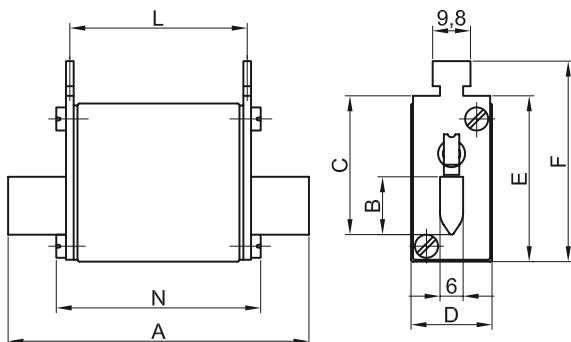
M00UQ01/160A/690V



Size	In (A)	Type (visual indicator with grip for microswitch NVS 5)	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
00	10	M00UQ01/10A/690V	004371204	23	3	aR	3/72	140
	16	M00UQ01/16A/690V	004371205	46	4	aR	3/72	140
	20	M00UQ01/20A/690V	004371206	95	5	aR	3/72	140
	25	M00UQ01/25A/690V	004371207	165	6	aR	3/72	140
	32	M00UQ01/32A/690V	004371208	290	7	aR	3/72	140
	35	M00UQ01/35A/690V	004371209	400	8	aR	3/72	140
	40	M00UQ01/40A/690V	004371210	640	9	aR	3/72	140
	50	M00UQ01/50A/690V	004371211	1.000	10	aR	3/72	140
	63	M00UQ01/63A/690V	004371212	1.800	12,3	aR	3/72	140
	80	M00UQ01/80A/690V	004371213	2.800	16,3	aR	3/72	140
	100	M00UQ01/100A/690V	004371214	4.600	20	aR	3/72	140
	125	M00UQ01/125A/690V	004371215	8.000	26,9	aR	3/72	140
	160	M00UQ01/160A/690V	004371216	16.500	31,6	aR	3/72	140
	200*	M00UQ02/200A/690V	004741217	22.000	46	aR	3/72	140
	250*	M00UQ02/250A/690V	004741219	44.000	49	aR	3/72	140
	315	M00UQ01/315A/690V	004371219	80.000	54	aR	3/72	140

*Technical data on page 111.

Dimensions:



Size	A	B	C	D	E	F	L	N
00	78	15	35	30	42	51	48	52

remember

Motor drives: Servo drive



Servo drive for AC servo motor (CNC machine)

aR

TYPES
M

RATED VOLTAGE
~690V

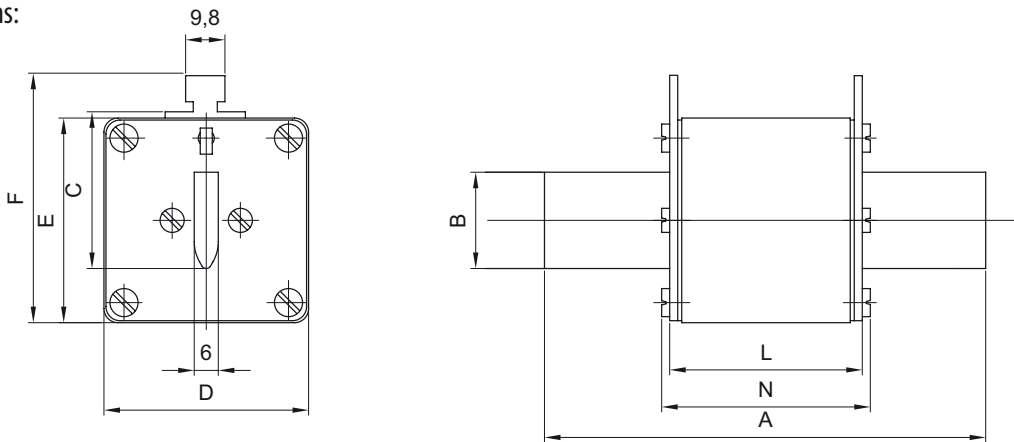
Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~200kA Rated voltage: ~690V	Fuse-link type M are applied in fuse base PK

M1UQ02/160A/690V



Size	In (A)	Type (visual indicator)	Code No.	Operating I ^t -value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs.)	Weight (g)
1	63	M1UQ02/63A/690V	004743212	1.200	16	aR	3/24	500
	80	M1UQ02/80A/690V	004743213	1.800	21	aR	3/24	500
	100	M1UQ02/100A/690V	004743214	2.500	27	aR	3/24	500
	125	M1UQ02/125A/690V	004743215	4.600	32	aR	3/24	500
	160	M1UQ02/160A/690V	004743216	8.400	36	aR	3/24	500
	200	M1UQ02/200A/690V	004743217	14.000	46	aR	3/24	500
	250	M1UQ02/250A/690V	004743219	26.000	51	aR	3/24	500
	315	M1UQ02/315A/690V	004743221	42.000	66	aR	3/24	500
	350	M1UQ02/350A/690V	004743222	54.000	69	aR	3/24	500
	400	M1UQ02/400A/690V	004743223	98.000	80	aR	3/24	500
2	250	M2UQ02/250A/690V	004744219	21.500	53	aR	1/16	650
	315	M2UQ02/315A/690V	004744221	33.800	68	aR	1/16	650
	350	M2UQ02/350A/690V	004744222	48.900	71	aR	1/16	650
	400	M2UQ02/400A/690V	004744223	85.000	75	aR	1/16	650
	450	M2UQ02/450A/690V	004744225	120.000	80	aR	1/16	650
	500	M2UQ02/500A/690V	004744226	150.000	91	aR	1/16	650
3	550	M2UQ02/550A/690V	004744227	200.000	100	aR	1/16	650
	630	M2UQ02/630A/690V	004744228	305.000	120	aR	1/16	650
	400	M3UQ02/400A/690V	004745223	69.000	81	aR	3/15	850
	450	M3UQ02/450A/690V	004745225	96.000	89	aR	3/15	850
	500	M3UQ02/500A/690V	004745226	127.000	110	aR	3/15	850
	630	M3UQ02/630A/690V	004745228	225.000	121	aR	3/15	850
	710	M3UQ02/710A/690V	004745229	320.000	130	aR	3/15	850
	800	M3UQ02/800A/690V	004745230	525.000	145	aR	3/15	850
	900	M3UQ02/900A/690V	004745231	900.000	160	aR	3/15	850
1000	M3UQ02/1000A/690V	004745232	1.000.000	170	aR	3/15	850	
1250	M3UQ02/1250A/690V	004745233	2.000.000	190	aR	3/15	850	

Dimensions:



Size	A	B	C	D	E	F	L	N
1	135	24	40	46	52	62	65	72
2	150	30	48	54	61	71	65	72
3	150	37	60	74	74	84	65	72

Technical data on page 83

aR	TYPES	RATED VOLTAGE
	S80mm	~690V

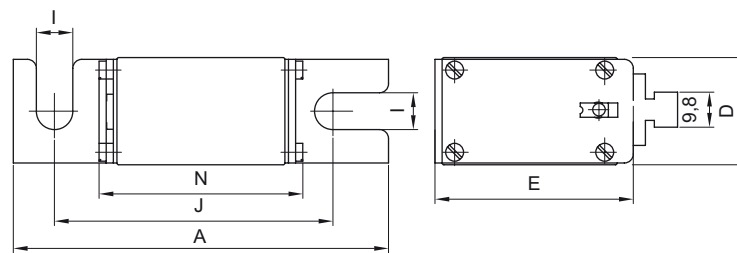
Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~200kA Rated voltage: ~690V	Fuse-links type S of size 00C and 00 are applied in fuse base US00-1/80 and mounted by screws to busbars.

S00UQ01/80/350A/690V



Size	In (A)	Type (visual indicator with grip for microswitch MVS S)	Code No.	Operating Pt-value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
00C	10	S00CUQ01/80/10A/690V	004371104	23	3	aR	3/54	150
	16	S00CUQ01/80/16A/690V	004371105	46	4	aR	3/54	150
	20	S00CUQ01/80/20A/690V	004371106	95	5	aR	3/54	150
	25	S00CUQ01/80/25A/690V	004371107	165	6	aR	3/54	150
	32	S00CUQ01/80/32A/690V	004371108	290	7	aR	3/54	150
	35	S00CUQ01/80/35A/690V	004371109	400	8	aR	3/54	150
	40	S00CUQ01/80/40A/690V	004371110	640	9	aR	3/54	150
	50	S00CUQ01/80/50A/690V	004371111	1.000	10	aR	3/54	150
	63	S00CUQ01/80/63A/690V	004371112	1.800	12,3	aR	3/54	150
	80	S00CUQ01/80/80A/690V	004371113	2.800	16,3	aR	3/54	150
	100	S00CUQ01/80/100A/690V	004371114	4.600	20	aR	3/54	150
	125	S00CUQ01/80/125A/690V	004371115	8.000	26,9	aR	3/54	150
	160	S00CUQ01/80/160A/690V	004371116	16.500	31,6	aR	3/54	150
	200	S00CUQ01/80/200A/690V	004371117	23.000	38,7	aR	3/54	150
	250	S00CUQ01/80/250A/690V	004371119	46.000	43,8	aR	3/54	150
315	S00CUQ01/80/315A/690V	004371121	80.000	54	aR	3/54	150	
00	350	S00UQ01/80/350A/690V	004371122	100.000	60	aR	3/54	150
	400	S00UQ01/80/400A/500V	004371123	120.000	70	aR	3/54	150

Dimensions:



Size	A	D	E	I	J	N
00C	101	21	40	8,5	78	54
00	105	30	51	10,3	78	56

remember

»Only fuses for semiconductor protection give us reliable protection for motor drives« said designer with more than 20 years work experience!



For more information visit: www.eti.si/Electrotechnical_products/Semiconductor_protection

aR

YPES
S80mm

RATED VOLTAGE
~690V

Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~200kA Rated voltage: ~690V	Fuse-links type S 80mm of size 1, 2, 3 are applied in universal fuse base US1..3-1/80-110 and mounted by screws to busbars.

S1UQ01/80/350A/690V



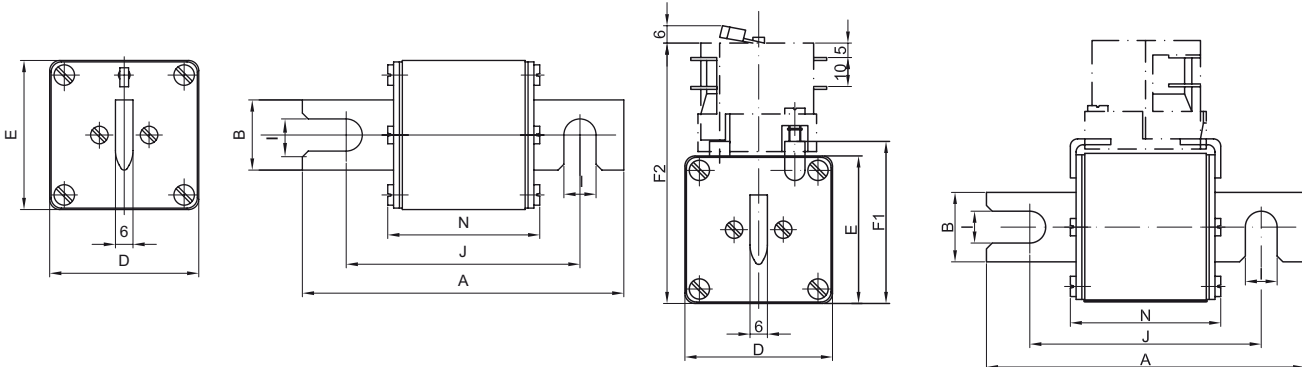
S1MUQ01/80/350A/690V



Size	In (A)	Type with visual indicator	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Type with centre trip indicator for microswitch MK		Code No.	Char.	Pack. (pcs)	Weight (g)
1	80	S1UQ01/80/80A/690V	004383113	2.300	15,6	S1MUQ01/80/80A/690V	004383713	aR	1/26	500	
	100	S1UQ01/80/100A/690V	004383114	4.600	20	S1MUQ01/80/100A/690V	004383714	aR	1/26	500	
	125	S1UQ01/80/125A/690V	004383115	6.600	25	S1MUQ01/80/125A/690V	004383715	aR	1/26	500	
	160	S1UQ01/80/160A/690V	004383116	10.000	32,2	S1MUQ01/80/160A/690V	004383716	aR	1/26	500	
	200	S1UQ01/80/200A/690V	004383117	18.000	39,4	S1MUQ01/80/200A/690V	004383717	aR	1/26	500	
	250	S1UQ01/80/250A/690V	004383119	32.000	49,4	S1MUQ01/80/250A/690V	004383719	aR	1/26	500	
	315	S1UQ01/80/315A/690V	004383121	58.000	60	S1MUQ01/80/315A/690V	004383721	aR	1/26	500	
	350	S1UQ01/80/350A/690V	004383122	78.000	63	S1MUQ01/80/350A/690V	004383722	aR	1/26	500	
	400	S1UQ01/80/400A/690V	004383123	110.000	66	S1MUQ01/80/400A/690V	004383723	aR	1/26	500	
	450	S1UQ01/80/450A/690V	004383125	155.000	72	S1MUQ01/80/450A/690V	004383725	aR	1/26	500	
	500	S1UQ01/80/500A/690V	004383126	200.000	73	S1MUQ01/80/500A/690V	004383726	aR	1/26	500	
	550	S1UQ01/80/550A/690V	004383127	250.000	80	S1MUQ01/80/550A/690V	004383727	aR	1/26	500	
	630	S1UQ01/80/630A/690V	004383128	330.000	86	S1MUQ01/80/630A/690V	004383728	aR	1/26	500	
	710*	S1UQ01/80/710A/690V	004383129	470.000	92	S1MUQ02/80/710A/690V	004743735	aR	1/26	500	
2	400	S2UQ01/80/400A/690V	004384123	85.000	70	S2MUQ01/80/400A/690V	004384723	aR	1/16	650	
	450	S2UQ01/80/450A/690V	004384125	125.000	76	S2MUQ01/80/450A/690V	004384725	aR	1/16	650	
	500	S2UQ01/80/500A/690V	004384126	165.000	80	S2MUQ01/80/500A/690V	004384726	aR	1/16	650	
	550	S2UQ01/80/550A/690V	004384127	220.000	82	S2MUQ01/80/550A/690V	004384727	aR	1/16	650	
	630	S2UQ01/80/630A/690V	004384128	310.000	85	S2MUQ01/80/630A/690V	004384728	aR	1/16	650	
	710	S2UQ01/80/710A/690V	004384129	460.000	91	S2MUQ01/80/710A/690V	004384729	aR	1/16	650	
	800	S2UQ01/80/800A/690V	004384130	720.000	95	S2MUQ01/80/800A/690V	004384730	aR	1/16	650	
	900*	S2UQ01/80/900A/690V	004384131	920.000	115	S2MUQ02/80/900A/690V	004744735	aR	1/16	650	
	1000*	S2UQ01/80/1000A/690V	004384132	1.300.000	124	S2MUQ02/80/1000A/690V	004744736	aR	1/16	650	
	3	630	S3UQ01/80/630A/690V	004385128	260.000	102	S3MUQ01/80/630A/690V	004385728	aR	1/15	850
710		S3UQ01/80/710A/690V	004385129	330.000	109	S3MUQ01/80/710A/690V	004385729	aR	1/15	850	
800		S3UQ01/80/800A/690V	004385130	500.000	117	S3MUQ01/80/800A/690V	004385730	aR	1/15	850	
900		S3UQ01/80/900A/690V	004385131	920.000	115	S3MUQ01/80/900A/690V	004385731	aR	1/15	850	
1000		S3UQ01/80/1000A/690V	004385132	1.000.000	131	S3MUQ01/80/1000A/690V	004385732	aR	1/15	850	
1100		S3UQ01/80/1100A/690V	004385135	1.500.000	140	S3MUQ01/80/1100A/690V	004385734	aR	1/15	850	
1250		S3UQ01/80/1250A/690V	004385133	2.300.000	152	S3MUQ01/80/1250A/690V	004385733	aR	1/15	850	
1400*		S3UQ01/80/1400A/690V	004385134	2.600.000	156	S3MUQ01/80/1400A/690V	004745735	aR	1/15	850	

Dimensions:

*Technical data on page 112.



Size	A	B	D	E	F1	F2	I	J	N
1	110	24	51	51	56	90	11	80	52
2	110	30	60	60	65	99	11	80	52
3	110	37	75	75	80	114	11	80	52

For more information visit: [www.eti.si/Electrotechnical products/Semiconductor protection](http://www.eti.si/Electrotechnical%20products/Semiconductor%20protection)

Technical data on page 83

aR

TYPES
S110mm

RATED VOLTAGE
~690V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
~200kA
Rated voltage:
~690V

Application:

Fuse-links type S 110mm of size 1, 2, 3 are applied in universal fuse base US1..3-1/80-110 and mounted by screws to busbars.

Size	In (A)	Type with visual indicator	Code No.	Operating Pt-value (A ² s)	Power dissipation (W)	Type with centre trip indicator for microswitch MK	Code No.	Char.	Pack. (pcs)	Weight (g)
1	80	S1UQ01/110/80A/690V	004393113	2.300	15,6	S1MUQ01/110/80A/690V	004393713	aR	1/26	500
	100	S1UQ01/110/100A/690V	004393114	4.600	20	S1MUQ01/110/100A/690V	004393714	aR	1/26	500
	125	S1UQ01/110/125A/690V	004393115	6.600	25	S1MUQ01/110/125A/690V	004393715	aR	1/26	500
	160	S1UQ01/110/160A/690V	004393116	10.000	32,2	S1MUQ01/110/160A/690V	004393716	aR	1/26	500
	200	S1UQ01/110/200A/690V	004393117	18.000	39,4	S1MUQ01/110/200A/690V	004393717	aR	1/26	500
	250	S1UQ01/110/250A/690V	004393119	32.000	49,4	S1MUQ01/110/250A/690V	004393719	aR	1/26	500
	315	S1UQ01/110/315A/690V	004393121	58.000	60	S1MUQ01/110/315A/690V	004393721	aR	1/26	500
	350	S1UQ01/110/350A/690V	004393122	78.000	63	S1MUQ01/110/350A/690V	004393722	aR	1/26	500
	400	S1UQ01/110/400A/690V	004393123	110.000	66	S1MUQ01/110/400A/690V	004393723	aR	1/26	500
	450	S1UQ01/110/450A/690V	004393125	155.000	72	S1MUQ01/110/450A/690V	004393725	aR	1/26	500
	500	S1UQ01/110/500A/690V	004393126	200.000	73	S1MUQ01/110/500A/690V	004393726	aR	1/26	500
	550	S1UQ01/110/550A/690V	004393127	250.000	80	S1MUQ02/110/550A/690V	004743727	aR	1/26	500
	630	S1UQ01/110/630A/690V	004393128	330.000	86	S1MUQ01/110/630A/690V	004393728	aR	1/26	500
	710*	S1UQ01/110/710A/690V	004393129	470.000	92	S1MUQ02/110/710A/690V	004743729	aR	1/26	500
2	400	S2UQ01/110/400A/690V	004394123	85.000	70	S2MUQ01/110/400A/690V	004394723	aR	1/16	650
	450	S2UQ01/110/450A/690V	004394125	125.000	76	S2MUQ01/110/450A/690V	004394725	aR	1/16	650
	500	S2UQ01/110/500A/690V	004394126	165.000	80	S2MUQ01/110/500A/690V	004394726	aR	1/16	650
	550	S2UQ01/110/550A/690V	004394127	220.000	82	S2MUQ02/110/550A/690V	004744727	aR	1/16	650
	630	S2UQ01/110/630A/690V	004394128	310.000	85	S2MUQ01/110/630A/690V	004394728	aR	1/16	650
	710	S2UQ01/110/710A/690V	004394129	460.000	91	S2MUQ01/110/710A/690V	004394729	aR	1/16	650
	800	S2UQ01/110/800A/690V	004394130	720.000	95	S2MUQ01/110/800A/690V	004394730	aR	1/16	650
3	900*	S2UQ01/110/900A/690V	004394131	920.000	115	S2MUQ02/110/900A/690V	004744731	aR	1/16	650
	1000*	S2UQ01/110/1000A/690V	004394132	1.300.000	124	S2MUQ02/110/1000A/690V	004744732	aR	1/16	650
	630	S3UQ01/110/630A/690V	004395128	260.000	102	S3MUQ01/110/630A/690V	004395728	aR	3/15	850
	710	S3UQ01/110/710A/690V	004395129	330.000	109	S3MUQ01/110/710A/690V	004395729	aR	3/15	850
	800	S3UQ01/110/800A/690V	004395130	500.000	117	S3MUQ01/110/800A/690V	004395730	aR	3/15	850
	900	S3UQ01/110/900A/690V	004395131	710.000	118	S3MUQ01/110/900A/690V	004395731	aR	3/15	850
	1000	S3UQ01/110/1000A/690V	004395132	1.000.000	131	S3MUQ01/110/1000A/690V	004395732	aR	3/15	850
1100	S3UQ01/110/1100A/690V	004395134	1.300.000	130	S3MUQ01/110/1100A/690V	004395734	aR	3/15	850	
1250	S3UQ01/110/1250A/690V	004395133	2.300.000	152	S3MUQ01/110/1250A/690V	004395733	aR	3/15	850	
1400*	S3UQ01/110/1400A/690V	004395135	2.600.000	156	S3MUQ02/110/1400A/690V	004745734	aR	3/15	850	

*Technical data on page 112.

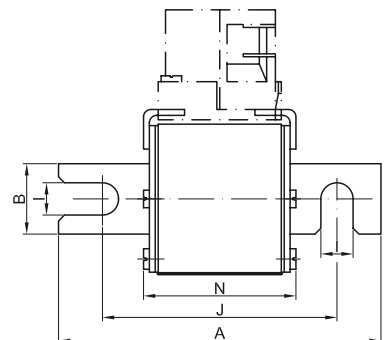
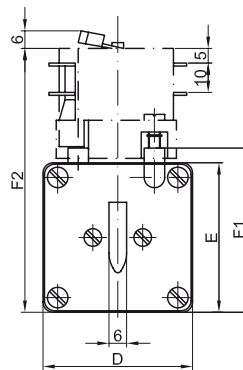
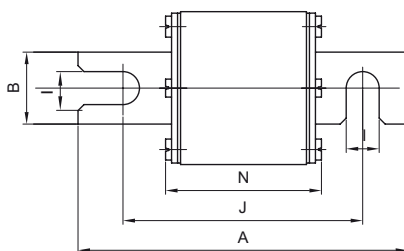
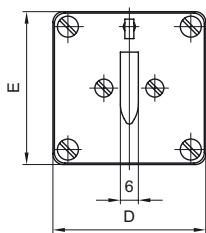
S1UQ01/110/450A/690V



S1MUQ01/110/450A/690V



Dimensions:



Size	A	B	D	E	F1	F2	I	J	N
1	140	24	51	51	56	90	11	110	52
2	140	30	60	60	65	99	11	110	52
3	140	37	75	75	80	114	11	110	52

For more information visit: www.eti.si/Electrotechnical_products/Semiconductor_protection

aR

TYPES
G

RATED VOLTAGE
~690V

Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~200kA Rated voltage: ~690V	Fuse-links type G has threaded studs so fuses are mounted by special screws to busbars.

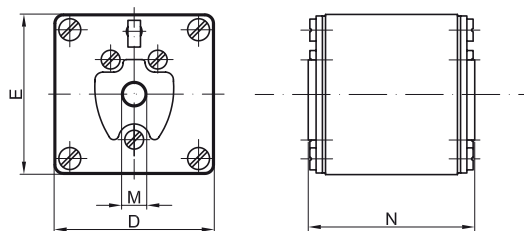
G1UQ01/630A/690V



Size	In (A)	Type with visual indicator	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Char.	Pack. (pcs)	Weight (g)
1	80	G1UQ01/80A/690V	004373513	2.300	15,6	aR	2/52	500
	100	G1UQ01/100A/690V	004373514	4.600	20	aR	2/52	500
	125	G1UQ01/125A/690V	004373515	6.600	25	aR	2/52	500
	160	G1UQ01/160A/690V	004373516	10.000	32,2	aR	2/52	500
	200	G1UQ01/200A/690V	004373517	18.000	39,4	aR	2/52	500
	250	G1UQ01/250A/690V	004373519	32.000	49,4	aR	2/52	500
	315	G1UQ01/315A/690V	004373521	58.000	60	aR	2/52	500
	350	G1UQ01/350A/690V	004373522	78.000	63	aR	2/52	500
	400	G1UQ01/400A/690V	004373523	110.000	66	aR	2/52	500
	450	G1UQ01/450A/690V	004373525	155.000	72	aR	2/52	500
	500	G1UQ01/500A/690V	004373526	200.000	73	aR	2/52	500
	550	G1UQ01/550A/690V	004373527	250.000	80	aR	2/52	500
	630	G1UQ01/630A/690V	004373528	330.000	86	aR	2/52	500
	710*	G1UQ01/710/690V	004373529	470.000	84	aR	2/52	500
	2	400	G2UQ01/400A/690V	004374523	85.000	70	aR	2/32
450		G2UQ01/450A/690V	004374525	125.000	76	aR	2/32	650
500		G2UQ01/500A/690V	004374526	165.000	80	aR	2/32	650
550		G2UQ01/550A/690V	004374527	220.000	82	aR	2/32	650
630		G2UQ01/630A/690V	004374528	310.000	85	aR	2/32	650
710		G2UQ01/710A/690V	004374529	460.000	91	aR	2/32	650
800		G2UQ01/800A/690V	004374530	720.000	95	aR	2/32	650
900*		G2UQ01/900A/690V	004374531	920.000	116	aR	2/32	650
1000*		G2UQ01/1000A/690V	004374532	1.300.000	121	aR	2/32	650
3		630	G3UQ01/630A/690V	004375528	260.000	102	aR	2/32
	710	G3UQ01/710A/690V	004375529	330.000	109	aR	2/32	850
	800	G3UQ01/800A/690V	004375530	500.000	117	aR	2/32	850
	900	G3UQ01/900A/690V	004375531	710.000	128	aR	2/32	850
	1000	G3UQ01/1000A/690V	004375532	1.000.000	131	aR	2/32	850
	1250	G3UQ01/1250A/690V	004375533	2.300.000	152	aR	2/32	850
	1400*	G3UQ01/1400A/690V	004375534	2.600.000	162	aR	2/32	850
1600*	G3UQ01/1600A/500V	004375535	2.300.000	180	aR	2/32	850	

*Technical data on page 112.

Dimensions:



Size	D	E	F1	F2	M	N
1	51	51	56	90	M8	53
2	60	60	65	99	M10	53
3	75	75	80	114	M12	53

Technical data on page 83

aR

TYPES
G

RATED VOLTAGE
~690V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
~200kA
Rated voltage:
~690V

Application:

Fuse-links type G has threaded studs so fuses are mounted by special screws to busbars.

Size	In (A)	Type with centre trip indicator for microswitch MK	Code No.	Operating I _t -value (A ² s)	Power dissipation (W)	Char.	Pack. (pcs)	Weight (g)
1	80	G1MUQ01/80A/690V	004373613	2.300	15,6	aR	2/52	500
	100	G1MUQ01/100A/690V	004373614	4.600	20	aR	2/52	500
	125	G1MUQ01/125A/690V	004373615	6.600	25	aR	2/52	500
	160	G1MUQ01/160A/690V	004373616	10.000	32,2	aR	2/52	500
	200	G1MUQ01/200A/690V	004373617	18.000	39,4	aR	2/52	500
	250	G1MUQ02/250A/690V	004743619	32.000	49,4	aR	2/52	500
	315	G1MUQ01/315A/690V	004373621	58.000	60	aR	2/52	500
	350	G1MUQ01/350A/690V	004373622	78.000	63	aR	2/52	500
	400	G1MUQ01/400A/690V	004373623	110.000	66	aR	2/52	500
	450	G1MUQ01/450A/690V	004373625	155.000	72	aR	2/52	500
	500	G1MUQ01/500A/690V	004373626	200.000	73	aR	2/52	500
	550	G1MUQ02/550A/690V	004743627	250.000	80	aR	2/52	500
	630	G1MUQ01/630A/690V	004373628	330.000	86	aR	2/52	500
	710*	G1MUQ02/710A/690V	004743629	470.000	84	aR	2/52	500
2	400	G2MUQ01/400A/690V	004374623	85.000	70	aR	2/32	650
	450	G2MUQ01/450A/690V	004374625	125.000	76	aR	2/32	650
	500	G2MUQ01/500A/690V	004374626	165.000	80	aR	2/32	650
	550	G2MUQ02/550A/690V	004744627	220.000	82	aR	2/32	650
	630	G2MUQ01/630A/690V	004374628	310.000	85	aR	2/32	650
	710	G2MUQ01/710A/690V	004374629	460.000	91	aR	2/32	650
	800	G2MUQ01/800A/690V	004374630	720.000	95	aR	2/32	650
	900*	G2MUQ02/900A/690V	004744631	920.000	116	aR	2/32	650
	1000*	G2MUQ02/1000A/690V	004744632	1.300.000	121	aR	2/32	650
	3	630	G3MUQ01/630A/690V	004375628	260.000	102	aR	2/32
710		G3MUQ01/710A/690V	004375629	330.000	109	aR	2/32	850
800		G3MUQ01/800A/690V	004375630	500.000	117	aR	2/32	850
900		G3MUQ01/900A/690V	004745631	710.000	128	aR	2/32	850
1000		G3MUQ01/1000A/690V	004375632	1.000.000	131	aR	2/32	850
1250		G3MUQ01/1250A/690V	004375633	2.300.000	152	aR	2/32	850
1400*		G3MUQ02/1400A/690V	004745634	2.600.000	162	aR	2/32	850
1600*	G3MUQ01/1600A/500V	004745636	2.300.000	180	aR	2/32	850	

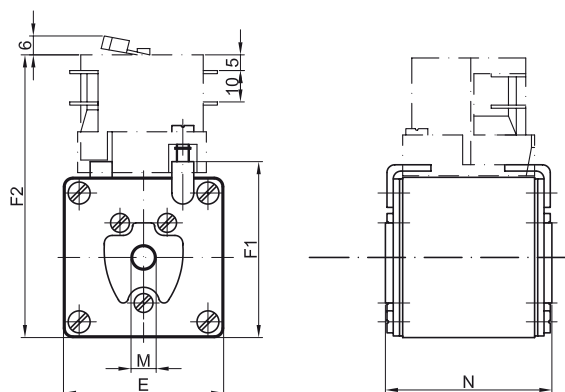
G2MUQ01/630A/690V



ULTRA QUICK

*Technical data on page 112.

Dimensions:



Size	D	E	F1	F2	M	N
1	51	51	56	90	M8	53
2	60	60	65	99	M10	53
3	75	75	80	114	M12	53

For more information visit: www.eti.si/Electrotechnical_products/Semiconductor_protection

aR

TYPES
M

RATED VOLTAGE
~ 1000V

MOUQ1/100A/1000V



Technical data:

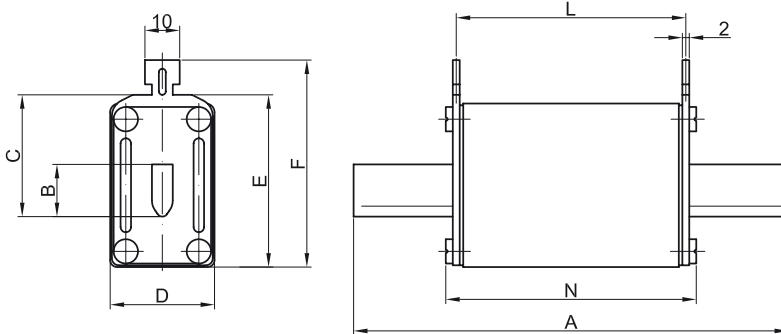
Standards: IEC 60269-4	Breaking capacity: ~200kA Rated voltage: ~1000V
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Application:

Fuse-links type M are applied in fuse base (for example PK).

Size	In (A)	Type (visual indicator with grip for microswitch NVS 5)	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
0	16	MOUQ1/16A/1000V	004362205	200	8	aR	3/24	250
	20	MOUQ1/20A/1000V	004362206	300	9	aR	3/24	250
	25	MOUQ1/25A/1000V	004362207	390	11	aR	3/24	250
	32	MOUQ1/32A/1000V	004362208	480	12,5	aR	3/24	250
	40	MOUQ1/40A/1000V	004362210	840	14,4	aR	3/24	250
	50	MOUQ1/50A/1000V	004362211	1.300	19,3	aR	3/24	250
	63	MOUQ1/63A/1000V	004362212	2.320	22,3	aR	3/24	250
	80	MOUQ1/80A/1000V	004362213	3.900	28,8	aR	3/24	250
	100	MOUQ1/100A/1000V	004362214	8.000	31,5	aR	3/24	250
	125	MOUQ1/125A/1000V	004362215	18.300	34,3	aR	3/24	250
160	MOUQ1/160A/1000V	004362216	35.300	40,5	aR	3/24	250	

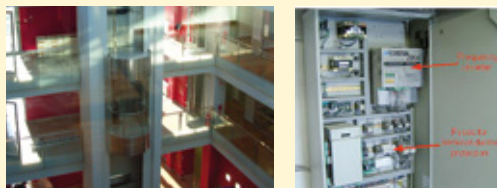
Dimensions:



Size	A	B	C	D	E	F	L	N
0	125	15	35	30	50	59,5	66	72

remember

Motor drives: Frequency inverter



Frequency inverter for 3 phase AC motor (lift-elevator)

Technical data on page 92

aR

TYPES
M

RATED VOLTAGE
~1000V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
~200kA
Rated voltage:
~1000V

Application:

Fuse link type M are applied in fuse base PK.

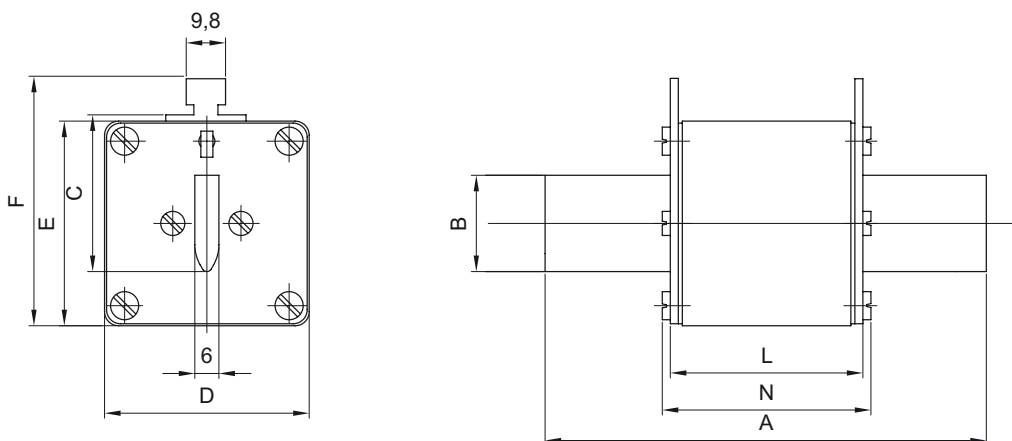
Size	In (A)	Type with visual indicator	Code No.	Operating Pt-value (A ² s)	Power dissipation (W)	Char.	Pack. (pcs)	Weight (g)
1	63	M1UQ01/63A/1000V	004303212	2.000	15	aR	1/26	500
	80	M1UQ01/80A/1000V	004303213	3.400	20	aR	1/26	500
	100	M1UQ01/100A/1000V	004303214	6.100	25	aR	1/26	500
	125	M1UQ01/125A/1000V	004303215	11.000	30	aR	1/26	500
	160	M1UQ01/160A/1000V	004303216	17.000	35	aR	1/26	500
	200	M1UQ01/200A/1000V	004303217	31.000	45	aR	1/26	500
	250	M1UQ01/250A/1000V	004303219	50.000	54	aR	1/26	500
	315	M1UQ01/315A/1000V	004303221	110.000	60	aR	1/26	500
	350	M1UQ01/350A/1000V	004303222	150.000	65	aR	1/26	500
	400	M1UQ01/400A/1000V	004303223	200.000	70	aR	1/26	500
2	315	M2UQ01/315A/1000V	004304221	85.000	66	aR	1/16	650
	350	M2UQ01/350A/1000V	004304222	130.000	70	aR	1/16	650
	400	M2UQ01/400A/1000V	004304223	170.000	80	aR	1/16	650
	450	M2UQ01/450A/1000V	004304225	220.000	86	aR	1/16	650
	500	M2UQ01/500A/1000V	004304226	320.000	90	aR	1/16	650
3	630	M2UQ01/630A/1000V	004304228	600.000	108	aR	1/16	650
	500	M3UQ01/500A/1000V	004305226	250.000	100	aR	1/15	850
	630	M3UQ01/630A/1000V	004305228	500.000	110	aR	1/15	850
	710	M3UQ01/710A/1000V	004305229	670.000	125	aR	1/15	850
	800	M3UQ01/800A/1000V	004305230	870.000	136	aR	1/15	850

M1UQ01/400A/1000V



ULTRA QUICK

Dimensions:



Size	A	B	C	D	E	F	L	N
1	135	24	40	46	52	62	65	72
2	150	30	48	54	61	71	65	72
3	150	37	60	74	74	84	65	72

aR

TYPES
M

RATED VOLTAGE
~ 1200V

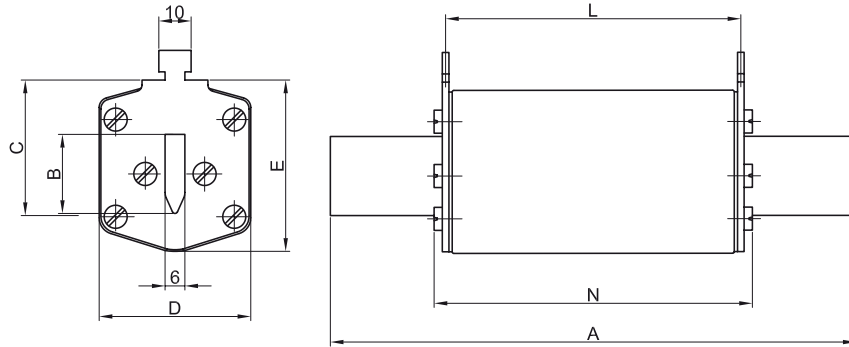
M3UQ2/630A/1200V



Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~200kA Rated voltage: ~1200V	Fuse-links type M are applied in fuse base (for example U1, U2, U3).

Size	In (A)	Type (visual indicator with a grip for microswitch NVS 5)	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
1	80	M1UQ2/80A/1200V	004733213	8.000	35	aR	1/14	700
	100	M1UQ2/100A/1200V	004733214	12.500	45,9	aR	1/14	700
	125	M1UQ2/125A/1200V	004733215	20.000	55	aR	1/14	700
	160	M1UQ2/160A/1200V	004733216	32.000	67	aR	1/14	700
	200	M1UQ2/200A/1200V	004733217	50.000	84	aR	1/14	700
	224	M1UQ2/224A/1200V	004733218	63.000	93	aR	1/14	700
	250	M1UQ2/250A/1200V	004733219	80.000	104	aR	1/14	700
2	315	M2UQ2/315A/1200V	004734221	120.000	125	aR	1/14	1050
	350	M2UQ2/350A/1200V	004734222	160.000	141	aR	1/14	1050
	400	M2UQ2/400A/1200V	004734223	200.000	159	aR	1/14	1050
3	425	M3UQ2/425A/1200V	004734224	230.000	172	aR	1/22	1360
	500	M3UQ2/500A/1200V	004734226	320.000	185	aR	1/22	1360
	630	M3UQ2/630A/1200V	004734228	500.000	198	aR	1/22	1360

Dimensions:

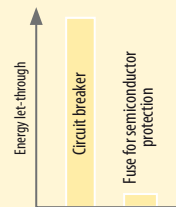


Size	A	B	C	D	E	L	N
1	194	20/24*	40	46	61,5	124	132
2	209	26/30*	48	54	71	124	132
3	209	32/37*	60	64	82	124	132

* The width of the knife is grated in dependence of rating.

remember

For the protection of drives most manufacturers seem to have accepted that circuit breakers despite many advantages are not an option for protection drives. The operational characteristics for circuit breakers are simply too slow, allowing too much energy to pass through.



Technical data on page 92

aR	TYPES	RATED VOLTAGE
	S80mm	~1000V

Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~200kA Rated voltage: ~1000V	Fuse-links type S of size 00C and 00 are applied in fuse base US00-1/80 and mounted by screws to busbars.

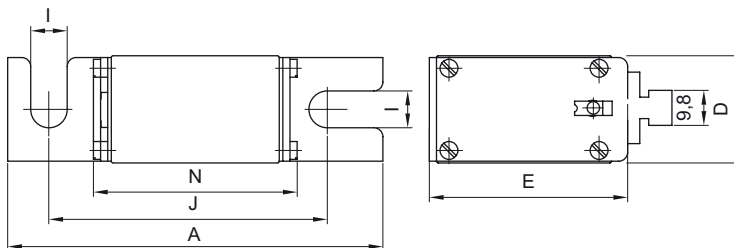
Size	In (A)	Type (visual indicator with grip for microswitch NVS S)	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
00	25	S00UQ01/80/25A/1000V	004301107	150	11	aR	3/54	250
	32	S00UQ01/80/32A/1000V	004301108	200	15,1	aR	3/54	250
	40	S00UQ01/80/40A/1000V	004301110	330	18,1	aR	3/54	250
	50	S00UQ01/80/50A/1000V	004301111	670	20	aR	3/54	250
	63	S00UQ01/80/63A/1000V	004301112	1.300	24,3	aR	3/54	250
	80	S00UQ01/80/80A/1000V	004301113	2.400	27,4	aR	3/54	250
	100	S00UQ01/80/100A/1000V	004301114	4.700	30	aR	3/54	250
	125	S00UQ01/80/125A/1000V	004301115	10.000	38,2	aR	3/54	250
	160	S00UQ01/80/160A/1000V	004301116	16.000	47,2	aR	3/54	250
	200	S00UQ01/80/200A/1000V	004301117	30.000	57	aR	3/54	250
	250	S00UQ01/80/250A/1000V	004301119	58.000	67	aR	3/54	250
315*	S00UQ01/80/315A/900V	004301121	110.000	78	aR	3/54	250	

*900V

S00UQ01/80/200A/1000V



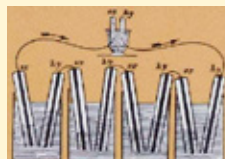
Dimensions:



Size	A	D	E	I	J	N
00	105	30	51	10	78	56

remember

Future applications:
Protection for alternative energy power plant:
- Wind power
- Solar power
- Fuel cell



aR

TYPES
S-M10

RATED VOLTAGE
~ 1000V

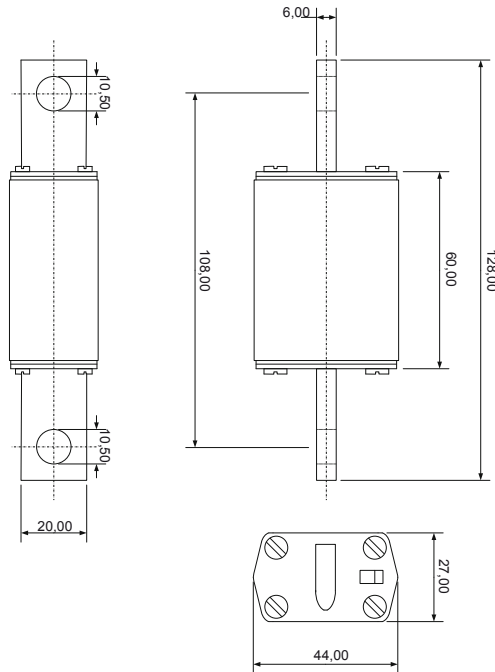
S0/108/160A/1000V M10



Technical data:			Application:
Standards: IEC 60269-4	Breaking capacity: ~200kA Rated voltage: ~1000V		Fuse-links type S0 M10 are mounted by screws to busbars.

Size	In (A)	Type (visual indicator)	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
0	16	S0/108/16A/1000V M10	004362217	200	8	aR	3/24	250
	20	S0/108/20A/1000V M10	004362218	300	9	aR	3/24	250
	25	S0/108/25A/1000V M10	004362219	390	11	aR	3/24	250
	32	S0/108/32A/1000V M10	004362220	480	12,5	aR	3/24	250
	40	S0/108/40A/1000V M10	004362221	840	14,4	aR	3/24	250
	50	S0/108/50A/1000V M10	004362222	1.300	19,3	aR	3/24	250
	63	S0/108/63A/1000V M10	004362223	2.320	22,3	aR	3/24	250
	80	S0/108/80A/1000V M10	004362224	3.900	28.8	aR	3/24	250
	100	S0/108/100A/1000V M10	004362225	8.000	31,5	aR	3/24	250
	125	S0/108/125A/1000V M10	004362226	18.300	34,3	aR	3/24	250
160	S0/108/160A/1000V M10	004362227	35.300	40,5	aR	3/24	250	

Dimensions:



Technical data on page 92

aR

TYPES
S110mm

RATED VOLTAGE
~1000V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
~200kA
Rated voltage:
~1000V

Application:

Fuse-links type S 110mm of size 1, 2, 3 are applied in universal fuse base US1...3-1/80-110 and mounted by screws to busbars.

S1UQ01/110/400A/1000V



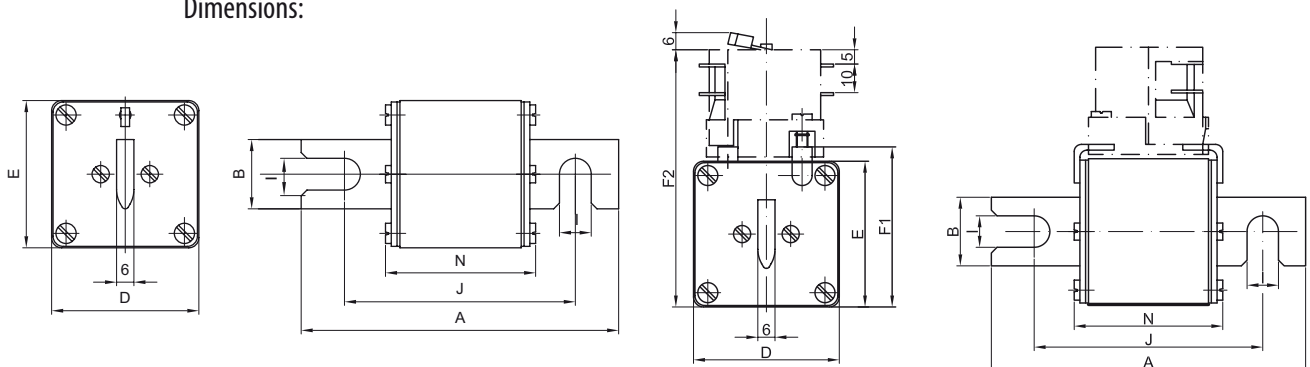
S1MUQ01/110/400A/1000V



ULTRA QUICK

Size	In (A)	Type with visual indicator	Code No.	Operating Pt-value (A ² s)	Power dissipation (W)	Type with centre trip indicator for microswitch MK	Code No.	Char.	Pack. (pcs)	Weight (g)
1	63	S1UQ01/110/63A/1000V	004303112	2.000	15,1	S1MUQ01/110/63A/1000V	004303712	aR	1/26	500
	80	S1UQ01/110/80A/1000V	004303113	3.400	20	S1MUQ01/110/80A/1000V	004303713	aR	1/26	500
	100	S1UQ01/110/100A/1000V	004303114	6.100	25	S1MUQ01/110/100A/1000V	004303714	aR	1/26	500
	125	S1UQ01/110/125A/1000V	004303115	11.000	30	S1MUQ01/110/125A/1000V	004303715	aR	1/26	500
	160	S1UQ01/110/160A/1000V	004303116	17.000	35	S1MUQ01/110/160A/1000V	004303716	aR	1/26	500
	200	S1UQ01/110/200A/1000V	004303117	31.000	45,3	S1MUQ01/110/200A/1000V	004303717	aR	1/26	500
	250	S1UQ01/110/250A/1000V	004303119	50.000	54	S1MUQ01/110/250A/1000V	004303719	aR	1/26	500
	315	S1UQ01/110/315A/1000V	004303121	110.000	60	S1MUQ01/110/315A/1000V	004303721	aR	1/26	500
	350	S1UQ01/110/350A/1000V	004303122	150.000	65	S1MUQ01/110/350A/1000V	004303722	aR	1/26	500
	400	S1UQ01/110/400A/1000V	004303123	200.000	70	S1MUQ01/110/400A/1000V	004303723	aR	1/26	500
	450	S1UQ01/110/450A/1000V	004303125	310.000	74	S1MUQ01/110/450A/1000V	004303725	aR	1/26	500
	500	S1UQ01/110/500A/1000V	004303126	400.000	80	S1MUQ01/110/500A/1000V	004303726	aR	1/26	500
2	315	S2UQ01/110/315A/1000V	004304121	85.000	66	S2MUQ01/110/315A/1000V	004304721	aR	1/16	650
	350	S2UQ01/110/350A/1000V	004304122	130.000	70	S2MUQ01/110/350A/1000V	004304722	aR	1/16	650
	400	S2UQ01/110/400A/1000V	004304123	170.000	80	S2MUQ01/110/400A/1000V	004304723	aR	1/16	650
	450	S2UQ01/110/450A/1000V	004304125	220.000	86	S2MUQ01/110/450A/1000V	004304725	aR	1/16	650
	500	S2UQ01/110/500A/1000V	004304126	320.000	90	S2MUQ01/110/500A/1000V	004304726	aR	1/16	650
	550	S2UQ01/110/550A/1000V	004304127	450.000	97	S2MUQ01/110/550A/1000V	004304727	aR	1/16	650
3	630	S2UQ01/110/630A/1000V	004304128	600.000	108	S2MUQ01/110/630A/1000V	004304728	aR	1/16	650
	500	S3UQ01/110/500A/1000V	004305126	250.000	100	S3MUQ01/110/500A/1000V	004305726	aR	3/15	850
	630	S3UQ01/110/630A/1000V	004305128	500.000	110	S3MUQ01/110/630A/1000V	004305728	aR	3/15	850
	710	S3UQ01/110/710A/1000V	004305129	670.000	125	S3MUQ01/110/710A/1000V	004305729	aR	3/15	850
	800	S3UQ01/110/800A/1000V	004305130	870.000	136	S3MUQ01/110/800A/1000V	004305730	aR	3/15	850
	1000	S3UQ01/110/1000A/1000V	004305132	2.000.000	157	S3MUQ01/110/1000A/1000V	004305732	aR	3/15	850
1250	S3UQ01/110/1250A/1000V	004305134	3.000.000	170	S3MUQ01/110/1250A/1000V	004305734	aR	3/15	850	

Dimensions:



Size	A	B	D	E	F1	F2	I	J	N
1	140	24	51	51	56	90	11	110	74
2	140	30	60	60	65	99	11	110	74
3	140	37	75	75	80	114	11	110	74

aR

TYPES
G

RATED VOLTAGE
~ 1000V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
~200kA
Rated voltage:
~1000V

Application:

Fuse-links type G has threaded studs so fuses are mounted by special screws to busbars.

G3UQ01/800A/1000V

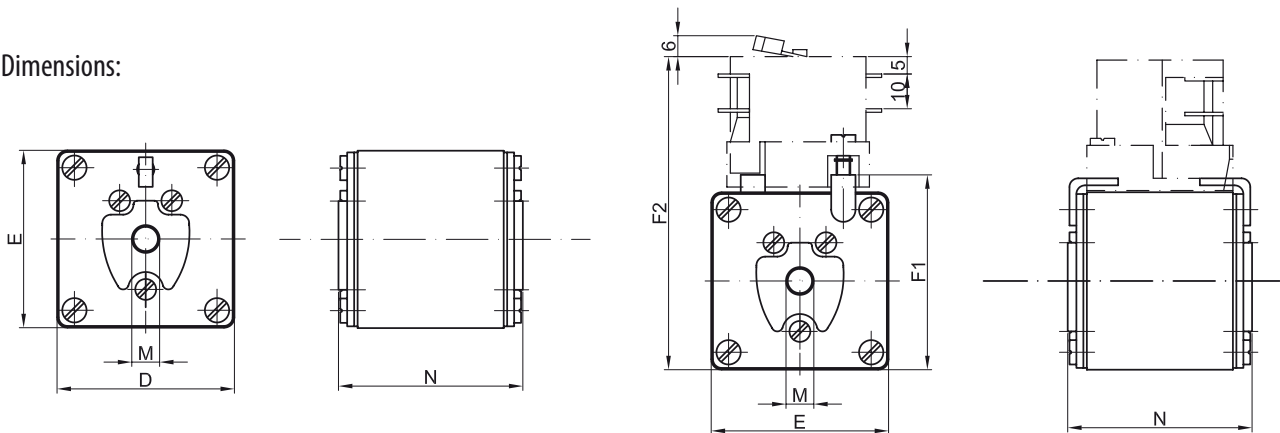


G1MUQ01/400A/1000V



Size	In (A)	Type with visual indicator	Code No.	Operating P _t -value (A ² s)	Power dissipation (W)	Type with centre trip indicator for microswitch MK	Code No.	Char.	Pack. (pcs)	Weight (g)
1	63	G1UQ01/63A/1000V	004303512	2.000	15,1	G1MUQ01/63A/1000V	004303612	aR	2/32	500
	80	G1UQ01/80A/1000V	004303513	3.400	20	G1MUQ01/80A/1000V	004303613	aR	2/32	500
	100	G1UQ01/100A/1000V	004303514	6.100	25	G1MUQ01/100A/1000V	004303614	aR	2/32	500
	125	G1UQ01/125A/1000V	004303515	11.000	30	G1MUQ01/125A/1000V	004303615	aR	2/32	500
	160	G1UQ01/160A/1000V	004303516	17.000	35	G1MUQ01/160A/1000V	004303616	aR	2/32	500
	200	G1UQ01/200A/1000V	004303517	31.000	45,3	G1MUQ01/200A/1000V	004303617	aR	2/32	500
	250	G1UQ01/250A/1000V	004303519	50.000	54	G1MUQ01/250A/1000V	004303619	aR	2/32	500
	315	G1UQ01/315A/1000V	004303521	110.000	60	G1MUQ01/315A/1000V	004303621	aR	2/32	500
	350	G1UQ01/350A/1000V	004303522	150.000	65	G1MUQ01/350A/1000V	004303622	aR	2/32	500
	400	G1UQ01/400A/1000V	004303523	200.000	70	G1MUQ01/400A/1000V	004303623	aR	2/32	500
2	450	G1UQ01/450A/1000V	004303525	310.000	74	G1MUQ01/450A/1000V	004303625	aR	2/32	500
	500	G1UQ01/500A/1000V	004303526	400.000	80	G1MUQ01/500A/1000V	004303626	aR	2/32	500
	315	G2UQ01/315A/1000V	004304521	85.000	66	G2MUQ01/315A/1000V	004304621	aR	2/32	650
	350	G2UQ01/350A/1000V	004304522	130.000	70	G2MUQ01/350A/1000V	004304622	aR	2/32	650
	400	G2UQ01/400A/1000V	004304523	170.000	80	G2MUQ01/400A/1000V	004304623	aR	2/32	650
	450	G2UQ01/450A/1000V	004304525	220.000	86	G2MUQ01/450A/1000V	004304625	aR	2/32	650
	500	G2UQ01/500A/1000V	004304526	320.000	90	G2MUQ01/500A/1000V	004304626	aR	2/32	650
	550	G2UQ01/550A/1000V	004304527	450.000	100	G2MUQ01/550A/1000V	004304627	aR	2/32	650
	630	G2UQ01/630A/1000V	004304528	600.000	108	G2MUQ01/630A/1000V	004304628	aR	2/32	650
	500	G3UQ01/500A/1000V	004305526	250.000	100	G3MUQ01/500A/1000V	004305626	aR	2/9	850
3	630	G3UQ01/630A/1000V	004305528	500.000	110	G3MUQ01/630A/1000V	004305628	aR	2/9	850
	710	G3UQ01/710A/1000V	004305529	670.000	125	G3MUQ01/710A/1000V	004305629	aR	2/9	850
	800	G3UQ01/800A/1000V	004305530	870.000	136	G3MUQ01/800A/1000V	004305630	aR	2/9	850
	1000	G3UQ01/1000A/1000V	004305532	2.000.000	157	G3MUQ01/1000A/1000V	004305632	aR	2/9	850
	1100	G3UQ01/1100A/1000V	004305533	2.500.000	165	G3MUQ01/1100A/1000V	004305633	aR	2/9	850
1250	G3UQ01/1250A/1000V	004305534	3.000.000	170	G3MUQ01/1250A/1000V	004305634	aR	2/9	850	

Dimensions:



Size	D	E	F1	F2	M	N
1	51	51	56	90	M8	75
2	60	60	65	99	M10	75
3	75	75	80	114	M12	75

Technical data on page 97

aR

TYPES
S

RATED VOLTAGE
~1250V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
~100kA
Rated voltage:
~1250V

Application:

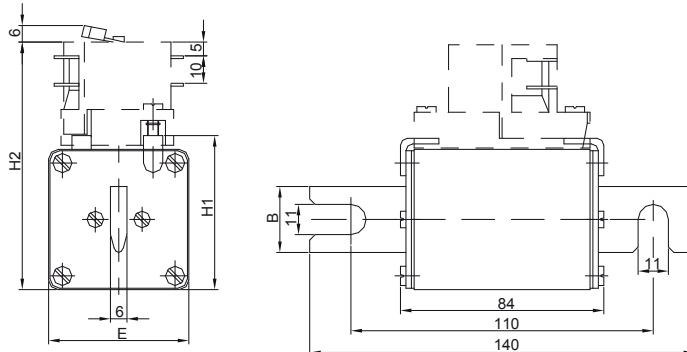
Protection of semiconductors inside middle voltage inverters.

S3MUQ01/110/1000A/1250V



Size	In (A)	Type with centre trip indicator for microswitch MK	Code No.	Pre-arcing I ² t-value (A ² s)	Operating I ² t-value at 1000V (A ² s)	Operating I ² t-value at 1250V (A ² s)	Power dissipation (W)	Char.	Pack. (pcs)	Weight (g)
2	250	S2MUQ01/110/250A/1250V	004735130	7.500	40.500	52.650	54	aR	1	800
	350	S2MUQ01/110/350A/1250V	004735131	18.000	99.500	133.000	66	aR		
	400	S2MUQ01/110/400A/1250V	004735132	25.000	150.000	190.000	85	aR		
	450	S2MUQ01/110/450A/1250V	004735133	37.000	215.000	277.000	100	aR		
	630	S2MUQ01/110/630A/1250V	004735134	123.000	585.000	740.000	125	aR		
3	710	S2MUQ01/110/710A/1250V	004735135	172.000	820.000	1.060.000	130	aR	1	1000
	315	S3MUQ01/110/315A/1250V	004735129	11.500	60.000	78.000	53	aR		
	350	S3MUQ01/110/350A/1250V	004735136	15.500	83.500	111.000	66	aR		
	450	S3MUQ01/110/450A/1250V	004735137	33.500	190.000	246.000	98	aR		
	630	S3MUQ01/110/630A/1250V	004735138	86.000	500.000	660.000	121	aR		
1000	S3MUQ01/110/1000A/1250V	004735139	480.000	2.100.000	2.730.000	137	aR			

Dimensions:



Size	B	E	H1	H2
2	30	60	65	99
3	37	75	80	114

aR

TYPES
G

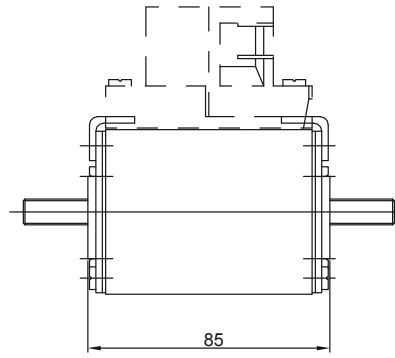
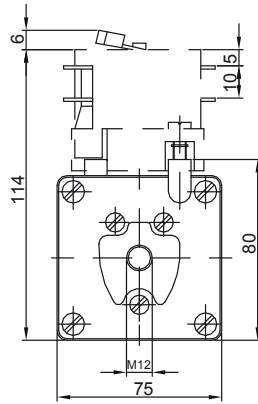
RATED VOLTAGE
~1250V

Technical data:			Application:
Standards: IEC 60269-4	Breaking capacity: ~100kA Rated voltage: ~1250V		Protection of semiconductors inside middle voltage inverters.

Size	In (A)	Type with centre trip indicator for microswitch MK	Code No.	Pre-arcing I ² t-value (A ² s)	Operating I ² t-value at 1000V (A ² s)	Operating I ² t-value at 1250V (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
3	315	G3MUQ01/315A/1250V	004735140	11.500	60.000	78.000	53	aR	1	1000
	500	G3MUQ01/500A/1250V	004735141	49.000	240.000	312.000	93	aR		
	575	G3MUQ01/575A/1250V	004735142	58.000	330.000	433.000	102	aR		
	630	G3MUQ01/630A/1250V	004735143	86.000	500.000	660.000	113	aR		
	710	G3MUQ01/710A/1250V	004735144	128.000	710.000	930.000	125	aR		
	800	G3MUQ01/800A/1250V	004735145	225.000	1.000.000	1.300.000	136	aR		
	900	G3MUQ01/900A/1250V	004735146	325.000	1.450.000	1.950.000	148	aR		
	1000	G3MUQ01/1000A/1250V	004735147	480.000	2.100.000	2.730.000	162	aR		

Dimensions:

G3MUQ01/500A/1250V



Technical data on page 98

aR

TYPES
S

RATED VOLTAGE
~1500V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
~50kA
Rated voltage:
~1500V

Application:

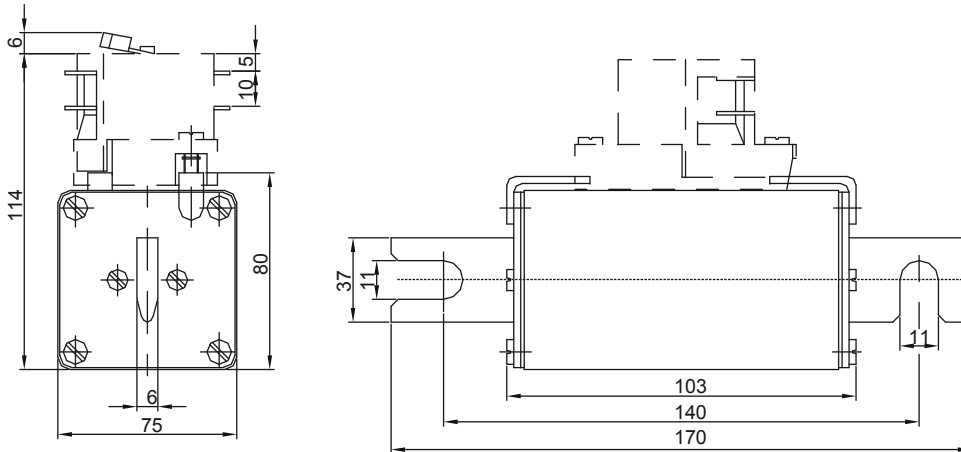
Protection of semiconductors inside middle voltage inverters.

S3MUQ01/140/550A/1500V

Size	In (A)	Type with centre trip indicator for microswitch MK	Code No.	Operating I ² t-value at 1500V (A ² s)	Power dissipation (W)	Char.	Pack. (pcs)	Weight (g)
3	250	S3MUQ01/140/250A/1500V	004735150	110.000	95	aR	1	1500
	315	S3MUQ01/140/315A/1500V	004735151	170.000	110	aR		
	400	S3MUQ01/140/400A/1500V	004735152	330.000	128	aR		
	450	S3MUQ01/140/450A/1500V	004735153	390.000	135	aR		
	550	S3MUQ01/140/550A/1500V	004735154	700.000	153	aR		



Dimensions:



ULTRA QUICK

aR

TYPES
G

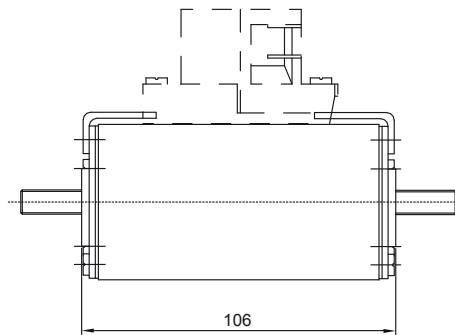
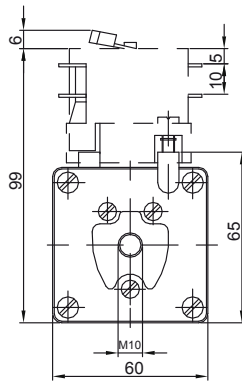
RATED VOLTAGE
~1500V

Technical data:			Application:
Standards: IEC 60269-4	Breaking capacity: ~50kA Rated voltage: ~1500V		Protection of semiconductors inside middle voltage inverters.

Size	In (A)	Type with centre trip indicator for microswitch MK	Code No.	Operating I ² t-value at 1500V (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
2	200	G2MUQ01/200A/1500V	004735155	45.000	40	aR	1	1500
	250	G2MUQ01/250A/1500V	004735156	125.000	60	aR	1	1500

Dimensions:

G2MUQ01/250A/1500V



Technical data on page 99

aR

TYPES
S

RATED VOLTAGE
~2000V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
~50kA
Rated voltage:
~2000V

Application:

Protection of semiconductors inside middle voltage inverters.

S3UQ1/210-165/250A/2000V



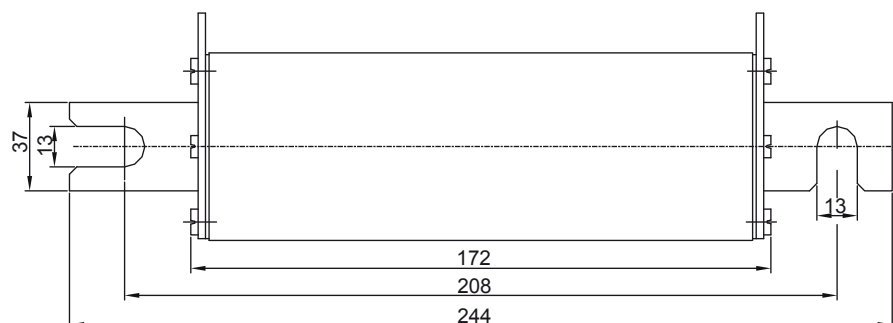
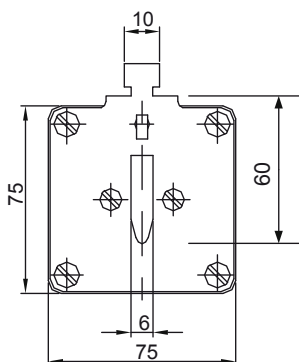
ULTRA QUICK

Size	In (A)	Type with centre trip indicator for microswitch MK	Code No.	Pre-arcing I ² t-value (A ² s)	Operating I ² t-value at 2000V (A ² s)	Power dissipation (W)	Char.	Pack. (pcs)	Weight (g)
3	250	S3UQ1/210-165/250A/2000V	004735160	30.000	225.000	105	aR	1	2000
	350	S3UQ1/210-165/350A/2000V	004735161	76.000	565.000	125	aR		
	400	S3UQ1/210-165/400A/2000V	004735162	118.000	900.000	142	aR		
	450	S3UQ1/210-165/450A/2000V	004735163	130.000	965.000	160	aR		
	525	S3UQ1/210-165/525A/2000V	004735164	150.000	1.150.000	202	aR		
	630	S3UQ1/210-165/630A/2000V	004735165	270.000	2.100.000	235	aR		
	710	S3UQ1/210-165/710A/2000V	004735166	380.000	3.200.000	280	aR		

Protection of semiconductors inside middle voltage inverters.



Dimensions:



gR

TYPES
M, M-STRIKER PIN

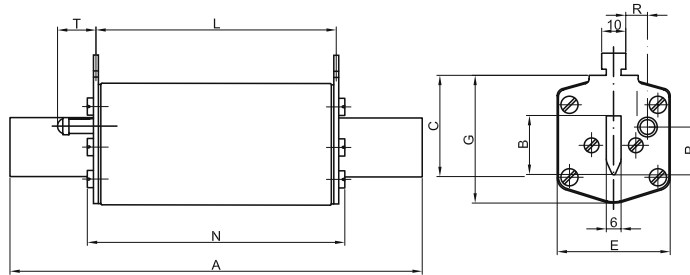
RATED VOLTAGE
~690V

Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~200kA Rated voltage: ~690V	For semiconductor protection.

Size	In (A)	Type (visual indicator with grip for microswitch NVS 5)	Code No.	Operating I ^t -value (A ² s)	Power dissipation (W)	Type with striker pin	Code No.	Char.	Packaging (pcs)	Weight (g)
00C	10	M00CUQ2/10A/690V	004721204	100	6,5	-	-	gR	3/120	140
	16	M00CUQ2/16A/690V	004721205	220	8	M00CUQ2/16A/690V-K	004721220	gR	3/120	140
	20	M00CUQ2/20A/690V	004721206	320	9,5	M00CUQ2/20A/690V-K	004721221	gR	3/120	140
	25	M00CUQ2/25A/690V	004721207	600	11,8	M00CUQ2/25A/690V-K	004721222	gR	3/120	140
	32	M00CUQ2/32A/690V	004721208	920	12,5	M00CUQ2/32A/690V-K	004721223	gR	3/120	140
	35	M00CUQ2/35A/690V	004721209	920	13,1	M00CUQ2/35A/690V-K	004721224	gR	3/120	140
	40	M00CUQ2/40A/690V	004721210	1.400	14,1	M00CUQ2/40A/690V-K	004721225	gR	3/120	140
	50	M00CUQ2/50A/690V	004721211	2.250	15,6	M00CUQ2/50A/690V-K	004721226	gR	3/120	140
	63	M00CUQ2/63A/690V	004721212	3.600	17,8	M00CUQ2/63A/690V-K	004721227	gR	3/120	140
	80	M00CUQ2/80A/690V	004721213	6.200	20,6	M00CUQ2/80A/690V-K	004721228	gR	3/120	140
	100	M00CUQ2/100A/690V	004721214	10.000	23,7	M00CUQ2/100A/690V-K	004721229	gR	3/120	140
	125	M00CUQ2/125A/690V	004721215	13.000	30	M00CUQ2/125A/690V-K	004721230	gR	3/120	140
	160	M00CUQ2/160A/690V	004721216	23.000	35,9	M00CUQ2/160A/690V-K	004721231	gR	3/120	140

Dimensions:

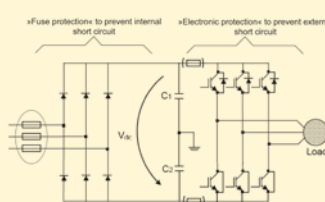
M00CUQ2/125A/690V



Size	A	B	C	E	G	S	L	N	P	T
00C	78	15	35	21	42	6	46	53	20,5	18

remember

In the past, all soft-starters and drives incorporated internal high-speed fusing. As these devices have gotten smaller, cheaper, many manufacturers of medium to low power motor controllers have eliminated internal fusing. Adequate electrical protection is now in hand of designers.



Technical data on page 100

gR

TYPES
M, M-STRIKER PIN

RATED VOLTAGE
~690V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
~200kA
Rated voltage:
~690V, ---550V

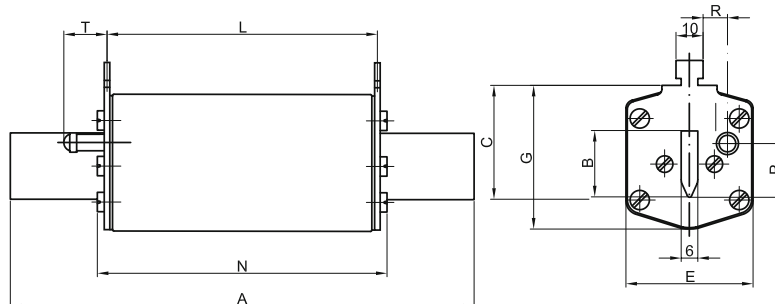
Application:

For semiconductor protection.

Size	In (A)	Type (visual indicator with grip for microswitch NVS 5)	Code No.	Operating P _t -value (A ² s)	Power dissipation (W)	Type with striker pin	Code No.	Char.	Packaging (pcs)	Weight (g)
1	35	M1UQ2/35A/690V	004723209	920	5	-	-	gR	3/24	420
	40	M1UQ2/40A/690V	004723210	1.400	6	-	-	gR	3/24	420
	50	M1UQ2/50A/690V	004723211	2.250	7	M1UQ2/50A/690V-K	004723240	gR	3/24	420
	63	M1UQ2/63A/690V	004723212	3.600	9	M1UQ2/63A/690V-K	004723241	gR	3/24	420
	80	M1UQ2/80A/690V	004723213	6.200	12	M1UQ2/80A/690V-K	004723242	gR	3/24	420
	100	M1UQ2/100A/690V	004723214	10.000	15	M1UQ2/100A/690V-K	004723243	gR	3/24	420
	125	M1UQ2/125A/690V	004723215	13.000	20	M1UQ2/125A/690V-K	004723244	gR	3/24	420
	160	M1UQ2/160A/690V	004723216	23.000	26	M1UQ2/160A/690V-K	004723245	gR	3/24	420
	200	M1UQ2/200A/690V	004723217	47.000	31,5	M1UQ2/200A/690V-K	004723246	gR	3/24	420
	224	M1UQ2/224A/690V	004723218	60.000	36,8	M1UQ2/224A/690V-K	004723247	gR	3/24	420
2	250	M1UQ2/250A/690V	004723219	70.000	42,7	M1UQ2/250A/690V-K	004723248	gR	3/24	420
	125	M2UQ2/125A/690V	004724215	13.000	20	M2UQ2/125A/690V-K	004724241	gR	3/24	660
	160	M2UQ2/160A/690V	004724216	23.000	26	M2UQ2/160A/690V-K	004724242	gR	3/24	660
	200	M2UQ2/200A/690V	004724217	47.000	31,5	M2UQ2/200A/690V-K	004724243	gR	3/24	660
	224	M2UQ2/224A/690V	004724218	60.000	36,8	M2UQ2/224A/690V-K	004724244	gR	3/24	660
	250	M2UQ2/250A/690V	004724219	70.000	42,7	M2UQ2/250A/690V-K	004724245	gR	3/24	660
	315	M2UQ2/315A/690V	004724221	110.000	57	M2UQ2/315A/690V-K	004724246	gR	3/24	660
	350	M2UQ2/350A/690V	004724222	150.000	67	M2UQ2/350A/690V-K	004724247	gR	3/24	660
	400	M2UQ2/400A/690V	004724223	170.000	76	M2UQ2/400A/690V-K	004724248	gR	3/24	660
	3	250	M3UQ2/250A/690V	004725219	70.000	42,7	M3UQ2/250A/690V-K	004725241	gR	3/24
315		M3UQ2/315A/690V	004725221	110.000	57	M3UQ2/315A/690V-K	004725242	gR	3/24	870
350		M3UQ2/350A/690V	004725222	150.000	67	M3UQ2/350A/690V-K	004725243	gR	3/24	870
400		M3UQ2/400A/690V	004725223	170.000	76	M3UQ2/400A/690V-K	004725244	gR	3/24	870
425		M3UQ2/425A/690V	004725224	200.000	84	M3UQ2/425A/690V-K	004725245	gR	3/24	870
500		M3UQ2/500A/690V	004725226	240.000	110	M3UQ2/500A/690V-K	004725246	gR	3/24	870
630	M3UQ2/630A/690V	004725228	400.000	160	M3UQ2/630A/690V-K	004725247	gR	3/24	870	

Note: 550V d.c.: size 2: 125A to 400A, size 3: 250A to 630A

Dimensions:



M2UQ2/250A/690V



Size	A	B	C	E	G	S	L	N	P	R	T
1	135	24	40	46	52	6	65	73	20,5	13,7	27,5
2	150	30	48	54	61	6	65	73	27,3	16,2	27,5
3	150	37	60	64	74	6	65	73	35,6	17	27,5

gR

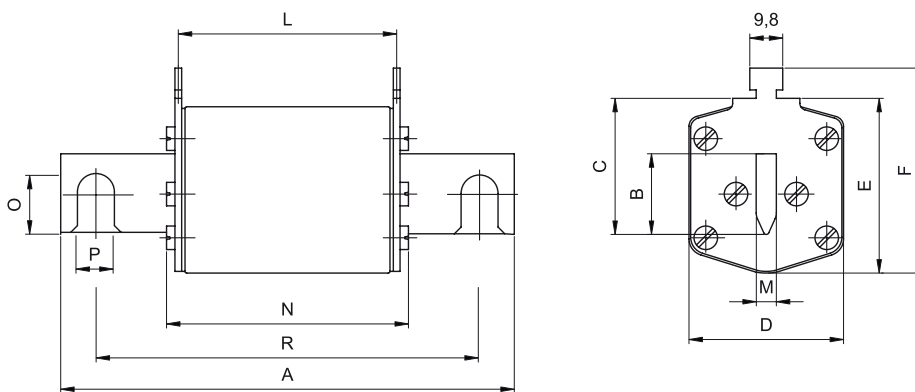
TYPES
M, S

RATED VOLTAGE
~500V

Technical data:			Application:
Standards: IEC 60269-4	Breaking capacity: ~200kA Rated voltage: ~500V		Fuse-links type M are applied in fuse base: -PK4 for size 4 -HVL4a for size 4a

Size	In (A)	Type (visual indicator with grip for microswitch NVS 5)	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
4	800	S4UQ2/800A/500V	004716130	620.000	164	gR	1	2350
	1000	S4UQ2/1000A/500V	004716132	1.150.000	188	gR	1	2350
	1250	S4UQ2/1250A/500V	004716133	2.000.000	246	gR	1	2350
4a	800	M4aUQ2/800A/500V	004717230	620.000	164	gR	1	2700
	1000	M4aUQ2/1000A/500V	004717232	1.150.000	188	gR	1	2700
	1250	M4aUQ2/1250A/500V	004717233	2.000.000	246	gR	1	2700
	1500	M4aUQ2/1500A/500V	004717235	3.800.000	310	gR	1	2700
	1600	M4aUQ2/1600A/500V	004717236	4.500.000	320	gR	1	2700

Dimensions:



Size	A	B	C	D	E	F	L	N	M	O	P	R
4	200	50	87	95	112	122	65	78	8	32	16	150
4a	200	50	85	95	112	122	87	97	6	—	—	—

Technical data on page 107

gR

TYPES
M

RATED VOLTAGE
≍ 750V, ≍ 1000V

Technical data:

Standards:
IEC 60269-4

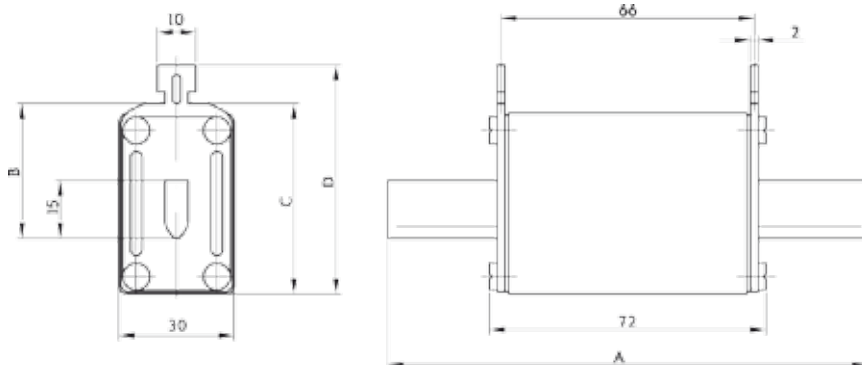
Breaking capacity:
≍ 20kA
Rated voltage:
≍ 750V L/R=2ms
≍ 1000V L/R=2ms

Application:

Fuse-link for DC application. Applied in fuse base PK0 and PK1 DC.

Voltage	In (A)	Size 0 Code No.	Size 1C Code No.	Pre-arcing Joule integral I ² t-value (A ² s)	Operating Joule integral I ² t-value (A ² s)	Power dissipation (W)	Packaging (pcs)	Weight (g)
750V d.c.	32	004110500	004110510	70	370	7,6	3/24	0: 280 1C: 300
	40	004110502	004110512	135	650	8,8		
	50	004110503	004110513	250	1.000	11,0		
	63	004110504	004110514	520	1.790	13,5		
	80	004110505	004110515	1.050	3.000	17,0		
	100	004110506	004110516	2.580	6.140	21,0		
	125	004110507	004110517	6.300	14.090	22		
1000V d.c.	160	004110508	004110518	13.060	27.220	32	3/24	0: 280 1C: 300
	32	004110520	004110530	52	430	7,6		
	40	004110522	004110532	96	730	8,8		
	50	004110523	004110533	155	920	11,0		
	63	004110524	004110534	290	1.760	13,5		
	80	004110525	004110535	520	3.160	17,0		
	100	004110526	004110536	1.110	5.280	21,0		
	125	004110527	004110537	2.800	11.340	22		
160	004110528	004110538	5.950	20.750	32			

Dimensions:



Size	A	B	C	D
0	125	35	50	60
1C	135	40	55	65



ULTRA QUICK

gR

TYPES
M

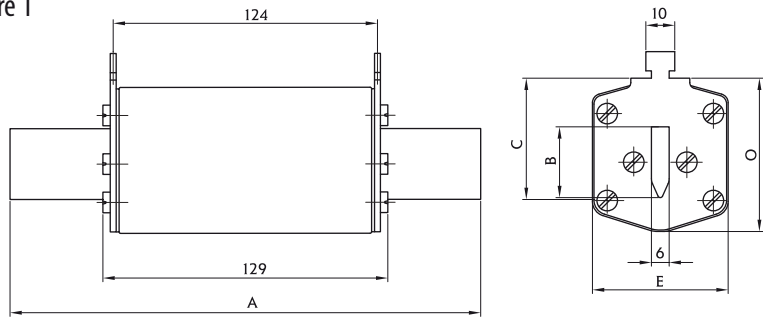
RATED VOLTAGE
= 1100V

Technical data:			Application:
Standards: IEC 60269-4	Breaking capacity: = 10kA Rated voltage: = 1100V L/R=5ms		Fuse-link for DC application. Applied in fuse base PK XL 1500V.

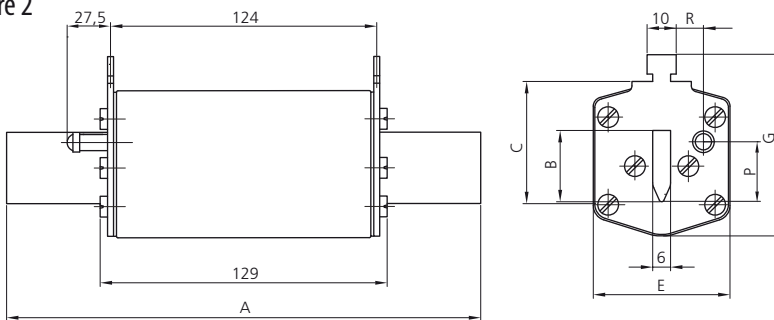
Size	In (A)	Code No. Standard indicator (pic.1)	Code No. Trip indicator - K (pic.2)	Pre-arcing Joule integral I ² t-value (A ² s)	Operating Joule integral I ² t-value (A ² s)	Power dissipation [0,7 x I _n] (W)	Power dissipation (W)	Packaging (pcs)	Weight (g)
1XL	63	004110540	004110550	2.720	3.520	6,2	15,0	1/17	750
	80	004110541	004110551	4.000	5.500	7	17,0		
	100	004110542	004110552	6.500	9.000	8,2	20,0		
	125	004110543	004110553	11.000	15.000	9,6	23,0		
	160	004110544	004110554	19.400	28.640	14,6	35,0		
2XL	200	004110585	004110586	42.600	83.400	13,9	32,6	1/15	1050
	200	004110545	004110555	40.000	60.000	17,8	42,0		
3L	250	004110546	004110556	85.260	117.400	17,9	46,0	1/10	1360
	315	004110547	004110557	166.800	221.900	25,2	54,0		
	350	004110548	004110558	175.000	260.000	28,2	60,5		
	400	004110549	004110559	235.000	345.000	28,8	67,0		

Dimensions:

Picture 1



Picture 2



Size	A	B	C	E	G	P	R	M	O
1XL	194	24	40	46	61,5	20,5	13,7	50	52
2XL	209	30	48	54	71	27,3	16,2	59	61
3L	209	37	60	64	82	35,6	17,0	70	74

Technical data on page 100

gR

TYPES
S80mm

RATED VOLTAGE
~690V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
~200kA
Rated voltage:
~690V

Application:

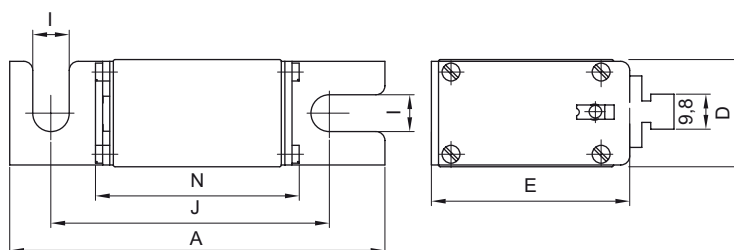
For semiconductor protection.

S00CUQ2/80/125A/690V



Size	In (A)	Type (visual indicator with grip for microswitch NVS 5)	Code No.	Operating I _t -value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
00C	10	S00CUQ2/80/10A/690V	004721104	100	6,5	gR	3/54	140
	16	S00CUQ2/80/16A/690V	004721105	220	8	gR	3/54	140
	20	S00CUQ2/80/20A/690V	004721106	320	9,5	gR	3/54	140
	25	S00CUQ2/80/25A/690V	004721107	600	11,8	gR	3/54	140
	32	S00CUQ2/80/32A/690V	004721108	920	12,5	gR	3/54	140
	35	S00CUQ2/80/35A/690V	004721109	920	13,1	gR	3/54	140
	40	S00CUQ2/80/40A/690V	004721110	1.400	14,1	gR	3/54	140
	50	S00CUQ2/80/50A/690V	004721111	2.250	15,6	gR	3/54	140
	63	S00CUQ2/80/63A/690V	004721112	3.600	17,8	gR	3/54	140
	80	S00CUQ2/80/80A/690V	004721113	6.200	20,6	gR	3/54	140
	100	S00CUQ2/80/100A/690V	004721114	10.000	23,7	gR	3/54	140
	125	S00CUQ2/80/125A/690V	004721115	13.000	30	gR	3/54	140
	160	S00CUQ2/80/160A/690V	004721116	23.000	35,9	gR	3/54	140

Dimensions:



Size	A	D	E	I	J	N
00C	101	21	40	8,5	78	54

remember



One of the fastest growing markets for fuses is protection of semiconductor devices !!!

gR

TYPES
S110mm

RATED VOLTAGE
~690V

Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~200kA Rated voltage: ~690V, ---550V	For semiconductor protection.

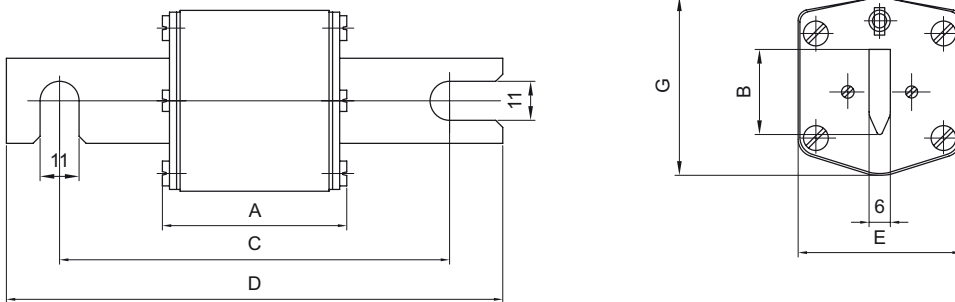
S1UQ2/110/250A/690V



Size	In (A)	Type with visual indicator	Code No.	Operating P _t -value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
1	80	S1UQ2/110/80A/690V	004723113	6.200	9,5	gR	1/26	390
	100	S1UQ2/110/100A/690V	004723114	10.000	12,7	gR	1/26	390
	125	S1UQ2/110/125A/690V	004723115	13.000	17,6	gR	1/26	390
	160	S1UQ2/110/160A/690V	004723116	23.000	23,8	gR	1/26	390
	200	S1UQ2/110/200A/690V	004723117	47.000	31,5	gR	1/26	390
	224	S1UQ2/110/224A/690V	004723118	60.000	36,8	gR	1/26	390
	250	S1UQ2/110/250A/690V	004723119	70.000	42,7	gR	1/26	390
2	125	S2UQ2/110/125A/690V	004724115	13.000	17,6	gR	3/24	510
	160	S2UQ2/110/160A/690V	004724116	23.000	23,8	gR	3/24	510
	200	S2UQ2/110/200A/690V	004724117	47.000	31,5	gR	3/24	510
	224	S2UQ2/110/224A/690V	004724118	60.000	36,8	gR	3/24	510
	250	S2UQ2/110/250A/690V	004724119	70.000	42,7	gR	3/24	510
	315	S2UQ2/110/315A/690V	004724121	110.000	57	gR	3/24	510
	350	S2UQ2/110/350A/690V	004724122	150.000	67	gR	3/24	510
3	400	S2UQ2/110/400A/690V	004724123	170.000	76	gR	3/24	510
	250	S3UQ2/110/250A/690V	004725119	70.000	42,7	gR	3/24	830
	315	S3UQ2/110/315A/690V	004725121	110.000	57	gR	3/24	830
	350	S3UQ2/110/350A/690V	004725122	150.000	67	gR	3/24	830
	400	S3UQ2/110/400A/690V	004725123	170.000	76	gR	3/24	830
	425	S3UQ2/110/425A/690V	004725124	200.000	84	gR	3/24	830
	500	S3UQ2/110/500A/690V	004725126	240.000	102	gR	3/24	830
630	S3UQ2/110/630A/690V	004725128	400.000	138	gR	3/24	830	

Note: 550V d.c.: size 2: 125A to 400A, size 3: 250A to 630A

Dimensions:



Size	A	B	C	D	E	G
1	72	24	110	140	46	51
2	72	30	110	140	54	59
3	72	37	110	140	64	70

Technical data on page 103

gR

TYPES
G

RATED VOLTAGE
~500V

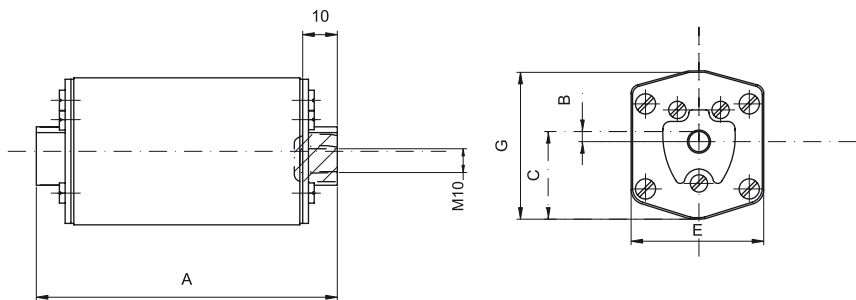
Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~200kA Rated voltage: ~500V	Fuse-links type G has threaded studs so fuses are mounted by special screws to busbars.

Size	In (A)	Type with visual indicator	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
1	35	G1UQ2/35A/500V	004713509	670	15	gR	1/24	360
	40	G1UQ2/40A/500V	004713510	1.000	16,2	gR	1/24	360
	50	G1UQ2/50A/500V	004713511	1.500	17,5	gR	1/24	360
	63	G1UQ2/63A/500V	004713512	2.200	20	gR	1/24	360
	80	G1UQ2/80A/500V	004713513	3.300	23,1	gR	1/24	360
	100	G1UQ2/100A/500V	004713514	7.200	26,4	gR	1/24	360
	125	G1UQ2/125A/500V	004713515	10.000	34	gR	1/24	360
	160	G1UQ2/160A/500V	004713516	21.000	40,1	gR	1/24	360
	200	G1UQ2/200A/500V	004713517	30.000	43,8	gR	1/24	360
	224	G1UQ2/224A/500V	004713518	41.000	48,5	gR	1/24	360
2	250	G1UQ2/250A/500V	004713519	52.000	53	gR	1/24	360
	125	G2UQ2/125A/500V	004714515	10.000	34	gR	1/24	520
	160	G2UQ2/160A/500V	004714516	21.000	40,1	gR	1/24	520
	200	G2UQ2/200A/500V	004714517	30.000	43,8	gR	1/24	520
	224	G2UQ2/224A/500V	004714518	41.000	48,5	gR	1/24	520
	250	G2UQ2/250A/500V	004714519	52.000	53	gR	1/24	520
	315	G2UQ2/315A/500V	004714521	82.000	63	gR	1/24	520
3	350	G2UQ2/350A/500V	004714522	110.000	66	gR	1/24	520
	400	G2UQ2/400A/500V	004714523	160.000	70	gR	1/24	520
	250	G3UQ2/250A/500V	004715519	52.000	53	gR	1/24	800
	315	G3UQ2/315A/500V	004715521	82.000	63	gR	1/24	800
	350	G3UQ2/350A/500V	004715522	110.000	66	gR	1/24	800
	400	G3UQ2/400A/500V	004715523	160.000	70	gR	1/24	800
	425	G3UQ2/425A/500V	004715524	200.000	70	gR	1/24	800
	500	G3UQ2/500A/500V	004715526	260.000	96	gR	1/24	800
	630	G3UQ2/630A/500V	004715528	340.000	135	gR	1/24	800

G2UQ2/350A/500V



Dimensions:



Size	A	B	C	E	G
1	85	8,5	25	46	50
2	72	2	29,5	54	59
3	83	2	34	64	70

ULTRA QUICK

gS

TYPES
M

RATED VOLTAGE
~690V

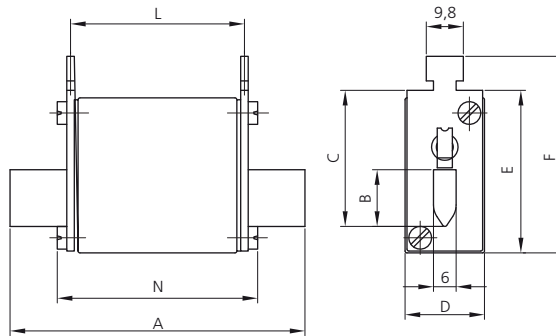
Technical data:		Application:
Standards: IEC 60269-4	Breaking capacity: ~100kA Rated voltage: ~690V	Special designed for protection of variable speed drive, soft starter, servo drive, DC drive.

M00C/16A/690V-gS



Size	In (A)	Type (visual indicator with grip for microswitch NVS 5)	Code No.	Operating I _t -value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
00C	16	M00C/16A/690V-gS	004721240	210	2,8	gS	3/120	140
	20	M00C/20A/690V-gS	004721241	440	3,3	gS	3/120	140
	25	M00C/25A/690V-gS	004721242	760	4,2	gS	3/120	140
	35	M00C/35A/690V-gS	004721243	1.680	5,2	gS	3/120	140
	40	M00C/40A/690V-gS	004721244	3.100	5,8	gS	3/120	140
	50	M00C/50A/690V-gS	004721245	4.500	6,2	gS	3/120	140
	63	M00C/63A/690V-gS	004721246	9.250	7,3	gS	3/120	140
	80	M00C/80A/690V-gS	004721247	18.300	8,1	gS	3/120	140
	100	M00C/100A/690V-gS	004721248	34.200	10,5	gS	3/120	140
	125	M00C/125A/690V-gS	004721249	64.500	11,7	gS	3/120	140
00	160	M00/160A/690V-gS	004721250	77.000	14,0	gS	3/120	140

Dimensions:



Size	A	B	C	D	E	F	L	N
00C	78	15	35	21	42	52	46	53
00	78	15	35	30	42	52	46	53

Technical data on page 110

gS

TYPES
M

RATED VOLTAGE
~690V

Technical data:

Standards:
IEC 60269-4

Breaking capacity:
~100kA
Rated voltage:
~690V

Application:

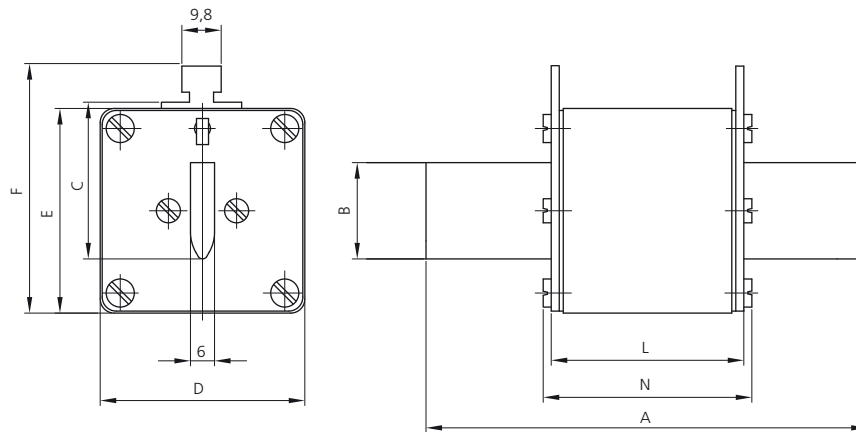
Special designed for protection of variable speed drive, soft starter, servo drive, DC drive.

Size	In (A)	Type (with visual indicator)	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Char.	Packaging (pcs)	Weight (g)
1	160	M1/160A/690V-gS	004723230	61.500	23	gS	3/24	420
	200	M1/200A/690V-gS	004723231	101.000	26	gS	3/24	420
	250	M1/250A/690V-gS	004723232	202.000	30	gS	3/24	420
	315	M1/315A/690V-gS	004723233	312.000	36	gS	3/24	420
2	350	M2/350A/690V-gS	004724230	425.000	41	gS	3/24	660
	400	M2/400A/690V-gS	004724231	585.000	45	gS	3/24	660
	450	M2/450A/690V-gS	004724232	765.000	52	gS	3/24	660
	500	M2/500A/690V-gS	004724233	970.000	56	gS	3/24	660
3	560	M3/560A/690V-gS	004725230	1.800.000	55	gS	3/24	870
	630	M3/630A/690V-gS	004725231	2.300.000	57	gS	3/24	870

M2/160A/690V-gS



Dimensions:



Size	A	B	C	D	E	F	L	N
1	135	24	40	46	52	62	65	72
2	150	30	48	54	61	71	65	72
3	150	37	60	64	74	84	65	72

gS

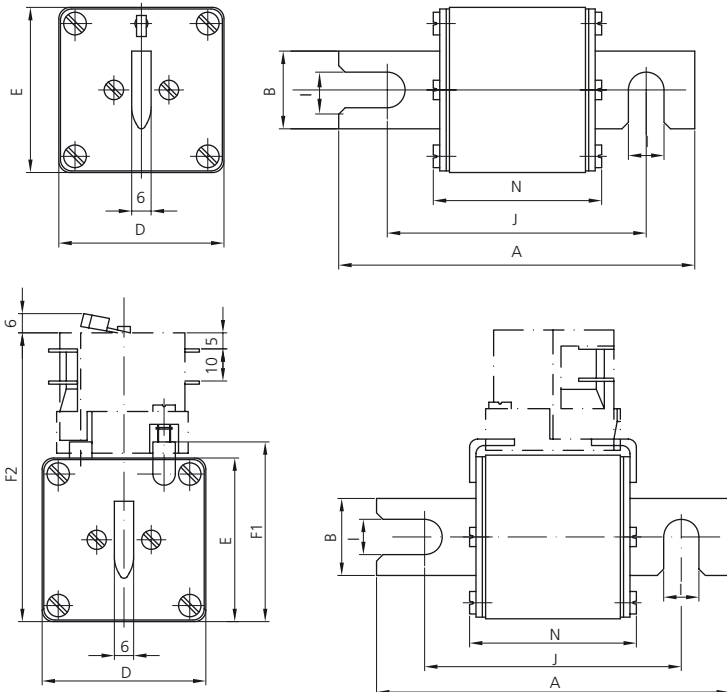
TYPES
S110mm

RATED VOLTAGE
~690V

Technical data:			Application:
Standards: IEC 60269-4	Breaking capacity: ~100kA Rated voltage: ~690V		Special designed for protection of variable speed drive, soft starter, servo drive, DC drive.

Size	In (A)	Type with visual indicator	Code No.	Operating I ² t-value (A ² s)	Power dissipation (W)	Type with center trip indicator for microswitch MK	Code No.	Char.	Packaging (pcs)	Weight (g)
1	160	S1/110/160A/690V-gS	004723250	61.500	23	S1M/110/160A/690V-gS	004723255	gS	1/26	420
	200	S1/110/200A/690V-gS	004723251	101.000	26	S1M/110/200A/690V-gS	004723256	gS	1/26	420
	250	S1/110/250A/690V-gS	004723252	202.000	30	S1M/110/250A/690V-gS	004723257	gS	1/26	420
	315	S1/110/315A/690V-gS	004723253	312.000	36	S1M/110/315A/690V-gS	004723258	gS	1/26	420
2	350	S2/110/350A/690V-gS	004724250	425.000	41	S2M/110/350A/690V-gS	004724255	gS	1/16	660
	400	S2/110/400A/690V-gS	004724251	585.000	45	S2M/110/400A/690V-gS	004724256	gS	1/16	660
	450	S2/110/450A/690V-gS	004724252	765.000	52	S2M/110/450A/690V-gS	004724257	gS	1/16	660
	500	S2/110/500A/690V-gS	004724253	970.000	56	S2M/110/500A/690V-gS	004724258	gS	1/16	660
3	560	S3/110/560A/690V-gS	004725250	1.800.000	55	S3M/110/560A/690V-gS	004725255	gS	3/24	870
	630	S3/110/630A/690V-gS	004725251	2.300.000	57	S3M/110/630A/690V-gS	004725256	gS	3/24	870

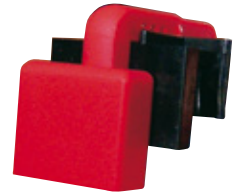
Dimensions:



Size	A	B	D	E	F1	F2	I	J	N
1	140	24	51	51	56	90	11	110	74
2	140	30	60	60	65	99	11	110	74
3	140	37	75	75	80	114	11	110	74

ACCESSORIES

Technical data:	Application:
Rated current: ~5A Rated voltage: ~125V – ~250V	Microswitch NVS-5 is mounted on fuse-links type M.






In (A)	Type	Code No.	Packaging (pcs)	Weight (g)
5	NVS 5	004117001	10/340	11.5

Microswitch MK

Technical data:	Application:
Rated current: ~2A Rated voltage: ~250V	Microswitch MK is mounted on fuse-links type S-M and G-M.



Microswitch MK	Adapter AMK1 for fuses ~690V	Adapter AMK2 for fuses ~1000V
 Pic.05	 Pic.06	 Pic.07

In (A)	Type	Code No.	Packaging (pcs)	Weight (g)
2	MK	004349003	1/1	10g
-	AMK1	004349001	1/1	15g
-	AMK2	004349002	1/1	23g

Microswitch MK + adapter AMK1 are mounted to the fuse type S-M and G-M/ 690V.

Microswitch MK + adapter AMK2 are mounted to the fuse S-M and G-M/ 1000V.

remember

Today many different types of equipment are already fitted with Variable speed drives. In today's industry avoiding down-time can be the same as creating income.

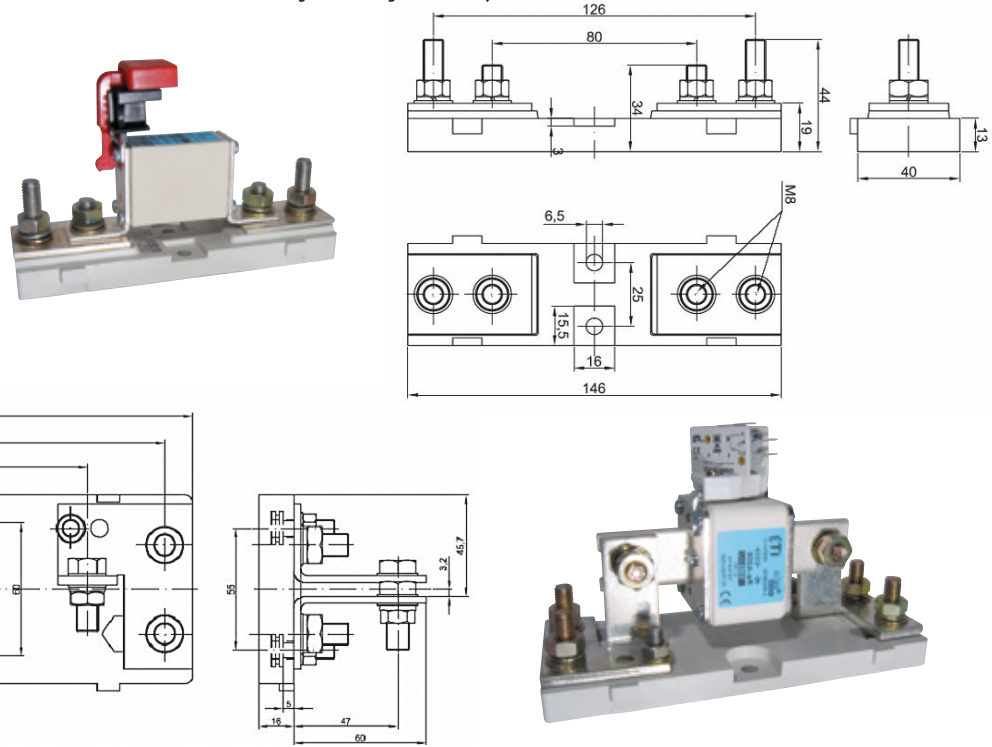
ACCESSORIES

Fuse base US

Technical data:				Application:
Rated voltage: 1000V, 1400V	US00 Rated current: 400A, 1000V	US1...3 Rated current: 630A, 1400V*	US1..3/1250A Rated current: 1250A, 1400V*	Fuse bases are designed for mounting fuse-links Ultra Quick type S.
		*900V when fuse links with 80mm hole centres applied	*900V when fuse links with 80mm hole centres applied	

Type	Code No.	Packaging (pcs)	Weight (g)
US00-1/80	004349005	5/5	185
US1...3-1/80-110	004349006	2/2	950
US1..3-1/80-110/1250A	004122043	2/2	1100

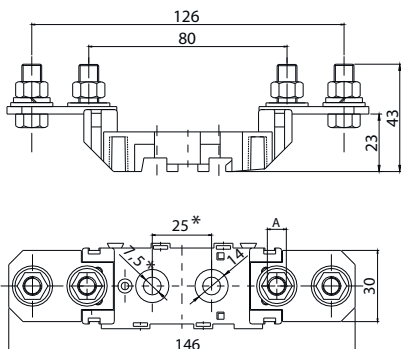
Note: Fuse base PK, STV, VLC, PCF, D0, D Catalogue "Building and Industry"



Fuse base PLNVV

Type	In (A)	Code No.	Packaging (pcs)	Weight (g)
PLNVV – 000/1 A	160	001701010	3	510
PLNVV – 00/1 A	160	001701020	3	580

Note: for all accessories for PLNVV fuse bases, please check our Building and Industry Catalogue.



	A
PLNVV -000	M8
PLNVV -00	M10

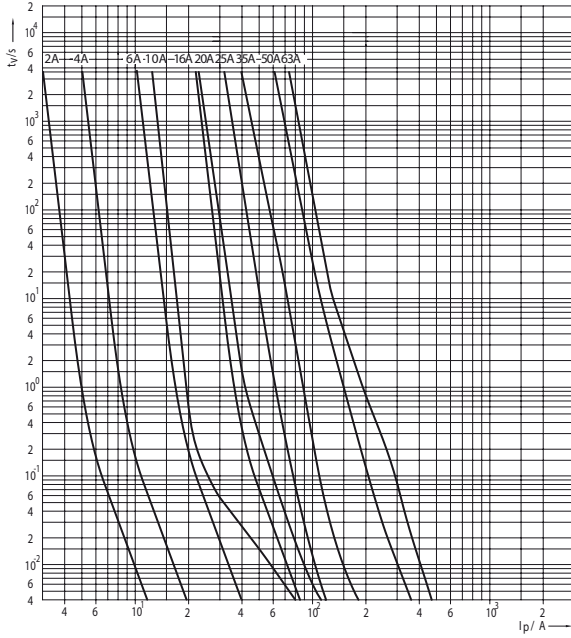


CHARACTERISTICS

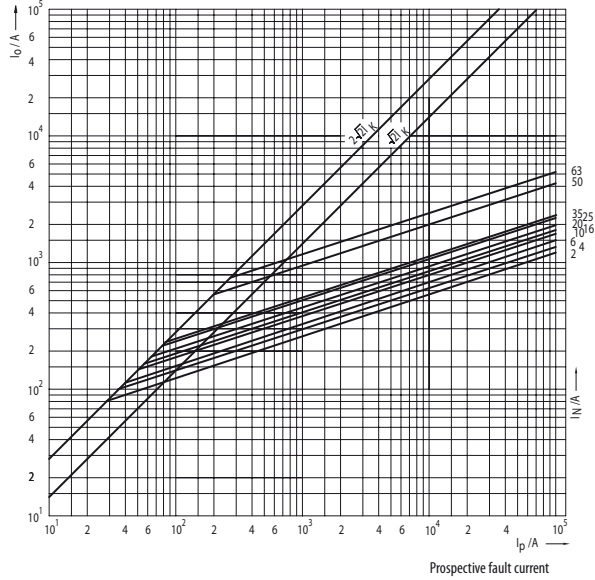
CHARACTERISTICS

RATED VOLTAGE
~400V

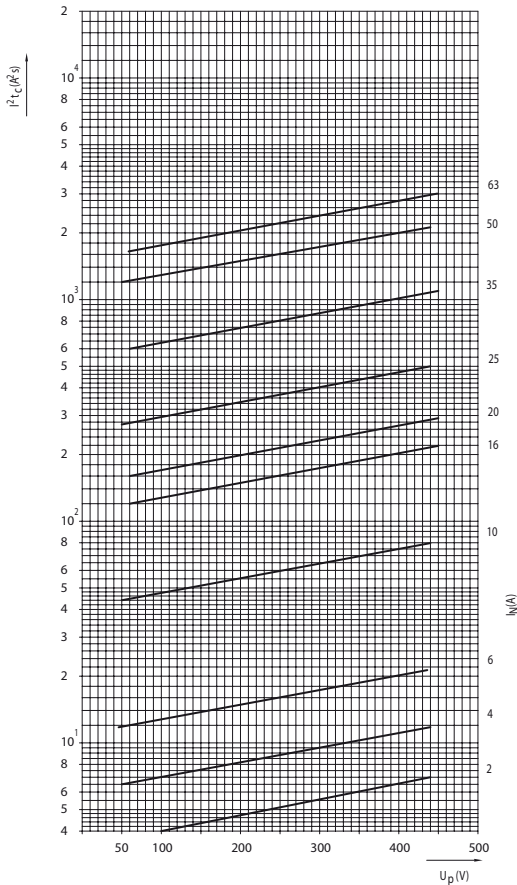
Time/current characteristics of fuse-links Ultra Quick D01 and D02



Cut-off characteristics of fuse-links Ultra Quick D01 and D02



Operating Joule Integral (I²t) for Ultra Quick D01 and D02



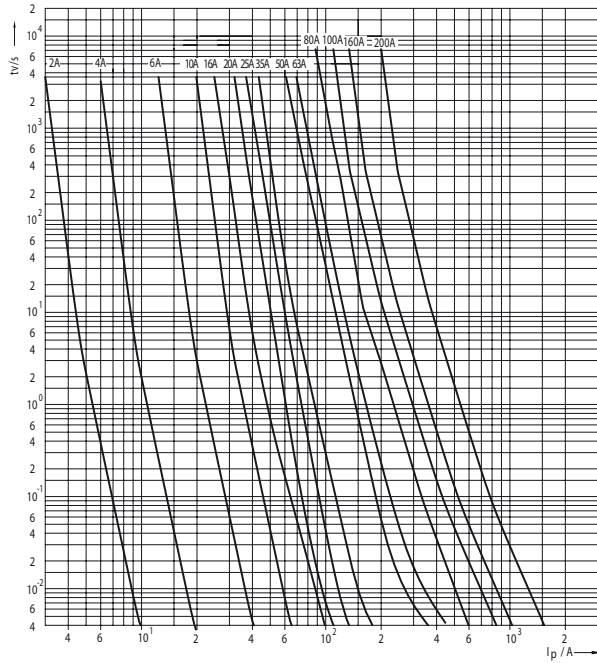
Power dissipation, pre-arcing Joule Integral and Operating Joule Integral for Ultra Quick D01 and D02

I _n	Power dissipation	Pre-arcing Joule integral I ² t (1ms)	Operating Joule Integral I ² t ~100V	Operating Joule Integral I ² t ~200V	Operating Joule Integral I ² t ~400V
A	W	A ² s	A ² s	A ² s	A ² s
2	2,3	1	2,3	4	6,3
4	3,1	2	4,7	8	13
6	4,0	5	7	12	20
10	4,2	12	25	40	65
16	5,3	35	70	100	200
20	8,0	55	120	180	275
25	9,0	85	160	280	480
35	10,0	180	250	450	1.000
50	15,0	250	550	850	1.800
63	17,0	550	800	1.200	2.500

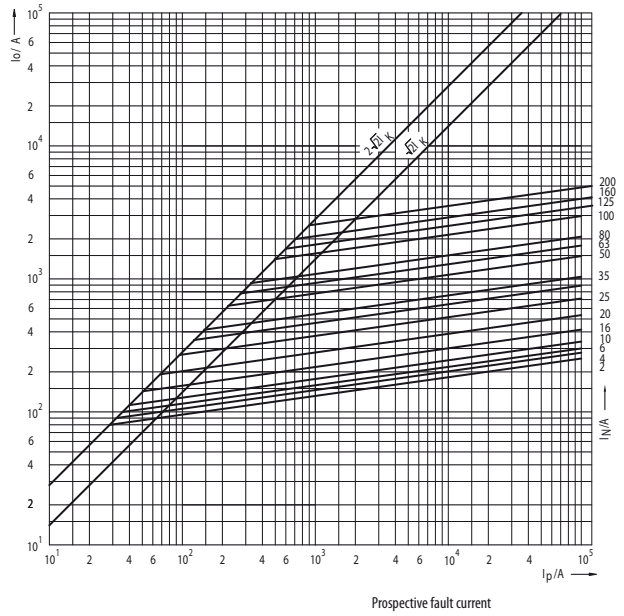
CHARACTERISTICS

RATED VOLTAGE
~500V

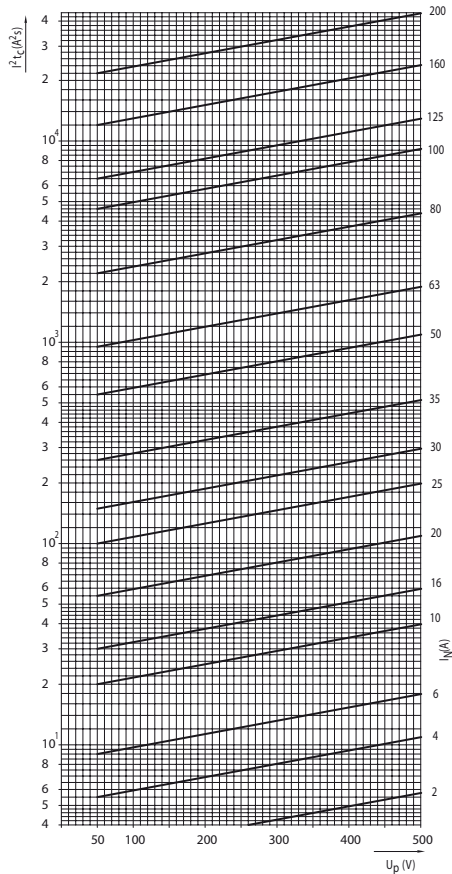
Time/current characteristics of fuse-links Ultra Quick DI, DII, DIII, DIV, DV.



Cut-off characteristics of fuse-links Ultra Quick DI, DII, DIII, DIV, DV.



Operating Joule Integral (I^2t) for Ultra Quick DI, DII, DIII, DIV, DV

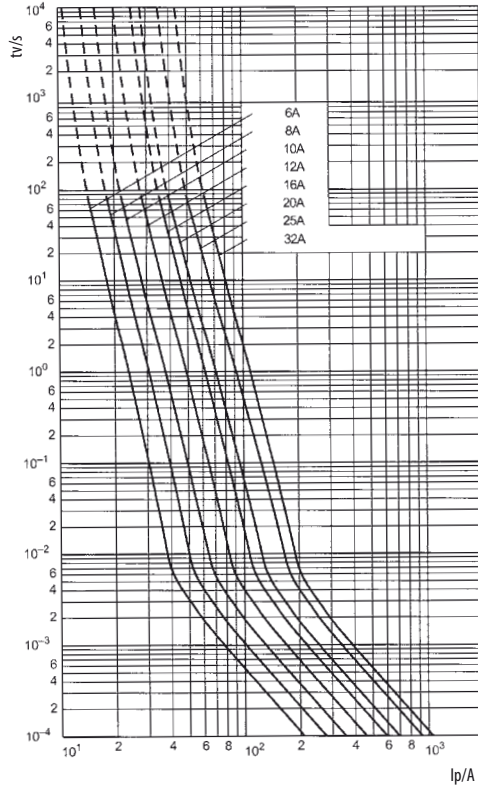


Power dissipation, pre-arcing Joule Integral and Operating Joule Integral for Ultra Quick DI, DII, DIII, DIV, DV.

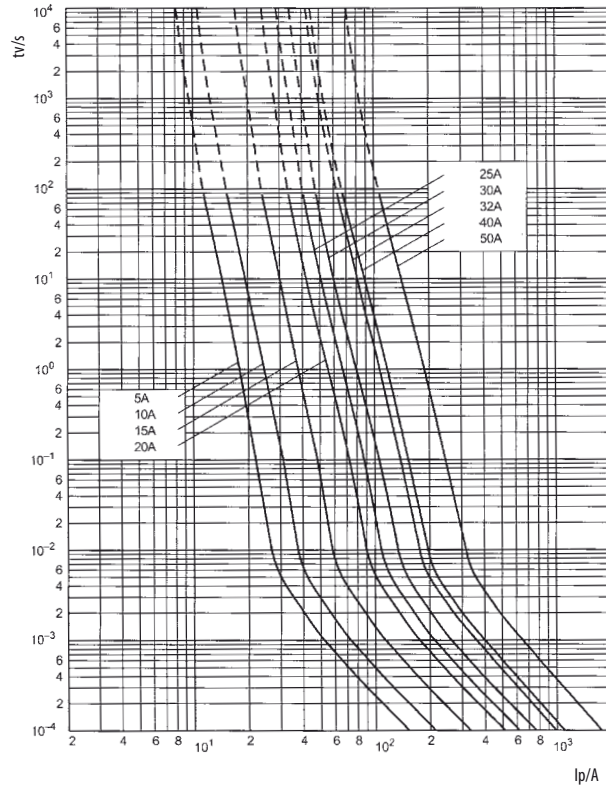
I_n	Power dissipation	Pre-arcing Joule Integral I^2t (1ms)	Operating Joule Integral $I^2t \sim 125V$	Operating Joule Integral $I^2t \sim 250V$	Operating Joule Integral $I^2t \sim 500V$
A	W	A^2s	A^2s	A^2s	A^2s
2	2,1	0,7	1,8	3,5	5,8
4	2,5	1,8	4,1	6	11
6	3,2	4	6	10	18
10	3,6	8	12,5	23	40
16	6,3	16,2	34	40	60
20	7,3	35,8	67	85	139
25	9,0	48,9	85	116	205
30	10,0	85	120	170	310
35	12,0	135	220	300	539
50	19,0	340	600	780	1.250
63	23,0	530	850	1.115	1.890
80	33,0	980	1.480	2.110	4.200
100	51,0	1.950	3.000	4.200	8.450
125	60,0	3.100	4.300	6.000	16.000
160	71,0	10.000	12.000	18.000	24.000
200	90,0	17.000	22.000	31.000	40.000

RATED VOLTAGE
~600/690V

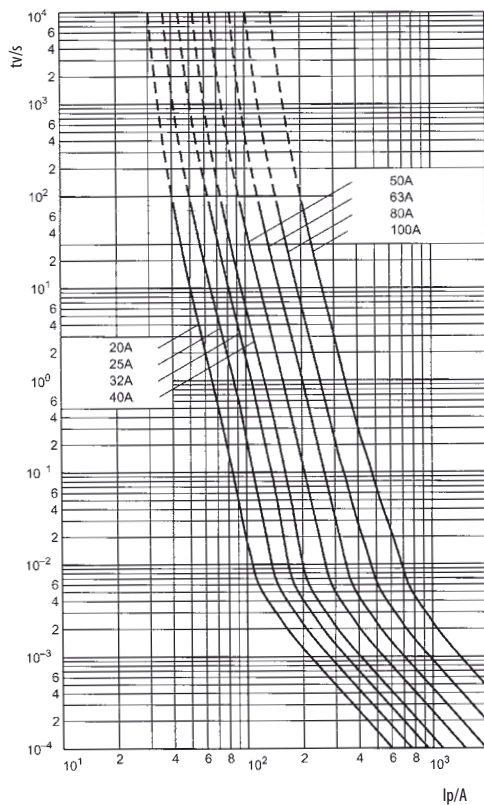
Time/current characteristics of fuse links Ultra quick CH-size 10 x 38



Time/current characteristics of fuse links Ultra quick CH, CH-S-size 14 x 51



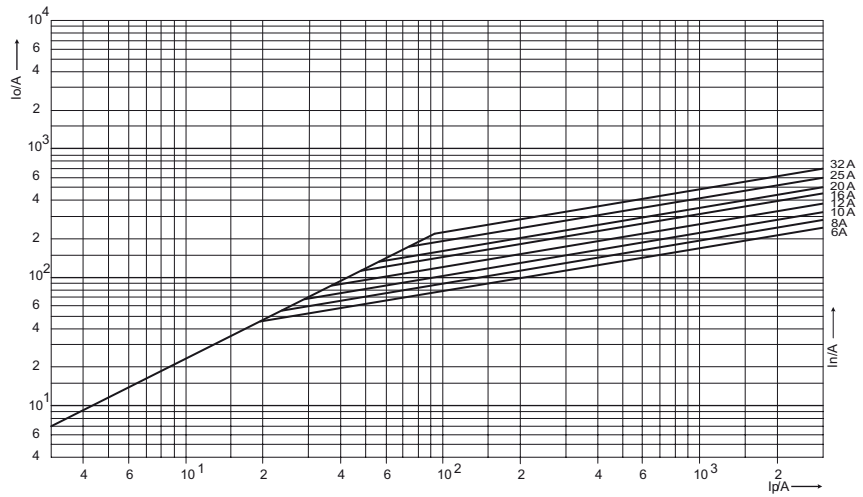
Time/current characteristics of fuse links Ultra quick CH, CH-S-size 22 x 58



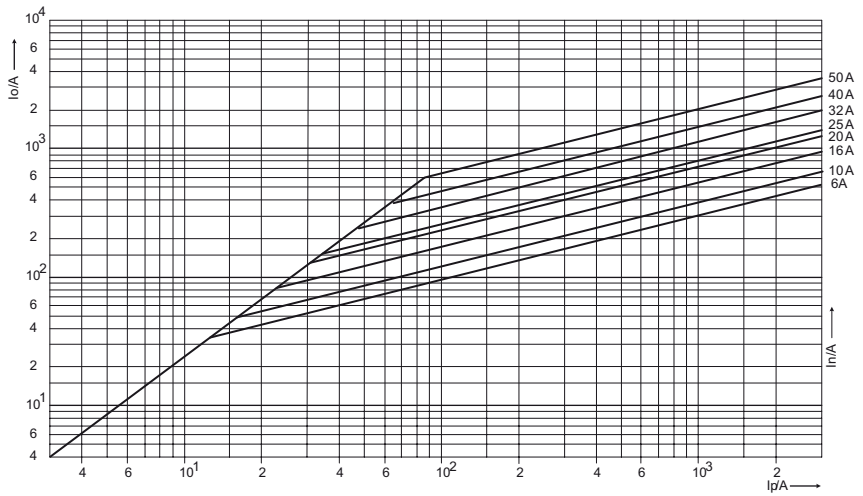
CHARACTERISTICS

RATED VOLTAGE
~600/690V

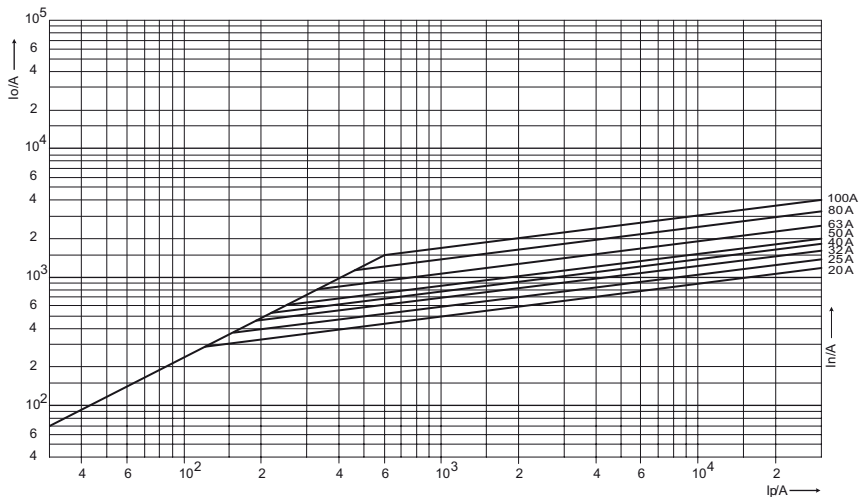
Cut-off characteristics of fuse-links Ultra Quick CH – size 10 x 38



Cut-off characteristics of fuse-links Ultra Quick CH, CH-S – size 14 x 51

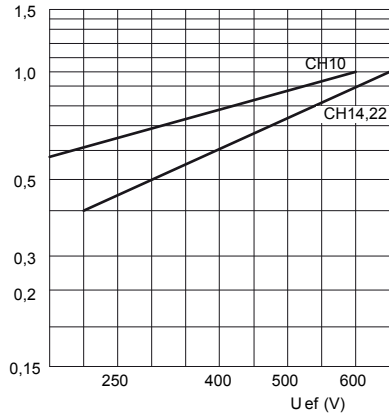


Cut-off characteristics of fuse-links Ultra Quick CH, CH-S – size 22 x 58

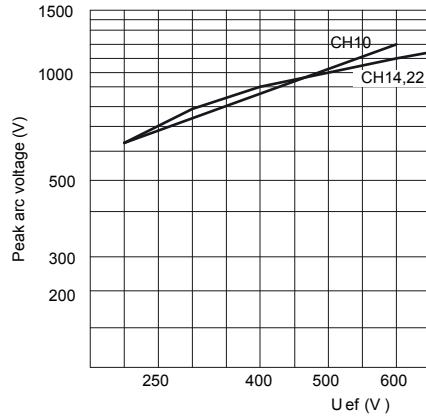


RATED VOLTAGE
~600/690V

Conversion factor for total Joule integral



Maximum arc voltage occurring



Correction factor for converting the power dissipation for percentage load

Load(%)	Correction factor
10	0,005
20	0,025
30	0,063
40	0,122
50	0,204
60	0,31
70	0,442
80	0,6
90	0,785
100	1

CHARACTERISTICS

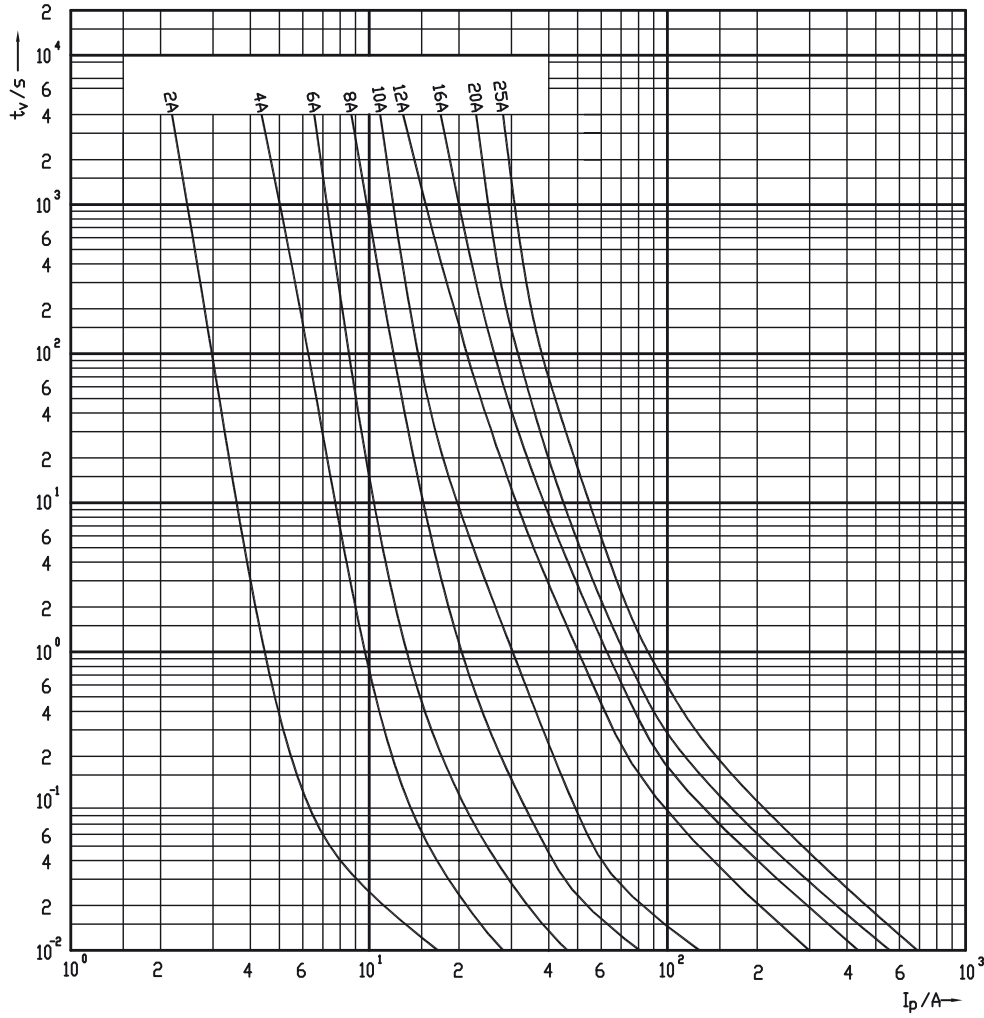
RATED VOLTAGE
~600/690V

Power dissipation, pre-arcing Joule integral and Operating Joule integral for Ultra Quick

Size	In	Power dissipation	Pre-arcing Joule integral I ² t (1ms)	Operating Joule Integral I ² t ~180V	Operating Joule Integral I ² t ~330V	Operating Joule Integral I ² t ~600/690V
	A	W	A ² s	A ² s	A ² s	A ² s
CH10	6	1,5	4	17	21	30
	8	2	6	29	35	50
	10	2,5	9	40	48	70
	12	3	15	68	83	120
	16	3,5	25	86	104	150
	20	4,8	34	148	179	260
	25	6	60	165	200	290
	32	7,5	95	342	414	600
CH-S 14 CH14	10	4	4	9	10	22
	12	5	6	20	24	50
	16	5,5	10	30	35	75
	20	6	26	72	85	180
	25	7	44	128	150	320
	32	7,6	68	240	282	600
	40	8	84	300	353	750
	50	9	200	720	846	1.800
CH-S 22 CH22	20	5,6	23	104	122	260
	25	5,6	37	164	193	410
	32	7	55	242	284	605
	40	8,5	68	300	353	750
	50	9,5	155	640	752	1.600
	63	11	280	1.232	1.448	3.080
	80	13,5	600	2.640	3.102	6.600
	100	16	1.100	5.000	5.875	12.500

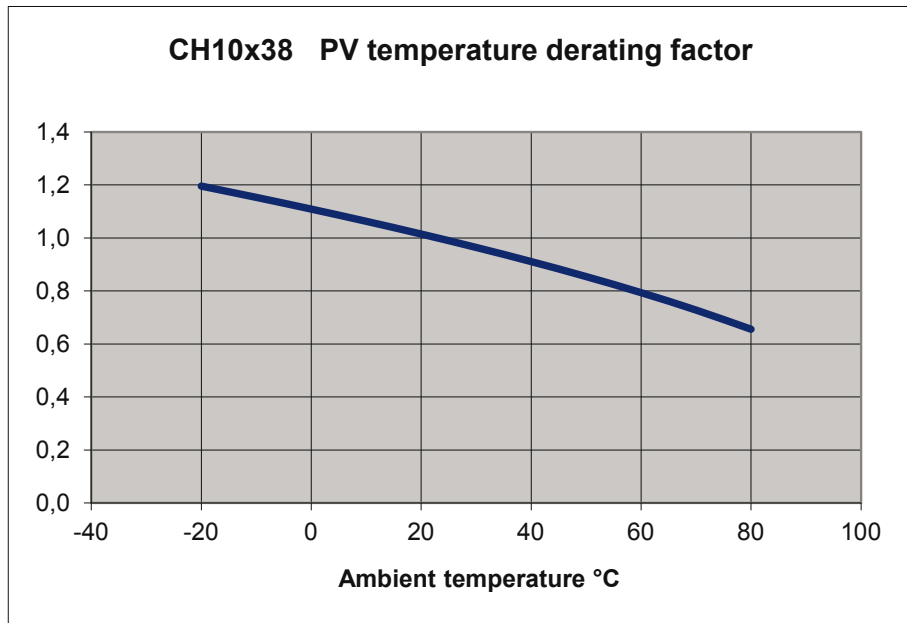
RATED VOLTAGE
~700V, ~900V

Time/current characteristics of fuse links CH gR size 10 x 38



ULTRA QUICK

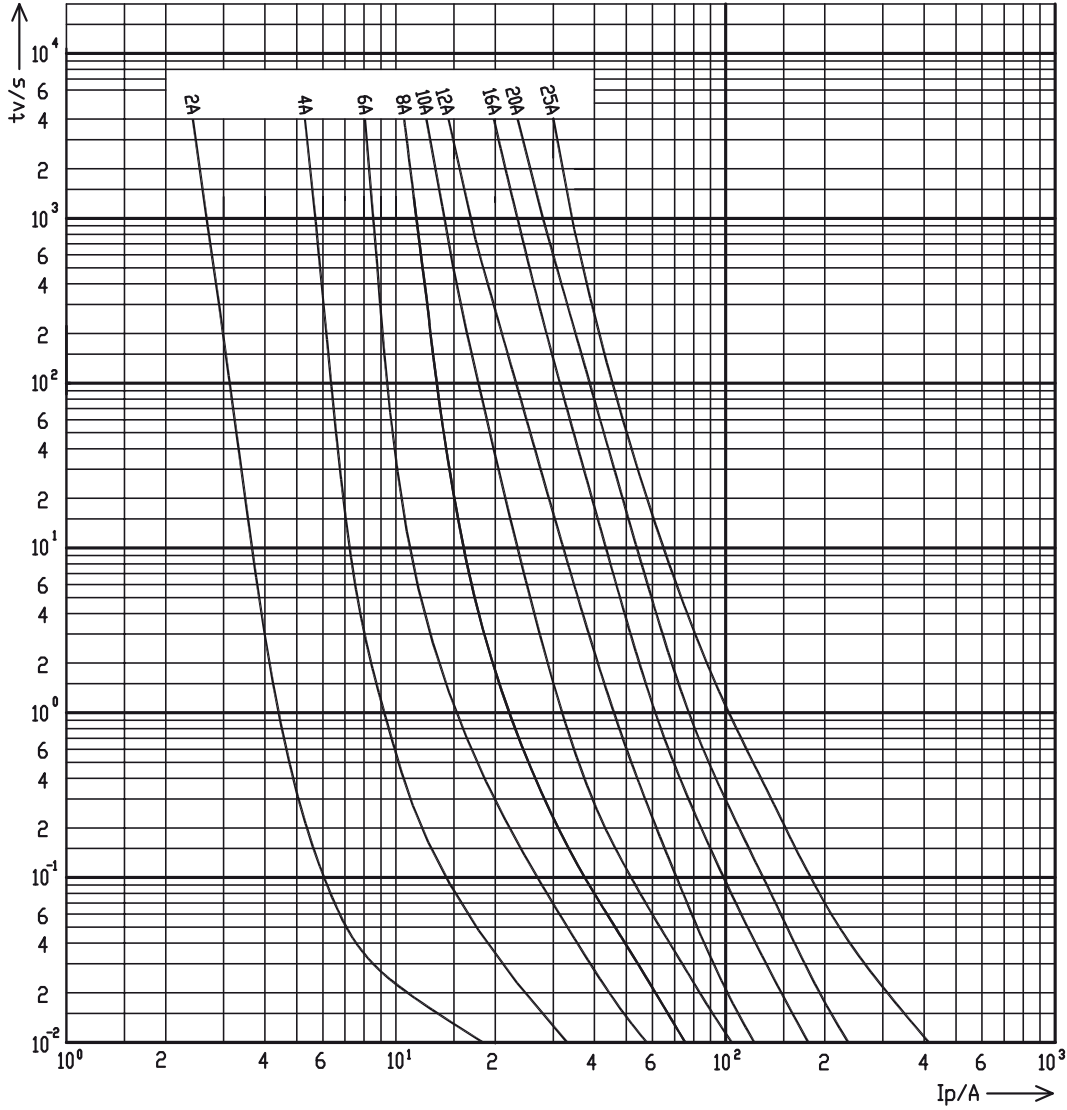
Tamb (°C)	A1
-20	1,196
-10	1,153
0	1,109
10	1,063
20	1,015
30	0,964
40	0,911
50	0,854
60	0,794
70	0,728
80	0,656



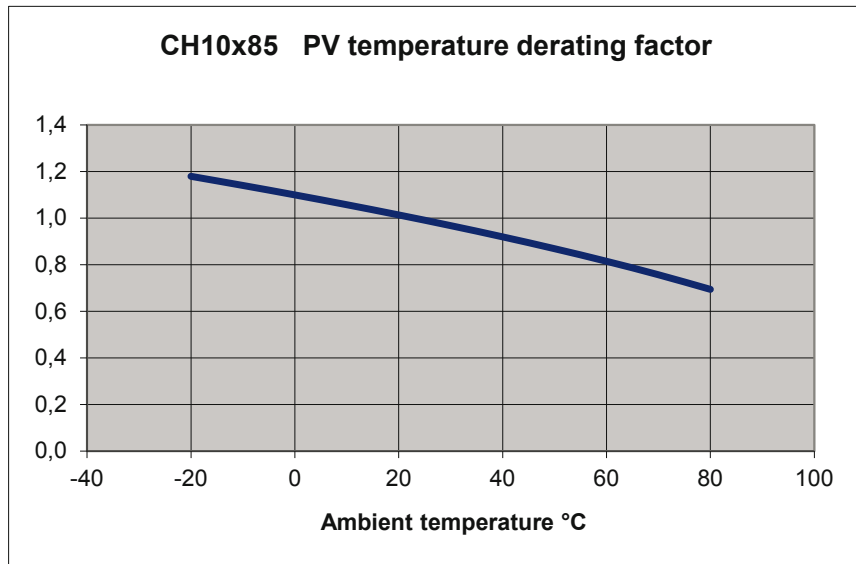
CHARACTERISTICS

RATED VOLTAGE
= 1200V

Time/current characteristics of fuse links CH gR size 10 x 85

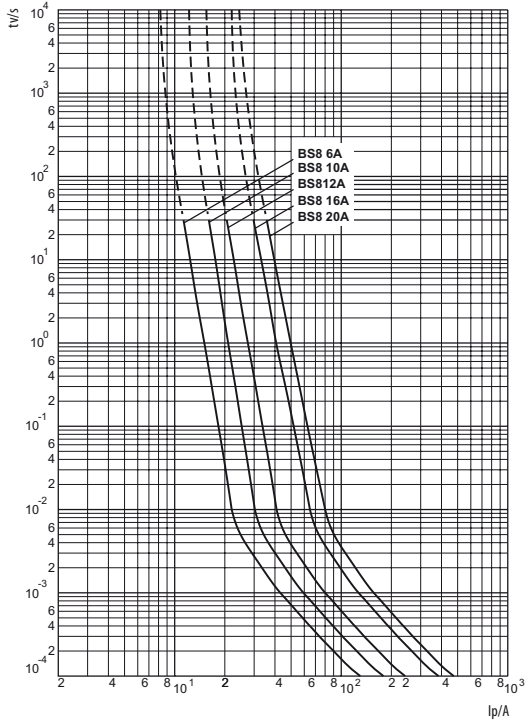


Tamb (°C)	A1
-20	1,179
-10	1,140
0	1,100
10	1,057
20	1,014
30	0,968
40	0,919
50	0,869
60	0,815
70	0,757
80	0,694

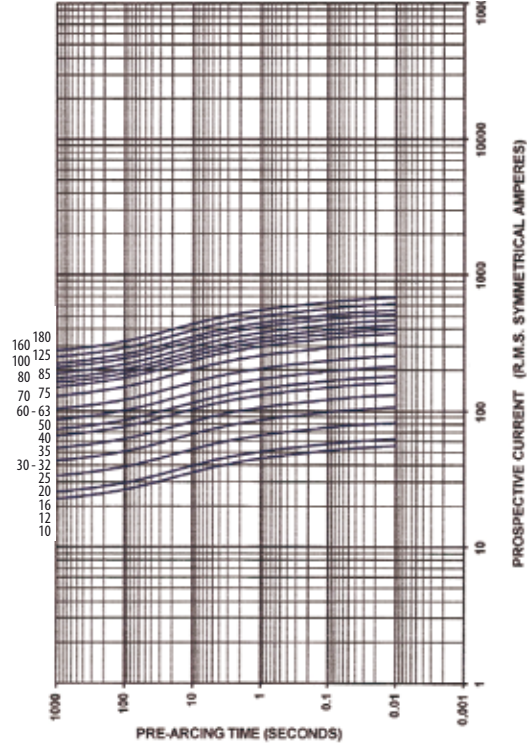


RATED VOLTAGE
~240V

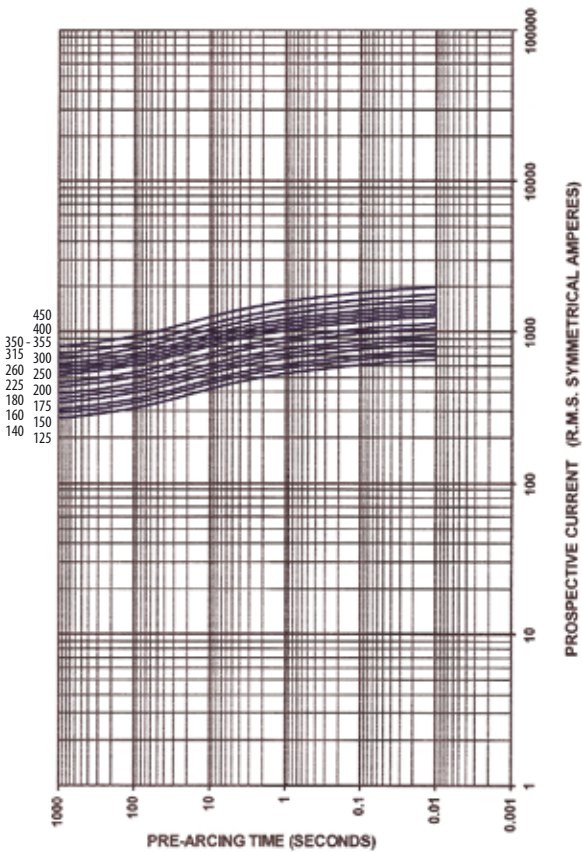
Time/current characteristics of fuse-links Ultra Quick BS8



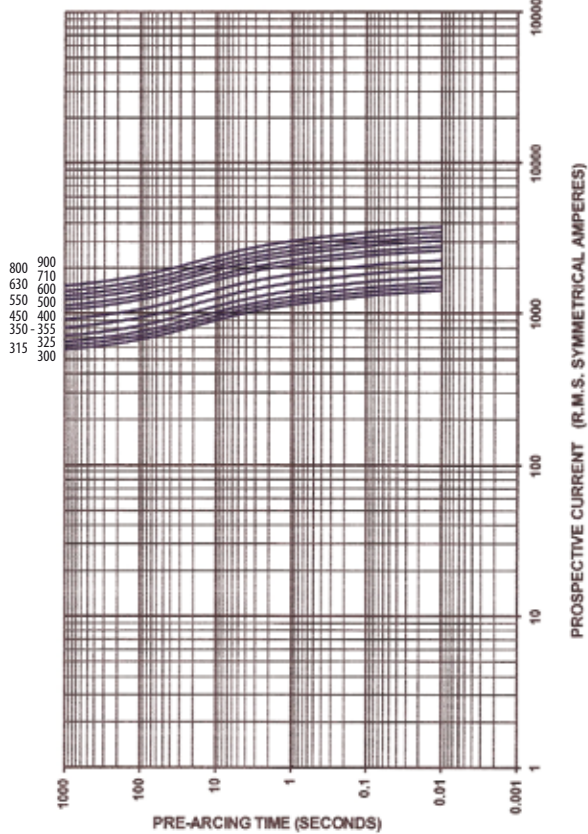
Time/current characteristics of fuse-links Ultra Quick BS17



Time/current characteristics of fuse-links Ultra Quick BS38



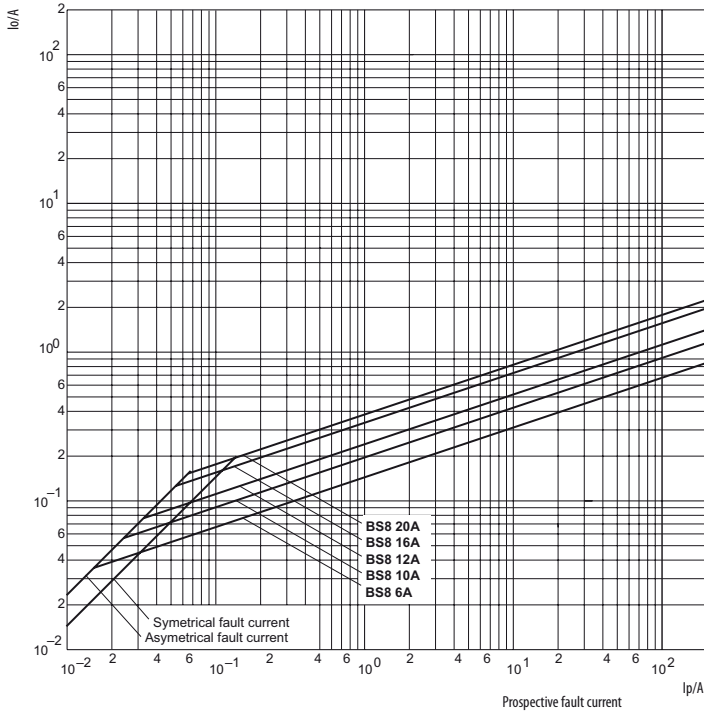
Time/current characteristics of fuse-links Ultra Quick BS38T



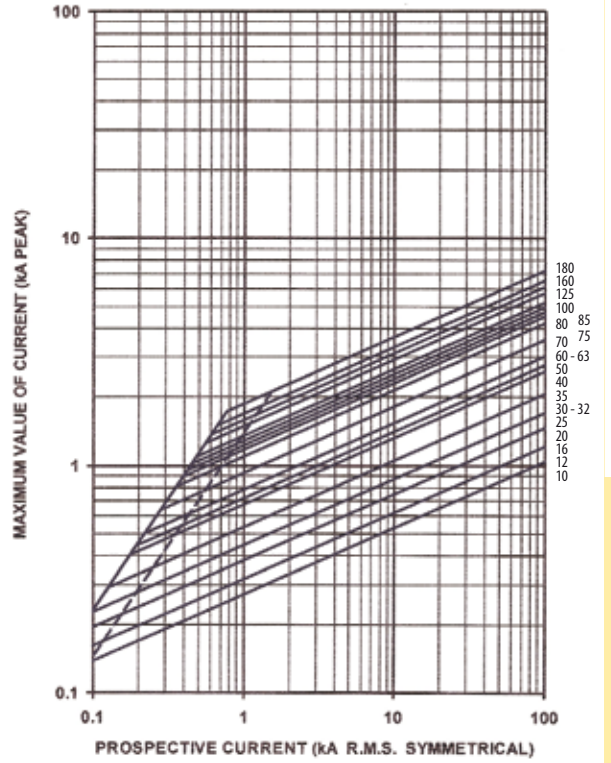
CHARACTERISTICS

RATED VOLTAGE
~240V

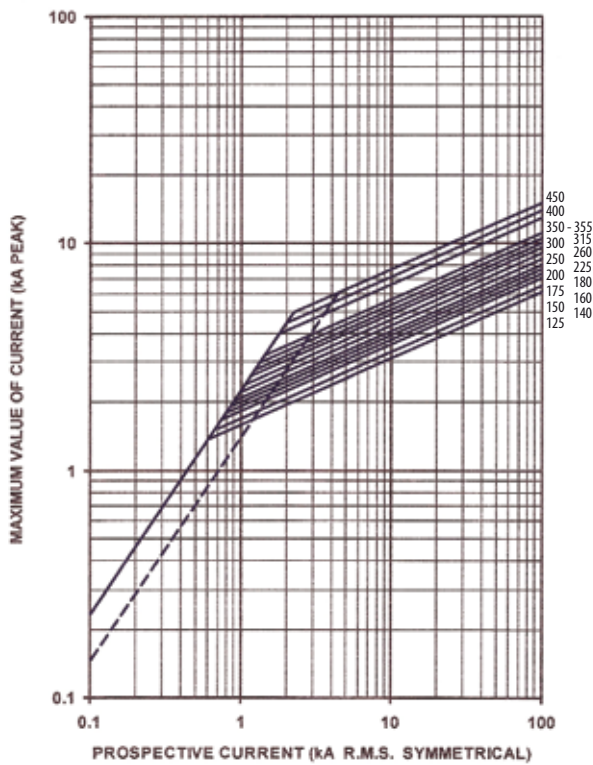
Cut-off characteristics of fuse-link Ultra Quick BS8



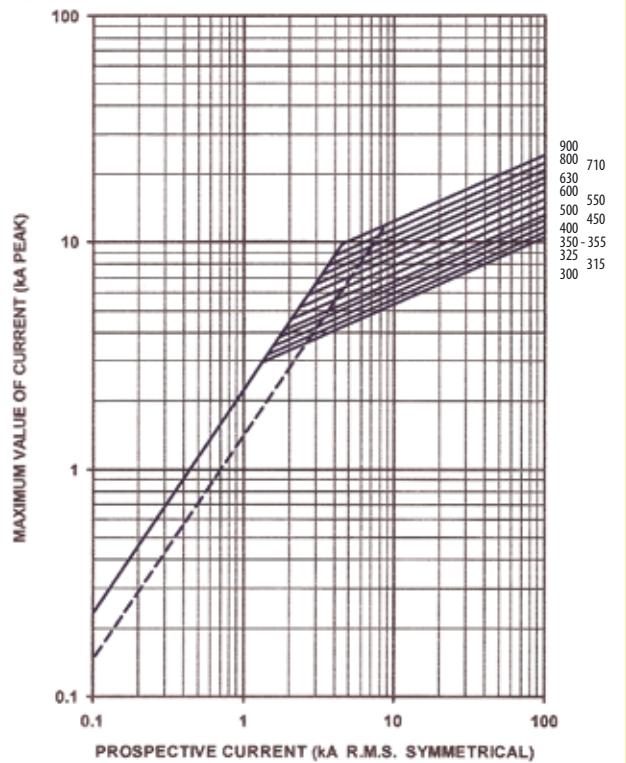
Cut-off characteristics of fuse-link Ultra Quick BS17



Cut-off characteristics of fuse-link Ultra Quick BS38

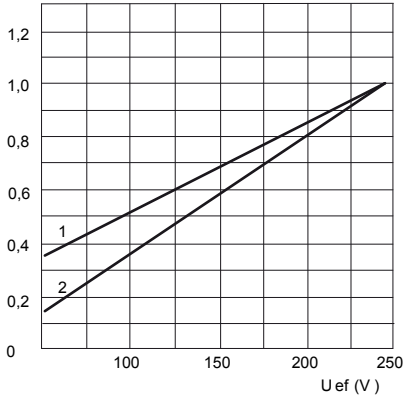


Cut-off characteristics of fuse-link Ultra Quick BS38T



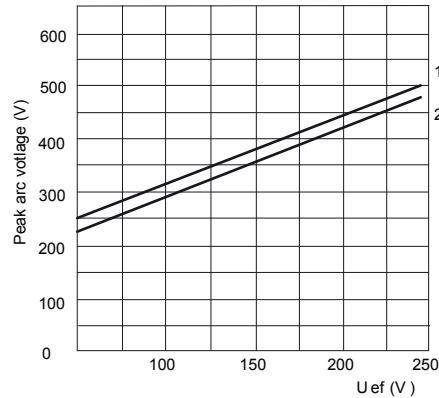
RATED VOLTAGE
~240V

Conversion factor for total Joule integral



- 1) BS8
- 2) BS17, 38, 38T

Maximum arc voltage occurring



- 1) BS8
- 2) BS17, 38, 38T

Power dissipation, pre-arcing Joule Integral and Operating Joule Integral for Ultra Quick BS8, BS17, BS38, BS38T

Size	I _n	Power dissipation	Pre-arcing Joule integral I _t (1ms)	Operating Joule Integral I _t ~120V	Operating Joule Integral I _t ~240V
	A	W	A ² s	A ² s	A ² s
BS8	6	1	2	6	9
	10	2,5	3,8	12	22
	12	2,5	7	22	32
	16	2,5	20	50	100
	20	4	25	80	160
BS17	25	1,7	18	120	240
	32	2,2	32	210	420
	35	2,3	50	250	500
	50	3,3	100	600	1.200
	63	4,3	180	1.000	1.900
	80	6	300	1.500	3.100
	100	7,5	600	2.500	5.000
	125	12	600	2.700	5.500
	160	19,5	1.100	3.200	6.500
180	24	1.600	4.300	8.700	
BS38	160	12	1.100	6.200	12.500
	200	16,5	1.500	9.000	18.500
	250	20	3.200	13.000	27.500
	315	28,4	6.000	21.000	42.500
	355	30	8.000	33.000	67.000
	400	38	14.000	35.000	78.000
	450	44,5	18.000	45.000	96.000
BS38T	400	30	6.000	44.000	88.000
	500	38	14.000	70.000	145.000
	630	50	24.000	110.000	214.000
	710	62	32.000	140.000	290.000
	800	78	52.000	160.000	335.000

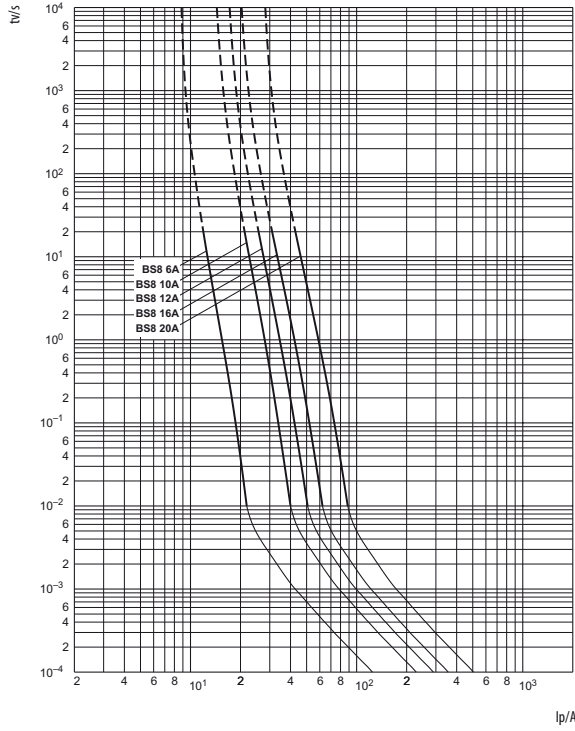
Correction factor for converting the power dissipation for percentage load

Load(%)	Correction factor
10	0,005
20	0,025
30	0,063
40	0,122
50	0,204
60	0,31
70	0,442
80	0,6
90	0,785
100	1

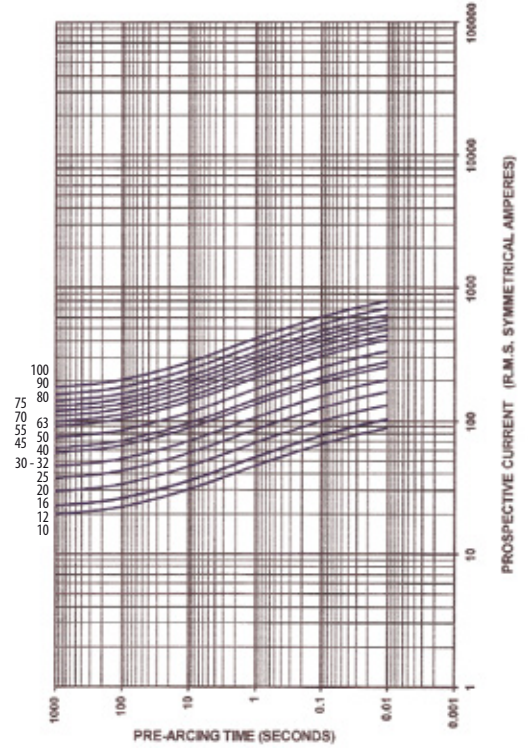
CHARACTERISTICS

RATED VOLTAGE
~690V

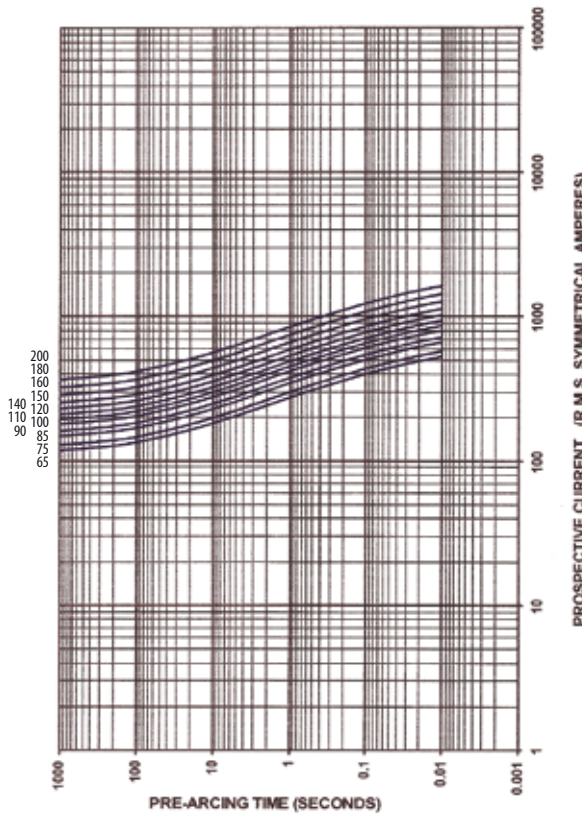
Time/current characteristics of fuse-links Ultra Quick BS8



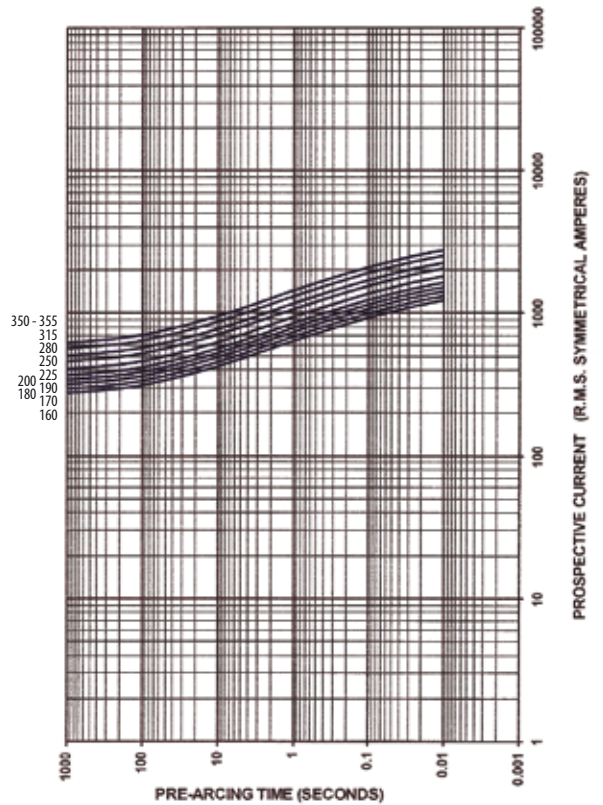
Time/current characteristics of fuse-links Ultra Quick BS17



Time/current characteristics of fuse-links Ultra Quick BS17D

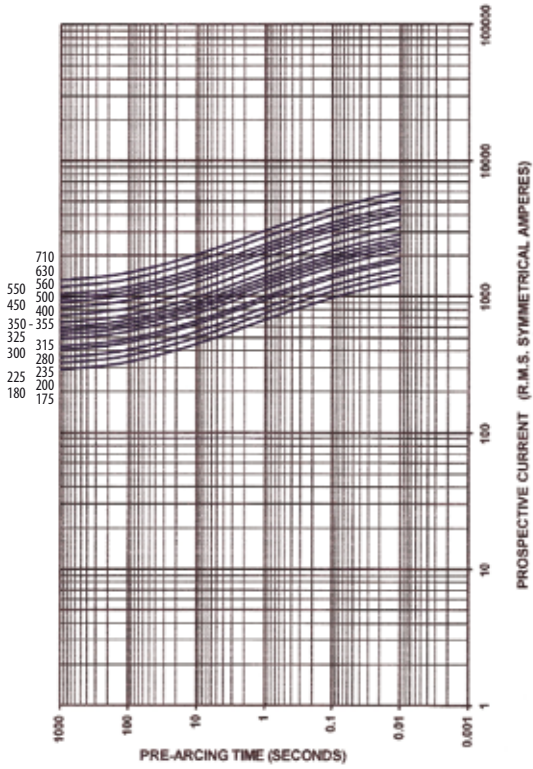


Time/current characteristics of fuse-links Ultra Quick BS38

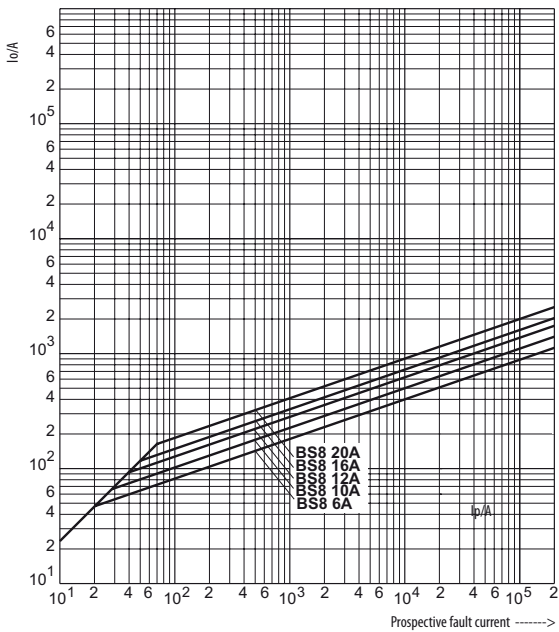


RATED VOLTAGE
~690V

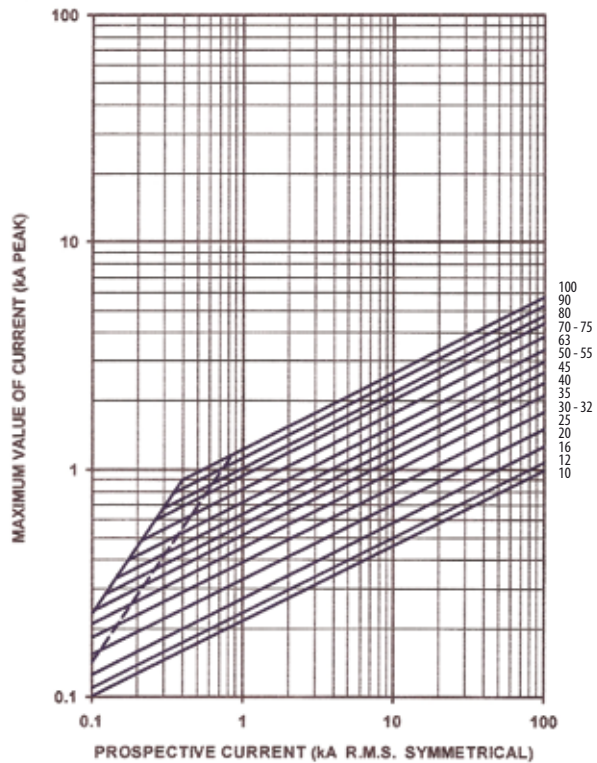
Time/current characteristics of fuse-links Ultra Quick BS38T



Cut-off characteristics of fuse-links Ultra Quick BS8



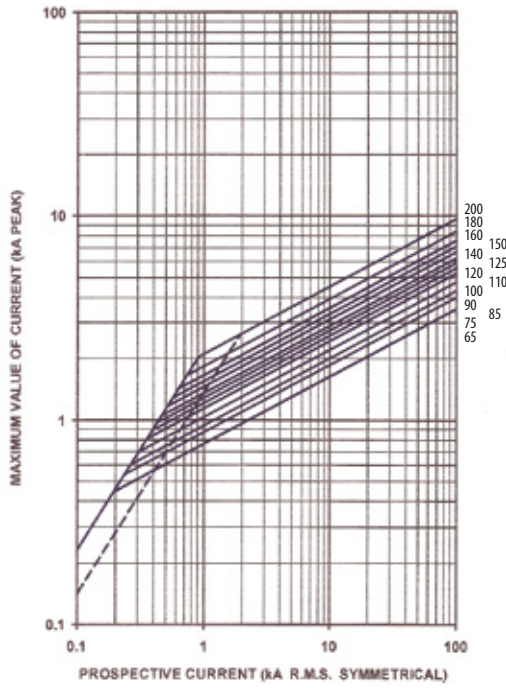
Cut-off characteristics of fuse-links Ultra Quick BS17



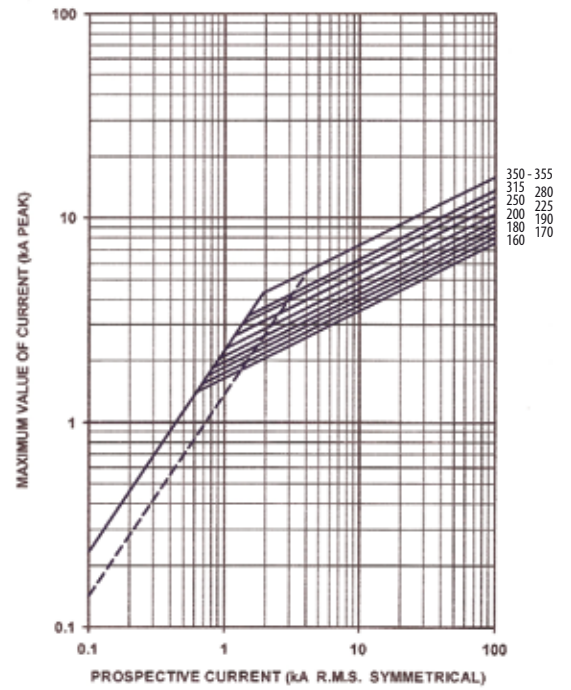
CHARACTERISTICS

RATED VOLTAGE
~690V

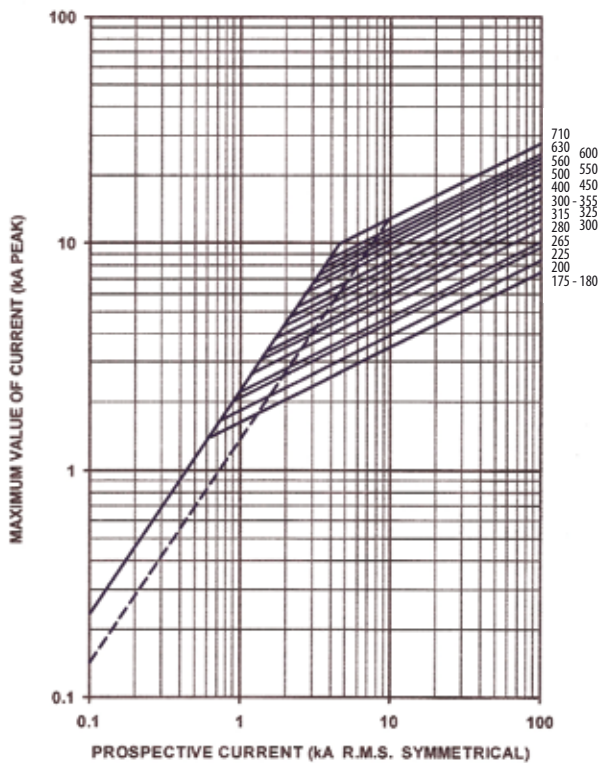
Cut-off characteristics of fuse-links Ultra Quick BS17D



Cut-off characteristics of fuse-links Ultra Quick BS38

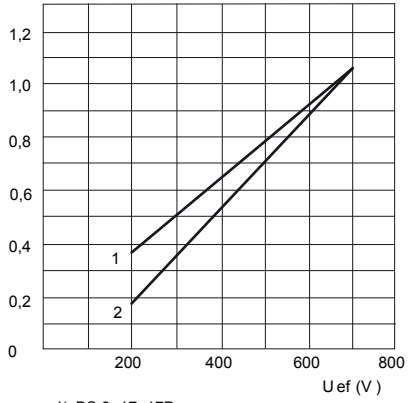


Cut-off characteristics of fuse-links Ultra Quick BS38T



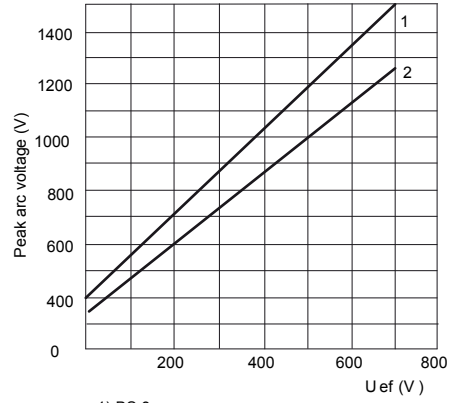
RATED VOLTAGE
~690V

Conversion factor for total Joule integral



- 1) BS 8, 17, 17D
- 2) BS 38, 38T

Maximum arc voltage occurring



- 1) BS 8
- 2) BS 17, 17D, 38, 38T

Correction factor for converting the power dissipation for percentage load

Load(%)	Correction factor
10	0,005
20	0,025
30	0,063
40	0,122
50	0,204
60	0,31
70	0,442
80	0,6
90	0,785
100	1

CHARACTERISTICS

RATED VOLTAGE
~690V

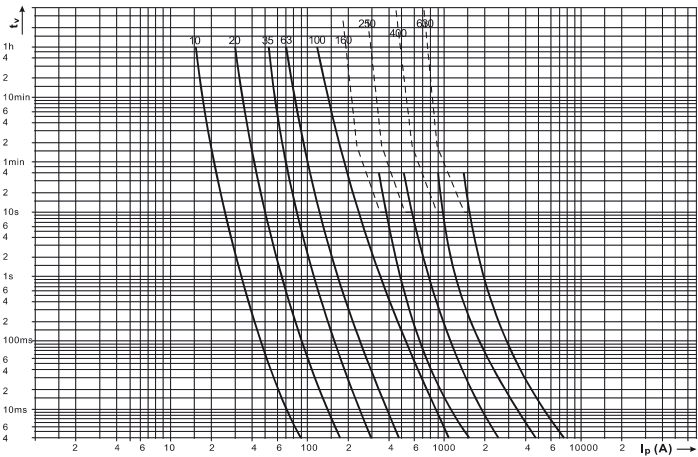
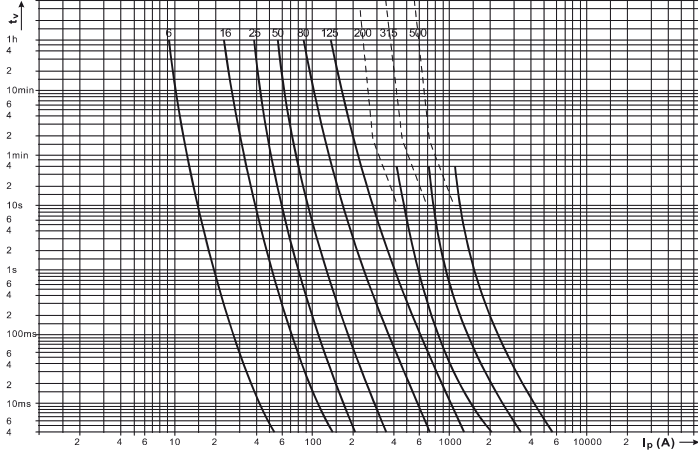
Power dissipation, pre-arcing Joule Integral and Operating Joule Integral for Ultra Quick BS8, BS17, BS17D, BS38, BS38T

Size	I_n	Power dissipation	Pre-arcing Joule integral I^2t (1ms)	Operating Joule Integral $I^2t \sim 415V$	Operating Joule Integral $I^2t \sim 690V$
	A	W	A ² s	A ² s	A ² s
BS8	6	2	1,8	8,5	12
	10	3	7	30	48
	12	3	10	40	65
	16	7	16	66	110
	20	7	32	150	220
BS17	25	5,8	25	150	250
	32	6,8	32	190	350
	35	7,2	33	130	200
	40	8	52	350	700
	45	8,5	76	450	900
	50	9,5	103	600	1.300
	56	10,4	135	700	1.450
	63	11,5	135	1.000	2.100
	71	13	210	1.400	2.800
	80	14,5	250	1.700	3.500
BS17D	90	15,5	360	2.500	5.200
	100	16	470	3.200	6.800
	90	16,6	490	1.800	3.600
	110	21	600	3.000	5.900
	120	22	540	3.700	7.400
BS38	140	24,5	850	5.000	11.000
	160	28	1.000	7.000	14.500
	160	27,7	2.400	7.000	14.500
	180	29	1.400	12.000	23.500
	200	31	2.600	15.000	30.000
BS38T	250	37	5.200	25.000	53.000
	315	47	10.000	50.000	97.000
	350	57	15.000	70.000	140.000
	200	32	2.200	10.000	21.000
	225	39	3.700	15.000	30.000
	315	48	8.600	35.000	75.000
	355	56	13.500	55.000	110.000
	400	60	10.000	70.000	147.000
	450	65	15.000	105.000	210.000
	500	68	20.000	130.000	277.000
BS38T	630	83	45.000	260.000	520.000
	700	94	60.000	300.000	600.000

aR/gR

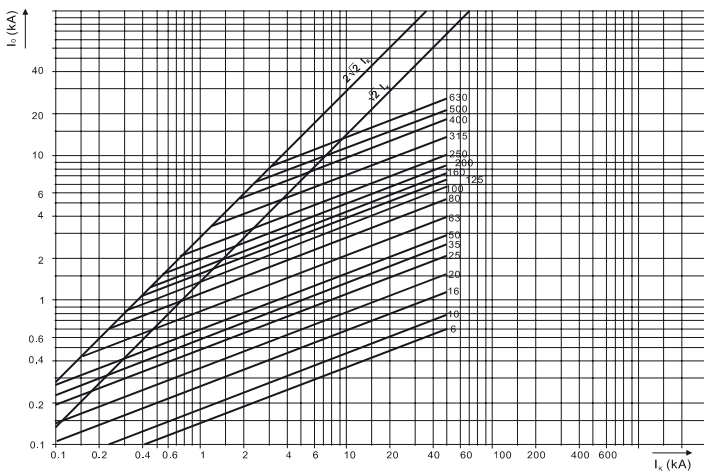
RATED VOLTAGE
~690V

Time/current characteristics of fuse-links Ultra Quick M, S



ULTRA QUICK

Cut-off characteristics of fuse-links Ultra Quick M, S



Prospective fault current ----->

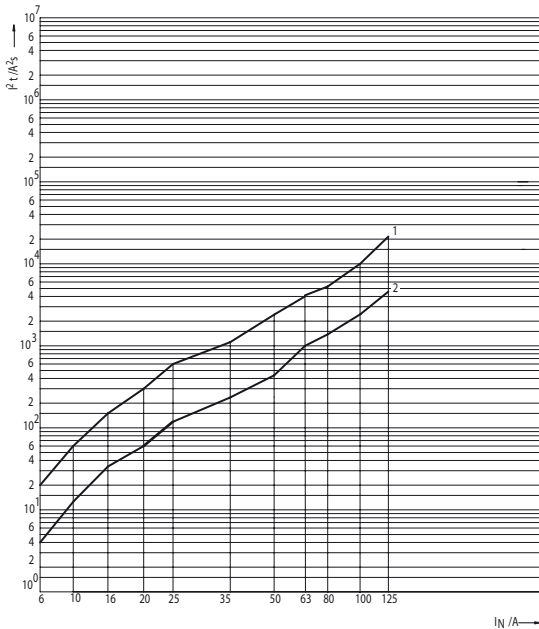
CHARACTERISTICS

NV/NH

aR/gR

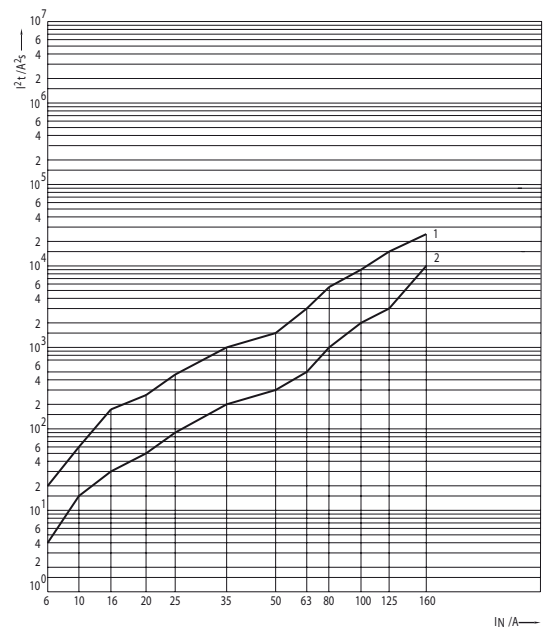
RATED VOLTAGE
~690V

Joule Integral (I^2t) for Ultra Quick M, S - size 00C



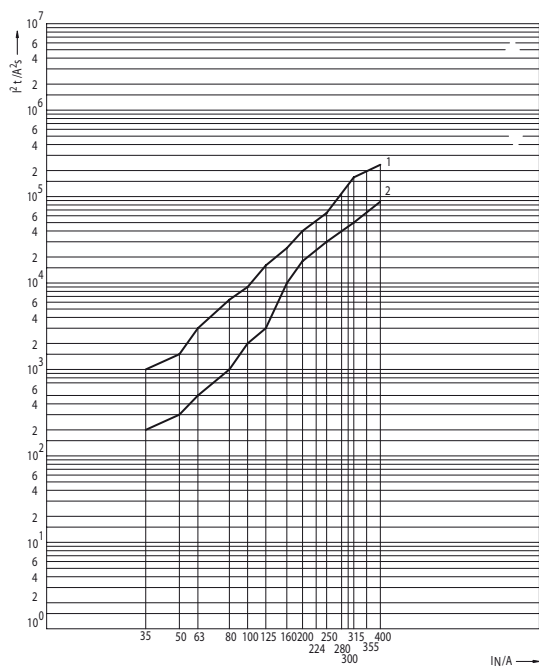
1 - Operating I^2t value at 690V
2 - Pre-arcing I^2t value

Joule Integral (I^2t) for Ultra Quick M, S - size 00 and 0



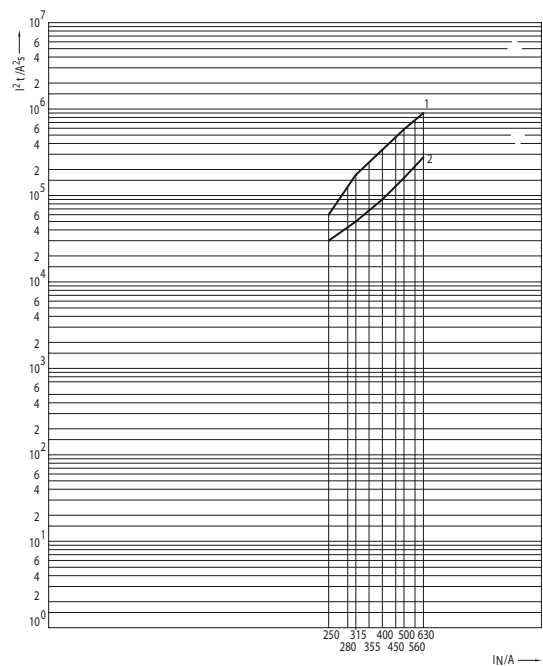
1 - Operating I^2t value at 690V
2 - Pre-arcing I^2t value

Joule Integral (I^2t) for Ultra Quick M, S - size 1, 2



1 - Operating I^2t value at 690V
2 - Pre-arcing I^2t value

Joule Integral (I^2t) for Ultra Quick M, S - size 3



1 - Operating I^2t value at 690V
2 - Pre-arcing I^2t value

aR/gR

RATED VOLTAGE

~690V

Power dissipation, pre-arcing Joule Integral and Operating Joule Integral for Ultra Quick

Size	I _n	Power dissipation	Pre-arcing Joule integral I ² t (1ms)	Operating Joule Integral I ² t ~180V	Operating Joule Integral I ² t ~330V	Operating Joule Integral I ² t ~690V
	A	W	A ² s	A ² s	A ² s	A ² s
M00C, S00C	6	2,8	4	7	10	19
	10	3,3	13	22	31	62
	16	4,1	32	54	77	154
	20	5	60	103	145	290
	25	5,8	123	209	296	590
	35	8	242	410	580	1.160
	40	11	313	530	750	1.500
	50	16	490	840	1.180	2.370
	63	20	960	1.650	2.300	4.650
	80	25	1.100	1.890	2.660	5.350
	100	32	2.180	3.690	5.200	10.500
	125	40	4.450	7.550	10.600	21.300
M00, S00, M0, S0	6	2,8	4	7	10	18
	10	3,3	13	20	35	60
	16	4,1	32	56	90	170
	20	5	52	94	140	250
	25	5,8	85	160	240	460
	35	8	190	310	500	1.000
	40	11	247	403	650	1.300
	50	16	290	520	760	1.500
	63	20	500	750	1.050	3.000
	80	25	1.000	1.550	2.200	5.300
	100	32	2.000	2.800	3.900	9.000
	125	40	3.100	4.300	6.000	16.000
M1, S1	160	44	10.000	12.000	18.000	24.000
	35	8	190	300	500	1.000
	50	16	290	520	750	1.500
	63	20	500	750	1.050	3.000
	80	25	1.000	1.500	2.200	5.300
	100	32	2.000	2.800	3.900	9.000
	125	40	3.100	4.300	6.000	16.000
	160	44	10.000	12.000	18.000	24.000
	200	58	17.000	22.000	31.000	40.000
M2, S2	224	60	23.000	29.000	38.000	52.000
	250	63	29.000	37.000	44.500	65.000
	80	25	1.000	1.500	2.200	5.300
	100	32	2.000	2.800	3.900	9.000
	125	40	3.100	4.300	6.000	16.000
	160	44	10.000	12.000	18.000	24.000
	200	58	17.000	22.000	31.000	40.000
	250	63	31.000	35.500	47.600	60.000
	280	75	51.600	59.100	79.300	100.000
	300	85	45.000	50.000	65.000	140.000
M3, S3	315	95	48.000	55.000	75.000	175.000
	355	100	60.300	69.100	94.200	220.000
	400	105	85.000	101.000	140.000	270.000
	250	63	31.000	35.000	47.000	60.000
	280	75	51.600	59.100	79.300	100.000
	315	95	48.000	55.000	75.000	175.000
	355	100	60.300	69.100	94.200	300.000
	400	105	90.000	115.000	160.000	441.700
	450	115	136.000	170.000	256.000	530.000
	500	130	160.000	200.000	300.000	620.000
M3, S3	560	135	231.000	300.000	395.000	730.000
	630	140	270.000	348.000	460.000	850.000

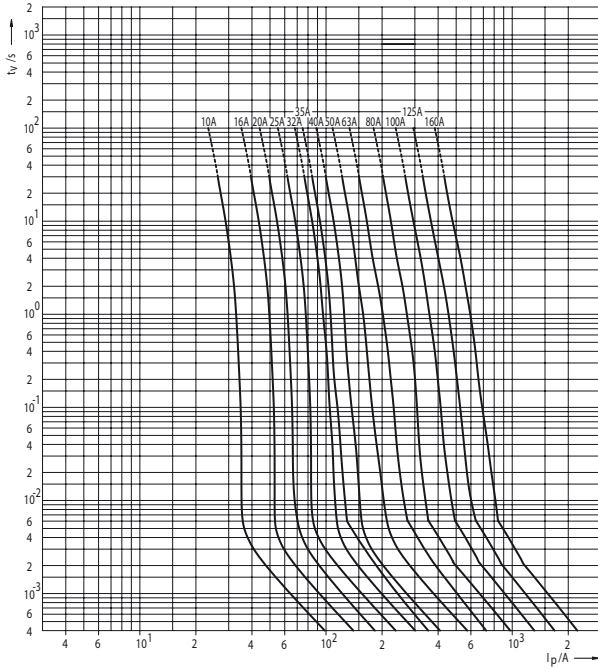
CHARACTERISTICS

NV/NH

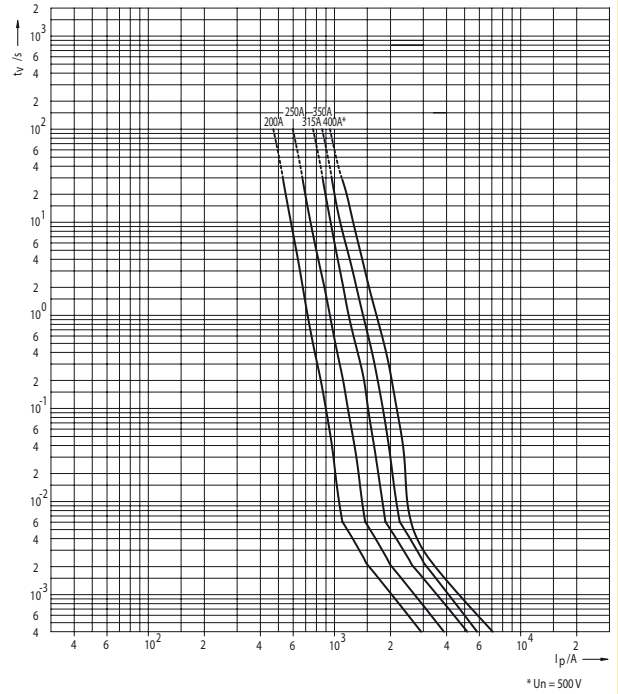
aR

RATED VOLTAGE
~690V

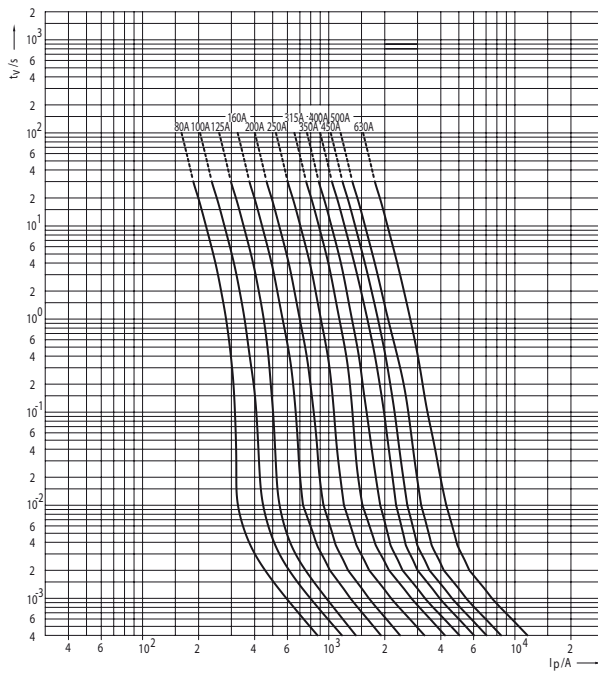
Time/current characteristics of fuse-links Ultra Quick M, S - size 00C and 00, 10-160A



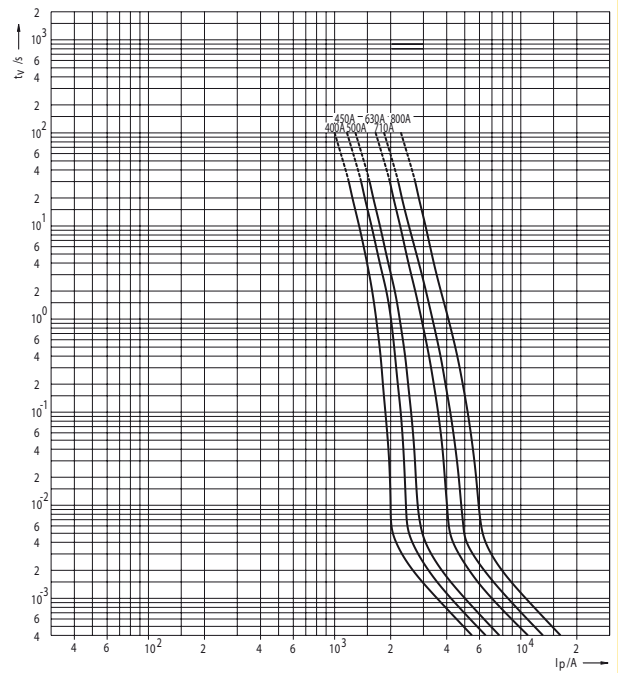
Time/current characteristics of fuse-links Ultra Quick S - size 00C and 00, 200-400A



Time/current characteristics of fuse-links Ultra Quick S, G - size 1



Time/current characteristics of fuse-links Ultra Quick S, G - size 2



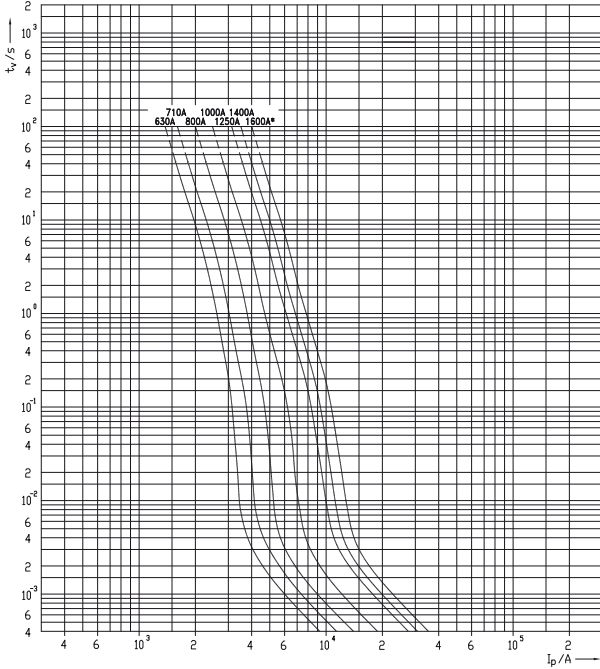
ULTRA QUICK

aR

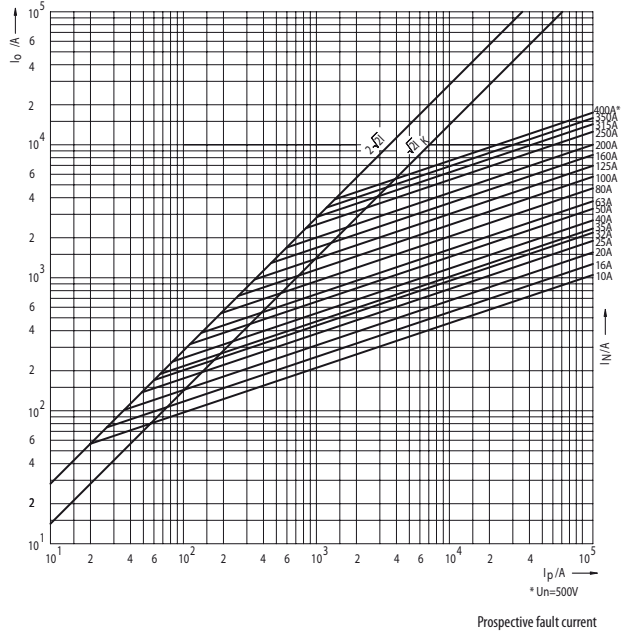
RATED VOLTAGE

~690V

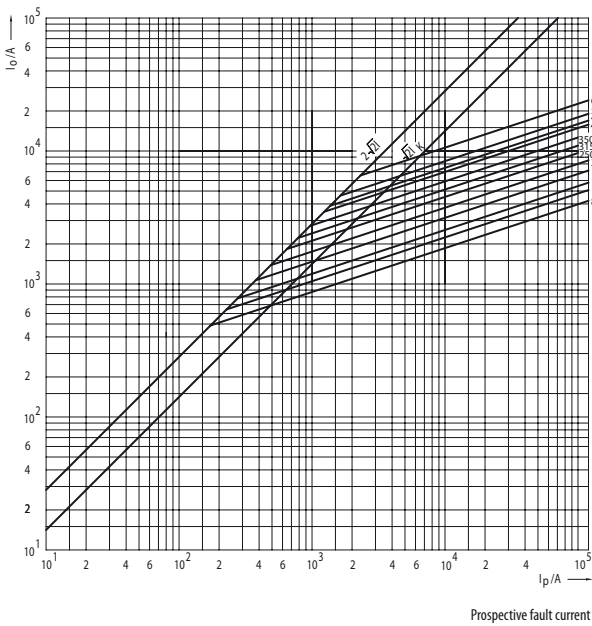
Time/current characteristics of fuse-links Ultra Quick S, G - size 3



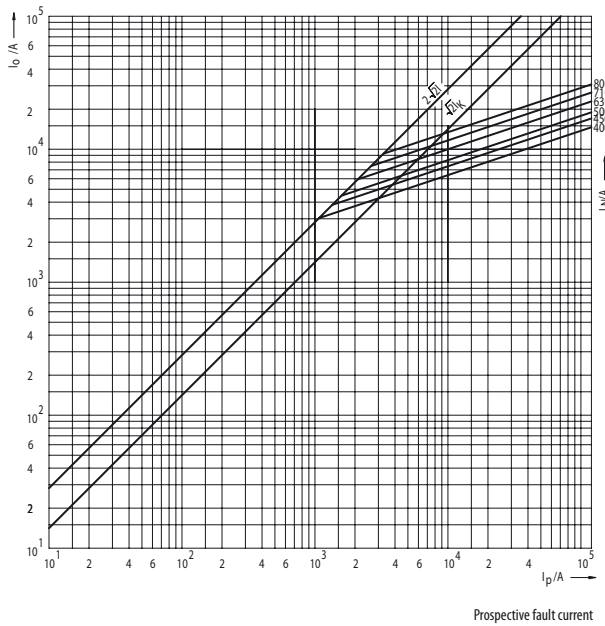
Cut-off characteristics of fuse-links Ultra Quick M and S - size 00C and 00



Cut-off characteristics of fuse-links Ultra Quick S, G - size 1



Cut-off characteristics of fuse-links Ultra Quick S, G - size 2



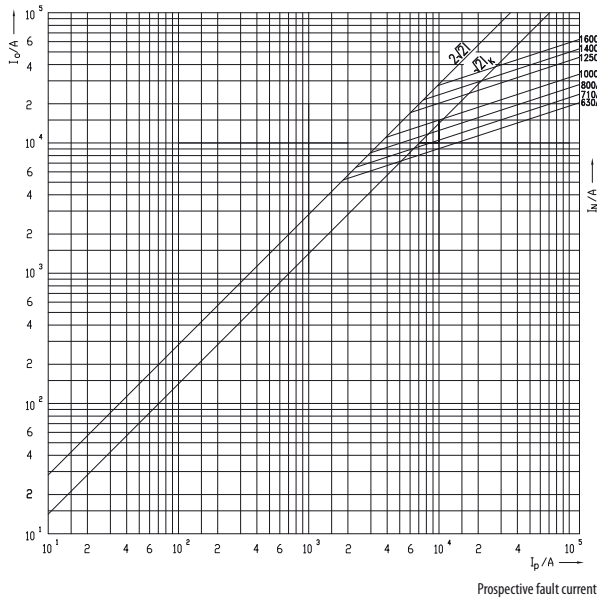
CHARACTERISTICS

NV/NH

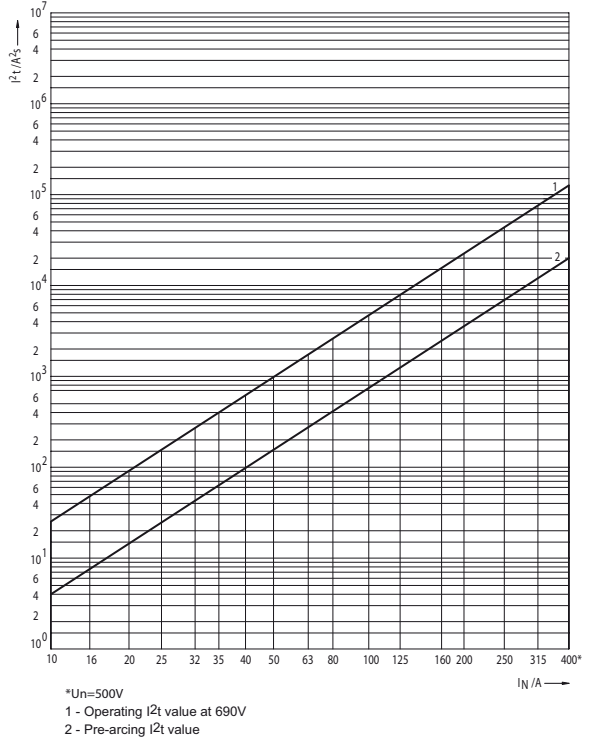
aR

RATED VOLTAGE
~690V

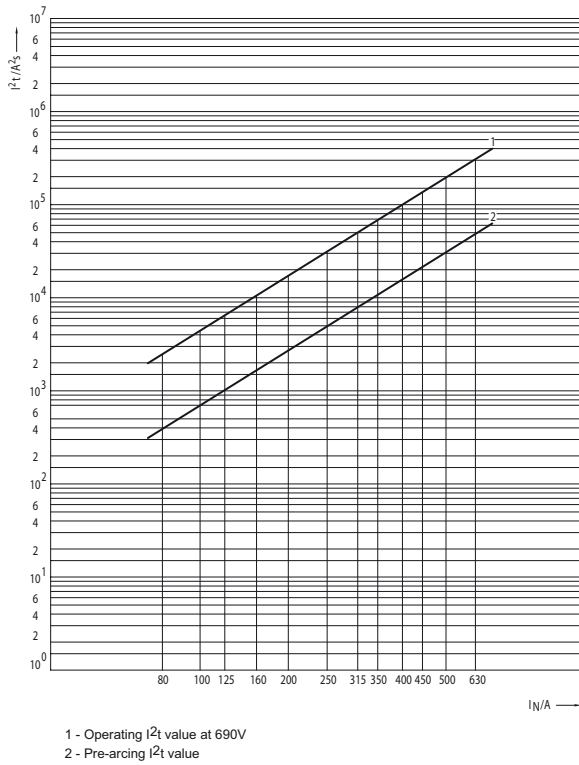
Time/current characteristics of fuse-links Ultra Quick S, G - size 3



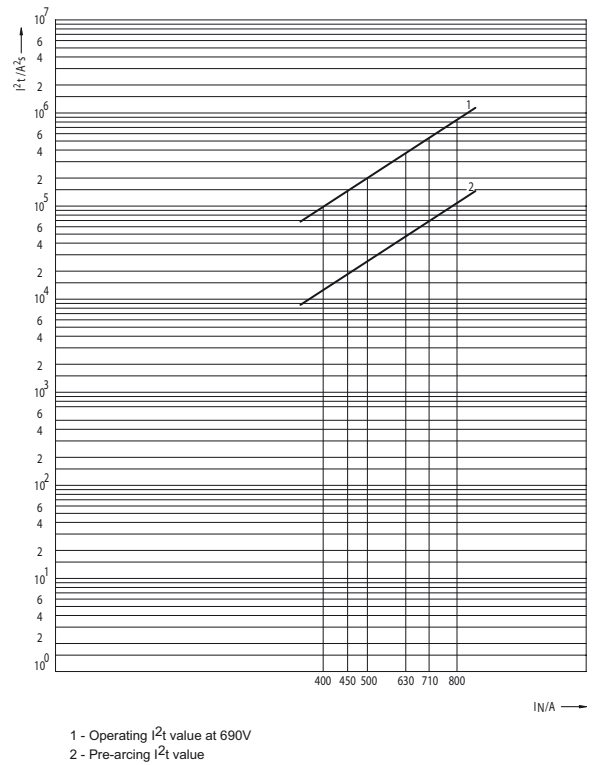
Joule Integral (I²t) for Ultra Quick M and S - size 00C and 00



Joule Integral (I²t) for Ultra Quick S, G - size 1



Joule Integral (I²t) for Ultra Quick S, G - size 2

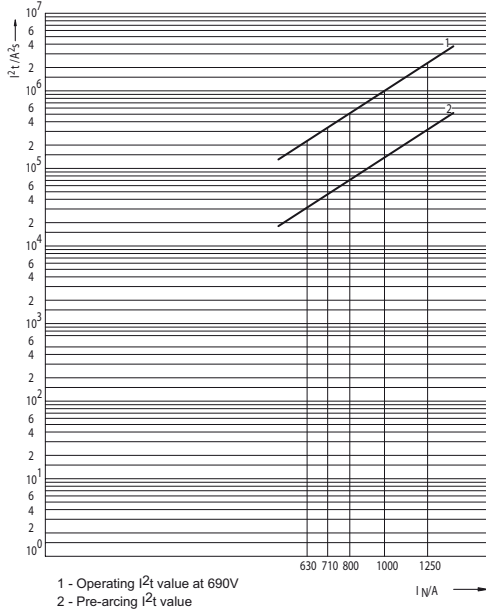


ULTRA QUICK

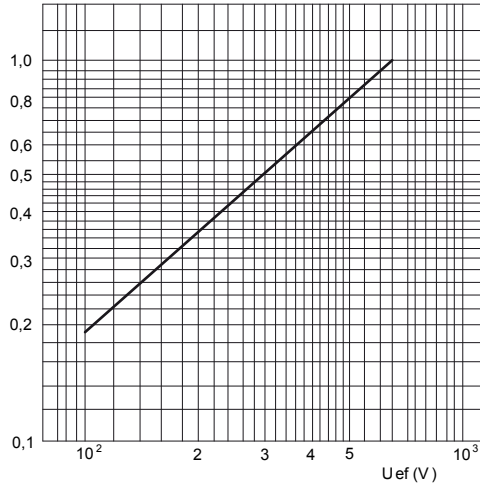
aR

RATED VOLTAGE
~690V

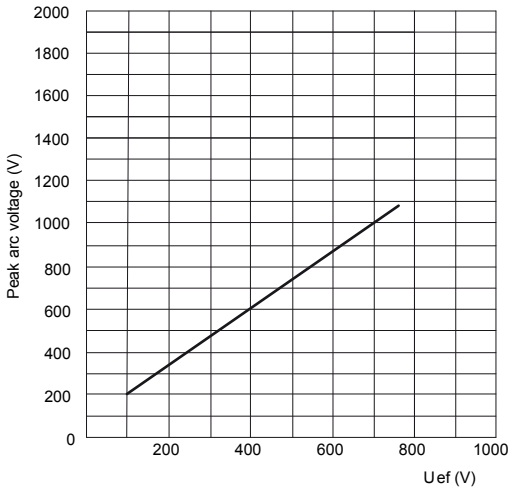
Joule Integral (I^2t) for Ultra Quick S, G - size 3



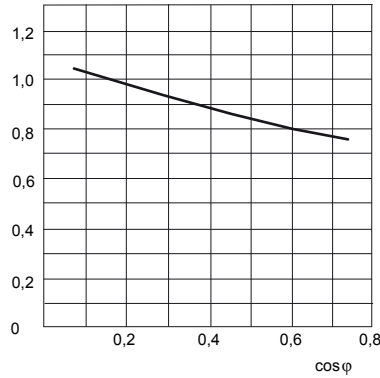
Conversion factor for total Joule integral



Maximum arc voltage accuring



Correction factor for performance factor $\cos\varphi \neq 0,15$ for operating I^2t values



Correction factor for converting the power dissipation for percentage load

Load(%)	Correction factor
10	0,005
20	0,025
30	0,063
40	0,122
50	0,204
60	0,31
70	0,442
80	0,6
90	0,785
100	1

CHARACTERISTICS

NV/NH

aR

RATED VOLTAGE
~690V

Power dissipation, pre-arcing Joule Integral and Operating Joule Integral for Ultra Quick

Size	I _n	Power dissipation	Pre-arcing	Operating	Operating	Operating	Operating
			Joule integral I ² t (1ms)	Joule Integral I ² t ~230V	Joule Integral I ² t ~400V	Joule Integral I ² t ~500V	Joule Integral I ² t ~690V
	A	W	A ² s	A ² s	A ² s	A ² s	A ² s
M00, S00C and S00	10	3,00	3	4	9	14	23
	16	4,00	8	18	28	37	46
	20	5,00	16	38	57	76	95
	25	6,00	26	66	99	132	165
	32	7,00	46	116	174	232	290
	35	8,00	64	160	240	320	400
	40	9,00	110	256	384	512	640
	50	10,00	165	400	600	800	1.000
	63	12,3	300	720	1.080	1.440	1.800
	80	16,3	440	1.120	1.680	2.240	2.800
	100	20,0	800	1.840	2.760	3.680	4.600
	125	26,9	1.400	3.200	4.800	6.400	8.000
	160	31,6	2.500	6.600	9.900	13.200	16.500
	200	38,7	4.000	9.200	13.800	18.400	23.000
	250	43,8	8.000	18.400	27.600	36.800	46.000
	315	54	14.000	32.000	48.000	64.000	80.000
	350	60	15.000	40.000	60.000	80.000	100.000
400*	70	20.000	65.000	104.000	130.000	120.000	
S1, G1	80	15,6	400	920	1.380	1.840	2.300
	100	20,0	660	1.840	2.760	3.680	4.600
	125	25,0	1.000	2.640	3.960	5.280	6.600
	160	32,2	1.650	4.000	6.000	8.000	10.000
	200	39,4	2.800	7.200	10.800	14.400	18.000
	250	49,4	4.600	12.800	19.200	25.600	32.000
	315	60	8.000	23.200	34.800	46.400	58.000
	350	63	11.000	31.200	46.800	62.400	78.000
	400	66	16.000	44.000	66.000	88.000	110.000
	450	72	22.000	62.000	93.000	124.000	155.000
	500	73	32.000	80.000	120.000	160.000	200.000
630	86	52.000	132.000	198.000	264.000	330.000	
S2, G2	400	70	11.000	34.000	51.000	68.000	85.000
	450	76	16.500	50.000	75.000	100.000	125.000
	500	80	22.000	66.000	99.000	132.000	165.000
	630	85	44.000	124.000	186.000	248.000	310.000
	710	91	64.000	184.000	276.000	368.000	460.000
	800	95	100.000	288.000	432.000	576.000	720.000
S3, G3	630	102	33.000	104.000	156.000	208.000	260.000
	710	109	46.000	132.000	198.000	264.000	330.000
	800	117	78.000	200.000	300.000	400.000	500.000
	1000	131	150.000	400.000	600.000	800.000	1.000.000
1250	152	320.000	920.000	1.380.000	1.840.000	2.300.000	

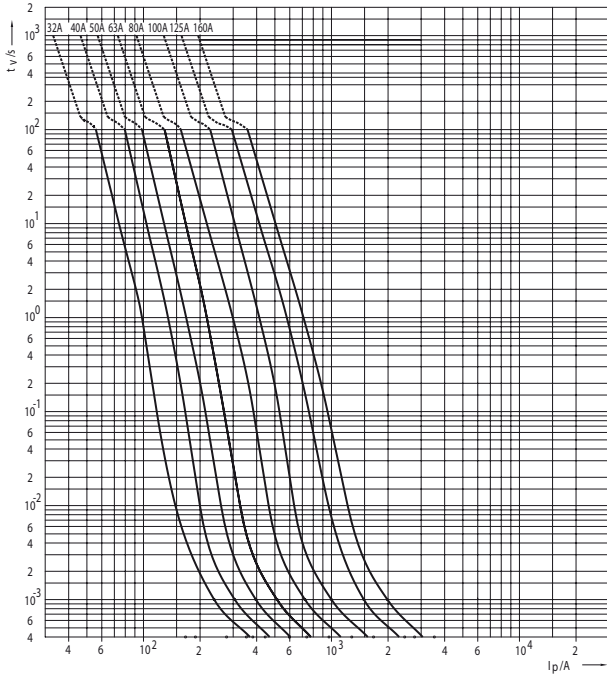
* Un = 500V

ULTRA QUICK

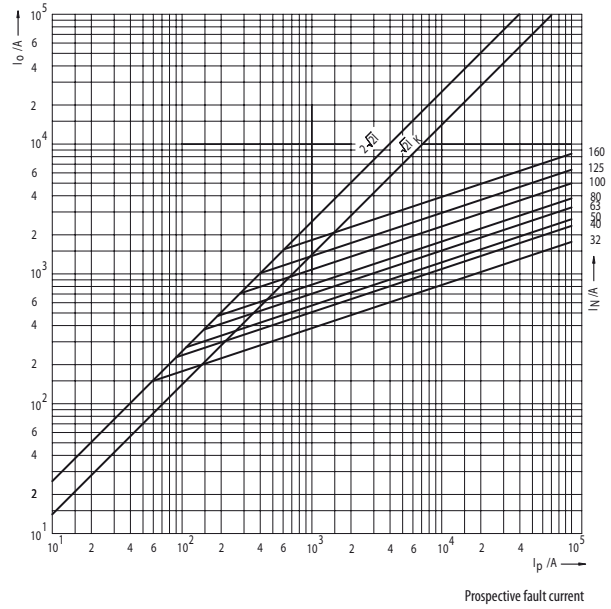
aR

RATED VOLTAGE
~1000V

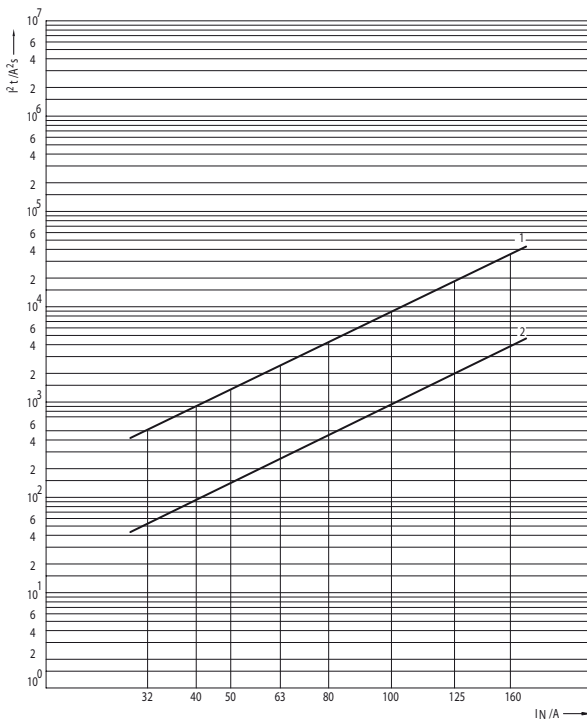
Time/current characteristics of fuse-links Ultra Quick M, S - size 0



Cut-off characteristics of fuse-links Ultra Quick M, S - size 0



Joule Integral (I^2t) for Ultra Quick M, S - size 0



1 - Operating I^2t value at 1000V
2 - Pre-arcing I^2t value

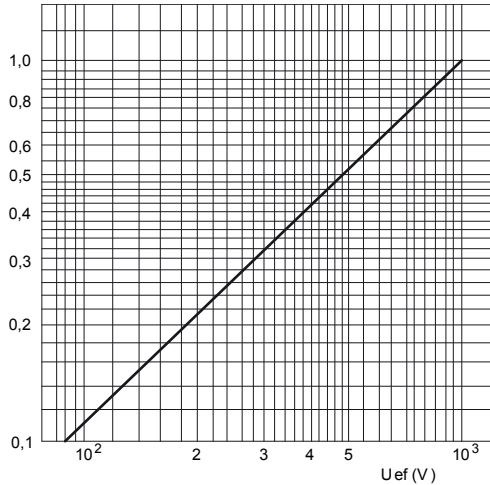
CHARACTERISTICS

NV/NH

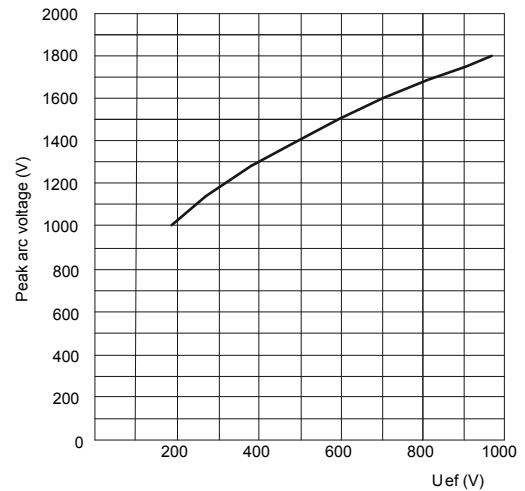
aR

RATED VOLTAGE
~1000V

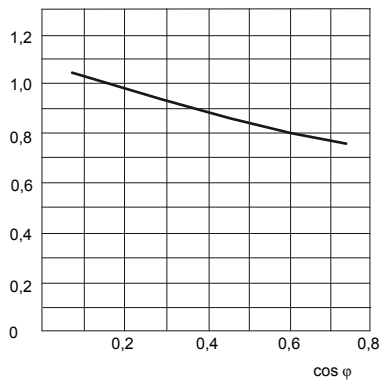
Conversion factor for total Joule integral Size 0



Maximum arc voltage occurring



Correction factor for performance factor $\cos\varphi \neq 0,15$ for operating I^2t values



Correction factor for converting the power dissipation for percentage load

Load (%)	Correction factor
10	0,005
20	0,025
30	0,063
40	0,122
50	0,204
60	0,31
70	0,442
80	0,6
90	0,785
100	1

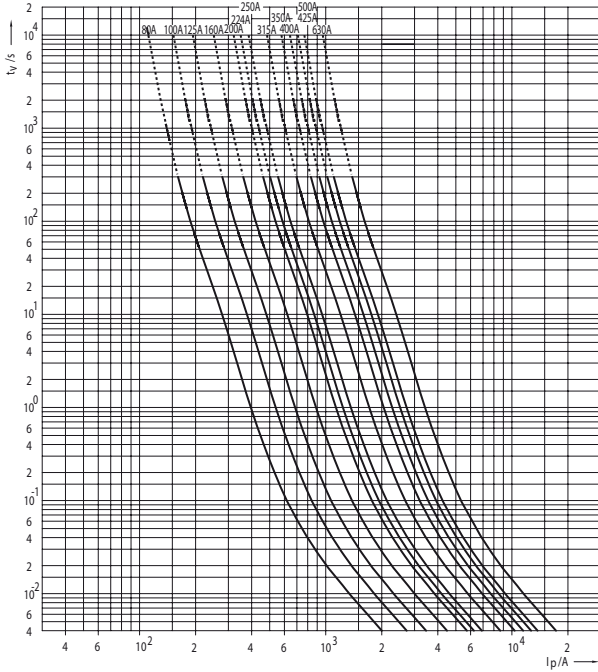
Power dissipation, pre-arcing Joule Integral and Operating Joule Integral for Ultra Quick

Size	I_N	Power dissipation	Pre-arcing Joule integral I^2t (1ms)	Operating Joule Integral $I^2t \sim 230V$	Operating Joule Integral $I^2t \sim 400V$	Operating Joule Integral $I^2t \sim 500V$	Operating Joule Integral $I^2t \sim 690V$	Operating Joule Integral $I^2t \sim 1000V$
	A	W	A ² s	A ² s	A ² s	A ² s	A ² s	A ² s
M0	32	12,5	51	140	210	255	350	480
	40	14,4	90	250	370	450	610	840
	50	19,3	140	380	570	700	950	1.300
	63	22,3	250	680	1.000	1.250	1.700	2.320
	80	28,8	420	1.150	1.700	2.100	2.850	3.900
	100	31,5	860	2.350	3.500	4.300	5.850	8.000
	125	34,3	1.970	5.380	8.000	9.800	13.400	18.300
	160	40,5	3.800	10.380	15.400	18.900	25.800	35.300

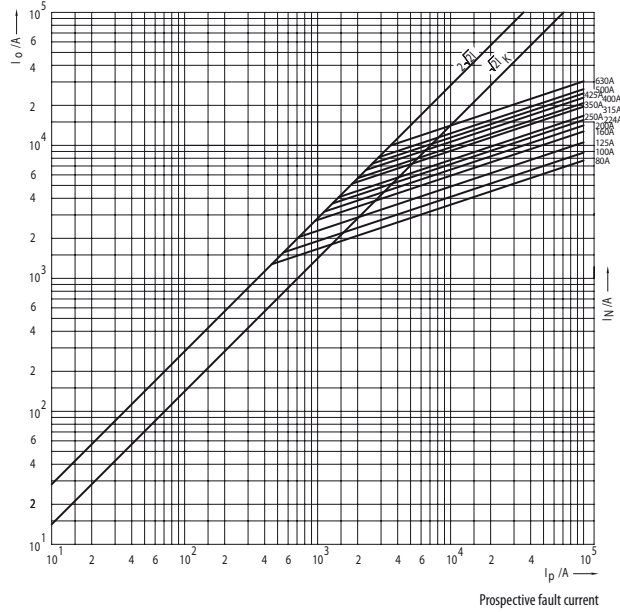
aR

RATED VOLTAGE
~1200V

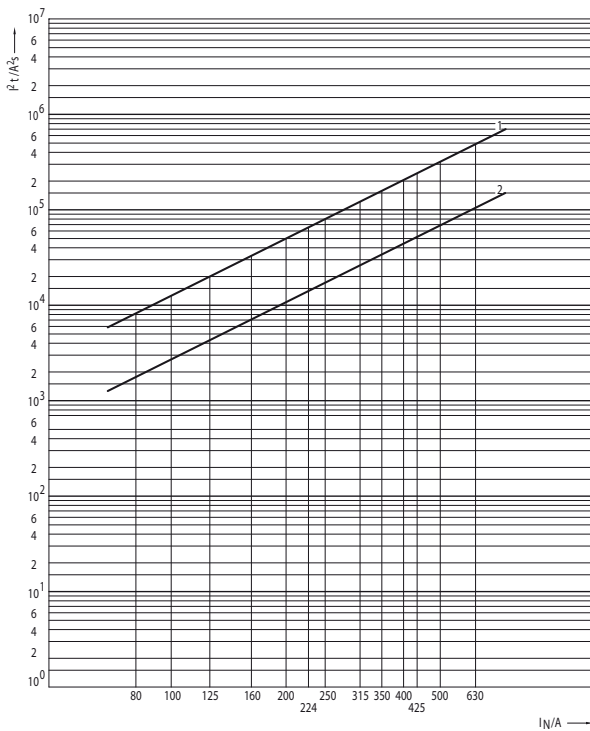
Time/current characteristics of fuse-links Ultra Quick M - size 1, 2, 3



Cut-off characteristics of fuse-links Ultra Quick M - size 1, 2, 3



Joule Integral (I^2t) for Ultra Quick M - size 1, 2, 3



1 - Operating I^2t value at 1200V
2 - Pre-arcing I^2t value

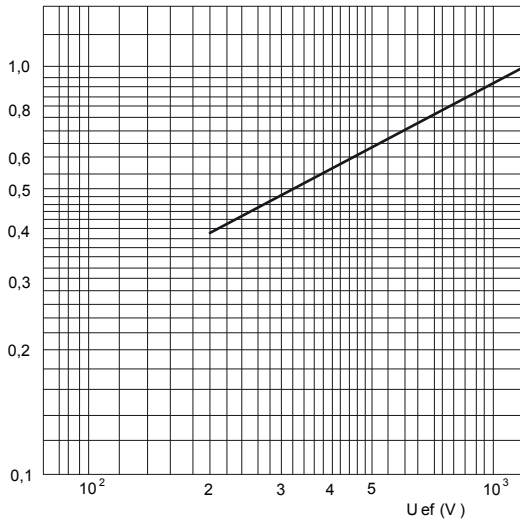
CHARACTERISTICS

NV/NH

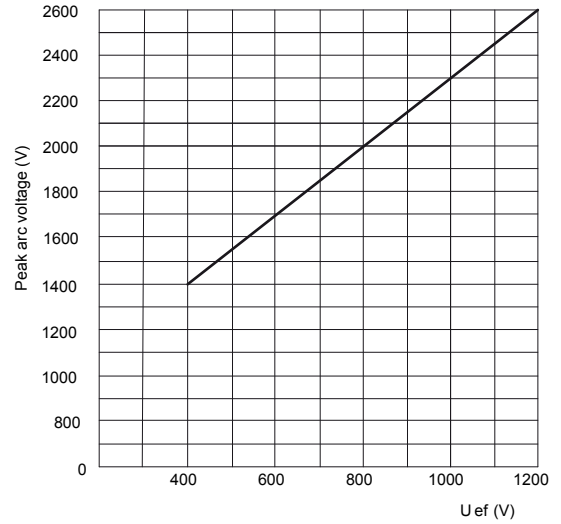
aR

RATED VOLTAGE
~1200V

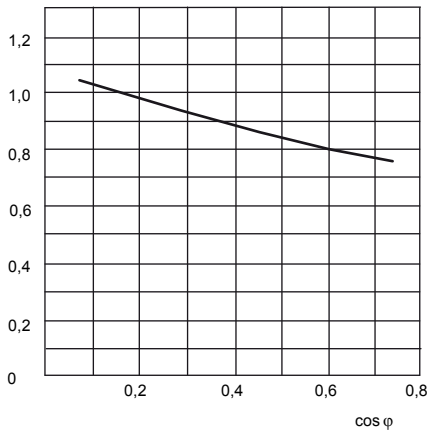
Conversion factor for total Joule integral



Maximum arc voltage occurring



Correction factor for performance factor $\cos\varphi \neq 0,15$ for operating I^2t values



Correction factor for converting the power dissipation for percentage load

Load (%)	Correction factor
10	0,005
20	0,025
30	0,063
40	0,122
50	0,204
60	0,31
70	0,442
80	0,6
90	0,785
100	1

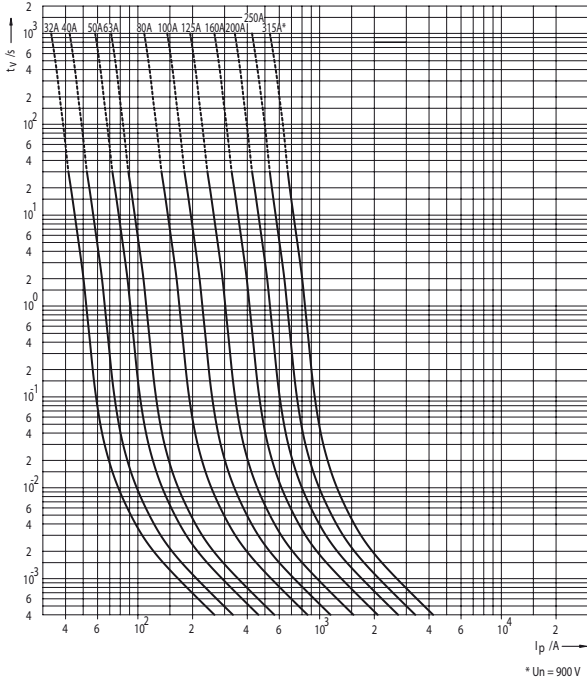
Power dissipation, pre-arcing Joule Integral and Operating Joule Integral for Ultra Quick

Size	I_N	Power dissipation	Pre-arcing	Operating	Operating	Operating	Operating	Operating	Operating
			Joule integral I^2t (1ms)	Joule Integral $I^2t \sim 230V$	Joule Integral $I^2t \sim 400V$	Joule Integral $I^2t \sim 500V$	Joule Integral $I^2t \sim 690V$	Joule Integral $I^2t \sim 1000V$	Joule Integral $I^2t \sim 1200V$
	A	W	A ² s	A ² s	A ² s	A ² s	A ² s	A ² s	A ² s
M1, M2, M3	80	35,0	1.650	3.440	4.240	5.200	6.000	7.200	8.000
	100	45,9	2.500	5.375	6.625	8.125	9.375	11.250	12.500
	125	55	4.200	8.600	10.600	13.000	15.000	18.000	20.000
	160	67	7.000	13.760	16.960	20.800	24.000	28.800	32.000
	200	84	11.000	21.500	26.500	32.500	37.500	45.000	50.000
	224	93	15.000	27.090	33.390	40.950	47.250	56.700	63.000
	250	104	17.000	34.400	42.400	52.000	60.000	72.000	80.000
	315	125	25.000	51.600	63.600	78.000	90.000	108.000	120.000
	350	141	32.000	68.800	84.800	104.000	120.000	144.000	160.000
	400	159	42.000	86.000	106.000	130.000	150.000	180.000	200.000
	425	172	58.000	98.900	121.900	149.500	172.500	207.000	230.000
	500	185	77.000	137.600	169.600	208.000	240.000	288.000	320.000
	630	198	110.000	215.000	265.000	325.000	375.000	450.000	500.000

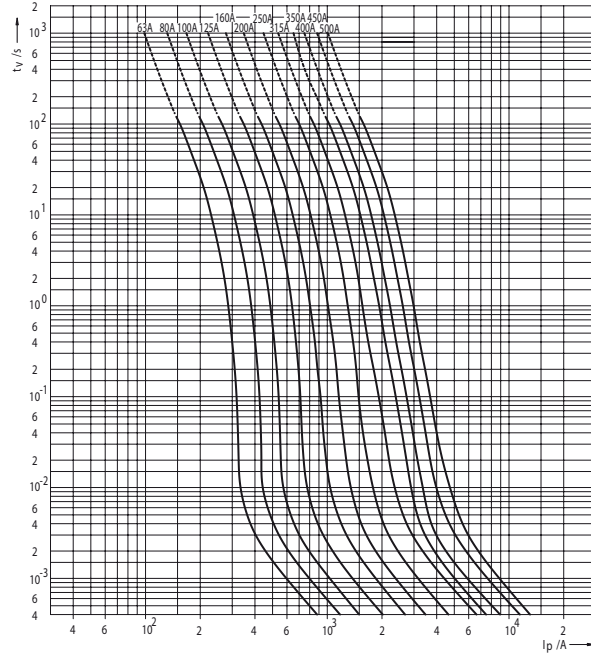
aR

RATED VOLTAGE
~1000V

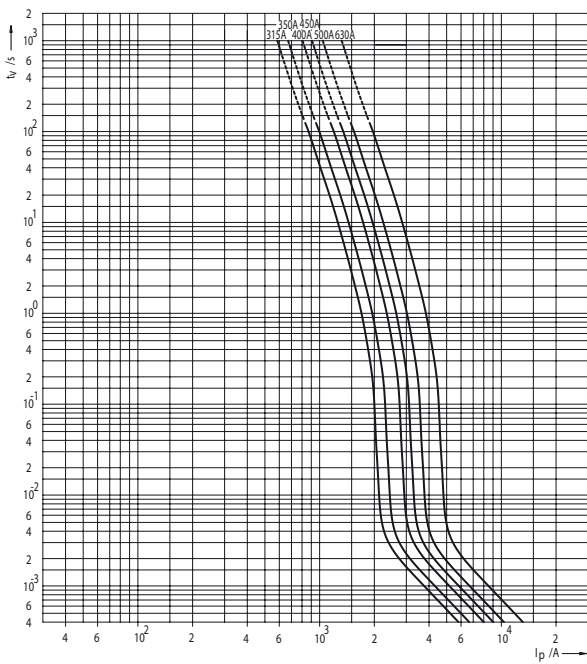
Time/current characteristics of fuse-links Ultra Quick S - size 00



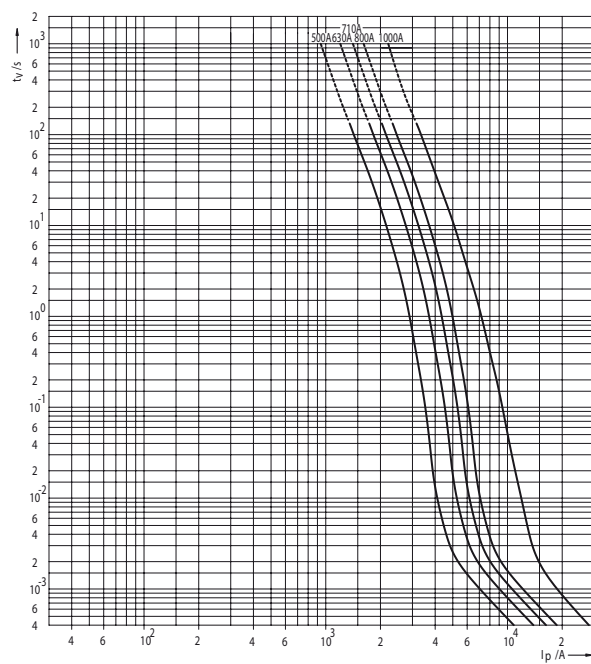
Time/current characteristics of fuse-links Ultra Quick M, S, G - size 1



Time/current characteristics of fuse-links Ultra Quick M, S, G - size 2



Time/current characteristics of fuse-links Ultra Quick M, S, G - size 3



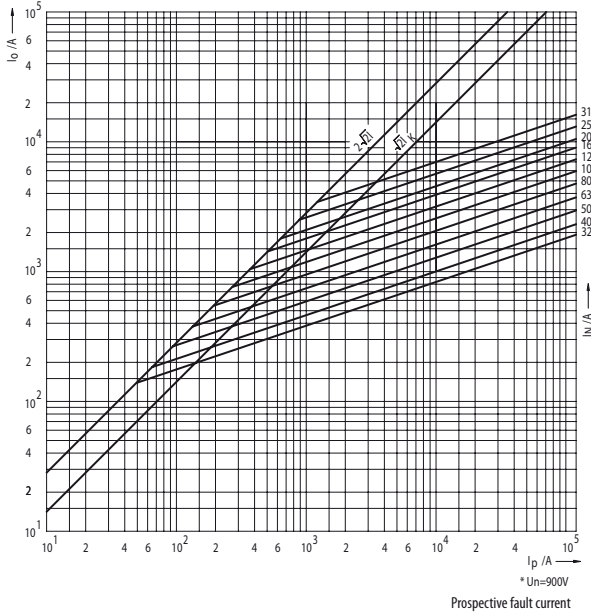
CHARACTERISTICS

NV/NH

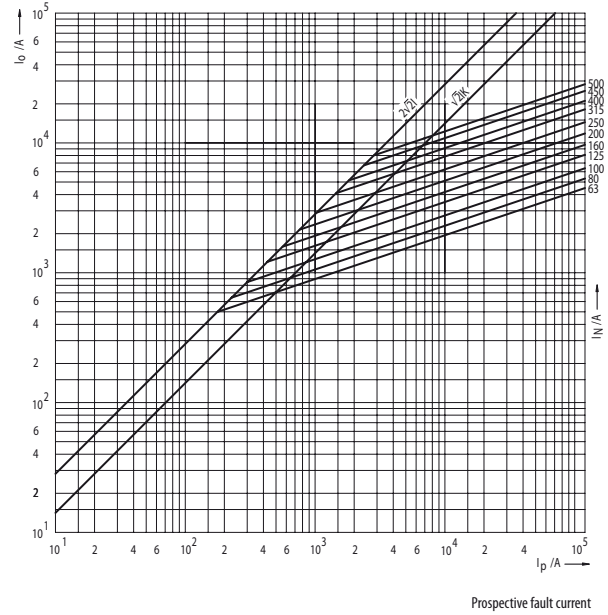
aR

RATED VOLTAGE
~1000V

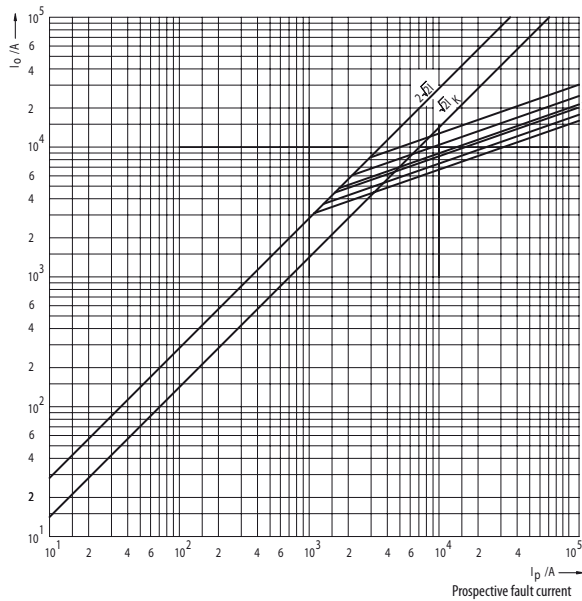
Cut-off characteristics of fuse-links Ultra Quick S - size 00



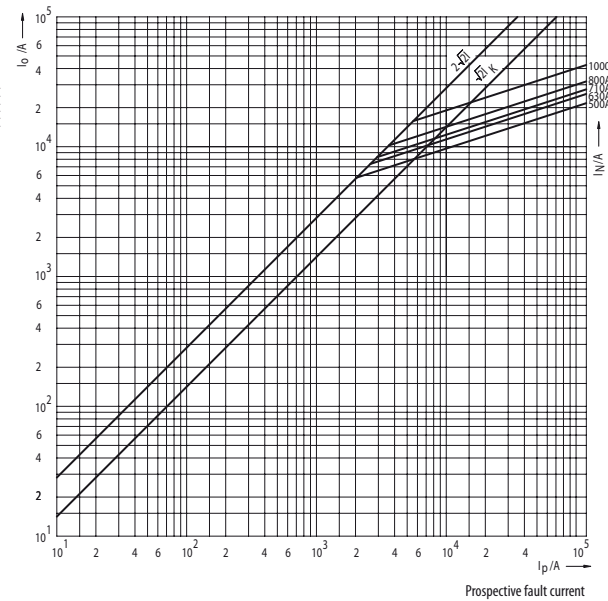
Cut-off characteristics of fuse-links Ultra Quick M, S, G - size 1



Cut-off characteristics of fuse-links Ultra Quick M, S, G - size 2



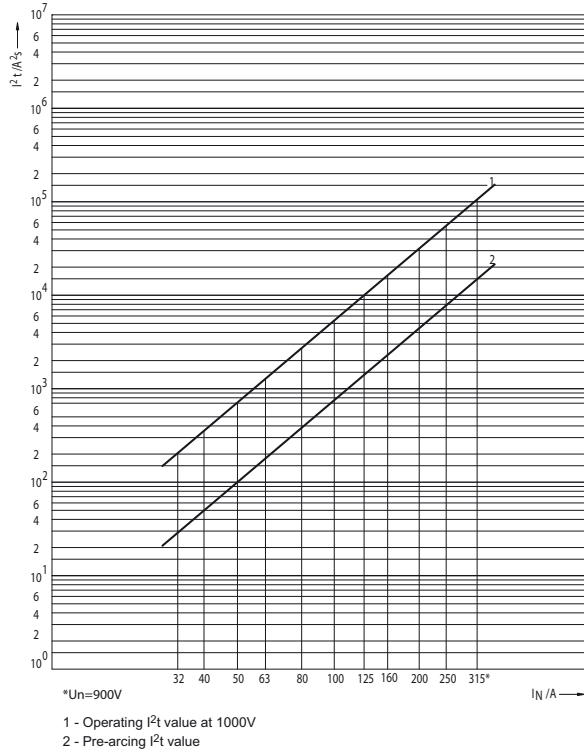
Cut-off characteristics of fuse-links Ultra Quick M, S, G - size 3



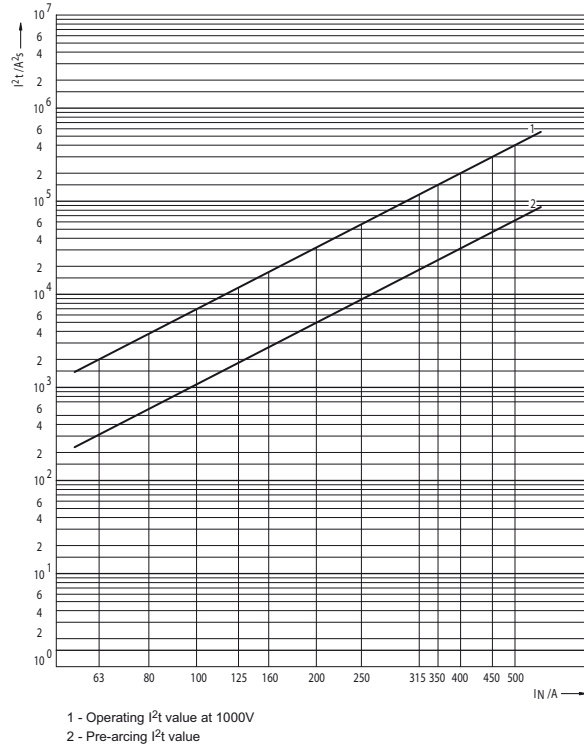
aR

RATED VOLTAGE
~1000V

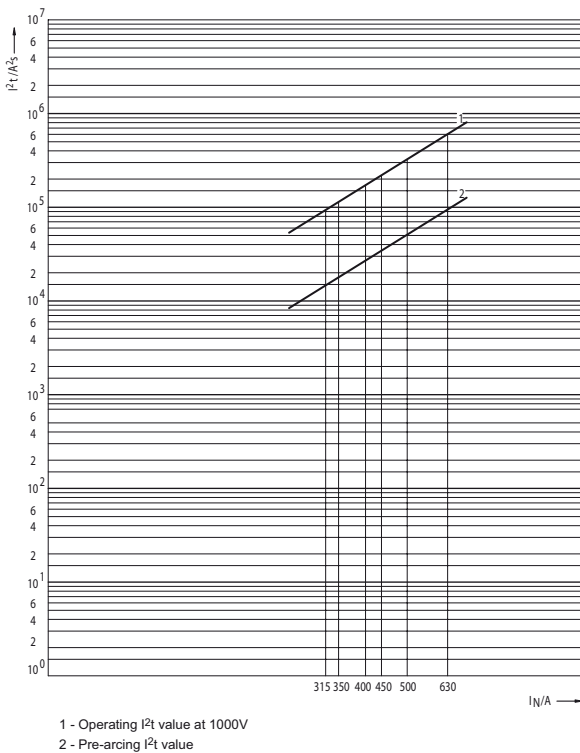
Joule Integral (I^2t) for Ultra Quick S - size 00



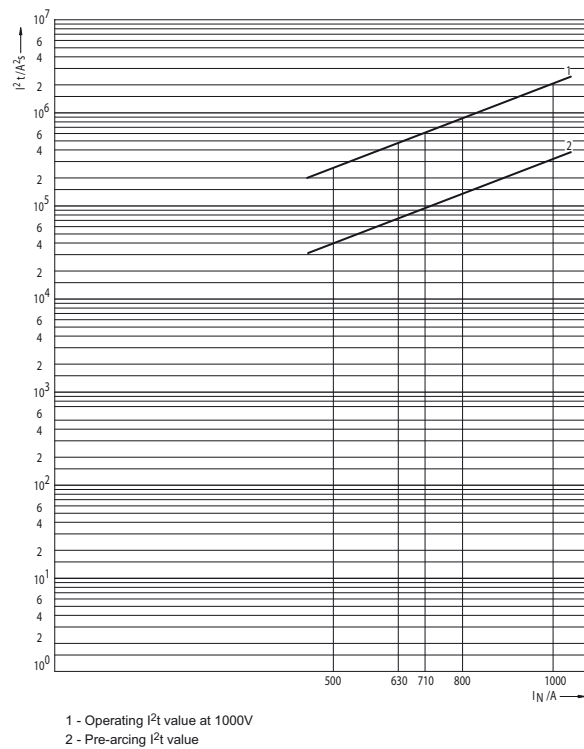
Joule Integral (I^2t) for Ultra Quick M, S, G - size 1



Joule Integral (I^2t) for Ultra Quick M, S, G - size 2



Joule Integral (I^2t) for Ultra Quick M, S, G - size 3



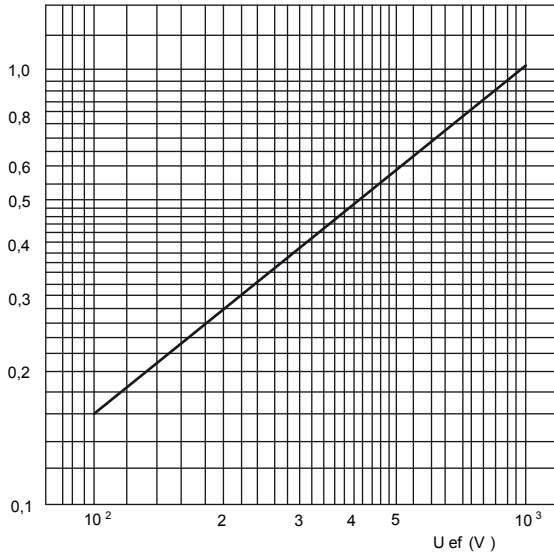
CHARACTERISTICS

NV/NH

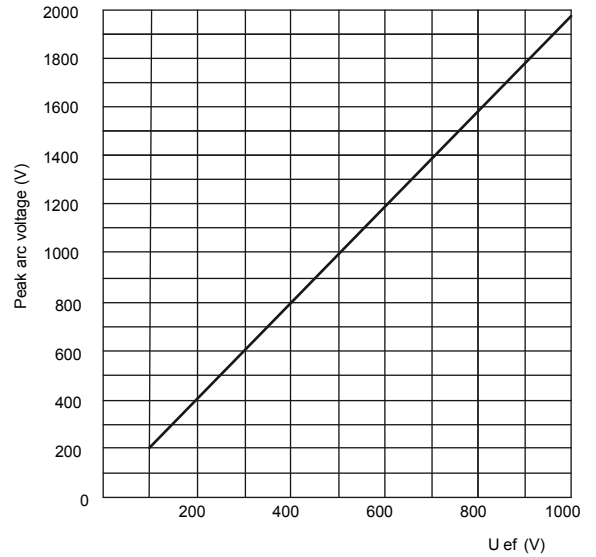
aR

RATED VOLTAGE
~ 1000V

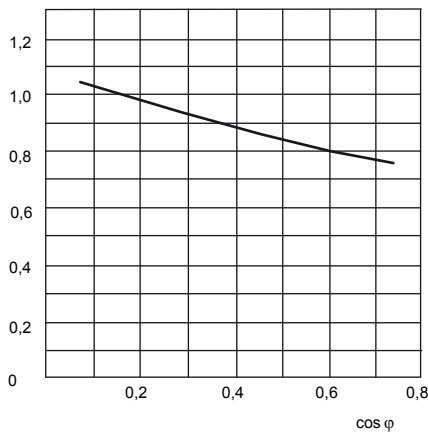
Conversion factor for total Joule integral



Maximum arc voltage accuring



Correction factor for performance factor $\cos\varphi \neq 0,15$ for operating I^2t values



Correction factor for converting the power dissipation for percentage load

Load (%)	Correction factor
10	0,005
20	0,025
30	0,063
40	0,122
50	0,204
60	0,31
70	0,442
80	0,6
90	0,785
100	1

aR

RATED VOLTAGE
~1000V

Power dissipation, pre-arcing Joule Integral and Operating Joule Integral for Ultra Quick

Size	I _N	Power dissipation	Pre-arcing Joule integral I ² t (1ms)	Operating Joule Integral I ² t ~230V	Operating Joule Integral I ² t ~400V	Operating Joule Integral I ² t ~500V	Operating Joule Integral I ² t ~690V	Operating Joule Integral I ² t ~1000V
	A	W	A ² s	A ² s	A ² s	A ² s	A ² s	A ² s
S00	32	15,1	26	63	98	116	150	200
	40	18,1	45	104	162	191	248	330
	50	20,0	100	211	328	389	503	670
	63	24,3	165	410	637	754	975	1.300
	80	27,4	330	756	1.176	1.392	1.800	2.400
	100	30,0	660	1.481	2.303	2.726	3.525	4.700
	125	38,2	1.500	3.150	4.900	5.800	7.500	10.000
	160	47,2	2.100	5.040	7.840	9.280	12.000	16.000
	200	57	4.000	9.450	14.700	17.400	22.500	30.000
	250	67	8.000	18.270	28.420	33.640	43.500	58.000
	315*	78	15.000	34.650	53.900	63.800	82.500	110.000
M1, S1, G1	63	15,1	300	630	980	1.160	1.500	2.000
	80	20,0	600	1.071	1.666	1.972	2.550	3.400
	100	25,0	1.000	1.922	2.989	3.538	4.575	6.100
	125	30,0	1.650	3.465	5.390	6.380	8.250	11.000
	160	35,0	2.700	5.355	8.330	9.860	12.750	17.000
	200	45,3	4.800	9.765	15.190	17.980	23.250	31.000
	250	54	8.000	15.750	24.500	29.000	37.500	50.000
	315	60	16.500	34.650	53.900	63.800	82.500	110.000
	350	65	21.000	47.250	73.500	87.000	112.500	150.000
	400	70	32.000	63.000	98.000	116.000	150.000	200.000
	450	74	46.000	97.650	151.900	179.800	232.500	310.000
500	80	64.000	126.000	196.000	232.000	300.000	400.000	
M2, S2, G2	315	66	15.000	26.775	41.650	49.300	63.750	85.000
	350	70	18.000	40.950	63.700	75.400	97.500	130.000
	400	80	28.000	53.550	83.300	98.600	127.500	170.000
	450	86	33.000	69.300	107.800	127.600	165.000	220.000
	500	90	55.000	100.800	156.800	185.600	240.000	320.000
M3, S3, G3	630	108	100.000	189.000	294.000	348.000	450.000	600.000
	500	100	41.000	78.750	122.500	145.000	187.500	250.000
	630	110	80.000	157.500	245.000	290.000	375.000	500.000
	710	125	100.000	211.050	328.300	388.600	502.500	670.000
	800	136	150.000	274.050	426.300	504.600	652.500	870.000
1000	157	310.000	630.000	980.000	1.160.000	1.500.000	2.000.000	

* Un = 900V

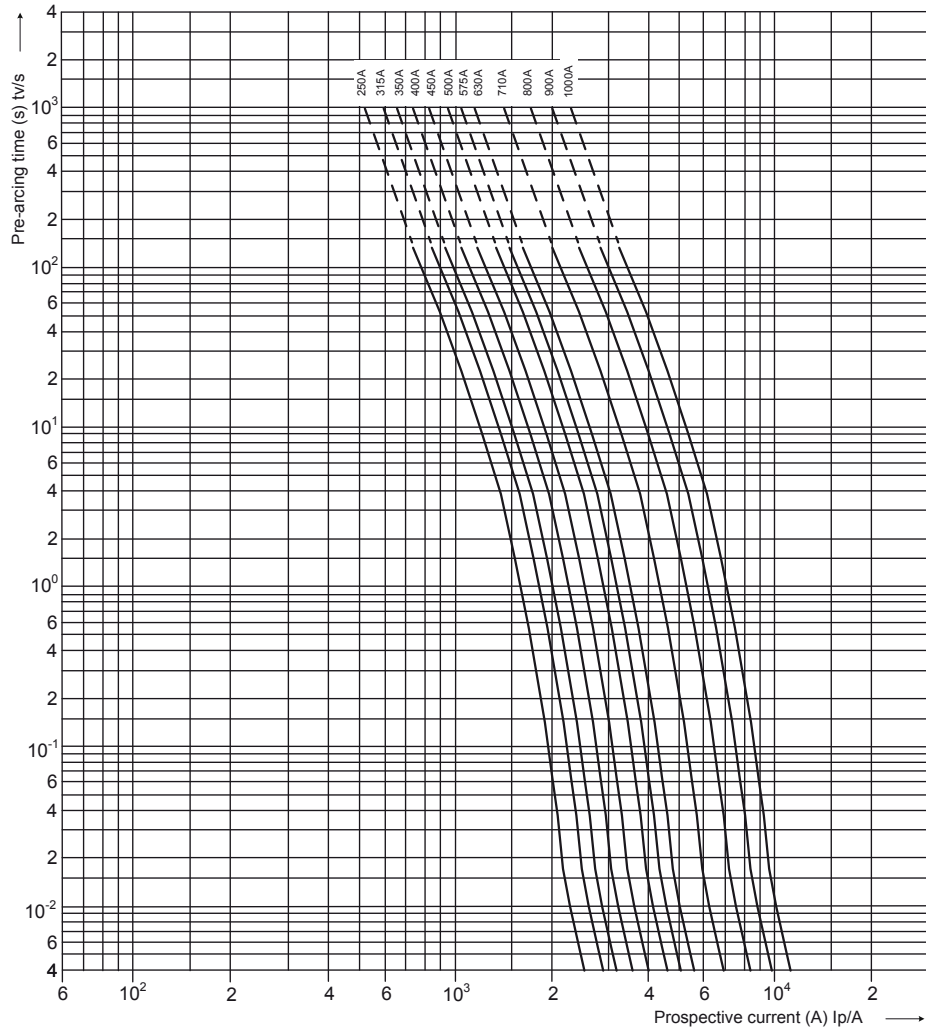
CHARACTERISTICS

NV/NH

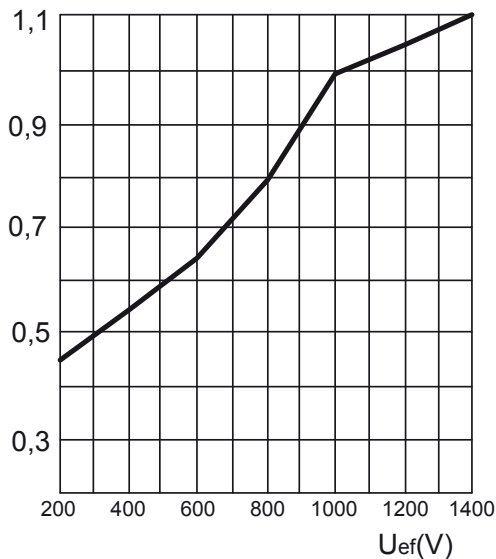
aR

RATED VOLTAGE
~1250V

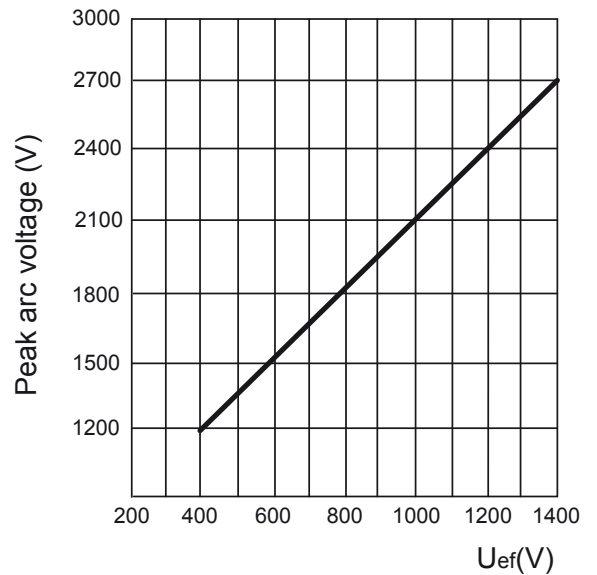
Time-current characteristics



Conversion factor for total Joule integral



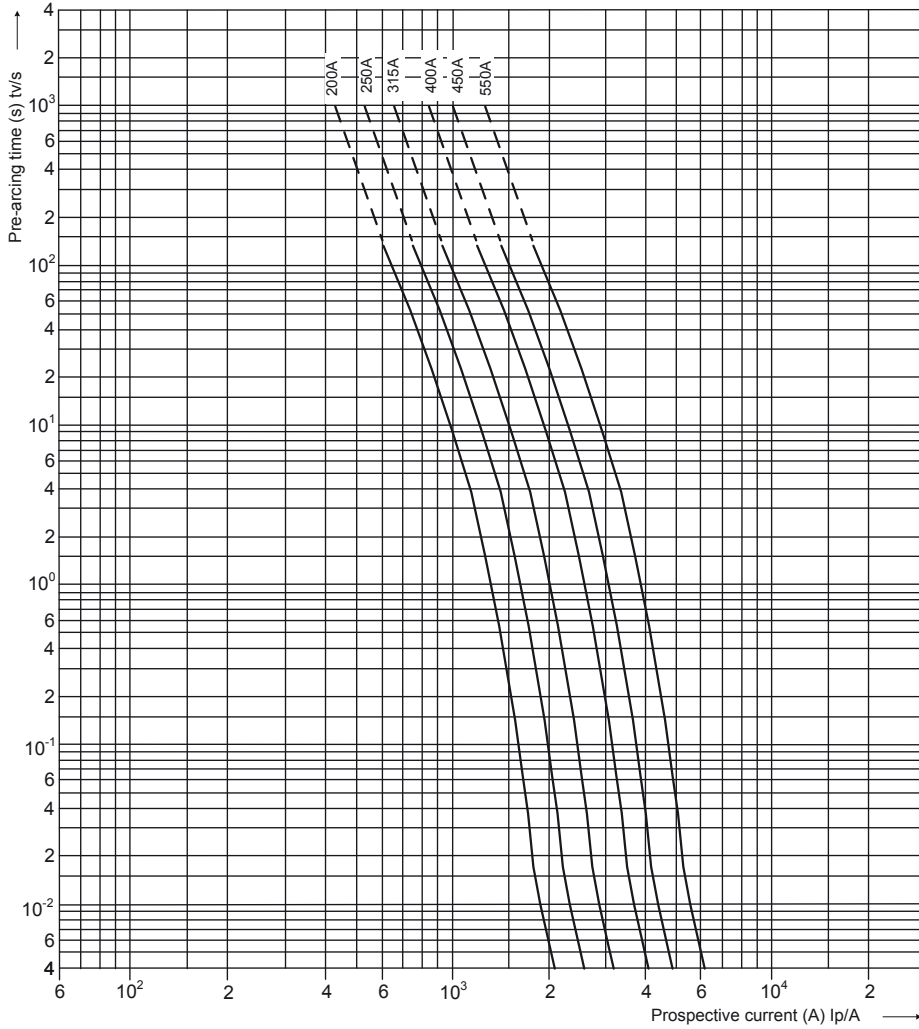
Maximum arc voltage accuring



aR

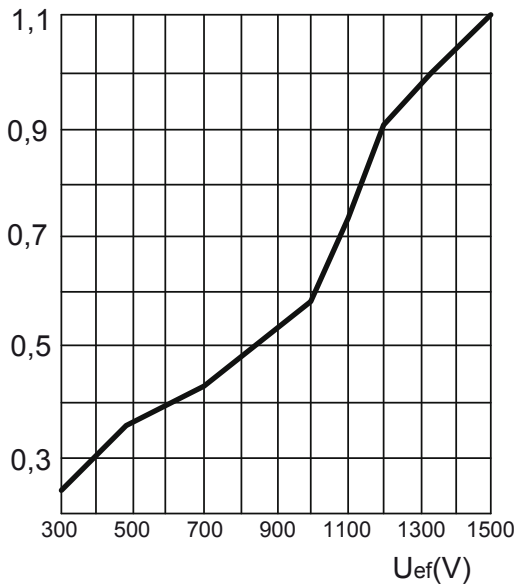
RATED VOLTAGE
~1500V

Time-current characteristics

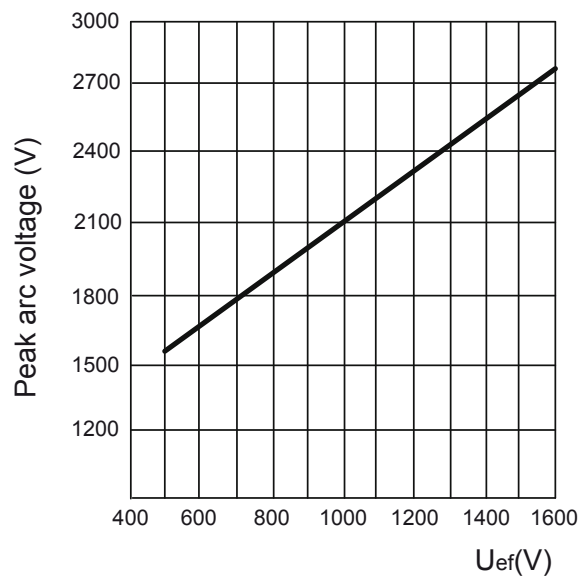


ULTRA QUICK

Conversion factor for total Joule integral



Maximum arc voltage accuring



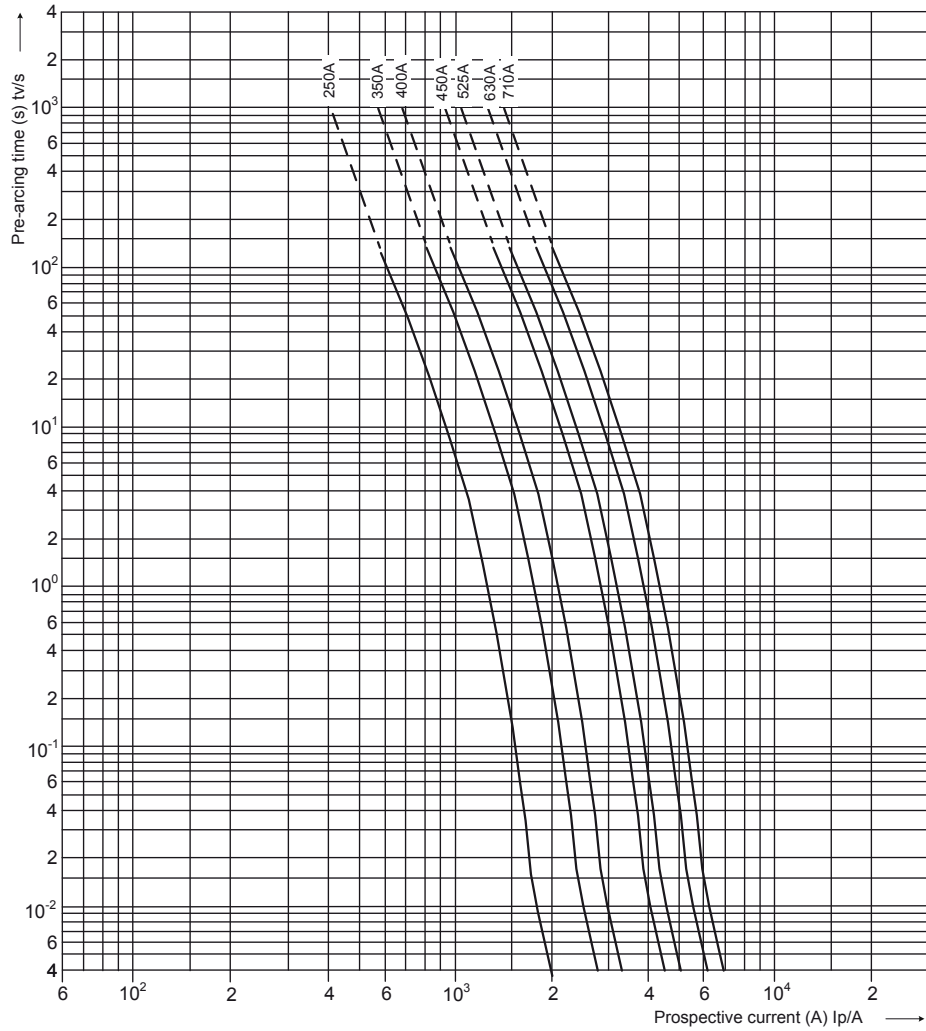
CHARACTERISTICS

NV/NH

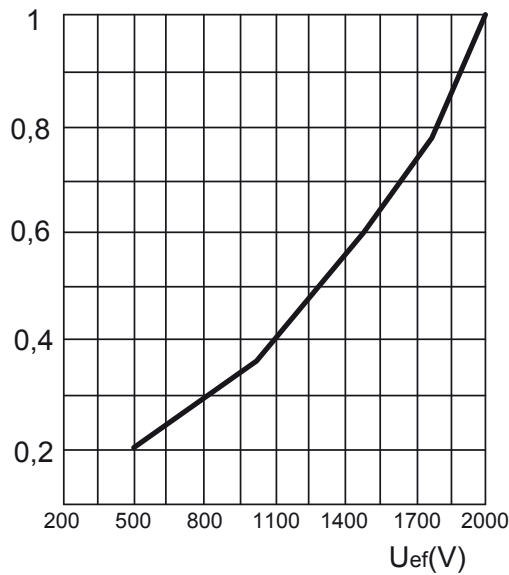
aR

RATED VOLTAGE
~2000V

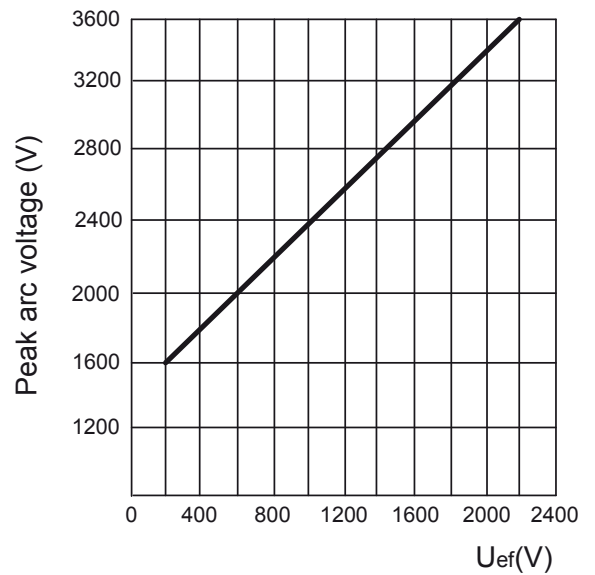
Time-current characteristics



Conversion factor for total Joule integral



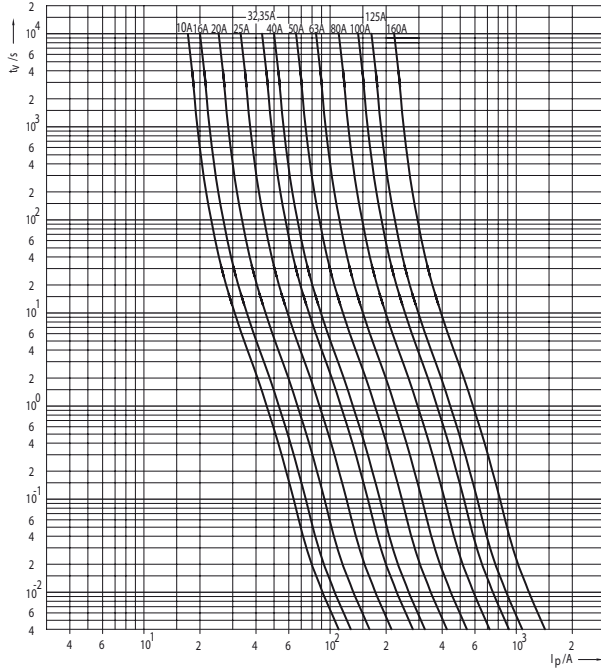
Maximum arc voltage occurring



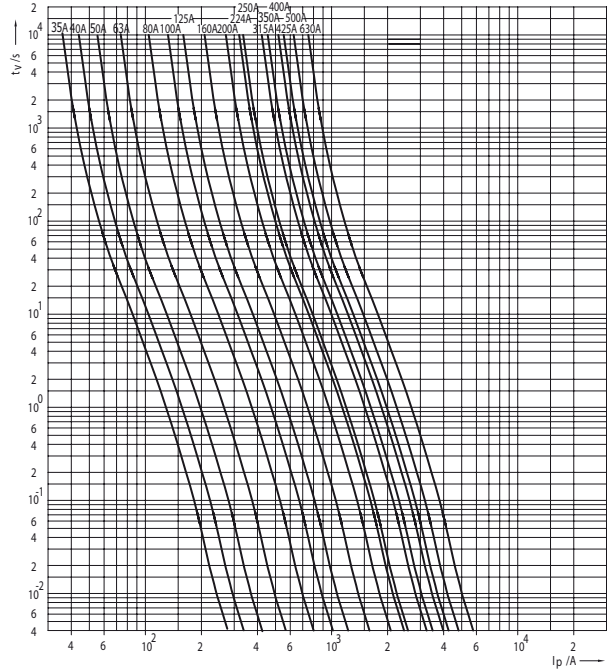
gR

RATED VOLTAGE
~690V

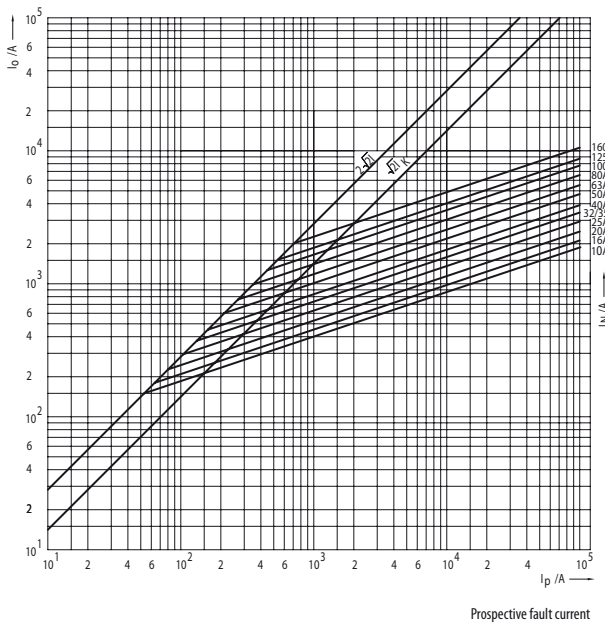
Time/current characteristics of fuse-links Ultra Quick M, S - size 00C



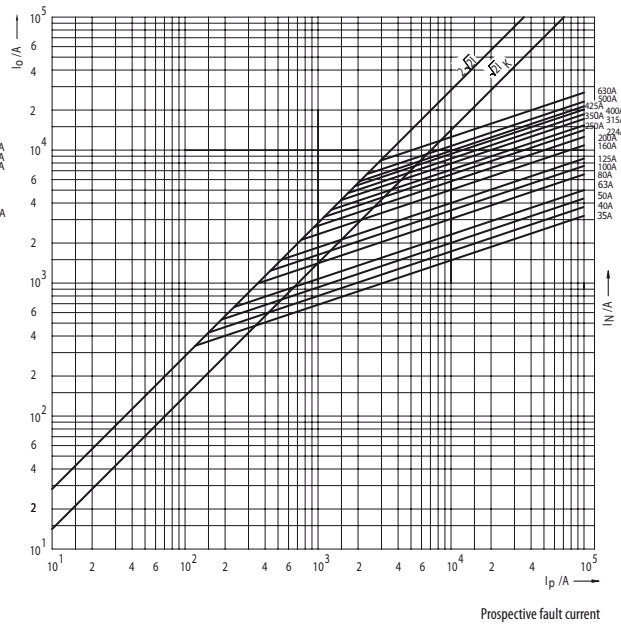
Time/current characteristics of fuse-links Ultra Quick M, S, G - size 1, 2, 3



Cut-off characteristics of fuse-links Ultra Quick M, S - size 00C



Cut-off characteristics of fuse-links Ultra Quick M, S, G - size 1, 2, 3



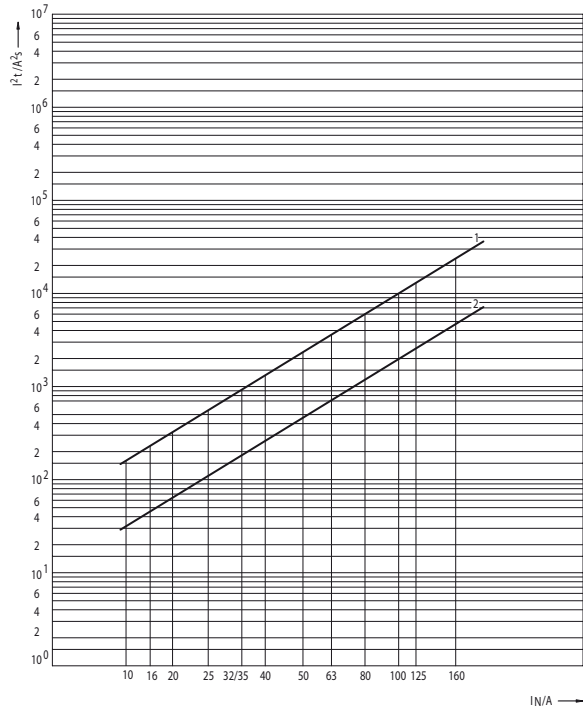
ULTRA QUICK

CHARACTERISTICS

gR

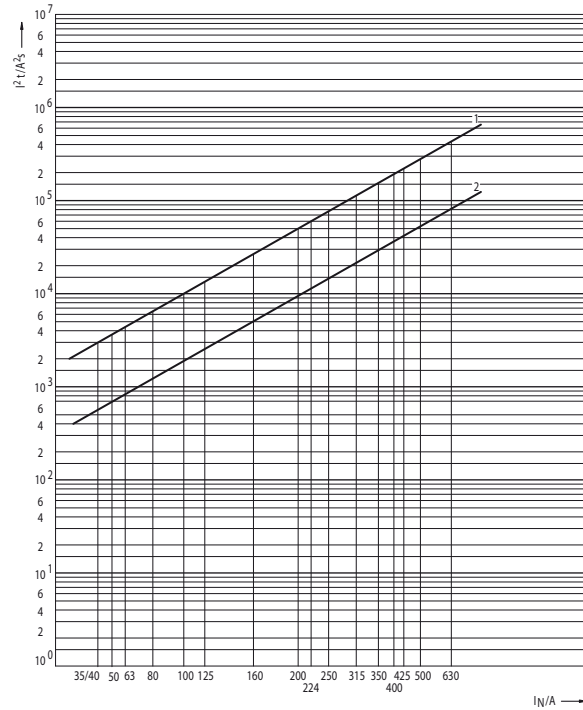
RATED VOLTAGE
~690V

Joule Integral (I^2t) for Ultra Quick M, S - size 00C



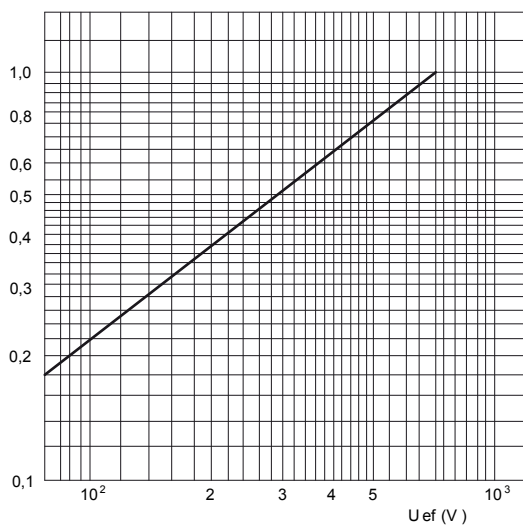
1 - Operating I^2t value at 690V
2 - Pre-arcing I^2t value

Joule Integral (I^2t) for Ultra Quick M, S, G - size 1, 2, 3

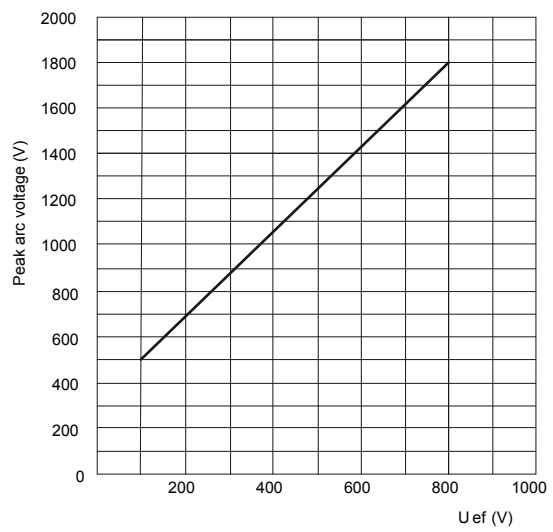


1 - Operating I^2t value at 690V
2 - Pre-arcing I^2t value

Conversion factor for total Joule integral



Maximum arc voltage accuring

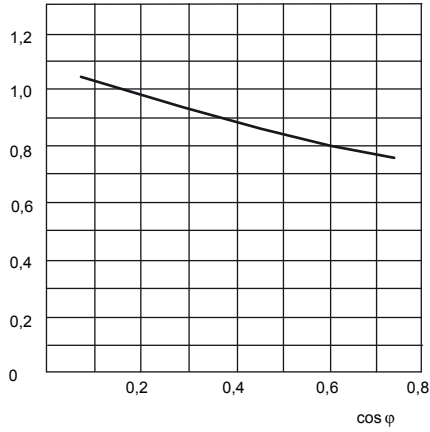


gR

RATED VOLTAGE

~690V

Correction factor for performance factor $\cos\varphi \neq 0,15$ for operating I^2t values



Correction factor for converting the power dissipation for percentage load

Load(%)	Correction factor
10	0,005
20	0,025
30	0,063
40	0,122
50	0,204
60	0,31
70	0,442
80	0,6
90	0,785
100	1

Power dissipation, pre-arcing Joule Integral and Operating Joule Integral for Ultra Quick

Size	I_N	Power dissipation	Pre-arcing	Operating	Operating	Operating	Operating
			Joule integral I^2t (1ms)	Joule Integral $I^2t \sim 230V$	Joule Integral $I^2t \sim 400V$	Joule Integral $I^2t \sim 500V$	Joule Integral $I^2t \sim 690V$
	A	W	A ² s	A ² s	A ² s	A ² s	A ² s
M00C, S00C	10	6,50	20	43	63	80	100
	16	7,93	42	95	139	176	220
	20	9,52	63	138	202	256	320
	25	11,8	110	258	378	480	600
	32	12,5	180	396	580	736	920
	35	13,1	180	396	580	736	920
	40	14,1	250	602	882	1.120	1.400
	50	15,6	449	968	1.418	1.800	2.250
	63	17,8	700	1.548	2.268	2.880	3.600
	80	20,6	1.100	2.666	3.906	4.960	6.200
	100	23,7	2.000	4.300	6.300	8.000	10.000
	125	30,0	2.500	5.590	8.190	10.400	13.000
	160	35,9	4.400	9.890	14.490	18.400	23.000
	M1, S1, G1 M2, S2, G2 M3, S3, G3	80	9,52	1.200	2.709	3.969	5.040
100		12,7	1.650	4.300	6.300	8.000	10.000
125		17,6	2.200	5.590	8.190	10.400	13.000
160		23,8	4.300	9.890	14.490	18.400	23.000
200		31,5	8.500	20.210	29.610	37.600	47.000
224		36,8	10.000	25.800	37.800	48.000	60.000
250		42,7	15.000	30.100	44.100	56.000	70.000
315		57	20.000	47.300	69.300	88.000	110.000
350		67	28.000	64.500	94.500	120.000	150.000
400		76	32.000	73.100	107.100	136.000	170.000
425		84	40.000	86.000	126.000	160.000	200.000
500		102	44.000	103.200	151.200	192.000	240.000
630	138	80.000	172.000	252.000	320.000	400.000	

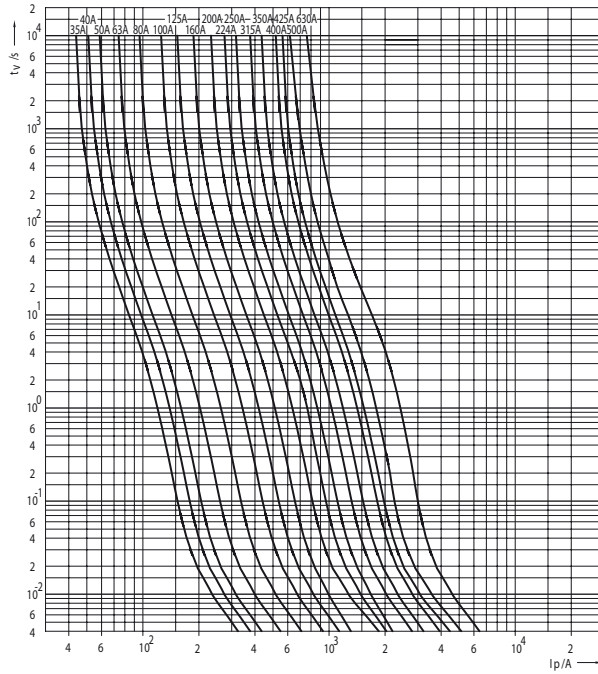
CHARACTERISTICS

NV/NH

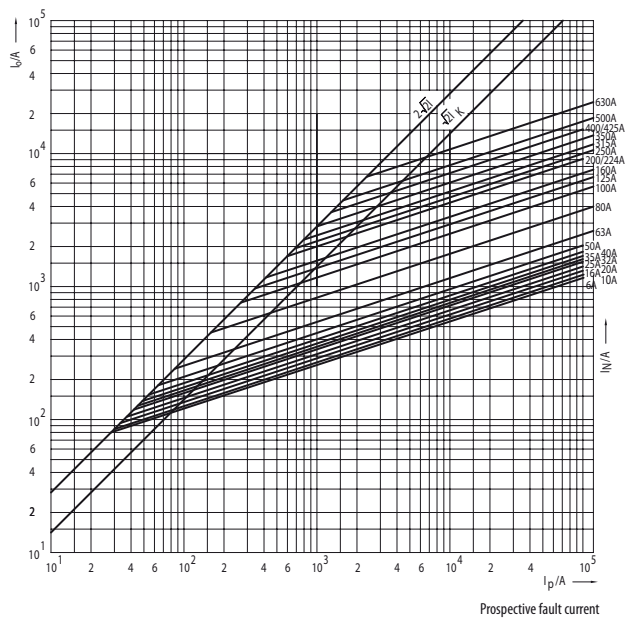
gR

RATED VOLTAGE
~500V

Time/current characteristics of fuse-links Ultra Quick G - size 1, 2, 3



Cut-off characteristics of fuse-links Ultra Quick G - size 1, 2, 3

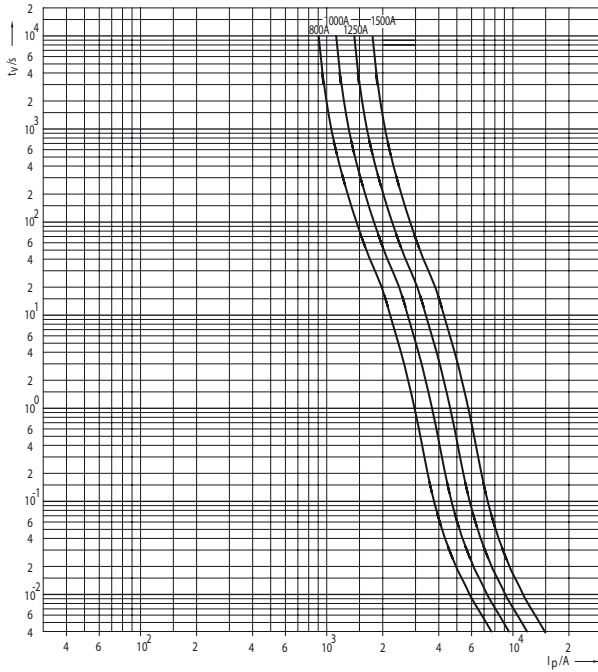


ULTRA QUICK

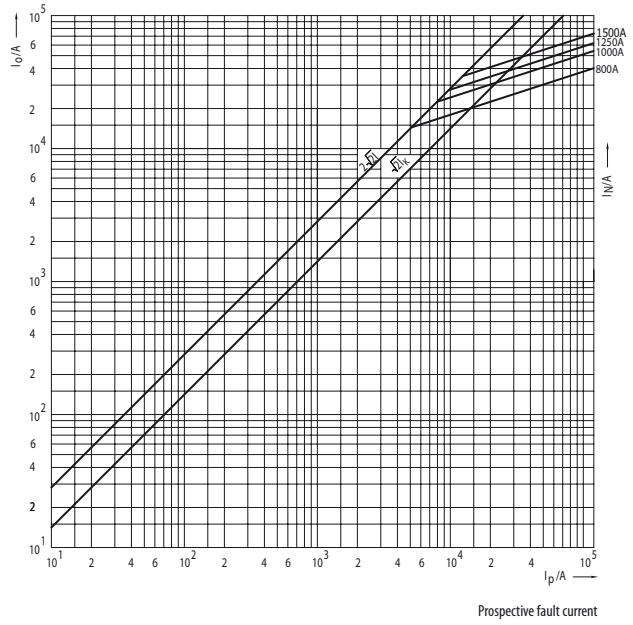
gR

RATED VOLTAGE
~500V

Time/current characteristics of fuse-links Ultra Quick M, S - size 4 and 4a

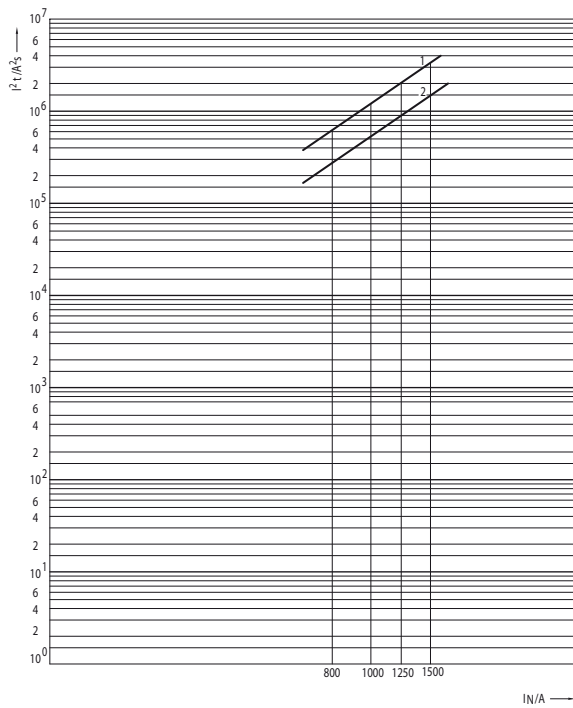


Cut-off characteristics of fuse-links Ultra Quick M, S - size 4 and 4a



ULTRA QUICK

Joule Integral (I^2t) for Ultra Quick M, S - size 4 and 4a



1 - Operating I^2t value at 500V
2 - Pre-arcing I^2t value

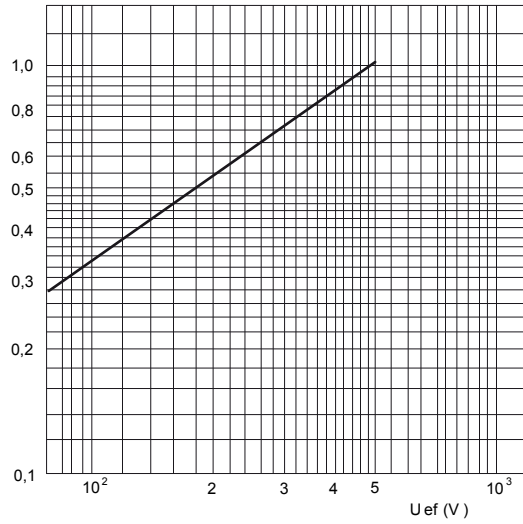
CHARACTERISTICS

NV/NH

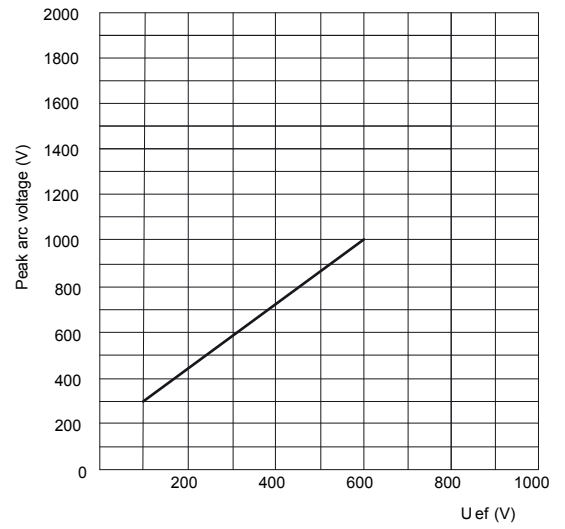
gR

RATED VOLTAGE
~500V

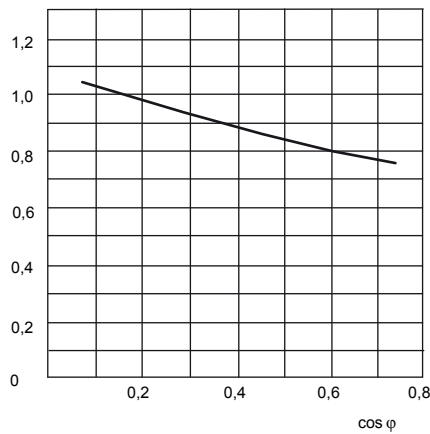
Conversion factor for total Joule integral



Maximum arc voltage accuring



Correction factor for performance factor $\cos\varphi \neq 0,15$ for operating I²t values



Correction factor for converting the power dissipation for percentage load

Load(%)	Correction factor
10	0,005
20	0,025
30	0,063
40	0,122
50	0,204
60	0,31
70	0,442
80	0,6
90	0,785
100	1

gR

RATED VOLTAGE
~500V

Power dissipation, pre-arcing Joule Integral and Operating Joule Integral for Ultra Quick

Size	I _N	Power dissipation	Pre-arcing Joule integral I ² t (1ms)	Operating Joule Integral I ² t ~230V	Operating Joule Integral I ² t ~400V	Operating Joule Integral I ² t ~500V
G1, G2, G3, M4a, S4	35	15,0	160	369	536	670
	40	16,2	250	550	800	1.000
	50	17,5	400	825	1.200	1.500
	63	20,0	600	1.210	1.760	2.200
	80	23,1	900	1.815	2.640	3.300
	100	26,4	1.500	3.960	5.760	7.200
	125	34,0	2.500	5.500	8.000	10.000
	160	40,1	6.000	11.550	16.800	21.000
	200	43,8	7.900	16.500	24.000	30.000
	224	48,5	10.000	22.550	32.800	41.000
	250	53	12.500	28.600	41.600	52.000
	315	63	20.000	45.100	65.600	82.000
	350	66	26.000	60.500	88.000	110.000
	425	70	40.000	88.000	128.000	200.000
	500	96	50.000	110.000	160.000	260.000
	630	135	66.000	143.000	208.000	340.000
	800	164	250.000	341.000	496.000	620.000
1000	188	580.000	632.500	920.000	1.150.000	
1250	246	900.000	1.100.000	1.600.000	2.000.000	
1500	310	1.600.000	2.090.000	3.040.000	3.800.000	

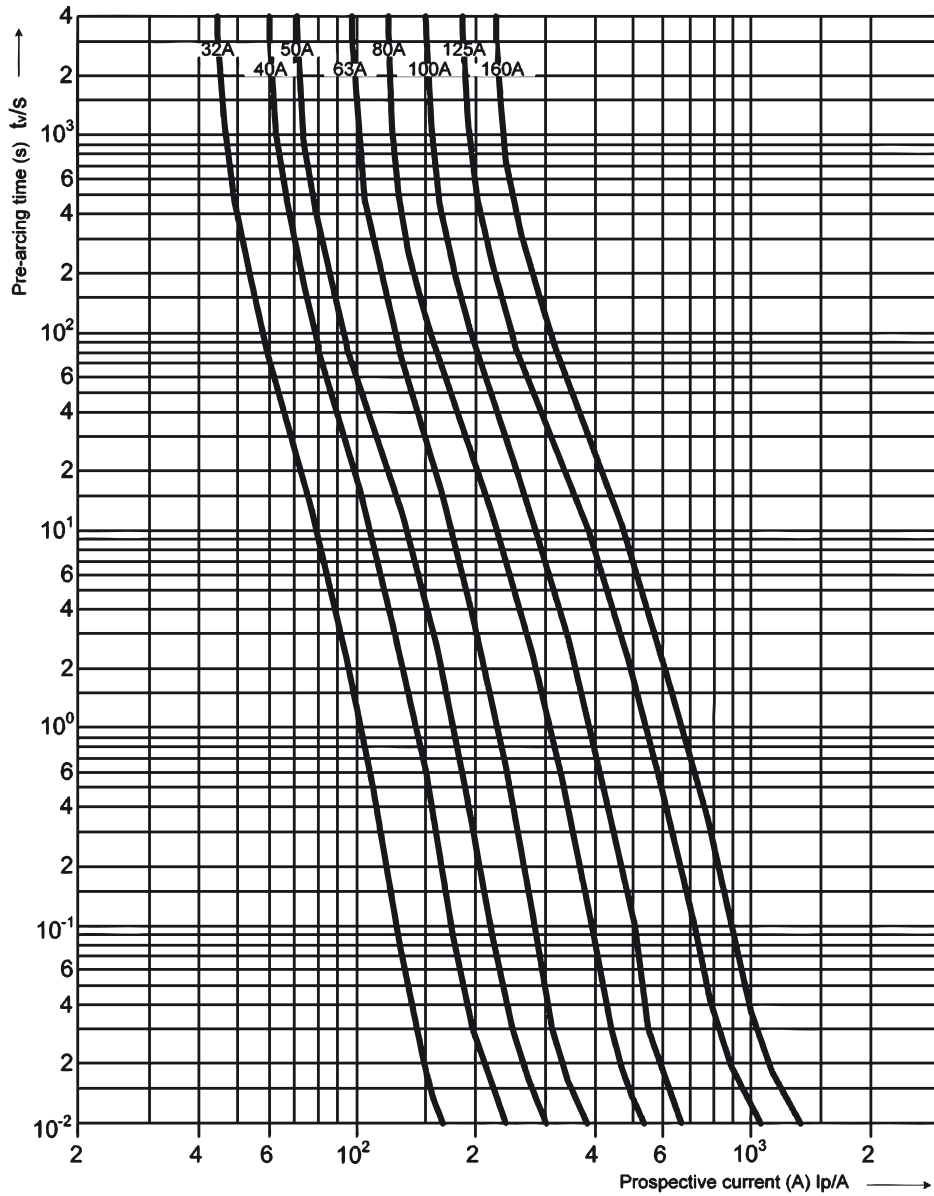
CHARACTERISTICS

NV/NH

gR

RATED VOLTAGE
 ≐ 750V, ≐ 1000V

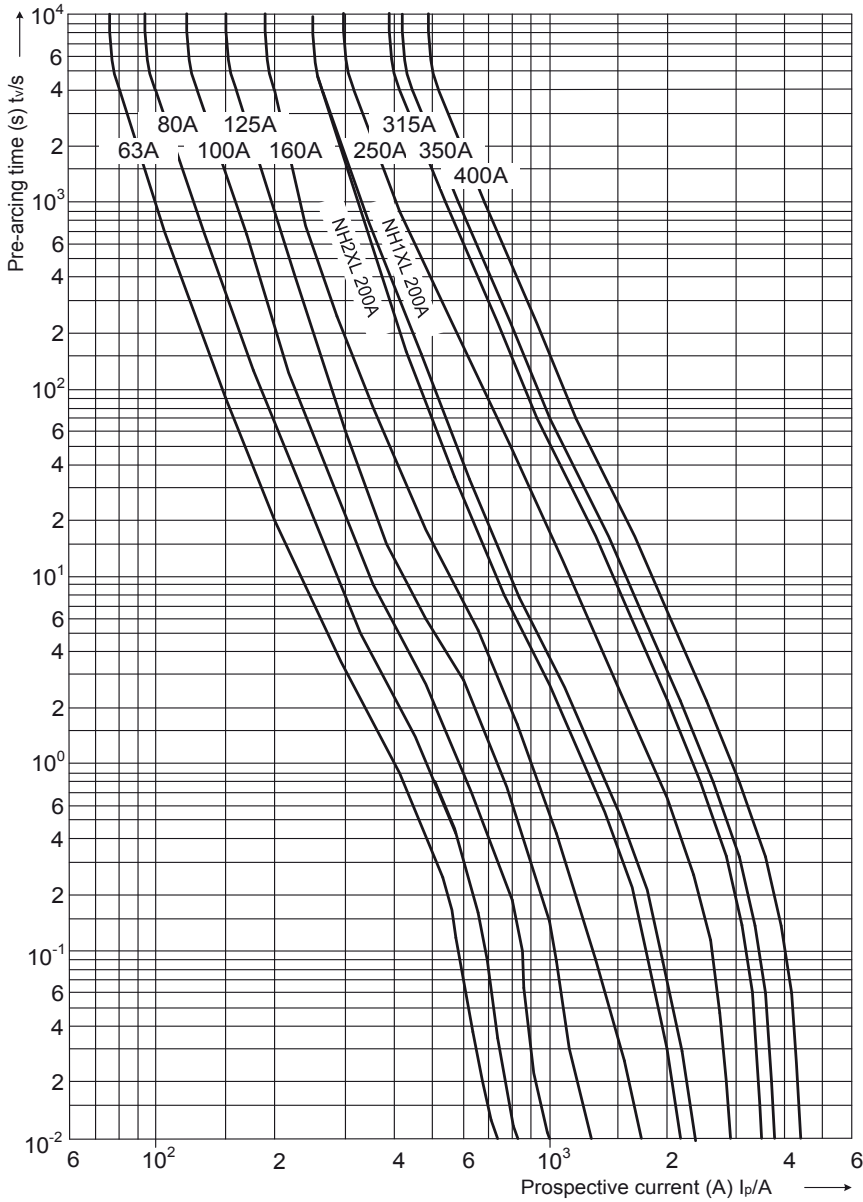
Time/current characteristics of fuse-links NH DC - size 0, 1C



gR

RATED VOLTAGE
= 1100V

Time/current characteristics of fuse-links NH DC - sizes 1XL, 2XL 3L

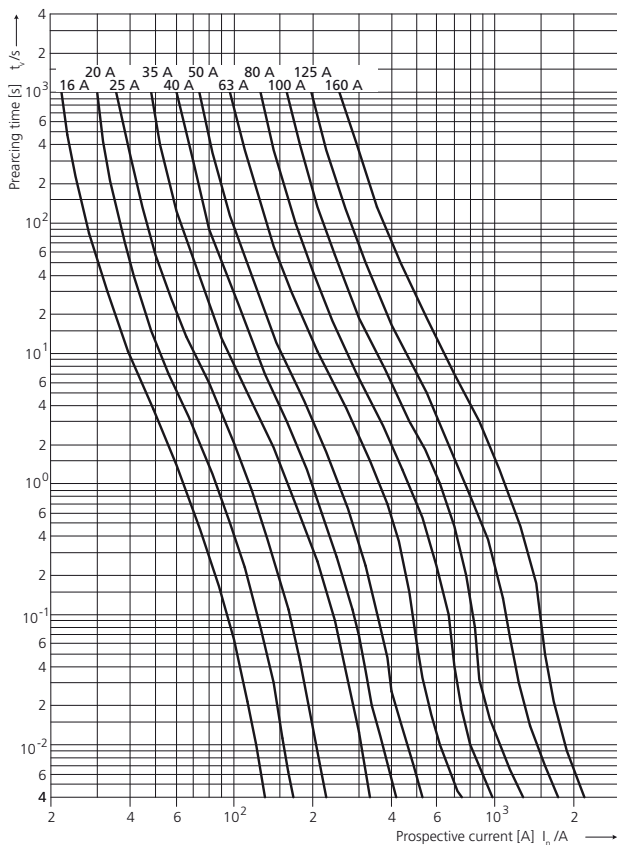


CHARACTERISTICS

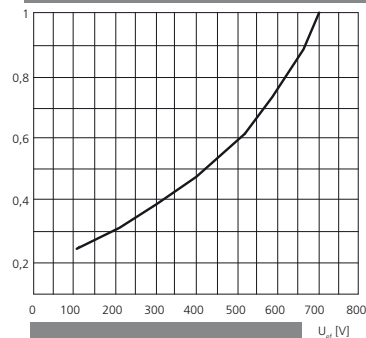
gS

RATED VOLTAGE
~690V

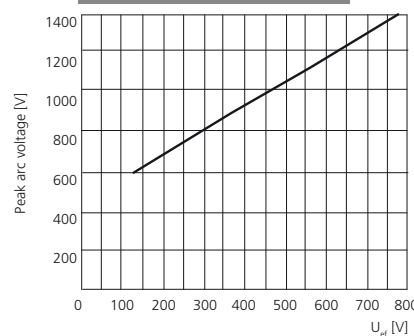
Time/current characteristics of fuse-links Ultra Quick M - size 00C, 00



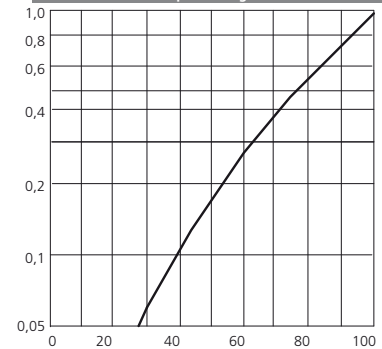
Conversion factor for total Joule integral



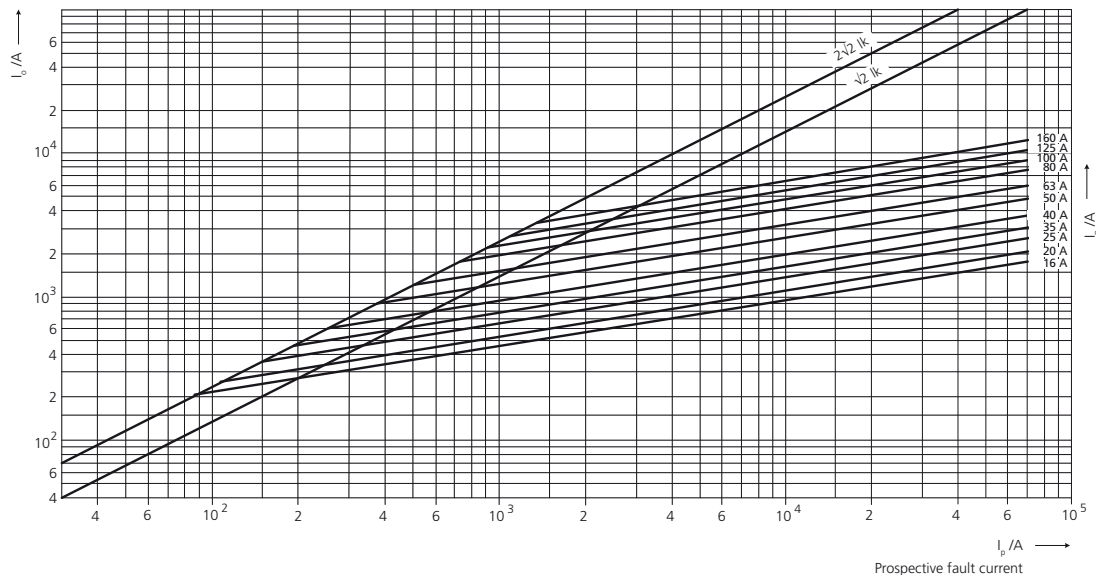
Maximum arc voltage occurring



Correction factor for converting the power diss. for percentage load



Cut-off characteristics of fuse-links Ultra Quick M - size 00C, 00

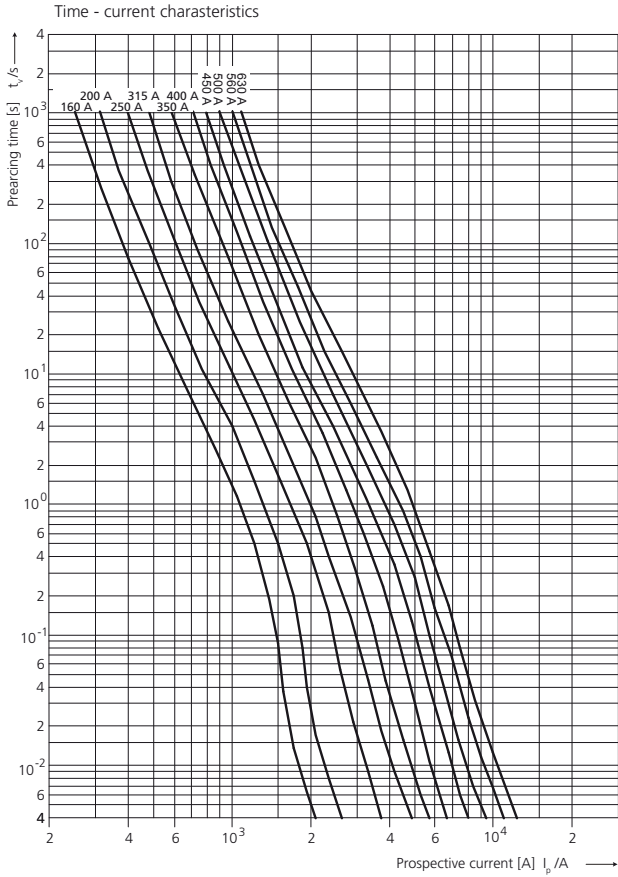


ULTRA QUICK

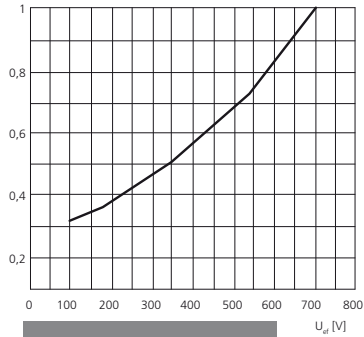
gS

RATED VOLTAGE
~690V

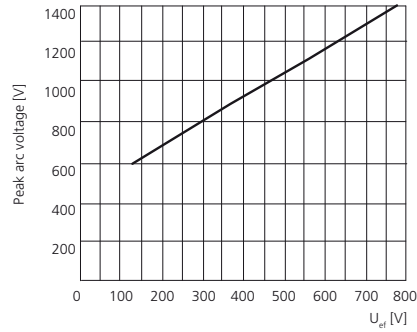
Time/current characteristics of fuse-links Ultra Quick M, S



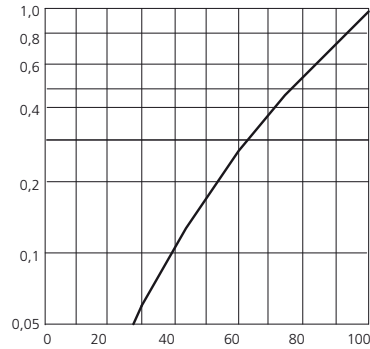
Conversion factor for total Joule integral



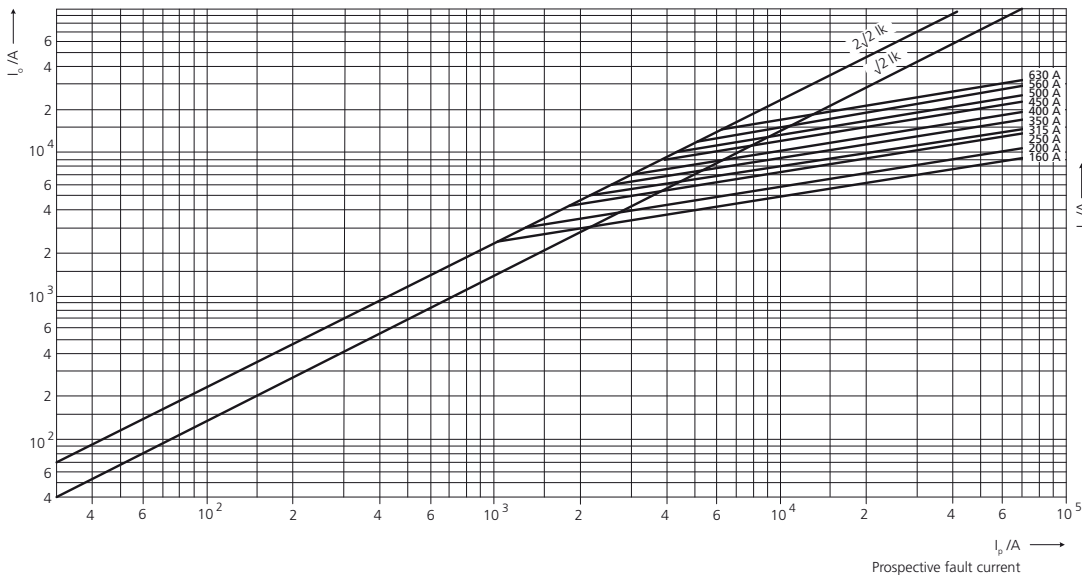
Maximum arc voltage occurring



Correction factor for converting the power diss. for percentage load



Cut-off characteristics of fuse-links Ultra Quick M, S - size 1, 2, 3



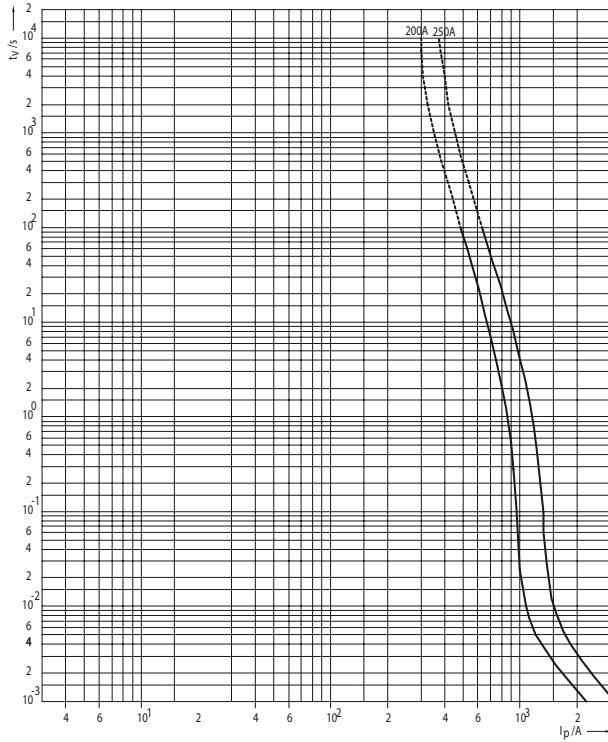
CHARACTERISTICS

NV/NH

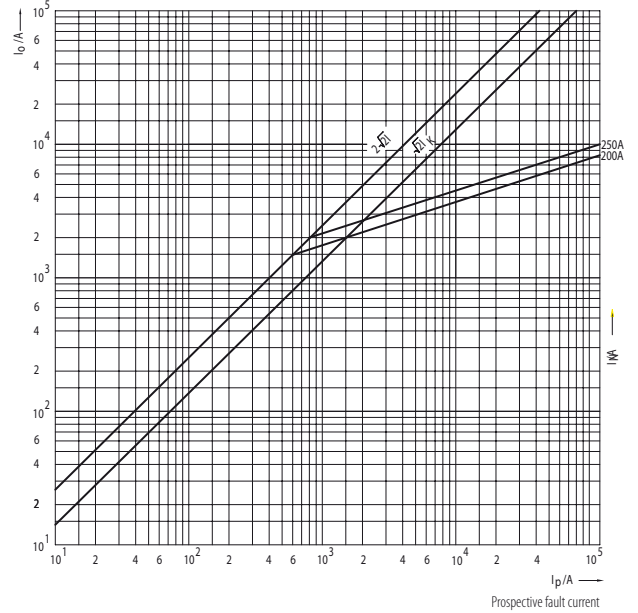
aR

RATED VOLTAGE
~690V

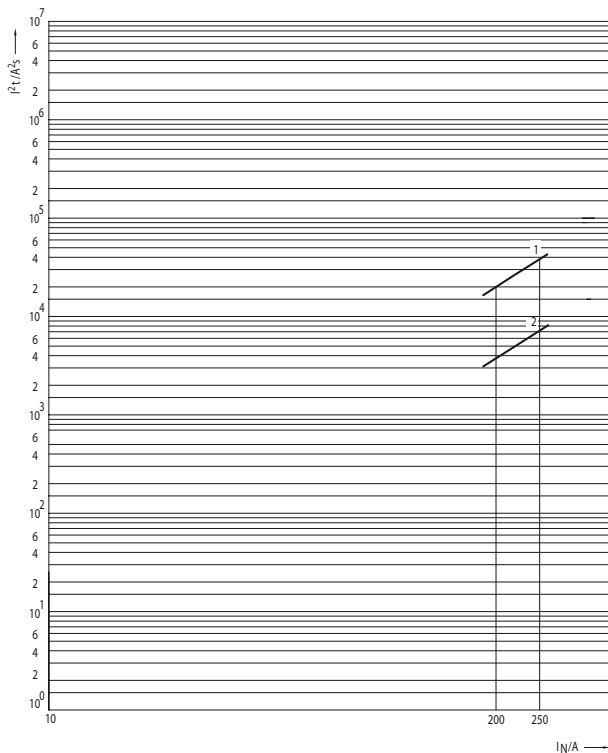
Time/current characteristics of fuse-links Ultra quick MUQ02 – size 00



Cut-off characteristics of fuse – links Ultra Quick MUQ02 – size 00



Joule integral (I²t) for Ultra Quick MUQ02 – size 00

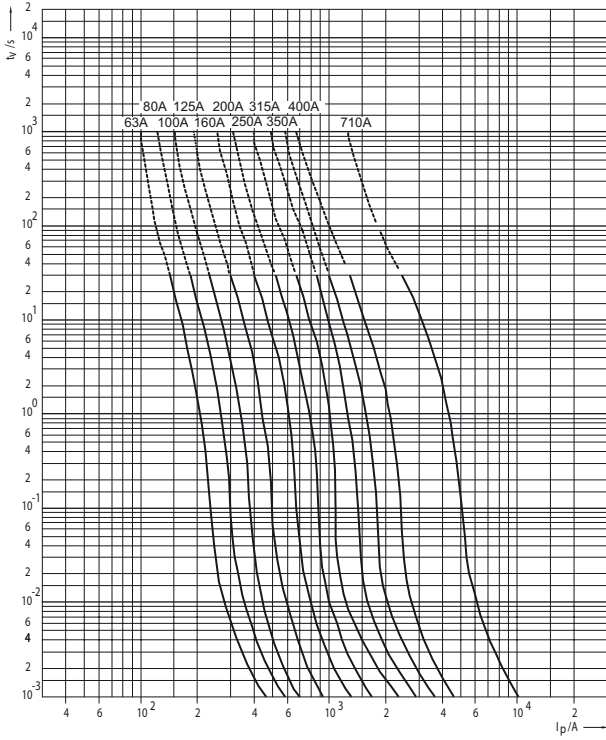


1 - Operating I²t value at 690V
2 - Pre-arcing I²t value

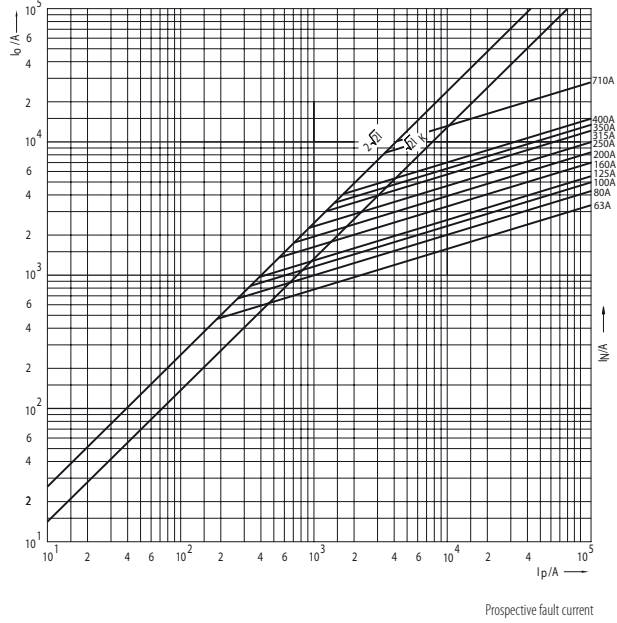
aR

RATED VOLTAGE
~690V

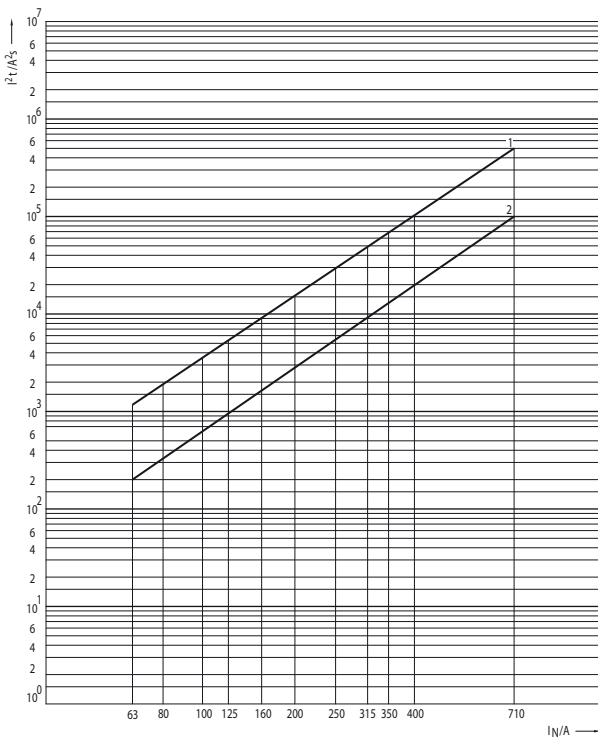
Time/current characteristics of fuse-links Ultra quick MUQ02, SUQ02, GUQ02 – size 1



Cut-off characteristics of fuse – links Ultra Quick MUQ02, SUQ02, GUQ02 – size 1



Joule integral (I^2t) for Ultra Quick MUQ02, SUQ02, GUQ02 – size 1



1 - Operating I^2t value at 690V
2 - Pre-arcing I^2t value

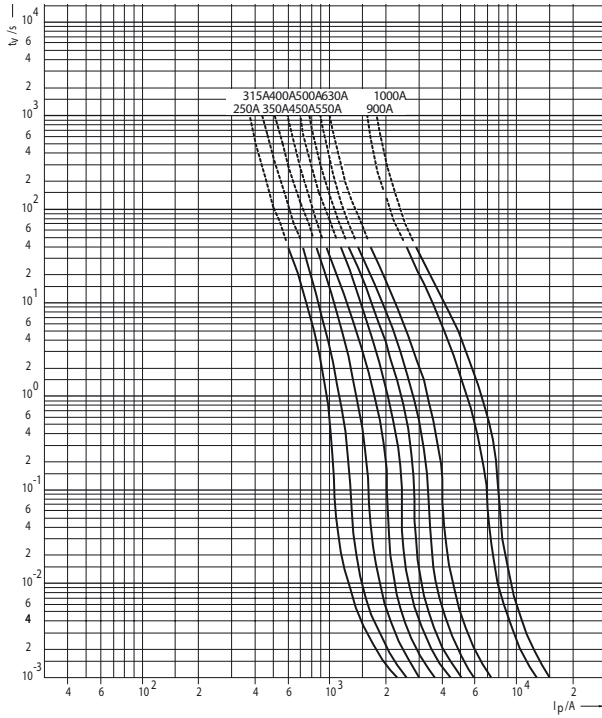
CHARACTERISTICS

NV/NH

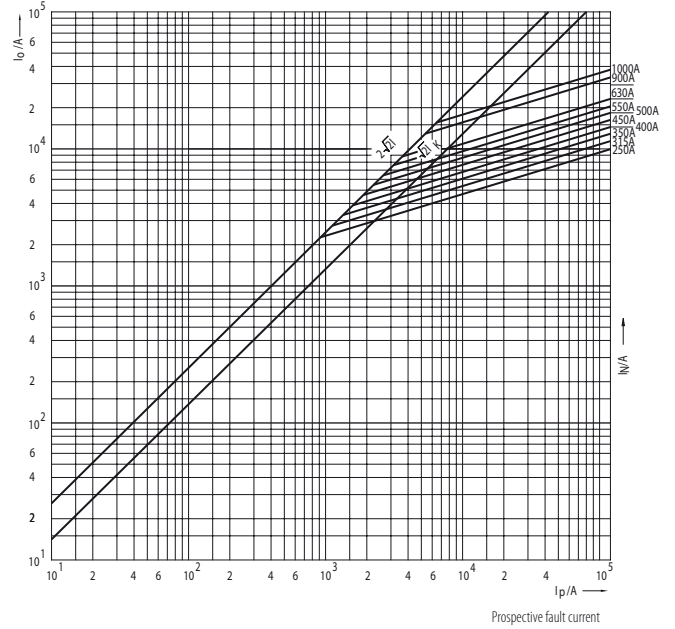
aR

RATED VOLTAGE
~690V

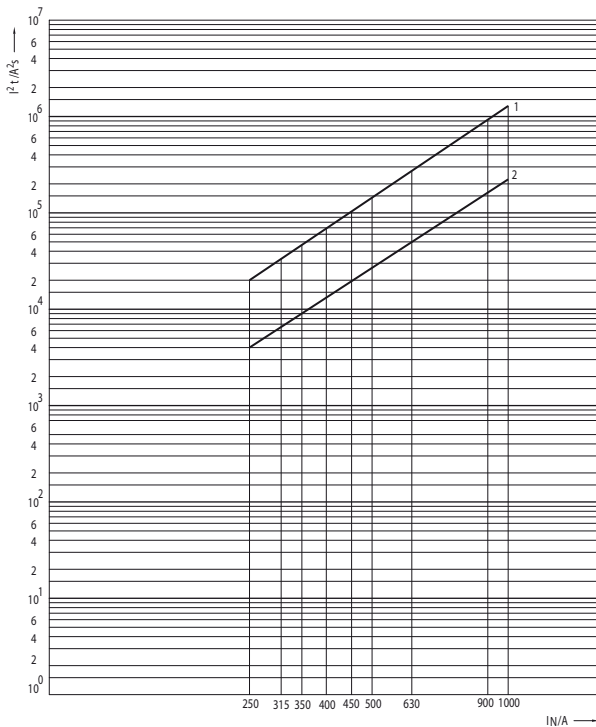
Time/current characteristics of fuse-links Ultra quick MUQ02, SUQ02, GUQ02 – size 2



Cut-off characteristics of fuse – links Ultra Quick MUQ02, SUQ02, GUQ02 – size 2



Joule integral (I^2t) for Ultra Quick MUQ02, SUQ02, GUQ02 – size 2

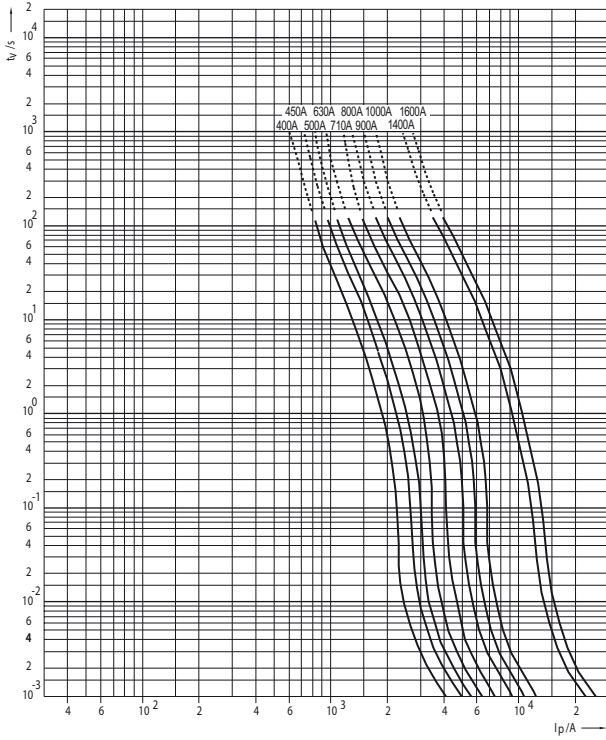


1 - Operating I^2t value at 690V
2 - Pre-arcing I^2t value

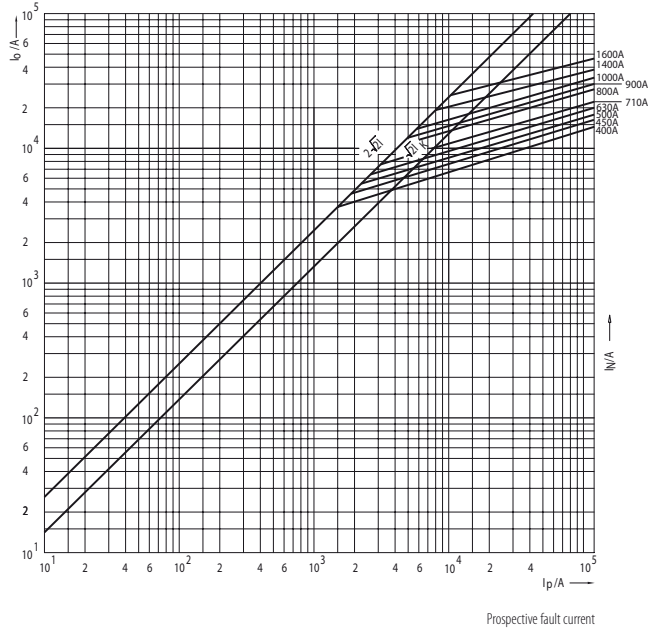
aR

RATED VOLTAGE
~690V

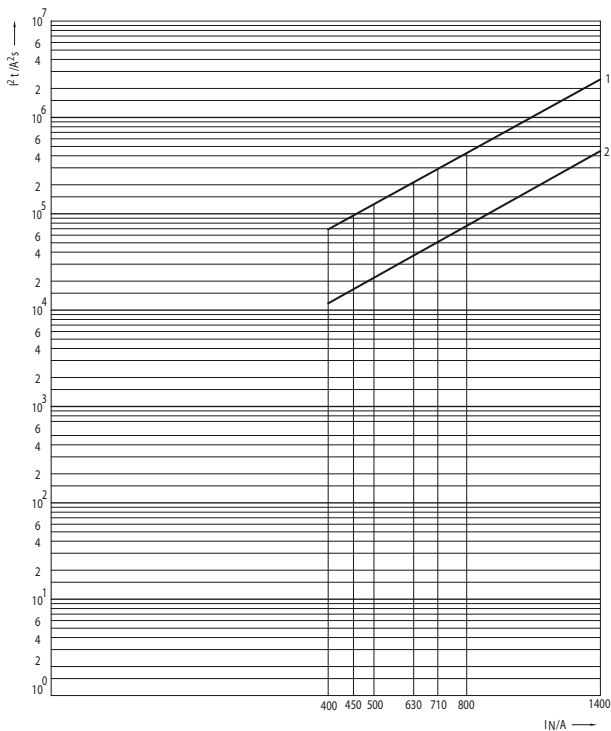
Time/current characteristics of fuse-links Ultra quick MUQ02, SUQ02, GUQ02 – size 3



Cut-off characteristics of fuse – links Ultra Quick MUQ02, SUQ02, GUQ02 – size 3



Joule integral (I^2t) for Ultra Quick MUQ02, SUQ02, GUQ02 – size 3



1 - Operating I^2t value at 690V
2 - Pre-arcing I^2t value

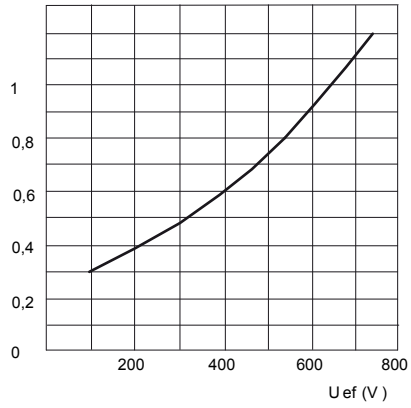
CHARACTERISTICS

NV/NH

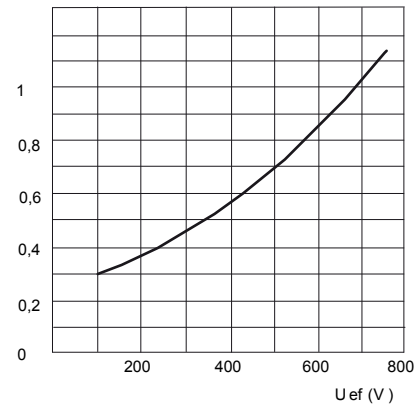
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RATED VOLTAGE
~690V

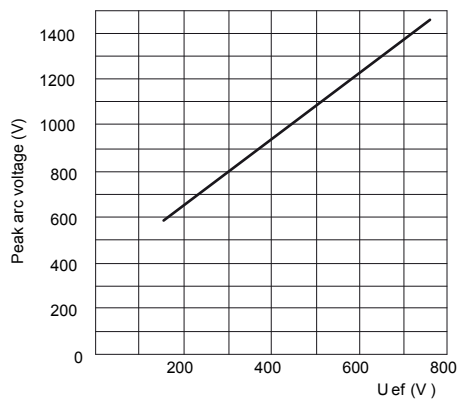
Conversion factor for total Joule integral size 00



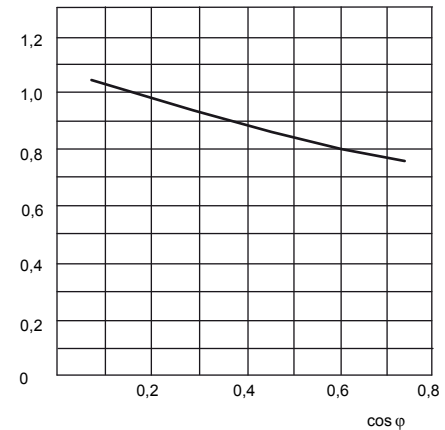
Conversion factor for total Joule integral size 1,2,3



Maximum arc voltage accuring



Correction factor for performance factor $\cos\varphi \neq 0,15$ for operating I²t values



Correction factor for converting the power dissipation for percentage load

Load (%)	Correction factor
10	0,005
20	0,025
30	0,063
40	0,122
50	0,204
60	0,31
70	0,442
80	0,6
90	0,785
100	1

aR

RATED VOLTAGE

~690V

Power dissipation, pre-arcing Joule integral and Operating Joule integral for Ultra Quick

Size	I _N	Power dissipation	Pre-arcing Joule integral I ² t (1ms)	Operating Joule Integral I ² t ~230V	Operating Joule Integral I ² t ~400V	Operating Joule Integral I ² t ~500V	Operating Joule Integral I ² t ~690V
	A	W	A ² s	A ² s	A ² s	A ² s	A ² s
M00	200	46	4.200	6.547	12.685	16.368	22.000
	250	49	8.300	13.243	25.659	33.108	44.500
M1	63	15	200	357	692	893	1.200
	80	20	350	536	1.038	1.339	1.800
	100	27	450	738	1.430	1.845	2.480
	125	31	830	1.369	2.652	3.422	4.600
	160	35	1.550	2.515	4.872	6.287	8.450
	200	46	2.600	4.166	8.072	10.416	14.000
	250	51	4.800	7.738	14.992	19.344	26.000
	315	66	7.600	12.499	24.217	31.248	42.000
	350	68	11.000	16.070	31.136	40.176	54.000
	400	70	18.500	29.165	56.507	72.912	98.000
S1, G1	710	92	96.000	139.872	271.002	349.680	470.000
M2	250	53	4.000	6.398	12.397	15.996	21.500
	315	68	6.300	10.059	19.489	25.147	33.800
	350	71	9.100	14.553	28.196	36.382	48.900
	400	70	15.500	25.296	49.011	63.240	85.000
	450	75	21.500	35.712	69.192	89.280	120.000
	500	80	28.000	44.640	86.490	111.600	150.000
	550	86	36.000	56.544	109.554	141.360	190.000
	630	93	56.000	86.304	167.214	215.760	290.000
S2, G2	900	115	178.000	273.792	530.472	684.480	920.000
	1000	124	235.000	386.880	749.580	967.200	1.300.000
M3	400	81	12.800	20.534	39.785	51.336	69.000
	450	89	17.800	28.570	55.354	71.424	96.000
	500	110	23.500	37.795	73.228	94.488	127.000
	630	108	40.000	63.984	123.969	159.960	215.000
	710	112	53.000	95.232	184.512	238.080	320.000
	800	116	90.000	141.360	273.885	353.400	475.000
S3, G3	1400	156	455.000	773.760	1.499.160	1.934.400	2.600.000

Code No	Page	Code No	Page	Code No	Page	Code No	Page
0026		002625313	23	004110522	53	004303116	43
002625005	22	002625314	23	004110523	53	004303117	43
002625006	22	002625315	23	004110524	53	004303119	43
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002625011	22	002635007	22	004110528	53	004303125	43
002625013	22	002635008	22	004110530	53	004303126	43
002625015	22	002635009	22	004110532	53	004303212	39
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002625018	23	002635013	22	004110534	53	004303214	39
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002625030	23	002635119	22	004110546	54	004303515	44
002625031	23	002645011	22	004110547	54	004303516	44
002625032	23	002645013	22	004110548	54	004303517	44
002625033	23	002645015	22	004110549	54	004303519	44
002625034	23	002645017	22	004110550	54	004303521	44
002625035	23	002645019	22	004110551	54	004303522	44
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002625221	24	002645023	22	004110553	54	004303525	44
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002625224	24	002645113	22	004110556	54	004303613	44
002625225	24	002645115	22	004110557	54	004303614	44
002625226	24	002645117	22	004110558	54	004303615	44
002625227	24	002645119	22	004110559	54	004303616	44
002625228	24	002645121	22	004110585	54	004303617	44
002625230	24	002645123	22	004110586	54	004303619	44
002625231	24	002645125	22	004117001	61	004303621	44
002625232	24			004122043	62	004303622	44
002625233	24	0041				004303623	44
002625234	24	004110500	53	0043		004303625	44
002625235	24	004110502	53	004301107	41	004303626	44
002625236	24	004110503	53	004301108	41	004303712	43
002625237	24	004110504	53	004301110	41	004303713	43
002625238	24	004110505	53	004301111	41	004303714	43
002625300	23	004110506	53	004301112	41	004303715	43
002625301	23	004110507	53	004301113	41	004303716	43
002625302	23	004110508	53	004301114	41	004303717	43
002625303	23	004110510	53	004301115	41	004303719	43
002625304	23	004110512	53	004301116	41	004303721	43
002625305	23	004110513	53	004301117	41	004303722	43
002625306	23	004110514	53	004301119	41	004303723	43
002625307	23	004110515	53	004301121	41	004303725	43
002625308	23	004110516	53	004303112	43	004303726	43
002625310	23	004110517	53	004303113	43	004304121	43
002625311	23	004110518	53	004303114	43	004304122	43
002625312	23	004110520	53	004303115	43	004304123	43

index

Code No	Page	Code No	Page	Code No	Page	Code No	Page
004304125	43	004305729	43	004331026	27	004333109	30
004304126	43	004305730	43	004331027	27	004333110	30
004304127	43	004305732	43	004331028	27	004333111	30
004304128	43	004305734	43	004331029	27	004333112	30
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004304222	39	004311002	20	004331103	29	004333114	30
004304223	39	004311003	20	004331104	29	004333115	30
004304225	39	004311004	20	004331105	29	004333116	30
004304226	39	004311005	20	004331106	29	004333117	30
004304228	39	004312001	20	004331110	29	004333208	28
004304521	44	004312002	20	004331111	29	004333209	28
004304522	44	004312003	20	004331112	29	004333210	28
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004304621	44	004321004	21	004331201	27	004333216	28
004304622	44	004321005	21	004331202	27	004333217	28
004304623	44	004321006	21	004331203	27	004334109	30
004304625	44	004321007	21	004331204	27	004334110	30
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004304721	43	004322004	21	004331210	27	004334115	30
004304722	43	004322005	21	004331211	27	004334116	30
004304723	43	004322006	21	004331212	27	004334117	30
004304725	43	004322007	21	004331213	27	004334118	30
004304726	43	004322008	21	004331214	27	004334119	30
004304727	43	004323001	21	004331215	27	004334121	30
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004305126	43	004323003	21	004332102	29	004334210	28
004305128	43	004324001	21	004332103	29	004334211	28
004305129	43	004324002	21	004332104	29	004334213	28
004305130	43	004325001	21	004332105	29	004334214	28
004305132	43	004325002	21	004332108	29	004334216	28
004305134	43	004325003	21	004332109	29	004334218	28
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004305230	39	004331006	29	004332113	29	004334222	28
004305526	44	004331007	29	004332114	29	004335108	30
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004305533	44	004331012	29	004332204	27	004335114	30
004305534	44	004331013	29	004332205	27	004335115	30
004305626	44	004331014	29	004332208	27	004335116	30
004305628	44	004331018	27	004332209	27	004335117	30
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004305632	44	004331021	27	004332212	27	004335209	28
004305633	44	004331022	27	004332213	27	004335210	28
004305634	44	004331023	27	004332214	27	004335211	28
004305726	43	004331024	27	004332216	27	004335213	28
004305728	43	004331025	27	004333108	30	004335214	28

index

Code No	Page	Code No	Page	Code No	Page	Code No	Page
004335215	28	004371214	31	004383113	34	004385734	34
004335216	28	004371215	31	004383114	34	004393113	35
004349001	61	004371216	31	004383115	34	004393114	35
004349002	61	004371219	31	004383116	34	004393115	35
004349003	61	004373513	36	004383117	34	004393116	35
004349005	62	004373514	36	004383119	34	004393117	35
004349006	62	004373515	36	004383121	34	004393119	35
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004362206	38	004373517	36	004383123	34	004393122	35
004362207	38	004373519	36	004383125	34	004393123	35
004362208	38	004373521	36	004383126	34	004393125	35
004362210	38	004373522	36	004383127	34	004393126	35
004362211	38	004373523	36	004383128	34	004393127	35
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004362213	38	004373526	36	004383713	34	004393129	35
004362214	38	004373527	36	004383714	34	004393713	35
004362215	38	004373528	36	004383715	34	004393714	35
004362216	38	004373529	36	004383716	34	004393715	35
004362217	42	004373613	37	004383717	34	004393716	35
004362218	42	004373614	37	004383719	34	004393717	35
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004362222	42	004373621	37	004383725	34	004393723	35
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004362226	42	004373626	37	004384123	34	004394123	35
004362227	42	004373628	37	004384125	34	004394125	35
004371104	33	004374523	36	004384126	34	004394126	35
004371105	33	004374525	36	004384127	34	004394127	35
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004371108	33	004374528	36	004384130	34	004394130	35
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004371110	33	004374530	36	004384132	34	004394132	35
004371111	33	004374531	36	004384723	34	004394723	35
004371112	33	004374532	36	004384725	34	004394725	35
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004371119	33	004374630	37	004385128	34	004395129	35
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004371122	33	004375529	36	004385130	34	004395131	35
004371123	33	004375530	36	004385131	34	004395132	35
004371204	31	004375531	36	004385132	34	004395133	35
004371205	31	004375532	36	004385133	34	004395134	35
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004371207	31	004375534	36	004385135	34	004395728	35
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004371213	31	004375633	37	004385733	34	004395734	35

index

Code No	Page	Code No	Page	Code No	Page	Code No	Page
0047		004721213	50	004723248	51	004725226	51
004713509	57	004721214	50	004723250	60	004725228	51
004713510	57	004721215	50	004723251	60	004725230	59
004713511	57	004721216	50	004723252	60	004725231	59
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004721109	55	004723215	51	004724253	60	004735141	46
004721110	55	004723216	51	004724255	60	004735142	46
004721111	55	004723217	51	004724256	60	004735143	46
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004721114	55	004723230	59	004725119	56	004735146	46
004721115	55	004723231	59	004725121	56	004735147	46
004721116	55	004723232	59	004725122	56	004735150	47
004721204	50	004723233	59	004725123	56	004735151	47
004721205	50	004723240	51	004725124	56	004735152	47
004721206	50	004723241	51	004725126	56	004735153	47
004721207	50	004723242	51	004725128	56	004735154	47
004721208	50	004723243	51	004725219	51	004735155	48
004721209	50	004723244	51	004725221	51	004735156	48
004721210	50	004723245	51	004725222	51	004735160	49
004721211	50	004723246	51	004725223	51	004735161	49
004721212	50	004723247	51	004725224	51	004735162	49

Code No	Page	Code No	Page	Code No	Page
004735163	49	004750106	25	004750950	26
004735164	49	004750108	25	004750952	26
004735165	49	004750109	25		
004735166	49	004750112	25		
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004741219	31	004750119	25		
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004743213	32	004750125	25		
004743214	32	004750128	25		
004743215	32	004750131	25		
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004743629	37	004750346	25		
004743727	35	004750349	25		
004743729	35	004750352	25		
004743735	34	004750353	25		
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004744736	34	004750621	26		
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004745634	37	004750726	26		
004745636	37	004750728	26		
004745734	35	004750933	26		
004745735	34	004750935	26		
004750001	25	004750939	26		
004750002	25	004750943	26		
004750003	25	004750944	26		
004750004	25	004750945	26		
004750005	25	004750946	26		

