
Specification for

Cartridge fuse links for miniature fuses

Spécification des cartouches pour coupe-circuit miniatures

Spezifikation für patronensicherungsdrähte für miniatursicherungen

Foreword

This revision of BS 4265 has been prepared under the authority of the Power Electrical Engineering Standards Committee. It is identical in both technical content and format with IEC 127 'Cartridge fuse links for miniature fuses as amended in accordance with IEC 127A : 1980 'Colour coding'.

Because the text of an IEC Publication has been copied, it includes some minor material not appropriate to a British Standard.

For the purposes of this British Standard, the text of IEC 127 given in this publication should be modified as follows.

Terminology. The words 'British Standard' should replace 'recommendation' wherever it appears.

The title of section one should read 'General'.

Cross references.

International standard	Corresponding British Standard
ISO R 3*	BS 2045 : 1965 Preferred numbers (Technically equivalent)
IEC 62	BS 1852 : 1975 Marking codes for resistors and capacitors (Identical)
IEC 425	BS 5890 : 1980 Guide for choice of colours to be used for the marking of capacitors and resistors (Identical)

*ISO 3, referred to in Standard Sheets I, II and III as ISO Recommendation R 3, was revised as an International Standard in 1975.



AMD 5214
IEC 127B

**Amendment No. 2
published and effective from 31 October 1986
to BS 4265 : 1977 (IEC 127 : 1974)**

**Specification for cartridge fuse links
for miniature fuses**

NOTE. This amendment puts into effect the changes made to the identical IEC Publication 127 by the issue of the second supplement IEC Publication 127B. The IEC supplement comprised replacement pages for IEC 127 but since the British Standard had not been printed in loose-leaf format and replacement pages were impractical, all amendments introduced by the Supplement have been included in the Amendment.

Revised text

AMD 5214
October 1986

Foreword (as amended by Amendment No. 1)
Add the following to the end of the first paragraph.
'and IEC 127B : 1985.'

AMD 5214
October 1986

New clause 3.20
After 3.19 add the following new clause.

3.20 Maximum sustained power dissipation

The power dissipation of a fuse-link at the maximum current which can be sustained for a minimum of 1 h.

AMD 5214
October 1986

Clause 9.4
Add the following note at the end of 9.4(c).

Note. — In order to establish the maximum sustained power dissipation, the voltage drop is measured at the end of this 1 h period before switching off the current for each sample under test.

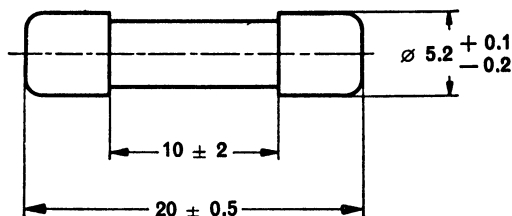
AMD 5214
October 1986

Section two. Standard Sheets
Delete the Standard Sheets and substitute the following new Standard Sheets attached.

Fuse-links 5 mm × 20 mm
Quick-acting
High-breaking capacity

Standard Sheet
I

Dimensions in millimetres



363/74

Alignment: The dimensions of the gauge are: $h = 30$ mm; $d = 5.38$ mm ± 0.01 mm (see Sub-clause 8.4).

Construction: The fuse-link shall be non-transparent.

Rated current *	Rated voltage V	Maximum voltage drop mV	Maximum sustained power dissipation W **
50 mA 63 mA 80 mA 100 mA 125 mA 160 mA 200 mA	250	10 000 8 800 7 600 7 000 5 000 4 300 3 500	1.6
250 mA 315 mA 400 mA 500 mA 630 mA 800 mA 1 A		2 800 2 500 2 000 1 800 1 500 1 200 1 000	2.5
1.25 A 1.6 A 2 A 2.5 A 3.15 A 4 A 5 A 6.3 A		800 600 500 400 350 300 250 200	4

* Intermediate values shall be chosen from the R 20 series according to ISO Recommendation R 3.

** Measured after 1 h at $1.5 I_n$.

Marking

Fuse-links shall be marked with:

- rated current;
- rated voltage;
- maker's name or trade mark;
- characteristic symbol F.

Pre-arcing time/current characteristic

The pre-arcing time shall be within the following limits:

2.1 I_n		2.75 I_n		4 I_n		10 I_n
Maximum	Minimum	Maximum	Minimum	Maximum	Maximum	Maximum
30 min	10 ms	2 s *	3 ms	300 ms	20 ms	

* 3 s for rated currents of 4-5 and 6.3 A.

Breaking capacity

Rated breaking capacity: 1 500 A, tested with a.c. and using the circuit given in Figure 5, page 29, for the high-breaking capacity test.

Endurance test

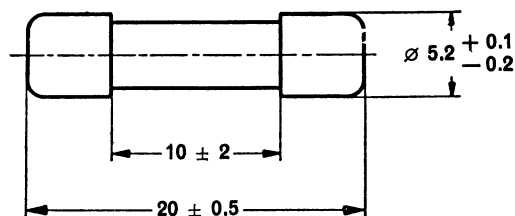
100 cycles at 1.2 times the rated current according to Sub-clause 9.4 b) followed by 1 h at 1.5 times the rated current according to Sub-clause 9.4 c).

Fuse-links 5 mm × 20 mm
Quick-acting
Low-breaking capacity

Standard Sheet
II

This type of fuse-link is recommended for the protection of circuits in telecommunication equipment or similar circuits with limited short-circuit current.

Dimensions in millimetres



365/74

Alignment: The dimensions of the gauge are: $h = 30 \text{ mm}$; $d = 5.38 \text{ mm} \pm 0.01 \text{ mm}$ (see Sub-clause 8.4).

Construction: The fuse-link shall be transparent.

Rated current *	Rated voltage V	Maximum voltage drop mV	Maximum sustained power dissipation W**
32 mA	250	10 000	1.6
40 mA		8 000	
50 mA		7 000	
63 mA		5 000	
80 mA		4 000	
100 mA		3 500	
125 mA		2 000	
160 mA		2 000	
200 mA		1 700	
250 mA		1 400	
315 mA		1 300	
400 mA		1 200	
500 mA		1 000	
630 mA		650	
800 mA		240	
1 A		200	
1.25 A		200	
1.6 A		190	
2 A		170	
2.5 A		170	
3.15 A	250	150	2.5
4 A		130	
5 A		130	
6.3 A		130	

* Intermediate values shall be chosen from the R 20 series according to ISO Recommendation R 3.

** Measured after 1 h at $1.5 I_n$.

Marking

Fuse-links shall be marked with:

- rated current;
- rated voltage;
- maker's name or trade mark;
- characteristic symbol F.

Pre-arcing time/current characteristic

The pre-arcing time shall be within the following limits:

Rated current	2.1 I_n	2.75 I_n		4 I_n		10 I_n
	Maximum	Minimum	Maximum	Minimum	Maximum	Maximum
32 to 100 mA inclusive	30 min	10 ms	500 ms	3 ms	100 ms	20 ms
Above 100 mA to 6.3 A	30 min	50 ms	2 s	10 ms	300 ms	20 ms

Breaking capacity

Rated breaking capacity: 35 A or $10 I_n$ whichever is greater, tested with a.c. and using the circuit given in Figure 6, page 29, for the low-breaking capacity test.

Note. — Care should be taken that the prospective fault currents of the circuit are within these limits.

Endurance test

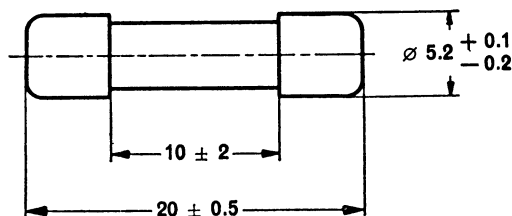
100 cycles at 1.2 times the rated current according to Sub-clause 9.4 b) followed by 1 h at 1.5 times the rated current according to Sub-clause 9.4 c).

Fuse-links 5 mm × 20 mm
Time-lag (surge-proof)
Low-breaking capacity

Standard Sheet
III

This type of fuse-link is recommended for the protection of circuits in telecommunication equipment or similar circuits with limited short-circuit current.

Dimensions in millimetres



365/74

Alignment: The dimensions of the gauge are: h = 30 mm; d = 5.38 mm ± 0.01 mm (see Sub-clause 8.4).

Construction: The fuse-link shall be transparent.

Rated current *	Rated voltage V	Maximum voltage drop mV	Maximum sustained power dissipation W **
32 mA	250	5 000	1.6
40 mA		4 000	
50 mA		3 500	
63 mA		3 000	
80 mA		3 000	
100 mA		2 500	
125 mA		2 000	
160 mA		1 900	
200 mA		1 500	
250 mA		1 300	
315 mA		1 100	
400 mA		1 000	
500 mA		900	
630 mA		300	
800 mA		250	
1 A		150	
1.25 A		150	
1.6 A		150	
2 A		150	
2.5 A		120	
3.15 A		100	
4 A		100	
5 A		100	
6.3 A		100	

* Intermediate values shall be chosen from the R 20 series according to ISO Recommendation R 3

** Measured after 1 h at 1.5 I_n .

Marking

Fuse-links shall be marked with:

- rated current;
- rated voltage;
- maker's name or trade mark;
- characteristic symbol T.

Pre-arcing time/current characteristic

The pre-arcing time shall be within the following limits:

Rated current	2.1 I_n	2.75 I_n		4 I_n		10 I_n	
	Maximum	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
32 to 100 mA inclusive	2 min	200 ms	10 s	40 ms	3 s	10 ms	300 ms
Above 100 mA to 6.3 A	2 min	600 ms	10 s	150 ms	3 s	20 ms	300 ms

Test at a temperature of 70 ± 2 °C

A current of 1.1 I_n shall be passed through the fuse-links for 1 h and they shall not operate.

Breaking capacity

Rated breaking capacity: 35 A or 10 I_n whichever is greater, tested with a.c. and using the circuit given in Figure 6, page 29, for the low-breaking capacity test.

Note. — Care should be taken that the prospective fault currents of the circuit are within these limits.

Endurance test

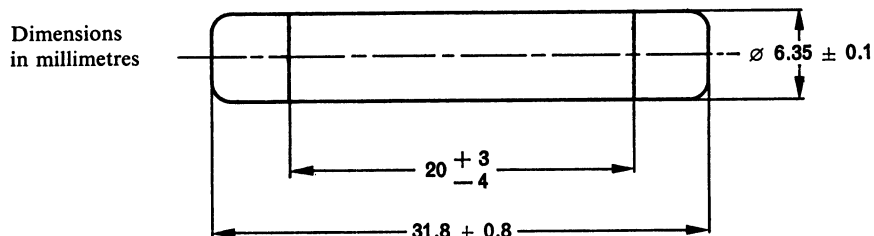
100 cycles at 1.2 times the rated current according to Sub-clause 9.4 b) followed by 1 h at 1.5 times the rated current according to Sub-clause 9.4 c).

Fuse-links 6.3 mm × 32 mm
Quick-acting
Low-breaking capacity

Standard Sheet
IV

This type of fuse-link is recommended for the protection of circuits in telecommunication equipment or similar circuits with limited short-circuit current.

Note. — This sheet is issued on the basis of actual needs in several countries. Modifications may be necessary for future use in more countries.



366/74

Alignment: The dimensions of the gauge are: $h = 38$ mm; $d = 6.65 \pm 0.01$ mm (see Sub-clause 8.4).

Construction: The fuse-link shall be transparent.

Voltage/current ratings and voltage drops

Rated current	Rated voltage V	Maximum voltage drop mV	Maximum sustained power dissipation W*
50 mA	250	10 000	1.6
63 mA		8 000	
80 mA		7 000	
100 mA		6 000	
125 mA		5 500	
160 mA		5 000	
200 mA		4 000	
250 mA		3 500	
315 mA		3 000	
400 mA		2 500	
500 mA		2 000	
630 mA		1 800	
800 mA		1 500	
1 A	150	500	2.5
1.25 A		400	
1.6 A		400	
2 A		300	
2.5 A	60	250	4
3.15 A		250	
4 A		250	
5 A		200	
6.3 A		200	
8 A		200	
10 A		200	

** Measured after 1 h at $1.5 I_n$.

Marking

Fuse-links shall be marked with:

- rated current;
- rated voltage;
- maker's name or trade mark;
- characteristic symbol F.

Pre-arcing time/current characteristic

The pre-arcing time shall be within the following limits:

Rated current	$2 I_n$	$2.75 I_n$		$4 I_n$		$10 I_n$
	Maximum	Minimum	Maximum	Minimum	Maximum	Maximum
50 to 100 mA inclusive	20 s	2 ms	200 ms	1 ms	30 ms	5 ms
Above 100 mA to 10 A	20 s	20 ms	1 500 ms	8 ms	400 ms	80 ms

Breaking capacity

Rated breaking capacity: 35 A or $10 I_n$ whichever is greater, tested with a.c. and using the circuit given in Figure 6, page 29, for the low-breaking capacity test.

Endurance test

100 cycles at 1.05 times the rated current according to Sub-clause 9.4 b) followed by 1 h at 1.15 times the rated current according to Sub-clause 9.4 c).



AMD 5726
IEC 127C

Amendment No. 3
published and effective from 30 October 1987
to BS 4265 : 1977 (IEC 127 : 1974)

Specification for cartridge fuse links for
miniature fuses

NOTE. This amendment puts into effect the changes made to the identical IEC Publication 127 by the issue of the third supplement IEC Publication 127C.

Revised text

AMD 5726
October 1987

Foreword (as amended by Amendment Nos. 1 and 2)

In paragraph 1 delete 'and IEC 127B : 1985' and substitute
' , IEC 127B : 1985 and IEC 127C : 1987'.

AMD 5726
October 1987

Section two. Standard Sheets

Add the following new Standard Sheet attached.

