

[METRIC]
 A-A-59688/2C
 4 May 2009

 SUPERSEDING
 A-A-59688/2B
 October 28, 2004

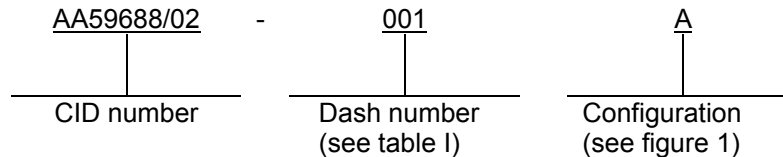
COMMERCIAL ITEM DESCRIPTION
 SPECIFICATION SHEET

FUSE, CARTRIDGE, INSTRUMENT TYPE, 5 MM X 20 MM,
 QUICK-ACTING, LOW-BREAKING CAPACITY

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

The complete requirements for procuring the fuses described herein shall consist of this document and the issue in effect of [A-A-59688](#).

CLASSIFICATION/PART OR IDENTIFICATION NUMBER (PIN). This commercial item description (CID) specification sheet uses a classification system which is included in the PIN as shown in the following example (see NOTES).



SALIENT CHARACTERISTICS.

Interface and physical dimensions. Fuses supplied to this CID specification sheet shall be as specified herein, and shall meet the requirements of [ANSI/IEC 60127-2](#), part 2 (see figure 1).

Case or body. The case or body shall be glass.

Ferrules. The materials for the ferrules shall be nickel or silver plated brass.

Mounting. Configuration A (ferrule type) is intended to be used with an applicable fuseholder or fuse clip. Configuration B (axial leads) is intended to be directly soldered onto a printed wiring board.

Current rating. The ampere rating shall be as specified in table I.

Voltage rating. The voltage rating shall be 250 V ac maximum.

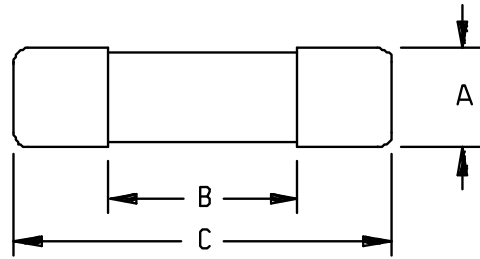
Voltage drop. Voltage drop shall be in accordance with table I.

Pre-arcing time/current characteristic. Pre-arcing time/current characteristic shall be as specified in table II.

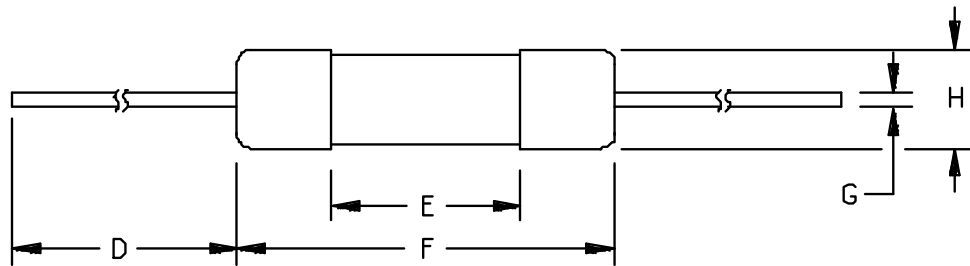
Breaking capacity. The breaking capacity shall be 35 amperes maximum or $10 I_n$, whichever is greater.

Endurance. Endurance shall be 100 cycles at 1.2 times the rated current followed by 1 hour at 1.5 times the rated current.

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CONFIGURATION A



CONFIGURATION B

Ltr	mm		Inches	
	Min	Max	Min	Max
A	5.0	5.3	.20	.21
B	8.0	12.0	.31	.47
C	19.5	20.5	.77	.81
D	36.0	41.00	1.42	1.61
E	8.0	12.0	.31	.47
F	19.7	21.7	.78	.85
G	.62	.82	.02	.03
H	5.0	6.0	.20	.24

NOTES:

1. Dimensions are in millimeters.
2. Tolerance is ± 0.13 mm (.005 inch), unless otherwise specified.

FIGURE 1. Interface and physical dimensions.

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TABLE I. Characteristics.

CID dash number AA59688/02-	Configuration	Current rating (amperes)	Maximum voltage drop (mV)	Power dissipation (W) max.
001A	A	32 mA	10,000	1.6
001B	B			
002A	A	40 mA	8,000	
002B	B			
003A	A	50 mA	7,000	
003B	B			
004A	A	63 mA	5,000	
004B	B			
005A	A	80 mA	4,000	
005B	B			
006A	A	100 mA	3,500	
006B	B			
007A	A	125 mA	2,000	
007B	B			
008A	A	160 mA	2,000	
008B	B			
009A	A	200 mA	1,700	
009B	B			
010A	A	250 mA	1,400	
010B	B			
011A	A	315 mA	1,300	
011B	B			
012A	A	400 mA	1,200	
012B	B			
013A	A	500 mA	1,000	
013B	B			
014A	A	630 mA	650	
014B	B			
015A	A	800 mA	240	
015B	B			
016A	A	1 A	200	
016B	B			

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TABLE I. Characteristics - Continued.

CID dash number AA59688/02-	Configuration	Current rating (amperes)	Maximum voltage drop (mV)	Power dissipation (W) max.
017A	A	1.25 A	200	1.6
017B	B			
018A	A	1.6 A	190	
018B	B			
019A	A	2 A	170	
019B	B			
020A	A	2.5 A	170	
020B	B			
021A	A	3.15 A	150	2.5
021B	B			
022A	A	4 A	130	
022B	B			
023A	A	5 A	150	
023B	B			
024A	A	6.3 A	130	
024B	B			

TABLE II. Pre-arcing time/current characteristic (+25°C ±10°C).

Rated current	Percent of current rating					
	210 percent	275 percent		400 percent		1000 percent
	Max.	Min.	Max.	Min.	Max.	Max.
23 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

NOTES.

PIN. The PIN should be used for Government purposes to buy commercial products to this CID specification sheet. See the classification section for PIN format example.

Source of document.

Other Publications

AMERICAN NATIONAL STANDARDS INSTITUTE/INTERNATIONAL ELECTROTECHNICAL COMMISSION (ANSI/IEC)

[ANSI/IEC 60127-2](#) - Miniature Fuses, Part 2: Cartridge Fuse-Links.

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(Copies of this document are available online at <http://www.ansi.org/> or from the American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, NY, 10036-7406.)

(Industry association specifications and standards are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

Commercial products. As part of the market analysis and research effort, this CID specification sheet was coordinated with the following manufacturers of commercial products. At the time of CID specification sheet preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID specification sheet. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown.)

<u>MFR's CAGE</u>	<u>MFR's name and address</u>
75915	Littelfuse Incorporated 800 E. Northwest Highway Des Plaines, IL 60016-3096 Phone number (847) 824-1188 Facsimile number (847) 391-0894 E-mail: electronics@littelfuse.com URL: www.littelfuse.com
92912	Bel Fuse Incorporated 206 Van Vorst Street Jersey City, NJ 07302-3096 Phone number (201) 432-0463 Facsimile number (201) 432-9542 E-mail: belfuse@belfuse.com URL: www.belfuse.com

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Part number (P/N) supersession data. These CID specification sheet PINs supersede the following MFR's P/N's as shown. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE III. P/N supersession data.

CID dash number AA59688/02- (see table I)	MFR's P/N <u>1/</u>		CID dash number AA59688/02- (see table I)	MFR's P/N <u>1/</u>	
	MFR CAGE 75915	MFR CAGE 92912		MFR CAGE 75915	MFR CAGE 92912
001A	217.032	N/A	013A	217.500	5SF500-R
001B	227.032	N/A	013B	227.500	5SFP500-R
002A	217.040	N/A	014A	217.630	5SF630-R
002B	227.040	N/A	014B	227.630	5SFP630-R
003A	217.050	N/A	015A	217.800	5SF800-R
003B	227.050	N/A	015B	227.800	5SFP800-R
004A	217.063	N/A	016A	217001	5SF1-R
004B	227.063	N/A	016B	227001	5SFP1-R
005A	217.080	5SF080-R	017A	2171.25	5SF1.25-R
005B	227.080	5SFP080-R	017B	2271.25	5SFP1.25-R
006A	217.100	5SF100-R	018A	21701.6	5SF1.6-R
006B	227.100	5SFP100-R	018B	22701.6	5SFP1.6-R
007A	217.125	5SF125-R	019A	217002	5SF2-R
007B	227.125	5SFP125-R	019B	227002	5SFP2-R
008A	217.160	5SF160-R	020A	21702.5	5SF2.5-R
008B	227.160	5SFP160-R	020B	22702.5	5SFP2.5-R
009A	217.200	5SF200-R	021A	2173.15	5SF3.15-R
009B	227.200	5SFP200-R	021B	2273.15	5SFP3.15-R
010A	217.250	5SF250-R	022A	217004	5SF4-R
010B	227.250	5SFP250-R	022B	217004	5SFP4-R
011A	217.315	5SF315-R	023A	217005	5SF5-R
011B	227.315	5SFP315-R	023B	227005	5SFP5-R
012A	217.400	5SF400-R	024A	21706.3	5SF6.3-R
012B	227.400	5SFP400-R	024B	21706.3	5SFP6.3-R

1/ The manufacturer's P/N shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph of [A-A-59688](#).

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CID number supersession data. This CID supersedes Defense Supply Center, Columbus (DSCC) drawing [90031](#) and its dash numbers as shown.

TABLE IV. CID number supersession data.

CID dash number (see table I) AA59688/02-	Superseded DSCC drawing number 90031-	CID dash number (see table I) AA59688/02-	Superseded DSCC drawing number 90031-
001A	001A	013A	013A
001B	001B	013B	013B
002A	002A	014A	014A
002B	002B	014B	014B
003A	003A	015A	015A
003B	003B	015B	015B
004A	004A	016A	016A
004B	004B	016B	016B
005A	005A	017A	017A
005B	005B	017B	017B
006A	006A	018A	018A
006B	006B	018B	018B
007A	007A	019A	019A
007B	007B	019B	019B
008A	008A	020A	020A
008B	008B	020B	020B
009A	009A	021A	021A
009B	009B	021B	021B
010A	010A	022A	022A
010B	010B	022B	022B
011A	011A	023A	023A
011B	011B	023B	023B
012A	012A	024A	024A
012B	012B	024B	024B

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

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MILITARY INTERESTS:

Custodians:
Navy - EC
DLA - CC

CIVIL AGENCY COORDINATING ACTIVITY:

GSA - FSS

Preparing activity:

DLA-CC

Project 5920-2009-045

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://assist.daps.dla.mil>.