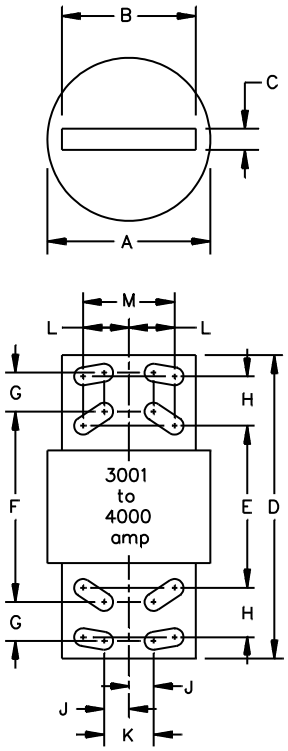
INCH-POUND
W-F-1814/53D
19 February 2015
SUPERSEDING
W-F-1814/53C
01 October 2009

FEDERAL SPECIFICATION SHEET

FUSE, CARTRIDGE, HIGH INTERRUPTING CAPACITY, CLASS L (CURRENT-LIMITING) 600 VOLTS, 3001-4000 AMPERES

The General Services Administration has authorized the use of this federal specification sheet by all federal agencies.

The complete requirements for procuring the fuses described herein shall consist of this document and the latest issue of Specification W-F-1814.



Dimensions				
Letter	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A 5.78 max.	---	5.78	---	146.81
B 4.75 ±.06	4.69	4.81	119.13	122.17
C .75 ±.03	.72	.77	18.29	19.56
D 10.75 ±.09	10.66	10.84	270.76	275.34
E 5.75	5.73	5.77	145.55	146.56
F 6.75	6.73	6.77	170.94	171.96
G 1.38	1.36	1.40	34.54	35.56
H 1.75	1.73	1.77	43.94	44.96
J .88	.86	.90	21.84	22.86
K 1.75	1.73	1.77	43.94	44.96
L 1.62	1.60	1.62	40.64	41.15
M 3.25	3.23	3.27	82.04	83.06

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Slots and holes shall be .62 (15.75 mm).

FIGURE 1. Configuration and dimensions.

REQUIREMENTS:

Interface and physical dimensions: See figure 1.

Physical: Nonrenewable.

Terminals: Knife blade type.

Material: Brass, copper, or copper alloy.

Strength: 20 pound-inches torque between body and knife blades.

Body:

Insulating material: Ceramic, melamine-impregnated glass fiber, or the equivalent.

Electrical:

Voltage: 600 volts or less.

Frequency: 48 Hz to 60 Hz.

Current: See table I.

Current carrying capacity: 110 percent of rated current indefinitely with temperature rise on the terminals not to exceed 65°C above the calibration temperature rise of the test equipment.

Overload interrupt:

Instantaneous: Shall interrupt within 240 minutes at 150 percent of rated current.

Time delay: In addition to the above requirement, the fuse shall not interrupt 500 percent of rated current within 4 seconds.

Interrupting capacity rating: 200,000 amperes rms symmetrical at 600 volts, 60 Hz and a power factor of 20 percent or less. Closing angle shall be essentially at the zero of the voltage wave (maximum offset) or later, to produce start of arcing within 30 electrical degrees prior to system peak voltage.

Threshold ratio: 40 maximum.

Peak let-thru current: 250×10^3 amperes maximum.

Maximum clearing I^2T: 150×10^6 $ampere^2$ seconds.

Applicable fuseholding device: Fuseholding devices shall provide mounting holes to correspond with those in the fuse as specified. All fuses shall be bolted into fuseholding device during operation.

Part or Identifying Number (PIN): See table I.

TABLE I. Electrical characteristics.

Government PIN	Current rating (amps)	Overload interrupt
WF1814/53-001	4000	Instantaneous
WF1814/53-002	4000	Time delay 1/

1/ Should not be considered for use in new design.

The margins of this specification sheet are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

MILITARY INTEREST:

Custodians:
Army - CR
Navy - YD
Air Force - 85
DLA - CC

Review activities:
Army - AT
Navy - OS
NSA - NS

CIVIL AGENCY COORDINATING ACTIVITIES:

GSA - FAS

Preparing activity:

DLA - CC

(Project 5920-2015-026)

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 https://assist.dla.mil.