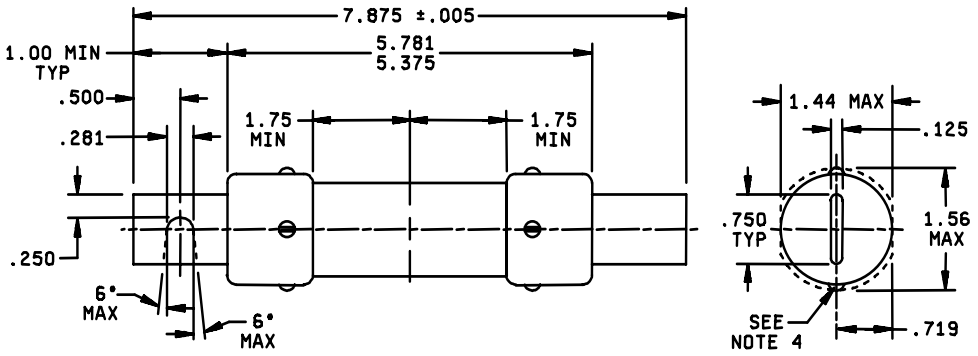
INCH-POUND
W-F-1814/64B
12 January 2004
SUPERSEDING
W-F-1814/63A
February 20, 1987

FEDERAL SPECIFICATION SHEET

FUSE, CARTRIDGE, HIGH INTERRUPTING CAPACITY, CLASSES RK1 AND RK5 (CURRENT-LIMITING) 600 VOLTS, 61-100 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.



Inches	mm
.005	0.13
.125	3.18
.250	6.35
.281	7.14
.500	12.70
.719	18.26
.750	19.05
1.00	25.4
1.44	36.9
1.56	39.6
1.75	44.5
5.375	136.53
5.781	146.84
7.875	200.03

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Minimum acceptable thickness of tube wall .125 (3.18 mm).
4. The dashed line represents the limit of the maximum projection of a screw, rivet head, or the like.
5. Unless otherwise specified, tolerances are ±0.02 (0.51 mm) for two-place decimals and ±0.005 (0.13 mm) for three-place decimals.

FIGURE 1. Classes RK1 and RK5 fuses, 600 volts, 61-100 amperes.

REQUIREMENTS:

Interface and physical dimensions: See figure 1.

Physical - Nonrenewable.

Terminals - Knife blade type.

Material - Copper, or copper alloy.

Strength - 5 inch-pound torque between body and blades.

Body:

Insulating material - Fiber, ceramic, melamine-impregnated glass fiber, or other suitable material.

Electrical:

Voltage - 600 volts or less.

Frequency - 48 to 60 hertz.

Current - See table I.

Current carrying capacity - 110 percent of rated current indefinitely with temperature rise not to exceed 50°C (90°F) above ambient on the body and the blades.

Overload interrupt:

Instantaneous - Shall interrupt within 2 hours at 135 percent of rated current and within 6 minutes at 200 percent of rated current.

Time delay - In addition to the above requirement, the fuse shall not interrupt 500 percent of rated current within 10 seconds.

Interrupting capacity rating - 200,000 amperes rms symmetrical at 600 volts, 48 to 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 - 30 maximum for RK1; 65 maximum for RK5.

Peak let-thru current: See table II.

Maximum clearing I^2T: See table II.

Applicable fuseholder: Class R for blade type fuses in accordance with UL 512.

Government part number: The Government part number shall consist of the prefix “WF1814/64-“ followed by the part number designation shown in table I.

TABLE I. Current rating and part number designation.

Current in amperes	Part number designation			
	RK5		RK1	
	Instantaneous	Time delay	Instantaneous	Time delay
70	F5070	D5070	F1070	D1070
80	F5080	D5080	F1080	D1080
90	F5090	D5090	F1090	D1090
100	F5100	D5100	F1100	D1100

TABLE II. Peak let-thru and I^2T current.

	Between threshold and 50 kA		100 kA		200 kA	
	RK1	RK5	RK1	RK5	RK1	RK5
Maximum acceptable peak let-thru current ($I_p \times 10^3$)	14	22	16	25	20	32
Maximum clearing I^2T (amperes squared seconds) ($I^2T \times 10^3$)	100	500	100	500	100	500

MILITARY INTEREST:

Custodians:
Army - CR
Navy - YD
Air Force - 11
DLA - CC

Review Activities:
Army - AR, AT, CR4
Navy - OS
Air Force - 99
NSA - NS

CIVIL AGENCY COORDINATING ACTIVITIES:

GSA - 7FXE
NASA - NA

Preparing Activity:
DLA - CC

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