

Electronic Fuses

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RED indicates **NEW** information



5 x 20mm North American (UL) ferrule fuses

GMA-V (axial leads)

GMA

Specifications

Description:
Fast-acting fuse.

Construction:
Glass tube,
nickel-plated brass
endcaps.

Ratings:

- Volts — 250Vac (63mA-2.5A)
— 125Vac (3.15-15A)
- Amps — 63mA-15A
IR — 35A (63mA- 1A @ 250Vac, p.f. = 0.7-0.8)
— 10kA (63mA-6A @ 125Vac, p.f. = 0.7-0.8)
— 100A (1.25-2.5A @ 250Vac, p.f. = 0.7-0.8)
— 200A (7-8A @ 125Vac, p.f. = 1.0)
— 150A (10-15A @ 125Vac, p.f. = 1.0)

Agency Information: CE, Std. 248-14 UL Listed Guide JDYX, File E19180, 0-6A, UL Recognized, Guide JDYX2, File E19180, 7-15A, CSA Certified, Class 1422-01, File E65063, 0-6.

Features and Benefits

- Fast-acting for maximum protection.

Typical Applications

- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads

GMA-V-63-R	GMA-V-800-R	GMA-V-4-R
GMA-V-100-R	GMA-V-1-R	GMA-V-5-R
GMA-V-125-R	GMA-V-1.25-R	GMA-V-6-R
GMA-V-200-R	GMA-V-1.5-R	GMA-V-7-R
GMA-V-250-R	GMA-V-1.6-R	GMA-V-8-R
GMA-V-300-R	GMA-V-2-R	GMA-V-10-R
GMA-V-500-R	GMA-V-2.5-R	GMA-V-15-R
GMA-V-600-R	GMA-V-3.15-R	
GMA-V-750-R	GMA-V-3.5-R	

Without Axial Leads

GMA-63-R	GMA-800-R	GMA-4-R
GMA-100-R	GMA-1-R	GMA-5-R
GMA-125-R	GMA-1.25-R	GMA-6-R
GMA-200-R	GMA-1.5-R	GMA-7-R
GMA-250-R	GMA-1.6-R	GMA-8-R
GMA-300-R	GMA-2-R	GMA-10-R
GMA-500-R	GMA-2.5-R	GMA-15-R
GMA-600-R	GMA-3.15-R	
GMA-750-R	GMA-3.5-R	

Data Sheet: 2017

GMC-V (axial leads)

GMC

Specifications

Description: Medium time-delay fuse.

Construction: Glass tube, nickel-plated brass endcaps.

Ratings:

- Volts — 250Vac (63mA-3.15A)
— 125Vac (3.5-10A)
- Amps — 63mA-10A
IR — 35A (63mA- 1A @ 250Vac, p.f. = 0.7-0.8)
— 10kA (63mA-6A @ 125Vac, p.f. = 0.7-0.8)
— 100A (1.25-3.15A @ 250Vac, p.f. = 0.7-0.8)
— 200A (6.3-10A @ 125Vac, p.f. = 1.0)

Agency Information: CE, Std. 248-14, UL Listed Guide JDYX, File E19180, 0-6.3A, UL Recognized, Guide JDYX2, File E19180, 7-8A, CSA Certified, Class 1422-01, File 65063, 0-6.3A.

Features and Benefits

- Conforming to UL standards.

Typical Applications

- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads

GMC-V-63-R	GMC-V-500-R	GMC-V-2.5
GMC-V-80-R	GMC-V-600-R	GMC-V-3.15
GMC-V-100-R	GMC-V-630-R	GMC-V-3.5
GMC-V-125-R	GMC-V-750-R	GMC-V-4
GMC-V-150-R	GMC-V-800-R	GMC-V-5
GMC-V-200-R	GMC-V-1-R	GMC-V-6
GMC-V-250-R	GMC-V-1.25-R	GMC-V-6.3
GMC-V-300-R	GMC-V-1.5-R	GMC-V-7
GMC-V-315-R	GMC-V-1.6-R	GMC-V-8
GMC-V-400-R	GMC-V-2-R	GMC-V-10

Without Axial Leads

GMC-63mA	GMC-500-R	GMC-2.5-R
GMC-80mA	GMC-600-R	GMC-3.15-R
GMC-100mA	GMC-630-R	GMC-3.5-R
GMC-125mA	GMC-750-R	GMC-4-R
GMC-150mA	GMC-800-R	GMC-5-R
GMC-200mA	GMC-1-R	GMC-6-R
GMC-250mA	GMC-1.25-R	GMC-6.3-R
GMC-300mA	GMC-1.5-R	GMC-7-R
GMC-315mA	GMC-1.6-R	GMC-8-R
GMC-400mA	GMC-2-R	GMC-10-R

Data Sheet: 2018

GMD-V (axial leads)

GMD

Specifications

Description: Time-delay fuse.

Construction: Glass tube, nickel-plated brass endcaps.

Ratings:

- Volts — 250Vac
- Amps — 125mA-4A
IR — 10kA (125mA-3A @ 125Vac, p.f. = 0.7-0.8)
— 10kA (4A @ 125Vac, p.f. = 1.0)
— 100A (125mA-3A @ 250Vac, p.f. = 0.7-0.8)
— 200A (4A @ 250Vac, p.f. = 1.0)

Agency Information: CE, Std. 248-14, UL Listed Guide JDYX, File E19180, 0-3A, UL Recognized, Guide JDYX2, File E19180, 4A, CSA Certified, Class 1422-01, File 65063, 0-3A.

Features and Benefits

- Time-delay compatibility for inductive circuits.
- Conforming to UL standards.

Typical Applications

- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads

GMD-V-125-R	GMD-V-500-R	GMD-V-1.5-R
GMD-V-150-R	GMD-V-630-R	GMD-V-1.6-R
GMD-V-200-R	GMD-V-750-R	GMD-V-2-R
GMD-V-250-R	GMD-V-800-R	GMD-V-2.5-R
GMD-V-300-R	GMD-V-1-R	GMD-V-3-R
GMD-V-315-R	GMD-V-1.2-R	GMD-V-4-R
GMD-V-400-R	GMD-V-1.25-R	

Without Axial Leads

GMD-125-R	GMD-500-R	GMD-1.5-R
GMD-150-R	GMD-630-R	GMD-1.6-R
GMD-200-R	GMD-750-R	GMD-2-R
GMD-250-R	GMD-800-R	GMD-2.5-R
GMD-300-R	GMD-1-R	GMD-3-R
GMD-315-R	GMD-1.2-R	GMD-4-R
GMD-400-R	GMD-1.25-R	

Data Sheet: 2019

¼" Dia. x 1¼" length fast-acting ferrule fuses

AGC-V (axial leads)

AGC

Specifications
Description: Fast-acting fuse.

Dimensions: ¼" x 1¼"
(6.4 x 31.7mm).

Construction: Glass tube with nickel-plated brass endcaps.

Ratings:

Volts — 250Vac (½-10A)
— 32Vac (11-45A)

Amps — ½-30A

IR* — 35A (½-1A @ 250Vac)
— 100A (1¼-3A @ 250Vac)
— 200A (4-10A @ 250Vac)
— 1000A (15-30A @ 32Vac)

*Interrupting ratings were measured at 70% – 80% power factor on AC, and at a time constant described in UL 248.

Agency Information: CE, Std. 248-14, UL Listed, Guide JDYX, File E19180, 0-10A UL Recognized, Guide JDYX2, File E19180, 15-30A CSA Certification, Class 1422-01, File 53787.

Features and Benefits

- Original electronic glass tube fuse.
- Fast-acting for maximum protection.
- Wide amp/volt ratings allow versatility of protecting electronic circuits.

Typical Applications

- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads

AGC-V-½	AGC-V-¾	AGC-V-5
AGC-V-⅙	AGC-V-⅓	AGC-V-6
AGC-V-⅒	AGC-V-1	AGC-V-7
AGC-V-¼	AGC-V-1 ¼	AGC-V-8
AGC-V-⅓	AGC-V-1 ½	AGC-V-9
AGC-V-½	AGC-V-2	AGC-V-10
AGC-V-¾	AGC-V-2 ¼	AGC-V-15
AGC-V-⅚	AGC-V-2 ½	AGC-V-20
AGC-V-⅞	AGC-V-3	AGC-V-25
AGC-V-4⁄100	AGC-V-4	AGC-V-30

Without Axial Leads

AGC-½	AGC-¾	AGC-5
AGC-⅙	AGC-⅓	AGC-6
AGC-⅒	AGC-1	AGC-7
AGC-¼	AGC-1 ¼	AGC-8
AGC-⅓	AGC-1 ½	AGC-9
AGC-½	AGC-2	AGC-10
AGC-¾	AGC-2 ¼	AGC-15
AGC-⅚	AGC-2 ½	AGC-20
AGC-⅞	AGC-3	AGC-25
AGC-4⁄100	AGC-4	AGC-30

Data Sheet: 2001

ABC-V (axial leads)

ABC

Specifications
Description: Fast-acting fuse.

Dimensions: ¼" x 1¼"
(6.4 x 31.7mm).

Construction: Ceramic tube with nickel-plated brass endcaps.

Ratings:

Volts — 250Vac/125Vdc (¼-20A)
— 125Vac/125Vdc (25-30A)

Amps — ¼-30A

IR** — 35A (¼-1A @ 250Vac)
— 10kA (¼-20A @ 250Vdc)
— 100A (1½-3A @ 250Vac)
— 200A (4-10A @ 250Vac)
— 750A (15A @ 250Vac)
— 400A (20A @ 250Vac)
— 400A (25-30A @ 250Vdc)
— 1kA (25-30A @ 125Vdc)

**Interrupting ratings were measured at 70% – 80% power factor on AC, and at a time constant described in UL 248.

Agency Information: CE, Std. 248-14 UL Listed, Guide JDYX File E19180, 0-15A UL Recognized, Guide JDYX2, File E19180, 20-25A CSA Certification, Class 1422-01, File 53787, 0-15A, Class 1422-30, File 53787, 20-25A.

Features and Benefits

- Ceramic body allows for higher amp/volt rating combinations.
- Consolidate inventory by replacing AGC fuses for reduced SKU investment and minimizing potential for misapplying fuse.

Typical Applications

- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads

ABC-V-¼	ABC-V-2½	ABC-V-8
ABC-V-⅓	ABC-V-3	ABC-V-10
ABC-V-⅔	ABC-V-4	ABC-V-15
ABC-V-1	ABC-V-5	ABC-V-20
ABC-V-1½	ABC-V-6	ABC-V-25
ABC-V-2	ABC-V-7	ABC-V-30

Without Axial Leads

ABC-¼	ABC-2½	ABC-8
ABC-⅓	ABC-3	ABC-10
ABC-⅔	ABC-4	ABC-15
ABC-1	ABC-5	ABC-20
ABC-1½	ABC-6	ABC-25
ABC-2	ABC-7	ABC-30

Data Sheet: 2000

GBB-V (axial leads)

GBB

Specifications
Description: Very fast-acting fuse.

Dimensions: ¼" x 1¼"
(6.4 x 31.7mm).

Construction: Ceramic cartridge with nickel-plated brass endcaps.

Ratings:

Volts — 250Vac/125Vdc

Amps — 1-30A

IR — 200A @ 250Vac
— 200A (20-30A @ 125Vac/dc)
— 10,000A (1A -15A @ 125Vac/dc)

Agency Information: CE, Std. 248-14, UL Recognized, 1-30, 125Vdc/250Vac, File E56412, Guide JFHR2, CSA Certified, 1-10, 125Vdc/250Vac, File 53787, Class 1422-01.

Features and Benefits

- Very fast-acting performance allows protection of highly sensitive electronic circuitry.

Typical Applications

- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads

GBB-V-1	GBB-V-6	GBB-V-15
GBB-V-1 ¼	GBB-V-7	GBB-V-20
GBB-V-2	GBB-V-8	GBB-V-25
GBB-V-3	GBB-V-9	GBB-V-30
GBB-V-4	GBB-V-10	
GBB-V-5	GBB-V-12	

Without Axial Leads

GBB-1	GBB-6	GBB-15
GBB-1 ¼	GBB-7	GBB-20
GBB-2	GBB-8	GBB-25
GBB-3	GBB-9	GBB-30
GBB-4	GBB-10	
GBB-5	GBB-12	

Data Sheet: 2013

1/4" Dia. x 1 1/4" length time-delay ferrule fuses

MDL-V (axial leads)

MDL

Specifications
Description: Time-delay fuse.

Dimensions: 1/4" x 1 1/4"
(6.4 x 31.7mm).

Construction: Glass tube with nickel-plated brass endcaps.

Ratings:

- Volts — 250Vac (1/16-8A)
- 32Vac (9-30A)
- Amps — 1/16-30A
- IR* — 35A (1/16-1A @ 250Vac)
- 100A (1 1/4-3A @ 250Vac)
- 200A (4-8A @ 250Vac)
- 1000A (9-30A @ 32Vac)



*Interrupting ratings were measured at 70% – 80% power factor on ac, and at a time constant described in UL 198L.

Agency Information: CE, Std. 248-14, UL Listed, Guide JDYX, File E19180; 1/16-8A CSA Certification Class 1422-01, File 53787, 1/16-8A, UL Recognized, Guide JDYX2, File E19180, 8.1-30A.

Features and Benefits

- Time-delay allows close sizing on inductive circuits.
- Broad amp size range allows improved compatibility between fuse and circuit operating characteristics.

Typical Applications

- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads		
MDL-V-1/16	MDL-V-1	MDL-V-7
MDL-V-1/10	MDL-V-1 1/4	MDL-V-8
MDL-V-1/8	MDL-V-1 1/2	MDL-V-9
MDL-V-3/10	MDL-V-2	MDL-V-10
MDL-V-1/4	MDL-V-2 1/4	MDL-V-12
MDL-V-1/2	MDL-V-2 1/2	MDL-V-15
MDL-V-3/8	MDL-V-3	MDL-V-20
MDL-V-1/2	MDL-V-4	MDL-V-25
MDL-V-3/4	MDL-V-5	MDL-V-30
MDL-V-1	MDL-V-6	
Without Axial Leads		
MDL-1/16	MDL-1	MDL-7
MDL-1/10	MDL-1 1/4	MDL-8
MDL-1/8	MDL-1 1/2	MDL-9
MDL-3/10	MDL-2	MDL-10
MDL-1/4	MDL-2 1/4	MDL-12
MDL-1/2	MDL-2 1/2	MDL-15
MDL-3/8	MDL-3	MDL-20
MDL-1/2	MDL-4	MDL-25
MDL-3/4	MDL-5	MDL-30
MDL-1	MDL-6	

Data Sheet:2004

MDQ-V (axial leads)

MDQ

Specifications
Description: Dual-element, time-delay fuse.

Dimensions: 1/4" x 1 1/4"
(6.4 x 31.7mm).

Construction: Glass tube with nickel-plated brass endcaps.

Ratings:

- Volts — 250Vac (1/100-7A)
- 32Vac (7 1/2-15A)
- Amps — 1/100-15A
- IR — 35A (1/100-1A @ 250Vac)
- 100A (1 1/4-3A @ 250Vac)
- 200A (4-7A @ 250Vac)
- 1000A (7 1/2-12A @ 32Vac)



Agency Information: CE, Std. 248-14, UL Listed, File E19180; Guide JDYX, 1/100-7A CSA Certification, File 47233, Class 1422-01, 1/100-7A, UL Recognized, Guide JDYX2, File E19180, 7.1-30A.

Features and Benefits

- Dual-element design allows closer sizing to inductive circuits than any other fuses.

Typical Applications

- Electronic Relay and Control Circuits

Catalog Numbers (Amps)

With Axial Leads			
MDQ-V-1/100	MDQ-V-3/10	MDQ-V-1 1/2	MDQ-V-5
MDQ-V-1/50	MDQ-V-1/2	MDQ-V-1 3/4	MDQ-V-6
MDQ-V-1/4	MDQ-V-3/4	MDQ-V-1 3/8	MDQ-V-6 1/4
MDQ-V-1/2	MDQ-V-1	MDQ-V-2	MDQ-V-7
MDQ-V-3/4	MDQ-V-1 1/4	MDQ-V-2 1/4	MDQ-V-7 1/2
MDQ-V-1 1/4	MDQ-V-1 1/2	MDQ-V-2 1/2	MDQ-V-8
MDQ-V-1 1/2	MDQ-V-1 3/4	MDQ-V-2 3/4	MDQ-V-9
MDQ-V-1 3/4	MDQ-V-2	MDQ-V-3	MDQ-V-10
MDQ-V-2	MDQ-V-2 1/4	MDQ-V-3 1/4	MDQ-V-12
MDQ-V-2 1/4	MDQ-V-2 1/2	MDQ-V-4	MDQ-15
Without Axial Leads			
MDQ-1/100	MDQ-3/10	MDQ-1 1/2	MDQ-5
MDQ-1/50	MDQ-1/2	MDQ-1 3/4	MDQ-6
MDQ-1/4	MDQ-3/4	MDQ-1 3/8	MDQ-6 1/4
MDQ-1/2	MDQ-1	MDQ-2	MDQ-7
MDQ-3/4	MDQ-1 1/4	MDQ-2 1/4	MDQ-7 1/2
MDQ-1 1/4	MDQ-1 1/2	MDQ-2 1/2	MDQ-8
MDQ-1 1/2	MDQ-1 3/4	MDQ-2 3/4	MDQ-9
MDQ-1 3/4	MDQ-2	MDQ-3	MDQ-10
MDQ-2	MDQ-2 1/4	MDQ-3 1/4	MDQ-12
MDQ-2 1/4	MDQ-2 1/2	MDQ-4	MDQ-15

Data Sheet: 2044

MDA-V (axial leads)

MDA

Specifications
Description: Time-delay fuse.

Dimensions: 1/4" x 1 1/4"
(6.4 x 31.7mm).

Construction: Ceramic tube with nickel-plated brass endcaps.

Ratings:

- Volts — 250Vac (or less)
- 125Vdc (20A- 30A)
- Amps — 1/10-30A
- IR** — 35A (1/10-1A @ 250Vac)
- 100A (2 1/2-3A @ 250Vac)
- 200A (4-10A @ 250Vac)
- 1500A (15-30A @ 250Vac)
- 10,000A (20-30A @ 125Vdc)



**Interrupting ratings were measured at 70% – 80% power factor on ac, and at a time constant described in UL 248.

Agency Information: CE, Std. 248-14, UL Listed, Guide JDYX, File E19180, 0-15A CSA Certification, Class 1422-01, File 53787, 0-15A.

Features and Benefits

- Ceramic body allows for higher amp/volt rating combinations.
- Inventory consolidation by replacing MDL fuses allows for reduced SKU investment and minimizing potential for misapplying fuse.

Typical Applications

- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads		
MDA-V-1/10	MDA-V-2 1/2	MDA-V-10
MDA-V-1/8	MDA-V-3	MDA-V-12
MDA-V-1/4	MDA-V-4	MDA-V-15
MDA-V-1/2	MDA-V-5	MDA-V-20
MDA-V-1	MDA-V-6	MDA-V-25
MDA-V-1 1/2	MDA-V-7	MDA-V-30
MDA-V-2	MDA-V-8	
Without Axial Leads		
MDA-1/10	MDA-2 1/2	MDA-10
MDA-1/8	MDA-3	MDA-12
MDA-1/4	MDA-4	MDA-15
MDA-1/2	MDA-5	MDA-20
MDA-1	MDA-6	MDA-25A
MDA-1 1/2	MDA-7	MDA-30A
MDA-2	MDA-8	

Data Sheet: 2002

Electronic Fuses

Fuse Holders and Blocks

Rail mount fuse holders

NDNF1-WH

Specifications

Description: Rail mount fuse holder.

Circuit Jumper: JF1, 2 circuits

Fuse Size: 1³/₃₂" X 1¹/₂" (KTK, FNQ).

Poles: 1

Wire Range: AWG #8-22 CU.

Ratings:

Volts: — 600V

Amps: — 30A

Agency Information: UL E62622; CSA LR15364.

Flammability Rating: UL 94V2.

Marking Tape: MT12-1/2.

Torque Rating: 18 in-lb max.

Mounting Options: 35mm DIN rail, C-rail.

Catalog Numbers

Catalog Number	Color
NDNF1-WH	White

Fuse Pullers (Optional): PF1

Lighted neon or incandescent lamp:

Catalog Numbers	Voltage
LPF1-24	24
LPF1-120	120
LPF1-120-C	120
LPF1-220	220
LPF1-440	440



NDNLF1

Specifications

Description: Rail mount fuse holder.

Circuit Jumper: JF1, 2 circuits.

Fuse Size: 1/4" X 1 1/4" (Cooper Bussmann AGC, MDL or equivalent).

Poles: 1

Wire Range: AWG #8-22 CU.

Ratings:

Volts: — 600V

Amps: — 30A (NDND1 non-fused)

— 15A (NDNFD1, 600V/CSA, fused)

— 15A (NDNLF1*fused, indicating)

*WH24 - 24V White, WH-90Vdc-600Vdc, 115Vac-600Vac White

Agency Information: CE, UL E62622; CSA LR15364.

Flammability Rating: UL 94V2.

Marking Tape: MT12-1/2.

Torque Rating: 18 in-lb max.

Mounting Options: 35mm DIN rail, C-rail.

Catalog Numbers

Catalog Number	Color	Indicator
NDNFD1-WH	White	NO
NDNLF1-WH	White	90Vdc-600Vdc 115Vac-600Vac
NDNLF1-WH 24	White	24V

Extension: WH - White

(Only available with NDNLF1)

