

AHC/AHC5/AHCF

High voltage 6.3 mm x 32 mm fast-acting fuse



Product features

- High voltage ceramic tube fuse
- Compact 3AB footprint:
6.3 mm x 32 mm (1/4" x 1 1/4")
- Fast-acting performance
- Up to 500 Vac/Vdc rating
- Cartridge and axial lead versions available
- Very high interrupting ratings to help safely protect against dangerous high fault currents
- Fuse accessories (cartridge version):
[HVP Panel mount fuse holder \(480V\)](#)
[HVI In-line fuse holder \(600V\)](#)
[S-8000 Panel mount fuse block \(600V\)](#)
[1Axxxx \(up to 600V\) fuse clips](#)

Agency information

- cURus recognition file number:
E19180 Guide JDYX2 and JDYX8



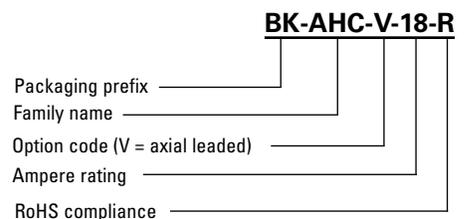
Applications

- Industrial control panels
- Motor control - UL 508A panels
- Uninterruptible power supplies (UPS)
- Variable frequency drives
- Energy storage and battery systems
- High voltage power conversion

Environmental compliance



Ordering part number



Packaging prefix

- **Blank**
5 pieces in tin case for AHC(F)-XX-R, AHC5-30-R, 4 pieces in tin case for AHC(F)-V-XX-R, AHC5-V-30-R
- **BK1-**
1000 pieces in polybag for AHC(F)-XX-R, AHC5-30-R
- **BK-**
100 pieces in carton for both AHC(F)-XX-R & AHC(F)-V-XX-R & AHC(F)-V2-XX-R, AHC5-30-R & AHC5-V-30-R & AHC5-V2-30-R
- **TR-**
500 pieces on reel for AHC(F)-V-XX-R, AHC5-V-XX-R

Option code

- **-V-**
Axial leads with 38.1 length – copper tinned wire with nickel plated brass over caps
- **-V2-**
Axial leads with 50.8 length – copper tinned wire with nickel plated brass over caps



Powering Business Worldwide

Electrical characteristics

Amp rating	1.0 In minimum	1.5 In maximum	2.0 In maximum	3.0 In maximum
AHC - (15 A to 30 A)	4 hours	60 minutes	30 minutes	10 seconds
AHC5-30	NA	60 minutes	30 minutes	10 seconds
AHCF - (18 A & 25 A)	4 hours	60 minutes	30 minutes	10 seconds
AHCF-30	NA	60 minutes	30 minutes	10 seconds

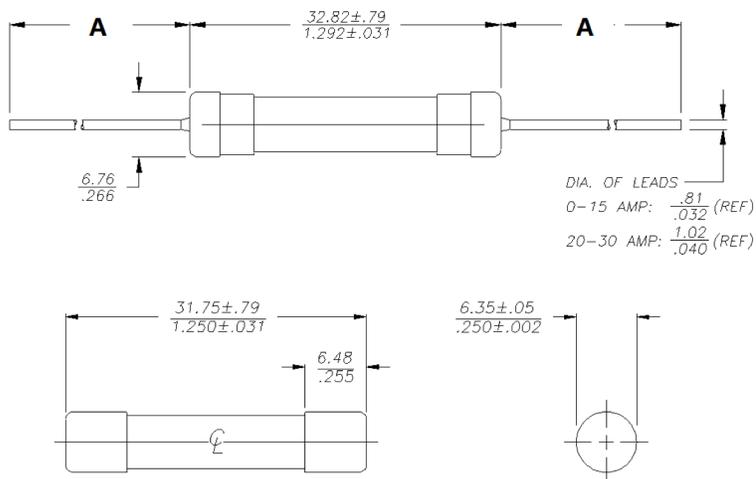
Product specifications

Part number	Current rating (A)	Voltage rating (Vac)	Voltage rating (Vdc)	Interrupting rating @ rated voltage ³ (A)	Typical resistance ¹ (mΩ)	Typical voltage drop ² (mV)	Vac Interrupting rating power factor
AHC-15	15	500	500	20,000	6.6	170	0.35 ~ 0.4
AHC-18	18	500	-	20,000	5	145	0.55 ~ 0.6
AHCF-18	18	500	500	20,000	5	145	0.99 ~ 1
AHC-20	20	500	-	20,000	4.7	145	0.55 ~ 0.6
AHCF-20	20	500	500	20,000	4.7	145	0.99 ~ 1
AHC-25	25	500	-	20,000	3.9	175	0.55 ~ 0.6
AHCF-25	25	500	500	20,000	3.9	175	0.99 ~ 1
AHC5-30	30	500	-	20,000	3.3	225	0.55 ~ 0.6
AHC-30	30	450	450	10,000	2.9	165	0.35
AHCF-30	30	500	500	20,000	3.3	225	0.99 ~ 1

1. Typical resistance measured at <10% of rated current at +23 °C
2. Typical voltage drop measured at +23 °C and rated current
3. DC interrupting rating measured at rated voltage, time constant 1.95 - 2 ms

Dimensions- mm/inches

Drawing not to scale



Part number	Dimension A
AHC(5)(F)-V-XX-R	38.1 mm (REF)
AHC(5)(F)-V2-XX-R	50.8 mm (REF)
BK-AHC(5)(F)-V-XX-R	38.1 mm (REF)
BK-AHC(5)(F)-V2-XX-R	50.8 mm (REF)
TR-AHC(5)(F)-V-XX-R	20 mm (REF)

General specifications

Operating temperature: -55 °C to +125 °C with proper correction factor applied

Terminal strength: MIL-STD-202G, Method 211A, Test Condition A, Pull force 10N/10S

Thermal shock: MIL-STD-202, Method 107G: -65 °C to +125 °C, 5 cycles

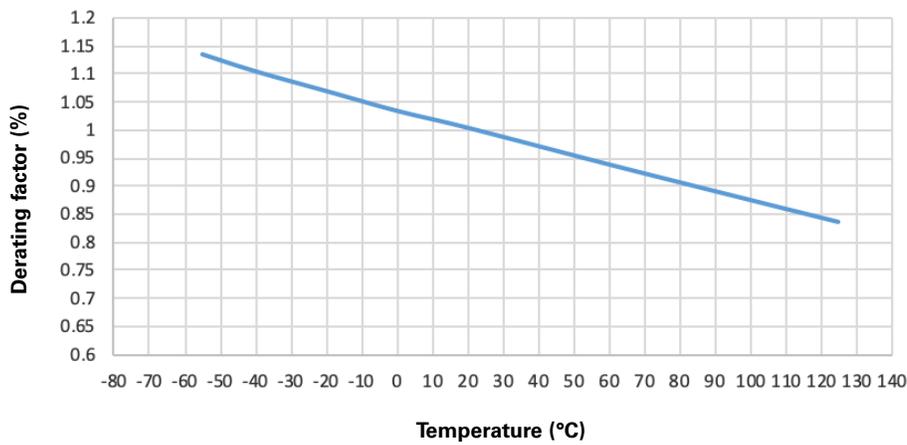
Mechanical shock: MIL-STD-202 Method 213. Condition A: Half-sine shock pulse, peak=50 g's, 11 ms, total 18 shocks

Vibration: According to IEC60068-2-6: The specimens shall be subjected to a simple harmonic motion having an amplitude of 0.03 inch (0.06 inch maximum total excursion), the frequency being varied uniformly between the approximate limits of 10 and 55 hertz (Hz). The entire frequency range, from 10 to 55 Hz and return to 10 Hz, shall be traversed in approximately 1 minute.

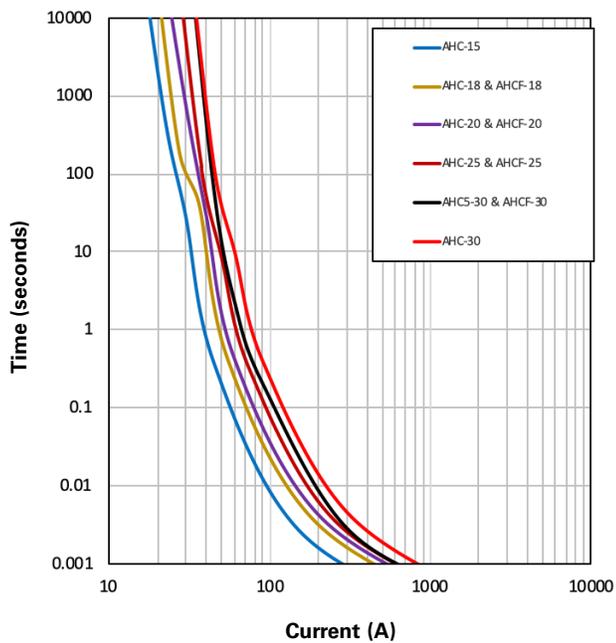
Humidity: MIL-STD-202G, Method 103B, Test Condition A: 95% RH, 0 °C, 240 hours

Solderability: IEC-60127-2, A.3.3: No steam ageing. Immersion conditions: +250 °C +/-3 °C, 3s +/-0.3s

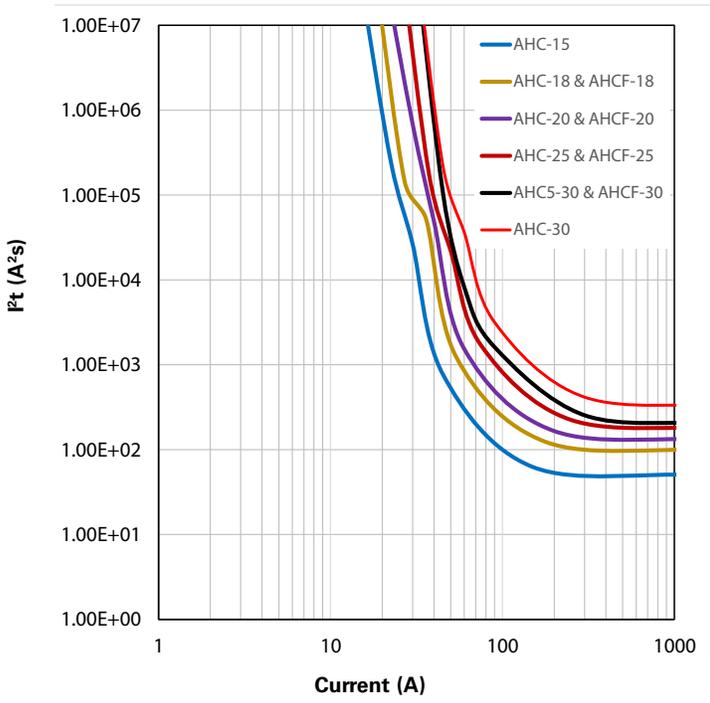
Temperature derating curve



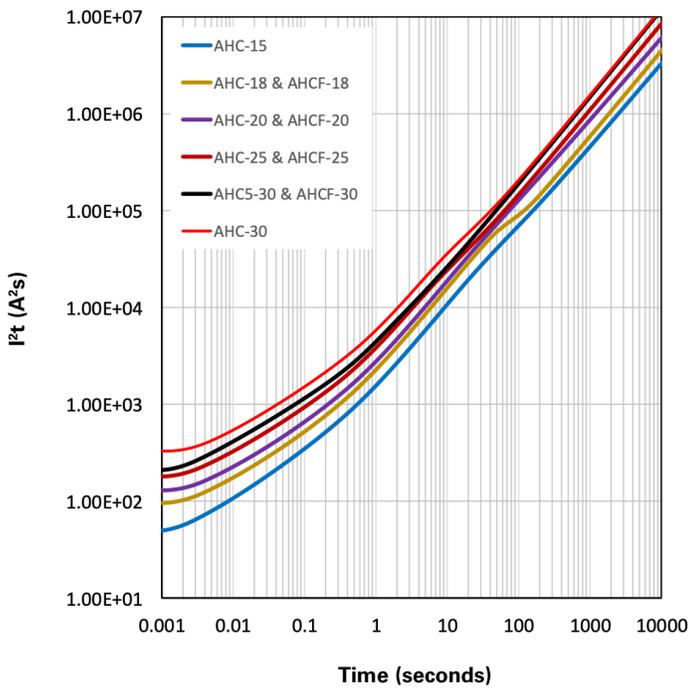
Current vs. time curve



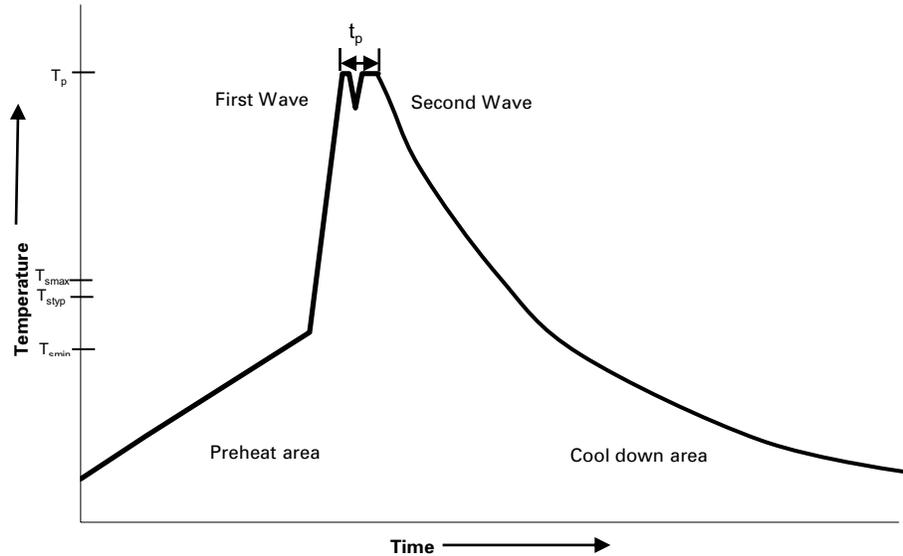
I²t vs. current curve



I²t vs. time curve



Wave solder profile (Axial lead only)



Reference EN 61760-1:2006

Profile feature	Standard SnPb solder	Lead (Pb) free solder
Preheat		
• Temperature min. (T_{smin})	100 °C	100 °C
• Temperature typ. (T_{styp})	120 °C	120 °C
• Temperature max. (T_{smax})	130 °C	130 °C
• Time (T_{smin} to T_{smax}) (t_s)	70 seconds	70 seconds
Δ preheat to max Temperature	150 °C max.	150 °C max.
Peak temperature (T_p)*	235 °C – 260 °C	250 °C – 260 °C
Time at peak temperature (t_p)	10 seconds max 5 seconds max each wave	10 seconds max 5 seconds max each wave
Ramp-down rate	~ 2 K/s min ~3.5 K/s typ ~5 K/s max	~ 2 K/s min ~3.5 K/s typ ~5 K/s max
Time 25 °C to 25 °C	4 minutes	4 minutes

Manual solder

+350 °C (4-5 seconds by soldering iron), generally manual/hand soldering is not recommended

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