

North American — FWH 500V: 35-1600A

FWH

Specifications

Description: North American style stud-mount fuses.

Dimensions: See Dimensions illustration.

Ratings:

Volts: — 500Vac

Amps: — 35-1600A

IR: — 200kA Sym.

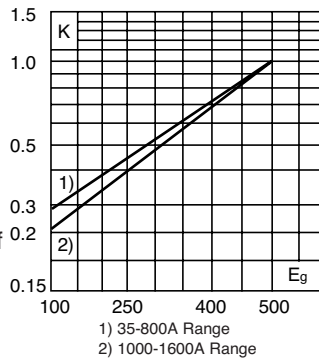
— 50kA @ 500Vdc

Agency Information: CE, UL Recognition & CSA Component Acceptance on 35-800A only (50kA IR@500Vdc). UL Recognition on 35-1200A only, CSA Component Acceptance: 35-1600A.

Electrical Characteristics

Total Clearing I²t

The total clearing I²t at rated voltage and at power factor of 15% are given in the electrical characteristics. For other voltages, the clearing I²t is found by multiplying by correction factor, K, given as a function of applied working voltage, E_g, (rms).



Dimensions (in)

| Amp Range | Fig. | A | B | C | D | E | F | G | H | J |
|-----------|------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 35-60 | 1 | 3.188 | 0.813 | 1.593 | 2.541 | 2.193 | 0.344 | 0.719 | 0.125 | 0.518 |
| 70-100 | 1 | 3.625 | 0.947 | 1.736 | 2.853 | 2.807 | 0.352 | 0.750 | 0.125 | 0.375 |
| 125-200 | 1 | 3.625 | 1.156 | 1.836 | 2.892 | 2.768 | 0.344 | 1.000 | 0.188 | 0.406 |
| 225-400 | 1 | 4.340 | 1.500 | 2.090 | 3.440 | 2.750 | 0.410 | 1.000 | 0.250 | 0.750 |
| 450-600 | 1 | 4.340 | 2.000 | 2.090 | 3.530 | 2.780 | 0.410 | 1.500 | 0.250 | 0.780 |
| 700-800 | 1 | 6.340 | 2.500 | 2.090 | 4.970 | 3.440 | 0.530 | 2.000 | 0.380 | 1.300 |
| 1000-1200 | 1 | 6.969 | 3.000 | 3.219 | 5.465 | 4.475 | 0.625 | 2.375 | 0.438 | 1.120 |
| 1400-1600 | 2 | See Drawing | | | | | | | | |

1mm = 0.0394" / 1" = 25.4mm

Fig. 1: 35-1200A

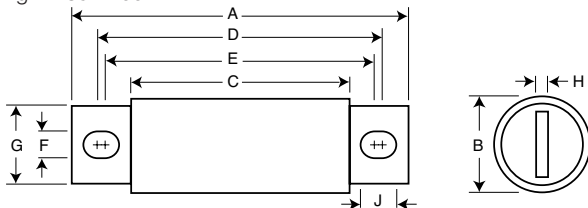
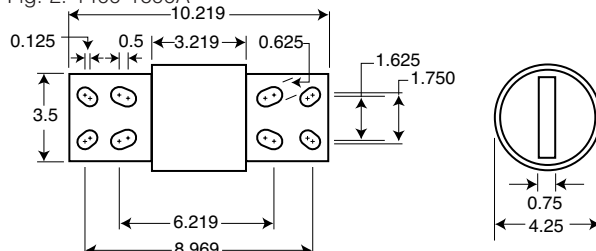
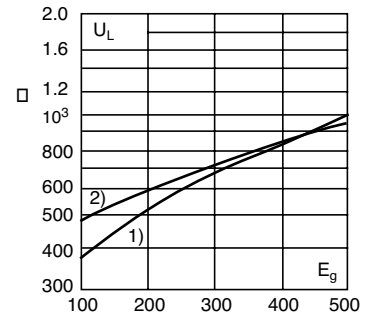


Fig. 2: 1400-1600A



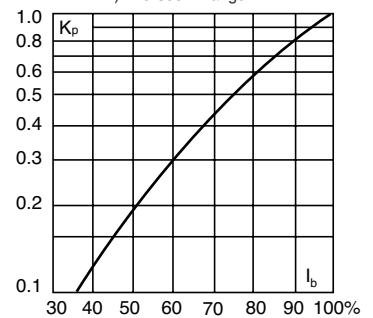
Arc Voltage

This curve gives the peak arc voltage, U_L, which may appear across the fuse during its operation as a function of the applied working voltage, E_g, (rms) at a power factor of 15%.



Power Losses

Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the power losses at load currents lower than the rated current. The correction factor, K_p, is given as a function of the RMS load current, I_b, in % of the rated current.



Catalog Numbers

| Catalog Numbers | Rated Current RMS-Amps | Electrical Characteristics | | |
|-----------------|------------------------|---------------------------------------|------------------|------------|
| | | I ² t (A ² Sec) | | Watts Loss |
| | | Pre-arc | Clearing at 500V | |
| FWH-35B | 35 | 34 | 150 | 8 |
| FWH-40B | 40 | 76 | 320 | 7.5 |
| FWH-45B | 45 | 105 | 450 | 7.5 |
| FWH-50B | 50 | 135 | 670 | 7.5 |
| FWH-60B | 60 | 210 | 900 | 9.9 |
| FWH-70B | 70 | 210 | 900 | 10.6 |
| FWH-80B | 80 | 305 | 1400 | 12.7 |
| FWH-90B | 90 | 360 | 1600 | 15 |
| FWH-100B | 100 | 475 | 2000 | 17 |
| FWH-125B | 125 | 800 | 3500 | 25 |
| FWH-150B | 150 | 1100 | 4600 | 30 |
| FWH-175B | 175 | 1450 | 6200 | 35 |
| FWH-200B | 200 | 1900 | 8500 | 40 |
| FWH-225A | 225 | 4600 | 23300 | 39 |
| FWH-250A | 250 | 6300 | 32200 | 41 |
| FWH-275A | 275 | 7900 | 40300 | 46 |
| FWH-300A | 300 | 9800 | 49800 | 51 |
| FWH-325A | 325 | 13700 | 63800 | 53 |
| FWH-350A | 350 | 14500 | 72900 | 58 |
| FWH-400A | 400 | 19200 | 96700 | 65 |
| FWH-450A | 450 | 24700 | 127000 | 74 |
| FWH-500A | 500 | 29200 | 149000 | 84 |
| FWH-600A | 600 | 41300 | 206000 | 108 |
| FWH-700A | 700 | 55000 | 298000 | 120 |
| FWH-800A | 800 | 76200 | 409000 | 129 |
| FWH-1000A | 1000 | 92000 | 450000 | 145 |
| FWH-1200A | 1200 | 122000 | 600000 | 180 |
| FWH-1400A | 1400 | 200000 | 1000000 | 210 |
| FWH-1600A | 1600 | 290000 | 1400000 | 230 |

*Watts loss provided at rated current. * See accessories on page 106.

Features and Benefits

- Excellent dc performance
- Low arc voltage and low energy let-through (I²t)
- Low watts loss
- Superior cycling capability

Typical Applications

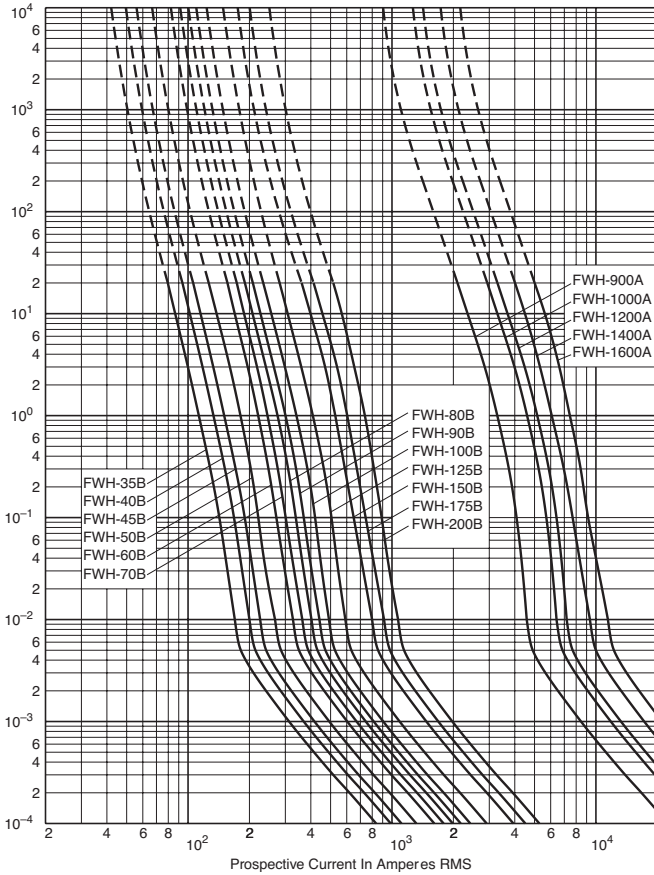
- DC common bus
- DC drives
- Power converters/rectifiers
- Reduced voltage starters

High Speed Fuses

North American — FWH 500V: 35-1600A

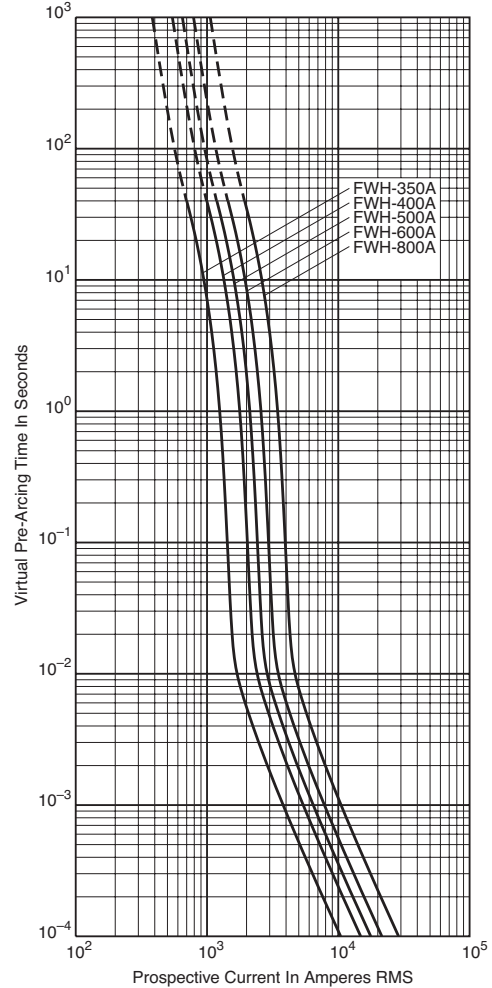
FWH 35-200A(B) & 900-1600A(A): 500V

Time-Current Curve

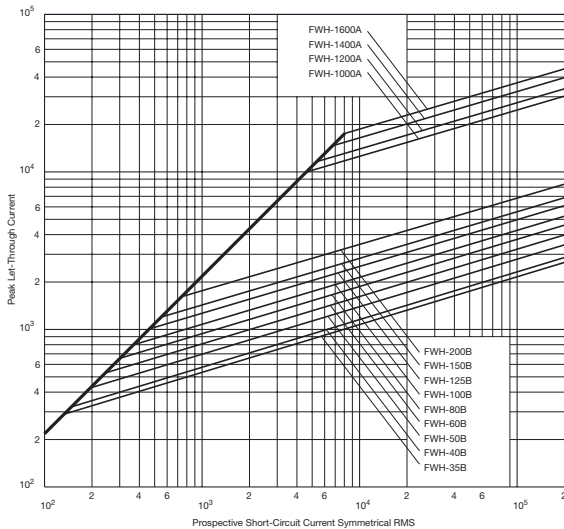


FWH 225-800A: 500V

Time-Current Curve



Peak Let-Through Curve



Peak Let-Through Curve

