

# URE/URS/URT

# SEMICONDUCTOR PROTECTION FUSES



## PROTISTOR® FUSES

690V

URE/URS/URT from 5 to 160A

SIZES: 10 X 51 - 17 X 49 - 2 X 17 X 49

### Features/Benefits

- **Extremely high Interrupting rating Fuses:**  
Protection of power Semiconductors according to IEC 269.1 and 4
- **690V Voltage Rating** according to IEC 33
- **gR Class** (Ratings from 50 to 350A URGG - 300 to 700A URGH) according to VDE 636-23 and IEC 269.4
- **aR Class** (Ratings from 400 to 525A URGG - 800 to 1050A URGH) according to VDE 636-23 and IEC 269.4
- Two models complying with BS 88-4
  - without indicator
  - with external trip-indicator

## APPLICATIONS DATA

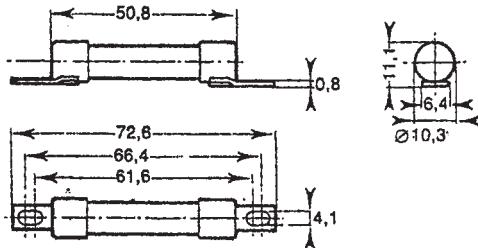
| Voltage rating<br>$U_N$ (V) | Size    | Class | Current rating<br>$I_N$ (A) | Melting<br>$I_2^t$ @ 1 ms<br>$I_2^t p$ (A <sup>2</sup> s) | Total clearing $I_2^t$ @ $U_N$<br>A <sup>2</sup> s |                | Watt losses |       | Tested<br>interrupting rating |
|-----------------------------|---------|-------|-----------------------------|---|--|----------------|-------------|-------|-------------------------------|
|                             |         |       |                             |   | $I_p \leq 50 I_N$                                  | $I_p > 50 I_N$ | 0.8 $I_N$   | $I_N$ |                               |
| 690V                        | 10x51   | URE   | 5                           | 1.3   | 10   | 15             | 1.05        | 2     | 200 kA<br>@ 690V              |
|                             |         |       | 6                           | 1.3   | 13.5   | 20.5           | 1.3         | 2.5   |                               |
|                             |         |       | 10                          | 3.3   | 25   | 35             | 2.2         | 4.1   |                               |
|                             |         |       | 12                          | 5.5   | 40   | 58             | 2.3         | 4.3   |                               |
|                             |         |       | 15                          | 9.7   | 70   | 100            | 2.4         | 4.4   |                               |
|                             |         |       | 20                          | 19.4  | 120  | 200            | 3.1         | 5.8   |                               |
|                             | 17x49   | URS   | 16                          | 9.7   | 75   | 107            | 2.7         | 4.8   | 200 kA<br>@ 690V              |
|                             |         |       | 20                          | 17.3  | 130  | 185            | 2.9         | 5.3   |                               |
|                             |         |       | 25                          | 27  | 200  | 285            | 3.7         | 6.7   |                               |
|                             |         |       | 32                          | 53  | 400  | 570            | 4.7         | 8.6   |                               |
|                             |         |       | 35                          | 70  | 510  | 725            | 5.2         | 9.6   |                               |
|                             |         |       | 40                          | 98  | 760  | 1080           | 5.7         | 10.5  |                               |
|                             |         |       | 45                          | 130   | 900  | 1280           | 6.2         | 11.4  |                               |
|                             |         |       | 50                          | 156   | 1000   | 1420           | 6.8         | 12.6  |                               |
|                             |         |       | 55                          | 210   | 1380   | 1970           | 7.2         | 13.3  |                               |
|                             |         |       | 63                          | 315   | 2000   | 2850           | 7.5         | 13.9  |                               |
|                             |         |       | 75                          | 525   | 3350   | 4630           | 7.8         | 14.4  |                               |
|                             |         |       | 80                          | 625   | 3900   | 5700           | 8.5         | 15.8  |                               |
|                             | 2x17x49 | URT   | 65                          | 210   | 1590   | 2270           | 9.5         | 17.4  | 200 kA<br>@ 690V              |
|                             |         |       | 75                          | 310   | 2300   | 3280           | 10.9        | 20    |                               |
|                             |         |       | 85                          | 430   | 3050   | 4350           | 11.9        | 21.9  |                               |
|                             |         |       | 90                          | 525   | 3600   | 5130           | 12.4        | 22.8  |                               |
|                             |         |       | 110                         | 850   | 5500   | 7840           | 13.8        | 26.5  |                               |
|                             |         |       | 140                         | 1730  | 11000  | 15700          | 15.5        | 28.5  |                               |
| 150                         |         |       | 2090                        | 13400   | 18500  | 15.6           | 28.7        |       |                               |
| 160                         |         |       | 2500                        | 15600   | 22800  | 16.9           | 31.5        |       |                               |

Minimum operating voltage for all trip indicators = 20V

# URE/URS/URT

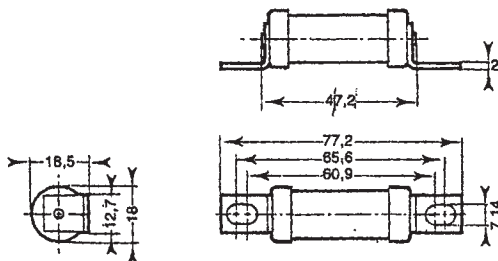
# SEMICONDUCTOR PROTECTION FUSES

**CP 10x51 - Without trip-indicator**



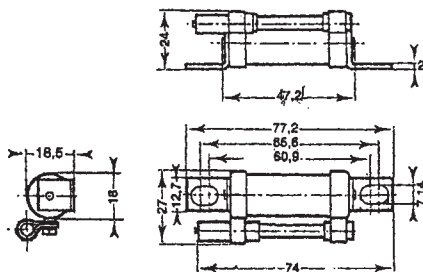
| SIZE  | CATALOG NO.   | REF #    |
|-------|---------------|----------|
| 10x51 | 6,9 URE 10/5  | D 082458 |
|       | 6,9 URE 10/6  | X 097057 |
|       | 6,9 URE 10/10 | C 082457 |
|       | 6,9 URE 10/12 | Z 079059 |
|       | 6,9 URE 10/15 | B 082456 |
|       | 6,9 URE 10/20 | A 082456 |

**CP 17x49 - Without trip-indicator**



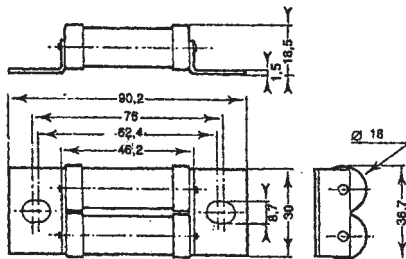
| SIZE  | CATALOG NO.   | REF #    |
|-------|---------------|----------|
| 17x49 | 6,9 URS 17/16 | G 075883 |
|       | 6,9 URS 17/20 | H 075884 |
|       | 6,9 URS 17/25 | J 075885 |
|       | 6,9 URS 17/32 | K 075886 |
|       | 6,9 URS 17/35 | L 075887 |
|       | 6,9 URS 17/40 | M 075888 |
|       | 6,9 URS 17/45 | N 075889 |
|       | 6,9 URS 17/50 | P 075890 |
|       | 6,9 URS 17/55 | Q 075891 |
|       | 6,9 URS 17/63 | R 075892 |
|       | 6,9 URS 17/75 | S 075893 |
|       | 6,9 URS 17/80 | T 075894 |

**CP 17x49 - With separate trip-indicator**



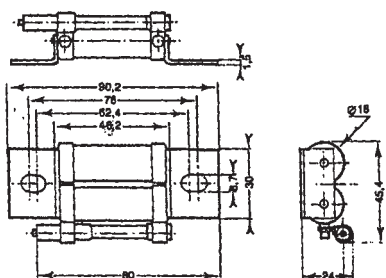
| SIZE  | CATALOG NO.     | REF #    |
|-------|-----------------|----------|
| 17x49 | 6,9 URS 17 P 16 | V 075895 |
|       | 6,9 URS 17 P 20 | W 075896 |
|       | 6,9 URS 17 P 25 | X 075897 |
|       | 6,9 URS 17 P 32 | Y 075898 |
|       | 6,9 URS 17 P 35 | Z 075899 |
|       | 6,9 URS 17 P 40 | A 075900 |
|       | 6,9 URS 17 P 45 | B 075901 |
|       | 6,9 URS 17 P 50 | K 081084 |
|       | 6,9 URS 17 P 55 | C 075902 |
|       | 6,9 URS 17 P 63 | D 075903 |
|       | 6,9 URS 17 P 75 | E 075904 |
|       | 6,9 URS 17 P 80 | F 075905 |

**CP 17x49 - Without trip-indicator**



| SIZE    | CATALOG NO.     | REF #    |
|---------|-----------------|----------|
| 2x17x49 | 6,9 URT 217/65  | G 075906 |
|         | 6,9 URT 217/75  | F 099572 |
|         | 6,9 URT 217/85  | H 075907 |
|         | 6,9 URT 217/90  | A 099558 |
|         | 6,9 URT 217/110 | B 099559 |
|         | 6,9 URT 217/140 | J 075908 |
|         | 6,9 URT 217/150 | C 099560 |
|         | 6,9 URT 217/160 | K 075909 |

**CP 2x17x49 - With separate trip-indicator**



| SIZE    | CATALOG NO.       | REF #    |
|---------|-------------------|----------|
| 2x17x49 | 6,9 URT 217 P 65  | L 075910 |
|         | 6,9 URT 217 P 75  | M 075911 |
|         | 6,9 URT 217 P 85  | M 075912 |
|         | 6,9 URT 217 P 90  | P 075913 |
|         | 6,9 URT 217 P 110 | Q 075914 |
|         | 6,9 URT 217 P 140 | R 075915 |
|         | 6,9 URT 217 P 150 | S 075916 |
|         | 6,9 URT 217 P 160 | T 075917 |

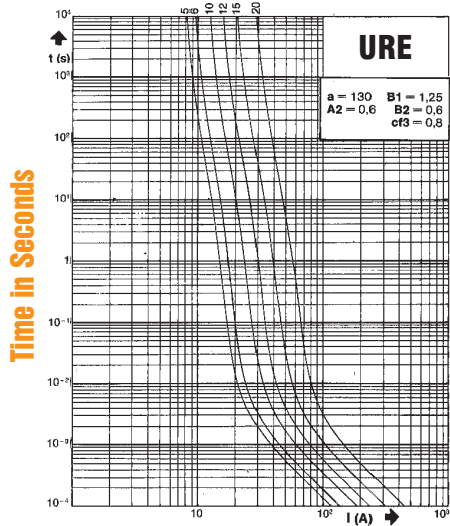
Microswitch MC6,3 GR 2-5N : Reference Number Y310015



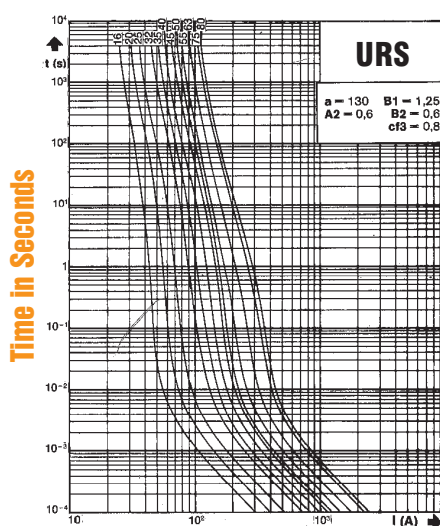
# URE/URS/URT

# SEMICONDUCTOR PROTECTION FUSES

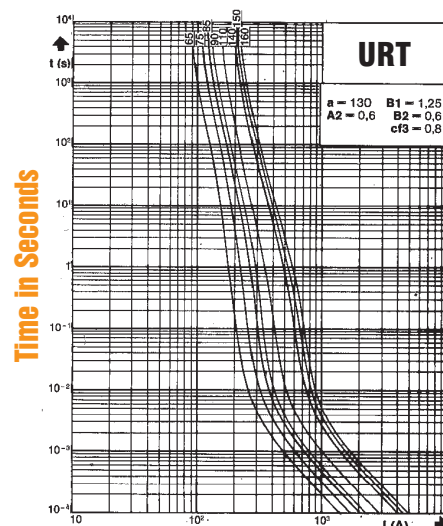
## Melting Time - Current Data



Current in Amperes



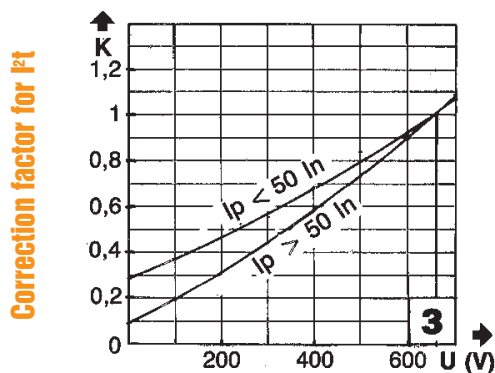
Current in Amperes



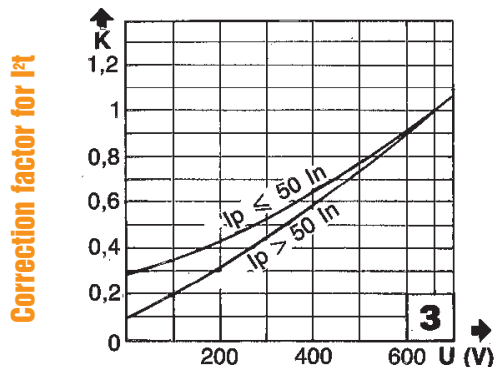
Current in Amperes

• These curves indicate, for each rated current, the pre-arcing time vs. the R.M.S. current.

## Clearing I<sup>2</sup>t vs. Operating Voltage

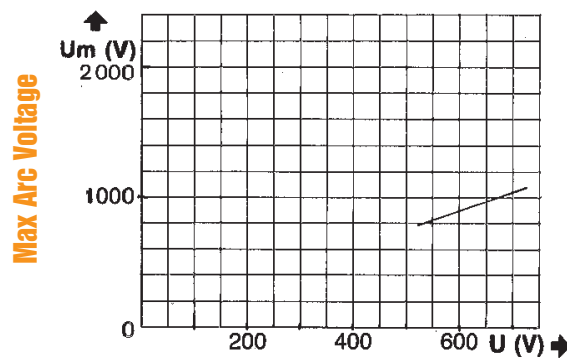


Operating Voltage

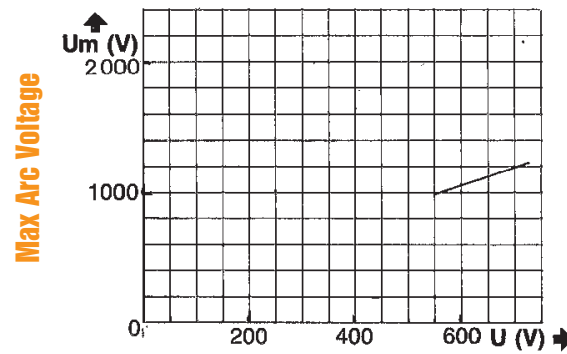


Correction Factor to determine the clearing I<sup>2</sup>t value for a fuse operating below its rated voltage.

## Maximum Arc Voltage vs. Applied Voltage



System Voltage



Determines the peak arc voltage across the fuse terminals as a function of applied voltage.