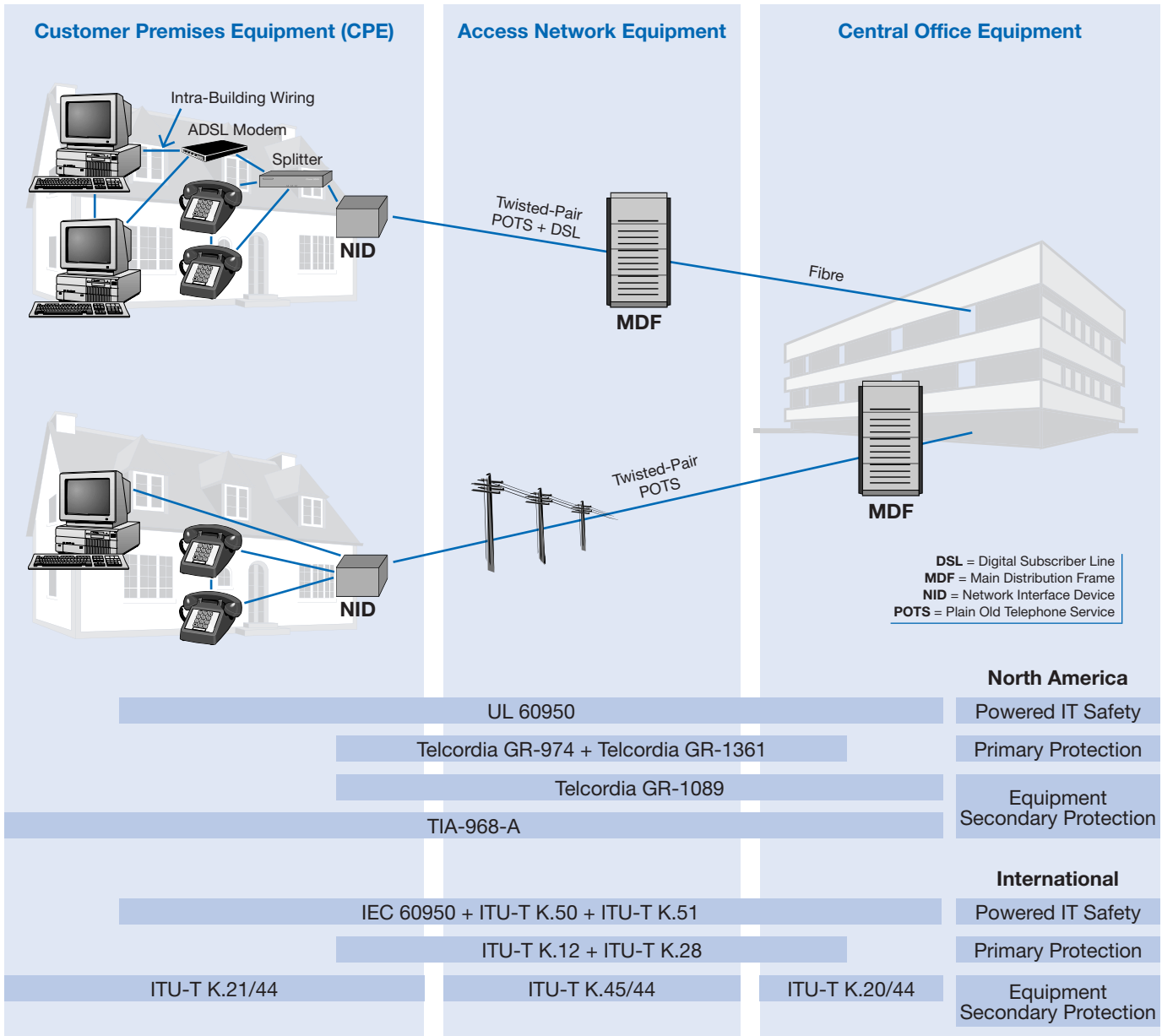


TF 600

GLOBAL TELECOM STANDARDS



HOW TO SELECT THE RIGHT FUSE-LINK FOR SECONDARY PROTECTION?

1. Select your equipment type
2. Use the Key Device Selection Criteria to determine best suitability for your application

| Application | Specification | Key Device Selection Criteria | |
|--|---|---|----------------------------|
| | | Faster Time-to-Open | Cooler Surface Temperature |
| Customer Premises Equipment (CPE) Modems (Analog, V.90, ISDN, xDSL), ADSL splitters, phone sets, fax machines, answering machines, caller ID, internet appliance, PBX systems, POS terminals | TIA-968-A UL 60950/IEC 60950 ITU-T K.21/44 | TF 600, 0.5 A (2000.0010.xx) TF 600, 1.25 A (2000.0011.xx) | TF 600, 2 A (2000.0012.xx) |
| Access Network Equipment Remote terminals, line repeaters, multiplexers, cross-connects | Telcordia GR-1089 TIA-968-A UL 60950/IEC 60950 ITU-T K.45/44 | TF 600, 1.25 A (2000.0011.xx) | TF 600, 2 A (2000.0012.xx) |
| Central Office Equipment Analog linecards (SLIC), ISDN linecards, xDSL modems, ADSL/VDSL splitters, T1/E1 linecards, multiplexers, servers | Telcordia GR-1089 TIA-968-A UL 60950/IEC 60950 ITU-T K.20/44 | TF 600, 1.25 A (2000.0011.xx) | TF 600, 2 A (2000.0012.xx) |

TF 600

3. Use Agency Specification based on the requirement

Lighting Surge Specifications

Surges are short-duration increases in system voltage due to external events, such as lightning

| Telcordia | First Level | First Level | First Level | First Level | First Level | Second Level |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| GR-1089 | Test 1 | Test 2 | Test 3 | Test 4 | Test 5 | Test 1 |
| Surge Voltage [V] | 600 | 1000 | 1000 | 2500 | 1000 | 5000 |
| Surge Current [A] | 100 | 100 | 100 | 500 | 25 | 500 |
| Waveform [us] | 10x1000 | 10x360 | 10x1000 | 2x10 | 10x360 | 2x10 |
| Repetitions [each polarity] | 25 | 25 | 25 | 10 | 5 | 1 |
| 2000.0010.xx, 0.5 A | * | * | * | * | ✓ | |
| 2000.0011.xx, 1.25 A | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 2000.0012.xx, 2.0 A | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

■ Equipment under test can not be damaged & must continue to operate properly

* If sufficient series resistance is used, the 0.5 A fuse may pass Test 1-4

| TIA-968-A | Type A | Type A | Type B | Type B | ITU-T K.20 | Test |
|-----------------------------|-----------|--------------|----------|--------------|-----------------------------|--------|
| (former FCC Part 68) | Metallic | Longitudinal | Metallic | Longitudinal | | |
| Surge Voltage [V] | 800 | 1500 | 1000 | 1500 | Surge Voltage [V] | 1000 |
| Surge Current [A] | 100 | 200 | 25 | 37.5 | Surge Current [A] | 67 |
| Waveform [us] | 10x560 | 10x160 | 5x320 | 5x320 | Waveform [us] | 10x700 |
| Repetitions [each polarity] | 1 | 1 | 1 | 1 | Repetitions [each polarity] | 10 |
| 2000.0010.xx, 0.5 A | Fuse open | Fuse open | ✓ | ✓ | 2000.0010.xx, 0.5 A | 26 A* |
| 2000.0011.xx, 1.25 A | ✓ | ✓ | ✓ | ✓ | 2000.0011.xx, 1.25 A | ✓ |
| 2000.0012.xx, 2.0 A | ✓ | ✓ | ✓ | ✓ | 2000.0012.xx, 2.0 A | ✓ |

■ Fuse can not open during type B events

■ Fuse does not open during test

* If sufficient series resistance is used, the 0.5 A fuse may pass

Power Cross Specifications

A power-cross is an instance where a high-voltage circuit is inadvertently connected to a low-voltage circuit; for example, a power line can fall onto a telephone line during a storm initiating a power-cross event.

| Telcordia | First Level | First Level | First Level | First Level | First Level | First Level | First Level | First Level | First Level |
|----------------------|-------------|-------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|
| GR-1089 | Test 1 | Test 2 | Test 3 | Test 4 | Test 5 | Test 6 | Test 7 | Test 8 | Test 9 |
| Voltage [Vrms] | 50 | 100 | 200, 400, 600 | 1000 | see GR-1089 | 600 | 440 | 600 | 1000 |
| Overload Current [A] | 0.33 | 0.17 | 1 | 1 | | 0.5 | 2.2 | 3 | 5 |
| Duration | 15 min. | 15 min. | 60x1 s | 60x1 s | 60x5 s | 30 s | 5x2 s | 1.1 s | 0.5 s |
| 2000.0010.xx, 0.5 A | | | | | | | | | |
| 2000.0011.xx, 1.25 A | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 2000.0012.xx, 2.0 A | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

■ Fuse not allowed to open

| Telcordia | Second Level | Second Level | Second Level | Second Level | Second Level | ITU-T K.20 | Power Induction | Power Induction |
|----------------------|--------------|--------------|--------------|--------------|--------------|----------------------|-----------------|-----------------|
| GR-1089 | Test 1 | Test 2 | Test 3 | Test 4 | Test 5 | | | |
| Voltage [Vrms] | 120, 277 | 600 | 600 | 100-600 | see GR-1089 | Voltage [Vrms] | 300 | 250 |
| Overload Current [A] | 25 | 60 | 7 | 2.2 | | Current [A] | 0.5 | 60 |
| Duration | 15 min. | 5 s | 5 s | 15 min. | 15 min. | Duration | 200 ms | 15 min. |
| 2000.0010.xx, 0.5 A | ✓ | ✓ | ✓ | ✓ | ✓ | Repetitions | 5 | 1 |
| 2000.0011.xx, 1.25 A | ✓ | ✓ | ✓ | ✓* | ✓ | 2000.0010.xx, 0.5 A | ✓ | ✓* |
| 2000.0012.xx, 2.0 A | ✓ | ✓ | ✓ | ✓* | ✓ | 2000.0011.xx, 1.25 A | ✓ | ✓* |
| | | | | | | 2000.0012.xx, 2.0 A | ✓ | ✓* |

■ Fuse opens in a safe and controlled manner before wiring simulator fuse (MDL 2.0)

* Fuse does not open during test

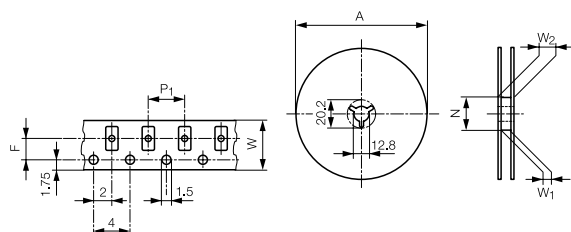
■ Fuse does not open during test

* Fuse opens during test

| UL 60950 | Longitudinal | Longitudinal | Longitudinal | Longitudinal | Longitudinal | Metallic | Metallic | Metallic | Metallic |
|----------------------|--------------|--------------|--------------|--------------|--------------|----------|----------|----------|----------|
| IEC 60950 | Test 1 | Test 2 | Test 3 | Test 4 | Test 5 | Test 1 | Test 2 | Test 3 | Test 4 |
| Voltage [V] | 600 | 600 | 600 | 200 | 120 | 600 | 600 | 600 | 600 |
| Current [A] | 40 | 7 | 2.2 | 2.2 | 25 | 40 | 7 | 2.2 | 2.2 |
| Time | 1.5 s | 5 s | 30 min. | 30 min. | 30 min. | 1.5 s | 5 s | 30 min. | 30 min. |
| 2000.0010.xx, 0.5 A | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 2000.0011.xx, 1.25 A | ✓ | ✓ | ✓* | ✓* | ✓ | ✓ | ✓ | ✓* | ✓* |
| 2000.0012.xx, 2.0 A | ✓ | ✓ | ✓* | ✓* | ✓ | ✓ | ✓ | ✓* | ✓* |

■ Fuse opens in a safe and controlled manner before wiring simulator fuse (MDL 2.0)

* Fuse does not open during test



Blistertape and Reel Dimensions

according to IEC 60286-3

| Type | P1 [mm] | F [mm] | W [mm] | N [mm] | W1 [mm] | W2 [mm] | A [mm] |
|--------|---------|--------|--------|--------|---------|---------|----------|
| TF 600 | 8 | 11.5 | 24 | 62 | 24.4 | 30.4 | 330 Pcs. |