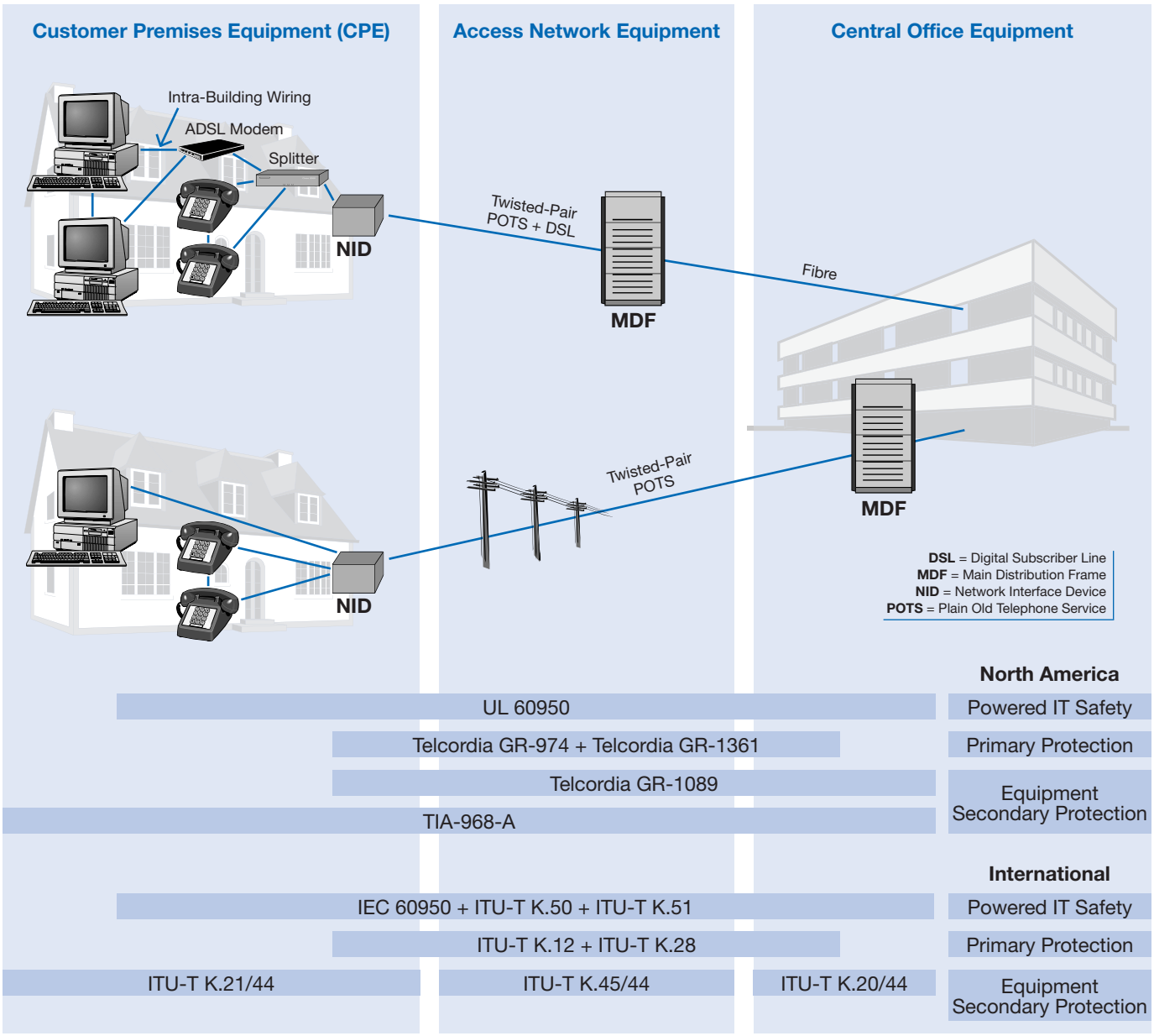
TF 600

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, muliplexers, 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, muliplexers, 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)

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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 GR-1089	First Level Test 1	First Level Test 2	First Level Test 3	First Level Test 4	First Level Test 5	Second Level 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 (former FCC Part 68)	Type A Metallic	Type A Longitudinal	Type B Metallic	Type B Longitudinal
Surge Voltage [V]	800	1500	1000	1500
Surge Current [A]	100	200	25	37.5
Waveform [us]	10x560	10x160	5x320	5x320
Repetitions [each polarity]	1	1	1	1
2000.0010.xx, 0.5 A	Fuse open	Fuse open	✓	✓
2000.0011.xx, 1.25 A	✓	✓	✓	✓
2000.0012.xx, 2.0 A	✓	✓	✓	✓

■ Fuse can not open during type B events

ITU-T K.20	Test
Surge Voltage [V]	1000
Surge Current [A]	67
Waveform [us]	10x700
Repetitions [each polarity]	10
2000.0010.xx, 0.5 A	26 A*
2000.0011.xx, 1.25 A	✓
2000.0012.xx, 2.0 A	✓

■ 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 GR-1089	First Level Test 1	First Level Test 2	First Level Test 3	First Level Test 4	First Level Test 5	First Level Test 6	First Level Test 7	First Level Test 8	First Level 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 GR-1089	Second Level Test 1	Second Level Test 2	Second Level Test 3	Second Level Test 4	Second Level Test 5
Voltage [Vrms]	120, 277	600	600	100-600	see GR-1089
Overload Current [A]	25	60	7	2.2	
Duration	15 min.	5 s	5 s	15 min.	15 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

ITU-T K.20	Power Induction	Power Induction
Voltage [Vrms]	300	250
Current [A]	0.5	60
Duration	200 ms	15 min.
Repetitions	5	1
2000.0010.xx, 0.5 A	✓	✓*
2000.0011.xx, 1.25 A	✓	✓*
2000.0012.xx, 2.0 A	✓	✓*

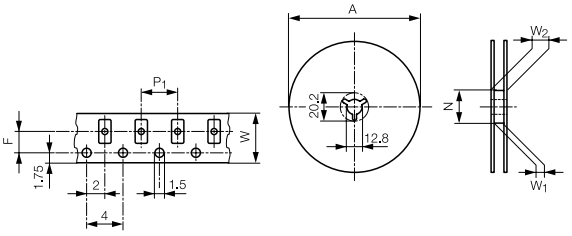
■ Fuse does not open during test

* Fuse opens during test

UL 60950 IEC 60950	Longitudinal Test 1	Longitudinal Test 2	Longitudinal Test 3	Longitudinal Test 4	Longitudinal Test 5	Metallic Test 1	Metallic Test 2	Metallic Test 3	Metallic 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 2000 Pcs.
TF 600	8	11.5	24	62	24.4	30.4	330 mm