

Ground Fault Tripping Characteristic

Total Clearing Time for GF with i^2t :

$$t_{c\ G\ max} = \max\{ ((1.2 \times 3 \times I_G)^2 \times (t_G + 0.05)) / i^2, t_G + 0.065 \}$$

$$t_{c\ G\ min} = \max\{ (3 \times I_G)^2 \times t_G / i^2, t_G + 0.035 \}$$

Total Clearing Time for GF with definite time:

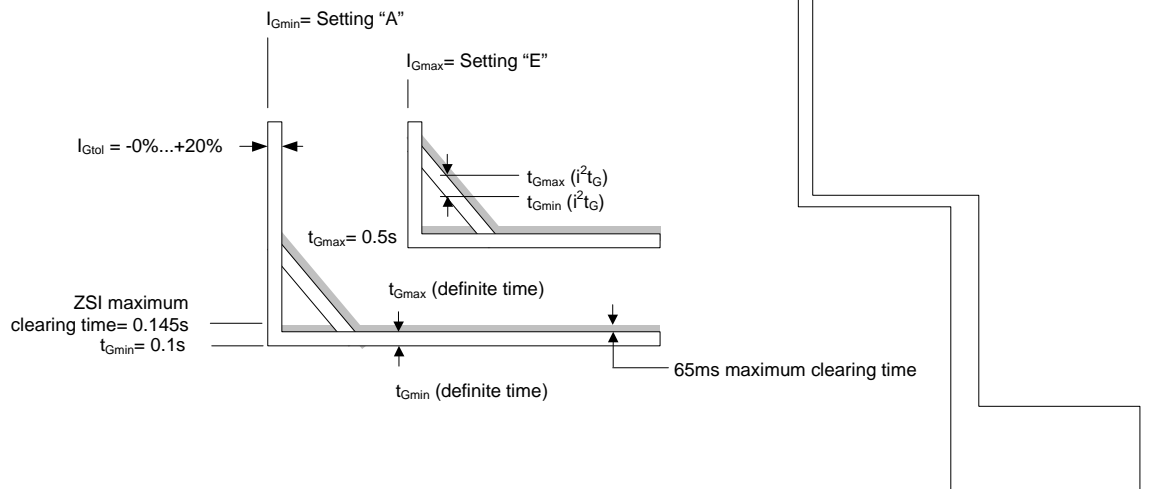
$$t_{c\ G\ max} = 1.1 \times t_G + 0.065$$

$$t_{c\ G\ min} = t_G + 0.035$$

Total Clearing Time for GF with ZSI active:

$$t_{c\ G\ max} = 0.145$$

$$t_{c\ G\ min} = 0.100$$



ETU 727 – 748 LT Pickup Settings:

I_G = A, B, C, D, or E

ETU 755 – 776 LT Pickup Settings:

I_G = A – E

Via ETU Keypad: 10 ampere steps

Via WLBDA, MODBUS, or PROFIBUS: 1 ampere steps

ETU 727 – 748 GF Delay Settings[‡]:

t_G = 0.1, 0.2, 0.3, 0.4, or 0.5

ETU 755 – 776 GF Delay Settings:

t_G (definite time or i^2t) = 0.1 – 0.5 seconds

Via ETU Keypad: 0.005 second steps

Via WLBDA, MODBUS, or PROFIBUS: 0.001 sec steps

Ground Fault Pickup Settings:

	Frame Size		
	1	2	3
A	100A	100A	400A
B	300A	300A	600A
C	600A	600A	800A
D	900A	900A	1000A
E	1200A	1200A	1200A

[‡] ETU 727 features only definite time delay.

Siemens Type WL Low Voltage Power Circuit Breakers[®]

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Abbreviations / Definitions

i	Actual current (amperes)
I_G	Ground fault pickup setting (amperes)
I_{Gmax}	Maximum ground fault pickup setting (amperes)
I_{Gmin}	Minimum ground fault pickup setting (amperes)
I_{Gtol}	Tolerance band for the ground fault pickup setting (%)
t_{cGmax}	Maximum total clearing time at rated voltage (seconds)
t_{cGmin}	Minimum total clearing time at rated current (seconds)
t_G	Ground fault delay setting (seconds)
t_{Gmax}	Maximum ground fault delay setting (seconds)
t_{Gmin}	Minimum ground fault delay setting (seconds)
Total Clearing Time	Elapsed time from the initiating point of an overcurrent event, until the final circuit interruption, at maximum rated voltage (seconds).

The information provided in this brochure contains merely general descriptions of characteristics of performance which in case of actual use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

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